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Indefinite Delivery Indefinite Quantity (IDIQ) Contract Success in Corpus Christi Water System

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Indefinite Delivery Indefinite Quantity (IDIQ) Contract Success in Corpus Christi Water System

Presentation Topics:

- Typical Delivery Mechanisms for Civil Construction Projects
- IDIQ Contracting – Application, Advantages and Disadvantages
- Trenchless Technologies:
  - Horizontal Directional Drilling,
  - Sliplining
  - Pipe Bursting
- Successful Application of Trenchless Technologies in Corpus Christi, Texas

Common Contract Types & Uses

- Traditional Design-Bid-Build Contracts
  - All projects – Civil, Facilities, Buildings, etc.
- Design-Build Contracts
  - Select “Fast Track” Projects - Civil, Facilities, Buildings, etc.
- Multiple Award Contracts
  - All projects – Civil, Facilities, Buildings, etc.
- Best Value Contracts
  - Larger complex projects – Civil, Facilities, Buildings, etc.
- Construction Management At-Risk (CMAR)
  - Select Projects - Civil, Facilities, Buildings, etc.
- IDIQ Contracts
  - Civil projects; Streets, Utilities, Earthwork, etc.

IDIQ Contracts

IDIQ is an acronym for Indefinite Delivery Indefinite Quantity for contracts that provides for an indefinite quantity of supplies or services during a fixed period of time.

Advantages:

- Moderate evaluation requirements on experience, past performance, schedule, quality and contractor unit pricing
- Fixed Contractor Unit Bid Prices with Emergency Coefficients for ideal scoping and cost effectiveness
- Allows consolidation of multiple projects under one award with standardized construction requirements and specifications
- Maximizes Early Contactor Involvement and partnering
- Multiple Delivery Orders based on successful contractor performance
- Multiple year contract for long term owner-contractor-engineer relationships

Disadvantages:

- Requires more active participation by Owner-Engineer

Trenchless Technologies

Horizontal Directional Drilling, HDD (directional boring)

- Steerable trenchless method to install underground pipe & conduit along a prescribed bore path using a surface drilling rig
- Minimal impact to surrounding area for a variety of soil conditions and jobs including road, landscape and river crossings
- Pipe materials include PVC, polyethylene, polypropylene, ductile iron, and steel

Advantages:

- Minimal topside disturbance
- Relatively small footprint for distribution installation
- Excellent choice high groundwater conditions
- Wide variety of material selections

Disadvantages:

- More expensive than open cut installations and other trenchless technologies
- Success depends greatly on subsurface conditions

Trenchless Technologies

Sliplining

- One of the oldest methods for rehabilitation of existing pipelines to repair leaks or restore structural stability to an existing pipeline
- Completed by installing a smaller, "carrier pipe" into a larger "host pipe", grouting the annular space between the two pipes, and sealing the ends
- Common materials include high-density polyethylene (HDPE), fiberglass-reinforced pipe (FRP) and PVC

Advantages:

- Very cost-effective
- Easy to install and requires tools and equipment widely available
- Minimizes bypassing of the existing flows

Disadvantages:

- Reduced cross sectional area and pipe capacity
- Laterals must be reconnected via excavation

Trenchless Technologies

Pipe Bursting

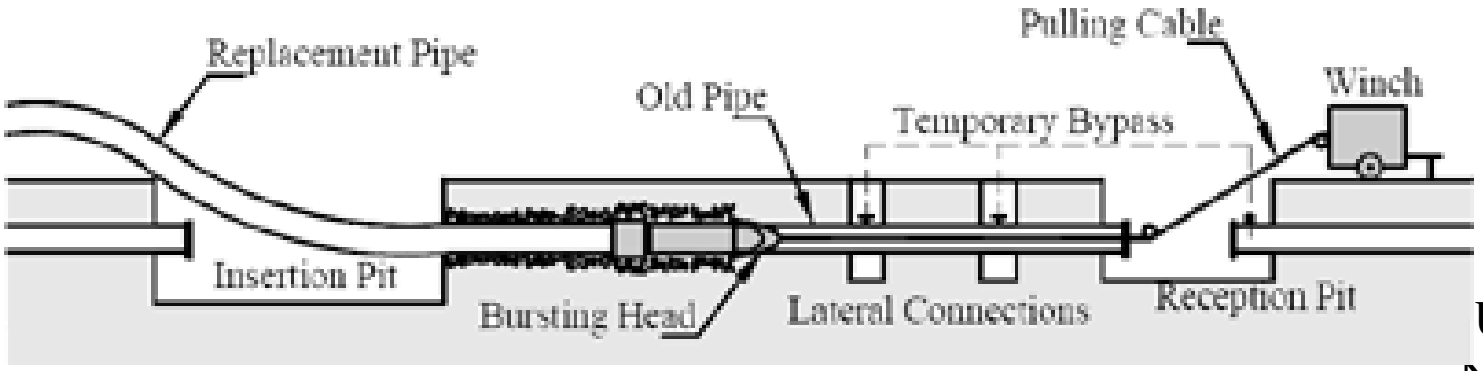
- A trenchless method to install underground pipe by breaking the existing pipe as the new pipe is pulled through it.
- Minimal impact to surrounding area for a variety of soil conditions
- Pipe materials include PVC, polyethylene, DIP and steel

Advantages:

- Utilizes existing alignment and easement
- Minimally disruptive to surroundings
- Minimal excavations required

Disadvantages:

- Potential for heave in shallow locations
- Requires service connections to be reinstated
- Limited number of qualified contractors

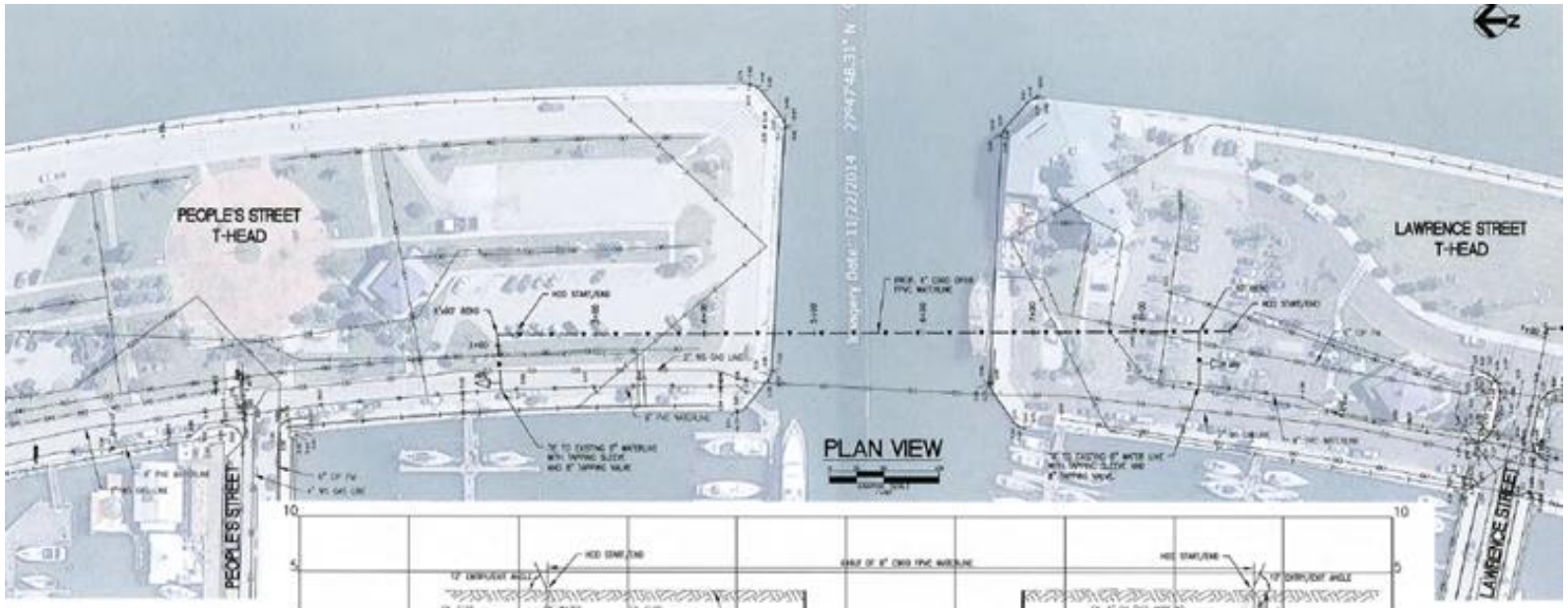


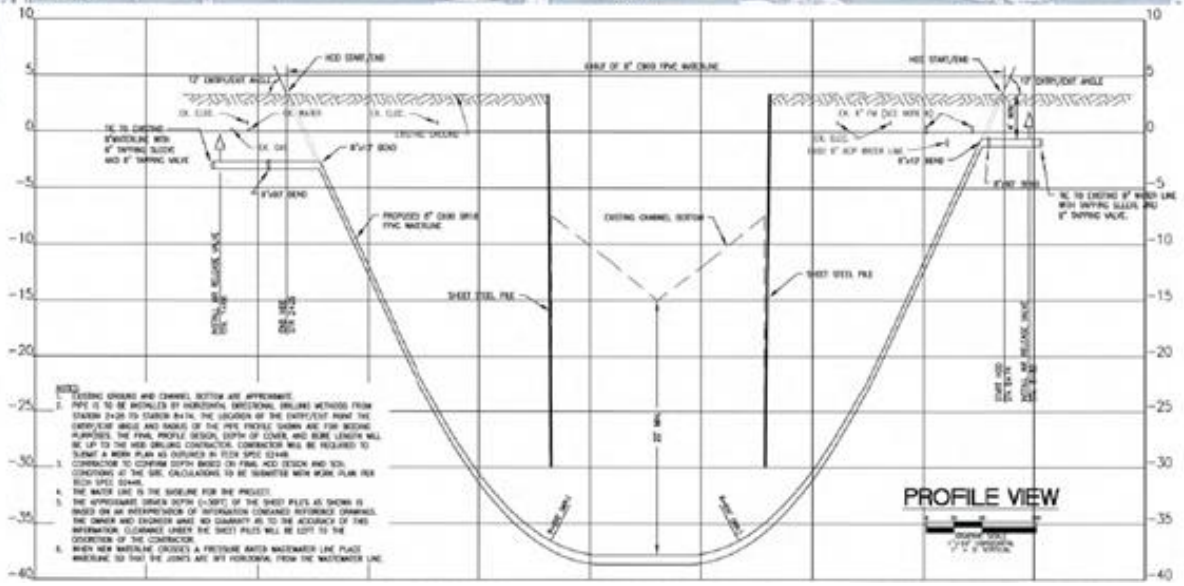
Successful Application of Trenchless Technologies in Corpus Christi, Texas

Project Title: Programmed Water Line Service Life Extension, City-Wide Distribution System Repair & Replacement ID/IQ Procurement (City Project No.: 8610) – Delivery Order UE 4: Site #1 Marina Fire Loop Line

- Project description:
  Installation of a new 1,510LF of 8-inch C-900 DR-18 PVC pipe by HDD to increase water pressure and flows to the T-Heads and L-Head at the City of Corpus Christi Marina.
- Successes/Advantages
  The project was completed within 90 days with total cost of $500,000. The installation method minimized disruption to the navigation and vehicular traffic.
- Disadvantages
  None, only practical application to avoid major disruption of marina operations and excessive timeline and cost for permitting.

Marina Fire Loop Line





Successful Application of Trenchless Technologies in Corpus Christi, Texas

Project Title: Programmed Water Line Service Life Extension, City-Wide Distribution System Repair & Replacement ID/IQ Procurement (City Project No.: 8610) – Delivery Order UE 4: Site #1 SPID Crossing at Ennis Joslin

- Project description:
  - Installation and connection of approximately 900LF of 16-inch C-905 DR-18 PVC pipe by HDD inside a 24” steel casing (0.375 wall) along Ennis Joslin that crosses a State of Texas Department of Transportation Highway (SPID).
- Successes/Advantages
  - The project was completed within 75 days with total cost of approximately $500,000. Avoided closures of state highway access roads, the City arterial (Ennis Joslin), and minimized disruption of utility services.
- Disadvantages
  - Required long strip for staging area of steel casing and pipeline.

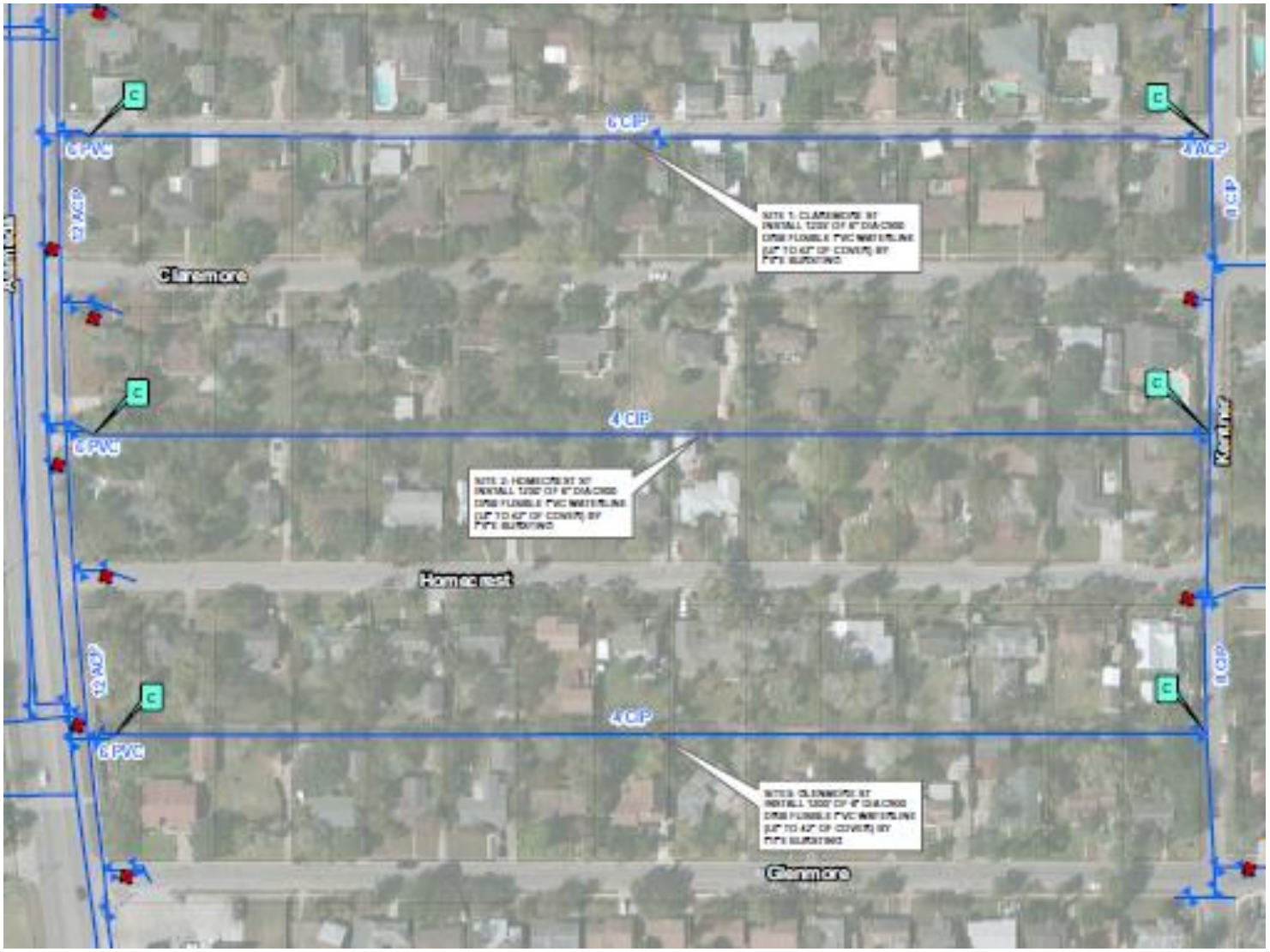
SPID Crossing at Ennis Joslin

Successful Application of Trenchless Technologies in Corpus Christi, Texas

Project Title: Programmed Water Line Service Life Extension, City-Wide Distribution System Repair & Replacement ID/IQ Procurement Year 2 (City Project No.: 8610) –Claremore Street, Homecrest Street & Glenmore Street

- Project description:
  Installation of approximately 3,665LF of 6-inch C-900 DR-18 fusible PVC pipe by pipe bursting existing CIP in a residential neighborhood. Required reconnection of 87 services and tie-ins to the existing 6-inch PVC water mains. The work is in rear yard easements with the entry and exit pits located in street right of way.
- Successes/Advantages
  The project was completed within 120 days with total cost of approximately $750,000. The installation method minimized disruption to private property and structures (power poles, private / public utilities, fencing, sheds, landscaping, etc.).
- Disadvantages
  Service connection locates and tie-ins more complicated.

Claremore Street, Homecrest Street & Glenmore Street



Questions?

Thank You UCT

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