Maintaining Traffic During Roundabout Construction

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2007 ITE Winter Workshop
Can’t be done!

Thank you for your attention!

Any Questions?
Basics

- Same principles as for any MOT design
  - Safe work zone for vehicles and pedestrians
  - Adequate space for contractor to work
  - Use appropriate resources
    - OMUTCD
    - AASHTO Green Book
    - ODOT L&D
    - FHWA Roundabout Guide
Basics

- Keep it as simple as possible
  - Use closures and detours where possible
  - Identify critical vehicular and pedestrian paths and seasonal considerations
  - Minimize constructing in “pieces”

- Wider footprint provides opportunity to maintain through traffic
Basics

- Be careful using “temporary” roundabouts
  - Safety
    - Use full pavement markings & signing
    - Lighting should be operational
  - Public perception (first impression!)
Muirfield Drive / Brand Road
Dublin, Ohio

- Double-lane roundabout
- Opened in August 2004
- Constructed in 11 Weeks!
Muirfield Drive / Brand Road
Dublin, Ohio

- Closed Brand Rd. (full 12 weeks)
Muirfield Drive / Brand Road
Dublin, Ohio

- **Closed Brand Rd.** (full 12 weeks)
- **Maintained Muirfield Dr.** (first 9 weeks)
Muirfield Drive / Brand Road
Dublin, Ohio

- **Closed Brand Rd.** (full 12 weeks)
- **Maintained Muirfield Dr.** (first 9 weeks)
- **Total Closure** (last 3 weeks)
Triangle (Main, Cemetery, Scioto-Darby)  
Hilliard, Ohio

- 2 closely spaced urban roundabouts
- Schools/pedestrians
- Construction 2009
- 82 MOT Sheets!
- “Triangle” helped a lot
Triangle (Main, Cemetery, Scioto-Darby)  
Hilliard, Ohio

- Phase 1
Triangle (Main, Cemetery, Scioto-Darby)
Hilliard, Ohio

Phase 1.1
Triangle (Main, Cemetery, Scioto-Darby)
Hilliard, Ohio

Phase 1.2
Triangle (Main, Cemetery, Scioto-Darby)
Hilliard, Ohio

Phase 1.3
Triangle (Main, Cemetery, Scioto-Darby)
Hilliard, Ohio

- Phase 2
Triangle (Main, Cemetery, Scioto-Darby)
Hilliard, Ohio

Phase 2.1
Triangle (Main, Cemetery, Scioto-Darby)
Hilliard, Ohio

Phase 2.2
Triangle (Main, Cemetery, Scioto-Darby)
Hilliard, Ohio

Phase 2.3

Phase 2.4
Triangle (Main, Cemetery, Scioto-Darby)
Hilliard, Ohio

- Phase 3
Truck movements

Preferable to construct central island curb prior to abutting pavement
Avery-Muirfield Drive and Post Road
Dublin, Ohio

- Slight modification to accommodate trucks
- Small section of curb to complete in later phase
Sawmill Parkway Extension
Delaware County

- 6.5 mile extension of Sawmill Parkway
- 6 proposed roundabouts creating new intersections
- Cross road redundancy allows for closures
- 45 day maximum closure
SR 161/Post Road/US 33
Dublin, Ohio

- High volume interchange
- 3 roundabouts in succession
- Construction 2007 - 2008
Summary

- Similar to any type of complex M.O.T.
- Requires:
  - Using standards, guidelines, resources
  - Thoughtfulness
  - Creativity
  - Experience and knowledge of construction and traffic engineering (including roundabout design principles)
Contact

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