ROUTE F/H
OVER I-70
DIVERGING DIAMOND INTERCHANGE
PROJECT SCOPE

- MODIFY INTERCHANGE GEOMETRY TO DIVERGING DIAMOND
- REPLACE BRIDGE DECK
- LENGTHEN ACCELERATION LANES ON I-70
I-70 ACCEL LANES
RETROFIT CHALLENGES

- Truck Traffic
- ADA Design on Existing Facilities
- Construction Phasing
CONSTRUCTION PHASING

- Accommodate Trucks
- Build Under Traffic
- Keep all Movements Open
- Temporary DDI
- Full Depth Pavement Replacement Rte H
Original Phasing Plan

- Temporary DDI
- Full-Depth Pavement Replacement
- Significant Truck Traffic
- Close I-70 During Bridge Demo
PHASE I
PHASE 2A
PHASE 4B
PHASE 5
Redeck vs Replacement

- Bridge Item Cost – $1 million vs $2+ million
- Existing Structure has Room for I-70 Expansion
- Adequate Capacity, Just Under HS-20 Inventory, No Load Posting Necessary
STURCTURAL DESIGN

- Staged Construction
- Doweled Temp. Barrier
- Permanent Barrier Installed in Final Position
- Avoided Mechanical Bar Splices
STRUCTURAL DESIGN

- Potential Construction Challenges
STRUCTURAL DESIGN

- Remove End Bent Diaphragm Before Deck
  - Removes Bearing Restraint and Beam Longitudinal Stress