NASA Revitalization Project
Measurement Systems Laboratory (MSL)
Langley Research Center
Hampton, Virginia

Design-Bid-Build
Pre-Proposal Conference

September 16, 2015
Agenda 10:00 AM – 12:00 PM

Speaker: Anthony (Tony) Dell’Arciprete, GSA

- Introductions of Government & Project Contractors
- Purpose of Pre-Proposal Conference
- NASA Revitalization Plan
- Design Overview for Measurement Systems Laboratory (MSL)
- Pre-Proposal Overview Phase 1
- Timeline
- Questions & Answers
Introduction: Gov’t Representatives

U.S. General Services Administration
- Anthony Dell’Arciprete Program Manager
- Ray Porter Contracting Officer
- Anthony Teti Contracting Officer
- Brett Molash Project Engineer

U.S. National Aeronautics & Space Administration
- William Abrams Project Manager
- Floyd Quintana Program Manager
Introduction: Project Contractors

A/E Firm: AECOM
- Ed Weaver  Program Manager

Construction Management Firm: Hill International
- Jim Beckett  Project Executive
- Christopher Reilly  Senior Project Manager
Purpose: Pre-Proposal Conference

Speaker: Anthony Dell’Arciprete, GSA

- Design-Bid-Build Services in Request for Proposal (RFP)
- Measurement Systems Laboratory (MSL)
NASA Revitalization Plan Overview

Speaker: Floyd Quintana, NASA

- NASA Revitalization Plan
Creating Langley’s Future…It’s ViTAL

Langley creates innovative solutions to the grand challenges of earth science, space exploration and flight in all atmospheres, for the benefit of all humankind.

Heritage

- “Mother Center”
- NACA
- National Aeronautics Lab
- Unitary Plan
- Birth of Space Program

Present

- New Town
- Revitalize Langley
- Lab Consolidation
- Diversified Portfolio
- Repair by Replacement
- Recapitalization

Future

- Enables full spectrum of R&D
- Promotes collaboration and productivity
- Flexible and adaptive to changing mission needs
- Environmentally sustainable
- Embraces future work environments
Aging Infrastructure Poses Risk to Mission

- Agency-wide, more than 80 percent of NASA’s infrastructure and facilities by value are beyond their design life – thus more likely to be unsuitable for current and future missions.
  - Aging, Apollo-era legacy infrastructure is inefficient and costly to maintain and operate.
  - Assets over 40 years old (typical design life is 30 years) pose a risk to NASA’s unique research and development mission.

- Risk severity rises as assets age beyond 40.
  - To control risk, control the share and average age of assets >40

- Maintenance backlog continues to grow.

Whitlow—”NASA Facility Strategy Presentation” at the 2011 Facilities Engineering Conference

LaRC’s oldest building is 80 years old and the Center average is around 44 years old—We are proactively revitalizing the Center’s core infrastructure to meet future missions.
Figures of Merit

- Relevance to the NASA Mission
  - Supports Multiple NASA Mission Directorates (current and future)
  - Ability to Sustain/Develop Core Competency

- Utilization
  - Usage rates
  - Enables our competitiveness/Reimbursable opportunities

- Cost of Ownership
  - Maintenance and Utility Costs
  - Deferred Maintenance / Facility Condition Assessment (FCA)

- Linkage to Master Plan
  - Central to Core Campus
  - Sustainability / Energy Efficiency
Overarching Revitalization Decisions

- Sustain / enhance essential in-house experimental capability
- Enable multi-disciplinary integrated systems capability
- Incorporate Computational Simulation as a cross-cutting capability in everything we do
- Continually assess the needs of NASA’s missions and divest of facilities (even large ones) when it no longer makes sense for the mission and the national good
Summary of Investments & Savings

- Provides new state-of-the-art, sustainable, energy efficient R&D facilities
  - Sustains, enhances and creates our essential experimental capability to meet future agency missions by providing more efficient and effective facilities and labs

- By 2030 the Center Revitalization Plan:
  - Saves nearly $100M Maintenance and Utilities
  - Eliminates $141M Deferred Maintenance
  - Reduces our footprint by 1.21M sq. ft.
  - Achieves approximately 600K sq. ft. of new building space
  - Reduces the current replacement value (CRV) by approximately $1B

- Plan requires investments which will be funded through Agency Construction of Facilities (CoF) and Recapitalization funds, Program dollars and LaRC’s CMO
Headquarters Building (AOB1)

- Langley Headquarters
  - Office of the Director
- Houses multiple organizations
  - Office of Human Capital
  - Chief Financial Officer
  - Office of Procurement
  - Office of Chief Counsel
Integrated Engineering Services Building (IESB)

- Engineering Design Studio
  - Brings different technical groups together during the design process
- Flight Mission Support Facility
  - Provide a facility to monitor and inform team while mission in flight
- Training and Learning Classrooms
- Conference Facilities
- Cafeteria
Computational Research Facility (CRF)

### Current Status:
- Initiated Pre-Design Study – March 2013 Completion
- B1194 deemed not appropriate
- New site and design completed

### Future Work:
- FY15 – Begin Construction

<table>
<thead>
<tr>
<th>FY Start</th>
<th>Description</th>
<th>Justification</th>
<th>Cost Savings ($M)</th>
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<tbody>
<tr>
<td>2014</td>
<td>Computational/Office: Data Center and High Density Office Space</td>
<td>Relevant to all MDs; Core campus; consolidation of IT capability; energy efficient; Demo B1209 and repurpose B1268</td>
<td>M+U: $0.6  DM: $1.3  CRV: $10.9</td>
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ViTAL – Vibrant Transformation to Advance Langley

**Goal:** Re-ViTALize LaRC

Transform the Center to enable LaRC to make vital contributions to NASA missions – both current and future – by establishing a stimulating work environment, modernizing infrastructure and investing in new capabilities to meet the accelerating pace of science and technology trends.

Revitalization success through strategic workforce partnerships with GSA and USACE enables LaRC to focus our critical hires toward the Agency Mission.
ViTAL — Vibrant Transformation to Advance Langley

**Current Investment Timeline**

- **New Town** focus on modernizing aging facilities
- **Master Plan** approach for future campus development
- **ViTAL** integrated facility strategy to meet NASA mission
- **Revitalization Office** established to execute ViTAL plan
- **Master Plan Update** incorporates ViTAL plan
- **Continued Progress and Planning**

- **2004**
  - **AOB1**

- **2010**
  - **IESB**

- **2011**
  - **2013**
  - **CRF**

- **2015**
  - **2016**
  - **MSL**

- **2018+**

GC: TBD
Concept Design Overview

Speaker: Ed Weaver, AECOM
Guiding Themes / Key Drivers

- Sustainability
- Interior Environment
- Campus Setting / Context
- Presence
Roles and Responsibilities

Speaker: Chris Reilly, Hill International

- Construction Management Overview
Roles and Responsibilities

- Open, Timely Communications
- Commitment to Issue Resolution
- Proactive Quality Program
- Viable Schedule Used as a Tool
- Risk Management
- Partnering
- SAFETY!
Roles and Responsibilities

ePM Systems

- Proliance
- RFIs
- Submittals
- Correspondence
Proposal Overview

Speakers: Anthony Dell’Arciprete, GSA
Ray Porter, GSA
Anthony Teti, GSA

- 2 Phase Source Selection Process
Proposal Overview: Phase 1

Phase 1:

- Past Performance on Similar Project
- Project Team Qualifications
- Safety
- Subcontracting Methodology
Proposal Overview: Phase 1

- Past Performance
  - Past Performance on Similar Projects
  - Construction Firms
Proposal Overview: Phase 1  --continued

- Project Team Qualifications:
  - Offeror’s Principal-In-Charge/Project Executive
  - Construction Project Manager
  - Construction Superintendent
  - Construction MEP Coordinator
  - Quality Control Manager
  - Safety Coordinator
  - BIM Coordinator & Document Manager
  - LEED Accredited Professional (AP)
Proposal Overview: Phase 1 --continued

- Safety
- Subcontracting Methodology

- Notification of Technical Rating to All Firms
- Develop the Advisory Shortlist
- Offerors on the Advisory Short List will be invited to participate in Phase 2
Proposal Overview: Phase 2

Phase 2:
- Project Management and Delivery Plan
- Interactive Discussions
- Project Labor Agreement
- Price
Timeline

Speaker: Ray Porter, GSA

- **10/1/2015**: Proposals are Due 2:00PM to Ray Porter GSA
  10 Hard Copies Required, No Fax/PDFs
- **11/23/2015**: GSA Will Notify Offerors
- **12/1/15**: Phase 2 Criteria Will be Sent
- **3/2016**: Anticipated Award
- **4/2016**: Notice to Proceed (NTP)
- **24 Months** *for Construction NTP to S.C.*
Questions & Answers

Thank You For Joining Us Today