



US Army Corps  
of Engineers  
Mobile District

June 2009

# Mississippi Coastal Improvements Program (MsCIP)

## Hancock, Harrison, and Jackson Counties, Mississippi

Comprehensive Plan and Integrated Programmatic  
Environmental Impact Statement

**VOLUME 6 - APPENDIX F: COST ESTIMATING**





## FOREWORD

This document is one of a number of technical appendices to the *Mississippi Coastal Improvements Program (MsCIP) Hancock, Harrison and Jackson Counties, Mississippi Comprehensive Plan and Integrated Feasibility Report and Environmental Impact Statement*.

The *Mississippi Coastal Improvements Program (MsCIP) Comprehensive Plan Integrated Feasibility Report and Environmental Impact Statement* provides systems-based solutions and recommendations that address: hurricane and storm damage reduction, ecosystem restoration and fish and wildlife preservation, reduction of damaging saltwater intrusion, and reduction of coastal erosion. The recommendations contained in the Main Report/EIS also provide measures that aid in: greater coastal environmental and societal resiliency, regional economic re-development, and measures to reduce long-term risk to the public and property, as a consequence of hurricanes and coastal storms. The recommendations cover a comprehensive package of projects and activities, that treat the environment, wildlife, and people, as an integrated system that requires a multi-tiered and phased approach to recovery and risk reduction, irrespective of implementation authority or agency.



The MsCIP Study Area

The purpose of the Comprehensive Plan Report is to present, to the Congress of the United States, the second of two packages of recommendations (i.e., the first being the “interim” recommendations funded in May 2007, and this “final” response, as directed by the Congress), directed at recovery of vital water and related land resources damaged by the hurricanes of 2005, and development of recommendations for long-term risk reduction and community and environmental resiliency, within the three-county, approximately 70 mile-long coastal zone, including Mississippi Sound and its barrier islands, of the State of Mississippi.

This appendix, the Main Report/EIS, and all other appendices and supporting documentation, were subject to Independent Technical Review (ITR) and an External Peer Review (EPR). Both review processes will have been conducted in accordance with the Corps “Peer Review of Decision Documents” process, has been reviewed by Corps staff outside the originating office, conducted by a Regional and national team of experts in the field, and coordinated by the National Center of Expertise in Hurricane and Storm Damage Protection, North Atlantic Division, U.S. Army Corps of Engineers.

The report presents background on the counties that comprise the Mississippi coastline most severely impacted by the Hurricanes of 2005, their pre-hurricane conditions, a summary of the effects of the 2005 hurricane season, problem areas identified by stakeholders and residents of the study area, a summary of the approach used in analyzing problems and developing recommendations directed at assisting the people of the State of Mississippi in recovery, recommended actions and projects that would assist in the recovery of the physical and human environments, and identification of further studies and immediate actions most needed in a comprehensive plan of improvements for developing a truly resilient future for coastal Mississippi.

This appendix contains detailed technical information used in the analysis of existing and future without-project conditions, in the development of problem-solving measures, and in the analysis, evaluation, comparison, screening, and selection of alternative plans, currently presented as tentatively-selected recommendations contained in the Main Report/EIS.

Each appendix functions as a complete technical document, but is meant to support one particular aspect of the feasibility study process. However, because of the complexity of the plan formulation process used in this planning study, the information contained herein should not be used without parallel consideration and integration of all other appendices, and the Main Report/EIS that summarizes all findings and recommendations.

This appendix, Cost Estimating for Engineering, Environmental, Nonstructural, contains two parts. In Part 1, the estimates that are Comparative-Level “Parametric Type” and are based on Historical Data, Recent Pricing, and Estimator’s Judgment. The estimates are structured and priced as a general

prime supported by major subcontractors. Anticipated bidding conditions and construction duration with reasonable schedules are considered Normal. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Total Project Cost (Oct 07) without escalation. There are no formulated alternative plans in Part 1 of the Cost Appendix, only options and measures. Part 2 of the Cost Appendix contains updated and revised cost estimates for the recommended alternatives contained in the Comprehensive Plan. As required by Headquarters Memorandum dated 3 July 2007 and E&C Bulletin dated 10 September 2007, construction projects with estimated costs over 40 million dollars were subjected to a Cost Risk Analysis. The only recommended alternative subject to these criteria was the Comprehensive Barrier Island Restoration Plan.

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**Options****Harrison County**

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**Options**

**Harrison County**

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**Options**

**Hancock County**

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**Options**

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Forrest Heights Levee, Elevation 21.0  
Mainland Beach and Dune Restoration

**RECOMMENDED ENVIRONMENTAL RESTORATION ALTERNATIVES - COMPREHENSIVE STUDY**

Admiral Island  
Turkey Creek  
Dantzler  
Franklin Creek  
Bayou Cumbest  
Deer Island  
Subaquatic Vegetation Pilot

**RECOMMENDED NON-STRUCTURAL ALTERNATIVES, COMPREHENSIVE STUDY**

Moss Point Municipal Complex Relocation  
Waveland Floodproofing Pilot  
Homeowners Assistance Relocation Program (HARP)

# Part 2 - Recommended Alternatives

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# **COST APPENDIX**

## **PART 1**

### **Rough Order of Magnitude (ROM) Costs**



# PART 1

## ROM COSTS FOR STUDY OPTIONS AND MEASURES

Part 1 of the Cost Appendix was used as the basis for the selected alternatives presented in Part 2 of this Appendix. The costs shown in Part 1 are based on October, 2007 pricing. The costs for the structural and environmental alternatives were completed by Mobile District and the costs for the nonstructural alternatives were completed by Huntington District.

Costs for Hazardous, Toxic and Radiological Waste issues were not specifically identified for the Cost Appendix, either Part 1 or 2. The higher than typical contingency of 25% was used to cover these unknowns due to the vast number of properties involved and the uncertainties associated with project footprints, there were no specific costs for assessments made for HTRW investigations and remediations. In discussions with the HTRW technical team in SAM, we developed an estimate based on a percentage that would be added to the usual cost contingencies for each project. This estimate is based on the mix of residential, commercial and industrial properties. HTRW concerns in the nonstructural measures particularly affect the acquisition and demolition of structures in the high-hazard zones and eligible structures where elevation would exceed 13 feet in height above the ground surface. HTRW concerns could also affect elevation of eligible homes where contaminated materials may be present in foundation components or HVAC units to be relocated. The presence of asbestos and underground storage tanks on residential and commercial properties is possible given the ages of many of the structures and the presence of numerous service stations and other commercial establishments (vehicle repair, dry cleaning, chemical distributors, etc.) that would possibly contain contaminants. A preliminary Phase I HTRW assessment will be conducted for all structures that are determined to be eligible for these nonstructural measures during the Detailed Project Report (DPR) phase. Costs and schedules for the Phase I HTRW assessment for homes and businesses would be included in the DPR PMP. Structures determined to contain hazardous materials will not be addressed by the program until the identified HTRW concerns are addressed by the owner or the local sponsor. A preliminary Phase I HTRW assessment will also be conducted during initial Engineering and Design for all properties included in the alternatives recommended in Part 2.



# **BASIS of COST ESTIMATE and RATIONALE**

## **COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

### **Mississippi Coastal Improvements Program "MsCIP"**

25-Jul-08

Joseph H. Ellsworth

**Estimates** are Comparative-Level "Parametric Type" and are based on Historical Data, Recent Pricing, and Estimator's Judgment. Estimate is structured and priced as a general prime supported by major subcontractors. Bidding conditions for these estimates are considered normal and construction duration schedules are considered to be reasonable and not unduly compressed. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Total Project Cost (Oct 07) without escalation. There are no formulated alternative plans in the cost appendix at this stage...only OPTIONS and MEASURES. It is my understanding that we will move forward with recommended alternatives after this submittal. At this time we will prepare Fully Funded Project Cost Estimates using MII & CEDEP. The structural cost estimates are structured and listed as per the "Engineering Appendix Table of Contents" by Line of Defense. The Non-structural and Real Estate Cost were prepared by the Savannah & Huntington Districts.

**Estimate Format** is an Excel spreadsheet hyper-linked through-out the report. Format is structured by Line of Defense Level 1-4 and presented as per the Table of Contents.

**Price Level** of Estimate is Oct 07

**Project Life** (see Economics Appendix)

**Quantities** listed within the estimates represent Major Elements of the Project Scope and were furnished by the Project Delivery Team. Where quantities were not available, assumptions were made based on historical information and Estimator's judgment. All approach & associated quantities for Railway/Vehicle Gates are included in each Line of Defense OPTION.

**Markups** for both prime and subcontractors are included in the unit prices and include such items as field overheads, home office expenses, profit, bond and insurance. .

**Construction Contingency** was jointly developed and assigned by the Project Delivery Team. The Contingency percentage at 25% reflects the possibility of changes in quantity estimates and unknowns associated with the unit price. The contingency factor used does not vary throughout the cost estimate. Even though ER 110-2-1302 identifies Contingencies at 20% for projects greater than \$10,000,000 for recon/feasibility phase, it was determined and agreed upon by the Project Delivery Team that a high rate be used primarily due to risk, degree of confidence, and the project not being of the normal design.

**Real Estate Cost** (01 feature account) was prepared by the Savannah District COE.

**Planning, Engineering & Design** (30 feature account) was developed and assigned at 8% by the PDT. This is the percentage that has historically been used on these types of civil works projects. 8% was used in the Interim MsCIP projects which was reviewed and included in the Chief's Report.

# **BASIS of COST ESTIMATE and RATIONALE**

## **COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

### **Mississippi Coastal Improvements Program "MsCIP"**

25-Jul-08

Joseph H. Ellsworth

**Construction Management** (31 feature account) was developed and assigned at 6% by the PDT. This is the percentage that has historically been used for these type of civil works projects. 6% was used in the Interim MsCIP projects which was reviewed and included in the Chief's Report.

**Dredging** Barrier Island Sand Borrow unit prices were derived from CEDEP and compared to Historical Data. Estimates were review and coordinated with Mobile District Operations Divison personnel. CEDEP estimates are available upon request. These estimates were not included in the Cost appendix.

**Unit Prices**, for such items as sitework, earthwork, stone protection, concrete, reinforcing, etc., were based on Historical Data, Recent Pricing, Estimator's Judgment, and Cost derivation using MCACES / MII estimating systems. Major Cost Items are listed below with an explanation as to unit price derivation:

**POC's** Listed are all Cost Engineering Personnel that worked on the report in the Cost Appendix.

Joseph H. Ellsworth	Lead Cost Engineer	CESAM	251-690-2628
Gary A. Payton	Cost Engineer	CESAM	251-694-3890
George F. Rush	Civil Engineer -Dredging	CESAM	251-694-3715
Michael A. McKown	Structural Engineer -GeoTech	CESAM	251-690-2681
Lloyd Oliver	Structural Engineer -Gates,Barriers	CESAM	251-694-3736
Richard W. Harvey	Mechical Engineer - Pump Stations	CESAM	251-694-3732
John R.Thomas	Real Estate Specialist	CESAS	912-652-5031
Donald A. Whitmore	Civil Engineer - Non-Structural Estimates	CELRH	304-399-6941
Jennifer L. Jacobson	Environmentalist	CESAM	251-690-2724

**Beach & Dune Planting** (Sea Oats & Grass) and **Fencing** are based on recent cost provided by the Local sponsor, Harrison County Public Works, Ms. Quantities were derived from using historical photographs of the barrier islands and estimating that beach & dune area. The Corps worked with the National Park Service and also the State of Mississippi, Department of Marine Resources in order to come up with this required acre estimates. Sea oats are typically concentrated on the top of the dune and some on the slopes; thus, the team estimated that only approximately 140 plants would be planted per acre.

**Sea Grass Planting** -The State of Mississippi, Department of Marine Resources estimated that the total historical seagrass beds coverage adjacent to the barrier islands possibly accounted for about 8,800 acres. The immediate areas surrounding the barriers islands have changed since that historical estimate in pre-1969; thus, in collaboration with the State of Mississippi, Department of Marine Resources, it was estimated that about 4,400 acres was now suitable for seagrass restoration.

**Maritime Forest Planting** cost at \$10,000 per acre was derived from the spacings and cost of plants. It is estimated that the larger plants will be planted on between 40- and 50- foot centers while the smaller understory species will be planted at between 10- and 15-foot centers. The larger trees are estimated to cost between \$100 and \$150 per plant while the smaller species range from \$3 to \$15 per plant (prices include labor). Some of the species that will be planted within the coastal maritime forests include the following: live and laurel oaks, loblolly and slash pines, red bays, saw palmetto, sand live oak, cabbage palm, yaupon, sea grape, and prickly pear.

## **BASIS of COST ESTIMATE and RATIONALE**

### **COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

#### **Mississippi Coastal Improvements Program "MsCIP"**

25-Jul-08

Joseph H. Ellsworth

**Structure Demolition** is based on historical data updated to current price levels. Disposal Fees are based on current local disposal area charges.

**Flap Gates & Cutoff Values** cost are based on quotes from Waterman Industries Inc. including material and installation.

**ATFP, Signage, Pavement Marking, Traffic Control** is based on historical data and is estimated at 5 percentage of direct cost.

**Anti-Terrorism / Force Protection** for the Surge Barriers are based on historical data and is estimated at 3 percentage of direct cost.

**Pump Stations** were priced by the Mobile District Structural & Mechanical Engineers .

**Structural Gates** (Pass Thrus, Sector, Sluice, Roller) unit prices were provided by the New Orleans District, COE

**Foundation Piles** are based on quotes from Southern Prestress for piling and Jordan Piling for installation.

**Riprap Stone** was derived as follows (\$45/ton in-place + 1.21 contractor markup + 1.65 tn/cy conversion = \$90/cy in place) Unit cost based on recent construction projects along Gulf Coast are based on quotes from Southern Prestress for piling and Jordan Piling for installation.

#### **EXCLUSIONS**

COST RISK ANALYSIS for development of Contingency.

At this phase of the plan formulation process, there were no assessments made for HTRW investigations nor remediation costs based on the vast number of properties potentially involved and the uncertainties associated with project footprints. Also, the cost of escalation will be addressed as projects are selected to proceed to feasibility level of design. The identification of a major HTRW site within a project footprint could certainly have a cost impact, but none are known to exist at this time. Likewise, depending on the time that a project is funded for further study to feasibility level, the effects of escalation could be a major factor based on fuel costs or other items that can change drastically outside the usual inflation rate.

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage. These are items which are not supported by the Project Policy (Federal or Non-Federal Cost).

**Relocations (Cemeteries), Historical Preservation, & Recreation** are items which are not supported by the Project Policy (Federal or Non-Federal Cost).

**06 Account, Preservation - Mitigation-Tidal** quantities were based on impacts of new footprint plus mitigated factor which was determined and coordinated by other agencies. Unit cost were derived and based on historical data.

**LOD2 Beach Sand Dune Borrow** is purchased washed Sand materials trucked from Upland Commercial Source, w/i 10 miles of project site. Unit price is based on recent cost from local suppliers for the Pascagoula, Ms. projects. Price represents sand material (beach quality) fob job site.

## **BASIS of COST ESTIMATE and RATIONALE**

### **COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

**Mississippi Coastal Improvements Program "MsCIP"**

25-Jul-08

Joseph H. Ellsworth

**Miscellaneous Items** represent cost where quantities were not available, such items as signage, construction site/staging restoration, silt fencing, site access, etc. These cost are derived within the estimate at .25 percent (.25%) of construction cost excluding Mob & Demob Cost

**Mobilization & Demobilization** (except dredging) are derived within the estimate at 2.5 % +- of construction cost excluding the Misc Items cost.

**Pump Stations** will be constructed in the dry and streamflow diversion quantities have been incorporated into the various ring level estimates.

**Operational & Maintenance** Cost were based on Historical Lock & Dam records and protated for the size of subject barrier, which equates to approximately 2 percent. The PD Team agreed percentage used for the recon study is fair and reasonable. Subsequent estimate submittals will re-evaluate assumptions, percentage, and cost for O&M. LOD2 O & M cost were determined by the Economist, Jeremy LaDart. It reflects total O & M as 8 times the initial structural contract cost.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

(revised)

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **8**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Preliminary Concept Estimate** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
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### MEASURES

#### Line of Defense 1      OffShore Barrier Islands

Option "A"	<u>Restore Island Footprint</u>	\$ 942,200,000
Option "B"	<u>Replenish Sand in Littoral Zone ( River Sand Source )</u>	\$ 1,013,800,000
Option "C1 & C2"	<u>Replenish Sand in Littoral Zone (Off-Shore &amp; Inland River Sand Source)</u>	\$ 147,400,000
Option "D"	<u>Environmental Restoration (2' Dune with Beach Sand )</u>	\$ 14,200,000
Option "E"	<u>Environmental Restoration (6' Dune with Off-shore Sand )</u>	\$ 39,200,000
Option "F"	<u>Environmental Restoration (Sea Grass Planting )</u>	\$ 264,500,000
Option "G"	<u>Restoration of Ship Island Breach</u>	\$ 181,400,000



## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

(revised )

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **8**  
 WORK ITEM: **Preliminary Concept Estimate** PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
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**Line of Defense 2**      **Beach / Dune Construction**

**Options**

**Harrison County**

Option "A"	elevation 15	with 35' Crest width	\$ 21,840,000
Option "B"	elevation 13	with 45' Crest width	\$ 18,600,000
Option "C"	elevation 15	with 25' Crest width	\$ 18,100,000
Option "D"	elevation 13	with 15' Crest width	\$ 10,400,000
Option "E"	elevation 15	with 35' Crest width with Planting & Fencing	\$ 22,970,000
Option "F"	elevation 13	with 45' Crest width with Planting & Fencing	\$ 19,760,000
Option "G"	elevation 15	with 25' Crest width with Planting & Fencing	\$ 19,210,000
Option "H"	elevation 13	with 15' Crest width with Planting & Fencing	\$ 11,520,000
Option "I"	elevation 15	with 55' Crest width with Fencing (Comparison Dune)	\$ 40,290,000
Option "J"	elevation 15	with 55' Crest width with Planting & Fencing (Comparison Dune)	\$ 41,460,000
Option "K"		60 foot wide by 2-foot berm w / Plants & Fencing	\$ 9,680,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE (revised ) 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 4 OF 8  
 WORK ITEM: **Preliminary Concept Estimate** PREPARED: Joseph H. Ellsworth CHECKED: Gary A. Payton  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
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**Line of Defense 2**      **Beach / Dune Construction**

**Options**

**Jackson County**

Option "A"	elevation 10	with 40' Crest width	\$ 1,910,000
Option "B"	elevation 8	with 50' Crest width	\$ 1,450,000
Option "C"	elevation 10	with 20' Crest width	\$ 1,180,000
Option "D"	elevation 8	with 30' Crest width	\$ 960,000
Option "E"	elevation 10	with 40' Crest width with Planting & Fencing	\$ 1,990,000
Option "F"	elevation 8	with 50' Crest width with Planting & Fencing	\$ 1,530,000
Option "G"	elevation 10	with 20' Crest width with Planting & Fencing	\$ 1,260,000
Option "H"	elevation 8	with 30' Crest width with Planting & Fencing	\$ 1,040,000
Option "I"	elevation 10	with 55' Crest width with Fencing (Comparison Dune)	\$ 4,490,000
Option "J"	elevation 10	with 55' Crest width with Planting & Fencing (Comparison Dune)	\$ 4,570,000
Option "K"		60 foot wide by 2-foot berm w / Plants & Fencing	\$ 1,110,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE (revised) 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 5 OF 8  
 WORK ITEM: **Preliminary Concept Estimate** PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
<b><u>Line of Defense 3</u>      <u>Elevated Roadway, Seawalls, &amp; Ring Levees</u></b>	
<b>Jackson County</b> Ring Levee - elev. 20    Option "A"    Pascagoula / Moss Point	\$ 699,000,000
"      "      Ring Levee - elev. 30    Option "B"      "      "      "	\$ 916,000,000
"      "      Ring Levee-Washington- elev. 20    Option "C"      "      "      Alt Alignment	\$ 671,600,000
"      "      Ring Levee-Washington- elev. 30    Option "D"      "      "      Alt Alignment	\$ 849,900,000
"      "      Ring Levee - Moss Pt. - elev. 20    Option "E"      "      "      Alt Alignment	\$ 874,400,000
"      "      Ring Levee - Moss Pt. - elev. 30    Option "F"      "      "      Alt Alignment	\$ 1,013,200,000
"      "      Ring Levee- Moss/Wash - elev. 20    Option "G"      "      "      Alt Alignment	\$ 921,400,000
"      "      Ring Levee- Moss/Wash - elev. 30    Option "H"      "      "      Alt Alignment	\$ 1,057,700,000
"      "      Ring Levee - elev. 20    Option "A"    Gautier	\$ 348,300,000
"      "      Ring Levee - elev. 30    Option "B"      "	\$ 450,100,000
"      "      Ring Levee - elev. 20    Option "A"    BelleFontaine	\$ 137,600,000
"      "      Ring Levee - elev. 30    Option "B"      "      "	\$ 191,900,000
"      "      Ring Levee - elev. 20    Option "C"      "      "      Alt Alignment	\$ 103,900,000
"      "      Ring Levee - elev. 30    Option "D"      "      "      Alt Alignment	\$ 142,900,000
"      "      Ring Levee - elev. 20    Option "A"    Gulf Park Estates	\$ 149,200,000
"      "      Ring Levee - elev. 30    Option "B"      "      "      "	\$ 220,600,000
"      "      Ring Levee - elev. 20    Option "C"      "      "      Alt Alignment	\$ 158,900,000
"      "      Ring Levee - elev. 30    Option "D"      "      "      Alt Alignment	\$ 208,700,000
"      "      Ring Levee - elev. 20    Option "A"    Ocean Springs	\$ 152,100,000
"      "      Ring Level - elev. 30    Option "B"      "      "	\$ 327,000,000

**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **(revised ) 25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **6** OF **8**  
 WORK ITEM: **Preliminary Concept Estimate** PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
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**Line of Defense 3      Elevated Roadway, Seawalls, & Ring Levees**

<b>Hancock County</b>	<b>Ring Levee - elev. 20 Option "A" Pearlinton</b>	<b>\$ 104,800,000</b>
" "	<b>Ring Levee - elev. 30 Option "B" "</b>	<b>\$ 120,200,000</b>
	<b>Ring Levee - elev. 20 Option "A" Bay St. Louis</b>	<b>\$ 283,000,000</b>
	<b>Ring Levee - elev. 30 Option "B" "</b>	<b>\$ 382,900,000</b>
<b>Jackson County</b>	<b>Rdwy-Seawall - elev. 11 Ocean Springs</b>	<b>\$ 67,500,000</b>
<b>Harrison County</b>	<b>Rdwy-Seawall - elev. 16 Elevated US Hwy 90</b>	<b>\$ 1,989,200,000</b>
<b>Hancock County</b>	<b>Rdwy-Seawall - elev. 11 Beach Blvd</b>	<b>\$ 328,000,000</b>
	<b>&amp; Saddle Dikes -elev. 16</b>	

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE (revised ) 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. **7** OF **8**  
 WORK ITEM: **Preliminary Concept Estimate** PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
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### Line of Defense 4      Inland Barrier & Surge Barrier

<b>Jackson County</b>	Inland Barrier - elev. 20 Option "A"	\$ 126,900,000
" "	Inland Barrier - elev. 30 Option "B"	\$ 224,800,000
" "	Inland Barrier - elev. 40 Option "C"	\$ 266,000,000
<b>Back Bay of Biloxi</b>	Surge Barrier - elev. 20 Option "A"	\$ 989,800,000
" " " "	Surge Barrier - elev. 30 Option "B"	\$ 1,267,100,000
" " " "	Surge Barrier - elev. 40 Option "C"	\$ 1,810,700,000
<b>Harrison County</b>	Inland Barrier - elev. 20 Option "A"	\$ 435,800,000
" "	Inland Barrier - elev. 30 Option "B"	\$ 731,600,000
" "	Inland Barrier - elev. 40 Option "C"	\$ 947,100,000
" "	Levee for Roadway(75') - elev. 20 Option "D"	\$ 205,400,000
" "	Levee for Roadway(75') - elev. 30 Option "E"	\$ 768,300,000
" "	Menge Ave(15'+) - elev. 20 Option "F" Alt Route	\$ 140,400,000
" "	Menge Ave(15'+) - elev. 30 Option "G" Alt Route	\$ 317,100,000
" "	Menge Ave(15'+) - elev. 40 Option "H" Alt Route	\$ 506,300,000
" Levee for Rdwy(75') with Menge Ave Alt	- elev. 20 Option "I" Alt Route	\$ 178,600,000
" Levee for Rdwy(75') with Menge Ave Alt	- elev. 30 Option "J" Alt Route	\$ 462,900,000
<b>St. Louis Bay</b>	Surge Barrier - elev. 20 Option "A"	\$ 1,628,000,000
" " "	Surge Barrier - elev. 30 Option "B"	\$ 1,963,600,000
" " "	Surge Barrier - elev. 40 Option "C"	\$ 2,362,200,000
<b>Hancock County</b>	Inland Barrier - elev. 20 Option "A"	\$ 379,400,000
" "	Inland Barrier - elev. 30 Option "B"	\$ 852,200,000
" "	Inland Barrier - elev. 40 Option "C"	\$ 790,800,000

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

(revised )

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **8** OF **8**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Preliminary Concept Estimate** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
<b><u>Line of Defense 5</u></b> <b><u>Retreat and / or Relocation of Critical Facilities</u></b>	N / A
<b><u>Line of Defense 3</u></b> <b><u>Ring Levees</u></b>	
<i>Harrison County</i> Ring Levee - elev. 17   Option "A" <b>Forrest Heights</b>	<b>\$ 6,100,000</b>
<i>Harrison County</i> Ring Levee - elev. 21   Option "B" <b>Forrest Heights</b>	<b>\$ 11,400,000</b>
<b><u>Line of Defense 1</u></b> <b><u>Emergency Beach Nourishment</u></b>	
<i>Ship Island</i> Fort Mass & French Warehouse	<b>\$ 1,430,000</b>
<b><u>Line of Defense 3</u></b> <b><u>Buffer Zones</u></b> <b><u>Jackson County</u></b>	
Moss Point      Option "E"      elevation 20	<b>\$ 422,170,000</b>
" "      Option "F"      elevation 30	<b>\$ 419,000,000</b>
Washington Ave      Option "C"      elevation 20	<b>\$ 71,870,000</b>
" "      Option "D"      elevation 30	<b>\$ 63,770,000</b>
Moss Pt. - Washington Ave      Option "G"      elevation 20	<b>\$ 493,530,000</b>
" "      Option "H"      elevation 30	<b>\$ 482,550,000</b>
BelleFontaine      Option "C"      elevation 20	<b>\$ 3,120,000</b>
" "      Option "D"      elevation 30	<b>\$ 1,690,000</b>
Gulf Park Estates      Option "C"      elevation 20	<b>\$ 9,410,000</b>
" "      Option "D"      elevation 30	<b>\$ 7,610,000</b>

**Notes:** Price Level, Oct 07  
 Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment  
 Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"  
 Quantities listed within the Estimate represent Major Elements of the Project  
Estimate Excludes: Project Escalation, Relocations, HTRW, & Historical Preservation

**COMPREHENSIVE PLAN STRUCTURAL " Annual O & M " COST**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 1 OF 7  
 PREPARED **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Preliminary Concept Estimate** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
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**MEASURES**

<b><u>Line of Defense 1</u></b>	<b><u>OffShore Barrier Islands</u></b>	<b><u>Annual O &amp; M Cost</u></b>
Option "A"	<b><u>Restore Island Footprint</u></b>	N / A
Option "B"	<b><u>Replenish Sand in Littoral Zone ( River Sand Source )</u></b>	N / A
Option "C1 & C2"	<b><u>Replenish Sand in Littoral Zone (Off-Shore &amp; Inland River Sand Source)</u></b>	N / A
Option "D"	<b><u>Environmental Restoration (2' Dune with Beach Sand)</u></b>	N / A
Option "E"	<b><u>Environmental Restoration (6' Dune with Off-shore Sand)</u></b>	N / A
Option "F"	<b><u>Environmental Restoration (Sea Grass Planting)</u></b>	N / A
Option "G"	<b><u>Restoration of Ship Island Breach</u></b>	N / A

**COMPREHENSIVE PLAN STRUCTURAL " Annual O & M " COST**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **7**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Preliminary Concept Estimate** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
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**Line of Defense 2      Beach / Dune Construction**

<u>Options</u>	<u>Hancock County</u>	<u>Annual O &amp; M Cost</u>
Option "A"	elevation 10 with 40' Crest width	\$ 2,167,694
Option "B"	elevation 8 with 50' Crest width	\$ 1,638,530
Option "C"	elevation 10 with 20' Crest width	\$ 1,332,313
Option "D"	elevation 8 with 30' Crest width	\$ 1,082,504
Option "E"	elevation 10 with 40' Crest width with Planting & Fencing	\$ 2,256,336
Option "F"	elevation 8 with 50' Crest width with Planting & Fencing	\$ 1,729,857
Option "G"	elevation 10 with 20' Crest width with Planting & Fencing	\$ 1,423,640
Option "H"	elevation 8 with 30' Crest width with Planting & Fencing	\$ 1,171,146
Option "I"	elevation 10 with 55' Crest width with Fencing (Comparison Dune)	\$ 5,130,478
Option "J"	elevation 10 with 55' Crest width with Planting & Fencing (Comparison Dune)	\$ 5,224,492
Option "K"	60 foot wide by 2-foot berm with Plants & Fencing	N / A

## COMPREHENSIVE PLAN STRUCTURAL " Annual O & M " COST

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **7**  
 WORK ITEM: **Preliminary Concept Estimate** PREPARED **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
-------------	------------------

### Line of Defense 2      Beach / Dune Construction

<u>Options</u>	<u>Harrison County</u>	<u>Annual O &amp; M Cost</u>
Option "A"	elevation 15      with 35' Crest width	\$ 5,866,473
Option "B"	elevation 13      with 45' Crest width	\$ 4,996,172
Option "C"	elevation 15      with 25' Crest width	\$ 4,861,867
Option "D"	elevation 13      with 15' Crest width	\$ 2,793,559
Option "E"	elevation 15      with 35' Crest width with Planting & Fencing	\$ 6,170,004
Option "F"	elevation 13      with 45' Crest width with Planting & Fencing	\$ 5,307,761
Option "G"	elevation 15      with 25' Crest width with Planting & Fencing	\$ 5,160,025
Option "H"	elevation 13      with 15' Crest width with Planting & Fencing	\$ 3,094,403
Option "I"	elevation 15      with 55' Crest width with Fencing (Comparison Dune)	\$ 10,822,354
Option "J"	elevation 15      with 55' Crest width with Planting & Fencing (Comparison Dune)	\$ 11,136,629
Option "K"	60 foot wide by 2-foot berm w / Plants & Fencing	N / A

**COMPREHENSIVE PLAN STRUCTURAL " Annual O & M " COST**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **4** OF **7**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Preliminary Concept Estimate** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
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**Line of Defense 2      Beach / Dune Construction**

<u>Options</u>	<u>Jackson County</u>	<u>Annual O &amp; M Cost</u>
Option "A"	elevation 10 with 40' Crest width	\$ 513,048
Option "B"	elevation 8 with 50' Crest width	\$ 389,487
Option "C"	elevation 10 with 20' Crest width	\$ 316,961
Option "D"	elevation 8 with 30' Crest width	\$ 257,867
Option "E"	elevation 10 with 40' Crest width with Planting & Fencing	\$ 534,537
Option "F"	elevation 8 with 50' Crest width with Planting & Fencing	\$ 410,975
Option "G"	elevation 10 with 20' Crest width with Planting & Fencing	\$ 338,450
Option "H"	elevation 8 with 30' Crest width with Planting & Fencing	\$ 279,356
Option "I"	elevation 10 with 55' Crest width with Fencing (Comparison Dune)	\$ 1,206,065
Option "J"	elevation 10 with 55' Crest width with Planting & Fencing (Comparison Dune)	\$ 1,227,554
Option "K"	60 foot wide by 2-foot berm w / Plants & Fencing	N / A

(Beach O&M based on renourishment of the beach 5 times, annualled over a 50 year period of analysis)

## COMPREHENSIVE PLAN STRUCTURAL " Annual O & M " COST

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **5** OF **7**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Preliminary Concept Estimate** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

### Elevated Roadway, Seawalls, & Ring Levees

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT		
	Current Contract Cost	% of CCC	Annual O & M Cost
<b>Line of Defense 3</b>			
<b>Jackson County</b>			
Ring Levee - elev. 20	Option "A"	Pascagoula / Moss Pt	\$285,948,174 @ 2% = \$5,719,000
Ring Levee - elev. 30	Option "B"	" " "	\$415,448,288 @ 2% = \$8,309,000
Ring Levee-Washington- elev. 20	Option "C"	" " Alt Alignment	\$232,894,798 @ 2% = \$4,658,000
Ring Levee-Washington- elev. 30	Option "D"	" " Alt Alignment	\$335,373,647 @ 2% = \$6,707,000
Ring Levee - Moss Pt. - elev. 20	Option "E"	" " Alt Alignment	\$188,044,474 @ 2% = \$3,761,000
Ring Levee - Moss Pt. - elev. 30	Option "F"	" " Alt Alignment	\$271,125,478 @ 2% = \$5,423,000
Ring Levee- Moss/Wash - elev. 20	Option "G"	" " Alt Alignment	\$176,833,476 @ 2% = \$3,537,000
Ring Levee- Moss/Wash - elev. 30	Option "H"	" " Alt Alignment	\$259,843,786 @ 2% = \$5,197,000
Ring Levee - elev. 20	Option "A"	Gautier	\$ 187,184,083 @ 2% = \$3,744,000
Ring Levee - elev. 30	Option "B"	"	\$ 245,193,309 @ 2% = \$4,904,000
Ring Levee - elev. 20	Option "A"	BelleFontaine	\$ 68,568,586 @ 2% = \$1,371,000
Ring Levee - elev. 30	Option "B"	" "	\$ 96,935,648 @ 2% = \$1,939,000
Ring Levee - elev. 20	Option "C"	" " Alt Alignment	\$ 49,425,113 @ 2% = \$ 989,000
Ring Levee - elev. 30	Option "D"	" " Alt Alignment	\$ 70,690,128 @ 2% = \$1,414,000
Ring Levee - elev. 20	Option "A"	Gulf Park Estates	\$ 74,939,535 @ 2% = \$1,499,000
Ring Levee - elev. 30	Option "B"	" " "	\$ 120,191,295 @ 2% = \$2,404,000
Ring Levee - elev. 20	Option "C"	" " " Alt Alignment	\$ 64,751,081 @ 2% = \$1,295,000
Ring Levee - elev. 30	Option "D"	" " " Alt Alignment	\$ 95,315,466 @ 2% = \$1,906,000
Ring Levee - elev. 20	Option "A"	Ocean Springs	\$ 70,713,680 @ 2% = \$1,414,000
Ring Level - elev. 30	Option "B"	" "	\$ 126,584,199 @ 2% = \$2,532,000

**COMPREHENSIVE PLAN STRUCTURAL " Annual O & M " COST**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **6** OF **7**  
 PREPARED **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Preliminary Concept Estimate** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

**Elevated Roadway, Seawalls, & Ring Levees**

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
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**Line of Defense 3**

**Hancock County**

			<i>Current</i>		<i>Annual</i>
			<i>Contract</i>	<i>%</i>	<i>O &amp; M Cost</i>
			<i>Cost</i>	<i>of CCC</i>	
Ring Levee - elev. 20	Option "A"	Pearlington	\$ 66,011,422	@ 2% =	\$1,320,000
Ring Levee - elev. 30	Option "B"	"	\$ 76,319,443	@ 2% =	\$1,526,000
Ring Levee - elev. 20	Option "A"	Bay St. Louis	\$ 100,079,223	@ 2% =	\$2,002,000
Ring Levee - elev. 30	Option "B"	"	\$ 140,170,843	@ 2% =	\$2,803,000

**Jackson County**

Rdwy-Seawall - elev. 11		Ocean Springs	\$14,357,317	@ 2% =	\$ 287,000
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**Harrison County**

Rdwy-Seawall - elev. 16		Elevated US Hwy 90	\$979,288,421	@ 2% =	\$ 19,586,000
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**Hancock County**

Rdwy-Seawall - elev. 11 & Saddle Dikes -elev. 16		Beach Blvd	\$191,534,042	@ 2% =	\$3,831,000
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**Harrison County**

Forrest Height Levee - elev 17			\$ 2,080,512	@ 2% =	\$ 42,000
Forrest Height Levee - elev 21			\$ 5,681,732	@ 2% =	\$ 114,000

# COMPREHENSIVE PLAN STRUCTURAL " Annual O & M " COST

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **7** OF **7**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Preliminary Concept Estimate** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	ESTIMATED AMOUNT
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<b>Line of Defense 4</b>	<b>Inland Barrier &amp; Surge Barrier</b>	<b>Current Contract Cost</b>	<b>% of CCC</b>	<b>Annual O &amp; M Cost</b>
<b>Jackson County</b>	Inland Barrier - elev. 20 Option "A"	\$ 40,932,861	@ 2% =	\$ 819,000
" "	Inland Barrier - elev. 30 Option "B"	\$ 101,393,987	@ 2% =	\$ 2,028,000
" "	Inland Barrier - elev. 40 Option "C"	\$ 121,881,692	@ 2% =	\$ 2,438,000
<b>Back Bay of Biloxi</b>	Surge Barrier - elev. 20 Option "A"	\$ 688,501,037	@ 2% =	\$ 13,770,000
" " " "	Surge Barrier - elev. 30 Option "B"	\$ 882,298,560	@ 2% =	\$ 17,646,000
" " " "	Surge Barrier - elev. 40 Option "C"	\$ 1,262,153,433	@ 2% =	\$ 25,243,000
<b>Harrison County</b>	Inland Barrier - elev. 20 Option "A"	\$ 100,337,751	@ 2% =	\$ 2,007,000
" "	Inland Barrier - elev. 30 Option "B"	\$ 290,259,173	@ 2% =	\$ 5,805,000
" "	Inland Barrier - elev. 40 Option "C"	\$ 417,147,087	@ 2% =	\$ 8,343,000
" "	Levee for Roadway(75') - elev. 20 Option "D"	\$ 93,388,290	@ 2% =	\$ 1,868,000
" "	Levee for Roadway(75') - elev. 30 Option "E"	\$ 293,549,934	@ 2% =	\$ 5,871,000
" "	Menge Ave(15' +) - elev. 20 Option "F" Alt Route	\$ 90,015,267	@ 2% =	\$ 1,800,000
" "	Menge Ave(15'+) - elev. 30 Option "G" Alt Route	\$ 202,610,598	@ 2% =	\$ 4,052,000
" "	Menge Ave(15'+) - elev. 40 Option "H" Alt Route	\$ 328,203,779	@ 2% =	\$ 6,564,000
" Levee for Rdwy(75') with Menge Ave Alt - elev. 20 Option "I" Alt Route		\$ 103,651,509	@ 2% =	\$ 2,073,000
" Levee for Rdwy(75') with Menge Ave Alt - elev. 30 Option "J" Alt Route		\$ 300,794,161	@ 2% =	\$ 6,016,000
<b>St. Louis Bay</b>	Surge Barrier - elev. 20 Option "A"	\$ 1,133,702,062	@ 2% =	\$ 22,674,000
" " "	Surge Barrier - elev. 30 Option "B"	\$ 1,368,223,293	@ 2% =	\$ 27,364,000
" " "	Surge Barrier - elev. 40 Option "C"	\$ 1,646,791,696	@ 2% =	\$ 32,936,000
<b>Hancock County</b>	Inland Barrier - elev. 20 Option "A"	\$ 169,496,737	@ 2% =	\$ 3,390,000
" "	Inland Barrier - elev. 30 Option "B"	\$ 446,696,402	@ 2% =	\$ 8,934,000
" "	Inland Barrier - elev. 40 Option "C"	\$ 378,122,578	@ 2% =	\$ 7,562,000
<b>Line of Defense 5</b>	<b>Retreat and / or Relocation of Critical Facilities</b>			N / A

**Notes:** Price Level, Oct 07  
 Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment  
 Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"  
 Quantities listed within the Estimate represent Major Elements of the Project  
Estimate Excludes: Project Escalation, Relocations, HTRW, & Historical Preservation Cost

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **10**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 1** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Option "A"** FILE NAME: scip-comprehensive-study-combined-cost-est-25jul08.xls  
**Restore Island Footprint ( Horn, Petit Bois, Ship, & Cat Island )**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<i>Off-Shore Borrow</i>				
<u>Assumed Quantity</u>	<u>Quantity (cy)</u>	<u>Haul Distance, r/t (mi)</u>		
14% Petit Bois	9,300,000	90		
31% Horn	21,240,000	84		
32% Ship	21,240,000	90		
<u>23% Cat</u>	<u>14,600,000</u>	<u>114</u>		
100%	66,380,000	93	miles r/t, weighted av	
<i>Access Channel &amp; Storage Area</i>				
<u>Quantity (cy)</u>	<u>Haul Distance, r/t (mi)</u>			
2,000,000	20			
4,650,000	5			
4,800,000	20			
<u>3,450,000</u>	<u>30</u>			
14,900,000	18	miles r/t, weighted avg		
<i>In-Place Material on Island</i>				
<u>Pumping Distance</u>			<u>Island Surface Area</u>	
<u>Quantity (cy)</u>	<u>(avg lf)</u>	<u>(max lf)</u>	<u>Quantity (acr)</u>	
5,880,000	12,000	18000	Petit Bois	231
13,000,000	12,000	18000	Horn	535
13,500,000	15,000	25000	Ship	540
<u>9,660,000</u>	<u>30,000</u>	<u>55000</u>	Cat	<u>390</u>
42,040,000				1,696
Mob, Prep Work, Demob - Pipeline Dredge Plant with Booster, Initially	1	ea	1,750,000	\$1,750,000
Intermediate Mob & Preparatory Work, Pipeline Dredge Plant	7	ea	150,000	1,050,000
Intermediate Mob & Preparatory Work, Pipeline Dredge Plant with Booster	7	ea	175,000	1,225,000
Mobilization, Preparatory Work, Demobilization - Hopper Dredge Plant	2	ea	750,000	1,500,000
Mobilization, Preparatory Work, Demobilization - Land Base Equipment	1	job	allow	1,000,000
Dredge Access Channels & Storage Area (by Hopper Dredge)	14,900,000	cy	2.90	43,210,000
Sand Borrow ( by Hopper ) (reference CEDEP for Cost Derivation) with allowed Overflow Assumed location of sand is St. Bernard Shoals Avg. Haul Distance approx. 94 miles r/t, weight avg. Average Water depth at Borrow Area, 60 ft.	66,380,000	cy	6.75	448,065,000
Sand Placement ( by Pipeline Dredge from Storage Area, in-place)				
Petit Bois w/o Booster	12,000 lf avg	5,880,000	cy	1.50
Horn w/o Booster	12,000 lf avg	13,000,000	cy	1.50
Ship w/ Booster	15,000 lf avg	13,500,000	cy	2.50
Cat w/2ea Boosters	30,000 lf avg	<u>9,660,000</u>	cy	4.00
		42,040,000	cy	38,640,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **10**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 1** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Option "A"** FILE NAME: scip-comprehensive-study-combined-cost-est-25jul08.xls  
**Restore Island Footprint (Horn, Petit Bois, Ship, & Cat Island)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<i>Maritime Forest Planting</i>	340	acr	10,000	\$3,400,000
<i>Emerging Marsh Planting</i>	644	acr	57,600	37,094,400
Beach & Dune Planting, Sea Oats, (figure 7,260 plants/acr @ 34 acr)	246,840	plants	1.50	370,260
Grading-Shaping - Land Base Equipment, Marshbuggies, dosers, etc.	1,696	acr	10,000	16,960,000
GIS Support During Construction	5	yrs	200,000	1,000,000
Control & Placement Surveys	5	yrs	200,000	1,000,000
				\$ 658,334,660
CONTINGENCY		@	<b>25.0%</b>	164,583,665
				\$ 822,918,325
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
09 Account, Aids to Navigation			<b>LS</b>	100,000
				\$ 823,043,325
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	65,843,466
				\$ 888,886,791
31 Account, Constr. Management		@	<b>6.0%</b>	53,333,207
				\$ 942,219,998
ESCALATION		@	<b>0.0%</b>	\$ 942,219,998
				rounded
				\$ 942,200,000

**Notes:** Dredging Cost Estimates derived using CEDEP  
 Estimates Excludes Permanent Infrastructure including Island Landings

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>3</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 1</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Option "B"</b>	FILE NAME:		
<b>Replenish Sand in Littoral Zone ( River Sand Source )</b>	mscip-comprehensive-study-combined-cost-est-25jul08.xls		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Sand Borrow from Tenn-Tom Upland Disposals, by barge & crane	18,905,200	cy	23.31	\$440,680,212
from BWT Upland Disposals, by barge & crane	12,675,000	cy	16.14	204,574,500
Barge Pump off / Dispersement	31,580,200	cy	2.00	63,160,400
<b>Current Contract Cost, Oct 07</b>				<b>\$ 708,415,112</b>
CONTINGENCY		@	<b>25.0%</b>	177,103,778
				\$ 885,518,890
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				\$ 885,543,890
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	70,843,511
				\$ 956,387,401
31 Account, Constr. Management		@	<b>6.0%</b>	57,383,244
				\$ 1,013,770,645
ESCALATION		@	<b>0.0%</b>	0
				\$ 1,013,770,645
rounded				
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 1,013,800,000</b>

**Notes:** Sand Borrow Unit Cost furnished by Operations Division

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **4** OF **10**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 1** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Option "C1 & C2"** FILE NAME: scip-comprehensive-study-combined-cost-est-25jul08.xls  
**Replenish Sand in Littoral Zone (Off-Shore & Inland River Sand Source)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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### Option C1

<u>Placement Area</u>	<u>Off-Shore Borrow</u>		<u>Pumping Distance</u>		
	<u>Quantity (cy)</u>	<u>Haul Distance, r/t (miles), weighted avg.</u>	<u>(avg lf)</u>	<u>(max lf)</u>	
East End Ship Island	5,000,000	90	5,000	6,000	
Mobilization, Preparatory Work, Demobilization - Hopper Dredge Plant	1		ea	750,000	750,000
Sand Borrow ( by Hopper ) (reference CEDEP for Cost Derivation) with allowed Overflow Assumed location of sand is St. Bernard Shoals Avg. Haul Distance approx. 90 miles r/t, weight avg. Average Water depth at Borrow Area, 60 ft. Dredge Pump-Off	5,000,000		cy	9.00	45,000,000
				<b>Subtotal</b>	<b>\$ 45,750,000</b>

### Option C2

<u>Placement Area</u>	<u>Tombigbee River Borrow</u>				
	<u>Quantity (cy)</u>	<u>Haul Distance, r/t (miles), weighted avg.</u>			
East End Petit Bois Island	5,000,000	150			
Mobilization & Demobilization - Pump off / Spreader Barage Equip	1		job	allow	225,000
Sand Borrow from Tenn-Tombigbee River Upland Disposals	4,000,000		cy	11.50	\$46,000,000
Barge Pump off / Dispersement	4,000,000		cy	2.50	10,000,000
				<b>Subtotal</b>	<b>\$ 56,225,000</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **5** OF **10**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 1** BASIS of ESTIMATE: info furnished per Project Delivery Team  
                   **Option "C1 & C2"** FILE NAME: scip-comprehensive-study-combined-cost-est-25jul08.xls  
                   **Replenish Sand in Littoral Zone (Off-Shore & Inland River Sand Source)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
GIS Support During Construction	2.50	yrs	200,000	500,000
Control & Placement Surveys	2.50	yrs	200,000	500,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 102,975,000</b>
CONTINGENCY		@	<b>25.0%</b>	<u>25,743,750</u>
				\$ 128,718,750
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				<u>\$ 128,743,750</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>10,299,500</u>
				\$ 139,043,250
31 Account, Constr. Management		@	<b>6.0%</b>	<u>8,342,595</u>
				\$ 147,385,845
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				\$ 147,385,845
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 147,400,000</b>

**Notes:** Sand Borrow Unit Cost furnished by Operations Division

## COMPREHENSIVE PLAN "STRUCTURAL" COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **6** OF **10**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 1** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Option "D"** FILE NAME: scip-comprehensive-study-combined-cost-est-25jul08.xls  
**Environmental Restoration (2' Dune with Beach Sand)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization - Land Base Equipment	1	job	allow	\$20,000
Dredge Access Channels	30,000	cy	5.00	150,000
Construct 2' Dune with Beach Sand- Land Base Equipment, Marshbuggies, dosers, etc.	106,770	cy	15.00	1,601,550
Maritime Forest Planting	755	acr	10,000	7,550,000
Beach & Dune Planting, Sea Oats, (figure 7,260 plants/acr @ 51.3 acr)	372,440	plants	1.50	558,660
<b>Current Contract Cost, Oct 07</b>				\$ 9,880,210
CONTINGENCY	@	25.0%	2,470,053	
				\$ 12,350,263
01 Account, Lands & Damage	PCA	LS	25,000	
				\$ 12,375,263
30 Account, Plan, Engr.& Design	@	8.0%	990,021	
				\$ 13,365,284
31 Account, Constr. Management	@	6.0%	801,917	
				\$14,167,201
ESCALATION	@	0.0%	0	
				\$ 14,167,201
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 14,200,000</b>

**Notes:** Planting Unit Cost furnished by Planning Division

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **7** OF **10**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 1** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Option "E"** FILE NAME: scip-comprehensive-study-combined-cost-est-25jul08.xls  
**Environmental Restoration (6' Dune with Off-shore Sand)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization - Hopper Dredge Plant	1	ea	allow	\$750,000
Mobilization, Preparatory Work, Demobilization - Land Base Equipment	1	job	allow	20,000
Dredge Access Channels & Storage Area (by Hopper Dredge)	200,000	cy	5.00	1,000,000
Sand Borrow ( by Hopper ) (reference CEDEP for Cost Derivation) with allowed Overflow Assumed location of sand is St. Bernard Shoals Avg. Haul Distance approx. 94 miles r/t, weight avg. Average Water depth at Borrow Area, 60 ft.	640,500	cy	6.75	4,323,375
Barge Pump off / Dispersement	640,500	cy	2.00	1,281,000
Construct 6' Dune with Beach Sand- Land Base Equipment, Marshbuggies, dosers, trucks, etc.	640,500	cy	18.00	11,529,000
Maritime Forest Planting	755	acr	10,000	7,550,000
Beach & Dune Planting, Sea Oats, (figure 30 miles @ 21,120 plants / r	633,600	plants	1.50	950,400
<b>Current Contract Cost, Oct 07</b>				\$27,403,775
CONTINGENCY	@		<b>25.0%</b>	6,850,944
				\$ 34,254,719
01 Account, Lands & Damage	PCA		<b>LS</b>	25,000
				\$ 34,279,719
30 Account, Plan, Engr.& Design	@		<b>8.0%</b>	2,742,378
				\$ 37,022,096
31 Account, Constr. Management	@		<b>6.0%</b>	2,221,326
				\$ 39,243,422
ESCALATION	@		<b>0.0%</b>	0
				\$ 39,243,422 rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 39,200,000</b>

**Notes:** Planting Unit Cost furnished by Planning Division

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>8</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 1</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Option "F"</b>	FILE NAME: scip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Environmental Restoration (Sea Grass Planting)</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Sea Grass Planting	4,400	acr	42,000	184,800,000
			<b>Current Contract Cost, Oct 07</b>	\$ 184,800,000
CONTINGENCY	@		<b>25.0%</b>	46,200,000
				\$ 231,000,000
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				\$ 231,025,000
30 Account, Plan, Engr.& Design	@		<b>8.0%</b>	18,482,000
				\$ 249,507,000
31 Account, Constr. Management	@		<b>6.0%</b>	14,970,420
				\$ 264,477,420
ESCALATION	@		<b>0.0%</b>	0
				\$ 264,477,420
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 264,500,000</b>

**Notes:** Planting Unit Cost furnished by Planning Division

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **9** OF **10**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 1** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Option "G"** FILE NAME: scip-comprehensive-study-combined-cost-est-25jul08.xls  
**Restoration of Ship Island Breach**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<i>Off-Shore Borrow</i>				
<u>Assumed Quantity</u>	<u>Quantity (cy)</u>	<u>Haul Distance, r/t (mi)</u>		
100% Ship	13,000,000	90		
<i>In-Place Material on Island</i>				
<u>Quantity (cy)</u>	<u>(avg lf)</u>	<u>(max lf)</u>	<u>Island Surface Area</u> <u>Quantity (acr)</u>	
13,000,000	5,000	6,000	Ship Island Breach 600	
Mobilization, Preparatory Work, Demobilization - Hopper Dredge Plant	2	ea	750,000	1,500,000
Mobilization, Preparatory Work, Demobilization - Land Base Equipment	1	job	allow	1,000,000
Sand Borrow ( by Hopper ) (reference CEDEP for Cost Derivation) with allowed Overflow Assumed location of sand is St. Bernard Shoals Avg. Haul Distance approx. 90 miles r/t, weight avg. Average Water depth at Borrow Area, 60 ft. Dredge Pump-Off	13,000,000	cy	9.00	117,000,000
<i>Beach &amp; Dune Planting (sea oats)</i>	477,500	plants	1.50	716,250
Grading-Shaping - Land Base Equipment, Marshbuggies, dosers, etc.	600	acr	10,000	6,000,000
GIS Support During Construction	1.25	yrs	200,000	250,000
Control & Placement Surveys	1.25	yrs	200,000	250,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>10</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 1</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Option "G"</b>	FILE NAME: scip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Restoration of Ship Island Breach</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
			<b>Current Contract Cost, Oct 07</b>	\$126,716,250
CONTINGENCY		@	<b>25.0%</b>	31,679,063
				\$158,395,313
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				\$ 158,420,313
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	12,673,625
				\$ 171,093,938
31 Account, Constr. Management		@	<b>6.0%</b>	10,265,636
				\$ 181,359,574
ESCALATION		@	<b>0.0%</b>	0
				\$ 181,359,574
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 181,400,000</b>

Notes: Planting Unit Cost furnished by Planning Division

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Hancock County Option "A" elevation 10 with 40' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$110,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	457,700	cy	8.00	3,661,600
Sand (dune) Construction, Grade & Shape	457,700	cy	4.00	1,830,800
Misc Site Items	1	ls	allow	13,700
<b>Current Contract Cost, Oct 07</b>				<b>\$5,616,100</b>
CONTINGENCY		@	<b>25.0%</b>	1,404,025
				\$7,020,125
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				7,045,125
				<b>\$7,045,125</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	563,610
				\$7,608,735
31 Account, Constr. Management		@	<b>6.0%</b>	456,524
				\$8,065,259
ESCALATION		@	<b>0.0%</b>	\$8,065,259
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 8,070,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Hancock County Option "B" elevation 8 with 50' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$83,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	345,671	cy	8.00	2,765,368
Sand (dune) Construction, Grade & Shape	345,671	cy	4.00	1,382,684
Misc Site Items	1	ls	allow	10,400
<b>Current Contract Cost, Oct 07</b>				<b>\$4,241,452</b>
CONTINGENCY		@	<b>25.0%</b>	1,060,363
				\$5,301,815
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				5,326,815
				<b>\$5,326,815</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	426,145
				\$5,752,960
31 Account, Constr. Management		@	<b>6.0%</b>	345,178
				\$6,098,138
ESCALATION		@	<b>0.0%</b>	\$6,098,138
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 6,100,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Hancock County    Option "C"    elevation 10    with 20' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$67,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	280,812	cy	8.00	2,246,496
Sand (dune) Construction, Grade & Shape	280,812	cy	4.00	1,123,248
Misc Site Items	1	ls	allow	8,400
<b>Current Contract Cost, Oct 07</b>				<b>\$3,445,144</b>
CONTINGENCY		@	<b>25.0%</b>	861,286
				\$4,306,430
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				4,331,430
				<b>\$4,331,430</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	346,514
				\$4,677,944
31 Account, Constr. Management		@	<b>6.0%</b>	280,677
				\$4,958,621
ESCALATION		@	<b>0.0%</b>	\$4,958,621
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 4,960,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **4** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Hancock County Option "D" elevation 8 with 30' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$55,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	227,745	cy	8.00	1,821,960
Sand (dune) Construction, Grade & Shape	227,745	cy	4.00	910,980
Misc Site Items	1	ls	allow	6,800
<b>Current Contract Cost, Oct 07</b>				<b>\$2,794,740</b>
CONTINGENCY		@	<b>25.0%</b>	698,685
				\$3,493,425
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				3,518,425
				<b>\$3,518,425</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	281,474
				\$3,799,899
31 Account, Constr. Management		@	<b>6.0%</b>	227,994
				\$4,027,893
ESCALATION		@	<b>0.0%</b>	\$4,027,893
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 4,030,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage

**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **5** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Hancock County Option "E" elevation 10 with 40' Crest width with Planting &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$114,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	457,700	cy	8.00	3,661,600
Sand (dune) Construction, Grade & Shape	457,700	cy	4.00	1,830,800
Plants (sea oats on one toe, 3 rows of plants on 18" centers)	79,600	plants	1.50	119,400
Fencing (one toe)	39,800	lf	2.80	111,440
Misc Site Items	1	ls	allow	14,300
			<b>Current Contract Cost, Oct 07</b>	<b>\$5,851,540</b>
			<b>CONTINGENCY @ 25.0%</b>	<b>1,462,885</b>
				<b>\$7,314,425</b>
			<b>01 Account, Lands &amp; Damage PCA LS</b>	<b>25,000</b>
				<b>7,339,425</b>
				<b>\$7,339,425</b>
			<b>30 Account, Plan, Engr.&amp; Design @ 8.0%</b>	<b>587,154</b>
				<b>\$7,926,579</b>
			<b>31 Account, Constr. Management @ 6.0%</b>	<b>475,595</b>
				<b>\$8,402,174</b>
			<b>ESCALATION @ 0.0%</b>	<b>\$8,402,174</b>
				<b>rounded</b>
			<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 8,400,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **6** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Hancock County Option "F" elevation 8 with 50' Crest width with Planting &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$88,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	345,671	cy	8.00	2,765,368
Sand (dune) Construction, Grade & Shape	345,671	cy	4.00	1,382,684
Plants (sea oats on one toe, 3 rows on 18" centers)	79,600	plants	1.50	119,400
Fencing (one toe)	39,800	lf	2.80	111,440
Misc Site Items	1	ls	allow	10,900
<b>Current Contract Cost, Oct 07</b>				<b>\$4,477,792</b>
CONTINGENCY		@	<b>25.0%</b>	1,119,448
				\$5,597,240
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				5,622,240
				\$5,622,240
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	449,779
				\$6,072,019
31 Account, Constr. Management		@	<b>6.0%</b>	364,321
				\$6,436,340
ESCALATION		@	<b>0.0%</b>	\$6,436,340
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 6,440,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **7** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Hancock County Option "G" elevation 10 with 20' Crest width with Planting &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$72,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	280,812	cy	8.00	2,246,496
Sand (dune) Construction, Grade & Shape	280,812	cy	4.00	1,123,248
Plants (sea oats on one toe, 3 rows on 18" centers)	79,600	plants	1.50	119,400
Fencing (one toe)	39,800	lf	2.80	111,440
Misc Site Items	1	ls	allow	9,000
<b>Current Contract Cost, Oct 07</b>				<b>\$3,681,584</b>
CONTINGENCY			@ <b>25.0%</b>	920,396
				\$4,601,980
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				4,626,980
				<b>\$4,626,980</b>
30 Account, Plan, Engr.& Design			@ <b>8.0%</b>	370,158
				\$4,997,138
31 Account, Constr. Management			@ <b>6.0%</b>	299,828
				\$5,296,967
ESCALATION			@ <b>0.0%</b>	\$5,296,967
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 5,300,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **8** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS OF ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Hancock County Option "H" elevation 8 with 30' Crest width with Planting &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$59,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	227,745	cy	8.00	1,821,960
Sand (dune) Construction, Grade & Shape	227,745	cy	4.00	910,980
Plants (sea oats on one toe, 3 rows on 18" centers)	79,600	plants	1.50	119,400
Fencing (one toe)	39,800	lf	2.80	111,440
Misc Site Items	1	ls	allow	7,400
<b>Current Contract Cost, Oct 07</b>				<b>\$3,030,180</b>
CONTINGENCY		@	<b>25.0%</b>	757,545
				<b>\$3,787,725</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				<b>3,812,725</b>
				<b>\$3,812,725</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	305,018
				<b>\$4,117,743</b>
31 Account, Constr. Management		@	<b>6.0%</b>	247,065
				<b>\$4,364,808</b>
ESCALATION		@	<b>0.0%</b>	4,364,808
				<b>rounded</b>
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 4,360,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **9** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Hancock County Option "I" elevation 10 with 55' Crest width with Fencing (Comparison Dune)</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$261,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	1,067,598	cy	8.00	8,540,784
Sand (dune) Construction, Grade & Shape	1,067,598	cy	4.00	4,270,392
Fencing (both toes+A37)	79,600	lf	2.80	222,880
Misc Site Items	1	ls	allow	32,600
<b>Current Contract Cost, Oct 07</b>				\$13,327,656
CONTINGENCY		@	<b>25.0%</b>	3,331,914 \$16,659,570
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000 16,684,570
				\$16,684,570
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	1,334,766 \$18,019,336
31 Account, Constr. Management		@	<b>6.0%</b>	1,081,160 \$19,100,496
ESCALATION		@	<b>0.0%</b>	\$19,100,496 rounded
<b>TOTAL PROJECT COST, Oct 07</b>				\$ 19,100,000

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **10** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Hancock County Option "J" elevation 10 with 55' Crest width with Planting &amp; Fencing (Comparison Dune)</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$265,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	1,067,598	cy	8.00	8,540,784
Sand (dune) Construction, Grade & Shape	1,067,598	cy	4.00	4,270,392
Plants (sea oats on both toes, 3 rows on 18" centers)	159,200	plants	1.50	238,800
Fencing (both toes)	79,600	lf	2.80	222,880
Misc Site Items	1	ls	allow	33,200
<b>Current Contract Cost, Oct 07</b>				\$13,571,056
CONTINGENCY @ <b>25.0%</b>				3,392,764
				\$16,963,820
01 Account, Lands & Damage PCA <b>LS</b>				25,000
				16,988,820
				\$16,988,820
30 Account, Plan, Engr.& Design @ <b>8.0%</b>				1,359,106
				\$18,347,926
31 Account, Constr. Management @ <b>6.0%</b>				1,100,876
				\$19,448,801
ESCALATION @ <b>0.0%</b>				\$19,448,801
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 19,450,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **11** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Hancock County Option "K" 60 foot wide by 2-foot berm with Plants &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$63,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	194,578	cy	8.00	1,556,624
Sand (dune) Construction, Grade & Shape	194,578	cy	4.00	778,312
Plants (sea oats on entire berm on 30" centers)	398,000	plants	1.50	597,000
Fencing (both toes)	79,600	lf	2.80	222,880
Misc Site Items	1	ls	allow	7,900
<b>Current Contract Cost, Oct 07</b>				\$3,225,716
CONTINGENCY		@	<b>25.0%</b>	806,429
				\$4,032,145
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				4,057,145
				\$4,057,145
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	324,572
				\$4,381,717
31 Account, Constr. Management		@	<b>6.0%</b>	262,903
				\$4,644,620
ESCALATION		@	<b>0.0%</b>	\$4,644,620
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				\$ 4,640,000

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **12** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:  
mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Option "A" elevation 15 with 35' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipme	1	job	allow	74,000
Construct Sand (dune), Dredged from near Shore Borrow Site	2,698,656	cy	5.50	14,842,608
Misc Site Items	1	ls	allow	37,100
<b>Current Contract Cost, Oct 07</b>				<b>\$15,243,708</b>
CONTINGENCY		@	<b>25.0%</b>	3,810,927
				<b>\$19,054,635</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				<b>\$19,079,635</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	1,526,371
				<b>\$20,606,006</b>
31 Account, Constr. Management		@	<b>6.0%</b>	1,236,360
				<b>\$21,842,366</b>
ESCALATION		@	<b>0.0%</b>	\$21,842,366
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 21,840,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **13** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Option "B" elevation 13 with 45' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipme	1	job	allow	63,000
Construct Sand (dune), Dredged from near Shore Borrow Site	2,293,764	cy	5.50	12,615,702
Misc Site Items	1	ls	allow	31,500
<b>Current Contract Cost, Oct 07</b>				\$13,000,202
CONTINGENCY	@		<b>25.0%</b>	3,250,051
01 Account, Lands & Damage	PCA		<b>LS</b>	25,000
				\$16,275,253
30 Account, Plan, Engr. & Design	@		<b>8.0%</b>	1,302,020
				\$17,577,273
31 Account, Constr. Management	@		<b>6.0%</b>	1,054,636
				\$18,631,909
ESCALATION	@		<b>0.0%</b>	\$18,631,909
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				\$ 18,600,000

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **14** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:  
mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Option "C" elevation 15 with 25' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipme	1	job	allow	61,000
Construct Sand (dune), Dredged from near Shore Borrow Site	2,223,782	cy	5.50	12,230,801
Misc Site Items	1	ls	allow	30,600
<b>Current Contract Cost, Oct 07</b>				<b>\$12,612,401</b>
CONTINGENCY		@	<b>25.0%</b>	3,153,100
				\$15,765,501
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				\$15,790,501
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	1,263,240
				\$17,053,741
31 Account, Constr. Management		@	<b>6.0%</b>	1,023,224
				\$18,076,966
ESCALATION		@	<b>0.0%</b>	0
				\$18,076,966
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 18,100,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **15** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Option "D" elevation 13 with 15' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipme	1	job	allow	34,000
Construct Sand (dune), Dredged from near Shore Borrow Site	1,254,041	cy	5.50	6,897,226
Misc Site Items	1	ls	allow	17,200
<b>Current Contract Cost, Oct 07</b>				<b>\$7,238,426</b>
CONTINGENCY		@	<b>25.0%</b>	1,809,606
				\$9,048,032
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				<b>\$9,073,032</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	725,843
				\$9,798,874
31 Account, Constr. Management		@	<b>6.0%</b>	587,932
				\$10,386,807
ESCALATION		@	<b>0.0%</b>	0
				\$10,386,807
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 10,400,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **16** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Option "E" elevation 15 with 35' Crest width with Planting &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipmei	1	job	allow	78,000
Construct Sand (dune), Dredged from near Shore Borrow Site	2,698,656	cy	5.50	14,842,608
Plants (sea oats on one toe, 3 rows of plants on 18" centers)	269,928	plants	1.50	404,892
Fencing (one toe)	134,964	lf	2.80	377,899
Misc Site Items	1	ls	allow	39,100
<b>Current Contract Cost, Oct 07</b>				<b>\$16,032,499</b>
CONTINGENCY	@	<b>25.0%</b>		4,008,125
				\$20,040,624
01 Account, Lands & Damage	PCA	<b>LS</b>		25,000
				20,065,624
				\$20,065,624
30 Account, Plan, Engr. & Design	@	<b>8.0%</b>		1,605,250
				\$21,670,874
31 Account, Constr. Management	@	<b>6.0%</b>		1,300,252
				\$22,971,126
ESCALATION	@	<b>0.0%</b>		\$22,971,126
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 22,970,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **17** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS OF ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Option "F" elevation 13 with 45' Crest width with Planting &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipmei	1	job	allow	67,000
Construct Sand (dune), Dredged from near Shore Borrow Site	2,293,764	cy	5.50	12,615,702
Plants (sea oats on one toe, 3 rows on 18" centers)	269,928	plants	1.50	404,892
Fencing (one toe)	134,964	lf	2.80	377,899
Misc Site Items	1	ls	allow	33,500
<b>Current Contract Cost, Oct 07</b>				<b>\$13,788,993</b>
CONTINGENCY		@	<b>25.0%</b>	3,447,248
				\$17,236,242
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				17,261,242
				<b>\$17,261,242</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	1,380,899
				\$18,642,141
31 Account, Constr. Management		@	<b>6.0%</b>	1,118,528
				\$19,760,669
ESCALATION		@	<b>0.0%</b>	\$19,760,669
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 19,760,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **18** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS OF ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Option "G" elevation 15 with 25' Crest width with Planting &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipme	1	job	allow	65,000
Construct Sand (dune), Dredged from near Shore Borrow Site	2,223,782	cy	5.50	12,230,801
Plants (sea oats on one toe, 3 rows on 18" centers)	269,928	plants	1.50	404,892
Fencing (one toe)	134,964	lf	2.80	377,899
Misc Site Items	1	ls	allow	32,500
<b>Current Contract Cost, Oct 07</b>				<b>\$13,401,092</b>
CONTINGENCY @ <b>25.0%</b>				3,350,273
				\$16,751,365
01 Account, Lands & Damage PCA <b>LS</b>				25,000
				16,776,365
				<b>\$16,776,365</b>
30 Account, Plan, Engr.& Design @ <b>8.0%</b>				1,342,109
				\$18,118,474
31 Account, Constr. Management @ <b>6.0%</b>				1,087,108
				\$19,205,583
ESCALATION @ <b>0.0%</b>				\$19,205,583
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 19,210,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055  
 Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **19** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS OF ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Option "H" elevation 13 with 15' Crest width with Planting &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipme	1	job	allow	38,000
Construct Sand (dune), Dredged from near Shore Borrow Site	1,254,041	cy	5.50	6,897,226
Plants (sea oats on one toe, 3 rows on 18" centers)	269,928	plants	1.50	404,892
Fencing (one toe)	134,964	lf	2.80	377,899
Misc Site Items	1	ls	allow	19,200
<b>Current Contract Cost, Oct 07</b>				<b>\$8,027,217</b>
CONTINGENCY @ <b>25.0%</b>				2,006,804
				\$10,034,021
01 Account, Lands & Damage PCA <b>LS</b>				25,000
				10,059,021
				<b>\$10,059,021</b>
30 Account, Plan, Engr.& Design @ <b>8.0%</b>				804,722
				\$10,863,743
31 Account, Constr. Management @ <b>6.0%</b>				651,825
				\$11,515,567
ESCALATION @ <b>0.0%</b>				\$11,515,567
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 11,520,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055  
 Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **20** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County    Option "I"    elevation 15    with 55' Crest width with Fencing (Comparison Dune)</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipmei	1	job	allow	138,000
Construct Sand (dune), Dredged from near Shore Borrow Site	4,888,008	cy	5.50	26,884,044
Fencing (both toes)	269,928	lf	2.80	755,798
Misc Site Items	1	ls	allow	69,100
<b>Current Contract Cost, Oct 07</b>				<b>\$28,136,942</b>
CONTINGENCY		@	<b>25.0%</b>	7,034,236
				\$35,171,178
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				35,196,178
				<b>\$35,196,178</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	2,815,694
				\$38,011,872
31 Account, Constr. Management		@	<b>6.0%</b>	2,280,712
				\$40,292,585
ESCALATION		@	<b>0.0%</b>	\$40,292,585
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 40,290,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **21** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS OF ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Option "J" elevation 15 with 55' Crest width with Planting &amp; Fencing (Comparison Dune)</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipme	1	job	allow	142,000
Construct Sand (dune), Dredged from near Shore Borrow Site	4,888,008	cy	5.50	26,884,044
Plants (sea oats on both toes, 3 rows on 18" centers)	539,856	plants	1.50	809,784
Fencing (both toes+A1155)	269,928	lf	2.80	755,798
Misc Site Items	1	ls	allow	71,100
<b>Current Contract Cost, Oct 07</b>				<b>\$28,952,726</b>
CONTINGENCY @ <b>25.0%</b>				7,238,182
				\$36,190,908
01 Account, Lands & Damage PCA <b>LS</b>				25,000
				36,215,908
				<b>\$36,215,908</b>
30 Account, Plan, Engr.& Design @ <b>8.0%</b>				2,897,273
				\$39,113,181
31 Account, Constr. Management @ <b>6.0%</b>				2,346,791
				\$41,459,971
ESCALATION @ <b>0.0%</b>				\$41,459,971
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 41,460,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055  
 Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **22** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS OF ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Option "K" 60 foot wide by 2-foot berm w / Plants &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipme	1	job	allow	32,000
Construct Sand (dune), Dredged from near Shore Borrow Site	659,824	cy	5.50	3,629,032
Plants (sea oats on entire berm on 30" centers)	1,349,641	plants	1.50	2,024,462
Fencing (both toes)	269,928	lf	2.80	755,798
Misc Site Items	1	ls	allow	16,000
<b>Current Contract Cost, Oct 07</b>				<b>\$6,747,292</b>
CONTINGENCY		@	<b>25.0%</b>	1,686,823
				\$8,434,115
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				8,459,115
				<b>\$8,459,115</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	676,729
				\$9,135,844
31 Account, Constr. Management		@	<b>6.0%</b>	548,151
				\$9,683,995
ESCALATION		@	<b>0.0%</b>	9,683,995
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 9,680,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055  
 Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **23** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County Option "A" elevation 10 with 40' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$26,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	107,019	cy	8.00	856,152
Sand (dune) Construction, Grade & Shape	107,019	cy	4.00	428,076
Misc Site Items	1	ls	allow	3,200
<b>Current Contract Cost, Oct 07</b>				<b>\$1,313,428</b>
CONTINGENCY		@	<b>25.0%</b>	328,357
				\$1,641,785
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				1,666,785
				<b>\$1,666,785</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	133,343
				\$1,800,128
31 Account, Constr. Management		@	<b>6.0%</b>	108,008
				\$1,908,135
ESCALATION		@	<b>0.0%</b>	1,908,135
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 1,910,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **24** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County Option "B" elevation 8 with 50' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$19,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	80,824	cy	8.00	646,592
Sand (dune) Construction, Grade & Shape	80,824	cy	4.00	323,296
Misc Site Items	1	ls	allow	2,400
<b>Current Contract Cost, Oct 07</b>				<b>\$991,288</b>
CONTINGENCY		@	<b>25.0%</b>	247,822
				\$1,239,110
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				1,264,110
				<b>\$1,264,110</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	101,129
				\$1,365,239
31 Account, Constr. Management		@	<b>6.0%</b>	81,914
				\$1,447,153
ESCALATION		@	<b>0.0%</b>	\$1,447,153
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 1,450,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **25** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County    Option "C"    elevation 10    with 20' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$16,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	65,659	cy	8.00	525,272
Sand (dune) Construction, Grade & Shape	65,659	cy	4.00	262,636
Misc Site Items	1	ls	allow	2,000
<b>Current Contract Cost, Oct 07</b>				<b>\$805,908</b>
CONTINGENCY		@	<b>25.0%</b>	201,477
				\$1,007,385
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				1,032,385
				<b>\$1,032,385</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	82,591
				\$1,114,976
31 Account, Constr. Management		@	<b>6.0%</b>	66,899
				\$1,181,874
ESCALATION		@	<b>0.0%</b>	\$1,181,874
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 1,180,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **26** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County Option "D" elevation 8 with 30' Crest width</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$13,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	53,251	cy	8.00	426,008
Sand (dune) Construction, Grade & Shape	53,251	cy	4.00	213,004
Misc Site Items	1	ls	allow	1,600
<b>Current Contract Cost, Oct 07</b>				\$653,612
CONTINGENCY		@	<b>25.0%</b>	163,403
				\$817,015
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				842,015
				\$842,015
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	67,361
				\$909,376
31 Account, Constr. Management		@	<b>6.0%</b>	54,563
				\$963,939
ESCALATION		@	<b>0.0%</b>	\$963,939
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				\$ 960,000

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **27** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County Option "E" elevation 10 with 40' Crest width with Planting &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$27,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	107,019	cy	8.00	856,152
Sand (dune) Construction, Grade & Shape	107,019	cy	4.00	428,076
Plants (sea oats on one toe, 3 rows of plants on 18" centers)	18,612	plants	1.50	27,918
Fencing (one toe)	9,306	lf	2.80	26,057
Misc Site Items	1	ls	allow	3,300
<b>Current Contract Cost, Oct 07</b>				\$1,368,503
CONTINGENCY		@	<b>25.0%</b>	342,126
				\$1,710,629
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				1,735,629
				\$1,735,629
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	138,850
				\$1,874,479
31 Account, Constr. Management		@	<b>6.0%</b>	112,469
				\$1,986,948
ESCALATION		@	<b>0.0%</b>	1,986,948
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				\$ 1,990,000

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **28** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><i>Jackson County Option "F" elevation 8 with 50' Crest width with Planting &amp; Fencing</i></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$20,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	80,824	cy	8.00	646,592
Sand (dune) Construction, Grade & Shape	80,824	cy	4.00	323,296
Plants (sea oats on one toe, 3 rows on 18" centers)	18,612	plants	1.50	27,918
Fencing (one toe)	9,306	lf	2.80	26,057
Misc Site Items	1	ls	allow	2,600
<b>Current Contract Cost, Oct 07</b>				\$1,046,463
CONTINGENCY		@	<b>25.0%</b>	261,616
				\$1,308,079
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				1,333,079
				\$1,333,079
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	106,646
				\$1,439,725
31 Account, Constr. Management		@	<b>6.0%</b>	86,383
				\$1,526,108
ESCALATION		@	<b>0.0%</b>	\$1,526,108
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				\$ 1,530,000

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **29** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County Option "G" elevation 10 with 20' Crest width with Planting &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$17,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	65,659	cy	8.00	525,272
Sand (dune) Construction, Grade & Shape	65,659	cy	4.00	262,636
Plants (sea oats on one toe, 3 rows on 18" centers)	18,612	plants	1.50	27,918
Fencing (one toe)	9,306	lf	2.80	26,057
Misc Site Items	1	ls	allow	2,100
<b>Current Contract Cost, Oct 07</b>				<b>\$860,983</b>
CONTINGENCY		@	<b>25.0%</b>	215,246
				\$1,076,229
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				1,101,229
				\$1,101,229
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	88,098
				\$1,189,327
31 Account, Constr. Management		@	<b>6.0%</b>	71,360
				\$1,260,686
ESCALATION		@	<b>0.0%</b>	\$1,260,686
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 1,260,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **30** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County Option "H" elevation 8 with 30' Crest width with Planting &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$14,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	53,251	cy	8.00	426,008
Sand (dune) Construction, Grade & Shape	53,251	cy	4.00	213,004
Plants (sea oats on one toe, 3 rows on 18" centers)	18,612	plants	1.50	27,918
Fencing (one toe)	9,306	lf	2.80	26,057
Misc Site Items	1	ls	allow	1,700
<b>Current Contract Cost, Oct 07</b>				\$708,687
CONTINGENCY			@ <b>25.0%</b>	177,172
				\$885,859
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				910,859
				\$910,859
30 Account, Plan, Engr.& Design			@ <b>8.0%</b>	72,869
				\$983,727
31 Account, Constr. Management			@ <b>6.0%</b>	59,024
				\$1,042,751
ESCALATION			@ <b>0.0%</b>	\$1,042,751
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				\$ 1,040,000

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi Coastal Improvements Program "MsCIP** SHEET NO. **31** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County    Option "I"    elevation 10    with 55' Crest width with Fencing (Comparison Dune)</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$61,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	249,625	cy	8.00	1,997,000
Sand (dune) Construction, Grade & Shape	249,625	cy	4.00	998,500
Fencing (both toes)	18,612	lf	2.80	52,114
Misc Site Items	1	ls	allow	7,600
<b>Current Contract Cost, Oct 07</b>				<b>\$3,116,214</b>
CONTINGENCY	@		<b>25.0%</b>	779,053
				\$3,895,267
01 Account, Lands & Damage	PCA		<b>LS</b>	25,000
				3,920,267
				<b>\$3,920,267</b>
30 Account, Plan, Engr.& Design	@		<b>8.0%</b>	313,621
				\$4,233,888
31 Account, Constr. Management	@		<b>6.0%</b>	254,033
				\$4,487,922
ESCALATION	@		<b>0.0%</b>	4,487,922
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 4,490,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **32** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County Option "J" elevation 10 with 55' Crest width with Planting &amp; Fencing (Comparison Dune)</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$62,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	249,625	cy	8.00	1,997,000
Sand (dune) Construction, Grade & Shape	249,625	cy	4.00	998,500
Plants (sea oats on both toes, 3 rows on 18" centers)	37,224	plants	1.50	55,836
Fencing (both toes)	18,612	lf	2.80	52,114
Misc Site Items	1	ls	allow	7,800
<b>Current Contract Cost, Oct 07</b>				<b>\$3,173,250</b>
CONTINGENCY			@ <b>25.0%</b>	793,312
				\$3,966,562
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				3,991,562
				\$3,991,562
30 Account, Plan, Engr.& Design			@ <b>8.0%</b>	319,325
				\$4,310,887
31 Account, Constr. Management			@ <b>6.0%</b>	258,653
				\$4,569,540
ESCALATION			@ <b>0.0%</b>	\$4,569,540
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 4,570,000</b>

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **33** OF **33**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 2** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Beach / Dune Construction** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County Option "K" 60 foot wide by 2-foot berm w / Plants &amp; Fencing</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$15,000
Construct Sand (dune), Upland Borrow Site Sand, Washed, Trucked from Upland Commerical Source, w/i 10 miles	45,496	cy	8.00	363,968
Sand (dune) Construction, Grade & Shape	45,496	cy	4.00	181,984
Plants (sea oats on entire berm on 30" centers)	93,060	plants	1.50	139,590
Fencing (both toes)	18,612	lf	2.80	52,114
Misc Site Items	1	ls	allow	1,800
<b>Current Contract Cost, Oct 07</b>				\$754,456
CONTINGENCY			@ <b>25.0%</b>	188,614
				\$943,070
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				968,070
				\$968,070
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	77,446
				\$1,045,515
31 Account, Constr. Management		@	<b>6.0%</b>	62,731
				\$1,108,246
ESCALATION			@ <b>0.0%</b>	\$1,108,246
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				\$ 1,110,000

**Notes:**

Estimate Excludes Cost for Boardwalks, Seawalls, Comfort Stations, Parking Bays, Flag/Display/Recreational Areas, and Storm Drainage  
 Unit Cost for Fencing & Grassing furnish by Harrison County & Brown & Mitchel Inc. ("BMI"), Bobby Weaver 228-896-0055

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 1 OF 4  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** **Option "A"** FILE NAME:  
**Ring Levee - elev. 20** **Bay St. Louis** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,330,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	24,867	sy	4.50	111,902
8" Water line removal	6,480	lf	8.00	51,840
6" Sewer line removal	6,480	lf	8.00	51,840
2" Gas line removal	6,480	lf	3.00	19,440
Electrical line removal - 3 phase 1440v	6,480	lf	11.00	71,280
24" Storm Drain removal	6,480	lf	11.00	71,280
Demolished structures (avg. 1,500 sf/ea @ 123 ea)	184,500	sf	3.00	553,500
Disposal Fee - off site	6,833	cy	2.50	17,083
<b>NEW WORK:</b>				
Compacted Fill (levee)	442,170	cy	15.00	6,632,550
Compacted Fill (crossovers)	8,117	cy	15.00	121,755
New Asphalt 2" (Cross overs) 432 cy figure 2.0 tons/cy	864	tons	70.00	60,480
Base material 12" (cross overs)	2,588	cy	34.50	89,286
<b>Riprap (24")</b>	<b>181,796</b>	<b>cy</b>	<b>90.00</b>	<b>16,361,640</b>
24 " gabion mattress cages, galv-pvc type	299,963	sy	32.00	9,598,816
Filter Fabric	299,963	sy	2.00	599,926
Grassing (seeding)	23	acres	2,150	49,450
Clearing and Grubbing, off-site disposal	119	acres	5,000	595,000
Crushed Aggregate 6" Thick(Levee wearing surface)	9,214	cy	45.00	414,630
<b>Guardrail</b>	<b>5,120</b>	<b>lf</b>	<b>21.00</b>	<b>107,520</b>
New 8" Water line	3,000	lf	41	123,000
New 6" Sewer Line	3,000	lf	48	144,000
New 2"Gas Line	3,000	lf	20	60,000
New Electrical Line - 3 phase 1440v	3,000	lf	44.00	132,000
New 24" Storm Drain	3,000	lf	68.00	204,000
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	9	pass-thrus		3,186,197
Concrete Box Culverts	5,925	cy	700	4,147,500
#6 rebar (box culverts)	208	tons	925	192,400
<b>Subtotal \$</b>				<b>46,098,315</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** **Option "A"** FILE NAME:  
**Ring Levee - elev. 20** **Bay St. Louis** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>46,098,315</b>
Flap Gates (12w x 4h)	30	ea	43,200	1,296,000
Flap Gates (8w x 4h)	20	ea	28,800	576,000
Flap Gates (10w x 4h)	8	ea	36,000	288,000
Flap Gates (7w x 4h)	7	ea	25,200	176,400
Flap Gates (7w x 3h)	18	ea	18,900	340,200
Cutoff valves (12w x4h)	30	ea	100,800	3,024,000
Cutoff valves (8w x4h)	20	ea	67,200	1,344,000
Cutoff valves (10w x4h)	8	ea	84,000	672,000
Cutoff valves (7w x4h)	7	ea	58,800	411,600
Cutoff valves (7w x3h)	18	ea	44,100	793,800
Pump stations, 42" to 60" pump size	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			36,651,084
Ditch Excavation	313,152	cy	12.00	3,757,824
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	4,650,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 100,079,223</b>
CONTINGENCY @ <b>25.0%</b>				<u>25,019,806</u>
				<b>\$ 125,099,029</b>
01 Account, Lands & Damage PCA <b>LS</b>				25,000
01 Account, Lands & Damage (land + admin + 25% contingency) <b>LS</b>				120,246,000
06 Account, Preservation - Mitigation-Tidal ( 5 acr @ \$200,000/acr )				1,000,000
06 Account, Preservation - Mitigation-Non-Tidal ( 152 acr @ \$5,500/acr )				836,000
				<u>\$ 247,206,029</u>
30 Account, Plan, Engr.& Design @ <b>8.0%</b>				<u>19,776,482</u>
				<b>\$ 266,982,511</b>
31 Account, Constr. Management @ <b>6.0%</b>				<u>16,018,951</u>
				<b>\$ 283,001,462</b>
ESCALATION @ <b>0.0%</b>				<u>0</u>
				<b>\$ 283,001,462</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 283,000,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** *Option "B"* FILE NAME:  
**Ring Levee - elev. 30** **Bay St. Louis** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$3,260,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	36,060	sy	4.50	162,270
8" Water line removal	11,055	lf	8.00	88,440
6" Sewer line removal	11,055	lf	8.00	88,440
2" Gas line removal	11,055	lf	3.00	33,165
Electric line removal - 3 phase 1440v	11,055	lf	11.00	121,605
24" Storm Drain removal	11,055	lf	11.00	121,605
Demolished structures (avg. 1,500 sf/ea @ 186 ea)	279,000	sf	3.00	837,000
Disposal Fee - off site	10,333	cy	2.50	25,833
<b>NEW WORK:</b>				
Compacted Fill (levee)	2,104,864	cy	15.00	31,572,960
New Asphalt 2" (at Tunnels) 571 cy <span style="margin-left: 20px;">figure 2.0 tons/cy</span>	1,142	tons	70.00	79,940
Base material 12" (cross overs)	3,423	cy	34.50	118,094
Riprap (12")	171,027	cy	90.00	15,392,430
24 " gabion mattress cages, galv-pvc type	564,388	sy	32.00	18,060,416
Filter Fabric	564,388	sy	2.00	1,128,776
Grassing (seeding)	64	acres	2,150	137,600
Clearing and Grubbing, off-site disposal	217	acres	5,000	1,085,000
Crushed Aggregate 6" Thick(Levee wearing surface)	11,379	cy	45.00	512,055
New 8" Water line	5,610	lf	41	230,010
New 6" Sewer Line	5,610	lf	48	269,280
New 2"Gas Line	5,610	lf	20	112,200
New Electrical Line - 3 phase 1440v	5,610	lf	44.00	246,840
New 24" Storm Drain	5,610	lf	68.00	381,480
Rdwy/RR Pass-Thrus <span style="margin-left: 20px;">(reference backup file for cost derivation)</span>	9	pass-thrus		5,048,096
Concrete Box Culverts	5,925	cy	700	4,147,500
#6 rebar (box culverts)	208	tons	925	192,400
<b>Subtotal \$</b>				<b>83,453,435</b>



## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **8**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** **Option "A"** FILE NAME:  
**Ring Levee - elev. 20** **Gulf Park Estates** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,740,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	16,347	sy	4.50	73,562
8" Water line removal	5,600	lf	8.00	44,800
6" Sewer line removal	5,600	lf	8.00	44,800
2" Gas line removal	5,600	lf	3.00	16,800
Electrical line removal - 3 phase 1440v	5,600	lf	11.00	61,600
24" Storm Drain removal	5,600	lf	11.00	61,600
Demolished structures (avg. 1,500 sf/ea @ 60 ea)	90,000	sf	3.00	270,000
Disposal Fee - off site	3,333	cy	2.50	8,333
<b>NEW WORK:</b>				
Compacted Fill (levee)	796,003	cy	15.00	11,940,045
Compacted Fill (cross overs)	348	cy	15.00	5,225
New Asphalt 2" (Cross overs) 163 cy figure 2.0 tons/cy	326	tons	70.00	22,820
Base material 12" (cross overs)	1,212	cy	34.50	41,814
<b>Riprap (24")</b>	<b>162,150</b>	<b>cy</b>	<b>90.00</b>	<b>14,593,500</b>
24 " gabion mattress cages, galv-pvc type	267,548	sy	32.00	8,561,536
Filter Fabric	267,548	sy	2.00	535,096
Grassing (seeding)	27	acres	2,150	58,050
Clearing and Grubbing, off-site disposal	105	acres	5,000	525,000
Crushed Aggregate 6" Thick(Levee wearing surface)	6,311	cy	45.00	283,995
Guardrail	720	lf		
New 8" Water line	1,820	lf	41	74,620
New 6" Sewer Line	1,820	lf	48	87,360
New 2"Gas Line	1,820	lf	20	36,400
New Electrical Line - 3 phase 1440v	1,820	lf	44.00	80,080
New 24" Storm Drain	1,820	lf	68.00	123,760
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	11	pass-thrus		3,438,529
<b>2-lane Gate (9ft height)</b>	<b>1</b>	<b>ea</b>	<b>32,000</b>	<b>32,000</b>
Concrete Box Culverts	2,815	cy	700	1,970,500
#6 rebar (box culverts)	97	tons	925	89,725
<b>Subtotal \$</b>				<b>44,821,549</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **8**  
 PREPARED: Joseph H. Ellsworth CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** **Option "A"** FILE NAME:  
**Ring Levee - elev. 20** **Gulf Park Estates** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$ 44,821,549</b>
Flap Gates (8w x 4h)	19	ea	28,800	547,200
Flap Gates (5w x 3h)	6	ea	13,500	81,000
Flap Gates (10w x 4h)	17	ea	36,000	612,000
Cutoff valves (8w x 4h)	19	ea	67,200	1,276,800
Cutoff valves (5w x 3h)	6	ea	31,500	189,000
Cutoff valves (10w x 4h)	17	ea	84,000	1,428,000
Pump stations, 42" to 60" pump size (8 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			21,071,378
Ditch Excavation	119,384	cy	12.00	1,432,608
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	3,480,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 74,939,535</b>
CONTINGENCY		@	<b>25.0%</b>	<u>18,734,884</u>
				<b>\$ 93,674,419</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				31,458,000
06 Account, Preservation - Mitigation-Tidal ( 23 acr @ \$200,000/acr )				4,600,000
06 Account, Preservation - Mitigation-Non-Tidal ( 97 acr @ \$5,500/acr )				533,500
				<u>\$ 130,290,919</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>10,423,274</u>
				<b>\$ 140,714,192</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>8,442,852</u>
				<b>\$ 149,157,044</b>
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				<b>\$ 149,157,044</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 149,200,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **8**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** *Option "B"* FILE NAME:  
**Ring Levee - elev. 30** **Gulf Park Estates** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,800,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	23,054	sy	4.50	103,743
8" Water line removal	7,995	lf	8.00	63,960
6" Sewer line removal	7,995	lf	8.00	63,960
2" Gas line removal	7,995	lf	3.00	23,985
Electric line removal - 3 phase 1440v	7,995	lf	11.00	87,945
24" Storm Drain removal	7,995	lf	11.00	87,945
Demolished structures (avg. 1,500 sf/ea @ 64 ea)	96,000	sf	3.00	288,000
Disposal Fee - off site	3,556	cy	2.50	8,889
<b>NEW WORK:</b>				
Compacted Fill (levee)	2,254,986	cy	15.00	33,824,790
New Asphalt 2" (Cross overs) 193 cy figure 2.0 tons/cy	386	tons	70.00	27,020
Base material 12" (cross overs)	1,156	cy	34.50	39,882
Riprap (12")	125,876	cy	90.00	11,328,840
24 " gabion mattress cages, galv-pvc type	415,394	sy	32.00	13,292,608
Filter Fabric	415,394	sy	2.00	830,788
Grassing (seeding)	54	acres	2,150	116,100
Clearing and Grubbing, off-site disposal	155	acres	5,000	775,000
Crushed Aggregate 6" Thick(Levee wearing surface)	6,503	cy	45.00	292,635
New 8" Water line	2,535	lf	41	103,935
New 6" Sewer Line	2,535	lf	48	121,680
New 2" Gas Line	2,535	lf	20	50,700
New Electrical Line - 3 phase 1440v	2,535	lf	44.00	111,540
New 24" Storm Drain	2,535	lf	68.00	172,380
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	13	pass-thrus		6,925,159
Concrete Box Culverts	2,815	cy	700	1,970,500
#6 rebar (box culverts)	97	tons	925	89,725
<b>Subtotal \$</b>				<b>73,601,709</b>



## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **5** OF **8**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** FILE NAME: **Option "C"**  
**Ring Levee - elev. 20** **Gulf Park Estates** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,510,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	37,185	sy	4.50	167,333
8" Water line removal	6,160	lf	8.00	49,280
6" Sewer line removal	6,160	lf	8.00	49,280
2" Gas line removal	6,160	lf	3.00	18,480
Electrical line removal - 3 phase 1440v	6,160	lf	11.00	67,760
24" Storm Drain removal	6,160	lf	11.00	67,760
Demolished structures (avg. 1,500 sf/ea @ 152 ea)	228,000	sf	3.00	684,000
Disposal Fee - off site	8,444	cy	2.50	21,111
<b>NEW WORK:</b>				
Compacted Fill (levee)	473,133	cy	15.00	7,096,995
Compacted Fill (cross overs)	5,758	cy	15.00	86,370
New Asphalt 2" (Cross overs) 501 cy <span style="margin-left: 20px;">figure 2.0 tons/cy</span>	1,002	tons	70.00	70,140
Base material 12" (cross overs)	3,005	cy	34.50	103,673
<b>Riprap (24")</b>	<b>135,841</b>	<b>cy</b>	<b>90.00</b>	<b>12,225,690</b>
24 " gabion mattress cages, galv-pvc type	224,137	sy	32.00	7,172,384
Filter Fabric	224,137	sy	2.00	448,274
Grassing (seeding)	19	acres	2,150	40,850
Clearing and Grubbing, off-site disposal	89	acres	5,000	445,000
Crushed Aggregate 6" Thick(Levee wearing surface)	6,324	cy	45.00	284,580
<b>Guardrail</b>	<b>4,560</b>	<b>lf</b>	<b>21.00</b>	<b>95,760</b>
<b>New 8" Water line</b>	<b>2,660</b>	<b>lf</b>	<b>41</b>	<b>109,060</b>
<b>New 6" Sewer Line</b>	<b>2,660</b>	<b>lf</b>	<b>48</b>	<b>127,680</b>
<b>New 2"Gas Line</b>	<b>2,660</b>	<b>lf</b>	<b>20</b>	<b>53,200</b>
New Electrical Line - 3 phase 1440v	2,660	lf	44.00	117,040
New 24" Storm Drain	2,660	lf	68.00	180,880
<b>Rdwy/RR Pass-Thrus</b> <span style="margin-left: 20px;">(reference backup file for cost derivation)</span>	<b>11</b>	<b>pass-thrus</b>		<b>2,887,747</b>
Concrete Box Culverts	2,455	cy	700	1,718,500
#6 rebar (box culverts)	85	tons	925	78,625
<b>Subtotal \$</b>				<b>35,977,452</b>



## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **7** OF **8**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** Option "D" FILE NAME:  
**Ring Levee - elev. 30** **Gulf Park Estates** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,220,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	40,813	sy	4.50	183,659
8" Water line removal	8,190	lf	8.00	65,520
6" Sewer line removal	8,190	lf	8.00	65,520
2" Gas line removal	8,190	lf	3.00	24,570
Electric line removal - 3 phase 1440v	8,190	lf	11.00	90,090
24" Storm Drain removal	8,190	lf	11.00	90,090
Demolished structures (avg. 1,500 sf/ea @ 169 ea)	253,500	sf	3.00	760,500
Disposal Fee - off site	9,389	cy	2.50	23,472
<b>NEW WORK:</b>				
Compacted Fill (levee)	1,663,941	cy	15.00	24,959,115
New Asphalt 2" (Cross overs) 208 cy figure 2.0 tons/cy	416	tons	70.00	29,120
Base material 12" (cross overs)	1,245	cy	34.50	42,953
Riprap (12")	107,785	cy	90.00	9,700,650
12 " gabion mattress cages	355,690	sy	32.00	11,382,080
Filter Fabric	355,690	sy	2.00	711,380
Grassing (seeding)	43	acres	2,150	92,450
Clearing and Grubbing, off-site disposal	138	acres	5,000	690,000
Crushed Aggregate 6" Thick(Levee wearing surface)	6,443	cy	45.00	289,935
New 8" Water line	2,730	lf	41	111,930
New 6" Sewer Line	2,730	lf	48	131,040
New 2" Gas Line	2,730	lf	20	54,600
New Electrical Line - 3 phase 1440v	2,730	lf	44.00	120,120
New 24" Storm Drain	2,730	lf	68.00	185,640
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	15	pass-thrus		6,817,897
Concrete Box Culverts	2,455	cy	700	1,718,500
#6 rebar (box culverts)	85	tons	925	78,625
<b>Subtotal \$</b>				<b>60,639,455</b>



## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **8**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
           **Jackson County** FILE NAME: **Option "A"**  
           **Ring Levee - elev. 20** **BelleFontaine** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,590,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	12,587	sy	4.50	56,642
8" Water line removal	4,420	lf	8.00	35,360
6" Sewer line removal	4,420	lf	8.00	35,360
2" Gas line removal	4,420	lf	3.00	13,260
Electrical line removal - 3 phase 1440v	4,420	lf	11.00	48,620
24" Storm Drain removal	4,420	lf	11.00	48,620
Demolished structures (avg. 1,500 sf/ea @ 30 ea)	45,000	sf	3.00	135,000
Disposal Fee - off site	1,667	cy	2.50	4,167
<b>NEW WORK:</b>				
Compacted Fill (levee)	733,150	cy	15.00	10,997,250
New Asphalt 2" (Cross overs) 163 cy figure 2.0 tons/cy	326	tons	70.00	22,820
Base material 12" (cross overs)	978	cy	34.50	33,741
Riprap (24")	166,583	cy	90.00	14,992,470
24 " gabion mattress cages, galv-pvc type	249,875	sy	32.00	7,996,000
Filter Fabric	249,875	sy	2.00	499,750
Grassing (seeding)	27	acres	2,150	58,050
Clearing and Grubbing, off-site disposal	106	acres	5,000	530,000
Crushed Aggregate 6" Thick(Levee wearing surface)	6,674	cy	45.00	300,330
New 8" Water line	1,430	lf	41	58,630
New 6" Sewer Line	1,430	lf	48	68,640
New 2" Gas Line	1,430	lf	20	28,600
New Electrical Line - 3 phase 1440v	1,430	lf	44.00	62,920
New 24" Storm Drain	1,430	lf	68.00	97,240
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	10	pass-thrus		2,448,878
2-lane gate (5' height)	3	ea	18,000	54,000
2-lane gate (7' height)	2	ea	25,000	50,000
Concrete Box Culverts	2,608	cy	700	1,825,600
#6 rebar (box culverts)	90	tons	925	83,250
<b>Subtotal \$</b>				<b>42,175,197</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **8**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** **Option "A"** FILE NAME:  
**Ring Levee - elev. 20** **BelleFontaine** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>42,175,197</b>
Flap Gates (8w x 4h)	17	ea	28,800	489,600
Flap Gates (7w x 3h)	13	ea	18,900	245,700
Flap Gates (5w x 3h)	5	ea	13,500	67,500
Flap Gates (10w x 4h)	7	ea	36,000	252,000
Cutoff valves (8w x 4h)	17	ea	28,800	489,600
Cutoff valves (7w x 3h)	13	ea	44,100	573,300
Cutoff valves (5w x 3h)	5	ea	31,500	157,500
Cutoff valves (10w x 4h)	7	ea	84,000	588,000
Pump stations, 42" to 60" pump size (7 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			18,878,217
Ditch Excavation	121,831	cy	12.00	1,461,972
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	3,190,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 68,568,586</b>
CONTINGENCY		@	<b>25.0%</b>	17,142,146
				<b>\$ 85,710,732</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				19,365,886
06 Account, Preservation - Mitigation-Tidal ( 71 acr @ \$200,000/acr )				14,200,000
06 Account, Preservation - Mitigation-Non-Tidal ( 164 acr @ \$5,500/acr )				902,000
				<b>\$ 120,203,618</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	9,616,289
				<b>\$ 129,819,908</b>
31 Account, Constr. Management		@	<b>6.0%</b>	7,789,194
				<b>\$ 137,609,102</b>
ESCALATION		@	<b>0.0%</b>	0
				<b>\$ 137,609,102</b>
				rounded

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

**TOTAL PROJECT COST, Oct 07 \$ 137,600,000**

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **8**  
 PREPARED: Joseph H. Ellsworth CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** *Option "B"* FILE NAME:  
**Ring Levee - elev. 30** **BelleFontaine** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,250,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	18,560	sy	4.50	83,520
8" Water line removal	6,460	lf	8.00	51,680
6" Sewer line removal	6,460	lf	8.00	51,680
2" Gas line removal	6,460	lf	3.00	19,380
Electric line removal - 3 phase 1440v	6,460	lf	11.00	71,060
24" Storm Drain removal	6,460	lf	11.00	71,060
Demolished structures (avg. 1,500 sf/ea @ 38 ea)	57,000	sf	3.00	171,000
Disposal Fee - off site	2,111	cy	2.50	5,278
<b>NEW WORK:</b>				
Compacted Fill (levee)	2,172,884	cy	15.00	32,593,260
New Asphalt 2" (Cross overs) 326 cy figure 2.0 tons/cy	652	tons	70.00	45,640
Base material 12" (cross overs)	889	cy	34.50	30,671
<b>Riprap (12")</b>	<b>124,299</b>	<b>cy</b>	<b>90.00</b>	<b>11,186,910</b>
24 " gabion mattress cages, galv-pvc type	410,186	sy	32.00	13,125,952
Filter Fabric	410,186	sy	2.00	820,372
Grassing (seeding)	53	acres	2,150	113,950
Clearing and Grubbing, off-site disposal	156	acres	5,000	780,000
Crushed Aggregate 6" Thick(Levee wearing surface)	6,674	cy	45.00	300,330
New 8" Water line	1,900	lf	41	77,900
New 6" Sewer Line	1,900	lf	48	91,200
New 2"Gas Line	1,900	lf	20	38,000
New Electrical Line - 3 phase 1440v	1,900	lf	44.00	83,600
New 24" Storm Drain	1,900	lf	68.00	129,200
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	10	pass-thrus		4,723,764
Concrete Box Culverts	2,608	cy	700	1,825,600
#6 rebar (box culverts)	90	tons	925	83,250
				<b>Subtotal \$ 68,824,256</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **4** OF **8**  
 PREPARED: Joseph H. Ellsworth CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** **Option "B"** FILE NAME:  
**Ring Levee - elev. 30** **BelleFontaine** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>68,824,256</b>
Flap Gates (8w x 4h)	17	ea	28,800	489,600
Flap Gates (5w x 3h)	5	ea	13,500	67,500
Flap Gates (10w x 4h)	7	ea	36,000	252,000
Flap Gates (7w x 3h)	13	ea	18,900	245,700
Cutoff valves (8w x 4h)	17	ea	67,200	1,142,400
Cutoff valves (5w x 3h)	5	ea	31,500	157,500
Cutoff valves (10w x 4h)	7	ea	84,000	588,000
Cutoff valves (7w x 3h)	13	ea	44,100	573,300
Pump stations, 42" to 60" pump size (7 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			18,623,420
Ditch Excavation	121,831	cy	12.00	1,461,972
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	4,510,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 96,935,648</b>
CONTINGENCY				@ <b>25.0%</b> <u>24,233,912</u>
				<b>\$ 121,169,560</b>
01 Account, Lands & Damage	PCA	<b>LS</b>		25,000
01 Account, Lands & Damage (land + admin + 25% contingency)		<b>LS</b>		25,773,853
06 Account, Preservation - Mitigation-Tidal ( 97 acr @ \$200,000/acr )				19,400,000
06 Account, Preservation - Mitigation-Non-Tidal ( 233 acr @ \$5,500/acr )				1,281,500
				<b>\$ 167,649,913</b>
30 Account, Plan, Engr.& Design	@	<b>8.0%</b>		<u>13,411,993</u>
				<b>\$ 181,061,906</b>
31 Account, Constr. Management	@	<b>6.0%</b>		<u>10,863,714</u>
				<b>\$ 191,925,620</b>
ESCALATION	@	<b>0.0%</b>		<u>0</u>
				<b>\$ 191,925,620</b>
				rounded

**TOTAL PROJECT COST, Oct 07 \$ 191,900,000**

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **5** OF **8**  
 PREPARED: Joseph H. Ellsworth CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
           **Jackson County**                   **Option "C"** FILE NAME:  
           **Ring Levee - elev. 20**           **BelleFontaine** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,150,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	25,281	sy	4.50	113,765
8" Water line removal	5,460	lf	8.00	43,680
6" Sewer line removal	5,460	lf	8.00	43,680
2" Gas line removal	5,460	lf	3.00	16,380
Electrical line removal - 3 phase 1440v	5,460	lf	11.00	60,060
24" Storm Drain removal	5,460	lf	11.00	60,060
Demolished structures (avg. 1,500 sf/ea @ 54 ea)	81,000	sf	3.00	243,000
Disposal Fee - off site	3,000	cy	2.50	7,500
<b>NEW WORK:</b>				
Compacted Fill (levee) 35,612LF	615,618	cy	15.00	9,234,270
Compacted Fill (crossovers)	902	cy	15.00	13,530
New Asphalt 2" (Cross overs) 255 cy                   figure 2.0 tons/cy	510	tons	70.00	35,700
Base material 12" (cross overs)	1,530	cy	34.50	52,785
<b>Riprap (24")</b>	<b>156,180</b>	<b>cy</b>	<b>90.00</b>	<b>14,056,200</b>
24 " gabion mattress cages, galv-pvc type	257,696	sy	32.00	8,246,272
Filter Fabric	257,696	sy	2.00	515,392
Grassing (seeding)	24	acres	2,150	51,600
Clearing and Grubbing, off-site disposal	101	acres	5,000	505,000
Crushed Aggregate 6" Thick(Levee wearing surface)	6,595	cy	45.00	296,775
Guardrail	640	lf	21.00	13,440
New 8" Water line	1,950	lf	41	79,950
New 6" Sewer Line	1,950	lf	48	93,600
New 2"Gas Line	1,950	lf	20	39,000
New Electrical Line - 3 phase 1440v	1,950	lf	44.00	85,800
New 24" Storm Drain	1,950	lf	68.00	132,600
<b>Rdwy/RR Pass-Thrus</b> (reference backup file for cost derivation)	<b>13</b>	<b>pass-thrus</b>		<b>3,011,078</b>
Concrete Box Culverts	2,476	cy	700	1,733,200
#6 rebar (box culverts)	86	tons	925	79,550
<b>Subtotal \$</b>				<b>40,013,867</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **6** OF **8**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** **Option "C"** FILE NAME:  
**Ring Levee - elev. 20** **BelleFontaine** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>40,013,867</b>
Flap Gates (8w x 4h)	15	ea	28,800	432,000
Flap Gates (7w x 3h)	13	ea	18,900	245,700
Flap Gates (5w x 3h)	5	ea	13,500	67,500
Flap Gates (10w x 4h)	7	ea	36,000	252,000
Cutoff valves (8w x 4h)	15	ea	28,800	432,000
Cutoff valves (7w x 3h)	13	ea	44,100	573,300
Cutoff valves (5w x 3h)	5	ea	31,500	157,500
Cutoff valves (10w x 4h)	7	ea	84,000	588,000
<b>Pump stations, 42" to 60" pump size (7 ea)</b> (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)				<b>3,011,078</b>
Ditch Excavation	113,514	cy	12.00	1,362,168
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	2,290,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 49,425,113</b>
CONTINGENCY @ <b>25.0%</b>				<u>12,356,278</u>
				<b>\$ 61,781,391</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				<b>26,711,082</b>
06 Account, Preservation - Mitigation-Tidal ( 7 acr @ \$200,000/acr )				1,400,000
06 Account, Preservation - Mitigation-Non-Tidal ( 158 acr @ \$5,500/acr )				869,000
				<u>\$ 90,786,473</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	7,262,918
				<u>\$ 98,049,391</u>
31 Account, Constr. Management		@	<b>6.0%</b>	5,882,963
				<u>\$ 103,932,354</u>
ESCALATION		@	<b>0.0%</b>	0
				<u>\$ 103,932,354</u>
				rounded

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

**TOTAL PROJECT COST, Oct 07 \$ 103,900,000**

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 7 OF 8  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** *Option "D"* FILE NAME:  
**Ring Levee - elev. 30** **BelleFontaine** [mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,640,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	32,561	sy	4.50	146,525
8" Water line removal	7,980	lf	8.00	63,840
6" Sewer line removal	7,980	lf	8.00	63,840
2" Gas line removal	7,980	lf	3.00	23,940
Electric line removal - 3 phase 1440v	7,980	lf	11.00	87,780
24" Storm Drain removal	7,980	lf	11.00	87,780
Demolished structures (avg. 1,500 sf/ea @ 68 ea)	102,000	sf	3.00	306,000
Disposal Fee - off site	3,778	cy	2.50	9,444
<b>NEW WORK:</b>				
Compacted Fill (levee)	1,960,375	cy	15.00	29,405,625
New Asphalt 2" (Cross overs) 193 cy figure 2.0 tons/cy	386	tons	70.00	27,020
Base material 12" (cross overs)	1,156	cy	34.50	39,882
<b>Riprap (12")</b>	<b>117,962</b>	<b>cy</b>	<b>90.00</b>	<b>10,616,580</b>
12 " gabion mattresses cages	389,274	sy	16.00	6,228,384
Filter Fabric	389,274	sy	2.00	778,548
Grassing (seeding)	49	acres	2,150	105,350
Clearing and Grubbing, off-site disposal	150	acres	5,000	750,000
Crushed Aggregate 6" Thick(Levee wearing surface)	6,595	cy	45.00	296,775
New 8" Water line	2,470	lf	41	101,270
New 6" Sewer Line	2,470	lf	48	118,560
New 2"Gas Line	2,470	lf	20	49,400
New Electrical Line - 3 phase 1440v	2,470	lf	44.00	108,680
New 24" Storm Drain	2,470	lf	68.00	167,960
<b>Rdwy/RR Pass-Thrus</b> (reference backup file for cost derivation)	<b>11</b>	<b>pass-thrus</b>		<b>4,968,013</b>
Concrete Box Culverts	2,476	cy	700	1,733,200
#6 rebar (box culverts)	86	tons	925	79,550
<b>Subtotal \$</b>				<b>58,003,946</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 8 OF 8  
 PREPARED: Joseph H. Ellsworth CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
           **Jackson County** **Option "D"** FILE NAME:  
           **Ring Levee - elev. 30** **BelleFontaine** mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>58,003,946</b>
Flap Gates (8w x 4h)	15	ea	28,800	432,000
Flap Gates (5w x 3h)	13	ea	13,500	175,500
Flap Gates (10w x 4h)	5	ea	36,000	180,000
Flap Gates (7w x 3h)	7	ea	18,900	132,300
Cutoff valves (8w x 4h)	15	ea	67,200	1,008,000
Cutoff valves (5w x 3h)	13	ea	31,500	409,500
Cutoff valves (10w x 4h)	5	ea	84,000	420,000
Cutoff valves (7w x 3h)	7	ea	44,100	308,700
<b>Pump stations, 42" to 60" pump size (7 ea)</b> (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)				<b>4,968,013</b>
Ditch Excavation	113,514	cy	12.00	1,362,168
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	3,290,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 70,690,128</b>
CONTINGENCY @ <b>25.0%</b>				17,672,532
				<b>\$ 88,362,660</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	<b>33,260,332</b>
06 Account, Preservation - Mitigation-Tidal ( 10 acr @ \$200,000/acr )				2,000,000
06 Account, Preservation - Mitigation-Non-Tidal ( 213 acr @ \$5,500/acr )				1,171,500
				<b>\$ 124,819,492</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	9,985,559
				<b>\$ 134,805,051</b>
31 Account, Constr. Management		@	<b>6.0%</b>	8,088,303
				<b>\$ 142,893,354</b>
ESCALATION		@	<b>0.0%</b>	0
				<b>\$ 142,893,354</b>
rounded				
<b>TOTAL PROJECT COST, Oct 07 \$</b>				<b>142,900,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **16**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** **Option "A"** FILE NAME: **mscip-comprehensive-study-combined-cost-est-25jul08.xls**  
**Ring Levee - elev. 20** **Pascagoula / Moss Point**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	6,650,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	62,668	sy	4.50	282,006
8" Water line removal	19,170	lf	8.00	153,360
6" Sewer line removal	19,170	lf	8.00	153,360
2" Gas line removal	19,170	lf	3.00	57,510
Electric line removal - 3 phase 1440v	19,170	lf	11.00	210,870
24" Storm Drain removal	19,170	lf	11.00	210,870
Demolished structures (avg. 1,500 sf/ea @ 474 ea)	711,000	sf	3.00	2,133,000
Disposal Fee - off site	26,333	cy	2.50	65,833
Misc Removal	1	job	allow	10,000
<b>NEW WORK:</b>				
Compacted Fill (levee)	2,734,259	cy	15.00	41,013,885
Compacted Fill (cross overs)	2,210	cy	15.00	33,150
New Asphalt 2" (Cross overs) 1,332 cy figure 2.0 tons/cy	2,664	ton	70.00	186,480
Base material 12" (cross overs)	7,993	cy	34.50	275,759
<b>Riprap (24")</b>	<b>594,809</b>	<b>cy</b>	<b>90.00</b>	<b>53,532,810</b>
24 " gabion mattress cages, galv-pvc type	981,435	sy	32.00	31,405,920
Filter Fabric	981,435	sy	2.00	1,962,870
Grassing (seeding)	97	acres	2,150	208,550
Clearing and Grubbing, off-site disposal	384	acres	5,000	1,920,000
Crushed Aggregate 6" Thick(Levee wearing surface)	23,632	cy	45.00	1,063,440
Guardrail	2,670	lf	21.00	56,070
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	68	pass-thrus		18,625,110
New 8" Water line	10,935	lf	41	448,335
New 6" Sewer Line	10,935	lf	48	524,880
New 2"Gas Line	10,935	lf	20	218,700
New Electrical Line - 3 phase 1440v	10,935	lf	44.00	481,140
New 24" Storm Drain	10,935	lf	68.00	743,580
Concrete Box Culverts	26,958	cy	700	18,870,600
#6 rebar (box culverts)	934	tons	925	863,950
Flap Gates (8w x 4h)	71	ea	28,800	2,044,800
Flap Gates (12w x 4h)	18	ea	43,200	777,600
Flap Gates (7w x 3h)	68	ea	18,900	1,285,200
Flap Gates (6w x 3h)	15	ea	16,200	243,000
			<b>Subtotal</b>	<b>\$186,712,638</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **16**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** **Option "A"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Ring Levee - elev. 20** **Pascagoula / Moss Point**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
			<b>Subtotal, brought forward</b>	<b>\$186,712,638</b>
Flap Gates (10w x 4h)	30	ea	36,000	1,080,000
Cutoff valves (8w x 4h)	71	ea	67,200	4,771,200
Cutoff valves (12w x 4h)	18	ea	100,800	1,814,400
Cutoff valves (7w x 3h)	68	ea	67,200	4,569,600
Cutoff valves (6w x 3h)	15	ea	37,800	567,000
Cutoff valves (10w x 4h)	30	ea	84,000	2,520,000
Pump stations, 42" to 60" pump size (28 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			55,189,536
Ditch Excavation	208,575	cy	12.00	2,502,900
Boat Gate, PG-1	(reference backup file for cost derivation)			12,920,900
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	13,300,000
			<b>Current Contract Cost, Oct 07</b>	<b>\$285,948,174</b>
CONTINGENCY			@ <b>25.0%</b>	<u>71,487,043</u> \$357,435,217
01 Account, Lands & Damage			PCA <b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				237,004,000
06 Account, Preservation - Mitigation-Tidal ( 75 acr @ \$200,000/acr )				15,000,000
06 Account, Preservation - Mitigation-Non-Tidal ( 210 acr @ \$5,500/acr )				1,155,000
				<u>\$610,619,217</u>
30 Account, Plan, Engr.& Design			@ <b>8.0%</b>	<u>48,849,537</u> \$659,468,755
31 Account, Constr. Management			@ <b>6.0%</b>	<u>39,568,125</u> \$699,036,880
ESCALATION			@ <b>0.0%</b>	<u>0</u> \$ 699,036,880 rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 699,000,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **16**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Ring Levee - elev. 30** **Option "B"**  
**Pascagoula / Moss Point**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$9,660,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	91,281	sy	4.50	410,765
8" Water line removal	28,345	lf	8.00	226,760
6" Sewer line removal	28,345	lf	8.00	226,760
2" Gas line removal	28,345	lf	3.00	85,035
Electric line removal - 3 phase 1440v	28,345	lf	11.00	311,795
24" Storm Drain removal	28,345	lf	11.00	311,795
Demolished structures (avg. 1,500 sf/ea @ 557 ea)	835,500	cy	3.00	2,506,500
Disposal Fee - off site	30,944	cy	2.50	77,361
Misc Removal	1	job	allow	10,000
<b>NEW WORK:</b>				
Compacted Fill (levee) off-site borrow	7,997,069	cy	15.00	119,956,035
New Asphalt 2" (Cross overs) 1,349 cy figure 2.0 tons/cy	2,698	ton	70.00	188,860
Base material 12" (cross overs)	8,091	cy	34.50	279,140
Riprap (12")	516,876	cy	90.00	46,518,840
24 " gabion mattress cages, galv-pvc type	1,705,692	sy	32.00	54,582,144
Filter Fabric	1,705,692	sy	2.00	3,411,384
Grassing (seed, mulch, topsoil)	187	acres	2,150	402,050
Clearing and Grubbing, off-site disposal	562	acres	5,000	2,810,000
Crushed Aggregate 6" Thick(Levee wearing surface)	23,860	cy	45.00	1,073,700
New 8" Water line	15,135	lf	41	620,535
New 6" Sewer Line	15,135	lf	48	726,480
New 2"Gas Line	15,135	lf	20	302,700
New Electrical Line - 3 phase 1440v	15,135	lf	44.00	665,940
New 24" Storm Drain	15,135	lf	68.00	1,029,180
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	79	pass-thrus		38,767,028
<b>Concrete Box Culverts</b>	26,958	cy	700	18,870,600
#6 rebar (box culverts)	934	tons	925	863,950
Flap Gates (8w x 4h)	71	ea	28,800	2,044,800
Flap Gates (12w x 4h)	18	ea	43,200	777,600
Flap Gates (7w x 3h)	68	ea	18,900	1,285,200
Flap Gates (6w x 3h)	15	ea	16,200	243,000
Flap Gates (10w x 4h)	30	ea	36,000	1,080,000
Cutoff valves (8w x 4h)	71	ea	67,200	4,771,200
Cutoff valves (12w x 4h)	18	ea	100,800	1,814,400
<b>Subtotal</b>				<b>\$316,911,536</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>4</b>	OF	<b>16</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Jackson County</b>	<b>Option "B"</b>		
<b>Ring Levee - elev. 30</b>	<b>Pascagoula / Moss Point</b>		
	FILE NAME:	mscip-comprehensive-study-combined-cost-est-25jul08.xls	

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$316,911,536</b>
Cutoff valves (7w x 3h)	68	ea	44,100	2,998,800
Cutoff valves (6w x 3h)	15	ea	37,800	567,000
Cutoff valves (10w x 4h)	30	ea	84,000	2,520,000
Pump stations, 42" to 60" pump size (28 ea)				55,710,072
(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)				
Ditch Excavation	208,575	cy	12.00	2,502,900
Boat Gate, PG-1				14,917,980
(reference backup file for cost derivation)				
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	19,320,000
<b>Current Contract Cost, Oct 07</b>				<b>\$415,448,288</b>
CONTINGENCY		@	<b>25.0%</b>	<b>103,862,072</b>
				<b>\$519,310,360</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				<b>256,517,000</b>
06 Account, Preservation - Mitigation-Tidal ( 113 acr @ \$200,000/acr )				22,600,000
06 Account, Preservation - Mitigation-Non-Tidal ( 308 acr @ \$5,500/acr )				1,694,000
				<b>\$800,146,360</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<b>64,011,709</b>
				<b>\$864,158,068</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<b>51,849,484</b>
				<b>\$916,007,552</b>
ESCALATION		@	<b>0.0%</b>	<b>0</b>
				<b>\$ 916,007,552</b>
rounded				
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 916,000,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **5** OF **16**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: **info furnished per Project Delivery Team**  
**Jackson County** **Option "C"** FILE NAME: **mscip-comprehensive-study-combined-cost-est-25jul08.xls**  
**Ring Levee-Washington- elev. 20** **Pascagoula / Moss Point**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	5,420,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	62,707	sy	4.50	282,182
8" Water line removal	19,035	lf	8.00	152,280
6" Sewer line removal	19,035	lf	8.00	152,280
2" Gas line removal	19,035	lf	3.00	57,105
Electric line removal - 3 phase 1440v	19,035	lf	11.00	209,385
24" Storm Drain removal	19,035	lf	11.00	209,385
Demolished structures (avg. 1,500 sf/ea @ 580 ea)	870,000	sf	3.00	2,610,000
Disposal Fee - off site	32,222	cy	2.50	80,556
Misc Removal	1	job	allow	10,000
<b>NEW WORK:</b>				
Compacted Fill (levee)	2,609,183	cy	15.00	39,137,745
Compacted Fill (cross overs)	2,210	cy	15.00	33,150
New Asphalt 2" (Cross overs) 1,421 cy figure 2.0 tons/cy	2,842	ton	70.00	198,940
Base material 12" (cross overs)	8,526	cy	34.50	294,147
<b>Riprap (24")</b>	<b>581,405</b>	<b>cy</b>	<b>90.00</b>	<b>52,326,450</b>
24 " gabion mattress cages, galv-pvc type	953,318	sy	32.00	30,506,176
Filter Fabric	959,318	sy	2.00	1,918,636
Grassing (seeding)	94	acres	2,150	202,100
Clearing and Grubbing, off-site disposal	377	acres	5,000	1,885,000
Crushed Aggregate 6" Thick(Levee wearing surface)	23,431	cy	45.00	1,054,395
Guardrail	2,670	lf	21.00	56,070
<b>Rdwy/RR Pass-Thrus</b> (reference backup file for cost derivation)	<b>76</b>	<b>pass-thrus</b>		<b>19,908,310</b>

New 8" Water line	10,935	lf	41	448,335
New 6" Sewer Line	10,935	lf	48	524,880
New 2" Gas Line	10,935	lf	20	218,700
New Electrical Line - 3 phase 1440v	10,935	lf	44.00	481,140
New 24" Storm Drain	10,935	lf	68.00	743,580
Concrete Box Culverts	26,415	cy	700	18,490,500
#6 rebar (box culverts)	913	tons	925	844,525
Flap Gates (8w x 4h)	48	ea	28,800	1,382,400
Flap Gates (12w x 4h)	38	ea	43,200	1,641,600
Flap Gates (7w x 3h)	63	ea	18,900	1,190,700
Flap Gates (6w x 3h)	3	ea	16,200	48,600
			<b>Subtotal</b>	<b>\$182,719,252</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>6</b>	OF	<b>16</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Gary A. Payton</b>
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: <b>info furnished per Project Delivery Team</b>		
<b>Jackson County</b>	<b>Option "C"</b>		
<b>Ring Levee-Washington- elev. 20</b>	<b>Pascagoula / Moss Point</b>		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$182,719,252</b>
Flap Gates (10w x 4h)	32	ea	36,000	1,152,000
Cutoff valves (8w x 4h)	48	ea	67,200	3,225,600
Cutoff valves (12w x 4h)	38	ea	100,800	3,830,400
Cutoff valves (7w x 3h)	63	ea	67,200	4,233,600
Cutoff valves (6w x 3h)	3	ea	37,800	113,400
Cutoff valves (10w x 4h)	32	ea	84,000	2,688,000
<b>Pump stations, 42" to 60" pump size (28 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)</b>				<b>21,725,635</b>
Ditch Excavation	198,076	cy	12.00	2,376,912
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	10,830,000
<b>Current Contract Cost, Oct 07</b>				<b>\$232,894,798</b>
CONTINGENCY		@	<b>25.0%</b>	<u>58,223,700</u>
				\$291,118,498
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				278,147,000
06 Account, Preservation - Mitigation-Tidal ( 81 acr @ \$200,000/acr )				16,200,000
06 Account, Preservation - Mitigation-Non-Tidal ( 213 acr @ \$5,500/acr )				1,171,500
				<u>\$586,661,998</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>46,932,960</u>
				\$633,594,957
31 Account, Constr. Management		@	<b>6.0%</b>	<u>38,015,697</u>
				\$671,610,655
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				\$ 671,610,655
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 671,600,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **7** OF **16**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: **info furnished per Project Delivery Team**  
**Jackson County** **Option "D"** FILE NAME: **mscip-comprehensive-study-combined-cost-est-25jul08.xls**  
**Ring Levee-Washington- elev. 30** **Pascagoula / Moss Point**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	7,800,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	91,547	sy	4.50	411,962
8" Water line removal	28,145	lf	8.00	225,160
6" Sewer line removal	28,145	lf	8.00	225,160
2" Gas line removal	28,145	lf	3.00	84,435
Electric line removal - 3 phase 1440v	28,145	lf	11.00	309,595
24" Storm Drain removal	28,145	lf	11.00	309,595
Demolished structures (avg. 1,500 sf/ea @ 685 ea)	1,027,500	sf	3.00	3,082,500
Disposal Fee - off site	38,056	cy	2.50	95,139
Misc Removal	1	job	allow	10,000
<b>NEW WORK:</b>				
Compacted Fill (levee)	7,739,200	cy	15.00	116,088,000
New Asphalt 2" (Cross overs) 1,421 cy figure 2.0 tons/cy	2,876	ton	70.00	201,320
Base material 12" (cross overs)	8,628	cy	34.50	297,666
Riprap (24")	507,933	cy	90.00	45,713,970
12 " gabion mattress cages, galv-pvc type	1,676,179	sy	16.00	26,818,864
Filter Fabric	1,676,179	sy	2.00	3,352,358
Grassing (seeding)	183	acres	2,150	393,450
Clearing and Grubbing, off-site disposal	553	acres	5,000	2,765,000
Crushed Aggregate 6" Thick(Levee wearing surface)	23,658	cy	45.00	1,064,610
Guardrail	2,670	lf	21.00	56,070
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	87	pass-thrus		42,707,625
New 8" Water line	16,335	lf	41	669,735
New 6" Sewer Line	16,335	lf	48	784,080
New 2" Gas Line	16,335	lf	20	326,700
New Electrical Line - 3 phase 1440v	16,335	lf	44.00	718,740
New 24" Storm Drain	16,335	lf	68.00	1,110,780
Concrete Box Culverts	26,415	cy	700	18,490,500
#6 rebar (box culverts)	913	tons	925	844,525
Flap Gates (8w x 4h)	48	ea	28,800	1,382,400
Flap Gates (12w x 4h)	38	ea	43,200	1,641,600
Flap Gates (7w x 3h)	63	ea	18,900	1,190,700
Flap Gates (6w x 3h)	3	ea	16,200	48,600
			<b>Subtotal</b>	<b>\$279,220,838</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>8</b>	OF	<b>16</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Gary A. Payton</b>
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: <b>info furnished per Project Delivery Team</b>		
<b>Jackson County</b>	<b>Option "D"</b>		
<b>Ring Levee-Washington- elev. 30</b>	<b>Pascagoula / Moss Point</b>		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
			<b>Subtotal, brought forward</b>	<b>\$279,220,838</b>
Flap Gates (10w x 4h)	32	ea	36,000	1,152,000
Cutoff valves (8w x 4h)	48	ea	67,200	3,225,600
Cutoff valves (12w x 4h)	38	ea	100,800	3,830,400
Cutoff valves (7w x 3h)	63	ea	67,200	4,233,600
Cutoff valves (6w x 3h)	3	ea	37,800	113,400
Cutoff valves (10w x 4h)	32	ea	84,000	2,688,000
<b>Pump stations, 42" to 60" pump size (28 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)</b>				<b>22,932,896</b>
Ditch Excavation	198,076	cy	12.00	2,376,912
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	15,600,000
			<b>Current Contract Cost, Oct 07</b>	<b>\$335,373,647</b>
CONTINGENCY		@	<b>25.0%</b>	<u>83,843,412</u>
				<b>\$419,217,058</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				<b>297,899,000</b>
06 Account, Preservation - Mitigation-Tidal ( 118 acr @ \$200,000/acr )				23,600,000
06 Account, Preservation - Mitigation-Non-Tidal ( 308 acr @ \$5,500/acr )				1,694,000
				<u>\$742,435,058</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>59,394,805</u>
				<b>\$801,829,863</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>48,109,792</u>
				<b>\$849,939,655</b>
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				<b>\$ 849,939,655</b>
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 849,900,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>9</b>	OF	<b>16</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Gary A. Payton</b>
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: <b>info furnished per Project Delivery Team</b>		
<b>Jackson County</b>	<b>Option "E"</b>		
<b>Ring Levee - Moss Pt. - elev. 20</b>	FILE NAME: <b>mscip-comprehensive-study-combined-cost-est-25jul08.xls</b>		
	<b>Pascagoula / Moss Point</b>		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	4,370,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	67,895	sy	4.50	305,528
8" Water line removal	17,550	lf	8.00	140,400
6" Sewer line removal	17,550	lf	8.00	140,400
2" Gas line removal	17,550	lf	3.00	52,650
Electric line removal - 3 phase 1440v	17,550	lf	11.00	193,050
24" Storm Drain removal	17,550	lf	11.00	193,050
Demolished structures (avg. 1,500 sf/ea @ 482 ea)	723,000	sf	3.00	2,169,000
Disposal Fee - off site	26,778	cy	2.50	66,944
Misc Removal	1	job	allow	10,000
<b>NEW WORK:</b>				
Compacted Fill (levee) 105,085LF	1,694,854	cy	15.00	25,422,810
Compacted Fill (cross overs)	22,032	cy	15.00	330,480
New Asphalt 2" (Cross overs) 2148 cy <span style="margin-left: 20px;">figure 2.0 tons/cy</span>	4,296	ton	70.00	300,720
Base material 12" (cross overs)	12,884	cy	34.50	444,498
<b>Riprap (24")</b>	<b>440,512</b>	<b>cy</b>	<b>90.00</b>	<b>39,646,080</b>
24" gabion mattress cages	726,844	sy	32.00	23,259,008
Filter Fabric	726,844	sy	2.00	1,453,688
Grassing (seeding)	65	acres	2,150	139,750
Clearing and Grubbing, off-site disposal	285	acres	5,000	1,425,000
Crushed Aggregate 6" Thick(Levee wearing surface)	19,318	cy	45.00	869,310
Guardrail	18,270	lf	21.00	383,670
<b>Rdwy/RR Pass-Thrus</b> <span style="margin-left: 20px;">(reference backup file for cost derivation)</span>	<b>43</b>	<b>pass-thrus</b>		<b>11,861,400</b>
New 8" Water line	10,415	lf	41	427,015
New 6" Sewer Line	10,415	lf	48	499,920
New 2"Gas Line	10,415	lf	20	208,300
New Electrical Line - 3 phase 1440v	10,415	lf	44.00	458,260
New 24" Storm Drain	10,415	lf	68.00	708,220
Concrete Box Culverts	14,540	cy	700	10,178,000
#6 rebar (box culverts)	502	tons	925	464,350
Flap Gates (10w x 4h)	50	ea	36,000	1,800,000
Flap Gates (7w x 3h)	51	ea	18,900	963,900
Flap Gates 6w x 3h)	15	ea	16,200	243,000
Flap Gates (8w x 4h)	41	ea	28,800	1,180,800
			<b>Subtotal</b>	<b>\$130,309,200</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>10</b>	OF	<b>16</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Gary A. Payton</b>
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: <b>info furnished per Project Delivery Team</b>		
<b>Jackson County</b>	<b>Option "E"</b>		
<b>Ring Levee - Moss Pt. - elev. 20</b>	<b>Pascagoula / Moss Point</b>		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$130,309,200</b>
Flap Gates (6w x 4h)	9	ea	21,600	194,400
Flap Gates (5w x 3h)	3	ea	13,500	40,500
Flap Gates (7w x 4h)	5	ea	58,800	294,000
Cutoff valves (10w x 4h)	50	ea	84,000	4,200,000
Cutoff valves (7w x 3h)	51	ea	44,100	2,249,100
Cutoff valves (6w x 3h)	15	ea	37,800	567,000
Cutoff valves (8w x4h)	41	ea	67,200	2,755,200
Cutoff valves (6w x 4h)	9	ea	50,400	453,600
Cutoff valves (5w x3h)	3	ea	31,500	94,500
Cutoff valves (7w x 4h)	5	ea	58,800	294,000
Pump stations, 42" to 60" pump size (28 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)				\$22,931,722
Ditch Excavation	166,696	cy	12.00	2,000,352
Boat Gate, PG-1				12,920,900
(reference backup file for cost derivation)				
AATF, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	8,740,000
<b>Current Contract Cost, Oct 07</b>				<b>\$188,044,474</b>
CONTINGENCY @ <b>25.0%</b>				<u>47,011,119</u>
				<b>\$235,055,593</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				520,145,000
06 Account, Preservation - Mitigation-Tidal ( 40 acr @ \$200,000/acr )				8,000,000
06 Account, Preservation - Mitigation-Non-Tidal ( 100 acr @ \$5,500/acr )				550,000
				<u>\$763,775,593</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>61,102,047</u>
				<b>\$824,877,640</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>49,492,658</u>
				<b>\$874,370,298</b>
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				<b>\$ 874,370,298</b>
				rounded

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 874,400,000</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>11</b>	OF	<b>16</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED: <b>Gary A. Payton</b>	
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: <b>info furnished per Project Delivery Team</b>		
<b>Jackson County</b>	<b>Option "F"</b>		
<b>Ring Levee - Moss Pt. - elev. 30</b>	FILE NAME: <b>mscip-comprehensive-study-combined-cost-est-25jul08.xls</b>		
	<b>Pascagoula / Moss Point</b>		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	6,300,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	80,341	sy	4.50	361,535
8" Water line removal	24,130	lf	8.00	193,040
6" Sewer line removal	24,130	lf	8.00	193,040
2" Gas line removal	24,130	lf	3.00	72,390
Electric line removal - 3 phase 1440v	24,130	lf	11.00	265,430
24" Storm Drain removal	24,130	lf	11.00	265,430
Demolished structures (avg. 1,500 sf/ea @ 580 ea)	870,000	sf	3.00	2,610,000
Disposal Fee - off site	32,222	cy	2.50	80,556
Misc Removal	1	job	allow	10,000
<b>NEW WORK:</b>				
Compacted Fill (levee) 105,085LF	5,526,049	cy	15.00	82,890,735
New Asphalt 2" (Cross overs) 1223 cy figure 2.0 tons/cy	2,446	ton	70.00	171,220
Base material 12" (cross overs)	7,335	cy	34.50	253,058
<b>Riprap (24")</b>	<b>340,971</b>	<b>cy</b>	<b>90.00</b>	<b>30,687,390</b>
12 " gabion mattress cages	1,125,204	sy	16.00	18,003,264
Filter Fabric	1,125,204	sy	2.00	2,250,408
Grassing (seeding)	139	acres	2,150	298,850
Clearing and Grubbing, off-site disposal	431	acres	5,000	2,155,000
Crushed Aggregate 6" Thick(Levee wearing surface)	19,460	cy	45.00	875,704
		lf	21.00	0
<b>Rdwy/RR Pass-Thrus</b> (reference backup file for cost derivation)	<b>75</b>	<b>pass-thrus</b>		<b>41,132,875</b>
New 8" Water line	12,555	lf	41	514,755
New 6" Sewer Line	12,555	lf	48	602,640
New 2"Gas Line	12,555	lf	20	251,100
New Electrical Line - 3 phase 1440v	12,555	lf	44.00	552,420
New 24" Storm Drain	12,555	lf	68.00	853,740
Concrete Box Culverts	14,540	cy	700	10,178,000
#6 rebar (box culverts)	502	tons	925	464,350
Flap Gates (10w x 4h)	50	ea	36,000	1,800,000
Flap Gates (7w x 3h)	51	ea	18,900	963,900
Flap Gates 6w x 3h)	15	ea	16,200	243,000
Flap Gates (8w x 4h)	41	ea	28,800	1,180,800
			<b>Subtotal</b>	<b>\$206,674,628</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi Coastal Improvements Program "MsCIP"** SHEET NO. **12** OF **16**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: **info furnished per Project Delivery Team**  
**Jackson County** **Option "F"** FILE NAME: **mscip-comprehensive-study-combined-cost-est-25jul08.xls**  
**Ring Levee - Moss Pt. - elev. 30** **Pascagoula / Moss Point**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$206,674,628</b>
Flap Gates (6w x 4h)	9	ea	21,600	194,400
Flap Gates (5w x 3h)	3	ea	13,500	40,500
Flap Gates (7w x 4h)	5	ea	58,800	294,000
Cutoff valves (10w x 4h)	50	ea	84,000	4,200,000
Cutoff valves (7w x 3h)	51	ea	44,100	2,249,100
Cutoff valves (6w x 3h)	15	ea	37,800	567,000
Cutoff valves (8w x4h)	41	ea	67,200	2,755,200
Cutoff valves (6w x 4h)	9	ea	50,400	453,600
Cutoff valves (5w x3h)	3	ea	31,500	94,500
Cutoff valves (7w x 4h)	5	ea	58,800	294,000
<b>Pump stations, 42" to 60" pump size (28 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)</b>				<b>23,790,218</b>
Ditch Excavation	166,696	cy	12.00	2,000,352
Boat Gate, PG-1 (reference backup file for cost derivation)				14,917,980
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	12,600,000
<b>Current Contract Cost, Oct 07</b>				<b>\$271,125,478</b>
CONTINGENCY		@	<b>25.0%</b>	<u>67,781,369</u>
				<b>\$338,906,847</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				<b>533,059,000</b>
06 Account, Preservation - Mitigation-Tidal ( 61 acr @ \$200,000/acr )				12,200,000
06 Account, Preservation - Mitigation-Non-Tidal ( 158 acr @ \$5,500/acr )				869,000
				<u>\$885,059,847</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>70,804,788</u>
				<b>\$955,864,635</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>57,351,878</u>
				<b>\$1,013,216,513</b>
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				<b>\$ 1,013,216,513</b>
				rounded

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

**TOTAL PROJECT COST, Oct 07**    **\$ 1,013,200,000**

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **13** OF **16**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: **info furnished per Project Delivery Team**  
**Jackson County** **Option "G"** FILE NAME: **mscip-comprehensive-study-combined-cost-est-25jul08.xls**  
**Ring Levee- Moss/Wash - elev. 20** **Pascagoula / Moss Point**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	4,110,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	67,800	sy	4.50	305,100
8" Water line removal	17,415	lf	8.00	139,320
6" Sewer line removal	17,415	lf	8.00	139,320
2" Gas line removal	17,415	lf	3.00	52,245
Electric line removal - 3 phase 1440v	17,415	lf	11.00	191,565
24" Storm Drain removal	17,415	lf	11.00	191,565
Demolished structures (avg. 1,500 sf/ea @ 482 ea)	870,000	sf	3.00	2,610,000
Disposal Fee - off site	32,222	cy	2.50	80,556
Misc Removal	1	job	allow	10,000
<b>NEW WORK:</b>				
Compacted Fill (levee) 105,085LF	1,561,061	cy	15.00	23,415,915
Compacted Fill (cross overs)	22,033	cy	15.00	330,495
New Asphalt 2" (Cross overs) 2222 cy figure 2.0 tons/cy	4,444	ton	70.00	311,080
Base material 12" (cross overs)	13,332	cy	34.50	459,954
<b>Riprap (24")</b>	<b>427,490</b>	<b>cy</b>	<b>90.00</b>	<b>38,474,100</b>
12 " gabion mattress cages	705,358	sy	16.00	11,285,728
Filter Fabric	705,358	sy	2.00	1,410,716
Grassing (seeding)	63	acres	2,150	135,450
Clearing and Grubbing, off-site disposal	274	acres	5,000	1,370,000
Crushed Aggregate 6" Thick(Levee wearing surface)	18,932	cy	45.00	851,940
Guardrail	18,270	lf	21.00	383,670
<b>Rdwy/RR Pass-Thrus</b> (reference backup file for cost derivation)	<b>48</b>	<b>pass-thrus</b>		<b>14,130,550</b>
New 8" Water line	10,415	lf	41	427,015
New 6" Sewer Line	10,415	lf	48	499,920
New 2"Gas Line	10,415	lf	20	208,300
New Electrical Line - 3 phase 1440v	10,415	lf	44.00	458,260
New 24" Storm Drain	10,415	lf	68.00	708,220
Concrete Box Culverts	14,326	cy	700	10,028,200
#6 rebar (box culverts)	493	tons	925	456,025
Flap Gates (10w x 4h)	35	ea	36,000	1,260,000
Flap Gates (7w x 3h)	46	ea	18,900	869,400
Flap Gates 7w x 4h)	5	ea	25,200	126,000
Flap Gates 6w x 3h)	5	ea	16,200	81,000
			<b>Subtotal</b>	<b>\$115,511,608</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>14</b>	OF	<b>16</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Gary A. Payton</b>
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: <b>info furnished per Project Delivery Team</b>		
<b>Jackson County</b>	<b>Option "G"</b>		
<b>Ring Levee- Moss/Wash - elev. 20</b>	<b>Pascagoula / Moss Point</b>		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
			<b>Subtotal, brought forward</b>	<b>\$115,511,608</b>
Flap Gates (6w x 4h)	9	ea	21,600	194,400
Flap Gates (8w x 4h)	41	ea	28,800	1,180,800
Flap Gates (12w x 4h)	20	ea	100,800	2,016,000
Flap Gates (5w x 3h)	3	ea	31,500	94,500
Cutoff valves (10w x 4h)	35	ea	84,000	2,940,000
Cutoff valves (7w x 3h)	46	ea	44,100	2,028,600
Cutoff valves (7w x 4h)	5	ea	58,800	294,000
Cutoff valves (6w x 3h)	5	ea	37,800	189,000
Cutoff valves (6w x 4h)	9	ea	50,400	453,600
Cutoff valves (8w x 4h)	41	ea	67,200	2,755,200
Cutoff valves (12w x 4h)	20	ea	100,800	2,016,000
Cutoff valves (5w x 3h)	3	ea	31,500	94,500
<b>Pump stations, 42" to 60" pump size (28 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)</b>				<b>36,970,904</b>
Ditch Excavation	156,197	cy	12.00	1,874,364
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	8,220,000
			<b>Current Contract Cost, Oct 07</b>	<b>\$176,833,476</b>
CONTINGENCY		@	<b>25.0%</b>	<u>44,208,369</u>
				\$221,041,845
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				574,040,000
06 Account, Preservation - Mitigation-Tidal ( 46 acr @ \$200,000/acr )				9,200,000
06 Account, Preservation - Mitigation-Non-Tidal ( 106 acr @ \$5,500/acr )				583,000
				<u>\$804,889,845</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>64,391,188</u>
				\$869,281,033
31 Account, Constr. Management		@	<b>6.0%</b>	<u>52,156,862</u>
				\$921,437,894
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				\$ 921,437,894
				rounded

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 921,400,000</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **15** OF **16**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: **info furnished per Project Delivery Team**  
**Jackson County** **Option "H"** FILE NAME: **mscip-comprehensive-study-combined-cost-est-25jul08.xls**  
**Ring Levee- Moss/Wash - elev. 30** **Pascagoula / Moss Point**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	6,040,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	80,608	sy	4.50	362,736
8" Water line removal	20,930	lf	8.00	167,440
6" Sewer line removal	20,930	lf	8.00	167,440
2" Gas line removal	20,930	lf	3.00	62,790
Electric line removal - 3 phase 1440v	20,930	lf	11.00	230,230
24" Storm Drain removal	20,930	lf	11.00	230,230
Demolished structures (avg. 1,500 sf/ea @ 584 ea)	870,000	sf	3.00	2,610,000
Disposal Fee - off site	32,222	cy	2.50	80,556
Misc Removal	1	job	allow	10,000
<b>NEW WORK:</b>				
Compacted Fill (levee) 105,085LF	5,227,529	cy	15.00	78,412,935
New Asphalt 2" (Cross overs) 1312 cy figure 2.0 tons/cy	2,624	ton	70.00	183,680
Base material 12" (cross overs)	7,869	cy	34.50	271,481
<b>Riprap (24")</b>	<b>332,616</b>	<b>cy</b>	<b>90.00</b>	<b>29,935,440</b>
12 " gabion mattress cages	1,097,633	sy	16.00	17,562,128
Filter Fabric	1,097,633	sy	2.00	2,195,266
Grassing (seeding)	136	acres	2,150	292,400
Clearing and Grubbing, off-site disposal	416	acres	5,000	2,080,000
Crushed Aggregate 6" Thick(Levee wearing surface)	19,075	cy	45.00	858,375
<b>Rdwy/RR Pass-Thrus</b> (reference backup file for cost derivation)	<b>79</b>	<b>pass-thrus</b>		<b>36,085,597</b>
New 8" Water line	12,500	lf	41	512,500
New 6" Sewer Line	12,500	lf	48	600,000
New 2"Gas Line	12,500	lf	20	250,000
New Electrical Line - 3 phase 1440v	12,500	lf	44.00	550,000
New 24" Storm Drain	12,500	lf	68.00	850,000
Concrete Box Culverts	14,326	cy	700	10,028,200
#6 rebar (box culverts)	493	tons	925	456,025
Flap Gates (10w x 4h)	35	ea	36,000	1,260,000
Flap Gates (7w x 3h)	46	ea	18,900	869,400
Flap Gates 7w x 4h)	5	ea	25,200	126,000
Flap Gates 6w x 3h)	5	ea	16,200	81,000
			<b>Subtotal</b>	<b>\$193,421,848</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>16</b>	OF	<b>16</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Gary A. Payton</b>
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: <b>info furnished per Project Delivery Team</b>		
<b>Jackson County</b>	<b>Option "H"</b>		
<b>Ring Levee- Moss/Wash - elev. 30</b>	<b>Pascagoula / Moss Point</b>		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$193,421,848</b>
Flap Gates (6w x 4h)	9	ea	21,600	194,400
Flap Gates (8w x 4h)	41	ea	28,800	1,180,800
Flap Gates (12w x 4h)	20	ea	100,800	2,016,000
Flap Gates (5w x 3h)	3	ea	31,500	94,500
Cutoff valves (10w x 4h)	35	ea	84,000	2,940,000
Cutoff valves (7w x 3h)	46	ea	44,100	2,028,600
Cutoff valves (7w x 4h)	5	ea	58,800	294,000
Cutoff valves (6w x 3h)	5	ea	37,800	189,000
Cutoff valves (6w x 4h)	9	ea	50,400	453,600
Cutoff valves (8w x 4h)	41	ea	67,200	2,755,200
Cutoff valves (12w x 4h)	20	ea	100,800	2,016,000
Cutoff valves (5w x 3h)	3	ea	31,500	94,500
<b>Pump stations, 42" to 60" pump size (28 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)</b>				<b>38,210,974</b>
Ditch Excavation	156,197	cy	12.00	1,874,364
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	12,080,000
<b>Current Contract Cost, Oct 07</b>				<b>\$259,843,786</b>
CONTINGENCY		@	<b>25.0%</b>	<u>64,960,946</u>
				\$324,804,732
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				<b>584,742,000</b>
06 Account, Preservation - Mitigation-Tidal ( 67 acr @ \$200,000/acr )				13,400,000
06 Account, Preservation - Mitigation-Non-Tidal ( 164 acr @ \$5,500/acr )				902,000
				<u>\$923,873,732</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>73,909,899</u>
				\$997,783,631
31 Account, Constr. Management		@	<b>6.0%</b>	<u>59,867,018</u>
				\$1,057,650,649
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				\$ 1,057,650,649
				rounded

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 1,057,700,000</b>
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## COMPREHENSIVE STUDY " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Mike Mckown**  
 WORK ITEM: **FORREST HEIGHTS LEVEE, EL 17** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$50,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	500	sy	4.50	2,250
8" Water line removal	100	lf	8.00	800
6" Sewer line removal	100	lf	8.00	800
2" Gas line removal	100	lf	3.00	300
Electrical line removal - 3 phase 1440v	150	lf	11.00	1,650
24" Storm Drain removal	100	lf	11.00	1,100
Demolished structures (avg. 1,500 sf/ea @ 2 ea)	3,000	sf	3.00	9,000
Disposal Fee - off site	111	cy	2.50	278
<b>NEW WORK:</b>				
Compacted Fill (levee)	13,300	cy	15.00	199,500
New Asphalt 2" (Cross overs) 134 cy figure 2.0 tons/cy	15	tons	70.00	1,050
Base material 12" (cross overs)	50	cy	34.50	1,725
Riprap (12")	170	cy	90.00	15,300
Grouted Riprap	125	cy	160.00	20,000
Filter Fabric	500	sy	2.00	1,000
Grassing (seeding)	10	acres	2,150	21,500
Clearing and Grubbing, off-site disposal	5	acres	5,000	25,000
Crushed Aggregate 6" Thick(Levee wearing surface)	1,000	cy	45.00	45,000
Selective Clearing and Snagging, soil removal and disposal	220	cy	20.00	4,400
Clearing and Snagging (from mouth of Turkey Creek upstream)	5	miles	25,000	112,500
New 8" Water line	100	lf	41	4,100
New 6" Sewer Line	100	lf	48	4,800
New 2"Gas Line	100	lf	20	2,000
New Electrical Line - 3 phase 1440v	150	lf	44.00	6,600
New 24" Storm Drain	100	lf	68.00	6,800
<b>Pump Stations:</b>				
Structural Concrete, complete all sites	194	cy	700	135,800
Form Work, complete all sites	4,996	sf	7	32,474
Steel Reinforcement, complete all sites	12	tons	925	11,141
Excavation	300	cy	15	4,500
Backfill	233	cy	5	1,165
Trash Screens and Miscellaneous metal items, All Sites	2	each	100,000	200,000
Pumps by Installation Site P-1 Pumps	2	each	222,200	444,400
Discharge Piping(42" Dia; 154 lf)	1	job	30,800	30,800
Energy Dissipation	1	job	allow	90,000
Electrical	2	ea	242,100	484,200
<b>Subtotal</b>			<b>\$</b>	<b>1,971,932</b>



## COMPREHENSIVE STUDY " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Mike Mckown**  
 WORK ITEM: **FORREST HEIGHTS LEVEE, EL 21** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$120,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	700	sy	4.50	3,150
8" Water line removal	150	lf	8.00	1,200
6" Sewer line removal	150	lf	8.00	1,200
2" Gas line removal	150	lf	3.00	450
Electric line removal - 3 phase 1440v	175	lf	11.00	1,925
24" Storm Drain removal	125	lf	11.00	1,375
Demolished structures (avg. 1,500 sf/ea @ 2 ea)	3,000	sf	3.00	9,000
Disposal Fee - off site	111	cy	2.50	278
<b>NEW WORK:</b>				
Compacted Fill (levee)	51,000	cy	15.00	765,000
Vinyl Sheetpiling	39,550	sf	25.00	988,750
New Asphalt 2" (at Tunnels) 134 cy <span style="margin-left: 20px;">figure 2.0 tons/cy</span>	20	tons	70.00	1,400
Base material 12" (cross overs)	100	cy	34.50	3,450
Riprap (12")	170	cy	90.00	15,300
Grouted Riprap	125	cy	160.00	20,000
Filter Fabric	500	sy	2.00	1,000
Grassing (seeding)	10	acres	2,150	21,500
Clearing and Grubbing, off-site disposal	10	acres	5,000	50,000
Crushed Aggregate 6" Thick(Levee wearing surface)	2,000	cy	45.00	90,000
Selective Clearing and Snagging, soil removal and disposal	220	cy	20.00	4,400
Clearing and Snagging (from mouth of Turkey Creek upstream)	5	miles	25,000	112,500
New 8" Water line	150	lf	41	6,150
New 6" Sewer Line	150	lf	48	7,200
New 2"Gas Line	150	lf	20	3,000
New Electrical Line - 3 phase 1440v	175	lf	44.00	7,700
New 24" Storm Drain	125	lf	68.00	8,500
<b>Pump Stations:</b>				
Structural Concrete, complete all sites	194	cy	700	135,800
Form Work, complete all sites	4,996	sf	7	32,474
Steel Reinforcement, complete all sites	12	tons	925	11,141
Excavation	300	cy	15	4,500
Backfill	233	cy	5	1,165
Trash Screens and Miscellaneous metal items, All Sites	2	each	100,000	200,000
Pumps by Installation Site <span style="margin-left: 20px;">P-1</span> Pumps	2	each	222,200	444,400
Discharge Piping(42" Dia; 154 lf)	1	job	30,800	30,800
Energy Dissipation	1	job	allow	90,000
Electrical	2	ea	242,100	484,200
<b>Subtotal \$</b>				<b>3,678,907</b>

## COMPREHENSIVE STUDY " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **4** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Mike Mckown**  
 WORK ITEM: **FORREST HEIGHTS LEVEE, EL 21** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>3,678,907</b>
Concrete Box Culvert (5 ea) 4'x3'	155	cy	900	139,500
Flap Gates (4w x 3h)	5	ea	13,500	67,500
Cutoff valves (4w x 3h)	5	ea	31,500	157,500
Ditch Excavation	2,500	cy	12.00	30,000
<b><u>EAST WALL</u></b>				
Concrete Wall	1,826	cy	700	1,278,200
Structural Steel Gates	6	tons	4,800	28,800
#6 rebar (box culverts)	49	tons	925	45,325
Misc. removals at Russell Blvd Entrance	1	job	allow	10,000
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	246,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 5,681,732</b>
CONTINGENCY @ <b>25.0%</b>				<u>1,420,433</u>
				<b>\$ 7,102,166</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	2,649,000
06 Account, Preservation - Mitigation-Non-Tidal ( 19.85 acr @ \$5,500/acr+ admin+25% cont)				<u>220,844</u>
				<b>\$ 9,997,010</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>799,761</u>
				<b>\$ 10,796,770</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>647,806</u>
				<b>\$ 11,444,577</b>
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				<b>\$ 11,444,577</b>
				rounded

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$</b>	<b>11,400,000</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Ring Levee - elev. 20** **Option "A"**  
**Pearlington**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,540,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	14,014	sy	4.50	63,063
8" Water line removal	4,960	lf	8.00	39,680
6" Sewer line removal	4,960	lf	8.00	39,680
2" Gas line removal	4,960	lf	3.00	14,880
Electrical line removal - 3 phase 1440v	4,960	lf	11.00	54,560
24" Storm Drain removal	4,960	lf	11.00	54,560
Demolished structures (avg. 1,500 sf/ea @ 28 ea)	42,000	sf	3.00	126,000
Disposal Fee - off site	1,556	cy	2.50	3,889
<b>NEW WORK:</b>				
Compacted Fill (levee)	786,911	cy	15.00	11,803,665
New Asphalt 2" (Cross overs) 134 cy figure 2.0 tons/cy	268	tons	70.00	18,760
Base material 12" (cross overs)	800	cy	34.50	27,600
<b>Riprap (24")</b>	<b>147,330</b>	<b>cy</b>	<b>90.00</b>	<b>13,259,700</b>
24 " gabion mattress cages, galv-pvc type	265,194	sy	32.00	8,486,208
Filter Fabric	265,194	sy	2.00	530,388
Grassing (seeding)	27	acres	2,150	58,050
Clearing and Grubbing, off-site disposal	93	acres	5,000	465,000
Crushed Aggregate 6" Thick(Levee wearing surface)	5,124	cy	45.00	230,580
New 8" Water line	1,395	lf	41	57,195
New 6" Sewer Line	1,395	lf	48	66,960
New 2"Gas Line	1,395	lf	20	27,900
New Electrical Line - 3 phase 1440v	1,395	lf	44.00	61,380
New 24" Storm Drain	1,395	lf	68.00	94,860
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	9	pass-thrus		3,186,197
Concrete Box Culverts	2,224	cy	700	1,556,800
#6 rebar (box culverts)	78	tons	925	72,150
<b>Subtotal \$</b>				<b>41,939,705</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** **Option "A"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Ring Levee - elev. 20** **Pearlington**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>41,939,705</b>
Flap Gates (6w x 3h)	13	ea	16,200	210,600
Flap Gates (5w x 3h)	8	ea	13,500	108,000
Flap Gates (10w x 4h)	14	ea	36,000	504,000
Flap Gates (8w x 4h)	2	ea	28,800	57,600
Cutoff valves (6w x3h)	13	ea	37,800	491,400
Cutoff valves (5w x3h)	8	ea	31,500	252,000
Cutoff valves (10w x4h)	14	ea	84,000	1,176,000
Cutoff valves (8w x4h)	2	ea	67,200	134,400
Pump stations, 42" to 60" pump size (6 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			17,755,717
Ditch Excavation	26,000	cy	12.00	312,000
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	3,070,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 66,011,422</b>
CONTINGENCY @ <b>25.0%</b>				<u>16,502,856</u>
				<b>\$ 82,514,278</b>
01 Account, Lands & Damage PCA <b>LS</b>				25,000
01 Account, Lands & Damage (land + admin + 25% contingency) <b>LS</b>				8,883,133
06 Account, Preservation - Mitigation-Tidal ( 0 acr @ \$200,000/acr )				0
06 Account, Preservation - Mitigation-Non-Tidal ( 27 acr @ \$5,500/acr )				148,500
				<u>\$ 91,570,911</u>
30 Account, Plan, Engr.& Design @ <b>8.0%</b>				<u>7,325,673</u>
				<b>\$ 98,896,584</b>
31 Account, Constr. Management @ <b>6.0%</b>				<u>5,933,795</u>
				<b>\$ 104,830,379</b>
ESCALATION @ <b>0.0%</b>				<u>0</u>
				<b>\$ 104,830,379</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 104,800,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** **Option "B"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Ring Levee - elev. 30** **Pearlington**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,770,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	18,974	sy	4.50	85,383
8" Water line removal	6,880	lf	8.00	55,040
6" Sewer line removal	6,880	lf	8.00	55,040
2" Gas line removal	6,880	lf	3.00	20,640
Electric line removal - 3 phase 1440v	6,880	lf	11.00	75,680
24" Storm Drain removal	6,880	lf	11.00	75,680
Demolished structures (avg. 1,500 sf/ea @ 30 ea)	45,000	sf	3.00	135,000
Disposal Fee - off site	1,667	cy	2.50	4,167
<b>NEW WORK:</b>				
Compacted Fill (levee)	1,266,791	cy	15.00	19,001,865
New Asphalt 2" (at Tunnels) 134 cy figure 2.0 tons/cy	268	tons	70.00	18,760
Base material 12" (cross overs)	800	cy	34.50	27,600
<b>Riprap (12")</b>	<b>105,379</b>	<b>cy</b>	<b>90.00</b>	<b>9,484,110</b>
24 " gabion mattress cages, galv-pvc type	347,750	sy	32.00	11,128,000
Filter Fabric	347,750	sy	2.00	695,500
Grassing (seeding)	47	acres	2,150	101,050
Clearing and Grubbing, off-site disposal	131	acres	5,000	655,000
Crushed Aggregate 6" Thick(Levee wearing surface)	5,124	cy	45.00	230,580
New 8" Water line	1,935	lf	41	79,335
New 6" Sewer Line	1,935	lf	48	92,880
New 2"Gas Line	1,935	lf	20	38,700
New Electrical Line - 3 phase 1440v	1,935	lf	44.00	85,140
New 24" Storm Drain	1,935	lf	68.00	131,580
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	9	pass-thrus		5,048,096
Concrete Box Culverts	2,224	cy	700	1,556,800
#6 rebar (box culverts)	78	tons	925	72,150
<b>Subtotal \$</b>				<b>50,723,776</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>4</b>	OF	<b>4</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Hancock County</b>	<b>Option "B"</b>		
<b>Ring Levee - elev. 30</b>	<b>Pearlington</b>		
	FILE NAME:	mscip-comprehensive-study-combined-cost-est-25jul08.xls	

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>50,723,776</b>
Flap Gates (6w x 3h)	13	ea	16,200	210,600
Flap Gates (5w x 3h)	8	ea	13,500	108,000
Flap Gates (10w x 4h)	14	ea	36,000	504,000
Flap Gates (8w x 4h)	2	ea	28,800	57,600
Cutoff valves (6w x 3h)	13	ea	37,800	491,400
Cutoff valves (5w x 3h)	8	ea	31,500	252,000
Cutoff valves (10w x 4h)	14	ea	84,000	1,176,000
Cutoff valves (8w x 4h)	2	ea	67,200	134,400
Pump stations, 42" to 60" pump size (6 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			18,799,667
Ditch Excavation	26,000	cy	12.00	312,000
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	3,550,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 76,319,443</b>
CONTINGENCY		@	<b>25.0%</b>	19,079,861
				<b>\$ 95,399,304</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	9,340,242
06 Account, Preservation - Mitigation-Tidal ( 0 acr @ \$200,000/acr )				0
06 Account, Preservation - Mitigation-Non-Tidal ( 40 acr @ \$5,500/acr )				220,000
				<b>\$ 104,984,546</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	8,398,764
				<b>\$ 113,383,310</b>
31 Account, Constr. Management		@	<b>6.0%</b>	6,802,999
				<b>\$ 120,186,308</b>
ESCALATION		@	<b>0.0%</b>	0
				<b>\$ 120,186,308</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 120,200,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** **Option "A"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Ring Levee - elev. 20** **Ocean Springs**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,640,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	11,795	sy	4.50	53,078
8" Water line removal	3,915	lf	8.00	31,320
6" Sewer line removal	3,915	lf	8.00	31,320
2" Gas line removal	3,915	lf	3.00	11,745
Electrical line removal - 3 phase 1440v	3,915	lf	11.00	43,065
24" Storm Drain removal	3,915	lf	11.00	43,065
Demolished structures (avg. 1,500 sf/ea @ 83 ea)	124,500	sf	3.00	373,500
Disposal Fee - off site	4,611	cy	2.50	11,528
<b>NEW WORK:</b>				
Compacted Fill (levee)	292,692	cy	15.00	4,390,380
Compacted Fill (cross overs)	755	cy	15.00	11,324
New Asphalt 2" (Cross overs) 296 cy figure 2.0 tons/cy	592	tons	70.00	41,440
Base material 12" (cross overs)	1,777	cy	34.50	61,307
<b>Riprap (24")</b>	<b>79,047</b>	<b>cy</b>	<b>90.00</b>	<b>7,114,230</b>
24 " gabion mattress cages, galv-pvc type	130,428	sy	32.00	4,173,696
Filter Fabric	130,428	sy	2.00	260,856
Grassing (seeding)	12	acres	2,150	25,800
Clearing and Grubbing, off-site disposal	52	acres	5,000	260,000
Crushed Aggregate 6" Thick(Levee wearing surface)	3,526	cy	45.00	158,670
Guardrail	1,396	lf	21.00	29,316
New 8" Water line	2,430	lf	41	99,630
New 6" Sewer Line	2,430	lf	48	116,640
New 2"Gas Line	2,430	lf	20	48,600
New Electrical Line - 3 phase 1440v	2,430	lf	44.00	106,920
New 24" Storm Drain	2,430	lf	68.00	165,240
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	13	pass-thrus		\$3,666,357
Concrete Box Culverts	6,802	cy	700	4,761,400
#6 rebar (box culverts)	237	tons	925	219,225
<b>Subtotal \$</b>				<b>27,949,650</b>

## COMPREHENSIVE PLAN "STRUCTURAL" COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** **Option "A"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Ring Levee - elev. 20** **Ocean Springs**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>27,949,650</b>
Flap Gates (8w x 4h)	30	ea	28,800	864,000
Flap Gates (6w x 3h)	19	ea	16,200	307,800
Flap Gates (10w x 4h)	5	ea	36,000	180,000
Flap Gates (7w x 3h)	18	ea	18,900	340,200
Cutoff valves (8w x 4h)	30	ea	67,200	2,016,000
Cutoff valves (6w x 3h)	19	ea	37,800	718,200
Cutoff valves (10w x 4h)	5	ea	84,000	420,000
Cutoff valves (7w x 3h)	18	ea	44,100	793,800
Pump stations, 42" to 60" pump size (14 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)				33,461,226
Ditch Excavation	31,067	cy	12.00	372,804
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	3,290,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 70,713,680</b>
CONTINGENCY @ <b>25.0%</b>				<u>17,678,420</u>
				<b>\$ 88,392,101</b>
01 Account, Lands & Damage PCA <b>LS</b>				25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				43,608,937
06 Account, Preservation - Mitigation-Tidal ( 24 acr @ \$200,000/acr )				800,000
06 Account, Preservation - Mitigation-Non-Tidal ( 8 acr @ \$5,500/acr )				44,000
				<u>\$ 132,870,038</u>
30 Account, Plan, Engr.& Design @ <b>8.0%</b>				<u>10,629,603</u>
				<b>\$ 143,499,641</b>
31 Account, Constr. Management @ <b>6.0%</b>				<u>8,609,978</u>
				<b>\$ 152,109,619</b>
ESCALATION @ <b>0.0%</b>				<u>0</u>
				<b>\$ 152,109,619</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07 \$</b>				<b>152,100,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** *Option "B"* FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Ring Level - elev. 30** **Ocean Springs**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,940,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	41,814	sy	4.50	188,163
8" Water line removal	12,800	lf	8.00	102,400
6" Sewer line removal	12,800	lf	8.00	102,400
2" Gas line removal	12,800	lf	3.00	38,400
Electric line removal - 3 phase 1440v	12,800	lf	11.00	140,800
24" Storm Drain removal	12,800	lf	11.00	140,800
Demolished structures (avg. 1,500 sf/ea @ 312 ea)	468,000	sf	3.00	1,404,000
Disposal Fee - off site	17,333	cy	2.50	43,333
<b>NEW WORK:</b>				
Compacted Fill (levee)	1,508,200	cy	15.00	22,623,000
New Asphalt 2" (Cross overs) 193 cy figure 2.0 tons/cy	578	tons	70.00	40,460
Base material 12" (cross overs)	3,467	cy	34.50	119,612
<b>Riprap (12")</b>	<b>150,920</b>	<b>cy</b>	<b>90.00</b>	<b>13,582,800</b>
24 " gabion mattress cages, galv-pvc type	498,037	sy	32.00	15,937,184
Filter Fabric	498,037	sy	2.00	996,074
Grassing (seeding)	54	acres	2,150	116,100
Clearing and Grubbing, off-site disposal	192	acres	5,000	960,000
Crushed Aggregate 6" Thick(Levee wearing surface)	10,671	cy	45.00	480,195
New 8" Water line	5,120	lf	41	209,920
New 6" Sewer Line	5,120	lf	48	245,760
New 2"Gas Line	5,120	lf	20	102,400
New Electrical Line - 3 phase 1440v	5,120	lf	44.00	225,280
New 24" Storm Drain	5,120	lf	68.00	348,160
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	33	pass-thrus		12,942,407
Concrete Box Culverts	6,802	cy	700	4,761,400
#6 rebar (box culverts)	237	tons	925	219,225
<b>Subtotal \$</b>				<b>79,010,272</b>

## COMPREHENSIVE PLAN "STRUCTURAL" COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **4** OF **4**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** **Option "B"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Ring Level - elev. 30** **Ocean Springs**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>79,010,272</b>
Flap Gates (8w x 4h)	30	ea	28,800	864,000
Flap Gates (6w x 3h)	19	ea	16,200	307,800
Flap Gates (10w x 4h)	5	ea	28,800	144,000
Flap Gates (7w x 3h)	18	ea	18,900	340,200
Cutoff valves (8w x 4h)	30	ea	67,200	2,016,000
Cutoff valves (6w x 3h)	19	ea	37,800	718,200
Cutoff valves (10w x 4h)	5	ea	84,000	420,000
Cutoff valves (7w x 3h)	18	ea	44,100	793,800
Pump stations, 42" to 60" pump size (14 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)				35,707,123
Ditch Excavation	31,067	cy	12.00	372,804
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	5,890,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 126,584,199</b>
CONTINGENCY @ <b>25.0%</b>				<u>31,646,050</u>
				<b>\$ 158,230,249</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	119,542,130
06 Account, Preservation - Mitigation-Tidal ( 38 acr @ \$200,000/acr )				7,600,000
06 Account, Preservation - Mitigation-Tidal ( 38 acr @ \$5,500/acr )				<u>209,000</u>
				<b>\$ 285,606,379</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>22,848,510</u>
				<b>\$ 308,454,889</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>18,507,293</u>
				<b>\$ 326,962,182</b>
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				<b>\$ 326,962,182</b>
rounded				
<b>TOTAL PROJECT COST, Oct 07 \$</b>				<b>327,000,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.



## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>2</b>	OF	<b>4</b>
WORK ITEM: <b>Line of Defense 3</b>	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
<b>Jackson County</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Ring Levee - elev. 20</b>	<b>Option "A"</b>	FILE NAME:	mscip-comprehensive-study-combined-cost-est-25jul08.xls
	<b>Gautier</b>		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
			<b>Subtotal, brought forward \$</b>	<b>55,678,050</b>
Flap Gates (8w x 4h)	27	ea	28,800	777,600
Flap Gates (12w x 4h)	23	ea	43,200	993,600
Flap Gates (7w x 3h)	32	ea	18,900	604,800
Flap Gates (6w x 3h)	8	ea	16,200	129,600
Flap Gates (5w x 3h)	3	ea	13,500	40,500
Cutoff valves (8w x 4h)	27	ea	67,200	1,814,400
Cutoff valves (12w x 4h)	23	ea	100,800	2,318,400
Cutoff valves (7w x 3h)	32	ea	44,100	1,411,200
Cutoff valves (6w x 3h)	8	ea	37,800	302,400
Cutoff valves (5w x 3h)	3	ea	31,500	94,500
Pump stations, 42" to 60" pump size (11 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			40,264,191
Ditch Excavation	95,652	cy	12.00	1,147,824
Boat Gate, G-1, G-2, G-3, G-4, G-5	(reference backup file for cost derivation)			72,907,018
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	8,700,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 187,184,083</b>
CONTINGENCY		@	<b>25.0%</b>	46,796,021
				<b>\$ 233,980,103</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				56,976,607
06 Account, Preservation - Mitigation-Tidal ( 64 acr @ \$200,000/acr )				12,800,000
06 Account, Preservation - Mitigation-Non-Tidal ( 85 acr @ \$5,500/acr )				467,500
				<b>\$ 304,249,210</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	24,339,937
				<b>\$ 328,589,147</b>
31 Account, Constr. Management		@	<b>6.0%</b>	19,715,349
				<b>\$ 348,304,496</b>
ESCALATION		@	<b>0.0%</b>	0
				<b>\$ 348,304,496</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 348,300,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **4**  
 WORK ITEM: **Line of Defense 3** PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
**Jackson County** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Ring Levee - elev. 30** **Option "B"** FILE NAME: **mscip-comprehensive-study-combined-cost-est-25jul08.xls**  
**Gautier**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$5,750,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(cross overs)	34,948	sy	4.50	157,266
8" Water line removal	10,915	lf	8.00	87,320
6" Sewer line removal	10,915	lf	8.00	87,320
2" Gas line removal	10,915	lf	3.00	32,745
Electric line removal - 3 phase 1440v	10,915	lf	11.00	120,065
24" Storm Drain removal	10,915	lf	11.00	120,065
Demolished structures (avg. 1,500 sf/ea @ 161 ea)	241,500	sf	3.00	724,500
Disposal Fee - off site	8,944	cy	2.50	22,361
<b>NEW WORK:</b>				
Compacted Fill (levee)	2,781,994	cy	15.00	41,729,910
New Asphalt 2" (Cross overs) 430 cy figure 2.0 tons/cy	860	tons	70.00	60,200
Base material 12" (cross overs)	2,578	cy	34.50	88,941
Riprap (12")	178,264	cy	90.00	16,043,760
24 " gabion mattress cages, galv-pvc type	588,272	sy	32.00	18,824,704
Filter Fabric	588,272	sy	2.00	1,176,544
Grassing (seeding)	72	acres	2,150	154,800
Clearing and Grubbing, off-site disposal	228	acres	5,000	1,140,000
Crushed Aggregate 6" Thick(Levee wearing surface)	10,587	cy	45.00	476,415
New 8" Water line	4,595	lf	41	188,395
New 6" Sewer Line	4,595	lf	48	220,560
New 2"Gas Line	4,595	lf	20	91,900
New Electrical Line - 3 phase 1440v	4,595	lf	44.00	202,180
New 24" Storm Drain	4,595	lf	68.00	312,460
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	23	pass-thrus		10,672,007
Concrete Box Culverts	6,085	cy	700	4,259,500
#6 rebar (box culverts)	209	tons	925	193,325
<b>Subtotal \$</b>				<b>102,937,244</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>4</b>	OF	<b>4</b>
WORK ITEM: <b>Line of Defense 3</b>	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
<b>Jackson County</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Ring Levee - elev. 30</b>	<b>Option "B"</b>	FILE NAME:	mscip-comprehensive-study-combined-cost-est-25jul08.xls
	<b>Gautier</b>		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$ 102,937,244</b>
Flap Gates (8w x 4h)	27	ea	28,800	777,600
Flap Gates (12w x 4h)	23	ea	43,200	993,600
Flap Gates (7w x 3h)	32	ea	18,900	604,800
Flap Gates (6w x 3h)	8	ea	16,200	129,600
Flap Gates (5w x 3h)	3	ea	13,500	40,500
Cutoff valves (8w x 4h)	27	ea	67,200	1,814,400
Cutoff valves (12w x 4h)	23	ea	100,800	2,318,400
Cutoff valves (7w x 3h)	32	ea	44,100	1,411,200
Cutoff valves (6w x 3h)	8	ea	37,800	302,400
Cutoff valves (5w x 3h)	3	ea	31,500	94,500
Pump stations, 42" to 60" pump size (11 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			43,118,404
Ditch Excavation	95,652	cy	12.00	1,147,824
Boat Gate, G-1, G-2, G-3, G-4, G-5	(reference backup file for cost derivation)			80,248,938
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	11,800,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 245,193,309</b>
CONTINGENCY		@	<b>25.0%</b>	61,298,327
				<b>\$ 306,491,636</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	66,585,077
06 Account, Preservation - Mitigation-Tidal ( 95 acr @ \$200,000/acr )				19,000,000
06 Account, Preservation - Mitigation-Non-Tidal ( 188 acr @ \$5,500/acr )				1,034,000
				<b>\$ 393,135,713</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	31,450,857
				<b>\$ 424,586,570</b>
31 Account, Constr. Management		@	<b>6.0%</b>	25,475,194
				<b>\$ 450,061,764</b>
ESCALATION		@	<b>0.0%</b>	0
				<b>\$ 450,061,764</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 450,100,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>1</b>	OF	<b>10</b>
WORK ITEM: <b>Line of Defense 3</b>	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
<b>Buffer Zones</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Jackson County</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Moss Point</u>    <u>Option "E"</u>    <u>elevation 20</u></b>				
Demolished Structures, including Disposal ( 1,144 structures )	1	LS	allow	\$30,440,402
			<b>Current Contract Cost, Oct 07</b>	\$30,440,402
CONTINGENCY		@	<b>25.0%</b>	7,610,101
				\$38,050,503
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	330,695,519
				\$368,771,022
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	29,501,682
				\$398,272,703
31 Account, Constr. Management		@	<b>6.0%</b>	23,896,362
				\$422,169,065
ESCALATION		@	<b>0.0%</b>	\$422,169,065
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	\$ 422,170,000

**Notes:**

The buffer zones for the alternate alignments will be used in combination with the cost estimates for the associated structural option. The Costs for the buffer zones will include acquisition of real estate and demolition of structures with contingencies and all administration and markups. Real Estate (01 feature account) & Demolition Cost furnished by the Savannah District COE, Belinda Estabrook, RE-RP, Realty Specialist.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>2</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Buffer Zones</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Jackson County</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Moss Point</u>      <u>Option "F"</u>      <u>elevation 30</u></b>				
Demolished Structures, including Disposal ( 1,433 structures )	1	LS	allow	30,225,250
			<b>Current Contract Cost, Oct 07</b>	\$30,225,250
CONTINGENCY		@	<b>25.0%</b>	7,556,313
				\$37,781,563
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	328,197,869
				\$366,004,432
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	29,280,355
				\$395,284,786
31 Account, Constr. Management		@	<b>6.0%</b>	23,717,087
				\$419,001,873
ESCALATION		@	<b>0.0%</b>	\$419,001,873
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 419,000,000</b>

**Notes:**

The buffer zones for the alternate alignments will be used in combination with the cost estimates for the associated structural option. The Costs for the buffer zones will include acquisition of real estate and demolition of structures with contingencies and all administration and markups. Real Estate (01 feature account) & Demolition Cost furnished by the Savannah District COE, Belinda Estabrook, RE-RP, Realty Specialist.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>3</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Buffer Zones</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Jackson County</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Washington Ave</u>      <u>Option "C"</u>      <u>elevation 20</u></b>				
Demolished Structures, including Disposal ( 58 structures )	1	LS	allow	\$1,160,076
			<b>Current Contract Cost, Oct 07</b>	\$1,160,076
CONTINGENCY		@	<b>25.0%</b>	290,019
				\$1,450,095
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	61,306,156
				\$62,781,251
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	5,022,500
				\$67,803,751
31 Account, Constr. Management		@	<b>6.0%</b>	4,068,225
				\$71,871,976
ESCALATION		@	<b>0.0%</b>	\$71,871,976
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 71,870,000</b>

**Notes:**

The buffer zones for the alternate alignments will be used in combination with the cost estimates for the associated structural option. The Costs for the buffer zones will include acquisition of real estate and demolition of structures with contingencies and all administration and markups. Real Estate (01 feature account) & Demolition Cost furnished by the Savannah District COE, Belinda Estabrook, RE-RP, Realty Specialist.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>4</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Buffer Zones</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Jackson County</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Washington Ave</u>      <u>Option "D"</u>                      <u>elevation 30</u></b>				
Demolished Structures, including Disposal ( 47 structures )	1	LS	allow	\$974,076
<b>Current Contract Cost, Oct 07</b>				\$974,076
CONTINGENCY		@	<b>25.0%</b>	243,519
				\$1,217,595
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	54,463,513
				\$55,706,108
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	4,456,489
				\$60,162,597
31 Account, Constr. Management		@	<b>6.0%</b>	3,609,756
				\$63,772,352
ESCALATION		@	<b>0.0%</b>	\$63,772,352
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 63,770,000</b>

**Notes:**

The buffer zones for the alternate alignments will be used in combination with the cost estimates for the associated structural option. The Costs for the buffer zones will include acquisition of real estate and demolition of structures with contingencies and all administration and markups. Real Estate (01 feature account) & Demolition Cost furnished by the Savannah District COE, Belinda Estabrook, RE-RP, Realty Specialist.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>5</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Buffer Zones</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Jackson County</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Moss Pt. - Washington Ave</u></b>		<b><u>Option "G"</u></b>		<b><u>elevation 20</u></b>
Demolished Structures, including Disposal ( 1,502 structures )	1	LS	allow	\$31,260,326
			<b>Current Contract Cost, Oct 07</b>	\$31,260,326
CONTINGENCY		@	<b>25.0%</b>	7,815,082
				\$39,075,408
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	392,001,675
				\$431,102,083
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	34,488,167
				\$465,590,249
31 Account, Constr. Management		@	<b>6.0%</b>	27,935,415
				\$493,525,664
ESCALATION		@	<b>0.0%</b>	\$493,525,664
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 493,530,000</b>

**Notes:**

The buffer zones for the alternate alignments will be used in combination with the cost estimates for the associated structural option. The Costs for the buffer zones will include acquisition of real estate and demolition of structures with contingencies and all administration and markups. Real Estate (01 feature account) & Demolition Cost furnished by the Savannah District COE, Belinda Estabrook, RE-RP, Realty Specialist.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>6</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Buffer Zones</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Jackson County</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Moss Pt. - Washington Ave</u>      <u>Option "H"</u>      <u>elevation 30</u></b>				
Demolished Structures, including Disposal ( 1,473 structures )	1	LS	allow	\$31,061,326
<b>Current Contract Cost, Oct 07</b>				\$31,061,326
CONTINGENCY	@		<b>25.0%</b>	7,765,332
				\$38,826,658
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	382,661,381
				\$421,513,039
30 Account, Plan, Engr.& Design	@		<b>8.0%</b>	33,721,043
				\$455,234,082
31 Account, Constr. Management	@		<b>6.0%</b>	27,314,045
				\$482,548,126
ESCALATION	@		<b>0.0%</b>	\$482,548,126
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 482,550,000</b>

**Notes:**

The buffer zones for the alternate alignments will be used in combination with the cost estimates for the associated structural option. The Costs for the buffer zones will include acquisition of real estate and demolition of structures with contingencies and all administration and markups. Real Estate (01 feature account) & Demolition Cost furnished by the Savannah District COE, Belinda Estabrook, RE-RP, Realty Specialist.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>7</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Buffer Zones</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Jackson County</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>BelleFontaine</u></b>		<b><u>Option "C"</u></b>		<b><u>elevation 20</u></b>
Demolished Structures, including Disposal ( 2 structures )	1	LS	allow	\$143,076
			<b>Current Contract Cost, Oct 07</b>	\$143,076
CONTINGENCY		@	<b>25.0%</b>	35,769
				\$178,845
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	2,519,063
				\$2,722,908
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	217,833
				\$2,940,741
31 Account, Constr. Management		@	<b>6.0%</b>	176,444
				\$3,117,185
ESCALATION		@	<b>0.0%</b>	\$3,117,185
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 3,120,000</b>

**Notes:**

The buffer zones for the alternate alignments will be used in combination with the cost estimates for the associated structural option. The Costs for the buffer zones will include acquisition of real estate and demolition of structures with contingencies and all administration and markups. Real Estate (01 feature account) & Demolition Cost furnished by the Savannah District COE, Belinda Estabrook, RE-RP, Realty Specialist.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>8</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Buffer Zones</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Jackson County</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>BelleFontaine</u>      <u>Option "D"</u>      <u>elevation 30</u></b>				
Demolished Structures, including Disposal ( 0 structures )	1	LS	allow	\$35,000
<b>Current Contract Cost, Oct 07</b>				\$35,000
CONTINGENCY		@	<b>25.0%</b>	8,750
				\$43,750
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	1,409,694
				\$1,478,444
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	118,276
				\$1,596,720
31 Account, Constr. Management		@	<b>6.0%</b>	95,803
				\$1,692,523
ESCALATION		@	<b>0.0%</b>	\$1,692,523
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 1,690,000</b>

**Notes:**

The buffer zones for the alternate alignments will be used in combination with the cost estimates for the associated structural option. The Costs for the buffer zones will include acquisition of real estate and demolition of structures with contingencies and all administration and markups. Real Estate (01 feature account) & Demolition Cost furnished by the Savannah District COE, Belinda Estabrook, RE-RP, Realty Specialist.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>9</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Buffer Zones</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Jackson County</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Gulf Park Estates</u>      <u>Option "C"</u>      <u>elevation 20</u></b>				
Demolished Structures, including Disposal ( 11 structures )	1	LS	allow	\$653,000
			<b>Current Contract Cost, Oct 07</b>	\$653,000
CONTINGENCY		@	<b>25.0%</b>	163,250
				\$816,250
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	7,378,022
				\$8,219,272
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	657,542
				\$8,876,814
31 Account, Constr. Management		@	<b>6.0%</b>	532,609
				\$9,409,423
ESCALATION		@	<b>0.0%</b>	\$9,409,423
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	\$ 9,410,000

**Notes:**

The buffer zones for the alternate alignments will be used in combination with the cost estimates for the associated structural option. The Costs for the buffer zones will include acquisition of real estate and demolition of structures with contingencies and all administration and markups. Real Estate (01 feature account) & Demolition Cost furnished by the Savannah District COE, Belinda Estabrook, RE-RP, Realty Specialist.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>10</b>	OF	<b>10</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 3</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Buffer Zones</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Jackson County</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Gulf Park Estates</u></b>				
<b><u>Option "D"</u></b>				
<b><u>elevation 30</u></b>				
Demolished Structures, including Disposal ( 7 structures )	1	LS	allow	\$531,000
			<b>Current Contract Cost, Oct 07</b>	\$531,000
CONTINGENCY		@	<b>25.0%</b>	132,750
				\$663,750
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	5,962,259
				\$6,651,009
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	532,081
				\$7,183,090
31 Account, Constr. Management		@	<b>6.0%</b>	430,985
				\$7,614,075
ESCALATION		@	<b>0.0%</b>	\$7,614,075
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	\$ 7,610,000

**Notes:**

The buffer zones for the alternate alignments will be used in combination with the cost estimates for the associated structural option. The Costs for the buffer zones will include acquisition of real estate and demolition of structures with contingencies and all administration and markups. Real Estate (01 feature account) & Demolition Cost furnished by the Savannah District COE, Belinda Estabrook, RE-RP, Realty Specialist.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **7**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Rdwy-Seawall - elev. 11** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Jackson County Ocean Springs**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$334,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(Levee/Beach road)	26,445	sy	\$4.50	119,003
Asphalt removal 2" Thick(cross overs)	13,314	sy	4.50	59,913
8" Water line removal	2,000	lf	8.00	16,000
6" Sewer line removal	2,000	lf	8.00	16,000
2" Gas line removal	2,000	lf	3.00	6,000
Electric line removal - 3 phase 1440v	2,000	lf	11.00	22,000
24" Storm Drain removal	2,000	lf	11.00	22,000
Demolished structures (avg. 1500 sf/ea @ 55ea)	<b>82,500</b>	sf	3.00	247,500
Disposal Fee	3,056	cy	2.50	7,639
Misc Removal	1	job	allow	10,000
<b>NEW WORK"</b>				
Compacted Fill (levee)	118,571	cy	15.00	1,778,565
Compacted Fill (cross overs)	15,314	cy	15.00	229,710
New Asphalt 2" (Levee/Beach road) 1,470 cy figure 2.0 tons/cy	2,940	ton	70.00	205,800
New Asphalt 2" (Cross overs) 740 cy figure 2.0 tons/cy	1,480	ton	70.00	103,600
Base material 12" (Levee/Beach road)	8,815	cy	34.50	304,118
Base material 12" (cross overs)	4,439	cy	34.50	153,146
Beach Dune fill (5' tall)	23,000	cy	12.00	276,000
Riprap (24")	31,254	cy	90.00	2,812,860
24 " gabion mattress cages, galv-pvc type	17,190	sy	32.00	550,080
Filter Fabric	17,190	sy	2.00	34,380
Grassing	7	acres	2,150	15,050
Clearing and Grubbing	34	acres	5,000	170,000
Crushed Aggregate 6" Thick(Levee wearing surface)	766	cy	45.00	34,470
Guardrail	9,985	lf	21.00	209,685
New 8" Water line	2,000	lf	41	82,000
New 6" Sewer Line	2,000	lf	48	96,000
New 2" Gas Line	2,000	lf	20	40,000
New Electric Line 3 phase 1440v	2,000	lf	44.00	88,000
New 24" Storm Drain	2,000	lf	68.00	136,000
Seawall (9917 LF x 25.0 sf/ft) A128	9,183	cy	600	5,509,800
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	\$668,000
<b>Subtotal</b>				<b>\$14,357,317</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **7**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Rdwy-Seawall - elev. 11** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Jackson County Ocean Springs**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$14,357,317</b>

<b>Current Contract Cost, Oct 07</b>				\$14,357,317
CONTINGENCY	@	<b>25.0%</b>		3,589,329
				\$17,946,647
01 Account, Lands & Damage	PCA	<b>LS</b>		25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				39,005,114
06 Account, Preservation - Mitigation-Tidal ( 10 acr @ \$200,000/acr )				2,000,000
06 Account, Preservation - Mitigation-Non-Tidal ( 4 acr @ \$5,500/acr )				22,000
				\$58,998,761
30 Account, Plan, Engr.& Design	@	<b>8.0%</b>		4,719,901
				\$63,718,662
31 Account, Constr. Management	@	<b>6.0%</b>		3,823,120
				\$67,541,781
ESCALATION	@	<b>0.0%</b>		0
				\$ 67,541,781
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 67,500,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **7**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Rdwy-Seawall - elev. 16** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Harrison County** **Elevated US Hwy 90**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$22,770,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(Levee/Beach road)	24,906,659	sy	4.50	112,079,966
Asphalt removal 2" Thick(cross overs)	166,582	sy	4.50	749,619
8" Water line removal	27,480	lf	8.00	219,840
6" Sewer line removal	27,480	lf	8.00	219,840
2" Gas line removal	27,480	lf	3.00	82,440
Electric line removal - 3 phase 1440v	27,480	lf	11.00	302,280
24" Storm Drain removal	113,515	lf	11.00	1,248,665
<b>Storm Drain manhole/junction box removal</b>	<b>360</b>	<b>ea</b>	<b>500</b>	<b>180,000</b>
Storm Drain curb inlet removal	984	ea	500	492,000
Storm Drain drop inlet removal	610	ea	500	305,000
<b>Concrete sidewalk removal, including disposal</b>	<b>6,837</b>	<b>cy</b>	<b>82.00</b>	<b>560,634</b>
Demolished structures (avg. 1500 sf/ea @ 80ea)	120,000	sf	3.00	360,000
Disposal Fee	4,444	cy	2.50	11,110
<b>NEW WORK:</b>				
Compacted Fill (levee)	4,689,128	cy	15.00	70,336,920
Compacted Fill (cross overs)	353,840	cy	15.00	5,307,600
Beach Dune Fill (10' tall)	600,000	cy	12.00	7,200,000
New Asphalt 2" (Levee/Beach road) 1,383,980 cy figure 2.0 tons/cy	2,767,960	tons	70.00	193,757,200
New Asphalt 2" (Cross overs) 8,524 cy figure 2.0 tons/cy	17,048	tons	70.00	1,193,360
Base material 12" (Levee/Beach road)	8,303,879	cy	34.50	286,483,826
Base material 12" (cross overs)	51,144	cy	34.50	1,764,468
<b>Riprap (24")</b>	<b>458,544</b>	<b>cy</b>	<b>90.00</b>	<b>41,268,960</b>
24 " gabion mattress cages, galv-pvc type	756,599	sy	32.00	24,211,168
Filter Fabric	756,599	sy	2.00	1,513,198
Grassing (seeding)	7	acres	2,150	15,050
Clearing and Grubbing, off-site disposal	486	acres	5,000	2,430,000
Crushed Aggregate 6" Thick(Levee wearing surface)	2,135	cy	45.00	96,075
Guardrail	80,340	lf	21	1,687,140
<b>New 8" Water line</b>	<b>27,180</b>	<b>lf</b>	<b>41</b>	<b>1,114,380</b>
<b>New 6" Sewer Line</b>	<b>27,180</b>	<b>lf</b>	<b>48</b>	<b>1,304,640</b>
<b>New 2"Gas Line</b>	<b>27,180</b>	<b>lf</b>	<b>20</b>	<b>543,600</b>
New Electrical Line - 3 phase 1440v	27,180	lf	44	1,195,920
New 24" Storm Drain	113,515	lf	68	7,719,020
<b>New Storm Drain manhole/junction box</b>	<b>360</b>	<b>ea</b>	<b>1,800</b>	<b>648,000</b>
<b>New Storm Drain curb inlet</b>	<b>984</b>	<b>ea</b>	<b>1,400</b>	<b>1,377,600</b>
<b>New Storm Drain drop inlet</b>	<b>610</b>	<b>ea</b>	<b>1,600</b>	<b>976,000</b>
Seawall (141,288 lf x 28.5 sf/ft) reinforced concrete	149,138	cy	600	89,482,800
Pump stations, 42" to 60" pump size (15 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)				40,692,903
<b>Subtotal</b>				<b>\$921,901,221</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **4** OF **7**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Rdwy-Seawall - elev. 16** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Harrison County** **Elevated US Hwy 90**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
			<b>Subtotal, brought forward</b>	<b>\$921,901,221</b>
Concrete Box culverts	5,278	cy	700	3,694,600
#6 rebar (box culverts)	192	tons	925	177,600
Flap Gates (6w x 3h)	12	ea	16,200	194,400
Flap Gates (10w x 4h)	12	ea	36,000	432,000
Flap Gates (7w x 3h)	18	ea	18,900	340,200
Flap Gates (12w x 3h)	6	ea	32,400	194,400
Flap Gates (4w x 3h)	6	ea	10,800	64,800
Flap Gates (5w x 3h)	3	ea	13,500	40,500
Flap Gates (12w x 4h)	26	ea	43,200	1,123,200
Cutoff valves (12w x 4h)	26	ea	100,800	2,620,800
Cutoff valves (6w x 3h)	12	ea	37,800	453,600
Cutoff valves (10w x 4h)	12	ea	84,000	1,008,000
Cutoff valves (7w x 3h)	18	ea	44,100	793,800
Cutoff valves (12w x 3h)	6	ea	75,600	453,600
Cutoff valves (4w x 3h)	6	ea	25,200	151,200
Cutoff valves (5w x 3h)	3	ea	31,500	94,500
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	\$45,550,000

**Current Contract Cost, Oct 07** **\$979,288,421**

CONTINGENCY @ **25.0%** 244,822,105  
**\$1,224,110,526**

01 Account, Lands & Damage PCA **LS** 25,000  
 01 Account, Lands & Damage (land + admin + 25% contingency) **LS** 502,215,382  
 06 Account, Preservation - Mitigation-Tidal ( 56 acr @ \$200,000/acr ) 11,200,000  
 06 Account, Preservation - Mitigation-Non-Tidal ( 1 acr @ \$5,500/acr ) 5,500  
\$1,737,556,408

30 Account, Plan, Engr.& Design @ **8.0%** 139,004,513  
**\$1,876,560,920**

31 Account, Constr. Management @ **6.0%** 112,593,655  
**\$1,989,154,575**

ESCALATION @ **0.0%** 0  
**\$1,989,154,575**  
 rounded

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

**TOTAL PROJECT COST, Oct 07** **\$1,989,200,000**

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **5** OF **7**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Rdwy-Seawall - elev. 11** & **Saddle Dikes -elev. 16** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Hancock County** **Beach Blvd**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Rdwy-Seawall - elev. 11</u></b>				
Mobilization, Preparatory Work, Demobilization	1	job	allow	4,580,000
<b>REMOVALS:</b>				
Asphalt removal 2" Thick(Levee/Beach road)	2,862,597	sy	4.50	12,881,687
Asphalt removal 2" Thick(cross overs)	26,571	sy	4.50	119,570
8" Water line removal	4,900	lf	8.00	39,200
6" Sewer line removal	4,900	lf	8.00	39,200
2" Gas line removal	4,900	lf	3.00	14,700
Electric line removal - 3 phase 1440v	4,900	lf	11.00	53,900
24" Storm Drain removal	4,900	lf	11.00	53,900
Demolished structures (avg. 1500 sf/ea @ 66ea)	99,000	sf	3.00	297,000
Disposal Fee	3,667	cy	2.50	9,167
<b>NEW WORK:</b>				
Compacted Fill (levee)	382,017	cy	15.00	5,730,255
Compacted Fill (cross overs)	27,835	cy	15.00	417,525
Beach Dune fill (5' tall)	84,000	cy	12.00	1,008,000
New Asphalt 2" (Levee/Beach road) 159,065 cy figure 2.0 tons/cy	318,130	tons	70.00	22,269,100
New Asphalt 2" (Cross overs) 1,432 cy figure 2.0 tons/cy	2,864	tons	70.00	200,480
Base material 12" (Levee/Beach road)	954,388	cy	34.50	32,926,386
Base material 12" (cross overs)	8,592	cy	34.50	296,424
<b>Riprap (24")</b>	<b>150,072</b>	<b>cy</b>	<b>90.00</b>	<b>13,506,480</b>
24 " gabion mattress cages, galv-pvc type	247,619	sy	32.00	7,923,808
Filter Fabric	247,619	sy	2.00	495,238
Grassing (seeding)	2	acres	2,150.00	4,300
Clearing and Grubbing	93	acres	5,000	465,000
Crushed Aggregate 6" Thick(Levee wearing surface)	1,556	cy	45.00	70,020
Guardrail	15,370	lf	21.00	322,770
<b>New 8" Water line</b>	<b>4,600</b>	<b>lf</b>	<b>41</b>	<b>188,600</b>
<b>New 6" Sewer Line</b>	<b>4,600</b>	<b>lf</b>	<b>48</b>	<b>220,800</b>
<b>New 2" Gas Line</b>	<b>4,600</b>	<b>lf</b>	<b>20</b>	<b>92,000</b>
New Electri Line - 3 phase 1440v	4,600	lf	44.00	202,400
New 24" Storm Drain	4,810	lf	68.00	327,080
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	4	pass-thrus		386,780
<b>Box Culvert Extension (beach road)</b>	<b>114</b>	<b>cy</b>	<b>700</b>	<b>79,800</b>
<b>#6 rebar (box culverts extension beach road)</b>	<b>4</b>	<b>tons</b>	<b>925</b>	<b>3,700</b>
<b>Drop inlets</b>	<b>22</b>	<b>ea</b>	<b>1,600</b>	<b>35,200</b>
<b>Concrete seawall (39,782 LF x 25.0 sf/ft)</b>	<b>36,836</b>	<b>cy</b>	<b>600</b>	<b>22,101,600</b>
Concrete Box culverts (pump stations)	7,490	cy	700	5,243,000
#6 rebar (box culverts)	254	tons	925	234,950
<b>Subtotal</b>				<b>\$132,840,018</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **6** OF **7**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Rdwy-Seawall - elev. 11** & **Saddle Dikes -elev. 16** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Hancock County Beach Blvd**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$132,840,018</b>
Pump stations, 42" to 60" pump size (13 ea) (reference backup file for cost derivation)		lump sum	allow	26,763,616
Ditch excavation	35,358	cy	12.00	424,296
Flap Gates (8w x 4h)	19	ea	28,800	547,200
Flap Gates (12w x 4h)	33	ea	43,200	1,425,600
Flap Gates (7w x 3h)	11	ea	18,900	207,900
Flap Gates (4w x 2h)	2	ea	7,200	14,400
Flap Gates (10w x 4h)	36	ea	36,000	1,296,000
Cutoff valves (8w x 4h)	19	ea	67,200	1,276,800
Cutoff valves (12w x 4h)	33	ea	100,800	3,326,400
Cutoff valves (7w x 3h)	11	ea	44,100	485,100
Cutoff valves (4w x 2h)	2	ea	16,800	33,600
Cutoff valves (10w x 4h)	36	ea	84,000	3,024,000
Boat Gate- HK-1 (reference backup file for cost derivation)				13,587,948
<b><u>Hancock County El. 16 Saddle Dikes</u></b>				
<b><u>REMOVALS:</u></b>				
Asphalt removal 2" Thick(cross overs)	14,157	sy	4.50	63,707
8" Water line removal	600	lf	8.00	4,800
6" Sewer line removal	600	lf	8.00	4,800
2" Gas line removal	600	lf	3.00	1,800
Electric line removal - 3 phase 1440v	600	lf	11.00	6,600
24" Storm Drain removal	600	lf	11.00	6,600
<b><u>NEW WORK:</u></b>				
Compacted Fill (levee)	53,903	cy	15.00	808,545
Compacted Fill (cross overs)	19,927	cy	15.00	298,905
New Asphalt 2" (Cross overs) 787 cy figure 2.0 tons/cy	1,574	tons	70.00	110,180
Base material 12" (cross overs) 4,720 cy figure 2.0 tons/cy	9,440	tons	70.00	660,800
Grassing (seeding)	39	acres	2,150	83,850
Clearing and Grubbing	41	acres	5,000	205,000
Guardrail	10,618	lf	21.00	222,978
New 8" Water line	600	lf	41	24,600
New 6" Sewer Line	600	lf	48	28,800
New 2" Gas Line	600	lf	20	12,000
New Electric Line- 3 phase 1440v	600	lf	44.00	26,400
New 24" Storm Drain	600	lf	68.00	40,800
ATFP, Signage, Pavement Marking, Traffic Control, etc.	2	%	allow	3,670,000
<b>Subtotal</b>				<b>\$191,534,042</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **7** OF **7**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Rdwy-Seawall - elev. 11** & **Saddle Dikes -elev. 16** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Hancock County** **Beach Blvd**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Current Contract Cost, Oct 07</b>				<b>\$191,534,042</b>
CONTINGENCY		@	<b>25.0%</b>	47,883,510 \$ 239,417,552
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				44,938,806
06 Account, Preservation - Mitigation-Tidal ( 9 acr @ \$200,000/acr )				1,800,000
06 Account, Preservation - Mitigation-Tidal ( 62 acr @ \$5,500/acr )				341,000
				\$ 286,522,358
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	22,921,789 \$ 309,444,147
31 Account, Constr. Management		@	<b>6.0%</b>	18,566,649 \$328,010,796
ESCALATION		@	<b>0.0%</b>	0 \$ 328,010,796 rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$328,000,000</b>

**Notes:**

Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 20 Option "A"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$950,000
<b><u>Levee System</u></b>				
Length	67,780	lf		
Compacted Fill	215,340	cy	15.00	3,230,100
Grassing (seeding)	23	Ac	2,150	49,450
Crushed Aggregate 6" Thick (Levee wearing surface)	25,100	cy	45.00	1,129,500
<b>Rock Levee</b>	<b>61,450</b>	<b>cy</b>	<b>90.00</b>	<b>5,530,500</b>
Clearing & Grubbing	120	Ac	5,000	600,000
<b>24" Rip Rap</b>	<b>61,450</b>	<b>cy</b>	<b>90.00</b>	<b>5,530,500</b>
24 " Gabion Mattress Cages	92,180	sy	32.00	2,949,760
Filter Fabric	92,180	sy	2.00	184,360
<b><u>Ramps &amp; Tunnels</u></b>				
Grassing (seeding)	5	ac	2,150	10,750
New Asphalt 2" (Cross overs) 82 cy figure 2.0 tons/cy	164	tons	70.00	11,480
Base material (12")	720	cy	34.50	24,840
<b><u>Removal</u></b>				
Asphalt	246	sy	4.50	1,107
8" Water line removal	800	lf	8.00	6,400
6" Sewer line removal	800	lf	8.00	6,400
2" Gas line removal	800	lf	3.00	2,400
24" Storm drain pipe removal	800	lf	11.00	8,800
Electric line removal - 3 phase 1440v	800	lf	11.00	8,800
Demolish Buildings (avg. 1500 sf/ea @ 200 ea)	300,000	sf	3.00	900,000
Demolish Buildings (multistory avg. 1500 sf/ea @ 41 ea)	61,500	sf	3.50	215,250
Disposal Fee - off site	13,389	cy	2.50	33,472
Water tanks	4	ea	125,000	500,000
<b><u>New Work</u></b>				
New 8" Water line	800	lf	41	32,800
New 6" Sewer Line	800	lf	48	38,400
New 2" Gas Line	800	lf	20	16,000
New Electric Line - 3 phase 1440v	800	lf	44.00	35,200
New 24" Storm drain pipe	800	lf	68.00	54,400
<b>Subtotal \$</b>				<b>22,060,669</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>2</b>	OF	<b>32</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Gary A. Payton</b>
WORK ITEM: <b>Line of Defense 4</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Jackson County</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Inland Barrier - elev. 20 Option "A"</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
			<b>Subtotal, brought forward \$</b>	<b>22,060,669</b>
Concrete box culverts	1,248	cy	700	873,600
#6 rebar	42	tons	925	38,850
Flap Gates (7w x 3h)	7	ea	18,900	132,300
Flap Gates (10w x 4h)	11	ea	36,000	396,000
Cutoff valves (7w x 3h)	7	ea	44,100	308,700
Cutoff valves (10w x 4h)	11	ea	84,000	924,000
Pump stations, 42" to 60" pump size (2 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			9,271,149
Ditch Excavation	418,966	cy	12.00	5,027,592
Anti-Terrorism/Force Protection, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	1,900,000
			<b>Current Contract Cost, Oct 07</b>	<b>\$ 40,932,861</b>
CONTINGENCY		@	<b>25.0%</b>	10,233,215
				<b>\$ 51,166,076</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	58,505,782
06 Account, Preservation - Mitigation-Tidal ( 4 acr @ \$200,000/acr )				800,000
06 Account, Preservation - Mitigation-Non-Tidal ( 68 acr @ \$5,500/acr )				374,000
				<b>\$ 110,870,858</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	8,869,669
				<b>\$ 119,740,526</b>
31 Account, Constr. Management		@	<b>6.0%</b>	7,184,432
				<b>\$ 126,924,958</b>
ESCALATION		@	<b>0.0%</b>	0
				<b>\$ 126,924,958</b>
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 126,900,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 30 Option "B"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,360,000
<b><u>Levee System</u></b>				
Length	68,110	lf		
Compacted Fill	1,398,140	cy	15.00	20,972,100
Grassing (seeding)	13	Ac	2,150	27,950
Crushed Aggregate 6" Thick (Levee wearing surface)	37,840	cy	45.00	1,702,800
<b>Rock Levee</b>	<b>56,380</b>	<b>cy</b>	<b>90.00</b>	<b>5,074,200</b>
Clearing & Grubbing	135	Ac	5,000	675,000
<b>24" Rip Rap</b>	<b>218,300</b>	<b>cy</b>	<b>90.00</b>	<b>19,647,000</b>
24 " Gabion Mattress Cages	654,870	sy	32.00	20,955,840
Filter Fabric	654,870	sy	2.00	1,309,740
<b><u>Ramps &amp; Tunnels</u></b> <span style="float: right;">same as elev 40</span>				
Vehicle/RR Gate-two lane (24') <span style="float: right;">(reference backup file for cost derivation) (same cost as elev 40)</span>				362,133
Ramps-two lane (24') <span style="float: right;">(included in above levee system quantities)</span>				
Compacted Fill (ramps and tunnels)	61,670	cy	15.00	925,050
Grassing (seeding)	14	ac	2,150	30,100
New Asphalt 2" (Cross overs) 3984 cy <span style="float: right;">figure 2.0 tons/cy</span>	7,968	tons	70.00	557,760
Base material (12")	9,400	cy	34.50	324,300
Guardrail	16,000	lf	21.00	336,000
<b><u>Removal</u></b>				
Asphalt	25,000	sy	4.50	112,500
8" Water line removal	8,000	lf	8.00	64,000
6" Sewer line removal	8,000	lf	8.00	64,000
2" Gas line removal	8,000	lf	3.00	24,000
24" Storm drain pipe removal	8,000	lf	11.00	88,000
Electric line removal - 3 phase 1440v	8,000	lf	11.00	88,000
Demolish Buildings (avg. 1500 sf/ea @ 200 ea)	300,000	sf	3.00	900,000
Demolish Buildings (multistory avg. 1500 sf/ea @ 41 ea)	61,500	sf	3.50	215,250
Disposal Fee - off site	13,389	cy	2.50	33,472
Water tanks	4	ea	125,000	500,000
<b><u>New Work</u></b>				
New 8" Water line	8,000	lf	41	328,000
New 6" Sewer Line	8,000	lf	48	384,000
New 2" Gas Line	8,000	lf	20	160,000
New Electric Line - 3 phase 1440v	8,000	lf	44.00	352,000
New 24" Storm drain pipe	8,000	lf	68.00	544,000
<b>Subtotal \$</b>				<b>79,117,195</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **4** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 30 Option "B"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>79,117,195</b>
Concrete box culverts	1,248	cy	700	873,600
#6 rebar	42	tons	925	38,850
Flap Gates (7w x 3h)	7	ea	18,900	132,300
Flap Gates (10w x 4h)	11	ea	36,000	396,000
Cutoff valves (7w x 3h)	7	ea	44,100	308,700
Cutoff valves (10w x 4h)	11	ea	84,000	924,000
Pump stations, 42" to 60" pump size (2 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			9,855,749
Ditch Excavation	418,966	cy	12.00	5,027,592
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	4,720,000
<b>Current Contract Cost, Oct 07 \$</b>				<b>101,393,987</b>
CONTINGENCY		@	<b>25.0%</b>	<u>25,348,497</u>
				\$ 126,742,483
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	66,571,033
06 Account, Preservation - Mitigation-Tidal ( 7 acr @ \$200,000/acr )				1,400,000
06 Account, Preservation - Mitigation-Non-Tidal ( 295 acr @ \$5,500/acr )				<u>1,622,500</u>
				\$ 196,361,016
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>15,708,881</u>
				\$ 212,069,898
31 Account, Constr. Management		@	<b>6.0%</b>	<u>12,724,194</u>
				\$ 224,794,092
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				\$ 224,794,092
rounded				
<b>TOTAL PROJECT COST, Oct 07 \$</b>				<b>224,800,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **5** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 40 Option "C"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,900,000
<b><u>Levee System</u></b>				
Length	73,874	lf		
Compacted Fill	4,067,550	cy	15.00	61,013,250
Grassing (seeding)	206	Ac	2,150	442,900
Crushed Aggregate 6" Thick (Levee wearing surface)	41,050	cy	45.00	1,847,250
<b>Rock Levee</b>	<b>208,240</b>	<b>cy</b>	<b>90.00</b>	<b>18,741,600</b>
Clearing & Grubbing	317	Ac	5000	1,585,000
<b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	4	pass-thrus		362,133
Compacted Fill (ramps and tunnels)	238,960	cy	15.00	3,584,400
Grassing (seeding)	16	ac	2,150	34,400
New Asphalt 2" (Cross overs) 4620 cy figure 2.0 tons/cy	9,240	tons	70.00	646,800
Base material (12")	13,500	cy	34.50	465,750
Guardrail	7,200	lf	21.00	151,200
<b><u>Removal</u></b>				
Asphalt	29,400	sy	4.50	132,300
<b>8" Water line removal</b>	<b>13,000</b>	<b>lf</b>	<b>41</b>	<b>533,000</b>
<b>6" Sewer line removal</b>	<b>13,000</b>	<b>lf</b>	<b>48</b>	<b>624,000</b>
<b>2" Gas line removal</b>	<b>13,000</b>	<b>lf</b>	<b>20</b>	<b>260,000</b>
24" Storm drain pipe removal	13,000	lf	11.00	143,000
Electric line removal - 3 phase 1440v	13,000	lf	11.00	143,000
Demolish Buildings (avg. 1500 sf/ea @ 200 ea)	300,000	sf	3.00	900,000
Demolish Buildings (multistory avg. 1500 sf/ea @ 41 ea)	61,500	sf	3.50	215,250
Disposal Fee - off site	13,389	cy	2.50	33,472
Water tanks	4	ea	125,000	500,000
<b><u>New Work</u></b>				
New 8" Water line	13,000	lf	8.00	104,000
New 6" Sewer Line	13,000	lf	8.00	104,000
New 2" Gas Line	13,000	lf	3.00	39,000
New Electric Line - 3 phase 1440v	13,000	lf	44.00	572,000
New 24" Storm drain pipe	13,000	lf	68.00	884,000

**Subtotal \$ 94,061,705**

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>6</b>	OF	<b>32</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Gary A. Payton</b>
WORK ITEM: <b>Line of Defense 4</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Jackson County</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Inland Barrier - elev. 40 Option "C"</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>94,061,705</b>
Concrete box culverts	1,248	cy	700	873,600
#6 rebar	42	tons	925	38,850
Flap Gates (7w x 3h)	7	ea	18,900	132,300
Flap Gates (10w x 4h)	11	ea	36,000	396,000
Cutoff valves (7w x 3h)	7	ea	44,100	308,700
Cutoff valves (10w x 4h)	11	ea	84,000	924,000
Pump stations, 42" to 60" pump size (2 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			14,318,944
Ditch Excavation	418,966	cy	12.00	5,027,592
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	5,800,000
<b>Current Contract Cost, Oct 07 \$</b>				<b>121,881,692</b>
CONTINGENCY	@		<b>25.0%</b>	<b>30,470,423</b>
				<b>\$ 152,352,115</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	<b>76,230,875</b>
06 Account, Preservation - Mitigation-Tidal ( 8 acr @ \$200000/acr )				1,600,000
06 Account, Preservation - Mitigation-Tidal ( 387 acr @ \$5,500/acr )				2,128,500
				<b>\$ 232,336,490</b>
30 Account, Plan, Engr.& Design	@		<b>8.0%</b>	18,586,919
				<b>\$ 250,923,409</b>
31 Account, Constr. Management	@		<b>6.0%</b>	15,055,405
				<b>\$ 265,978,813</b>
ESCALATION	@		<b>0.0%</b>	0
				<b>\$ 265,978,813</b>
rounded				
<b>TOTAL PROJECT COST, Oct 07 \$</b>				<b>266,000,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **7** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 20 Option "A"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,390,000
<b><u>Levee System</u></b>				
Length	142,732	lf		
Compacted Fill	582,723	cy	15.00	8,740,845
Grassing (seeding)	67	Ac	2,150	144,050
Crushed Aggregate 6" Thick (Levee wearing surface)	52,864	cy	45.00	2,378,880
<b>Rock Levee</b>	<b>207,205</b>	<b>cy</b>	<b>90.00</b>	<b>18,648,450</b>
Clearing & Grubbing	260	Ac	5,000	1,300,000
<b>24" Rip Rap</b>	<b>184,790</b>	<b>cy</b>	<b>90.00</b>	<b>16,631,100</b>
24 " Gabion Mattress Cages	277,180	sy	32.00	8,869,760
Filter Fabric	277,180	sy	2.00	554,360
<b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	45	pass-thrus		11,369,882
New Asphalt 2" (Cross overs) 900 cy figure 2.0 tons/cy	1,800	tons	70.00	126,000
Base material (12")	24,300	cy	34.50	838,350
<b><u>Removal</u></b>				
Asphalt	4,050	sy	4.50	18,225
8" Water line removal	8,000	lf	41	328,000
6" Sewer line removal	8,000	lf	48	384,000
2" Gas line removal	8,000	lf	20	160,000
24" Storm drain pipe removal	8,000	lf	11.00	88,000
Electric line removal - 3 phase 1440v	8,000	lf	11.00	88,000
Demolish Buildings (avg. 1500 sf/ea @ 861 ea)	1,291,500	sf	3.00	3,874,500
Disposal Fee - off site	47,833	cy	2.50	119,583
<b><u>New Work</u></b>				
New 8" Water line	8,000	lf	8.00	64,000
New 6" Sewer Line	8,000	lf	8.00	64,000
New 2" Gas Line	8,000	lf	3.00	24,000
New Electric Line - 3 phase 1440v	8,000	lf	44.00	352,000
New 24" Storm drain pipe	8,000	lf	68.00	544,000
<b>Subtotal \$</b>				<b>75,709,985</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>8</b>	OF	<b>32</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Gary A. Payton</b>
WORK ITEM: <b>Line of Defense 4</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Harrison County</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Inland Barrier - elev. 20 Option "A"</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
			<b>Subtotal, brought forward \$</b>	<b>75,709,985</b>
Concrete box culverts	3,656	cy	700	2,559,200
#6 rebar	119	tons	925	110,075
Flap Gates (12w x 4h)	28	ea	43,200	1,209,600
Flap Gates (10w x 4h)	15	ea	36,000	540,000
Cutoff valves (7w x 3h)	7	ea	44,100	308,700
Cutoff valves (10w x 4h)	11	ea	84,000	924,000
Pump stations, 42" to 60" pump size (1 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			3,727,691
Ditch Excavation	872,375	cy	12.00	10,468,500
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	4,780,000
			<b>Current Contract Cost, Oct 07 \$</b>	<b>100,337,751</b>
CONTINGENCY			@ <b>25.0%</b>	25,084,438
				\$ 125,422,189
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	253,268,000
06 Account, Preservation - Mitigation-Tidal ( 8 acr @ \$200,000/acr )				1,600,000
06 Account, Preservation - Mitigation-Non-Tidal ( 68 acr @ \$5,500/acr )				374,000
				\$ 380,689,189
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	30,455,135
				\$ 411,144,324
31 Account, Constr. Management		@	<b>6.0%</b>	24,668,659
				\$ 435,812,983
ESCALATION		@	<b>0.0%</b>	0
				\$ 435,812,983
				rounded
			<b>TOTAL PROJECT COST, Oct 07 \$</b>	<b>435,800,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **9** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 30 Option "B"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$6,610,000
<b><u>Levee System</u></b>				
Length	142,732	lf		
Compacted Fill	2,910,170	cy	15.00	43,652,550
Grassing (seeding)	45	Ac	2,150	96,750
Crushed Aggregate 6" Thick (Levee wearing surface)	79,295	cy	45.00	3,568,275
Rock Levee	202,280	cy	90.00	18,205,200
Clearing & Grubbing	340	Ac	5,000	1,700,000
12" Rip Rap	544,102	cy	90.00	48,969,180
12 " Gabion Matress Cages	1,632,305	sy	16.00	26,116,880
Filter Fabric	1,632,305	sy	2.00	3,264,610
<b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	158	pass-thrus		40,232,904
New Asphalt 2" (Cross overs) 18500 cy figure 2.0 tons/cy	37,000	tons	70.00	2,590,000
Base material (12")	22,220	cy	34.50	766,590
Guardrail	50,000	lf	21.00	1,050,000
<b><u>Removal</u></b>				
Asphalt	225,100	sy	4.50	1,012,950
8" Water line removal	85,000	lf	41	3,485,000
6" Sewer line removal	85,000	lf	48	4,080,000
2" Gas line removal	85,000	lf	20	1,700,000
24" Storm drain pipe removal	85,000	lf	11.00	935,000
Electric line removal - 3 phase 1440v	85,000	lf	11.00	935,000
Demolish Buildings (avg. 1500 sf/ea @ 935 ea)	1,291,500	sf	3.00	3,874,500
Disposal Fee - off site	47,833	cy	2.50	119,583
<b><u>New Work</u></b>				
New 8" Water line	75,000	lf	8.00	600,000
New 6" Sewer Line	75,000	lf	8.00	600,000
New 2" Gas Line	75,000	lf	3.00	225,000
New Electric Line - 3 phase 1440v	75,000	lf	44.00	3,300,000
New 24" Storm drain pipe	75,000	lf	68.00	5,100,000
<b>Subtotal</b>				<b>\$222,789,972</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>10</b>	OF	<b>32</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Gary A. Payton</b>
WORK ITEM: <b>Line of Defense 4</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Harrison County</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Inland Barrier - elev. 30 Option "B"</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>222,789,972</b>
Concrete box culverts	3,656	cy	700	2,559,200
#6 rebar	119	tons	925	110,075
Flap Gates (12w x 4h)	28	ea	43,200	1,209,600
Flap Gates (10w x 4h)	15	ea	36,000	540,000
Cutoff valves (12w x 4h)	28	ea	100,800	2,822,400
Cutoff valves (10w x 4h)	15	ea	84,000	1,260,000
Pump stations, 42" to 60" pump size (7 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			23,568,446
Ditch Excavation	872,375	cy	12.00	10,468,500
Biloxi Courthouse Flood Wall		1	Job ls	5,639,400
Gulfport Courthouse Flood wall		1	Job ls	6,071,580
ATFP, Signage, Pavement Marking, Traffic Control, etc.		5	% allow	13,220,000
<b>Current Contract Cost, Oct 07 \$</b>				<b>290,259,173</b>
<b>CONTINGENCY @ 25.0%</b>				<b>72,564,793</b>
				<b>\$ 362,823,967</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	271,796,962
06 Account, Preservation - Mitigation-Tidal ( 17 acr @ \$200,000/acr )				3,400,000
06 Account, Preservation - Mitigation-Non-Tidal ( 180 acr @ \$5,500/acr )				990,000
				<b>\$ 639,035,929</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	51,122,874
				<b>\$ 690,158,803</b>
31 Account, Constr. Management		@	<b>6.0%</b>	41,409,528
				<b>\$ 731,568,331</b>
ESCALATION		@	<b>0.0%</b>	0
				<b>\$ 731,568,331</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07 \$</b>				<b>731,600,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **11** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 40 Option "C"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$9,480,000
<b><u>Levee System</u></b>				
Length	142,732	lf		
Compacted Fill	8,186,158	cy	15.00	122,792,370
Grassing (seeding)	410	Ac	2,150	881,500
Crushed Aggregate 6" Thick (Levee wearing surface)	79,300	cy	45.00	3,568,500
<b>Rock Levee</b>	<b>1,038,130</b>	<b>cy</b>	<b>90.00</b>	<b>93,431,700</b>
Clearing & Grubbing	625	Ac	5,000	3,125,000
<b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	161	pass-thrus		78,715,972
Grassing (seeding)	245	Ac	2,150	526,750
New Asphalt 2" (Cross overs) 2400 cy figure 2.0 tons/cy	4,800	tons	70.00	336,000
Base material (12")	15,000	cy	34.50	517,500
<b><u>Removal</u></b>				
Asphalt	225,100	sy	4.50	1,012,950
8" Water line removal	85,000	lf	41	3,485,000
6" Sewer line removal	85,000	lf	48	4,080,000
2" Gas line removal	85,000	lf	20	1,700,000
24" Storm drain pipe removal	85,000	lf	11.00	935,000
Electric line removal - 3 phase 1440v	85,000	lf	11.00	935,000
Demolish Buildings (avg. 1500 sf/ea @ 925 ea)	1,291,500	sf	3.00	3,874,500
Demolish Buildings (multistory avg. 1500 sf/ea @ 41 ea)	132,000	sf	3.50	462,000
Disposal Fee - off site	52,722	cy	2.50	131,806
Water tanks	4	ea	125,000	500,000
<b><u>New Work</u></b>				
New 8" Water line	40,250	lf	8.00	322,000
New 6" Sewer Line	40,250	lf	8.00	322,000
New Electric Line - 3 phase 1440v	40,250	lf	44.00	1,771,000
New 24" Storm drain pipe	40,250	lf	68.00	2,737,000
<b>Subtotal</b>				<b>\$335,643,548</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>12</b>	OF	<b>32</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Gary A. Payton</b>
WORK ITEM: <b>Line of Defense 4</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Harrison County</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Inland Barrier - elev. 40 Option "C"</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>335,643,548</b>
Concrete box culverts	3,656	cy	700	2,559,200
#6 rebar	119	tons	925	110,075
Flap Gates (12w x 4h)	28	ea	43,200	1,209,600
Flap Gates (10w x 4h)	15	ea	36,000	540,000
Cutoff valves (12w x 4h)	28	ea	100,800	2,822,400
Cutoff valves (10w x 4h)	15	ea	84,000	1,260,000
Pump stations, 42" to 60" pump size (7 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			25,449,584
Ditch Excavation	872,375	cy	12.00	10,468,500
Biloxi Courthouse Flood Wall		1	Job ls	8,765,200
(reference backup file for cost derivation)				
Gulfport Courthouse Flood wall		1	Job ls	9,348,980
(reference backup file for cost derivation)				
ATFP, Signage, Pavement Marking, Traffic Control, etc.		5	% allow	18,970,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 417,147,087</b>
CONTINGENCY				
@ 25.0%				104,286,772
				\$ 521,433,858
01 Account, Lands & Damage				
PCA LS				25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				300,446,455
06 Account, Preservation - Mitigation-Tidal ( 21 acr @ \$200,000/acr )				4,200,000
06 Account, Preservation - Mitigation-Non-Tidal ( 216 acr @ \$5,500/acr )				1,188,000
				\$ 827,293,313
30 Account, Plan, Engr.& Design				
@ 8.0%				66,183,465
				\$ 893,476,778
31 Account, Constr. Management				
@ 6.0%				53,608,607
				\$ 947,085,385
ESCALATION				
@ 0.0%				0
				\$ 947,085,385
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 947,100,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **13** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** Option "D" FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Levee for Roadway(75') - elev. 20**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,170,000
<b><u>Levee System</u></b>				
Length	142,730	lf		
Compacted Fill	1,224,812	cy	15.00	18,372,180
Grassing (seeding)	84	Ac	2,150	180,600
Crushed Aggregate 6" Thick(Levee wearing surface)	3,251	cy	45.00	146,295
24" Rip Rap	148,140	cy	90.00	13,332,600
Filter Fabric	222,210	sy	2.00	444,420
24 " Gabion Matress Cages	222,210	sy	32.00	7,110,720
Clearing & Grubbing	142	Ac	5,000	710,000
 <b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	42	pass-thrus		19,584,340
Grassing (seeding)	4	Ac	2,150	8,600
New Asphalt 2" (Cross overs) 12 cy figure 2.0 tons/cy	4	tons	70.00	280
Base material (12")	35	cy	34.50	1,208
 <b><u>Removal</u></b>				
Asphalt	12,575	sy	4.50	56,588
8" Water line removal	4,700	lf	41	192,700
6" Sewer line removal	4,700	lf	48	225,600
2" Gas line removal	4,700	lf	20	94,000
24" Storm drain pipe removal	4,700	lf	11.00	51,700
Electric line removal - 3 phase 1440v	4,000	lf	11.00	44,000
Demolish Buildings (avg. 1500 sf/ea @ 140 ea)	210,000	sf	3.00	630,000
Disposal Fee - off site	7,778	cy	2.50	19,444
Water tanks	4	ea	125,000	500,000
 <b><u>New Work</u></b>				
New 8" Water line	4,700	lf	8.00	37,600
New 6" Sewer Line	4,700	lf	8.00	37,600
New 2" Gas Line	4,700	lf	8.00	37,600
New Electric Line - 3 phase 1440v	4,000	lf	44.00	176,000
New 24" Storm drain pipe	4,700	lf	68.00	319,600
<b>Subtotal</b>				<b>\$64,483,674</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **14** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** **Option "D"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Levee for Roadway(75') - elev. 20**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>64,483,674</b>
Concrete box culverts	6,215	cy	700	4,350,500
#6 rebar	201	tons	925	185,925
Flap Gates (12w x 4h)	28	ea	43,200	1,209,600
Flap Gates (10w x 4h)	15	ea	36,000	540,000
Cutoff valves (12w x 4h)	28	ea	100,800	2,822,400
Cutoff valves (10w x 4h)	15	ea	84,000	1,260,000
Pump stations, 42" to 60" pump size (1 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			3,727,691
Ditch Excavation	872,375	cy	12.00	10,468,500
 ATFP, Signage, Pavement Marking, Traffic Control, etc.	 5	 %	 allow	 4,340,000
<b>Current Contract Cost, Oct 07 \$</b>				<b>93,388,290</b>
CONTINGENCY	@		<b>25.0%</b>	<u>23,347,073</u>
				\$ 116,735,363
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	58,265,920
06 Account, Preservation - Mitigation-Tidal ( 17 acr @ \$200,000/acr )				3,400,000
06 Account, Preservation - Mitigation-Non-Tidal ( 180 acr @ \$5,500/acr )				990,000
				<u>\$ 179,416,283</u>
30 Account, Plan, Engr.& Design	@		<b>8.0%</b>	<u>14,353,303</u>
				\$ 193,769,585
31 Account, Constr. Management	@		<b>6.0%</b>	<u>11,626,175</u>
				\$ 205,395,760
ESCALATION	@		<b>0.0%</b>	<u>0</u>
				\$ 205,395,760
				rounded
<b>TOTAL PROJECT COST, Oct 07 \$</b>				<b>205,400,000</b>

Notes: Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **15** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** Option "E" FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Levee for Roadway(75') - elev. 30**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$6,830,000
<b><u>Levee System</u></b>				
Length	142,730	lf		
Compacted Fill	5,723,060	cy	15.00	85,845,900
Grassing (seeding)	350	Ac	2,150	752,500
Crushed Aggregate 6" Thick(Levee wearing surface)	13,027	cy	45.00	586,215
<b>24" Rip Rap</b>	<b>304,200</b>	<b>cy</b>	<b>90.00</b>	<b>27,378,000</b>
12 " Gabion Matress Cages	912,593	sy	16.00	14,601,488
Filter Fabric	912,593	sy	2.00	1,825,186
Clearing & Grubbing	587	Ac	5,000	2,935,000
 <b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	140	pass-thrus		65,785,779
 New Asphalt 2" (Cross overs) 2,384 cy figure 2.0 tons/cy	4,768	tons	70.00	333,760
Base material (12")	14,311	cy	34.50	493,730
 <b><u>Removal</u></b>				
Asphalt	225,100	sy	4.50	1,012,950
8" Water line removal	85,000	lf	41	3,485,000
6" Sewer line removal	85,000	lf	48	4,080,000
2" Gas line removal	85,000	lf	20	1,700,000
24" Storm drain pipe removal	85,000	lf	11.00	935,000
Electric line removal - 3 phase 1440v	85,000	lf	11.00	935,000
Demolish Buildings (avg. 1500 sf/ea @ 1,138 ea)	1,707,000	sf	3.00	5,121,000
Disposal Fee - off site	63,222	cy	2.50	158,056
Water tanks	4	ea	125,000	500,000
 <b><u>New Work</u></b>				
New 8" Water line	75,000	lf	8.00	600,000
New 6" Sewer Line	75,000	lf	8.00	600,000
New 2" Gas Line	75,000	lf	8.00	600,000
New Electric Line - 3 phase 1440v	75,000	lf	44.00	3,300,000
New 24" Storm drain pipe	75,000	lf	68.00	5,100,000
			<b>Subtotal</b>	<b>\$235,494,563</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>16</b>	OF	<b>32</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED: <b>Gary A. Payton</b>	
WORK ITEM: <b>Line of Defense 4</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>Harrison County</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls		
<b>Option "E"</b>			
<b>Levee for Roadway(75') - elev. 30</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>235,494,563</b>
Concrete box culverts	6,215	cy	700	4,350,500
#6 rebar	201	tons	925	185,925
Flap Gates (12w x 4h)	28	ea	43,200	1,209,600
Flap Gates (10w x 4h)	15	ea	36,000	540,000
Cutoff valves (12w x 4h)	28	ea	100,800	2,822,400
Cutoff valves (10w x 4h)	15	ea	84,000	1,260,000
Pump stations, 42" to 60" pump size (7 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			23,568,446
Ditch Excavation	872,375	cy	12.00	10,468,500
 ATFP, Signage, Pavement Marking, Traffic Control, etc.	 5	 %	 allow	 13,650,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 293,549,934</b>
CONTINGENCY	@		<b>25.0%</b>	73,387,484
				<b>\$ 366,937,418</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	298,748,055
06 Account, Preservation - Mitigation-Tidal ( 21 acr @ \$200,000/acr )				4,200,000
06 Account, Preservation - Mitigation-Non-Tidal ( 217 acr @ \$5,500/acr )				1,193,500
				<b>\$ 671,103,973</b>
30 Account, Plan, Engr.& Design	@		<b>8.0%</b>	53,688,318
				<b>\$ 724,792,291</b>
31 Account, Constr. Management	@		<b>6.0%</b>	43,487,537
				<b>\$ 768,279,828</b>
ESCALATION	@		<b>0.0%</b>	0
				<b>\$ 768,279,828</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 768,300,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **17** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** Option "F" FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Menge Ave(15' +) - elev. 20**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,090,000
<b><u>Levee System</u></b>				
Length	47,730	lf		
Compacted Fill	463,777	cy	15.00	6,956,655
Grassing (seeding)	47	Ac	2,150	101,050
Crushed Aggregate 6" Thick(Levee wearing surface)	34,700	cy	45.00	1,561,500
24" Rip Rap	132,600	cy	90.00	11,934,000
24 " Gabion Matress Cages	155,130	sy	32.00	4,964,160
Filter Fabric	155,130	sy	2.00	310,260
Clearing & Grubbing	184	Ac	5,000	920,000
 <b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	21	pass-thrus		4,081,549
Compacted Fill (ramps and tunnels)	161,856	cy	15.00	2,427,840
Grassing (seeding)	4	Ac	2,150	8,600
New Asphalt 2" (Cross overs) 1,150 cy figure 2.0 tons/cy	2,300	tons	70.00	161,000
Base material (12")	20,348	cy	34.50	702,006
Guardrail	9,430	lf	21.00	198,030
<b><u>Removal</u></b>				
Asphalt	14,576	sy	4.50	65,592
8" Water line removal	8,350	lf	41	342,350
6" Sewer line removal	8,350	lf	48	400,800
2" Gas line removal	8,350	lf	20	167,000
24" Storm drain pipe removal	8,350	lf	11.00	91,850
Electric line removal - 3 phase 1440v	8,350	lf	11.00	91,850
Demolish Buildings (avg. 1500 sf/ea @ 469 ea)	703,500	sf	3.00	2,110,500
Disposal Fee - off site	26,056	cy	2.50	65,139
<b><u>New Work</u></b>				
New 8" Water line	8,350	lf	8.00	66,800
New 6" Sewer Line	8,350	lf	8.00	66,800
New 2" Gas Line	8,350	lf	8.00	66,800
New Electric Line - 3 phase 1440v	8,350	lf	44.00	367,400
New 24" Storm drain pipe	8,350	lf	68.00	567,800
<b>Subtotal</b>				<b>\$40,887,331</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **18** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** Option "F" FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Menge Ave(15' +) - elev. 20**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>40,887,331</b>
Concrete box culverts	3,705	cy	700	2,593,500
#6 rebar	232	tons	925	214,600
Flap Gates (12w x 4h)	55	ea	43,200	2,376,000
Flap Gates (10w x 4h)	4	ea	36,000	144,000
Flap Gates (7w x 4h)	5	ea	25,200	126,000
Flap Gates (6w x 3h)	4	ea	16,200	64,800
Flap Gates (8w x 4h)	4	ea	28,800	115,200
Flap Gates (10w x 4h)	19	ea	36,000	684,000
Cutoff valves (12w x 4h)	55	ea	100,800	5,544,000
Cutoff valves (10w x 4h)	19	ea	84,000	1,596,000
Cutoff valves (7w x 4h)	5	ea	58,800	294,000
Cutoff valves (6w x 3h)	4	ea	37,800	151,200
Cutoff valves (8w x 4h)	4	ea	67,200	268,800
Cutoff valves (10w x 4h)	4	ea	84,000	336,000
Pump stations, 42" to 60" pump size (3 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)				19,548,152
Ditch Excavation	906,807	cy	12.00	10,881,684
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	4,190,000
<b>Current Contract Cost, Oct 07 \$</b>				<b>90,015,267</b>
CONTINGENCY		@	<b>25.0%</b>	<u>22,503,817</u>
				\$ 112,519,084
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	8,916,948
06 Account, Preservation - Mitigation-Tidal ( 4 acr @ \$200,000/acr )				800,000
06 Account, Preservation - Mitigation-Non-Tidal ( 76 acr @ \$5,500/acr )				418,000
				<u>\$ 122,679,032</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>9,814,323</u>
				\$ 132,493,354
31 Account, Constr. Management		@	<b>6.0%</b>	<u>7,949,601</u>
				\$ 140,442,955
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				\$ 140,442,955
				rounded
<b>TOTAL PROJECT COST, Oct 07 \$</b>				<b>140,400,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **19** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** Option "G" FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Menge Ave(15'+) - elev. 30**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$4,710,000
<b><u>Levee System</u></b>				
Length	187,490	lf		
Compacted Fill	2,128,830	cy	15.00	31,932,450
Grassing (seeding)	76	Ac	2,150	163,400
Crushed Aggregate 6" Thick(Levee wearing surface)	61,400	cy	45.00	2,763,000
12" Rip Rap	381	cy	90.00	34,290
12 " Gabion Matress Cages	1,042,870	sy	16.00	16,685,920
Filter Fabric	1,042,870	sy	2.00	2,085,740
Clearing & Grubbing	343	Ac	5,000	1,715,000
 <b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	125	pass-thrus		30,124,860
Compacted Fill (ramps and tunnels)	7,200	cy	15.00	108,000
Grassing (seeding)	2	Ac	2,150	4,300
New Asphalt 2" (Cross overs) 9,645 cy figure 2.0 tons/cy	19,290	tons	70.00	1,350,300
Base material (12")	12,270	cy	34.50	423,315
Guardrail	34,800	lf	21.00	730,800
<b><u>Removal</u></b>				
Asphalt	154,500	sy	4.50	695,250
8" Water line removal	44,900	lf	41	1,840,900
6" Sewer line removal	44,900	lf	48	2,155,200
2" Gas line removal	44,900	lf	20	898,000
24" Storm drain pipe removal	44,900	lf	11.00	493,900
Electric line removal - 3 phase 1440v	44,900	lf	11.00	493,900
Demolish Buildings (avg. 1500 sf/ea @ 505 ea)	757,500	sf	3.00	2,272,500
Disposal Fee - off site	28,056	cy	2.50	70,139
 <b><u>New Work</u></b>				
New 8" Water line	44,900	lf	8.00	359,200
New 6" Sewer Line	44,900	lf	8.00	359,200
New 2" Gas Line	44,900	lf	8.00	359,200
New Electric Line - 3 phase 1440v	44,900	lf	44.00	1,975,600
New 24" Storm drain pipe	44,900	lf	68.00	3,053,200
<b>Subtotal</b>				<b>\$107,857,563</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **20** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** Option "G" FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Menge Ave(15'+) - elev. 30**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>107,857,563</b>
Concrete box culverts	3,705	cy	700	2,593,500
#6 rebar	233	tons	925	215,525
Flap Gates (12w x 4h)	55	ea	43,200	2,376,000
Flap Gates (10w x 4h)	5	ea	36,000	180,000
Flap Gates (7w x 4h)	5	ea	25,200	126,000
Flap Gates (6w x 3h)	4	ea	16,200	64,800
Flap Gates (8w x 4h)	4	ea	28,800	115,200
Flap Gates (10w x 4h)	19	ea	36,000	684,000
Cutoff valves (12w x 4h)	55	ea	100,800	5,544,000
Cutoff valves (10w x 4h)	19	ea	84,000	1,596,000
Cutoff valves (7w x 4h)	5	ea	58,800	294,000
Cutoff valves (6w x 3h)	4	ea	37,800	151,200
Cutoff valves (8w x 4h)	4	ea	67,200	268,800
Cutoff valves (10w x 4h)	4	ea	84,000	336,000
Pump stations, 42" to 60" pump size (9 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			41,792,146
Ditch Excavation	906,807	cy	12.00	10,881,684
Biloxi Courthouse Flood Wall	1	Job	ls	8,765,200
Gulfport Courthouse Flood wall	1	Job	ls	9,348,980
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	9,420,000

**Current Contract Cost, Oct 07** \$ 202,610,598

CONTINGENCY	@	<b>25.0%</b>	50,652,650
			\$ 253,263,248
01 Account, Lands & Damage	PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)		<b>LS</b>	20,801,338
06 Account, Preservation - Mitigation-Tidal ( 9 acr @ \$200,000/acr )			1,800,000
06 Account, Preservation - Mitigation-Non-Tidal ( 201 acr @ \$5,500/acr )			1,105,500
			\$ 276,995,086
30 Account, Plan, Engr.& Design	@	<b>8.0%</b>	22,159,607
			\$ 299,154,693
31 Account, Constr. Management	@	<b>6.0%</b>	17,949,282
			\$ 317,103,974
ESCALATION	@	<b>0.0%</b>	0
			\$ 317,103,974
			rounded
<b>TOTAL PROJECT COST, Oct 07</b>			<b>\$ 317,100,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **21** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** Option "H" FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Menge Ave(15'+) - elev. 40**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$7,630,000
<b><u>Levee System</u></b>				
Length	187,490	lf		
Compacted Fill	7,485,500	cy	15.00	112,282,500
Grassing (seeding)	420	Ac	2,150	903,000
Crushed Aggregate 6" Thick(Levee wearing surface)	62,235	cy	45.00	2,800,575
Clearing & Grubbing	407	Ac	5,000	2,035,000
<b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	157	pass-thrus		67,603,699
Grassing (seeding)	7	Ac	2,150	15,050
New Asphalt 2" (Cross overs) 712 cy figure 2.0 tons/cy	1,424	tons	70.00	99,680
Base material (12")	4,275	cy	34.50	147,488
<b><u>Removal</u></b>				
Asphalt	91,882	sy	4.50	413,469
8" Water line removal	75,000	lf	8.00	600,000
6" Sewer line removal	75,000	lf	8.00	600,000
2" Gas line removal	75,000	lf	3.00	225,000
24" Storm drain pipe removal	75,000	lf	11.00	825,000
Electric line removal - 3 phase 1440v	75,000	lf	11.00	825,000
Demolish Buildings (avg. 1500 sf/ea @ 585 ea)	877,500	sf	3.00	2,632,500
Disposal Fee - off site	32,500	cy	2.50	81,250
<b><u>New Work</u></b>				
New 8" Water line	75,000	lf	41	3,075,000
New 6" Sewer Line	75,000	lf	48	3,600,000
New 2" Gas Line	75,000	lf	20	1,500,000
New Electric Line - 3 phase 1440v	75,000	lf	44.00	3,300,000
New 24" Storm drain pipe	75,000	lf	68.00	5,100,000
<b>Subtotal</b>				<b>\$216,294,210</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **22** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** Option "H" FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Menge Ave(15'+) - elev. 40**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>216,294,210</b>
Concrete box culverts	3,705	cy	700	2,593,500
#6 rebar	232	tons	925	214,600
Flap Gates (12w x 4h)	55	ea	43,200	2,376,000
Flap Gates (10w x 4h)	4	ea	36,000	144,000
Flap Gates (7w x 4h)	5	ea	25,200	126,000
Flap Gates (6w x 3h)	4	ea	16,200	64,800
Flap Gates (8w x 4h)	4	ea	28,800	115,200
Flap Gates (10w x 4h)	19	ea	36,000	684,000
Cutoff valves (12w x 4h)	55	ea	100,800	5,544,000
Cutoff valves (10w x 4h)	19	ea	84,000	1,596,000
Cutoff valves (7w x 4h)	5	ea	58,800	294,000
Cutoff valves (6w x 3h)	4	ea	37,800	151,200
Cutoff valves (8w x 4h)	4	ea	67,200	268,800
Cutoff valves (10w x 4h)	4	ea	84,000	336,000
Pump stations, 42" to 60" pump size (14 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)				<b>53,135,605</b>
Ditch Excavation	906,807	cy	12.00	10,881,684
Biloxi Courthous Flood Wall (reference backup file for cost derivation)	1	Job	ls	8,765,200
Gulfport Courthouse Flood wall (reference backup file for cost derivation)	1	Job	ls	9,348,980
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	15,270,000

**Current Contract Cost, Oct 07 \$ 328,203,779**

CONTINGENCY	@	<b>25.0%</b>	82,050,945
			\$ 410,254,724
01 Account, Lands & Damage	PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)		<b>LS</b>	28,270,865
06 Account, Preservation - Mitigation-Tidal ( 11 acr @ \$200,000/acr )			2,200,000
06 Account, Preservation - Mitigation-Non-Tidal ( 277 acr @ \$5,500/acr )			1,523,500
			\$ 442,274,089
30 Account, Plan, Engr.& Design	@	<b>8.0%</b>	35,381,927
			\$ 477,656,016
31 Account, Constr. Management	@	<b>6.0%</b>	28,659,361
			\$ 506,315,377
ESCALATION	@	<b>0.0%</b>	0
			\$ 506,315,377
			rounded
<b>TOTAL PROJECT COST, Oct 07</b>			<b>\$ 506,300,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **23** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** **Option "I"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**" Levee for Rdwy(75') with Menge Ave Alt - elev. 20**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,410,000
<b><u>Levee System</u></b>				
Length	12,453	lf		
Compacted Fill	464,210	cy	15.00	6,963,150
Grassing (seeding)	13	Ac	2,150	27,950
Crushed Aggregate 6" Thick(Levee wearing surface)	2,623	cy	45.00	118,035
12" Rip Rap	226,488	cy	90.00	20,383,920
24 " Gabion Matress Cages	277,749	sy	32.00	8,887,968
Filter Fabric	277,749	sy	2.00	555,498
Clearing & Grubbing	69	Ac	5,000	345,000
 <b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	20	pass-thrus		5,057,133
Compacted Fill (ramps and tunnels)	7,200	cy	15.00	108,000
Grassing (seeding)	2	Ac	2,150	4,300
New Asphalt 2" (Cross overs) 1,000 cy figure 2.0 tons/cy	2,000	tons	70.00	140,000
Base material (12")	11,000	cy	34.50	379,500
Guardrail	8,900	lf	21.00	186,900
<b><u>Removal</u></b>				
Asphalt	70,000	sy	4.50	315,000
8" Water line removal	14,900	lf	8.00	119,200
6" Sewer line removal	14,900	lf	8.00	119,200
2" Gas line removal	14,900	lf	3.00	44,700
24" Storm drain pipe removal	14,900	lf	11.00	163,900
Electric line removal - 3 phase 1440v	14,900	lf	11.00	163,900
Demolish Buildings (avg. 1500 sf/ea @ 122 ea)	183,000	sf	3.00	549,000
Disposal Fee - off site	6,778	cy	2.50	16,944
<b><u>New Work</u></b>				
New 8" Water line	14,900	lf	41	610,900
New 6" Sewer Line	14,900	lf	48	715,200
New 2" Gas Line	14,900	lf	20	298,000
New Electric Line - 3 phase 1440v	14,900	lf	44.00	655,600
New 24" Storm drain pipe	14,900	lf	68.00	1,013,200
			<b>Subtotal</b>	<b>\$50,352,098</b>

**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **24** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Option "I"**  
**" Levee for Rdwy(75') with Menge Ave Alt - elev. 20**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>50,352,098</b>
Concrete box culverts	9,918	cy	700	6,942,600
#6 rebar	315	tons	925	291,375
Flap Gates (12w x 4h)	55	ea	43,200	2,376,000
Flap Gates (10w x 4h)	19	ea	36,000	684,000
Flap Gates (8w x 4h)	4	ea	28,800	115,200
Flap Gates (7w x 4h)	5	ea	25,200	126,000
Flap Gates (6w x 3h)	4	ea	16,200	64,800
Cutoff valves (12w x 4h)	55	ea	100,800	5,544,000
Cutoff valves (10w x 4h)	19	ea	84,000	1,596,000
Flap Gates (8w x 4h)	5	ea	28,800	144,000
Flap Gates (7w x 4h)	4	ea	25,200	100,800
Flap Gates (6w x 3h)	4	ea	16,200	64,800
Pump stations, 42" to 60" pump size (3 ea)				19,548,152
Ditch Excavation	906,807	cy	12.00	10,881,684
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	4,820,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 103,651,509</b>
CONTINGENCY		@	<b>25.0%</b>	<b>25,912,877</b>
				<b>\$ 129,564,386</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	23,937,703
06 Account, Preservation - Mitigation-Tidal ( 9 acr @ \$200,000/acr )				1,800,000
06 Account, Preservation - Mitigation-Non-Tidal ( 132 acr @ \$5,500/acr )				726,000
				<b>\$ 156,053,089</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<b>12,484,247</b>
				<b>\$ 168,537,336</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<b>10,112,240</b>
				<b>\$ 178,649,577</b>
ESCALATION		@	<b>0.0%</b>	<b>0</b>
				<b>\$ 178,649,577</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 178,600,000</b>

Notes: Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **25** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Option "J"**  
**" Levee for Rdwy(75') with Menge Ave Alt - elev. 30**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$7,000,000
<b><u>Levee System</u></b>				
Length	159,365	lf		
Compacted Fill	4,107,957	cy	15.00	61,619,355
Grassing (seeding)	268	Ac	2,150	576,200
Crushed Aggregate 6" Thick(Levee wearing surface)	44,268	cy	45.00	1,992,060
12" Rip Rap	625,059	cy	90.00	56,255,310
12 " Gabion Matress Cages	1,875,176	sy	16.00	30,002,816
Filter Fabric	1,875,176	sy	2.00	3,750,352
Clearing & Grubbing	566	Ac	5,000	2,830,000
 <b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	123	pass-thrus		46,593,985
Compacted Fill (ramps and tunnels)	7,200	cy	15.00	108,000
Grassing (seeding)	2	Ac	2,150	4,300
New Asphalt 2" (Cross overs) 1,000 cy figure 2.0 tons/cy	2,000	tons	70.00	140,000
Base material (12")	11,000	cy	34.50	379,500
Guardrail	8,900	lf	21.00	186,900
<b><u>Removal</u></b>				
Asphalt	70,000	sy	4.50	315,000
8" Water line removal	14,900	lf	8.00	119,200
6" Sewer line removal	14,900	lf	8.00	119,200
2" Gas line removal	14,900	lf	3.00	44,700
24" Storm drain pipe removal	14,900	lf	11.00	163,900
Electric line removal - 3 phase 1440v	14,900	lf	11.00	163,900
Demolish Buildings (avg. 1500 sf/ea @ 92 ea)	138,000	sf	3.00	414,000
Disposal Fee - off site	5,111	cy	2.50	12,778
<b><u>New Work</u></b>				
New 8" Water line	14,900	lf	41	610,900
New 6" Sewer Line	14,900	lf	48	715,200
New 2" Gas Line	14,900	lf	20	298,000
New Electric Line - 3 phase 1440v	14,900	lf	44.00	655,600
New 24" Storm drain pipe	14,900	lf	68.00	1,013,200
<b>Subtotal</b>				<b>\$216,084,356</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **26** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Harrison County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Option "J"**  
**" Levee for Rdwy(75') with Menge Ave Alt - elev. 30**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>216,084,356</b>
Concrete box culverts	9,918	cy	700	6,942,600
#6 rebar	315	tons	925	291,375
Flap Gates (12w x 4h)	55	ea	43,200	2,376,000
Flap Gates (10w x 4h)	19	ea	36,000	684,000
Flap Gates (8w x 4h)	4	ea	28,800	115,200
Flap Gates (7w x 4h)	5	ea	25,200	126,000
Flap Gates (6w x 3h)	4	ea	16,200	64,800
Cutoff valves (12w x 4h)	55	ea	100,800	5,544,000
Cutoff valves (10w x 4h)	19	ea	84,000	1,596,000
Flap Gates (8w x 4h)	4	ea	28,800	115,200
Flap Gates (7w x 4h)	5	ea	25,200	126,000
Flap Gates (6w x 3h)	4	ea	16,200	64,800
Pump stations, 42" to 60" pump size (9 ea)				41,792,146
Ditch Excavation	906,807	cy	12.00	10,881,684
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	13,990,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 300,794,161</b>
CONTINGENCY		@	<b>25.0%</b>	<u>75,198,540</u>
				\$ 375,992,701
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	25,350,835
06 Account, Preservation - Mitigation-Tidal ( 11 acr @ \$200,000/acr )				2,200,000
06 Account, Preservation - Mitigation-Non-Tidal ( 144 acr @ \$5,500/acr )				792,000
				<u>\$ 404,360,536</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>32,348,843</u>
				\$ 436,709,379
31 Account, Constr. Management		@	<b>6.0%</b>	<u>26,202,563</u>
				\$ 462,911,941
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				\$ 462,911,941
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 462,900,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 27 OF 32  
 PREPARED: Joseph H. Ellsworth CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 20 Option "A"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$3,940,000
<b><u>Levee System</u></b>				
Length	153,091	lf		
Compacted Fill	1,948,860	cy	15.00	29,232,900
Grassing (seeding)	35	Ac	2,150	75,250
Crushed Aggregate 6" Thick(Levee wearing surface)	41,050	cy	45.00	1,847,250
Rock Levee	86,510	cy	90.00	7,785,900
Clearing & Grubbing	372	Ac	5,000	1,860,000
24" Rip Rap	493,710	cy	90.00	44,433,900
24 " Gabion Mattress Cages	740,570	sy	32.00	23,698,240
Filter Fabric	740,570	sy	2.00	1,481,140
<b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	10	pass-thrus		2,099,385
Compacted Fill (ramps and tunnels)	2,000	cy	15.00	30,000
Grassing (seeding)	2	acr	2,150	4,300
New Asphalt 2" (Cross overs) 4000 cy figure 2.0 tons/cy	8,000	tons	70.00	560,000
Base material (12")	600	cy	34.50	20,700
Guardrail	1,400	lf	21.00	29,400
<b><u>Removal</u></b>				
Asphalt	27,200	sy	4.50	122,400
8" Water line removal	4,400	lf	8.00	35,200
6" Sewer line removal	4,400	lf	8.00	35,200
2" Gas line removal	4,400	lf	3.00	13,200
24" Storm drain pipe removal	4,400	lf	11.00	48,400
Electric line removal - 3 phase 1440v	4,400	lf	11.00	48,400
Demolish Buildings (avg. 1500 sf/ea @ 150 ea)	1,291,500	sf	3.00	3,874,500
Demolish Buildings (multistory avg. 1500 sf/ea @ 13 ea)	132,000	sf	3.50	462,000
Disposal Fee - off site	52,722	cy	2.50	131,806
Water tanks	4	ea	125,000	500,000
Ball Field	2	acr	25,000	50,000
Trailer park (6 trailers/ac.) 2 acres	12	ea	3,000	36,000
<b><u>New Work</u></b>				
New 8" Water line	4,400	lf	41	180,400
New 6" Sewer Line	4,400	lf	48	211,200
New 2"Gas Line	4,400	lf	20	88,000
New Electric Line - 3 phase 1440v	4,400	lf	44.00	193,600
New 24" Storm drain pipe	4,400	lf	68.00	299,200
			<b>Subtotal</b>	<b>\$123,427,871</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **28** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: **info furnished per Project Delivery Team**  
**Hancock County** FILE NAME: **mscip-comprehensive-study-combined-cost-est-25jul08.xls**  
**Inland Barrier - elev. 20 Option "A"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$123,427,871</b>
Concrete box culverts	7,964	cy	700	5,574,800
#6 rebar	200	tons	925	185,000
24" RCP	100	lf	45	4,500
20" RCP	100	lf	40	4,000
Flap Gates (10w x 8h)	20	ea	72,000	1,440,000
Flap Gates (12w x 8h)	7	ea	86,400	604,800
Flap Gates (12w x 4h)	32	ea	43,200	1,382,400
Flap Gates (7w x 4h)	5	ea	25,200	126,000
Flap Gates (7w x 3h)	4	ea	18,900	75,600
Flap Gates (4w x 2h)	2	ea	7,200	14,400
Flap Gates (24")	1	ea	7,200	7,200
Flap Gates (20")	1	ea	7,200	7,200
Cutoff valves (10w x 8h)	20	ea	168,000	3,360,000
Cutoff valves (12w x 8h)	7	ea	201,600	1,411,200
Cutoff valves (12w x 4h)	32	ea	100,800	3,225,600
Cutoff valves (7w x 4h)	5	ea	58,800	294,000
Cutoff valves (7w x 3h)	4	ea	44,100	176,400
Cutoff valves (4w x 2h)	2	ea	16,800	33,600
Cutoff valves (24")	1	ea	16,800	16,800
Cutoff valves (20")	1	ea	16,800	16,800
Pump stations, 42" to 60" pump size (3 ea) <span style="background-color: yellow;">(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)</span>				8,199,791
Ditch Excavation	1,002,398	cy	12.00	12,028,776
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	7,880,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 169,496,737</b>
CONTINGENCY		@	<b>25.0%</b>	<b>42,374,184</b>
				<b>\$ 211,870,922</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	66,177,149
06 Account, Preservation - Mitigation-Tidal ( 264 acr @ \$200,000/acr )				52,800,000
06 Account, Preservation - Mitigation-Non-Tidal ( 95 acr @ \$5,500/acr )				522,500
				<b>\$ 331,395,571</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	26,511,646
				<b>\$ 357,907,216</b>
31 Account, Constr. Management		@	<b>6.0%</b>	21,474,433
				<b>\$ 379,381,649</b>
ESCALATION		@	<b>0.0%</b>	0
				<b>\$ 379,381,649</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 379,400,000</b>

Notes: Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 29 OF 32  
 PREPARED: Joseph H. Ellsworth CHECKED: Gary A. Payton  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 30 Option "B"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$10,390,000
<b><u>Levee System</u></b>				
Length	181,928	lf		
Compacted Fill	15,227,614	cy	15.00	228,414,210
Grassing (seeding)	72	Ac	2,150	154,800
Crushed Aggregate 6" Thick (Levee wearing surface)	101,070	cy	45.00	4,548,150
Rock Levee	184,935	cy	90.00	16,644,150
Clearing & Grubbing	409	Ac	5,000	2,045,000
12" Riprap	660,400	cy	90.00	59,436,000
12 " GABION MATTRESS CAGES	1,981,200	sy	16.00	31,699,200
Filter Fabric	1,981,200	sy	2.00	3,962,400
<b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	20	pass-thrus		6,274,027
Compacted Fill (ramps and tunnels)	382,610	cy	15.00	5,739,150
Grassing (seeding)	45	acr	2,150	96,750
New Asphalt 2" (Cross overs) 3260 cy figure 2.0 tons/cy	6,520	tons	70.00	456,400
Base material (12")	19,200	cy	34.50	662,400
Guardrail	40,000	lf	21.00	840,000
<b><u>Removal</u></b>				
Asphalt	9,070	sy	4.50	40,815
8" Water line removal	40,000	lf	8.00	320,000
6" Sewer line removal	40,000	lf	8.00	320,000
2" Gas line removal	40,000	lf	3.00	120,000
24" Storm drain pipe removal	40,000	lf	11.00	440,000
Electric line removal - 3 phase 1440v	40,000	lf	11.00	440,000
Demolish Buildings (avg. 1500 sf/ea @ 175 ea)	262,500	sf	3.00	787,500
Demolish Buildings (multistory avg. 1500 sf/ea @ 13 ea)	132,000	sf	3.50	462,000
Disposal Fee - off site	14,611	cy	2.50	36,528
Water tanks	4	ea	125,000	500,000
Ball Field	2	acr	25,000	50,000
Trailer park (6 trailers/ac.) 2 acres	12	ea	3,000	36,000
<b><u>New Work</u></b>				
New 8" Water line	40,000	lf	41	1,640,000
New 6" Sewer Line	40,000	lf	48	1,920,000
New 2" Gas Line	40,000	lf	20	800,000
New Electric Line - 3 phase 1440v	40,000	lf	44.00	1,760,000
New 24" Storm drain pipe	40,000	lf	68.00	2,720,000
			<b>Subtotal</b>	<b>\$383,755,480</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **30** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 30 Option "B"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>383,755,480</b>
Concrete box culverts	7,964	cy	700	5,574,800
#6 rebar	200	tons	925	185,000
24" RCP	100	lf	45	4,500
20" RCP	100	lf	40	4,000
Flap Gates (10w x 8h)	20	ea	72,000	1,440,000
Flap Gates (12w x 8h)	7	ea	86,400	604,800
Flap Gates (12w x 4h)	32	ea	43,200	1,382,400
Flap Gates (7w x 4h)	5	ea	25,200	126,000
Flap Gates (7w x 3h)	4	ea	18,900	75,600
Flap Gates (4w x 2h)	2	ea	7,200	14,400
Flap Gates (24")	1	ea	7,200	7,200
Flap Gates (20")	1	ea	7,200	7,200
Cutoff valves (10w x 8h)	20	ea	168,000	3,360,000
Cutoff valves (12w x 8h)	7	ea	201,600	1,411,200
Cutoff valves (12w x 4h)	32	ea	100,800	3,225,600
Cutoff valves (7w x 4h)	5	ea	58,800	294,000
Cutoff valves (7w x 3h)	4	ea	44,100	176,400
Cutoff valves (4w x 2h)	2	ea	16,800	33,600
Cutoff valves (24")	1	ea	16,800	16,800
Cutoff valves (20")	1	ea	16,800	16,800
Pump stations, 42" to 60" pump size (3 ea) (reference "Pumping Stations" estimate, pages 1-57 for cost derivation)				12,171,846
Ditch Excavation	1,002,398	cy	12.00	12,028,776
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	20,780,000
			<b>Current Contract Cost, Oct 07</b>	<b>\$ 446,696,402</b>
CONTINGENCY		@	<b>25.0%</b>	<b>111,674,100</b>
				<b>\$ 558,370,502</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	74,262,187
06 Account, Preservation - Mitigation-Tidal ( 546 acr @ \$200,000/acr )				109,200,000
06 Account, Preservation - Mitigation-Non-Tidal ( 467 acr @ \$5,500/acr )				2,568,500
				<b>\$ 744,426,189</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	59,554,095
				<b>\$ 803,980,284</b>
31 Account, Constr. Management		@	<b>6.0%</b>	48,238,817
				<b>\$ 852,219,102</b>
ESCALATION		@	<b>0.0%</b>	0
			rounded	<b>\$ 852,219,102</b>
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 852,200,000</b>

Notes: Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 31 OF 32  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: Line of Defense 4 BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 40 Option "C"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$8,790,000
<b><u>Levee System</u></b>				
Length	199,822	lf		
Compacted Fill	15,227,614	cy	15.00	228,414,210
Grassing (seeding)	655	Ac	2,150	1,408,250
Crushed Aggregate 6" Thick(Levee wearing surface)	9,053	cy	45.00	407,385
<b>Rock Levee</b>	<b>468,635</b>	<b>cy</b>	<b>90.00</b>	<b>42,177,150</b>
Clearing & Grubbing	953	Ac	5,000	4,765,000
<b><u>Ramps &amp; Tunnels</u></b>				
Rdwy/RR Pass-Thrus (reference backup file for cost derivation)	20	pass-thrus		11,147,923
Compacted Fill (ramps and tunnels)	497,840	cy	15.00	7,467,600
Grassing (seeding)	50	acr	2,150	107,500
New Asphalt 2" (Cross overs) 4000 cy figure 2.0 tons/cy	8,000	tons	70.00	560,000
Base material (12")	25,000	cy	34.50	862,500
Guardrail	50,000	lf	21.00	1,050,000
<b><u>Removal</u></b>				
Asphalt	54,400	sy	4.50	244,800
8" Water line removal	30,000	lf	8.00	240,000
6" Sewer line removal	30,000	lf	8.00	240,000
2" Gas line removal	30,000	lf	3.00	90,000
24" Storm drain pipe removal	30,000	lf	11.00	330,000
Electric line removal - 3 phase 1440v	30,000	lf	11.00	330,000
Demolish Buildings (avg. 1500 sf/ea @ 200 ea)	300,000	sf	3.00	900,000
Demolish Buildings (multistory avg. 1500 sf/ea @ 13 ea)	132,000	sf	3.50	462,000
Disposal Fee - off site	16,000	cy	2.50	40,000
Water tanks	4	ea	125,000	500,000
Ball Field	2	acr	25,000	50,000
Trailer park (6 trailers/ac.) 2 acres	12	ea	3,000	36,000
<b><u>New Work</u></b>				
New 8" Water line	30,000	lf	41	1,230,000
New 6" Sewer Line	30,000	lf	48	1,440,000
New 2"Gas Line	30,000	lf	20	600,000
New Electric Line - 3 phase 1440v	30,000	lf	44.00	1,320,000
New 24" Storm drain pipe	30,000	lf	68.00	2,040,000
Concrete box culverts	7,964	cy	700	5,574,800
#6 rebar	200	tons	925	185,000
			<b>Subtotal</b>	<b>\$323,010,118</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **32** OF **32**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Inland Barrier - elev. 40 Option "C"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward \$</b>				<b>323,010,118</b>
24" RCP	100	lf	45	4,500
20" RCP	100	lf	40	4,000
Flap Gates (10w x 8h)	20	ea	72,000	1,440,000
Flap Gates (12w x 8h)	7	ea	86,400	604,800
Flap Gates (12w x 4h)	32	ea	43,200	1,382,400
Flap Gates (7w x 4h)	5	ea	25,200	126,000
Flap Gates (7w x 3h)	4	ea	18,900	75,600
Flap Gates (4w x 2h)	2	ea	7,200	14,400
Flap Gates (24")	1	ea	7,200	7,200
Flap Gates (20")	1	ea	7,200	7,200
Cutoff valves (10w x 8h)	20	ea	168,000	3,360,000
Cutoff valves (12w x 8h)	7	ea	201,600	1,411,200
Cutoff valves (12w x 4h)	32	ea	100,800	3,225,600
Cutoff valves (7w x 4h)	5	ea	58,800	294,000
Cutoff valves (7w x 3h)	4	ea	44,100	176,400
Cutoff valves (4w x 2h)	2	ea	16,800	33,600
Cutoff valves (24")	1	ea	16,800	16,800
Cutoff valves (20")	1	ea	16,800	16,800
Pump stations, 42" to 60" pump size (3 ea)	(reference "Pumping Stations" estimate, pages 1-57 for cost derivation)			13,293,184
Ditch Excavation	1,002,398	cy	12.00	12,028,776
ATFP, Signage, Pavement Marking, Traffic Control, etc.	5	%	allow	17,590,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 378,122,578</b>
CONTINGENCY		@	<b>25.0%</b>	<b>94,530,644</b>
				<b>\$ 472,653,222</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)			<b>LS</b>	81,106,793
06 Account, Preservation - Mitigation-Tidal ( 662 acr @ \$200,000/acr )				132,400,000
06 Account, Preservation - Mitigation-Non-Tidal ( 834 acr @ \$5,500/acr )				4,587,000
				<b>\$ 690,772,015</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	55,261,761
				<b>\$ 746,033,776</b>
31 Account, Constr. Management		@	<b>6.0%</b>	44,762,027
				<b>\$ 790,795,803</b>
ESCALATION		@	<b>0.0%</b>	0
				<b>\$ 790,795,803</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 790,800,000</b>

**Notes:** Gate/Valve Unit Cost from Waterman Industries Inc.

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **6**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**St. Louis Bay** **Option "A"** FILE NAME: mscip-comprehensive-study-compbined-cost-est-25jul08.xls  
**Surge Barrier - elev. 20**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$26,790,000
<b><u>Surge Barrier</u></b>				
<b>Civil:</b>				
Cofferdam and Dewatering:				
Cell Piling	38,008	Tons	2,200	83,617,600
Cell Excavation	484,505	C.Y.	20.00	9,690,100
Cell Fill (from required excavation)	892,806	C.Y.	10.00	8,928,060
Foundation Dewatering (84 months @ \$45,000/mo.)	1	Job		3,780,000
<b>Earthwork:</b>				
Structural Excavation	590,100	C.Y.	20.00	11,802,000
Foundation Piling (20,856 Piles)	4,171,200	L.F.	35.00	145,992,000
Structural Fill (from required excavation)	226,500	C.Y.	10.00	2,265,000
<b>Stone Protection</b>	<b>210,000</b>	<b>C.Y.</b>	<b>90</b>	<b>18,900,000</b>
<b>Structural:</b>				
<b>Concrete:</b>				
<b><u>Gate Structure</u></b>				
Structural Concrete	738,860	C.Y.	450	332,487,131
Forming	536,835	sf	6.50	3,489,428
Reinforcement	1,833	Tons	925	1,695,525
<b><u>Abutment Walls</u></b>				
Concrete	14,044	C.Y.	450	6,319,800
Forming	31,920	sf	6.50	207,480
<b><u>Stilling Slab</u></b>				
Concrete	11,900	C.Y.	450	5,355,000
Reinforcement	684	Tons	925	632,700
<b>Structural Steel:</b>				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	6,954	Tons	9,800	68,149,200
Stainless Steel	22,382	Tons	11,700	261,869,400
<b>Low Level Culverts:</b>				
Structural Concrete	14,072	C.Y.	450	6,332,524
Forming	625,738	sf	6.50	4,067,297
Reinforcement	900	Tons	925	832,117
Sluice Gates (6'x4'x \$2100xn)	204	Each	50,400	10,281,600
Miscellaneous Metal	290	Tons	8,000	2,320,000
<b>Subtotal</b>				<b>\$ 1,015,803,962</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>2</b>	OF	<b>6</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 4</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>St. Louis Bay</b>	<b>Option "A"</b>	FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls	
<b>Surge Barrier - elev. 20</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$ 1,015,803,962</b>
Control Building	3,000	sf	450	1,350,000
Maintenance Building	10,000	sf	200	2,000,000
Mechanical:				
Operator Arms and Linkages	7,510	Tons	10,000	75,100,000
Ancillary Operating Equipment	1	Job		600,000
Spare Parts	1	ls	allow	5,000,000
Electrical:	1	Job		1,708,100
Anti-Terrorism/Force Protection, etc.	3	%	allow	32,140,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 1,133,702,062</b>
CONTINGENCY		@	<b>25.0%</b>	<u>283,425,515</u>
				<b>\$ 1,417,127,577</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				1,109,966
06 Account, Preservation - Mitigation-Tidal ( 19 acr @ \$200,000/acr )				3,800,000
06 Account, Preservation - Mitigation-Tidal ( 0 acr @ \$5,500/acr )				0
				<u>\$ 1,422,062,543</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>113,765,003</u>
				<b>\$ 1,535,827,546</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>92,149,653</u>
				<b>\$ 1,627,977,199</b>
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				<b>\$ 1,627,977,199</b>
rounded				
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 1,628,000,000</b>

**Notes:** (reference backup files for mechanical & electrical cost derivation)

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **6**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**St. Louis Bay** **Option "B"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Surge Barrier - elev. 30**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$36,190,000
<b><u>Surge Barrier</u></b>				
<b>Civil:</b>				
Cofferdam and Dewatering:				
Cell Piling	47,511	Tons	2,200	104,524,200
Cell Excavation	484,505	C.Y.	20.00	9,690,100
Cell Fill (from required excavation)	1,174,394	C.Y.	10.00	11,743,940
Foundation Dewatering (84 months @ \$45,000 /mo.)		Job		3,780,000
<b>Earthwork:</b>				
Structural Excavation	1,174,900	C.Y.	20.00	23,498,000
Foundation Piling (22,032 Piles)	4,406,400	L.F.	35.00	154,224,000
Structural Fill (from required excavation)	547,700	C.Y.	10.00	5,477,000
<b>Stone Protection</b>	<b>210,000</b>	<b>C.Y.</b>	<b>90.00</b>	<b>18,900,000</b>
<b>Structural:</b>				
<b>Concrete:</b>				
<u>Gate Structure</u>				
Structural Concrete	792,302	C.Y.	450	239,878,026
Forming	688,272	sf	6.50	3,463,304
Reinforcement	1,638	Tons	925	981,425
<u>Abutment Walls</u>				
Concrete	20,400	C.Y.	450	10,645,200
Forming	39,600	sf	6.50	279,825
<u>Stilling Slab</u>				
Concrete	11,900	C.Y.	450	5,355,000
Reinforcement	684	tons	925	632,700
<b>Structural Steel:</b>				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	16,953	Tons	9,800	193,942,250
Stainless Steel	19,456	Tons	11,700	396,255,600
<b>Low Level Culverts:</b>				
Structural Concrete	20,883	C.Y.	450	36,605,437
Forming	928,541	sf	6.50	4,472,687
Reinforcement	1,335	Tons	925	673,140
Sluice Gates (6'x4'x \$2100xn)	204	Each	50,400	10,281,600
Miscellaneous Metal	360	Tons	8,000	3,200,000
<b>Subtotal</b>				<b>\$ 1,112,545,193</b>



## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **5** OF **6**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**St. Louis Bay** **Option "C"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Surge Barrier - elev. 40**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$38,940,000
<b><u>Surge Barrier</u></b>				
<b>Civil:</b>				
Cofferdam and Dewatering:				
Cell Piling	47,511	Tons	2,200	104,524,200
Cell Excavation	484,505	C.Y.	20.00	9,690,100
Cell Fill	1,455,982	C.Y.	10.00	14,559,820
Foundation Dewatering (84 Months @ \$45,000 /mo.)		Job		3,780,000
Earthwork:				
Structural Excavation	1,144,000	C.Y.	20.00	22,880,000
Foundation Piling (21,060)	4,212,000	L.F.	35.00	147,420,000
Structural Fill	544,800	C.Y.	10.00	5,448,000
<b>Stone Protection</b>	<b>210,000</b>	<b>C.Y.</b>	<b>90</b>	<b>18,900,000</b>
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	782,501	C.Y.	450	352,125,617
Forming	784,095	sf	6.50	5,096,618
Reinforcement	1,560	Tons	925	1,443,000
<u>Abutment Walls</u>				
Concrete	23,656	C.Y.	450	10,645,200
Forming	43,050	sf	6.50	279,825
<u>Stilling Slab</u>				
Concrete	11,900	C.Y.	450	5,355,000
Reinforcement	684	tons	925	632,700
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	22,382	Tons	9,800	219,343,600
Stainless Steel	37,430	Tons	11,700	437,931,000
<u>Low Level Culverts</u>				
Structural Concrete	27,724	C.Y.	450	12,475,633
Forming	1,232,668	sf	6.50	8,012,345
Reinforcement	1,772	Tons	925	1,639,340
Sluice Gates (4x6x\$2100xn)	204	Each	50,400	10,281,600
Miscellaneous Metal	600	Tons	8,000	4,800,000
<b>Subtotal</b>				<b>\$1,436,203,596</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. <b>6</b>	OF	<b>6</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Line of Defense 4</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
<b>St. Louis Bay</b>	<b>Option "C"</b>	FILE NAME: mscip-comprehensive-study-compbined-cost-est-25jul08.xls	
<b>Surge Barrier - elev. 40</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$ 1,436,203,596</b>
Control Building	3,000	sf	450	1,350,000
Maintenance Building	10,000	sf	200	2,000,000
Mechanical:				
Operator Arms and Linkages	15,320	Tons	10,000	153,200,000
Ancillary Operating Equipment	1	Job		600,000
Spare Parts	1	ls	allow	5,000,000
Electrical:	1	Job		1,708,100
Anti-Terrorism/Force Protection, etc.	3	%	allow	46,730,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 1,646,791,696</b>
CONTINGENCY		@	<b>25.0%</b>	<u>411,697,924</u>
				\$ 2,058,489,620
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				1,109,966
06 Account, Preservation - Mitigation-Tidal ( 19 acr @ \$200,000/acr )				3,800,000
06 Account, Preservation - Mitigation-Non-Tidal ( 0 acr @ \$5,500/acr )				<u>0</u>
				\$ 2,063,424,586
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>165,073,967</u>
				\$ 2,228,498,553
31 Account, Constr. Management		@	<b>6.0%</b>	<u>133,709,913</u>
				\$ 2,362,208,467
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				\$ 2,362,208,467
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 2,362,200,000</b>

**Notes:** (reference backup files for mechanical & electrical cost derivation)

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **6**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Back Bay of Biloxi** **Option "A"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Surge Barrier - elev. 20**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$16,110,000
<b><u>Surge Gates</u></b>				
<b>Civil:</b>				
Cofferdam and Dewatering:				
Cell Piling	23,294	Tons	2200	51,246,800
Cell Excavation	279,846	C.Y.	20	5,596,920
Cell Fill	754,770	C.Y.	10	7,547,700
Foundation Dewatering (60 month duration, 45,000/month)	1	Job		2,700,000
<b><u>Earthwork:</u></b>				
Structural Excavation	23,294	C.Y.	20	465,880
Foundation Piling (13,836 Piles)	279,846	L.F.	35	9,794,610
Structural Fill	754,770	C.Y.	10	7,547,700
<b>Stone Protection</b>	<b>210,000</b>	<b>C.Y.</b>	<b>90</b>	<b>18,900,000</b>
<b>Structural:</b>				
<b>Concrete:</b>				
<b><u>Gate Structure</u></b>				
Structural Concrete	480,239	C.Y.	450	216,107,726
Forming	356,663	sf	6.50	2,318,310
Reinforcement	1,210	Tons	925	1,119,250
<b><u>Abutment Walls</u></b>				
Concrete	12,188	C.Y.	450	5,484,600
Forming	30,900	sf	6.50	200,850
<b><u>Stilling Structure</u></b>				
Concrete	11,900	C.Y.	450	5,355,000
Reinforcement	684	Tons	925	632,700
<b>Structural Steel:</b>				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	4,686	Tons	9,800	45,922,800
Stainless Steel	15,061	Tons	11,700	176,213,700
<b>Low Level Culverts:</b>				
Structural Concrete	5,596	C.Y.	450	2,518,086
Forming	241,637	sf	6.50	1,570,641
Reinforcement	357	Tons	925	330,565
Sluice Gates (4x6x \$2100xn)	85	Each	50,400	4,284,000
Miscellaneous Metal	200	Tons	8,000	1,600,000
<b>Subtotal \$</b>				<b>583,567,837</b>



## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **6**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Back Bay of Biloxi** **Option "B"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Surge Barrier - elev. 30**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization <b><u>Surge Barrier</u></b>	1	job	allow	\$20,810,000
<b>Civil:</b>				
Cell Piling	31,837	Tons	2200	70,041,400
Cell Excavation	279,846	C.Y.	20	5,596,920
Cell Fill (from required excavation)	754,770	C.Y.	10	7,547,700
Foundation Dewatering (60Mo. @ \$45,000 / Mo.)	1	Job		2,700,000
<b>Earthwork:</b>				
Structural Excavation	881,900	C.Y.	20	17,638,000
Foundation Piling (14,538 Piles)	1,134,024	L.F.	35	39,690,840
Structural Fill (from required excavation)	414,500	C.Y.	10	4,145,000
<b>Stone Protection</b>	<b>210000</b>	<b>C.Y.</b>	<b>90</b>	<b>18,900,000</b>
<b>Structural:</b>				
<b>Concrete:</b>				
<b><u>Gate Structure</u></b>				
Structural Concrete	540,621	C.Y.	450	243,279,522
Forming	351,575	sf	6.50	2,285,238
Reinforcement	1,083	Tons	925	1,001,775
<b><u>Abutment Walls</u></b>				
Concrete	12,188	C.Y.	450	5,484,600
Forming	30,900	sf	6.50	200,850
<b><u>Stilling Slab</u></b>				
Concrete	11900	C.Y.	450	5,355,000
Reinforcement	684	Tons	925	632,700
<b>Structural Steel:</b>				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	11238	Tons	9,800	110,132,400
Stainless Steel	13024	Tons	11,700	152,380,800
<b>Low Level Culverts:</b>				
Structural Concrete	41,300	C.Y.	450	18,584,795
Forming	468,061	sf	6.50	3,042,394
Reinforcement	542	Tons	925	501,427
Sluice Gates (6'x4'x \$2100xn)	85	Each	50,400	4,284,000
Miscellaneous Metal	240	Tons	8,000	1,920,000
<b>Subtotal \$</b>				<b>736,155,360</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **4** OF **6**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
           **Back Bay of Biloxi** **Option "B"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
           **Surge Barrier - elev. 30**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$ 736,155,360</b>
Control Building	3,000	sf	450	1,350,000
Maintenance Building	10,000	sf	200	2,000,000
Mechanical:				
Gate Arms	11,020	Tons	10,000	110,200,000
Operating Equipment	1	Job	600,000	600,000
Spare Parts	1	ls	allow	5,000,000
Electrical:	1	Job	1,393,200	1,393,200
Anti-Terrorism/Force Protection, etc.	3	%	allow	25,600,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 882,298,560</b>
CONTINGENCY				@ <b>25.0%</b>
				<u>220,574,640</u>
				<b>\$ 1,102,873,200</b>
01 Account, Lands & Damage				PCA <b>LS</b> 25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				1,767,353
06 Account, Preservation - Mitigation-Tidal ( 11 acr @ \$200,000/acr )				2,200,000
06 Account, Preservation - Mitigation-Tidal ( 0 acr @ \$5,500/acr )				<u>0</u>
				<b>\$ 1,106,865,553</b>
30 Account, Plan, Engr.& Design				@ <b>8.0%</b> <u>88,549,244</u>
				<b>\$ 1,195,414,797</b>
31 Account, Constr. Management				@ <b>6.0%</b> <u>71,724,888</u>
				<b>\$ 1,267,139,685</b>
ESCALATION				@ <b>0.0%</b> <u>0</u>
				<b>\$ 1,267,139,685</b>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 1,267,100,000</b>

**Notes:** (reference backup files for mechanical & electrical cost derivation)

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **5** OF **6**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Back Bay of Biloxi** **Option "C"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Surge Barrier - elev. 40**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$29,810,000
<b><u>Surge Barrier</u></b>				
<b>Civil:</b>				
Cofferdam and Dewatering:				
Cell Piling	31,837	Tons	2,200	70,041,400
Cell Excavation	279,846	C.Y.	20	5,596,920
Cell Fill	1,075,547	C.Y.	10	10,755,470
Foundation Dewatering (60 month duration, 45,000/month)	1	Job		2,700,000
<b>Earthwork:</b>				
Structural Excavation	903,200	C.Y.	20	18,064,000
Foundation Piling (14,250 Piles)	2,850,000	L.F.	35	99,750,000
Structural Fill (from required excavation)	434,800	C.Y.	10	4,348,000
<b>Stone Protection</b>	<b>210000</b>	<b>C.Y.</b>	<b>90</b>	<b>18,900,000</b>
<b>Structural:</b>				
<b>Concrete:</b>				
<b><u>Gate Structure</u></b>				
Structural Concrete	533,062	C.Y.	450	239,878,026
Forming	532,816	sf	6.50	3,463,304
Reinforcement	1,061	Tons	925	981,425
<b><u>Abutment Walls</u></b>				
Concrete	23,656	C.Y.	450	10,645,200
Forming	43,050	sf	6.50	279,825
<b><u>Stilling Slab</u></b>				
Concrete	11900	C.Y.	450	5,355,000
Reinforcement	684	Tons	925	632,700
<b>Structural Steel:</b>				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	14890	Tons	9,800	145,922,000
Stainless Steel	25401	Tons	11,700	297,191,700
<b>Low Level Culverts:</b>				
Structural Concrete	81,345	C.Y.	450	36,605,437
Forming	688,106	sf	6.50	4,472,687
Reinforcement	728	Tons	925	673,140
Sluice Gates (4x6x \$2100xn)	85	Each	50,400	4,284,000
Miscellaneous Metal	400	Tons	8,000	3,200,000
<b>Subtotal</b>				<b>\$ 1,013,550,233</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **6** OF **6**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Back Bay of Biloxi** **Option "C"** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls  
**Surge Barrier - elev. 40**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b>Subtotal, brought forward</b>				<b>\$ 1,013,550,233</b>
Control Building	3,000	sf	450	1,350,000
Maintenance Building	10,000	sf	200	2,000,000
Mechanical:				
Gate Arms	20,160	Tons	10,000	201,600,000
Operating Equipment	1	Job		600,000
Electrical:	1	Job		1,393,200
Spare Parts	1	ls	allow	5,000,000
Anti-Terrorism/Force Protection, etc.	3.00	%	allow	36,660,000
<b>Current Contract Cost, Oct 07</b>				<b>\$ 1,262,153,433</b>
CONTINGENCY		@	<b>25.0%</b>	<u>315,538,358</u> \$ 1,577,691,792
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				1,767,353
06 Account, Preservation - Mitigation-Tidal ( 11 acr @ \$200,000/acr )				2,200,000
06 Account, Preservation - Mitigation-Tidal ( 0 acr @ \$5,500/acr )				<u>0</u>
				\$ 1,581,684,145
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	<u>126,534,732</u> \$ 1,708,218,876
31 Account, Constr. Management		@	<b>6.0%</b>	<u>102,493,133</u> \$ 1,810,712,009
ESCALATION		@	<b>0.0%</b>	<u>0</u> \$ 1,810,712,009 rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 1,810,700,000</b>

**Notes:** (reference backup files for mechanical & electrical cost derivation)

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 1 OF 4  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Llyod Oliver  
 WORK ITEM: **Harrison County - Line of Defense 4** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Biloxi Courthouse- Elevation 30** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Tee Wall</u></b>				
Earthwork:				
Structural Excavation	11,750	C.Y.	20	\$235,000
Foundation Piling	1540	Tons	1,500	2,310,000
Cutoff Wall Piling	635	Tons	2,200	1,395,900
Structural Fill	11,050	C.Y.	10	110,500
Structural:				
Concrete:				
Structural Concrete (Add Reinf. At 130 #/C.Y.)	1960	C.Y.	700	1,372,000
Structural Steel:				
Roadway Closure Gates (Including Miscellaneous Metal)	4	Each	54,000	<u>216,000</u>
<b>Current Contract Cost, Oct 07</b>				<b>\$5,639,400</b>

**Notes:** (Gate unit cost based on similar projects provided by New Orleans COE District)

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 2 OF 4  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Llyod Oliver**  
 WORK ITEM: **Harrison County - Line of Defense 4** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Biloxi Courthouse- Elevation 40** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Tee Wall</u></b>				
Earthwork:				
Structural Excavation	18,100	C.Y.	20	\$362,000
Foundation Piling	1540	Tons	1,500	2,310,000
Cutoff Wall Piling	635	Tons	2,200	1,395,900
Structural Fill	15,730	C.Y.	10	157,300
Structural:				
Concrete:				
Structural Concrete (Add Reinf. At 130 #/C.Y.)	5,800	C.Y.	700	4,060,000
Structural Steel:				
Roadway Closure Gates (Including Miscellaneous Metal)	4	Each	120,000	<u>480,000</u>
<b>Current Contract Cost, Oct 07</b>				<b><u>\$8,765,200</u></b>

**Notes:** (Gate unit cost based on similar projects provided by New Orleans COE District)

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 3 OF 4  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Llyod Oliver**  
 WORK ITEM: **Harrison County - Line of Defense 4** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Gulfport Courthouse- Elevation 30** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Tee Wall</u></b>				
Earthwork:				
Structural Excavation	12,930	C.Y.	20	\$258,600
Foundation Piling	1690	Tons	1,500	2,535,000
Cutoff Wall Piling	698	Tons	2,200	1,536,480
Structural Fill	12,150	C.Y.	10	121,500
Structural:				
Concrete:				
Structural Concrete (Add Reinf. At 130 #/C.Y.)	2160	C.Y.	700	1,512,000
Structural Steel:				
Roadway Closure Gates (Including Miscellaneous Metal)	2	Each	54,000	<u>108,000</u>
<b>Current Contract Cost, Oct 07</b>				<b>\$6,071,580</b>

**Notes:** (Gate unit cost based on similar projects provided by New Orleans COE District)

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 4 OF 4  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Llyod Oliver**  
 WORK ITEM: **Harrison County - Line of Defense 4** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Gulfport Courthouse- Elevation 40** FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Tee Wall</u></b>				
Earthwork:				
Structural Excavation	19,920	C.Y.	20	\$398,400
Foundation Piling	1690	Tons	1,500	2,535,000
Cutoff Wall Piling	698	Tons	2,200	1,536,480
Structural Fill	17,310	C.Y.	10	173,100
Structural:				
Concrete:				
Structural Concrete (Add Reinf. At 130 #/C.Y.)	6,380	C.Y.	700	4,466,000
Structural Steel:				
Roadway Closure Gates (Including Miscellaneous Metal)	2	Each	120,000	240,000
<b>Current Contract Cost, Oct 07</b>				<b>\$9,348,980</b>

**Notes:** (Gate unit cost based on similar projects provided by New Orleans COE District)

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

### NO GATE STRUCTURES

PROJECT: <b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION <b>Mississippi</b>	SHEET NO. <b>1</b>	OF	<b>24</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Lloyd Oliver</b>
WORK ITEM <b>Line of Defense 4 - Inland Barrier</b>	BASIS of ESTIMATE: <b>by project delv'd. team</b>		
<b>Jackson County - Elevation 20</b>	FILE NAME: <b>Jackson_Lod4_Inland Barrier_Vehicle Gates.xls</b>		
<b>Vehicle-RR-Gates</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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### Jackson County

Structural Concrete, complete	0	cy		0
Form Work	0	sf		0
Steel Reinforcement	0	tons		0
11.5' wide x 16' high Swing Gates (railroad)	0	each		0
16.75' wide x 14' high Swing Gates	0	each		0
3' high x 31.5' wide Roller Gates	0	each		0
4' high x 31.5' wide Roller Gates	0	each		0
5' high x 31.5' wide Roller Gates	0	each		0
6' high x 31.5' wide Roller Gates	0	each		0
7' high x 31.5' wide Roller Gates	0	each		0
8' high x 31.5' wide Roller Gates	0	each		0
9' high x 31.5' wide Roller Gates	0	each		0

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS

<b>Current Contract Cost, Oct 07</b>	<b>\$0</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

### NO GATE STRUCTURES

PROJECT: <b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION <b>Mississippi</b>	SHEET NO. <b>2</b>	OF	<b>24</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Lloyd Oliver</b>
WORK ITEM <b>Line of Defense 4 - Inland Barrier</b>	BASIS of ESTIMATE: <b>by project delv'd. team</b>		
<b>Jackson County - Elevation 30</b>	FILE NAME: <b>Jackson_Lod4_Inland Barrier_Vehicle Gates.xls</b>		
<b>Vehicle-RR-Gates</b>			

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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### Jackson County

Structural Concrete, complete	0	cy		0
Form Work	0	sf		0
Steel Reinforcement	0	tons		0
11.5' wide x 6' high Swing Gates (railroad)	0	each		0
16.75' wide x 14' high Swing Gates	0	each		0
3' high x 31.5' wide Roller Gates	0	each		0
4' high x 31.5' wide Roller Gates	0	each		0
5' high x 31.5' wide Roller Gates	0	each		0
6' high x 31.5' wide Roller Gates	0	each		0
7' high x 31.5' wide Roller Gates	0	each		0
8' high x 31.5' wide Roller Gates	0	each		0
9' high x 31.5' wide Roller Gates	0	each		0

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$0</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **3** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4 - Inland Barrier** BASIS of ESTIMATE: **by project delv'd. team**  
**Jackson County - Elevation 40** FILE NAME: **Jackson\_Lod4\_Inland Barrier\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Jackson County**

Structural Concrete, complete	425	cy	450	191,471
Form Work	9,485	sf	6.50	61,653
Steel Reinforcement	18	tons	925	17,009
3.7' high x 31.5' wide Roller Gates	1	each	24,800	24,800
4' high x 31.5' wide Roller Gates	1	each	25,600	25,600
8.5' high x 31.5' wide Roller Gates	1	each	41,600	41,600

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$362,133</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **4** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4 - Inland Barrier** BASIS of ESTIMATE: **by L.O. project delv'd. team**  
**Harrison County - Elevation 20** FILE NAME: **Harrison\_Lod4\_Inland Barrier\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Levee and Roadway/Railway Intersections**

Structural Concrete, complete	12,891	cy	450	5,800,931
Form Work	305,078	sf	6.50	1,983,008
Steel Reinforcement	625	tons	925	577,943
16.75' wide x 14' high Swing Gates	50	each	47,200	2,360,000
3' high x 31.5' wide Roller Gates	1	each	22,400	22,400
4' high x 31.5' wide Roller Gates	2	each	25,600	51,200
5' high x 31.5' wide Roller Gates	1	each	29,600	29,600
6' high x 31.5' wide Roller Gates	2	each	32,800	65,600
7' high x 31.5' wide Roller Gates	1	each	36,000	36,000
8' high x 31.5' wide Roller Gates	8	each	39,200	313,600
9' high x 31.5' wide Roller Gates	3	each	43,200	129,600

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$11,369,882</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **5** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4 -Inland Barrier** BASIS of ESTIMATE: **by L.O. project delv'd. team**  
**Harrison County - Elevation 30** FILE NAME: **Harrison\_Lod4\_Inland Barrier\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Levee and Roadway/Railway Intersections**

Structural Concrete, complete	49,443	cy	450	22,249,146
Form Work	1,027,645	sf	6.50	6,679,691
Steel Reinforcement	2,207	tons	925	2,041,666
11.5' wide x 36' high Swing Gates (railroad)	2	each	96,000	192,000
16.75' wide x 14' high Swing Gates	138	each	47,200	6,513,600
3' high x 31.5' wide Roller Gates	7	each	22,400	156,800
4' high x 31.5' wide Roller Gates	3	each	25,600	76,800
5' high x 31.5' wide Roller Gates	3	each	29,600	88,800
6' high x 31.5' wide Roller Gates	49	each	32,800	1,607,200
7' high x 31.5' wide Roller Gates	5	each	36,000	180,000
8' high x 31.5' wide Roller Gates	7	each	39,200	274,400
9' high x 31.5' wide Roller Gates	4	each	43,200	172,800

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$40,232,904</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **6** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4 - Inland Barrier** BASIS of ESTIMATE: **by L.O. project delv'd. team**  
**Harrison County - Elevation 40** FILE NAME: **Harrison\_Lod4\_Inland Barrier\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Levee and Roadway/Railway Intersections**

Structural Concrete, complete	104,486	cy	450	47,018,762
Form Work	1,923,781	sf	6.50	12,504,579
Steel Reinforcement	4,491	tons	925	4,154,231
11.5' wide x 36' high Swing Gates (railroad)	2	each	96,000	192,000
16.75' wide x 14' high Swing Gates	314	each	47,200	14,820,800
4' high x 31.5' wide Roller Gates	1	each	25,600	25,600

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$78,715,972</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **7** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4 - Inland Barrier** BASIS of ESTIMATE: **by L.O. project delv'd. team**  
**Hancock County - Elevation 20** FILE NAME: **Hancock\_Lod4\_Inland Barrier\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Levee and Roadway/Railway Intersections**

Structural Concrete, complete	2,447	cy	450	1,100,927
Form Work	49,422	sf	6.50	321,241
Steel Reinforcement	114	tons	925	105,217
16.75' wide x 14' high Swing Gates	6	each	47,200	283,200
11.5' wide x 16' high Swing Gates (railroad)	4	each	43,200	172,800
4' high x 31.5' wide Roller Gates	3	each	25,600	76,800
8' high x 31.5' wide Roller Gates	1	each	39,200	39,200

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$2,099,385</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **8** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4 - Inland Barrier** BASIS of ESTIMATE: **by L.O. project delv'd. team**  
**Hancock County - Elevation 30** FILE NAME: **Hancock\_Lod4\_Inland Barrier\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Levee and Roadway/Railway Intersections**

Structural Concrete, complete	7,829	cy	450	3,522,973
Form Work	153,514	sf	6.50	997,842
Steel Reinforcement	346	tons	925	320,412
16.75' wide x 14' high Swing Gates	18	each	47,200	849,600
11.5' wide x 26' high Swing Gates (railroad)	4	each	72,000	288,000
6' high x 31.5' wide Roller Gates	9	each	32,800	295,200

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$6,274,027</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **9** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4 - Inland Barrier** BASIS of ESTIMATE: **by L.O. project delv'd. team**  
**Hancock County - Elevation 40** FILE NAME: **Hancock\_Lod4\_Inland Barrier\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Levee and Roadway/Railway Intersections**

Structural Concrete, complete	14,972	cy	450	6,737,298
Form Work	267,385	sf	6.50	1,738,001
Steel Reinforcement	637	tons	925	589,424
16.75' wide x 14' high Swing Gates	36	each	47,200	1,699,200
11.5' wide x 36' high Swing Gates (railroad)	4	each	96,000	384,000

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$11,147,923</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION <b>Mississippi</b>	SHEET NO. <b>10</b>	OF	<b>24</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Lloyd Oliver</b>
WORK ITEM <b>Line of Defense 3- Ring Levees Hancock County - Elevation 20 Vehicle-RR-Gates</b>	BASIS of ESTIMATE: by project delv'd. team		
	FILE NAME: Hancock_Lod3_RingLevee_Vehicle Gates.xls		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Pearlington**

Structural Concrete, complete	3,609	cy	450.00	1,623,949
Form Work	84,427	sf	6.50	548,778
Steel Reinforcement	177	tons	925.00	163,870
16.75' wide x 14' high Swing Gates	18	each	47,200	849,600

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$3,186,197</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION <b>Mississippi</b>	SHEET NO. <b>11</b>	OF	<b>24</b>
WORK ITEM <b>Line of Defense 3- Ring Levees Hancock County - Elevation 30 Vehicle-RR-Gates</b>	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Lloyd Oliver
	BASIS of ESTIMATE:	by project delv'd. team	
	FILE NAME: Hancock_Lod3_RingLevee_Vehicle Gates.xls		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Pearlington**

Structural Concrete, complete	6,980	cy	450.00	3,140,999
Form Work	121,607	sf	6.50	790,445
Steel Reinforcement	289	tons	925.00	267,052
16.75' wide x 14' high Swing Gates	18	each	47,200	849,600

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$5,048,096</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **12** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 3- Ring Levees** BASIS of ESTIMATE: **by project delv'd. team**  
**Jackson County - Elevation 20** FILE NAME: **Jackson\_Lod3\_RingLevee\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Ocean Springs</u></b>				
Structural Concrete, complete	4,066	cy	450.00	1,829,877
Form Work	93,878	sf	6.50	610,206
Steel Reinforcement	195	tons	925.00	180,673
16.75' wide x 14' high Swing Gates	18	each	47,200	849,600
4' high x 31.5' wide Roller Gates	1	each	25,600	25,600
5' high x 31.5' wide Roller Gates	2	each	29,600	59,200
6' high x 31.5' wide Roller Gates	1	each	32,800	32,800
8' high x 31.5' wide Roller Gates	2	each	39,200	78,400

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$3,666,357</b>
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### **Gulf Park Estates**

Structural Concrete, complete	3,867	cy	450.00	1,740,147
Form Work	91,821	sf	6.50	596,834
Steel Reinforcement	190	tons	925.00	175,948
16.75' wide x 14' high Swing Gates	18	each	47,200	849,600
6' high x 31.5' wide Roller Gates	1	each	32,800	32,800
9' high x 31.5' wide Roller Gates	1	each	43,200	43,200

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$3,438,529</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION <b>Mississippi</b>	SHEET NO. <b>13</b>	OF	<b>24</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Lloyd Oliver</b>
WORK ITEM <b>Line of Defense 3- Ring Levees Jackson County - Elevation 20 Vehicle-RR-Gates</b>	BASIS of ESTIMATE: by project del'v'd. team		
	FILE NAME: Jackson_Lod3_RingLevee_Vehicle Gates.xls		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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### Bellefontaine

Structural Concrete, complete	2,672	cy	450.00	1,202,400
Form Work	62,535	sf	6.50	406,478
Steel Reinforcement	128	tons	925.00	118,400
16.75' wide x 14' high Swing Gates	12	each	47,200	566,400
4' high x 31.5' wide Roller Gates	3	each	25,600	76,800
8' high x 31.5' wide Roller Gates	2	each	39,200	78,400

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS

<b>Current Contract Cost, Oct 07</b>	<b>\$2,448,878</b>
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### Gautier

Structural Concrete, complete	5,691	cy	450.00	2,560,772
Form Work	132,238	sf	6.50	859,550
Steel Reinforcement	272	tons	925.00	251,849
16.75' wide x 14' high Swing Gates	22	each	47,200	1,038,400
4' high x 31.5' wide Roller Gates	5	each	25,600	128,000
6' high x 31.5' wide Roller Gates	2	each	32,800	65,600
7' high x 31.5' wide Roller Gates	3	each	36,000	108,000
8' high x 31.5' wide Roller Gates	1	each	39,200	39,200

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS

<b>Current Contract Cost, Oct 07</b>	<b>\$5,051,370</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **14** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 3- Ring Levees** BASIS of ESTIMATE: **by project delv'd. team**  
**Jackson County - Elevation 20** FILE NAME: **Jackson\_Lod3\_RingLevee\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pascagoula</u></b>				
Structural Concrete, complete	20,625	cy	450.00	9,281,315
Form Work	460,958	sf	6.50	2,996,225
Steel Reinforcement	981	tons	925.00	907,571
11.5' wide x 8' high Swing Gates (railroad)	2	each	22,400	44,800
11.5' wide x 14' high Swing Gates (railroad)	4	each	41,600	166,400
11.5' wide x 15' high Swing Gates (railroad)	2	each	42,400	84,800
16.75' wide x 14' high Swing Gates	88	each	47,200	4,153,600
3' high x 31.5' wide Roller Gates	1	each	22,400	22,400
4' high x 31.5' wide Roller Gates	6	each	25,600	153,600
5' high x 31.5' wide Roller Gates	1	each	29,600	29,600
6' high x 31.5' wide Roller Gates	6	each	32,800	196,800
7' high x 31.5' wide Roller Gates	5	each	36,000	180,000
8' high x 31.5' wide Roller Gates	6	each	39,200	235,200
9' high x 31.5' wide Roller Gates	4	each	43,200	172,800

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$18,625,110</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **15** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 3- Ring Levees** BASIS of ESTIMATE: **by project delv'd. team**  
**Jackson County - Elevation 30** FILE NAME: **Jackson\_Lod3\_RingLevee\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Ocean Springs</u></b>				
Structural Concrete, complete	14,958	cy	450.00	6,731,094
Form Work	317,595	sf	6.50	2,064,370
Steel Reinforcement	688	tons	925.00	636,543
16.75' wide x 14' high Swing Gates	70	each	47,200	3,304,000
6' high x 31.5' wide Roller Gates	4	each	32,800	131,200
7' high x 31.5' wide Roller Gates	1	each	36,000	36,000
8' high x 31.5' wide Roller Gates	1	each	39,200	39,200

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$12,942,407</b>
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### **Gulf Park Estates**

Structural Concrete, complete	9,419	cy	450.00	4,238,425
Form Work	168,317	sf	6.50	1,094,063
Steel Reinforcement	395	tons	925	365,471
16.75' wide x 14' high Swing Gates	26	each	47,200	1,227,200

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$6,925,159</b>
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### **Bellefontaine**

Structural Concrete, complete	6,153	cy	450.00	2,768,638
Form Work	117,463	sf	6.50	763,507
Steel Reinforcement	268	tons	925	247,619
16.75' wide x 14' high Swing Gates	20	each	47,200	944,000

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$4,723,764</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **16** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 3- Ring Levees** BASIS of ESTIMATE: **by project delv'd. team**  
**Jackson County - Elevation 30** FILE NAME: **Jackson\_Lod3\_RingLevee\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Gautier**

Structural Concrete, complete	13,282	cy	450.00	5,976,809
Form Work	260,864	sf	6.50	1,695,619
Steel Reinforcement	589	tons	925.00	545,180
16.75' wide x 14' high Swing Gates	52	each	47,200	2,454,400

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District;  
 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$10,672,007</b>
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**Pascagoula**

Structural Concrete, complete	49,705	cy	450.00	22,367,224
Form Work	920,758	sf	6.50	5,984,928
Steel Reinforcement	2,134	tons	925.00	1,974,156
11.5' wide x 12' high Swing Gates (railroad)	2	each	32400	64,800
11.5' wide x 18' high Swing Gates (railroad)	2	each	48600	97,200
11.5' wide x 24' high Swing Gates (railroad)	4	each	66480	265,920
11.5' wide x 25' high Swing Gates (railroad)	2	each	69200	138,400
16.75' wide x 14' high Swing Gates	166	each	47,200	7,835,200
8' high x 31.5' wide Roller Gates	1	each	39,200	39,200

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District;  
 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$38,767,028</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **17** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 3- Railway/Vehicle Gates** BASIS of ESTIMATE: **by project delv'd. team**  
**Hancock County - Elevation 11** FILE NAME: **Hancock\_Lod3\_Railway\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**East of Bay Saint Louis**

Structural Concrete, complete	438	cy	450.00	197,217
Form Work	8,294	sf	6.50	53,912
Steel Reinforcement	18	tons	925.00	17,091
11.5' wide x3' high Swing Gates (railroad)	2	each	18,880	37,760
31.5' wide x 3' high Roller Gates	2	each	22,400	44,800
31.5' wide x 7' high Roller Gates	1	each	36,000	36,000

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$</b>	<b>386,780</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **18** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4- Railway/Vehicle Gates** BASIS of ESTIMATE: **by project delv'd. team**  
**Harrison County - Option 'D'** FILE NAME: **Harrison(OptD&E)\_Lod4\_Inland Barrier(8-07)\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Levee and Roadway/Railway Intersections - Roadway on Levee**

Structural Concrete, complete	27,194	cy	450.00	12,237,417
Form Work	516,538	sf	6.50	3,357,498
Steel Reinforcement	1,061	tons	925.00	981,425
16.75' wide x 14' high Swing Gates	50	each	47,200	2,360,000
3' high x 31.5' wide Roller Gates	1	each	22,400	22,400
4' high x 31.5' wide Roller Gates	2	each	25,600	51,200
5' high x 31.5' wide Roller Gates	1	each	29,600	29,600
6' high x 31.5' wide Roller Gates	2	each	32,800	65,600
7' high x 31.5' wide Roller Gates	1	each	36,000	36,000
8' high x 31.5' wide Roller Gates	8	each	39,200	313,600
9' high x 31.5' wide Roller Gates	3	each	43,200	129,600

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$19,584,340</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **19** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4- Railway/Vehicle Gates** BASIS of ESTIMATE: **by project delv'd. team**  
**Harrison County - Option 'E'** FILE NAME: **Harrison(OptD&E)\_Lod4\_Inland Barrier(8-07)\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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### Levee and Roadway/Railway Intersections - Roadway on Levee

Structural Concrete, complete	94,060	cy	450.00	42,326,783
Form Work	1,675,265	sf	6.50	10,889,221
Steel Reinforcement	3,579	tons	925.00	3,310,575
11.5' wide x 6' high Swing Gates (railroad)	2	each	28,800	57,600
16.75' wide x 14' high Swing Gates	138	each	47,200	6,513,600
3' high x 31.5' wide Roller Gates	7	each	22,400	156,800
4' high x 31.5' wide Roller Gates	3	each	25,600	76,800
5' high x 31.5' wide Roller Gates	4	each	29,600	118,400
6' high x 31.5' wide Roller Gates	51	each	32,800	1,672,800
7' high x 31.5' wide Roller Gates	6	each	36,000	216,000
8' high x 31.5' wide Roller Gates	7	each	39,200	274,400
9' high x 31.5' wide Roller Gates	4	each	43,200	172,800

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$65,785,779</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: <b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION <b>Mississippi</b>	SHEET NO. <b>20</b>	OF	<b>24</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	<b>Lloyd Oliver</b>
WORK ITEM <b>Line of Defense 4- Railway/Vehicle Gates Harrison County - Option 'F' Vehicle-RR-Gates</b>	BASIS of ESTIMATE: by project delv'd. team		
	FILE NAME: Harrison(Opt'F-G-H')_Lod4_Inland Barrier(8-07)_Vehicle Gates.xls		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Levee and Roadway/Railway Intersections - Menge Avenue Alternative**

Structural Concrete, complete	4,704	cy	450.00	2,116,928
Form Work	109,607	sf	6.50	712,446
Steel Reinforcement	219	tons	925.00	202,575
16.75' wide x 14' high Swing Gates	10	each	47,200	472,000
3' high x 31.5' wide Roller Gates	1	each	22,400	22,400
4' high x 31.5' wide Roller Gates	3	each	25,600	76,800
5' high x 31.5' wide Roller Gates	2	each	29,600	59,200
6' high x 31.5' wide Roller Gates	2	each	32,800	65,600
7' high x 31.5' wide Roller Gates	1	each	36,000	36,000
8' high x 31.5' wide Roller Gates	7	each	39,200	274,400
9' high x 31.5' wide Roller Gates	1	each	43,200	43,200

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$4,081,549</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **21** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4- Railway/Vehicle Gates** BASIS of ESTIMATE: **by project delv'd. team**  
**Harrison County - Option 'G'** FILE NAME: **Harrison(Opt'F-G-H')\_Lod4\_Inland Barrier(8-07)\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Levee and Roadway/Railway Intersections - Menge Avenue Alternative</u></b>				
Structural Concrete, complete	35,366	cy	450.00	15,914,508
Form Work	785,319	sf	6.50	5,104,576
Steel Reinforcement	1,627	tons	925.00	1,504,975
11.5' wide x 6' high Swing Gates (railroad)	2	each	36,000	72,000
16.75' wide x 14' high Swing Gates	100	each	47,200	4,720,000
3' high x 31.5' wide Roller Gates	8	each	22,400	179,200
4' high x 31.5' wide Roller Gates	3	each	25,600	76,800
5' high x 31.5' wide Roller Gates	4	each	29,600	118,400
6' high x 31.5' wide Roller Gates	54	each	32,800	1,771,200
7' high x 31.5' wide Roller Gates	6	each	36,000	216,000
8' high x 31.5' wide Roller Gates	7	each	39,200	274,400
9' high x 31.5' wide Roller Gates	4	each	43,200	172,800

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$30,124,860</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **22** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4- Railway/Vehicle Gates** BASIS of ESTIMATE: **by project delv'd. team**  
**Harrison County - Option 'H'** FILE NAME: **Harrison(Opt'F-G-H')\_Lod4\_Inland Barrier(8-07)\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Levee and Roadway/Railway Intersections - Menge Avenue Alternative**

Structural Concrete, complete	84,216	cy	450	37,897,026
Form Work	1,694,457	sf	6.50	11,013,973
Steel Reinforcement	3,788	tons	925	3,503,900
11.5' wide x 16' high Swing Gates (railroad)	2	each	43,200	86,400
16.75' wide x 14' high Swing Gates	318	each	47,200	15,009,600
4' high x 31.5' wide Roller Gates	2	each	25,600	51,200
6.5' high x 31.5' wide Roller Gates	1	each	41,600	41,600

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$67,603,699</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **23** OF **24**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4- Railway/Vehicle Gates** BASIS of ESTIMATE: **by project delv'd. team**  
**Harrison County - Option 'I'** FILE NAME: **Harrison(Opt'I-J')\_Lod4\_Inland Barrier(8-07)\_Vehicle Gates.xls**  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Levee and Roadway/Railway Intersections - Menge Avenue Alternative</u></b>				
Structural Concrete, complete	6,459	cy	450	2,906,378
Form Work	134,893	sf	6.50	876,805
Steel Reinforcement	278	tons	925	257,150
16.75' wide x 14' high Swing Gates	10	each	47,200	472,000
4' high x 31.5' wide Roller Gates	1	each	22,400	22,400
6.5' high x 31.5' wide Roller Gates	3	each	25,600	76,800
5' high x 31.5' wide Roller Gates	2	each	29,600	59,200
6' high x 31.5' wide Roller Gates	1	each	32,800	32,800
7' high x 31.5' wide Roller Gates	1	each	36,000	36,000
8' high x 31.5' wide Roller Gates	7	each	39,200	274,400
9' high x 31.5' wide Roller Gates	1	each	43,200	43,200

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$5,057,133</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **24** OF **24**  
 PREPARED: **oseph H. Ellswort** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 4- Railway/Vehicle Gates** BASIS of ESTIMATE: by project delv'd. team  
**Harrison County - Option 'J'** FILE NAME: Harrison(Opt'I-J')\_Lod4\_Inland Barrier(8-07)\_Vehicle Gates.xls  
**Vehicle-RR-Gates**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Levee and Roadway/Railway Intersections - Menge Avenue Alternative</u></b>				
Structural Concrete, complete	64,538	cy	450	29,042,067
Form Work	1,199,949	sf	6.50	7,799,668
Steel Reinforcement	2,530	tons	925	2,340,250
11.5' wide x 6' high Swing Gates (railroad)	2	each	36,000	72,000
16.75' wide x 14' high Swing Gates	96	each	47,200	4,531,200
4' high x 31.5' wide Roller Gates	8	each	22,400	179,200
6.5' high x 31.5' wide Roller Gates	3	each	25,600	76,800
5' high x 31.5' wide Roller Gates	4	each	29,600	118,400
6' high x 31.5' wide Roller Gates	54	each	32,800	1,771,200
7' high x 31.5' wide Roller Gates	6	each	36,000	216,000
8' high x 31.5' wide Roller Gates	7	each	39,200	274,400
9' high x 31.5' wide Roller Gates	4	each	43,200	172,800

Note: All Gate Unit Costs noted above are installed costs with contingencies included, as provided by New Orleans District; 25% Contingency removed from the figures provided before insertion into this work; Price Level is for 3/23/07.

**ABOVE GATE COUNTS ARE FOR INDIVIDUAL GATE LEAVES AT BOTH SWING GATE AND ROLLER GATE INSTALLATIONS**

<b>Current Contract Cost, Oct 07</b>	<b>\$46,593,985</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Hancock County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Beach Boulevard- Elevation 11** FILE NAME **Beach Boulevard\_Lod3\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations W-1 thru W -10</u></b>				
Structural Concrete, complete all sites	3,931	cy	\$450	\$1,768,938
Form Work, complete all sites	95,349	sf	\$6.50	619,770
Steel Reinforcement, complete all sites	241	tons	\$925	222,691
Excavation	6,407	cy	\$15	96,104
Backfill	4,483	cy	\$5	22,413
Trash Screens and Miscellaneous metal items, All Sites	34	each	\$100,000	3,400,000
Pumps by Installation Site				
W-1 Pumps	4	each	\$192,500	770,000
Discharge Piping (42" Dia; 150 L.F.)				123,200
Energy Dissipation				150,000
W-2 Pumps	4	each	\$330,000	1,320,000
Discharge Piping (54" Dia; 150 L.F.)				197,100
Energy Dissipation				150,000
W-3 Pumps	4	each	\$192,500	770,000
Discharge Piping (42" Dia; 150 L.F.)				123,200
Energy Dissipation				150,000
W-4 Pumps	3	each	\$440,000	1,320,000
Discharge Piping (60" Dia; 150 L.F.)				188,500
Energy Dissipation				120,000
W-5 Pumps	3	each	\$330,000	990,000
Discharge Piping (54" Dia; 150 L.F.)				147,800
Energy Dissipation				120,000
W-6 Pumps	4	each	\$330,000	1,320,000
Discharge Piping (54" Dia; 150 L.F.)				197,100
Energy Dissipation				150,000
W-7 Pumps	2	each	\$192,500	385,000
Discharge Piping (42" Dia; 150 L.F.)				61,600
Energy Dissipation				90,000
W-8 Pumps	4	each	\$192,500	770,000
Discharge Piping (42" Dia; 150 L.F.)				123,200
Energy Dissipation				150,000
W-9 Pumps	3	each	\$330,000	990,000
Discharge Piping (54" Dia; 150 L.F.)				147,800
Energy Dissipation				120,000
W-10 Pumps	3	each	\$330,000	990,000
Discharge Piping (54" Dia; 150 L.F.)				147,800
Energy Dissipation				120,000
Electrical	34	each	\$242,100	8,231,400

<b>Current Contract Cost, Oct 07</b>	<b>\$26,763,616</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Bellfontaine- Elevation 20** FILE NAME bellfontaine\_Lod3\_Ring Levee\_Pumping Stations.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations BF-1 thru BF-7</u></b>				
Structural Concrete, complete all sites	3,151	cy	\$450.00	\$1,417,950
Form Work, complete all sites	77,358	sf	6.50	502,827
Steel Reinforcement, complete all sites	193	tons	925.00	178,525
Excavation	4,653	cy	15.00	69,795
Backfill	3,244	cy	5.00	16,220
Trash Screens and Miscellaneous metal items, All Sites	23	each	100,000	2,300,000
<b>Pumps by Installation</b>				
BF-1 Pumps	3	each	203,500	610,500
Discharge Piping (150 L.F. ; D=60")		Job		225,000
Energy Dissipation		Job		120,000
BF-2 Pumps	3	each	240,350	721,050
Discharge Piping (150 L.F. ; D=42")		Job		225,000
Energy Dissipation		Job		120,000
BF-3 Pumps	2	each	240,350	480,700
Discharge Piping (150 L.F. ; D=42")		Job		150,000
Energy Dissipation		Job		90,000
BF-4 Pumps	4	each	120,175	480,700
Discharge Piping (150 L.F. ; D=60")		Job		300,000
Energy Dissipation		Job		150,000
BF-5 Pumps	3	each	160,233	721,050
Discharge Piping (150 L.F. ; D=42")		Job		225,000
Energy Dissipation		Job		120,000
BF-6 Pumps	4	each	398,200	1,592,800
Discharge Piping (150 L.F. ; D=54")		Job		300,000
Energy Dissipation		Job		150,000
BF-7 Pumps	4	each	398,200	1,592,800
Discharge Piping (150 L.F. ; D=54")		Job		300,000
Energy Dissipation		Job		150,000
Electrical	23	Job	242,100	5,568,300

<b>Current Contract Cost, Oct 07</b>	<b>\$18,878,217</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **3** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Bellfontaine- Elevation 30** FILE NAME **Bellfontaine\_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations BF-1 thru BF-7</u></b>				
Structural Concrete, complete all sites	2,558	cy	\$450.00	\$1,151,100
Form Work, complete all sites	63,943	sf	6.50	415,630
Steel Reinforcement, complete all sites	157	tons	925.00	145,225
Excavation	3,376	cy	15.00	50,640
Backfill	2,425	cy	5.00	12,125
Trash Screens and Miscellaneous metal items, All Sites	21	each	100,000	2,100,000
<b>Pumps by Installation Site</b>				
BF-1 Pumps	3	each	203,500	610,500
Discharge Piping (250 L.F. ; D=42")		Job		375,000
Energy Dissipation		Job		120,000
BF-2 Pumps	3	each	240,350	721,050
Discharge Piping (250 L.F. ; D=42")		Job		375,000
Energy Dissipation		Job		120,000
BF-3 Pumps	2	each	240,350	480,700
Discharge Piping (250 L.F. ; D=42")		Job		250,000
Energy Dissipation		Job		90,000
BF-4 Pumps	2	each	240,350	480,700
Discharge Piping (250 L.F. ; D=42")		Job		250,000
Energy Dissipation		Job		90,000
BF-5 Pumps	3	each	240,350	721,050
Discharge Piping (250 L.F. ; D=42")		Job		375,000
Energy Dissipation		Job		120,000
BF-6 Pumps	4	each	398,200	1,592,800
Discharge Piping (250 L.F. ; D=54")		Job		500,000
Energy Dissipation		Job		150,000
BF-7 Pumps	4	each	398,200	1,592,800
Discharge Piping (250 L.F. ; D=54")		Job		500,000
Energy Dissipation		Job		150,000
Electrical	21	Job	242,100	5,084,100

<b>Current Contract Cost, Oct 07</b>	<b>\$18,623,420</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **4** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Gautier- Elevation 20** FILE NAME **Gautier\_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations G-1 thru G-8 (11 Sites Total)</u></b>				
Structural Concrete, complete all sites	6,860	cy	\$450	\$3,086,794
Form Work, complete all sites	165,560	sf	\$6.50	1,076,141
Steel Reinforcement, complete all sites	418	tons	\$925	386,633
Excavation	10,173	cy	\$15	152,599
Backfill	6,805	cy	\$5	34,025
Discharge Piping and Energy Dissipation (150L.F. + Stilling Str.)	47	each		
Trash Screens and Miscellaneous metal items, All Sites	47	each	100,000	4,700,000
<b>Pumps by Installation</b>				
G-1 Pumps	6	each	440,000	2,640,000
Discharge Piping (150 L.F. ; D=60")		Job		377,000
Energy Dissipation		Job		210,000
G-2 Pumps	6	each	440,000	2,640,000
Discharge Piping (150 L.F. ; D=60")		Job		377,000
Energy Dissipation		Job		60,000
G-3a Pumps	3	each	222,200	666,600
Discharge Piping (150 L.F. ; D=42")		Job		92,400
Energy Dissipation		Job		30,000
G-3f Pumps	4	each	440,000	1,760,000
Discharge Piping (150 L.F. ; D=60")		Job		251,300
Energy Dissipation		Job		40,000
G-4a Pumps	6	each	440,000	2640000
Discharge Piping (150 L.F. ; D=60")		Job		377,000
Energy Dissipation		Job		60,000
G-5 Pumps	4	each	440,000	140800
Discharge Piping (150 L.F. ; D=54")		Job		165,100
Energy Dissipation		Job		40,000
G-6 Pumps	4	each	35,200	1,760,000
Discharge Piping (150 L.F. ; D=60")		Job		251,300
Energy Dissipation		Job		40,000
G-7 Pumps	4	each	440,000	1,408,000
Discharge Piping (150 L.F. ; D=54")		Job		197,100
Energy Dissipation		Job		40,000
G-8a Pumps	4	each	352,000	888,800
Discharge Piping (150 L.F. ; D=42")		Job		123,200
Energy Dissipation		Job		40,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **5** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Gautier- Elevation 20** FILE NAME **Gautier\_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
G-8c Pumps	2	each	222,200	407000
Discharge Piping (150 L.F. ; D=42")		Job		61,600
Energy Dissipation		Job		20000
G-9 Pumps	4	each	203,500	1,408,000
Discharge Piping (150 L.F. ; D=54")		Job		197,100
Energy Dissipation		Job		40,000
Electrical	47	Job	242,100	11,378,700

<b>Current Contract Cost, Oct 07</b>	<b>\$40,264,191</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **6** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Gautier- Elevation 30** FILE NAME **Gautier\_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations G-1 thru G-8 (11 Sites Total)</u></b>				
Structural Concrete, complete all sites	6,268	cy	\$450	\$2,820,735
Form Work, complete all sites	154,233	sf	\$6.50	1,002,512
Steel Reinforcement, complete all sites	383	tons	\$925	354,134
Excavation	9,820	cy	\$15	147,295
Backfill	7,055	cy	\$5	35,277
Discharge Piping and Energy Dissipation	41	each		
Trash Screens and Miscellaneous metal items, All Sites	41	each	\$100,000	4,100,000
<b>Pumps by Installation Site</b>				
G-1 Pumps	6	each	\$467,500	2,805,000
Discharge Piping (250 L.F. ; D=60")		Job		531,200
Energy Dissipation		Job		210,000
G-2 Pumps	6	each	\$467,500	2,805,000
Discharge Piping (250 L.F. ; D=60")		Job		531,200
Energy Dissipation		Job		210,000
G-3a Pumps	3	each	\$240,350	721,050
Discharge Piping (250 L.F. ; D=42")		Job		130,200
Energy Dissipation		Job		120,000
G-3f Pumps	4	each	\$467,500	1,870,000
Discharge Piping (250 L.F. ; D=60")		Job		354,100
Energy Dissipation		Job		150,000
G-4a Pumps	6	each	\$311,667	2,805,000
Discharge Piping (250 L.F. ; D=60")		Job		531,200
Energy Dissipation		Job		210,000
G-5 Pumps	4	each	\$701,250	1,592,800
Discharge Piping (250 L.F. ; D=54")		Job		277,800
Energy Dissipation		Job		150,000
G-6 Pumps	4	each	\$467,500	1,870,000
Discharge Piping (250 L.F. ; D=60")		Job		354,100
Energy Dissipation		Job		150,000
G-7 Pumps	4	each	\$398,200	1,592,800
Discharge Piping (250 L.F. ; D=54")		Job		277,800
Energy Dissipation		Job		150,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **7** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Gautier- Elevation 30** FILE NAME **Gautier\_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
G-8a Pumps	4	each	\$467,500	961,400
Discharge Piping (250 L.F. ; D=42")		Job		173,600
Energy Dissipation		Job		150,000
G-8c Pumps	2	each	\$796,400	774,400
Discharge Piping (250 L.F. ; D=42")		Job		86,800
Energy Dissipation		Job		90,000
G-9 Pumps	4	each	\$240,350	1,592,800
Discharge Piping (250 L.F. ; D=60")		Job		354,100
Energy Dissipation		Job		150,000
Electrical	41	Job	\$242,100	9,926,100
<b>Current Contract Cost, Oct 07</b>				<b>\$43,118,404</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **8** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3 - Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Gulf Park Estates - Elevation 20** FILE NAME **Hancock\_Lod3\_Inland Barrier\_Vehicle Gates.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations GP-1 thru GP-8</u></b>				
Structural Concrete, complete all sites	3,441	cy	\$450	\$1,548,413
Form Work, complete all sites	84,868	sf	\$6.50	551,640
Steel Reinforcement, complete all sites	210	tons	\$925	194,636
Excavation	5,005	cy	\$15	75,082
Backfill	3,401	cy	\$5	17,007
Trash Screens and Miscellaneous metal items, All Sites	24	each	\$100,000	2,400,000
<b>Pumps by Installation Site</b>				
GP-1 Pumps	3	each	\$222,200	666,600
Discharge Piping (42" Dia; 150 L.F.)		job		87,000
Energy Dissipation		job		120,000
GP-2 Pumps	4	each	\$352,000	1,408,000
Discharge Piping (54" Dia; 150 L.F.)		job		197,100
Energy Dissipation		job		150,000
GP-3 Pumps	4	each	\$440,000	1,760,000
Discharge Piping (42" Dia; 150 L.F.)		job		240,000
Energy Dissipation		job		150,000
GP-4 Pumps	3	each	\$222,200	666,600
Discharge Piping (42" Dia; 130 L.F.)		job		77,400
Energy Dissipation		job		120,000
GP-5 Pumps	4	each	\$352,000	1,408,000
Discharge Piping (54" Dia; 140 L.F.)		job		180,500
Energy Dissipation		job		150,000
GP-6 Pumps	4	each	\$440,000	1,760,000
Discharge Piping (60" Dia; 150 L.F.)		job		240,000
Energy Dissipation		job		150,000
GP-7 Pumps	1	each	\$385,000	385,000
Discharge Piping (42" Dia; 125 L.F.)		job		24,000
Energy Dissipation		job		60,000
GP-8 Pumps	1	each	\$385,000	385,000
Discharge Piping (42" Dia; 150 L.F.)		job		29,000
Energy Dissipation		job		60,000
Electrical	24	Job	\$242,100	5,810,400

<b>Current Contract Cost, Oct 07</b>	<b>\$21,071,378</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 9 OF 57  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3 - Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Gulf Park Estates - Elevation 30** FILE NAME GulfPkEst\_Lod3\_Ring Levee\_Pumping Stations.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations GP-1 thru GP-8</u></b>				
Structural Concrete, complete all sites	3,441	cy	\$450	\$1,548,413
Form Work, complete all sites	84,868	sf	\$6.50	551,640
Steel Reinforcement, complete all sites	210	tons	\$925	194,636
Excavation	5,005	cy	\$15	75,082
Backfill	3,401	cy	\$5	17,007
Trash Screens and Miscellaneous metal items, All Sites	65	each	\$100,000	6,500,000
<b>Pumps by Installation Site</b>				
GP-1 Pumps	3	each	\$240,350	721,050
Discharge Piping (42" Dia; 150 L.F.)		job		87,000
Energy Dissipation		job		120,000
GP-2 Pumps	4	each	\$398,200	1,592,800
Discharge Piping (54" Dia; 150 L.F.)		job		197,100
Energy Dissipation		job		150,000
GP-3 Pumps	4	each	\$467,500	1,870,000
Discharge Piping (42" Dia; 150 L.F.)		job		240,000
Energy Dissipation		job		150,000
GP-4 Pumps	3	each	\$240,350	721,050
Discharge Piping (42" Dia; 130 L.F.)		job		77,400
Energy Dissipation		job		120,000
GP-5 Pumps	4	each	\$398,200	1,592,800
Discharge Piping (54" Dia; 140 L.F.)		job		180,500
Energy Dissipation		job		150,000
GP-6 Pumps	4	each	\$467,500	1,870,000
Discharge Piping (60" Dia; 150 L.F.)		job		240,000
Energy Dissipation		job		150,000
GP-7 Pumps	1	each	\$203,500	203,500
Discharge Piping (42" Dia; 125 L.F.)		job		24,000
Energy Dissipation		job		60,000
GP-8 Pumps	1	each	\$203,500	203,500
Discharge Piping (42" Dia; 150 L.F.)		job		29,000
Energy Dissipation		job		60,000
Electrical	65	Job	\$242,100	15,736,500

<b>Current Contract Cost, Oct 07</b>	<b>\$35,432,978</b>
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**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **10** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4 - Hancock County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Inland Barrier - Elevation 20** FILE NAME **Hancock County\_Lod4\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pump Stations HC-1 thru HC-3</u></b>				
Structural Concrete, complete all sites	618	cy	450	278,142
Form Work, complete all sites	14,777	sf	6.50	96,047
Steel Reinforcement, complete all sites	38	tons	925	34,869
Excavation	1,075	cy	15	16,130
Backfill	721	cy	5	3,603
Trash Screens and Miscellaneous metal items, All Sites	10	each	100,000	1,000,000
Pumps by Installation Site				
HC-1 Pump	4	each	440,000	\$1,760,000
Discharge Piping (130 L.F.; D=60")		job		210,500
Energy Dissipation		job		150,000
HC-2 Pump	4	each	352,000	\$1,408,000
Discharge Piping (120 L.F.; D=54")		job		148,500
Energy Dissipation		job		150,000
HC-3 Pump	2	each	203,500	\$407,000
Discharge Piping (65 L.F.; D=42")		job		26,000
Energy Dissipation		job		90,000
Electrical	10	Job	242,100	2,421,000

<b>Current Contract Cost, Oct 07</b>	<b>\$8,199,791</b>
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**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 11 OF 57  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4 - Hancock County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Inland Barrier - Elevation 30** FILE NAME HancockCounty\_Lod4\_Pumping Stations.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations HC-1 thru HC-3</u></b>				
Structural Concrete, complete all sites	4,042	cy	450	1,818,963
Form Work, complete all sites	90,309	sf	6.50	587,007
Steel Reinforcement, complete all sites	245	tons	925	226,794
Excavation	11,697	cy	15	175,461
Backfill	7,404	cy	5	37,022
Trash Screens and Miscellaneous metal items, All Sites	10	each	100,000	1,000,000
Pumps by Installation Site				
HC-1 Pump	4	each	467,500	1,870,000
Discharge Piping (190L.F.; D=60")		job		313,300
Energy Dissipation		job		150,000
HC-2 Pump	4	each	398,200	1,592,800
Discharge Piping (180 L.F.; D=54")		job		229,100
Energy Dissipation		job		150,000
HC-3 Pump	2	each	387,200	774,400
Discharge Piping (130 L.F.; D=42")		job		51,600
Energy Dissipation		job		774,400
Electrical	10	Job	242,100	2,421,000

<b>Current Contract Cost, Oct 07</b>	<b>\$12,171,846</b>
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**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 12 OF 57  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4 - Hancock County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Inland Barrier - Elevation 40** FILE NAME Hancock County\_Lod4\_Pumping Stations.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations HC-1 thru HC-3</u></b>				
Structural Concrete, complete all sites	3,717	cy	450	1,672,671
Form Work, complete all sites	89,251	sf	6.50	580,133
Steel Reinforcement, complete all sites	227	tons	925	209,771
Excavation	6,237	cy	15	93,554
Backfill	4,251	cy	5	21,255
Trash Screens and Miscellaneous metal items, All Sites	12	each	100,000	1,200,000
Pumps by Installation Site				
HC-1 Pump	6	each	451,000	2706000
Discharge Piping (255 L.F.; D=54")		job		489,600
Energy Dissipation		job		210,000
HC-2 Pump	4	each	451,000	1804000
Discharge Piping (240L.F.; D=54")		job		309,800
Energy Dissipation		job		150,000
HC-3 Pump	2	each	387,200	774400
Discharge Piping (190 L.F.; D=42")		job		76,800
Energy Dissipation		job		90,000
Electrical	12	Job	242,100	2,905,200

<b>Current Contract Cost, Oct 07</b>	<b>\$13,293,184</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **13** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3 - HarrisonCounty** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Elevated Roadway - Elevation 16** FILE NAME Harrison County\_Lod3\_Pumping Stations.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations H3-1 thru H3-15</u></b>				
Structural Concrete, complete all sites	5,054	cy	\$450	2,274,204
Form Work, complete all sites	119,999	sf	\$6.50	779,995
Steel Reinforcement, complete all sites	310	tons	\$925	286,503
Excavation	10,041	cy	\$15	150,619
Backfill	13,516	cy	\$5	67,581
Trash Screens and Miscellaneous metal items, All Sites	47	each	\$100,000	4,700,000
<b>Pumps by Installation Site</b>				
H3-1 Pumps	2	each	\$192,500	385,000
Discharge Piping (130 L.F. ; D=42")		Job		51,600
Energy Dissipation		Job		90,000
H3-2 Pumps	3	each	\$376,200	1,128,600
Discharge Piping (130 L.F. ; D=54")				123,800
Energy Dissipation				120,000
H3-3 Pumps	3	each	\$376,200	1,128,600
Discharge Piping (130 L.F. ; D=54")				123,800
Energy Dissipation				120,000
H3-4 Pumps	2	each	\$240,350	480,700
Discharge Piping (140 L.F. ; D=42")				56,400
Energy Dissipation				90,000
H3-5 Pumps	3	each	\$398,200	1,194,600
Discharge Piping (150 L.F. ; D=54")				147,800
Energy Dissipation				120,000
H3-6 Pumps	4	each	\$467,500	1,870,000
Discharge Piping (150 L.F. ; D=60")				251,300
Energy Dissipation				150,000
H3-7 Pumps	4	each	\$467,500	1,870,000
Discharge Piping (150 L.F. ; D=60")				230,100
Energy Dissipation				150,000
H3-8 Pumps	4	each	\$467,500	1,870,000
Discharge Piping (150 L.F. ; D=60")				251,300
Energy Dissipation				150,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **14** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3 - HarrisonCounty** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Elevated Roadway - Elevation 16** FILE NAME **Harrison County\_Lod3\_Pumping Stations.xls**

DESCRIPTION		Quantity	Unit	Unit Price	ESTIMATED AMOUNT
H3-9	Pumps	6	each	\$467,500	2,805,000
	Discharge Piping (140 L.F. ; D=60")				345,200
	Energy Dissipation				210,000
H3-10	Pumps	3	each	\$376,200	1,128,600
	Discharge Piping (130 L.F. ; D=54")				123,800
	Energy Dissipation				120,000
H3-11	Pumps	3	each	\$376,200	1,128,600
	Discharge Piping (130 L.F. ; D=54")				123,800
	Energy Dissipation				120,000
H3-12	Pumps	4	each	\$203,500	814,000
	Discharge Piping (130 L.F. ; D=42")				103,200
	Energy Dissipation				150,000
H3-13	Pumps	3	each	\$203,500	610,500
	Discharge Piping (130 L.F. ; D=42")				77,400
	Energy Dissipation				120,000
H3-14	Pumps	1	each	\$203,500	203,500
	Discharge Piping (130 L.F. ; D=42")				25,800
	Energy Dissipation				60,000
H3-15	Pumps	2	each	\$240,350	480,700
	Discharge Piping (150 L.F. ; D=42")				61,600
	Energy Dissipation				90,000
Electrical		47	each	\$242,100	11,378,700
<b>Current Contract Cost, Oct 07</b>					<b>\$40,692,903</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **15** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4 - Harrison County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Inland Barrier - Elevation 40** FILE NAME **Harrison County\_Lod4\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations H4-1 thru H4-7</u></b>				
Structural Concrete, complete all sites	3,717	cy	\$450	1,672,671
Form Work, complete all sites	89,251	sf	6.50	580,133
Steel Reinforcement, complete all sites	227	tons	925	209,771
Excavation	6,237	cy	15	93,554
Backfill	4,251	cy	5	21,255
Trash Screens and Miscellaneous metal items, All Sites	26	each	100,000	2,600,000
<b>Pumps by Installation Site</b>				
H4-1 Pump	4	each	456,500	1,826,000
Discharge Piping (170L.F.; D=60")		job		270,900
Energy Dissipation		job		120,000
H4-2 Pump	4	each	376,200	1,504,800
Discharge Piping (170 L.F.; D=54")		job		212,500
Energy Dissipation		job		120,000
H4-3 Pump	3	each	352,000	1,056,000
Discharge Piping (150 L.F.; D=54")		job		147,800
Energy Dissipation		job		90,000
H4-4 Pump	4	each	660,000	2,640,000
Discharge Piping (255L.F.; D=60")		job		416,200
Energy Dissipation		job		120,000
H4-5 Pump	4	each	456,500	1,826,000
Discharge Piping (180 L.F.; D=60")		job		292,100
Energy Dissipation		job		120,000
H4-6 Pump	4	each	376,200	1,504,800
Discharge Piping (170 L.F.; D=54")		job		212,500
Energy Dissipation		job		120,000
H4-7 Pump	3	each	376,200	1,128,600
Discharge Piping (170 L.F.; D=54")		job		159,400
Energy Dissipation		job		90,000
Electrical	26	each	242,100	6,294,600

<b>Current Contract Cost, Oct 07</b>	<b>\$25,449,584</b>
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**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 16 OF 57  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4 - Harrison County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Inland Barrier - Elevation 20** FILE NAME Harrison County\_Lod4\_Pumping Stations.xls  
**Option "A"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><i>Pumping Stations H4-4 (only)</i></b>				
Structural Concrete, complete all sites	618	cy	\$450.00	278,142
Form Work, complete all sites	14,777	sf	6.50	96,047
Steel Reinforcement, complete all sites	38	tons	925	34,869
Excavation	1,075	cy	15	16,130
Backfill	721	cy	5	3,603
Trash Screens and Miscellaneous metal items, All Sites	4	each	100,000	400,000
Pumps by Installation Site				
H4-4 Pump	4	each	400,000	\$1,600,000
Discharge Piping (130 L.F.; D=60")		job		210,500
Energy Dissipation		job		120,000
Electrical	4	each	242,100	968,400

<b>Current Contract Cost, Oct 07</b>	<b>\$3,727,691</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **17** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4 - Harrison County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Inland Barrier - Elevation 30** FILE NAME **Harrison County\_Lod4\_Pumping Stations.xls**  
**Option "B"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations H4-1 thru H4-7</u></b>				
Structural Concrete, complete all sites	4,042	cy	\$450.00	1,818,963
Form Work, complete all sites	90,309	sf	6.50	587,007
Steel Reinforcement, complete all sites	245	tons	925	226,794
Excavation	11,697	cy	15	175,461
Backfill	7,404	cy	5	37,022
Trash Screens and Miscellaneous metal items, All Sites	26	each	100,000	2,600,000
<b>Pumps by Installation Site</b>				
H4-1 Pump	4	each	440,000	1,760,000
Discharge Piping (100L.F.; D=60")		job		168,100
Energy Dissipation		job		120,000
H4-2 Pump	4	each	330,000	1,320,000
Discharge Piping (100 L.F.; D=54")		job		131,800
Energy Dissipation		job		120,000
H4-3 Pump	3	each	313,500	940,500
Discharge Piping (90 L.F.; D=54")		job		86,400
Energy Dissipation		job		90,000
H4-4 Pump	4	each	456,500	1,826,000
Discharge Piping (190 L.F.; D=60")		job		313,300
Energy Dissipation		job		120,000
H4-5 Pump	4	each	440,000	1,760,000
Discharge Piping (120 L.F.; D=60")		job		189,300
Energy Dissipation		job		120,000
H4-6 Pump	4	each	330,000	1,320,000
Discharge Piping (100 L.F.; D=54")		job		131,800
Energy Dissipation		job		120,000
H4-7 Pump	3	each	330,000	990,000
Discharge Piping (120 L.F.; D=54")		job		111,400
Energy Dissipation		job		90,000
Electrical	26	each	242,100	6,294,600

<b>Current Contract Cost, Oct 07</b>	<b>\$23,568,446</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 18 OF 57  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4 - Jackson County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Inland Barrier - Elevation 20** FILE NAME Jackson County\_Lod4\_Inland Barrier\_Pumping Stations.xls  
**Option "A"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations J-1 and J-2</u></b>				
Structural Concrete, complete all sites	1,457	cy	\$450	\$655,544
Form Work, complete all sites	34,623	sf	\$6.50	225,050
Steel Reinforcement, complete all sites	89	tons	\$925	81,991
Excavation	2,300	cy	\$15	34,507
Backfill	1,512	cy	\$5	7,558
Trash Screens and Miscellaneous metal items, All Sites	10	each	\$100,000	1,000,000
Pumps by Installation Site				
J-1 Pumps	6	each	\$440,000	2,640,000
Discharge Piping (150 L.F.; D=60")		job		377,000
Energy Dissipation		job		210,000
J-2 Pumps	4	each	\$330,000	1,320,000
Discharge Piping (65 L.F.; D=54")		job		148,500
Energy Dissipation		job		150,000
Electrical	10	each	\$242,100	2,421,000
<b>Current Contract Cost, Oct 07</b>				<b>\$9,271,149</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **19** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4 - Jackson County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Inland Barrier - Elevation 30** FILE NAME Jackson County\_Lod4\_Inland Barrier\_Pumping Stations.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations J-1 and J-2</u></b>				
Structural Concrete, complete all sites	1,457	cy	\$450	\$655,544
Form Work, complete all sites	34,623	sf	\$6.50	225,050
Steel Reinforcement, complete all sites	89	tons	\$925	81,991
Excavation	2,300	cy	\$15	34,507
Backfill	1,512	cy	\$5	7,558
Trash Screens and Miscellaneous metal items, All Sites	10	each	100,000	1,000,000
Pumps by Installation Site				
J-1 Pumps	6	each	467,500	2,805,000
Discharge Piping (217L.F.; D=60")		job		531,200
Energy Dissipation		job		210,000
J-2 Pumps	4	each	376,200	1,504,800
Discharge Piping (180 L.F.; D=54")		job		229,100
Energy Dissipation		job		150,000
Electrical	10	each	242,100	2,421,000
<b>Current Contract Cost, Oct 07</b>				<b>\$9,855,749</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **20** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4 - Jackson County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Inland Barrier - Elevation 40** FILE NAME Jackson County\_Lod4\_Inland Barrier\_Pumping Stations.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations J-1 and J-2</u></b>				
Structural Concrete, complete all sites	1,903	cy	\$450	\$856,506
Form Work, complete all sites	46,408	sf	\$6.50	301,651
Steel Reinforcement, complete all sites	116	tons	\$925	107,190
Excavation	2,088	cy	\$15	31,314
Backfill	1,357	cy	\$5	6,783
Trash Screens and Miscellaneous metal items, All Sites	15	each	100,000	1,500,000
<b>Pumps by Installation Site</b>				
J-1 Pumps	8	each	451,000	3,608,000
Discharge Piping (280 L.F.; D=54")		job		716,800
Energy Dissipation		job		270,000
J-2 Pumps	7	each	387,200	2,710,400
Discharge Piping (240L.F.; D=42")		job		338,800
Energy Dissipation		job		240,000
Electrical	15	each	242,100	3,631,500
<b>Current Contract Cost, Oct 07</b>				<b>\$14,318,944</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **21** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Jackson County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Elevated Roadway - Elevation 11** FILE NAME Jackson Co\_Seawall \_Lod3\_Pumping Stations.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><i>Pumping Stations J3-1 thru J3-9 (7 stations total)</i></b>				
Structural Concrete, complete all sites	1,756	cy	\$450.00	\$790,377
Form Work, complete all sites	42,353	sf	6.50	275,295
Steel Reinforcement, complete all sites	108	tons	925.00	100,212
Excavation	3,455	cy	15.00	51,824
Backfill (From Required Excavation)	2,505	cy	5.00	12,526
Trash Screens and Miscellaneous metal items, All Sites	22	each	100,000	2,200,000
<b>Pumps by Installation Site</b>				
J3-1 Pumps	3	each	192,500	577,500
Discharge Piping (42" Dia; 75 L.F.)				43,200
Energy Dissipation				120,000
J3-3 Pumps	3	each	330,000	990,000
Discharge Piping (54" Dia; 100 L.F.)				93,100
Energy Dissipation				120,000
J3-4 Pumps	2	each	192,500	385,000
Discharge Piping (42" Dia; 100 L.F.)				38,800
Energy Dissipation				90,000
J3-5 Pumps	6	each	192,500	1,155,000
Discharge Piping (42" Dia; 100 L.F.)				116,400
Energy Dissipation				210,000
J3-6 Pumps	4	each	192,500	770,000
Discharge Piping (42" Dia; 90 L.F.)				72,400
Energy Dissipation				150,000
J3-7 Pumps	2	each	330,000	660,000
Discharge Piping (54" Dia; 100 L.F.)				62,100
Energy Dissipation				90,000
J3-9 Pumps	2	each	313,500	627,000
Discharge Piping (54" Dia; 60 L.F.)				37,800
Energy Dissipation				90,000
Electrical	22	each	242,100	5,326,200

<b>Current Contract Cost, Oct 07</b>	<b>\$15,254,735</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **22** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3 - Jackson County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Ocean Springs- Elevation 20** FILE NAME **OceanSprings\_Lod3\_RingLevee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations OS-1 thru OS -14</u></b>				
Structural Concrete, complete all sites	5,615	cy	\$450.00	\$2,526,969
Form Work, complete all sites	139,413	sf	6.50	906,182
Steel Reinforcement, complete all sites	344	tons	925.00	318,037
Excavation	8,153	cy	15.00	122,290
Backfill	5,810	cy	5.00	29,049
Trash Screens and Miscellaneous metal items, All Sites	40	each	100,000	4,000,000
<b>Pumps by Installation Site</b>				
OS-1 Pumps	2	each	222,200	444,400
Discharge Piping (130 L.F. ; D=42")				51,600
Energy Dissipation				90,000
OS-2 Pumps	3	each	352,000	1,056,000
Discharge Piping (150 L.F. ; D=54")				147,800
Energy Dissipation				120,000
OS-3 Pumps	4	each	352,000	1,408,000
Discharge Piping (150 L.F. ; D=54")				197,100
Energy Dissipation				150,000
OS-4 Pumps	2	each	222,200	444,400
Discharge Piping (150 L.F. ; D=42")				61,600
Energy Dissipation				90,000
OS-5 Pumps	4	each	352,000	1,408,000
Discharge Piping (150 L.F. ; D=54")				197,100
Energy Dissipation				150,000
OS-6 Pumps	3	each	352,000	1,056,000
Discharge Piping (150 L.F. ; D=54")				141,000
Energy Dissipation				120,000
OS-7 Pumps	2	each	352,000	704,000
Discharge Piping (150 L.F. ; D=54")				98,600
Energy Dissipation				90,000
OS-8 Pumps	3	each	352,000	1,056,000
Discharge Piping (150 L.F. ; D=54")				147,800
Energy Dissipation				120,000
OS-9 Pumps	2	each	352,000	704,000
Discharge Piping (120 L.F. ; D=54")				74,200
Energy Dissipation				90,000

**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **23** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3 - Jackson County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Ocean Springs- Elevation 20** FILE NAME **OceanSprings\_Lod3\_RingLevee\_Pumping Stations.xls**

DESCRIPTION		Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><i>Pumping Stations OS-1 thru OS -14</i></b>					
OS-10	Pumps	2	each	192,500	385,000
	Discharge Piping (65 L.F. ; D=42")				26,000
	Energy Dissipation				90,000
OS-11	Pumps	4	each	192,500	770,000
	Discharge Piping (125 L.F. ; D=42")				52,000
	Energy Dissipation				150,000
OS-12	Pumps	4	each	440,000	1,760,000
	Discharge Piping (150 L.F. ; D=60")				251,300
	Energy Dissipation				150,000
OS-13	Pumps	3	each	352,000	1,056,000
	Discharge Piping (140 L.F. ; D=54")				135,400
	Energy Dissipation				120,000
OS-14	Pumps	2	each	192,500	385,000
	Discharge Piping (90 L.F. ; D=42")				36,400
	Energy Dissipation				90,000
Electrical		40	each	242,100	9,684,000

<b>Current Contract Cost, Oct 07</b>	<b>\$33,461,226</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **24** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3 - Jackson County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Ocean Springs- Elevation 30** FILE NAME **Jackson County\_Lod4\_Inland Barrier\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations OS-1 thru OS-14</u></b>				
Structural Concrete, complete all sites	5,555	cy	\$450.00	\$2,499,806
Form Work, complete all sites	137,982	sf	6.50	896,882
Steel Reinforcement, complete all sites	360	tons	925.00	332,576
Excavation	8,236	cy	15.00	123,536
Backfill	5,884	cy	5.00	29,421
Trash Screens and Miscellaneous metal items, All Sites	40	each	100,000	4,000,000
Pumps by Installation Site				
OS-1 Pumps	2	each	240,350	480,700
Discharge Piping (190 L.F. ; D=42")				76,800
Energy Dissipation				90,000
OS-2 Pumps	3	each	398,200	1,194,600
Discharge Piping (220 L.F. ; D=54")				208,300
Energy Dissipation				120,000
OS-3 Pumps	4	each	398,200	1,592,800
Discharge Piping (220 L.F. ; D=54")				277,800
Energy Dissipation				150,000
OS-4 Pumps	2	each	240,350	480,700
Discharge Piping (220 L.F. ; D=42")				86,800
Energy Dissipation				90,000
OS-5 Pumps	4	each	398,200	1,592,800
Discharge Piping (220 L.F. ; D=54")				277,800
Energy Dissipation				150,000
OS-6 Pumps	3	each	398,200	1,194,600
Discharge Piping (210 L.F. ; D=54")				201,900
Energy Dissipation				120,000
OS-7 Pumps	2	each	398,200	796,400
Discharge Piping (220 L.F. ; D=54")				138,900
Energy Dissipation				90,000
OS-8 Pumps	3	each	398,200	1,194,600
Discharge Piping (220 L.F. ; D=54")				208,300
Energy Dissipation				120,000

**COMPREHENSIVE PLAN "STRUCTURAL" COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **25** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3 - Jackson County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Ocean Springs- Elevation 30** FILE NAME Jackson County\_Lod4\_Inland Barrier\_Pumping Stations.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><i>Pumping Stations OS-1 thru OS-14</i></b>				
OS-9 Pumps	2	each	398,200	796,400
Discharge Piping (180 L.F. ; D=54")				114,600
Energy Dissipation				90,000
OS-10 Pumps	2	each	222,200	444,400
Discharge Piping (130 L.F. ; D=42")				51,600
Energy Dissipation				90,000
OS-11 Pumps	4	each	188,100	752,400
Discharge Piping (185 L.F. ; D=54")				237,200
Energy Dissipation				150,000
OS-12 Pumps	4	each	467,500	1,870,000
Discharge Piping (220 L.F. ; D=60")				354,100
Energy Dissipation				150,000
OS-13 Pumps	3	each	398,200	1,194,600
Discharge Piping (200 L.F. ; D=54")				195,800
Energy Dissipation				120,000
OS-14 Pumps	2	each	222,200	444,400
Discharge Piping (150 L.F. ; D=42")				61,600
Energy Dissipation				90,000
Electrical	40	each	242,100	9,684,000

<b>Current Contract Cost, Oct 07</b>	<b>\$35,707,123</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **26** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Pascagoula-MossPoint - Elevation 30** FILE NAME **Pascagoula-LossPoint \_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations PM-1 thru PM-28</u></b>				
Structural Concrete, complete all sites	12,908	cy	\$450.00	\$5,808,808
Form Work, complete all sites	316,185	sf	6.50	2,055,199
Steel Reinforcement, complete all sites	744	tons	925.00	687,899
Excavation	18,513	cy	15.00	277,701
Backfill	12,815	cy	5.00	64,075
Trash Screens and Miscellaneous metal items, All Sites	21	each	100,000.00	2,100,000
<b>Pumps by Site Name</b>				
PM-1 Pumps	9	each	467,500.00	\$4,207,500
Discharge Piping (150 L.F. ; D=54")		each	69,440.00	624,960
Energy Dissipation		Job		300,000
PM-2 Pumps	2	each	302,500.00	\$605,000
Discharge Piping (150L.F. ; D=54")		Job	69,440.00	138,880
Energy Dissipation		Job		90,000
PM-3 Pumps	1	each	387,200.00	\$387,200
Discharge Piping (140 L.F. ; D=42")		Job	40,800.00	40,800
Energy Dissipation		Job		60,000
PM-4 Pumps	2	each	302,500.00	\$605,000
Discharge Piping (150 L.F. ; D=42)		Job	43,400.00	86,800
Energy Dissipation		Job		90,000
PM-5 Pumps	1	each	387,200.00	\$387,200
Discharge Piping (150 L.F. ; D=54")		Job	69,440.00	69,440
Energy Dissipation		Job		60,000
PM-6 Pumps	1	each	387,200.00	\$387,200
Discharge Piping (150 L.F. ; D=42")		Job	43,400.00	43,400
Energy Dissipation		Job		60,000
PM-7 Pumps	2	each	193,600.00	\$387,200
Discharge Piping (130 L.F. ; D=42")		Job	38,400.00	76,800
Energy Dissipation		Job		90,000
PM-8 Pumps	4	each	240,350.00	\$961,400
Discharge Piping (150 L.F. ; D=42")		Job	43,400.00	173,600
Energy Dissipation		Job		150,000
PM-9 Pumps	7	each	240,350.00	\$1,682,450
Discharge Piping (150L.F. ; D=42")		Job	43,400.00	303,800
Energy Dissipation		Job		240,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **27** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Pascagoula-MossPoint - Elevation 30** FILE NAME **Pascagoula-LossPoint \_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations PM-1 thru PM-28</u></b>				
PM-10 Pumps	5	each	192,280.00	\$961,400
Discharge Piping (150 L.F. ; D=54")		Job	69,440.00	347,200
Energy Dissipation		Job		180,000
PM-11 Pumps	2	each	376,200.00	\$752,400
Discharge Piping (150 L.F. ; D=54)		Job	69,440.00	138,880
Energy Dissipation		Job		90,000
PM-12 Pumps	2	each	398,200.00	\$796,400
Discharge Piping (150 L.F. ; D=54")		Job	69,440.00	138,880
Energy Dissipation		Job		90,000
PM-13 Pumps	2	each	398,200.00	\$796,400
Discharge Piping (150 L.F. ; D=54")		Job	69,440.00	138,880
Energy Dissipation		Job		90,000
PM-14 Pumps	1	each	203,500.00	\$203,500
Discharge Piping (125 L.F. ; D=42")		Job	34,500.00	34,500
Energy Dissipation		Job		60,000
PM-15 Pumps	5	each	238,920.00	\$1,194,600
Discharge Piping (140 L.F. ; D=54")		Job	65,280.00	326,400
Energy Dissipation		Job		180,000
PM-16 Pumps	2	each	302,500.00	\$605,000
Discharge Piping (150L.F. ; D=42")		Job	43,400.00	86,800
Energy Dissipation		Job		90,000
PM-17 Pumps	1	each	961,400.00	\$961,400
Discharge Piping (135L.F. ; D=42")		Job	39,600.00	39,600
Energy Dissipation		Job		60,000
PM-18 Pumps	5	each	374,000.00	\$1,870,000
Discharge Piping (145 L.F. ; D=42)		Job	42,100.00	210,500
Energy Dissipation		Job		180,000
PM-19 Pumps	5	each	192,280.00	\$961,400
Discharge Piping (150 L.F. ; D=42")		Job	43,400.00	217,000
Energy Dissipation		Job		180,000
PM-20 Pumps	4	each	240,350.00	\$961,400
Discharge Piping (150 L.F. ; D=42")		Job	43,400.00	173,600
Energy Dissipation		Job		150,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **28** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Pascagoula-MossPoint - Elevation 30** FILE NAME **Pascagoula-LossPoint \_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations PM-1 thru PM-28</u></b>				
PM-21 Pumps	3	each	398,200.00	\$1,194,600
Discharge Piping (150 L.F. ; D=54")		Job	69440	208,320
Energy Dissipation		Job		120,000
PM-22 Pumps	10	each	119,460.00	1,194,600
Discharge Piping (150 L.F. ; D=54")		Job	69,440.00	694,400
Energy Dissipation		Job		330,000
PM-23 Pumps	4	each	467,500.00	1,870,000
Discharge Piping (150L.F. ; D=42")		Job	43,400.00	173,600
Energy Dissipation		Job		150,000
PM-24 Pumps	5	each	238,920.00	1,194,600
Discharge Piping (105 L.F. ; D=54")		Job	53,120.00	265,600
Energy Dissipation		Job		180,000
PM-25 Pumps	5	each	238,920.00	1,194,600
Discharge Piping (150 L.F. ; D=54)		Job	69,440.00	347,200
Energy Dissipation		Job		180,000
PM-26 Pumps	3	each	623,333.33	1,870,000
Discharge Piping (150 L.F. ; D=54")		Job	69,440.00	208,320
Energy Dissipation		Job		120,000
PM-27 Pumps	2	each	480,700.00	961,400
Discharge Piping (150 L.F. ; D=42")		Job	43,400.00	86,800
Energy Dissipation		Job		90,000
PM-28 Pumps	2	each	597,300.00	1,194,600
Discharge Piping (150 L.F. ; D=54")		Job	69440	138,880
Energy Dissipation		Job		90,000
Electrical	21	each	242,100	5,084,100

<b>Current Contract Cost, Oct 07</b>	<b>\$55,710,072</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **29** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Pascagoula-MossPoint - Elevation 20** FILE NAME **Pascagoula-MossPoint\_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations PM-1 thru PM-28</u></b>				
Structural Concrete, complete all sites	13,456	cy	\$450.00	\$6,055,421
Form Work, complete all sites	330,110	sf	6.50	2,145,717
Steel Reinforcement, complete all sites	752	tons	925.00	695,945
Excavation	18,134	cy	15.00	272,014
Backfill	12,560	cy	5.00	62,800
Trash Screens and Miscellaneous metal items, All Sites	23	each	100,000.00	2,300,000
<b>Pumps by Site Name</b>				
PM-1 Pumps	9	each	352,000	3,168,000
Discharge Piping (150 L.F. ; D=54")		each	49,280	443,520
Energy Dissipation		Job		300,000
PM-2 Pumps	2	each	352,000	704,000
Discharge Piping (150L.F. ; D=54")		Job	49,280	98,560
Energy Dissipation		Job		30,000
PM-3 Pumps	1	each	203,500	203,500
Discharge Piping (140 L.F. ; D=42")		Job	28,200	28,200
Energy Dissipation		Job		20,000
PM-4 Pumps	2	each	222,200	444,400
Discharge Piping (150 L.F. ; D=42)		Job	30,800	61,600
Energy Dissipation		Job		40,000
PM-5 Pumps	4	each	352,000	1,408,000
Discharge Piping (150 L.F. ; D=54")		Job	49,280	197,120
Energy Dissipation		Job		30,000
PM-6 Pumps	1	each	203,500	203,500
Discharge Piping (150 L.F. ; D=42")		Job	30,800	30,800
Energy Dissipation		Job		40,000
PM-7 Pumps	2	each	192,500	385,000
Discharge Piping (130 L.F. ; D=42")		Job	25,800	51,600
Energy Dissipation		Job		40,000
PM-8 Pumps	4	each	222,200	888,800
Discharge Piping (150 L.F. ; D=42")		Job	30,800	123,200
Energy Dissipation		Job		30,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **30** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Pascagoula-MossPoint - Elevation 20** FILE NAME **Pascagoula-MossPoint\_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><i>Pumping Stations PM-1 thru PM-28</i></b>				
PM-9 Pumps	7	each	222,200	\$1,555,400
Discharge Piping (150L.F. ; D=42")		Job	30,800	215,600
Energy Dissipation		Job		30,000
PM-10 Pumps	3	each	352,000	1,056,000
Discharge Piping (150 L.F. ; D=54")		Job	49,280	147,840
Energy Dissipation		Job		20,000
PM-11 Pumps	2	each	352,000	704,000
Discharge Piping (150 L.F. ; D=54)		Job	49,280	98,560
Energy Dissipation		Job		40,000
PM-12 Pumps	2	each	352,000	704,000
Discharge Piping (150 L.F. ; D=54")		Job	49,280	98,560
Energy Dissipation		Job		30,000
PM-13 Pumps	2	each	352,000	704,000
Discharge Piping (150 L.F. ; D=54")		Job	49,280	98,560
Energy Dissipation		Job		40,000
PM-14 Pumps	1	each	203,500	203,500
Discharge Piping (125 L.F. ; D=42")		Job	24,500	24,500
Energy Dissipation		Job		40,000
PM-15 Pumps	5	each	352,000	1,760,000
Discharge Piping (140 L.F. ; D=54")		Job	45,120	225,600
Energy Dissipation		Job		30,000
PM-16 Pumps	4	each	222,200	888,800
Discharge Piping (150L.F. ; D=42")		Job	30,800	123,200
Energy Dissipation		Job		30,000
PM-17 Pumps	1	each	192,500	192,500
Discharge Piping (135L.F. ; D=42")		Job	27,000	27,000
Energy Dissipation		Job		20,000
PM-18 Pumps	10	each	222,200	2,222,000
Discharge Piping (145 L.F. ; D=42)		Job	29,500	295,000
Energy Dissipation		Job		40,000
PM-19 Pumps	5	each	222,200	1,111,000
Discharge Piping (150 L.F. ; D=42")		Job	30,800	154,000
Energy Dissipation		Job		30,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **31** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Pascagoula-MossPoint - Elevation 20** FILE NAME **Pascagoula-MossPoint\_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations PM-1 thru PM-28</u></b>				
PM-20 Pumps	8	each	203,500	\$1,628,000
Discharge Piping (150 L.F. ; D=42")		Job	30,800	246,400
Energy Dissipation		Job		40,000
PM-21 Pumps	3	each	352,000	1,056,000
Discharge Piping (150 L.F. ; D=54")		Job	49,280	147,840
Energy Dissipation		Job		40,000
PM-22 Pumps	10	each	352,000	3,520,000
Discharge Piping (150 L.F. ; D=54")		Job	49,280	492,800
Energy Dissipation		Job		30,000
PM-23 Pumps	8	each	222,200	1,777,600
Discharge Piping (150L.F. ; D=42")		Job	30,800	246,400
Energy Dissipation		Job		30,000
PM-24 Pumps	5	each	330,000	1,650,000
Discharge Piping (105 L.F. ; D=54")		Job	32,960	164,800
Energy Dissipation		Job		20,000
PM-25 Pumps	5	each	352,000	1,760,000
Discharge Piping (150 L.F. ; D=54)		Job	49,280	246,400
Energy Dissipation		Job		40,000
PM-26 Pumps	4	each	352,000	1,408,000
Discharge Piping (150 L.F. ; D=54")		Job	49,280	197,120
Energy Dissipation		Job		30,000
PM-27 Pumps	2	each	222,200	444,400
Discharge Piping (150 L.F. ; D=42")		Job	30,800	61,600
Energy Dissipation		Job		40,000
PM-28 Pumps	2	each	352,000	704,000
Discharge Piping (150 L.F. ; D=54")		Job	49,280	98,560
Energy Dissipation		Job		40,000
Electrical	23	each	242,100	5,568,300
<b>Current Contract Cost, Oct 07</b>				<b>\$55,189,536</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **32** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3 - Hancock County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Pearlington- Elevation 20** FILE NAME **Pearlington\_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations P-1 thru P-6</u></b>				
Structural Concrete, complete all sites	2,945	cy	\$450.00	\$1,325,119
Form Work, complete all sites	72,044	sf	6.50	468,284
Steel Reinforcement, complete all sites	180	tons	925.00	166,284
Excavation	4,205	cy	15.00	63,070
Backfill	2,872	cy	5.00	14,361
Trash Screens and Miscellaneous metal items, All Sites	20	each	100,000	2,000,000
<b>Pumps by Installation Site</b>				
P-1 Pumps	4	each	352,000	1,408,000
Discharge Piping (54" Dia; 150 L.F.)				197,100
Energy Dissipation				150,000
P-2 Pumps	3	each	352,000	1,056,000
Discharge Piping (54" Dia; 150 L.F.)				147,800
Energy Dissipation				120,000
P-3 Pumps	8	each	440,000	3,520,000
Discharge Piping (60" Dia; 150 L.F.)				502,700
Energy Dissipation				270,000
P-4 Pumps	2	each	222,200	444,400
Discharge Piping (42" Dia; 150 L.F.)				61,600
Energy Dissipation				90,000
P-5 Pumps	2	each	222,200	444,400
Discharge Piping (42" Dia; 150 L.F.)				61,600
Energy Dissipation				90,000
P-6 Pumps	1	each	222,200	222,200
Discharge Piping (42" Dia; 150 L.F.)				30,800
Energy Dissipation				60,000
Electrical	20	each	242,100	4,842,000

<b>Current Contract Cost, Oct 07</b>	<b>\$17,755,717</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **33** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3 - Hancock County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Pearlington- Elevation 30** FILE NAME **Pearlington\_Lod3\_Ring Levee\_Pumping Stations.xls**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations P-1 thru P-6</u></b>				
Structural Concrete, complete all sites	2,945	cy	\$450.00	\$1,325,119
Form Work, complete all sites	72,044	sf	6.50	468,284
Steel Reinforcement, complete all sites	180	tons	925.00	166,284
Excavation	4,205	cy	15.00	63,070
Backfill	2,872	cy	5.00	14,361
Trash Screens and Miscellaneous metal items, All Sites	20	each	100,000	2,000,000
<b>Pumps by Installation Site</b>				
P-1 Pumps	4	each	398,200	1,592,800
Discharge Piping (54 Dia; 150 L.F.)				277,800
Energy Dissipation				150,000
P-2 Pumps	3	each	398,200	1,194,600
Discharge Piping (54" Dia; 150 L.F.)				208,300
Energy Dissipation				120,000
P-3 Pumps	8	each	467,500	3,740,000
Discharge Piping (60" Dia; 150 L.F.)				708,300
Energy Dissipation				270,000
P-4 Pumps	2	each	240,350	480,700
Discharge Piping (42" Dia; 130 L.F.)				86,800
Energy Dissipation				90,000
P-5 Pumps	2	each	240,350	480,700
Discharge Piping (42" Dia; 140 L.F.)				86,800
Energy Dissipation				90,000
P-6 Pumps	1	each	240,350	240,350
Discharge Piping (42" Dia; 150 L.F.)				43,400
Energy Dissipation				60,000
Electrical	20	each	242,100	4,842,000
<b>Current Contract Cost, Oct 07</b>				<b>\$18,799,667</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **34** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4 - Harrison County** BASIS of ESTIMATE: by L.O. project delv'd. team  
                   **Inland Barrier - Elevation 20** FILE NAME Harrison County\_Lod4\_Pumping Stations.xls  
                   **Option "D"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><i>Pumping Stations H4-4 (only)</i></b>				
Structural Concrete, complete all sites	618	cy	\$450.00	278,142
Form Work, complete all sites	14,777	sf	6.50	96,047
Steel Reinforcement, complete all sites	38	tons	925	34,869
Excavation	1,075	cy	15	16,130
Backfill	721	cy	5	3,603
Trash Screens and Miscellaneous metal items, All Sites	4	each	100,000	400,000
Pumps by Installation Site				
H4-4 Pump	4	each	400,000	\$1,600,000
Discharge Piping (130 L.F.; D=60")		job		210,500
Energy Dissipation		job		120,000
Electrical	4	each	242,100	968,400

<b>Current Contract Cost, Oct 07</b>	<b>\$3,727,691</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 35 OF 57  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4 - Harrison County** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Inland Barrier - Elevation 30** FILE NAME Harrison County\_Lod4\_Pumping Stations.xls  
**Option "E"**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations H4-1 thru H4-7</u></b>				
Structural Concrete, complete all sites	4,042	cy	\$450.00	1,818,963
Form Work, complete all sites	90,309	sf	6.50	587,007
Steel Reinforcement, complete all sites	245	tons	925	226,794
Excavation	11,697	cy	15	175,461
Backfill	7,404	cy	5	37,022
Trash Screens and Miscellaneous metal items, All Sites	26	each	100,000	2,600,000
<b>Pumps by Installation Site</b>				
H4-1 Pump	4	each	440,000	1,760,000
Discharge Piping (100L.F.; D=60")		job		168,100
Energy Dissipation		job		120,000
H4-2 Pump	4	each	330,000	1,320,000
Discharge Piping (100 L.F.; D=54")		job		131,800
Energy Dissipation		job		120,000
H4-3 Pump	3	each	313,500	940,500
Discharge Piping (90 L.F.; D=54")		job		86,400
Energy Dissipation		job		90,000
H4-4 Pump	4	each	456,500	1,826,000
Discharge Piping (190 L.F.; D=60")		job		313,300
Energy Dissipation		job		120,000
H4-5 Pump	4	each	440,000	1,760,000
Discharge Piping (120 L.F.; D=60")		job		189,300
Energy Dissipation		job		120,000
H4-6 Pump	4	each	330,000	1,320,000
Discharge Piping (100 L.F.; D=54")		job		131,800
Energy Dissipation		job		120,000
H4-7 Pump	3	each	330,000	990,000
Discharge Piping (120 L.F.; D=54")		job		111,400
Energy Dissipation		job		90,000
Electrical	26	each	242,100	6,294,600

<b>Current Contract Cost, Oct 07</b>	<b>\$23,568,446</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **36** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Menge Ave.- Elevation 20** FILE NAME **MengeAveOpt(8-07)\_Lod4\_Pumping Stations.xls**  
**Optional Arrangement F (8-07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Pumping Stations M-1 and M-2</u></b>				
Structural Concrete, complete all sites	2,497	cy	\$450.00	\$202,500
Form Work, complete all sites	58,529	ft2	6.50	380,437
Steel Reinforcement, complete all sites	152	lbs	925.00	140,841
Excavation	3,616	cy	15.00	54,235
Backfill	2,338	cy	5.00	11,689
Trash Screens and Miscellaneous metal items, All Sites	28	each	100,000.00	2,800,000
<b>Pumps by Site Name</b>				
M-1 Pumps	11	each	222200	\$2,444,200
Discharge Piping (150 L.F. ; D=42")		each	28200	310,200
Energy Dissipation		Job		360,000.00
M-2 Pumps	13	each	280500	\$3,646,500
Discharge Piping (150L.F. ; D=48")		Job	35250	458,250
Energy Dissipation		Job		30,000
H4-4 Pump	4	each	400,000	\$1,600,000
Discharge Piping (130 L.F.; D=60")		job		210,500
Energy Dissipation		job		120,000
Electrical	28	each	242100	6,778,800
<b>Current Contract Cost, Oct 07</b>				<b>\$19,548,152</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **37** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4- Pumping Stations** BASIS of ESTIMATE: **by L.O. project delv'd. team**  
**MengeAve.- Elevation 30** FILE NAME **MengeAveOpt(8-07)\_Lod4\_Pumping Stations.xls**  
**Optional Arrangement G (8-07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Pumping Stations M-1 nd M-2</u></b>				
Structural Concrete, complete all sites	6,307	cy	\$450.00	\$2,838,183
Form Work, complete all sites	144,481	ft2	6.50	939,127
Steel Reinforcement, complete all sites	383	lbs	925.00	354,411
Excavation	14,238	cy	15.00	213,567
Backfill	9,022	cy	5.00	45,108
Trash Screens and Miscellaneous metal items, All Sites	50	each	100,000.00	5,000,000
<b>Pumps by Site Name</b>				
M-1 Pumps	11	each	240,350.00	\$2,643,850
Discharge Piping (150 L.F. ; D=42")		each	40,800.00	\$448,800
Energy Dissipation		Job		\$360,000
M-2 Pumps	13	each	302,500.00	\$3,932,500
Discharge Piping (150L.F. ; D=48")		Job	51,000.00	\$663,000
Energy Dissipation		Job		\$420,000
H4-1 Pump	4	each	440,000	1,760,000
Discharge Piping (100L.F.; D=60")		job		168,100
Energy Dissipation		job		120,000
H4-2 Pump	4	each	330,000	1,320,000
Discharge Piping (100 L.F.; D=54")		job		131,800
Energy Dissipation		job		120,000
H4-3 Pump	3	each	313,500	940,500
Discharge Piping (90 L.F.; D=54")		job		86,400
Energy Dissipation		job		90,000
H4-4 Pump	4	each	456,500	1,826,000
Discharge Piping (190 L.F.; D=60")		job		313,300
Energy Dissipation		job		120,000
H4-5 Pump	4	each	440,000	1,760,000
Discharge Piping (120 L.F.; D=60")		job		189,300
Energy Dissipation		job		120,000
H4-6 Pump	4	each	330,000	1,320,000
Discharge Piping (100 L.F.; D=54")		job		131,800
Energy Dissipation		job		120,000
H4-7 Pump	3	each	330,000	990,000
Discharge Piping (120 L.F.; D=54")		job		111,400
Energy Dissipation		job		90,000
Electrical	50	each	242,100	\$12,105,000
<b>Current Contract Cost, Oct 07</b>				<b>\$41,792,146</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **38** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 4- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**MengeAve.- Elevation 40** FILE NAME **MengeAveOpt(8-07)\_Lod4\_Pumping Stations.xls**  
**Optional Arrangement H(8-07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Pumping Stations M-1 thru M-7</u></b>				
Structural Concrete, complete all sites	6,169	cy	\$450.00	\$2,776,119
Form Work, complete all sites	146,574	ft2	6.50	952,730
Steel Reinforcement, complete all sites	377	lbs	925.00	348,896
Excavation	10,542	cy	15.00	158,136
Backfill	7,177	cy	5.00	35,884
Trash Screens and Miscellaneous metal items, All Sites	59	each	100,000.00	5,900,000
<b>Pumps by Site Name</b>				
M-1 Pumps	10	each	409,200.00	\$4,092,000
Discharge Piping (150 L.F. ; D=48")		each	67,000.00	\$670,000
Energy Dissipation		Job		\$330,000
M-2 Pumps	13	each	409,200.00	\$5,319,600
Discharge Piping (150L.F. ; D=48")		Job	67,000.00	\$871,000
Energy Dissipation		Job		\$420,000
M-3 Pumps	2	each	187,000.00	\$374,000
Discharge Piping (140 L.F. ; D=36")		Job	28,800.00	\$57,600
Energy Dissipation		Job		\$90,000
M-4 Pumps	2	each	97,900.00	\$195,800
Discharge Piping (150 L.F. ; D=26")		Job	14,100.00	\$28,200
Energy Dissipation		Job		\$90,000
M-5 Pumps	2	each	280,500.00	\$561,000
Discharge Piping (150 L.F. ; D=48")		Job	35,250.00	\$70,500
Energy Dissipation		Job		\$90,000
M-6 Pumps	2	each	154,000.00	\$308,000
Discharge Piping (150 L.F. ; D=36")		Job	56,000.00	\$112,000
Energy Dissipation		Job		\$90,000
M-7 Pumps	2	each	376,200.00	\$752,400
Discharge Piping (150 L.F. ; D=54")		Job	45,120.00	\$90,240
Energy Dissipation		Job		\$90,000
H4-1 Pump	4	each	456,500	1,826,000
Discharge Piping (170L.F.; D=60")		job		270,900
Energy Dissipation		job		120,000
H4-2 Pump	4	each	376,200	1,504,800
Discharge Piping (170 L.F.; D=54")		job		212,500
Energy Dissipation		job		120,000
H4-3 Pump	3	each	352,000	1,056,000
Discharge Piping (150 L.F.; D=54")		job		147,800
Energy Dissipation		job		90,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **39** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**MengeAve.- Elevation 40** FILE NAME MengeAveOpt(8-07)\_Lod4\_Pumping Stations.xls  
**Optional Arrangement H(8-07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT	
<b><u>Harrison County Pumping Stations M-1 thru M-7</u></b>					
H4-4	Pump	4	each	660,000	2,640,000
	Discharge Piping (255L.F.; D=60")		job		416,200
	Energy Dissipation		job		120,000
H4-5	Pump	4	each	456,500	1,826,000
	Discharge Piping (180 L.F.; D=60")		job		292,100
	Energy Dissipation		job		120,000
H4-6	Pump	4	each	376,200	1,504,800
	Discharge Piping (170 L.F.; D=54")		job		212,500
	Energy Dissipation		job		120,000
H4-7	Pump	3	each	376,200	1,128,600
	Discharge Piping (170 L.F.; D=54")		job		159,400
	Energy Dissipation		job		90,000
Electrical		59	each	242,100	\$14,283,900
<b>Current Contract Cost, Oct 07</b>				<b>\$53,135,605</b>	

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **40** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Menge Ave.- Elevation 20** FILE NAME MengeAveOpt(8-07)\_Lod4\_Pumping Stations.xls  
**Optional Arrangement I (8-07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Pumping Stations M-1 and M-2</u></b>				
Structural Concrete, complete all sites	2,497	cy	\$450.00	\$202,500
Form Work, complete all sites	58,529	ft2	6.50	380,437
Steel Reinforcement, complete all sites	152	lbs	925.00	140,841
Excavation	3,616	cy	15.00	54,235
Backfill	2,338	cy	5.00	11,689
Trash Screens and Miscellaneous metal items, All Sites	28	each	100,000.00	2,800,000
<b>Pumps by Site Name</b>				
M-1 Pumps	11	each	222200	\$2,444,200
Discharge Piping (150 L.F. ; D=42")		each	28200	310,200
Energy Dissipation		Job		360,000.00
M-2 Pumps	13	each	280500	\$3,646,500
Discharge Piping (150L.F. ; D=48")		Job	35250	458,250
Energy Dissipation		Job		30,000
H4-4 Pump	4	each	400,000	\$1,600,000
Discharge Piping (130 L.F.; D=60")		job		210,500
Energy Dissipation		job		120,000
Electrical	28	each	242100	6,778,800
<b>Current Contract Cost, Oct 07</b>				<b>\$19,548,152</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 41 OF 57  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 4- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**MengeAve.- Elevation 30** FILE NAME MengeAveOpt(8-07)\_Lod4\_Pumping Stations.xls  
**Optional Arrangement J (8-07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Harrison County Pumping Stations M-1 nd M-2</u></b>				
Structural Concrete, complete all sites	6,307	cy	\$450.00	\$2,838,183
Form Work, complete all sites	144,481	ft2	6.50	939,127
Steel Reinforcement, complete all sites	383	lbs	925.00	354,411
Excavation	14,238	cy	15.00	213,567
Backfill	9,022	cy	5.00	45,108
Trash Screens and Miscellaneous metal items, All Sites	50	each	100,000.00	5,000,000
<b>Pumps by Site Name</b>				
M-1 Pumps	11	each	240,350.00	\$2,643,850
Discharge Piping (150 L.F. ; D=42")		each	40,800.00	\$448,800
Energy Dissipation		Job		\$360,000
M-2 Pumps	13	each	302,500.00	\$3,932,500
Discharge Piping (150L.F. ; D=48")		Job	51,000.00	\$663,000
Energy Dissipation		Job		\$420,000
H4-1 Pump	4	each	440,000	1,760,000
Discharge Piping (100L.F.; D=60")		job		168,100
Energy Dissipation		job		120,000
H4-2 Pump	4	each	330,000	1,320,000
Discharge Piping (100 L.F.; D=54")		job		131,800
Energy Dissipation		job		120,000
H4-3 Pump	3	each	313,500	940,500
Discharge Piping (90 L.F.; D=54")		job		86,400
Energy Dissipation		job		90,000
H4-4 Pump	4	each	456,500	1,826,000
Discharge Piping (190 L.F.; D=60")		job		313,300
Energy Dissipation		job		120,000
H4-5 Pump	4	each	440,000	1,760,000
Discharge Piping (120 L.F.; D=60")		job		189,300
Energy Dissipation		job		120,000
H4-6 Pump	4	each	330,000	1,320,000
Discharge Piping (100 L.F.; D=54")		job		131,800
Energy Dissipation		job		120,000
H4-7 Pump	3	each	330,000	990,000
Discharge Piping (120 L.F.; D=54")		job		111,400
Energy Dissipation		job		90,000
Electrical	50	each	242,100	\$12,105,000
<b>Current Contract Cost, Oct 07</b>				<b>\$41,792,146</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **42** OF **57**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Washington Ave.- Elevation 20** FILE NAME **WashingtonAveOpt(8-07)\_Lod4\_Pumping Stations.xls**  
**Optional Arrangement 'C'(8-07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County Pumping Stations W-1 thru W-6 (with Washington Ave.)</u></b>				
Structural Concrete, complete all sites	2,951	cy	\$450.00	\$1,328,133
Form Work, complete all sites	69,582	sf	6.50	452,283
Steel Reinforcement, complete all sites	180	tons	925.00	166,683
Excavation	5,224	cy	15.00	78,356
Backfill	3,524	cy	5.00	17,619
Trash Screens and Miscellaneous metal items, All Sites	26	each	100,000.00	2,600,000
<b>Pumps by Site Name</b>				
W-1 Pumps	3	each	302500	\$907,500
Discharge Piping (150 L.F. ; D=48")		each	38500	115,500
Energy Dissipation		Job		120,000.00
W-2 Pumps	5	each	456500	\$2,282,500
Discharge Piping (150L.F. ; D=60")		Job	60180	300,900
Energy Dissipation		Job		30,000
W-3 Pumps	3	each	280500	\$841,500
Discharge Piping (140 L.F. ; D=48")		Job	38500	115,500
Energy Dissipation		Job		20,000
W-4 Pumps	4	each	376200	\$1,504,800
Discharge Piping (150 L.F. ; D=54")		Job	49280	197,120
Energy Dissipation		Job		40,000
W-5 Pumps	4	each	376200	\$1,504,800
Discharge Piping (150 L.F. ; D=54")		Job	49280	197,120
Energy Dissipation		Job		30,000
W-6 Pumps	7	each	330000	\$2,310,000
Discharge Piping (150 L.F. ; D=54")		Job	32960	230,720
Energy Dissipation		Job		40,000
Electrical	26	each	242100	6,294,600
<b>Current Contract Cost, Oct 07</b>				<b>\$21,725,635</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **43** OF **57**  
 PREPARED **Joseph H. Ellswortl** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Washington Ave.- Elevation 30** FILE NAME **WashingtonAveOpt(8-07)\_Lod4\_Pumping Stations.xls**  
**Optional Arrangement 'D'(8-07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Jackson County Pumping Stations W-1 thru W-6 (with Washington Ave.)</u></b>				
Structural Concrete, complete all sites	3,452	cy	\$450.00	\$1,553,571
Form Work, complete all sites	83,467	sf	6.50	542,537
Steel Reinforcement, complete all sites	211	tons	925.00	194,746
Excavation	5,227	cy	15.00	78,399
Backfill	3,537	cy	5.00	17,683
Trash Screens and Miscellaneous metal items, All Sites	24	each	100,000.00	2,400,000
<b>Pumps by Site Name</b>				
W-1 Pumps	3	each	302,500.00	\$907,500
Discharge Piping (150 L.F. ; D=48")		each	38,500.00	\$115,500
Energy Dissipation		Job		\$120,000
W-2 Pumps	5	each	561,000.00	\$2,805,000
Discharge Piping (150L.F. ; D=60")		Job	60,180.00	\$300,900
Energy Dissipation		Job		\$180,000
W-3 Pumps	3	each	302,500.00	\$907,500
Discharge Piping (140 L.F. ; D=48")		Job	38,500.00	\$115,500
Energy Dissipation		Job		\$120,000
W-4 Pumps	4	each	398,200.00	\$1,592,800
Discharge Piping (150 L.F. ; D=54")		Job	49,280.00	\$197,120
Energy Dissipation		Job		\$150,000
W-5 Pumps	4	each	451,000.00	\$1,804,000
Discharge Piping (150 L.F. ; D=54")		Job	49,280.00	\$197,120
Energy Dissipation		Job		\$150,000
W-6 Pumps	5	each	456,500.00	\$2,282,500
Discharge Piping (150 L.F. ; D=60")		Job	42,024.00	\$210,120
Energy Dissipation		Job		\$180,000
Electrical	24	each	242,100	\$5,810,400
<b>Current Contract Cost, Oct 07</b>				<b>\$22,932,896</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **44** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**MossPoint - Elevation 20** FILE NAME MossPoint(8-07)\_Lod3\_Ring Levee\_Pumping Stations.xls  
**Optional Arrangement 'E'(8-07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations MP-1 thru MP-10</u></b>				
Structural Concrete, complete all sites	2,907	cy	\$450.00	\$1,308,148
Form Work, complete all sites	70,100	sf	6.50	455,652
Steel Reinforcement, complete all sites	179	tons	925.00	165,312
Excavation	5,267	cy	15.00	79,012
Backfill	3,742	cy	5.00	18,708
Trash Screens and Miscellaneous metal items, All Sites	32	each	100,000.00	3,200,000
Pumps by Site Name				
MP-1 Pumps	3	each	192,500	\$577,500
Discharge Piping (150 L.F. ; D=42")		each	18,200	\$54,600
Energy Dissipation		Job		\$120,000
MP-2 Pumps	2	each	376,200	\$752,400
Discharge Piping (150L.F. ; D=54")		Job	49,280	\$98,560
Energy Dissipation		Job		\$30,000
MP-3 Pumps	4	each	376,200	\$1,504,800
Discharge Piping (140 L.F. ; D=54")		Job	49,280	\$197,120
Energy Dissipation		Job		\$20,000
MP-4 Pumps	7	each	330,000	\$2,310,000
Discharge Piping (150 L.F. ; D=54)		Job	32,960	\$230,720
Energy Dissipation		Job		\$40,000
MP-5 Pumps	2	each	222,200	\$444,400
Discharge Piping (150 L.F. ; D=42")		Job	20,600	\$41,200
Energy Dissipation		Job		\$30,000
MP-6 Pumps	4	each	192,500	\$770,000
Discharge Piping (150 L.F. ; D=42")		Job	20,600	\$82,400
Energy Dissipation		Job		\$40,000
MP-7 Pumps	3	each	280,500	\$841,500
Discharge Piping (130 L.F. ; D=48")		Job	29,000	\$87,000
Energy Dissipation		Job		\$40,000
MP-8 Pumps	2	each	154,000	\$308,000
Discharge Piping (150 L.F. ; D=36")		Job	15,450	\$30,900
Energy Dissipation		Job		\$30,000
PM-9 Pumps	2	each	330,000	\$660,000
Discharge Piping (150L.F. ; D=54")		Job	29,120	\$58,240
Energy Dissipation		Job		\$30,000
MP-10 Pumps	3	each	154,000	\$462,000
Discharge Piping (150 L.F. ; D=36")		Job	15,450	\$46,350
Energy Dissipation		Job		\$20,000
Electrical	32	each	242,100	7,747,200
<b>Current Contract Cost, Oct 07</b>				<b>\$22,931,722</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **45** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**MossPoint - Elevation 30** FILE NAME MossPoint(8-07)\_Lod3\_Ring Levee\_Pumping Stations.xls  
**Optional Arrangement 'F' (8-07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations PM-1 thru PM-10</u></b>				
Structural Concrete, complete all sites	3,400	cy	\$450.00	\$1,530,208
Form Work, complete all sites	84,293	sf	6.50	547,901
Steel Reinforcement, complete all sites	209	tons	925.00	192,952
Excavation	5,059	cy	15.00	75,879
Backfill	3,617	cy	5.00	18,087
Trash Screens and Miscellaneous metal items, All Sites	29	each	100,000.00	2,900,000
Pumps by Site Name				
MP-1 Pumps	3	each	203,500.00	\$610,500
Discharge Piping (150 L.F. ; D=42")		each	30,800.00	\$92,400
Energy Dissipation		Job		\$120,000
MP-2 Pumps	2	each	451,000.00	\$902,000
Discharge Piping (150L.F. ; D=54")		Job	69,440.00	\$138,880
Energy Dissipation		Job		\$90,000
MP-3 Pumps	4	each	451,000.00	\$1,804,000
Discharge Piping (140 L.F. ; D=54")		Job	69,440.00	\$277,760
Energy Dissipation		Job		\$150,000
MP-4 Pumps	5	each	456,500.00	\$2,282,500
Discharge Piping (150 L.F. ; D=60")		Job	67,700.00	\$338,500
Energy Dissipation		Job		\$180,000
MP-5 Pumps	2	each	240,350.00	\$480,700
Discharge Piping (150 L.F. ; D=42")		Job	33,200.00	\$66,400
Energy Dissipation		Job		\$90,000
MP-6 Pumps	4	each	203,500.00	\$814,000
Discharge Piping (150 L.F. ; D=42")		Job	33,200.00	\$132,800
Energy Dissipation		Job		\$150,000
MP-7 Pumps	2	each	240,350.00	\$480,700
Discharge Piping (130 L.F. ; D=42")		Job	35,800.00	\$71,600
Energy Dissipation		Job		\$90,000
MP-8 Pumps	2	each	176,000.00	\$352,000
Discharge Piping (150 L.F. ; D=36")		Job	24,900.00	\$49,800
Energy Dissipation		Job		\$90,000
PM-9 Pumps	2	each	376,200.00	\$752,400
Discharge Piping (150L.F. ; D=54")		Job	49,300.00	\$98,600
Energy Dissipation		Job		\$90,000
MP-10 Pumps	3	each	176,000.00	\$528,000
Discharge Piping (150 L.F. ; D=36")		Job	20,250.00	\$60,750
Energy Dissipation		Job		\$120,000
Electrical	29	each	242,100	7,020,900

<b>Current Contract Cost, Oct 07</b>	<b>\$23,790,218</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **46** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Washington Ave.-MossPoint - Elevation 20** FILE NAME **Washington-MossPtComb\_Lod3\_Ring Levee\_Pumping Stations.xls**  
**Optional Configuration 'G' (8/07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations WM-1 thru WM-14</u></b>				
Structural Concrete, complete all sites	4,694	cy	\$450.00	\$2,112,267
Form Work, complete all sites	112,710	sf	6.50	732,615
Steel Reinforcement, complete all sites	288	tons	925.00	266,328
Excavation	8,393	cy	15.00	125,891
Backfill	5,880	cy	5.00	29,398
Trash Screens and Miscellaneous metal items, All Sites	47	each	100,000.00	4,700,000
<b>Pumps by Site Name</b>				
WM-1 Pumps	3	each	192,500	<b>\$577,500</b>
Discharge Piping (150 L.F. ; D=42")		each	18,200	54,600
Energy Dissipation		Job		120,000
WM-2 Pumps	2	each	376,200	<b>\$752,400</b>
Discharge Piping (150L.F. ; D=54")		Job	49,280	98,560
Energy Dissipation		Job		90,000
WM-3 Pumps	3	each	302,500	<b>\$907,500</b>
Discharge Piping (140 L.F. ; D=48)		Job	38,500	115,500
Energy Dissipation		Job		120,000
WM-4 Pumps	5	each	456,500	<b>\$2,282,500</b>
Discharge Piping (150 L.F. ; D=60)		Job	62,832	314,160
Energy Dissipation		Job		180,000
WM-5 Pumps	3	each	280,500	<b>\$841,500</b>
Discharge Piping (150 L.F. ; D=48")		Job	35,250	105,750
Energy Dissipation		Job		120,000
WM-6 Pumps	4	each	376,200	<b>\$1,504,800</b>
Discharge Piping (150 L.F. ; D=54")		Job	45,120	180,480
Energy Dissipation		Job		150,000
WM-7 Pumps	4	each	376,200	<b>\$1,504,800</b>
Discharge Piping (130 L.F. ; D=54")		Job	49,280	197,120
Energy Dissipation		Job		150,000
WM-8 Pumps	7	each	330,000	<b>\$2,310,000</b>
Discharge Piping (150 L.F. ; D=54")		Job	32,960	230,720
Energy Dissipation		Job		240,000
WM-9 Pumps	2	each	222,200	<b>\$444,400</b>
Discharge Piping (150L.F. ; D=42")		Job	20,600	41,200
Energy Dissipation		Job		90,000

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 47 OF 57  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Washington Ave.-MossPoint - Elevation 20** FILE NAME Washington-MossPtComb\_Lod3\_Ring Levee\_Pumping Stations.xls  
**Optional Configuration 'G' (8/07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations WM-1 thru WM-14</u></b>				
WM-10 Pumps	4	each	192,500	\$770,000
Discharge Piping (150 L.F. ; D=42")		Job	20,600	82,400
Energy Dissipation		Job		150,000
WM-11 Pumps	3	each	280,500	\$841,500
Discharge Piping (150 L.F. ; D=48)		Job	29,000	87,000
Energy Dissipation		Job		120,000
WM-12 Pumps	2	each	154,000	\$308,000
Discharge Piping (150 L.F. ; D=36)		Job	15,450	30,900
Energy Dissipation		Job		90,000
WM-13 Pumps	2	each	330,000	\$660,000
Discharge Piping (150 L.F. ; D=54")		Job	29,120	58,240
Energy Dissipation		Job		90,000
WM-14 Pumps	3	each	154,000	\$462,000
Discharge Piping (125 L.F. ; D=36")		Job	10,725	32,175
Energy Dissipation		Job		120,000
Electrical	47	each	242,100	11,378,700
<b>Current Contract Cost, Oct 07</b>				<b>\$36,970,904</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **48** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Washington Ave.-MossPoint - Elevation 30** FILE NAME **Washington-MossPtComb\_Lod3\_Ring Levee\_Pumping Stations.xls**  
**Optional Configuration 'H'(8/07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations WM-1 thru WM-14</u></b>				
Structural Concrete, complete all sites	5,550	cy	\$450.00	\$2,497,494
Form Work, complete all sites	136,692	sf	6.50	888,499
Steel Reinforcement, complete all sites	340	tons	925.00	314,305
Excavation	8,184	cy	15.00	122,758
Backfill	5,756	cy	5.00	28,778
Trash Screens and Miscellaneous metal items, All Sites	44	each	100,000.00	4,400,000
<b>Pumps by Site Name</b>				
WM-1 Pumps	3	each	203,500.00	610,500
Discharge Piping (150 L.F. ; D=42")		each	30,800.00	92,400
Energy Dissipation		Job		120,000
WM-2 Pumps	2	each	451,000.00	902,000
Discharge Piping (150L.F. ; D=54")		Job	69,440.00	138,880
Energy Dissipation		Job		90,000
WM-3 Pumps	3	each	302,500.00	907,500
Discharge Piping (140 L.F. ; D=48")		Job	54,250.00	162,750
Energy Dissipation		Job		120,000
WM-4 Pumps	5	each	561,000.00	2,805,000
Discharge Piping (150 L.F. ; D=60)		Job	88,536.00	442,680
Energy Dissipation		Job		180,000
WM-5 Pumps	3	each	302,500.00	907,500
Discharge Piping (150 L.F. ; D=48")		Job	51,000.00	153,000
Energy Dissipation		Job		120,000
WM-6 Pumps	4	each	398,200.00	1,592,800
Discharge Piping (150 L.F. ; D=54)		Job	65,280.00	261,120
Energy Dissipation		Job		150,000
WM-7 Pumps	4	each	451,000.00	1,804,000
Discharge Piping (130 L.F. ; D=54")		Job	69,440.00	277,760
Energy Dissipation		Job		150,000
WM-8 Pumps	5	each	456,500.00	2,282,500
Discharge Piping (150 L.F. ; D=60")		Job	67,728.00	338,640
Energy Dissipation		Job		180,000
WM-9 Pumps	2	each	240,350.00	480,700
Discharge Piping (150L.F. ; D=42")		Job	33,200.00	66,400
Energy Dissipation		Job		90,000

**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **49** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED:  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Washington Ave.-MossPoint - Elevation 30** FILE NAME **Washington-MossPtComb\_Lod3\_Ring Levee\_Pumping Stations.xls**  
**Optional Configuration 'H'(8/07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Pumping Stations WM-10 thru WM-14**

WM-10 Pumps	4	each	203,500.00	814,000
Discharge Piping (150 L.F. ; D=42)		Job	33,200.00	132,800
Energy Dissipation		Job		150,000
WM-11 Pumps	2	each	240,350.00	480,700
Discharge Piping (150 L.F. ; D=42)		Job	35,800.00	71,600
Energy Dissipation		Job		90,000
WM-12 Pumps	2	each	176,000.00	352,000
Discharge Piping (150 L.F. ; D=36")		Job	24,900.00	49,800
Energy Dissipation		Job		90,000
WM-13 Pumps	2	each	376,200.00	752,400
Discharge Piping (150 L.F. ; D=54")		Job	49,280.00	98,560
Energy Dissipation		Job		90,000
WM-14 Pumps	3	each	176,000.00	528,000
Discharge Piping (125 L.F. ; D=36)		Job	20,250.00	60,750
Energy Dissipation		Job		120,000
Electrical	44	each	242,100	10,652,400

<b>Current Contract Cost, Oct 07</b>	<b>\$38,210,974</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **50** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Bellfontaine- Elevation 20** FILE NAME bellfontaine(8/07)\_Lod3\_Ring Levee\_Pumping Stations.xls  
**Optional Arrangement 'C'(8/07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations BF-1 thru BF-7</u></b>				
Structural Concrete, complete all sites	2,130	cy	\$450.00	\$958,371
Form Work, complete all sites	51,955	sf	6.50	337,709
Steel Reinforcement, complete all sites	131	tons	925.00	121,109
Excavation	3,571	cy	15.00	53,560
Backfill	2,556	cy	5.00	12,782
Trash Screens and Miscellaneous metal items, All Sites	<b>23</b>	each	100,000	2,300,000
<b>Pumps by Installation</b>				
BF-1 Pumps	5	each	222,200	1,111,000
Discharge Piping (150 L.F. ; D=42")		Job	23,000	115,000
Energy Dissipation		Job		180,000
BF-2 Pumps	3	each	203,500	610,500
Discharge Piping (150 L.F. ; D=42")		Job	28,200	84,600
Energy Dissipation		Job		120,000
BF-3 Pumps	2	each	222,200	444,400
Discharge Piping (150 L.F. ; D=42")		Job	28,200	56,400
Energy Dissipation		Job		90,000
BF-4 Pumps	3	each	456,500	1,369,500
Discharge Piping (150 L.F. ; D=60")		Job	62,832	188,496
Energy Dissipation		Job		120,000
BF-5 Pumps	3	each	192,500	577,500
Discharge Piping (150 L.F. ; D=42")		Job	18,200	54,600
Energy Dissipation		Job		120,000
BF-6 Pumps	4	each	192,500	770,000
Discharge Piping (150 L.F. ; D=42")		Job	15,600	62,400
Energy Dissipation		Job		150,000
BF-7 Pumps	3	each	376,200	1,128,600
Discharge Piping (150 L.F. ; D=54")		Job	49,280	147,840
Energy Dissipation		Job		120,000
Electrical	23	Job	242,100	5,568,300

<b>Current Contract Cost, Oct 07</b>	<b>\$16,972,667</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **51** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Bellfontaine- Elevation 30** FILE NAME bellfontaine(8/07)\_Lod3\_Ring Levee\_Pumping Stations.xls  
**Optional Arrangement 'D'(8/07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations BF-1 thru BF-7</u></b>				
Structural Concrete, complete all sites	2,637	cy	\$450.00	\$1,186,704
Form Work, complete all sites	65,655	sf	6.50	426,759
Steel Reinforcement, complete all sites	162	tons	925.00	149,570
Excavation	3,571	cy	15.00	53,560
Backfill	2,556	cy	5.00	12,782
Trash Screens and Miscellaneous metal items, All Sites	23	each	100,000	2,300,000
<b>Pumps by Installation Site</b>				
BF-1 Pumps	5	each	240,350	1,201,750
Discharge Piping (250 L.F. ; D=42")		Job	35,000	175,000
Energy Dissipation		Job		180,000
BF-2 Pumps	3	each	387,200	1,161,600
Discharge Piping (250 L.F. ; D=42")		Job	40,800	122,400
Energy Dissipation		Job		120,000
BF-3 Pumps	2	each	240,350	480,700
Discharge Piping (250 L.F. ; D=42")		Job	40,800	81,600
Energy Dissipation		Job		90,000
BF-4 Pumps	3	each	561,000	1,683,000
Discharge Piping (250 L.F. ; D=60")		Job	88,536	265,608
Energy Dissipation		Job		120,000
BF-5 Pumps	3	each	203,500	610,500
Discharge Piping (250 L.F. ; D=42")		Job	30,800	92,400
Energy Dissipation		Job		120,000
BF-6 Pumps	4	each	203,500	814,000
Discharge Piping (250 L.F. ; D=42")		Job	28,200	112,800
Energy Dissipation		Job		150,000
BF-7 Pumps	3	each	451,000	1,353,000
Discharge Piping (250 L.F. ; D=54")		Job	69,440	208,320
Energy Dissipation		Job		120,000
Electrical	23	Job	242,100	5,568,300

<b>Current Contract Cost, Oct 07</b>	<b>\$18,960,353</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **52** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3 - Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Gulf Park Estates - Elevation 20** FILE NAME **GulfPkEst(8-07)\_Lod3\_Ring Levee\_Pumping Stations.xls**  
**Optional Arrangement 'C'(8/07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations GP-1 thru GP-9</u></b>				
Structural Concrete, complete all sites	2,425	cy	\$450	\$1,091,145
Form Work, complete all sites	59,717	sf	\$6.50	388,157
Steel Reinforcement, complete all sites	149	tons	\$925	138,232
Excavation	3,376	cy	\$15	50,642
Backfill	2,424	cy	\$5	12,119
Trash Screens and Miscellaneous metal items, All Sites	34	each	\$100,000	3,400,000
Pumps by Installation Site				
GP-1 Pumps	3	each	\$203,500	610,500
Discharge Piping (42" Dia; 150 L.F.)		job	\$29,500	88,500
Energy Dissipation		job		120,000
GP-2 Pumps	6	each	\$203,500	1,221,000
Discharge Piping (42" Dia; 150 L.F.)		job	\$30,800	184,800
Energy Dissipation		job		210,000
GP-3 Pumps	8	each	\$203,500	1,628,000
Discharge Piping (42" Dia; 150 L.F.)		job	\$29,500	236,000
Energy Dissipation		job		270,000
GP-4 Pumps	3	each	\$222,200	666,600
Discharge Piping (42" Dia; 130 L.F.)		job	\$25,800	77,400
Energy Dissipation		job		120,000
GP-5 Pumps	5	each	\$192,500	962,500
Discharge Piping (42" Dia; 140 L.F.)		job	\$21,900	109,500
Energy Dissipation		job		180,000
GP-6 Pumps	3	each	\$154,000	462,000
Discharge Piping (36" Dia; 150 L.F.)		job	\$9,750	29,250
Energy Dissipation		job		120,000
GP-7 Pumps	2	each	\$97,900	195,800
Discharge Piping (26" Dia; 125 L.F.)		job	\$12,250	24,500
Energy Dissipation		job		90,000
GP-8 Pumps	2	each	\$97,900	195,800
Discharge Piping (26" Dia; 150 L.F.)		job	\$14,750	29,500
Energy Dissipation		job		90,000
GP-9 Pumps	2	each	\$192,500	385,000
Discharge Piping (42" Dia; 150 L.F.)		job	\$16,900	33,800
Energy Dissipation		job		90,000
Electrical	34	Job	\$242,100	8,231,400

<b>Current Contract Cost, Oct 07</b>	<b>\$21,742,146</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **53** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3 - Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Gulf Park Estates - Elevation 30** FILE NAME **GulfPkEst(8-07)\_Lod3\_Ring Levee\_Pumping Stations.xls**  
**Optional Arrangement 'D'(8/07)**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations GP-1 thru GP-8</u></b>				
Structural Concrete, complete all sites	3,441	cy	\$450	\$1,548,413
Form Work, complete all sites	84,868	sf	\$6.50	551,640
Steel Reinforcement, complete all sites	210	tons	\$925	194,636
Excavation	5,005	cy	\$15	75,082
Backfill	3,401	cy	\$5	17,007
Trash Screens and Miscellaneous metal items, All Sites	33	each	\$100,000	3,300,000
<b>Pumps by Installation Site</b>				
GP-1 Pumps	3	each	\$387,200	1,161,600
Discharge Piping (42" Dia; 150 L.F.)		job	\$38,400	115,200
Energy Dissipation		job		120,000
GP-2 Pumps	6	each	\$387,200	2,323,200
Discharge Piping (42" Dia; 150 L.F.)		job	\$39,600	237,600
Energy Dissipation		job		210,000
GP-3 Pumps	8	each	\$387,200	3,097,600
Discharge Piping (42" Dia; 150 L.F.)		job	\$38,400	307,200
Energy Dissipation		job		270,000
GP-4 Pumps	3	each	\$240,350	721,050
Discharge Piping (42" Dia; 130 L.F.)		job	\$34,500	103,500
Energy Dissipation		job		120,000
GP-5 Pumps	5	each	\$203,500	1,017,500
Discharge Piping (42" Dia; 140 L.F.)		job	\$28,200	141,000
Energy Dissipation		job		180,000
GP-6 Pumps	2	each	\$222,200	444,400
Discharge Piping (42" Dia; 150 L.F.)		job	\$27,000	54,000
Energy Dissipation		job		90,000
GP-7 Pumps	2	each	\$103,400	206,800
Discharge Piping (26" Dia; 125 L.F.)		job	\$16,600	33,200
Energy Dissipation		job		90,000
GP-8 Pumps	2	each	\$387,200	774,400
Discharge Piping (42" Dia; 150 L.F.)		job	\$38,400	76,800
Energy Dissipation		job		90,000
GP-9 Pumps	2	each	\$203,500	407,000
Discharge Piping (42" Dia; 150 L.F.)		job	\$28,200	56,400
Energy Dissipation		job		90,000
Electrical	33	Job	\$242,100	7,989,300
<b>Current Contract Cost, Oct 07</b>				<b>\$26,214,528</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **54** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Bay Saint Louis- Elevation 20** FILE NAME **BayStLou\_Lod3\_Ring Levee\_Pumping Stations.xls**  
**Optional Arrangement 'A'** **Hancock County**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations BSL1 thru BSL12</u></b>				
Structural Concrete, complete all sites	5,061	cy	\$450.00	\$2,277,233
Form Work, complete all sites	124,378	sf	6.50	808,457
Steel Reinforcement, complete all sites	310	tons	925.00	286,829
Excavation	6,535	cy	15.00	98,019
Backfill	4,569	cy	5.00	22,846
Trash Screens and Miscellaneous metal items, All Sites	52	each	100,000	5,200,000
<b>Pumps by Installation</b>				
BSL-1 Pumps	8	each	222,200	1,777,600
Discharge Piping (150 L.F. ; D=42")		each	25,800	206,400
Energy Dissipation		Job		270,000
BSL-2 Pumps	4	each	280,500	1,122,000
Discharge Piping (150 L.F. ; D=48")		each	29,000	116,000
Energy Dissipation		Job		150,000
BSL-3 Pumps	2	each	154,000	308,000
Discharge Piping (150 L.F. ; D=36")		each	13,000	26,000
Energy Dissipation		Job		90,000
BSL-4 Pumps	3	each	192,500	577,500
Discharge Piping (150 L.F. ; D=42")		each	18,200	54,600
Energy Dissipation		Job		120,000
BSL-5 Pumps	4	each	330,000	1,320,000
Discharge Piping (150 L.F. ; D=54")		each	20,600	82,400
Energy Dissipation		Job		150,000
BSL-6 Pumps	4	each	280,500	1,122,000
Discharge Piping (150 L.F. ; D=48")		each	29,000	116,000
Energy Dissipation		Job		150,000
BSL-7 Pumps	3	each	222,200	666,600
Discharge Piping (150 L.F. ; D=42")		each	23,200	69,600
Energy Dissipation		Job		120,000
BSL-8 Pumps	7	each	192,500	1,347,500
Discharge Piping (150 L.F. ; D=42")		each	20,600	144,200
Energy Dissipation		Job		240,000
BSL-9 Pumps	3	each	192,500	577,500
Discharge Piping (150 L.F. ; D=42")		each	15,600	46,800
Energy Dissipation		Job		120,000

**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **55** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Bay Saint Louis- Elevation 20** FILE NAME **BayStLou\_Lod3\_Ring Levee\_Pumping Stations.xls**  
**Optional Arrangement 'A'** **Hancock County**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Pumping Stations BSL1 thru BSL12**

BSL-10	Pumps	6	each	280,500	1,683,000
	Discharge Piping (150 L.F. ; D=48")		each	32,250	193,500
	Energy Dissipation		Job		210,000
BSL-11	Pumps	5	each	222,200	1,111,000
	Discharge Piping (150 L.F. ; D=42")		each	28,200	141,000
	Energy Dissipation		Job		180,000
BSL-12	Pumps	3	each	192,500	577,500
	Discharge Piping (150 L.F. ; D=42")		each	20,600	61,800
	Energy Dissipation		Job		120,000
Electrical		52	Job	242,100	12,589,200

<b>Current Contract Cost, Oct 07</b>	<b>\$36,651,084</b>
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## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **56** OF **57**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Bay Saint Louis- Elevation 30** FILE NAME **Beach Boulevard\_Lod3\_Pumping Stations.xls**  
**Optional Arrangement 'B'** **Hancock County**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Pumping Stations BSL1 thru BSL12</u></b>				
Structural Concrete, complete all sites	4828	cy	\$450.00	\$2,172,600
Form Work, complete all sites	118906	sf	6.50	772,889
Steel Reinforcement, complete all sites	296	tons	925.00	273,800
Excavation	6335	cy	15.00	95,025
Backfill	4452	cy	5.00	22,260
Trash Screens and Miscellaneous metal items, All Sites	49	each	100,000	4,900,000
<b>Pumps by Installation</b>				
BSL-1 Pumps	8	each	240,350	1,922,800
Discharge Piping (150 L.F. ; D=42")		each	38,400	307,200
Energy Dissipation		Job		270,000
BSL-2 Pumps	4	each	302,500	1,210,000
Discharge Piping (150 L.F. ; D=48")		each	44,750	179,000
Energy Dissipation		Job		150,000
BSL-3 Pumps	2	each	176,000	352,000
Discharge Piping (150 L.F. ; D=36")		each	25,800	51,600
Energy Dissipation		Job		90,000
BSL-4 Pumps	3	each	203,500	610,500
Discharge Piping (150 L.F. ; D=42")		each	30,800	92,400
Energy Dissipation		Job		120,000
BSL-5 Pumps	4	each	376,200	1,504,800
Discharge Piping (150 L.F. ; D=54")		each	53,120	212,480
Energy Dissipation		Job		150,000
BSL-6 Pumps	3	each	398,200	1,194,600
Discharge Piping (150 L.F. ; D=54")		each	57,280	171,840
Energy Dissipation		Job		120,000
BSL-7 Pumps	3	each	240,350	721,050
Discharge Piping (150 L.F. ; D=42")		each	35,800	107,400
Energy Dissipation		Job		120,000
BSL-8 Pumps	7	each	192,500	1,347,500
Discharge Piping (150 L.F. ; D=54")		each	53,120	371,840
Energy Dissipation		Job		240,000
BSL-9 Pumps	3	each	203,500	610,500
Discharge Piping (150 L.F. ; D=42")		each	28,200	84,600
Energy Dissipation		Job		120,000

**COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 57 OF 57  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Line of Defense 3- Pumping Stations** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Bay Saint Louis- Elevation 30** FILE NAME **bellfontaine\_Lod3\_Ring Levee\_Pumping Stations.xls**  
**Optional Arrangement 'B'** **Hancock County**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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**Pumping Stations BSL1 thru BSL12**

BSL-10	Pumps	6	each	302,500	1,815,000
	Discharge Piping (150 L.F. ; D=48")		each	48,000	288,000
	Energy Dissipation		Job		210,000
BSL-11	Pumps	3	each	176,000	528,000
	Discharge Piping (150 L.F. ; D=42")		each	40,800	122,400
	Energy Dissipation		Job		120,000
BSL-12	Pumps	3	each	561,000	1,683,000
	Discharge Piping (150 L.F. ; D=36")		each	33,200	99,600
	Energy Dissipation		Job		120,000
	Electrical	49	Job	242,100	11,862,900

<b>Current Contract Cost, Oct 07</b>	<b>\$37,517,584</b>
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# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **1** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 3 - Elevated Roadway** BASIS of ESTIMATE: by L.O. project delv'd. team  
 FILE NAME: Hanc Co-Lod 3-Elevated Roadway-Elev 11-BoatGate.xls

## Boat Access Gate Structures

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
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Boat Access Gate Structures

**Hanc Co-Lod 3-Elevated Roadway-Elev 11-BoatGate.xls** **\$13,587,948**

**Jack Co-Lod 3-Ring Levee-Pas-Elev 20-BoatGates.xls**

**Pascagoula - El20 Estimate(PG-1)** **\$12,920,900**

Estimate(G-1)	10,756,700
Estimate(G-2)	12,836,100
Estimate(G-3)	9,321,720
Estimate(G-4)	21,534,300
Estimate(G-5)	18,458,200

**Gautier.-El.20** **\$72,907,018**

**Jack Co-Lod 3-Ring Levee-Pas-Elev 30-BoatGates.xls**

**Pascagoula - El30 Estimate(PG-1)** **\$14,917,980**

Estimate(G-1)	11,460,580
Estimate(G-2)	14,148,380
Estimate(G-3)	9,372,720
Estimate(G-4)	25,448,480
Estimate(G-5)	19,818,780

**Gautier-El.30** **\$80,248,938**

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **2** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Line of Defense 3 - Elevated Roadway** BASIS of ESTIMATE: by L.O. project delv'd. team  
**Hancock County - Elevation 11** FILE NAME: Hanc Co-Lod 3-Elevated Roadway-Elev 11-BoatGate.xls  
**Boat Access Gate HK-1**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	73,800	C.Y.	20	1,476,000
Foundation Piling (500 Piles)18x18 precast c	100000	L.F.	35	3,500,000
Structural Fill	45,800	C.Y.	10	458,000
<b>Stone Protection</b>	<b>500</b>	<b>C.Y.</b>	<b>90</b>	<b>45,000</b>
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	13,344	C.Y.	450	6,004,728
Forming	13,123	S.Y.	6.50	85,300
Reinforcement	28	Tons	925	25,900
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	82	Tons	9,800	802,620
Stainless Steel	82	Tons	11,700	959,400
Miscellaneous Metal	2	Tons	8,000	16,000
Mechanical:	6	Tons	10,000	60,000
Electrical:	1	Job		45,000
				\$13,577,948
<b>Current Contract Cost, Oct 07</b>				<b>\$13,577,948</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **3** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Pascagoula - Elevation 20** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 20-BoatGates.xls  
**Boat Access Gate PG-1**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	65,300	C.Y.	20	1,306,000
Foundation Piling (380 Piles)18x18 precast c	76000	L.F.	35	2,660,000
Structural Fill	42,300	C.Y.	10	423,000
<b>Stone Protection</b>	<b>500</b>	<b>C.Y.</b>	<b>90</b>	<b>45,000</b>
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	13,300	C.Y.	450	5,985,000
Forming	13,123	S.Y.	6.50	85,300
Reinforcement	60	Tons	925	55,500
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	68	Tons	9,800.00	666,400
Stainless Steel	121	Tons	11,700.00	1,415,700
Miscellaneous Metal	3	Tons	8,000.00	24,000
Mechanical:	10	Tons	10,000.00	100,000
Electrical:	1	Job		45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$12,910,900</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **4** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Gautier - Elevation 20** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 20-BoatGates.xls  
**Boat Access Gate G-1**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	58,900	C.Y.	20	1,178,000
Foundation Piling (300 Piles)	60000	L.F.	35	2,100,000
Structural Fill	39,700	C.Y.	10	397,000
Stone Protection	500	C.Y.	90	45,000
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	12,600	C.Y.	450	5,670,000
Forming	13,123	S.Y.	6.50	85,300
Reinforcement	60	Tons	925	55,500
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	36	Tons	9,800.00	352,800
Stainless Steel	53	Tons	11,700.00	620,100
Miscellaneous Metal	1	Tons	8,000.00	8,000
Mechanical:	10	Tons	10,000.00	100,000
Electrical:	1	Job		45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$10,756,700</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **5** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Gautier - Elevation 20** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 20-BoatGates.xls  
**Boat Access Gate G-2**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	64,000	C.Y.	20	1,280,000
Foundation Piling (360 Piles)18x18 precast c	72000	L.F.	35	2,520,000
Structural Fill	41,800	C.Y.	10	418,000
<b>Stone Protection</b>	<b>500</b>	<b>C.Y.</b>	<b>90</b>	<b>45,000</b>
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	14100	C.Y.	450	6,345,000
Forming	13,123	S.Y.	6.50	85,300
Reinforcement	60	Tons	925	55,500
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	61	Tons	9,800.00	597,800
Stainless Steel	105	Tons	11,700.00	1,228,500
Miscellaneous Metal	2	Tons	8,000.00	16,000
Mechanical:	10	Tons	10,000.00	100,000
Electrical:	1	Job		45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$12,836,100</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **6** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Gautier - Elevation 20** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 20-BoatGates.xls  
**Boat Access Gate G-3**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	54,300	C.Y.	20	1,086,000
Foundation Piling (240 Piles) 18x18 precast c	48000	L.F.	35	1,680,000
Structural Fill	37,900	C.Y.	10	379,000
Stone Protection	500	C.Y.	90	45,000
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	11800	C.Y.	450	5,310,000
Forming	13,123	S.Y.	6.50	85,300
Reinforcement	60	Tons	925	55,500
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	17.4	Tons	9,800.00	170,520
Stainless Steel	22	Tons	11,700.00	257,400
Miscellaneous Metal	1	Tons	8,000.00	8,000
Mechanical:	10	Tons	10,000.00	100,000
Electrical:	1	Job		45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$9,321,720</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **7** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Gautier - Elevation 20** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 20-BoatGates.xls  
**Boat Access Gate G-4**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	79,900	C.Y.	20	1,598,000
Foundation Piling (580 Piles) 18x18 precast c	116000	L.F.	35	4,060,000
Structural Fill	48,200	C.Y.	10	482,000
<b>Stone Protection</b>	<b>500</b>	<b>C.Y.</b>	<b>90</b>	<b>45,000</b>
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	19500	C.Y.	450	8,775,000
Forming	13,123	S.Y.	6.50	85,300
Reinforcement	60	Tons	925	55,500
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	178	Tons	9,800.00	1,744,400
Stainless Steel	373	Tons	11,700.00	4,364,100
Miscellaneous Metal	10	Tons	8,000.00	80,000
Mechanical:	10	Tons	10,000.00	100,000
Electrical:	1	Job		45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$21,534,300</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **8** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Gautier - Elevation 20** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 20-BoatGates.xls  
**Boat Access Gate G-5**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	72,700	C.Y.	20	1,454,000
Foundation Piling (480 Piles) 18x18 precast c	96000	L.F.	35	3,360,000
Structural Fill	45,300	C.Y.	10	453,000
<b>Stone Protection</b>	<b>500</b>	<b>C.Y.</b>	<b>90</b>	<b>45,000</b>
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	17100	C.Y.	450	7,695,000
Forming	13,123	S.Y.	6.50	85,300
Reinforcement	60	Tons	925	55,500
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	118	Tons	9,800.00	1,156,400
Stainless Steel	330	Tons	11,700.00	3,861,000
Miscellaneous Metal	6	Tons	8,000.00	48,000
Mechanical:	10	Tons	10,000.00	100,000
Electrical:	1	Job		45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$18,458,200</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **9** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Pascagoula - Elevation 30** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 30-BoatGates.xls  
**Boat Access Gate PG-1**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	65,300	C.Y.	20	1,306,000
Foundation Piling (380 Piles)18x18 precast c	76000	L.F.	35	2,660,000
Structural Fill	42,300	C.Y.	10	423,000
<b>Stone Protection</b>	<b>500</b>	<b>C.Y.</b>	<b>90</b>	<b>55,000</b>
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	15,030	C.Y.	450	6,763,500
Forming	16,493	S.Y.	6.50	107,205
Reinforcement	71	Tons	925	65,675
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	149	Tons	9,800.00	1,460,200
Stainless Steel	152	Tons	11,700.00	1,778,400
Miscellaneous Metal	3	Tons	8,000.00	24,000
Mechanical:	13	Tons	10,000.00	130,000
Electrical:	1	Job		45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$14,917,980</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **10** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Gautier - Elevation 30** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 30-BoatGates.xls  
**Boat Access Gate G-1**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	58,900	C.Y.	20	1,178,000
Foundation Piling (300 Piles 18x18 precast cc	60000	L.F.	35	2,100,000
Structural Fill	39,700	C.Y.	10	397,000
<b>Stone Protection</b>	<b>500</b>	<b>C.Y.</b>	<b>90</b>	<b>45,000</b>
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	12,830	C.Y.	450	5,773,500
Forming	16,493	S.Y.	6.50	107,205
Reinforcement	71	Tons	925	65,675
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	72	Tons	9,800.00	705,600
Stainless Steel	68	Tons	11,700.00	795,600
Miscellaneous Metal	1	Tons	8,000.00	8,000
Mechanical:	13	Tons	10,000.00	130,000
Electrical:	1	Job		45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$11,450,580</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **11** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Gautier - Elevation 30** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 30-BoatGates.xls  
**Boat Access Gate G-2**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	64,000	C.Y.	20	1,280,000
Foundation Piling (360 Piles) 18x18 precast c	72000	L.F.	35	2,520,000
Structural Fill	41,800	C.Y.	10	418,000
<b>Stone Protection</b>	<b>500</b>	<b>C.Y.</b>	<b>90</b>	<b>45,000</b>
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	14590	C.Y.	450	6,565,500
Forming	16,493	S.Y.	6.50	107,205
Reinforcement	71	Tons	925	65,675
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	132	Tons	9,800.00	1,293,600
Stainless Steel	132	Tons	11,700.00	1,544,400
Miscellaneous Metal	3	Tons	8,000.00	24,000
Mechanical:	13	Tons	10,000.00	130,000
Electrical:	1	Job		45,000
				\$14,138,380
<b>Current Contract Cost, Oct 07</b>				<b>\$14,138,380</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **12** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Gautier - Elevation 30** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 30-BoatGates.xls  
**Boat Access Gate G-3**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	54,300	C.Y.	20	1,086,000
Foundation Piling (240 Piles)	48000	L.F.	35	1,680,000
Structural Fill	37,900	C.Y.	10	379,000
Stone Protection	500	C.Y.	90	45,000
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	11240	C.Y.	450	5,058,000
Forming	16,493	S.Y.	6.50	107,205
Reinforcement	71	Tons	925	65,675
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	33.8	Tons	9,800.00	331,240
Stainless Steel	28	Tons	11,700.00	327,600
Miscellaneous Metal	1	Tons	8,000.00	8,000
Mechanical:	13	Tons	10,000.00	130,000
Electrical:	1	Job		45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$9,362,720</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **13** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Gautier - Elevation 30** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 30-BoatGates.xls  
**Boat Access Gate G-4**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	79,900	C.Y.	20	1,598,000
Foundation Piling (580 Piles)	116000	L.F.	35	4,060,000
Structural Fill	48,200	C.Y.	10	482,000
Stone Protection	500	C.Y.	90	45,000
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	20050	C.Y.	450	9,022,500
Forming	16,493	S.Y.	6.50	107,205
Reinforcement	71	Tons	925	65,675
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	431	Tons	9,800.00	4,223,800
Stainless Steel	469	Tons	11,700.00	5,487,300
Miscellaneous Metal	9	Tons	8,000.00	72,000
Mechanical:	13	Tons	10,000.00	130,000
Electrical:	1	Job		45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$25,438,480</b>

# COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **14** OF **14**  
 PREPARED **Joseph H. Ellsworth** CHECKED: **Lloyd Oliver**  
 WORK ITEM **Jackson County - Line of Defense 3** BASIS of ESTIMATE: by L.O. project del'v'd. team  
**Ring Levee - Gautier - Elevation 30** FILE NAME: Jack Co-Lod 3-Ring Levee-Pas-Elev 30-BoatGates.xls  
**Boat Access Gate G-5**

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Civil:				
Cofferdam and Dewatering	\$100,000	Job		\$100,000
Earthwork:				
Structural Excavation	72,700	C.Y.	20	1,454,000
Foundation Piling (480 Piles)	96000	L.F.	35	3,360,000
Structural Fill	45,300	C.Y.	10	453,000
Stone Protection	500	C.Y.	90	45,000
Structural:				
Concrete:				
<u>Gate Structure</u>				
Structural Concrete	17580	C.Y.	450	7,911,000
Forming	16,493	S.Y.	6.50	107,205
Reinforcement	71	Tons	925	65,675
Structural Steel:				
Rising Sector Gates (Incl. end disks and Trunnion Hubs & Bearings)				
Mild Steel	274	Tons	9,800.00	2,685,200
Stainless Steel	291	Tons	11,700.00	3,404,700
Miscellaneous Metal	6	Tons	8,000.00	48,000
Mechanical:	13	Tons	10,000.00	130,000
Electrical:	1	Job		45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$19,808,780</b>

## COMPREHENSIVE PLAN " STRUCTURAL " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 WORK ITEM: **Line of Defense 1** PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
**Beach / Dune Construction** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
<b><u>Ship Island Fort Mass &amp; French Warehouse    Emergency Beach Nourishment</u></b>				
Mobilization, Preparatory Work, Demobilization ( Dredge Plant )	1	job	allow	\$290,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipmen	1	job	allow	3,000
Construct Sand (dune), Dredged from near Shore Borrow Site	125,000	cy	5.50	687,500
Misc Site Items	1	ls	allow	1,700
<b>Current Contract Cost, Oct 07</b>				\$982,200
CONTINGENCY		@	<b>25.0%</b>	245,550
				\$1,227,750
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				\$1,252,750
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	100,220
				\$1,352,970
31 Account, Constr. Management		@	<b>6.0%</b>	81,178
				\$1,434,148
ESCALATION		@	<b>0.0%</b>	1,434,148
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 1,430,000</b>

**Notes:**

Unit Dredge Cost based on Current Dredge Project, Dauphin Island Berm, AI

# COMPREHENSIVE STUDY " Programmatic Environmental Restoration Summary"

PROJECT: **Mississippi Coastal Improvement Project** ITEM NO. DATE **25-Jul-08**  
 LOCATION **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellswort** CHECKED: **Michael McKown**  
 WORK ITEM **Summary** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

	DESCRIPTION	ESTIMATED ANNUAL AMOUNT	ANNUAL O&M
<b><u>ENVIRONMENTAL RESTORATION 32 SITES</u></b>			
<b>Area No.</b>	<b>Area Name</b>	<b>Acreage</b>	<b>THOUS</b>
1	<b><u>Pearlington</u></b>	76 \$ <b>30,200,000</b>	40
2	<b><u>Pearlington South</u></b>	11 \$ <b>23,400,000</b>	11
3	<b><u>Port/West</u></b>	49 \$ <b>19,800,000</b>	20
4	<b><u>Ansley</u></b>	2,023 \$ <b>482,100,000</b>	500
5	<b><u>Heron Bay</u></b>	594 \$ <b>192,100,000</b>	100
6	<b><u>Lower Bay Road</u></b>	226 \$ <b>53,000,000</b>	60
7	<b><u>Lakeshore</u></b>	275 \$ <b>69,200,000</b>	75
8	<b><u>Bayou Caddy/Lakeshore</u></b>	362 \$ <b>113,400,000</b>	78
9	<b><u>Clermont Harbor</u></b>	209 \$ <b>208,300,000</b>	60
10	<b><u>Bayou La Croix</u></b>	259 \$ <b>207,100,000</b>	72
11	<b><u>Shoreline Park</u></b>	889 \$ <b>1,259,200,000</b>	110
12	<b><u>Chapman Road</u></b>	146 \$ <b>174,100,000</b>	35
13	<b><u>Jourdan River-Interstate 10 Development</u></b>	638 \$ <b>155,900,000</b>	100
14	<b><u>Diamondhead</u></b>	433 \$ <b>267,700,000</b>	90
15	<b><u>Delisle</u></b>	120 \$ <b>41,900,000</b>	59
16	<b><u>Ellis Property</u></b>	443 \$ <b>60,300,000</b>	70
17	<b><u>Pine Point East</u></b>	103 \$ <b>47,500,000</b>	35
18	<b><u>Pine Point West</u></b>	83 \$ <b>36,700,000</b>	20
19	<b><u>Pass Christian Beach Front low forested drainage way</u></b>	21 \$ <b>10,700,000</b>	15
20	<b><u>Pass Christian Site-Bayou Portage</u></b>	43 \$ <b>27,800,000</b>	17
21	<b><u>Brickyard Bayou</u></b>	14 \$ <b>7,000,000</b>	10
22	<b><u>Biloxi River-Shorecrest Drive</u></b>	15 \$ <b>12,500,000</b>	10
23	<b><u>Biloxi River-Eagle Point</u></b>	17 \$ <b>17,400,000</b>	10
24	<b><u>Biloxi Front Beach-South of Highway 90</u></b>	40 \$ <b>60,500,000</b>	13
25	<b><u>Keegan Bayou</u></b>	54 \$ <b>31,500,000</b>	14
26	<b><u>St. Martin</u></b>	467 \$ <b>147,500,000</b>	95
27	<b><u>Fort Point</u></b>	83 \$ <b>29,400,000</b>	38
28	<b><u>Pine Island</u></b>	2,531 \$ <b>518,600,000</b>	550
29	<b><u>Belle Fontaine</u></b>	1,516 \$ <b>373,700,000</b>	450
30	<b><u>Griffin Point</u></b>	182 \$ <b>70,900,000</b>	66
31	<b><u>Bayou Chico</u></b>	258 \$ <b>82,900,000</b>	69
32	<b><u>Grand Bay Marsh</u></b>	2,666 \$ <b>621,400,000</b>	500
<b>Grand Total</b>		<b>\$ 5,453,700,000</b>	<b>3,392</b>
<b>* see backup for Cost Derivation</b>			

**Notes:**

- Price Level, FY-07
- Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment
- Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"
- Quantities listed within the Estimate represent Major Elements of the Project
- Structural Removal Cost includes minor Site Restoration (filling septic tanks, removal outside structures, pavements & utilities)
- Utility Removal Cost includes, sewer, storm drain, water, gas, power, cable, phone, traffic signaling
- Estimate Excl: Operational & Maintenance Cost
  - Project Escalation
  - Relocations, Environment, HTRW & Real Estate Cost (except PCA)
  - Historical Preservation
  - Asbestos Removal during Structure Removal

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Pearlington**  
**Hancock County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$260,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	490,973	cy	12.00	5,891,676
b. Removal of structures (1,500 sf avg size @ 7 ea =)	10,500	sf	3.50	36,750
b. Disposal Fee	389	cy	2.50	972
c. Removal of roads (24' wide assumed)	2,415	lf	14.00	33,810
d. Removal of utilities	2,415	lf	41.00	99,015
2. Herbicide, hand application (untouched areas from excavation)	10	acre	3,100	31,000
3. Filling of existing ditches and channels (from req'd. excavation)	2,500	cy	5.00	12,500
4. Plantings	76	acre	57,600	4,377,600
Misc Site Items	1	ls	allow	50,000
<b>Current Contract Cost, FY 07</b>				\$ 10,793,323
CONTINGENCY @ <b>25.0%</b>				2,698,331
				\$ 13,491,654
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, acqs.			<b>LS</b>	16,098,678
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$29,615,332
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	2,369,227
				\$ 31,984,559
31 Account, Constr. Management		@	<b>6.0%</b>	1,919,074
				\$ 33,903,632
ESCALATION @ <b>0.0%</b>				
				\$ 33,903,632
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 33,900,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Pearlington South**  
**Hancock County**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$40,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	70,140	cy	12.00	841,680
b. Removal of structures (1,500 sf avg size @ 1ea = )	1,440	sf	3.50	5,040
b. Disposal Fee	56	cy	2.50	139
c. Removal of roads (24' wide assumed)	345	lf	14.00	4,830
d. Removal of utilities	345	lf	41.00	14,145
2. Herbicide, hand application (untouched areas from excavation)	11	acre	3,100	34,100
3. Filling of existing ditches and channels (from req'd. excavation)	205	cy	5.00	1,025
4. Plantings	11	acre	57,600	633,600
Misc Site Items	1	ls	allow	10,000
<b>Current Contract Cost, FY 07</b>				\$ 1,584,559
CONTINGENCY				396,140
				\$ 1,980,699
01 Account, Lands & Damage	PCA	LS	25,000	
02 Account, Relocations, acqs.		LS	23,012,156	
_ Account, Environmental		LS		
09 Account, Aids to Navigation		LS		
				\$25,017,855
30 Account, Plan, Engr.& Design	@	8.0%	2,001,428	
				\$ 27,019,283
31 Account, Constr. Management	@	6.0%	1,621,157	
				\$ 28,640,440
ESCALATION	@	0.0%		
				\$ 28,640,440
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 28,600,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Port West**  
**Hancock County**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$170,000
1. Removals:				
a. Excavation existing Area from -0.5 to +2.0	327,316	cy	12.00	3,927,792
b. Removal of structures (1,500 sf avg size @ 5 ea = )	7,500	sf	3.50	26,250
b. Disposal Fee	278	cy	2.50	694
c. Removal of roads (24' wide assumed)	1,610	lf	14.00	22,540
d. Removal of utilities	1,610	lf	41.00	66,010
2. Herbicide, hand application (untouched areas from excavation)	8	acre	3,100	24,800
3. Filling of existing ditches and channels (from req'd. excavation)	954	cy	5.00	4,770
4. Plantings	49	acre	57,600	2,822,400
Misc Site Items	1	ls	allow	30,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 7,095,256</b>
CONTINGENCY @ <b>25.0%</b>				<u>1,773,814</u>
				<b>\$ 8,869,071</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aqas.			<b>LS</b>	10,486,413
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$19,380,484</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>1,550,439</u>
				<b>\$ 20,930,922</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>1,255,855</u>
				<b>\$ 22,186,778</b>
ESCALATION @ <b>0.0%</b>				<u></u>
				<b>\$ 22,186,778</b>
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 22,200,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Ansley**  
**Jackson County**

ITEM NO. DATE  
 SHEET NO. 1 OF 1  
 PREPARED: Joseph H. Ellsworth CHECKED: Michael McKown  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$6,860,000
1. Removals:				
a. Excavation existing Area from -0.5 to +2.0	12,695,161	cy	12.00	152,341,932
b. Removal of structures (1,500 sf avg size @ 174 ea = )	261,000	sf	3.50	913,500
b. Disposal Fee	9,667	cy	2.50	24,167
c. Removal of roads (24' wide assumed)	62,429	lf	14.00	874,006
d. Removal of utilities	62,429	lf	41.00	2,559,589
2. Herbicide, hand application (untouched areas from excavation)	310	acre	3,100	961,000
3. Filling of existing ditches and channels (from req'd. excavation)	5,000	cy	5.00	25,000
3. Plantings	2,023	acre	57,600	116,524,800
Misc Site Items	1	ls	allow	1,370,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 282,453,994</b>
CONTINGENCY @ 25.0%				<u>70,613,498</u>
				<b>\$ 353,067,492</b>
01 Account, Lands & Damage		PCA	LS	25,000
02 Account, Relocations, aquas			LS	85,003,422
_ Account, Environmental			LS	
09 Account, Aids to Navigation			LS	
				<u>\$438,095,914</u>
30 Account, Plan, Engr.& Design		@	8.0%	35,047,673
				<u>\$ 473,143,587</u>
31 Account, Constr. Management		@	6.0%	28,388,615
				<u>\$ 501,532,202</u>
ESCALATION @ 0.0%				<u>501,532,202</u>
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 501,500,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Heron Bay**  
**Hancock County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,020,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	3,740,748	cy	12.00	44,888,976
b. Removal of structures (1,500 sf avg size @ 52 ea = )	78,000	sf	3.50	273,000
b. Disposal Fee	2,889	cy	2.50	7,222
c. Removal of roads (24' wide assumed)	18,396	lf	14.00	257,544
d. Removal of utilities	18,396	lf	41.00	754,236
2. Herbicide, hand application (untouched areas from excavation)	92	acre	3,100	285,200
3. Filling of existing ditches and channels (from req'd. excavation)	2,500	cy	5.00	12,500
3. Plantings	594	acre	57,600	34,214,400
Misc Site Items	1	ls	allow	400,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 83,113,078</b>
CONTINGENCY		@	<b>25.0%</b>	<u>20,778,270</u>
				\$ 103,891,348
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	79,883,456
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$183,799,804</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>14,703,984</u>
				\$ 198,503,788
31 Account, Constr. Management		@	<b>6.0%</b>	<u>11,910,227</u>
				\$ 210,414,015
ESCALATION		@	<b>0.0%</b>	<u>210,414,015</u>
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 210,400,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Lower Bay Road**  
**Hancock County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$770,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	1,421,485	cy	12.00	17,057,820
b. Removal of structures (1,500 sf avg size @ 20 ea = )	30,000	sf	3.50	105,000
b. Disposal Fee	1,111	cy	2.50	2,778
c. Removal of roads (24' wide assumed)	6,991	lf	14.00	97,874
d. Removal of utilities	6,991	lf	41.00	286,631
2. Herbicide, hand application (untouched areas from excavation)	35	acre	3,100	108,500
3. Filling of existing ditches and channels (from req'd. excavation)	1,431	cy	5.00	7,155
3. Plantings	226	acre	57,600	13,017,600
Misc Site Items	1	ls	allow	200,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 31,653,358</b>
CONTINGENCY		@	<b>25.0%</b>	7,913,339
				<b>\$ 39,566,697</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	8,400,156
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$47,991,853
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	3,839,348
				\$ 51,831,201
31 Account, Constr. Management		@	<b>6.0%</b>	3,109,872
				\$ 54,941,074
ESCALATION		@	<b>0.0%</b>	\$ 54,941,074
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 54,900,000</b>



## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Bayou Caddy Lakeshore**  
**Hancock County**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,230,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	2,291,208	cy	12.00	27,494,496
b. Removal of structures (1,500 sf avg size @ 33 ea = )	49,500	sf	3.50	173,250
b. Disposal Fee	1,833	cy	2.50	4,583
c. Removal of roads (24' wide assumed)	11,260	lf	14.00	157,640
d. Removal of utilities	11,260	lf	41.00	461,660
2. Herbicide, hand application (untouched areas from excavation)	57	acre	3,100	176,700
3. Filling of existing ditches and channels (from req'd. excavation)	1,431	cy	5.00	7,155
3. Plantings	362	acre	57,600	20,851,200
Misc Site Items	1	ls	allow	200,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 50,756,684</b>
CONTINGENCY		@	<b>25.0%</b>	12,689,171
				<b>\$ 63,445,855</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	44,506,544
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<b>\$107,977,399</b>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	8,638,192
				<b>\$ 116,615,591</b>
31 Account, Constr. Management		@	<b>6.0%</b>	6,996,935
				<b>\$ 123,612,527</b>
ESCALATION		@	<b>0.0%</b>	
				<b>\$ 123,612,527</b>
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 123,600,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Clermont Harbor**  
**Hancock County**

ITEM NO. DATE  
 SHEET NO. 1 OF 1  
 PREPARED: Joseph H. Ellsworth CHECKED: Michael McKown  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$720,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	1,332,642	cy	12.00	15,991,704
b. Removal of structures (1,500 sf avg size @ 20 ea = )	30,000	sf	3.50	105,000
b. Disposal Fee	1,111	cy	2.50	2,778
c. Removal of roads (24' wide assumed)	6,531	lf	14.00	91,434
d. Removal of utilities	6,531	lf	41.00	267,771
2. Herbicide, hand application (untouched areas from excavation)	34	acre	3,100	105,400
3. Filling of existing ditches and channels (from req'd. excavation)	1,431	cy	5.00	7,155
3. Plantings	209	acre	57,600	12,038,400
Misc Site Items	1	ls	allow	100,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 29,429,642</b>
CONTINGENCY @ <b>25.0%</b>				<u>7,357,410</u>
				<b>\$ 36,787,052</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	181,417,747
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$218,229,799</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	<u>17,458,384</u>
				<b>\$ 235,688,183</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>14,141,291</u>
				<b>\$ 249,829,474</b>
ESCALATION		@	<b>0.0%</b>	
				<u>\$ 249,829,474</u>
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 249,800,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Bayou La Croix**  
**Hancock County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$880,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	1,636,577	cy	12.00	19,638,924
b. Removal of structures (1,500 sf avg size @ 25 ea = )	37,500	sf	3.50	131,250
b. Disposal Fee	1,389	cy	2.50	3,472
c. Removal of roads (24' wide assumed)	8,099	lf	14.00	113,386
d. Removal of utilities	8,099	lf	41.00	332,059
2. Herbicide, hand application (untouched areas from excavation)	43	acre	3,100	133,300
3. Filling of existing ditches and channels (from req'd. excavation)	1,431	cy	5.00	7,155
3. Plantings	259	acre	57,600	14,918,400
Misc Site Items	1	ls	allow	200,000
<b>Current Contract Cost, FY 07</b>				\$ 36,357,946
CONTINGENCY		@	<b>25.0%</b>	9,089,487
				\$ 45,447,433
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	169,307,134
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$214,779,567
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	17,182,365
				\$ 231,961,932
31 Account, Constr. Management		@	<b>6.0%</b>	13,917,716
				\$ 245,879,648
ESCALATION		@	<b>0.0%</b>	
				\$ 245,879,648
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>			<b>\$</b>	<b>245,900,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Shoreline Park**  
**Hancock County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$3,020,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	5,587,742	cy	12.00	67,052,904
b. Removal of structures (1,500 sf avg size @ 88 ea = )	132,000	sf	3.50	462,000
b. Disposal Fee	4,889	cy	2.50	12,222
c. Removal of roads (24' wide assumed)	27,933	lf	14.00	391,062
d. Removal of utilities	27,933	lf	41.00	1,145,253
2. Herbicide, hand application (untouched areas from excavation)	149	acre	3,100	461,900
3. Filling of existing ditches and channels (from req'd. excavation)	1,431	cy	5.00	7,155
3. Plantings	889	acre	57,600	51,206,400
Misc Site Items	1	ls	allow	600,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 124,358,896</b>
CONTINGENCY		@	<b>25.0%</b>	<u>31,089,724</u>
				\$ 155,448,620
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	19,250,916
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$174,724,536</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>13,977,963</u>
				\$ 188,702,499
31 Account, Constr. Management		@	<b>6.0%</b>	<u>11,322,150</u>
				\$ 200,024,649
ESCALATION		@	<b>0.0%</b>	<u>200,024,649</u>
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 200,000,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Chapman Road**  
**Hancock County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$500,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	935,187	cy	12.00	11,222,244
b. Removal of structures (1,500 sf avg size @ 13ea = )	19,500	sf	3.50	68,250
b. Disposal Fee	722	cy	2.50	1,806
c. Removal of roads (24' wide assumed)	4,599	lf	14.00	64,386
d. Removal of utilities	4,599	lf	41.00	188,559
2. Herbicide, hand application (untouched areas from excavation)	23	acre	3,100	71,300
3. Filling of existing ditches and channels (from req'd. excavation)	1,431	cy	5.00	7,155
3. Plantings	146	acre	57,600	8,409,600
Misc Site Items	1	ls	allow	100,000

**Current Contract Cost, FY 07**      \$      20,633,300

CONTINGENCY	@	<b>25.0%</b>	5,158,325
			\$ 25,791,624

01 Account, Lands & Damage	PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas		<b>LS</b>	1,180,610,509
_ Account, Environmental		<b>LS</b>	
09 Account, Aids to Navigation		<b>LS</b>	
			\$1,206,427,133

30 Account, Plan, Engr.& Design	@	<b>8.0%</b>	96,514,171
			\$ 1,302,941,304

31 Account, Constr. Management	@	<b>6.0%</b>	78,176,478
			\$ 1,381,117,782

ESCALATION	@	<b>0.0%</b>	-
			\$ 1,381,117,782
			rounded

<b>TOTAL PROJECT COST, FY- 07</b>			<b>\$ 1,381,100,000</b>
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## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Jourdan River I-10 Dev**  
**Hancock County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,170,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	4,021,304	cy	12.00	48,255,648
b. Removal of structures (1,500 sf avg size @ 56ea = )	84,000	sf	3.50	294,000
b. Disposal Fee	3,111	cy	2.50	7,778
c. Removal of roads (24' wide assumed)	19,775	lf	14.00	276,850
d. Removal of utilities	19,775	lf	41.00	810,775
2. Herbicide, hand application (untouched areas from excavation)	99	acre	3,100	306,900
3. Filling of existing ditches and channels (from req'd. excavation)	4,000	cy	5.00	20,000
3. Plantings	638	acre	57,600	36,748,800
Misc Site Items	1	ls	allow	400,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 89,290,751</b>
CONTINGENCY @ <b>25.0%</b>				<u>22,322,688</u>
				\$ 111,613,438
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	157,856,094
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$269,494,532</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	<u>21,559,563</u>
				\$ 291,054,095
31 Account, Constr. Management		@	<b>6.0%</b>	<u>17,463,246</u>
				\$ 308,517,341
ESCALATION		@	<b>0.0%</b>	
				<u>\$ 308,517,341</u>
				rounded
<b>TOTAL PROJECT COST, FY-07</b>				<b>\$ 308,500,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Diamondhead**  
**Hancock County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,470,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	2,735,422	cy	12.00	32,825,064
b. Removal of structures (1,500 sf avg size @ 38ea = )	57,000	sf	3.50	199,500
b. Disposal Fee	2,111	cy	2.50	5,278
c. Removal of roads (24' wide assumed)	13,452	lf	14.00	188,328
d. Removal of utilities	13,452	lf	41.00	551,532
2. Herbicide, hand application (untouched areas from excavation)	67	acre	3,100	207,700
3. Filling of existing ditches and channels (from req'd. excavation)	3,000	cy	5.00	15,000
3. Plantings	433	acre	57,600	24,940,800
Misc Site Items	1	ls	allow	300,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 60,703,202</b>
CONTINGENCY @ <b>25.0%</b>				<u>15,175,800</u>
				\$ 75,879,002
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	30,631,509
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$106,535,511</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>8,522,841</u>
				\$ 115,058,352
31 Account, Constr. Management		@	<b>6.0%</b>	<u>6,903,501</u>
				\$ 121,961,853
ESCALATION		@	<b>0.0%</b>	<u></u>
				\$ 121,961,853 rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 122,000,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Delisle**  
**Harrison County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$410,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	771,529	cy	12.00	9,258,348
b. Removal of structures (1,500 sf avg size @ 11ea = )	16,500	sf	3.50	57,750
b. Disposal Fee	611	cy	2.50	1,528
c. Removal of roads (24' wide assumed)	3,795	lf	14.00	53,130
d. Removal of utilities	3,795	lf	41.00	155,595
2. Herbicide, hand application (untouched areas from excavation)	19	acre	3,100	58,900
3. Filling of existing ditches and channels (from req'd. excavation)	2,000	cy	5.00	10,000
3. Plantings	120	acre	57,600	6,912,000
Misc Site Items	1	ls	allow	100,000
<b>Current Contract Cost, FY 07</b>				\$ 17,017,251
CONTINGENCY		@	<b>25.0%</b>	4,254,313
				\$ 21,271,563
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	197,388,356
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$218,684,919
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	17,494,794
				\$ 236,179,713
31 Account, Constr. Management		@	<b>6.0%</b>	14,170,783
				\$ 250,350,496
ESCALATION		@	<b>0.0%</b>	
				\$ 250,350,496
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 250,400,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Ellis Property**  
**Harrison County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$800,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	500,000	cy	12.00	6,000,000
b. Removal of structures (1,500 sf avg size @ 11ea = )	16,500	sf	3.50	57,750
b. Disposal Fee	611	cy	2.50	1,528
c. Removal of roads (24' wide assumed)	3,795	lf	14.00	53,130
d. Removal of utilities	3,795	lf	41.00	155,595
2. Herbicide, hand application (untouched areas from excavation)	68	acre	3,100	210,800
3. Filling of existing ditches and channels (from req'd. excavation)	2,000	cy	5.00	10,000
3. Plantings	443	acre	57,600	25,516,800
Misc Site Items	1	ls	allow	200,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 33,005,603</b>
CONTINGENCY @ <b>25.0%</b>				<u>8,251,401</u>
				\$ 41,257,003
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	19,166,243
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$60,448,246</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	<u>4,835,860</u>
				\$ 65,284,106
31 Account, Constr. Management		@	<b>6.0%</b>	<u>3,917,046</u>
				\$ 69,201,153
ESCALATION		@	<b>0.0%</b>	
				<u>\$ 69,201,153</u>
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 69,200,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Pine Point East**  
**Harrison County**

ITEM NO. DATE 25-Jul-08  
 SHEET NO. 1 OF 1  
 PREPARED: Joseph H. Ellsworth CHECKED: Michael McKown  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$350,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	654,631	cy	12.00	7,855,572
b. Removal of structures (1,500 sf avg size @ 9ea = )	13,500	sf	3.50	47,250
b. Disposal Fee	500	cy	2.50	1,250
c. Removal of roads (24' wide assumed)	3,219	lf	14.00	45,066
d. Removal of utilities	3,219	lf	41.00	131,979
2. Herbicide, hand application (untouched areas from excavation)	16	acre	3,100	49,600
3. Filling of existing ditches and channels (from req'd. excavation)	2,000	cy	5.00	10,000
3. Plantings	103	acre	57,600	5,932,800
Misc Site Items	1	ls	allow	100,000
<b>Current Contract Cost, FY 07</b>				\$ 14,523,517
CONTINGENCY @ 25.0%				3,630,879
				\$ 18,154,396
01 Account, Lands & Damage		PCA	LS	25,000
02 Account, Relocations, aqu			LS	14,199,388
_ Account, Environmental			LS	
09 Account, Aids to Navigation			LS	
				\$32,378,784
30 Account, Plan, Engr.& Design		@	8.0%	2,590,303
				\$ 34,969,087
31 Account, Constr. Management		@	6.0%	2,098,145
				\$ 37,067,232
ESCALATION		@	0.0%	
				\$ 37,067,232
rounded				
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 37,100,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Pine Point West**  
**Harrison County**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$290,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	537,733	cy	12.00	6,452,796
b. Removal of structures (1,500 sf avg size @ 8ea = )	12,000	sf	3.50	42,000
b. Disposal Fee	444	cy	2.50	1,111
c. Removal of roads (24' wide assumed)	2,645	lf	14.00	37,030
d. Removal of utilities	2,645	lf	41.00	108,445
2. Herbicide, hand application (untouched areas from excavation)	14	acre	3,100	43,400
3. Filling of existing ditches and channels (from req'd. excavation)	2,000	cy	5.00	10,000
3. Plantings	83	acre	57,600	4,780,800
Misc Site Items	1	ls	allow	100,000
<b>Current Contract Cost, FY 07</b>				\$ 11,865,582
CONTINGENCY @ <b>25.0%</b>				2,966,396
				\$ 14,831,978
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aqua			<b>LS</b>	29,155,568
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$44,012,546
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	3,521,004
				\$ 47,533,549
31 Account, Constr. Management		@	<b>6.0%</b>	2,852,013
				\$ 50,385,562
ESCALATION		@	<b>0.0%</b>	\$ 50,385,562
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 50,400,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Pass Christian Beach Front**  
**Harrison County**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$70,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	140,278	cy	12.00	1,683,336
b. Removal of structures (1,500 sf avg size @ 2ea = )	3,000	sf	3.50	10,500
b. Disposal Fee	111	cy	2.50	278
c. Removal of roads (24' wide assumed)	690	lf	14.00	9,660
d. Removal of utilities	690	lf	41.00	28,290
2. Herbicide, hand application (untouched areas from excavation)	4	acre	3,100	12,400
3. Filling of existing ditches and channels (from req'd. excavation)	1,500	cy	5.00	7,500
3. Plantings	21	acre	57,600	1,209,600
Misc Site Items	1	ls	allow	10,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 3,041,564</b>
CONTINGENCY @ <b>25.0%</b>				<u>760,391</u>
				<b>\$ 3,801,955</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	<b>21,510,900</b>
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$25,337,855</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	<u>2,027,028</u>
				<b>\$ 27,364,883</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>1,641,893</u>
				<b>\$ 29,006,776</b>
ESCALATION		@	<b>0.0%</b>	<u>0</u>
				<b>\$ 29,006,776</b>
rounded				
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 29,000,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Pass Christian Bayou Portage**  
**Harrison County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$150,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	280,556	cy	12.00	3,366,672
b. Removal of structures (1,500 sf avg size @ 4ea =)	6,000	sf	3.50	21,000
b. Disposal Fee	222	cy	2.50	556
c. Removal of roads (24' wide assumed)	1,380	lf	14.00	19,320
d. Removal of utilities	1,380	lf	41.00	56,580
2. Herbicide, hand application (untouched areas from excavation)	7	acre	3,100	21,700
3. Filling of existing ditches and channels (from req'd. excavation)	1,500	cy	5.00	7,500
3. Plantings	43	acre	57,600	2,476,800
Misc Site Items	1	ls	allow	30,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 6,150,128</b>
CONTINGENCY		@	<b>25.0%</b>	<u>1,537,532</u>
				\$ 7,687,659
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	6,904,320
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$14,616,979</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	<u>1,169,358</u>
				\$ 15,786,338
31 Account, Constr. Management		@	<b>6.0%</b>	<u>947,180</u>
				\$ 16,733,518
ESCALATION		@	<b>0.0%</b>	<u></u>
				\$ 16,733,518
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 16,700,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Bayou Brickyard**  
**Harrison County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$50,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	93,519	cy	12.00	1,122,228
b. Removal of structures (1,500 sf avg size @ 2ea = )	3,000	sf	3.50	10,500
b. Disposal Fee	111	cy	2.50	278
c. Removal of roads (24' wide assumed)	460	lf	14.00	6,440
d. Removal of utilities	460	lf	41.00	18,860
2. Herbicide, hand application (untouched areas from excavation)	3	acre	3,100	9,300
3. Filling of existing ditches and channels (from req'd. excavation)	1,000	cy	5.00	5,000
3. Plantings	14	acre	57,600	806,400
Misc Site Items	1	ls	allow	10,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 2,039,006</b>
CONTINGENCY @ <b>25.0%</b>				<u>509,751</u>
				\$ 2,548,757
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	20,763,975
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$23,337,732</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	<u>1,867,019</u>
				\$ 25,204,751
31 Account, Constr. Management		@	<b>6.0%</b>	<u>1,512,285</u>
				\$ 26,717,036
ESCALATION		@	<b>0.0%</b>	
				<u>\$ 26,717,036</u>
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 26,700,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Biloxi River Shorecrest**  
**Harrison County**

ITEM NO. DATE 25-Jul-08  
 SHEET NO. 1 OF 1  
 PREPARED: Joseph H. Ellsworth CHECKED: Michael McKown  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$50,000
1. Removals:				
a. Excavation existing Area from -0.5 to +2.0	93,519	cy	12.00	1,122,228
b. Removal of structures (1,500 sf avg size @ 2ea = )	3,000	sf	3.50	10,500
b. Disposal Fee	111	cy	2.50	278
c. Removal of roads (24' wide assumed)	460	lf	14.00	6,440
d. Removal of utilities	460	lf	41.00	18,860
2. Herbicide, hand application (untouched areas from excavation)	3	acre	3,100	9,300
3. Filling of existing ditches and channels (from req'd. excavation)	1,000	cy	5.00	5,000
3. Plantings	15	acre	57,600	864,000
Misc Site Items	1	ls	allow	10,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 2,096,606</b>
CONTINGENCY @ 25.0%				524,151
				<u>\$ 2,620,757</u>
01 Account, Lands & Damage		PCA	LS	25,000
02 Account, Relocations, aquas			LS	736,178
_ Account, Environmental			LS	
09 Account, Aids to Navigation			LS	
				<u>\$3,381,935</u>
30 Account, Plan, Engr.& Design		@	8.0%	270,555
				<u>\$ 3,652,490</u>
31 Account, Constr. Management		@	6.0%	219,149
				<u>\$ 3,871,639</u>
ESCALATION		@	0.0%	
				<u>\$ 3,871,639</u>
rounded				
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 3,900,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Biloxi River Eagle Poin**  
**Harrison County**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$50,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	93,519	cy	12.00	1,122,228
b. Removal of structures (1,500 sf avg size @ 2ea = )	3,000	sf	3.50	10,500
b. Disposal Fee	111	cy	2.50	278
c. Removal of roads (24' wide assumed)	460	lf	14.00	6,440
d. Removal of utilities	460	lf	41.00	18,860
2. Herbicide, hand application (untouched areas from excavation)	3	acre	3,100	9,300
3. Filling of existing ditches and channels (from req'd. excavation)	1,000	cy	5.00	5,000
3. Plantings	17	acre	57,600	979,200
Misc Site Items	1	ls	allow	10,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 2,211,806</b>
CONTINGENCY @ <b>25.0%</b>				<u>552,951</u>
				<b>\$ 2,764,757</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	4,432,825
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$7,222,582</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	<u>577,807</u>
				<b>\$ 7,800,389</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>468,023</u>
				<b>\$ 8,268,412</b>
ESCALATION @ <b>0.0%</b>				<u>                    </u>
				<b>\$ 8,268,412</b>
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 8,300,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**

ITEM NO. DATE 25-Jul-08  
 SHEET NO. 1 OF 1  
 PREPARED: Joseph H. Ellsworth CHECKED: Michael McKown  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

WORK ITEM: **Biloxi Front Beach S of 90t**  
Harrison County

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$120,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	200,000	cy	12.00	2,400,000
b. Removal of structures (1,500 sf avg size @ 5ea = )	7,500	sf	3.50	26,250
b. Disposal Fee	278	cy	2.50	694
c. Removal of roads (24' wide assumed)	950	lf	14.00	13,300
d. Removal of utilities	950	lf	41.00	38,950
2. Herbicide, hand application (untouched areas from excavation)	7	acre	3,100	21,700
3. Filling of existing ditches and channels (from req'd. excavation)	1,500	cy	5.00	7,500
3. Plantings	40	acre	57,600	2,304,000
Misc Site Items	1	ls	allow	20,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 4,952,394</b>
CONTINGENCY		@	<b>25.0%</b>	1,238,099
				<b>\$ 6,190,493</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aqua			<b>LS</b>	10,326,300
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<b>\$16,541,793</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	1,323,343
				<b>\$ 17,865,137</b>
31 Account, Constr. Management		@	<b>6.0%</b>	1,071,908
				<b>\$ 18,937,045</b>
ESCALATION		@	<b>0.0%</b>	
				<b>\$ 18,937,045</b>
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 18,900,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Keegan Bayou**  
**Harrison County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$190,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	350,696	cy	12.00	4,208,352
b. Removal of structures (1,500 sf avg size @ 5ea = )	7,500	sf	3.50	26,250
b. Disposal Fee	278	cy	2.50	694
c. Removal of roads (24' wide assumed)	1,725	lf	14.00	24,150
d. Removal of utilities	1,725	lf	41.00	70,725
2. Herbicide, hand application (untouched areas from excavation)	9	acre	3,100	27,900
3. Filling of existing ditches and channels (from req'd. excavation)	1,700	cy	5.00	8,500
3. Plantings	54	acre	57,600	3,110,400
Misc Site Items	1	ls	allow	40,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 7,706,971</b>
CONTINGENCY @ <b>25.0%</b>				<u>1,926,743</u>
				<b>\$ 9,633,714</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	15,537,250
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				<u>\$25,195,964</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	<u>2,015,677</u>
				<b>\$ 27,211,641</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>1,632,698</u>
				<b>\$ 28,844,340</b>
ESCALATION		@	<b>0.0%</b>	<u></u>
				<b>\$ 28,844,340</b>
				rounded
<b>TOTAL PROJECT COST, FY-07</b>				<b>\$ 28,800,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **St Martin**  
**Jackson County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,590,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	2,945,839	cy	12.00	35,350,068
b. Removal of structures (1,500 sf avg size @ 41ea = )	61,500	sf	3.50	215,250
b. Disposal Fee	2,278	cy	2.50	5,694
c. Removal of roads (24' wide assumed)	14,487	lf	14.00	202,818
d. Removal of utilities	14,487	lf	41.00	593,967
2. Herbicide, hand application (untouched areas from excavation)	72	acre	3,100	223,200
3. Filling of existing ditches and channels (from req'd. excavation)	4,000	cy	5.00	20,000
3. Plantings	467	acre	57,600	26,899,200
Misc Site Items	1	ls	allow	320,000
<b>Current Contract Cost, FY 07</b>				\$ 65,420,197
CONTINGENCY				@ 25.0% 16,355,049
				\$ 81,775,247
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	58,274,698
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$140,074,945
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	11,205,996
				\$ 151,280,940
31 Account, Constr. Management		@	<b>6.0%</b>	9,076,856
				\$ 160,357,797
ESCALATION				@ 0.0%
				\$ 160,357,797
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 160,400,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Fort Point**  
**Jackson County**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$290,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	537,733	cy	12.00	6,452,796
b. Removal of structures (1,500 sf avg size @ 8ea = )	12,000	sf	3.50	42,000
b. Disposal Fee	444	cy	2.50	1,111
c. Removal of roads (24' wide assumed)	2,645	lf	14.00	37,030
d. Removal of utilities	2,645	lf	41.00	108,445
2. Herbicide, hand application (untouched areas from excavation)	14	acre	3,100	43,400
3. Filling of existing ditches and channels (from req'd. excavation)	1,800	cy	5.00	9,000
3. Plantings	83	acre	57,600	4,780,800
Misc Site Items	1	ls	allow	60,000
<b>Current Contract Cost, FY 07</b>				\$ 11,824,582
CONTINGENCY @ <b>25.0%</b>				2,956,146
				\$ 14,780,728
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	22,349,145
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$37,154,873
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	2,972,390
				\$ 40,127,262
31 Account, Constr. Management		@	<b>6.0%</b>	2,407,636
				\$ 42,534,898
ESCALATION		@	<b>0.0%</b>	\$ 42,534,898
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 42,500,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Pine Island**  
**Jackson County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$8,550,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	15,804,657	cy	12.00	189,655,884
b. Removal of structures (1,500 sf avg size @ 218ea = )	327,000	sf	3.50	1,144,500
b. Disposal Fee	12,111	cy	2.50	30,278
c. Removal of roads (24' wide assumed)	78,065	lf	14.00	1,092,910
d. Removal of utilities	78,065	lf	41.00	3,200,665
2. Herbicide, hand application (untouched areas from excavation)	388	acre	3,100	1,202,800
3. Filling of existing ditches and channels (from req'd. excavation)	5,000	cy	5.00	25,000
3. Plantings	2,531	acre	57,600	145,785,600
Misc Site Items	1	ls	allow	1,710,000
<b>Current Contract Cost, FY 07</b>				\$ 352,397,637
CONTINGENCY		@	<b>25.0%</b>	88,099,409
				\$ 440,497,046
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	58,771,659
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$499,293,705
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	39,943,496
				\$ 539,237,201
31 Account, Constr. Management		@	<b>6.0%</b>	32,354,232
				\$ 571,591,433
ESCALATION		@	<b>0.0%</b>	
				\$ 571,591,433
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 571,600,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Belle Fontaine**  
**Jackson County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$5,120,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	9,445,387	cy	12.00	113,344,644
b. Removal of structures (1,500 sf avg size @ 130ea = )	195,000	sf	3.50	682,500
b. Disposal Fee	7,222	cy	2.50	18,056
c. Removal of roads (24' wide assumed)	46,793	lf	14.00	655,102
d. Removal of utilities	46,793	lf	41.00	1,918,513
2. Herbicide, hand application (untouched areas from excavation)	232	acre	3,100	719,200
3. Filling of existing ditches and channels (from req'd. excavation)	4,000	cy	5.00	20,000
3. Plantings	1,516	acre	57,600	87,321,600
Misc Site Items	1	ls	allow	1,020,000
			<b>Current Contract Cost, FY 07</b>	\$ 210,819,615
		CONTINGENCY	@ <b>25.0%</b>	52,704,904
				\$ 263,524,518
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	13,639,822
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$277,189,340
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	22,175,147
				\$ 299,364,487
31 Account, Constr. Management		@	<b>6.0%</b>	17,961,869
				\$ 317,326,357
ESCALATION		@	<b>0.0%</b>	
				\$ 317,326,357
				rounded
			<b>TOTAL PROJECT COST, FY- 07</b>	<b>\$ 317,300,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Griffin Point**  
**Jackson County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$620,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	1,145,604	cy	12.00	13,747,248
b. Removal of structures (1,500 sf avg size @ 16ea = )	24,000	sf	3.50	84,000
b. Disposal Fee	889	cy	2.50	2,222
c. Removal of roads (24' wide assumed)	5,634	lf	14.00	78,876
d. Removal of utilities	5,634	lf	41.00	230,994
2. Herbicide, hand application (untouched areas from excavation)	28	acre	3,100	86,800
3. Filling of existing ditches and channels (from req'd. excavation)	1,800	cy	5.00	9,000
3. Plantings	182	acre	57,600	10,483,200
Misc Site Items	1	ls	allow	120,000
<b>Current Contract Cost, FY 07</b>				\$ 25,462,340
CONTINGENCY		@	<b>25.0%</b>	6,365,585
				\$ 31,827,925
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	15,564,422
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$47,417,347
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	3,793,388
				\$ 51,210,735
31 Account, Constr. Management		@	<b>6.0%</b>	3,072,644
				\$ 54,283,379
ESCALATION		@	<b>0.0%</b>	
				\$ 54,283,379
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 54,300,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Bayou Chico**  
**Jackson County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$880,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	1,636,577	cy	12.00	19,638,924
b. Removal of structures (1,500 sf avg size @ 23ea = )	34,500	sf	3.50	120,750
b. Disposal Fee	1,278	cy	2.50	3,194
c. Removal of roads (24' wide assumed)	8,048	lf	14.00	112,672
d. Removal of utilities	8,048	lf	41.00	329,968
2. Herbicide, hand application (untouched areas from excavation)	40	acre	3,100	124,000
3. Filling of existing ditches and channels (from req'd. excavation)	2,200	cy	5.00	11,000
3. Plantings	258	acre	57,600	14,860,800
Misc Site Items	1	ls	allow	180,000
<b>Current Contract Cost, FY 07</b>				\$ 36,261,308
CONTINGENCY @ <b>25.0%</b>				9,065,327
				\$ 45,326,636
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	78,568,456
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$123,920,092
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	9,913,607
				\$ 133,833,699
31 Account, Constr. Management		@	<b>6.0%</b>	8,030,022
				\$ 141,863,721
ESCALATION		@	<b>0.0%</b>	
				\$ 141,863,721
				rounded
<b>TOTAL PROJECT COST, FY-07</b>				<b>\$ 141,900,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: **Mississippi Coastal Improvements Project "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Grand Bay Marsh Bayou Cumbest**  
**Jackson County**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Michael McKown**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$9,030,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	16,716,465	cy	12.00	200,597,580
b. Removal of structures (1,500 sf avg size @ 229ea = )	343,500	sf	3.50	1,202,250
b. Disposal Fee	12,722	cy	2.50	31,806
c. Removal of roads (24' wide assumed)	82,204	lf	14.00	1,150,856
d. Removal of utilities	82,204	lf	41.00	3,370,364
2. Herbicide, hand application (untouched areas from excavation)	408	acre	3,100	1,264,800
3. Filling of existing ditches and channels (from req'd. excavation)	4,500	cy	5.00	22,500
3. Plantings	2,666	acre	57,600	153,561,600
Misc Site Items	1	ls	allow	1,810,000
<b>Current Contract Cost, FY 07</b>				\$ 372,041,756
CONTINGENCY @ <b>25.0%</b>				93,010,439
				\$ 465,052,194
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
02 Account, Relocations, aquas			<b>LS</b>	37,575,406
_ Account, Environmental			<b>LS</b>	
09 Account, Aids to Navigation			<b>LS</b>	
				\$502,652,600
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	40,212,208
				\$ 542,864,808
31 Account, Constr. Management		@	<b>6.0%</b>	32,571,889
				\$ 575,436,697
ESCALATION		@	<b>0.0%</b>	
				\$ 575,436,697
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$ 575,400,000</b>

# **COMPREHENSIVE STUDY " Admiral Island Environmental Restoration " Summary**

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	(revised)
LOCATION: <b>Mississippi</b>	SHEET NO. <b>1</b>	OF <b>1</b>	<b>25-Jul-08</b>
WORK ITEM: <b><u>Summary</u></b>	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED: <b>Gary A. Payton</b>	
	BASIS of ESTIMATE: Info furnished per Project Delivery Team		
	FILE NAME: <a href="#">mscip-comprehensive-study-combined-cost-est-25jul08.xls</a>		

DESCRIPTION	ESTIMATED AMOUNT
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## **ENVIRONMENTAL RESTORATION**

<b>Hancock County</b>	<b>Admiral Island</b>
-----------------------	-----------------------

<b>0.5 METER PLANTINGS WITH FILL</b>	<b>\$ 26,300,000</b>
<b>1.0 METER PLANTINGS WITH FILL</b>	<b>\$ 23,800,000</b>
<b>2.0 METER PLANTINGS WITH FILL</b>	<b>\$ 22,500,000</b>
<b>0.5 METER PLANTINGS WITHOUT FILL</b>	<b>\$ 26,300,000</b>
<b>1.0 METER PLANTINGS WITHOUT FILL</b>	<b>\$ 23,700,000</b>
<b>2.0 METER PLANTINGS WITHOUT FILL</b>	<b>\$ 22,400,000</b>

**Notes:**

Price Level, Oct 07  
 Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment  
 Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"  
 Quantities listed within the Estimate represent Major Elements of the Project  
 Structural Removal Cost included in nonstructural estimates  
 Utility Removal Cost includes, sewer, storm drain, water, gas, power, cable, phone, traffic signaling  
Estimate Exclud Operational & Maintenance Cost  
     Project Escalation  
     Relocations, Environment, HTRW & Real Estate Cost (except PCA)  
     Historical Preservation



**COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Admiral Island 1 Meter Planting W/ Fill** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,400,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	916,483	cy	12.00	10,997,796
b. Removal of structures (1,500 sf avg size @ 225 ea = )	cost included in the nonstructural estimate			
b. Disposal Fee	cost included in the nonstructural estimate			
c. Removal of roads (24' wide assumed)	3,500	lf	14.00	49,000
d. Removal of utilities	3,500	lf	41.00	143,500
2. Herbaside, application from truck (untouched areas from excavation)	62	acre	3,100	192,200
3. Filling of existing ditches and channels (from req'd. excavation)	7,000	cy	5.00	35,000
4. Plantings b. 1.0 meter spacing	62	acre	28,800	1,785,600
Misc Site Items	1	ls	allow	1,000,000
<b>Current Contract Cost, Oct 07</b>				\$16,603,096
CONTINGENCY		@	<b>25.0%</b>	<u>4,150,774</u>
				\$20,753,870
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				<u>\$20,778,870</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	<u>1,662,310</u>
				\$22,441,180
31 Account, Constr. Management		@	<b>6.0%</b>	<u>1,346,471</u>
				\$23,787,650
ESCALATION		@	<b>0.0%</b>	<u>                    </u>
				\$23,787,650
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$23,800,000</b>

**COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Admiral Island 2 Meter Planting W/ Fill** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,400,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	915,483	cy	12.00	10,985,796
b. Removal of structures (1,500 sf avg size @ 225 ea = )	cost included in the nonstructural estimate			
b. Disposal Fee	cost included in the nonstructural estimate			
c. Removal of roads (24' wide assumed)	3,500	lf	14.00	49,000
d. Removal of utilities	3,500	lf	41.00	143,500
2. Herbaside, application from truck (untouched areas from excavation)	62	acre	3,100	192,200
3. Filling of existing ditches and channels (from req'd. excavation)	7,000	cy	5.00	35,000
4. Plantings c. 2.0 meter spacing	62	acre	14,400	892,800
Misc Site Items	1	ls	allow	<u>1,000,000</u>
<b>Current Contract Cost, OCT 07</b>				\$15,698,296
CONTINGENCY @ <b>25.0%</b>				<u>3,924,574</u>
				\$19,622,870
01 Account, Lands & Damage PCA <b>LS</b>				25,000
				<u>\$19,647,870</u>
30 Account, Plan, Engr.& Design @ <b>8.0%</b>				<u>1,571,830</u>
				\$21,219,700
31 Account, Constr. Management @ <b>6.0%</b>				<u>1,273,182</u>
				\$22,492,882
ESCALATION @ <b>0.0%</b>				<u>\$22,492,882</u>
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$22,500,000</b>



## COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Admiral Island 1 Meter Planting WOUT/ Fill** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,400,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	915,483	cy	12.00	10,985,796
b. Removal of structures (1,500 sf avg size @ 0 ea = )				cost included in the nonstructural estimate
b. Disposal Fee				cost included in the nonstructural estimate
c. Removal of roads (24' wide assumed)	3,500	lf	14.00	49,000
d. Removal of utilities	3,500	lf	41.00	143,500
2. Herbaside, application from truck (untouched areas from excavation)	62	acre	3,100	192,200
3. Plantings b. 1.0 meter spacing	62	acre	28,800	1,785,600
Misc Site Items	1	ls	allow	1,000,000
<b>Current Contract Cost, Oct 07</b>				\$16,556,096
CONTINGENCY		@	<b>25.0%</b>	4,139,024
				\$20,695,120
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				\$20,720,120
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	1,657,610
				\$22,377,730
31 Account, Constr. Management		@	<b>6.0%</b>	1,342,664
				\$23,720,393
ESCALATION		@	<b>0.0%</b>	\$23,720,393
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$23,700,000</b>

## COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Admiral Island 2 Meter Planting WOUT/ Fill** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$2,400,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	915,483	cy	12.00	10,985,796
b. Removal of structures (1,500 sf avg size @ 0 ea = )				cost included in the nonstructural estimate
b. Disposal Fee				cost included in the nonstructural estimate
c. Removal of roads (24' wide assumed)	3,500	lf	14.00	49,000
d. Removal of utilities	3,500	lf	41.00	143,500
2. Herbaside, application from truck (untouched areas from excavation)	62	acre	3,100	192,200
3. Plantings c. 2.0 meter spacing	62	acre	14,400	892,800
Misc Site Items	1	ls	allow	1,000,000
			<b>Current Contract Cost, Oct 07</b>	\$15,663,296
CONTINGENCY		@	<b>25.0%</b>	3,915,824
				\$19,579,120
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				\$19,604,120
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	1,568,330
				\$21,172,450
31 Account, Constr. Management		@	<b>6.0%</b>	1,270,347
				\$22,442,797
ESCALATION		@	<b>0.0%</b>	\$22,442,797
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$22,400,000</b>

**COMPREHENSIVE STUDY " Environmental Restoration - O & M " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Admiral Island**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-admiral-enviro-restor-compreh-study-O&M-cost-13sep07.xls

DESCRIPTION	ESTIMATED AMOUNT
-------------	------------------

**ENVIRONMENTAL RESTORATION O&M**

<i>Hancock County Replanting Effort</i>	<b>Admiral Island</b>	
<b>0.5 METER PLANTINGS WITH FILL</b>	(monitoring only 5 yrs @ \$7,000)	\$ 35,000
<b>1.0 METER PLANTINGS WITH FILL</b>		\$ 1,233,000
<b>2.0 METER PLANTINGS WITH FILL</b>		\$ 1,233,000
<b>0.5 METER PLANTINGS WITHOUT FILL</b>	(monitoring only 5 yrs @ \$7,000)	\$ 35,000
<b>1.0 METER PLANTINGS WITHOUT FILL</b>		\$ 1,233,000
<b>2.0 METER PLANTINGS WITHOUT FILL</b>		\$ 1,233,000

**\*THESE REPLANTING COSTS WILL OCCUR IN YEARS 3 AND 5 OF THE PERIOD OF ANALYSIS.**

**Notes:**

Price Level, Oct 07  
 Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment  
 Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"  
 Quantities listed within the Estimate represent Major Elements of the Project  
 Estimate Excludes Project Escalation

**COMPREHENSIVE STUDY " Environmental Restoration - O & M " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"**  
 LOCATION: **Mississippi**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

WORK ITEM: **Admiral Island** **Replanting 25% of area**  
**Hancock County** **Years 3 and 5**

mscip-admiral-enviro-restor-compreh-study-O&M-cost-13sep07.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (2 ea)	1	job	allow	\$20,000
Re-Plantings b. 1.0 meter spacing at year 3	14	acre	28,800	403,200
Re-Plantings b. 1.0 meter spacing at year 5	14	acre	28,800	403,200
Monitoring b. 1.0 meter spacing	5	yrs	7,000	35,000
Misc Site Items	1	ls	allow	0
<b>Current Contract Cost, OCT 07</b>				<b>\$861,400</b>
CONTINGENCY		@	<b>25.0%</b>	<u>215,350</u>
				\$ 1,076,750
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>86,140</u>
				\$ 1,162,890
31 Account, Constr. Management		@	<b>6.0%</b>	<u>69,773</u>
				\$ 1,232,663
ESCALATION		@	<b>0.0%</b>	<u>                    </u>
				\$ 1,232,663
				rounded
<b>TOTAL PROJECT COST, OCT 07</b>				<b>\$ 1,233,000</b>

**COMPREHENSIVE STUDY " Environmental Restoration - O & M " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"**  
 LOCATION: **Mississippi**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

WORK ITEM: **Admiral Island** **Replanting 50% of area**  
**Hancock County** **in Years 3 and 5**

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (2 ea)	1	job	allow	\$20,000
Re-Plantings b. 2.0 meter spacing at year 3	28	acre	14,400	403,200
Re-Plantings b. 2.0 meter spacing at year 5	28	acre	14,400	403,200
Monitoring b. 2.0 meter spacing	5	yrs	7,000	35,000
Misc Site Items	1	ls	allow	0
<b>Current Contract Cost, OCT 07</b>				<b>\$861,400</b>
CONTINGENCY		@	<b>25.0%</b>	<u>215,350</u>
				\$ 1,076,750
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>86,140</u>
				\$ 1,162,890
31 Account, Constr. Management		@	<b>6.0%</b>	<u>69,773</u>
				\$ 1,232,663
ESCALATION		@	<b>0.0%</b>	<u>                    </u>
				\$ 1,232,663
				rounded
<b>TOTAL PROJECT COST, OCT 07 \$</b>				<b>1,233,000</b>

**COMPREHENSIVE STUDY " Environmental Restoration - O & M " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Admiral Island     *Replanting 25% of area***  
                   ***Hancock County     in Years 3 and 5***

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (2 ea)	1	job	allow	\$20,000
Re-Plantings b. 1.0 meter spacing at year 3	14	acre	28,800	403,200
Re-Plantings b. 1.0 meter spacing at year 5	14	acre	28,800	403,200
Monitoring b. 1.0 meter spacing	5	yrs	7,000	35,000
Misc Site Items	1	ls	allow	<u>0</u>
			<b>Current Contract Cost, OCT 07</b>	\$ 861,400
		CONTINGENCY	@ <b>25.0%</b>	<u>215,350</u> \$ 1,076,750
		30 Account, Plan, Engr.& Design	@ <b>8.0%</b>	<u>86,140</u> \$ 1,162,890
		31 Account, Constr. Management	@ <b>6.0%</b>	<u>69,773</u> \$ 1,232,663
		ESCALATION	@ <b>0.0%</b>	<u>0</u> \$ 1,232,663 rounded
			<b>TOTAL PROJECT COST, OCT 07</b>	<b>\$1,233,000</b>



**COMPREHENSIVE STUDY " Turkey Creek Environmental Restoration " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"**  
 LOCATION: **Mississippi**

ITEM NO. DATE 25-Jul-08  
 SHEET NO. 1 OF 1  
 PREPARED: Joseph H. Ellsworth CHECKED: Gary A. Payton  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

WORK ITEM: **Summary**

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	ESTIMATED AMOUNT
-------------	------------------

**ENVIRONMENTAL RESTORATION**

<b>Harrison County</b>	<b>Turkey Creek</b>	<b>North and South of Railroad</b>	<b>\$ 7,600,000</b>
<b>Harrison County</b>	<b>Turkey Creek</b>	<b>North of Railroad</b>	<b>\$1,900,000</b>
<b>Harrison County</b>	<b>Turkey Creek</b>	<b>South of Railroad</b>	<b>\$5,900,000</b>

**Notes:**

- Price Level, Oct 07
- Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment
- Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"
- Quantities listed within the Estimate represent Major Elements of the Project
- Structural Removal Cost includes minor Site Restoration (filling septic tanks, removal outside structures, pavements & utilities)
- Utility Removal Cost includes, sewer, storm drain, water, gas, power, cable, phone, traffic signaling
- Estimate Excluc Operational & Maintenance Cost
  - Project Escalation
  - Relocations, Environment, HTRW & Real Estate Cost (except PCA)
  - Historical Preservation
  - Asbestos Removal during Structure Removal
- 01 Account, Lands & Damage (land + admin + 25% contingency) in all options at \$736,178.

## COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Turkey Creek North and South of Railroad** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$20,000
1. Fill in Ditches (from off-site borrow)	130,202	cy	12.00	1,562,424
2a. Burn Vegetation (surface only burn)	879	acre	150	131,850
b. Mow vegetation (annually)	879	acre	85	74,715
3. Removals b. Removal of structures (1,500 sf avg size @ 15 ea = )	22,500	sf	3.50	78,750
b. Disposal Fee	833	cy	2.50	2,083
c. Removal of roads (24' wide assumed)	45,822	lf	14.00	641,508
d. Removal of utilities	45,822	lf	41.00	1,878,702
Misc Site Items	1	ls	allow	45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$4,435,032</b>
CONTINGENCY @ <b>25.0%</b>				1,108,758
				\$5,543,790
01 Account, Lands & Damage PCA <b>LS</b>				25,000
01 Account, Lands & Damage (land + admin + 25% contingency) <b>LS</b>				1,101,000
				<b>\$6,669,790</b>
30 Account, Plan, Engr.& Design @ <b>8.0%</b>				533,583
				\$7,203,374
31 Account, Constr. Management @ <b>6.0%</b>				432,202
				\$7,635,576
ESCALATION @ <b>0.0%</b>				\$7,635,576
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 7,600,000</b>

**COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Turkey Creek North of Railroad** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$20,000
1. Fill in Ditches (from off-site borrow)	28,124	cy	12.00	337,484
2a. Burn Vegetation (surface only burn)	190	acre	150	28,480
b. Mow vegetation (annually)	190	acre	85	16,138
3. Removals b. Removal of structures (1,500 sf avg size @ 3 ea = )	4,500	sf	3.50	15,750
b. Disposal Fee	167	cy	2.50	417
c. Removal of roads (24' wide assumed)	9,898	lf	14.00	138,566
d. Removal of utilities	9,898	lf	41.00	405,800
Misc Site Items	1	ls	allow	45,000

**Current Contract Cost, Oct 07** \$1,007,634

CONTINGENCY	@	<b>25.0%</b>	<u>251,908</u>
			\$1,259,542
01 Account, Lands & Damage	PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)		<b>LS</b>	350,000
			<u>\$1,634,542</u>
30 Account, Plan, Engr. & Design	@	<b>8.0%</b>	<u>130,763</u>
			\$1,765,305
31 Account, Constr. Management	@	<b>6.0%</b>	<u>105,918</u>
			\$1,871,224
ESCALATION	@	<b>0.0%</b>	<u>1,871,224</u>
			rounded

**TOTAL PROJECT COST, Oct 07** **\$1,900,000**

## COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Turkey Creek South of Railroad**  
**Hancock County** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$20,000
1. Fill in Ditches (from off-site borrow)	102,078	cy	12.00	1,224,940
2a. Burn Vegetation (surface only burn)	689	acre	150	103,370
b. Mow vegetation (annually)	689	acre	85	58,577
3. Removal: b. Removal of structures (1,500 sf avg size @ 12 ea =	18,000	sf	3.50	63,000
b. Disposal Fee	667	cy	2.50	1,667
c. Removal of roads (24' wide assumed)	35,924	lf	14.00	502,942
d. Removal of utilities	35,924	lf	41.00	1,472,902
Misc Site Items	1	ls	allow	45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$3,492,399</b>
CONTINGENCY	@	<b>25.0%</b>		873,100
				\$4,365,498
01 Account, Lands & Damage	PCA	<b>LS</b>		25,000
01 Account, Lands & Damage (land + admin + 25% contingency)		<b>LS</b>		752,000
				\$5,142,498
30 Account, Plan, Engr.& Design	@	<b>8.0%</b>		411,400
				\$5,553,898
31 Account, Constr. Management	@	<b>6.0%</b>		333,234
				\$5,887,132
ESCALATION	@	<b>0.0%</b>		\$5,887,132
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$5,900,000</b>

**COMPREHENSIVE STUDY " Turkey Creek O & M Environmental Restoration " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Project "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 1 OF 1  
 WORK ITEM: **Summary** North & South O&M PREPARED Joseph H. Ellsworth CHECKED: Gary A. Payton  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: [mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	ESTIMATED AMOUNT
-------------	------------------

**ENVIRONMENTAL RESTORATION**

<b>Harrison County</b>	<b>Turkey Creek</b>	<b>Burn North and South of Railroad</b>	<b>\$190,000</b>
<b>Harrison County</b>	<b>Turkey Creek</b>	<b>Mow North and South of Railroad</b>	<b>\$110,000</b>
<b>Harrison County</b>	<b>Turkey Creek</b>	<b>Burn North of Railroad</b>	<b>\$41,000</b>
<b>Harrison County</b>	<b>Turkey Creek</b>	<b>Mow North of Railroad</b>	<b>\$20,000</b>
<b>Harrison County</b>	<b>Turkey Creek</b>	<b>Burn South of Railroad</b>	<b>\$149,000</b>
<b>Harrison County</b>	<b>Turkey Creek</b>	<b>Mow South of Railroad</b>	<b>\$80,000</b>

**Notes:**

Price Level, FY-07  
 Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment  
 Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"  
 Quantities listed within the Estimate represent Major Elements of the Operations and Maintenance  
Estimate Excludes: Project Escalation

**\* see backup for Cost Derivation**

**COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Project "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Turkey Creek Burn North and South of** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County Railroad** FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT			
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$1,000			
Burn Vegetation (surface only burn)	879	acre	150	131,850			
<b>Current Contract Cost, FY 07</b>				<b>\$132,850</b>			
CONTINGENCY		@	<b>25.0%</b>	<table border="0"> <tr><td align="right">33,213</td></tr> <tr><td align="right">-----</td></tr> <tr><td align="right">\$166,063</td></tr> </table>	33,213	-----	\$166,063
33,213							
-----							
\$166,063							
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<table border="0"> <tr><td align="right">13,285</td></tr> <tr><td align="right">-----</td></tr> <tr><td align="right">\$179,348</td></tr> </table>	13,285	-----	\$179,348
13,285							
-----							
\$179,348							
31 Account, Constr. Management		@	<b>6.0%</b>	<table border="0"> <tr><td align="right">10,761</td></tr> <tr><td align="right">-----</td></tr> <tr><td align="right">\$190,108</td></tr> </table>	10,761	-----	\$190,108
10,761							
-----							
\$190,108							
ESCALATION		@	<b>0.0%</b>	<table border="0"> <tr><td align="right">\$190,108</td></tr> <tr><td align="right">-----</td></tr> <tr><td align="right">rounded</td></tr> </table>	\$190,108	-----	rounded
\$190,108							
-----							
rounded							
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$190,000</b>			

**COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Project "MsCIP"**  
 LOCATION: **Mississippi**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE info furnished per Project Delivery Team  
 FILE NAME:

WORK ITEM: **Turkey Creek** **Mow North and South of**  
**Hancock County** **Railroad**

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$400
b. Mow vegetation (annually)	879	acre	85	74,715
			<b>Current Contract Cost, FY 07</b>	<b>\$75,115</b>
CONTINGENCY		@	<b>25.0%</b>	18,779
				\$93,894
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	7,512
				\$101,405
31 Account, Constr. Management		@	<b>6.0%</b>	6,084
				\$107,490
ESCALATION		@	<b>0.0%</b>	\$107,490
				rounded
			<b>TOTAL PROJECT COST, FY- 07</b>	<b>\$110,000</b>

**COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Project "MsCIP"**      ITEM NO.      DATE      **25-Jul-08**  
 LOCATION: **Mississippi**      SHEET NO.      **1**      OF      **1**  
 PREPARED **Joseph H. Ellsworth**      CHECKED: Gary A. Payton  
 WORK ITEM: **Turkey Creek      Burn North of Railroad**  
**Hancock County**      BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$100
Burn Vegetation (surface only burn)	190	acre	150	28,500
<b>Current Contract Cost, FY 07</b>				<b>\$28,600</b>
CONTINGENCY		@	<b>25.0%</b>	7,150
				<u>\$35,750</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	2,860
				<u>\$38,610</u>
31 Account, Constr. Management		@	<b>6.0%</b>	2,317
				<u>\$40,927</u>
ESCALATION		@	<b>0.0%</b>	\$40,927
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$41,000</b>

**COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Project "MsCIP"**  
 LOCATION: **Mississippi**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

WORK ITEM: **Turkey Creek Mow North of Railroad**  
**Hancock County**

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$100
b. Mow vegetation (annually)	190	acre	85	<u>16,150</u>
<b>Current Contract Cost, FY 07</b>				<b>\$16,250</b>
CONTINGENCY		@	<b>25.0%</b>	<u>4,063</u> \$20,313
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>1,625</u> \$21,938
31 Account, Constr. Management		@	<b>6.0%</b>	<u>1,316</u> \$23,254
ESCALATION		@	<b>0.0%</b>	<u>\$23,254</u> rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$20,000</b>

## COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Project "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Turkey Creek Burn South of Railroad** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Hancock County** FILE NAME:

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$500
Burn Vegetation (surface only burn)	689	acre	150	103,350
<b>Current Contract Cost, FY 07</b>				<b>\$103,850</b>
CONTINGENCY		@	<b>25.0%</b>	<div style="border-top: 1px solid black; text-align: right;">25,963</div>
				\$129,813
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<div style="border-top: 1px solid black; text-align: right;">10,385</div>
				\$140,198
31 Account, Constr. Management		@	<b>6.0%</b>	<div style="border-top: 1px solid black; text-align: right;">8,412</div>
				\$148,609
ESCALATION		@	<b>0.0%</b>	<div style="border-top: 1px solid black; text-align: right;">\$148,609</div>
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$149,000</b>

**COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Project "MsCIP"**  
 LOCATION: **Mississippi**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

WORK ITEM: **Turkey Creek Mow South of Railroad**  
**Hancock County**

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$300
b. Mow vegetation (annually)	689	acre	85	<u>58,565</u>
			<b>Current Contract Cost, FY 07</b>	\$58,865
CONTINGENCY		@	<b>25.0%</b>	<u>14,716</u>
				\$73,581
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>5,887</u>
				\$79,468
31 Account, Constr. Management		@	<b>6.0%</b>	<u>4,768</u>
				\$84,236
ESCALATION		@	<b>0.0%</b>	<u>          </u>
				\$84,236
				rounded
<b>TOTAL PROJECT COST, FY- 07</b>				<b>\$80,000</b>

**COMPREHENSIVE STUDY " Dantzler Environmental Restoration " SUMMARY**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"**  
 LOCATION: **Mississippi**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

WORK ITEM: **Summary**

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	ESTIMATED AMOUNT
-------------	------------------

**ENVIRONMENTAL RESTORATION**

<b>Jackson County</b>	<b>Dantzler</b>	<b>Area A and B</b>	<b>\$ 1,900,000</b>
<b>Jackson County</b>	<b>Dantzler</b>	<b>Area A</b>	<b>\$ 870,000</b>
<b>Jackson County</b>	<b>Dantzler</b>	<b>Area B</b>	<b>\$ 1,040,000</b>

**Notes:**

Price Level, Oct 07  
 Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment  
 Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"  
 Quantities listed within the Estimate represent Major Elements of the Project  
 Structural Removal Cost included in nonstructural estimates  
 Utility Removal Cost includes, sewer, storm drain, water, gas, power, cable, phone, traffic signaling  
Estimate Exclude Operational & Maintenance Cost  
     Project Escalation  
     Relocations, Environment, HTRW & Real Estate Cost (except PCA)  
     Historical Preservation

## COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"**      ITEM NO.      DATE      **25-Jul-08**  
 LOCATION: **Mississippi**      SHEET NO.      **1**      OF      **1**  
 PREPARED: **Joseph H. Ellsworth**      CHECKED: **Gary A. Payton**  
 WORK ITEM: **Dantzier      Area A and B**  
**Jackson County**      BASIS of ESTIMATE:      info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$40,000
1. Fill in Ditches (from off-site borrow)	66,560	cy	12.00	798,720
2a. Burn Vegetation (surface only burn)	385	acre	150	57,750
b. Mow vegetation (annually)	385	acre	85	32,725
3. Removals				
b. Removal of structures (1,500 sf avg size @ 5 ea = )			cost included in the nonstructural estimate	
b. Disposal Fee			cost included in the nonstructural estimate	
c. Removal of roads (24' wide assumed)	5,000	lf	14.00	70,000
d. Removal of utilities	5,000	lf	41.00	205,000
Misc Site Items	1	ls	allow	90,000
<b>Current Contract Cost, Oct 07</b>				<b>\$1,294,195</b>
CONTINGENCY      @ <b>25.0%</b>				323,549
				\$1,617,744
01 Account, Lands & Damage      PCA <b>LS</b>				25,000
				\$1,642,744
30 Account, Plan, Engr.& Design      @ <b>8.0%</b>				131,420
				\$1,774,163
31 Account, Constr. Management      @ <b>6.0%</b>				106,450
				\$1,880,613
ESCALATION      @ <b>0.0%</b>				\$1,880,613
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$1,900,000</b>

## COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Dantzier Area North**  
**Jackson County**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$20,000
1. Fill in Ditches (from off-site borrow)	30,560	cy	12.00	366,720
2a. Burn Vegetation (surface only burn)	151	acre	150	22,650
b. Mow vegetation (annually)	151	acre	85	12,835
3. Removals				
b. Removal of structures (1,500 sf avg size @ 3 ea = )			cost included in the nonstructural estimate	
b. Disposal Fee			cost included in the nonstructural estimate	
c. Removal of roads (24' wide assumed)	2,200	lf	14.00	30,800
d. Removal of utilities	2,200	lf	41.00	90,200
Misc Site Items	1	ls	allow	45,000
<b>Current Contract Cost, Oct 07</b>				\$588,205
CONTINGENCY		@	<b>25.0%</b>	147,051
				\$735,256
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				\$760,256
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	60,821
				\$821,077
31 Account, Constr. Management		@	<b>6.0%</b>	49,265
				\$870,341
ESCALATION		@	<b>0.0%</b>	\$870,341
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 870,000</b>

## COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: ***Dantzer* Area South**  
**Jackson County**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$20,000
1. Fill in Ditches (from off-site borrow)	36,000	cy	12.00	432,000
2a. Burn Vegetation (surface only burn)	234	acre	150	35,100
b. Mow vegetation (annually)	234	acre	85	19,890
3. Removals				
b. Removal of structures (1,500 sf avg size @ 2 ea = )				cost included in the nonstructural estimate
b. Disposal Fee				cost included in the nonstructural estimate
c. Removal of roads (24' wide assumed)	2,800	lf	14.00	39,200
d. Removal of utilities	2,800	lf	41.00	114,800
Misc Site Items	1	ls	allow	45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$705,990</b>
CONTINGENCY		@	<b>25.0%</b>	176,498
				\$882,488
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				\$907,488
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	72,599
				\$980,087
31 Account, Constr. Management		@	<b>6.0%</b>	58,805
				\$1,038,892
ESCALATION		@	<b>0.0%</b>	_____
				\$1,038,892 rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$1,040,000</b>

**COMPREHENSIVE STUDY " Dantzler Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 1 OF 1  
 PREPARED **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Dantzler** Area North and South O&M BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: [mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	ESTIMATED AMOUNT
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**ENVIRONMENTAL RESTORATION O&M**

<b>Jackson County</b>	<b>Dantzler</b>	<b>Burn Area North and South</b>	<b>\$ 83,000</b>
<b>Jackson County</b>	<b>Dantzler</b>	<b>Mow Area North and South</b>	<b>\$ 47,000</b>
<b>Jackson County</b>	<b>Dantzler</b>	<b>Burn Area North</b>	<b>\$ 33,000</b>
<b>Jackson County</b>	<b>Dantzler</b>	<b>Mow Area North</b>	<b>\$ 19,000</b>
<b>Jackson County</b>	<b>Dantzler</b>	<b>Burn Area South</b>	<b>\$ 51,000</b>
<b>Jackson County</b>	<b>Dantzler</b>	<b>Mow Area South</b>	<b>\$ 29,000</b>

**Notes:**

Price Level, Oct 07  
 Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment  
 Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"  
 Quantities listed within the Estimate represent Major Elements of the Operations and Maintenance  
Estimate Exclud Project Escalation

## COMPREHENSIVE STUDY " Dantzler Environmental Restoration - O & M " SUMMARY

PROJECT: <b>Mississippi Coastal Improvement Project "MsCIP"</b>	ITEM NO.	DATE <b>25-Jul-08</b>
LOCATION: <b>Mississippi</b>	SHEET NO. <b>1</b>	OF <b>1</b>
WORK ITEM: <b><u>Dantzler</u> Burn Area North and</b>	PREPARED <b>Joseph H. Ellsworth</b>	CHECKED: <b>Gary A. Payton</b>
<b><u>Jackson County</u> South</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team	
	FILE NAME:	

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$0
Burn Vegetation (surface only burn)	385	acre	150	57,750
<b>Current Contract Cost, OCT 07</b>				<b>\$57,750</b>
CONTINGENCY		@	<b>25.0%</b>	<div style="border-top: 1px solid black; width: 100px; margin: 0 auto;">14,438</div>
				\$72,188
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<div style="border-top: 1px solid black; width: 100px; margin: 0 auto;">5,775</div>
				\$77,963
31 Account, Constr. Management		@	<b>6.0%</b>	<div style="border-top: 1px solid black; width: 100px; margin: 0 auto;">4,678</div>
				\$82,640
ESCALATION		@	<b>0.0%</b>	<div style="border-top: 1px solid black; width: 100px; margin: 0 auto;">\$82,640</div>
				rounded
<b>TOTAL PROJECT COST, OCT 07</b>				<b>\$83,000</b>

**COMPREHENSIVE STUDY " Dantzler Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 WORK ITEM: **Dantzler Mow Area North and south** PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
**Jackson County** BASIS of ESTIMATE info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$200
b. Mow vegetation (annually)	385	acre	85	<u>32,725</u>
<b>Current Contract Cost, OCT 07</b>				<b>\$32,925</b>
CONTINGENCY		@	<b>25.0%</b>	<u>8,231</u>
				\$41,156
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>3,293</u>
				\$44,449
31 Account, Constr. Management		@	<b>6.0%</b>	<u>2,667</u>
				\$47,116
ESCALATION		@	<b>0.0%</b>	<u>          </u>
				\$47,116
				rounded
<b>TOTAL PROJECT COST, OCT 07</b>				<b>\$47,000</b>

**COMPREHENSIVE STUDY " Dantzler Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Dantzler Burn North**  
**Jackson County** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$100
Burn Vegetation (surface only burn)	151	acre	150	22,650
			<b>Current Contract Cost, OCT 07</b>	<b>\$22,750</b>
CONTINGENCY		@	<b>25.0%</b>	5,688
				<u>\$28,438</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	2,275
				<u>\$30,713</u>
31 Account, Constr. Management		@	<b>6.0%</b>	1,843
				<u>\$32,555</u>
ESCALATION		@	<b>0.0%</b>	32,555
				rounded
			<b>TOTAL PROJECT COST, OCT 07</b>	<b>\$33,000</b>

**COMPREHENSIVE STUDY " Dantzler Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 WORK ITEM: **Dantzler Mow Area North** PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
**Jackson County** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$100
b. Mow vegetation (annually)	151	acre	85	12,835
<b>Current Contract Cost, OCT07</b>				<b>\$12,935</b>
CONTINGENCY		@	<b>25.0%</b>	3,234
				\$16,169
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	1,294
				\$17,462
31 Account, Constr. Management		@	<b>6.0%</b>	1,048
				\$18,510
ESCALATION		@	<b>0.0%</b>	
				\$18,510
				rounded
<b>TOTAL PROJECT COST, OCT 07</b>				<b>\$19,000</b>

**COMPREHENSIVE STUDY " Dantzler Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Dantzler Burn Area South** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$200
Burn Vegetation (surface only burn)	234	acre	150	35,100
<b>Current Contract Cost, OCT 07</b>				<b>\$35,300</b>
CONTINGENCY		@	<b>25.0%</b>	8,825
				<u>\$44,125</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	3,530
				<u>\$47,655</u>
31 Account, Constr. Management		@	<b>6.0%</b>	2,859
				<u>\$50,514</u>
ESCALATION		@	<b>0.0%</b>	50,514
				rounded
<b>TOTAL PROJECT COST, OCT 07</b>				<b>\$51,000</b>

**COMPREHENSIVE STUDY " Dantzler Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 WORK ITEM: **Dantzler Mow Area South** PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
**Jackson County** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$100
b. Mow vegetation (annually)	234	acre	85	19,890
<b>Current Contract Cost, OCT 07</b>				<b>\$19,990</b>
CONTINGENCY		@	<b>25.0%</b>	4,998
				<u>\$24,988</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	1,999
				<u>\$26,987</u>
31 Account, Constr. Management		@	<b>6.0%</b>	1,619
				<u>\$28,606</u>
ESCALATION		@	<b>0.0%</b>	
				<u>\$28,606</u>
				rounded
<b>TOTAL PROJECT COST, OCT 07</b>				<b>\$29,000</b>

**COMPREHENSIVE STUDY "Franklin Creek Environmental Restoration " SUMMARY**

PROJECT: <b>Mississippi Coastal Improvements Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. 1	OF	1
WORK ITEM: <b><u>Summary</u></b>	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
	BASIS of ESTIMATE: info furnished per Project Delivery Team		
	FILE NAME: <a href="#">mscip-comprehensive-study-combined-cost-est-25jul08.xls</a>		

DESCRIPTION	ESTIMATED AMOUNT
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**ENVIRONMENTAL RESTORATION**

<b>Jackson County</b>	<b>Franklin Creek</b>	<b>Area A and B</b>	<b>\$ 1,630,000</b>
<b>Jackson County</b>	<b>Franklin Creek</b>	<b>Area A</b>	<b>\$ 1,110,000</b>
<b>Jackson County</b>	<b>Franklin Creek</b>	<b>Area B</b>	<b>\$ 550,000</b>

**Notes:**

Price Level, Oct 07  
 Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment  
 Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"  
 Quantities listed within the Estimate represent Major Elements of the Project  
 Structural Removal Cost included in nonstructural estimates  
 Utility Removal Cost includes, sewer, storm drain, water, gas, power, cable, phone, traffic signaling

**Estimate Excludes:**

- Operational & Maintenance Cost
- Project Escalation
- Relocations, Environment, HTRW & Real Estate Cost (except PCA)
- Historical Preservation

# COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Franklin Creek Area A and B**  
**Jackson County** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$40,000
24 inch RCP culverts, (15 @100 ft long ea.)	1500	lf	100.00	150,000
1. Fill in Ditches (from off-site borrow)	26,000	cy	12.00	312,000
2a. Burn Vegetation (surface only burn)	149	acre	150	22,350
b. Mow vegetation (annually)	149	acre	85	12,665
3. Removals b. Removal of structures (1,500 sf avg size @ 15 ea = )				cost included in the nonstructural estimate
b. Disposal Fee				cost included in the nonstructural estimate
c. Removal of roads (24' wide assumed)	9,000	lf	14.00	126,000
d. Removal of utilities	9,000	lf	41.00	369,000
Misc Site Items	1	ls	allow	90,000
<b>Current Contract Cost, Oct 07</b>				\$1,122,015
CONTINGENCY		@	<b>25.0%</b>	280,504
				\$1,402,519
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				\$1,427,519
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	114,202
				\$1,541,720
31 Account, Constr. Management		@	<b>6.0%</b>	92,503
				\$1,634,223
ESCALATION		@	<b>0.0%</b>	\$1,634,223
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 1,630,000</b>

**COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Franklin Creek Area A**  
**Jackson County** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

m SCIP-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$20,000
24 inch RCP culverts, (15 @100 ft long ea.)	1500	lf	100.00	150,000
1. Fill in Ditches (from off-site borrow)	16,000	cy	12.00	192,000
2a. Burn Vegetation (surface only burn)	93	acre	150	13,950
b. Mow vegetation (annually)	93	acre	85	7,905
3. Removals b. Removal of structures (1,500 sf avg size @ 15 ea = )			cost included in the nonstructural estimate	
b. Disposal Fee			cost included in the nonstructural estimate	
c. Removal of roads (24' wide assumed)	6,000	lf	14.00	84,000
d. Removal of utilities	6,000	lf	41.00	246,000
Misc Site Items	1	ls	allow	45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$758,855</b>
CONTINGENCY		@	<b>25.0%</b>	<u>189,714</u> \$948,569
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				<u>\$973,569</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>77,886</u> \$1,051,454
31 Account, Constr. Management		@	<b>6.0%</b>	<u>63,087</u> \$1,114,542
ESCALATION		@	<b>0.0%</b>	<u>\$1,114,542</u> rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 1,110,000</b>

# COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"**  
 LOCATION: **Mississippi**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: \_\_\_\_\_

WORK ITEM: **Franklin Creek Area B**  
**Jackson County**

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (Dredge Plant)	1	job	allow	\$20,000
1. Fill in Ditches (from off-site borrow)	10,000	cy	12.00	120,000
2a. Burn Vegetation (surface only burn)	56	acre	150	8,400
b. Mow vegetation (annually)	56	acre	85	4,760
3. Removals b. Removal of structures (1,500 sf avg size @ 15 ea = )			cost included in the nonstructural estimate	
b. Disposal Fee			cost included in the nonstructural estimate	
c. Removal of roads (24' wide assumed)	3,000	lf	14.00	42,000
d. Removal of utilities	3,000	lf	41.00	123,000
Misc Site Items	1	ls	allow	45,000
<b>Current Contract Cost, Oct 07</b>				<b>\$363,160</b>
CONTINGENCY		@	<b>25.0%</b>	90,790
				\$453,950
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				\$478,950
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	38,316
				\$517,266
31 Account, Constr. Management		@	<b>6.0%</b>	31,036
				\$548,302
ESCALATION		@	<b>0.0%</b>	\$548,302
				rounded
<b>TOTAL PROJECT COST, Oct 07</b>				<b>\$ 550,000</b>

**COMPREHENSIVE STUDY " Franklin Creek Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"**  
 LOCATION: **Mississippi**

ITEM NO. \_\_\_\_\_ DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

WORK ITEM: **Franklin Creek** **Area A and B O&M**

[mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	ESTIMATED AMOUNT
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**ENVIRONMENTAL RESTORATION**

<b>Jackson County</b>	<b>Franklin Creek</b>	<b>Burn Area A and B</b>	<b>\$ 34,000</b>
<b>Jackson County</b>	<b>Franklin Creek</b>	<b>Mow Area A and B</b>	<b>\$ 19,000</b>
<b>Jackson County</b>	<b>Franklin Creek</b>	<b>Burn Area A</b>	<b>\$ 21,000</b>
<b>Jackson County</b>	<b>Franklin Creek</b>	<b>Mow Area A</b>	<b>\$ 12,000</b>
<b>Jackson County</b>	<b>Franklin Creek</b>	<b>Burn Area B</b>	<b>\$ 13,000</b>
<b>Jackson County</b>	<b>Franklin Creek</b>	<b>Mow Area B</b>	<b>\$ 7,000</b>

**Notes:**

Price Level, Oct 07  
 Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment  
 Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"  
 Quantities listed within the Estimate represent Major Elements of the Operations and Maintenance  
 Estimate Excludes Project Escalation

## COMPREHENSIVE STUDY " Franklin Creek Environmental Restoration - O & M " SUMMARY

PROJECT:	Mississippi Coastal Improvement Program "MsCIP"	ITEM NO.	DATE	25-Jul-08
LOCATION:	Mississippi	SHEET NO.	OF	1
		PREPARED	CHECKED:	Gary A. Payton
WORK ITEM:	<b>Franklin Creek Burn Area A and B</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
	<b><u>Jackson County</u></b>	FILE NAME:		
mscip-comprehensive-study-combined-cost-est-25jul08.xls				

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$1,100
Burn Vegetation (surface only burn)	149	acre	150	22,350
<b>Current Contract Cost, OCT 07</b>				<b>\$23,450</b>
CONTINGENCY		@	<b>25.0%</b>	5,863
				<u>\$29,313</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	2,345
				<u>\$31,658</u>
31 Account, Constr. Management		@	<b>6.0%</b>	1,899
				<u>\$33,557</u>
ESCALATION		@	<b>0.0%</b>	\$33,557
				rounded
<b>TOTAL PROJECT COST, OCT07</b>				<b>\$34,000</b>

**COMPREHENSIVE STUDY " Franklin Creek Environmental Restoration - O & M " SUMMARY**

PROJECT:	<b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08	
LOCATION:	<b>Mississippi</b>	SHEET NO.	OF	1	
		PREPARED:	Joseph H. Ellsworth	CHECKED:	Gary A. Payton
WORK ITEM:	<b><u>Franklin Creek Mow Area A and B</u></b>	BASIS of ESTIMATE: info furnished per Project Delivery Team			
	<b><u>Jackson County</u></b>	FILE NAME:			

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$600
b. Mow vegetation (annually)	149	acre	85	<u>12,665</u>
			<b>Current Contract Cost, OCT 07</b>	<b>\$13,265</b>
				<u>3,316</u>
CONTINGENCY		@	<b>25.0%</b>	\$16,581
				<u>1,327</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	\$17,908
				<u>1,074</u>
31 Account, Constr. Management		@	<b>6.0%</b>	\$18,982
				<u>0.0%</u>
ESCALATION		@	<b>0.0%</b>	\$18,982
				rounded
				<b>TOTAL PROJECT COST, OCT 07 \$19,000</b>

**COMPREHENSIVE STUDY " Franklin Creek Environmental Restoration - O & M " SUMMARY**

PROJECT:	<b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.		DATE	25-Jul-08
LOCATION:	<b>Mississippi</b>	SHEET NO.	1	OF	1
WORK ITEM:	<b>Franklin Creek Burn Area A Jackson County</b>	PREPARED	Joseph H. Ellsworth	CHECKED:	Gary A. Payton
		BASIS of ESTIMATE:	info furnished per Project Delivery Team		
		FILE NAME:	mscip-comprehensive-study-combined-cost-est-25jul08.xls		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$700
Burn Vegetation (surface only burn)	93	acre	150	13,950
<b>Current Contract Cost, OCT07</b>				<b>\$14,650</b>
CONTINGENCY		@	<b>25.0%</b>	<u>3,663</u>
				\$18,313
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>1,465</u>
				\$19,778
31 Account, Constr. Management		@	<b>6.0%</b>	<u>1,187</u>
				\$20,964
ESCALATION		@	<b>0.0%</b>	<u>20,964</u>
				rounded
<b>TOTAL PROJECT COST, OCT 07</b>				<b>\$21,000</b>

**COMPREHENSIVE STUDY " Franklin Creek Environmental Restoration - O & M " SUMMARY**

PROJECT:	<b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION:	<b>Mississippi</b>	SHEET NO.	OF	1
WORK ITEM:	<b>Franklin Creek Mow Area A</b>	PREPARED:	Joseph H. Ellsworth	CHECKED: Gary A. Payton
	<b>Jackson County</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team		
		FILE NAME:	mscip-comprehensive-study-combined-cost-est-25jul08.xls	

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$400
b. Mow vegetation (annually)	93	acre	85	7,905
<b>Current Contract Cost, OCT 07</b>				<b>\$8,305</b>
CONTINGENCY		@	<b>25.0%</b>	2,076
				<u>\$10,381</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	831
				<u>\$11,212</u>
31 Account, Constr. Management		@	<b>6.0%</b>	673
				<u>\$11,884</u>
ESCALATION		@	<b>0.0%</b>	
				<u>\$11,884</u>
				rounded
<b>TOTAL PROJECT COST, OCT07</b>				<b>\$12,000</b>

**COMPREHENSIVE STUDY " Franklin Creek Environmental Restoration - O & M " SUMMARY**

PROJECT:	<b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.		DATE	<b>25-Jul-08</b>
LOCATION:	<b>Mississippi</b>	SHEET NO.	<b>1</b>	OF	<b>1</b>
		PREPARED	<b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM:	<b>Franklin Creek Burn Area B</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team			
	<b>Jackson County</b>	FILE NAME:			

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$420
Burn Vegetation (surface only burn)	56	acre	150	8,400
			<b>Current Contract Cost, OCT 07</b>	<b>\$8,820</b>
				<u>2,205</u>
CONTINGENCY		@	<b>25.0%</b>	\$11,025
				<u>882</u>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	\$11,907
				<u>714</u>
31 Account, Constr. Management		@	<b>6.0%</b>	\$12,621
				<u>0.0%</u>
ESCALATION		@	<b>0.0%</b>	\$12,621
				rounded
				<b>TOTAL PROJECT COST, OCT 07 \$13,000</b>

**COMPREHENSIVE STUDY " Franklin Creek Environmental Restoration - O & M " SUMMARY**

PROJECT:	<b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION:	<b>Mississippi</b>	SHEET NO.	OF	1
WORK ITEM:	<b><u>Franklin Creek Mow Area B</u></b> <b><u>Jackson County</u></b>	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
		BASIS of ESTIMATE: info furnished per Project Delivery Team		
		FILE NAME:		

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$240
b. Mow vegetation (annually)	56	acre	85	4,760
			<b>Current Contract Cost, OCT 07</b>	\$5,000
CONTINGENCY		@	<b>25.0%</b>	1,250
				<u>\$6,250</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	500
				<u>\$6,750</u>
31 Account, Constr. Management		@	<b>6.0%</b>	405
				<u>\$7,155</u>
ESCALATION		@	<b>0.0%</b>	0
				<u>\$7,155</u>
				rounded
<b>TOTAL PROJECT COST, OCT 07</b>				<b>\$7,000</b>

**COMPREHENSIVE STUDY " Bayou Cumbest Environmental Restoration " SUMMARY**

PROJECT: <b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	25-Jul-08
LOCATION: <b>Mississippi</b>	SHEET NO. 1	OF	1
WORK ITEM: <b><u>Summary</u></b>	PREPARED <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
	BASIS of ESTIMATE: info furnished per Project Delivery Team		
	FILE NAME:	<a href="#">mscip-comprehensive-study-combined-cost-est-25jul08.xls</a>	

DESCRIPTION	ESTIMATED AMOUNT
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**ENVIRONMENTAL RESTORATION**

<i>Jackson County</i>	<i>Bayou Cumbest</i>	<i>Area 34</i>	
			<b>\$ 28,000,000</b>
<b>0.5 METER PLANTINGS WITH FILL</b>			
			<b>\$ 23,400,000</b>
<b>1.0 METER PLANTINGS WITH FILL</b>			
			<b>\$ 21,000,000</b>
<b>2.0 METER PLANTINGS WITH FILL</b>			
			<b>\$ 28,000,000</b>
<b>0.5 METER PLANTINGS WITHOUT FILL</b>			
			<b>\$ 23,300,000</b>
<b>1.0 METER PLANTINGS WITHOUT FILL</b>			
			<b>\$ 21,000,000</b>
<b>2.0 METER PLANTINGS WITHOUT FILL</b>			

**Notes:**

Price Level, Oct 07

Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment

Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"

Quantities listed within the Estimate represent Major Elements of the Project

Structural Removal Cost includes minor Site Restoration (filling septic tanks, removal outside structures, pavements & utilities)

Utility Removal Cost includes, sewer, storm drain, water, gas, power, cable, phone, traffic signaling

**Estimate Excludes:**

- Operational & Maintenance Cost
- Project Escalation
- Relocations, Environment, HTRW & Real Estate Cost (except PCA)
- Historical Preservation
- Asbestos Removal during Structure Removal

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Bayou Cumbest Area 31** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County** FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$380,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	693,909	cy	12.00	8,326,908
b. Removal of structures (1,500 sf avg size @ 18 ea =)	27,000	sf	3.50	94,500
b. Disposal Fee	1,000	cy	2.50	2,500
c. Removal of roads (24' wide assumed)	6,439	lf	14.00	90,146
d. Removal of utilities	6,439	lf	41.00	263,999
2. Herbicide, hand application (untouched areas from excavation)	32	acre	3,100	99,200
3. Filling of existing ditches and channels (from req'd. excavation)	2,023	cy	5.00	10,115
4. Plantings a. 0.5 meter spacing	110	acre	57,600	6,336,000
Misc Site Items	1	ls	allow	100,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 15,703,368</b>
CONTINGENCY		@	<b>25.0%</b>	<u>3,925,842</u>
				<b>\$ 19,629,210</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				<b>4,806,603</b>
				<u>\$24,460,813</u>
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	<u>1,956,865</u>
				<b>\$ 26,417,678</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>1,585,061</u>
				<b>\$ 28,002,739</b>
ESCALATION		@	<b>0.0%</b>	<u>\$ 28,002,739</u>
				rounded
<b>TOTAL PROJECT COST, Oct- 07</b>				<b>\$ 28,000,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT:	<b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.		DATE	<b>25-Jul-08</b>
LOCATION:	<b>Mississippi</b>	SHEET NO.	<b>1</b>	OF	<b>1</b>
WORK ITEM:	<b>Bayou Cumbest Area 34</b>	PREPARED:	<b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
	<b>Jackson County</b>	BASIS of ESTIMATE:	info furnished per Project Delivery Team		
	<b>1.0 METER PLANTINGS WITH FILL</b>	FILE NAME:	mscip-comprehensive-study-combined-cost-est-25jul08.xls		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$300,000
1. Removals:				
a. Excavation existing Area from -0.5 to +2.0	693,909	cy	12.00	8,326,908
b. Removal of structures (1,500 sf avg size @ 18 ea = )	27,000	sf	3.50	94,500
b. Disposal Fee	1,000	cy	2.50	2,500
c. Removal of roads (24' wide assumed)	6,439	lf	14.00	90,146
d. Removal of utilities	6,439	lf	41.00	263,999
2. Herbicide, hand application (untouched areas from excavation)	32	acre	3,100	99,200
3. Filling of existing ditches and channels (from req'd. excavation)	2,023	cy	5.00	10,115
4. Plantings b. 1.0 meter spacing	110	acre	28,800	3,168,000
Misc Site Items	1	ls	allow	100,000
			<b>Current Contract Cost, FY 07</b>	<b>\$ 12,455,368</b>
			<b>CONTINGENCY @ 25.0%</b>	<b>3,113,842</b>
				<b>\$ 15,569,210</b>
			<b>01 Account, Lands &amp; Damage PCA LS</b>	<b>25,000</b>
			<b>01 Account, Lands &amp; Damage (land + admin + 25% contingency)</b>	<b>4,806,603</b>
				<b>\$20,400,813</b>
			<b>30 Account, Plan, Engr.&amp; Design @ 8.0%</b>	<b>1,632,065</b>
				<b>\$ 22,032,878</b>
			<b>31 Account, Constr. Management @ 6.0%</b>	<b>1,321,973</b>
				<b>\$ 23,354,851</b>
			<b>ESCALATION @ 0.0%</b>	<b>23,354,851</b>
				<b>rounded</b>
			<b>TOTAL PROJECT COST, Oct- 07</b>	<b>\$ 23,400,000</b>

## COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 WORK ITEM: **Bayou Cumbest Area 31** PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
**Jackson County** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$260,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	693,909	cy	12.00	8,326,908
b. Removal of structures (1,500 sf avg size @ 18 ea = )	27,000	sf	3.50	94,500
b. Disposal Fee	1,000	cy	2.50	2,500
c. Removal of roads (24' wide assumed)	6,439	lf	14.00	90,146
d. Removal of utilities	6,439	lf	41.00	263,999
2. Herbicide, hand application (untouched areas from excavation)	32	acre	3,100	99,200
3. Filling of existing ditches and channels (from req'd. excavation)	2,023	cy	5.00	10,115
4. Plantings c. 2.0 meter spacing	110	acre	14,400	1,584,000
Misc Site Items	1	ls	allow	100,000
<b>Current Contract Cost, FY 07</b>				<b>\$ 10,831,368</b>
CONTINGENCY @ <b>25.0%</b>				<u>2,707,842</u>
				<b>\$ 13,539,210</b>
01 Account, Lands & Damage PCA <b>LS</b>				25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				<b>4,806,603</b>
				<u>\$18,370,813</u>
30 Account, Plan, Engr.& Design @ <b>8.0%</b>				1,469,665
				<u>\$ 19,840,478</u>
31 Account, Constr. Management @ <b>6.0%</b>				1,190,429
				<u>\$ 21,030,907</u>
ESCALATION @ <b>0.0%</b>				\$ 21,030,907
				rounded
<b>TOTAL PROJECT COST, Oct- 07</b>				<b>\$ 21,000,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: <b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	<b>25-Jul-08</b>
LOCATION: <b>Mississippi</b>	SHEET NO. <b>1</b>	OF	<b>1</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Bayou Cumbest</b>	<b>Area 31</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team	
<b>Jackson County</b>	FILE NAME:	mscip-comprehensive-study-combined-cost-est-25jul08.xls	

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$380,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	693,909	cy	12.00	8,326,908
b. Removal of structures (1,500 sf avg size @ 18 ea = )	27,000	sf	3.50	94,500
b. Disposal Fee	1,000	cy	2.50	2,500
c. Removal of roads (24' wide assumed)	6,439	lf	14.00	90,146
d. Removal of utilities	6,439	lf	41.00	263,999
2. Herbicide, hand application (untouched areas from excavation)	32	acre	3,100	99,200
3. Plantings a. 0.5 meter spacing	110	acre	57,600	6,336,000
Misc Site Items	1	ls	allow	100,000
<b>Current Contract Cost, FY 07</b>				\$ 15,693,253
CONTINGENCY			@ <b>25.0%</b>	3,923,313
				\$ 19,616,566
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
01 Account, Lands & Damage (land + admin + 25% contingency)				4,806,603
				\$24,448,169
30 Account, Plan, Engr. & Design		@	<b>8.0%</b>	1,955,854
				\$ 26,404,023
31 Account, Constr. Management		@	<b>6.0%</b>	1,584,241
				\$ 27,988,264
ESCALATION		@	<b>0.0%</b>	27,988,264
				rounded
<b>TOTAL PROJECT COST, Oct-07</b>				<b>\$ 28,000,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT: <b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.	DATE	<b>25-Jul-08</b>
LOCATION: <b>Mississippi</b>	SHEET NO. <b>1</b>	OF	<b>1</b>
	PREPARED: <b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
WORK ITEM: <b>Bayou Cumbest</b>	<b>Area 31</b>	BASIS of ESTIMATE: info furnished per Project Delivery Team	
<b>Jackson County</b>		FILE NAME:	

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$300,000
1. Removals: a. Excavation existing Area from -0.5 to +2.0	693,909	cy	12.00	8,326,908
b. Removal of structures (1,500 sf avg size @ 18 ea = )	27,000	sf	3.50	94,500
b. Disposal Fee	1,000	cy	2.50	2,500
c. Removal of roads (24' wide assumed)	6,439	lf	14.00	90,146
d. Removal of utilities	6,439	lf	41.00	263,999
2. Herbicide, hand application (untouched areas from excavation)	32	acre	3,100	99,200
3. Plantings b. 1.0 meter spacing	110	acre	28,800	3,168,000
Misc Site Items	1	ls	allow	100,000
			<b>Current Contract Cost, FY 07</b>	\$ 12,445,253
		CONTINGENCY	@ <b>25.0%</b>	3,111,313
				\$ 15,556,566
		01 Account, Lands & Damage	PCA <b>LS</b>	25,000
		01 Account, Lands & Damage (land + admin + 25% contingency)		4,806,603
				\$20,388,169
		30 Account, Plan, Engr. & Design	@ <b>8.0%</b>	1,631,054
				\$ 22,019,223
		31 Account, Constr. Management	@ <b>6.0%</b>	1,321,153
				\$ 23,340,376
		ESCALATION	@ <b>0.0%</b>	23,340,376
				rounded
			<b>TOTAL PROJECT COST, Oct-07</b>	<b>\$ 23,300,000</b>

**COMPREHENSIVE STUDY "Environmental Restoration" Cost Estimate**

PROJECT:	<b>Mississippi Coastal Improvement Program "MsCIP"</b>	ITEM NO.		DATE	<b>25-Jul-08</b>
LOCATION:	<b>Mississippi</b>	SHEET NO.	<b>1</b>	OF	<b>1</b>
WORK ITEM:	<b>Bayou Cumbest</b>	PREPARED:	<b>Joseph H. Ellsworth</b>	CHECKED:	Gary A. Payton
	<b>Area 31</b>	BASIS of ESTIMATE:	info furnished per Project Delivery Team		
	<b>Jackson County</b>	FILE NAME:	mscip-comprehensive-study-combined-cost-est-25jul08.xls		

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization	1	job	allow	\$260,000
1. Removals:				
a. Excavation existing Area from -0.5 to +2.0	693,909	cy	12.00	8,326,908
b. Removal of structures (1,500 sf avg size @ 18 ea = )	27,000	sf	3.50	94,500
b. Disposal Fee	1,000	cy	2.50	2,500
c. Removal of roads (24' wide assumed)	6,439	lf	14.00	90,146
d. Removal of utilities	6,439	lf	41.00	263,999
2. Herbicide, hand application (untouched areas from excavation)	32	acre	3,100	99,200
3. Plantings				
c. 2.0 meter spacing	110	acre	14,400	1,584,000
Misc Site Items	1	ls	allow	100,000

**Current Contract Cost, FY 07**      \$ 10,821,253

CONTINGENCY	@	<b>25.0%</b>	<u>2,705,313</u>
			\$ 13,526,566

01 Account, Lands & Damage	PCA	<b>LS</b>	25,000
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01 Account, Lands & Damage (land + admin + 25% contingency)			<b>4,806,603</b>
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\$18,358,169

30 Account, Plan, Engr.& Design	@	<b>8.0%</b>	<u>1,468,654</u>
			\$ 19,826,823

31 Account, Constr. Management	@	<b>6.0%</b>	<u>1,189,609</u>
			\$ 21,016,432

ESCALATION	@	<b>0.0%</b>	<u>                    </u>
			\$ 21,016,432

rounded

<b>TOTAL PROJECT COST, Oct- 07</b>	<b>\$ 21,000,000</b>
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**COMPREHENSIVE STUDY " Bayou Cumbest Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 1 OF 1  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 WORK ITEM: **Bayou Cumbest** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: [mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	ESTIMATED AMOUNT
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**ENVIRONMENTAL RESTORATION**

**Jackson County  
Replanting Effort**

**Bayou Cumbest Area 30**

<b>0.5 METER PLANTINGS WITH FILL</b>	(monitoring only 5 yrs @ \$7,000)	<b>\$35,000</b>
<b>1.0 METER PLANTINGS WITH FILL</b>		<b>\$ 2,400,000</b>
<b>2.0 METER PLANTINGS WITH FILL</b>		<b>\$ 2,400,000</b>
<b>0.5 METER PLANTINGS WITHOUT FILL</b>	(monitoring only 5 yrs @ \$7,000)	<b>\$35,000</b>
<b>1.0 METER PLANTINGS WITHOUT FILL</b>		<b>\$ 2,400,000</b>
<b>2.0 METER PLANTINGS WITHOUT FILL</b>		<b>\$ 2,400,000</b>

**\*THESE REPLANTING COSTS WILL OCCUR IN YEARS 3 AND 5 OF THE PERIOD OF ANALYSIS.**

**Notes:**

Price Level, Oct 07  
 Unit Cost based on Historical Data, Recent Pricing, & Estimator's Judgment  
 Cost Estimate Type is PROGRAMMING & PLANNING "Parametric Type"  
 Quantities listed within the Estimate represent Major Elements of the Project  
 Estimate Excludes Project Escalation

**COMPREHENSIVE STUDY " Bayou Cumbest Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Bayou Cumbest Replanting 25% of area** BASIS of ESTIMATE: info furnished per Project Delivery Team  
**Jackson County Years 3 and 5** FILE NAME:  
 mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (2 ea)	1	job	allow	\$40,000
Re-Plantings b. 1.0 meter spacing at year 3	28	acre	28,800	806,400
Re-Plantings b. 1.0 meter spacing at year 5	28	acre	28,800	806,400
Monitoring b. 1.0 meter spacing	5	ys	7,000	35,000
Misc Site Items	1	ls	allow	10,000
<b>Current Contract Cost, OCT 07</b>				<b>\$1,697,800</b>
CONTINGENCY		@	<b>25.0%</b>	424,450
				<b>\$ 2,122,250</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	169,780
				<b>\$ 2,292,030</b>
31 Account, Constr. Management		@	<b>6.0%</b>	137,522
				<b>\$ 2,429,552</b>
ESCALATION		@	<b>0.0%</b>	
				<b>\$ 2,429,552</b>
				rounded
<b>TOTAL PROJECT COST, OCT 07</b>				<b>\$ 2,400,000</b>

**COMPREHENSIVE STUDY " Bayou Cumbest Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 WORK ITEM: **Bayou Cumbest Replanting 50% of area** PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
**Jackson County in Years 3 and 5** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (2 ea)	1	job	allow	\$40,000
Re-Plantings b. 2.0 meter spacing at year 3	55	acre	14,400	792,000
Re-Plantings b. 2.0 meter spacing at year 5	55	acre	14,400	792,000
Monitoring b. 2.0 meter spacing	5	yrs	7,000	35,000
Misc Site Items	1	ls	allow	10,000
<b>Current Contract Cost, OCT 07</b>				<b>\$1,669,000</b>
CONTINGENCY		@	<b>25.0%</b>	<u>417,250</u>
				<b>\$ 2,086,250</b>
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	<u>166,900</u>
				<b>\$ 2,253,150</b>
31 Account, Constr. Management		@	<b>6.0%</b>	<u>135,189</u>
				<b>\$ 2,388,339</b>
ESCALATION		@	<b>0.0%</b>	<u>                    </u>
				<b>\$ 2,388,339</b>
				rounded
<b>TOTAL PROJECT COST, OCT 07</b>				<b>\$ 2,400,000</b>

**COMPREHENSIVE STUDY " Bayou Cumbest Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **1** OF **1**  
 WORK ITEM: **Bayou Cumbest Replanting 25% of area** PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
**Jackson County in Years 3 and 5** BASIS of ESTIMATE: Info furnished per Project Delivery Team  
 FILE NAME: mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION				Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (2 ea)				1	job	allow	\$40,000
Re-Plantings	b. 1.0 meter spacing	at year 3		28	acre	28,800	806,400
Re-Plantings	b. 1.0 meter spacing	at year 5		28	acre	28,800	806,400
Monitoring	b. 1.0 meter spacing			5	yrs	7,000	35,000
Misc Site Items				1	ls	allow	10,000
<b>Current Contract Cost, OCT 07</b>							<b>\$1,697,800</b>
CONTINGENCY					@	<b>25.0%</b>	<u>424,450</u>
							\$ 2,122,250
30 Account, Plan, Engr.& Design					@	<b>8.0%</b>	<u>169,780</u>
							\$ 2,292,030
31 Account, Constr. Management					@	<b>6.0%</b>	<u>137,522</u>
							\$ 2,429,552
ESCALATION					@	<b>0.0%</b>	<u>                    </u>
							\$ 2,429,552
							rounded
<b>TOTAL PROJECT COST, OCT 07</b>							<b>\$ 2,400,000</b>

**COMPREHENSIVE STUDY " Bayou Cumbest Environmental Restoration - O & M " SUMMARY**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"**  
 LOCATION: **Mississippi**  
 WORK ITEM: **Bayou Cumbest Replanting 50% of area  
 Jackson County in Years 3 and 5**

ITEM NO. DATE **25-Jul-08**  
 SHEET NO. **1** OF **1**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: Gary A. Payton  
 BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization (2 ea)	1	job	allow	\$40,000
Re-Plantings b. 2.0 meter spacing at year 3	55	acre	14,400	792,000
Re-Plantings b. 2.0 meter spacing at year 5	55	acre	14,400	792,000
Monitoring b. 2.0 meter spacing	5	yrs	7,000	35,000
Misc Site Items	1	ls	allow	10,000
<b>Current Contract Cost, OCT 07</b>				\$1,669,000
CONTINGENCY		@	<b>25.0%</b>	417,250
				\$ 2,086,250
30 Account, Plan, Engr.& Design		@	<b>8.0%</b>	166,900
				\$ 2,253,150
31 Account, Constr. Management		@	<b>6.0%</b>	135,189
				\$ 2,388,339
ESCALATION		@	<b>0.0%</b>	
				\$ 2,388,339
				rounded
<b>TOTAL PROJECT COST, OCT 07</b>				<b>\$ 2,400,000</b>

**COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE 25-Jul-08  
 LOCATION: **Mississippi** SHEET NO. 1 OF 2  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Deer Island -Aquatic Ecosystem Restoration** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME: [mscip-comprehensive-study-combined-cost-est-25jul08.xls](#)

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Mobilization, Preparatory Work, Demobilization ( Dredge Plant,16" )	1	job	allow	\$250,000
Mobilization, Preparatory Work, Demobilization ( Land Base Equipment )	1	job	allow	150,000
<b><u>Seaward Shoreline</u></b>				
Beach Fill, in-place, 16" dia dredge	400,000	cy	3.50	1,400,000
Grade / Shape Berm, small Doser-Trackhoe Work	120	days	4,000	480,000
Environmental Planting	100	ac	45,000	4,500,000
Misc. Site Items	1	ls	allow	16,000
<b><u>Repair/replace Containment Dike</u></b>				
Fill, in-place, 16" dia dredge	4,200	cy	3.50	14,700
Grade / Shape Berm, small Doser-Trackhoe Work	120	days	4,000	480,000
Misc. Site Items	1	ls	allow	1,200
<b><u>Add Material to Containment Area</u></b>				
Fill, in-place, 16" dia dredge	100,000	cy	3.50	350,000
Grade / Shape Berm, small Doser-Trackhoe Work	15	days	4,000	60,000
Environmental Planting	10	ac	45,000	450,000
Misc. Site Items	1	ls	allow	2,200
<b><u>Lengthen Stone Containment Dikes</u></b>				
Analyze Stone Containment Dikes	1	ls	1.00	50,000
Fill, in-place, 16" dia dredge	91,000	cy	3.50	318,500
Grade / Shape Berm, small Doser-Trackhoe Work	30	days	4,000	120,000
Filter Fabric	1,500	sy	3.00	4,500
Riprap	3,000	cy	110.00	330,000
Misc. Site Items	1	ls	allow	2,100
<b><u>Create Additional Marsh Area</u></b>				
Beach Fill, in-place, 16" dia dredge	300,000	cy	3.50	1,050,000
Grade / Shape Berm, small Doser-Trackhoe Work	60	days	4,000	240,000
Environmental Planting	20	ac	45,000	900,000
Misc. Site Items	1	ls	allow	5,500

**Subtotal \$ 11,174,700**

# COMPREHENSIVE STUDY " Environmental Restoration " COST ESTIMATE

PROJECT: **Mississippi Coastal Improvements Program "MsCIP"** ITEM NO. DATE **25-Jul-08**  
 LOCATION: **Mississippi** SHEET NO. **2** OF **2**  
 PREPARED: **Joseph H. Ellsworth** CHECKED: **Gary A. Payton**  
 WORK ITEM: **Deer Island -Aquatic Ecosystem Restoration** BASIS of ESTIMATE: info furnished per Project Delivery Team  
 FILE NAME:

mscip-comprehensive-study-combined-cost-est-25jul08.xls

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
			<b>Subtotal, brought forward</b>	<b>\$ 11,174,700</b>
			<b>Current Contract Cost, Oct 07</b>	<b>\$ 11,174,700</b>
CONTINGENCY	@		<b>25.0%</b>	2,793,675
				<b>\$ 13,968,375</b>
01 Account, Lands & Damage		PCA	<b>LS</b>	25,000
				<b>\$ 13,993,375</b>
30 Account, Plan, Engr.& Design	@		<b>8.0%</b>	1,119,470
				<b>\$ 15,112,845</b>
31 Account, Constr. Management	@		<b>6.0%</b>	906,771
				<b>\$ 16,019,616</b>
ESCALATION	@		<b>0.0%</b>	0
				<b>\$ 16,019,616</b>
				rounded
			<b>TOTAL PROJECT COST, Oct 07</b>	<b>\$ 16,000,000</b>

**Notes:**

Unit Dredge Cost based on Current Dredge Project, Harrison County Beaches, Ms.

Nonstructural Summary Cost (ABFE-2 Level of Protection)									
ECONOMIC REACH	TOTAL PARCELS	ACQUISITION PARCELS	ACQUISITION COST	DEMOLITION COST	RELOCATION PARCELS	RELOCATION COST	FLOOD PROOFING PARCELS	FLOOD PROOFING COST	NONSTRUCTURAL TOTAL
1	1391	997	\$187,669,171.88	\$6,449,046.00	0	\$0.00	394	\$101,229,150.00	\$295,347,367.88
2	13206	9911	\$2,895,031,206.25	\$95,757,925.00	1	\$392,586.21	3294	\$1,566,973,598.33	\$4,558,155,315.80
3	2578	2202	\$653,107,621.88	\$15,583,815.00	0	\$0.00	376	\$269,175,578.00	\$937,867,014.88
4	938	922	\$113,922,240.63	\$6,385,676.00	0	\$0.00	16	\$24,642,670.00	\$144,950,586.63
5	2833	2714	\$232,321,346.88	\$6,041,447.00	0	\$0.00	119	\$64,055,584.00	\$302,418,377.88
6	1158	567	\$103,859,775.00	\$3,433,000.00	1	\$8,492,694.34	590	\$272,099,608.68	\$387,885,078.02
7	682	450	\$31,275,743.75	\$1,934,430.00	0	\$0.00	232	\$149,936,910.00	\$183,147,083.75
8	5356	3623	\$464,556,882.50	\$11,531,450.00	3	\$25,478,083.02	1730	\$573,389,674.75	\$1,074,956,090.27
9	60	44	\$16,010,782.50	\$122,000.00	0	\$0.00	16	\$13,361,448.00	\$29,494,230.50
10	2007	1945	\$423,333,807.50	\$9,247,426.00	0	\$0.00	62	\$20,028,706.00	\$452,609,939.50
11	8	0	\$0.00	\$0.00	0	\$0.00	8	\$1,727,008.00	\$1,727,008.00
12	2183	1047	\$175,416,295.00	\$4,198,530.00	0	\$0.00	1136	\$361,865,652.75	\$541,480,477.75
13	650	650	\$578,114,005.00	\$5,007,538.00	0	\$0.00	0	\$0.00	\$583,121,543.00
15	94	85	\$43,548,305.00	\$806,538.00	0	\$0.00	9	\$22,725,000.00	\$67,079,843.00
16	199	78	\$16,255,190.00	\$144,538.00	0	\$0.00	121	\$31,715,348.00	\$48,115,076.00
18	1507	1502	\$398,263,330.00	\$11,148,202.00	0	\$0.00	5	\$1,138,504.00	\$410,550,036.00
19	46	46	\$292,633,610.00	\$94,453.00	0	\$0.00	0	\$0.00	\$292,728,063.00
20	3448	1397	\$227,316,640.00	\$11,116,442.00	1	\$8,492,694.34	2050	\$712,073,298.74	\$958,999,075.08
21	2527	2108	\$294,785,977.81	\$7,012,294.00	0	\$0.00	419	\$157,364,440.99	\$459,162,712.81
22	153	61	\$25,918,662.50	\$412,000.00	0	\$0.00	92	\$36,587,106.00	\$62,917,768.50
23	44	0	\$0.00	\$0.00	0	\$0.00	44	\$19,986,176.00	\$19,986,176.00
24	398	220	\$64,527,300.63	\$702,520.00	0	\$0.00	178	\$47,664,846.00	\$112,894,666.63
26	989	37	\$9,035,335.94	\$175,000.00	0	\$0.00	952	\$272,934,675.34	\$282,145,011.28
27	1082	53	\$12,684,943.75	\$196,000.00	0	\$0.00	1029	\$226,725,426.34	\$239,606,370.09
28	1083	961	\$88,942,778.75	\$1,351,918.00	0	\$0.00	122	\$47,989,150.00	\$138,283,846.75
29	315	147	\$22,302,837.50	\$1,091,991.00	0	\$0.00	168	\$51,396,802.00	\$74,791,630.50
30	557	90	\$28,802,550.00	\$656,453.00	0	\$0.00	467	\$160,944,119.00	\$190,403,122.00
31	498	51	\$14,626,215.31	\$320,614.00	0	\$0.00	447	\$168,990,104.00	\$183,936,933.31
32	209	1	\$216,228.13	\$0.00	0	\$0.00	208	\$51,710,800.00	\$51,927,028.13

Non-Structural Costs - NS\_ABFE-2\_bReach\_Consise\_200710

Nonstructural Summary Cost (ABFE-2 Level of Protection)									
ECONOMIC REACH	TOTAL PARCELS	ACQUISITION PARCELS	ACQUISITION COST	DEMOLITION COST	RELOCATION PARCELS	RELOCATION COST	FLOOD PROOFING PARCELS	FLOOD PROOFING COST	NONSTRUCTURAL TOTAL
35	1418	12	\$636,228.13	\$46,000.00	0	\$0.00	1406	\$350,816,536.00	\$351,498,764.13
36	34	32	\$3,761,409.38	\$73,076.00	0	\$0.00	2	\$5,050,000.00	\$8,884,485.38
38	128	50	\$20,859,328.13	\$565,538.00	0	\$0.00	78	\$15,883,024.00	\$37,307,890.13
39	6	0	\$0.00	\$0.00	0	\$0.00	6	\$991,302.00	\$991,302.00
43	1	0	\$0.00	\$0.00	0	\$0.00	1	\$170,304.00	\$170,304.00
48	2	0	\$0.00	\$0.00	0	\$0.00	2	\$366,298.00	\$366,298.00
50	1343	495	\$87,303,122.50	\$1,944,538.00	0	\$0.00	848	\$215,363,629.00	\$304,611,289.50
51	786	0	\$0.00	\$0.00	0	\$0.00	786	\$267,859,601.33	\$267,859,601.33
52	7124	285	\$100,808,144.06	\$2,143,067.00	1	\$8,492,694.34	6838	\$1,966,832,623.52	\$2,078,276,528.93
53	759	399	\$111,009,291.56	\$2,006,043.00	0	\$0.00	360	\$204,582,670.00	\$317,598,004.56
54	817	9	\$1,048,409.06	\$66,453.00	0	\$0.00	808	\$327,127,401.50	\$328,242,263.56
<b>Total</b>	<b>58617</b>	<b>33191</b>	<b>\$7,739,904,716.91</b>	<b>\$207,765,961.00</b>	<b>7</b>	<b>\$51,348,752.25</b>	<b>25419</b>	<b>\$8,783,474,774.27</b>	<b>\$16,782,494,204.46</b>



## PART 2

# RECOMMENDED ALTERNATIVES

Part 2 of the Cost Appendix contains updated cost estimates for the recommended alternatives in the Comprehensive Plan and Integrated Programmatic Environmental Impact Statement. Selected structural and environmental options included in the Engineering Appendix and Part 1 of the Cost Appendix were used as the basis for the selected alternatives. All recommended alternatives other than the Homeowners Assistance Relocation Program (HARP) have Total Projects Cost Summaries included herein. Part 2 also includes an Escalation Derivations Chart used for the updated costs, Gantt charts with brief project descriptions, and results of a Cost Risk Analysis completed for the Barrier Island Restoration Plan. The HARP is a program based on purchase of 1800 to 2000 properties in coastal Mississippi out of 17,000 that were identified as being in high hazard areas. These 17,000 properties were identified in the "Preliminary Estimate of Project Cost for the Floodproofing of Residential Structures" and is based on a price level equivalent to 1 October, 2007. This document is also included. The costs for the structural and environmental alternatives were completed by Mobile District and the costs for the nonstructural alternatives were completed by Huntington District.



TOTAL PROJECT

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

PAGE 1 OF 2

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Barrier Islands

DISTRICT: MOBILE

LOCATION: Mississippi Coastal Barrier Islands

P.O.C.: Joseph H. Ellsworth

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....		
						EFFECTIVE PRICING LEVEL: Aug 08			COST (\$K)	CNTG (\$K)	TOTAL (\$K)
CURRENT MCACES ESTIMATE PREPARED: Aug 08											
EFFECTIVE PRICING LEVEL: Aug 08											
17---	BEACH REPLENISHMENT (Barrier Islands) <b>( Barrier Islands )</b>	326,279,000	107,543,280	33%	433,822,280	326,279,000	107,543,280	433,822,280	353,465,241	116,490,463	469,955,704
30---	PLANNING, ENGINEERING & DESIGN	13,051,160	4,301,731	33%	17,352,891	13,051,160	4,301,731	17,352,891	13,490,461	4,448,199	17,938,660
31---	CONSTRUCTION MANAGEMENT	19,576,740	6,452,597	33%	26,029,337	19,576,740	6,452,597	26,029,337	21,207,914	6,989,428	28,197,342
<b>TOTAL PROJECT COST =====&gt;</b>		<b>358,906,900</b>	<b>118,297,608</b>		<b>477,204,508</b>	<b>358,906,900</b>	<b>118,297,608</b>	<b>477,204,508</b>	<b>388,163,616</b>	<b>127,928,090</b>	<b>516,091,706</b>

rounded

100% TOTAL FEDERAL COSTS =====> **\$516,000,000**

0% TOTAL NON - FEDERAL COSTS =====>

DISTRICT APPROVED:

- \_\_\_\_\_ CHIEF, COST ENGINEERING
- \_\_\_\_\_ CHIEF, REAL ESTATE
- \_\_\_\_\_ CHIEF, PLANNING
- \_\_\_\_\_ CHIEF, ENGINEERING
- \_\_\_\_\_ CHIEF, OPERATIONS
- \_\_\_\_\_ CHIEF, CONSTRUCTION
- \_\_\_\_\_ CHIEF, PROGRAMS MANAGEMENT
- \_\_\_\_\_ PROJECT MANAGER
- \_\_\_\_\_ DDE (PM)

FEDERAL COSTS

\*\*\*\* TOTAL CONTRACT COST SUMMARY \*\*\*\*

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Barrier Islands  
 LOCATION: Mississippi Coastal Barrier Islands

DISTRICT: MOBILE

P.O.C.: Joseph H. Ellsworth

ACCOUNT No.	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09				.....FULLY FUNDED ESTIMATE.....				
						OMB (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	FEATURE MID PT	OMB (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
EFFECTIVE PRICING LEVEL: Aug 08														
PRICING LEVEL: Aug 08														
CURRENT FUNDING ESTIMATE PREPARED: Aug 08														
<b>Contract 1</b>														
17---	DREDGING (Hopper)	183,829,000	58,825,280	32%	242,654,280	0.0%	183,829,000	58,825,280	242,654,280	Apr 12	7.9%	198,351,491	63,472,477	261,823,968
30---	PLANNING, ENGINEERING & DESIGN, 4%	7,353,160	2,353,011	32%	9,706,171	0.0%	7,353,160	2,353,011	9,706,171	Apr 09	1.6%	7,470,811	2,390,659	9,861,470
31---	CONSTRUCTION MANAGEMENT, 6% +	11,029,740	3,529,517	32%	14,559,257	0.0%	11,029,740	3,529,517	14,559,257	Apr 12	7.9%	11,901,089	3,808,349	15,709,438
<b>Contract # 1 Subtotal</b>		202,211,900	64,707,808		266,919,708		202,211,900	64,707,808	266,919,708			217,723,391	69,671,485	287,394,876
<b>Contract 2</b>														
17---	DREDGING (Hopper)	78,350,000	28,206,000	36%	106,556,000	0.0%	78,350,000	28,206,000	106,556,000	Apr 12	7.9%	84,539,650	30,434,274	114,973,924
30---	PLANNING, ENGINEERING & DESIGN, 4%	3,134,000	1,128,240	36%	4,262,240	0.0%	3,134,000	1,128,240	4,262,240	Oct 10	4.7%	3,281,298	1,181,267	4,462,565
31---	CONSTRUCTION MANAGEMENT, 6% +	4,701,000	1,692,360	36%	6,393,360	0.0%	4,701,000	1,692,360	6,393,360	Apr 12	7.9%	5,072,379	1,826,056	6,898,435
<b>Contract # 2 Subtotal</b>		86,185,000	31,026,600		117,211,600		86,185,000	31,026,600	117,211,600			92,893,327	33,441,597	126,334,924
<b>Contract 3</b>														
17---	DREDGING (Hopper)	64,100,000	20,512,000	32%	84,612,000	0.0%	64,100,000	20,512,000	84,612,000	Apr 13	10.1%	70,574,100	22,583,712	93,157,812
30---	PLANNING, ENGINEERING & DESIGN, 4%	2,564,000	820,480	32%	3,384,480	0.0%	2,564,000	820,480	3,384,480	Apr 11	6.8%	2,738,352	876,273	3,614,625
31---	CONSTRUCTION MANAGEMENT, 6% +	3,846,000	1,230,720	32%	5,076,720	0.0%	3,846,000	1,230,720	5,076,720	Apr 13	10.1%	4,234,446	1,355,023	5,589,469
<b>Contract # 3 Subtotal</b>		70,510,000	22,563,200		93,073,200		70,510,000	22,563,200	93,073,200			77,546,898	24,815,008	102,361,906

Some quantity of high quality sand may be available in the old channel alignment at the west end of West Ship Island. If there is deemed a sufficient quantity of sand to use from this area, this sand could be pumped to areas on the northern shore of West Ship Island that has been included in the areas to be filled near Fort Massachusetts.

West and East Ship Island also have two major historic sites that are in danger from the continuing erosion of the barrier islands. The presence of these historic sites led to the inclusion of the barrier islands off the coast of Mississippi as a National Seashore. Current studies by the Corps indicate that restoring the two islands to a single island, pre-Camille condition may prevent the rapid erosion of the beaches that is now occurring at these sites and aid in the reduction of erosion that is endangering Historic Fort Massachusetts on West Ship Island. The placement of sand on the northern side of West Ship Island under the filling of Camille Cut will be considered a priority to provide protection to the Fort as early as possible in the course of this work. The addition of sheet pile for minimizing erosional loss of the sand during placement will be allowed as long as the sheet pile is removed. It can be assumed that a 2000 foot running length will be used as the fill progresses across the open pass. The transfer of heavy equipment from barges to both of the islands can be done in selected locations where deeper water is close to the existing shorelines.

The pre-Camille footprint of Ship Island was obtained from historical records and this data showed that the island was breached during Hurricane Camille in 1969 forming two separate islands as mentioned above. This breach had been partially filled with a sand spit extending westward from East Ship Island when Hurricane Katrina again opened the breach in 2005. As happened during Hurricane Camille, the new breach was formed leaving two islands with approximately three miles of open water between the remaining portions. West Ship Island has been experiencing severe erosion in some areas because of the loss of sand in the system from the ebb tidal flows through the breach. East Ship Island is also losing land mass as the sand in its system migrates into the breach area. Currents studies (USGS, 2007 and Rosati, 2007) indicate that West and East Ship will probably not recover from their current severely eroded state.

The first step in the barrier restoration process would be to fill the three mile breach in Ship Island, Camille Cut, to a 1000-foot width and a height that would require approximately 13-million cubic yards of sand including loss during placement and the re-nourishment of some erosion along the northern shore. The other two measures would be to add sand into the littoral system with about 5-million cubic yards going into the area east of East Ship Island and the rest (4-million cubic yards) going to the area east of Petit Bois Island. Placing more sand at Ship Island is assumed because of the accelerated erosion that has taken place there. The quantities of material assumed for the littoral placements would be subject to change after additional sediment transport modeling if this modeling indicates this adjustment.

West Ship has migrated westward along the littoral drift zone with the western end of the island now terminating against the deep-water, Gulfport navigation channel that prevents further drift. Studies (Rosati, 2007) have confirmed that West Ship Island is the last active island system in the littoral zone that originates in northwest Florida. The same type of land loss exists for Petit Bois Island where the east end is migrating westward and the western end is now terminated against the Pascagoula navigation channel. Records indicate that over 22 million cubic yards of sediment have been removed for maintenance from the Pascagoula Channel since it was created. This quantity of sand was used as the basis of adding sand back into the littoral system since, theoretically, this sand would have continued its transport

Estimated by CESAM-EN-E, Cost Engineering Branch  
Designed by CESAM-EN-E, Mobile District, Corps of  
Engineers

Prepared by Joseph Ellsworth

Preparation Date 8/14/2008

Effective Date of Pricing 8/14/2008

Estimated Construction Time Days

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along the littoral system. Three measures were adopted to return this sand into the system.

Price Level July 08  
FEASIBILITY STUDY

Estimated by CESAM-EN-E, Cost Engineering Branch

Designed by CESAM-EN-E, Mobile District, Corps of  
Engineers

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**Date Author**

**Note**

Joseph H. Ellsworth The addition of sand into the littoral system on the eastern ends of East Ship and Petit Bois Islands will provide a sediment source for the islands and help mitigate any affects from the maintenance of the navigation channels. The additional sediment transport modeling will include modeling to predict the optimal location for the placement of sand into the littoral zone near the islands to provide a source of sand for the natural healing on the breach. The quantity of sand required for these options are considerably less than the total restoration of the islands, but still substantial. To fill the breach, the sand would have strict requirements on color, grain size, and roundness. In discussions with the USGS, a potential source of sand was identified at St. Bernard Shoals which is a submerged chain of barrier islands approximately 45 miles south of the Mississippi barrier islands. Both quality and quantity are assumed to be available, but further investigations are required to verify the source. Activity from oil and gas production in the local area must also be considered. As described above approximately 13,000,000 cubic yards of the high quality sand are needed to fill the breach. An additional 5,000,000 cubic yards of sand is being proposed for placement into the littoral zone east of East Ship Island. This sand would still have physical compatibility characteristics to the sand in the littoral system that must be considered. The last measure of the plan would be to add approximately 4,000,000 cubic yards of compatible sand into the littoral zone east of Petit Bois Island. The source of this sand is also proposed to be from the St. Bernard Shoals.

The placement of sand to fill Camille Cut and the two large littoral zone placements are planned as one-time events to restore some of the islands land surface that may have been lost to erosion from mans past activities or from mass erosion during storm events. This decision was based on an agreement with the NPS that allows them to mitigate ay damage from mans activities or to perform necessary means to preserve historic sites. This agreement has a positive aspect to MsCIP with the replacement of sand that has been lost from the littoral system. This sand addition will extend the life of the islands and the closure of Camille Cut will help maintain the boundaries of the estuary. It is understandably difficult to quantify either of these sand loss causes because the barrier islands themselves are dynamic systems that are undergoing constant change.

The detailed cost estimate will be based as follows:  
Barrier Island Comprehensive Plan Cost Items

Contract 1:

Fill Camille Cut by Direct Placement – 13,000,000 cy (10,200,000 cy measured in place in place with estimated 30% loss during handling) placed to create a 1,000 foot wide fill for the existing breach with 60-foot wide swath of plantings along both shores (477,500 total plants). Source of sand borrow from St. Bernard Shoals. Assume using 2,000 running feet of sheet pile to add placement. See LOD-1, Option G in the Engineering Appendix.

Award Jan 2010

Period of Performance – 4 years

Contract 2

Little Dog Keys Pass Littoral Placement – 5,000,000 cy (measured in the dredge hopper) placed in an area approximately 1.5 square miles in up to 5 foot lift. Source of sand borrow from St. Bernard Shoals. See LOD-1, Option C1 in the Engineering Appendix.

Award Jan 2011

Period of Performance – 2 years

Contract 3

Petit Bois Island Littoral Placement – 4,000,000 cy (measured on the barges) placed in one area of approximately 2 square miles in up to a 3 foot lift. Source of sand borrow from St. Bernard Shoals. See LOD-1, Option C2 in the Engineering Appendix for quantities, but the source area has changed as indicated above.

Award Jan 2012

Period of Performance – 2 years

7/28/2008 Joseph H. Ellsworth BASIS of COST ESTIMATE and RATIONALE

Feasibility Estimate is based on Historical Data, Recent Pricing, and Estimator's Judgment. Estimate is structured and priced as a general prime dredging contractor. Anticipated bidding conditions and construction duration with reasonable schedules are considered Normal. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Current Contract Cost (price level Aug 08).

**Date Author**

**Note**

Project Life is assumed as 50 years in Cost Estimate.

17 Feature Account, Beach Replenishment (Barrier Islands) - was developed using CEDEP. Reference CEDEP for Cost Derivation.

30 Feature Account, Planning, Engineering & Design was developed and assigned at 4% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Eight percent was used in the Interim MsCIP projects which was reviewed and approved and included in the Chief's Report.

31 Feature Account, Construction Management was developed and assigned at 6% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Six percent was used in the Interim MsCIP projects which was reviewed & approved and included in the Chief's Report.

Contingency was jointly developed and assigned by the Project Delivery Team. The Contingency percentage at 33% (80% confidence level) weighted average reflects the possibility of changes in quantity estimates and unknowns associated with the unit price. The contingency factor used is different for each contract. A risk analysis was performed by Walla Walla District for each contract within project. A risk analysis report is included in maint report.

Markups for subcontractors are included in the unit prices and include such items as field overheads, home office expenses, profit, bond and insurance.

Mobilization & Demobilization are derived within the CEDEP estimates.

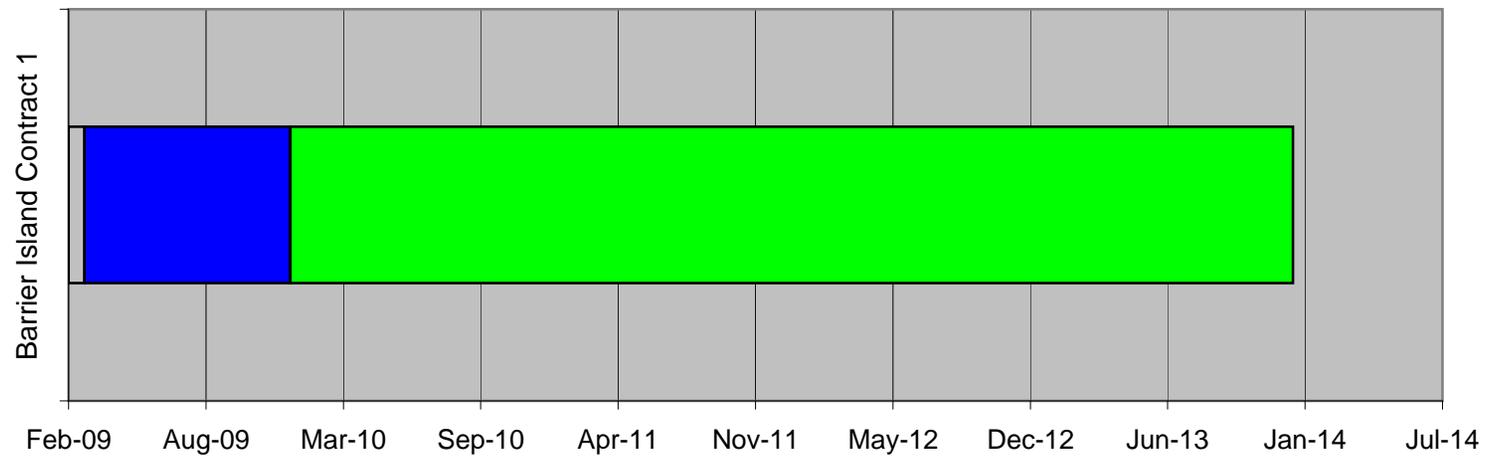
Unit Prices, for such items as closure piling and planting is based on Historical Data, Recent Pricing, Estimator's Judgment, and Cost derivation using MCACES / MII estimating systems.

Contract Cost Summary Report	Description	Quantity	UOM	Contract Cost 326,279,000
<b>01 Contract 1 - Fill Camille Cut by Direct Placement</b>		<b>13,000,000.00</b>	<b>CY</b>	<b>183,829,000</b>
<p>(Note: SCOPE OF WORK Contract 1: Fill Camille Cut by Direct Placement – 13,000,000 cy (10,200,000 cy measured in place in place with estimated 30% loss during handling) placed to create a 1,000 foot wide fill for the existing breach with 60-foot wide swath of plantings along both shores (477,500 total plants). Source of sand borrow from St. Bernard Shoals. Assume using 2,000 running feet of sheet pile to add placement. See LOD-1, Option G in the Engineering Appendix. Award Jan 2010 Period of Performance – 4 years CONTRACT NO. 1 FILL CAMILLE CUT CONNECTING WEST AND EAST SHIP ISLANDS Work will commence January 2010. The work will be scheduled for 4 years. The material will be obtained by hopper dredge from the St. Bernard shoals some 45 miles to the south. The material will be transported to the -30 contour and pumped into the work area. Small dozer equipment will be required to shape the material above water. A template 1000 feet wide for the full length of the closure will be established and the Contractor shall be paid in increments completed placement. Approximately 3,250,000 c.y. of material will be placed each year. Sheet pile will be required to secure the end of a placement at the end of each year. Assume that you purchase and install 60,000 square feet of sheet pile at the end of year 1. At the start of year 2 you must recover the 60,000 square feet and store the material. Assume 10 percent or 6,000 square feet must be replaced. At the end of year 2, Install 60,000 square feet of sheet pile. At the beginning of year 3, recover 60,000 SF of sheet pile. Assume 10 percent or 6,000 SF of sheet pile must be replaced. At the end of year 3 install 60,000 SF of sheet pile. At the beginning of year 4 recover 60,000 SF of sheet pile and salvage or discard. Summary---- Purchase 72,000 SF of sheet pile. Install 180,000 SF of sheet pile. Recover 180,000 SF of sheet pile. Fill quantity is 13,000,000 c.y. Plant 477,500 sea oats on the created surface Assume 1 major mob and demob and 3 intermediate mob and demob. )</p>				
<b>17 Federal Costs</b>		<b>1.00</b>	<b>LS</b>	<b>183,829,000</b>
<b>017 Beach Replenishment Dredging</b>		<b>13,000,000.00</b>	<b>CY</b>	<b>183,829,000</b>
<b>Mobilization, Demobilization, Preparatory Work</b>		<b>1.00</b>	<b>LS</b>	<b>13,800,000</b>
<p>(Note: Reference CEDEP for Cost Derivation. Mob / Demob to and from job ( 1 initial mob/demob plus three intermediate mob/demob equal 4 events). )</p>				
USR Mob & Demob - Marine Equipment (Note: Cost from CEDEP.)		4.00	EA	3,800,000
USR Mob & Demob - Land Base Equipment (Note: Cost from CEDEP. Land based equipment includes dosers, marshbuggies, backhoe, crane for piling, light plant, etc.)		4.00	LS	10,000,000
<b>Hopper Dredging</b>		<b>13,000,000.00</b>	<b>CY</b>	<b>164,350,000</b>
<p>(Note: Referenc CEDEP for Cost Derivation.)</p>				
USR Sand Borrow ( by Hopper Dredge ) (Note: Referenc CEDEP for Cost Derivation.)		13,000,000.00	CY	159,250,000
USR Grading & Shaping (Note: Land base Equipment, Marshbuggies, dosers, ect. Unit Cost base on Historical data.)		390.00	ACR	3,900,000
USR GIS Support During Construction		4.00	YR	800,000
USR Control & Placement Surveys (Note: Survey Cost base on historical cost from Operation Field Office.)		4.00	YR	400,000
<b>Beach &amp; Dune Planting</b>		<b>1.00</b>	<b>LS</b>	<b>1,719,000</b>
USR Sea Oats (Note: Plants are planted in a 60 foot swath at 30 in centers along shores at the newly created 1,000 foot wide fill. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 477,500 plants plus 20% replacement		573,000.00	EA	1,719,000

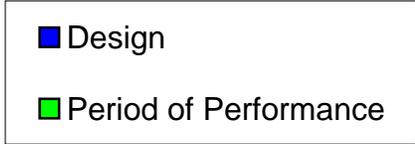
Description	Quantity	UOM	ContractCost
= 573,000 plants. Material price fob job site @ \$1.12/ea, Fertilizer @0.10/ea, Labor Cost @ \$1.25/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.99/plant. Use \$3.00 / plant.)			
<b>Temporary Breach Closure</b>	<b>1.00</b>	<b>LS</b>	<b>3,960,000</b>
			<i>22.00</i>
USR Temporary Sheet Pile Closure	180,000.00	SF	3,960,000
(Note: Assume that you purchase and install 60,000 square feet of sheet pile at the end of year 1. At the start of year 2 you must recover the 60,000 square feet and store the material. Assume 10 percent or 6,000 square feet must be replaced. At the end of year 2, Install 60,000 square feet of sheet pile. At the beginning of year 3, recover 60,000 SF of sheet pile. Assume 10 percent or 6,000 SF of sheet pile must be replaced. At the end of year 3 install 60,000 SF of sheet pile. At the beginning of year 4 recover 60,000 SF of sheet pile and salvage or discard. Summary----Purchase 72,000 SF of sheet pile. Install 180,000 SF of sheet pile. Recover 180,000 SF of sheet pile.)			
			<i>15.67</i>
<b>02 Contract 2 - Little Dog Key Pass Littoral Placement by Direct Placement</b>	<b>5,000,000.00</b>	<b>CY</b>	<b>78,350,000</b>
(Note: SCOPE OF WORK Contract 2 Little Dog Keys Pass Littoral Placement – 5,000,000 cy (measured in the dredge hopper) placed in an area approximately 1.5 square miles in up to 5 foot lift. Source of sand borrow from St. Bernard Shoals. See LOD-1, Option C1 in the Engineering Appendix. Award Jan 2011 Period of Performance – 2 years CONTRACT NO. 2 FILL 1.5 SQUARE MILE AREA OFFSHORE OF EAST SHIP ISLAND LITTLE DOG KEYS PASS Work will commence January 2011. The work will be scheduled for 2 years. The material will be obtained by hopper dredge from the St. Bernard shoals some 45 miles to the south. The material will be transported to the -30 contour and pumped into the work area. The template crest will remain below water and no shaping of the material will be required. Approximately 2,500,000 c.y. of material will be placed each year. No other effort is required for this project. Summary----Fill 5,000,000 c.y. )			
<b>17 Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>78,350,000</b>
			<i>15.67</i>
<b>017 Beach Replenishment Dredging</b>	<b>5,000,000.00</b>	<b>CY</b>	<b>78,350,000</b>
<b>Mobilization, Demobilization, Preparatory Work</b>	<b>1.00</b>	<b>LS</b>	<b>1,500,000</b>
(Note: Reference CEDEP for Cost Derivation. Mob / Demob to and from job ( 1 initial mob/demob plus one mob/demob equal 2 events). )			
			<i>750,000.00</i>
USR Mob & Demob - Marine Equipment	2.00	EA	1,500,000
(Note: Cost from CEDEP.)			
			<i>15.37</i>
<b>Hopper Dredging</b>	<b>5,000,000.00</b>	<b>CY</b>	<b>76,850,000</b>
(Note: Referenc CEDEP for Cost Derivation.)			
			<i>15.25</i>
USR Sand Borrow ( by Hopper Dredge )	5,000,000.00	CY	76,250,000
(Note: Referenc CEDEP for Cost Derivation.)			
			<i>200,000.00</i>
USR GIS Support During Construction	2.00	YR	400,000
			<i>100,000.00</i>
USR Control & Placement Surveys	2.00	YR	200,000
(Note: Survey Cost base on historical cost from Operation Field Office.)			
			<i>16.03</i>
<b>03 Contract 3 - Petit Bois Island Littoral Placement</b>	<b>4,000,000.00</b>	<b>CY</b>	<b>64,100,000</b>
(Note: SCOPE OF WORK Contract 3 Petit Bois Island Littoral Placement – 4,000,000 cy (measured on the barges) placed in one area of approximately 2 square miles in up to a 3 foot lift. Source of sand borrow from St. Bernard Shoals. See LOD-1, Option C2 in the Engineering Appendix for quantities, but the source area has changed as indicated above. Award Jan 2012 Period of Performance – 2 years CONTRACT NO. 3 FILL 2 SQUARE MILE AREA OFFSHORE EAST OF PETIT BOIS ISLAND Work will commence January 2012. The work will be scheduled for 2 years. The material will be obtained by hopper dredge from the St. Bernard shoals some 45 miles to the south. The material will be transported to the -30 contour and pumped into the work area. The template crest will remain below water and no shaping of the material will be required. Approximately 2,000,000 c.y. of material will be placed each year. No other effort is required for this project. Summary----Fill 4,000,000 c.y. )			
<b>17 Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>64,100,000</b>

Contract Cost Summary Report Page 3

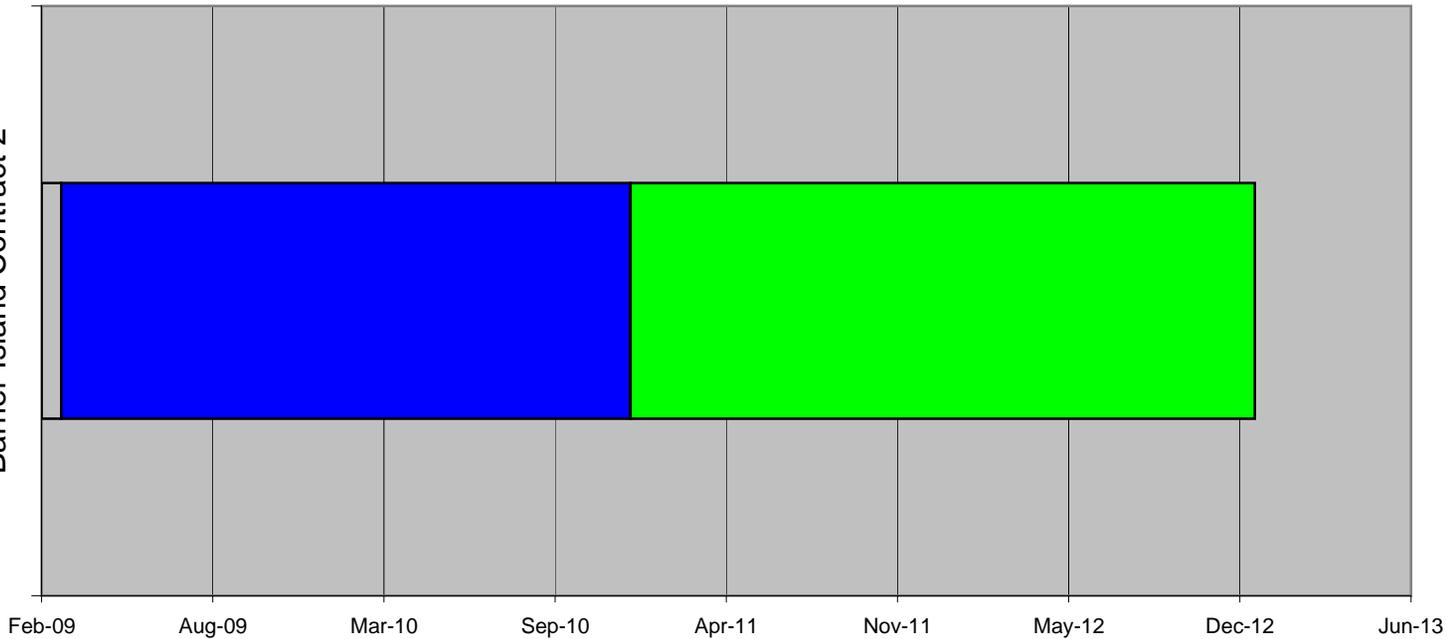
Description	Quantity	UOM	ContractCost
<b>017 Beach Replenishment Dredging</b>			
<b>Mobilization, Demobilization, Preparatory Work</b>			
(Note: Reference CEDEP for Cost Derivation. Mob / Demob to and from job ( 1 initial mob/demob plus one mob/demob equal 2 events). )			
USR Mob & Demob - Marine Equipment			
(Note: Cost from CEDEP.)			
			<i>16.03</i>
	<b>4,000,000.00</b>	<b>CY</b>	<b>64,100,000</b>
			<i>1.00</i>
		<b>LS</b>	<b>1,500,000</b>
			<i>750,000.00</i>
		2.00 EA	1,500,000
			<i>15.65</i>
<b>Hopper Dredging</b>			
(Note: Referenc CEDEP for Cost Derivation.)			
USR Sand Borrow ( by Hopper Dredge )			
(Note: Reference CEDEP for Cost Derivation.)			
			<i>15.50</i>
	4,000,000.00	CY	62,000,000
			<i>200,000.00</i>
USR GIS Support During Construction			
		2.00 YR	400,000
			<i>100,000.00</i>
USR Control & Placement Surveys			
(Note: Survey Cost base on historical cost from Operation Field Office.)			
		2.00 YR	200,000



Contract 1 of the Barrier Islands consists of direct placement of approximately 13,000,000 CY of sand to fill the breach in Ship Island known as Camille Cut and along the north shore of the existing land surface. All of the constructed beach will be planted with a 60-foot wide swath of sea oats. The required sand will be obtained from St. Bernard Shoals which is located approximately 45 miles south of the island where the water depth is about 60-feet. The sand will be placed by pump-off from offshore. Design will start in March , 2009, award will be in January 2010, and completion will be in December, 2011.



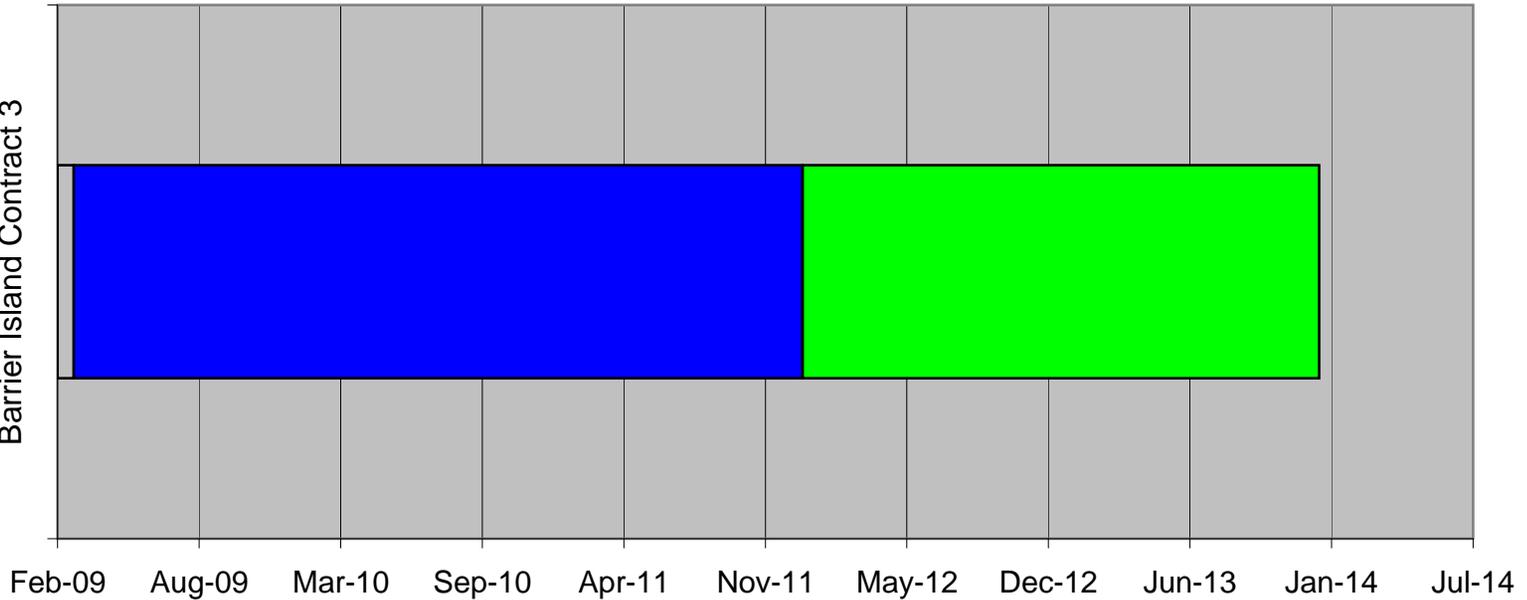
Barrier Island Contract 2



Contract 2 of the Barrier Islands consists of placement of approximately 5,000,000 CY of sand into the littoral zone between Ship and Horn Island. The sand will be spread over a designated into open water. The required sand will be obtained from St. Bernard Shoals which is located approximately 45 miles south of the island where the water depth is about 60-feet. The sand will be placed by pump-off from offshore. Design will start in March , 2009, award will be in January 2011, and completion will be in January, 2012.

- Design
- Period of Performance

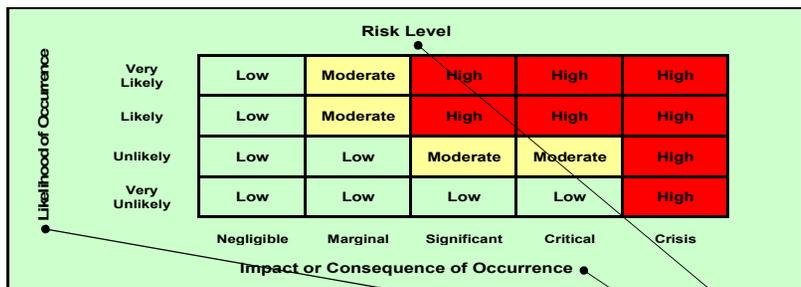
Barrier Island Contract 3



Contract 3 of the Barrier Islands consists of placement of approximately 4,000,000 CY of sand into the littoral zone east of Petit Bois Island. The sand will be spread over a designated area into open water. The required sand will be obtained from St. Bernard Shoals which is located approximately 45 miles south of the island where the water depth is about 60-feet. The sand will be placed by pump-off from offshore. Design will start in March, 2009, award will be in January 2012, and completion will be in December, 2013.

- Design
- Period of Performance

## MsCIP Barrier Island Restoration - PDT Risk Register (Draft)



Risk No.	Risk/Opportunity Event	Discussion and Concerns	Project Cost				Project Schedule				Variance Distribution	Correlation to Other(s)	Responsibility/POC	Affected Project Component	Project Implications
			Likelihood*	Impact*	Risk Level*	Rough Order Impact (\$)	Likelihood*	Impact*	Risk Level*	Rough Order Impact (mo)					
<b>Internal Risks</b> (Internal Risk Items are those that are generated, caused, or controlled within the PDT's sphere of influence.)															
I-1	Project competing with other programs	Project competing with other programs (CG funds) in other geographic locations, such as New Orleans, East Coast, and elsewhere.	Very Likely	Critical	High		Very Likely	Critical	High		Uniform	I-2, E-3, E-4	Project Mgr.	Project Schedule	Cost & Schedule
I-2	Project Schedule in question	Assumed funding received in emergency stimulus supplemental. However, still have 1.5 years before actual work can begin. Could be affected by COE receipt of funding as well as KTR's ability and availability to execute	Likely	Significant	High		Likely	Critical	High		Triangular	I-1, I-6, I-16, E-4	Project Mgr.	Project Schedule	Cost & Schedule
I-3	Pressure to deliver project on accelerated schedule	Project is critical -- sponsor pressure to complete as soon as possible.	Likely	Marginal	Moderate		Likely	Marginal	Moderate		Triangular		Project Mgr.	Project Schedule	Cost & Schedule
I-4	Acquisition Strategy	PDT does not have a finalized strategy on contract type (DIQ, rental-hour, etc.). However, confident that it will go full and open, sealed bid.	Unlikely	Marginal	Low		Unlikely	Marginal	Low		Uniform	I-6	Contracting	Project Cost & Schedule	Cost & Schedule
I-5	Validation of borrow sources (quality of material)	Still awaiting final sample results, indicating quality and suitability of material at all sites.	Unlikely	Significant	Moderate		Unlikely	Significant	Moderate		Triangular	I-6	Civil Design	Contract Cost & Schedule	Cost & Schedule
I-6	Identification of closer sources of material	Possible source 4-5 miles offshore. Otherwise, will have to rely on source that is significantly further away (45+ miles)	Likely	Significant	High		Likely	Significant	High		Triangular	I-2, I-4, I-5, I-12, I-16, I-17, E-1	Civil Design	Contract Cost & Schedule	Cost & Schedule
I-7	In-water pipeline conflicts	There are existing underground/in-water pipelines in the area. They will have to be mapped by geo-hazard survey. Could present challenges to KTR (depth concerns, esp. as related to weather).	Unlikely	Significant	Moderate		Unlikely	Significant	Moderate		Triangular	I-9	Civil Design	Contract Cost & Schedule	Cost & Schedule
I-8	Environmental work windows (turtle nesting periods)	Rigid windows established in the region that forbid operations during certain periods of the year.	Unlikely	Marginal	Low		Unlikely	Marginal	Low		Triangular		Planning/Environmental	Contract Cost & Schedule	Cost & Schedule
I-9	Incomplete data and surveys	The plan is currently based on worst case scenario, in terms of the source locations. More data could identify more favorable scenarios.	Likely	Significant	High		Likely	Significant	High		Triangular	I-7	Civil Design	Contract Cost & Schedule	Cost & Schedule
I-10	Historical sites	NPS owned and operated historical sites, located on Ship Islands (Contract 1). Design of project has taken into consideration to preserve these resources.	Very Unlikely	Significant	Low		Very Unlikely	Significant	Low		Triangular		Planning/Archaeology	Contract Cost & Schedule	Cost & Schedule
I-11	Endangered species	Gulf sturgeon and piping plover in the area. COE has begun consultation regarding issues. Design has accounted for issues to mitigate these concerns.	Unlikely	Significant	Moderate		Unlikely	Significant	Moderate		Triangular		Planning/Environmental	Contract Cost & Schedule	Cost & Schedule
I-12	Supplemental NEPA document	Will draft a supplemental NEPA document after borrow sites are identified.	Unlikely	Marginal	Low		Unlikely	Marginal	Low		Triangular	I-6	Project Mgr.	Contract Cost & Schedule	Cost & Schedule

I-13	Level of review assumed	PDT has already anticipated HQ level review required. Therefore, risk of unanticipated higher level reviews is mitigated.	Likely	Negligible	Low		Likely	Negligible	Low		Triangular		Project Mgr.	Project Schedule	Schedule
I-14	Sites in National Parks	Sites are in National Parks, but NPS is a partner in this program.	Very Unlikely	Negligible	Low		Very Unlikely	Negligible	Low		Triangular		Project Mgr.	Contract Cost & Schedule	Cost & Schedule
I-15	EIS not complete	EIS not complete. Also, there are other studies that have not been completed regarding geotechnical data and benthic studies.	Very Likely	Negligible	Low		Very Likely	Negligible	Low		Triangular		Project Mgr.	Project Schedule	Schedule
I-16	Construction schedules	Unforeseen or competing events (such as storms or emergencies) could impact schedule for contractors to complete the work as planned and schedules.	Likely	Marginal	Moderate		Likely	Significant	High		Triangular	I-6, I-17	Cost Engr.	Contract Schedule	Schedule
I-17	Dredge methodology	Estimate currently assumes that the work under Contract 1 will be performed by the Glen Edwards. The number of dredges and crew would increase significantly if this is not true.	Likely	Significant	High		Likely	Significant	High		Uniform	I-6, I-16, E-1	Cost Engr.	Contract Cost & Schedule	Cost & Schedule

**External Risks** (External Risk Items are those that are generated, caused, or controlled exclusively outside the PDT's sphere of influence.)

E-1	Limited number of contractors available to bid on Contract 1	Only large hopper dredge contractors would be available to bid on Contract 1, as currently configured.	Likely	Significant	High		Likely	Marginal	Moderate		Triangular	I-6, I-17, E-6	Cost Engr.	Contract Cost	Cost
E-2	Unusually severe weather	Risk of severe storms or hurricanes impacting the area.	Likely	Marginal	Moderate		Likely	Significant	High		Uniform		N/A	Contract Schedule	Schedule
E-3	Inadequate incremental (or full) funding	Risk of not receiving planned funding stream amounts or in a timely fashion.	Likely	Marginal	Moderate		Likely	Significant	High		Uniform	I-1, E-4	Project Mgr.	Project Cost & Schedule	Cost & Schedule
E-4	HQ-Level priority changes	Risk of program being tabled or postponed in favor of other programs.	Unlikely	Significant	Moderate		Unlikely	Significant	Moderate		Uniform	I-1, I-2	Project Mgr.	Project Cost & Schedule	Cost & Schedule
E-5	Fuel prices	Risk of continued high or exorbitant increased in fuel costs	Likely	Significant	High		Likely	Negligible	Low		Triangular		Cost Engr.	Contract Cost	Cost
E-6	Availability of contractors/bid climate	Risk captures risk of competing programs and economic climate limiting competition for bidding on this program.	Unlikely	Significant	Moderate		Unlikely	Significant	Moderate		Uniform	E-1	Cost Engr.	Contract Cost & Schedule	Cost & Schedule

\*Likelihood, Impact, and Risk Level to be verified through market research and analysis (conducted by cost engineer).

1. Risk/Opportunity identified with reference to the Risk Identification Checklist and through deliberation and study of the PDT.
2. Discussions and Concerns elaborates on Risk/Opportunity Events and includes any assumptions or findings (should contain information pertinent to eventual study and analysis of event's impact to project).
3. Likelihood is a measure of the probability of the event occurring -- **Very Unlikely, Unlikely, Moderately Likely, Likely, Very Likely**. The likelihood of the event will be the same for both Cost and Schedule, regardless of impact.
4. Impact is a measure of the event's effect on project objectives with relation to scope, cost, and/or schedule -- **Negligible, Marginal, Significant, Critical, or Crisis**. Impacts on Project Cost may vary in severity from impacts on Project Schedule.
5. Risk Level is the resultant of Likelihood and Impact **Low, Moderate, or High**. Refer to the matrix located at top of page.

6. Variance Distribution refers to the behavior of the individual risk item with respect to its potential effects on Project Cost and Schedule. For example, an item with clearly defined parameters and a solid most likely scenario would probably follow a
7. The responsibility or POC is the entity responsible as the Subject Matter Expert (SME) for action, monitoring, or information on the PDT for the identified risk or opportunity.
8. Correlation recognizes those risk events that may be related to one another. Care should be given to ensure the risks are handled correctly without a "double counting."
9. Affected Project Component identifies the specific item of the project to which the risk directly or strongly correlates.
10. Project Implications identifies whether or not the risk item affects project cost, project schedule, or both. The PDT is responsible for conducting studies for both Project Cost and for Project Schedule.
11. Results of the risk identification process are studied and further developed by the Cost Engineer, then analyzed through the Monte Carlo Analysis Method for Cost (Contingency) and Schedule (Escalation) Growth.

## MS Coastal Barrier Islands Risk Summary

### Background:

The project delivery team (PDT) conducted the initial risk development meeting on July 31, 2008, identifying 23 separate risk items. Of these items, six are identified to be at a High Cost Risk level, nine at a Moderate Cost Risk level, and eight at a Low Cost Risk. In developing the Risk Analysis for the project, the High Cost Risk Items are the focus of attention.

The current scope of the project is to move 22 million yards of sand to restore the Barrier Islands off the coast of Mississippi. A gap in one of the islands will be repaired, additional sand will be placed around a Civil War era fort, and an offshore placement will be made to provide material to naturally wash ashore on the islands. The placement areas are all within a National Park Service (NPS) boundary. USACE and NPS are working together closely on this project and have agreed on the scope and conduct of the work proposed. The project scope and quantity of material to be moved and placed is fixed by agreement with NPS at 22 million yards. Once placed and accepted, the material will not be replenished under this program if damaged.

### Risk Register Development:

The estimates prepared for the feasibility study are based on the assumptions that the program will be authorized and receive adequate funding to execute three contracts to complete the project over a 4-year period. The intent is to allow contractors flexibility in schedule to minimize impact to the other normally scheduled dredging activities in the Gulf Region. The borrow source is identified as being approximately 45nm away in the open ocean. Several other closer deposits may be suitable for borrow sources. However, the survey has not been completed to determine the suitability of the sand deposits. The PDT has a high degree of confidence that the other potential areas identified as borrow sources will be suitable for usage. It should be noted that the PDT has developed the project in an attempt to mitigate many of the factors identified within the risk analysis. The high cost risk items identified by the team are:

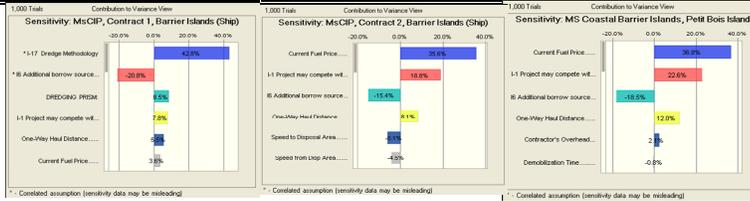
- Project Competing with other Programs
- Project Schedule
- Borrow source location
- Incomplete data and survey
- Dredge Methodology
- Fuel Pricing

In examining these High Cost Risk items (Project Competing with other Programs), Project Schedule risk has been mitigated through the development of the current proposed contract structure and period of performance. The potential for local inflation rates higher than the national average is still of concern with respect to the project schedule. The Borrow Source and survey are interdependent, as the survey will determine the suitability of other borrow sources and are combined to one element for analysis. Dredge Methodology is directly correlated to the borrow source, as the distance to the source will have significant impact on the equipment used. Methodology has the largest impact on the proposed contract for Camille. Fuel price fluctuations are identified within the risk cells embedded into the CEDEP estimate with a range of \$4 to \$7.

### Results:

Overall, the risk profile of the project is approximately 33%. Each of the three contracts was modeled separately, and the totals were summed to determine the overall risk for the project. The sensitivity of each of the contracts showed that the dredge methodology, fuel price, borrow source, and competing projects are the largest contributors to risk.

MS Coastal Barrier Islands, Camille Cut			MS Coastal Barrier Islands, Little Dog Key		MS Coastal Barrier Islands, Petit Bois Island		Contracts Total	
Estimate Value	\$	159,823,265	\$	77,183,712	\$	61,893,712	\$	298,900,689
Confidence Level	Value	Contingency	Value	Contingency	Value	Contingency	Value	Contingency
0%	\$ 79,659,080	-50%	\$51,459,528	-33%	\$43,678,348	-29%	\$174,796,957	-42%
5%	\$ 112,207,908	-30%	\$64,097,124	-17%	\$52,334,170	-15%	\$228,639,201	-24%
10%	\$ 120,594,695	-25%	\$68,353,330	-11%	\$55,531,571	-10%	\$244,479,597	-18%
15%	\$ 127,189,613	-20%	\$72,022,410	-7%	\$57,681,945	-7%	\$256,893,968	-14%
20%	\$ 134,923,638	-16%	\$74,357,360	-4%	\$59,463,970	-4%	\$268,744,968	-10%
25%	\$ 140,706,707	-12%	\$76,186,275	-1%	\$60,732,675	-2%	\$277,625,657	-7%
30%	\$ 145,307,869	-9%	\$78,282,612	1%	\$62,202,103	0%	\$285,792,584	-4%
35%	\$ 150,815,322	-6%	\$80,365,616	4%	\$63,959,544	3%	\$295,140,482	-1%
40%	\$ 156,458,134	-2%	\$83,128,367	8%	\$65,545,824	6%	\$305,132,324	2%
45%	\$ 161,179,491	1%	\$85,992,902	11%	\$67,308,142	9%	\$314,480,535	5%
50%	\$ 165,495,002	4%	\$87,913,270	14%	\$68,989,461	11%	\$322,397,733	8%
55%	\$ 171,771,138	7%	\$90,552,755	17%	\$70,585,665	14%	\$332,909,558	11%
60%	\$ 177,352,779	11%	\$93,566,971	21%	\$72,397,194	17%	\$343,316,943	15%
65%	\$ 183,233,921	15%	\$95,912,501	24%	\$73,968,858	20%	\$353,115,280	18%
70%	\$ 193,089,097	21%	\$98,255,487	27%	\$76,391,987	23%	\$367,736,571	23%
75%	\$ 200,924,444	26%	\$101,227,528	31%	\$78,675,008	27%	\$380,826,980	27%
80%	\$ 211,699,310	32%	\$104,947,146	36%	\$81,403,285	32%	\$398,049,741	33%
85%	\$ 230,141,316	44%	\$109,516,093	42%	\$84,283,115	36%	\$423,940,524	42%
90%	\$ 259,669,489	62%	\$114,742,953	49%	\$89,039,651	44%	\$463,452,093	55%
95%	\$ 302,341,278	89%	\$120,777,288	56%	\$97,670,653	58%	\$520,789,219	74%
100%	\$ 387,945,623	143%	\$172,245,883	123%	\$125,955,954	104%	\$686,147,460	130%



TOTAL PROJECT

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Mainland Beaches & Dunes -Environmental Restoration  
 LOCATION: Harrison County, Mississippi

DISTRICT: MOBILE

P.O.C.: Joseph H. Ellsworth

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....		
						EFFECTIVE PRICING LEVEL: Aug 08			COST (\$K)	CNTG (\$K)	TOTAL (\$K)
01---	EMPHASIS	75,000	18,750	25%	93,750	75,000	18,750	93,750	76,950	19,238	96,188
17---	BEACH Replenishment (Environmental Restoration) <b>( Mainland Beaches &amp; Dunes )</b>	16,244,000	4,061,000	25%	20,305,000	16,244,000	4,061,000	20,305,000	17,446,056	4,361,515	21,807,571
30---	PLANNING, ENGINEERING & DESIGN	1,299,520	324,880	25%	1,624,400	1,299,520	324,880	1,624,400	1,333,308	333,327	1,666,635
31---	CONSTRUCTION MANAGEMENT	974,640	243,660	25%	1,218,300	974,640	243,660	1,218,300	1,046,763	261,691	1,308,454
<b>TOTAL PROJECT COST =====&gt;</b>		<b>18,593,160</b>	<b>4,648,290</b>		<b>23,241,450</b>	<b>18,593,160</b>	<b>4,648,290</b>	<b>23,241,450</b>	<b>19,903,077</b>	<b>4,975,771</b>	<b>24,878,848</b>

rounded

65% TOTAL FEDERAL COSTS =====> **\$16,185,000**

35% TOTAL NON - FEDERAL COSTS =====> **\$8,715,000**

TOTAL PROJECT COSTS =====> **\$24,900,000**

DISTRICT APPROVED:

- \_\_\_\_\_ CHIEF, COST ENGINEERING
- \_\_\_\_\_ CHIEF, REAL ESTATE
- \_\_\_\_\_ CHIEF, PLANNING
- \_\_\_\_\_ CHIEF, ENGINEERING
- \_\_\_\_\_ CHIEF, OPERATIONS
- \_\_\_\_\_ CHIEF, CONSTRUCTION
- \_\_\_\_\_ CHIEF, PROGRAMS MANAGEMENT
- \_\_\_\_\_ PROJECT MANAGER
- \_\_\_\_\_ DDE (PM)

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Mainland Beaches & Dunes -Environmental Restoration DISTRICT: MOBILE  
 LOCATION: Harrison County, Mississippi

P.O.C.: Joseph H. Ellsworth

ACCOUNT No.	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....				
						OMB (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	FEATURE MID PT	OMB (%)	COST (\$K)	CNTG (\$K)

EFFECTIVE PRICING LEVEL: Aug 08

01---	Lands & Damages (PCA, 3 ea)	75,000	18,750	25%	93,750	0.0%	75,000	18,750	93,750	Apr 09	2.6%	76,950	19,238	96,188
<b>Subtotal</b>		<b>75,000</b>	<b>18,750</b>		<b>93,750</b>		<b>75,000</b>	<b>18,750</b>	<b>93,750</b>			<b>76,950</b>	<b>19,238</b>	<b>96,188</b>
17---	BEACH Replenishment (Environmental Restoration) ( Jackson County, Ms )	1,178,000	294,500	25%	1,472,500	0.0%	1,178,000	294,500	1,472,500	Jan 12	7.4%	1,265,172	316,293	1,581,465
17---	BEACH Replenishment (Environmental Restoration) ( Harrison County, Ms )	10,079,000	2,519,750	25%	12,598,750	0.0%	10,079,000	2,519,750	12,598,750	Jan 12	7.4%	10,824,846	2,706,212	13,531,058
17---	BEACH Replenishment (Environmental Restoration) ( Hancock County, Ms )	4,987,000	1,246,750	25%	6,233,750	0.0%	4,987,000	1,246,750	6,233,750	Jan 12	7.4%	5,356,038	1,339,010	6,695,048
<b>Subtotal</b>		<b>16,244,000</b>	<b>4,061,000</b>		<b>20,305,000</b>		<b>16,244,000</b>	<b>4,061,000</b>	<b>20,305,000</b>			<b>17,446,056</b>	<b>4,361,515</b>	<b>21,807,571</b>
30---	PLANNING, ENGINEERING & DESIGN, 8%+-	1,299,520	324,880	25%	1,624,400	0.0%	1,299,520	324,880	1,624,400	Apr 09	2.6%	1,333,308	333,327	1,666,635
31---	CONSTRUCTION MANAGEMENT, 6% +-	974,640	243,660	25%	1,218,300	0.0%	974,640	243,660	1,218,300	Jan 12	7.4%	1,046,763	261,691	1,308,454

Period of Performance – 4 years

Award Date – March 2009

This alternative consists of combining Option K from each of the three counties under LOD-2 which was “60-foot Wide by 2-foot Berm w/ Plants and Fencing” into a single contract. The sand for Jackson & Hancock berm construction will be obtained from inland, commercial sources and will be trucked to the project. Sand for Harrison berm will be by small dredge from near shore borrow. The fencing will wooden dune fencing and will be constructed on both sides of the berm for the entire length. The project will consist of placing the sand into the 60 foot wide by 2-foot high berm, adding the plants on top of the berm on 30-inch centers, then adding the fencing on each side of the planted berm. There will be a one-year warranty for 75% survival rate that is included in the Period of Performance shown below.

Price Level by Aug 08

FEASIBILITY STUDY

Estimated by CESAM-EN-E, Cost Engineering Branch

Designed by CESAM-EN-E, Mobile District, Corps of  
Engineers

Prepared by Joseph Ellsworth

Preparation Date 8/14/2008

Effective Date of Pricing 8/14/2008

Estimated Construction Time Days

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project file:mainland-feasibility-14aug08.mlp

report file: feasibilty standard report.mrp

output file: mainland-feasibility-14aug08.doc

**Date** **Author**

**Note**

Joseph H. Ellsworth

**BASIS of COST ESTIMATE and RATIONALE**

Feasibility Estimate is based on Historical Data, Recent Pricing, and Estimator's Judgment. Estimate is structured and priced as a General Prime contractor supported by major subcontractors. Anticipated bidding conditions and construction duration with reasonable schedules are considered Normal. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Current Contract Cost (price level Aug 08). The Non-structural and Real Estate Cost were prepared by the Savannah & Huntington Districts.

Price Level of Estimate is Aug 08.

Project Life is assumed as 50 years in Cost Estimate.

30 Feature Account, Planning, Engineering & Design was developed and assigned at 8% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Eight percent was used in the Interim MsCIP projects which was reviewed and approved and included in the Chief's Report.

31 Feature Account, Construction Management was developed and assigned at 6% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Six percent was used in the Interim MsCIP projects which was reviewed & approved and included in the Chief's Report.

Contingency was jointly developed and assigned by the Project Delivery Team. The Contingency percentage at 25% reflects the possibility of changes in quantity estimates and unknowns associated with the unit price. The contingency factor used does not vary throughout the cost estimate. It was determined and agreed upon by the Project Delivery Team that a high rate be used primarily due to risk, degree of confidence, and the project not being of the normal design.

Markups for subcontractors are included in the unit prices and include such items as field overheads, home office expenses, profit, bond and insurance.

Mobilization Preparatory Work & Demobilization are derived within the estimate generally at 2.5 % +/- of construction cost excluding the Misc Items cost. Dredging cost is derived by CEDEP.

Miscellaneous Items represent cost where quantities were not available, such items as signage, construction site/staging restoration, silt fencing, site access, etc. These cost are derived within the estimate at .25 percent (.25%) of construction cost excluding Mob & Demob Cost

Unit Prices, for such items as site work, planting, fencing, etc., were based on Historical Data, Recent Pricing, Estimator's Judgment, and Cost derivation using MCACES / MII estimating systems.

8/5/2008 Joseph H. Ellsworth

Quantities listed within the estimates represent Major Elements of the Project Scope and were furnished by the Project Delivery Team. Where quantities were not available, assumptions were made based on historical information and Estimator's judgment.

Beach & Dune Planting (Sea Oats & Grass) and Fencing are based on recent cost provided by the Local sponsor, Harrison County Public Works, Ms. Quantities were derived

**Date Author**

**Note**

from using historical photographs of the barrier islands and estimating that beach & dune area. The Corps worked with the National Park Service and also the State of Mississippi, Department of Marine Resources in order to come up with this required acre estimates. Sea oats are typically concentrated on the top of the dune and some on the slopes; thus, the team estimated that only approximately 140 plants would be planted per acre.

The following Contractor Markups are applied to the Cost to Prime Direct Cost:

Contractor's Field Overhead @ 12%

Contractor's Home Office (G&A) @ 8%

Profit @ 10%

Bond @ 1.2%

Miss. Gross Receipts Tax @ 3.5%

Listed are all Cost Engineering Personnel that worked on the Feasibility Cost Estimate.

Joseph H. Ellsworth, Lead Cost Engineer

Gary Payton, Cost Engineer

George F. Rush, Civil Engineer, Dredging

Michael A. McKown, Geo Tech Engineer

Lloyd Oliver, Structural Engineer

Richard W. Harvey, Mechanical Engineer

John R. Thomas, Real Estate Specialist

Donald A. Whitmore, Civil Engineer- Non-Structural Estimates

Jennifer L. Jacobson, Environmentalist

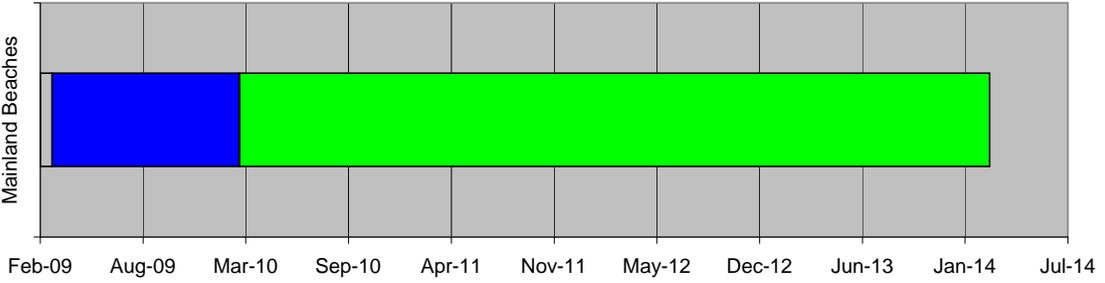
Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
<b>Contract Cost Summary Report</b>			<b>11,655,510</b>	<b>1,398,661</b>	<b>1,044,334</b>	<b>1,409,850</b>	<b>186,100</b>	<b>549,306</b>	<b>16,243,761</b>
<b>01 Mainland Beaches - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>11,655,510</b>	<b>1,398,661</b>	<b>1,044,334</b>	<b>1,409,850</b>	<b>186,100</b>	<b>549,306</b>	<b>16,243,761</b>
<b>17 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>11,655,510</b>	<b>1,398,661</b>	<b>1,044,334</b>	<b>1,409,850</b>	<b>186,100</b>	<b>549,306</b>	<b>16,243,761</b>
<b>017 Mainland Beaches &amp; Dunes</b>	<b>1.00</b>	<b>LS</b>	<b>11,655,510</b>	<b>1,398,661</b>	<b>1,044,334</b>	<b>1,409,850</b>	<b>186,100</b>	<b>549,306</b>	<b>16,243,761</b>
<b>01 Jackson County</b>	<b>1.00</b>	<b>LS</b>	<b>845,027</b>	<b>101,403</b>	<b>75,714</b>	<b>102,214</b>	<b>13,492</b>	<b>39,825</b>	<b>1,177,677</b>
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	15,000	1,800	1,344	1,814	240	707	20,905
			9.75	12.00%	8.00%	10.00%	1.20%	3.50%	13.59
USR Construct Sand (dunes), Washed material from Upland Commerical Borrow Site (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)	45,496.00	CY	443,586	53,230	39,745	53,656	7,083	20,906	618,206
			3.50	12.00%	8.00%	10.00%	1.20%	3.50%	4.88
USR Sand (dune) Construction, Grade & Shape	45,496.00	CY	159,236	19,108	14,268	19,261	2,542	7,505	221,920
			1.60	12.00%	8.00%	10.00%	1.20%	3.50%	2.23
USR Sea Oats (Note: Plants are planted in a 60 foot swath at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 93,060 plants plus 20% replacement = 111,672 plants. Material price fob job site @ \$0.28/ea, Fertilizer @0.10/ea, Labor Cost @ \$0.90/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$1.55/plant. Use \$1.60 / plant.)	111,672.00	EA	178,675	21,441	16,009	21,613	2,853	8,421	249,012
			2.50	12.00%	8.00%	10.00%	1.20%	3.50%	3.48
USR Fencing (both toes)	18,612.00	LF	46,530	5,584	4,169	5,628	743	2,193	64,847
USR Miscellaneous Site Items	1.00	LS	2,000	240	179	242	32	94	2,787
<b>01 Harrison County</b>	<b>1.00</b>	<b>LS</b>	<b>7,232,164</b>	<b>867,860</b>	<b>648,002</b>	<b>874,803</b>	<b>115,474</b>	<b>340,841</b>	<b>10,079,143</b>
USR Mobilization & Demobilization (Dredge Plant)	1.00	LS	290,000	34,800	25,984	35,078	4,630	13,667	404,160
USR Mobilization & Demobilization (Land Base Equipment)	1.00	LS	32,000	3,840	2,867	3,871	511	1,508	44,597
			5.50	12.00%	8.00%	10.00%	1.20%	3.50%	7.67
USR Construct Sand (dune), Dredge from near Shore Borrow Site (Note: Unit Price base on recent on-going similar project on Miss Coast project.)	659,824.00	CY	3,629,032	435,484	325,161	438,968	57,944	171,031	5,057,619
			1.60	12.00%	8.00%	10.00%	1.20%	3.50%	2.23
USR Sea Oats (Note: Plants are planted in a 60 foot swath at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 1,349,641 plants plus 20% replacement = 1,619,570 plants. Material price fob job site @ \$0.28/ea, Fertilizer @0.10/ea, Labor Cost @ \$0.90/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$1.55/plant. Use \$1.60 / plant.)	1,619,570.00	EA	2,591,312	310,957	232,182	313,445	41,375	122,124	3,611,395
			2.50	12.00%	8.00%	10.00%	1.20%	3.50%	3.48
USR Fencing (both toes)	269,928.00	LF	674,820	80,978	60,464	81,626	10,775	31,803	940,466
USR Miscellaneous Site Items	1.00	LS	15,000	1,800	1,344	1,814	240	707	20,905
<b>01 Hancock County</b>	<b>1.00</b>	<b>LS</b>	<b>3,578,319</b>	<b>429,398</b>	<b>320,617</b>	<b>432,833</b>	<b>57,134</b>	<b>168,641</b>	<b>4,986,942</b>
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	30,000	3,600	2,688	3,629	479	1,414	41,810
			9.75	12.00%	8.00%	10.00%	1.20%	3.50%	13.59
USR Construct Sand (dunes), Washed material from Upland Commerical Borrow Site (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)	194,578.00	CY	1,897,136	227,656	169,983	229,478	30,291	89,409	2,643,953
			3.50	12.00%	8.00%	10.00%	1.20%	3.50%	4.88
USR Sand (dune) Construction, Grade & Shape	194,578.00	CY	681,023	81,723	61,020	82,377	10,874	32,096	949,111

Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
USR Sea Oats	477,600.00	EA	764,160	91,699	68,469	92,433	12,201	36,014	1,064,976
(Note: Plants are planted in a 60 foot swath at 30 in centers. Planted in a 60 foot swath at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 398,000 plants plus 20% replacement = 477,600 plants. Material price fob job site @ \$0.28/ea, Fertilizer @0.10/ea, Labor Cost @ \$0.90/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$1.55/plant. Use \$1.60 / plant.)									
USR Fencing (both toes)	79,600.00	LF	199,000	23,880	17,830	24,071	3,177	9,379	277,337
USR Miscellaneous Site Items	1.00	LS	7,000	840	627	847	112	330	9,756

Description	Quantity	UOM	SubBidCost	CostToPrime
<b>Project Direct Costs Report</b>			<b>11,655,510</b>	<b>11,655,510</b>
<b>01 Mainland Beaches - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>11,655,510</b>	<b>11,655,510</b>
<b>17 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>11,655,510</b>	<b>11,655,510</b>
<b>017 Mainland Beaches &amp; Dunes</b>	<b>1.00</b>	<b>LS</b>	<b>11,655,510</b>	<b>11,655,510</b>
<b>01 Jackson County</b>	<b>1.00</b>	<b>LS</b>	<b>845,027</b>	<b>845,027</b>
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	15,000	15,000
			9.75	9.75
USR Construct Sand (dunes), Washed material from Upland Commerical Borrow Site (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)	45,496.00	CY	443,586	443,586
			3.50	3.50
USR Sand (dune) Construction, Grade & Shape	45,496.00	CY	159,236	159,236
			1.60	1.60
USR Sea Oats (Note: Plants are planted in a 60 foot swath at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 93,060 plants plus 20% replacement = 111,672 plants. Material price fob job site @ \$0.28/ea, Fertilizer @0.10/ea, Labor Cost @ \$0.90/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$1.55/plant. Use \$1.60 / plant.)	111,672.00	EA	178,675	178,675
			2.50	2.50
USR Fencing (both toes)	18,612.00	LF	46,530	46,530
USR Miscellaneous Site Items	1.00	LS	2,000	2,000
<b>01 Harrison County</b>	<b>1.00</b>	<b>LS</b>	<b>7,232,164</b>	<b>7,232,164</b>
USR Mobilization & Demobilization (Dredge Plant)	1.00	LS	290,000	290,000
USR Mobilization & Demobilization (Land Base Equipment)	1.00	LS	32,000	32,000
			5.50	5.50
USR Construct Sand (dune), Dredge from near Shore Borrow Site (Note: Unit Price base on recent on-going similar project on Miss Coast project.)	659,824.00	CY	3,629,032	3,629,032
			1.60	1.60
USR Sea Oats (Note: Plants are planted in a 60 foot swath at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 1,349,641 plants plus 20% replacement = 1,619,570 plants. Material price fob job site @ \$0.28/ea, Fertilizer @0.10/ea, Labor Cost @ \$0.90/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$1.55/plant. Use \$1.60 / plant.)	1,619,570.00	EA	2,591,312	2,591,312
			2.50	2.50
USR Fencing (both toes)	269,928.00	LF	674,820	674,820
USR Miscellaneous Site Items	1.00	LS	15,000	15,000
<b>01 Hancock County</b>	<b>1.00</b>	<b>LS</b>	<b>3,578,319</b>	<b>3,578,319</b>
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	30,000	30,000
			9.75	9.75
USR Construct Sand (dunes), Washed material from Upland Commerical Borrow Site (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)	194,578.00	CY	1,897,136	1,897,136
			3.50	3.50
USR Sand (dune) Construction, Grade & Shape	194,578.00	CY	681,023	681,023
			1.60	1.60
USR Sea Oats	477,600.00	EA	764,160	764,160

Description	Quantity	UOM	SubBidCost	CostToPrime
(Note: Plants are planted in a 60 foot swath at 30 in centers. Planted in a 60 foot swath at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 398,000 plants plus 20% replacement = 477,600 plants. Material price fob job site @ \$0.28/ea, Fertilizer @0.10/ea, Labor Cost @ \$0.90/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$1.55/plant. Use \$1.60 / plant.)				
USR Fencing (both toes)	79,600.00	LF	2.50	2.50
USR Miscellaneous Site Items	1.00	LS	199,000	199,000
			7,000	7,000

Mainland Beaches



Three of the options included in LOD-2 have been combined into an alternative that consists of establishing a planted sand berm that will extend along existing beaches in all three counties. The projects calls for construction a 60-foot wide by 2-foot high sand berm planted with dune vegetation on 30-inch centers. The sand will be obtained from inland commercial sources. Dune fencing will be added along each side of the berm. The design will start in March, 2009, the award will be in March, 2010, and the completion will be in March, 2014.

■ Design  
■ Period of Performance

TOTAL PROJECT

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Forest Heights Level -Environmental Restoration  
 LOCATION: Harrison County, Mississippi

DISTRICT: MOBILE

P.O.C.: Joseph H. Ellsworth

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....		
						EFFECTIVE PRICING LEVEL: Aug 08			COST (\$K)	CNTG (\$K)	TOTAL (\$K)
01---	Levees & Floodwalls	2,674,000	668,500	25%	3,342,500	2,674,000	668,500	3,342,500	2,716,784	679,196	3,395,980
11---	Levees & Floodwalls <b>( Forest Heights Level )</b>	7,497,000	1,874,250	25%	9,371,250	7,497,000	1,874,250	9,371,250	7,796,880	1,949,220	9,746,100
30---	PLANNING, ENGINEERING & DESIGN	599,760	149,940	25%	749,700	599,760	149,940	749,700	621,951	155,488	777,439
31---	CONSTRUCTION MANAGEMENT	449,820	112,455	25%	562,275	449,820	112,455	562,275	472,761	118,190	590,951
<b>TOTAL PROJECT COST =====&gt;</b>		<b>11,220,580</b>	<b>2,805,145</b>		<b>14,025,725</b>	<b>11,220,580</b>	<b>2,805,145</b>	<b>14,025,725</b>	<b>11,608,376</b>	<b>2,902,094</b>	<b>14,510,470</b>

rounded

65% TOTAL FEDERAL COSTS =====> **\$9,425,000**

35% TOTAL NON - FEDERAL COSTS =====> **\$5,075,000**

TOTAL PROJECT COSTS =====> **\$14,500,000**

DISTRICT APPROVED:

- \_\_\_\_\_ CHIEF, COST ENGINEERING
- \_\_\_\_\_ CHIEF, REAL ESTATE
- \_\_\_\_\_ CHIEF, PLANNING
- \_\_\_\_\_ CHIEF, ENGINEERING
- \_\_\_\_\_ CHIEF, OPERATIONS
- \_\_\_\_\_ CHIEF, CONSTRUCTION
- \_\_\_\_\_ CHIEF, PROGRAMS MANAGEMENT
- \_\_\_\_\_ PROJECT MANAGER
- \_\_\_\_\_ DDE (PM)

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Forest Heights Level -Environmental Restoration  
 LOCATION: Harrison County, Mississippi

DISTRICT: MOBILE

~~P.O.C.: Joseph H. Ellsworth~~

ACCOUNT No.	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....				
						OMB (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	FEATURE MID PT	OMB (%)	COST (\$K)	CNTG (\$K)

EFFECTIVE PRICING LEVEL: Aug 08

EFFECTIVE PRICING LEVEL: Aug 08

01---	Lands & Damages (price level, Oct 07)	2,674,000	668,500	25%	3,342,500	0.0%	2,674,000	668,500	3,342,500	Jun 09	1.6%	2,716,784	679,196	3,395,980
	<b>Subtotal</b>	<b>2,674,000</b>	<b>668,500</b>		<b>3,342,500</b>		<b>2,674,000</b>	<b>668,500</b>	<b>3,342,500</b>			<b>2,716,784</b>	<b>679,196</b>	<b>3,395,980</b>
11---	Levees & Floodwalls	7,497,000	1,874,250	25%	9,371,250	0.0%	7,497,000	1,874,250	9,371,250	Jun 09	4.0%	7,796,880	1,949,220	9,746,100
30---	PLANNING, ENGINEERING & DESIGN, 8%+-	599,760	149,940	25%	749,700	0.0%	599,760	149,940	749,700	Jun 10	3.7%	621,951	155,488	777,439
31---	CONSTRUCTION MANAGEMENT, 6% +-	449,820	112,455	25%	562,275	0.0%	449,820	112,455	562,275	Jan 09	5.1%	472,761	118,190	590,951
	<b>Subtotal</b>	<b>8,546,580</b>	<b>2,136,645</b>		<b>10,683,225</b>		<b>8,546,580</b>	<b>2,136,645</b>	<b>10,683,225</b>			<b>8,891,592</b>	<b>2,222,898</b>	<b>11,114,490</b>

The project will also include selective clearing and snagging from the mouth of adjacent Turkey Creek upstream 4.5 miles. Selective clearing and snagging would remove obstructions such as debris dams and excessive sedimentation that hinders the flow through the Turkey Creek channel. The main purpose of the selective clearing and snagging is to make sure that induced damages do not occur due to the construction of the recommended levees. The selective clearing and snagging work will follow Stream Obstruction Removal Guidelines established by the American Fisheries Society.

The levee project consists of an earthen dike around the northern, western, and southern side of the neighborhood, and a concrete "t"-wall structure along the eastern side. The structure will be constructed to elevation 21 ft NAVD88. A pumping station will be included to relieve the interior flooding. New culverts will be installed in the levee. The earthen part of the levee will have a 12-ft top width and 1 vertical to 3 horizontal sideslopes. Ditches next to the levee will convey water ponding against the levee to the outlets. Closure gates will be installed on the two existing access streets to the subdivision. An emergency access/egress street will be included on the north side of the neighborhood. An overflow section will be included to provide for controlled overtopping.

#### Forest Heights Work Description

Price Level Aug 08

#### FEASIBILITY STUDY

Estimated by CESAM-EN-E, Cost Engineering Branch

Designed by CESAM-EN-E, Mobile District, Corps of  
Engineers

Prepared by Joseph H. Ellsworth

Preparation Date 8/7/2008

Effective Date of Pricing 8/7/2008

Estimated Construction Time 1,080 Days

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project file:forest-feasibility-aug08.mlp

report file: feasibility standard report.mrp

output file: forest-cumbest-feasibility-aug08.doc

**Date** **Author**

**Note**

Joseph H. Ellsworth

**BASIS of COST ESTIMATE and RATIONALE**

Feasibility Estimate is based on Historical Data, Recent Pricing, and Estimator's Judgment. Estimate is structured and priced as a General Prime contractor supported by major subcontractors. Anticipated bidding conditions and construction duration with reasonable schedules are considered Normal. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Current Contract Cost (price level Aug 08).

Price Level of Estimate is Aug 08.

Project Life is assumed as 50 years in Cost Estimate.

30 Feature Account, Planning, Engineering & Design was developed and assigned at 8% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Eight percent was used in the Interim MsCIP projects which was reviewed and approved and included in the Chief's Report.

31 Feature Account, Construction Management was developed and assigned at 6% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Six percent was used in the Interim MsCIP projects which was reviewed & approved and included in the Chief's Report.

Contingency was jointly developed and assigned by the Project Delivery Team. The Contingency percentage at 25% reflects the possibility of changes in quantity estimates and unknowns associated with the unit price. The contingency factor used does not vary throughout the cost estimate. It was determined and agreed upon by the Project Delivery Team that a high rate be used primarily due to risk, degree of confidence, and the project not being of the normal design.

Markups for subcontractors are included in the unit prices and include such items as field overheads, home office expenses, profit, bond and insurance.

Mobilization Preparatory Work & Demobilization are derived within the estimate generally at 2.5 % +/- of construction cost excluding the Misc Items cost.

Miscellaneous Items represent cost where quantities were not available, such items as signage, construction site/staging restoration, silt fencing, site access, etc. These cost are derived within the estimate at .25 percent+- (.25%) of construction cost excluding Mob & Demob Cost

Unit Prices, for such items as site work, earthwork, etc., were based on Historical Data, Recent Pricing, Estimator's Judgment, and Cost derivation using MCACES / MII estimating systems.

8/5/2008 Joseph H. Ellsworth

Quantities listed within the estimates represent Major Elements of the Project Scope and were furnished by the Project Delivery Team. Where quantities were not available, assumptions were made based on historical information and Estimator's judgment.

The following Contractor Markups are applied to the Cost to Prime Direct Cost:

Contractor's Field Overhead @ 12%

**Date Author**

**Note**

Contractor's Home Office (G&A) @ 8%

Profit @ 10%

Bond @ 1.2%

Miss. Gross Receipts Tax @ 3.5%

Listed are all Cost Engineering Personnel that worked on the Feasibility Cost Estimate.

Joseph H. Ellsworth, Lead Cost Engineer

Gary Payton, Cost Engineer

George F. Rush, Civil Engineer, Dredging

Michael A. McKown, Geo Tech Engineer

Lloyd Oliver, Structural Engineer

Richard W. Harvey, Mechanical Engineer

John R. Thomas, Real Estate Specialist

Donald A. Whitmore, Civil Engineer- Non-Structural Estimates

Jennifer L. Jacobson, Environmentalist

Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
<b>Contract Cost Summary Report</b>			<b>5,379,528</b>	<b>645,543</b>	<b>482,006</b>	<b>650,708</b>	<b>85,893</b>	<b>253,529</b>	<b>7,497,207</b>
<b>01 Forest Heights, Harrison County - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>5,379,528</b>	<b>645,543</b>	<b>482,006</b>	<b>650,708</b>	<b>85,893</b>	<b>253,529</b>	<b>7,497,207</b>
<b>11 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>5,379,528</b>	<b>645,543</b>	<b>482,006</b>	<b>650,708</b>	<b>85,893</b>	<b>253,529</b>	<b>7,497,207</b>
<b>011 Levees &amp; Floodwalls</b>	<b>1.00</b>	<b>LS</b>	<b>5,379,528</b>	<b>645,543</b>	<b>482,006</b>	<b>650,708</b>	<b>85,893</b>	<b>253,529</b>	<b>7,497,207</b>
<b>01 Levee Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>5,379,528</b>	<b>645,543</b>	<b>482,006</b>	<b>650,708</b>	<b>85,893</b>	<b>253,529</b>	<b>7,497,207</b>
<b>Removals</b>	<b>1.00</b>	<b>LS</b>	<b>17,033</b>	<b>2,044</b>	<b>1,526</b>	<b>2,060</b>	<b>272</b>	<b>803</b>	<b>23,738</b>
USR Asphalt removal 2" Thick(cross overs)	700.00	SY	3.75 2,625	12.00% 315	8.00% 235	10.00% 318	1.20% 42	3.50% 124	5.23 3,658
USR 8" Water line removal	150.00	LF	6.75 1,013	12.00% 122	8.00% 91	10.00% 122	1.20% 16	3.50% 48	9.41 1,411
USR 6" Sewer line removal	150.00	LF	6.75 1,013	12.00% 122	8.00% 91	10.00% 122	1.20% 16	3.50% 48	9.41 1,411
USR 2" Gas line removal	150.00	LF	2.50 375	12.00% 45	8.00% 34	10.00% 45	1.20% 6	3.50% 18	3.48 523
USR Electric line removal-3 phase 1440v	175.00	LF	9.25 1,619	12.00% 194	8.00% 145	10.00% 196	1.20% 26	3.50% 76	12.89 2,256
USR 24" Storm drain removal	125.00	LF	9.25 1,156	12.00% 139	8.00% 104	10.00% 140	1.20% 18	3.50% 54	12.89 1,611
USR Demolished structures (avg. 1,500sf/ea @ 2 ea)	3,000.00	SF	3.00 9,000	12.00% 1,080	8.00% 806	10.00% 1,089	1.20% 144	3.50% 424	4.18 12,543
USR Disposal Fee-off site	111.00	CY	2.10 233	12.00% 28	8.00% 21	10.00% 28	1.20% 4	3.50% 11	2.93 325
<b>New Work</b>	<b>1.00</b>	<b>LS</b>	<b>1,931,020</b>	<b>231,722</b>	<b>173,019</b>	<b>233,576</b>	<b>30,832</b>	<b>91,006</b>	<b>2,691,176</b>
USR Mobilization, Preparatory Work, Demobilization	1.00	LS	100,000	12,000	8,960	12,096	1,597	4,713	139,366
USR Vinyl sheet piling	39,550.00	SF	21.25 840,438	12.00% 100,853	8.00% 75,303	10.00% 101,659	1.20% 13,419	3.50% 39,609	29.62 1,171,280
USR Compacted fill (levee)	51,000.00	CY	12.75 650,250	12.00% 78,030	8.00% 58,262	10.00% 78,654	1.20% 10,382	3.50% 30,645	17.77 906,224
USR New asphalt 2" (at tunnels) 134cy, figure 2.0 tons/cy	20.00	TON	75.00 1,500	12.00% 180	8.00% 134	10.00% 181	1.20% 24	3.50% 71	104.52 2,090
USR Base material 12" (cross overs)	100.00	CY	45.00 4,500	12.00% 540	8.00% 403	10.00% 544	1.20% 72	3.50% 212	62.71 6,271
USR Riprap (12")	170.00	CY	76.50 13,005	12.00% 1,561	8.00% 1,165	10.00% 1,573	1.20% 208	3.50% 613	106.61 18,124
USR Grouted riprap	125.00	CY	136.00 17,000	12.00% 2,040	8.00% 1,523	10.00% 2,056	1.20% 271	3.50% 801	189.54 23,692
USR Filter fabric	500.00	SY	1.70 850	12.00% 102	8.00% 76	10.00% 103	1.20% 14	3.50% 40	2.37 1,185
USR Grassing(seeding)	10.00	ACR	1,825.00 18,250	12.00% 2,190	8.00% 1,635	10.00% 2,208	1.20% 291	3.50% 860	2,543.42 25,434

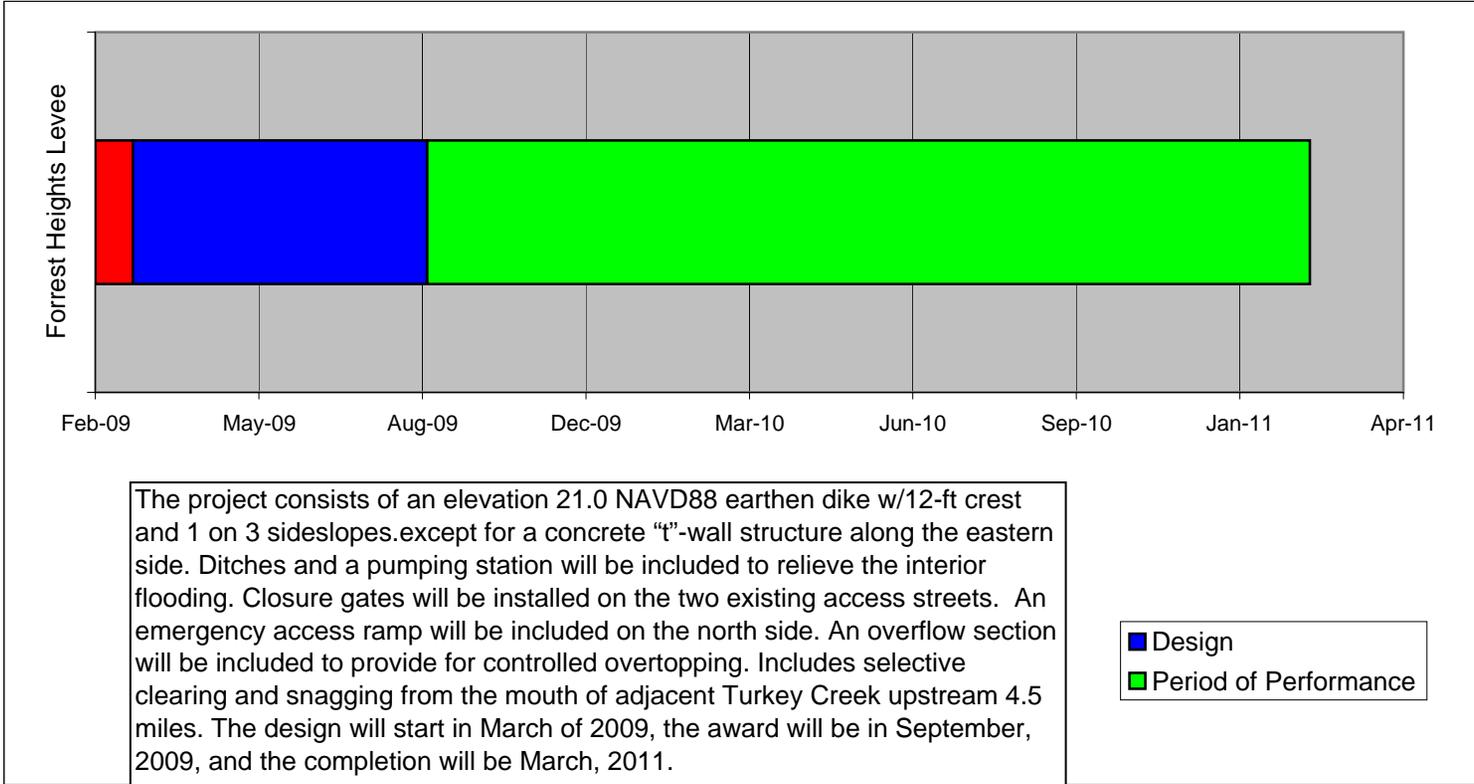
Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
USR Clearing and grubbing, off-site disposal	10.00	ACR	4,250.00 42,500	12.00% 5,100	8.00% 3,808	10.00% 5,141	1.20% 679	3.50% 2,003	5,923.03 59,230
USR Crushed aggregate 6" thick(levee wearing surface)	2,000.00	CY	40.00 80,000	12.00% 9,600	8.00% 7,168	10.00% 9,677	1.20% 1,277	3.50% 3,770	55.75 111,492
USR Selective clearing and snagging, soil removal and disposal	220.00	CY	17.00 3,740	12.00% 449	8.00% 335	10.00% 452	1.20% 60	3.50% 176	23.69 5,212
USR Clearing and snagging(from mouth of Turkey Creek upstream)	5.00	MI	21,250.00 106,250	12.00% 12,750	8.00% 9,520	10.00% 12,852	1.20% 1,696	3.50% 5,007	29,615.17 148,076
USR New 8" water line	150.00	LF	34.75 5,213	12.00% 626	8.00% 467	10.00% 631	1.20% 83	3.50% 246	48.43 7,264
USR New 6" sewer line	150.00	LF	40.75 6,113	12.00% 734	8.00% 548	10.00% 739	1.20% 98	3.50% 288	56.79 8,519
USR New 2" gas line	150.00	LF	17.00 2,550	12.00% 306	8.00% 228	10.00% 308	1.20% 41	3.50% 120	23.69 3,554
USR New electrical line-3 phase 1440v	175.00	LF	37.50 6,563	12.00% 788	8.00% 588	10.00% 794	1.20% 105	3.50% 309	52.26 9,146
USR New 24" storm drain	125.00	LF	100.00 12,500	12.00% 1,500	8.00% 1,120	10.00% 1,512	1.20% 200	3.50% 589	139.37 17,421
USR Mitigation non-tidal	3.60	ACR	5,500.00 19,800	12.00% 2,376	8.00% 1,774	10.00% 2,395	1.20% 316	3.50% 933	7,665.10 27,594
<b>Pump Stations</b>	<b>1.00</b>	<b>EA</b>	<b>1,800,646.25</b> <b>1,800,646</b>	<b>12.00%</b> <b>216,078</b>	<b>8.00%</b> <b>161,338</b>	<b>10.00%</b> <b>217,806</b>	<b>1.20%</b> <b>28,750</b>	<b>3.50%</b> <b>84,862</b>	<b>2,509,479.93</b> <b>2,509,480</b>
USR Structural concrete, complete all sites	194.00	CY	595.00 115,430	12.00% 13,852	8.00% 10,343	10.00% 13,962	1.20% 1,843	3.50% 5,440	829.22 160,870
USR Form work, complete all sites	4,996.00	SF	6.00 29,976	12.00% 3,597	8.00% 2,686	10.00% 3,626	1.20% 479	3.50% 1,413	8.36 41,776
USR Steel reinforcement, complete all sites	12.00	TON	925.00 11,100	12.00% 1,332	8.00% 995	10.00% 1,343	1.20% 177	3.50% 523	1,289.13 15,470
USR Excavation	300.00	CY	12.75 3,825	12.00% 459	8.00% 343	10.00% 463	1.20% 61	3.50% 180	17.77 5,331
USR Backfill	233.00	CY	4.25 990	12.00% 119	8.00% 89	10.00% 120	1.20% 16	3.50% 47	5.92 1,380
USR Trash screens and miscellaneous metal items, all sites	2.00	EA	100,000.00 200,000	12.00% 24,000	8.00% 17,920	10.00% 24,192	1.20% 3,193	3.50% 9,426	139,365.52 278,731
USR Pumps by installation site, P-1, pumps	2.00	EA	222,200.00 444,400	12.00% 53,328	8.00% 39,818	10.00% 53,755	1.20% 7,096	3.50% 20,944	309,670.18 619,340
USR Pumps by installation site, P-1, discharge piping(42" Dia.; 154lf)	1.00	LS	30,800	3,696	2,760	3,726	492	1,452	42,925
USR Pumps by installation site, P-1, energy dissipation	1.00	LS	90,000	10,800	8,064	10,886	1,437	4,242	125,429
USR Pumps by installation site, P-1, electrical	2.00	EA	242,000.00 484,000	12.00% 58,080	8.00% 43,366	10.00% 58,545	1.20% 7,728	3.50% 22,810	337,264.55 674,529

Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
USR Concrete box culvert(5 ea) 4' x 3'	155.00	CY	900.00 139,500	12.00% 16,740	8.00% 12,499	10.00% 16,874	1.20% 2,227	3.50% 6,574	1,254.29 194,415
USR Flap gates (4w x 3h)	5.00	EA	13,500.00 67,500	12.00% 8,100	8.00% 6,048	10.00% 8,165	1.20% 1,078	3.50% 3,181	18,814.34 94,072
USR Cutoff valves (4w x 3h)	5.00	EA	31,500.00 157,500	12.00% 18,900	8.00% 14,112	10.00% 19,051	1.20% 2,515	3.50% 7,423	43,900.14 219,501
USR Ditch excavation	2,500.00	CY	10.25 25,625	12.00% 3,075	8.00% 2,296	10.00% 3,100	1.20% 409	3.50% 1,208	14.28 35,712
<b>Structural</b>	<b>1.00</b>	<b>LS</b>	<b>1,560,825</b>	<b>187,299</b>	<b>139,850</b>	<b>188,797</b>	<b>24,921</b>	<b>73,559</b>	<b>2,175,252</b>
USR Concrete wall	1,826.00	CY	700.00 1,278,200	12.00% 153,384	8.00% 114,527	10.00% 154,611	1.20% 20,409	3.50% 60,240	975.56 1,781,370
USR Structural steel gates	6.00	TON	4,800.00 28,800	12.00% 3,456	8.00% 2,580	10.00% 3,484	1.20% 460	3.50% 1,357	6,689.54 40,137
USR #6 Rebar (box culverts)	49.00	TON	925.00 45,325	12.00% 5,439	8.00% 4,061	10.00% 5,483	1.20% 724	3.50% 2,136	1,289.13 63,167
USR Misc. removals at Russell Blvd. Entrance	1.00	LS	8,500	1,020	762	1,028	136	401	11,846
USR ATFP, signage, pavement marking, traffic control, etc.	1.00	LS	200,000	24,000	17,920	24,192	3,193	9,426	278,731
<b>Levee Ramp(length of road-1950lf)</b>	<b>1.00</b>	<b>LS</b>	<b>70,004</b>	<b>8,400</b>	<b>6,272</b>	<b>8,468</b>	<b>1,118</b>	<b>3,299</b>	<b>97,561</b>
USR Fill material(off-site)	2,167.00	CY	12.00 26,004	12.00% 3,120	8.00% 2,330	10.00% 3,145	1.20% 415	3.50% 1,226	16.72 36,241
USR Gravel wearing surface	795.00	CY	45.00 35,775	12.00% 4,293	8.00% 3,205	10.00% 4,327	1.20% 571	3.50% 1,686	62.71 49,858
USR 24" Dia. RCP	30.00	LF	100.00 3,000	12.00% 360	8.00% 269	10.00% 363	1.20% 48	3.50% 141	139.37 4,181
USR Clear & grub(off-site)	1.50	ACR	2,150.00 3,225	12.00% 387	8.00% 289	10.00% 390	1.20% 51	3.50% 152	2,996.36 4,495
USR Off-site disposal	0.50	ACR	4,000.00 2,000	12.00% 240	8.00% 179	10.00% 242	1.20% 32	3.50% 94	5,574.62 2,787

Description	Quantity	UOM	SubBidCost	CostToPrime
<b>Project Direct Costs Report</b>			<b>5,379,528</b>	<b>5,379,528</b>
<b>01 Forest Heights, Harrison County - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>5,379,528</b>	<b>5,379,528</b>
<b>11 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>5,379,528</b>	<b>5,379,528</b>
<b>011 Levees &amp; Floodwalls</b>	<b>1.00</b>	<b>LS</b>	<b>5,379,528</b>	<b>5,379,528</b>
<b>01 Levee Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>5,379,528</b>	<b>5,379,528</b>
<b>Removals</b>	<b>1.00</b>	<b>LS</b>	<b>17,033</b>	<b>17,033</b>
USR Asphalt removal 2" Thick(cross overs)	700.00	SY	2,625	2,625
USR 8" Water line removal	150.00	LF	1,013	1,013
USR 6" Sewer line removal	150.00	LF	1,013	1,013
USR 2" Gas line removal	150.00	LF	375	375
USR Electric line removal-3 phase 1440v	175.00	LF	1,619	1,619
USR 24" Storm drain removal	125.00	LF	1,156	1,156
USR Demolished structures (avg. 1,500sf/ea @ 2 ea)	3,000.00	SF	9,000	9,000
USR Disposal Fee-off site	111.00	CY	233	233
<b>New Work</b>	<b>1.00</b>	<b>LS</b>	<b>1,931,020</b>	<b>1,931,020</b>
USR Mobilization, Preparatory Work, Demobilization	1.00	LS	100,000	100,000
USR Vinyl sheet piling	39,550.00	SF	840,438	840,438
USR Compacted fill (levee)	51,000.00	CY	650,250	650,250
USR New asphalt 2" (at tunnels) 134cy, figure 2.0 tons/cy	20.00	TON	1,500	1,500
USR Base material 12" (cross overs)	100.00	CY	4,500	4,500
USR Riprap (12")	170.00	CY	13,005	13,005
USR Grouted riprap	125.00	CY	17,000	17,000
USR Filter fabric	500.00	SY	850	850
USR Grassing(seeding)	10.00	ACR	18,250	18,250

Description	Quantity	UOM	SubBidCost	CostToPrime
USR Clearing and grubbing, off-site disposal	10.00	ACR	4,250.00 42,500	4,250.00 42,500
USR Crushed aggregate 6" thick(levee wearing surface)	2,000.00	CY	40.00 80,000	40.00 80,000
USR Selective clearing and snagging, soil removal and disposal	220.00	CY	17.00 3,740	17.00 3,740
USR Clearing and snagging(from mouth of Turkey Creek upstream)	5.00	MI	21,250.00 106,250	21,250.00 106,250
USR New 8" water line	150.00	LF	34.75 5,213	34.75 5,213
USR New 6" sewer line	150.00	LF	40.75 6,113	40.75 6,113
USR New 2" gas line	150.00	LF	17.00 2,550	17.00 2,550
USR New electrical line-3 phase 1440v	175.00	LF	37.50 6,563	37.50 6,563
USR New 24" storm drain	125.00	LF	100.00 12,500	100.00 12,500
USR Mitigation non-tidal	3.60	ACR	5,500.00 19,800	5,500.00 19,800
<b>Pump Stations</b>	<b>1.00</b>	<b>EA</b>	<b>1,800,646.25</b> <b>1,800,646</b>	<b>1,800,646.25</b> <b>1,800,646</b>
USR Structural concrete, complete all sites	194.00	CY	595.00 115,430	595.00 115,430
USR Form work, complete all sites	4,996.00	SF	6.00 29,976	6.00 29,976
USR Steel reinforcement, complete all sites	12.00	TON	925.00 11,100	925.00 11,100
USR Excavation	300.00	CY	12.75 3,825	12.75 3,825
USR Backfill	233.00	CY	4.25 990	4.25 990
USR Trash screens and miscellaneous metal items, all sites	2.00	EA	100,000.00 200,000	100,000.00 200,000
USR Pumps by installation site, P-1, pumps	2.00	EA	222,200.00 444,400	222,200.00 444,400
USR Pumps by installation site, P-1, discharge piping(42" Dia.; 154lf)	1.00	LS	444,400 30,800	444,400 30,800
USR Pumps by installation site, P-1, energy dissipation	1.00	LS	90,000 90,000	90,000 90,000
USR Pumps by installation site, P-1, electrical	2.00	EA	242,000.00 484,000	242,000.00 484,000

Description	Quantity	UOM	SubBidCost	CostToPrime
USR Concrete box culvert(5 ea) 4' x 3'	155.00	CY	900.00 139,500	900.00 139,500
USR Flap gates (4w x 3h)	5.00	EA	13,500.00 67,500	13,500.00 67,500
USR Cutoff valves (4w x 3h)	5.00	EA	31,500.00 157,500	31,500.00 157,500
USR Ditch excavation	2,500.00	CY	10.25 25,625	10.25 25,625
<b>Structural</b>	<b>1.00</b>	<b>LS</b>	<b>1,560,825</b>	<b>1,560,825</b>
USR Concrete wall	1,826.00	CY	700.00 1,278,200	700.00 1,278,200
USR Structural steel gates	6.00	TON	4,800.00 28,800	4,800.00 28,800
USR #6 Rebar (box culverts)	49.00	TON	925.00 45,325	925.00 45,325
USR Misc. removals at Russell Blvd. Entrance	1.00	LS	8,500	8,500
USR ATFP, signage, pavement marking, traffic control, etc.	1.00	LS	200,000	200,000
<b>Levee Ramp(length of road-1950lf)</b>	<b>1.00</b>	<b>LS</b>	<b>70,004</b>	<b>70,004</b>
USR Fill material(off-site)	2,167.00	CY	12.00 26,004	12.00 26,004
USR Gravel wearing surface	795.00	CY	45.00 35,775	45.00 35,775
USR 24" Dia. RCP	30.00	LF	100.00 3,000	100.00 3,000
USR Clear & grub(off-site)	1.50	ACR	2,150.00 3,225	2,150.00 3,225
USR Off-site disposal	0.50	ACR	4,000.00 2,000	4,000.00 2,000



The project consists of an elevation 21.0 NAVD88 earthen dike w/12-ft crest and 1 on 3 sideslopes, except for a concrete "t"-wall structure along the eastern side. Ditches and a pumping station will be included to relieve the interior flooding. Closure gates will be installed on the two existing access streets. An emergency access ramp will be included on the north side. An overflow section will be included to provide for controlled overtopping. Includes selective clearing and snagging from the mouth of adjacent Turkey Creek upstream 4.5 miles. The design will start in March of 2009, the award will be in September, 2009, and the completion will be March, 2011.

- Design
- Period of Performance

TOTAL PROJECT

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Turkey Creek -Environmental Restoration, Restore Wetlands DISTRICT: MOBILE  
 LOCATION: Harrison County, Mississippi

P.O.C.: Joseph H. Elsworth

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....		
						EFFECTIVE PRICING LEVEL: Aug 08			COST (\$K)	CNTG (\$K)	TOTAL (\$K)
01---	Earth & Damages	777,000	194,250	25%	971,250	777,000	194,250	971,250	803,418	200,855	1,004,273
06---	Fish & Wildlife -Restore Wetlands ( Turkey Creek )	4,105,000	1,026,250	25%	5,131,250	4,105,000	1,026,250	5,131,250	4,343,090	1,085,773	5,428,863
30---	PLANNING, ENGINEERING & DESIGN	328,400	82,100	25%	410,500	328,400	82,100	410,500	333,654	83,414	417,068
31---	CONSTRUCTION MANAGEMENT	246,300	61,575	25%	307,875	246,300	61,575	307,875	260,585	65,146	325,731
<b>TOTAL PROJECT COST =====&gt;</b>		<b>5,456,700</b>	<b>1,364,175</b>		<b>6,820,875</b>	<b>5,456,700</b>	<b>1,364,175</b>	<b>6,820,875</b>	<b>5,740,747</b>	<b>1,435,188</b>	<b>7,175,935</b>

rounded

65% TOTAL FEDERAL COSTS =====> **\$4,680,000**

35% TOTAL NON - FEDERAL COSTS =====> **\$2,520,000**

TOTAL PROJECT COSTS =====> **\$7,200,000**

DISTRICT APPROVED:

- \_\_\_\_\_ CHIEF, COST ENGINEERING
- \_\_\_\_\_ CHIEF, REAL ESTATE
- \_\_\_\_\_ CHIEF, PLANNING
- \_\_\_\_\_ CHIEF, ENGINEERING
- \_\_\_\_\_ CHIEF, OPERATIONS
- \_\_\_\_\_ CHIEF, CONSTRUCTION
- \_\_\_\_\_ CHIEF, PROGRAMS MANAGEMENT
- \_\_\_\_\_ PROJECT MANAGER
- \_\_\_\_\_ DDE (PM)

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Turkey Creek -Environmental Restoration, Restore Wetlands DISTRICT: MOBILE  
 LOCATION: Harrison County, Mississippi

P.O.C.: Joseph H. Ellsworth

ACCOUNT No.	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....				
						OMB (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	FEATURE MID PT	OMB (%)	COST (\$K)	CNTG (\$K)

EFFECTIVE PRICING LEVEL: Aug 08

01---	Lands & Damages (price level, Oct 07)	777,000	194,250	25%	971,250	0.0%	777,000	194,250	971,250	Apr 09	3.4%	803,418	200,855	1,004,273
<b>Subtotal</b>		777,000	194,250		971,250		777,000	194,250	971,250			803,418	200,855	1,004,273
06---	Fish & Wildlife -Restore Wetlands	4,105,000	1,026,250	25%	5,131,250	0.0%	4,105,000	1,026,250	5,131,250	Apr 11	5.8%	4,343,090	1,085,773	5,428,863
30---	PLANNING, ENGINEERING & DESIGN, 8%+-	328,400	82,100	25%	410,500	0.0%	328,400	82,100	410,500	Apr 09	1.6%	333,654	83,414	417,068
31---	CONSTRUCTION MANAGEMENT, 6% +-	246,300	61,575	25%	307,875	0.0%	246,300	61,575	307,875	Apr 11	5.8%	260,585	65,146	325,731
<b>Subtotal</b>		4,679,700	1,169,925		5,849,625		4,679,700	1,169,925	5,849,625			4,937,329	1,234,333	6,171,662

2. Maintain vegetation (Mandatory) by mowing 1st year and Burn 1st year; Burn every 3 years for life of project.

1. Filling in ditches (Mandatory to achieve overall restoration project).

The restoration site is primarily comprised of a degraded pine savannah wetland. Several miles of ditches have been excavated throughout the site. Additionally, an elevated railway berm fragments the wetland habitat substantially altering hydrology of the wetlands located to the north. The following measures were developed:  
Turkey Creek Proposed Action

Price Level Aug 08  
FEASIBILITY STUDY

Estimated by CESAM-EN-E, Cost Engineering Branch

Designed by CESAM-EN-E, Mobile District, Corps of  
Engineers

Prepared by Russell Haynes

Preparation Date 8/8/2008

Effective Date of Pricing 8/8/2008

Estimated Construction Time Days

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project file: turkey-feasibility-aug08.mlp

report file: feasibility standard report.mrp

output file: turkey-feasibility-aug08.doc

**Date Author**

**Note**

Joseph H. Ellsworth

**BASIS of COST ESTIMATE and RATIONALE**

Feasibility Estimate is based on Historical Data, Recent Pricing, and Estimator's Judgment. Estimate is structured and priced as a General Prime contractor supported by major subcontractors. Anticipated bidding conditions and construction duration with reasonable schedules are considered Normal. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Current Contract Cost (price level Aug 08). The Non-structural and Real Estate Cost were prepared by the Savannah & Huntington Districts.

Price Level of Estimate is Aug 08.

Project Life is assumed as 50 years in Cost Estimate.

01 Feature Account, Real Estate Cost was prepared by the Savannah District COE.

30 Feature Account, Planning, Engineering & Design was developed and assigned at 8% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Eight percent was used in the Interim MsCIP projects which was reviewed and approved and included in the Chief's Report.

31 Feature Account, Construction Management was developed and assigned at 6% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Six percent was used in the Interim MsCIP projects which was reviewed & approved and included in the Chief's Report.

Contingency was jointly developed and assigned by the Project Delivery Team. The Contingency percentage at 25% reflects the possibility of changes in quantity estimates and unknowns associated with the unit price. The contingency factor used does not vary throughout the cost estimate. It was determined and agreed upon by the Project Delivery Team that a high rate be used primarily due to risk, degree of confidence, and the project not being of the normal design.

Markups for subcontractors are included in the unit prices and include such items as field overheads, home office expenses, profit, bond and insurance.

Mobilization Preparatory Work & Demobilization are derived within the estimate generally at 2.5 % +- of construction cost excluding the Misc Items cost.

Miscellaneous Items represent cost where quantities were not available, such items as signage, construction site/staging restoration, silt fencing, site access, etc. These cost are derived within the estimate at .25 percent (.25%) of construction cost excluding Mob & Demob Cost

Unit Prices, for such items as site work, earthwork, stone protection, concrete, reinforcing, etc., were based on Historical Data, Recent Pricing, Estimator's Judgment, and Cost derivation using MCACES / MII estimating systems.

8/5/2008 Joseph H. Ellsworth

The following Contractor Markups are applied to the Cost to Prime Direct Cost:

Contractor's Field Overhead @ 12%

**Date Author**

**Note**

Contractor's Home Office (G&A) @ 8%

Profit @ 10%

Bond @ 1.2%

Miss. Gross Receipts Tax @ 3.5%

Listed are all Cost Engineering Personnel that worked on the Feasibility Cost Estimate.

Joseph H. Ellsworth, Lead Cost Engineer

Gary Payton, Cost Engineer

George F. Rush, Civil Engineer, Dredging

Michael A. McKown, Geo Tech Engineer

Lloyd Oliver, Structural Engineer

Richard W. Harvey, Mechanical Engineer

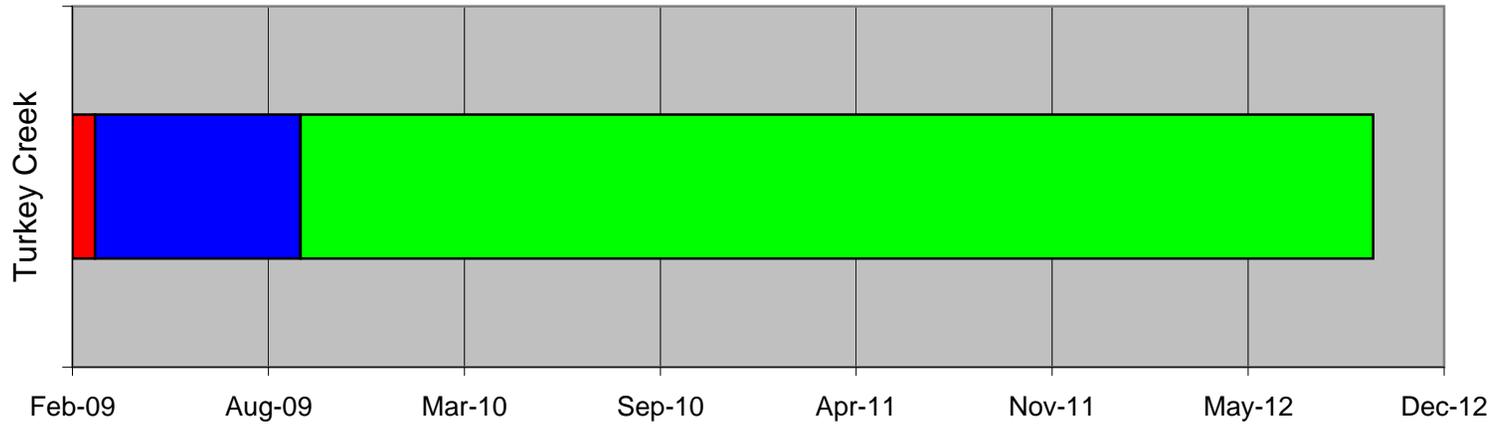
John R. Thomas, Real Estate Specialist

Donald A. Whitmore, Civil Engineer- Non-Structural Estimates

Jennifer L. Jacobson, Environmentalist

Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
<b>Contract Cost Summary Report</b>			<b>2,945,368</b>	<b>353,444</b>	<b>263,905</b>	<b>356,272</b>	<b>47,028</b>	<b>138,811</b>	<b>4,104,827</b>
<b>01 Turkey Creek, Harrison County - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>2,945,368</b>	<b>353,444</b>	<b>263,905</b>	<b>356,272</b>	<b>47,028</b>	<b>138,811</b>	<b>4,104,827</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>2,945,368</b>	<b>353,444</b>	<b>263,905</b>	<b>356,272</b>	<b>47,028</b>	<b>138,811</b>	<b>4,104,827</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>2,945,368</b>	<b>353,444</b>	<b>263,905</b>	<b>356,272</b>	<b>47,028</b>	<b>138,811</b>	<b>4,104,827</b>
<b>01 Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>2,945,368</b>	<b>353,444</b>	<b>263,905</b>	<b>356,272</b>	<b>47,028</b>	<b>138,811</b>	<b>4,104,827</b>
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	20,000	2,400	1,792	2,419	319	943	27,873
			<i>9.75</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>13.59</i>
USR Fill in ditches(from off-site borrow)	102,078.00	CY	995,261	119,431	89,175	120,387	15,891	46,905	1,387,050
			<i>130.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>181.18</i>
USR Burn vegetation	689.00	ACR	89,570	10,748	8,025	10,834	1,430	4,221	124,830
			<i>75.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>104.52</i>
USR Mow vegetation(annually)	689.00	ACR	51,675	6,201	4,630	6,251	825	2,435	72,017
			<i>3.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>4.18</i>
USR Remove structures(1,500 sf avg size@12 ea)	18,000.00	SF	54,000	6,480	4,838	6,532	862	2,545	75,257
			<i>2.15</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>3.00</i>
USR Disposal Fee	667.00	CY	1,434	172	128	173	23	68	1,999
			<i>12.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>16.72</i>
USR Remove roads(assume 24' wide)	35,924.00	LF	431,088	51,731	38,625	52,144	6,883	20,317	600,788
			<i>35.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>48.78</i>
USR Remove utilities	35,924.00	LF	1,257,340	150,881	112,658	152,088	20,076	59,256	1,752,298
USR Misc site items	1.00	LS	45,000	5,400	4,032	5,443	719	2,121	62,714

Description	Quantity	UOM	SubBidCost	CostToPrime
<b>Project Direct Costs Report</b>			<b>2,945,368</b>	<b>2,945,368</b>
<b>01 Turkey Creek, Harrison County - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>2,945,368</b>	<b>2,945,368</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>2,945,368</b>	<b>2,945,368</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>2,945,368</b>	<b>2,945,368</b>
<b>01 Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>2,945,368</b>	<b>2,945,368</b>
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	20,000	20,000
			<i>9.75</i>	<i>9.75</i>
USR Fill in ditches(from off-site borrow)	102,078.00	CY	995,261	995,261
			<i>130.00</i>	<i>130.00</i>
USR Burn vegetation	689.00	ACR	89,570	89,570
			<i>75.00</i>	<i>75.00</i>
USR Mow vegetation(annually)	689.00	ACR	51,675	51,675
			<i>3.00</i>	<i>3.00</i>
USR Remove structures(1,500 sf avg size@12 ea)	18,000.00	SF	54,000	54,000
			<i>2.15</i>	<i>2.15</i>
USR Disposal Fee	667.00	CY	1,434	1,434
			<i>12.00</i>	<i>12.00</i>
USR Remove roads(assume 24' wide)	35,924.00	LF	431,088	431,088
			<i>35.00</i>	<i>35.00</i>
USR Remove utilities	35,924.00	LF	1,257,340	1,257,340
USR Misc site items	1.00	LS	45,000	45,000



The restoration is comprised of restoration of a degraded pine savannah wetland. Several miles of ditches at the site will be filled. Additionally, an elevated railway berm that fragments the wetland habitat will be removed along with roadbeds and any other fill. Invasive vegetation will be controlled by mowing and burning. The design will start in March of 2009, the award will be in October, 2009, and the completion will be October, 2012.

- Design
- Period of Performance

TOTAL PROJECT

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Dantzler -Environmental Restoration, Restore Wetlands  
 LOCATION: Jackson County, Mississippi

DISTRICT: MOBILE

P.O.C.: Joseph H. Ellsworth

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....		
						EFFECTIVE PRICING LEVEL: Aug 08			COST (\$K)	CNTG (\$K)	TOTAL (\$K)
01---	EMPHASIS	25,000	6,250	25%	31,250	25,000	6,250	31,250	25,400	6,350	31,750
06---	Fish & Wildlife -Restore Wetlands <b>( Dantzler )</b>	1,495,000	373,750	25%	1,868,750	1,495,000	373,750	1,868,750	1,605,630	401,408	2,007,038
30---	PLANNING, ENGINEERING & DESIGN	119,600	29,900	25%	149,500	119,600	29,900	149,500	123,666	30,917	154,583
31---	CONSTRUCTION MANAGEMENT	89,700	22,425	25%	112,125	89,700	22,425	112,125	96,338	24,084	120,422
<b>TOTAL PROJECT COST =====&gt;</b>		<b>1,729,300</b>	<b>432,325</b>		<b>2,161,625</b>	<b>1,729,300</b>	<b>432,325</b>	<b>2,161,625</b>	<b>1,851,034</b>	<b>462,759</b>	<b>2,313,793</b>

rounded

65% TOTAL FEDERAL COSTS =====> **\$1,495,000**

35% TOTAL NON - FEDERAL COSTS =====> **\$805,000**

TOTAL PROJECT COSTS =====> **\$2,300,000**

DISTRICT APPROVED:

\_\_\_\_\_ CHIEF, COST ENGINEERING

\_\_\_\_\_ CHIEF, REAL ESTATE

\_\_\_\_\_ CHIEF, PLANNING

\_\_\_\_\_ CHIEF, ENGINEERING

\_\_\_\_\_ CHIEF, OPERATIONS

\_\_\_\_\_ CHIEF, CONSTRUCTION

\_\_\_\_\_ CHIEF, PROGRAMS MANAGEMENT

\_\_\_\_\_ PROJECT MANAGER

\_\_\_\_\_ DDE (PM)

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Dantzler -Environmental Restoration, Restore Wetlands DISTRICT: MOBILE  
 LOCATION: Jackson County, Mississippi

P.O.C.: Joseph H. Ellsworth

ACCOUNT No.	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....				
						OMB (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	FEATURE MID PT	OMB (%)	COST (\$K)	CNTG (\$K)

EFFECTIVE PRICING LEVEL: Aug 08

01---	Lands & Damages (PCA)	25,000	6,250	25%	31,250	0.0%	25,000	6,250	31,250	Jun 09	1.6%	25,400	6,350	31,750
	<b>Subtotal</b>	<b>25,000</b>	<b>6,250</b>		<b>31,250</b>		<b>25,000</b>	<b>6,250</b>	<b>31,250</b>			<b>25,400</b>	<b>6,350</b>	<b>31,750</b>
06---	Fish & Wildlife -Restore Wetlands	1,495,000	373,750	25%	1,868,750	0.0%	1,495,000	373,750	1,868,750	Jan 12	7.4%	1,605,630	401,408	2,007,038
30---	PLANNING, ENGINEERING & DESIGN, 8%+-	119,600	29,900	25%	149,500	0.0%	119,600	29,900	149,500	Jun 09	3.4%	123,666	30,917	154,583
31---	CONSTRUCTION MANAGEMENT, 6% +-	89,700	22,425	25%	112,125	0.0%	89,700	22,425	112,125	Jan 12	7.4%	96,338	24,084	120,422
	<b>Subtotal</b>	<b>1,704,300</b>	<b>426,075</b>		<b>2,130,375</b>		<b>1,704,300</b>	<b>426,075</b>	<b>2,130,375</b>			<b>1,825,634</b>	<b>456,409</b>	<b>2,282,043</b>

3. Filling in 100% of existing artificial ditches. (Mandatory)
2. 100% removal of exotics and plantation pine; maintain removal of exotic plant species in all areas over project lifetime. (Mandatory in all plans).
1. Maintain native savanna vegetation. (Mandatory) by mowing 1st year and Burn 1st year; Burn every 3 years for life of project.

The restoration site contains 385 acres to be restored to wet pine savanna. This area was planted in plantation pine during the 1960s and ditches and stormwater lines were constructed in the early 1970s in anticipation of residential development of the site. The long-term exclusion of fire and the invasion of non-native species such as Cogongrass and Chinese Tallotree have severely degraded the site. The following measures were developed:  
Dantzler Proposed Action

Price Level ly Aug 08  
FEASIBILITY STUDY

Estimated by CESAM-EN-E, Cost Engineering Branch  
Designed by CESAM-EN-E, Mobile District, Corps of Engineers  
Prepared by Joseph Ellsworth  
Preparation Date 8/6/2008  
Effective Date of Pricing 8/6/2008  
Estimated Construction Time 1,080 Days

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project file: dantzler-feasibility-aug08.mlp

report file: feasibilty standard report.mrp

output file: dantzler-feasibility-aug08.doc

**Date Author**

**Note**

Joseph H. Ellsworth

BASIS of COST ESTIMATE and RATIONALE

Feasibility Estimate is based on Historical Data, Recent Pricing, and Estimator's Judgment. Estimate is structured and priced as a General Prime contractor supported by major subcontractors. Anticipated bidding conditions and construction duration with reasonable schedules are considered Normal. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Current Contract Cost (price level Aug 08). The Non-structural and Real Estate Cost were prepared by the Savannah & Huntington Districts.

Price Level of Estimate is Aug 08.

Project Life is assumed as 50 years in Cost Estimate.

01 Feature Account, Real Estate Cost was prepared by the Savannah District COE.

06 Feature Account, Preservation - Mitigation-Tidal quantities were based on impacts of new footprint plus mitigated factor which was determined and coordinated by other agencies. Unit cost were derived and based on historical data.

30 Feature Account, Planning, Engineering & Design was developed and assigned at 8% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Eight percent was used in the Interim MsCIP projects which was reviewed and approved and included in the Chief's Report.

31 Feature Account, Construction Management was developed and assigned at 6% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Six percent was used in the Interim MsCIP projects which was reviewed & approved and included in the Chief's Report.

Contingency was jointly developed and assigned by the Project Delivery Team. The Contingency percentage at 25% reflects the possibility of changes in quantity estimates and unknowns associated with the unit price. The contingency factor used does not vary throughout the cost estimate. It was determined and agreed upon by the Project Delivery Team that a high rate be used primarily due to risk, degree of confidence, and the project not being of the normal design.

Markups for subcontractors are included in the unit prices and include such items as field overheads, home office expenses, profit, bond and insurance.

Mobilization Preparatory Work & Demobilization are derived within the estimate generally at 2.5 % +/- of construction cost excluding the Misc Items cost.

Miscellaneous Items represent cost where quantities were not available, such items as signage, construction site/staging restoration, silt fencing, site access, etc. These cost are derived within the estimate at .25 percent (.25%) of construction cost excluding Mob & Demob Cost

Unit Prices, for such items as site work, earthwork, stone protection, concrete, reinforcing, etc., were based on Historical Data, Recent Pricing, Estimator's Judgment, and Cost derivation using MCACES / MII estimating systems.

8/5/2008 Joseph H. Ellsworth

The following Contractor Markups are applied to the Cost to Prime Direct Cost:

**Date Author**

**Note**

Contractor's Field Overhead @ 12%

Contractor's Home Office (G&A) @ 8%

Profit @ 10%

Bond @ 1.2%

Miss. Gross Receipts Tax @ 3.5%

Listed are all Cost Engineering Personnel that worked on the Feasibility Cost Estimate.  
Joseph H. Ellsworth, Lead Cost Engineer  
Gary Payton, Cost Engineer  
George F. Rush, Civil Engineer, Dredging  
Michael A. McKown, Geo Tech Engineer  
Lloyd Oliver, Structural Engineer  
Richard W. Harvey, Mechanical Engineer  
John R. Thomas, Real Estate Specialist  
Donald A. Whitmore, Civil Engineer- Non-Structural Estimates  
Jennifer L. Jacobson, Environmentalist

8/6/2008

New Project Note

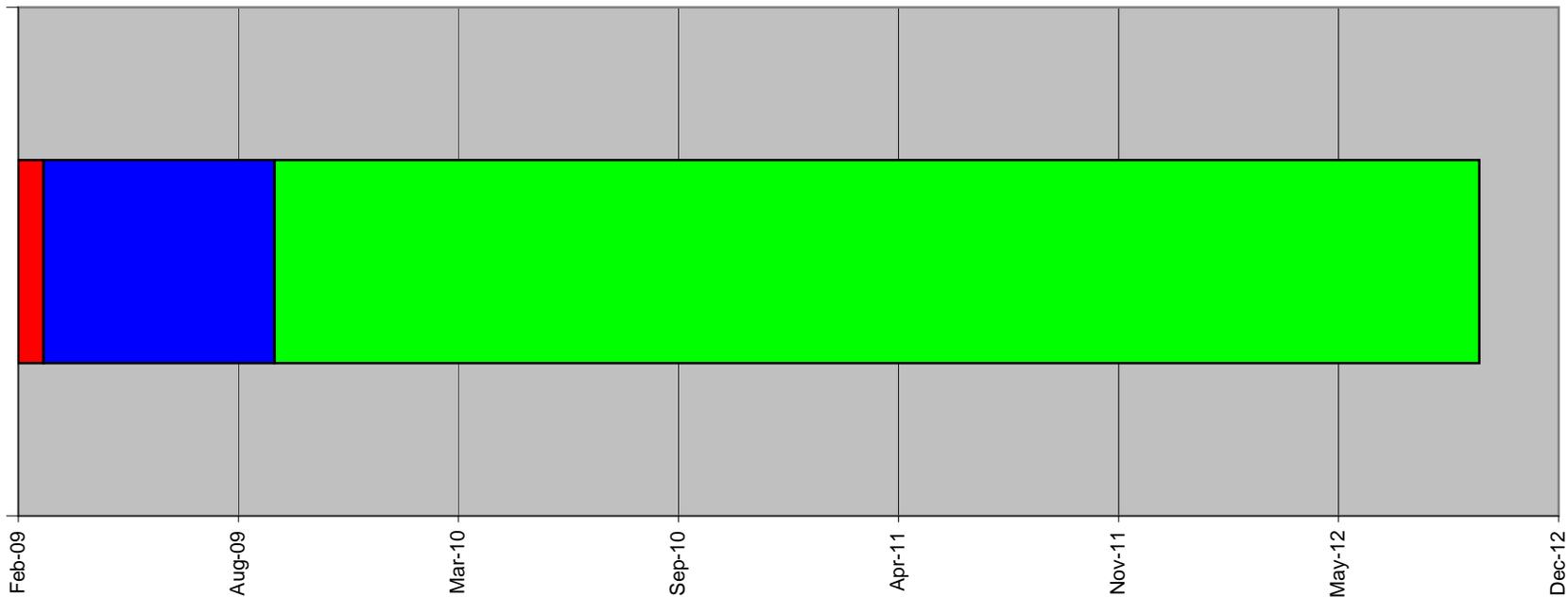
Listed are all Cost Engineering Personnel that worked on the Feasibility Cost Estimate.

Joseph H. Ellsworth

Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
<b>Contract Cost Summary Report</b>			<b>1,072,885</b>	<b>128,746</b>	<b>96,130</b>	<b>129,776</b>	<b>17,130</b>	<b>50,563</b>	<b>1,495,232</b>
<b>Dantzler, Area A &amp; B - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>1,072,885</b>	<b>128,746</b>	<b>96,130</b>	<b>129,776</b>	<b>17,130</b>	<b>50,563</b>	<b>1,495,232</b>
<b>Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>1,072,885</b>	<b>128,746</b>	<b>96,130</b>	<b>129,776</b>	<b>17,130</b>	<b>50,563</b>	<b>1,495,232</b>
<b>Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>1,072,885</b>	<b>128,746</b>	<b>96,130</b>	<b>129,776</b>	<b>17,130</b>	<b>50,563</b>	<b>1,495,232</b>
Mobilization, Preparatory Work, & Demobilization	1.00	ACR	35,000.00 35,000	12.00% 4,200	8.00% 3,136	10.00% 4,234	1.20% 559	3.50% 1,649	48,777.93 48,778
Fill Existing Ditches with Off-Site Commerical Borrow (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)	66,560.00	CY	9.75 648,960	12.00% 77,875	8.00% 58,147	10.00% 78,498	1.20% 10,362	3.50% 30,584	13.59 904,426
Burn Existing Vegetatin (surface only burn)	385.00	CY	130.00 50,050	12.00% 6,006	8.00% 4,484	10.00% 6,054	1.20% 799	3.50% 2,359	181.18 69,752
Mow (bush-hog) Existing Vegetatin (initiallly)	385.00	CY	75.00 28,875	12.00% 3,465	8.00% 2,587	10.00% 3,493	1.20% 461	3.50% 1,361	104.52 40,242
Remove Existing Roads (assume 24' width)	5,000.00	LF	12.00 60,000	12.00% 7,200	8.00% 5,376	10.00% 7,258	1.20% 958	3.50% 2,828	16.72 83,619
Remove Existing Utilities	5,000.00	LF	35.00 175,000	12.00% 21,000	8.00% 15,680	10.00% 21,168	1.20% 2,794	3.50% 8,247	48.78 243,890
Miscellaneous Site Items	1.00	LS	75,000	9,000	6,720	9,072	1,198	3,535	104,524

Description	Quantity	UOM	SubBidCost	CostToPrime
<b>Project Direct Costs Report</b>			<b>1,072,885</b>	<b>1,072,885</b>
<b>01 Dantzler, Area A &amp; B - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>1,072,885</b>	<b>1,072,885</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>1,072,885</b>	<b>1,072,885</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>1,072,885</b>	<b>1,072,885</b>
<b>01 Restore Wetlands</b>			<i>2,786.71</i>	<i>2,786.71</i>
	<b>385.00</b>	<b>ACR</b>	<b>1,072,885</b>	<b>1,072,885</b>
USR Mobilization, Preparatory Work, & Demobilization			<i>35,000.00</i>	<i>35,000.00</i>
	1.00	ACR	35,000	35,000
USR Fill Existing Ditches with Off-Site Commerical Borrow (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)			<i>9.75</i>	<i>9.75</i>
	66,560.00	CY	648,960	648,960
USR Burn Existing Vegetatin (surface only burn)			<i>130.00</i>	<i>130.00</i>
	385.00	CY	50,050	50,050
USR Mow (bush-hog) Existing Vegetatin (initiallly)			<i>75.00</i>	<i>75.00</i>
	385.00	CY	28,875	28,875
USR Remove Existing Roads (assume 24' width)			<i>12.00</i>	<i>12.00</i>
	5,000.00	LF	60,000	60,000
USR Remove Existing Utilities			<i>35.00</i>	<i>35.00</i>
USR Miscellaneous Site Items	5,000.00	LF	175,000	175,000
	1.00	LS	75,000	75,000

# Dantzler



The restoration site contains 385 acres to be restored to wet pine savanna. The long-term exclusion of fire and the invasion of non-native species such as Cogongrass and Chinese Tallowtree have severely degraded the site and will be removed along with other exotic plant species. Existing ditches will be filled. The site will be mowed and burned as part of the vegetation maintenance. The design will start in March of 2009, the award will be in October, 2009, and the completion will be October, 2012.



TOTAL PROJECT

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Admiral Island -Environmental Restoration, Restore Wetlands DISTRICT: MOBILE  
 LOCATION: Hancock County, Mississippi

P.O.C.: Joseph H. Ellsworth

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....		
						EFFECTIVE PRICING LEVEL: Aug 08			COST (\$K)	CNTG (\$K)	TOTAL (\$K)
01---	EMPHASIS	25,000	6,250	25%	31,250	25,000	6,250	31,250	25,400	6,350	31,750
06---	Fish & Wildlife -Restore Wetlands ( Admiral Island )	15,179,000	3,794,750	25%	18,973,750	15,179,000	3,794,750	18,973,750	16,302,246	4,075,562	20,377,808
30---	PLANNING, ENGINEERING & DESIGN	1,214,320	303,580	25%	1,517,900	1,214,320	303,580	1,517,900	1,255,607	313,902	1,569,509
31---	CONSTRUCTION MANAGEMENT	910,740	227,685	25%	1,138,425	910,740	227,685	1,138,425	978,135	244,534	1,222,669
<b>TOTAL PROJECT COST =====&gt;</b>		<b>17,329,060</b>	<b>4,332,265</b>		<b>21,661,325</b>	<b>17,329,060</b>	<b>4,332,265</b>	<b>21,661,325</b>	<b>18,561,388</b>	<b>4,640,348</b>	<b>23,201,736</b>

rounded

65% TOTAL FEDERAL COSTS =====> **\$15,080,000**

35% TOTAL NON - FEDERAL COSTS =====> **\$8,120,000**

**TOTAL PROJECT COSTS =====> \$23,200,000**

DISTRICT APPROVED:

- \_\_\_\_\_ CHIEF, COST ENGINEERING
- \_\_\_\_\_ CHIEF, REAL ESTATE
- \_\_\_\_\_ CHIEF, PLANNING
- \_\_\_\_\_ CHIEF, ENGINEERING
- \_\_\_\_\_ CHIEF, OPERATIONS
- \_\_\_\_\_ CHIEF, CONSTRUCTION
- \_\_\_\_\_ CHIEF, PROGRAMS MANAGEMENT
- \_\_\_\_\_ PROJECT MANAGER
- \_\_\_\_\_ DDE (PM)

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Admiral Island -Environmental Restoration, Restore Wetlands DISTRICT: MOBILE  
 LOCATION: Hancock County, Mississippi

P.O.C.: Joseph H. Ellsworth

ACCOUNT No.	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....				
						OMB (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	FEATURE MID PT	OMB (%)	COST (\$K)	CNTG (\$K)

EFFECTIVE PRICING LEVEL: Aug 08

EFFECTIVE PRICING LEVEL: Aug 08

01---	Lands & Damages (PCA)	25,000	6,250	25%	31,250	0.0%	25,000	6,250	31,250	Jun 09	1.6%	25,400	6,350	31,750
	<b>Subtotal</b>	<b>25,000</b>	<b>6,250</b>		<b>31,250</b>		<b>25,000</b>	<b>6,250</b>	<b>31,250</b>			<b>25,400</b>	<b>6,350</b>	<b>31,750</b>
06---	Fish & Wildlife -Restore Wetlands	15,179,000	3,794,750	25%	18,973,750	0.0%	15,179,000	3,794,750	18,973,750	Jan 12	7.4%	16,302,246	4,075,562	20,377,808
30---	PLANNING, ENGINEERING & DESIGN, 8%+-	1,214,320	303,580	25%	1,517,900	0.0%	1,214,320	303,580	1,517,900	Jun 09	3.4%	1,255,607	313,902	1,569,509
31---	CONSTRUCTION MANAGEMENT, 6% +-	910,740	227,685	25%	1,138,425	0.0%	910,740	227,685	1,138,425	Jan 12	7.4%	978,135	244,534	1,222,669
	<b>Subtotal</b>	<b>17,304,060</b>	<b>4,326,015</b>		<b>21,630,075</b>		<b>17,304,060</b>	<b>4,326,015</b>	<b>21,630,075</b>			<b>18,535,988</b>	<b>4,633,998</b>	<b>23,169,986</b>

4. Native Vegetation Planting at 1 meter spacing
3. Filling in 100% of existing artificial ditches/channels.
2. 100% removal of exotics from non-excavated areas and maintain removal of exotic plant species in all areas over project lifetime. (Mandatory in all plans).
  1. Excavation of old fill material (includes 90-95% removal of existing exotic species in excavated areas) (Mandatory).

The restoration site contains 62 acres of emergent tidal marsh to be restored. The remaining 61 acres of scrub shrub wetland habitat would remain. The tidal marshes in this area were ditched during the 1960s causing changes in the natural hydrology and subsequent changes in the species composition. Hurricane Katrina left extensive debris fields and sedimentation in the area and destroyed many native trees and vegetation. Due to the loss of native species this area has a severe infestation of the invasive Chinese Tallow tree, which is invading the marshes and the adjacent flatwoods. For increased habitat diversity, higher elevations containing shrub/scrub wetland plant species would remain in order to enhance diversity within the restoration site. The following measures were developed:

Admiral Island Proposed Action

Price Level by Aug 08

FEASIBILITY STUDY

Estimated by CESAM-EN-E, Cost Engineering Branch

Designed by CESAM-EN-E, Mobile District, Corps of  
Engineers

Prepared by Joseph Ellsworth

Preparation Date 8/14/2008

Effective Date of Pricing 8/14/2008

Estimated Construction Time Days

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project file: mscip-admiral-feasibility-14aug08.mlp

report file: mscip-feasibility standard report selections.mrp

output file: mscip-admiral-feasibility-14aug08.doc

**Date Author**

**Note**

Joseph H. Ellsworth

**BASIS of COST ESTIMATE and RATIONALE**

Feasibility Estimate is based on Historical Data, Recent Pricing, and Estimator's Judgment. Estimate is structured and priced as a General Prime contractor supported by major subcontractors. Anticipated bidding conditions and construction duration with reasonable schedules are considered Normal. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Current Contract Cost (price level Aug 08).

Price Level of Estimate is Aug 08.

Project Life is assumed as 50 years in Cost Estimate.

06 Feature Account, Preservation - Mitigation-Tidal quantities were based on impacts of new footprint plus mitigated factor which was determined and coordinated by other agencies. Unit cost were derived and based on historical data.

30 Feature Account, Planning, Engineering & Design was developed and assigned at 8% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Eight percent was used in the Interim MsCIP projects which was reviewed and approved and included in the Chief's Report.

31 Feature Account, Construction Management was developed and assigned at 6% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Six percent was used in the Interim MsCIP projects which was reviewed & approved and included in the Chief's Report.

Contingency was jointly developed and assigned by the Project Delivery Team. The Contingency percentage at 25% reflects the possibility of changes in quantity estimates and unknowns associated with the unit price. The contingency factor used does not vary throughout the cost estimate. It was determined and agreed upon by the Project Delivery Team that a high rate be used primarily due to risk, degree of confidence, and the project not being of the normal design.

Markups for subcontractors are included in the unit prices and include such items as field overheads, home office expenses, profit, bond and insurance.

Mobilization Preparatory Work & Demobilization are derived within the estimate generally at 2.5 % +/- of construction cost excluding the Misc Items cost.

Miscellaneous Items represent cost where quantities were not available, such items as signage, construction site/staging restoration, silt fencing, site access, etc. These cost are derived within the estimate at .25 percent+/- (.25%) of construction cost excluding Mob & Demob Cost

Unit Prices, for such items as site work, earthwork, etc., were based on Historical Data, Recent Pricing, Estimator's Judgment, and Cost derivation using MCACES / MII estimating systems.

8/5/2008 Joseph H. Ellsworth

Quantities listed within the estimates represent Major Elements of the Project Scope and were furnished by the Project Delivery Team. Where quantities were not available, assumptions were made based on historical information and Estimator's judgment.

The following Contractor Markups are applied to the Cost to Prime Direct Cost:

**Date Author**

**Note**

Contractor's Field Overhead @ 12%

Contractor's Home Office (G&A) @ 8%

Profit @ 10%

Bond @ 1.2%

Miss. Gross Receipts Tax @ 3.5%

Listed are all Cost Engineering Personnel that worked on the Feasibility Cost Estimate.

Joseph H. Ellsworth, Lead Cost Engineer

Gary Payton, Cost Engineer

George F. Rush, Civil Engineer, Dredging

Michael A. McKown, Geo Tech Engineer

Lloyd Oliver, Structural Engineer

Richard W. Harvey, Mechanical Engineer

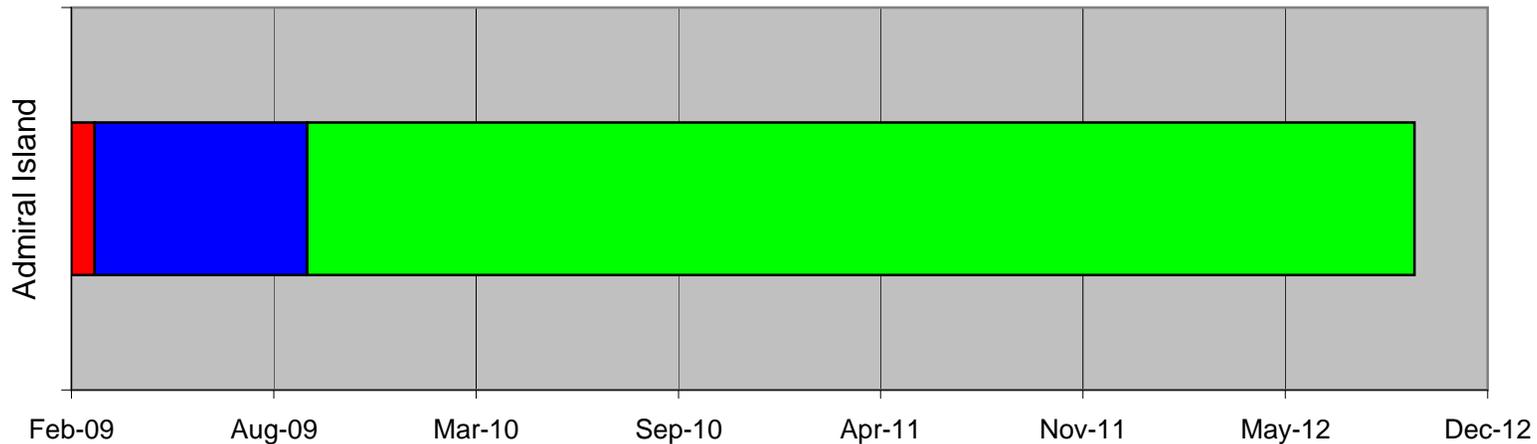
John R. Thomas, Real Estate Specialist

Donald A. Whitmore, Civil Engineer- Non-Structural Estimates

Jennifer L. Jacobson, Environmentalist

Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
<b>Contract Cost Summary Report</b>			<b>10,891,401</b>	<b>1,306,968</b>	<b>975,870</b>	<b>1,317,424</b>	<b>173,900</b>	<b>513,295</b>	<b>15,178,857</b>
<b>01 Admiral Island, Hancock County - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>10,891,401</b>	<b>1,306,968</b>	<b>975,870</b>	<b>1,317,424</b>	<b>173,900</b>	<b>513,295</b>	<b>15,178,857</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>10,891,401</b>	<b>1,306,968</b>	<b>975,870</b>	<b>1,317,424</b>	<b>173,900</b>	<b>513,295</b>	<b>15,178,857</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>10,891,401</b>	<b>1,306,968</b>	<b>975,870</b>	<b>1,317,424</b>	<b>173,900</b>	<b>513,295</b>	<b>15,178,857</b>
<b>01 Restore Wetlands</b>	<b>1.00</b>	<b>LS</b>	<b>10,891,401</b>	<b>1,306,968</b>	<b>975,870</b>	<b>1,317,424</b>	<b>173,900</b>	<b>513,295</b>	<b>15,178,857</b>
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	200,000	24,000	17,920	24,192	3,193	9,426	278,731
			<i>10.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>13.94</i>
USR Excavation of existing area from -.5 to +2.0 (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)	916,483.00	CY	9,164,830	1,099,780	821,169	1,108,578	146,332	431,924	12,772,613
			<i>12.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>16.72</i>
USR Removal of roads(assume 24' wide)	3,500.00	LF	42,000	5,040	3,763	5,080	671	1,979	58,534
			<i>35.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>48.78</i>
USR Remove utilities	3,500.00	LF	122,500	14,700	10,976	14,818	1,956	5,773	170,723
			<i>2,700.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>3,762.87</i>
USR Herbicide, application from truck	62.00	ACR	167,400	20,088	14,999	20,249	2,673	7,889	233,298
			<i>4.25</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>5.92</i>
USR Filing of existing ditches & channels	7,000.00	CY	29,750	3,570	2,666	3,599	475	1,402	41,461
			<i>2.15</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>3.00</i>
USR Environmental Planting (Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 432,140 plants plus 20% replacement = 518,568 plants. Material price fob job site @ \$0.78/ea, Fertilizer @ \$0.10/ea, Labor Cost @ \$0.90/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.16 / plant. Use \$2.15 / plant.)	518,568.00	EA	1,114,921	133,791	99,897	134,861	17,802	52,544	1,553,816
USR Misc site items	1.00	LS	50,000	6,000	4,480	6,048	798	2,356	69,683

Description	Quantity	UOM	SubBidCost	CostToPrime
<b>Project Direct Costs Report</b>			<b>10,891,401</b>	<b>10,891,401</b>
<b>01 Admiral Island, Hancock County - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>10,891,401</b>	<b>10,891,401</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>10,891,401</b>	<b>10,891,401</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>10,891,401</b>	<b>10,891,401</b>
<b>01 Restore Wetlands</b>	<b>1.00</b>	<b>LS</b>	<b>10,891,401</b>	<b>10,891,401</b>
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	200,000	200,000
			<i>10.00</i>	<i>10.00</i>
USR Excavation of existing area from -.5 to +2.0 (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)	916,483.00	CY	9,164,830	9,164,830
			<i>12.00</i>	<i>12.00</i>
USR Removal of roads(assume 24' wide)	3,500.00	LF	42,000	42,000
			<i>35.00</i>	<i>35.00</i>
USR Remove utilities	3,500.00	LF	122,500	122,500
			<i>2,700.00</i>	<i>2,700.00</i>
USR Herbicide, application from truck	62.00	ACR	167,400	167,400
			<i>4.25</i>	<i>4.25</i>
USR Filing of existing ditches & channels	7,000.00	CY	29,750	29,750
			<i>2.15</i>	<i>2.15</i>
USR Environmental Planting (Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 432,140 plants plus 20% replacement = 518,568 plants. Material price fob job site @ \$0.78/ea, Fertilizer @0.10/ea, Labor Cost @ \$0.90/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.16 / plant. Use \$2.15 / plant.)	518,568.00	EA	1,114,921	1,114,921
USR Misc site items	1.00	LS	50,000	50,000



The restoration site contains 62 acres of emergent tidal marsh to be restored by removing fill and planting native vegetation on 1-meter spacing and filling existing ditches. The remaining 61 acres of scrub shrub wetland habitat would remain. Due to the loss of native species this area has a severe infestation of the invasive Chinese Tallow tree, which is invading the marshes and the adjacent flatwoods. For increased habitat diversity, higher elevations containing shrub/scrub wetland plant species would remain in order to enhance diversity within the restoration site with 100% removal of exotics from non-excavated areas. The design will start in March of 2009, the award will be in October, 2009, and the completion will be October, 2012.

- Design
- Period of Performance

TOTAL PROJECT

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvement Program, Bayou Cumbest -Environmental Restoration, Restore Wetlands DISTRICT: MOBILE  
 LOCATION: Jackson County, Mississippi

P.O.C.: Joseph H. Ellsworth

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....		
						EFFECTIVE PRICING LEVEL: Aug 08			COST (\$K)	CNTG (\$K)	TOTAL (\$K)
01---	EMPHASIS	4,831,603	1,207,901	25%	6,039,504	4,831,603	1,207,901	6,039,504	4,933,067	1,233,267	6,166,334
06---	Fish & Wildlife -Restore Wetlands <b>( Bayou Cumbest )</b>	13,564,000	3,391,000	25%	16,955,000	13,564,000	3,391,000	16,955,000	14,567,736	3,641,934	18,209,670
30---	PLANNING, ENGINEERING & DESIGN	1,085,120	271,280	25%	1,356,400	1,085,120	271,280	1,356,400	1,107,908	276,977	1,384,885
31---	CONSTRUCTION MANAGEMENT	813,840	203,460	25%	1,017,300	813,840	203,460	1,017,300	874,064	218,516	1,092,580
<b>TOTAL PROJECT COST =====&gt;</b>		<b>20,294,563</b>	<b>5,073,641</b>		<b>25,368,204</b>	<b>20,294,563</b>	<b>5,073,641</b>	<b>25,368,204</b>	<b>21,482,775</b>	<b>5,370,694</b>	<b>26,853,469</b>

rounded

65% TOTAL FEDERAL COSTS =====> **\$17,485,000**

35% TOTAL NON - FEDERAL COSTS =====> **\$9,415,000**

TOTAL PROJECT COSTS =====> **\$26,900,000**

DISTRICT APPROVED:

- \_\_\_\_\_ CHIEF, COST ENGINEERING
- \_\_\_\_\_ CHIEF, REAL ESTATE
- \_\_\_\_\_ CHIEF, PLANNING
- \_\_\_\_\_ CHIEF, ENGINEERING
- \_\_\_\_\_ CHIEF, OPERATIONS
- \_\_\_\_\_ CHIEF, CONSTRUCTION
- \_\_\_\_\_ CHIEF, PROGRAMS MANAGEMENT
- \_\_\_\_\_ PROJECT MANAGER
- \_\_\_\_\_ DDE (PM)

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Bayou Cumbest -Environmental Restoration, Restore Wetlands DISTRICT: MOBILE  
 LOCATION: Jackson County, Mississippi

P.O.C.: Joseph H. Ellsworth

ACCOUNT No.	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....				
						OMB (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	FEATURE MID PT	OMB (%)	COST (\$K)	CNTG (\$K)

EFFECTIVE PRICING LEVEL: Aug 08

01---	Lands & Damages (price level, Oct 07)	4,831,603	1,207,901	25%	6,039,504	0.0%	4,831,603	1,207,901	6,039,504	Sep 09	2.1%	4,933,067	1,233,267	6,166,334
<b>Subtotal</b>		4,831,603	1,207,901		6,039,504		4,831,603	1,207,901	6,039,504			4,933,067	1,233,267	6,166,334
06---	Fish & Wildlife -Restore Wetlands	13,564,000	3,391,000	25%	16,955,000	0.0%	13,564,000	3,391,000	16,955,000	Jan 12	7.4%	14,567,736	3,641,934	18,209,670
30---	PLANNING, ENGINEERING & DESIGN, 8%+-	1,085,120	271,280	25%	1,356,400	0.0%	1,085,120	271,280	1,356,400	Sep 09	2.1%	1,107,908	276,977	1,384,885
31---	CONSTRUCTION MANAGEMENT, 6% +-	813,840	203,460	25%	1,017,300	0.0%	813,840	203,460	1,017,300	Jan 12	7.4%	874,064	218,516	1,092,580
<b>Subtotal</b>		15,462,960	3,865,740		19,328,700		15,462,960	3,865,740	19,328,700			16,549,708	4,137,427	20,687,135

4. Native Vegetation Planting at 1 meter spacing
3. Filling in 100% of existing artificial ditches/channels
2. 100% removal of exotics from non-excavated areas and maintain removal of exotic species (Chinese Tallow, Phragmites, Cogon Grass) in all areas over project lifetime. (Mandatory in all plans).
  1. Excavation of old fill material (includes 90-95% removal of existing exotic species in excavated areas) (Mandatory)

The restoration project consists of 110 acres to be restored to tidal marsh and while the remaining 38 acres would remain scrub/shrub wetland habitat. The area presently consists of previously filled marsh areas that were developed into a residential community. The majority of residences were severely damaged or completely destroyed during the hurricanes of 2005. The following measures were developed:  
Bayou Cumbest

Price Level by Aug 08  
FEASIBILITY STUDY

Estimated by CESAM-EN-E, Cost Engineering Branch

Designed by CESAM-EN-E, Mobile District, Corps of  
Engineers

Prepared by Joseph Ellsworth

Preparation Date 8/14/2008

Effective Date of Pricing 8/14/2008

Estimated Construction Time Days

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project file:mscip-bayou cumbest-feasibility-14aug08.mlp

report file: mscip-feasibility standard report selections.mrp

output file: mscip-bayou cumbest-feasibility-14aug08.doc

**Date Author**

**Note**

Joseph H. Ellsworth

**BASIS of COST ESTIMATE and RATIONALE**

Feasibility Estimate is based on Historical Data, Recent Pricing, and Estimator's Judgment. Estimate is structured and priced as a General Prime contractor supported by major subcontractors. Anticipated bidding conditions and construction duration with reasonable schedules are considered Normal. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Current Contract Cost (price level Aug 08).

Price Level of Estimate is Aug 08.

Project Life is assumed as 50 years in Cost Estimate.

30 Feature Account, Planning, Engineering & Design was developed and assigned at 8% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Eight percent was used in the Interim MsCIP projects which was reviewed and approved and included in the Chief's Report.

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Miscellaneous Items represent cost where quantities were not available, such items as signage, construction site/staging restoration, silt fencing, site access, etc. These cost are derived within the estimate at .25 percent +-(.25%) of construction cost excluding Mob & Demob Cost

Unit Prices, for such items as site work, earthwork, planting, etc., were based on Historical Data, Recent Pricing, Estimator's Judgment, and Cost derivation using MCACES / MII estimating systems.

8/5/2008 Joseph H. Ellsworth The following Contractor Markups are applied to the Cost to Prime Direct Cost:

Contractor's Field Overhead @ 12%

Contractor's Home Office (G&A) @ 8%

Profit @ 10%

Bond @ 1.2%

Miss. Gross Receipts Tax @ 3.5%

Listed are all Cost Engineering Personnel that worked on the Feasibility Cost Estimate.

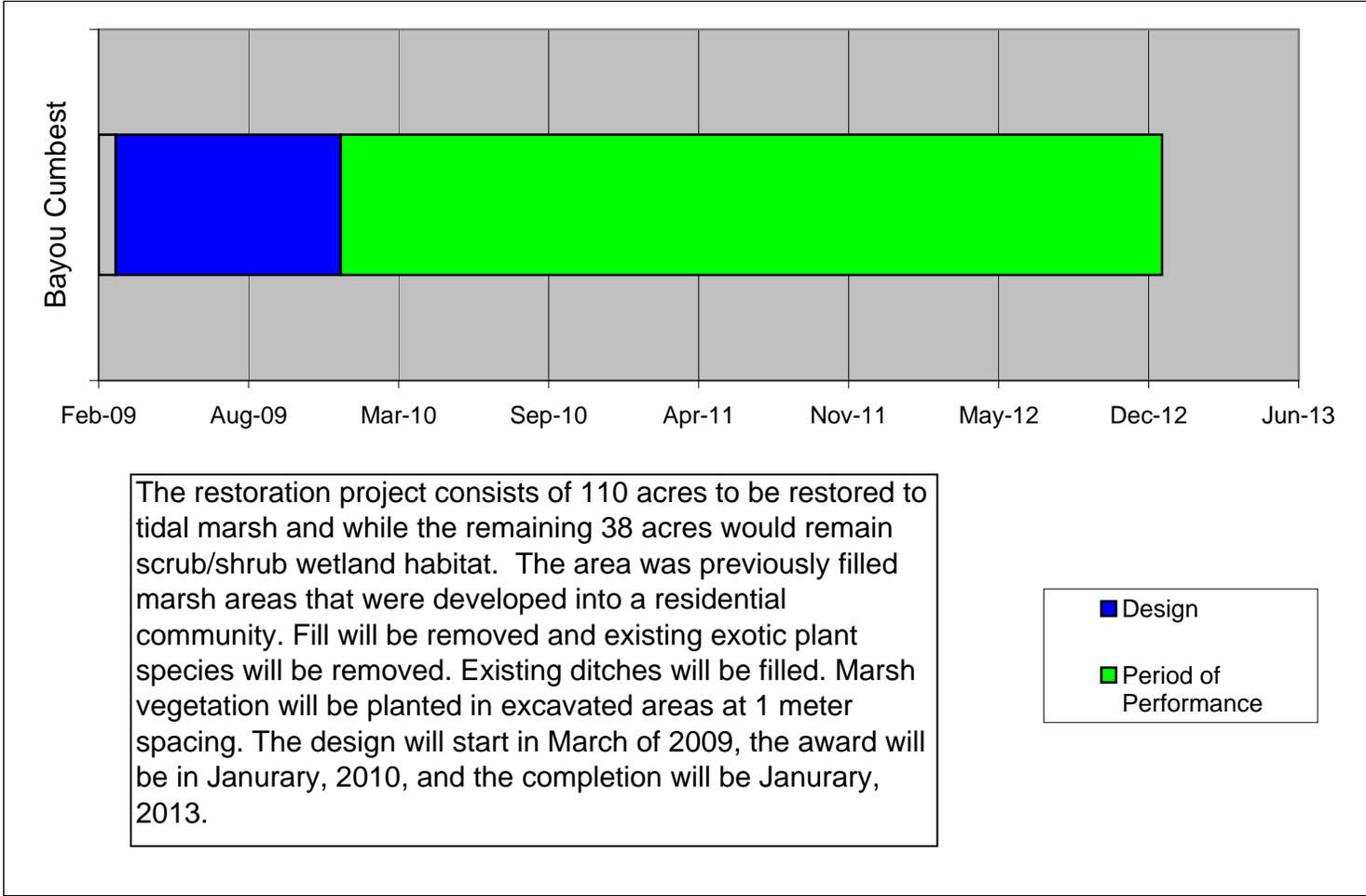
**Date Author**

**Note**

Joseph H. Ellsworth, Lead Cost Engineer  
Gary Payton, Cost Engineer  
George F. Rush, Civil Engineer, Dredging  
Michael A. McKown, Geo Tech Engineer  
Lloyd Oliver, Structural Engineer  
Richard W. Harvey, Mechanical Engineer  
John R. Thomas, Real Estate Specialist  
Donald A. Whitmore, Civil Engineer- Non-Structural Estimates  
Jennifer L. Jacobson, Environmentalist

Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
<b>Contract Cost Summary Report</b>			<b>9,732,957</b>	<b>1,167,955</b>	<b>872,073</b>	<b>1,177,298</b>	<b>155,403</b>	<b>458,699</b>	<b>13,564,385</b>
<b>01 Bayou Cumbest Area 34, Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>9,732,957</b>	<b>1,167,955</b>	<b>872,073</b>	<b>1,177,298</b>	<b>155,403</b>	<b>458,699</b>	<b>13,564,385</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>9,732,957</b>	<b>1,167,955</b>	<b>872,073</b>	<b>1,177,298</b>	<b>155,403</b>	<b>458,699</b>	<b>13,564,385</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>9,732,957</b>	<b>1,167,955</b>	<b>872,073</b>	<b>1,177,298</b>	<b>155,403</b>	<b>458,699</b>	<b>13,564,385</b>
			<i>88,481.43</i>						<i>123,312.59</i>
<b>01 Restore Wetlands</b>	<b>110.00</b>	<b>ACR</b>	<b>9,732,957</b>	<b>1,167,955</b>	<b>872,073</b>	<b>1,177,298</b>	<b>155,403</b>	<b>458,699</b>	<b>13,564,385</b>
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	250,000	30,000	22,400	30,240	3,992	11,782	348,414
USR Removal Excavation Existing Area From -0.5 to+2.0 (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)	693,909.00	CY	6,939,090	832,691	621,742	839,352	110,795	327,028	9,670,699
			<i>10.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>13.94</i>
USR Removal of Structures Avg. 1500SF@18EA	27,000.00	SF	81,000	9,720	7,258	9,798	1,293	3,817	112,886
			<i>3.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>4.18</i>
USR Removal Disposal Fee	1,000.00	CY	2,150	258	193	260	34	101	2,996
			<i>2.15</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>3.00</i>
USR Removal of Roads 24FT Wide Assumed	6,439.00	LF	77,268	9,272	6,923	9,346	1,234	3,642	107,685
			<i>12.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>16.72</i>
USR Removal of Utilities	6,439.00	LF	225,365	27,044	20,193	27,260	3,598	10,621	314,081
			<i>35.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>48.78</i>
USR Herbicide, Hand Application Untouched Areas	32.00	ACR	86,400	10,368	7,741	10,451	1,380	4,072	120,412
			<i>2,700.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>3,762.87</i>
USR Filling of Existing Ditches & Channels(from req'd. excavation)	2,023.00	CY	8,598	1,032	770	1,040	137	405	11,982
			<i>4.25</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>5.92</i>
USR Environmental Planting (Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 766,700 plants plus 20% replacement = 920,040 plants. Material price fob job site @ \$0.78/ea, Fertilizer @ \$0.10/ea, Labor Cost @ \$0.90/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.16 / plant. Use \$2.15 / plant.)	920,040.00	EA	1,978,086	237,370	177,237	239,269	31,584	93,224	2,756,770
			<i>2.15</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>3.00</i>
USR Miscellaneous Site Items	1.00	LS	85,000	10,200	7,616	10,282	1,357	4,006	118,461
			<i>2.15</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>3.00</i>

Description	Quantity	UOM	SubBidCost	CostToPrime
<b>Project Direct Costs Report</b>			<b>9,732,957</b>	<b>9,732,957</b>
<b>01 Bayou Cumbest Area 34, Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>9,732,957</b>	<b>9,732,957</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>9,732,957</b>	<b>9,732,957</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>9,732,957</b>	<b>9,732,957</b>
<b>01 Restore Wetlands</b>	<b>110.00</b>	<b>ACR</b>	<b>9,732,957</b>	<b>9,732,957</b>
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	250,000	250,000
USR Removal Excavation Existing Area From -0.5 to+2.0 (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)	693,909.00	CY	6,939,090	6,939,090
USR Removal of Structures Avg. 1500SF@18EA	27,000.00	SF	81,000	81,000
USR Removal Disposal Fee	1,000.00	CY	2,150	2,150
USR Removal of Roads 24FT Wide Assumed	6,439.00	LF	77,268	77,268
USR Removal of Utilities	6,439.00	LF	225,365	225,365
USR Herbicide, Hand Application Untouched Areas	32.00	ACR	86,400	86,400
USR Filling of Existing Ditches & Channels(from req'd. excavation)	2,023.00	CY	8,598	8,598
USR Environmental Planting (Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 766,700 plants plus 20% replacement = 920,040 plants. Material price fob job site @ \$0.78/ea, Fertilizer @0.10/ea, Labor Cost @ \$0.90/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.16 / plant. Use \$2.15 / plant.)	920,040.00	EA	1,978,086	1,978,086
USR Miscellaneous Site Items	1.00	LS	85,000	85,000



TOTAL PROJECT

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvement Program, Franklin Creek -Environmental Restoration, Restore Wetlands DISTRICT: MOBILE  
 LOCATION: Jackson County, Mississippi

P.O.C.: Joseph H. Ellsworth

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....		
						EFFECTIVE PRICING LEVEL: Aug 08			COST (\$K)	CNTG (\$K)	TOTAL (\$K)
01---	EMPHASIS	25,000	6,250	25%	31,250	25,000	6,250	31,250	25,525	6,381	31,906
06---	Fish & Wildlife -Restore Wetlands <b>( Franklin Creek )</b>	1,271,000	317,750	25%	1,588,750	1,271,000	317,750	1,588,750	1,365,054	341,264	1,706,318
30---	PLANNING, ENGINEERING & DESIGN	101,680	25,420	25%	127,100	101,680	25,420	127,100	103,815	25,954	129,769
31---	CONSTRUCTION MANAGEMENT	76,260	19,065	25%	95,325	76,260	19,065	95,325	81,903	20,476	102,379
<b>TOTAL PROJECT COST =====&gt;</b>		<b>1,473,940</b>	<b>368,485</b>		<b>1,842,425</b>	<b>1,473,940</b>	<b>368,485</b>	<b>1,842,425</b>	<b>1,576,297</b>	<b>394,075</b>	<b>1,970,372</b>

rounded

65% TOTAL FEDERAL COSTS =====> **\$1,300,000**

35% TOTAL NON - FEDERAL COSTS =====> **\$700,000**

TOTAL PROJECT COSTS =====> **\$2,000,000**

DISTRICT APPROVED:

- \_\_\_\_\_ CHIEF, COST ENGINEERING
- \_\_\_\_\_ CHIEF, REAL ESTATE
- \_\_\_\_\_ CHIEF, PLANNING
- \_\_\_\_\_ CHIEF, ENGINEERING
- \_\_\_\_\_ CHIEF, OPERATIONS
- \_\_\_\_\_ CHIEF, CONSTRUCTION
- \_\_\_\_\_ CHIEF, PROGRAMS MANAGEMENT
- \_\_\_\_\_ PROJECT MANAGER
- \_\_\_\_\_ DDE (PM)

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Franklin Creek -Environmental Restoration, Restore Wetlands DISTRICT: MOBILE  
 LOCATION: Jackson County, Mississippi

P.O.C.: Joseph H. Ellsworth

ACCOUNT No.	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....				
						OMB (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	FEATURE MID PT	OMB (%)	COST (\$K)	CNTG (\$K)

EFFECTIVE PRICING LEVEL: Aug 08

EFFECTIVE PRICING LEVEL: Aug 08

01---	Lands & Damages (PCA)	25,000	6,250	25%	31,250	0.0%	25,000	6,250	31,250	Sep 09	2.1%	25,525	6,381	31,906
	<b>Subtotal</b>	<b>25,000</b>	<b>6,250</b>		<b>31,250</b>		<b>25,000</b>	<b>6,250</b>	<b>31,250</b>			<b>25,525</b>	<b>6,381</b>	<b>31,906</b>
06---	Fish & Wildlife -Restore Wetlands	1,271,000	317,750	25%	1,588,750	0.0%	1,271,000	317,750	1,588,750	Jan 12	7.4%	1,365,054	341,264	1,706,318
30---	PLANNING, ENGINEERING & DESIGN, 8%+-	101,680	25,420	25%	127,100	0.0%	101,680	25,420	127,100	Sep 09	2.1%	103,815	25,954	129,769
31---	CONSTRUCTION MANAGEMENT, 6% +-	76,260	19,065	25%	95,325	0.0%	76,260	19,065	95,325	Jan 12	7.4%	81,903	20,476	102,379
	<b>Subtotal</b>	<b>1,448,940</b>	<b>362,235</b>		<b>1,811,175</b>		<b>1,448,940</b>	<b>362,235</b>	<b>1,811,175</b>			<b>1,550,772</b>	<b>387,694</b>	<b>1,938,466</b>

4. Add culverts (Mandatory)
3. Excavate and remove existing roadbeds and any additional fill (Mandatory)
2. Maintain vegetation (Mandatory) by mowing 1st year and Burn 1st year; Burn every 3 years for life of project.
1. Filling in ditches (Mandatory)

The restoration site is an interim buy-out project currently being implemented. The site consists of 149 acres bisected by an elevated railroad atop an earthen berm. The site received severe flood damages during the hurricanes of 2005 and previous storm events. Historically, the site consisted of pine savannah wetlands. It is assumed that removal of utilities, building slabs, and roadways would be completed as part of the ongoing interim project. The following restoration measures were developed:  
Franklin Creek

Price Level Aug 08  
FEASIBILITY STUDY

Estimated by CESAM-EN-E, Cost Engineering Branch  
Designed by CESAM-EN-E, Mobile District, Corps of  
Engineers  
Prepared by Joseph H. Ellsworth  
Preparation Date 8/8/2008  
Effective Date of Pricing 8/8/2008  
Estimated Construction Time Days

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project file: franklin-feasibility-aug08.mlp

report file: feasibilty standard report.mrp

output file: franklin-feasibility-aug08.doc

**Date Author**

**Note**

Joseph H. Ellsworth

**BASIS of COST ESTIMATE and RATIONALE**

Feasibility Estimate is based on Historical Data, Recent Pricing, and Estimator's Judgment. Estimate is structured and priced as a General Prime contractor supported by major subcontractors. Anticipated bidding conditions and construction duration with reasonable schedules are considered Normal. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Current Contract Cost (price level Aug 08). The Non-structural and Real Estate Cost were prepared by the Savannah & Huntington Districts.

Price Level of Estimate is Aug 08.

Project Life is assumed as 50 years in Cost Estimate.

30 Feature Account, Planning, Engineering & Design was developed and assigned at 8% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Eight percent was used in the Interim MsCIP projects which was reviewed and approved and included in the Chief's Report.

31 Feature Account, Construction Management was developed and assigned at 6% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Six percent was used in the Interim MsCIP projects which was reviewed & approved and included in the Chief's Report.

Contingency was jointly developed and assigned by the Project Delivery Team. The Contingency percentage at 25% reflects the possibility of changes in quantity estimates and unknowns associated with the unit price. The contingency factor used does not vary throughout the cost estimate. It was determined and agreed upon by the Project Delivery Team that a high rate be used primarily due to risk, degree of confidence, and the project not being of the normal design.

Markups for subcontractors are included in the unit prices and include such items as field overheads, home office expenses, profit, bond and insurance.

Mobilization Preparatory Work & Demobilization are derived within the estimate generally at 2.5 % +- of construction cost excluding the Misc Items cost.

Miscellaneous Items represent cost where quantities were not available, such items as signage, construction site/staging restoration, silt fencing, site access, etc. These cost are derived within the estimate at .25 percent (.25%) of construction cost excluding Mob & Demob Cost

Unit Prices, for such items as site work, earthwork, stone protection, concrete, reinforcing, etc., were based on Historical Data, Recent Pricing, Estimator's Judgment, and Cost derivation using MCACES / MII estimating systems.

8/5/2008 Joseph H. Ellsworth

The following Contractor Markups are applied to the Cost to Prime Direct Cost:

Contractor's Field Overhead @ 12%

Contractor's Home Office (G&A) @ 8%

**Date Author**

**Note**

Profit @ 10%

Bond @ 1.2%

Miss. Gross Receipts Tax @ 3.5%

Listed are all Cost Engineering Personnel that worked on the Feasibility Cost Estimate.

Joseph H. Ellsworth, Lead Cost Engineer

Gary Payton, Cost Engineer

George F. Rush, Civil Engineer, Dredging

Michael A. McKown, Geo Tech Engineer

Lloyd Oliver, Structural Engineer

Richard W. Harvey, Mechanical Engineer

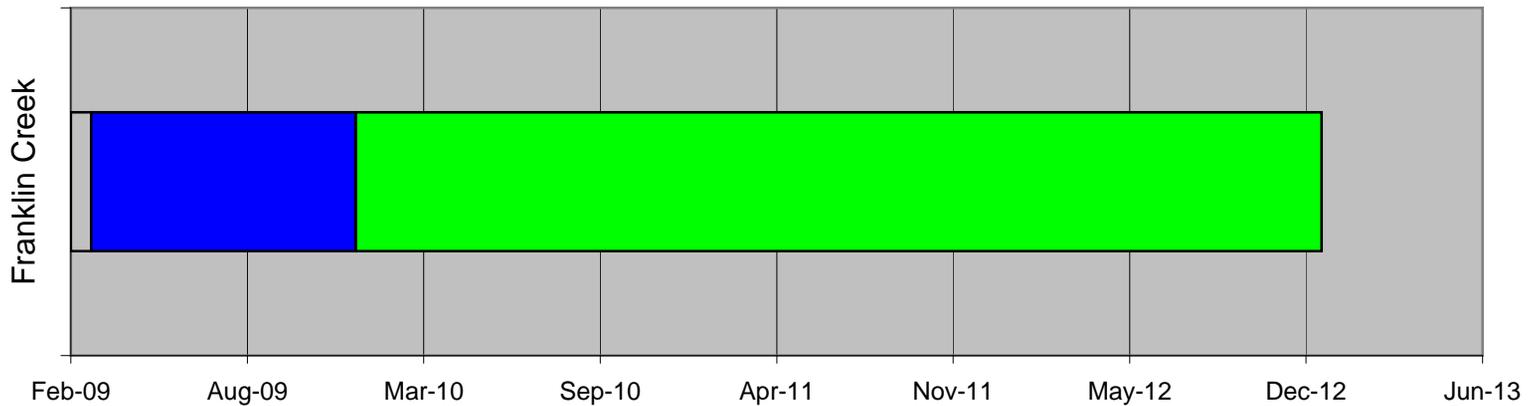
John R. Thomas, Real Estate Specialist

Donald A. Whitmore, Civil Engineer- Non-Structural Estimates

Jennifer L. Jacobson, Environmentalist

Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
<b>Contract Cost Summary Report</b>			<b>912,045</b>	<b>109,445</b>	<b>81,719</b>	<b>110,321</b>	<b>14,562</b>	<b>42,983</b>	<b>1,271,076</b>
<b>01 Franklin Creek, Jackson County - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>912,045</b>	<b>109,445</b>	<b>81,719</b>	<b>110,321</b>	<b>14,562</b>	<b>42,983</b>	<b>1,271,076</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>912,045</b>	<b>109,445</b>	<b>81,719</b>	<b>110,321</b>	<b>14,562</b>	<b>42,983</b>	<b>1,271,076</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>912,045</b>	<b>109,445</b>	<b>81,719</b>	<b>110,321</b>	<b>14,562</b>	<b>42,983</b>	<b>1,271,076</b>
<b>01 Restore Wetlands</b>	<b>1.00</b>	<b>LS</b>	<b>912,045</b>	<b>109,445</b>	<b>81,719</b>	<b>110,321</b>	<b>14,562</b>	<b>42,983</b>	<b>1,271,076</b>
<i>(Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)</i>									
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	40,000	4,800	3,584	4,838	639	1,885	55,746
			<i>100.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>139.37</i>
USR 24" RCP culverts, (15@100' long ea)	1,500.00	LF	150,000	18,000	13,440	18,144	2,395	7,069	209,048
<i>(Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)</i>									
			<i>9.75</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>13.59</i>
USR Fill in ditches(from off-site borrow)	26,000.00	CY	253,500	30,420	22,714	30,663	4,048	11,947	353,292
			<i>130.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>181.18</i>
USR Burn vegetation	149.00	ACR	19,370	2,324	1,736	2,343	309	913	26,995
			<i>75.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>104.52</i>
USR Mow vegetation(annually)	149.00	ACR	11,175	1,341	1,001	1,352	178	527	15,574
			<i>12.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>16.72</i>
USR Remove roads(assume 24' wide)	9,000.00	LF	108,000	12,960	9,677	13,064	1,724	5,090	150,515
			<i>35.00</i>	<i>12.00%</i>	<i>8.00%</i>	<i>10.00%</i>	<i>1.20%</i>	<i>3.50%</i>	<i>48.78</i>
USR Remove utilities	9,000.00	LF	315,000	37,800	28,224	38,102	5,030	14,845	439,001
USR Misc site items	1.00	LS	15,000	1,800	1,344	1,814	240	707	20,905

Description	Quantity	UOM	SubBidCost	CostToPrime
<b>Project Direct Costs Report</b>			<b>912,045</b>	<b>912,045</b>
<b>01 Franklin Creek, Jackson County - Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>912,045</b>	<b>912,045</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>912,045</b>	<b>912,045</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>912,045</b>	<b>912,045</b>
<b>01 Restore Wetlands</b>	<b>1.00</b>	<b>LS</b>	<b>912,045</b>	<b>912,045</b>
(Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)				
USR Mobilization, Preparatory Work, & Demobilization	1.00	LS	40,000	40,000
			<i>100.00</i>	<i>100.00</i>
USR 24" RCP culverts, (15@100' long ea)	1,500.00	LF	150,000	150,000
(Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)				
			<i>9.75</i>	<i>9.75</i>
USR Fill in ditches(from off-site borrow)	26,000.00	CY	253,500	253,500
			<i>130.00</i>	<i>130.00</i>
USR Burn vegetation	149.00	ACR	19,370	19,370
			<i>75.00</i>	<i>75.00</i>
USR Mow vegetation(annually)	149.00	ACR	11,175	11,175
			<i>12.00</i>	<i>12.00</i>
USR Remove roads(assume 24' wide)	9,000.00	LF	108,000	108,000
			<i>35.00</i>	<i>35.00</i>
USR Remove utilities	9,000.00	LF	315,000	315,000
USR Misc site items	1.00	LS	15,000	15,000



The restoration site is an interim buy-out project currently being implemented. The site consists of 149 acres bisected by an elevated railroad atop an earthen berm. Historically, the site consisted of pine savannah wetlands. It is assumed that removal of utilities, building slabs, and roadways would be completed as part of the ongoing interim project. Additional restoration measures consist of filling in ditches, removing existing roadbeds and any additional fill, mowing and burning to control exotic plant species and adding culverts to improve hydrology. The design will start in March of 2009, the award will be in January, 2010, and the completion will be January, 2013.



TOTAL PROJECT

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Deer Island Ecosystem Restoration  
 LOCATION: Mississippi

DISTRICT: MOBILE

P.O.C.: Joseph H. Ellsworth

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....		
						COST (\$K)	CNTG (\$K)	TOTAL (\$K)	COST (\$K)	CNTG (\$K)	FULL (\$K)
01---	EMPHASIS	25,000	6,250	25%	31,250	25,000	6,250	31,250	25,400	6,350	31,750
06---	Fish & Wildlife -Restore Wetlands <b>( Deer Island Ecosystem Restoration )</b>	14,964,000	3,741,000	25%	18,705,000	14,964,000	3,741,000	18,705,000	16,071,336	4,017,834	20,089,170
30---	PLANNING, ENGINEERING & DESIGN	1,197,120	299,280	25%	1,496,400	1,197,120	299,280	1,496,400	1,237,822	309,456	1,547,278
31---	CONSTRUCTION MANAGEMENT	897,840	224,460	25%	1,122,300	897,840	224,460	1,122,300	964,280	241,070	1,205,350
<b>TOTAL PROJECT COST =====&gt;</b>		<b>17,083,960</b>	<b>4,270,990</b>		<b>21,354,950</b>	<b>17,083,960</b>	<b>4,270,990</b>	<b>21,354,950</b>	<b>18,298,838</b>	<b>4,574,710</b>	<b>22,873,548</b>

rounded

65% TOTAL FEDERAL COSTS =====> **\$14,885,000**

35% TOTAL NON - FEDERAL COSTS =====> **\$8,015,000**

TOTAL PROJECT COSTS =====> **\$22,900,000**

DISTRICT APPROVED:

- \_\_\_\_\_ CHIEF, COST ENGINEERING
- \_\_\_\_\_ CHIEF, REAL ESTATE
- \_\_\_\_\_ CHIEF, PLANNING
- \_\_\_\_\_ CHIEF, ENGINEERING
- \_\_\_\_\_ CHIEF, OPERATIONS
- \_\_\_\_\_ CHIEF, CONSTRUCTION
- \_\_\_\_\_ CHIEF, PROGRAMS MANAGEMENT
- \_\_\_\_\_ PROJECT MANAGER
- \_\_\_\_\_ DDE (PM)

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Deer Island Ecosystem Restoration  
 LOCATION: Mississippi

DISTRICT: MOBILE

P.O.C.: Joseph H. Ellsworth

ACCOUNT No.	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....				
						OMB (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	FEATURE MID PT	OMB (%)	COST (\$K)	CNTG (\$K)

EFFECTIVE PRICING LEVEL: Aug 08

01---	Lands & Damages (PCA)	25,000	6,250	25%	31,250	0.0%	25,000	6,250	31,250	Jun 09	1.6%	25,400	6,350	31,750
<b>Subtotal</b>		25,000	6,250		31,250		25,000	6,250	31,250			25,400	6,350	31,750

06---	Fish & Wildlife -Restore Wetlands	14,964,000	3,741,000	25%	18,705,000	0.0%	14,964,000	3,741,000	18,705,000	Jan 12	7.4%	16,071,336	4,017,834	20,089,170
30---	PLANNING, ENGINEERING & DESIGN, 8%+-	1,197,120	299,280	25%	1,496,400	0.0%	1,197,120	299,280	1,496,400	Jun 09	3.4%	1,237,822	309,456	1,547,278
31---	CONSTRUCTION MANAGEMENT, 6% +-	897,840	224,460	25%	1,122,300	0.0%	897,840	224,460	1,122,300	Jan 12	7.4%	964,280	241,070	1,205,350
<b>Subtotal</b>		17,058,960	4,264,740		21,323,700		17,058,960	4,264,740	21,323,700			18,273,438	4,568,360	22,841,798

Create additional marsh habitat area adjacent to the existing created marsh area.  
Lengthen stone containment dikes on northern and southern ends as a result of Section 204; and  
Analyze new stone training dikes on the northern and southern ends of the islands as a result of Section 204;  
Add/Replace material in the Section 204 containment dike;  
Repair/Replace the Section 204 containment dike;  
Deer Island restoration consists of a combination of the following alternatives to form the recommended plan:

Deer Island also includes the following aspects in the MsCIP effort.

The proposed project for Deer Island will provide for ecosystem restoration as well as preservation of critical coastal wetlands by restoring portions of the island and its shoreline lost during storm events. The island also provides storm protection from surge, wave action and wind for the adjacent coastal portion of the City of Biloxi, Mississippi. The proposed project will consist of three components: shoreline restoration in the Grand Bayou area of Deer Island with beach, dune, marsh and maritime forest reestablishment; restoration of the west end breach area with reestablishment of maritime forest area; and, restoration of the remaining shoreline areas along the seaward shoreline with beach, dune, marsh and maritime forest reestablishment. Fill material will be obtained from an offshore borrow area located approximately 500 feet off the southern shoreline of Deer Island. The offshore borrow area adjacent to the island would be approximately 1,000 feet wide, 6 feet deep, with a distance equal to the length of the project area. The borrow site is far enough from and is of sufficiently shallow depth to not affect shoreline stability. The wind and wave attack at Deer Island is generally southwest to northeast which is expected to push material along the shoreline. Material from the borrow area will be cast on the existing shoreline for beach nourishment via a hydraulic dredge. After filling, environmental plantings will be made to establish the maritime forest and aquatic marsh in the restored area.

Price Level Aug 08

Estimated by CESAM-EN-E, Cost Engineering Branch

Designed by CESAM-EN-E, Mobile District, Corps of  
Engineers

Prepared by Joseph Ellsworth

Preparation Date 8/14/2008

Effective Date of Pricing 8/14/2008

Estimated Construction Time Days

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project file: mscip-deer island-feasibility-14aug08.mlp

report file: MSCIP-feasibility standard report selection.mrp

output file: mscip-deer islands-feasibility-14aug08.doc

FEASIBILITY STUDY

Estimated by CESAM-EN-E, Cost Engineering Branch  
Designed by CESAM-EN-E, Mobile District, Corps of  
Engineers  
Prepared by Joseph Ellsworth

Preparation Date 8/14/2008

Effective Date of Pricing 8/14/2008

Estimated Construction Time Days

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output file: mscip-deer islands-feasibility-14aug08.doc

**Date**   **Author**                      **Note**

Joseph H. Ellsworth

BASIS of COST ESTIMATE and RATIONALE

Feasibility Estimate is based on Historical Data, Recent Pricing, and Estimator's Judgment. Estimate is structured and priced as a General Prime contractor supported by major subcontractors. Anticipated bidding conditions and construction duration with reasonable schedules are considered Normal. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Current Contract Cost (price level Aug 08). The Non-structural and Real Estate Cost were prepared by the Savannah & Huntington Districts.

Price Level of Estimate is Aug 08.

Project Life is assumed as 50 years in Cost Estimate.

30 Feature Account, Planning, Engineering & Design was developed and assigned at 8% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Eight percent was used in the Interim MsCIP projects which was reviewed and approved and included in the Chief's Report.

31 Feature Account, Construction Management was developed and assigned at 6% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Six percent was used in the Interim MsCIP projects which was reviewed & approved and included in the Chief's Report.

Contingency was jointly developed and assigned by the Project Delivery Team. The Contingency percentage at 25% reflects the possibility of changes in quantity estimates and unknowns associated with the unit price. The contingency factor used does not vary throughout the cost estimate. It was determined and agreed upon by the Project Delivery Team that a high rate be used primarily due to risk, degree of confidence, and the project not being of the normal design.

Markups for subcontractors are included in the unit prices and include such items as field overheads, home office expenses, profit, bond and insurance.

Mobilization Preparatory Work & Demobilization are derived within the CEDEP estimate for the Dredging work and the land based equipment is based on recent on-going project at the proposed site.

Miscellaneous Items represent cost where quantities were not available, such items as signage, construction site/staging restoration, silt fencing, site access, etc. These cost are derived within the estimate at .25 percent (.25%) of construction cost excluding Mob & Demob Cost

Unit Prices, for such items as site work, earthwork, planting, etc., were based on Historical Data, Recent Pricing, Estimator's Judgment, and Cost derivation using MCACES / MII estimating systems.

8/5/2008   Joseph H. Ellsworth

The following Contractor Markups are applied to the Cost to Prime Direct Cost:

Contractor's Field Overhead @ 12%

**Date Author**

**Note**

Contractor's Home Office (G&A) @ 8%

Profit @ 10%

Bond @ 1.2%

Miss. Gross Receipts Tax @ 3.5%

Listed are all Cost Engineering Personnel that worked on the Feasibility Cost Estimate.

Joseph H. Ellsworth, Lead Cost Engineer

Gary Payton, Cost Engineer

George F. Rush, Civil Engineer, Dredging

Michael A. McKown, Geo Tech Engineer

Lloyd Oliver, Structural Engineer

Richard W. Harvey, Mechanical Engineer

John R. Thomas, Real Estate Specialist

Donald A. Whitmore, Civil Engineer- Non-Structural Estimates

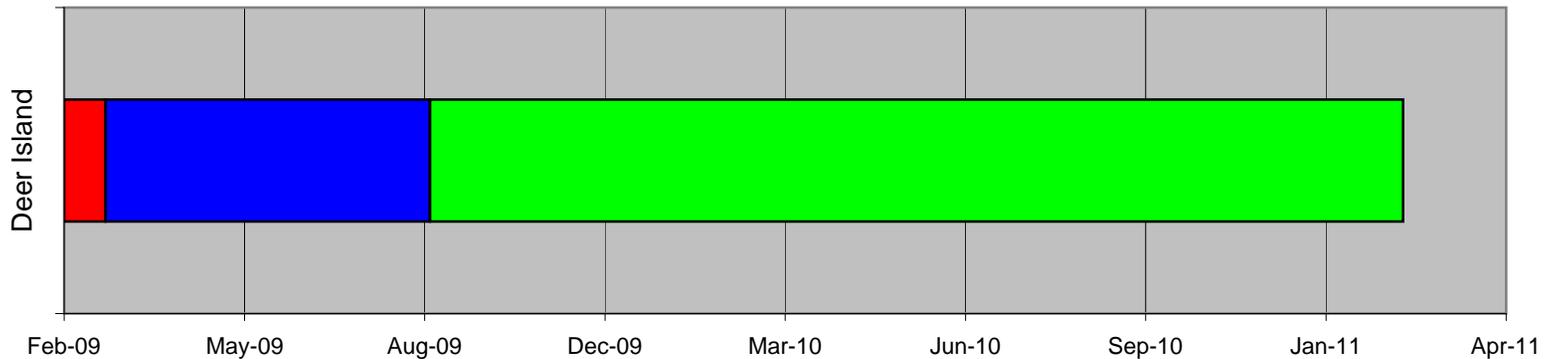
Jennifer L. Jacobson, Environmentalist

Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
<b>Contract Cost Summary Report</b>			<b>10,737,186</b>	<b>1,288,462</b>	<b>962,052</b>	<b>1,298,770</b>	<b>171,438</b>	<b>506,027</b>	<b>14,963,934</b>
<b>01 Deer Island-Aquatic Ecosystem Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>10,737,186</b>	<b>1,288,462</b>	<b>962,052</b>	<b>1,298,770</b>	<b>171,438</b>	<b>506,027</b>	<b>14,963,934</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>10,737,186</b>	<b>1,288,462</b>	<b>962,052</b>	<b>1,298,770</b>	<b>171,438</b>	<b>506,027</b>	<b>14,963,934</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>10,737,186</b>	<b>1,288,462</b>	<b>962,052</b>	<b>1,298,770</b>	<b>171,438</b>	<b>506,027</b>	<b>14,963,934</b>
<b>01 Ecosystem Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>10,737,186</b>	<b>1,288,462</b>	<b>962,052</b>	<b>1,298,770</b>	<b>171,438</b>	<b>506,027</b>	<b>14,963,934</b>
<b>Mobilization, Preparatory Work, &amp; Demobilization</b>	<b>1.00</b>	<b>LS</b>	<b>1,200,000</b>	<b>144,000</b>	<b>107,520</b>	<b>145,152</b>	<b>19,160</b>	<b>56,554</b>	<b>1,672,386</b>
USR Mobilization, Preparatory Work, Demobilization(Dredge Plant, 27")	1.00	LS	950,000	114,000	85,120	114,912	15,168	44,772	1,323,972
USR Mobilization, Preparatory Work, Demobilization(Land Base Equipment)	1.00	LS	250,000	30,000	22,400	30,240	3,992	11,782	348,414
<b>Seaward Shoreline</b>	<b>1.00</b>	<b>LS</b>	<b>4,798,722</b>	<b>575,847</b>	<b>429,965</b>	<b>580,453</b>	<b>76,620</b>	<b>226,156</b>	<b>6,687,763</b>
			5.00	12.00%	8.00%	10.00%	1.20%	3.50%	6.97
USR Beach Fill, in-place, 27" Dredge (Note: Unit Cost based a recent on-going project at existing project performing similar work. Work is being performed by a 27" pipeline dredge.)	400,000.00	CY	2,000,000	240,000	179,200	241,920	31,933	94,257	2,787,310
			3,400.00	12.00%	8.00%	10.00%	1.20%	3.50%	4,738.43
USR Grade/Shape Berm, small Dozer-Trackhoe Work	120.00	DAY	408,000	48,960	36,557	49,352	6,514	19,228	568,611
			2.80	12.00%	8.00%	10.00%	1.20%	3.50%	3.90
USR Environmental Planting (Marsh Grass) (Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 543,660 plants plus 20% replacement = 652,392 plants. Material price fob job site @ \$0.95/ea, Fertilizer @ \$0.10/ea, Labor Cost @ \$1.25/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.78/plant. Use \$2.80 / plant.)	652,392.00	EA	1,826,698	219,204	163,672	220,957	29,166	86,089	2,545,787
			2.20	12.00%	8.00%	10.00%	1.20%	3.50%	3.07
USR Environmental Planting (SeaOats) (Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 209,100 plants plus 20% replacement = 250,920 plants. Material price fob job site @ \$0.46/ea, Fertilizer @ \$0.10/ea, Labor Cost @ \$1.25/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.19/plant. Use \$2.20 / plant.)	250,920.00	EA	552,024	66,243	49,461	66,773	8,814	26,016	769,331
USR Misc. Site Items	1.00	LS	12,000	1,440	1,075	1,452	192	566	16,724
<b>Repair/Replace Containment Dike</b>	<b>1.00</b>	<b>LS</b>	<b>430,000</b>	<b>51,600</b>	<b>38,528</b>	<b>52,013</b>	<b>6,866</b>	<b>20,265</b>	<b>599,272</b>
			5.00	12.00%	8.00%	10.00%	1.20%	3.50%	6.97
USR Fill, in-place, 27" Dia. Dredge	4,200.00	CY	21,000	2,520	1,882	2,540	335	990	29,267
			3,400.00	12.00%	8.00%	10.00%	1.20%	3.50%	4,738.43
USR Grade/Shape Berm, small Dozer-Trackhoe Work	120.00	DAY	408,000	48,960	36,557	49,352	6,514	19,228	568,611
USR Misc. Site Items	1.00	LS	1,000	120	90	121	16	47	1,394
<b>Add Material to Containment Area</b>	<b>1.00</b>	<b>LS</b>	<b>1,243,030</b>	<b>149,164</b>	<b>111,375</b>	<b>150,357</b>	<b>19,847</b>	<b>58,582</b>	<b>1,732,355</b>
			5.00	12.00%	8.00%	10.00%	1.20%	3.50%	6.97
USR Fill, in-place, 27" Dia. Dredge	100,000.00	CY	500,000	60,000	44,800	60,480	7,983	23,564	696,828
			3,400.00	12.00%	8.00%	10.00%	1.20%	3.50%	4,738.43
USR Grade/Shape Berm, small Dozer-Trackhoe Work	15.00	DAY	51,000	6,120	4,570	6,169	814	2,404	71,076
			2.75	12.00%	8.00%	10.00%	1.20%	3.50%	3.83
USR Environmental Planting(Marsh Plants) (Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 209,100 plants plus 20% replacement = 250,920 plants. Material price fob job site @ \$0.93/ea, Fertilizer @ \$0.10/ea, Labor Cost @ \$1.25/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.76/plant. Use \$2.75 / plant.)	250,920.00	EA	690,030	82,804	61,827	83,466	11,018	32,520	961,664
USR Misc. Site Items	1.00	LS	2,000	240	179	242	32	94	2,787

Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
<b>Lengthen Stone Breakwater</b>	<b>1.00</b>	<b>LS</b>	<b>888,050</b>	<b>106,566</b>	<b>79,569</b>	<b>107,419</b>	<b>14,179</b>	<b>41,852</b>	<b>1,237,635</b>
USR Analyze Stone Breakwater	1.00	LS	45,000	5,400	4,032	5,443	719	2,121	62,714
			5.00	12.00%	8.00%	10.00%	1.20%	3.50%	6.97
USR Fill, in-place, 27" Dia. Dredge	91,000.00	CY	455,000	54,600	40,768	55,037	7,265	21,443	634,113
			3,400.00	12.00%	8.00%	10.00%	1.20%	3.50%	4,738.43
USR Grade/Shape Berm, small Dozer-Trackhoe Work	30.00	DAY	102,000	12,240	9,139	12,338	1,629	4,807	142,153
			2.50	12.00%	8.00%	10.00%	1.20%	3.50%	3.48
USR Filter Fabric	1,500.00	SY	3,750	450	336	454	60	177	5,226
			93.50	12.00%	8.00%	10.00%	1.20%	3.50%	130.31
USR Riprap	3,000.00	CY	280,500	33,660	25,133	33,929	4,479	13,220	390,920
USR Misc. Site Items	1.00	LS	1,800	216	161	218	29	85	2,509
<b>Create Additional Marsh Area</b>	<b>1.00</b>	<b>LS</b>	<b>2,177,384</b>	<b>261,286</b>	<b>195,094</b>	<b>263,376</b>	<b>34,766</b>	<b>102,617</b>	<b>3,034,522</b>
			5.00	12.00%	8.00%	10.00%	1.20%	3.50%	6.97
USR Beach Fill, in-place, 27" Dia. Dredge	300,000.00	CY	1,500,000	180,000	134,400	181,440	23,950	70,693	2,090,483
			3,400.00	12.00%	8.00%	10.00%	1.20%	3.50%	4,738.43
USR Grade/Shape Berm, small Dozer-Trackhoe Work	60.00	DAY	204,000	24,480	18,278	24,676	3,257	9,614	284,306
			2.80	12.00%	8.00%	10.00%	1.20%	3.50%	3.90
USR Environmental Planting(Marsh Grass)	167,280.00	EA	468,384	56,206	41,967	56,656	7,479	22,074	652,766
(Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 139,400 plants plus 20% replacement = 167280 plants. Material price fob job site @ \$0.96/ea, Fertilizer @ \$0.10/ea, Labor Cost @ \$1.25/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.80/plant. Use \$2.80 / plant.)									
USR Misc. Site Items	1.00	LS	5,000	600	448	605	80	236	6,968

Description	Quantity	UOM	SubBidCost	CostToPrime
<b>Project Direct Costs Report</b>			<b>10,737,186</b>	<b>10,737,186</b>
<b>01 Deer Island-Aquatic Ecosystem Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>10,737,186</b>	<b>10,737,186</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>10,737,186</b>	<b>10,737,186</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>10,737,186</b>	<b>10,737,186</b>
<b>01 Ecosystem Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>10,737,186</b>	<b>10,737,186</b>
<b>Mobilization, Preparatory Work, &amp; Demobilization</b>	<b>1.00</b>	<b>LS</b>	<b>1,200,000</b>	<b>1,200,000</b>
USR Mobilization, Preparatory Work, Demobilization(Dredge Plant, 27")	1.00	LS	950,000	950,000
USR Mobilization, Preparatory Work, Demobilization(Land Base Equipment)	1.00	LS	250,000	250,000
<b>Seaward Shoreline</b>	<b>1.00</b>	<b>LS</b>	<b>4,798,722</b>	<b>4,798,722</b>
			5.00	5.00
USR Beach Fill, in-place, 27" Dredge (Note: Unit Cost based a recent on-going project at existing project performing similar work. Work is being performed by a 27" pipeline dredge.)	400,000.00	CY	2,000,000	2,000,000
			3,400.00	3,400.00
USR Grade/Shape Berm, small Dozer-Trackhoe Work	120.00	DAY	408,000	408,000
			2.80	2.80
USR Environmental Planting (Marsh Grass) (Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 543,660 plants plus 20% replacement = 652,392 plants. Material price fob job site @ \$0.95/ea, Fertilizer @ \$0.10/ea, Labor Cost @ \$1.25/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.78/plant. Use \$2.80 / plant.)	652,392.00	EA	1,826,698	1,826,698
			2.20	2.20
USR Environmental Planting (SeaOats) (Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 209,100 plants plus 20% replacement = 250,920 plants. Material price fob job site @ \$0.46/ea, Fertilizer @ \$0.10/ea, Labor Cost @ \$1.25/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.19/plant. Use \$2.20 / plant.)	250,920.00	EA	552,024	552,024
USR Misc. Site Items	1.00	LS	12,000	12,000
<b>Repair/Replace Containment Dike</b>	<b>1.00</b>	<b>LS</b>	<b>430,000</b>	<b>430,000</b>
			5.00	5.00
USR Fill, in-place, 27" Dia. Dredge	4,200.00	CY	21,000	21,000
			3,400.00	3,400.00
USR Grade/Shape Berm, small Dozer-Trackhoe Work	120.00	DAY	408,000	408,000
USR Misc. Site Items	1.00	LS	1,000	1,000
<b>Add Material to Containment Area</b>	<b>1.00</b>	<b>LS</b>	<b>1,243,030</b>	<b>1,243,030</b>
			5.00	5.00
USR Fill, in-place, 27" Dia. Dredge	100,000.00	CY	500,000	500,000
			3,400.00	3,400.00
USR Grade/Shape Berm, small Dozer-Trackhoe Work	15.00	DAY	51,000	51,000
			2.75	2.75
USR Environmental Planting(Marsh Plants) (Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 209,100 plants plus 20% replacement = 250,920 plants. Material price fob job site @ \$0.93/ea, Fertilizer @ \$0.10/ea, Labor Cost @ \$1.25/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.76/plant. Use \$2.75 / plant.)	250,920.00	EA	690,030	690,030
USR Misc. Site Items	1.00	LS	2,000	2,000

Description	Quantity	UOM	SubBidCost	CostToPrime
<b>Lengthen Stone Containment Dikes</b>	<b>1.00</b>	<b>LS</b>	<b>888,050</b>	<b>888,050</b>
USR Analyze Stone Containment Dikes	1.00	LS	45,000	45,000
			5.00	5.00
USR Fill, in-place, 27" Dia. Dredge	91,000.00	CY	455,000	455,000
			3,400.00	3,400.00
USR Grade/Shape Berm, small Dozer-Trackhoe Work	30.00	DAY	102,000	102,000
			2.50	2.50
USR Filter Fabric	1,500.00	SY	3,750	3,750
			93.50	93.50
USR Riprap	3,000.00	CY	280,500	280,500
USR Misc. Site Items	1.00	LS	1,800	1,800
<b>Create Additional Marsh Area</b>	<b>1.00</b>	<b>LS</b>	<b>2,177,384</b>	<b>2,177,384</b>
			5.00	5.00
USR Beach Fill, in-place, 27" Dia. Dredge	300,000.00	CY	1,500,000	1,500,000
			3,400.00	3,400.00
USR Grade/Shape Berm, small Dozer-Trackhoe Work	60.00	DAY	204,000	204,000
			2.80	2.80
USR Environmental Planting(Marsh Grass)	167,280.00	EA	468,384	468,384
(Note: Plants are planted at 30 in centers. Contractor shall be required to guarantee that 80% of the planted vegetation is in good condition one (1) year after initial planting. Planting shall be accomplished by hand. Fertilizer shall be placed in the bottom of hole at required rate. Required plants 139,400 plants plus 20% replacement = 167280 plants. Material price fob job site @ \$0.96/ea, Fertilizer @ \$0.10/ea, Labor Cost @ \$1.25/ea, Plus Subcontract Markups @ 21% Total Cost to Prime = \$2.80/plant. Use \$2.80 / plant.)				
USR Misc. Site Items	1.00	LS	5,000	5,000



The proposed project will provide for ecosystem restoration and preservation of critical coastal wetlands. The island also provides storm protection from surge, wave action and wind for the adjacent coastal portion of the City of Biloxi, Mississippi. The proposed project will consist of three components: shoreline restoration in the Grand Bayou area of Deer Island with beach, dune, marsh and maritime forest reestablishment; restoration of the west end breach area with reestablishment of maritime forest area; and, restoration of the remaining shoreline areas along the seaward shoreline with beach, dune, marsh and maritime forest reestablishment. Fill material will be obtained from an offshore borrow area located approximately 500 feet off the southern shoreline of Deer Island. Material from the borrow area will be cast on the existing shoreline for beach nourishment via a hydraulic dredge. After filling, environmental plantings will be made to establish the maritime forest and aquatic marsh in the restored area. The design will start in March of 2009, the award will be in September, 2009, and the completion will be March, 2011.

- Design
- Period of Performance

TOTAL PROJECT

\*\*\*\* TOTAL PROJECT COST SUMMARY \*\*\*\*

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Bayou Cumbest SAV Pilot -Environmental Restoration, Restore Wet DISTRICT: MOBILE  
 LOCATION: Jackson County, Mississippi

P.O.C.: Joseph H. Ellsworth

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....		
						EFFECTIVE PRICING LEVEL: Aug 08			COST (\$K)	CNTG (\$K)	TOTAL (\$K)
01---	EMPHASIS	25,000	6,250	25%	31,250	25,000	6,250	31,250	25,400	6,350	31,750
06---	Fish & Wildlife -Restore Wetlands <b>( Bayou Cumbest SAV Pilot Project )</b>	604,000	151,000	25%	755,000	604,000	151,000	755,000	648,696	162,174	810,870
30---	PLANNING, ENGINEERING & DESIGN	48,320	12,080	25%	60,400	48,320	12,080	60,400	49,093	12,273	61,366
31---	CONSTRUCTION MANAGEMENT	36,240	9,060	25%	45,300	36,240	9,060	45,300	38,922	9,730	48,652
<b>TOTAL PROJECT COST =====&gt;</b>		<b>713,560</b>	<b>178,390</b>		<b>891,950</b>	<b>713,560</b>	<b>178,390</b>	<b>891,950</b>	<b>762,111</b>	<b>190,527</b>	<b>952,638</b>

rounded

65% TOTAL FEDERAL COSTS =====> **\$650,000**

35% TOTAL NON - FEDERAL COSTS =====> **\$350,000**

TOTAL PROJECT COSTS =====> **\$1,000,000**

DISTRICT APPROVED:

- \_\_\_\_\_ CHIEF, COST ENGINEERING
- \_\_\_\_\_ CHIEF, REAL ESTATE
- \_\_\_\_\_ CHIEF, PLANNING
- \_\_\_\_\_ CHIEF, ENGINEERING
- \_\_\_\_\_ CHIEF, OPERATIONS
- \_\_\_\_\_ CHIEF, CONSTRUCTION
- \_\_\_\_\_ CHIEF, PROGRAMS MANAGEMENT
- \_\_\_\_\_ PROJECT MANAGER
- \_\_\_\_\_ DDE (PM)

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE Feasibility, DATED: Aug 08

PROJECT: Mississippi Coastal Improvemnets Program, Bayou Cumbest SAV Pilot -Environmental Restoration, Restore Wet DISTRICT: MOBILE  
 LOCATION: Jackson County, Mississippi

P.O.C.: Joseph H. Ellsworth

ACCOUNT No.	FEATURE DESCRIPTION	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	AUTHORIZ./BUDGET YEAR: FY-09			.....FULLY FUNDED ESTIMATE.....				
						OMB (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	FEATURE MID PT	OMB (%)	COST (\$K)	CNTG (\$K)

EFFECTIVE PRICING LEVEL: Aug 08

01---	Lands & Damages (PCA)	25,000	6,250	25%	31,250	0.0%	25,000	6,250	31,250	Jun 09	1.6%	25,400	6,350	31,750
	<b>Subtotal</b>	<b>25,000</b>	<b>6,250</b>		<b>31,250</b>		<b>25,000</b>	<b>6,250</b>	<b>31,250</b>			<b>25,400</b>	<b>6,350</b>	<b>31,750</b>
06---	Fish & Wildlife -Restore Wetlands	604,000	151,000	25%	755,000	0.0%	604,000	151,000	755,000	Mar 12	7.4%	648,696	162,174	810,870
30---	PLANNING, ENGINEERING & DESIGN, 8%+-	48,320	12,080	25%	60,400	0.0%	48,320	12,080	60,400	Jun 09	1.6%	49,093	12,273	61,366
31---	CONSTRUCTION MANAGEMENT, 6% +-	36,240	9,060	25%	45,300	0.0%	36,240	9,060	45,300	Mar 12	7.4%	38,922	9,730	48,652
	<b>Subtotal</b>	<b>688,560</b>	<b>172,140</b>		<b>860,700</b>		<b>688,560</b>	<b>172,140</b>	<b>860,700</b>			<b>736,711</b>	<b>184,177</b>	<b>920,888</b>

The MsCIP environmental effort will: (1) restore SAV beds in Bayou Cumbest adjacent to the Grand Bay NERR that have been lost since the 2005 hurricanes through transplanting involving participation by the local community groups and students of the local universities and (2) determine the effectiveness of three transplanting methods (i.e. (1) a donor site, (2) harvesting plant sprigs with one or more meristems (growth regions), or (3) spreading seeds or mature flowering shoots over the restoration site) for restoring *R. maritima* in bayous, streams, and brackish marshes by quarterly monitoring using volunteers. After transplanting, quarterly monitoring for two years will be conducted to determine plant establishment, photosynthesis, growth, and expansion.

The first goal of the proposed community-based restoration project in the Grand Bay NERR will result in restoration of up to 5 acres of *R. maritima* resulting in the recovery of an equal amount of SAV habitat to that lost during the 2005 hurricane season (Figure 5.5.1-1). Secondly, the Corps, Mobile District proposed to evaluate 3 restoration techniques to demonstrate their feasibility for larger restoration projects. Finally, the volunteer involvement and educational outreach will increase awareness of the importance of SAV habitat in Mississippi Sound and provide coastal managers and restoration practitioners with the knowledge of techniques to maximize their return on dollars spent.

SAVs Write Up

Price Level Aug 08  
FEASIBILITY STUDY

Estimated by CESAM-EN-E, Cost Engineering Branch

Designed by CESAM-EN-E, Mobile District, Corps of  
Engineers

Prepared by Russell Haynes

Preparation Date 8/8/2008

Effective Date of Pricing 8/8/2008

Estimated Construction Time Days

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project file:sav-pilot-feasibility-aug08.mlp

report file: feasibilty standard report.mrp

output file: sav-pilot-feasibility-aug08.doc

**Date** **Author**

**Note**

Joseph H. Ellsworth

**BASIS of COST ESTIMATE and RATIONALE**

Feasibility Estimate is based on Historical Data, Recent Pricing, and Estimator's Judgment. Estimate is structured and priced as a General Prime contractor supported by major subcontractors. Anticipated bidding conditions and construction duration with reasonable schedules are considered Normal. Unit cost as shown in estimate, are fair and reasonable rates based on fair market value. Estimates represent Current Contract Cost (price level Aug 08). The Non-structural and Real Estate Cost were prepared by the Savannah & Huntington Districts.

Price Level of Estimate is Aug 08.

Project Life is assumed as 50 years in Cost Estimate.

30 Feature Account, Planning, Engineering & Design was developed and assigned at 8% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Eight percent was used in the Interim MsCIP projects which was reviewed and approved and included in the Chief's Report.

31 Feature Account, Construction Management was developed and assigned at 6% by the PDT. This is the percentage that has historically been used for these types of civil works projects. Six percent was used in the Interim MsCIP projects which was reviewed & approved and included in the Chief's Report.

Contingency was jointly developed and assigned by the Project Delivery Team. The Contingency percentage at 25% reflects the possibility of changes in quantity estimates and unknowns associated with the unit price. The contingency factor used does not vary throughout the cost estimate. It was determined and agreed upon by the Project Delivery Team that a high rate be used primarily due to risk, degree of confidence, and the project not being of the normal design.

Markups for subcontractors are included in the unit prices and include such items as field overheads, home office expenses, profit, bond and insurance.

Miscellaneous Items represent cost where quantities were not available, such items as signage, construction site/staging restoration, silt fencing, site access, etc. These cost are derived within the estimate at .25 percent (.25%) of construction cost excluding Mob & Demob Cost

Unit Prices, for such items as site work, earthwork, stone protection, concrete, reinforcing, etc., were based on Historical Data, Recent Pricing, Estimator's Judgment, and Cost derivation using MCACES / MII estimating systems.

8/5/2008 Joseph H. Ellsworth

The following Contractor Markups are applied to the Cost to Prime Direct Cost:

Contractor's Field Overhead @ 12%

Contractor's Home Office (G&A) @ 8%

Profit @ 10%

**Date Author**

**Note**

Bond @ 1.2%

Miss. Gross Receipts Tax @ 3.5%

Listed are all Cost Engineering Personnel that worked on the Feasibility Cost Estimate.

Joseph H. Ellsworth, Lead Cost Engineer

Gary Payton, Cost Engineer

George F. Rush, Civil Engineer, Dredging

Michael A. McKown, Geo Tech Engineer

Lloyd Oliver, Structural Engineer

Richard W. Harvey, Mechanical Engineer

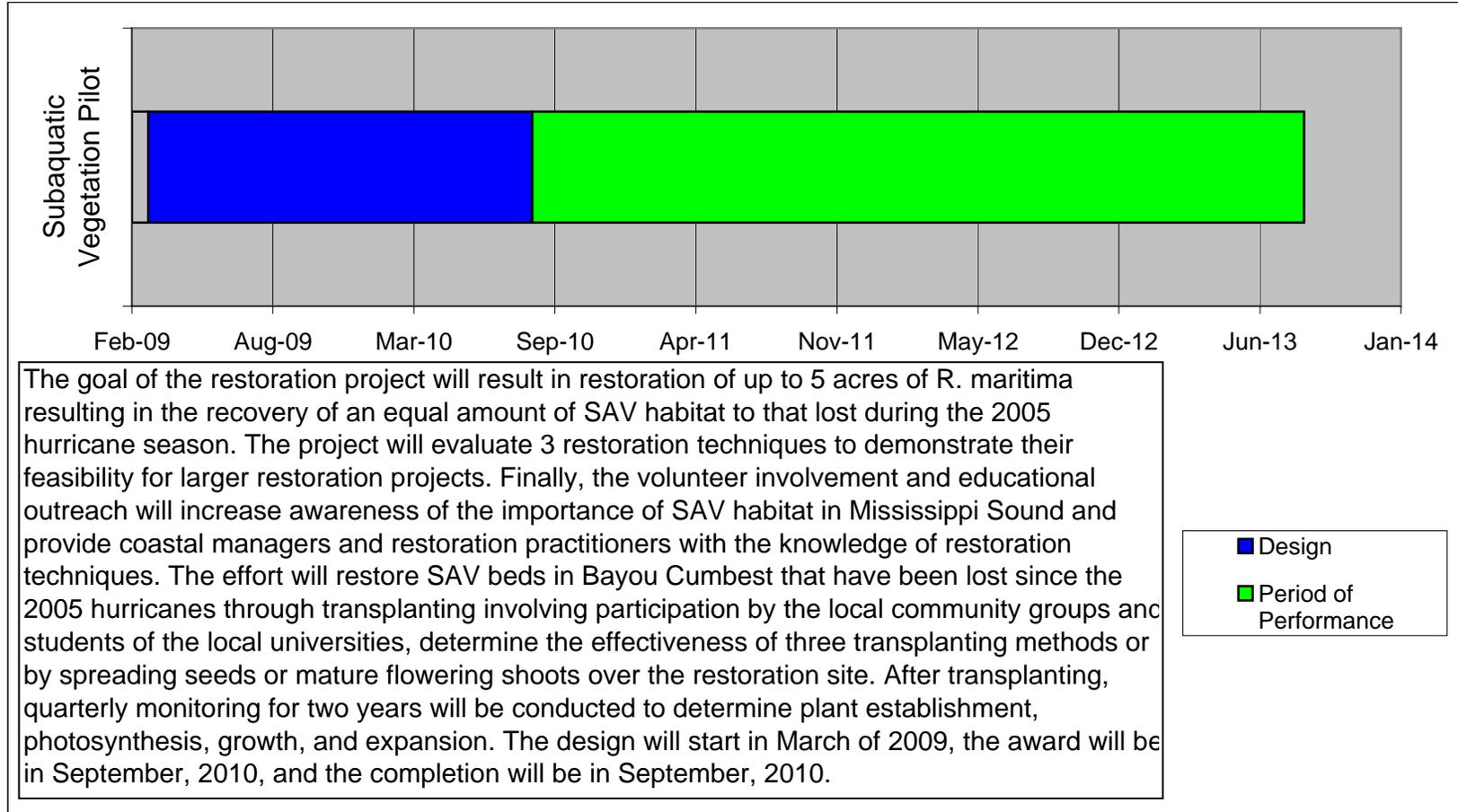
John R. Thomas, Real Estate Specialist

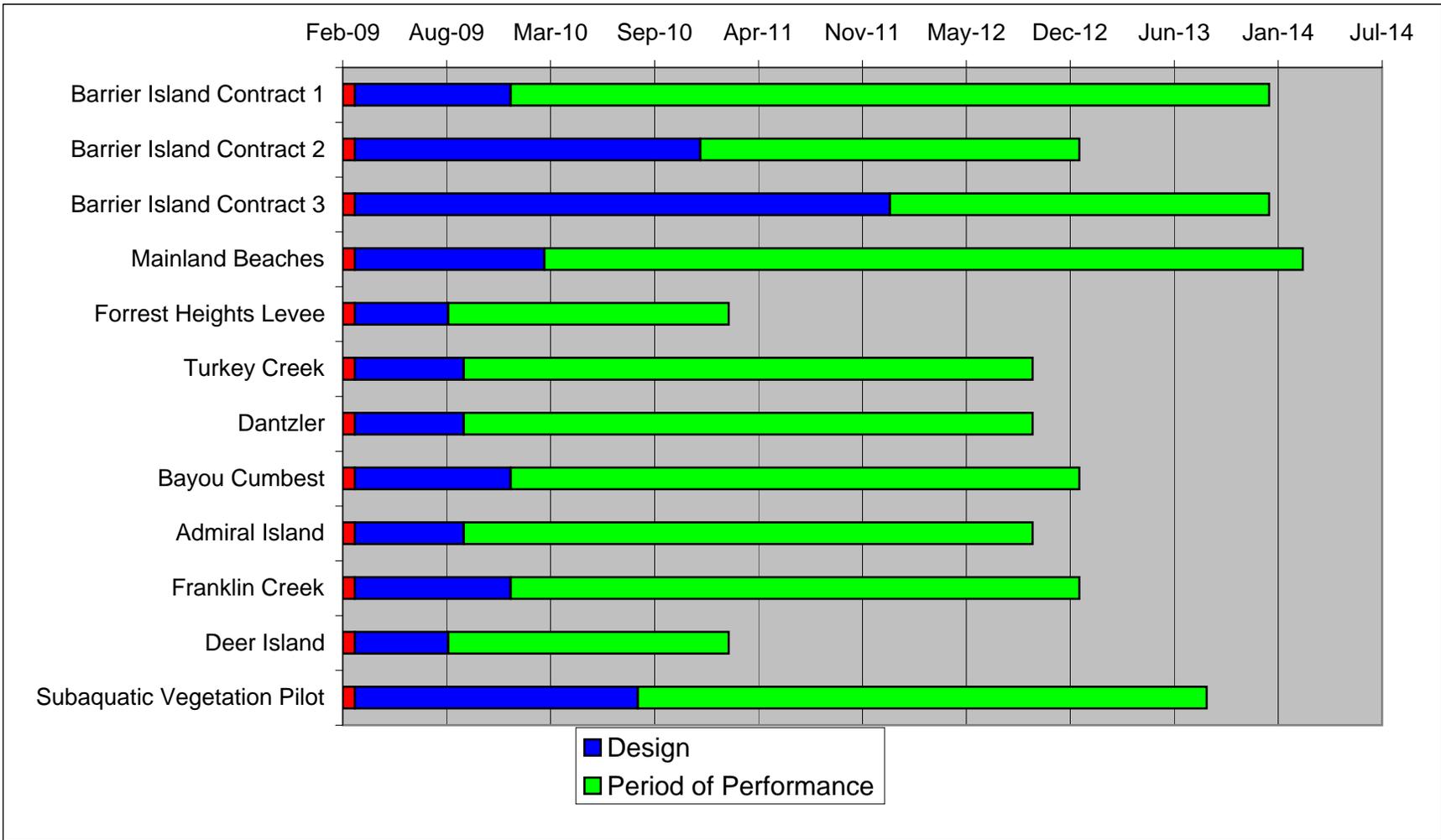
Donald A. Whitmore, Civil Engineer- Non-Structural Estimates

Jennifer L. Jacobson, Environmentalist

Description	Quantity	UOM	CostToPrime	JOOH	HOOH	Profit	Bond	Excise	ContractCost
<b>Contract Cost Summary Report</b>			<b>433,500</b>	<b>52,020</b>	<b>38,842</b>	<b>52,436</b>	<b>6,922</b>	<b>20,430</b>	<b>604,150</b>
<b>01 Jackson County SAV Pilot Project- Environmental Restoration</b>	<b>1.00</b>	<b>LS</b>	<b>433,500</b>	<b>52,020</b>	<b>38,842</b>	<b>52,436</b>	<b>6,922</b>	<b>20,430</b>	<b>604,150</b>
<b>06 Federal &amp; Non-Federal Costs</b>	<b>1.00</b>	<b>LS</b>	<b>433,500</b>	<b>52,020</b>	<b>38,842</b>	<b>52,436</b>	<b>6,922</b>	<b>20,430</b>	<b>604,150</b>
<b>006 Fish &amp; Wildlife</b>	<b>1.00</b>	<b>LS</b>	<b>433,500</b>	<b>52,020</b>	<b>38,842</b>	<b>52,436</b>	<b>6,922</b>	<b>20,430</b>	<b>604,150</b>
<b>01 Bayou Cumbest SAV Pilot Project</b>	<b>1.00</b>	<b>LS</b>	<b>433,500</b>	<b>52,020</b>	<b>38,842</b>	<b>52,436</b>	<b>6,922</b>	<b>20,430</b>	<b>604,150</b>
(Note: 5 acres SAVcreation 3 planting sessions; 4 monitoring sessions)									
USR Planting sessions, 3@1500 mh per session	4,500.00	HR	30.00 135,000	12.00% 16,200	8.00% 12,096	10.00% 16,330	1.20% 2,156	3.50% 6,362	41.81 188,143
USR Monitoring sessions, 4@1500 mh per session	6,000.00	HR	30.00 180,000	12.00% 21,600	8.00% 16,128	10.00% 21,773	1.20% 2,874	3.50% 8,483	41.81 250,858
USR Professional oversight: Patrick Biber (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)	8.00	MO	7,000.00 56,000	12.00% 6,720	8.00% 5,018	10.00% 6,774	1.20% 894	3.50% 2,639	9,755.59 78,045
USR Grad Asst	9.00	MO	2,000.00 18,000	12.00% 2,160	8.00% 1,613	10.00% 2,177	1.20% 287	3.50% 848	2,787.31 25,086
USR Vehicles, 2 x 25 days x7trips	350.00	DAY	50.00 17,500	12.00% 2,100	8.00% 1,568	10.00% 2,117	1.20% 279	3.50% 825	69.68 24,389
USR Boat usage, 21', 25 trips	175.00	DAY	40.00 7,000	12.00% 840	8.00% 627	10.00% 847	1.20% 112	3.50% 330	55.75 9,756
USR Misc supplies	1.00	LS	20,000	2,400	1,792	2,419	319	943	27,873

Description	Quantity	UOM	SubBidCost	CostToPrime
<b>Project Direct Costs Report</b>				
<b>01 Jackson County SAV Pilot Project- Environmental Restoration</b>				
<b>06 Federal &amp; Non-Federal Costs</b>				
<b>006 Fish &amp; Wildlife</b>				
<b>01 Bayou Cumbest SAV Pilot Project</b>				
(Note: 5 acres SAVcreation 3 planting sessions; 4 monitoring sessions)				
USR Planting sessions, 3@1500 mh per session	4,500.00	HR	135,000	135,000
USR Monitoring sessions, 4@1500 mh per session	6,000.00	HR	180,000	180,000
USR Professional oversight: Patrick Biber (Note: Unit price based on current on going Coastal Mississippi construction projects for similar work.)	8.00	MO	56,000	56,000
USR Grad Asst	9.00	MO	18,000	18,000
USR Vehicles, 2 x 25 days x7trips	350.00	DAY	17,500	17,500
USR Boat usage, 21', 25 trips	175.00	DAY	7,000	7,000
USR Misc supplies	1.00	LS	20,000	20,000





**FEASIBILITY COST ESTIMATE**  
**Mississippi Coastal Improvements Program "MsCIP" Projects**

**Escalation Derivations**

5-Aug-08

Joseph H. Ellsworth

<b>Project Feature Account Number</b>	<b>Price Level</b>	<b>(Cal mo.) Construction Duration</b>	<b>Contr. Start</b>	<b>Price Level Index</b>	<b>Feature Midpoint</b>	<b>Midpoint Index</b>	<b>Escalation %</b>	<b>USE</b>
<b><u>Barrier Islands - Contract 1</u></b>								
01 Account - Real Estate								
17 & 31 Account- Construction	Aug 08	36 mo	Apr 10	710.58	Apr 12	766.42	7.86%	7.9%
30 Account- PED	Aug 08			710.58	Apr 09	721.51	1.54%	1.6%
<b><u>Barrier Islands - Contract 2</u></b>								
01 Account - Real Estate								
17 & 31 Account- Construction	Aug 08	36 mo	Apr 11	710.58	Apr 12	766.42	7.86%	7.9%
30 Account- PED	Aug 08			710.58	Oct 10	743.91	4.69%	4.7%
<b><u>Barrier Islands - Contract 3</u></b>								
01 Account - Real Estate								
17 & 31 Account- Construction	Aug 08	36 mo	Apr 12	710.58	Apr 13	781.75	10.02%	10.1%
30 Account- PED	Aug 08			710.58	Oct 11	758.78	6.78%	6.8%
<b><u>Turkey Creek</u></b>								
01 Account - Real Estate	Oct 07			676.14	Apr 09	698.89	3.36%	3.4%
06 & 31 Account- Construction	Aug 08	36 mo	Oct 09	688.31	Apr 11	727.84	5.74%	5.8%
30 Account- PED	Aug 08			688.31	Apr 09	698.89	1.54%	1.6%
<b><u>Dantzer</u></b>								
01 Account - Real Estate	Aug 08			688.31	Jun 09	698.89	1.54%	1.6%
06 & 31 Account- Construction	Aug 08	36 mo	Oct 09	688.31	Jan 12	738.69	7.32%	7.4%
30 Account- PED	Aug 08			688.31	Jun 09	698.89	1.54%	1.6%
<b><u>Franklin Creek</u></b>								
01 Account - Real Estate	Aug 08			688.31	Sep 09	702.73	2.09%	2.1%
06 & 31 Account- Construction	Aug 08	36 mo	Jan 10	688.31	Jan 12	738.69	7.32%	7.4%
30 Account- PED	Aug 08			688.31	Sep 09	702.73	2.09%	2.1%
<b><u>Admiral Island</u></b>								
01 Account - Real Estate	Aug 08			688.31	Jun 09	698.89	1.54%	1.6%
06 & 31 Account- Construction	Aug 08	36 mo	Oct 09	688.31	Jan 12	738.69	7.32%	7.4%
30 Account- PED	Aug 08			688.31	Jun 09	698.89	1.54%	1.6%
<b><u>Bayou Cumbest</u></b>								
01 Account - Real Estate	Oct 07			676.14	Sep 09	702.73	3.93%	4.0%
06 & 31 Account- Construction	Aug 08	36 mo	Jan 10	688.31	Jan 12	738.69	7.32%	7.4%
30 Account- PED	Aug 08			688.31	Sep 09	702.73	2.09%	2.1%
<b><u>Forest Heights Levee</u></b>								
01 Account - Real Estate	Oct 07			696.01	Jun 09	723.38	3.93%	4.0%
11 & 31 Account- Construction	Aug 08	18 mo	Sep 09	708.54	Jun 10	734.63	3.68%	3.7%
30 Account- PED	Aug 08			688.31	Jun 09	723.38	5.10%	5.1%
<b><u>Subaquatic Vegetation Pilot</u></b>								
01 Account - Real Estate	Aug 08			688.31	Jun 09	698.89	1.54%	1.6%
06 & 31 Account- Construction	Aug 08	36 mo	Sep 10	688.31	Mar 12	738.69	7.32%	7.4%
30 Account- PED	Aug 08			688.31	Jun 09	698.89	1.54%	1.6%
<b><u>Mainland Beach and Dunes</u></b>								
01 Account - Real Estate	Aug 08			710.58	Oct 09	729.04	2.60%	2.6%
17 & 31 Account- Construction	Aug 08	48 mo	Mar 10	710.58	Jan 12	762.6	7.32%	7.4%
30 Account- PED	Aug 08			710.58	Oct 09	729.04	2.60%	2.6%
<b><u>Deer Island</u></b>								
01 Account - Real Estate	Aug 08			710.58	Oct 09	729.04	2.60%	2.6%
17 & 31 Account- Construction	Aug 08	48 mo	Mar 10	710.58	Jan 12	762.6	7.32%	7.4%
30 Account- PED	Aug 08			710.58	Oct 09	729.04	2.60%	2.6%

Preliminary Estimate of Project Cost

*for the*

Floodproofing of Residential Structures

*associated with the*

Mississippi Coastal Improvement Program  
Comprehensive Study

*at a Price Level equivalent to*

1 October 2007

## List of Tables

*Table 1 - Cost and Structure Summary by Project Reach*

*Table 2 - Cost Summary by Project Reach and Feature Account*

*Table 3 - Cost Summary by Project Reach and Cost Model Used*

*Table 4 - Structure Summary by Project Reach and Cost Model Used*

*Table 5 - Cost Summary by County*

*Table 6 - Cost Summary by County and Cost Model Used*

*Table 7 - Structure Summary by Cost Model Used and County*

*Table 8 - Structure Summary by Project Reach and County*

*Table 9 - Cost and Structure Summary by Cost Model Used*

## Attached

*Model Estimates - Spreadsheet Summaries*

*Model Estimates - MII Estimates*

Preliminary Estimate of Project Cost  
for the  
Floodproofing of Residential Structures  
associated with the  
**Mississippi Coastal Improvement Program**  
Comprehensive Study  
at a Price Level equivalent to  
1 October 2007

**Table 1 - Cost and Structure Summary by Project Reach\***

COUNTY	(All)
CAT_NAME	RES
FP	Y
COST_MODEL	(Multiple Items)

REACH	STRUCTURE COUNT	CONSTRUCTION	ADMIN	FP PROJECT COST	AVERAGE COST
1	369	58,129,150	9,225,000	67,354,150	182,532
2	2,741	509,470,389	68,525,000	577,995,389	210,870
3	293	70,275,578	7,325,000	77,600,578	264,848
4	7	1,742,670	175,000	1,917,670	273,953
5	99	20,080,584	2,475,000	22,555,584	227,834
6	549	142,864,220	13,725,000	156,589,220	285,226
7	180	27,636,910	4,500,000	32,136,910	178,538
8	1,680	417,349,546	42,000,000	459,349,546	273,422
9	12	2,961,448	300,000	3,261,448	271,787
10	61	15,978,706	1,525,000	17,503,706	286,946
11	8	1,527,008	200,000	1,727,008	215,876
12	1,010	228,675,524	25,250,000	253,925,524	251,411
13	-	-	-	-	-
14	-	-	-	-	-
15	-	-	-	-	-
16	121	28,690,348	3,025,000	31,715,348	262,110
17	-	-	-	-	-
18	4	763,504	100,000	863,504	215,876
19	-	-	-	-	-
20	1,768	406,122,655	44,200,000	450,322,655	254,707
21	380	73,753,926	9,500,000	83,253,926	219,089
22	85	19,037,106	2,125,000	21,162,106	248,966
23	39	6,386,176	975,000	7,361,176	188,748
24	172	32,714,846	4,300,000	37,014,846	215,203
25	-	-	-	-	-
26	937	214,641,981	23,425,000	238,066,981	254,074
27	1,020	188,257,732	25,500,000	213,757,732	209,566
28	110	17,189,150	2,750,000	19,939,150	181,265
29	154	23,446,802	3,850,000	27,296,802	177,252
30	430	95,294,119	10,750,000	106,044,119	246,614
31	399	62,565,104	9,975,000	72,540,104	181,805
32	198	30,510,800	4,950,000	35,460,800	179,095
33	-	-	-	-	-
34	-	-	-	-	-
35	1,273	190,166,536	31,825,000	221,991,536	174,385
36	-	-	-	-	-
37	-	-	-	-	-
38	65	9,533,024	1,625,000	11,158,024	171,662
39	6	841,302	150,000	991,302	165,217
40	-	-	-	-	-
41	-	-	-	-	-

\*Price includes a net contingency of 24.9%

**Table 1 - Cost and Structure Summary by Project Reach\***

COUNTY	(All)
CAT_NAME	RES
FP	Y
COST_MODEL	(Multiple Items)

REACH	STRUCTURE COUNT	CONSTRUCTION	ADMIN	FP PROJECT COST	AVERAGE COST
42	-	-	-	-	-
43	1	145,304	25,000	170,304	170,304
44	-	-	-	-	-
45	-	-	-	-	-
46	-	-	-	-	-
47	-	-	-	-	-
48	2	316,298	50,000	366,298	183,149
49	-	-	-	-	-
50	821	160,688,629	20,525,000	181,213,629	220,723
51	691	114,306,392	17,275,000	131,581,392	190,422
52	6,025	1,199,525,170	150,625,000	1,350,150,170	224,091
53	277	46,582,670	6,925,000	53,507,670	193,168
54	682	106,347,144	17,050,000	123,397,144	180,934
<b>Grand Total</b>	<b>22,669</b>	<b>4,524,518,451</b>	<b>566,725,000</b>	<b>5,091,243,451</b>	<b>224,591</b>

\*Price includes a net contingency of 24.9%

Preliminary Estimate of Project Cost  
for the  
Floodproofing of Residential Structures  
associated with the  
**Mississippi Coastal Improvement Program**  
Comprehensive Study  
at a Price Level equivalent to  
1 October 2007

**Table 2 - Cost Summary by Project Reach and Feature Account\***

COUNTY	(All)
CAT_NAME	RES
FP	Y
COST MODEL	(Multiple Items)

REACH	01 - LANDS & DAMAGES	11 - FLOODPROOFING	30 - E & D	31 - S & A	FP PROJECT COST
1	1,845,000	58,129,150	4,797,000	2,583,000	67,354,150
2	13,705,000	509,470,389	35,633,000	19,187,000	577,995,389
3	1,465,000	70,275,578	3,809,000	2,051,000	77,600,578
4	35,000	1,742,670	91,000	49,000	1,917,670
5	495,000	20,080,584	1,287,000	693,000	22,555,584
6	2,745,000	142,864,220	7,137,000	3,843,000	156,589,220
7	900,000	27,636,910	2,340,000	1,260,000	32,136,910
8	8,400,000	417,349,546	21,840,000	11,760,000	459,349,546
9	60,000	2,961,448	156,000	84,000	3,261,448
10	305,000	15,978,706	793,000	427,000	17,503,706
11	40,000	1,527,008	104,000	56,000	1,727,008
12	5,050,000	228,675,524	13,130,000	7,070,000	253,925,524
13	-	-	-	-	-
14	-	-	-	-	-
15	-	-	-	-	-
16	605,000	28,690,348	1,573,000	847,000	31,715,348
17	-	-	-	-	-
18	20,000	763,504	52,000	28,000	863,504
19	-	-	-	-	-
20	8,840,000	406,122,655	22,984,000	12,376,000	450,322,655
21	1,900,000	73,753,926	4,940,000	2,660,000	83,253,926
22	425,000	19,037,106	1,105,000	595,000	21,162,106
23	195,000	6,386,176	507,000	273,000	7,361,176
24	860,000	32,714,846	2,236,000	1,204,000	37,014,846
25	-	-	-	-	-
26	4,685,000	214,641,981	12,181,000	6,559,000	238,066,981
27	5,100,000	188,257,732	13,260,000	7,140,000	213,757,732
28	550,000	17,189,150	1,430,000	770,000	19,939,150
29	770,000	23,446,802	2,002,000	1,078,000	27,296,802
30	2,150,000	95,294,119	5,590,000	3,010,000	106,044,119
31	1,995,000	62,565,104	5,187,000	2,793,000	72,540,104
32	990,000	30,510,800	2,574,000	1,386,000	35,460,800
33	-	-	-	-	-
34	-	-	-	-	-
35	6,365,000	190,166,536	16,549,000	8,911,000	221,991,536
36	-	-	-	-	-
37	-	-	-	-	-
38	325,000	9,533,024	845,000	455,000	11,158,024
39	30,000	841,302	78,000	42,000	991,302
40	-	-	-	-	-
41	-	-	-	-	-
42	-	-	-	-	-
43	5,000	145,304	13,000	7,000	170,304

\*Price includes a net contingency of 24.9%

**Table 2 - Cost Summary by Project Reach and Feature Account\***

COUNTY	(All)
CAT_NAME	RES
FP	Y
COST MODEL	(Multiple Items)

REACH	01 - LANDS & DAMAGES	11 - FLOODPROOFING	30 - E & D	31 - S & A	FP PROJECT COST
44	-	-	-	-	-
45	-	-	-	-	-
46	-	-	-	-	-
47	-	-	-	-	-
48	10,000	316,298	26,000	14,000	366,298
49	-	-	-	-	-
50	4,105,000	160,688,629	10,673,000	5,747,000	181,213,629
51	3,455,000	114,306,392	8,983,000	4,837,000	131,581,392
52	30,125,000	1,199,525,170	78,325,000	42,175,000	1,350,150,170
53	1,385,000	46,582,670	3,601,000	1,939,000	53,507,670
54	3,410,000	106,347,144	8,866,000	4,774,000	123,397,144
<b>Grand Total</b>	<b>113,345,000</b>	<b>4,524,518,451</b>	<b>294,697,000</b>	<b>158,683,000</b>	<b>5,091,243,451</b>

\*Price includes a net contingency of 24.9%

Preliminary Estimate of Project Cost  
for the  
Floodproofing of Residential Structures  
associated with the  
**Mississippi Coastal Improvement Program**  
**Comprehensive Study**  
at a Price Level equivalent to  
1 October 2007

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
<b>1</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	11	286,946	3,156,406
	Slab, 6' Raise	204	170,304	34,742,016
	Slab, 15' Raise	143	195,994	28,027,142
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	2	192,148	384,296
	Trailer, 6' Raise	8	114,092	912,736
	Trailer, 15' Raise	1	131,554	131,554
<b>1 Total</b>		<b>369</b>	<b>182,532</b>	<b>67,354,150</b>
<b>2</b>	Slab, 6' Replacement	33	261,448	8,627,784
	Slab, 15' Replacement	812	286,946	233,000,152
	Slab, 6' Raise	947	170,304	161,277,888
	Slab, 15' Raise	775	195,994	151,895,350
	Trailer, 6' Replacement	5	177,157	885,785
	Trailer, 15' Replacement	22	192,148	4,227,256
	Trailer, 6' Raise	72	114,092	8,214,624
	Trailer, 15' Raise	75	131,554	9,866,550
<b>2 Total</b>		<b>2,741</b>	<b>210,870</b>	<b>577,995,389</b>
<b>3</b>	Slab, 6' Replacement	71	261,448	18,562,808
	Slab, 15' Replacement	171	286,946	49,067,766
	Slab, 6' Raise	1	170,304	170,304
	Slab, 15' Raise	50	195,994	9,799,700
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>3 Total</b>		<b>293</b>	<b>264,848</b>	<b>77,600,578</b>
<b>4</b>	Slab, 6' Replacement	-	-	-

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
<b>4 Total</b>	Slab, 15' Replacement	6	286,946	1,721,676
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	1	195,994	195,994
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
	<b>4 Total</b>		<b>7</b>	<b>273,953</b>
<b>5 Total</b>	Slab, 6' Replacement	1	261,448	261,448
	Slab, 15' Replacement	42	286,946	12,051,732
	Slab, 6' Raise	17	170,304	2,895,168
	Slab, 15' Raise	34	195,994	6,663,796
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	1	192,148	192,148
	Trailer, 6' Raise	2	114,092	228,184
	Trailer, 15' Raise	2	131,554	263,108
<b>5 Total</b>		<b>99</b>	<b>227,834</b>	<b>22,555,584</b>
<b>6 Total</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	539	286,946	154,663,894
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	1	195,994	195,994
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	9	192,148	1,729,332
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>6 Total</b>		<b>549</b>	<b>285,226</b>	<b>156,589,220</b>
<b>7 Total</b>	Slab, 6' Replacement	1	261,448	261,448
	Slab, 15' Replacement	1	286,946	286,946
	Slab, 6' Raise	35	170,304	5,960,640
	Slab, 15' Raise	112	195,994	21,951,328
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	23	114,092	2,624,116
	Trailer, 15' Raise	8	131,554	1,052,432
<b>7 Total</b>		<b>180</b>	<b>178,538</b>	<b>32,136,910</b>
<b>8</b>	Slab, 6' Replacement	235	261,448	61,440,280
	Slab, 15' Replacement	1,282	286,946	367,864,772
	Slab, 6' Raise	28	170,304	4,768,512
	Slab, 15' Raise	93	195,994	18,227,442

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
	Trailer, 6' Replacement	8	177,157	1,417,256
	Trailer, 15' Replacement	22	192,148	4,227,256
	Trailer, 6' Raise	10	114,092	1,140,920
	Trailer, 15' Raise	2	131,554	263,108
<b>8 Total</b>		<b>1,680</b>	<b>273,422</b>	<b>459,349,546</b>
<b>9</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	10	286,946	2,869,460
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	2	195,994	391,988
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>9 Total</b>		<b>12</b>	<b>271,787</b>	<b>3,261,448</b>
<b>10</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	61	286,946	17,503,706
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>10 Total</b>		<b>61</b>	<b>286,946</b>	<b>17,503,706</b>
<b>11</b>	Slab, 6' Replacement	4	261,448	1,045,792
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	4	170,304	681,216
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>11 Total</b>		<b>8</b>	<b>215,876</b>	<b>1,727,008</b>
<b>12</b>	Slab, 6' Replacement	489	261,448	127,848,072
	Slab, 15' Replacement	312	286,946	89,527,152
	Slab, 6' Raise	140	170,304	23,842,560
	Slab, 15' Raise	54	195,994	10,583,676
	Trailer, 6' Replacement	2	177,157	354,314
	Trailer, 15' Replacement	3	192,148	576,444
	Trailer, 6' Raise	7	114,092	798,644

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
	Trailer, 15' Raise	3	131,554	394,662
<b>12 Total</b>		<b>1,010</b>	<b>251,411</b>	<b>253,925,524</b>
<b>13</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>13 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>14</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>14 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>15</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>15 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>16</b>	Slab, 6' Replacement	68	261,448	17,778,464
	Slab, 15' Replacement	41	286,946	11,764,786
	Slab, 6' Raise	7	170,304	1,192,128
	Slab, 15' Raise	5	195,994	979,970
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>16 Total</b>		<b>121</b>	<b>262,110</b>	<b>31,715,348</b>

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
<b>17</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>17 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>18</b>	Slab, 6' Replacement	2	261,448	522,896
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	2	170,304	340,608
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>18 Total</b>		<b>4</b>	<b>215,876</b>	<b>863,504</b>
<b>19</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>19 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>20</b>	Slab, 6' Replacement	1,398	261,448	365,504,304
	Slab, 15' Replacement	181	286,946	51,937,226
	Slab, 6' Raise	130	170,304	22,139,520
	Slab, 15' Raise	38	195,994	7,447,772
	Trailer, 6' Replacement	13	177,157	2,303,041
	Trailer, 15' Replacement	1	192,148	192,148
	Trailer, 6' Raise	7	114,092	798,644
	Trailer, 15' Raise	-	-	-
<b>20 Total</b>		<b>1,768</b>	<b>254,707</b>	<b>450,322,655</b>
<b>21</b>	Slab, 6' Replacement	92	261,448	24,053,216
	Slab, 15' Replacement	75	286,946	21,520,950
	Slab, 6' Raise	149	170,304	25,375,296

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
	Slab, 15' Raise	58	195,994	11,367,652
	Trailer, 6' Replacement	4	177,157	708,628
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	2	114,092	228,184
	Trailer, 15' Raise	-	-	-
<b>21 Total</b>		<b>380</b>	<b>219,089</b>	<b>83,253,926</b>
<b>22</b>	Slab, 6' Replacement	30	261,448	7,843,440
	Slab, 15' Replacement	33	286,946	9,469,218
	Slab, 6' Raise	18	170,304	3,065,472
	Slab, 15' Raise	4	195,994	783,976
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>22 Total</b>		<b>85</b>	<b>248,966</b>	<b>21,162,106</b>
<b>23</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	11	170,304	1,873,344
	Slab, 15' Raise	28	195,994	5,487,832
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>23 Total</b>		<b>39</b>	<b>188,748</b>	<b>7,361,176</b>
<b>24</b>	Slab, 6' Replacement	23	261,448	6,013,304
	Slab, 15' Replacement	41	286,946	11,764,786
	Slab, 6' Raise	75	170,304	12,772,800
	Slab, 15' Raise	32	195,994	6,271,808
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	1	192,148	192,148
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>24 Total</b>		<b>172</b>	<b>215,203</b>	<b>37,014,846</b>
<b>25</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>25 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>26</b>	Slab, 6' Replacement	210	261,448	54,904,080
	Slab, 15' Replacement	522	286,946	149,785,812
	Slab, 6' Raise	120	170,304	20,436,480
	Slab, 15' Raise	8	195,994	1,567,952
	Trailer, 6' Replacement	1	177,157	177,157
	Trailer, 15' Replacement	31	192,148	5,956,588
	Trailer, 6' Raise	39	114,092	4,449,588
	Trailer, 15' Raise	6	131,554	789,324
<b>26 Total</b>		<b>937</b>	<b>254,074</b>	<b>238,066,981</b>
<b>27</b>	Slab, 6' Replacement	217	261,448	56,734,216
	Slab, 15' Replacement	175	286,946	50,215,550
	Slab, 6' Raise	624	170,304	106,269,696
	Slab, 15' Raise	1	195,994	195,994
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	3	114,092	342,276
	Trailer, 15' Raise	-	-	-
<b>27 Total</b>		<b>1,020</b>	<b>209,566</b>	<b>213,757,732</b>
<b>28</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	43	170,304	7,323,072
	Slab, 15' Raise	59	195,994	11,563,646
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	8	131,554	1,052,432
<b>28 Total</b>		<b>110</b>	<b>181,265</b>	<b>19,939,150</b>
<b>29</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	80	170,304	13,624,320
	Slab, 15' Raise	63	195,994	12,347,622
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	7	114,092	798,644
	Trailer, 15' Raise	4	131,554	526,216
<b>29 Total</b>		<b>154</b>	<b>177,252</b>	<b>27,296,802</b>

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
<b>30</b>	Slab, 6' Replacement	127	261,448	33,203,896
	Slab, 15' Replacement	180	286,946	51,650,280
	Slab, 6' Raise	106	170,304	18,052,224
	Slab, 15' Raise	11	195,994	2,155,934
	Trailer, 6' Replacement	1	177,157	177,157
	Trailer, 15' Replacement	3	192,148	576,444
	Trailer, 6' Raise	2	114,092	228,184
	Trailer, 15' Raise	-	-	-
<b>30 Total</b>		<b>430</b>	<b>246,614</b>	<b>106,044,119</b>
<b>31</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	1	286,946	286,946
	Slab, 6' Raise	205	170,304	34,912,320
	Slab, 15' Raise	186	195,994	36,454,884
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	2	114,092	228,184
	Trailer, 15' Raise	5	131,554	657,770
<b>31 Total</b>		<b>399</b>	<b>181,805</b>	<b>72,540,104</b>
<b>32</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	76	170,304	12,943,104
	Slab, 15' Raise	102	195,994	19,991,388
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	6	114,092	684,552
	Trailer, 15' Raise	14	131,554	1,841,756
<b>32 Total</b>		<b>198</b>	<b>179,095</b>	<b>35,460,800</b>
<b>33</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>33 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>34</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>34 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>35</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	938	170,304	159,745,152
	Slab, 15' Raise	291	195,994	57,034,254
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	33	114,092	3,765,036
	Trailer, 15' Raise	11	131,554	1,447,094
<b>35 Total</b>		<b>1,273</b>	<b>174,385</b>	<b>221,991,536</b>
<b>36</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>36 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>37</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>37 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>38</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	52	170,304	8,855,808
	Slab, 15' Raise	10	195,994	1,959,940
	Trailer, 6' Replacement	-	-	-

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	3	114,092	342,276
	Trailer, 15' Raise	-	-	-
<b>38 Total</b>		<b>65</b>	<b>171,662</b>	<b>11,158,024</b>
<b>39</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	4	170,304	681,216
	Slab, 15' Raise	1	195,994	195,994
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	1	114,092	114,092
	Trailer, 15' Raise	-	-	-
<b>39 Total</b>		<b>6</b>	<b>165,217</b>	<b>991,302</b>
<b>40</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>40 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>41</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>41 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>42</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
<b>42 Total</b>		-	-	-
<b>43</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	1	170,304	170,304
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>43 Total</b>		<b>1</b>	<b>170,304</b>	<b>170,304</b>
<b>44</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>44 Total</b>		-	-	-
<b>45</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>45 Total</b>		-	-	-
<b>46</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>46 Total</b>		-	-	-
<b>47</b>	Slab, 6' Replacement	-	-	-

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
	Trailer, 15' Raise	-	-	-
<b>47 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>48</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	1	170,304	170,304
	Slab, 15' Raise	1	195,994	195,994
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
<b>48 Total</b>		<b>2</b>	<b>183,149</b>	<b>366,298</b>
<b>49</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	-	-	-
	Slab, 6' Raise	-	-	-
	Slab, 15' Raise	-	-	-
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	-	-	-
<b>49 Total</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>50</b>	Slab, 6' Replacement	305	261,448	79,741,640
	Slab, 15' Replacement	97	286,946	27,833,762
	Slab, 6' Raise	220	170,304	37,466,880
	Slab, 15' Raise	161	195,994	31,555,034
	Trailer, 6' Replacement	1	177,157	177,157
	Trailer, 15' Replacement	1	192,148	192,148
	Trailer, 6' Raise	28	114,092	3,194,576
<b>50 Total</b>		<b>821</b>	<b>220,723</b>	<b>181,213,629</b>
<b>51</b>	Slab, 6' Replacement	7	261,448	1,830,136
	Slab, 15' Replacement	86	286,946	24,677,356
	Slab, 6' Raise	469	170,304	79,872,576
	Slab, 15' Raise	128	195,994	25,087,232

\*Price includes a net contingency of 24.9%

**Table 3 - Cost Summary by Project Reach and Cost Model Used\***

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	1	114,092	114,092
	Trailer, 15' Raise	-	-	-
<b>51 Total</b>		<b>691</b>	<b>190,422</b>	<b>131,581,392</b>
<b>52</b>	Slab, 6' Replacement	2,453	261,448	641,331,944
	Slab, 15' Replacement	837	286,946	240,173,802
	Slab, 6' Raise	2,585	170,304	440,235,840
	Slab, 15' Raise	136	195,994	26,655,184
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	2	192,148	384,296
	Trailer, 6' Raise	12	114,092	1,369,104
	Trailer, 15' Raise	-	-	-
<b>52 Total</b>		<b>6,025</b>	<b>224,091</b>	<b>1,350,150,170</b>
<b>53</b>	Slab, 6' Replacement	1	261,448	261,448
	Slab, 15' Replacement	25	286,946	7,173,650
	Slab, 6' Raise	18	170,304	3,065,472
	Slab, 15' Raise	192	195,994	37,630,848
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	1	114,092	114,092
	Trailer, 15' Raise	40	131,554	5,262,160
<b>53 Total</b>		<b>277</b>	<b>193,168</b>	<b>53,507,670</b>
<b>54</b>	Slab, 6' Replacement	-	-	-
	Slab, 15' Replacement	2	286,946	573,892
	Slab, 6' Raise	323	170,304	55,008,192
	Slab, 15' Raise	326	195,994	63,894,044
	Trailer, 6' Replacement	-	-	-
	Trailer, 15' Replacement	-	-	-
	Trailer, 6' Raise	9	114,092	1,026,828
	Trailer, 15' Raise	22	131,554	2,894,188
<b>54 Total</b>		<b>682</b>	<b>180,934</b>	<b>123,397,144</b>
<b>Grand Total</b>		<b>22,669</b>	<b>224,591</b>	<b>5,091,243,451</b>

\*Price includes a net contingency of 24.9%

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**Table 4 - Structure Summary by Project Reach and Cost Model Used**

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	Slab, 6' Replacement	Slab, 15' Replacement	Slab, 6' Raise	Slab, 15' Raise	Trailer, 6' Replacement	Trailer, 15' Replacement	Trailer, 6' Raise	Trailer, 15' Raise	Grand Total
1	-	11	204	143	-	2	8	1	369
2	33	812	947	775	5	22	72	75	2,741
3	71	171	1	50	-	-	-	-	293
4	-	6	-	1	-	-	-	-	7
5	1	42	17	34	-	1	2	2	99
6	-	539	-	1	-	9	-	-	549
7	1	1	35	112	-	-	23	8	180
8	235	1,282	28	93	8	22	10	2	1,680
9	-	10	-	2	-	-	-	-	12
10	-	61	-	-	-	-	-	-	61
11	4	-	4	-	-	-	-	-	8
12	489	312	140	54	2	3	7	3	1,010
13	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-
16	68	41	7	5	-	-	-	-	121
17	-	-	-	-	-	-	-	-	-
18	2	-	2	-	-	-	-	-	4
19	-	-	-	-	-	-	-	-	-
20	1,398	181	130	38	13	1	7	-	1,768
21	92	75	149	58	4	-	2	-	380
22	30	33	18	4	-	-	-	-	85
23	-	-	11	28	-	-	-	-	39
24	23	41	75	32	-	1	-	-	172
25	-	-	-	-	-	-	-	-	-
26	210	522	120	8	1	31	39	6	937
27	217	175	624	1	-	-	3	-	1,020
28	-	-	43	59	-	-	-	8	110
29	-	-	80	63	-	-	7	4	154
30	127	180	106	11	1	3	2	-	430
31	-	1	205	186	-	-	2	5	399
32	-	-	76	102	-	-	6	14	198

**Table 4 - Structure Summary by Project Reach and Cost Model Used**

COUNTY	(All)
CAT_NAME	RES
FP	Y

REACH	Slab, 6' Replacement	Slab, 15' Replacement	Slab, 6' Raise	Slab, 15' Raise	Trailer, 6' Replacement	Trailer, 15' Replacement	Trailer, 6' Raise	Trailer, 15' Raise	Grand Total
33	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-
35	-	-	938	291	-	-	33	11	1,273
36	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-
38	-	-	52	10	-	-	3	-	65
39	-	-	4	1	-	-	1	-	6
40	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-
43	-	-	1	-	-	-	-	-	1
44	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-
48	-	-	1	1	-	-	-	-	2
49	-	-	-	-	-	-	-	-	-
50	305	97	220	161	1	1	28	8	821
51	7	86	469	128	-	-	1	-	691
52	2,453	837	2,585	136	-	2	12	-	6,025
53	1	25	18	192	-	-	1	40	277
54	-	2	323	326	-	-	9	22	682
<b>Grand Total</b>	<b>5,767</b>	<b>5,543</b>	<b>7,633</b>	<b>3,106</b>	<b>35</b>	<b>98</b>	<b>278</b>	<b>209</b>	<b>22,669</b>

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**Table 5 - Cost Summary by County\***

CAT_NAME	RES
FP	Y
REACH	(All)
COST MODEL	(Multiple Items)

COUNTY	STRUCTURE COUNT	AVERAGE COST	FP PROJECT COST
Hancock	4,303	220,150	947,307,525
Harrison	5,493	255,096	1,401,239,968
Jackson	12,873	213,058	2,742,695,958
<b>Grand Total</b>	<b>22,669</b>	<b>224,591</b>	<b>5,091,243,451</b>

\*Price includes a net contingency of 24.9%

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**Table 6 - Cost Summary by County and Cost Model Used\***

CAT_NAME	RES
FP	Y
REACH	(All)

COUNTY	COST MODEL	STRUCTURE COUNT	UNIT PRICE	FP PROJECT COST
<b>Hancock</b>	Slab, 6' Replacement	106	261,448	27,713,488
	Slab, 15' Replacement	1,582	286,946	453,948,572
	Slab, 6' Raise	1,256	170,304	213,901,824
	Slab, 15' Raise	1,126	195,994	220,689,244
	Trailer, 6' Replacement	5	177,157	885,785
	Trailer, 15' Replacement	34	192,148	6,533,032
	Trailer, 6' Raise	108	114,092	12,321,936
	Trailer, 15' Raise	86	131,554	11,313,644
<b>Hancock Total</b>		<b>4,303</b>	<b>220,150</b>	<b>947,307,525</b>
<b>Harrison</b>	Slab, 6' Replacement	2,501	261,448	653,881,448
	Slab, 15' Replacement	1,984	286,946	569,300,864
	Slab, 6' Raise	536	170,304	91,282,944
	Slab, 15' Raise	355	195,994	69,577,870
	Trailer, 6' Replacement	24	177,157	4,251,768
	Trailer, 15' Replacement	27	192,148	5,187,996
	Trailer, 6' Raise	53	114,092	6,046,876
	Trailer, 15' Raise	13	131,554	1,710,202
<b>Harrison Total</b>		<b>5,493</b>	<b>255,096</b>	<b>1,401,239,968</b>
<b>Jackson</b>	Slab, 6' Replacement	3,160	261,448	826,175,680
	Slab, 15' Replacement	1,977	286,946	567,292,242
	Slab, 6' Raise	5,841	170,304	994,745,664
	Slab, 15' Raise	1,625	195,994	318,490,250
	Trailer, 6' Replacement	6	177,157	1,062,942
	Trailer, 15' Replacement	37	192,148	7,109,476
	Trailer, 6' Raise	117	114,092	13,348,764
	Trailer, 15' Raise	110	131,554	14,470,940
<b>Jackson Total</b>		<b>12,873</b>	<b>213,058</b>	<b>2,742,695,958</b>
<b>Grand Total</b>		<b>22,669</b>	<b>224,591</b>	<b>5,091,243,451</b>

\*Price includes a net contingency of 24.9%

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**Table 7 - Structure Summary by Cost Model Used and County**

CAT_NAME	RES
FP	Y
ECO REA	(All)

STRUCTURE COUNT COST MODEL	COUNTY			Grand Total
	Hancock	Harrison	Jackson	
Slab, 6' Replacement	106	2,501	3,160	5,767
Slab, 15' Replacement	1,582	1,984	1,977	5,543
Slab, 6' Raise	1,256	536	5,841	7,633
Slab, 15' Raise	1,126	355	1,625	3,106
Trailer, 6' Replacement	5	24	6	35
Trailer, 15' Replacement	34	27	37	98
Trailer, 6' Raise	108	53	117	278
Trailer, 15' Raise	86	13	110	209
<b>Grand Total</b>	<b>4,303</b>	<b>5,493</b>	<b>12,873</b>	<b>22,669</b>

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**Table 8 - Structure Summary by Project Reach and County**

COST MODEL	(Multiple Items)
FP	Y
CAT NAME	RES

STRUCTURE COUNT REACH	COUNTY			Grand Total
	Hancock	Harrison	Jackson	
1	369	-	-	369
2	2,741	-	-	2,741
3	293	-	-	293
4	7	-	-	7
5	99	-	-	99
6	549	-	-	549
7	180	-	-	180
8	-	1,680	-	1,680
9	-	12	-	12
10	-	61	-	61
11	-	8	-	8
12	-	1,010	-	1,010
13	-	-	-	-
14	-	-	-	-
15	-	-	-	-
16	-	121	-	121
17	-	-	-	-
18	-	4	-	4
19	-	-	-	-
20	-	1,768	-	1,768
21	-	-	380	380
22	-	-	85	85
23	-	-	39	39
24	-	-	172	172
25	-	-	-	-
26	-	-	937	937
27	-	-	1,020	1,020

**Table 8 - Structure Summary by Project Reach and County**

COST_MODEL	(Multiple Items)
FP	Y
CAT_NAME	RES

STRUCTURE COUNT REACH	COUNTY			Grand Total
	Hancock	Harrison	Jackson	
28	-	-	110	110
29	-	-	154	154
30	-	-	430	430
31	-	-	399	399
32	-	-	198	198
33	-	-	-	-
34	-	-	-	-
35	-	-	1,273	1,273
36	-	-	-	-
37	-	-	-	-
38	65	-	-	65
39	-	6	-	6
40	-	-	-	-
41	-	-	-	-
42	-	-	-	-
43	-	-	1	1
44	-	-	-	-
45	-	-	-	-
46	-	-	-	-
47	-	-	-	-
48	-	2	-	2
49	-	-	-	-
50	-	821	-	821
51	-	-	691	691
52	-	-	6,025	6,025
53	-	-	277	277
54	-	-	682	682
<b>Grand Total</b>	<b>4,303</b>	<b>5,493</b>	<b>12,873</b>	<b>22,669</b>

Preliminary Estimate of Project Cost  
for the  
Floodproofing of Residential Structures  
associated with the  
**Mississippi Coastal Improvement Program**  
Comprehensive Study  
at a Price Level equivalent to  
1 October 2007

**Table 9 - Cost and Structure Summary by Cost Model Used\***

CAT_NAME	RES
FP	Y
ECO_REA	(All)
COUNTY	(All)

COST MODEL	STRUCTURE COUNT	CONSTRUCTION	ADMIN	FP PROJECT COST	UNIT PRICE
Slab, 6' Replacement	5,767	1,363,595,616	144,175,000	1,507,770,616	261,448
Slab, 15' Replacement	5,543	1,451,966,678	138,575,000	1,590,541,678	286,946
Slab, 6' Raise	7,633	1,109,105,432	190,825,000	1,299,930,432	170,304
Slab, 15' Raise	3,106	531,107,364	77,650,000	608,757,364	195,994
Trailer, 6' Replacement	35	5,325,495	875,000	6,200,495	177,157
Trailer, 15' Replacement	98	16,380,504	2,450,000	18,830,504	192,148
Trailer, 6' Raise	278	24,767,576	6,950,000	31,717,576	114,092
Trailer, 15' Raise	209	22,269,786	5,225,000	27,494,786	131,554
<b>Grand Total</b>	<b>22,669</b>	<b>4,524,518,451</b>	<b>566,725,000</b>	<b>5,091,243,451</b>	<b>224,591</b>

\*Price includes a net contingency of 24.9%

Preliminary Estimate of Project Cost  
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1 October 2007

**Model Cost Estimates**

**Spreadsheet Summaries**

**PROGRAMMING & PLANNING COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. -- DATE 22-Sep-07  
 LOCATION: **Mississippi** SHEET NO. OF  
 PREPARED: **Don Whitmore** CHECKED:  
 WORK ITEM: **New Site Built Structure, 6' off low ground** BASIS of ESTIMATE: by project delv'd. team  
 FILE NAME:

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Timber Piles*	60	ea	815.66	\$48,940
4x4 Cross Bracing*	990	lf	4.36	\$4,317
Treated Lumber, 2x10*	640	lf	2.64	\$1,691
Structure Above Sill Plate**	1,600	sf	70.28	\$112,451
Misc.- Other***	1	job	12,425.27	\$12,425
Misc.- Utility hookups	1	job	5,091.63	\$5,092
Aerator System - Assume to be installed on 10% on the structures	0.1	job	8,486.04	\$849
Asbestos Abatement	1	job	1,697.21	\$1,697
Temporary Housing Allowance	2	mo	848.60	\$1,697
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0

Note: See MII reports for unit price backup and justification.

\*Assume a 6' grid for a house that is 25' x 64' (i.e., a 1600 SF house).

\*\*Cost estimated by Marshall-Swift for an average quality 1600 SF structure in the Gulfport, MS area. Price is assumed to include all setup and prep work such as mob/de-mob. Foundation costs have been subtracted from the Marshall-Swift estimate.

\*\*\*This price has been taken from LRH's floodproofing model in MCACES 5.31 and includes items such as site work concrete, porches, as well as other items such as landscaping, exterminating, and construction cleanup.

<b>Current Contract Cost, FY 07</b>			<b>\$189,159</b>
CONTINGENCY	@	<b>25.0%</b>	<b>47,290</b>
01 Account, Lands & Damage	Real Estate	<b>LS</b>	5,000
02 Account, Relocations	Relocations	<b>LS</b>	0
xx Account, Environmental Mitigation		<b>LS</b>	0
30 Account, Plan, Engr. & Design	@	<b>6.9%</b>	<b>13,000</b>
31 Account, Constr. Management	@	<b>3.7%</b>	<b>7,000</b>
ESCALATION, FY-06	@	<b>0.0%</b>	<b>0</b>

**Notes.**

Estimate Excludes:

- Operational & Maintenance Cost
- Permanent Infrastructure
- Relocations (pipelines, etc.)
- Equipment (by Other Appropriations)

<b>TOTAL PROJECT COST, FY-2007</b>	<b>\$261,000</b>
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**PROGRAMMING & PLANNING COST ESTIMATE**

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. -- DATE **22-Sep-07**  
 LOCATION: **Mississippi** SHEET NO. OF  
 PREPARED: **Don Whitmore** CHECKED:  
 WORK ITEM: **New Site Built Structure, 15' off low ground** BASIS of ESTIMATE: by project delv'd. team  
 FILE NAME:

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Timber Piles*	60	ea	978.79	\$58,728
4x4 Cross Bracing*	1,980	lf	4.36	\$8,634
Treated Lumber, 2x10*	640	lf	2.64	\$1,691
Structure Above Sill Plate**	1,600	sf	70.28	\$112,451
Misc.- Storage Area	300	sf	15.17	\$4,552
Misc.- Other***	1	job	14,166.60	\$14,167
Misc.- Utility hookups	1	job	5,091.63	\$5,092
Aerator System - Assume to be installed on 10% on the structures	0.1	job	8,486.04	\$849
Asbestos Abatement	1	job	1,697.21	\$1,697
Temporary Housing Allowance	2	mo	848.60	\$1,697
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0

Note: See MII reports for unit price backup and justification.

\*Assume a 6' grid for a house that is 25' x 64' (i.e., a 1600 SF house).

\*\*Cost estimated by Marshall-Swift for an average quality 1600 SF structure in the Gulfport, MS area. Price is assumed to include all setup and prep work such as mob/de-mob. Foundation costs have been subtracted from the Marshall-Swift estimate.

\*\*\*This price has been taken from LRH's floodproofing model in MCACES 5.31 and includes items such as site work concrete, porches, as well as other items such as landscaping, exterminating, and construction cleanup.

**Current Contract Cost, FY 07** \$209,557

CONTINGENCY @ **25.0%** \$52,389

01 Account, Lands & Damage Real Estate **LS** 5,000

02 Account, Relocations Relocations **LS** 0

xx Account, Environmental Mitigation **LS** 0

30 Account, Plan, Engr. & Design @ **6.2%** 13,000

31 Account, Constr. Management @ **3.3%** 7,000

ESCALATION, FY-06 @ **0.0%** 0

**Notes.**

Estimate Excludes:

Operational & Maintenance Cost

Permanent Infrastructure

Relocations (pipelines, etc.)

Equipment (by Other Appropriations)

**TOTAL PROJECT COST, FY-2007** **\$287,000**







## PROGRAMMING & PLANNING COST ESTIMATE

PROJECT: **Mississippi Coastal Improvement Program "MsCIP"** ITEM NO. -- DATE 22-Sep-07  
 LOCATION: **Mississippi** SHEET NO. OF  
 PREPARED: **Don Whitmore** CHECKED:  
 WORK ITEM: **New Prefab Structure, 15' off low ground** BASIS of ESTIMATE: by project delv'd. team  
 FILE NAME:

DESCRIPTION	Quantity	Unit	Unit Price	ESTIMATED AMOUNT
Timber Piles*	38	ea	978.79	\$37,194
4x4 Cross Bracing*	620	lf	4.36	\$2,703
Treated Lumber, 2x10*	400	lf	2.64	\$1,057
Structure Above Sill Plate**	1,000	sf	70.28	\$70,282
Misc.- Storage Area	300	sf	15.17	\$4,552
Misc.- Other***	1	job	14,166.60	\$14,167
Misc.- Utility hookups	1	job	5,091.63	\$5,092
Aerator System - Assume to be installed on 10% on the structures	0.1	job	8,486.04	\$849
Asbestos Abatement	1	job	1,697.21	\$1,697
Temporary Housing Allowance	2	mo	848.60	\$1,697
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0
				\$0

Note: See MII reports for unit price backup and justification.

\*Assume a 6' grid for a house that is 25' x 40' (i.e., a 1000 SF house).

\*\*Cost estimated by Marshall-Swift for an average quality 1000 SF structure in the Gulfport, MS area. Price is assumed to include all setup and prep work such as mob/de-mob. Foundation costs have been subtracted from the Marshall-Swift estimate.

\*\*\*This price has been taken from LRH's floodproofing model in MCACES 5.31 and includes items such as site work concrete, porches, as well as other items such as landscaping, exterminating, and construction cleanup.

**Current Contract Cost, FY 07** \$139,290

CONTINGENCY @ **20.0%** \$27,858

01 Account, Lands & Damage Real Estate **LS** 5,000

02 Account, Relocations Relocations **LS** 0

xx Account, Environmental Mitigation **LS** 0

30 Account, Plan, Engr. & Design @ **9.3%** 13,000

31 Account, Constr. Management @ **5.0%** 7,000

ESCALATION, FY-06 @ **0.0%** 0

**Notes.**

Estimate Excludes:

Operational & Maintenance Cost

Permanent Infrastructure

Relocations (pipelines, etc.)

Equipment (by Other Appropriations)

**TOTAL PROJECT COST, FY-2007** \$192,000





Preliminary Estimate of Project Cost  
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Mississippi Coastal Improvement Program  
Comprehensive Study  
*at a Price Level equivalent to*  
1 October 2007

**Model Cost Estimates**

**MII Estimates**

Recon level cost estimate for the floodproofing of Residential Structures by means of elevating structure or replacing structure.

Estimated by CELRH-ECT

Designed by CELRH-PD, CELRH-ECD

Prepared by Donald Whitmore, P.E.

Preparation Date 9/22/2007

Effective Date of Pricing 10/1/2007

Estimated Construction Time Days

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Summary Report

Date Author Note

9/22/2007 Don Whitmore SCOPE

This cost estimate is comprised of 8 model estimates. Each of these estimates pertains to the floodproofing of residential structures on the Gulf Coast.

1. New house construction on pier foundation at a finished first floor of 6 FT above low ground.
2. New house construction on pier foundation at a finished first floor of 15 FT above low ground.
3. Raising of existing house on slab foundation to a finished first floor of 6 Ft above low ground.
4. Raising of existing house on slab foundation to a finished first floor of 15 Ft above low ground.
5. New mobile home construction on pier foundation at a finished first floor of 6 FT above low ground.
6. New mobile home construction on pier foundation at a finished first floor of 15 FT above low ground.
7. Raising of existing mobile home to a finished first floor of 6 Ft above low ground.
8. Raising of existing mobile home to a finished first floor of 15 Ft above low ground.

ASSUMPTION AND EXCLUSIONS

1. All existing structures are assumed to be either a permanent structure with a slab foundation or a mobile home.
2. For the permanent structure alternatives (models 1 - 4), each structure is assumed to have a living area of 1,600 SF. This assumption applies to either the structure replacement alternative or the structure raise alternative. For the purposes of this estimate, the cost engineer has assumed a simple rectangular house with outside dimensions of 25' x 64'. This yields an area of 1,600 SF and a perimeter of 178 LF.
3. The replacement of permanent structures is based on wooden pier construction to the appropriate elevation (in this case, either 6' or 15' above low ground) and the construction of a new house on this foundation. The foundation quantities and costs for this alternative were detailed by the cost engineer based on the above assumptions. The cost of the new structure above the sill plate was estimated using the Marshall & Swift Residential Estimator 7 software, assuming the construction of an average quality home in the Gulfport, MS area.
4. The raising of an existing permanent construction home has been based on a segmental concrete pile foundation. The prime example of this technology is the "Davie Shoring" system (see [www.davieshoring.com](http://www.davieshoring.com)). It involves tunneling by hand under the slab foundation, cutting existing pile (if applicable), and installing the concrete piles one segment at a time by hydraulic jack until the piles reach refusal. The house is then raised on these piles and a new foundation is constructed. Depending on the structure's final height above low ground, the final foundation would be either the concrete segmental piles with a decorative facade or it would be CIP reinforced concrete with continuous grade beams. For these alternatives, the cost engineer simply obtained a quote from Davie for cost of providing a turnkey structure elevation.
5. For the mobile home construction (models 5 - 8), the replacement of eligible structures would be to construct a wooden pier foundation and place a modular home on this foundation. The structure is assumed to have a living area of 1,000 SF. For the purposes of this estimate, the cost engineer has assumed a simple rectangular mobile home with outside dimension of 14' x 72', which is very conservative by most standards for mobile homes. This yields an area of 1,008 SF and a perimeter of 172 LF. The foundation and living area cost has been estimated in a manner similar to that of the permanent structures (assumption #3), which is also considered by the cost engineer to be very conservative for modular home construction.
6. The raising of an existing mobile home assumes the same method of raising as the permanent construction approach (assumption #4, above). The primary difference is the structure area has been reduced from 1,600 SF to 1,000 SF.

Summary Report

Date Author

Note

7. In each of the higher elevation alternatives (i.e., those involving a structure whose first floor elevation is 15' above low ground), a 300 SF storage area has been included as part of the foundation.

8. In all cases, allowances have been made for the following:

- asbestos abatement (\$1000 per structure)
- aerator systems to be installed on 10% of the structures
- temporary housing
- utility connections (except for the raise alternatives whose quoted price already included utility hookup)

9. Site work costs for items such as landscaping, sidewalks and driveways as well as exterminating, landscaping and construction cleanup have been based on LRH's 202 floodproofing cost model. Parameters were used as input into the model that would fit each of the above descriptions (models 1 - 8), and the total values for these items have been included in this estimate as lump sums.

10. Davis-Bacon labor rates were not used in this estimate. According to the PDT, the project will be formulated such that the requirement to use Davis-Bacon will not apply. At this time, the precise labor rate requirement is unknown. Consequently, the cost engineer left the labor rates undisturbed for each of the various cost sources. As an example, the MEANS cost manuals are based on national average labor rates. However, no attempt was made to adjust the items priced by the MEANS cost manual to account for a different labor rate.

FEATURE ACCOUNTS

01 Lands & Damages: Since these estimates only apply to the floodproofing of structures on site and not the acquisition and demolition of structures, the only costs shown in this account are for administration purposes. An allowance of \$5,000 per structure has been made based on LRH's Section 202 floodproofing program. This price would include contingencies.

11 Levees, Floodwalls, & Floodproofing: Costs have been developed in accordance with the above assumptions.

30 Preconstruction Engineering & Design: An allowance of \$13,000 per structure has been made based on LRH's Section 202 floodproofing program. This price would include contingencies.

31 Supervision & Administration: An allowance of \$7,000 per structure has been made based on LRH's Section 202 floodproofing program. This price would include contingencies.

LEVEL OF EFFORT

This estimate is considered to be preliminary in nature and is to be used as such. The scopes provided to the cost engineer were very general. Indeed, the level of effort put forth by the cost engineer is commensurate to the general nature of the design.

PRICE LEVEL

The costs contained within this estimate have been prepared at a Price Level equivalent to 1 October 2007. Contingency has been included at 25% for model estimates 1 - 4. For the mobile home alternatives, however, a contingency of only 20% was applied due to the very conservative nature of the approach in estimating.

COST SOURCES

A variety of cost sources were used in preparing this estimate. The primary sources were:

- Marshall & Swift Residential Estimator 7
- LRH's Section 202 Implementation Floodproofing Cost Model

**Date** **Author**

**Note**

- MEANS Heavy Construction, 2005

Summary Report

Description	Quantity	UOM	ContractCost	Contingency	ProjectCost
<b>Summary</b>			<b>1,280,877.95</b>		<b>1,529,641.19</b>
<b>Construct New Site Built Structure - 6 feet off low ground</b>	<b>1,600.00</b>	<b>SF</b>	214,158.55	248,763.24	261,448.18
<b>Construct New Site Built Structure - 15 feet off low ground</b>	<b>1,600.00</b>	<b>SF</b>	234,556.53	52,389.13	286,945.67
<b>Raise Existing Slab Foundation Structure - 6 feet off low ground</b>	<b>1,600.00</b>	<b>SF</b>	141,243.02	29,060.76	170,303.78
<b>Raise Existing Slab Foundation Structure - 15 feet off low ground</b>	<b>1,600.00</b>	<b>SF</b>	161,794.94	34,198.73	195,993.67
<b>Construct New Modular Structure - 6 feet off low ground</b>	<b>1,000.00</b>	<b>SF</b>	151,797.34	25,359.47	177,156.81
<b>Construct New Modular Structure - 15 feet off low ground</b>	<b>1,000.00</b>	<b>SF</b>	164,289.62	27,857.92	192,147.54
<b>Raise Existing Prefab Structure - 6 feet off low ground</b>	<b>1,000.00</b>	<b>SF</b>	99,243.02	14,848.60	114,091.63
<b>Raise Existing Prefab Structure - 15 feet off low ground</b>	<b>1,000.00</b>	<b>SF</b>	113,794.94	17,758.99	131,553.92

Summary Report

Description	Quantity	UOM	CostToPrime	PrimeCMU	ContractCost	Contingency	ProjectCost
<b>Detail</b>			<b>1,115,594.43</b>	<b>165,283.52</b>	<b>1,280,877.95</b>	<b>248,763.24</b>	<b>1,529,641.19</b>
			105.39		133.85		163.41
<b>Construct New Site Built Structure - 6 feet off low ground</b>	<b>1,600.00</b>	<b>SF</b>	<b>168,629.89</b>	<b>45,528.65</b>	<b>214,158.55</b>	<b>47,289.64</b>	<b>261,448.18</b>
			5,000.00		5,000.00		5,000.00
<b>01 - Lands &amp; Damages</b>	<b>1.00</b>	<b>EA</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>
Real Estate Admin	1.00	LS	5,000.00	0.00	5,000.00	0.00	5,000.00
(Note: This is an allowance based on historical data from LRH's 202 program.)							
<b>11 - Levees, Floodwalls, and Floodproofing</b>	<b>1.00</b>	<b>EA</b>	<b>143,629.89</b>	<b>45,528.65</b>	<b>189,158.55</b>	<b>47,289.64</b>	<b>236,448.18</b>
			143,629.89		189,158.55		236,448.18
<b>Structure Above Sill Plate</b>	<b>1,600.00</b>	<b>SF</b>	<b>85,104.00</b>	<b>27,346.85</b>	<b>112,450.85</b>	<b>28,112.71</b>	<b>140,563.57</b>
			53.19		70.28		87.85
New Structure - Above Sill Plate	1,600.00	SF	85,104.00	27,346.85	112,450.85	28,112.71	140,563.57
(Note: Cost estimated by Marshall-Swift for an average quality 1600 SF structure in the Gulfport, MS area. See backup sheet from Marshall Swift. Estimated unit price is \$68.35/SF including O&P. Since the pier foundation is estimated elsewhere in this estimate, the standard CIP wall foundation should be deleted from this Marshall-Swift estimate. Also, the overhead and profit should be deleted here. MII will add O&P to the direct cost unit price under the Project Item tab. O&P is estimated to be 14.5% in the Marshall-Swift program. The foundation is estimated to cost \$67/LF of perimeter (MEANS), including O&P. \$67/LF x (25x2 + 64x2) = \$11,926. Now, \$11,926 / 1600 SF = \$7.45/SF that is to be deducted from the estimated unit price for new construction. So, \$68.35/SF - \$7.45/SF = \$60.90/SF (w/ O&P) Subtracting O&P, \$60.90/SF / 1.145 = \$53.19/SF---							
<b>Foundation &amp; Structure Below Sill Plate</b>	<b>1.00</b>	<b>EA</b>	<b>41,585.06</b>	<b>13,362.72</b>	<b>54,947.78</b>	<b>13,736.95</b>	<b>68,684.73</b>
			41,585.06	13,362.72	54,947.78	13,736.95	68,684.73
<b>Timber Piles</b>	<b>60.00</b>	<b>EA</b>	<b>37,038.06</b>	<b>11,901.61</b>	<b>48,939.67</b>	<b>12,234.92</b>	<b>61,174.59</b>
(Note: Assume a 6' grid for a house that is 25' x 64' (i.e., a 1600 SF house).)							
			617.30		815.66		1,019.58
Timber Piles	2,700.00	VLF	37,038.06	11,901.61	48,939.67	12,234.92	61,174.59
(Note: Material price taken from MEANS. Piles are assumed to be 12" diameter at the head and are to be embedded 40' into the ground.)							
<b>Pressure Treated Lumber</b>	<b>1.00</b>	<b>EA</b>	<b>4,547.00</b>	<b>1,461.11</b>	<b>6,008.11</b>	<b>1,502.03</b>	<b>7,510.14</b>
(Note: Assume 2 9' braces per span. A 6x6 grid for a 25 x 64 house yields 60 piles with 55 spans. Therefore, total bracing = 2 x 9 x 55 = 990 LF of 4x4 bracing---							
			4,547.00	1,461.11	6,008.11	1,502.03	7,510.14
Pressure Treated Lumber, 2x10	640.00	LF	1,280.00	411.31	1,691.31	422.83	2,114.14
(Note: Reference LRH's 202 floodproofing implementation model.)							
			2.00		2.64		3.30
4x4 Cross Bracing	990.00	LF	3,267.00	1,049.80	4,316.80	1,079.20	5,396.00
(Note: Reference LRH's 202 floodproofing implementation model for cost. Assume 2 9' braces per span. A 6x6 grid for a 25 x 64 house yields 60 piles with 55 spans. Therefore, total bracing = 2 x 9 x 55 = 990 LF of 4x4 bracing---							
<b>Misc</b>	<b>1.00</b>	<b>LS</b>	<b>16,940.83</b>	<b>4,819.08</b>	<b>21,759.91</b>	<b>5,439.98</b>	<b>27,199.89</b>
Misc - 6' off low ground	1.00	LS	9,673.49	2,751.78	12,425.27	3,106.32	15,531.58
(Note: This item of work covers the cost of site work concrete, porches, as well as other items such as landscaping, exterminating, and construction cleanup for a structure whose first floor is 6' off low ground. Price estimated by LRH's 202 floodproofing implementation model.)							
			3,964.00		5,091.63	25.00	6,364.53
Utility Hookups	1.00	EA	3,964.00	1,127.62	5,091.63	1,272.91	6,364.53
(Note: This is an allowance to cover the costs of installing (or having installed) the water, electric, and gas meters.)							

Summary Report

Description	Quantity	UOM	CostToPrime	PrimeCMU	ContractCost	Contingency	ProjectCost
Aerator System (Note: Assume that 1 out of every 10 houses will need an aerator system installed. The price of \$5000 has been taken from LRH's 202 floodproofing model.)	0.10	LS	660.67	187.94	848.60	212.15	1,060.76
Asbestos Abatement (Note: This is an allowance based on historical data from LRH's 202 program for an average cost per structure for asbestos abatement of a large sample of structures.)	1.00	LS	1,321.33	375.87	1,697.21	424.30	2,121.51
Temporary Housing Allowance (Note: Assume \$500 per month.)	2.00	MO	660.67 1,321.33	375.87	848.60 1,697.21	25.00 424.30	1,060.76 2,121.51
<b>30 - Preconstruction Engineering &amp; Design</b>	<b>1.00</b>	<b>EA</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>
Engineering & Design (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	13,000.00	0.00	13,000.00	0.00	13,000.00
<b>31 - Supervision &amp; Administration</b>	<b>1.00</b>	<b>EA</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>
Supervision & Administration (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	7,000.00	0.00	7,000.00	0.00	7,000.00
<b>Construct New Site Built Structure - 15 feet off low ground</b>	<b>1,600.00</b>	<b>SF</b>	<b>184,204.02</b>	<b>50,352.52</b>	<b>234,556.53</b>	<b>52,389.13</b>	<b>286,945.67</b>
<b>01 - Lands &amp; Damages</b>	<b>1.00</b>	<b>EA</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>
Real Estate Admin (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	5,000.00	0.00	5,000.00	0.00	5,000.00
<b>11 - Levees, Floodwalls, and Floodproofing</b>	<b>1.00</b>	<b>EA</b>	<b>159,204.02</b>	<b>50,352.52</b>	<b>209,556.53</b>	<b>52,389.13</b>	<b>261,945.67</b>
<b>Structure Above Sill Plate</b>	<b>1,600.00</b>	<b>SF</b>	<b>85,104.00</b>	<b>27,346.85</b>	<b>112,450.85</b>	<b>28,112.71</b>	<b>140,563.57</b>
New Structure - Above Sill Plate (Note: Cost estimated by Marshall-Swift for an average quality 1600 SF structure in the Gulfport, MS area. See backup sheet from Marshall Swift. Estimated unit price is \$68.35/SF including O&P. Since the pier foundation is estimated elsewhere in this estimate, the standard CIP wall foundation should be deleted from this Marshall-Swift estimate. Also, the overhead and profit should be deleted here. MII will add O&P to the direct cost unit price under the Project Item tab. O&P is estimated to be 14.5% in the Marshall-Swift program. The foundation is estimated to cost \$67/LF of perimeter (MEANS), including O&P. \$67/LF x (25x2 + 64x2) = \$11,926. Now, \$11,926 / 1600 SF = \$7.45/SF that is to be deducted from the estimated unit price for new construction. So, \$68.35/SF - \$7.45/SF = \$60.90/SF (w/ O&P) Subtracting O&P, \$60.90/SF / 1.145 = \$53.19/SF<---)	1,600.00	SF	85,104.00	27,346.85	112,450.85	28,112.71	140,563.57
<b>Foundation &amp; Structure Below Sill Plate</b>	<b>1.00</b>	<b>EA</b>	<b>52,259.68</b>	<b>16,792.84</b>	<b>69,052.52</b>	<b>17,263.13</b>	<b>86,315.64</b>
<b>Timber Piles</b> (Note: Assume a 6' grid for a house that is 25' x 64' (i.e., a 1600 SF house).)	<b>60.00</b>	<b>EA</b>	<b>44,445.68</b>	<b>14,281.93</b>	<b>58,727.61</b>	<b>14,681.90</b>	<b>73,409.51</b>
Timber Piles (Note: Material price taken from MEANS. Piles are assumed to be 12" diameter at the head and are to be embedded 40' into the ground.)	3,240.00	VLF	13.72 44,445.68	14,281.93	18.13 58,727.61	25.00 14,681.90	22.66 73,409.51
<b>Pressure Treated Lumber</b>	<b>1.00</b>	<b>EA</b>	<b>7,814.00</b>	<b>2,510.91</b>	<b>10,324.91</b>	<b>2,581.23</b>	<b>12,906.13</b>
			2.00		2.64	25.00	3.30

Summary Report

Description	Quantity	UOM	CostToPrime	PrimeCMU	ContractCost	Contingency	ProjectCost
Pressure Treated Lumber, 2x10 (Note: Reference LRH's 202 floodproofing implementation model.)	640.00	LF	1,280.00	411.31	1,691.31	422.83	2,114.14
			3.30		4.36	25.00	5.45
4x4 Cross Bracing (Note: Reference LRH's 202 floodproofing implementation model. Assume 4 9' braces per span. A 6x6 grid for a 25 x 64 house yields 60 piles with 55 spans. Therefore, total bracing = 4 x 9 x 55 = 1980 LF of 4x4 bracing<---)	1,980.00	LF	6,534.00	2,099.60	8,633.60	2,158.40	10,792.00
<b>Misc</b>	<b>1.00</b>	<b>LS</b>	<b>21,840.34</b>	<b>6,212.82</b>	<b>28,053.16</b>	<b>7,013.29</b>	<b>35,066.45</b>
			11.81		15.17		18.97
<b>300 SF Stoarge Area</b> (Note: This would only apply to structures that area greater than 6 FT above low ground. In this estimate, that means that it only applies to the 6' - 15' raise category.)	<b>300.00</b>	<b>SF</b>	<b>3,543.82</b>	<b>1,008.09</b>	<b>4,551.91</b>	<b>1,137.98</b>	<b>5,689.89</b>
4" Concrete Pad (Note: Price from LRH's floodproofing model for 4" concrete = \$370/CY, direct cost. SAY = \$400/CY for the gulf coast. Now, \$400/CY x (4in/36in/yd) = \$44.44/SY. So, \$44.44/SY / 9 SF/SY = \$4.94/SF<---)	300.00	SF	1,958.22	557.05	2,515.26	628.82	3,144.08
Siding (Note: = 10 x 2 + 30 x 2 = 80 SF)	80.00	EA	1,057.07	300.70	1,357.77	339.44	1,697.21
			13.21		16.97	25.00	21.22
Door	1.00	EA	264.27	75.17	339.44	84.86	424.30
Electrical Allowance	1.00	LS	264.27	75.17	339.44	84.86	424.30
			18,296.52		23,501.25		29,376.56
<b>Other</b>	<b>1.00</b>	<b>EA</b>	<b>18,296.52</b>	<b>5,204.73</b>	<b>23,501.25</b>	<b>5,875.31</b>	<b>29,376.56</b>
Utility Hookups (Note: This is an allowance to cover the costs of installing (or having installed) the water, electric, and gas meters.)	1.00	EA	3,964.00	1,127.62	5,091.63	25.00	6,364.53
Misc - 15' off low ground (Note: This item of work covers the cost of site work concrete, porches, as well as other items such as landscaping, exterminating, and construction cleanup for a structure whose first floor is 15' off low ground. Price estimated by LRH's 202 floodproofing implementation model.)	1.00	LS	11,029.18	3,137.42	14,166.60	3,541.65	17,708.25
Aerator System (Note: Assume that 1 out of every 10 houses will need an aerator system installed. The price of \$5000 has been taken from LRH's 202 floodproofing model.)	0.10	LS	660.67	187.94	848.60	212.15	1,060.76
Asbestos Abatement (Note: This is an allowance based on historical data from LRH's 202 program for an average cost per structure for asbestos abatement of a large sample of structures.)	1.00	LS	1,321.33	375.87	1,697.21	424.30	2,121.51
Temporary Housing Allowance (Note: Assume \$500 per month.)	2.00	MO	1,321.33	375.87	1,697.21	424.30	2,121.51
			660.67		848.60	25.00	1,060.76
<b>30 - Preconstruction Engineering &amp; Design</b>	<b>1.00</b>	<b>EA</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>
Engineering & Design (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	13,000.00	0.00	13,000.00	0.00	13,000.00
<b>31 - Supervision &amp; Administration</b>	<b>1.00</b>	<b>EA</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>
Supervision & Administration (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	7,000.00	0.00	7,000.00	0.00	7,000.00
			87.69		88.28		106.44

Summary Report

Description	Quantity	UOM	CostToPrime	PrimeCMU	ContractCost	Contingency	ProjectCost
<b>Raise Existing Slab Foundation Structure - 6 feet off low ground</b> (Note: This price already includes all contractor markups. Therefore, none have been added here.)	<b>1,600.00</b>	<b>SF</b>	<b>140,303.34</b>	<b>939.69</b>	<b>141,243.02</b>	<b>29,060.76</b>	<b>170,303.78</b>
			5,000.00		5,000.00		5,000.00
<b>01 - Lands &amp; Damages</b>	<b>1.00</b>	<b>EA</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>
Real Estate Admin	1.00	LS	5,000.00	0.00	5,000.00	0.00	5,000.00
(Note: This is an allowance based on historical data from LRH's 202 program.)							
			115,303.34		116,243.02		145,303.78
<b>11 - Levees, Floodwalls, and Floodproofing</b>	<b>1.00</b>	<b>EA</b>	<b>115,303.34</b>	<b>939.69</b>	<b>116,243.02</b>	<b>29,060.76</b>	<b>145,303.78</b>
			112,000.00		112,000.00		140,000.00
<b>Raise</b>	<b>1.00</b>	<b>EA</b>	<b>112,000.00</b>	<b>0.00</b>	<b>112,000.00</b>	<b>28,000.00</b>	<b>140,000.00</b>
			70.00		70.00	25.00	87.50
Raise Structure on Segmented Piles to 6' off low ground	1,600.00	SF	112,000.00	0.00	112,000.00	28,000.00	140,000.00
(Note: Reference Pat Davie of Davie Shoring. Pat said that costs for a turnkey job would normally run about \$70/SF to raise a slab foundation house. This price would be for a slab foundation structure whose finished first floor would be greater than 4' above low ground. It is suspected that Pat pays significantly less than Davis-Bacon wages. PD was consulted on this issue. PD recommended that since this project is to be formulated on the basis that Davis-Bacon is not a requirement, the pricing info provided by Mr. Davie is acceptable.)							
			3,303.34		4,243.02		5,303.78
<b>Misc</b>	<b>1.00</b>	<b>EA</b>	<b>3,303.34</b>	<b>939.69</b>	<b>4,243.02</b>	<b>1,060.76</b>	<b>5,303.78</b>
Aerator System	0.10	LS	660.67	187.94	848.60	212.15	1,060.76
(Note: Assume that 1 out of every 10 houses will need an aerator system installed. The price of \$5000 has been taken from LRH's 202 floodproofing model.)							
Asbestos Abatement	1.00	LS	1,321.33	375.87	1,697.21	424.30	2,121.51
(Note: This is an allowance based on historical data from LRH's 202 program for an average cost per structure for asbestos abatement of a large sample of structures.)							
			660.67		848.60	25.00	1,060.76
Temporary Housing Allowance	2.00	MO	1,321.33	375.87	1,697.21	424.30	2,121.51
(Note: Assume \$500 per month.)							
			13,000.00		13,000.00		13,000.00
<b>30 - Preconstruction Engineering &amp; Design</b>	<b>1.00</b>	<b>EA</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>
Engineering & Design	1.00	LS	13,000.00	0.00	13,000.00	0.00	13,000.00
(Note: This is an allowance based on historical data from LRH's 202 program.)							
			7,000.00		7,000.00		7,000.00
<b>31 - Supervision &amp; Administration</b>	<b>1.00</b>	<b>EA</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>
Supervision & Administration	1.00	LS	7,000.00	0.00	7,000.00	0.00	7,000.00
(Note: This is an allowance based on historical data from LRH's 202 program.)							
			99.90		101.12		122.50
<b>Raise Existing Slab Foundation Structure - 15 feet off low ground</b> (Note: This price already includes all contractor markups. Therefore, none have been added here.)	<b>1,600.00</b>	<b>SF</b>	<b>159,847.16</b>	<b>1,947.78</b>	<b>161,794.94</b>	<b>34,198.73</b>	<b>195,993.67</b>
			5,000.00		5,000.00		5,000.00
<b>01 - Lands &amp; Damages</b>	<b>1.00</b>	<b>EA</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>
Real Estate Admin	1.00	LS	5,000.00	0.00	5,000.00	0.00	5,000.00
(Note: This is an allowance based on historical data from LRH's 202 program.)							
			134,847.16		136,794.94		170,993.67
<b>11 - Levees, Floodwalls, and Floodproofing</b>	<b>1.00</b>	<b>EA</b>	<b>134,847.16</b>	<b>1,947.78</b>	<b>136,794.94</b>	<b>34,198.73</b>	<b>170,993.67</b>
			128,000.00		128,000.00		160,000.00
<b>Raise</b>	<b>1.00</b>	<b>EA</b>	<b>128,000.00</b>	<b>0.00</b>	<b>128,000.00</b>	<b>32,000.00</b>	<b>160,000.00</b>

Summary Report

Description	Quantity	UOM	CostToPrime	PrimeCMU	ContractCost	Contingency	ProjectCost
			80.00		80.00	25.00	100.00
Raise Structure on Segmented Piles to 15' off low ground (Note: Reference Pat Davie of Davie Shoring. Pat said that costs for a turnkey job would normally run about \$70/SF to raise a slab foundation house. He said that costs would likely be higher than this for a raise as high as 15' off low ground. Therefore, add \$10/SF to cover this higher raise. This price would be for a slab foundation structure whose finished first floor would be greater than 15' above low ground. PD was consulted on this issue. PD recommended that since this project is to be formulated on the basis that Davis-Bacon is not a requirement, the pricing info provided by Mr. Davie is acceptable.)	1,600.00	SF	128,000.00	0.00	128,000.00	32,000.00	160,000.00
<b>300 SF Storage Area</b>	<b>300.00</b>	<b>SF</b>	<b>3,543.82</b>	<b>1,008.09</b>	<b>4,551.91</b>	<b>1,137.98</b>	<b>5,689.89</b>
(Note: This would only apply to structures that area greater than 6 FT above low ground. In this estimate, that means that it only applies to the 6' - 15' raise category.)			11.81		15.17		18.97
4" Concrete Pad (Note: Price from LRH's floodproofing model for 4" concrete = \$370/CY, direct cost. SAY = \$400/CY for the gulf coast. Now, \$400/CY x (4in/36in/yd) = \$44.44/SY. So, \$44.44/SY / 9 SF/SY = \$4.94/SF<---)	300.00	SF	1,958.22	557.05	2,515.26	628.82	3,144.08
Siding (Note: = 10 x 2 + 30 x 2 = 80 SF)	80.00	EA	1,057.07	300.70	1,357.77	339.44	1,697.21
Door	1.00	EA	264.27	75.17	339.44	84.86	424.30
Electrical Allowance	1.00	LS	264.27	75.17	339.44	84.86	424.30
<b>Misc</b>	<b>1.00</b>	<b>EA</b>	<b>3,303.34</b>	<b>939.69</b>	<b>4,243.02</b>	<b>1,060.76</b>	<b>5,303.78</b>
Aerator System (Note: Assume that 1 out of every 10 houses will need an aerator system installed. The price of \$5000 has been taken from LRH's 202 floodproofing model.)	0.10	LS	660.67	187.94	848.60	212.15	1,060.76
Asbestos Abatement (Note: This is an allowance based on historical data from LRH's 202 program for an average cost per structure for asbestos abatement of a large sample of structures.)	1.00	LS	1,321.33	375.87	1,697.21	424.30	2,121.51
Temporary Housing Allowance (Note: Assume \$500 per month.)	2.00	MO	1,321.33	375.87	1,697.21	424.30	2,121.51
<b>30 - Preconstruction Engineering &amp; Design</b>	<b>1.00</b>	<b>EA</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>
Engineering & Design (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	13,000.00	0.00	13,000.00	0.00	13,000.00
<b>31 - Supervision &amp; Administration</b>	<b>1.00</b>	<b>EA</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>
Supervision & Administration (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	7,000.00	0.00	7,000.00	0.00	7,000.00
<b>Construct New Modular Structure - 6 feet off low ground</b>	<b>1,000.00</b>	<b>SF</b>	<b>121,434.27</b>	<b>30,363.07</b>	<b>151,797.34</b>	<b>25,359.47</b>	<b>177,156.81</b>
<b>01 - Lands &amp; Damages</b>	<b>1.00</b>	<b>EA</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>
Real Estate Admin (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	5,000.00	0.00	5,000.00	0.00	5,000.00
			96,434.27		126,797.34		152,156.81

Summary Report

Description	Quantity	UOM	CostToPrime	PrimeCMU	ContractCost	Contingency	ProjectCost
<b>11 - Levees, Floodwalls, and Floodproofing</b>	<b>1.00</b>	<b>EA</b>	<b>96,434.27</b>	<b>30,363.07</b>	<b>126,797.34</b>	<b>25,359.47</b>	<b>152,156.81</b>
			53.19		70.28		84.34
<b>Structure Above Sill Plate</b>	<b>1,000.00</b>	<b>SF</b>	<b>53,190.00</b>	<b>17,091.78</b>	<b>70,281.78</b>	<b>14,056.36</b>	<b>84,338.14</b>
			53.19		70.28	20.00	84.34
New Structure - Above Sill Plate (Note: Cost estimated by Marshall-Swift for an average quality 1000 SF structure in the Gulfport, MS area. See backup sheet from Marshall Swift. Estimated unit price is \$68.35/SF including O&P. Since the pier foundation is estimated elsewhere in this estimate, the standard CIP wall foundation should be deleted from this Marshall-Swift estimate. Also, the overhead and profit should be deleted here. MII will add O&P to the direct cost unit price under the Project Item tab. O&P is estimated to be 14.5% in the Marshall-Swift program. The foundation is estimated to cost \$67/LF of perimeter (MEANS), including O&P. \$67/LF x (25x2 + 64x2) = \$11,926. Now, \$11,926 / 1600 SF = \$7.45/SF that is to be deducted from the estimated unit price for new construction. So, \$68.35/SF - \$7.45/SF = \$60.90/SF (w/ O&P) Subtracting O&P, \$60.90/SF / 1.145 = \$53.19/SF<---)	1,000.00	SF	53,190.00	17,091.78	70,281.78	14,056.36	84,338.14
<b>Foundation &amp; Structure Below Sill Plate</b>	<b>1.00</b>	<b>EA</b>	<b>26,303.44</b>	<b>8,452.20</b>	<b>34,755.64</b>	<b>6,951.13</b>	<b>41,706.77</b>
			26,303.44		34,755.64		41,706.77
<b>Timber Piles</b> (Note: Assume a 6' grid.)	<b>38.00</b>	<b>EA</b>	<b>23,457.44</b>	<b>7,537.69</b>	<b>30,995.13</b>	<b>6,199.03</b>	<b>37,194.15</b>
			617.30		815.66		978.79
Timber Piles (Note: Material price taken from MEANS. Piles are assumed to be 12" diameter at the head and are to be embedded 40' into the ground.)	1,710.00	VLF	23,457.44	7,537.69	30,995.13	6,199.03	37,194.15
			13.72		18.13	20.00	21.75
<b>Pressure Treated Lumber</b> (Note: Assume 2 9' braces per span.)	<b>1.00</b>	<b>EA</b>	<b>2,846.00</b>	<b>914.52</b>	<b>3,760.52</b>	<b>752.10</b>	<b>4,512.62</b>
			2,846.00		3,760.52		4,512.62
4x4 Cross Bracing (Note: Reference LRH's 202 floodproofing implementation model.)	620.00	LF	2,046.00	657.45	2,703.45	540.69	3,244.14
			3.30		4.36	20.00	5.23
Pressure Treated Lumber, 2x10 (Note: Reference LRH's 202 floodproofing implementation model.)	400.00	LF	800.00	257.07	1,057.07	211.41	1,268.48
			2.00		2.64	20.00	3.17
<b>Misc</b>	<b>1.00</b>	<b>LS</b>	<b>16,940.83</b>	<b>4,819.08</b>	<b>21,759.91</b>	<b>4,351.98</b>	<b>26,111.90</b>
Misc (Note: This item of work covers the cost of site work concrete, porches, as well as other items such as landscaping, exterminating, and construction cleanup for a structure whose first floor is 6' off low ground. Price estimated by LRH's 202 floodproofing implementation model.)	1.00	LS	9,673.49	2,751.78	12,425.27	2,485.05	14,910.32
			3,964.00		5,091.63	20.00	6,109.95
Utility Hookups (Note: This is an allowance to cover the costs of installing (or having installed) the water, electric, and gas meters.)	1.00	EA	3,964.00	1,127.62	5,091.63	1,018.33	6,109.95
Aerator System (Note: Assume that 1 out of every 10 houses will need an aerator system installed. The price of \$5000 has been taken from LRH's 202 floodproofing model.)	0.10	LS	660.67	187.94	848.60	169.72	1,018.33
Asbestos Abatement (Note: This is an allowance based on historical data from LRH's 202 program for an average cost per structure for asbestos abatement of a large sample of structures.)	1.00	LS	1,321.33	375.87	1,697.21	339.44	2,036.65
			660.67		848.60	20.00	1,018.33
Temporary Housing Allowance (Note: Assume \$500 per month.)	2.00	MO	1,321.33	375.87	1,697.21	339.44	2,036.65
			13,000.00		13,000.00		13,000.00
<b>30 - Preconstruction Engineering &amp; Design</b>	<b>1.00</b>	<b>EA</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>
Engineering & Design	1.00	LS	13,000.00	0.00	13,000.00	0.00	13,000.00

Summary Report

Description	Quantity	UOM	CostToPrime	PrimeCMU	ContractCost	Contingency	ProjectCost
(Note: This is an allowance based on historical data from LRH's 202 program.)							
<b>31 - Supervision &amp; Administration</b>	<b>1.00</b>	<b>EA</b>	7,000.00	0.00	7,000.00	0.00	7,000.00
Supervision & Administration	1.00	LS	7,000.00	0.00	7,000.00	0.00	7,000.00
(Note: This is an allowance based on historical data from LRH's 202 program.)							
<b>Construct New Modular Structure - 15 feet off low ground</b>	<b>1,000.00</b>	<b>SF</b>	131,025.27	33,264.35	164,289.62	27,857.92	192,147.54
<b>01 - Lands &amp; Damages</b>	<b>1.00</b>	<b>EA</b>	5,000.00	0.00	5,000.00	0.00	5,000.00
Real Estate Admin	1.00	LS	5,000.00	0.00	5,000.00	0.00	5,000.00
(Note: This is an allowance based on historical data from LRH's 202 program.)							
<b>11 - Levees, Floodwalls, and Floodproofing</b>	<b>1.00</b>	<b>EA</b>	106,025.27	33,264.35	139,289.62	27,857.92	167,147.54
<b>Structure Above Sill Plate</b>	<b>1,000.00</b>	<b>SF</b>	53,190.00	17,091.78	70,281.78	14,056.36	84,338.14
New Structure - Above Sill Plate	1,000.00	SF	53,190.00	17,091.78	70,281.78	14,056.36	84,338.14
(Note: Cost estimated by Marshall-Swift for an average quality 1000 SF structure in the Gulfport, MS area. See backup sheet from Marshall Swift. Estimated unit price is \$68.35/SF including O&P. Since the pier foundation is estimated elsewhere in this estimate, the standard CIP wall foundation should be deleted from this Marshall-Swift estimate. Also, the overhead and profit should be deleted here. MII will add O&P to the direct cost unit price under the Project Item tab. O&P is estimated to be 14.5% in the Marshall-Swift program. The foundation is estimated to cost \$67/LF of perimeter (MEANS), including O&P. $\$67/LF \times (25 \times 2 + 64 \times 2) = \$11,926$ . Now, $\$11,926 / 1600 SF = \$7.45/SF$ that is to be deducted from the estimated unit price for new construction. So, $\$68.35/SF - \$7.45/SF = \$60.90/SF$ (w/ O&P) Subtracting O&P, $\$60.90/SF / 1.145 = \$53.19/SF$ ---							
<b>Foundation &amp; Structure Below Sill Plate</b>	<b>1.00</b>	<b>EA</b>	30,994.93	9,959.74	40,954.67	8,190.93	49,145.60
<b>Timber Piles</b>	<b>38.00</b>	<b>EA</b>	740.76	9,045.22	9,786.98	7,438.83	44,632.98
(Note: Assume a 6' grid.)							
Timber Piles	2,052.00	VLF	28,148.93	9,045.22	37,194.15	7,438.83	44,632.98
(Note: Material price taken from MEANS. Piles are assumed to be 12" diameter at the head and are to be embedded 40' into the ground.)							
<b>Pressure Treated Lumber</b>	<b>1.00</b>	<b>EA</b>	2,846.00	914.52	3,760.52	752.10	4,512.62
4x4 Cross Bracing	620.00	LF	2,046.00	657.45	2,703.45	540.69	3,244.14
(Note: Reference LRH's 202 floodproofing implementation model. Assume 2 9' braces per span.)							
Pressure Treated Lumber, 2x10	400.00	LF	800.00	257.07	1,057.07	211.41	1,268.48
(Note: Reference LRH's 202 floodproofing implementation model.)							
<b>Misc</b>	<b>1.00</b>	<b>LS</b>	21,840.34	6,212.82	28,053.16	5,610.63	33,663.80
<b>300 SF Stoarge Area</b>	<b>300.00</b>	<b>SF</b>	3,543.82	1,008.09	4,551.91	910.38	5,462.30
(Note: This would only apply to structures that area greater than 6 FT above low ground. In this estimate, that means that it only applies to the 6' - 15' raise category.)							

Summary Report

Description	Quantity	UOM	CostToPrime	PrimeCMU	ContractCost	Contingency	ProjectCost
			6.53		8.38	20.00	10.06
4" Concrete Pad (Note: Price from LRH's floodproofing model for 4" concrete = \$370/CY, direct cost. SAY = \$400/CY for the gulf coast. Now, \$400/CY x (4in/36in/yd) = \$44.44/SY. So, \$44.44/SY / 9 SF/SY = \$4.94/SF<---)	300.00	SF	1,958.22	557.05	2,515.26	503.05	3,018.32
Siding (Note: = 10 x 2 + 30 x 2 = 80 SF)	80.00	EA	13.21 1,057.07	300.70	16.97 1,357.77	20.00 271.55	20.37 1,629.32
Door	1.00	EA	264.27	75.17	339.44	67.89	407.33
Electrical Allowance	1.00	LS	264.27	75.17	339.44	67.89	407.33
<b>Other</b>	<b>1.00</b>	<b>EA</b>	<b>18,296.52</b>	<b>5,204.73</b>	<b>23,501.25</b>	<b>4,700.25</b>	<b>28,201.50</b>
Utility Hookups (Note: This is an allowance to cover the costs of installing (or having installed) the water, electric, and gas meters.)	1.00	EA	3,964.00	1,127.62	5,091.63	20.00	6,109.95
Misc - 15' off low ground (Note: This item of work covers the cost of site work concrete, porches, as well as other items such as landscaping, exterminating, and construction cleanup for a structure whose first floor is 15' off low ground. Price estimated by LRH's 202 floodproofing implementation model.)	1.00	LS	11,029.18	3,137.42	14,166.60	2,833.32	16,999.92
Asbestos Abatement (Note: This is an allowance based on historical data from LRH's 202 program for an average cost per structure for asbestos abatement of a large sample of structures.)	1.00	LS	1,321.33	375.87	1,697.21	339.44	2,036.65
Aerator System (Note: Assume that 1 out of every 10 houses will need an aerator system installed. The price of \$5000 has been taken from LRH's 202 floodproofing model.)	0.10	LS	660.67	187.94	848.60	169.72	1,018.33
Temporary Housing Allowance (Note: Assume \$500 per month.)	2.00	MO	660.67 1,321.33	375.87	848.60 1,697.21	20.00 339.44	1,018.33 2,036.65
<b>30 - Preconstruction Engineering &amp; Design</b>	<b>1.00</b>	<b>EA</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>
Engineering & Design (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	13,000.00	0.00	13,000.00	0.00	13,000.00
<b>31 - Supervision &amp; Administration</b>	<b>1.00</b>	<b>EA</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>
Supervision & Administration (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	7,000.00	0.00	7,000.00	0.00	7,000.00
<b>Raise Existing Prefab Structure - 6 feet off low ground</b>	<b>1,000.00</b>	<b>SF</b>	<b>98,303.34</b>	<b>939.69</b>	<b>99,243.02</b>	<b>14,848.60</b>	<b>114,091.63</b>
(Note: This price already includes all contractor markups. Therefore, none have been added here.)			98.30		99.24		114.09
<b>01 - Lands &amp; Damages</b>	<b>1.00</b>	<b>EA</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>	<b>0.00</b>	<b>5,000.00</b>
Real Estate Admin (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	5,000.00	0.00	5,000.00	0.00	5,000.00
<b>11 - Levees, Floodwalls, and Floodproofing</b>	<b>1.00</b>	<b>EA</b>	<b>73,303.34</b>	<b>939.69</b>	<b>74,243.02</b>	<b>14,848.60</b>	<b>89,091.63</b>
			70,000.00		70,000.00		84,000.00

Summary Report

Raise	Description	Quantity	UOM	CostToPrime	PrimeCMU	ContractCost	Contingency	ProjectCost
		1.00	EA	70,000.00	0.00	70,000.00	14,000.00	84,000.00
				70.00		70.00	20.00	84.00
	Raise Structure on Segmented Piles to 6' off low ground	1,000.00	SF	70,000.00	0.00	70,000.00	14,000.00	84,000.00
	(Note: Reference Pat Davie of Davie Shoring. Pat said that costs for a turnkey job would normally run about \$70/SF to raise a slab foundation house. This price would be for a slab foundation struture whose finished first floor would be greater than 4' above low ground. It is suspected that Pat pays significantly less than Davis-Bacon wages. PD was consulted on this issue. PD recommended that since this project is to be formulated on the basis that Davis-Bacon is not a requirement, the pricing info provided by Mr. Davie is acceptable.)							
				3,303.34		4,243.02		5,091.63
<b>Misc</b>		1.00	EA	3,303.34	939.69	4,243.02	848.60	5,091.63
	Aerator System	0.10	LS	660.67	187.94	848.60	169.72	1,018.33
	(Note: Assume that 1 out of every 10 houses will need an aerator system installed. The price of \$5000 has been taken from LRH's 202 floodproofing model.)							
	Asbestos Abatement	1.00	LS	1,321.33	375.87	1,697.21	339.44	2,036.65
	(Note: This is an allowance based on historical data from LRH's 202 program for an average cost per structure for asbestos abatement of a large sample of structures.)							
	Temporary Housing Allowance	2.00	MO	1,321.33	375.87	1,697.21	339.44	2,036.65
	(Note: Assume \$500 per month.)							
				660.67		848.60	20.00	1,018.33
				1,321.33	375.87	1,697.21	339.44	2,036.65
<b>30 - Preconstruction Engineering &amp; Design</b>		1.00	EA	13,000.00	0.00	13,000.00	0.00	13,000.00
	Engineering & Design	1.00	LS	13,000.00	0.00	13,000.00	0.00	13,000.00
	(Note: This is an allowance based on historical data from LRH's 202 program.)							
<b>31 - Supervision &amp; Administration</b>		1.00	EA	7,000.00	0.00	7,000.00	0.00	7,000.00
	Supervision & Administration	1.00	LS	7,000.00	0.00	7,000.00	0.00	7,000.00
	(Note: This is an allowance based on historical data from LRH's 202 program.)							
<b>Raise Existing Prefab Structure - 15 feet off low ground</b>		1,000.00	SF	111,847.16	1,947.78	113,794.94	17,758.99	131,553.92
	(Note: This price already includes all contractor markups. Therefore, none have been added here.)							
				111.85		113.79		131.55
<b>01 - Lands &amp; Damages</b>		1.00	EA	5,000.00	0.00	5,000.00	0.00	5,000.00
	Real Estate Admin	1.00	LS	5,000.00	0.00	5,000.00	0.00	5,000.00
	(Note: This is an allowance based on historical data from LRH's 202 program.)							
<b>11 - Levees, Floodwalls, and Floodproofing</b>		1.00	EA	86,847.16	1,947.78	88,794.94	17,758.99	106,553.92
				86,847.16	1,947.78	88,794.94	17,758.99	106,553.92
<b>Raise</b>		1.00	EA	80,000.00	0.00	80,000.00	16,000.00	96,000.00
				80,000.00		80,000.00	20.00	96.00
	Raise Structure on Segmented Piles to 15' off low ground	1,000.00	SF	80,000.00	0.00	80,000.00	16,000.00	96,000.00
	(Note: Reference Pat Davie of Davie Shoring. Pat said that costs for a turnkey job would normally run about \$70/SF to raise a slab foundation house. He said that costs would likely be higher than this for a raise as high as 15' off low ground. Therefore, add \$10/SF to cover this higher raise. This price would be for a slab foundation struture whose finished first floor would be greater than 15' above low ground. PD was consulted on this issue. PD recommended that since this project is to be formulated on the basis that Davis-Bacon is not a requirement, the pricing info provided by Mr. Davie is acceptable.)							
<b>300 SF Stoarge Area</b>		300.00	SF	3,543.82	1,008.09	4,551.91	910.38	5,462.30
	(Note: This would only apply to structures that area greater than 6 FT above low ground. In this estimate, that means that it only applies to the 8' - 15' raise category.)							
				11.81		15.17		18.21

Summary Report

Description	Quantity	UOM	CostToPrime	PrimeCMU	ContractCost	Contingency	ProjectCost
			6.53		8.38	20.00	10.06
4" Concrete Pad (Note: Price from LRH's floodproofing model for 4" concrete = \$370/CY, direct cost. SAY = \$400/CY for the gulf coast. Now, \$400/CY x (4in/36in/yd) = \$44.44/SY. So, \$44.44/SY / 9 SF/SY = \$4.94/SF<---)	300.00	SF	1,958.22	557.05	2,515.26	503.05	3,018.32
Siding (Note: = 10 x 2 + 30 x 2 = 80 SF)	80.00	EA	13.21 1,057.07	300.70	16.97 1,357.77	20.00 271.55	20.37 1,629.32
Door	1.00	EA	264.27	75.17	339.44	67.89	407.33
Electrical Allowance	1.00	LS	264.27	75.17	339.44	67.89	407.33
<b>Misc</b>	<b>1.00</b>	<b>EA</b>	<b>3,303.34</b>	<b>939.69</b>	<b>4,243.02</b>	<b>848.60</b>	<b>5,091.63</b>
Aerator System (Note: Assume that 1 out of every 10 houses will need an aerator system installed. The price of \$5000 has been taken from LRH's 202 floodproofing model.)	0.10	LS	660.67	187.94	848.60	169.72	1,018.33
Asbestos Abatement (Note: This is an allowance based on historical data from LRH's 202 program for an average cost per structure for asbestos abatement of a large sample of structures.)	1.00	LS	1,321.33	375.87	1,697.21	339.44	2,036.65
Temporary Housing Allowance (Note: Assume \$500 per month.)	2.00	MO	660.67 1,321.33	375.87	848.60 1,697.21	20.00 339.44	1,018.33 2,036.65
<b>30 - Preconstruction Engineering &amp; Design</b>	<b>1.00</b>	<b>EA</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>	<b>0.00</b>	<b>13,000.00</b>
Engineering & Design (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	13,000.00	0.00	13,000.00	0.00	13,000.00
<b>31 - Supervision &amp; Administration</b>	<b>1.00</b>	<b>EA</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>	<b>0.00</b>	<b>7,000.00</b>
Supervision & Administration (Note: This is an allowance based on historical data from LRH's 202 program.)	1.00	LS	7,000.00	0.00	7,000.00	0.00	7,000.00

Annual Funding Stream by Federal Fiscal Year  
 Fully Funded Project Costs - Waveland, Mississippi Coastal Improvement Program  
 Federal Fiscal Year Calendar  
 (1 October - 30 September)

		Cost (\$1000's)				
Feature Account		FY09	FY10	FY11	FY12	Grand Total
<b>Non-Fully Funded (10/1/2008)</b>						
01	Lands and Damages	0	60	67	7	134
02	Relocations		1,252	1,408	469	3,130
30	Engineering and Design	341	223	223	106	893
31	Supervision and Administration		107	121	40	268
<b>Non-Fully Funded (10/1/2008) Total</b>		<b>341</b>	<b>1,643</b>	<b>1,819</b>	<b>622</b>	<b>4,425</b>
<b>Fully Funded Estimate (Including Inflation)</b>						
01	Lands and Damages	0	63	72	8	143
02	Relocations		1,279	1,469	500	3,248
30	Engineering and Design	341	232	241	119	933
31	Supervision and Administration		111	130	45	287
<b>Fully Funded Estimate (Including Inflation) Total</b>		<b>341</b>	<b>1,686</b>	<b>1,913</b>	<b>671</b>	<b>4,611</b>

Annual Funding Stream by Federal Fiscal Year  
 Fully Funded Project Costs - Moss Pointe, Mississippi Coastal Improvement Program  
 Federal Fiscal Year Calendar  
 (1 October - 30 September)

		Cost (\$1000's)					
Feature Account		FY09	FY10	FY11	FY12	FY13	Grand Total
<b>Non-Fully Funded (10/1/2008)</b>							
01	Lands and Damages	0	40	47	40	7	134
02	Relocations		1,686	2,950	2,950	843	8,429
30	Engineering and Design	311	401	401	401	90	1,603
31	Supervision and Administration		129	226	226	65	646
<b>Non-Fully Funded (10/1/2008) Total</b>		<b>311</b>	<b>2,256</b>	<b>3,624</b>	<b>3,617</b>	<b>1,004</b>	<b>10,811</b>
<b>Fully Funded Estimate (Including Inflation)</b>							
01	Lands and Damages	0	42	51	45	8	145
02	Relocations		1,723	3,077	3,139	915	8,854
30	Engineering and Design	311	417	433	450	105	1,716
31	Supervision and Administration		134	244	254	75	708
<b>Fully Funded Estimate (Including Inflation) Total</b>		<b>311</b>	<b>2,316</b>	<b>3,805</b>	<b>3,888</b>	<b>1,103</b>	<b>11,424</b>

Cost at PL 1 October 2008 (Rounded to nearest Thousand)					
Municipal Facility	Total Floor Area	Estimated (\$)	Contingency (25.0%)	Total (\$)	Unit (\$/SF)
City Hall & Public Works Facility	7,400	1,349,000	338,000	1,687,000	227.97
Police Station & Courthouse	10,400	3,008,000	752,000	3,760,000	361.54
Fire Station	5,900	1,196,000	299,000	1,495,000	253.39
Recreation Center	17,000	2,847,000	711,000	3,558,000	209.29
<< Additional PED >>	-	249,000	62,000	311,000	n/a
<b>TOTAL</b>	<b>40,700</b>	<b>8,649,000</b>	<b>2,162,000</b>	<b>10,811,000</b>	<b>265.63</b>

Cost at PL 1 October 2008 (Rounded to nearest Thousand)				
Feature Account	Estimated (\$)	Contingency (25.0%)	Total (\$)	Unit Cost (\$/SF) <small>(Average for Total Floor Area)</small>
01 - Lands & Damages	107,000	27,000	134,000	3.29
02 - Relocations	6,743,000	1,685,000	8,428,000	207.08
-Substructure	435,181	108,795	543,977	13.37
-Shell	2,077,773	519,443	2,597,216	63.81
-Interiors	1,063,169	265,792	1,328,961	32.65
-Services	1,974,393	493,598	2,467,992	60.64
-Equipment & Furnishings	191,027	47,757	238,784	5.87
-Special Construction	0	0	0	0.00
-Additives	406,253	101,563	507,816	12.48
-Site Work	493,312	123,328	616,640	15.15
-Associated Items	102,021	25,505	127,526	3.13
30 - Engineering & Design	1,282,000	321,000	1,603,000	39.39
-PED per Structure	1,033,382	258,346	1,291,728	31.74
-Advance Engineering (Prepare Report)	197,248	49,312	246,560	6.06
-Implementation	34,304	8,576	42,880	1.05
-Project Closeout	17,152	4,288	21,440	0.53
31 - Supervision & Administration	517,000	129,000	646,000	15.87
<b>TOTAL</b>	<b>8,649,000</b>	<b>2,162,000</b>	<b>10,811,000</b>	<b>265.62</b>

Note: This cost estimate was originally developed using the RS MEANS Square Foot Costs Cost 2007 Manual, 28th Annual Edition. Subsequent to this initial effort, the estimate has been updated to FY 2009 costs (PL 1 October 2008) using OMB inflation factors. The factors used were 1.072 (7.2%) for labor costs and 1.050 (5.0%) for non-labor costs. The cost model used can be found on pages 220 and 221. USACE-CELRH-EC-CE provided parametric inputs such as building construction type, building size, and a basic description of site work and land requirements. The MEANS model has been replicated in this worksheet so as to readily make the proper adjustments.

**Structure Function: City Hall & Public Works Facility**

**Input Parameters:**

Price Level (PL) =	1-Oct-2008
Area of New Building (SF) =	7,400
Length of Building (LF) =	110.00
Number of Stories (EA) =	1
Story Height (FT) =	12.00
Total Area of New Site (ACR) =	1.00
Existing Facility to Be Demolished (SF) =	5,000
Interior Partition Height (FT) =	10.00
Roof / Footprint Ratio (SF/SF) =	1.10

**Calculated Parameters:**

Width of Building (LF) =	67.00
Perimeter of New Building (LF) =	354
Area-Perimeter Ratio (SF/LF) =	20.90
Width-Length Ratio (LF/LF) =	0.61
Exterior Wall Area (SF) =	4,248
Unit Price, Project Cost (\$/SF) =	227.95
Roof Area (SF) =	8,140

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
<b>Substructure:</b>							
Standard Foundations	Poured concrete; strip and spread footings	7,400	S.F. Ground	1 51	11,185	1.51	02
Slab on Grade	4" reinforced concrete with vapor barrier and granular base	7,400	S.F. Slab	4 67	34,563	4.67	02
Foundation Excavation	Site preparation for slab and trench for foundation wall and footing	7,400	S.F. Ground	0 25	1,864	0.25	02
Foundation Walls	4' foundation wall	354	L F. Wall	72.42	25,638	3.46	02
<b>Shell</b>							
<b>Superstructure:</b>							
Floor Construction	N/A	-	S.F. Floor	-	-	-	02
Roof Construction	Metal deck, open web steel joists, beams, interior columns	7,400	S F. Roof	6 65	49,243	6.65	02
<b>Exterior Closure:</b>							
Walls	Face brick with concrete block backup (70% of wall)	2,970	S.F. Wall	27 29	81,050	10.95	02
Exterior Windows	Metal outward projecting (30% of wall)	40	Each	661 25	26,450	3.57	02
Exterior Doors	Metal and glass with transom	3	Each	2,335 36	7,006	0.95	02
-	N/A	-	-	-	-	-	-
<b>Roofing:</b>							
Roof Coverings	Built-up tar & gravel with flashing; perlite/EPS composite insulation	8,140	S F. Roof	5.43	44,171	5.97	02
Roof Openings	Skylights, roof hatches	8,140	S F. Roof	-	-	-	02
<b>Interiors:</b>							
Partitions	Gypsum board on metal studs (20 sf floor area / lf partition)	4,440	S.F. Partition	8 31	36,909	4.99	02
Interior Doors	Wood solid core (200 sf/door)	37	Each	546 84	20,233	2.73	02
Fittings	Toilet partitions	7,400	S.F. Floor	0.49	3,651	0.49	02
Stair Construction	N/A	-	Flight	-	-	-	02
Wall Finishes	90% paint, 10% ceramic tile	8,880	S F. Surface	1 33	11,837	1.60	02
Floor Finishes	70% carpet tile, 15% terrazzo, 15% vinyl composition tile	7,400	S.F. Floor	7 36	54,447	7.36	02

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
Ceiling Finishes	Mineral fiber tile on concealed zee bars (100% of area)	7,400	S F. Ceiling	4.94	36,583	4.94	02
<b>Services</b>							
Conveying: Elevators & Lifts	N/A	-	Each	-	-	-	02
Plumbing: Plumbing, fixtures Domestic Water Distribution Rain Water Drainage	Kitchen, Toilet and Service Fixtures, supply and drainage Gas fired water heater Roof drains	.15 7,400 8,140	Each S F. Floor S.F. Roof	2,760.45 1.10 0.68	41,407 8,155 5,553	5.60 1.10 0.75	02 02 02
HVAC Energy Supply Heat Generating Systems Cooling Generating Systems Terminal & Package Units Other HVAC Sys. & Equipment	N/A N/A N/A Multizone unit, gas heating, electric cooling N/A	- - - 7,400 -	- - - S F. Floor -	- - - 8.33 -	- - - 61,670 -	- - - 8.33 -	- - - 02 -
Fire Protection Sprinklers Standpipes	Wet pipe sprinkler system N/A	7,400	S F. Floor	2.52 -	18,641 -	2.52 -	02 -
Electrical: Service & Distribution Lighting & Power Communications & Security Other Electrical Systems	400 ampere service, panel board and feeders Fluorescent fixtures, receptacles, switches, A.C. and misc. power Alarm systems, communications systems and emergency lighting Emergency generator, 15 kW	7,400 7,400 7,400 7,400	S F. Floor S F. Floor S F. Floor S F. Floor	1.77 9.44 2.52 0.14	13,126 69,826 18,641 1,010	1.77 9.44 2.52 0.14	02 02 02 -
<b>Additives</b>							
Directory Boards Flagpoles, Complete Smoke Detectors	Aluminum 48" x 32" Aluminum, 20' high Duct type (1 dectector/500 sf)	1 1 15	EA EA EA	928.90 3,280.00 461.82	929 3,280 6,927	0.13 0.44 0.94	02 02 02
Storage: Safe, Office Type Vaults Vaults	4-hour rating, 30" x 18" x 18" Door & frame, 4-hour test, 32" door Time lock movement,; two movements	1 2 1	EA Openings EA	4,277.12 6,008.96 1,941.76	4,277 12,018 1,942	0.58 1.62 0.26	02 02 02
Electrical: Emergency Lighting	25 watt, nickel cadmium battery	8 -	EA EA	808.19 -	6,466 -	0.87 -	02 02
<b>Site Work:</b>							
Cut/Fill Site Excavation Roads & Parking Site Improvements Utilities	Excavation to prepare site for construction Construct New Roads & Parking: Clearing, Grubbing, Hardscaping, and Landscaping Sewage Treatment	1 800 1 -	LS SY LS SY	52,480.00 20.99 31,488.00 -	52,480 16,794 31,488 -	7.09 2.27 4.26 -	02 02 02 02

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
Utilities	Telephone Service	-	Job	-	-	-	02
Utilities	Electric Service	-	Job	-	-	-	02
Utilities	Water Filtration & Purification System, w/ Building	-	Job	-	-	-	02
Utilities	Cable Service	-	Job	-	-	-	02
		-	Job	-	-	-	02
<b>Associated Items:</b>							
Demo of Existing Building	Demolish existing building and restore site	5,000	SF	8.40	41,984	5.67	02

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
SUB-TOTALS =					861,443	116.41	

Contractor's Markups @ 25.0% =	215,361	29.10
Total Estimate Contract Cost =	1,076,803	145.51
Contingency @ 25% =	269,201	36.38
Total Construction Cost =	1,346,004	181.89
Real Estate Costs to acquire 1 acre(s) of land =	31,488	4.26
Engineering & Design @ 15.3% =	206,249	27.87
Supervision & Administration @ 7.7% =	103,124	13.94

<b>Total Estimated Cost (PL 1-Oct-2008) =</b>	<b>\$ 1,686,865</b>	<b>\$ 227.95</b>
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Feature Account	Cost (PL 1-Oct-2008)		
	Estimated	Contingency	Total
01 - Lands & Damages	25,190	6,298	31,488
02 - Relocations	1,076,803	269,201	1,346,004
30 - Engineering & Design	164,999	41,250	206,249
31 - Supervision & Administration	82,499	20,625	103,124
<b>TOTAL</b>	<b>1,349,492</b>	<b>337,373</b>	<b>1,686,865</b>

Therefore, the total estimated cost at PL 1-Oct-2008 to relocate a 7,400 SF city hall & public works facility is \$1,687,000 which equates to \$228 per SF. This estimate is based on assumed dimensions of 110 LF by 67 LF yielding a perimeter of 354 LF. Also, the structure was assumed to be 1 story tall with an assumed story height of 12.00 FT. The demo of a 5,000 SF existing structure has been included. The purchase and development of 1.00 acre of land is included.

Note: This cost estimate was originally developed using the RS MEANS Square Foot Costs Cost 2007 Manual, 28th Annual Edition. Subsequent to this initial effort, the estimate has been updated to FY 2009 costs (PL 1 October 2008) using OMB inflation factors. The factors used were 1.072 (7.2%) for labor costs and 1.050 (5.0%) for non-labor costs. The cost model used can be found on pages 184 and 185. USACE-CELRH-EC-CE provided parametric inputs such as building construction type, building size, and a basic description of site work and land requirements. The MEANS model has been replicated in this worksheet so as to readily make the proper adjustments.

**Structure Function: Police Station & Courthouse**

**Input Parameters:**

Price Level (PL) =	1-Oct-2008
Area of New Building (SF) =	10,400
Length of Building (LF) =	120.00
Number of Stories (EA) =	2
Story Height (FT) =	12.00
Total Area of New Site (ACR) =	0.75
Existing Facility to Be Demolished (SF) =	0
Interior Partition Height (FT) =	10.00
Roof / Footprint Ratio (SF/SF) =	1.10

**Calculated Parameters:**

Width of Building (LF) =	87.00
Perimeter of New Building (LF) =	414
Area-Perimeter Ratio (SF/LF) =	25.12
Width-Length Ratio (LF/LF) =	0.73
Exterior Wall Area (SF) =	9,936
Unit Price, Project Cost (\$/SF) =	361.54
Roof Area (SF) =	5,720

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
<b>Substructure:</b>							
Standard Foundations	Poured concrete; strip and spread footings	5,200	S.F. Ground	2.54	13,208	1.27	02
Slab on Grade	4" reinforced concrete with vapor barrier and granular base	5,200	S.F. Slab	4.67	24,288	2.34	02
Basement Excavation	Site preparation for slab and trench for foundation wall and footing	5,200	S.F. Ground	0.25	1,310	0.13	02
Basement Walls	4' foundation wall	207	L F. Wall	72.42	14,991	1.44	02
<b>Shell</b>							
<b>Superstructure:</b>							
Floor Construction	Open web steel joists, slab form, concrete	5,200	S.F. Floor	10.79	56,107	5.39	02
Roof Construction	Metal deck on open web steel joists	5,200	S F. Roof	4.26	22,159	2.13	02
<b>Exterior Enclosure:</b>							
Exterior Walls	Limestone with concrete block backup (80% of wall)	7,950	S.F. Wall	66.12	525,692	50.55	02
Exterior Windows	Metal horizontal sliding (20% of wall)	63	Each	956.19	60,240	5.79	02
Exterior Doors	Hollow metal	10	Each	2,169.52	21,695	2.09	02
-	N/A			-	-	-	-
<b>Roofing:</b>							
Roof Coverings	Built-up tar & gravel with flashing; perlite/EPS composite insulation	5,720	S F. Roof	5.94	33,981	3.27	02
Roof Openings	N/A		S F. Roof	-	-	-	02
<b>Interiors:</b>							
Partitions	Concrete block (20 sf floor area / lf partition)	6,240	S.F. Partition	8.08	50,431	4.85	02
Interior Doors	Single leaf kalamein fire door (200 sf/door)	52	Each	855.42	44,482	4.28	02
Fittings	Toilet partitions	10,400	S.F. Floor	0.91	9,497	0.91	02
Stair Construction	Concrete filled metal pan	1	Flight	14,484.48	14,484	1.39	02
Wall Finishes	90% paint, 10% ceramic tile	12,480	S F. Surface	3.32	41,393	3.98	02
Floor Finishes	70% vinyl tile, 20% carpet tile, 10% ceramic tile	10,400	S.F. Floor	4.15	43,118	4.15	02

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
Ceiling Finishes	Mineral fiber tile on concealed zee bars	5,200	S F. Ceiling	4.94	25,707	2.47	02
<b>Services</b>							
Conveying: Elevators & Lifts	One hydraulic passenger elevator	1	Each	69,389.06	69,389	6.67	02
Plumbing: Plumbing, fixtures Domestic Water Distribution Rain Water Drainage	Toilet and Service Fixtures, supply and drainage Oil fired water heater Roof drains	(1 fixture/580 sf) 18 10,400 5,720	Each S F. Floor S.F. Roof	2,787.74 2.53 1.97	50,179 26,307 11,287	4.82 2.53 1.09	02 02 02
HVAC Energy Supply Heat Generating Systems Cooling Generating Systems Terminal & Package Units Other HVAC Sys. & Equipment	Oil fired hot water, wall fin radiation N/A N/A Split systems with air cooled condensing units N/A	- 10,400 - 10,400 -	S F. Floor - - S F. Floor -	9.04 - - 9.45 -	93,985 - - 98,243 -	9.04 - - 9.45 -	- - - 02 -
Fire Protection Sprinklers Standpipes	Wet pipe sprinkler system N/A	10,400	S F. Floor	2.71 -	28,163	2.71	02 -
Electrical: Electrical Service/Distribution Lighting & Branch Wiring Communications & Security Other Electrical Systems	400 ampere service, panel board and feeders Fluorescent fixtures, receptacles, switches, A.C. and misc. power Alarm systems and emergency lighting Emergency generator, 15kW	10,400 10,400 10,400 10,400	S F. Floor S F. Floor S F. Floor S F. Floor	1.77 10.00 0.66 0.19	18,448 104,028 6,877 1,965	1.77 10.00 0.66 0.19	02 02 02 -
<b>Equipment &amp; Furnishings</b>							
Institutional Equipment Vehicular Equipment Lockers & Accessories	lockers, detention rooms, cells, gasoline dispensers Gasoline dispenser system N/A	10,400 10,400 -	S F. Floor S F. Floor EA	12.62 2.08 64.03	131,208 21,613 -	12.62 2.08 -	02 02 02
<b>Special Construction</b>							
Integrated Construction Special Facilities	N/A N/A	- -	S F. Floor S F. Floor	- -	- -	- -	02 02
<b>Additives</b>							
Cells Prefabricated Elevators, Hydraulic Passenger Flagpoles, Complete	5'-6' wide, 7'-8' high, 7'-8' deep 2 stops, 2500# capacity Aluminum, 20' high	5 1 1 -	EA EA EA EA	11,440.64 56,258.56 3,280.00 -	57,203 56,259 3,280 -	5.50 5.41 0.32 -	02 02 02 02
Storage: Lockers & Accessories Lockers & Accessories Lockers & Accessories Safe, Office Type	Lockers, steel, single tier, 72" Locker, bench, lam. maple top only Pedestals, steel pipe 4-hour rating, 30" x 18" x 18"	20 15 5 1	Openings LF EA EA	306.48 20.99 64.03 4,277.12	6,130 315 320 4,277	0.59 0.03 0.03 0.41	02 02 02 02
Shooting Range Smoke Detectors	Including bullet traps, targets provisions and control Duct type	1 21	EA EA	32,642.56 461.82	32,643 9,698	3.14 0.93	02 02
Electrical:							

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
Sound System	Amplifier, 250 watts	1	EA	2,230.40	2,230	0.21	02
Sound System	Speaker, trumpet	1	EA	351.62	352	0.03	02
Emergency Lighting	25 watt, nickel cadmium battery	8	EA	808.19	6,466	0.62	03
<b>Site Work:</b>							
Cut/Fill Site Excavation	Excavation to prepare site for construction	1	LS	52,480.00	52,480	5.05	02
Roads & Parking	Construct New Roads & Parking:	800	SY	20.99	16,794	1.61	02
Site Improvements	Clearing, Grubbing, Hardscaping, and Landscaping	1	LS	31,488.00	31,488	3.03	02
Utilities	Sewage Treatment	-	Job	-	-	-	02
Utilities	Telephone Service	-	Job	-	-	-	02
Utilities	Electric Service	-	Job	-	-	-	02
Utilities	Water Filtration & Purification System, w/ Building	-	Job	-	-	-	02
Utilities	Cable Service	-	Job	-	-	-	02
<b>Associated Items:</b>							
Demo of Existing Building	Demolish existing building and restore site	-	SF	8.40	-	-	02

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
SUB-TOTALS =					1,944,410	186.96	

Contractor's Markups @ 25.0% =	486,102	46.74
Total Estimate Contract Cost =	2,430,512	233.70
Contingency @ 25% =	607,628	58.43
Total Construction Cost =	3,038,140	292.13
Real Estate Costs to acquire 0.75 acre(s) of land =	23,616	2.27
Engineering & Design @ 15.3% =	465,534	44.76
Supervision & Administration @ 7.7% =	232,767	22.38

<b>Total Estimated Cost (PL 1-Oct-2008) =</b>	<b>\$ 3,760,057</b>	<b>\$ 361.54</b>
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Feature Account	Cost (PL 1-Oct-2008)		
	Estimated	Contingency	Total
01 - Lands & Damages	18,893	4,723	23,616
02 - Relocations	2,430,512	607,628	3,038,140
30 - Engineering & Design	372,427	93,107	465,534
31 - Supervision & Administration	186,214	46,553	232,767
<b>TOTAL</b>	<b>3,008,046</b>	<b>752,011</b>	<b>3,760,057</b>

Therefore, the total estimated cost at PL 1-Oct-2008 to relocate a 10,400 SF police station & courthouse is \$3,760,000 which equates to \$362 per SF. This estimate is based on assumed dimensions of 120 LF by 87 LF yielding a perimeter of 414 LF. Also, the structure was assumed to be 2 stories tall with an assumed story height of 12.00 FT. The demo of no existing structure has been included. The purchase and development of 0.75 acres of land is included.

Note: This cost estimate was originally developed using the RS MEANS Square Foot Costs Cost 2007 Manual, 28th Annual Edition. Subsequent to this initial effort, the estimate has been updated to FY 2009 costs (PL 1 October 2008) using OMB inflation factors. The factors used were 1.072 (7.2%) for labor costs and 1.050 (5.0%) for non-labor costs. The cost model used can be found on pages 126 and 127. USACE-CELRH-EC-CE provided parametric inputs such as building construction type, building size, and a basic description of site work and land requirements. The MEANS model has been replicated in this worksheet so as to readily make the proper adjustments.

**Structure Function: Fire Station**

**Input Parameters:**

Price Level (PL) =	1-Oct-2008
Area of New Building (SF) =	5,900
Length of Building (LF) =	98.00
Number of Stories (EA) =	1
Story Height (FT) =	14.00
Total Area of New Site (ACR) =	0.50
Existing Facility to Be Demolished (SF) =	4,720
Interior Partition Height (FT) =	10.00
Roof / Footprint Ratio (SF/SF) =	1.10

**Calculated Parameters:**

Width of Building (LF) =	60.00
Perimeter of New Building (LF) =	316
Area-Perimeter Ratio (SF/LF) =	18.67
Width-Length Ratio (LF/LF) =	0.61
Exterior Wall Area (SF) =	4,424
Unit Price, Project Cost (\$/SF) =	253.38
Roof Area (SF) =	6,490

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
<b>Substructure:</b>							
Standard Foundations	Poured concrete; strip and spread footings	5,900	S.F. Ground	2.96	17,463	2.96	02
Slab on Grade	6" reinforced concrete with vapor barrier and granular base	5,900	S.F. Slab	6.19	36,537	6.19	02
Foundation Excavation	Site preparation for slab and trench for foundation wall and footing	5,900	S.F. Ground	0.44	2,601	0.44	02
Foundation Walls	4" reinforced concrete with vapor barrier and granular base	316	L F. Wall	72.42	22,885	3.88	02
<b>Shell</b>							
<b>Superstructure:</b>							
Floor Construction	N/A	-	S.F. Floor	-	-	-	02
Roof Construction	Metal deck, open web steel joists, beams, interior columns	5,900	S F. Roof	8.76	51,709	8.76	02
<b>Exterior Closure:</b>							
Walls	Face brick with concrete block backup (75% of wall)	3,320	S.F. Wall	16.27	54,012	9.15	02
Exterior Windows	Aluminum insulated glass (10% of wall)	14	Each	776.70	10,874	1.84	02
Doors	Single aluminum and glass, overhead, hollow metal (15% of wall)	664	S F. Door	32.54	21,592	3.66	02
-	N/A	-	-	-	-	-	-
<b>Roofing:</b>							
Roof Coverings	Built-up tar & gravel with flashing; perlite/EPS composite insulation	6,490	S F. Roof	5.90	38,283	6.49	02
Roof Openings	Skylights, roof hatches	6,490	S F. Roof	0.17	1,090	0.18	02
<b>Interiors:</b>							
Partitions	Concrete block (17 sf floor area / lf partition)	4,859	S.F. Partition	8.08	39,269	6.66	02
Interior Doors	Single leaf hollow metal (500 sf/door)	12	Each	855.42	10,265	1.74	02
Fittings	Toilet partitions	5,900	S.F. Floor	0.57	3,344	0.57	02
Stair Construction	N/A	-	Flight	-	-	-	02
Wall Finishes	Paint	9,718	S F. Surface	1.84	17,849	3.03	02
Floor Finishes	50% vinyl tile, 50% paint	5,900	S.F. Floor	2.44	14,367	2.44	02

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
Ceiling Finishes	Fiberglass board on exposed grid, suspended (50% of area)	2,950	S F. Ceiling	4.94	14,584	2.47	02
<b>Services</b>							
Conveying:							
Elevators & Lifts	N/A	-	Each	-	-	-	02
Plumbing:							
Plumbing, fixtures	Kitchen, Toilet and Service Fixtures, supply and drainage (1 fixture/375 sf)	16	Each	2,668.08	42,689	7.24	02
Domestic Water Distribution	Gas fired water heater	5,900	S F. Floor	1.58	9,322	58	02
Rain Water Drainage	Roof drains	6,490	S.F. Roof	0.72	4,673	0.79	02
HVAC							
Energy Supply	N/A	-	-	-	-	-	-
Heat Generating Systems	N/A	-	-	-	-	-	-
Cooling Generating Systems	N/A	-	-	-	-	-	-
Terminal & Package Units	Rooftop multizone unit system	5,900	S F. Floor	22.58	133,204	22.58	02
Other HVAC Sys. & Equipment	N/A	-	-	-	-	-	-
Fire Protection							
Sprinklers	Wet pipe sprinkler system	5,900	S F. Floor	3.24	19,135	3.24	02
Standpipes	N/A	-	-	-	-	-	-
Electrical:							
Service & Distribution	200 ampere service, panel board and feeders	5,900	S F. Floor	1.35	7,989	1.35	02
Lighting & Power	Fluorescent fixtures, receptacles, switches, A.C. and misc. power	5,900	S F. Floor	6.13	36,165	6.13	02
Communications & Security	Alarm systems, communications systems and emergency lighting	5,900	S F. Floor	0.40	2,353	0.40	02
Other Electrical Systems	N/A	-	-	-	-	-	-
<b>Additives</b>							
Appliances:							
Stoves/Ranges	Cooking range, 30" free standing, 1 oven	1	EA	1,968.00	1,968	0.33	02
Stoves/Ranges	Hood for range, 2 speed, vented, 30" wide	1	EA	1,028.61	1,029	0.17	02
Stoves/Ranges	Microwave oven	1	EA	755.71	756	0.13	02
Disposers/Compactors	Compactor, residential, 4-1 compaction	1	EA	760.96	761	0.13	02
Disposers/Compactors	Garbage disposer, sink type	1	EA	294.94	295	0.05	02
Dishwashers	Dishwashers, built-in, 4 cycles	1	EA	1,180.80	1,181	0.20	02
Refrigerators	Refrigerator, no frost, 18-20 CF	1	EA	1,102.08	1,102	0.19	02
Storage:							
Lockers & Accessories	Lockers, steel, single tier, 72"	30	Openings	306.48	9,194	1.56	02
Lockers & Accessories	Locker, bench, lam. maple top only	25	LF	20.99	525	0.09	02
Lockers & Accessories	Pedestals, steel pipe	6	EA	64.03	384	0.07	02
Electrical:							
Sound System	Amplifier, 250 watts	1	EA	2,230.40	2,230	0.38	02
Sound System	Speaker, trumpet	5	EA	351.62	1,758	0.30	02
<b>Site Work:</b>							
Cut/Fill Site Excavation	Excavation to prepare site for construction	1	LS	52,480.00	52,480	8.89	02
Roads & Parking	Construct New Roads & Parking:	600	SY	20.99	12,595	2.13	02
Site Improvements	Clearing, Grubbing, Hardscaping, and Landscaping	1	LS	31,488.00	31,488	5.34	02
Utilities	Sewage Treatment	-	Job	-	-	-	02

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
Utilities	Telephone Service	-	Job	-	-	-	02
Utilities	Electric Service	-	Job	-	-	-	02
Utilities	Water Filtration & Purification System, w/ Building	-	Job	-	-	-	02
Utilities	Cable Service	-	Job	-	-	-	02
<b>Associated Items:</b>							
Demo of Existing Building	Demolish existing building and restore site	4,720	SF	8.40	39,633	6.72	02

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
SUB-TOTALS =					769,632	130.45	

Contractor's Markups @ 25.0% =	192,408	32.61
Total Estimate Contract Cost =	962,041	163.06
Contingency @ 25% =	240,510	40.76
Total Construction Cost =	1,202,551	203.82
Real Estate Costs to acquire 0.5 acre(s) of land =	15,744	2.67
Engineering & Design @ 15.3% =	184,433	31.26
Supervision & Administration @ 7.7% =	92,217	15.63

<b>Total Estimated Cost (PL 1-Oct-2008) =</b>	<b>\$ 1,494,944</b>	<b>\$ 253.38</b>
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Feature Account	Cost (PL 1-Oct-2008)		
	Estimated	Contingency	Total
01 - Lands & Damages	12,595	3,149	15,744
02 - Relocations	962,041	240,510	1,202,551
30 - Engineering & Design	147,546	36,887	184,433
31 - Supervision & Administration	73,773	18,443	92,217
<b>TOTAL</b>	<b>1,195,955</b>	<b>298,989</b>	<b>1,494,944</b>

Therefore, the total estimated cost at PL 1-Oct-2008 to relocate a 5,900 SF fire station is \$1,495,000 which equates to \$253 per SF. This estimate is based on assumed dimensions of 98 LF by 60 LF yielding a perimeter of 316 LF. Also, the structure was assumed to be 1 story tall with an assumed story height of 14.00 FT. The demo of a 4,720 SF existing structure has been included. The purchase and development of 0.50 acres of land is included.

Note: This cost estimate was originally developed using the RS MEANS Square Foot Costs Cost 2007 Manual, 28th Annual Edition. Subsequent to this initial effort, the estimate has been updated to FY 2009 costs (PL 1 October 2008) using OMB inflation factors. The factors used were 1.072 (7.2%) for labor costs and 1.050 (5.0%) for non-labor costs. The cost model used can be found on pages 144 and 145. USACE-CELRH-EC-CE provided parametric inputs such as building construction type, building size, and a basic description of site work and land requirements. The MEANS model has been replicated in this worksheet so as to readily make the proper adjustments.

**Structure Function: Recreation Center**

**Input Parameters:**

Price Level (PL) =	1-Oct-2008
Area of New Building (SF) =	17,000
Length of Building (LF) =	150.00
Number of Stories (EA) =	1
Story Height (FT) =	25.00
Total Area of New Site (ACR) =	2.00
Existing Facility to Be Demolished (SF) =	0
Interior Partition Height (FT) =	10.00
Roof / Footprint Ratio (SF/SF) =	1.10

**Calculated Parameters:**

Width of Building (LF) =	113.00
Perimeter of New Building (LF) =	526
Area-Perimeter Ratio (SF/LF) =	32.32
Width-Length Ratio (LF/LF) =	0.75
Exterior Wall Area (SF) =	13,150
Unit Price, Project Cost (\$/SF) =	209.32
Roof Area (SF) =	18,700

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
<b>Substructure:</b>							
Standard Foundations	Poured concrete; strip and spread footings	17,000	S.F. Ground	1.56	26,586	1.56	02
Slab on Grade	4" reinforced concrete with vapor barrier and granular base	17,000	S.F. Slab	4.67	79,402	4.67	02
Basement Excavation	Site preparation for slab and trench for foundation wall and footing	17,000	S.F. Ground	0.15	2,498	0.15	02
Basement Walls	4" foundation wall	526	L F. Wall	62.98	33,125	1.95	02
<b>Shell</b>							
<b>Superstructure:</b>							
Floor Construction	N/A	-	-	-	-	-	02
Roof Construction	Wood deck on laminated wood arches	17,000	S F. Roof	17.78	302,264	17.78	02
<b>Exterior Closure:</b>							
Walls	Reinforced concrete block (end walls included) (88% of wall)	11,570	S.F. Wall	11.56	133,704	7.86	02
Exterior Windows	Metal horizontal pivoted (10% of wall)	42	Each	472.32	19,837	1.17	02
Doors	Aluminum and glass, hollow metal, steel overhead (2% of wall)	7	Each	1,651.02	11,557	0.68	02
-	N/A	-	-	-	-	-	-
<b>Roofing:</b>							
Roof Coverings	EPDM, 60 mils, fully adhered, polyisocyanurate insulation	18,700	S F. Roof	4.79	89,501	5.26	02
Roof Openings	N/A	-	-	-	-	-	-
<b>Interiors:</b>							
Partitions	Concrete block (50 sf floor area / lf partition)	3,400	S.F. Partition	8.08	27,479	1.62	02
Interior Doors	Single leaf hollow metal (500 sf floor area / door)	34	Each	855.42	29,084	1.71	02
Fittings	Toilet partitions	17,000	S.F. Floor	0.35	5,888	0.35	02
Stair Construction	N/A	-	Flight	-	-	-	02
Wall Finishes	50% paint, 50% ceramic tile	6,800	S F. Surface	8.95	60,881	3.58	02
Floor Finishes	90% hardwood, 10% ceramic tile	17,000	S.F. Floor	13.07	222,148	13.07	02

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
Ceiling Finishes	Mineral fiber tile on concealed zee bars (15% of area)	2,550	S F. Ceiling	4.94	12,606	0.74	02
<b>Services</b>							
Conveying:							
Elevators & Lifts	N/A	-	Each	-	-	-	-
Escalators & Moving Walks	N/A	-	Each	-	-	-	-
Plumbing:							
Plumbing, fixtures	Toilet and Service Fixtures, supply and drainage (1 fixture / 515 sf)	34	Each	2,583.07	87,824	5.17	02
Domestic Water Distribution	Electric water heater	17,000	S F. Floor	4.62	78,510	4.62	02
Rain Water Drainage	N/A	-	S.F. Roof	-	-	-	-
HVAC							
Energy Supply	N/A	-	-	-	-	-	-
Heat Generating Systems	N/A	-	-	-	-	-	-
Cooling Generating Systems	N/A	-	-	-	-	-	-
Terminal & Package Units	Single zone rooftop unit, gas heating, electric cooling	17,000	S F. Floor	10.37	176,291	10.37	02
Other HVAC Sys. & Equipment	N/A	-	-	-	-	-	-
Fire Protection							
Sprinklers	Wet pipe sprinkler system	17,000	S F. Floor	2.52	42,824	2.52	02
Standpipes	N/A	-	-	-	-	-	-
Electrical:							
Electrical Service & Distribution	400 ampere service, panel board and feeders	17,000	S F. Floor	0.98	16,594	0.98	02
Lighting & Branch Wiring	Fluorescent fixtures, receptacles, switches, A.C. and misc. power	17,000	S F. Floor	8.37	142,210	8.37	02
Communications & Security	Alarm systems, sound systems and emergency lighting	17,000	S F. Floor	1.76	29,977	1.76	02
Other Electrical Systems	Emergency generator, 7.5 kW	17,000	S F. Floor	0.17	2,855	0.17	-
<b>Equipment &amp; Furnishings</b>							
Commercial Equipment	N/A	-	S F. Floor	-	-	-	02
Institutional Equipment	N/A	-	S F. Floor	-	-	-	02
Vehicular Equipment	N/A	-	S F. Floor	-	-	-	02
Other Equipment	Bleachers, sauna, weight room	-	S F. Floor	5.77	-	-	02
<b>Special Construction</b>							
Integrated Construction	N/A	-	S F. Floor	-	-	-	02
Special Facilities	N/A	-	S F. Floor	-	-	-	02
<b>Additives</b>							
Gym divider Curtain, Mesh top	Manual roll-up (150 sf floor area / lf partition)	2,833	S.F. Curtain	11.97	33,902	1.99	02
Gym Mats	2" Nylon (5% of floor area)	850	S.F. Mat	7.19	6,111	0.36	02
Gym Mats	1-1/2" wall pads (5% of exterior wall area)	660	S.F. Mat	9.39	6,200	0.36	02
Gym Mats	1" wrestling mats (5% of floor area)	850	S.F. Mat	6.35	5,398	0.32	02
Scoreboard	Basketball, one side	1	EA	7,347.20	7,347	0.43	02
Basketball Backstop	Swing up, wall mtd.	2	EA	6,848.64	13,697	0.81	02
Storage:							
Lockers & Accessories	Lockers, steel, single tier, 72"	25	Openings	306.48	7,662	0.45	02
Lockers & Accessories	Locker, bench, lam. maple top only	20	LF	20.99	420	0.02	02
Lockers & Accessories	Pedestals, steel pipe	10	EA	64.03	640	0.04	02
Electrical:							
Sound System	Amplifier, 250 watts	1	EA	2,230.40	2,230	0.13	02

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
Sound System	Speaker, trumpet	1	EA	351.62	352	0.02	02
Emergency Lighting	25 watt, nickel cadmium battery	6	EA	808.19	4,849	0.29	02
<b>Site Work:</b>							
Cut/Fill Site Excavation	Excavation to prepare site for construction	1	LS	52,480.00	52,480	3.09	02
Roads & Parking	Construct New Roads & Parking:	600	SY	20.99	12,595	0.74	02
Lockers	2 tier, 72" total w benches 15 openings, 30' of bench	1	LS	31,488.00	31,488	1.85	02
Site Improvements	Clearing, Grubbing, Hardscaping, and Landscaping	-	SY	-	-	-	02
Utilities	Sewage Treatment	-	Job	-	-	-	02
Utilities	Telephone Service	-	Job	-	-	-	02
Utilities	Electric Service	-	Job	-	-	-	02
Utilities	Water Filtration & Purification System, w/ Building	-	Job	-	-	-	02
Utilities	Cable Service	-	Job	-	-	-	02
<b>Associated Items:</b>							
Demo of Existing Building	Demolish existing building and restore site	-	SF	8.40	-	-	02

Building Element	Construction Task	Quantity	Unit	Unit Cost	Total Direct Cost (PL 1 Oct 2007)	Cost Per S.F.	Feature Account
SUB-TOTALS =					1,819,019	107.00	

Contractor's Markups @ 25.0% =	454,755	26.75
Total Estimate Contract Cost =	2,273,774	133.75
Contingency @ 25% =	568,443	33.44
Total Construction Cost =	2,842,217	167.19
Real Estate Costs to acquire 2 acre(s) of land =	62,976	3.70
Engineering & Design @ 15.3% =	435,513	25.62
Supervision & Administration @ 7.7% =	217,757	12.81

<b>Total Estimated Cost (PL 1-Oct-2008) =</b>	<b>\$ 3,558,463</b>	<b>\$ 209.32</b>
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Feature Account	Cost (PL 1-Oct-2008)		
	Estimated	Contingency	Total
01 - Lands & Damages	50,381	12,595	62,976
02 - Relocations	2,273,774	568,443	2,842,217
30 - Engineering & Design	348,410	87,103	435,513
31 - Supervision & Administration	174,205	43,551	217,757
<b>TOTAL</b>	<b>2,846,770</b>	<b>711,693</b>	<b>3,558,463</b>

Therefore, the total estimated cost at PL 1-Oct-2008 to relocate a 17,000 SF recreation center is \$3,558,000 which equates to \$209 per SF. This estimate is based on assumed dimensions of 150 LF by 113 LF yielding a perimeter of 526 LF. Also, the structure was assumed to be 1 story tall with an assumed story height of 25.00 FT. The demo of no existing structure has been included. The purchase and development of 2.00 acres of land is included.



**STRUCTURE DATA**

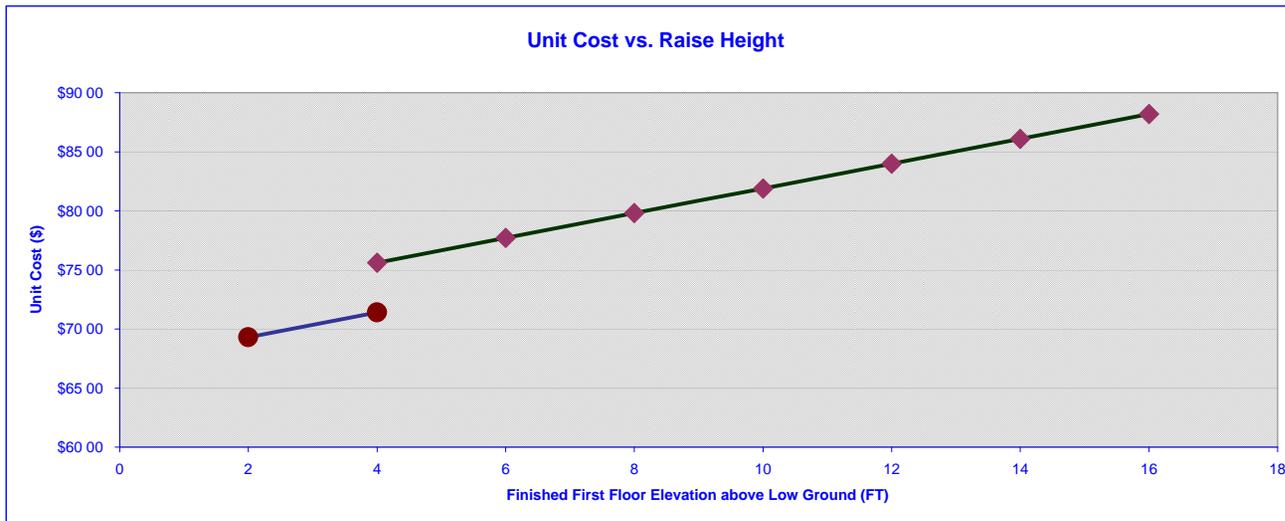
Estimate Number	Structure Number	Parcel Number	LENGTH	WIDTH	First Floor Area	FFE Above LGE	Foundation Type	Aerator Factor	Asbestos Factor
1	W01	162K-0-10-006.000	60	50	3,000	6.24	Slab	0.1	1.0
2	W02	162K-0-10-007.002	42	28	1,176	6.57	Slab	0.1	1.0
3	W03	162K-0-10-007.001	40	28	1,120	6.00	Slab	0.1	1.0
4	W04	162K-0-10-007.003	28	42	1,176	6.00	Slab	0.1	1.0
5	W05	162G-0-03-300.006	24	40	960	6.00	Slab	0.1	1.0
6	W06	162G-0-03-300.004	24	40	960	6.00	Slab	0.1	1.0
7	W07	162G-0-03-300.003	24	36	864	6.00	Slab	0.1	1.0
8	W08	162G-0-03-300.002	24	40	960	6.00	Slab	0.1	1.0
9	W09	162G-0-03-300.000	28	40	1,120	6.00	Slab	0.1	1.0
10	W10	162G-0-03-283.001	30	50	1,500	5.00	Slab	0.1	1.0
11	W11	162G-0-03-283.000	28	40	1,120	5.00	Slab	0.1	1.0
12	W12	162G-0-03-300.001	42	30	1,260	6.00	Slab	0.1	1.0
13	W13	162G-0-03-300.005	40	20	800	6.00	Slab	0.1	1.0
14	W14	162G-0-03-293.002	45	30	1,350	6.00	Slab	0.1	1.0
15	W15	162G-0-03-293.001	30	42	1,260	5.42	Slab	0.1	1.0
16	W16	162G-0-03-294.000	36	50	1,800	6.00	Slab	0.1	1.0
17	W17	162G-0-03-295.000	24	35	840	6.00	Slab	0.1	1.0
18	W18	162G-0-03-291.000	20	42	840	5.57	Slab	0.1	1.0
19	W19	162G-0-03-290.000	20	42	840	6.00	Slab	0.1	1.0
20	W20	162F-1-04-163.000	25	35	875	6.00	Slab	0.1	1.0
21	W21	162F-1-04-162.000	25	35	875	6.00	Slab	0.1	1.0
22	W22	162F-1-04-161.000	25	35	875	6.00	Slab	0.1	1.0
23	W23	162F-1-04-158.000	45	30	1,350	6.00	Slab	0.1	1.0
24	W24	162F-1-04-157.000	60	30	1,800	6.32	Slab	0.1	1.0
25	W25	162F-1-04-156.000	20	40	800	6.19	Slab	0.1	1.0

CONSTRUCTION COSTS, PL 1 October 2008														NON CONSTRUCTION COSTS, PL 1 October 2008				TOTAL COST	
Estimate Number	Structure Number	First Floor Area	Foundation Type	FFE Above LGE	Aerator Factor	Asbestos Factor	Raise	Storage Area	Aerator System	Asbestos Abatement	Temporary Housing	Sub-Total	Contingency (25%)	Total Construction (02 Acct)	Real Estate (01 Acct)	PED (30 Acct)	S&A (31 Acct)		Total Non-Construction
1	W01	3,000	Slab	6.24	0.1	1	233,852	4,780	891	1,782	1,782	243,087	60,772	303,859	5,360	16,080	10,720	32,160	336,019
2	W02	1,176	Slab	6.57	0.1	1	92,077	4,780	891	1,782	1,782	101,312	25,328	126,640	5,360	16,080	10,720	32,160	158,800
3	W03	1,120	Slab	6.00	0.1	1	87,024	4,780	891	1,782	1,782	96,259	24,065	120,323	5,360	16,080	10,720	32,160	152,483
4	W04	1,176	Slab	6.00	0.1	1	91,375	4,780	891	1,782	1,782	100,610	25,152	125,762	5,360	16,080	10,720	32,160	157,922
5	W05	960	Slab	6.00	0.1	1	74,592	4,780	891	1,782	1,782	83,827	20,957	104,783	5,360	16,080	10,720	32,160	136,943
6	W06	960	Slab	6.00	0.1	1	74,592	4,780	891	1,782	1,782	83,827	20,957	104,783	5,360	16,080	10,720	32,160	136,943
7	W07	864	Slab	6.00	0.1	1	67,133	4,780	891	1,782	1,782	76,367	19,092	95,459	5,360	16,080	10,720	32,160	127,619
8	W08	960	Slab	6.00	0.1	1	74,592	4,780	891	1,782	1,782	83,827	20,957	104,783	5,360	16,080	10,720	32,160	136,943
9	W09	1,120	Slab	6.00	0.1	1	87,024	4,780	891	1,782	1,782	96,259	24,065	120,323	5,360	16,080	10,720	32,160	152,483
10	W10	1,500	Slab	5.00	0.1	1	114,975	0	891	1,782	1,782	119,430	29,858	149,288	5,360	16,080	10,720	32,160	181,448
11	W11	1,120	Slab	5.00	0.1	1	85,848	0	891	1,782	1,782	90,303	22,576	112,879	5,360	16,080	10,720	32,160	145,039
12	W12	1,260	Slab	6.00	0.1	1	97,902	4,780	891	1,782	1,782	107,137	26,784	133,921	5,360	16,080	10,720	32,160	166,081
13	W13	800	Slab	6.00	0.1	1	62,160	4,780	891	1,782	1,782	71,395	17,849	89,243	5,360	16,080	10,720	32,160	121,403
14	W14	1,350	Slab	6.00	0.1	1	104,895	4,780	891	1,782	1,782	114,130	28,532	142,662	5,360	16,080	10,720	32,160	174,822
15	W15	1,260	Slab	5.42	0.1	1	97,136	0	891	1,782	1,782	101,592	25,398	126,990	5,360	16,080	10,720	32,160	159,149
16	W16	1,800	Slab	6.00	0.1	1	139,860	4,780	891	1,782	1,782	149,095	37,274	186,368	5,360	16,080	10,720	32,160	218,528
17	W17	840	Slab	6.00	0.1	1	65,268	4,780	891	1,782	1,782	74,503	18,626	93,128	5,360	16,080	10,720	32,160	125,288
18	W18	840	Slab	5.57	0.1	1	64,886	0	891	1,782	1,782	69,341	17,335	86,677	5,360	16,080	10,720	32,160	118,837
19	W19	840	Slab	6.00	0.1	1	65,268	4,780	891	1,782	1,782	74,503	18,626	93,128	5,360	16,080	10,720	32,160	125,288
20	W20	875	Slab	6.00	0.1	1	67,988	4,780	891	1,782	1,782	77,222	19,306	96,528	5,360	16,080	10,720	32,160	128,688
21	W21	875	Slab	6.00	0.1	1	67,988	4,780	891	1,782	1,782	77,222	19,306	96,528	5,360	16,080	10,720	32,160	128,688
22	W22	875	Slab	6.00	0.1	1	67,988	4,780	891	1,782	1,782	77,222	19,306	96,528	5,360	16,080	10,720	32,160	128,688
23	W23	1,350	Slab	6.00	0.1	1	104,895	4,780	891	1,782	1,782	114,130	28,532	142,662	5,360	16,080	10,720	32,160	174,822
24	W24	1,800	Slab	6.32	0.1	1	140,456	4,780	891	1,782	1,782	149,691	37,423	187,114	5,360	16,080	10,720	32,160	219,274
25	W25	800	Slab	6.19	0.1	1	62,319	4,780	891	1,782	1,782	71,554	17,888	89,442	5,360	16,080	10,720	32,160	121,602
<b>TOTALS</b>							2,292,093	100,370	22,276	44,552	44,552	2,503,842	625,961	3,129,803	134,000	402,000	268,000	804,000	<b>3,933,803</b>

Height of Raise (FT)	Unit Price (< 4 FT)	Unit Price (>= 4 FT)
2	\$ 69.30	
4	\$ 71.40	\$ 75.60
6		\$ 77.70
8		\$ 79.80
10		\$ 81.90
12		\$ 84.00
14		\$ 86.10
16		\$ 88.20

For $x < 4'$	$y = mx + b$	$m = 1.05$	$b = 67.20$	Therefore, the Unit Price per SF = 1.05 x Height of raise + 67.20 for heights of raise less than 4 FT.
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For $x \geq 4'$	$y = mx + b$	$m = 1.05$	$b = 71.40$	Therefore, the Unit Price per SF = 1.05 x Height of raise + 71.40 for heights of raise equal to or greater than 4 FT.
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**Estimated Total Project Costs**  
**Moss Pointe and Waveland, Mississippi Coastal Improvement Program**  
 PL 1 October 2008 (FY 2009)

<b>Pilot</b>	<b>FeatID</b>	<b>FeatAccount</b>	<b>December 2007</b>	<b>January 2008</b>	<b>July 2008</b>	<b>Grand Total</b>
<b>Moss Pointe</b>			<b>9,966,000</b>	<b>290,000</b>	<b>555,177</b>	<b>10,811,177</b>
	01	Lands & Damages	128,000	-	5,824	133,824
	02	Relocations	8,031,000	-	397,913	8,428,913
	30	Engineering & Design	1,205,000	290,000	107,575	1,602,575
	31	Supervision & Administration	602,000	-	43,865	645,865
<b>Waveland</b>			<b>3,730,765</b>	<b>458,000</b>	<b>236,014</b>	<b>4,424,779</b>
	01	Lands & Damages	125,000	-	9,000	134,000
	02	Relocations	2,980,765	-	149,038	3,129,803
	30	Engineering & Design	375,000	458,000	59,976	892,976
	31	Supervision & Administration	250,000	-	18,000	268,000
<b>Grand Total</b>			<b>13,696,765</b>	<b>748,000</b>	<b>791,191</b>	<b>15,235,955</b>

**Notes:**

1. The December 2007 effort amounted to the development of the original estimate.
2. Costs were added in January 2008 to account for LRH's participation during the implementation of the projects.
3. In July 2008, the cost estimates were inflated from PL 1 October 2007 to PL 1 October 2008 (FY 2008 to FY 2009)

**MsCIP - Waveland FP and Moss Point Relocations Pilot Projects**

**Study/Report Costs**

Waveland Floodproofing Pilot		Rate per hour fully loaded	Total Hours	Labor costs	Total Travel & Per Diem	Other Admin costs	Total cost
GS-13 Gene	\$	121.00	480	\$ 58,080	\$ 2,957		
GS-13 Don	\$	105.00	480	\$ 50,400	\$ 2,045		
GS-13 RE	\$	121.00	240	\$ 29,040	\$ 2,045		
GS-13 Gus	\$	121.00	480	\$ 58,080	\$ 2,045		
GS-12 LRH	\$	100.00	480	\$ 48,000	\$ 2,045		
GS-12 (Mobile District)	\$	100.00	300	\$ 30,000	\$ -		
Subtotal (Labor and Travel)				\$ 273,600	\$ 11,139	5,000	
Contingency 10%				\$ 27,360	\$ 1,114		
Total				\$ 300,960	\$ 12,253	\$5,000	\$ 318,213
							<b>Rounded \$318,000</b>

Moss Point Relocations Pilot		Rate per hour fully loaded	Total Hours	Labor Costs	Total Travel and per diem	Other Admin costs	Total Cost
GS-13 Gene	\$	121.00	400	\$ 48,400	\$ 1,935		
GS-13 Don	\$	105.00	400	\$ 42,000	\$ 1,023		
GS-13 Wyatt	\$	129.00	400	\$ 51,600	\$ 1,023		
GS-12 LRH	\$	100.00	400	\$ 40,000	\$ 1,023		
GS-12 (Mobile District)	\$	100.00	200	\$ 20,000	\$ -		
Subtotal				\$ 202,000	\$ 5,004	2,500	
Contingency 10%				\$ 20,200	\$ 500		
Total				\$ 222,200	\$ 5,504	\$2,500	\$ 230,204
							<b>Rounded \$ 230,000</b>

**Implementation Costs**

**Waveland MS Floodproofing Pilot**

Tasks	Labor	Per Diem	Mileage	Subtotals	Rounded	Total Implementation Cost
Public Workshop with Homeowners, contractor, AE's and public officials and program sign-up - onetime event	\$ 8,800.00	\$ 1,460.00	\$ 922.00	\$ 11,182.00	\$ 12,000.00	
Site Inspections and meeting with Homeowners and AE's	\$ 8,800.00	\$ 1,460.00	\$ 922.00	\$ 11,182.00	\$ 12,000.00	
Execution of FP agreements, site inspections of next groupings of structures and or inspections during construction and coordination of FP	\$ 8,800.00	\$ 1,460.00	\$ 922.00	\$ 11,182.00	\$ 12,000.00	
Final Inspections, closeouts and disbursement of payment and coordination with local officials	\$ 8,800.00	\$ 1,460.00	\$ 922.00	\$ 11,182.00	\$ 12,000.00	
					\$ 36,000.00	
						\$ 120,000.00

**Moss Point Relocations Pilot Implementation Costs**

Tasks	Labor	Per Diem	Mileage	Subtotals	Rounded
Initial Trip to coordinate Plans with Municipal Officials (3 people)	\$ 14,400.00	\$ 3,066.00	\$ 922.00	\$ 18,388.00	\$ 18,000.00
Meetings with AE and Contractors (2 people)	\$ 9,600.00	\$ 1,460.00	\$ 922.00	\$ 11,982.00	\$ 12,000.00
Final Inspection trip (2 people)	\$ 7,680.00	\$ 876.00	\$ 922.00	\$ 9,478.00	\$ 9,500.00
				Total Implementation cost	\$ 39,500.00
					Say \$40,000

Summary costs	Waveland Floodproofing	Moss Point Relocations	Total
Report costs	\$ 318,000	\$ 230,000	\$ 548,000
Implementation Costs	\$ 120,000	\$ 40,000	\$ 160,000

Project Closeout Report	\$	20,000	\$20,000	\$	40,000		
Totals	\$	458,000	\$	290,000	\$	748,000	

