



# Early Contractor Involvement (ECI) *aka* Construction Management @ Risk

## *Industry Day*

October 21 2008



# Agenda

- Introduction
  - Richmond Kendrick, Deputy Program Execution, Hurricane Protection Office
- ECI presentation
  - What is ECI?
  - ECI Contract Process
- Potential projects
  - Chris Gilmore, Senior Project Manager, St. Bernard, LPV 145, 146, 148.02
  - Kevin Wagner, Senior Project Manager, Orleans, LPV 111
- Q&A session



# Forum Purpose

- Current proposed acquisition
  - 1 contract for St. Bernard
  - 1 contract for Orleans
- Questions for industry
  - Attractiveness of package for bidability
  - Ease of management
  - Consistency



# What is ECI?

## Early Contractor Involvement:

- A project delivery method where the Corps engages the services of a general contractor to provide “preconstruction services” concurrent with design effort.
- Construction is then done through a Construction Option on the ECI contract.



# Comparison

Phase	Traditional Acquisition	ECI
Design	Completed prior to advertisement of construction contract	Preconstruction Services – construction contractor provides input on design constructability, VE, means & methods, construction phasing, etc
Award	Complete designs are used to advertise and award construction contract	Construction option - awarded when major design decisions are complete and price negotiated (designs may be <100%)
Construction	NTP and construction begins after award of contract	Construction can begin <b><i>prior</i></b> to final designs being completed



# ECI Contract Process

- Fixed price incentive successive target contract (FAR clauses 16.403-2 and 52.216-17)
- RFP will provide
  - SOW for preconstruction services (Base)
  - Current engineering alternatives with typical sections for proposal preparation for construction initial target pricing (Option)
  - Ceiling price
  - Evaluation criteria, based on best value tradeoffs, including price
- Will be a negotiated procurement
  - Award of preconstruction services (Base) as a FFP
  - Exercise of Construction (Option) as a FPI



# Contract Schedule

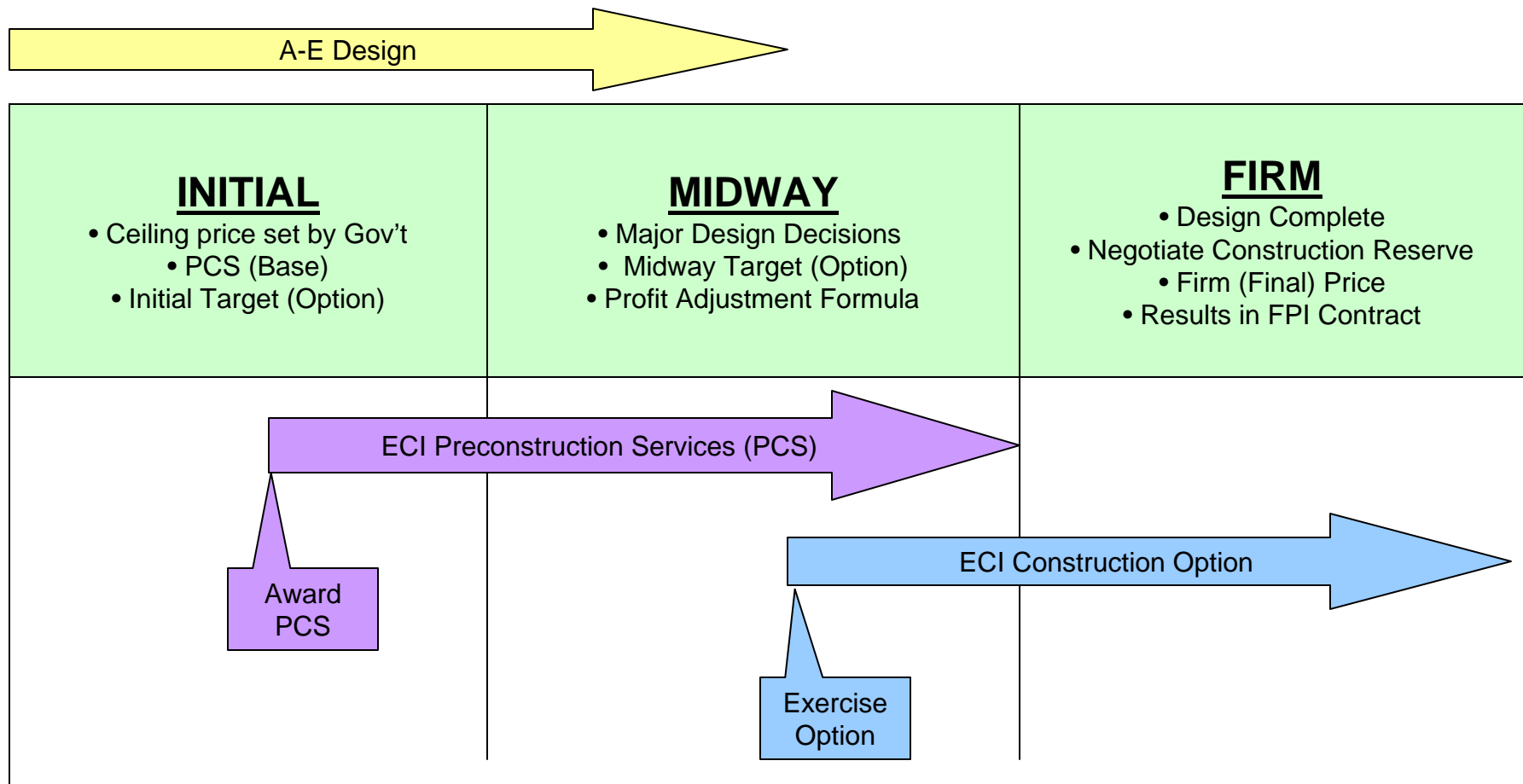
An example of ECI Solicitation Line Items are shown below. This is remitted with the proposal.

Additional line items may be added for long lead items if required.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001 <b>BASE</b>	Preconstruction Services FFP	1	Lump Sum	\$ _____	\$ _____
0002 <b>OPTION</b>	Construction Phase FPI  Initial Target Cost Initial Target Profit	1	Lump Sum	\$ _____ \$ _____	NTE \$ _____ NTE \$ _____



# ECI Contract Overview



1. INITIAL, MIDWAY and FIRM are prices which include cost and profit
2. Based on FAR Clauses 16.403-2 and 52.216-17, Fixed-price incentive (successive targets)





# Example of Profit Adjustment Formula

Scenario:		Example	
Paragraph (d)(3) blanks are negotiated at the Midway Target Pricing with the following values: Increase/Decrease Profit by <b>5%</b> , Range of FTP is <b>2% - 6%</b>			
Initial Trgt Cost (ITC):	\$17,000,000	Firm Trgt Cost (FTC) :	\$16,000,000
Initial Trgt Profit (ITP):	\$800,000	Firm Trgt Profit (FTP): *	\$850,000
Const. Reserve Amt:	\$340,000	Const. Reserve Amt:	\$320,000
Initial Trgt Price:	\$18,140,000	Firm Trgt Price:	\$17,170,000
Ceiling Price: +	\$18,300,000	Ceiling Price:	** \$18,300,000
+ The ceiling price was inserted in the solicitation [paragraph (a), blank no. 2] as \$18,300,000.		* The Firm Target Profit is calculated based on the following: $FTP = ITP - (5\%)[FTC - ITC] \text{ - or -}$ $FTP = 800,000 - (5\%)[\$16M - \$17M] = \$850,000.$	
		** Under this scenario, the project scope did not change between the initial target pricing and the Midway Target Pricing. Therefore, no change to the ceiling price was warranted and the FTC is lower than the ITC and the Contractor's profit increased. You should notice that the Construction Reserve amount (2% of the FTC) has been lowered to \$320,000.	



# Managing Risk

Each contract includes a Construction Reserve Matrix which defines which party is responsible for anticipated issues. Also an incentive for contractor.

<b>Issue</b>	<b>Corps Contingency</b>	<b>Construction Reserve</b>	<b>Contractor Cost of Work</b>
User requested change	X		
Differing site conditions	X		
Design errors and omissions related to calculation mistakes, code violations, or similar issues	X		
Errors and omissions related to coordination, dimension discrepancies, or similar issues (See Section 01010, paragraph 1.3.7.2)		X	
Rework due to damage not caused by Contractor's negligence and not reasonably recoverable from lower tier		X	
Rework due to damage caused by Contractor negligence			X



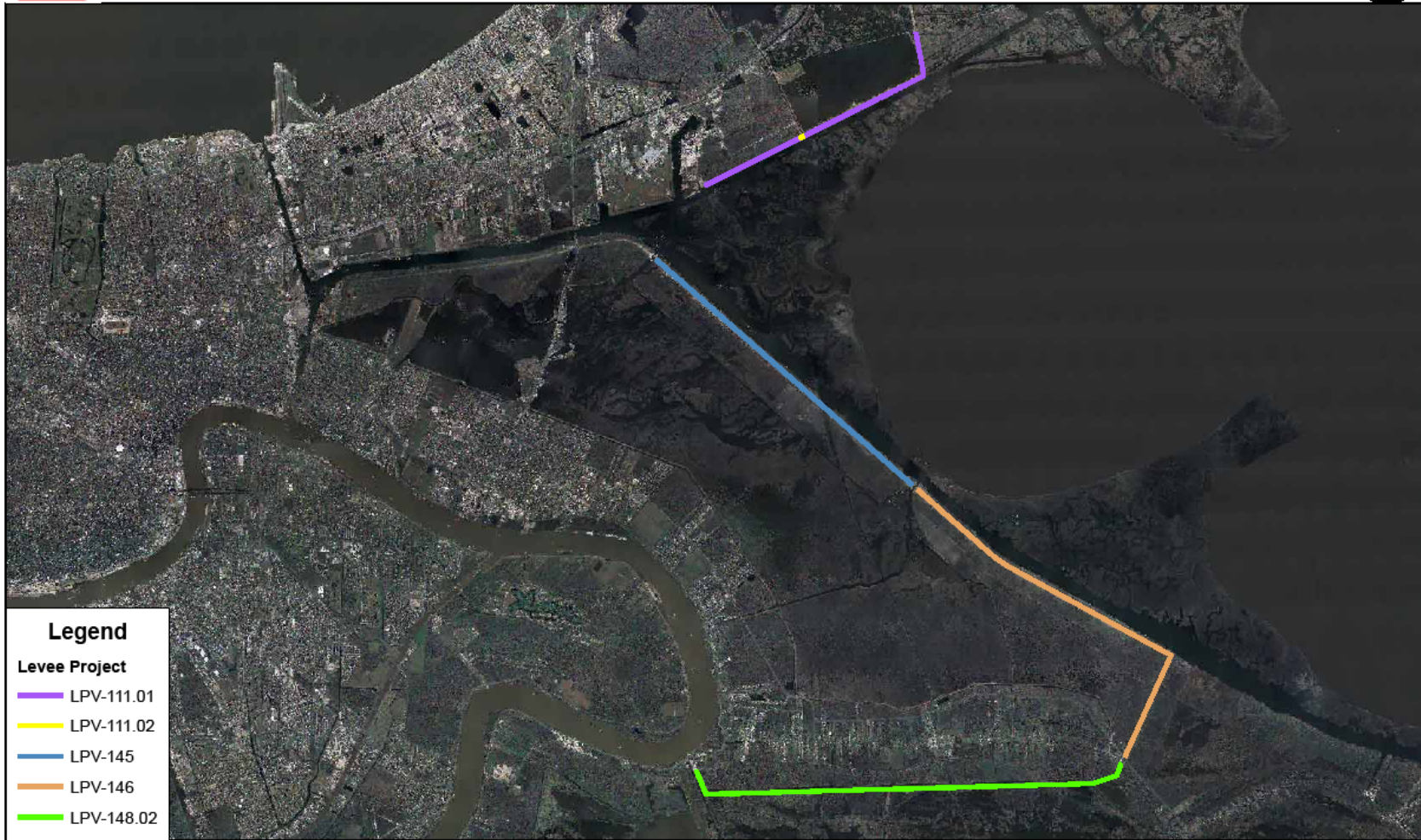
# Projects



U.S. Army Corps of Engineers - New Orleans District

Levee Projects

0 3,750 7,500 15,000 22,500 30,000 Feet





# Recommended Alternatives

- LPV 145, 146, 148.02
  - T-wall
  - Constructed on top of existing levee
  - Estimated project cost is \$250-500 million each

## Approximate Dates:

- Design: Nov 2008 – June 2009
- ECI: Jan 2009 award
- Construction Complete: Jun 2011



# Recommended Alternatives

- LPV 111
  - Levee
  - Deep soil mixing
  - Estimated project cost is \$250-500 million

## Approximate Dates:

- Design: Nov 2008 – August 2009
- ECI: Feb 2009 award
- Construction Complete: Jun 2011



# Estimated Material Quantities

DESCRIPTION	UNITS	LPV 145	LPV 146	LPV 148	LPV 111
Steel	tons	120,000	100,000	160,000	0
Sheet Pile, PZ 27	tons	27,000	27,000	52,000	0
H pile	tons	80,000	59,000	91,000	0
Pipe Piles	tons	11,000	13,000	14,000	0
Reinforcing Steel	tons	2,200	2,500	2,600	0
Concrete	cubic yards	60,000	66,000	70,000	0
Borrow	cubic yards	76,000	29,000	265,000	1,300,000
Riprap	cubic yards	161,000	197,000	255,000	0
Deep Soil Mixing	cubic yards	0	0	0	1,540,000



# Questions?