Living Shoreline Construction Monitoring: Setting the Stage for Success

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Construction Monitoring...

- **WHAT is it?**
- **WHY do we need it?**
- **WHEN does it occur?**
- **WHO does it?**
- **HOW do we implement it?**
- **WHERE do we do it?**
WHAT is construction monitoring?

- **Construction Monitoring** is an effort by project team members to ensure the construction of a project is performed according to the plans, specifications, permits and other performance criteria.
WHAT is construction monitoring?

- **Construction Monitoring** provides valuable information of the actual conditions during construction and provides a baseline for future post-construction monitoring.
WHY do we need Construction Monitoring?

- Meet certain biological and environmental goals, benefits, and other criteria
  - Minimum Levels of Shoreline Protection
  - Acres of reef habitat
  - Dimensions of living shoreline
  - Baseline for future monitoring
WHY do we need Construction Monitoring?

- Verification for payment to the contractor
  - Tons of Rock
  - Square yards of geotextile fabric
WHEN does construction monitoring occur?

- **Preparation of Design Documents**
  - Coordinating design efforts to accommodate successful construction monitoring

- **Construction Proposal Review**
  - Choosing a qualified contractor

- **Contract Award**
  - Working with a contractor through the submittals process

- **Mobilization**
  - Being on site as the contractor bring in equipment and personnel
WHEN does construction monitoring occur?

- **Active Construction**
  - Monitoring construction methods and measuring design elements and tolerances

- **Final Inspection/Demobilization**
  - Signing off on the finished product

- **Deliverables**
  - As-built surveys
WHO does construction monitoring?

- Monitoring is a team effort
- It takes a village...
  - Surveyors, biologists, engineers, welders, project managers, contracting officers, inspectors, and experts in many other fields.
  - Starts with planning during design
WHO does construction monitoring?

- **Quality Control**
  - Performed by contractor or Installer
  - Ensuring the project is constructed to designed plans and specifications
  - QC manager, surveyors, testing labs
WHO does construction monitoring?

- Quality Assurance
  - Performed by the project owner/sponsor.
  - Usually the entity administering the contract.
  - Ensuring the contractor performs adequately to fulfill the requirements of the contract.
HOW do we monitor construction?

How does the *contractor* monitor construction?

- Superintendents
- Quality control manager
- Interim construction surveys
- Field measurements
- Independent lab testing
- As-built surveys
HOW do we monitor construction?

How does the contract administrator monitor construction?

- Onsite inspectors
- Field measurements
- Surveys
- Construction progress meetings
- Progress payment
- Hold point inspections
- Construction completion reports
WHERE do we monitor construction?

- In the Field
  - Boats
  - Barges
  - Mobile Offices
  - Job Trailers
  - Suppliers
WHERE do we monitor construction?

- In the Office
  - Plans of work
  - Submittals
  - Surveys
  - Invoices
Conclusion

- Design and performance criteria are key pieces to the success of a living shoreline.
- Quality Control and Quality Assurance are both important to ensure a living shoreline that will perform as designed.
- Team Effort – Helping everyone understand the goals and strive for quality installation will help lead to success of the living shoreline.
- Field inspection as well as plenty of “behind the scenes” office work.
- Surveys as well as materials testing and measurements.
Thank you for attending this session!

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