Walsh Construction Company

General Contractor • Construction Manager • Design-Builder

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I-70 Flyover Bridges

General Contractor • Construction Manager • Design-Builder
Construction Phasing

• Phase I
  – Bridge 11
    • 820 lf of three cell box girder
  – Bridge 9 Unit 1
    • 776 lf of three cell box girder
    – 704 lf of 10’x5’ box culvert

• Completed by April 15, 2004
Construction Phasing

• Phase II
  – Bridge 9 Unit 2
    • 579 lf of three cell box girder
  – Bridge 8
    • 347 lf of single cell box girder

• Completed by October 3, 2004
Construction Approach

• Superstructure formwork
  – Simple form system with minimal pieces
  – Only one use
  – Ability to pre-assemble gang components
  – Supply enough forms for entire bridge
  – Majority of work performed on ground
  – Provide safe access and work areas
Temporary Falsework

- Design Requirements Over I-70
  - 150% of calculated design load used for sizing supports
  - Supports to be piling driven to refusal
  - Minimum section modulus of 9.5 inches cubed
  - Supports must be mechanically connected to cap beams and stringers
Temporary Falsework

• Design Requirements Over I-70
  – Must be able to withstand a 2000 pound lateral force
  – Minimum 14ft 6in traffic opening clearance

Temporary Falsework

• Falsework Members
  – HP14x89 Gr 50 Columns/Driven Pile
  – W24x104 Gr 50 Cap Beams
  – W27x84 Gr 50 Stringers
  – W33x118 Gr 50 Stringers over I-70
  – All new steel