Studies

• Commercial Property Owners Coalition (CPOC) Alternatives – April 2014
• Mission Hills Alternatives – May 2014
CPOC Alternatives

- CSX Corridor and Quince Orchard Road
- Great Seneca Highway
- Muddy Branch Road
- Key West Avenue
CPOC – Muddy Branch Road

• Line and Grade Alignment: East Side
• Option 1: Median Alignment with 4 lanes on Muddy Branch Road
• Option 2: Median Alignment with 6 lanes on Muddy Branch Road, Widening on both sides
• Option 3: Median Alignment with 6 lanes on Muddy Branch Road, Widening on East Side
CPOC – Line & Grade
CPOC – Option 2
CPOC – Option 3
• Line and Grade
  – Alignment on the east side of Muddy Branch Road
  – Includes residential displacement
  – No free right turn from:
    • Muddy Branch Road to Great Seneca Highway
    • Muddy Branch Road to Mission Drive
    • Mission Drive to Muddy Branch Road
    • Belward Campus Drive to Muddy Branch Road
CPOC Muddy Branch Road - Summary

- Line and Grade plus 3 options were evaluated
- All 3 options place the transitway in the median and allow free right turns at
  - Muddy Branch Road and Great Seneca Highway
  - Muddy Branch Road and Midsummer/Mission Drive
  - Mission Drive and Muddy Branch Road
  - Muddy Branch Road at Belward Campus Drive
CPOC – Muddy Branch Road

• Option 1
  – Median Alignment with 4 lanes on Muddy Branch Road
  – Eliminates residential displacement
  – Would increase Project Cost by approximately $2 million more than Line and Grade due to roadway work on Muddy Branch Road
  – CCT travel time: Would increase by 0.5 minute
CPOC – Muddy Branch Road

• Option 2
  – Median Alignment with 6 lanes on Muddy Branch Road with widening to both sides
  – Eliminates residential displacement
  – Would increase Project Costs by approximately $14 million more than Line and Grade due to roadway work on Muddy Branch Road and right-of-way costs
  – CCT travel time: Would increase by 0.5 minute
CPOC – Muddy Branch Road

• Option 3
  – Median Alignment with 6 lanes on Muddy Branch Road with widening to east side
  – Includes residential displacement
  – Would increase Project Costs by approximately $5 million more than Line and Grade due to roadway work on Muddy Branch Road
  – CCT travel time: Would increase by 0.5 minute
CPOC – Muddy Branch Road

• Recommended Alternative
  – Option 1: Median Alignment with 4 lanes on Muddy Branch Road
  – Eliminates residential displacement
  – Least increase to Project Cost of the alternatives studied
  – Allows free right turns at 3 intersections
Mission Hills Alternatives

- Muddy Branch Road
- Great Seneca Highway
Mission Hills – Line and Grade
Mission Hills – Option 1
Mission Hills – Option 1
Mission Hills – Option 2
Mission Hills – Option 2
Mission Hills – Option 3
Mission Hills – Option 3
Mission Hills – Option 4
Mission Hills - Summary

- Line and Grade plus 4 options were evaluated
- One option puts the transitway in the median of Muddy Branch Road allowing free rights from Muddy Branch Road to Great Seneca Highway
- Other 3 options continue transitway along Great Seneca Highway past the Muddy Branch Road intersection
Mission Hills - Summary

• Line and Grade
  – Alignment on the east side of Muddy Branch Road and center of Belward spine roadway
  – Includes residential displacement
  – No free right turn from:
    • Muddy Branch Road to Great Seneca Highway
    • Muddy Branch Road to Mission Drive
    • Mission Drive to Muddy Branch Road
    • Belward Campus Drive to Muddy Branch Road
Mission Hills - Summary

• Option 1
  – Median Alignment with 4 lanes on Muddy Branch Road and center of Belward spine roadway
  – Eliminates residential displacement
  – Minor wetland and stream impacts similar to Line and Grade
  – Would increase Project Cost by approximately $2 million more than Line and Grade due to roadway work on Muddy Branch Road
  – CCT travel time: Would increase by 0.5 minutes
Mission Hills - Summary

• Option 2
  – Along Great Seneca Highway to existing travel lanes on Belward Campus Drive to LSC Belward station then back out to Johns Hopkins Drive
  – Eliminates residential displacement
  – Least Forest Conservation easement impacts
  – Most wetland impacts
  – Would decrease Project Cost by approximately $0.5 million
  – CCT travel time: Would increase by 2 minutes
  – Additional right-of-way impacts to 3 homes in Mission Hills
  – SWM Regional Pond impacts
Mission Hills - Summary

• Option 3
  – Along Great Seneca Highway then south between the SWM pond and Mission Hills Community
  – Eliminates residential displacement
  – 2nd highest Forest Conservation easement impacts
  – Most stream impacts
  – Would increase Project Cost by approximately $1 million
  – CCT travel time: Would decrease by 0.5 min
  – Additional right-of-way impacts to 6 homes in Mission Hills
  – SWM Regional Pond impacts
Mission Hills - Summary

• Option 4
  – Along Great Seneca Highway then around the SWM pond to the east side of Belward Farm
  – Eliminates residential displacement
  – Largest Forest Conservation easement impacts
  – Would increase Project Cost by approximately $1 million
  – CCT travel time: Would decrease by 1 min
  – Additional right-of-way impacts to 3 homes in Mission Hills
  – SWM Regional Pond impacts
Mission Hills

• Recommended Alternative
  – Option 1: Median of Muddy Branch Road
  – Allows for free right turns at all intersections along Muddy Branch Road
  – Eliminates residential displacement
  – Least environmental impacts