Team

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BOND

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Gathering Information

- Owner’s Records
- Discussions with Facilities/Staff
- Topographic Survey
Existing Conditions – Topographic Survey

• Property Lines
Existing Conditions

• Property Lines
• Utilities
  – Location
  – Ownership
  – Easements
  – Material
    • Hazards
    • Durability
Existing Conditions

- Property Lines
- Utilities
  - Location
  - Ownership
  - Easements
  - Material
    - Hazards
    - Durability
- Trees
Geotech (Soils)

- Physical Properties
  - Structural Stability
- Hazardous Materials
  - Testing
  - Disposal
- Stockpile
- Groundwater
  - Testing
  - Disposal
  - Recharge
  - Discharge
Schedule

• Moratorium

Owner’s Scheduled Events
  • Academic
    • Graduation
    • Research
  – Other

• Sports

• Fundraising
• Concerts
• Community Outreach

Graduation Weekend

Monday after Graduation
Schedule

• Moratorium
• Owner’s Scheduled Events
  – Academic
    • Graduation
    • Sports
    • Research
  – Other
    • Fundraising
    • Concerts
    • Community Outreach
• City’s Scheduled Events
  – Circus
  – Parades
  – Street Cleaning
  – Sports
Schedule

- Adjacent/Related Projects
- Utility Outages
  - Off-hour Work
  - Live Work
- Weather
- Material Lead Time
- Permitting
Traffic Control

• Vehicles
  – Emergency Access
  – Truck Traffic
  – Parking
  – Bicycle

• Pedestrians
  – ADA Accessibility
  – General Public
  – VIPs
Coordination

• Police Details
• Communications
  – Stakeholder Notice
  – Signage
  – Division of Scope on Adjacent Projects
Design Management

- 3D Modeling Tools
- Scheduling Software
- Cost Estimating
- Bid Package
Planning and Precon

• Logistics Planning
  • Day to Day operational impacts
  • Public v Private Complexities
  • Planning movements
• Needs of user groups / stakeholders
  • Building Managers
  • Daily Deliveries
  • Students / Faculty / Staff / Public
  • Classroom Impact – Noise/Access
• Campus Environment
  • Academic Schedule
    • Events, Exams, Graduation
  • Pedestrian Traffic Flow
    • Traffic Plans
    • Way finding signage
    • Building / Facility Access/Egress
• TREES!!!!!!!!!!!!!!
Planning and Precon

- Systems Outages
  - Planning and minimizing impacts in relation to taking a system out of service
- Preconstruction Services
- Outage Preparation
  - ID Isolation Points
  - Lock Out / Tag Out
  - Equipment Protection
  - System Loops
  - Temporary Bypass
- System Restoration
  - Testing / Commissioning
  - Resource Allocation to ensure timely return to service (planning)
Planning and Precon

- Safety & Quality Focus
- JHA / PTA
- Sub Orientations
- Tool Box Talks
- Schedule Development
  - Coordination
  - Incorporate Owner Requirements
  - Impact of Adjacent Projects
  - Schedule the ACTUAL Work
Installation & Restoration

- Site preparation
  - Fencing, Barricades
  - Tree Protection
  - Street/Walkway Closures, Police Details, Signage
  - Dig Safe / Private Utility Locations
- Earthwork
  - SOE
  - Excavation
  - Existing Utility Support / Protection
  - Trucking / stockpiling / containment
  - Soil contamination issues
  - T&D Soils
    - Pre-characterization
    - ID disposal facilities
    - Facility/Owner Approvals
    - Wastestream tracking & management
Execution – Installation & Restoration

- Utility Installations
  - Utility Shutdowns and Isolation
  - Relocations & Bypass
  - Material Delivery
  - New Installation / Assembly
- As-built / Records
- Testing, Commissioning
Execution – Installation & Restoration

- Backfilling,
  - Material Selection
  - Delivery
- Flowable Fill Options
- Import v Reuse
- Compaction
- Site Access

- Site Restoration
  - Existing Conditions
  - Area Features & Styles
Execution – Installation & Restoration

- Horizontal Approach
  - Multiple sites
  - Linear Progression
    - Prep Site
    - Installation
    - Restore Site
- Coordinating Multiple Impact Areas
- Formula for Success = Planning, Planning, Planning.
QUESTIONS & ANSWERS