Project Navigator, Ltd.

Construction Management Services

Procurement, Field Oversight, Administration.

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Outline

• Introductions
  • Safety Moment
• Procurement
• Field Oversight
• Project Administration
Project Navigator, Ltd. (PNL) is expert at working alongside existing project resources to provide third-party technical input to project owners.

Project Navigator, Ltd. works to manage, align, and coordinate project resources and strategy for cost-effective project execution.

Traditional Environmental Project Resources
(e.g. consulting, EPC)
PNL's Project Coordinators Services Encompass Varied Tasks and Stakeholders
Malone Superfund Site - Pre-RD/RA

- Swan Lake
- Galveston Bay
- N
- Laydown Area
- Site Boundary 150 acres
- Pond
- Unused Area
- Nature Preserve (Private)
- Gulf Coast Waste Disposal (Private)
- Tanks
- Sludge Pond
- Cemetery
- Oil Pit
- Marsh Area
- API & Injection Wells
- Borrow Area
- API
Introductions

Malone Superfund Site - Post RD/RA
Procurement

- Prospective Contractors
- Contracting Methods
- Request for Proposal
- Bid Evaluation
- Contractor Selection
**Procurement**

**List of Prospective Contractors**

- Typically developed from PRP input, PNL experience, including specialty contractors if needed.
- Pre-Qualify Contractors
  - Safety Record
    - Last 3 years Total Recordable Incident Rate (TRIR) and Experience Modification Rate (EMR)
  - List developed based on type of project
    - Dirt work, solidification, Water work, etc.
  - Location
    - Geographic area
  - Regulatory Experience
    - RCRA, CERCLA, etc.
  - Agency Experience
    - Federal vs State
    - OSHA vs MSHA
  - Union vs Non-Union
Procurement

Contracting Methods

- Design/Build v Design-Bid-Build
- Lump Sum (LS), Unit Rate (UR), Time & Material Not To Exceed (T&M NTE), Cost Plus Fixed Fee (CPFF), Time & Material
  - Most projects have a combination of these
  - LS – more risk for contractor – generally higher cost for owner
  - UR – shared risk for contractor and owner
  - T&M NTE – more risk for owner, but contract amount limit is stated
  - CPFF – more risk for the owner, but cost are more controlled
  - T&M – more risk for the owner without a contract limit set

- Future Considerations
  - Establish rates for extra T&M work now
  - Rate increases, if allowable
    - Labor, Equipment and Materials
    - Fuel escalation
  - Markup on materials and subs
    - minimize or direct pay
  - Quantify and track number of standby/delay days
## Procurement

### Design/Build: Decoupled Vs Integrated - Advantages and Disadvantages

<table>
<thead>
<tr>
<th>Design/Bid Construction</th>
<th>Integrated Design/Build</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positives</strong></td>
<td><strong>Negatives</strong></td>
</tr>
<tr>
<td>▶ Greater ability to lock in RA costs</td>
<td>▶ Lengthens schedule</td>
</tr>
<tr>
<td>▶ Enhances competition for the work</td>
<td>▶ More deliverables</td>
</tr>
<tr>
<td>▶ Avoids need for continued commitment to a poorly performing RD firm</td>
<td>▶ Need for separate constructability review</td>
</tr>
<tr>
<td>▶ Avoids need for continued commitment to a poorly performing RD firm</td>
<td>▶ Possible contractual squabbles if designer and constructor are different firms</td>
</tr>
<tr>
<td>▶ Shortened schedule, and most likely, decreased costs</td>
<td>▶ Not yet globally accepted within EPA</td>
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<tr>
<td>▶ Gain constructability validation since appropriate construction personnel are involved from day one</td>
<td>▶ Early commitment required to RD/RA firm</td>
</tr>
<tr>
<td>▶ Greater ability to achieve contractual performance guarantees</td>
<td>▶ Accurate cost predictions are not known until “engineers cost estimate” can be produced at about 75% RD stage</td>
</tr>
<tr>
<td>▶ Reduced number of deliverables</td>
<td></td>
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Procurement

Risk Allocation by Contract Type

Environmental Service Company

Clients

Lump Sum | Unit Cost | T&M, NTE | CPFF* | T&M

Procurement

Request for Proposal

• Constructability Review of design/remedy
• Detailed List of assumptions and quantities
  o Strive for apple to apple comparisons in schedule of values
  o Detailed specifications
• Include Draft Contract
  o Notice Provisions
  o Differing Site Conditions
  o Time Extensions
  o Disputes Clause
  o Warranty/Protection of Work Clause
• Contractor to include a Critical Path Method (CPM) schedule with proposal
• Encourage contractors to provide Value Engineering and Cost Saving Alternatives
• Project References for similar work
• Subcontractor qualification process
## Procurement

### Comparative Analysis

**Review submitted proposals and manage a detailed analysis**

- PNL will analyze all proposals based on key metrics. All data and information are entered into side-by-side spreadsheets which permit objective analysis.
- Metrics and criteria which are evaluated include:
  - Average labor rate as a function of job time. (Should decrease and maybe increase slightly when project close out is occurring)
  - Cost per percent of project complete
  - Cost savings initiatives

**Provide a written recommendation for selection of contractor**

- At the completion of the evaluation, PNL will submit a formal recommendation, along with a bid analysis. The analysis describes the evaluation process and will have objectively screened candidates. Many of the evaluation criteria will have previously been supplied to the bidders so that they clearly submit the information which will allow PNL to differentiate between the bids.
- Sometimes some bids may look equally attractive. In such circumstances PNL, with the clients’ agreement, has gone back to the vendor to ask for a “best and final offer”.
- For example at the Operating Industries Site, PNL assisted the RP group through a best and final offer process, which resulted in reduced labor rates from the labor union who were supplying equipment operators.
Procurement

Constructability Reviews

- Getting the right design and scope is paramount for project success.
- PNL leans on the experience of our diverse staff and their involvement early on in the design and planning phases to help ensure:
  - Streamlined and implementable design
  - Complete and succinct scope
- PNL coordinates getting the key players (engineers, contractors, owners, etc.) involved in the reviews to use their Best Practices/Lessons Learned from previous projects.
- Focusing on these components of the project in its infancy saves time and money once field activities begin.
**Field Oversight**

- Safety
- PRP On-Site Rep
- Monitor Compliance
- Decision Making
- Verification of Quantities/Progress
Field Oversight

• Safety
  o Contractor Plan review and comment
  o Ensure plan is implemented as written
  o Audits
  o Incident investigation assistance
  o Metrics tracking and reporting

• PRP On-Site Representative
  o Eyes and Ears for clients with contractors, agencies and other stakeholders
  o Compliance with approved work plans/design/specifications
  o Timely decision making at appropriate level
  o Verification of quantities/progress
  o Schedule compliance
  o Reporting
Field Oversight

PNL promotes the uses of behavioral-based safety practices.

Safety compliance is accomplished by input and engagement of all project personnel to include:

- Risk Management
- Leadership
- Accountability
- Employee Involvement
- Stop work authority
- Training
- Hazard Analysis
- Working with Others
- Reporting and Communication

1. Leadership
   - Organize and Modify, as appropriate
   - Foster a Continuous Improvement Culture
   - Establish Accountabilities and Responsibilities
   - Ensure Competence, Training and Awareness
   - Establish Communication Channels

2. Policies and Objectives
   - Set Policy
   - Develop site specific HSE Program

3. Organization, Resources and Documentation

4. Risk Evaluation and Management
   - Identify Legal and Other Requirements
   - Conduct HSE Evaluation of Activities
   - Establish HSE Objectives, Targets and Action Plans

5. Planning
   - Operational Controls
   - Management of Contractors
   - Emergency Response
   - Manage Document and Records
   - Monitor and Evaluate
   - Take Corrective and Preventative Actions

6. Implement and Monitor
   - Operational Controls
   - Manage Contractors
   - Emergency Response
   - Manage Document and Records
   - Monitor and Evaluate
   - Take Corrective and Preventative Actions

7. Audit and Review
   - Review by Senior Management
   - Perform Audits

Field Oversight

PNL Represents the Owner in Ensuring That the Design is Cost-Effectively Constructed. Work Quality Management.

- PNL ensures that QA procedures are followed in compliance with any regulatory orders
- PNL reviews all technical work, plans, reports, field activities, and the results of other contractors
- PNL is experienced at providing the appropriate level of owners’ oversight
- PNL maintains a project risk register, which we use to proactively monitor any project concerns
- Clients receive weekly/monthly “eyes-on-the-ground” photo reports to ensure project performance, health & safety, and QA goals are met
- PNL Construction Managers can be the clients direct point of contact at anytime
Field Oversight

**Site Specific Plans Compliance Management**

PNL is committed to the belief that all incidents are preventable through proper planning, and compliant work of plans and procedures. To achieve this, PNL implements an integrated approach to safety, quality and operations planning that emphasizes:

- **Behavior-based processes** designed to integrate safety and quality procedures into all activities and at all levels of work.

- **Individual employee involvement and accountability** in risk identification, quality assurance processes, and monitoring for changing conditions intended to foster a project safety culture.

- **Daily observation of work processes** conducted by work crews designed to ensure ongoing management of change.

- **Establishing a safe plan of action** for work tasks through:
  - Health and Safety Plans
  - Task Plans
  - Crew Activity Plans
  - Hazard Analysis
  - Job Safety Analysis
  - Daily Safety Meetings
Field Oversight

PNL Efficiently Collects, Manages, and Mines Project Information to Promote Informed Options Development and Decision-Making

- Complex technical projects generate large amounts of data and information that need to be analyzed and explained to stakeholders.
- These concepts must be communicated in a succinct and clear manner.
- PNL’s GIS and visual engineering allows information and data to become clear, concise and understandable to Clients.
- When clients understand, they make better, faster, higher quality decisions, resulting in a focused RI/FS

Before

After
Administration

- Tracking of Quantities/Progress
- Schedule Compliance
- Change Orders
- Invoices
- Cash Flow Projections
Administration

• Tracking of Quantities/Progress
  o For total project and for invoice verification

• Schedule Compliance
  o For overall completion date
  o For interim and major milestones
  o For recovery if delays have been encountered

• Change Orders
  o Review/Approval/Rejection
  o Negotiate for the client

• Invoices
  o Review/Approval/Rejection

• Cash Flow Projections
Administration

Budget Tracking and Management

Ensure that what is being paid for is actually being executed

- PNL roves the work site to make sure the design is being constructed in the field.
- We interact with the independently retained QA/QC contractor in this function.

Manage financial performance

- We perform this function on all our projects. Our systems are set up to measure the cost and schedule productivity of all retained resources.

Schedule Management

Manage schedule performance and provide regular updates to Responsible Parties

- To assist the client not being overloaded with paperwork, we use succinct information-dense summary sheets which allow the client to provide feedback after a very quick review.
- PNL's role is to provide information to the clients so they can make informed decisions, with minimal analysis and questioning.
Administration

Invoice Review

**Review invoices and manage payment process**

- At all projects we manage we also assist the Responsible Parties in the review, processing and payment of invoices.
- For example, at the Tex-Tin site we established and now manage an electronic invoice payment process.

**Manage Change Orders (C/O)**

- PNL has a standard process we would ask the contractor to follow. C/Os are based on changed conditions, proper and timely notification.
- PNL is rigorous and objective in our evaluation of C/Os. Experience and onsite observations allow us to determine if C/Os are appropriate. We work closely with the clients on matters like these.
- Project schedules may require timely C/O approvals. PNL establishes prudent C/O field approval thresholds with the client.
- All change orders are discussed with clients, major C/Os are subject to a formal review process to verify changed conditions and submitted for client’s approval. All C/Os are field recorded and documented in a monthly report to the clients.
Administration

Project Payment Flow

ACCOUNT FUNDING

- PNL Reviews and Updates Forecasts Each Quarter
- Based Upon Account Balance PNL Prepares Cash Call Amount
- PNL Sends Forecasts and Cash Call to RPs for Approval

RPs and PNL Revise Forecast

- Forecast and Cash Call Approved?
  - Yes
    - PNL Sends Out Quarterly Cash Call Invoices to RPs
    - RPs Send Cash Call Funds to Bank or Escrow Agent
    - Checks Deposited into Group Account
  - No

INVOICE PROCESSING

- Invoices Received and Reviewed by PNL
- PNL Prepares Authorization Sheets*
- PNL Sends Invoice and Payment Authorization Sheet to Group Members

Approval Granted

- Yes
  - Group Members Approve Pmt. PNL Coords with Bank
  - PNL Updates Account Tracking
  - Escrow Disburses Funds
  - Group Account
  - Contractors

- No
  - Chairman / Members Specify Amount to be Paid

* For illustration purposes, flow diagram assumes invoices are not questioned.

LEGEND
- PNL Function
- RP Function
- Escrow Function
Administration

Cash Flow Forecasting

FORECAST / ACTUAL PROJECT TRACKING

Forecast made yearly. Remedial and transactional costs by vendor tracked monthly.

Components:
- Remedial Action Response
- Project Coordination
- Community Relations
- Accounting
- Legal
- EPA, Past Cost, etc.

CASH FLOW ANALYSIS

Sum of transactional and response cost tracked through life of project. Forecast used for cash call.

Estimated Recurring
Estimated Non-recurring
20,300 20,300 20,300 20,300 21,300 21,300

Total Estimated Recurring
20,300 20,300 20,300 20,300 21,300 21,300

Actual Recurring
18,764 13,997 11,549 16,132 13,880 14,928

Actual Non-recurring
0 0 0 0 0 0

Total Actual
18,764 13,997 11,549 16,132 13,880 14,928

Previously Approved and Paid
Current Month
PNL has a “best in class” team with members who have more than 25 years of relevant experience.

The PNL team has experience working with multi-party sites nationwide.

PNL thinks strategically and excels as creative problem solvers.

We are proactive in the management of project risk.

PNL excels at data and site information management.

PNL staff are excellent project negotiators and project/client advocates.

PNL conducts/facilitates strategy review to assess challenges, risks and mitigation measures.

PNL directs and manages consultants and contractors to ensure a safe, cost-effective and on-time project.