West Catawba Avenue
Phase II

Coffee Chat

Acropolis

May 4, 2015


West Catawba Phase 2
Phase 2
2.35 Miles
Jetton Rd
Bethel Church Rd
West Catawba Av
Statesville Rd
Nantz Rd
Westmoreland Rd
NC 73 Hy
NC 115 Hy
0
0.25
0.5
1
Miles

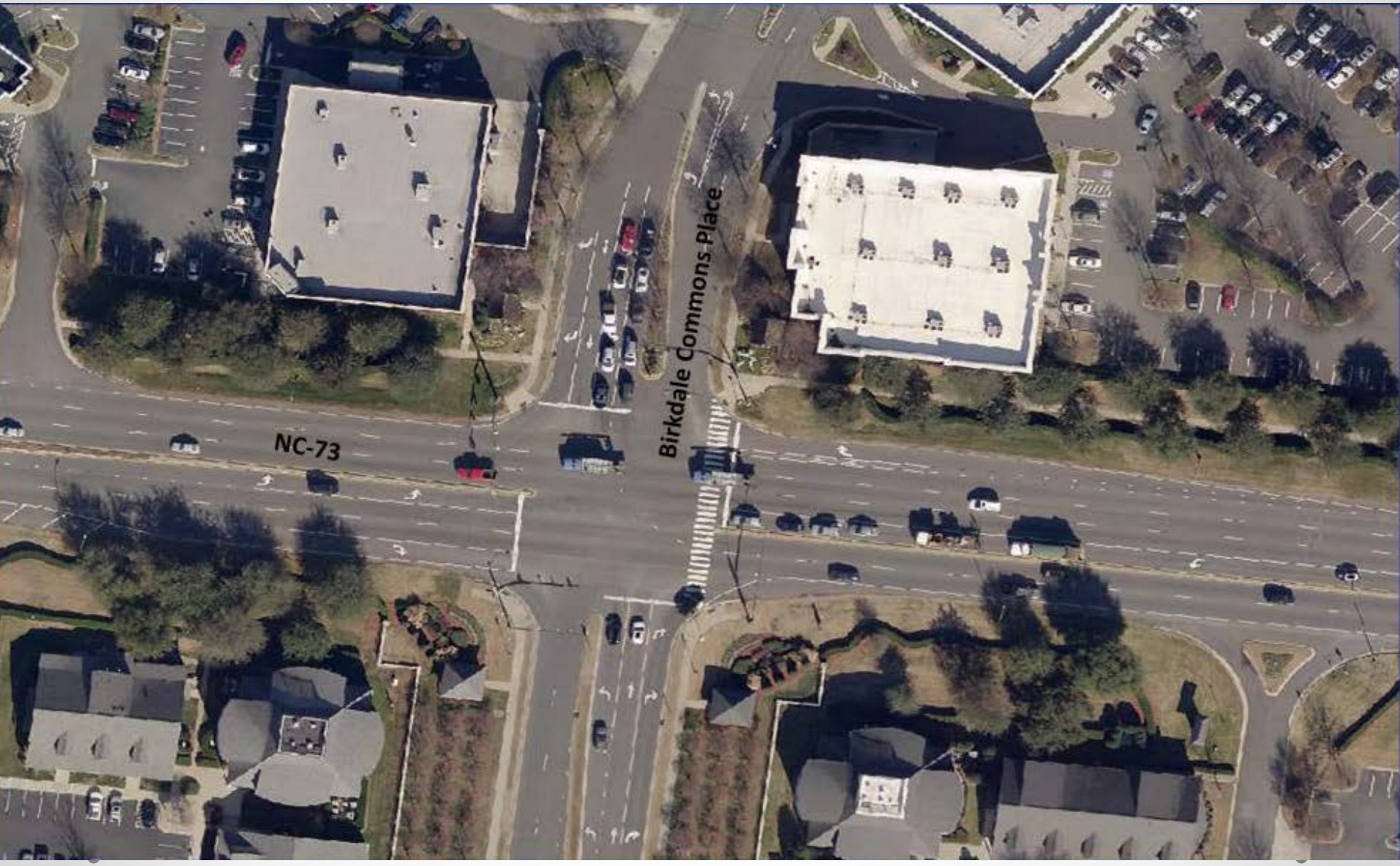
West Catawba Ave, Phase II

- Current and future traffic exceeds the existing two-lane road
  - Widen to a four-lane divided facility with median/left-turn lanes
- NCDOT updating its environmental document for the widening project
  - Several considerations, including improving safety and traffic flow
    - Design alternatives are under review (traffic modeling)
      - Superstreet, Traditional, Hybrid
  - Public input meetings
  - Stakeholder meetings
  - Town Board presentations and discussions
  - NCDOT is seeking feedback from Town Board regarding design alternatives
- Timeframe
  - 2015 – Complete Environmental Document
  - 2020 – Right of Way Acquisition/Utilities (Draft TIP)
  - 2022 – Construction (Draft TIP)

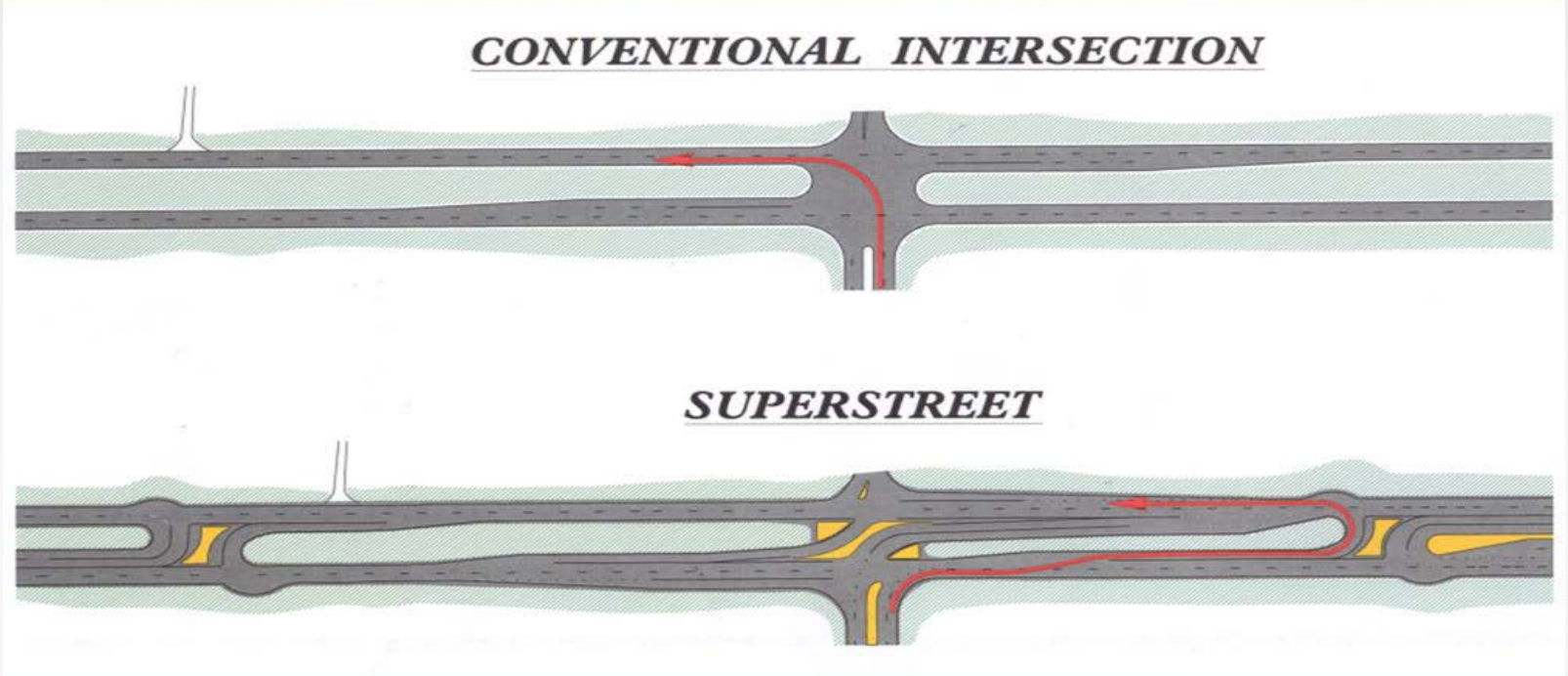
What is a Superstreet?

(Primarily alters an intersection to gain travel time improvement along the main road.)

Traditional Intersection



Superstreet Concept



FHWA uses the term RCUT
Some states use the term "J-Turn", or "Synchronized Street"

7

- Safety Improvements (reduces the number of conflicts, including left turns).
- Although it takes a (practically) equal amount of time to make the left-turn movement for both traditional and superstreet designs, the main road travel times improve, due to doubling the green time along the main road and cutting the intersection cycle length in half.

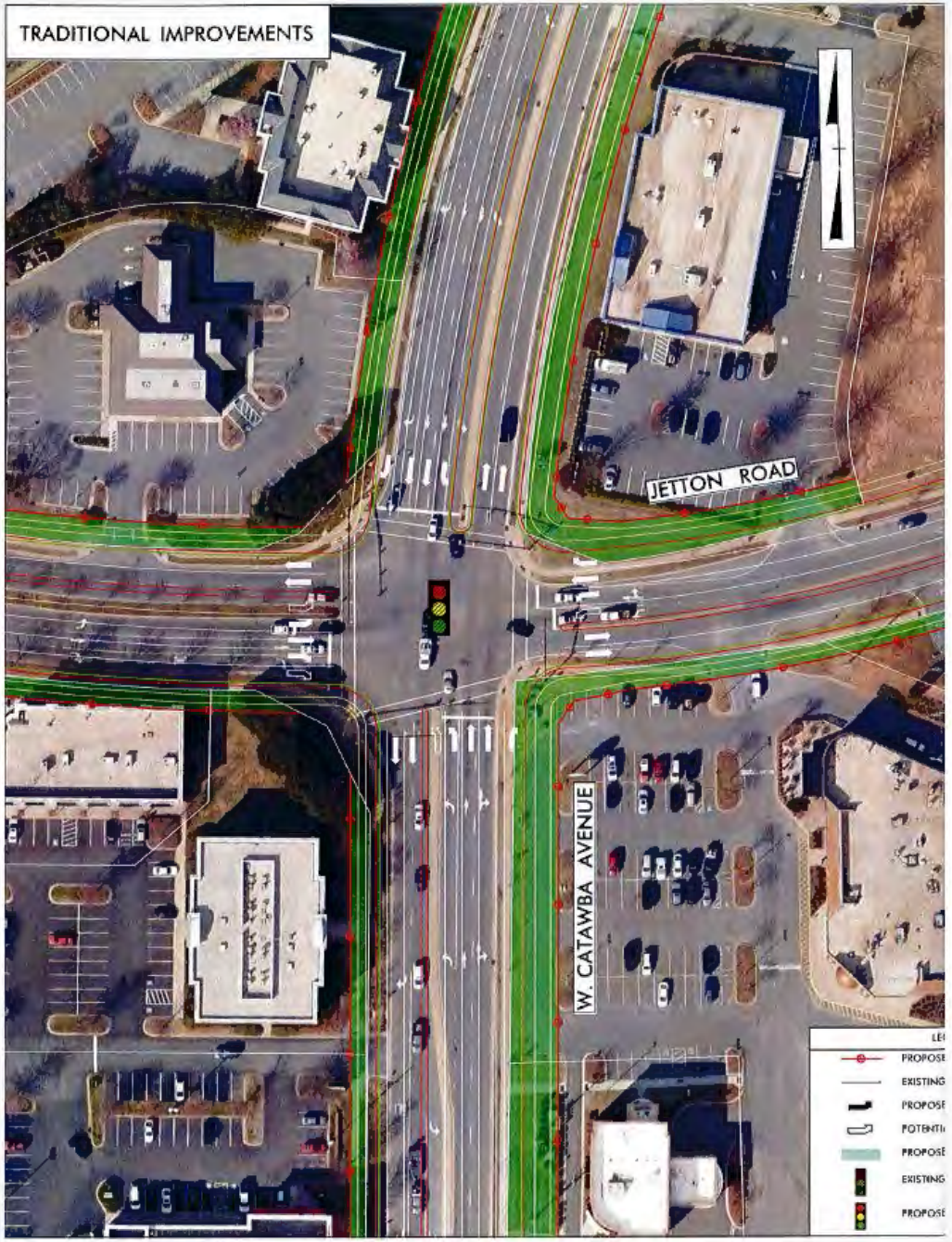
Preferred Alternative Cross-Section

- Sidewalk/multi-use zone: 5’ west side, 10’ east side
- Green zone (planting strips): 6’ each side
- Curb & gutter: 2.5’ each side
- Bicycle zone (bike lanes): 5’ each side
- Vehicle zone: Four 11’ lanes
- Access zone/median: 23’
- Shoulders: 5+’ each side

TOTAL: 119’

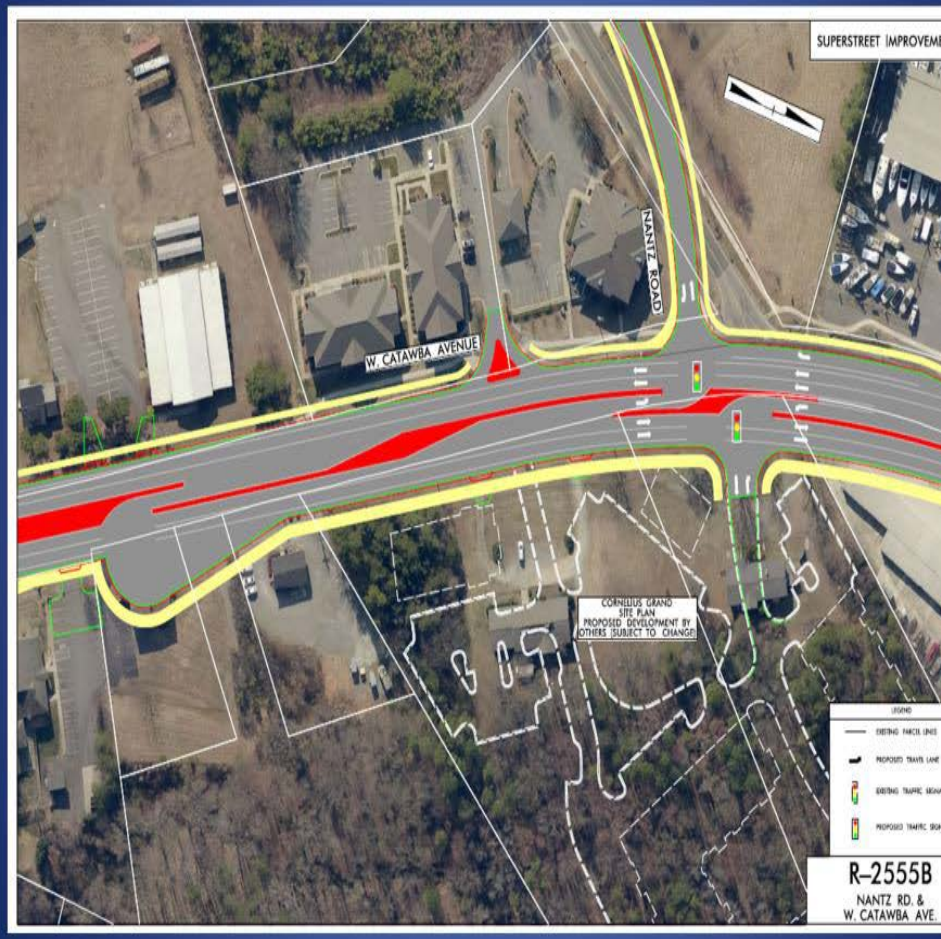
5

- This is an image of the preferred alternative cross-section on W. Catawba for the superstreet. This is what you will have in both a traditional design and a superstreet design.
- There will be a median in both; motorists will be able to make left turns onto Nantz Road, and Westmoreland Road from W. Catawba in both designs.

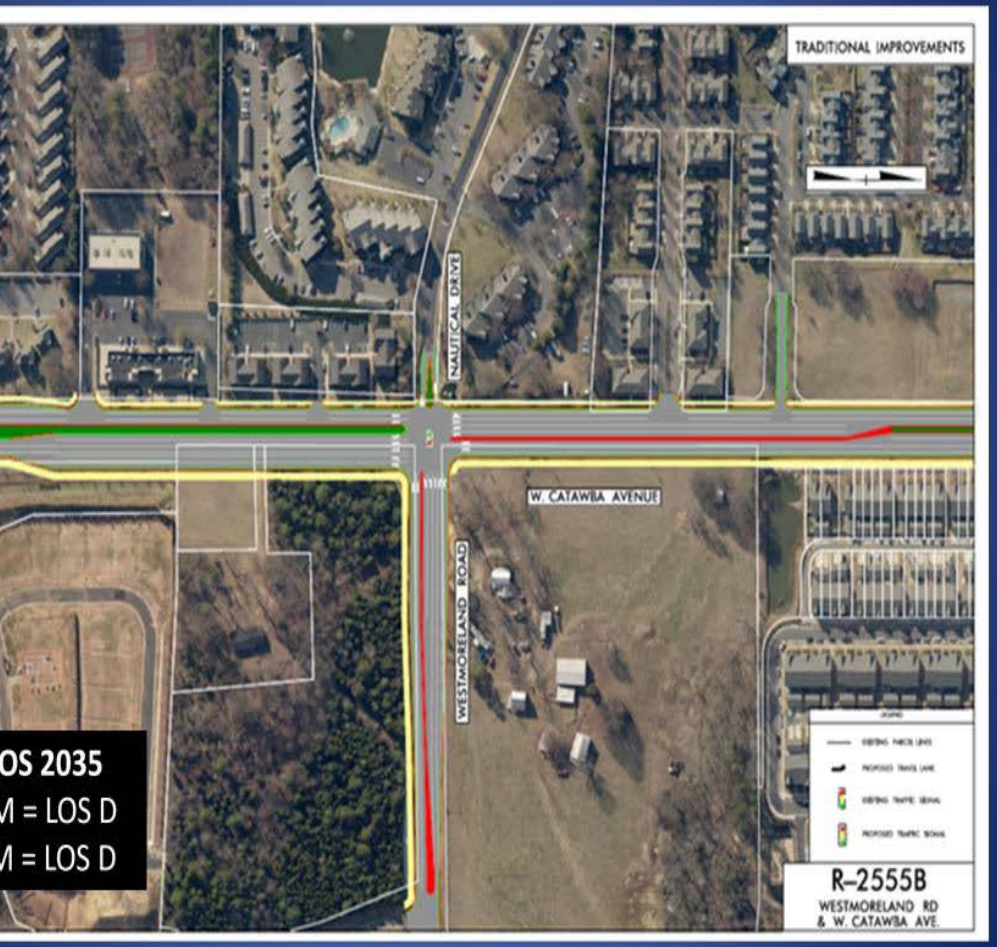

TRADITIONAL IMPROVEMENTS
JETTON ROAD
W. CATAWBA AVENUE
PROPOSE
EXISTING
PROPOSE
POTENTI
PROPOSE
EXISTING
PROPOSE

minary Design Concept: Nantz Road

Preliminary Design Concept: Nantz Road



ary Design Concept: Westmoreland Road

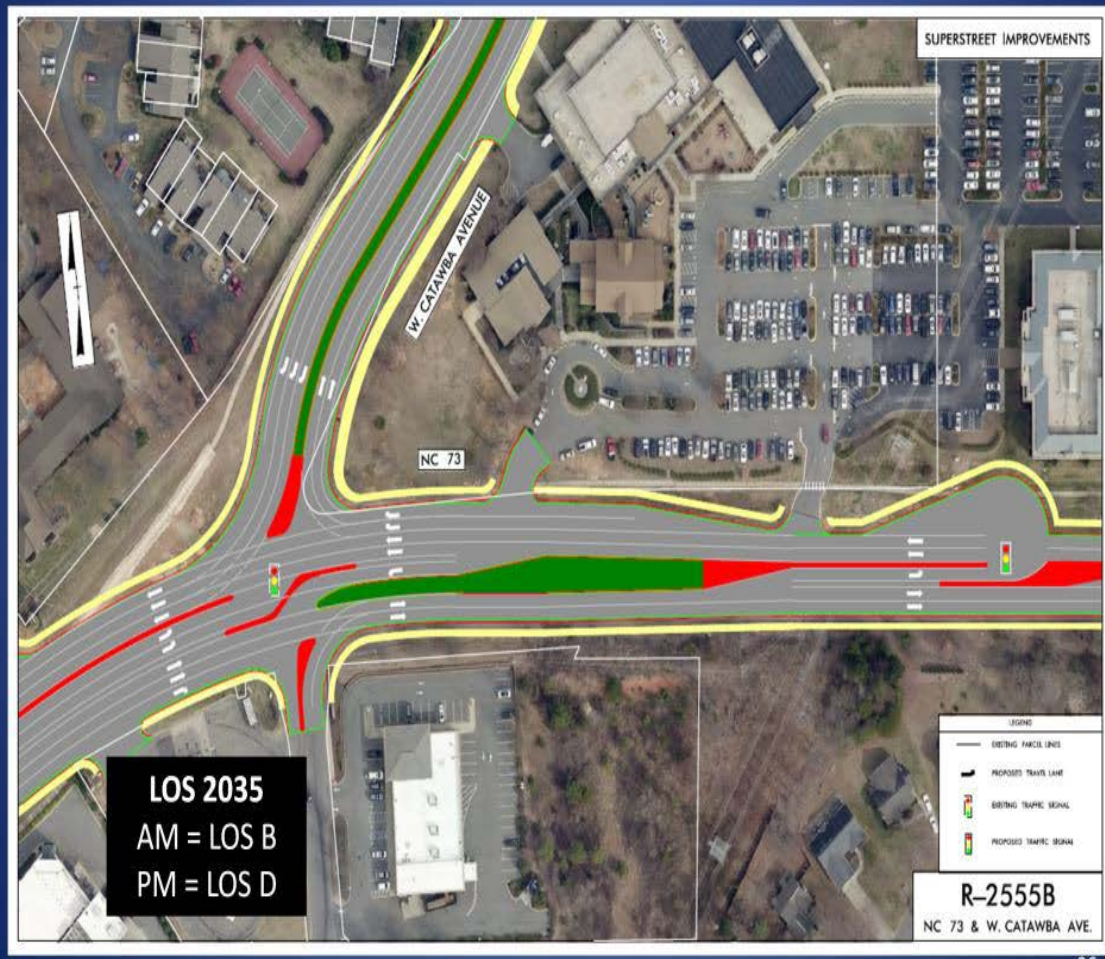


OS 2035
M = LOS D
M = LOS D

gn Concept: Westmoreland Road

ary Design Concept: NC 73

Preliminary Design Concept: NC 73



Can Superstreets Handle Large Trailers?

Also….

Boats

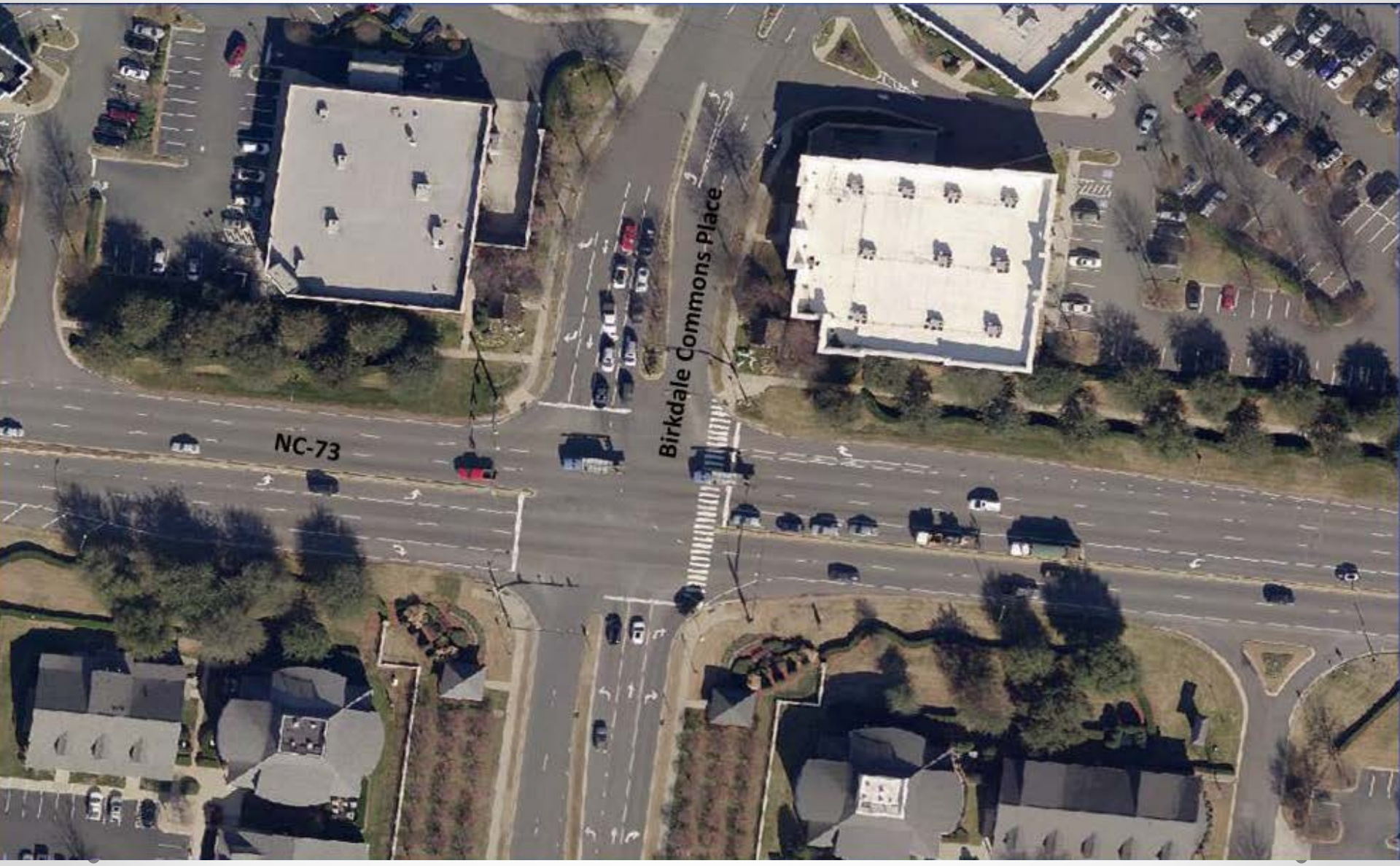
Landscaping trailers

School buses

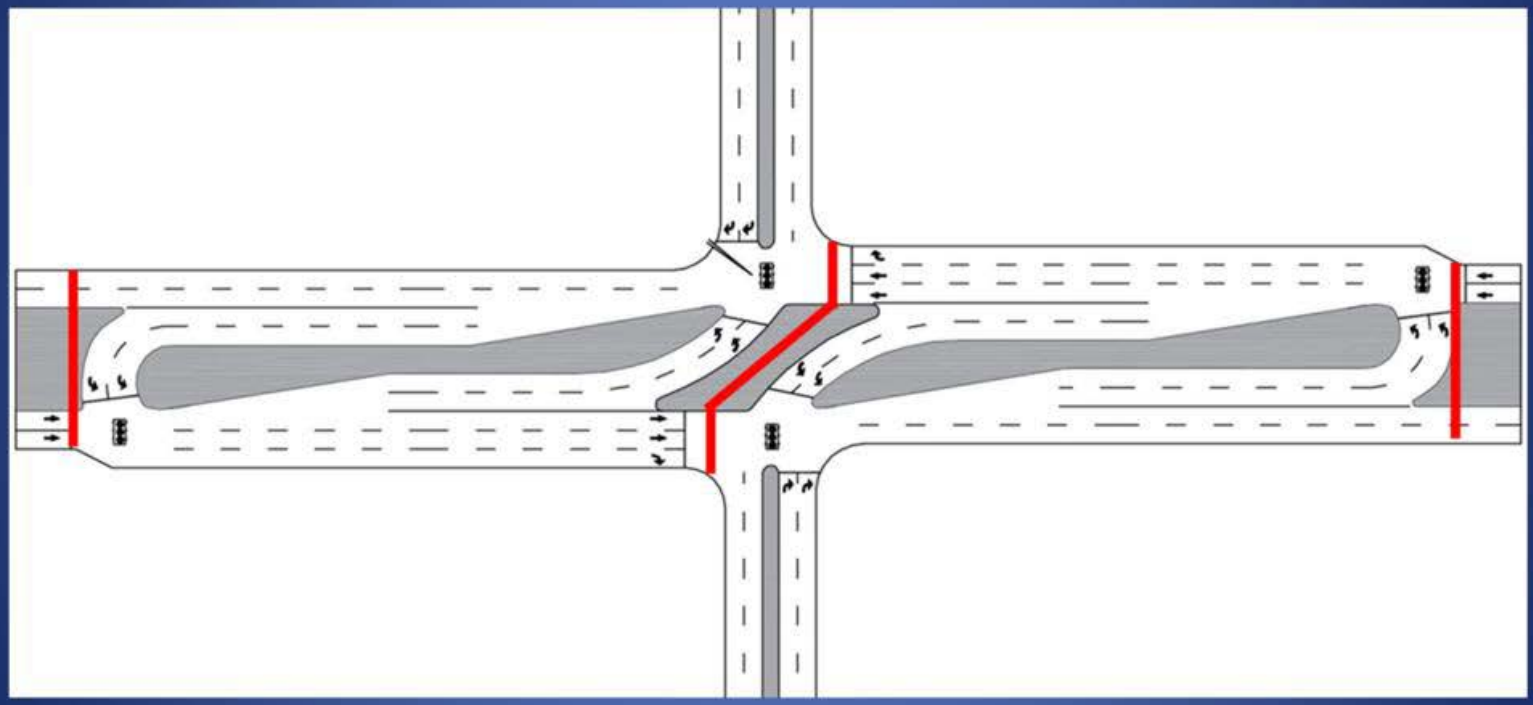
Car carriers

Pedestrian and Bicycle Crossing

Traditional Intersection



How do pedestrians and bicyclists cross the street?



Traffic Simulation

(2035 Superstreet @ Westmoreland Rd. – Afternoon Peak)

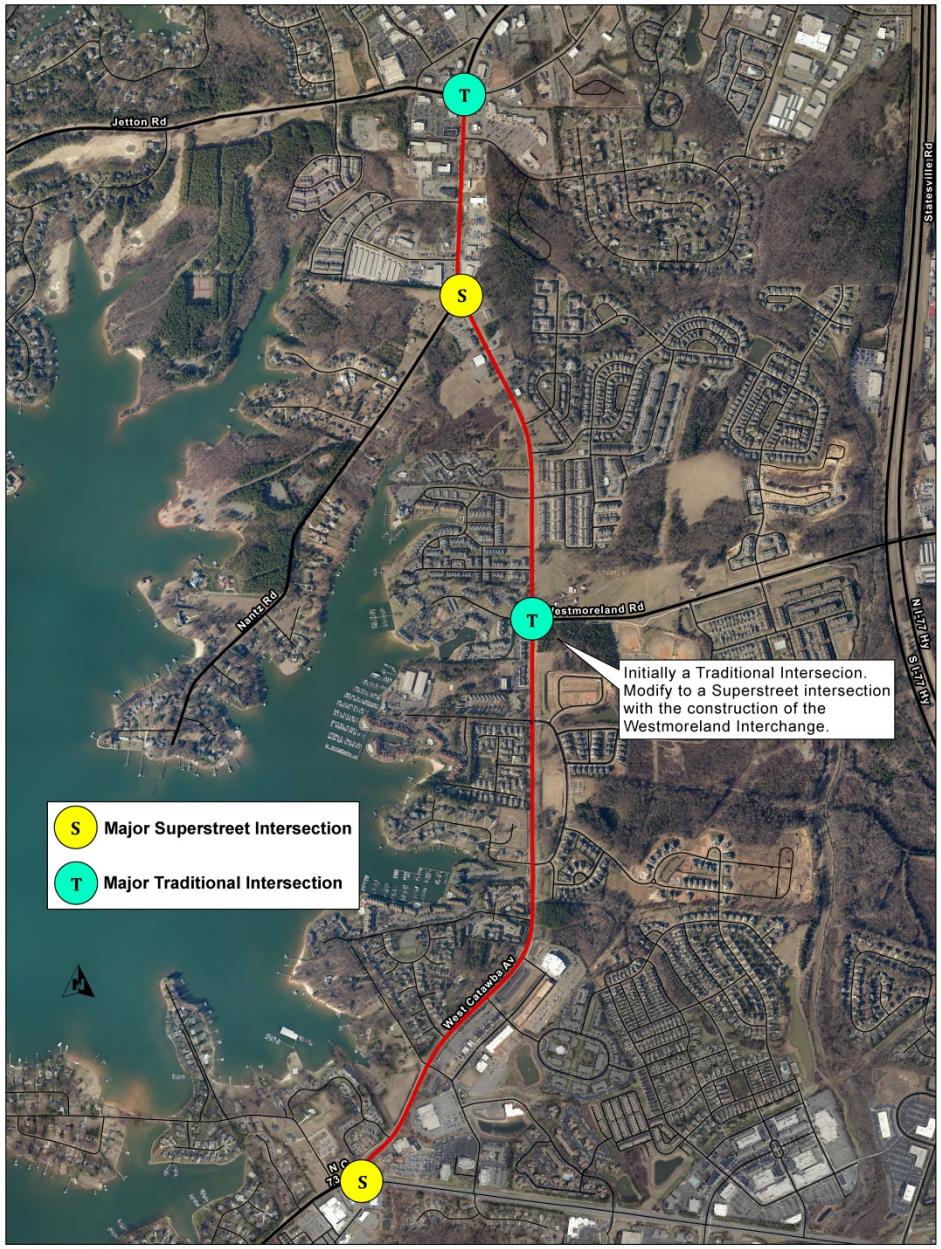
Traditional Design

- 2035 Traffic Data
  - Includes Westmoreland Interchange traffic
- 2035 Corridor Travel Time
  - If all 4 intersections are traditional: **11.5 minutes**
  - If Hwy. 73 intersection is a superstreet, and other 3 are traditional: **Estimated 9 – 10 minutes**

Superstreet Design

- 2035 Traffic Data
  - Includes Westmoreland Interchange traffic
- 2035 Corridor Travel Time
  - Jetton is traditional and other three are superstreet: **4 minutes**

Hybrid Design



- 2035 Traffic Data
  - Includes Westmoreland Interchange traffic
- 2035 Corridor Travel Time
  - If Jetton and Westmoreland remain traditional, and Nantz and Hwy. 73 are superstreet: **7.5 minutes**
  - However, once Westmoreland converts to a superstreet: **4 minutes**

Next Steps

- NCDOT requesting Town Board feedback/preference on design alternatives
  - Preference does not necessarily equal outcome

- NCDOT to complete Environmental Document
  - Public Input Meeting @ Cornelius Town Hall (possibly summer)
    - display one design alternative

Questions?