



# Projecteering

*Moving from Idea to Investability to Sustainability*

June 27, 2013

# Agenda

- 
- Project Development
  - Preliminary Engineering Report
  - Preliminary Design
  - Final Design
  - Construction Letting
  - Construction
  - Substantial Completion and Project Close-Out

**“Getting HIP”**: Planning Your Highly Investable Projects



# Project Development

The process that takes a infrastructure improvement project from **concept** through **construction**. There are several goals for this process:

- To ensure context sensitivity through an open, consensus-building dialog among project proponents, reviewers, the public, and other parties.
- To encourage early planning, public outreach, and evaluation so that project needs, goals and objectives, issues, and impacts can be identified before significant resources are expended.
- To achieve consistent expectations and understanding between project proponents and those entities who evaluate, prioritize, and fund projects.
- To ensure allocation of resources to projects that address local, regional, and statewide priorities and needs.

**“Getting HIP”**: Planning Your Highly Investable Projects



# Preliminary Engineering Report (PER)

- A PER is a planning document required by many state and federal agencies as part of the process of obtaining financial assistance for development of drinking water, wastewater, solid waste, and stormwater projects.
- An applicant for funding from the WWD program must submit a PER as required by 7 CFR 1780.33(c) and 1780.55.
- The PER describes the proposed project from an engineering perspective, analyzes alternatives to the proposal, defines project costs, and provides information critical to the underwriting process.

**“Getting HIP”**: Planning Your Highly Investable Projects

# Preliminary Engineering Draft

## GENERAL OUTLINE OF A PRELIMINARY ENGINEERING REPORT

### 1) PROJECT PLANNING

- a) Location
- b) Environmental Resources Present
- c) Population Trends
- d) Community Engagement

### 2) EXISTING FACILITIES

- a) Location Map
- b) History
- c) Condition of Existing Facilities
- d) Financial Status of any Existing Facilities
- e) Water/Energy/Waste Audits

### 3) NEED FOR PROJECT

- a) Health, Sanitation, and Security
- b) Aging Infrastructure
- c) Reasonable Growth

### 4) ALTERNATIVES CONSIDERED

- a) Description
- b) Design Criteria
- c) Map
- d) Environmental Impacts
- e) Land Requirements
- f) Potential Construction Problems
- g) Sustainability Considerations
  - i) Water and Energy Efficiency
  - ii) Green Infrastructure
  - iii) Other
- h) Cost Estimates

### 5) SELECTION OF AN ALTERNATIVE

- a) Life Cycle Cost Analysis
- b) Non-Monetary Factors

### 6) PROPOSED PROJECT (RECOMMENDED ALTERNATIVE)

- a) Preliminary Project Design
- b) Project Schedule
- c) Permit Requirements
- d) Sustainability Considerations
  - i) Water and Energy Efficiency
  - ii) Green Infrastructure
  - iii) Other
- e) Total Project Cost Estimate (Engineer's Opinion of Probable Cost)
  - f) Annual Operating Budget
    - i) Income
    - ii) Annual O&M Costs
    - iii) Debt Repayments
    - iv) Reserves

### 7) CONCLUSIONS AND RECOMMENDATIONS

"Getting HIP": Planning Your Highly Investable Projects

# Preliminary Design

- Identify Design Standards and Specifications
  - Geotechnical Investigation
  - Topographic Design Survey
  - Existing Boundary or Right-of-Way Survey
  - Existing Utility Designation & Mapping (SUE)
  - Prepare Preliminary "Getting High-Way Right of Way" - Highly Investigative, Correspondence, and
- Easements, Easements, or Temporary Construction Easements
  - Drainage Analysis Report
  - Design Drawings
  - Cost Estimate
  - Technical Specifications
  - Identify Design Variance Request
  - Public Involvement Meeting

# Final Design

- Existing Utility Relocation Design
- Prepare Final Right-of-Way Takes, Construction Maintenance Easements, Easements, or Temporary Construction Easements
- Design Drawings
- Cost Estimate
- Technical Specifications
- Public Involvement Meeting

**“Getting HIP”**: Planning Your Highly Investable Projects



# Construction Letting

- 
- Jurisdictional Agency review and approval of final Plans-Specifications & Estimate
  - Funding Agency approval for Advertisement for Bid
  - Bid Opening, Bid Tabulation Review, Award Recommendation, Local Governing Body Approval
  - Notice of Award
  - Notice to Proceed
  - Pre-construction Meeting

**“Getting HIP”**: Planning Your **H**ighly **I**nvestable **P**rojects

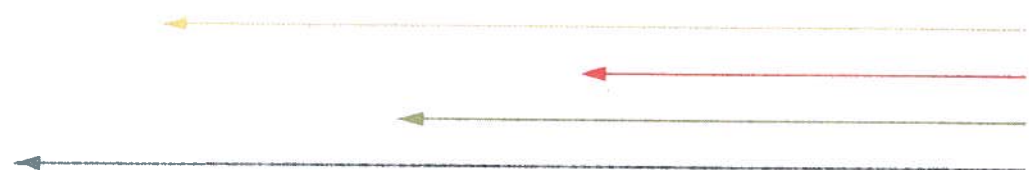


# Construction

- Field Observation
- Construction Phasing, Traffic Control Planning, and Public Awareness and Outreach
- Periodic Progress Meetings
- Field Engineering
- Construction Administration

**“Getting HIP”**: Planning Your Highly Investable Projects

# Substantial Completion & Project Close-Out

- 
- Funding Agreement(s) & Certifications
  - Work Notices
    - Notice of Award
    - Notice to Proceed
  - Pre-Construction Documents
    - Pre-con meeting minutes and sign-in
  - Material Submittals (include submittal log on top)
  - Material Certifications (i.e. Buy American Certs, Mill Test Reports)
  - Progress Meetings
  - CPM Schedules (start with the initial schedule end with the final schedule)
  - Correspondence
  - Pay Applications (final pay app on top)
  - Change Orders
  - Inspector Daily Reports
  - Certified Payroll
  - Material Test Reports
  - Material Haul Tickets
  - Final Inspection
    - Punch List
    - Sign In
  - As-Builts
  - Final Project Certifications (include close out letter)

**“Getting HIP”:** Planning Your Highly Investable Projects



# Any Questions?

**Contact Mario Juarez-Infante**

**Mobile: (505) 715-2541**

**Email: [Mario.Juarez-Infante@wilsonco.com](mailto:Mario.Juarez-Infante@wilsonco.com)**

**WILSON**  
**& COMPANY**  
ENGINEERS & ARCHITECTS

**"Getting HIP": Planning Your Highly Investable Projects**