

PHASE 1 - LAND USE PLAN UPDATE* IMPLEMENTATION

TRANSIT ORIENTED DEVELOPMENT (TOD) DISTRICT AND ZONING PLAN
LAND USE PLAN WAS ADOPTED FEBRUARY 2021

MARCH 28, 2023 | TOWN COUNCIL WORKSHOP

Agenda

- Project Update
- Study Area Considerations
- Site Plan Development
- Design Principles
- Feedback – Developer Listening Sessions
- Next Steps

PROJECT UPDATE



Planning Process

Phase 1 - Design Typology and Redevelopment Plan

Step 1: Project Kick-off and Up-Front Public Engagement

Step 2: Design Typology Toolkit

Step 3: TOD Redevelopment Plan & Visualizations

Step 4: TOD Regulatory Strategies Framework and Full UDO Update Preliminary Recommendations

Phase 2 – TOD Zoning District Standards

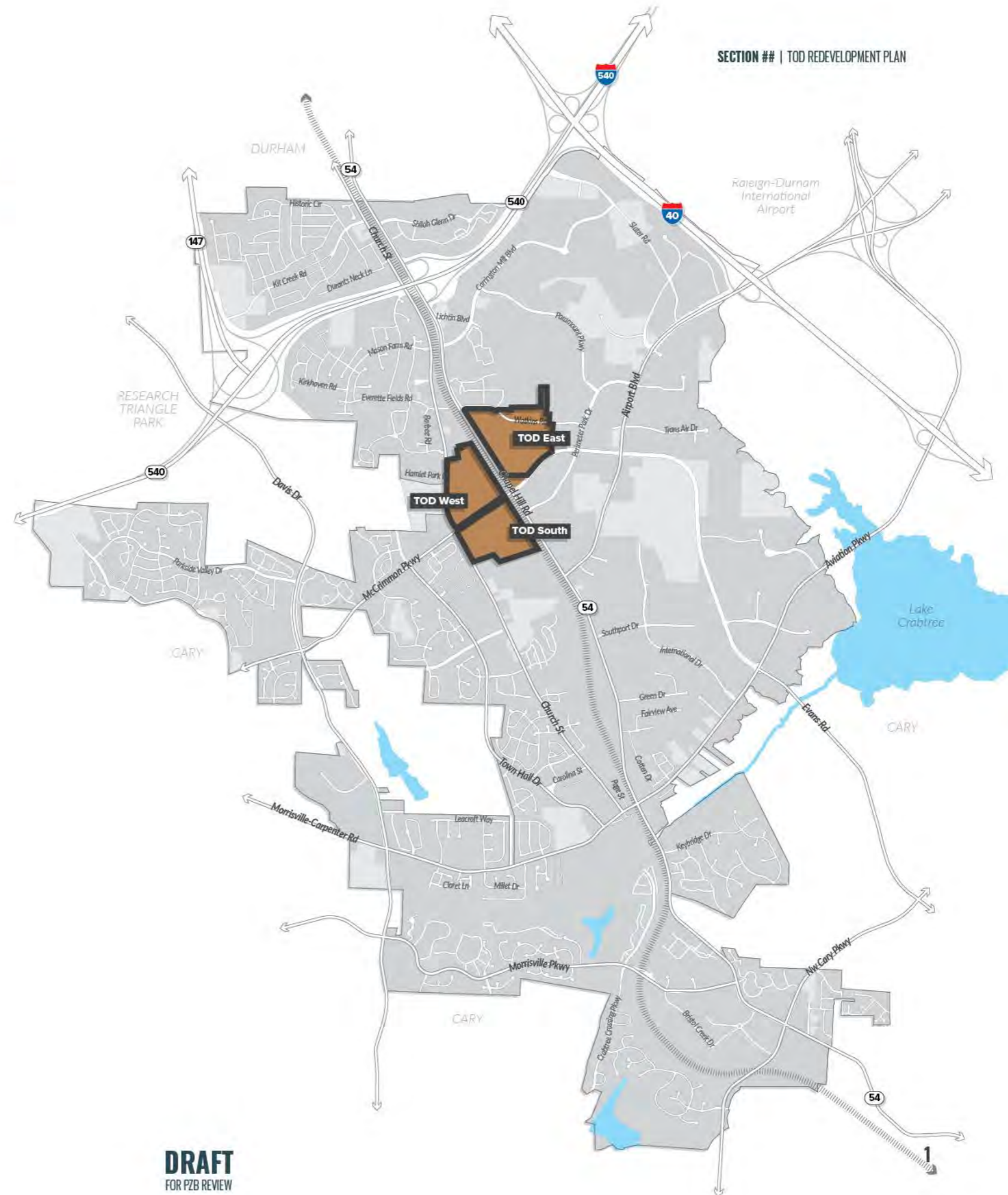
Step 5: Draft TOD Zoning District Standards

Step 6: TOD Zoning District Adoption

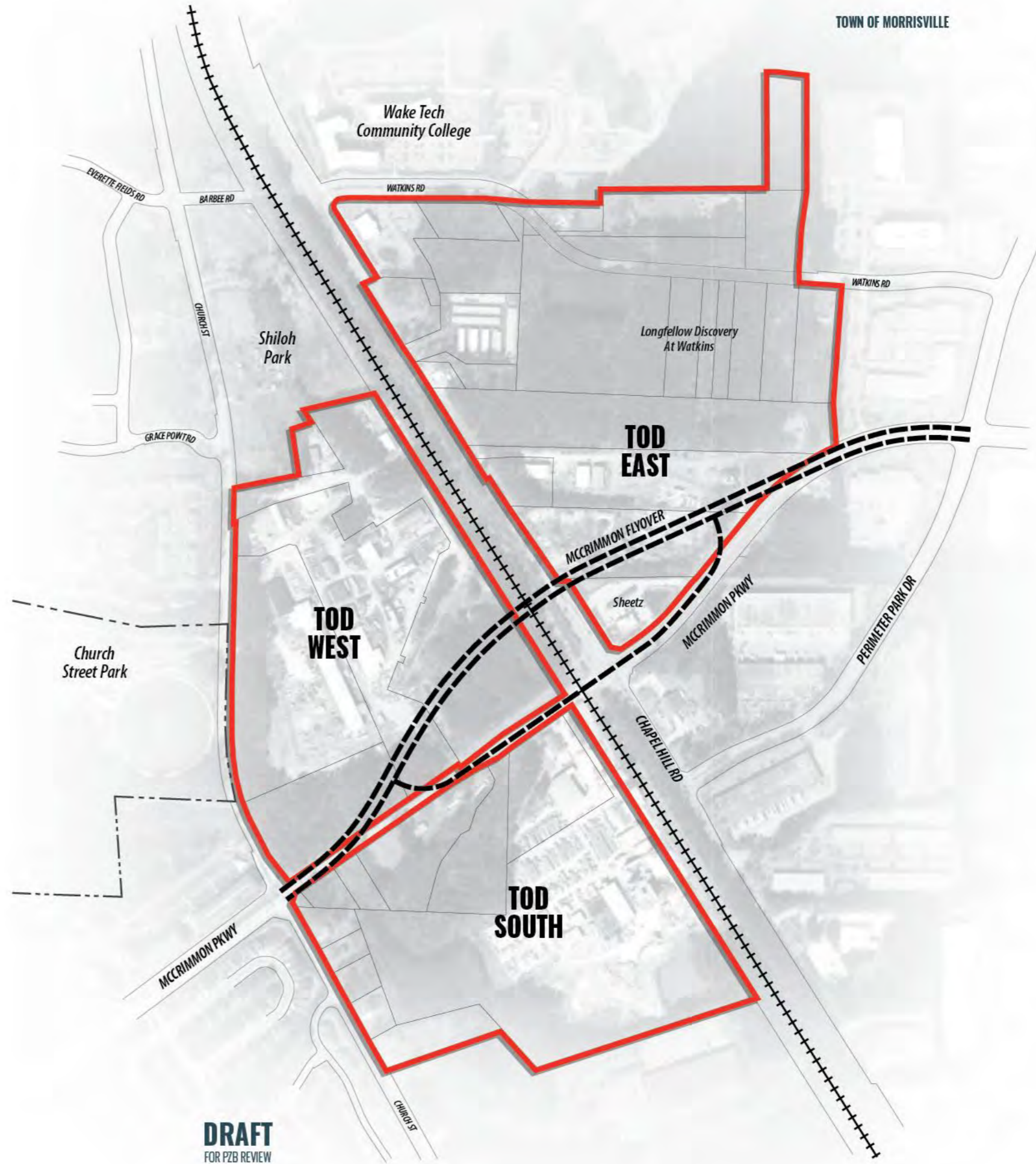
STUDY AREA CONSIDERATIONS



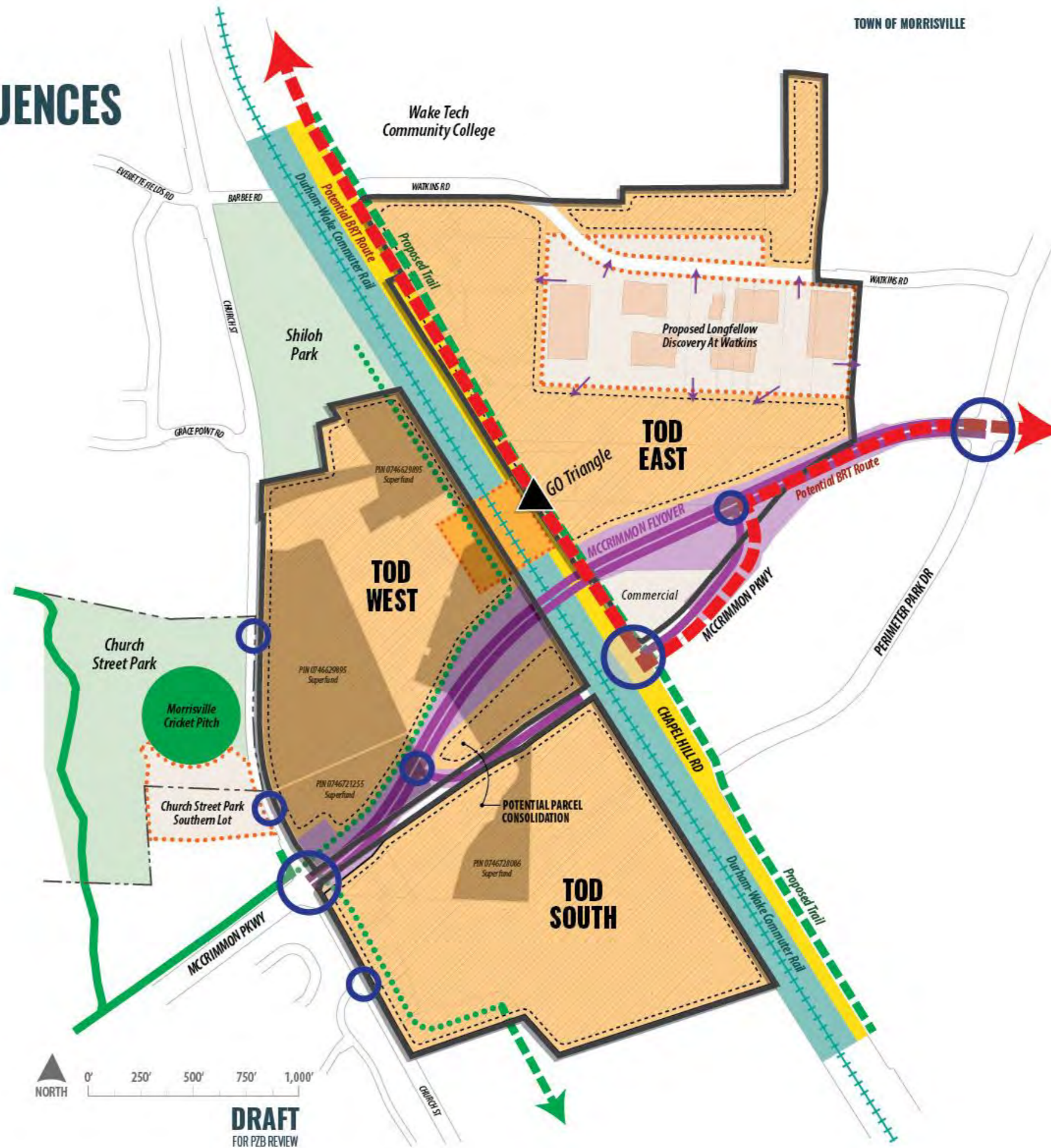
TOD AREAS



CONTEXT: STUDY AREA



CONTEXT: PLANNING INFLUENCES

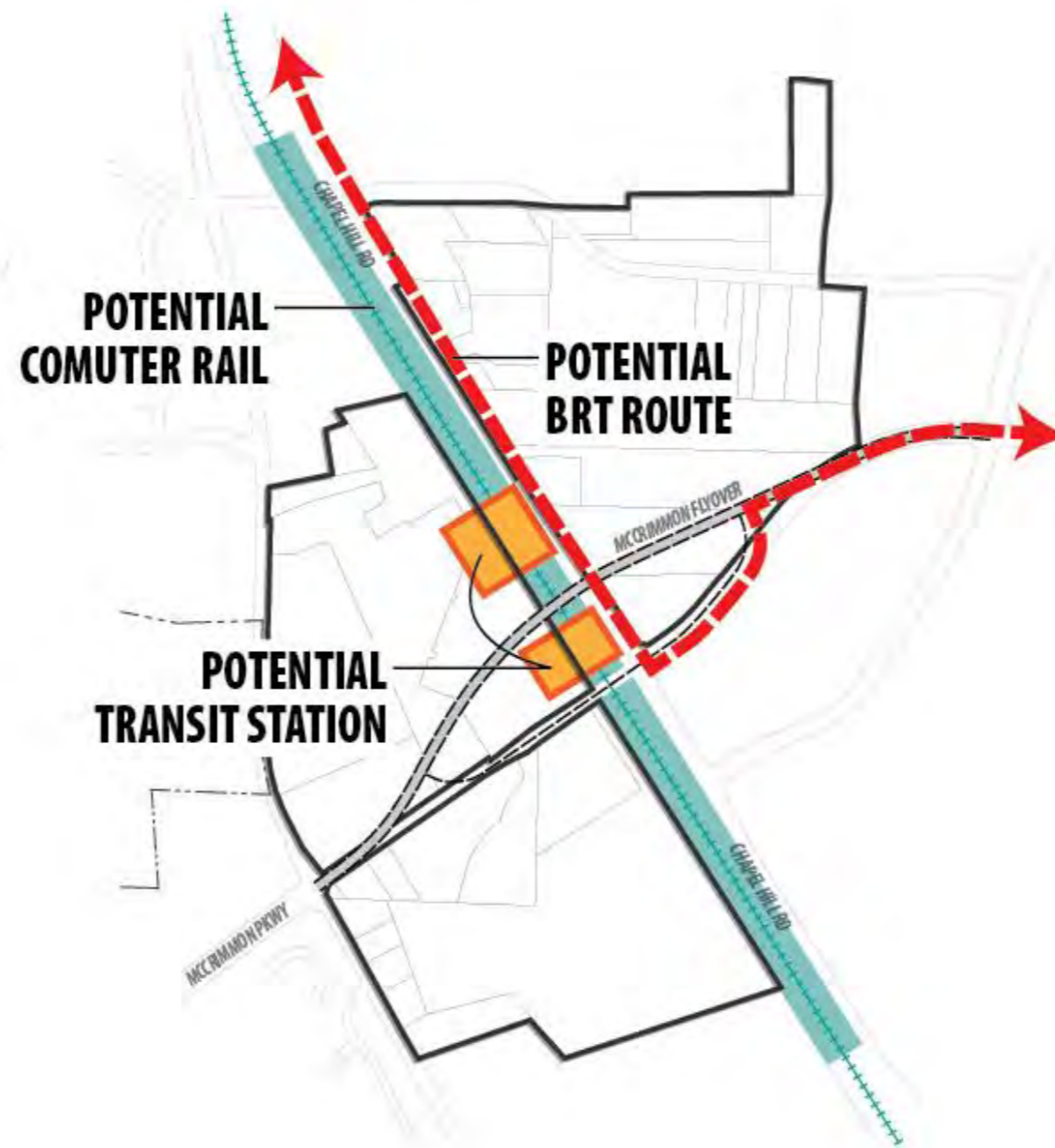


CONTEXT: REDEVELOPMENT CONSIDERATIONS

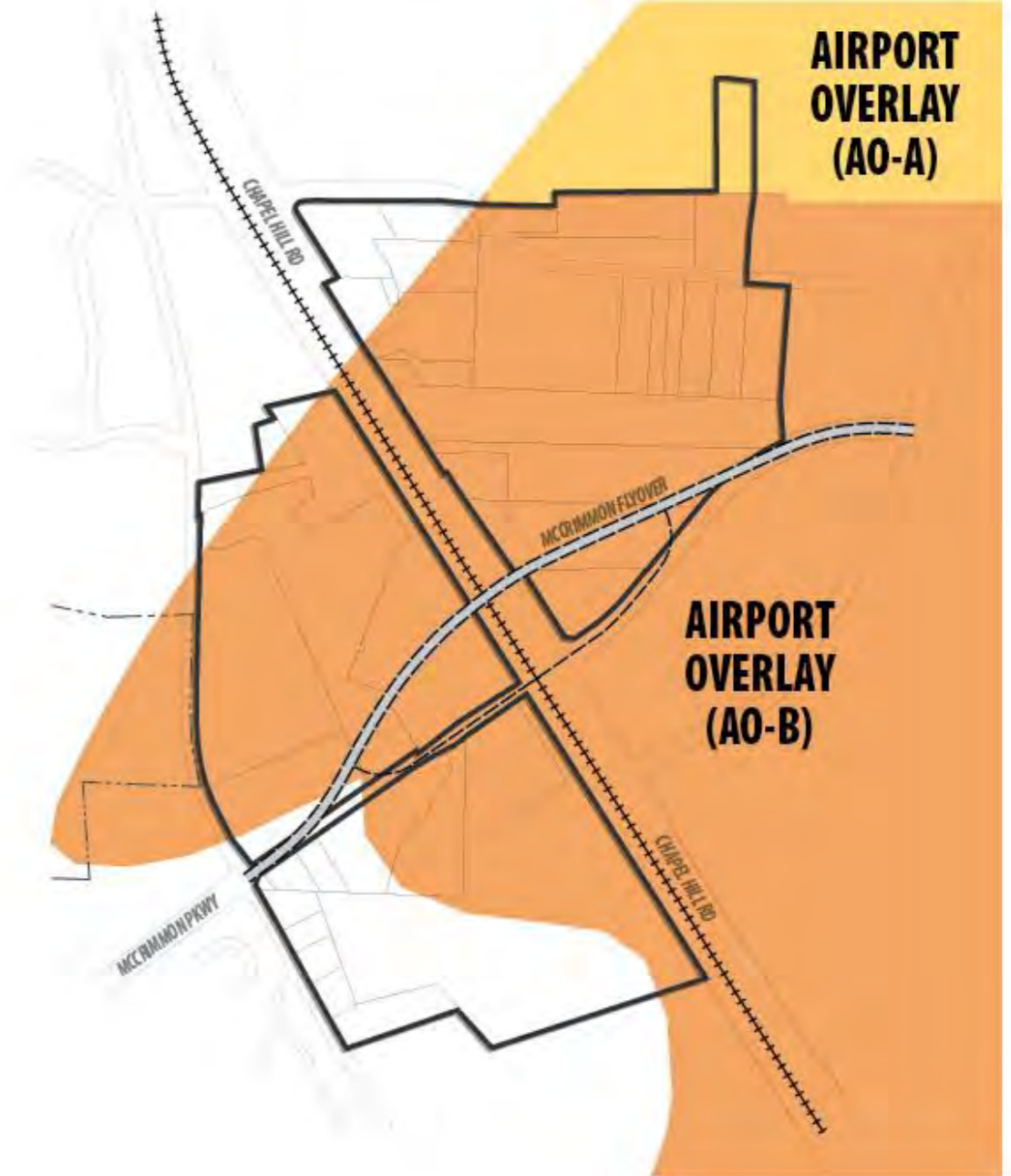
PROPERTY OWNERSHIP



BRT ROUTE COMMUTER RAIL

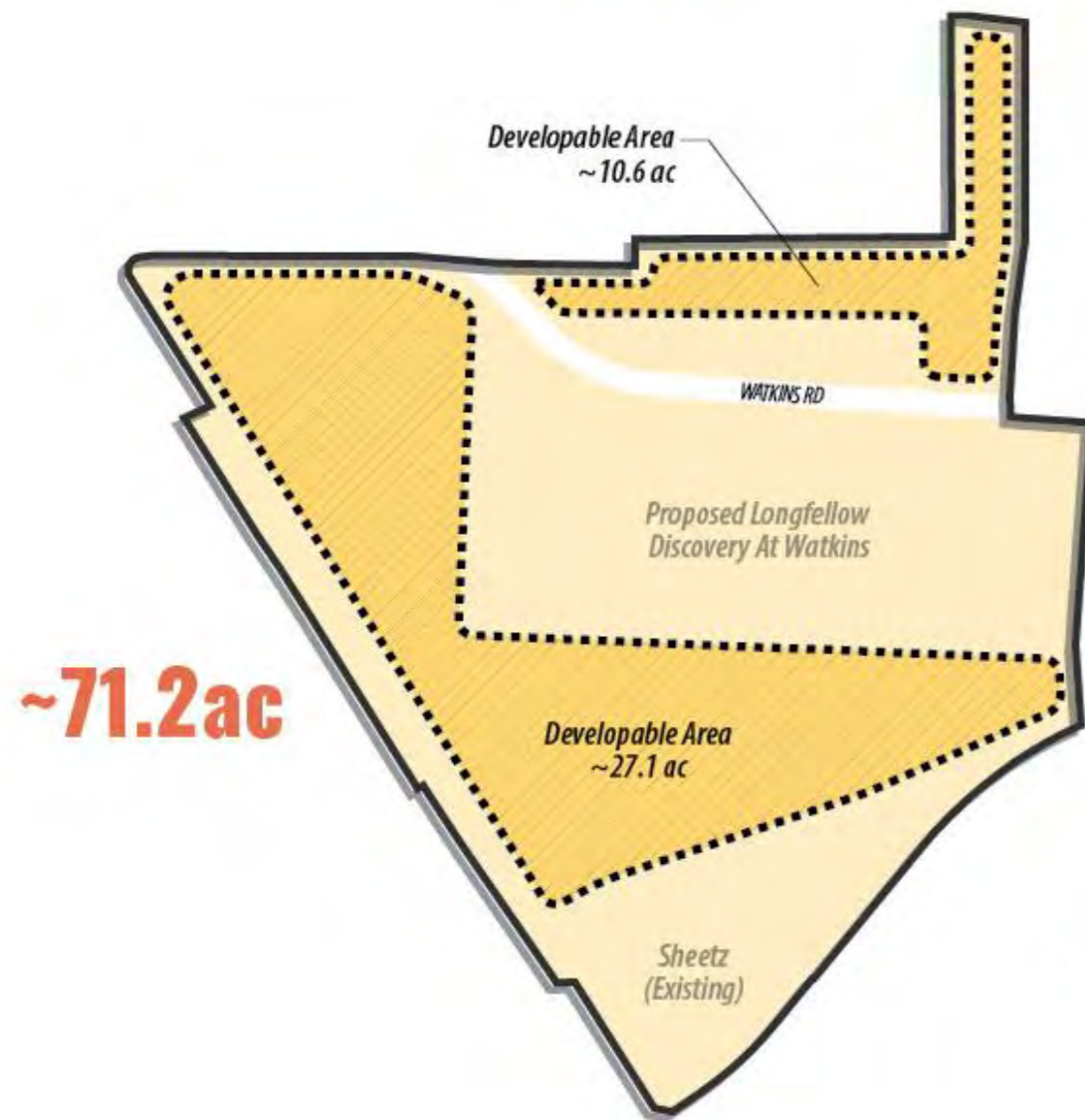


AIRPORT OVERLAY

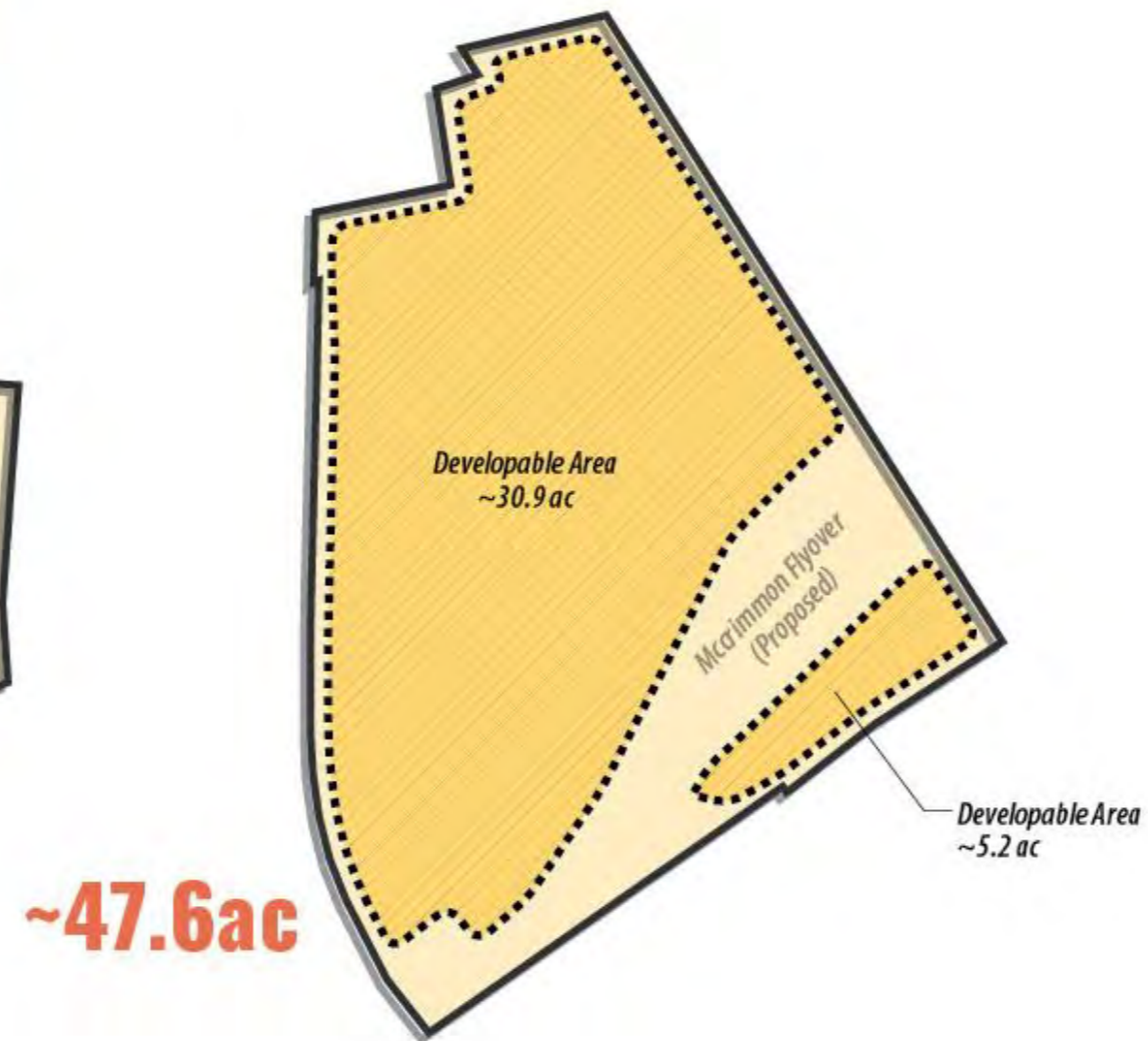


CONTEXT: REDEVELOPMENT OPPORTUNITY AREAS

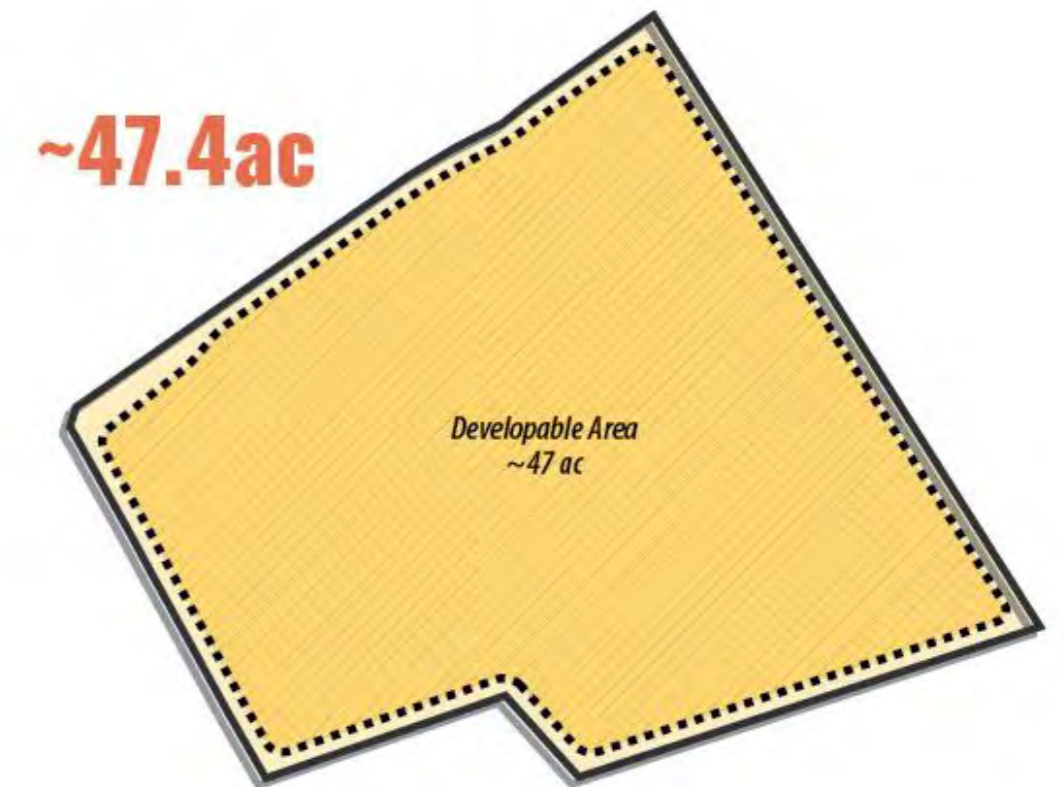
TOD EAST



TOD WEST



TOD SOUTH



SITE PLAN DEVELOPMENT



Places Identified by PZB and Town Council

- Grace Park, Morrisville
- Park West Village, Morrisville
- ParkSide - Hwy. 55
- Suwanee, Georgia
- Spark and Stitch Rendering (modernistic design elements)
- Jeremiah Street, Morrisville
- Centregreen Plaza, Cary
- Midtown Park, Raleigh
- Candour House Apts (Page and Slater Road)
- Brightleaf District in Durham
- Downtown Cary
- Moore Square, Downtown Raleigh
- Meadowmont in Chapel Hill
- Southern Village in Chapel Hill
- Birkdale Village in Huntersville NC
- Breckenridge
- Lake shore east, Chicago, IL
- Sherman plaza, Davis St., Evanston, IL
- Abocoa, jasper, FL
- Amli, Chicago, IL
- West Harrison, NY – Lake St.
- North Hills
- Arlington, VA – Glebe Road and 7th
- Singapore – Orchard Road (sorry outside U.S.)

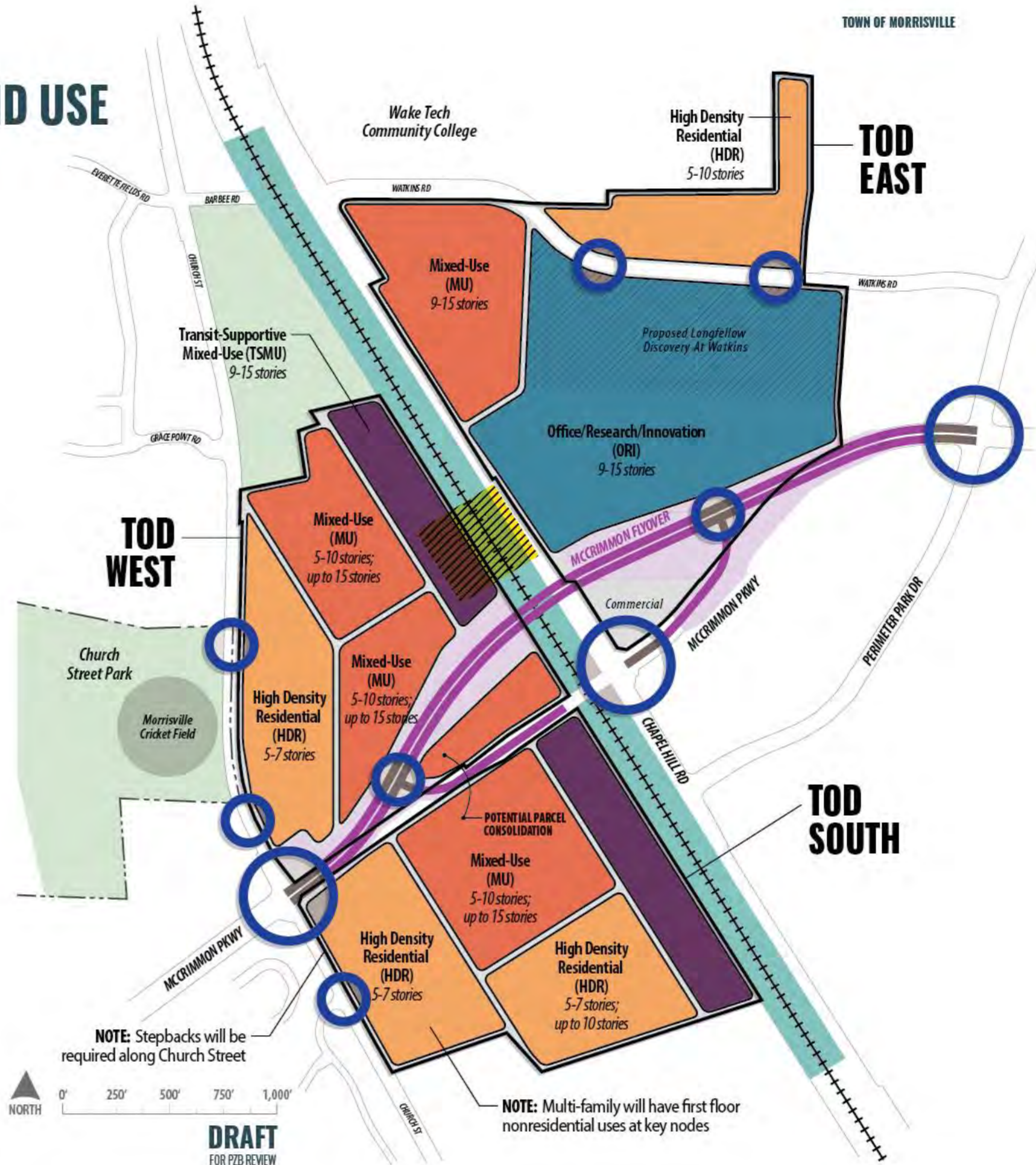
PREFERRED LAND USE



TPOLOGY: PREFERRED LAND USE

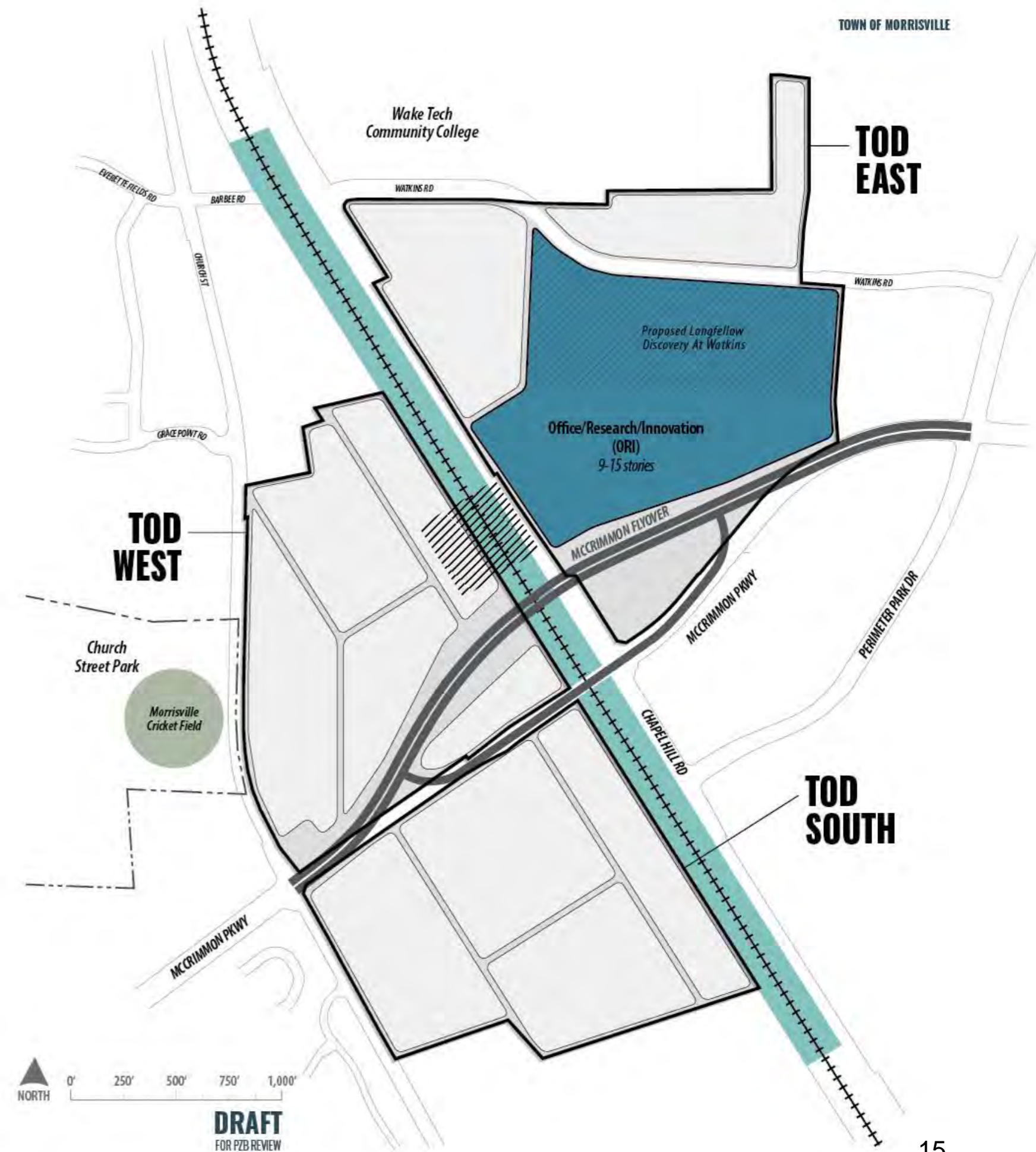
Preferred Land Use

- Office/Research/Innovation (ORI)
- High Density Residential (HDR)
Mixed-Use at key nodes
- Mixed-Use (MU)
- Transit-Supportive Mixed-Use (TSMU)
- Key Intersections



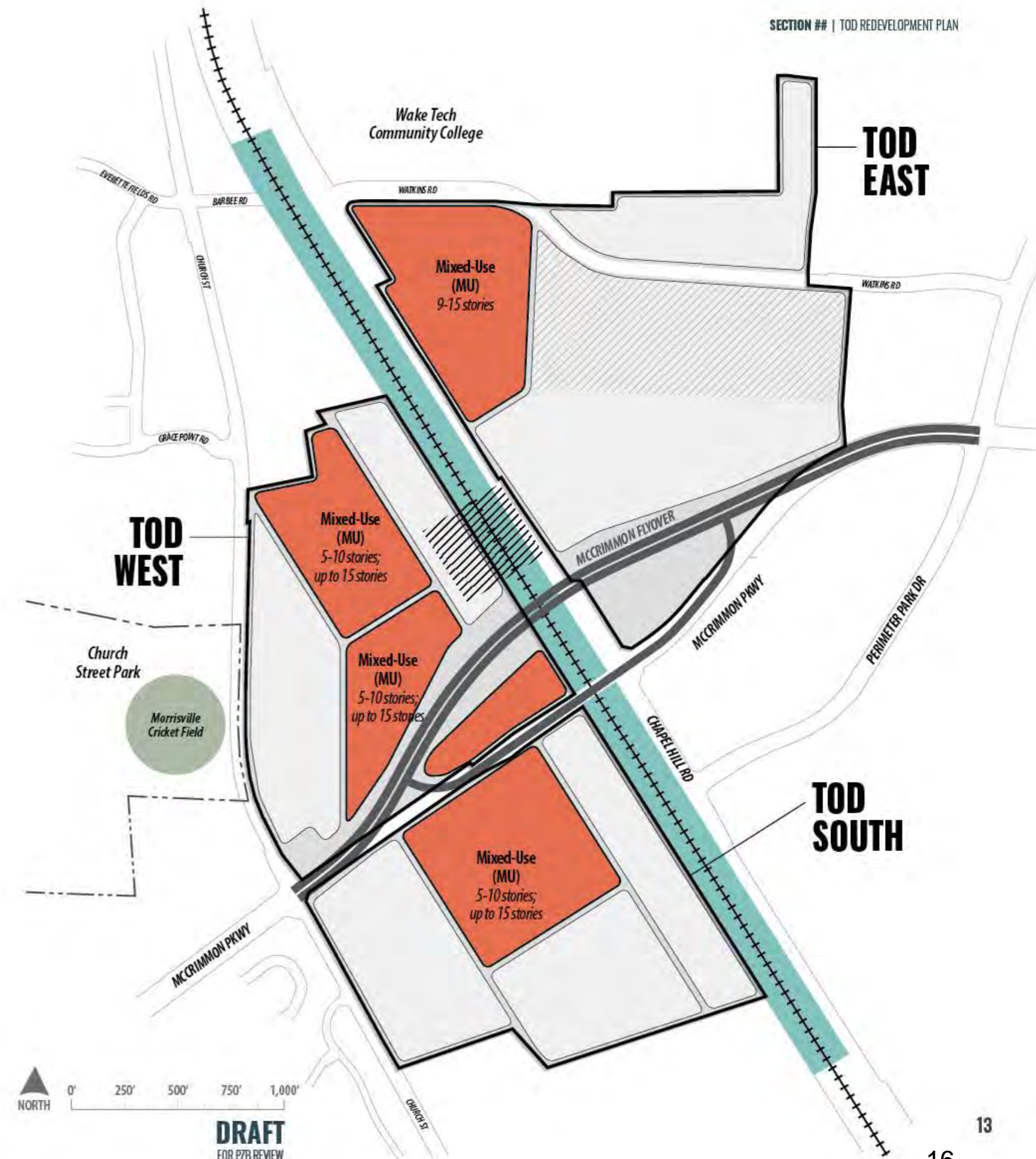
Office/Research/Innovation

- Office, Research, and Innovation includes a broad spectrum of local and regional employment centers in high quality and desirable environments.
- Office, Research, and Innovation uses should support local employment opportunities within Morrisville and be well connected to the multimodal network to provide residents access to community services.
- Concentrations of Office, Research, and Innovation uses should incorporate a campus-style site design, with internal pedestrian pathways, ample landscaping, and clear signage of businesses at the entrance.
- *Note – Office, Research, and Innovation areas should incorporate commercial and service uses at key intersections/nodes.*



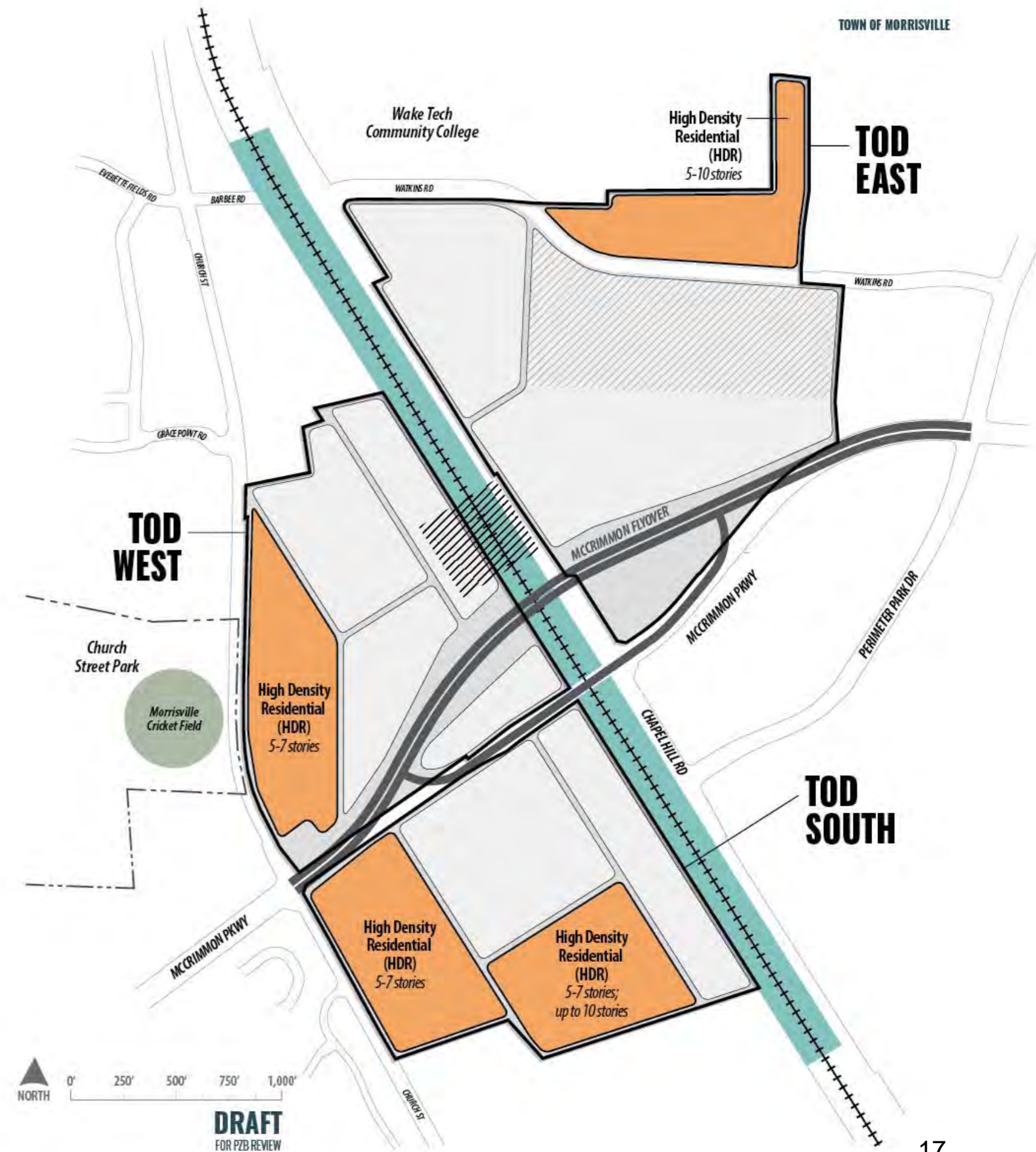
Mixed Use

- Mixed-Use buildings are stacked vertically, with retail, restaurant, service, or office space on the ground floor and office or residential uses on the upper floors.
- Higher density residential uses should be integrated into the upper floors of Mixed-Use buildings to increase living options.
- Mixed-Use areas should integrate public gathering spaces that support social interaction and community events.
- Streetscapes in the Mixed-Use areas should be activated with ground-floor commercial businesses and upper-story office uses.



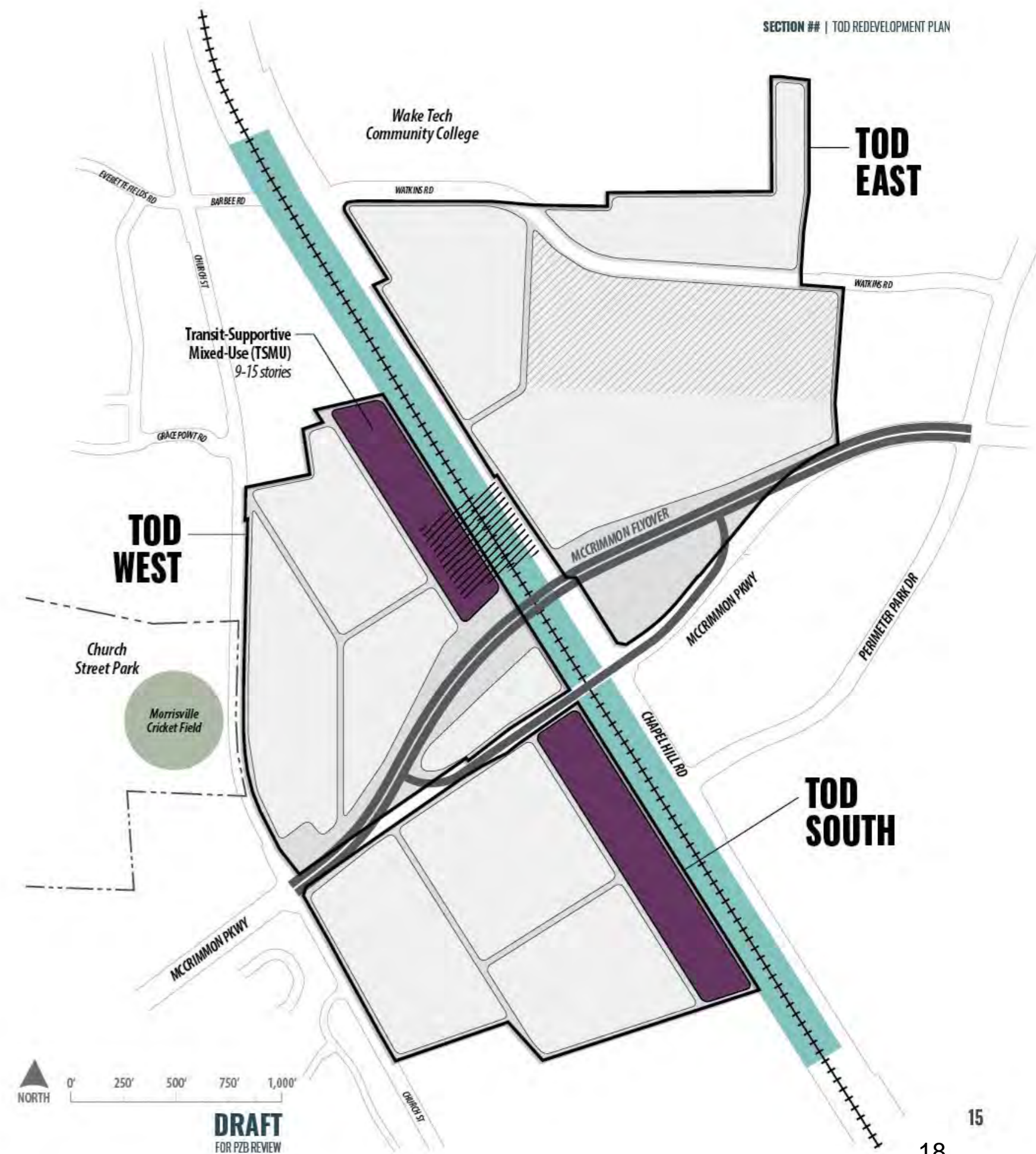
High Density Residential

- High Density Residential is intended to provide higher residential density than any other area in the Town.
- High Density Residential is intended to provide a variety of housing options that are critical in serving Morrisville's expanding workforce.
- High Density Residential areas should incorporate pocket and neighborhood-scale parks, public gathering spaces, community gardens, and trails.
- *Note – High Density Residential areas should incorporate commercial and service uses at key intersections/nodes.*



Transit-Supportive Mixed-Use

- Transit-Supportive Mixed-Use areas include compact residential areas featuring a variety of higher intensity housing.
- Housing types feature shared building entrances, stairways, hallways, and amenities, with taller building heights and stacked units.
- This preferred land use should provide greater housing variety and density near potential transit areas to allow more residents to live close to amenities.
- This land use should be located along existing and future bus routes and transit hubs to sustainably reduce reliance on vehicles.
- Walkability and bikability should be promoted with well-connected sidewalks, trails, and bicycle routes, and parking lots located to the rear.



PZB Discussion

- Generally supportive of
 - proposed uses
 - identified location of uses



TC Discussion

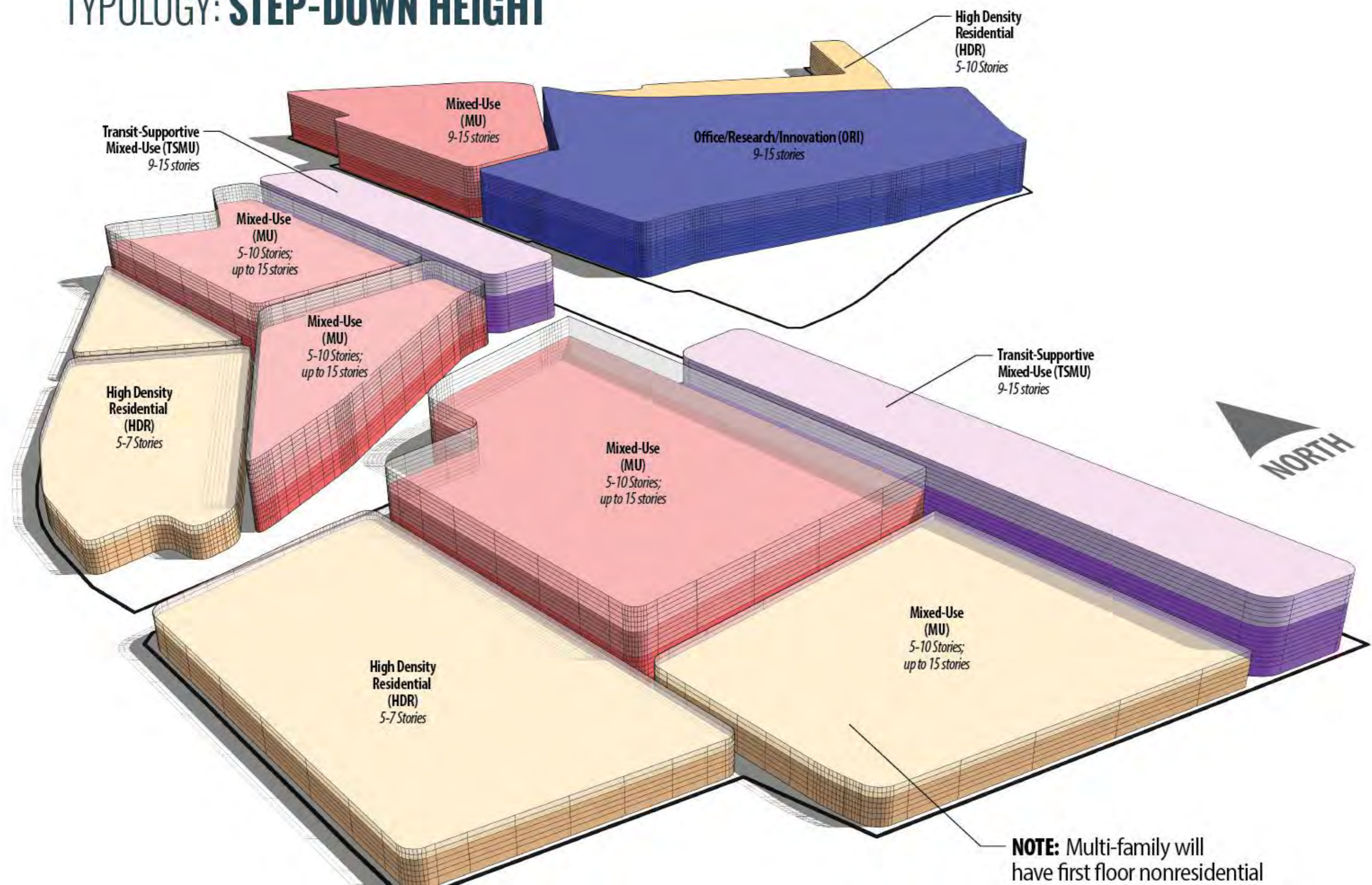
- Does Town Council prefer these land uses?
- Does Town Council agree with the general location of each land use?
- Does Town Council have in mind a specific use which may not be proposed?



BUILDING HEIGHT



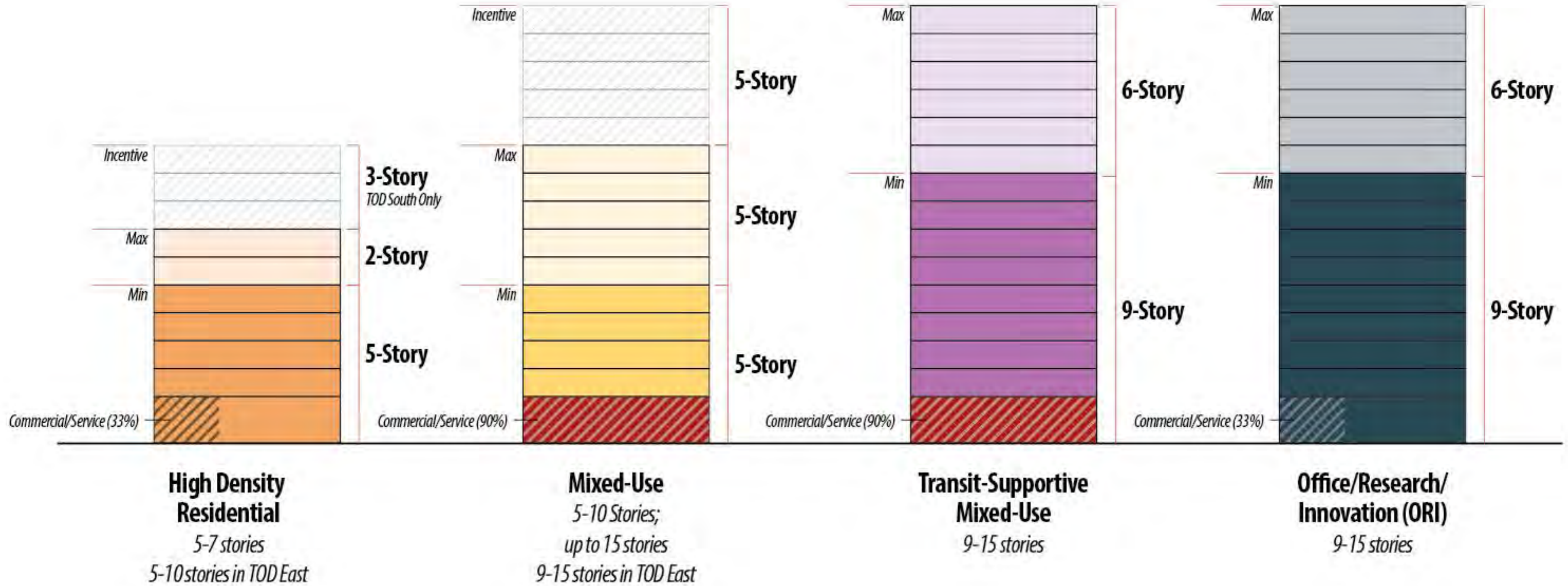
TPOLOGY: STEP-DOWN HEIGHT



NOTE: Multi-family will have first floor nonresidential

TYOLOGY: BUILDINGS

Note: If Town Council supports an incentive-based height allowance approach the details of the incentive(s), such as the provision of affordable housing and/or the use of sustainable design methods, will be further discussed as the text of the code is developed.



Raleigh-Durham International Airport

- RDU enforces a height zoning ordinance.
 - Height permit is generally not required for structures less than 75', but this is dependent on how close to the airport a development site is located.
 - The closest section of the TOD is ~12,350' from the end of the runway and is located within the Precision Instrument Runway Approach Zone, which extends 50,000' from the edge of the runway. This instrument approach allows aircraft to approach a runway at night or in poor weather.
- Both FAA and RDU review and permit buildings that are proposed within the limits of RDU's height zoning authority. FAA analysis occur first, then RDU conducts their own analysis.
- Review and permitting process covers height, lighting, or other items which may serve as a nuisance to safe flights.

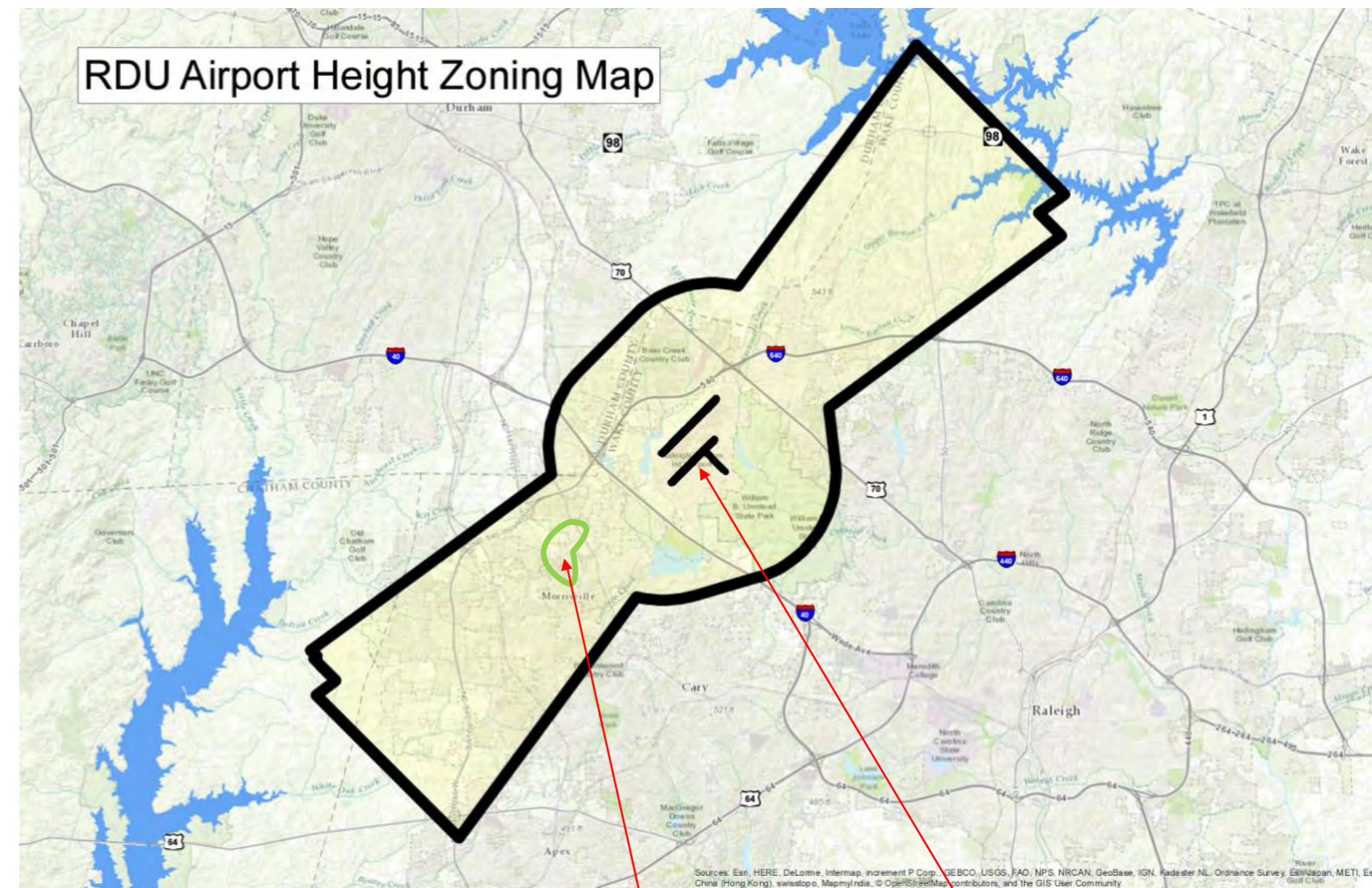
Raleigh-Durham International Airport, cont.

- The TOD is in the center of one of the extended runway centerlines. See the image below.
 - The green circle highlights the extent of the TOD.
 - The red lines show the extended runway centerlines, which are the general areas of overflight concentration and the landing approach paths.
- The extended runway centerline is expected to shift slightly towards the north after runway expansion is completed.



Raleigh-Durham International Airport, cont.

- RDU mainly uses two angled lines to review and issue permits for buildings that are within the **airport's height zoning authority** (bowtie shape in the image to right).
- Generally, a building can achieve above-average height if:
 - The site is lower in ground elevation relative to the runway.
 - The subject site is further from the runway. Sites located further from the runway may achieve additional height.

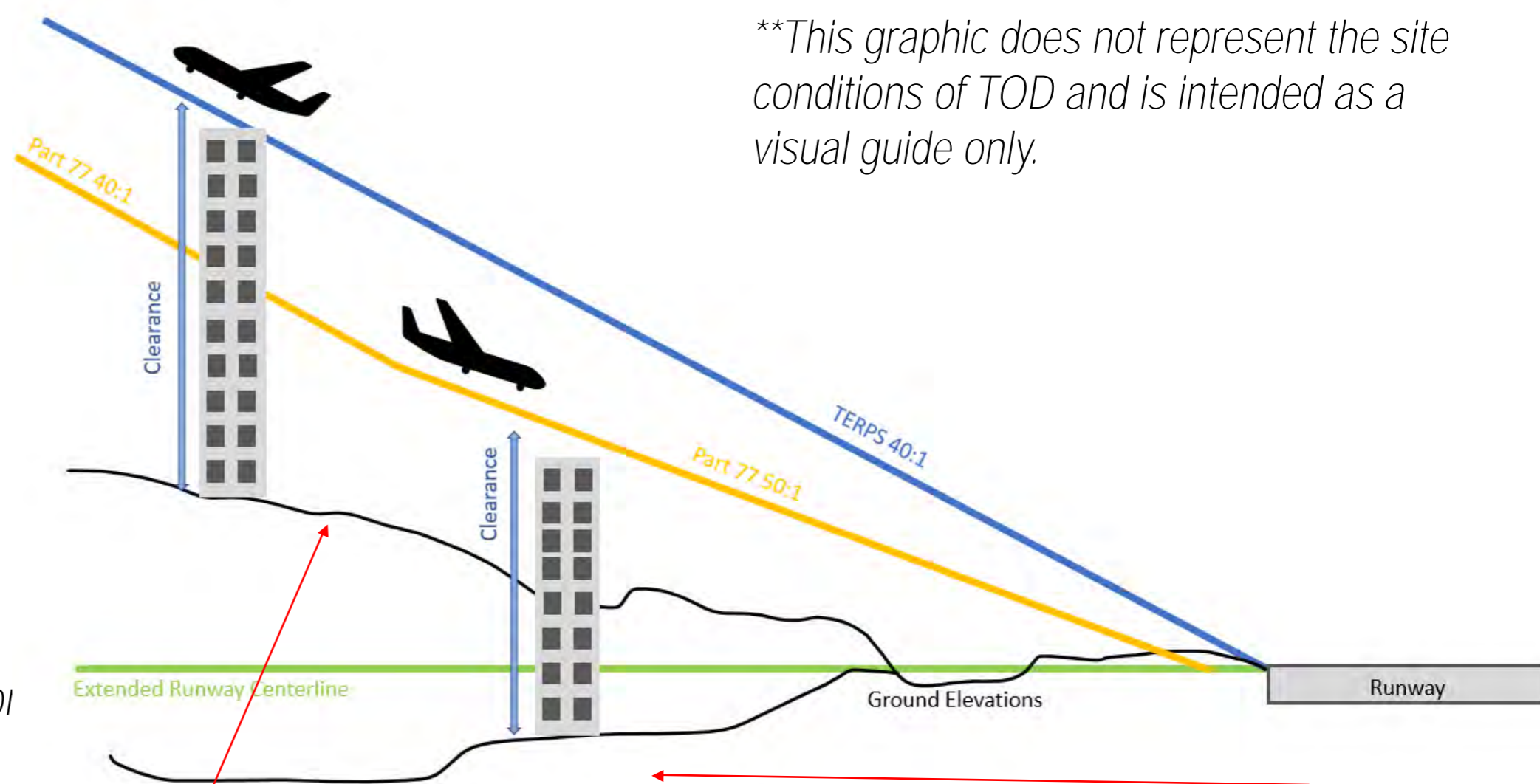


TOD location

RDU location

Raleigh-Durham International Airport, cont.

- Two main angled lines are:
 - TERPS (blue line)
 - *Angle of takeoff for departing aircraft. A building's height cannot extend above this line.*
 - Part 77 (yellow line)
 - *Sets standards that are used to determine obstructions to incoming aircraft. The true elevation of descending aircraft depends on weather, visibility, and other hazards/conditions.*
 - *Buildings may be permitted by RDU and FAA to exceed this line with additional safety precautions.*

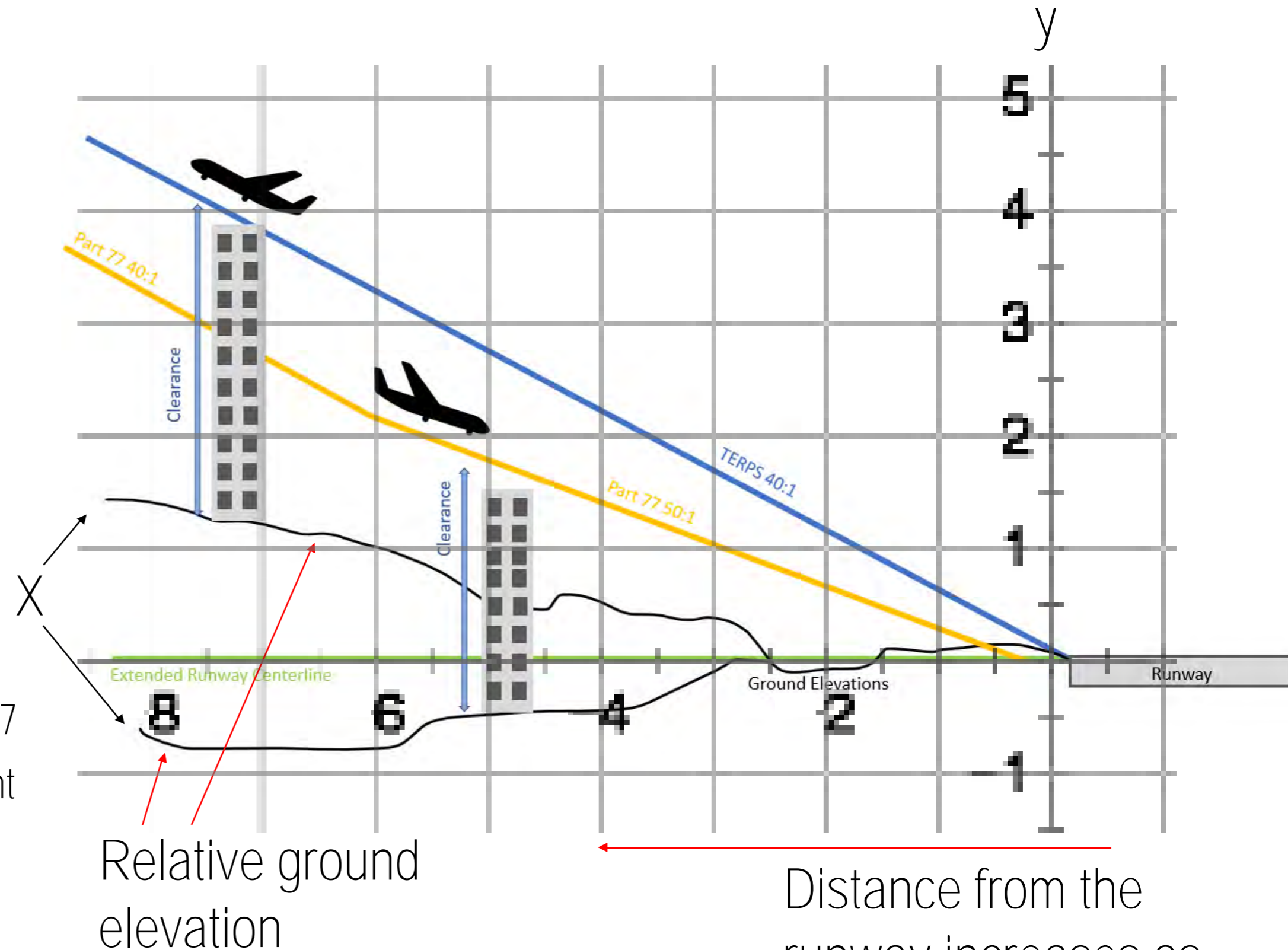


Relative ground elevation

Distance from the runway increases as line proceeds to the left.

Raleigh-Durham International Airport, cont.

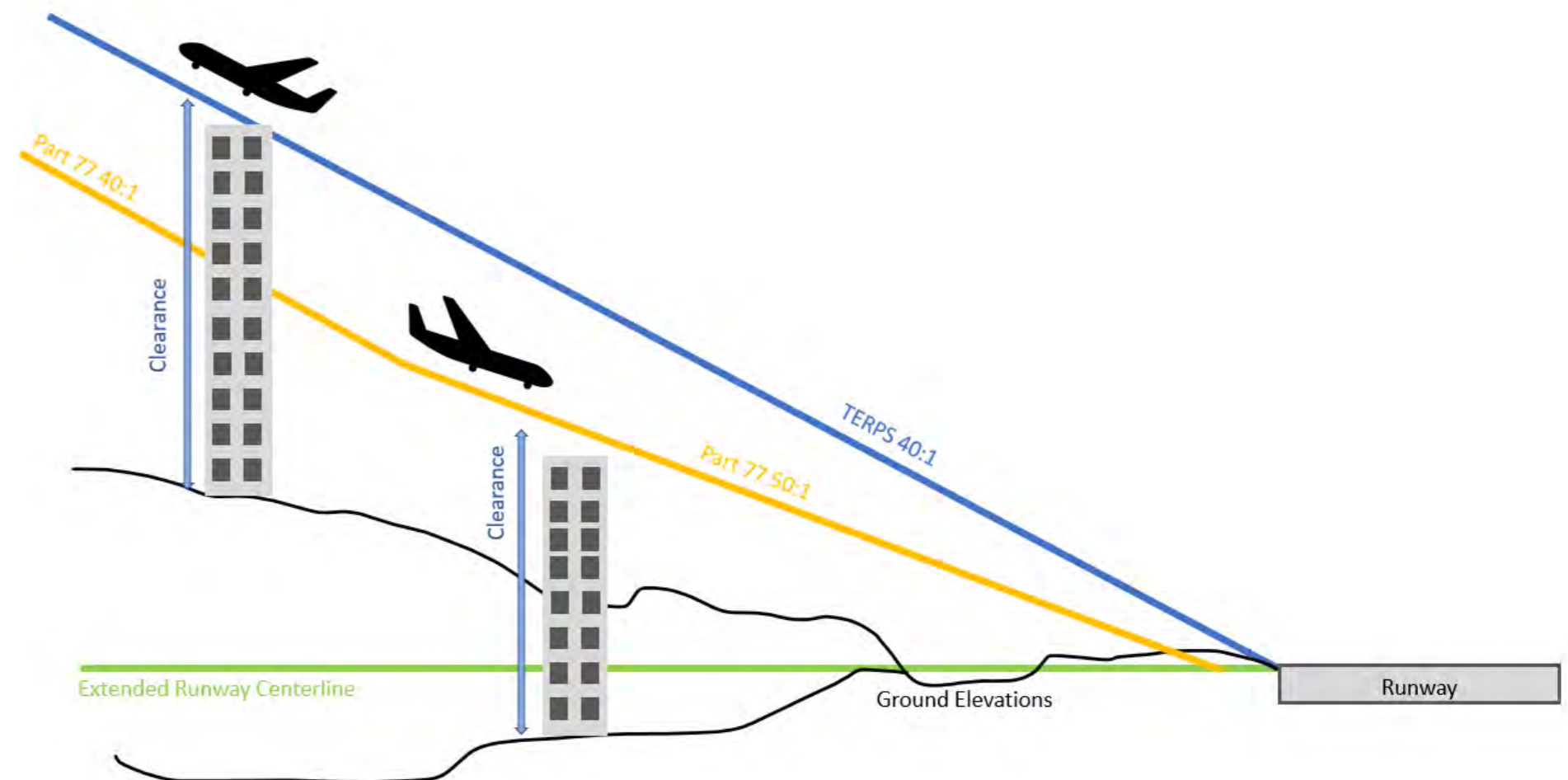
- Picture Part 77 on an x and y axis:
 - X (horizontal plane) increases or decreases based on ground elevation and can be a positive or negative number.
 - Y (vertical plane) increases based on distance from the runway and can only be a positive number.
 - Point in which x and y meet at the Part 77 line will be different for each development site.



Distance from the runway increases as line proceeds to the

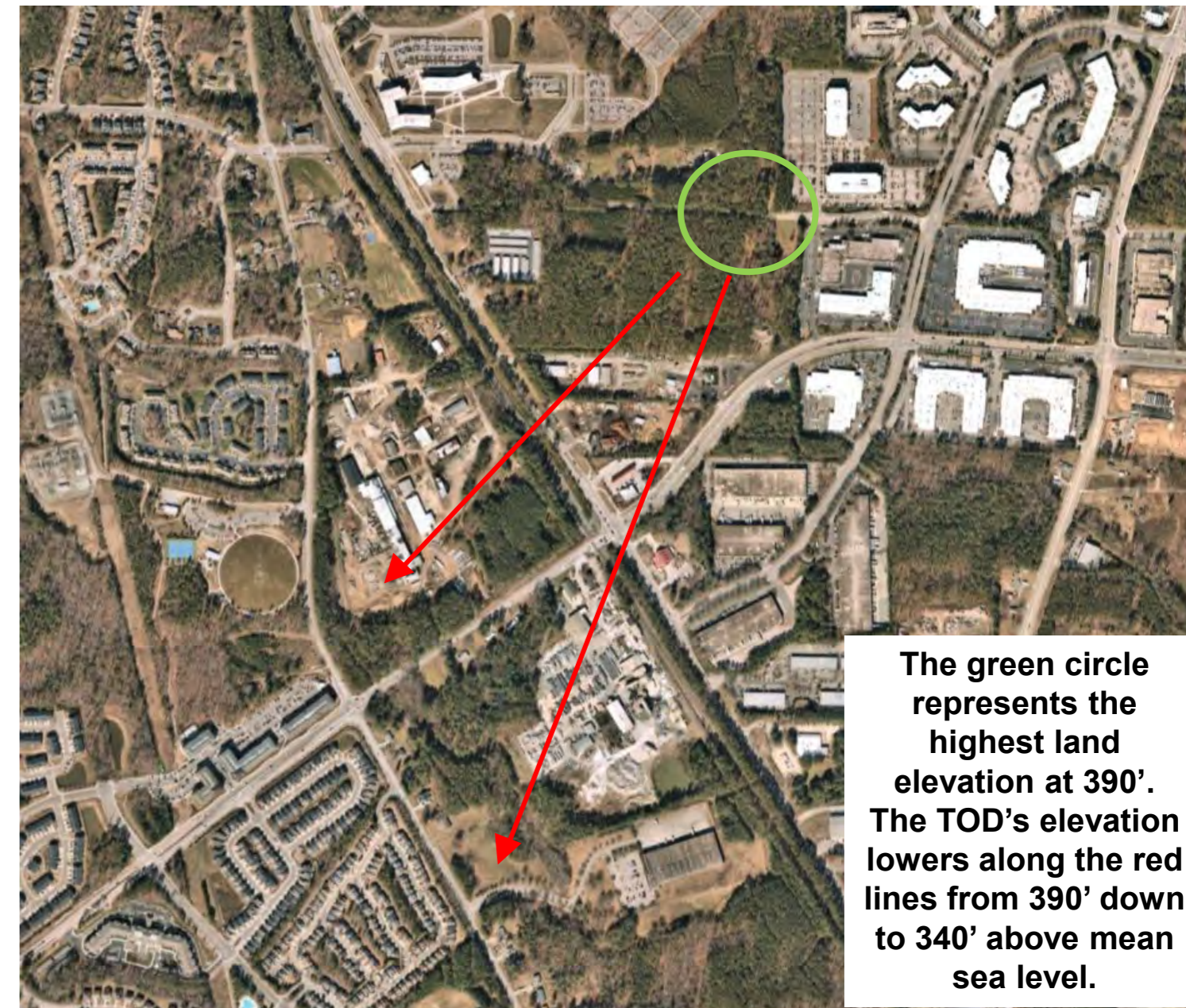
Raleigh-Durham International Airport, cont.

- Town staff *do not* recommend that the Town permit building heights which exceed the Part 77 line.
- The maximum recommended height will likely differ throughout the TOD and will be generally based on the following:
 - Town Council height preferences.
 - The Part 77 line
 - *Differs pending site conditions such as ground elevation.*
 - Adjacent land uses.
 - Proximity to the railroad or planned transit services.
 - Preferred TOD subarea land use(s).



Raleigh-Durham International Airport, cont.

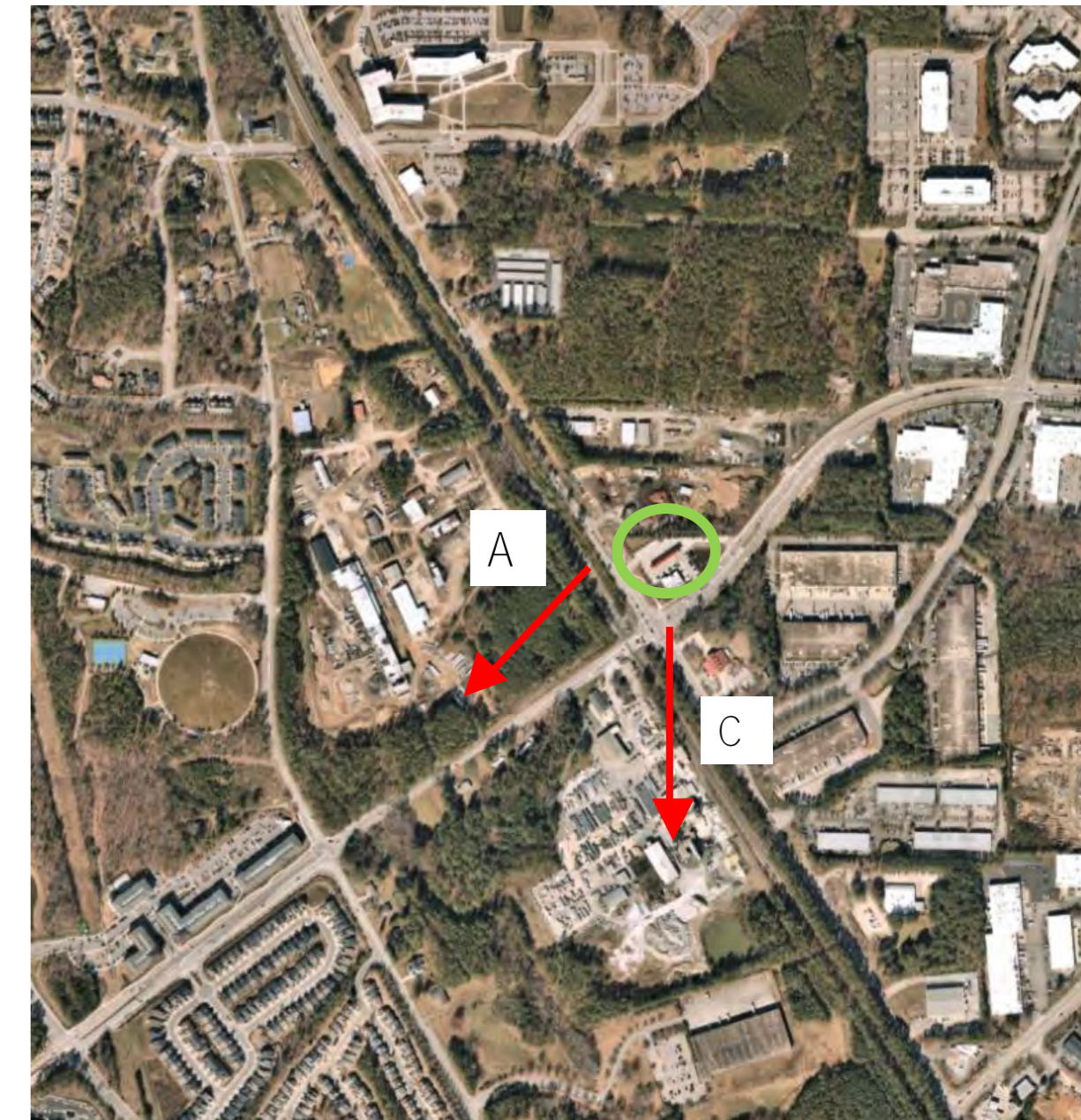
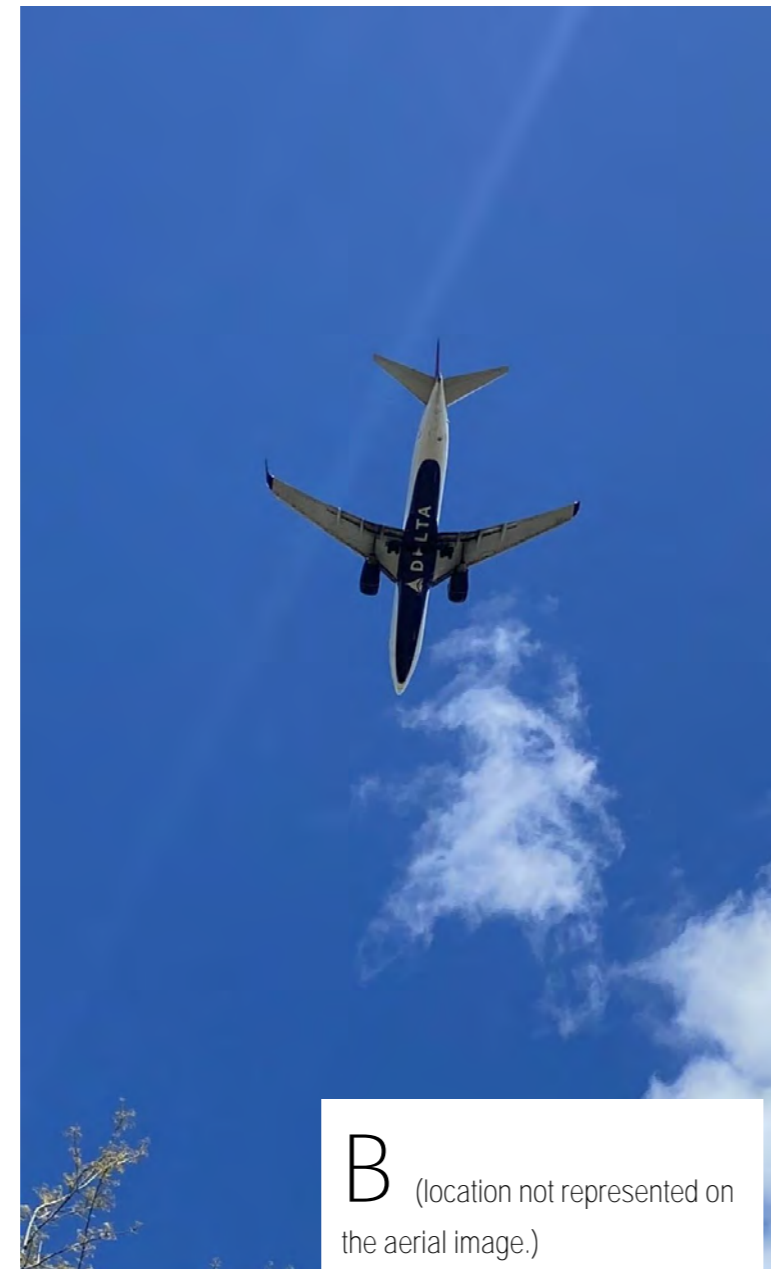
- The northeast corner of the TOD East is the highest ground elevation in the TOD and is **~170' below the Part 77 line** according to RDU staff. This calculation is based on the existing ground elevation.
- Due to this, and additional FAA notification requirements, RDU staff recommend a **150' height maximum across the entire TOD** zoning district.
- RDU staff request to review all developments given the varying site conditions across the TOD.



The green circle represents the highest land elevation at 390'. The TOD's elevation lowers along the red lines from 390' down to 340' above mean sea level.

Raleigh-Durham International Airport, cont.

- Staff captured images depicting flights in the airspace near the Sheetz located at 10070 Chapel Hill (circled in green). The red arrows indicate which direction the photographer was facing.



Raleigh-Durham International Airport, cont.

- Town staff are working to identify the height of the Part 77 line across the entire TOD, as the TOD West and South likely allow for taller buildings than the TOD East should the Town prefer heights above 150'. Currently, Town staff believe that the height could be significantly higher than 150' prior to reaching the Part 77 line in the TOD West and South.
- **150' equates to a maximum of 8-11 stories**, dependent partially on floor height.
 - Ex. Life Science uses are generally 15' floors.
 - Multifamily generally 10' between floors.
- A maximum height of 150' across the entire TOD could impact the Town's ability to build meaningful development incentives (ex. Affordable housing) into the ordinance. Staff will continue to evaluate.

PZB Discussion

- Generally supportive of proposed building heights



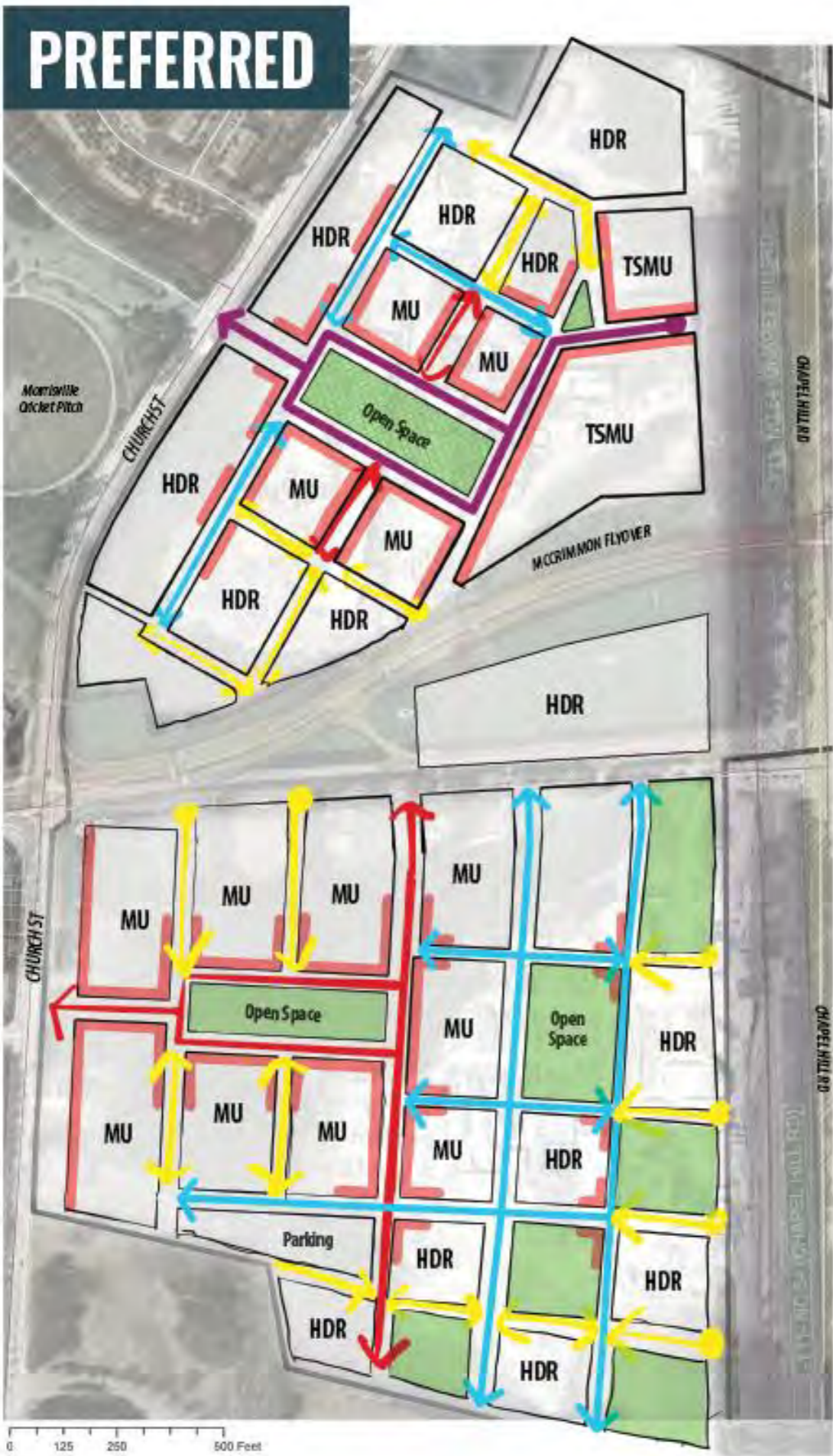
TC Discussion

- Is Town Council supportive of the proposed building heights?
 - Too high?
 - Too low?
- Is an incentive-based height allowance the preferred approach, or should the proposed building heights be allowed by-right?

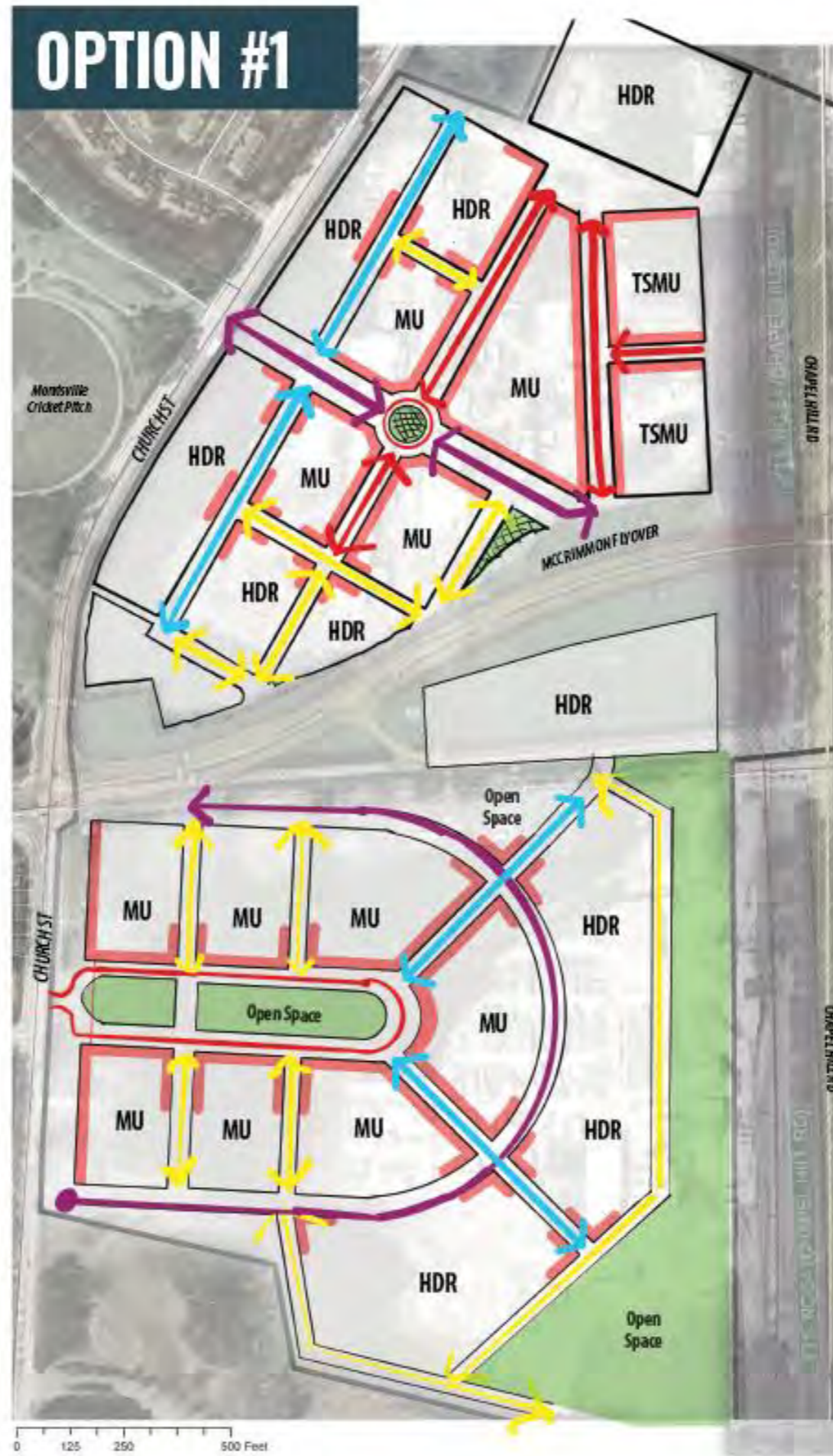


INITIAL SKETCH PLANS

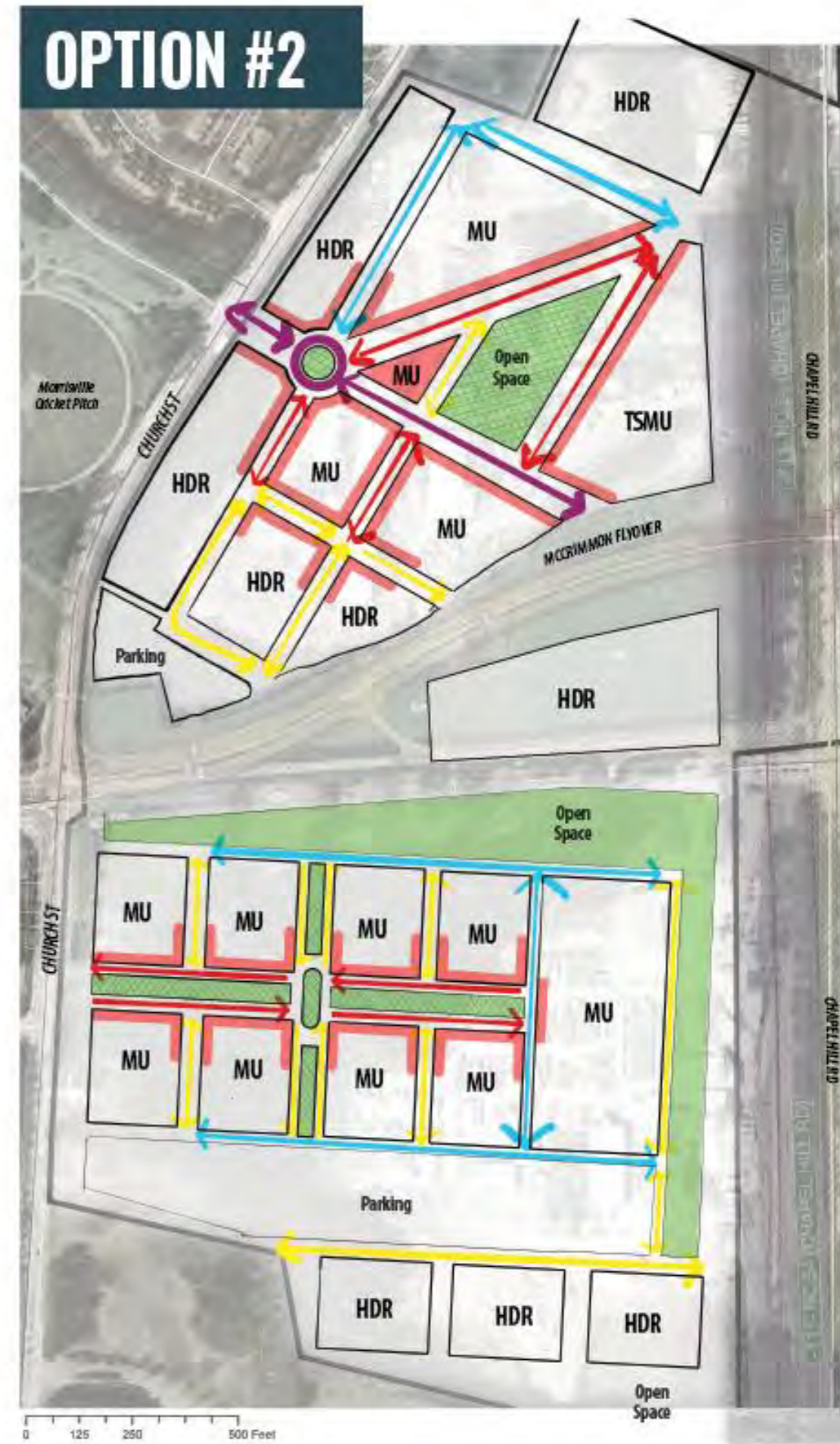




Interlocked Grid – Preferred



Radial – Option #1



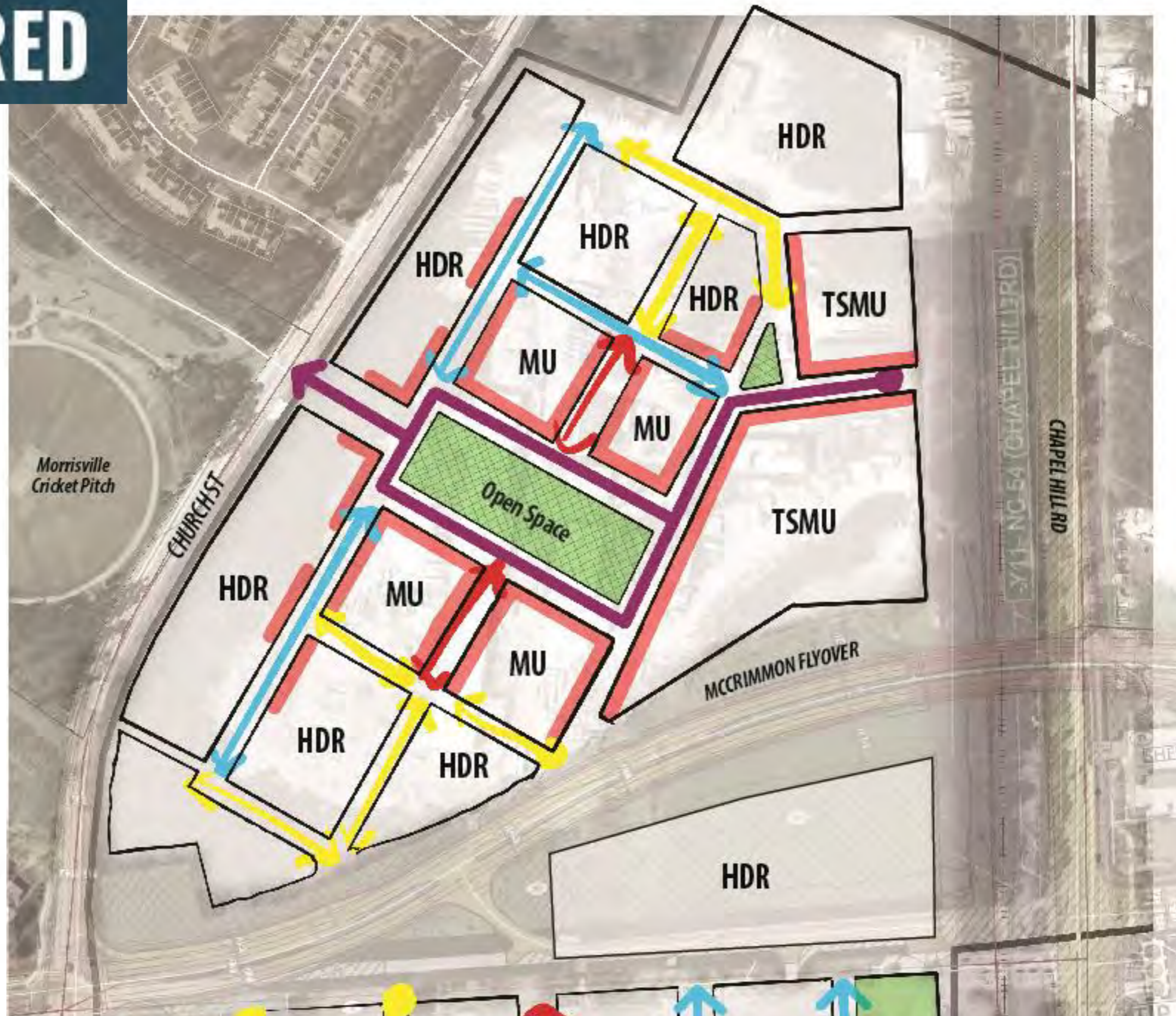
Traditional Square – Option #2

SKETCH PLAN
PREFERRED



PREFERRED

- Roadway Types**
- Boulevard
 - Main Street
 - Major Street
 - Minor Street
 - Commercial/Service (groundfloor)



PREFERRED

Roadway Types

-  Boulevard
-  Main Street
-  Major Street
-  Minor Street
-  Commercial/Service (groundfloor)





North Hills, Raleigh



Mesh Fitness

Cap City Fine Diner and Bar

Urban Meyer's Pint House

SpringHill Suites by Marriott Columbus...
4.7 (144)
3-star hotel

COTA Park & Ride - Dublin Dale Drive

Sports Medicine Grant & Ortho

Rebol

Sweetwaters Coffee & Tea

Acura Parts Store
Auto parts store

Acura Columbus
Acura dealer

Hotel Parking Garage at Bridge Park

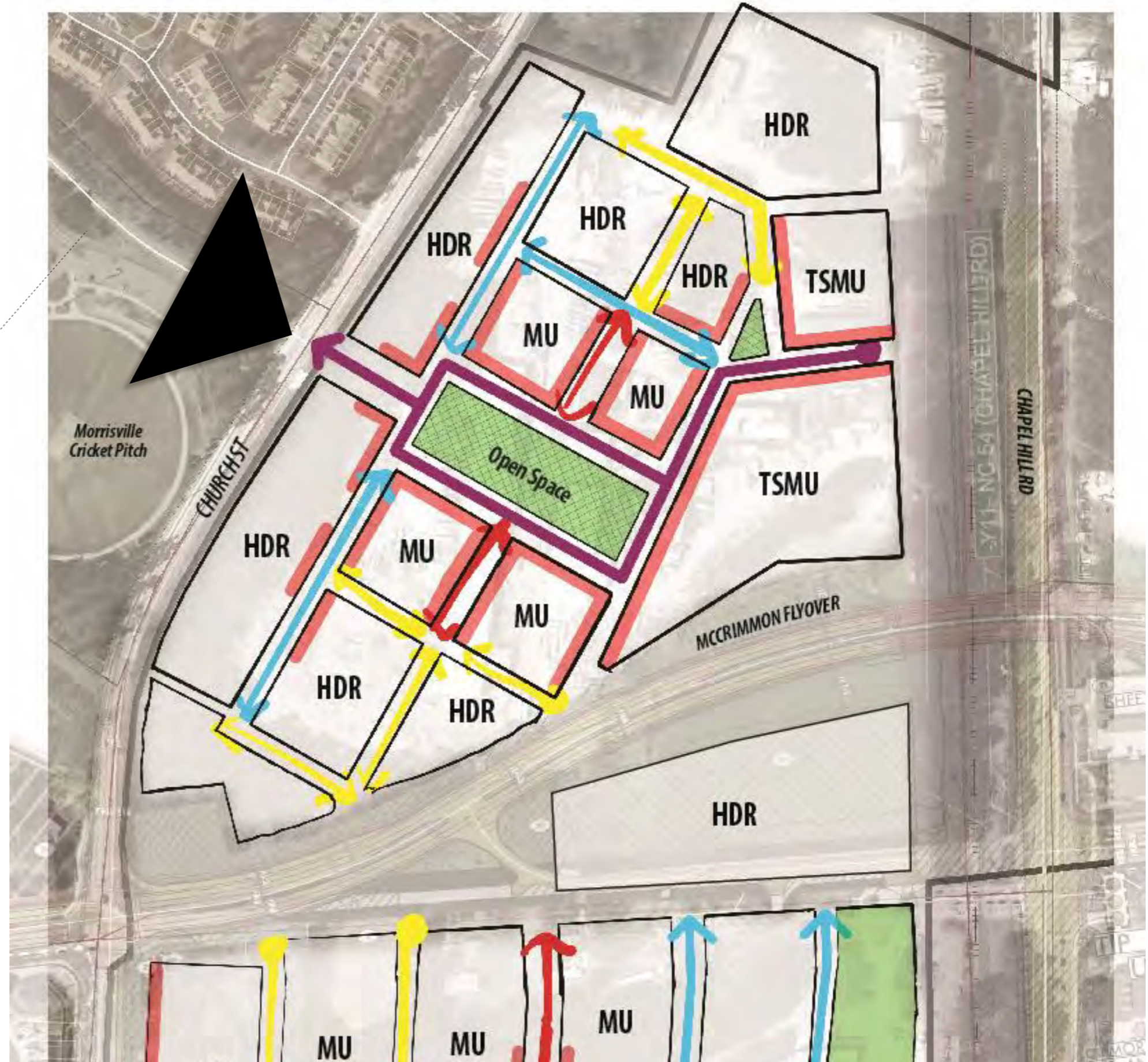
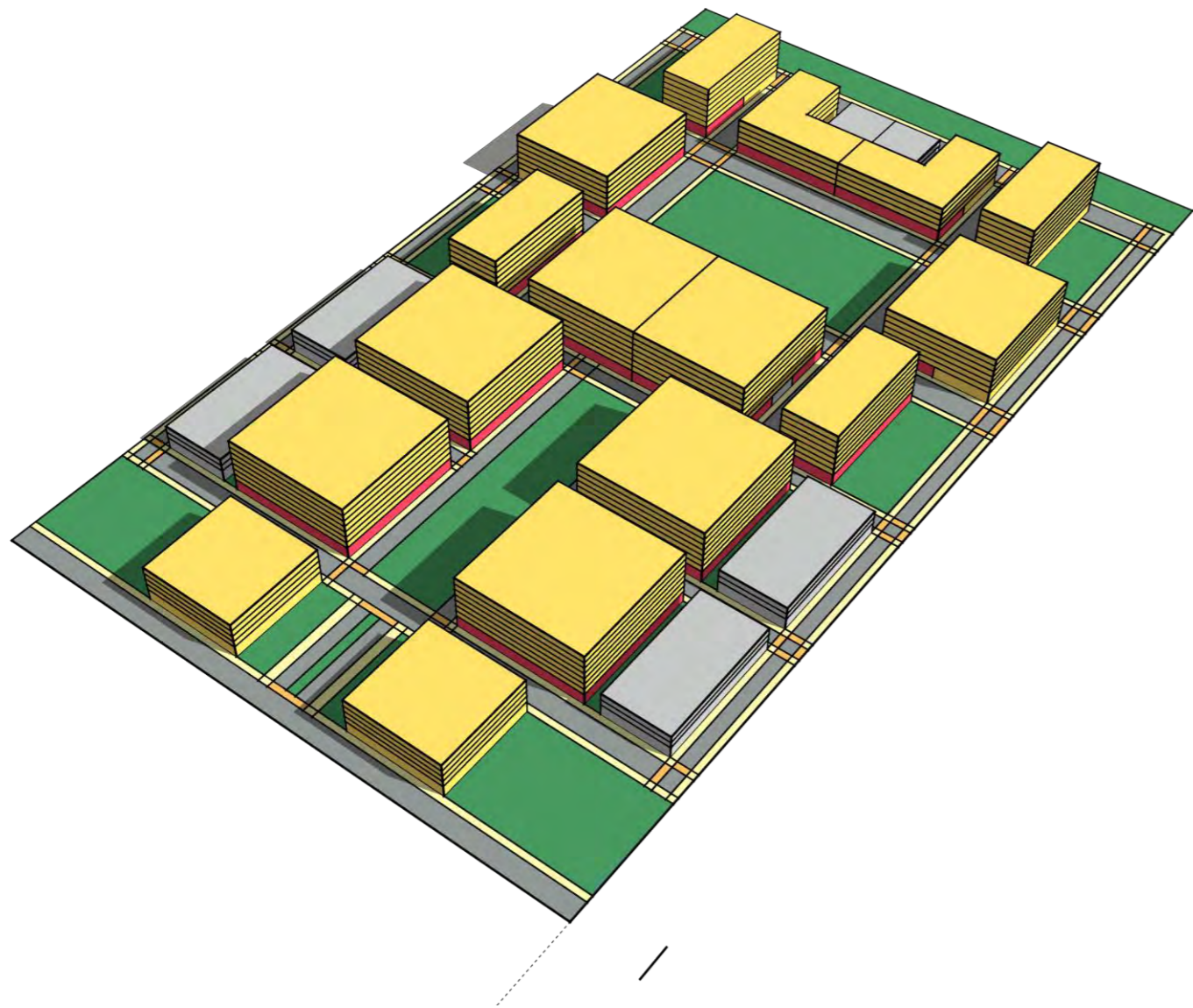
Pins Mechanical

Frank & Carl's
\$10 Off First Order Use Give10

Wells Fargo Advisors

Dublin, Ohio

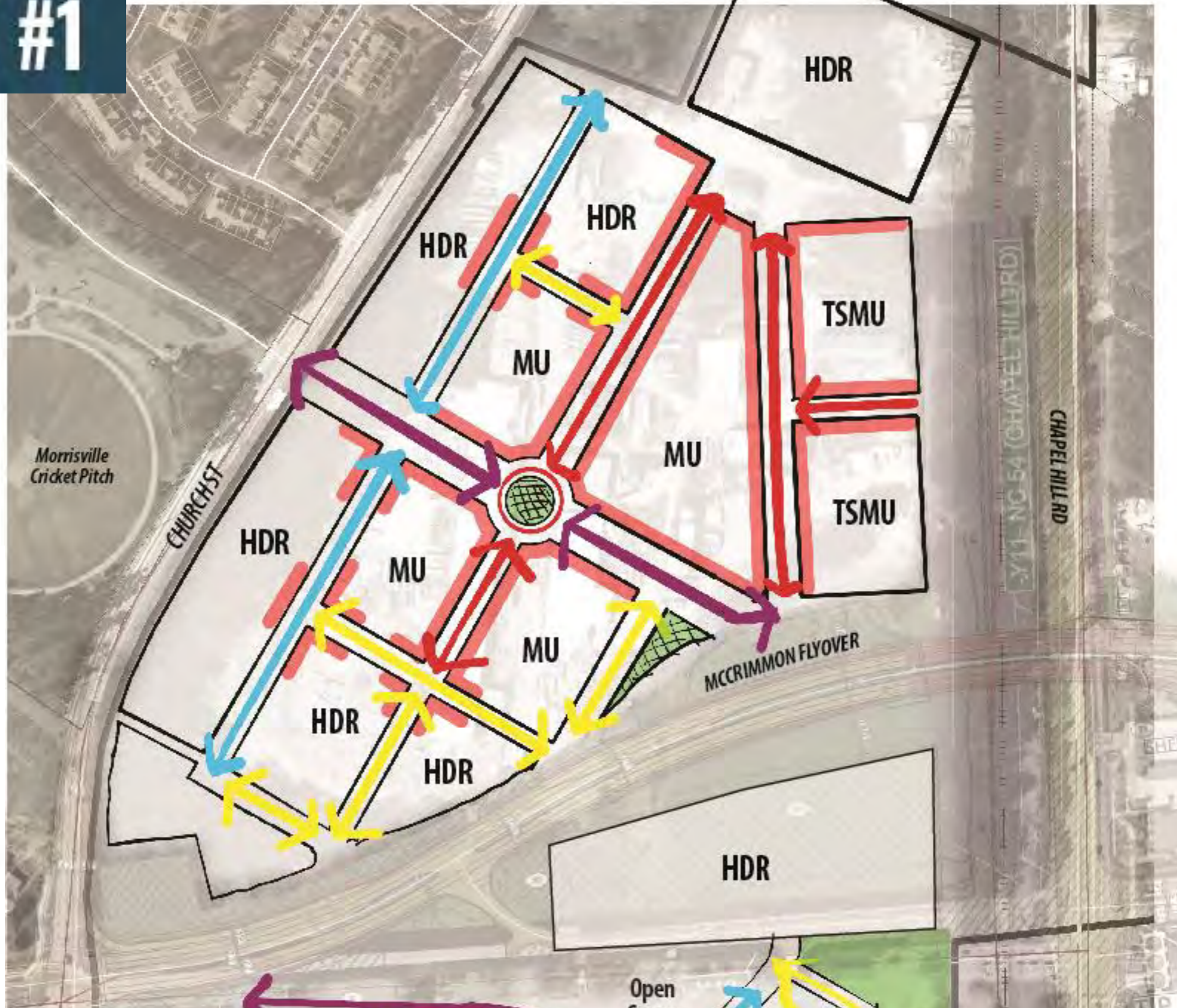
Generic Bulk Standard 3D Model



SKETCH PLAN OPTION #1



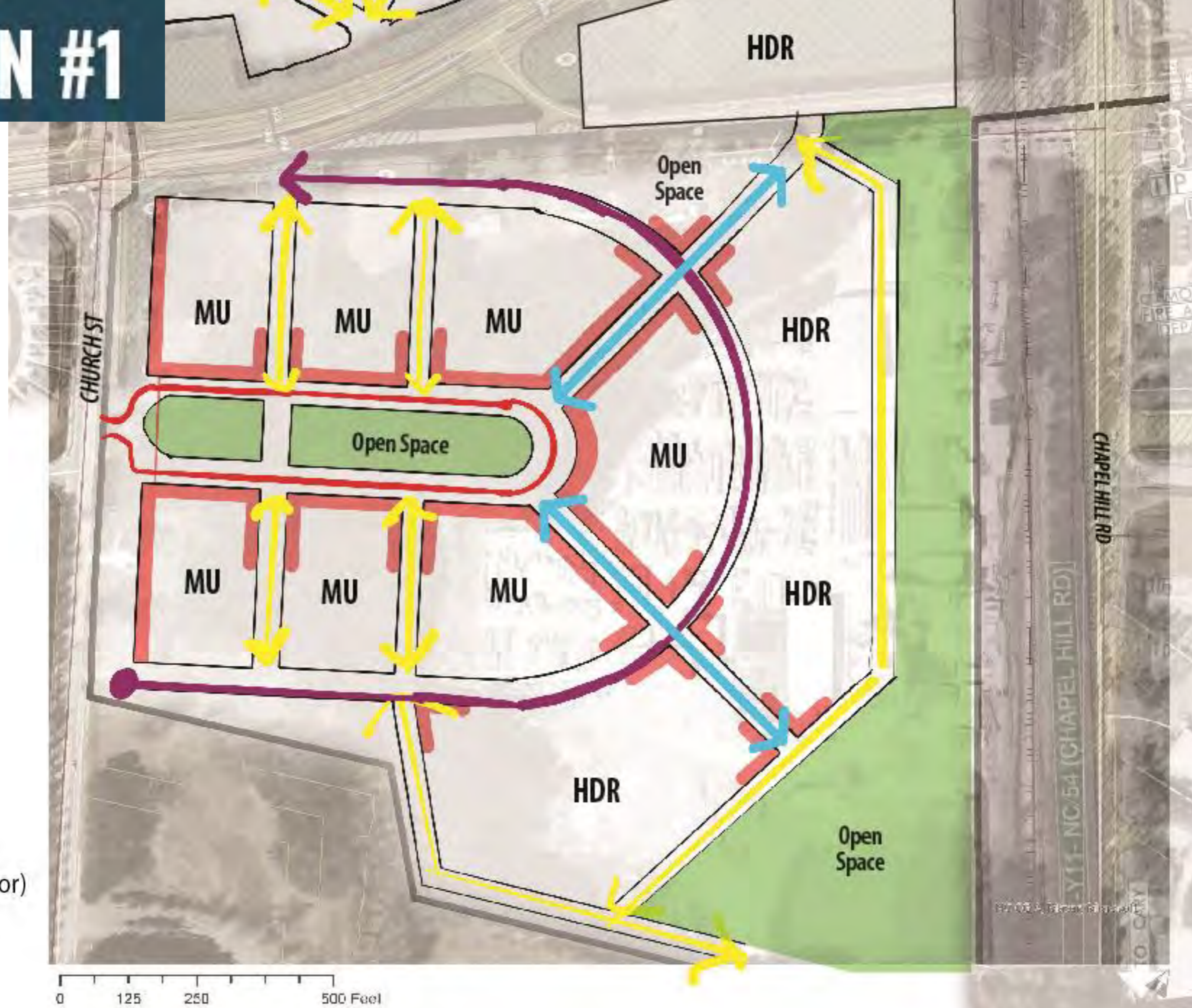
OPTION #1



Roadway Types

- Boulevard
- Main Street
- Major Street
- Minor Street
- Commercial/Service (groundfloor)

OPTION #1





Raleigh Improv

Wok On Fire

Paragon Theaters
Parkside + Extreme

Frank Theatres
CineBowl & Grille

Cinnaholic

Hickory Tavern
American • \$\$

Sushi at the Park
\$10 Off First
Order Use Give10

Parkside Town
Commons
Complex for
shopping &...

Smoothie King
A Blend For
Every Purpose

Brixx Wood Fired
Pizza + Craft Bar
Pizza • \$\$

Five Guys
Fast Food • \$\$

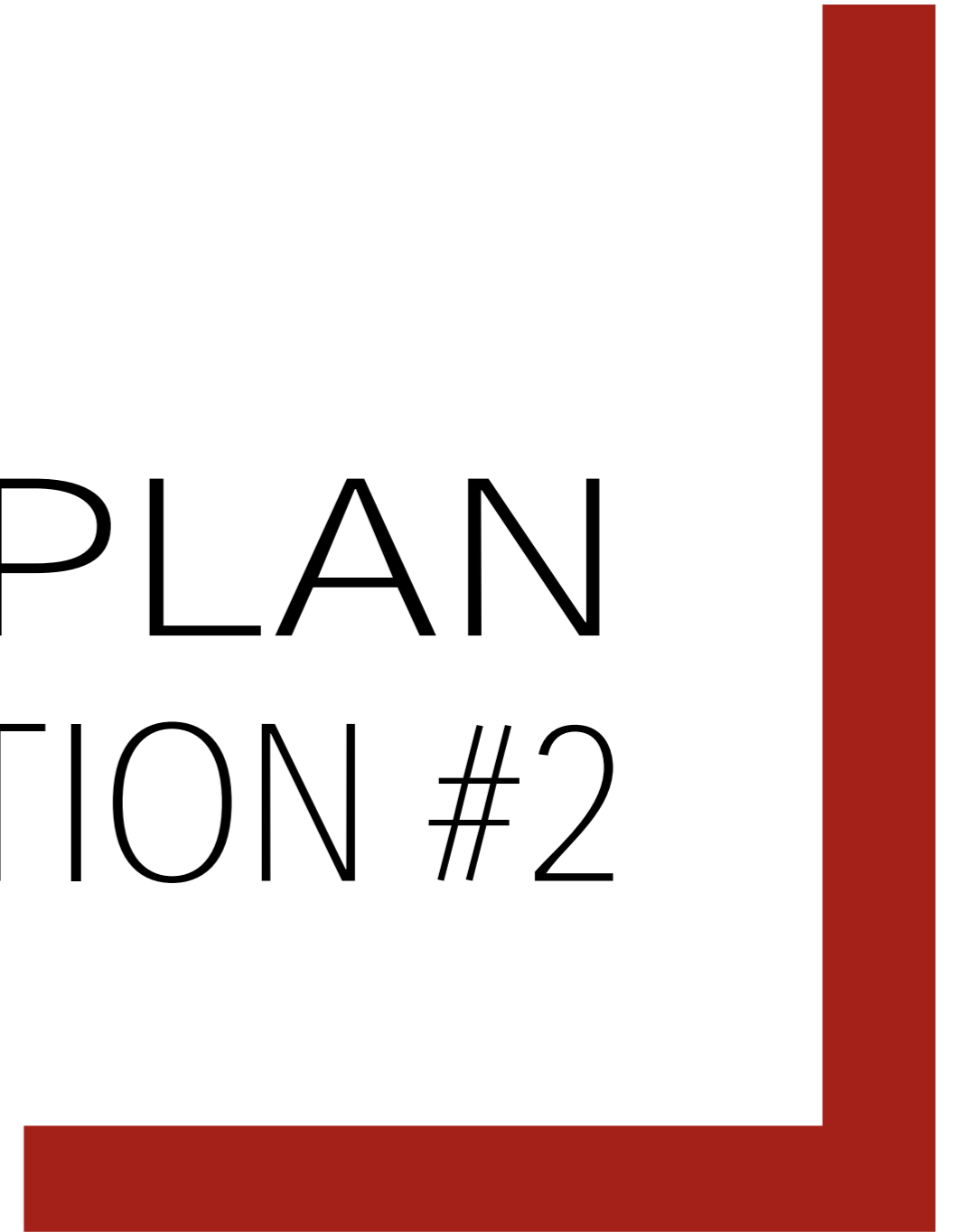
Hobby Lobby

Parkside, Cary

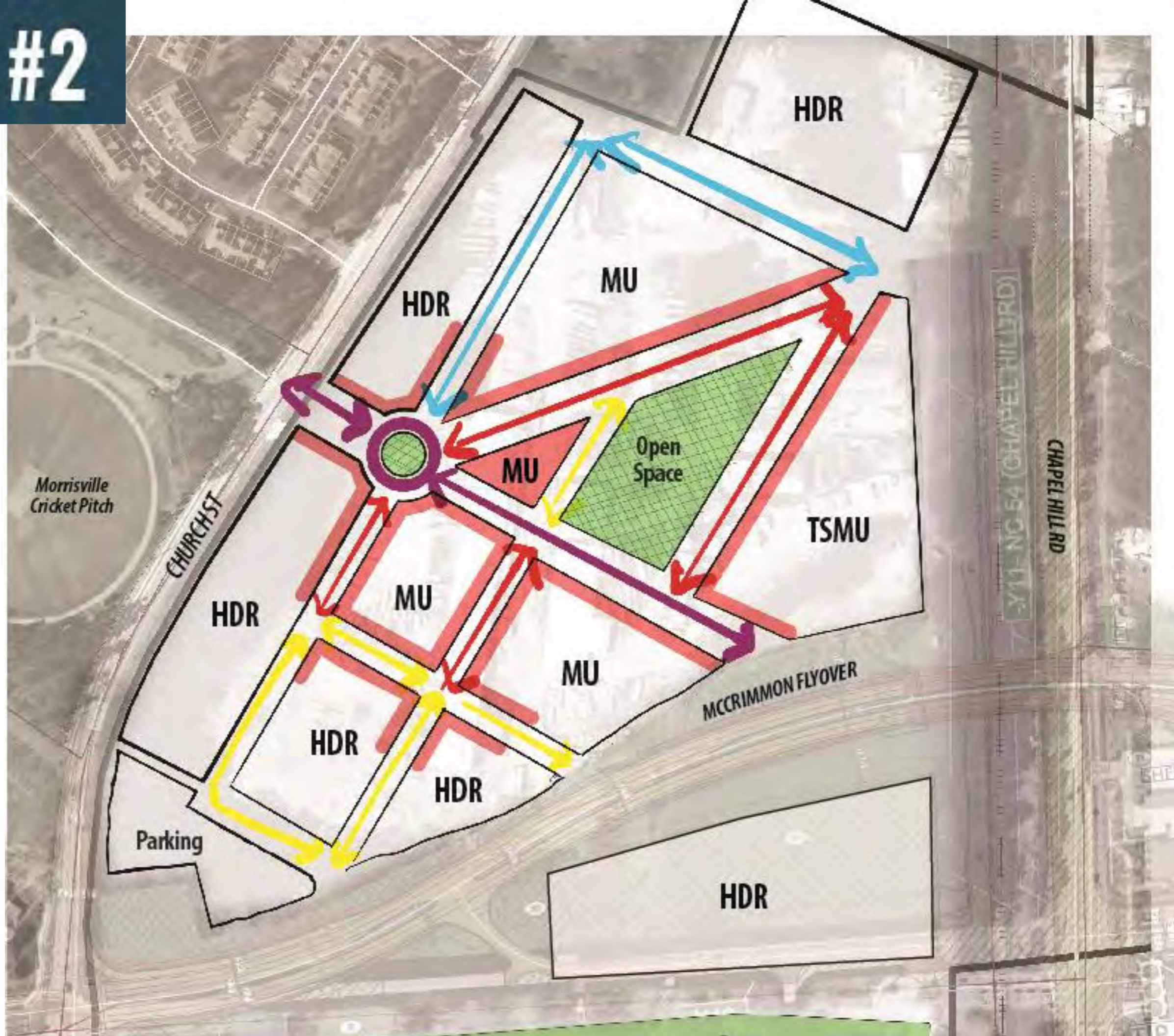


Southern Village, Chapel Hill

SKETCH PLAN OPTION #2



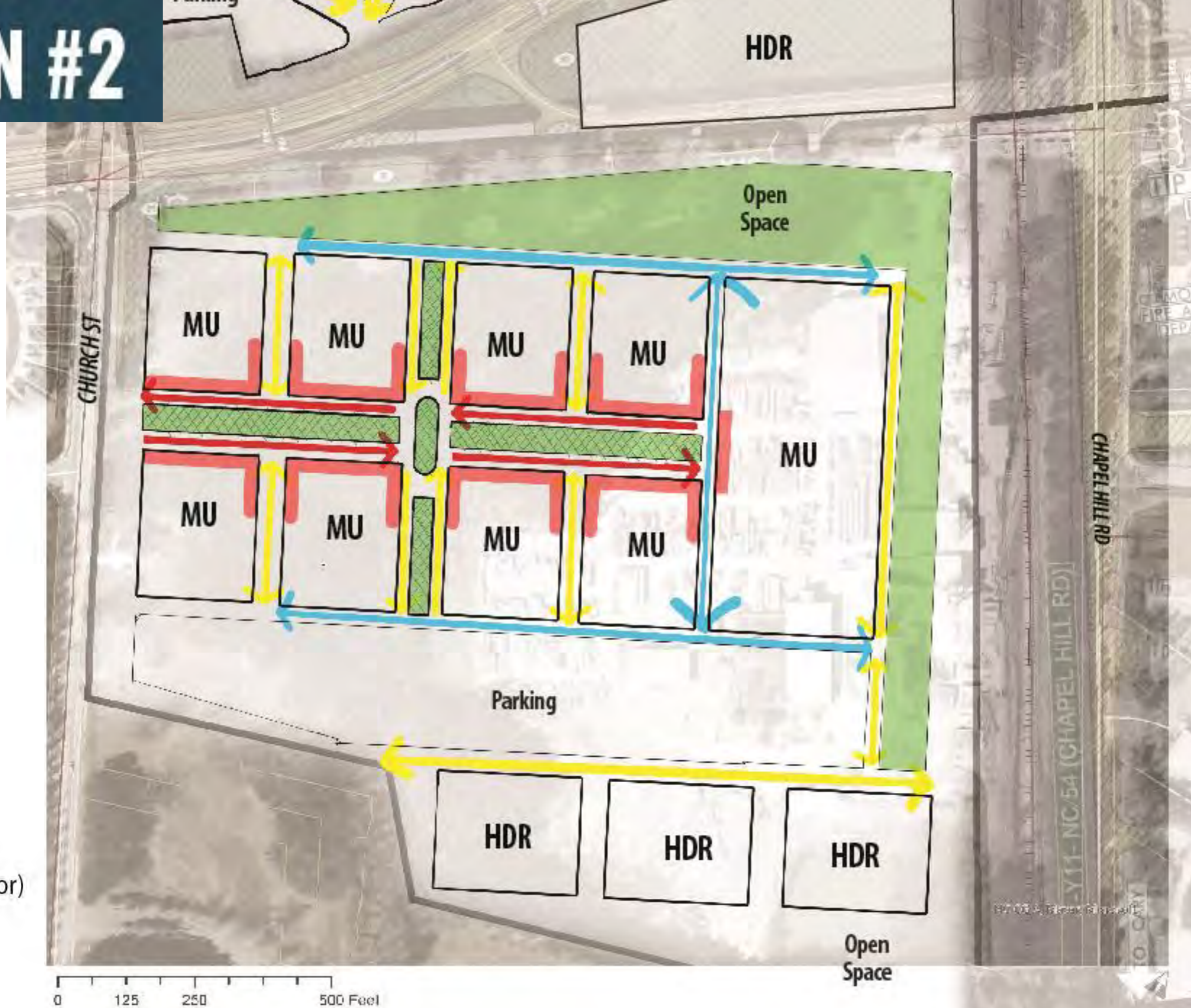
OPTION #2



Roadway Types

-  Boulevard
-  Main Street
-  Major Street
-  Minor Street
-  Commercial/Service (groundfloor)

OPTION #2



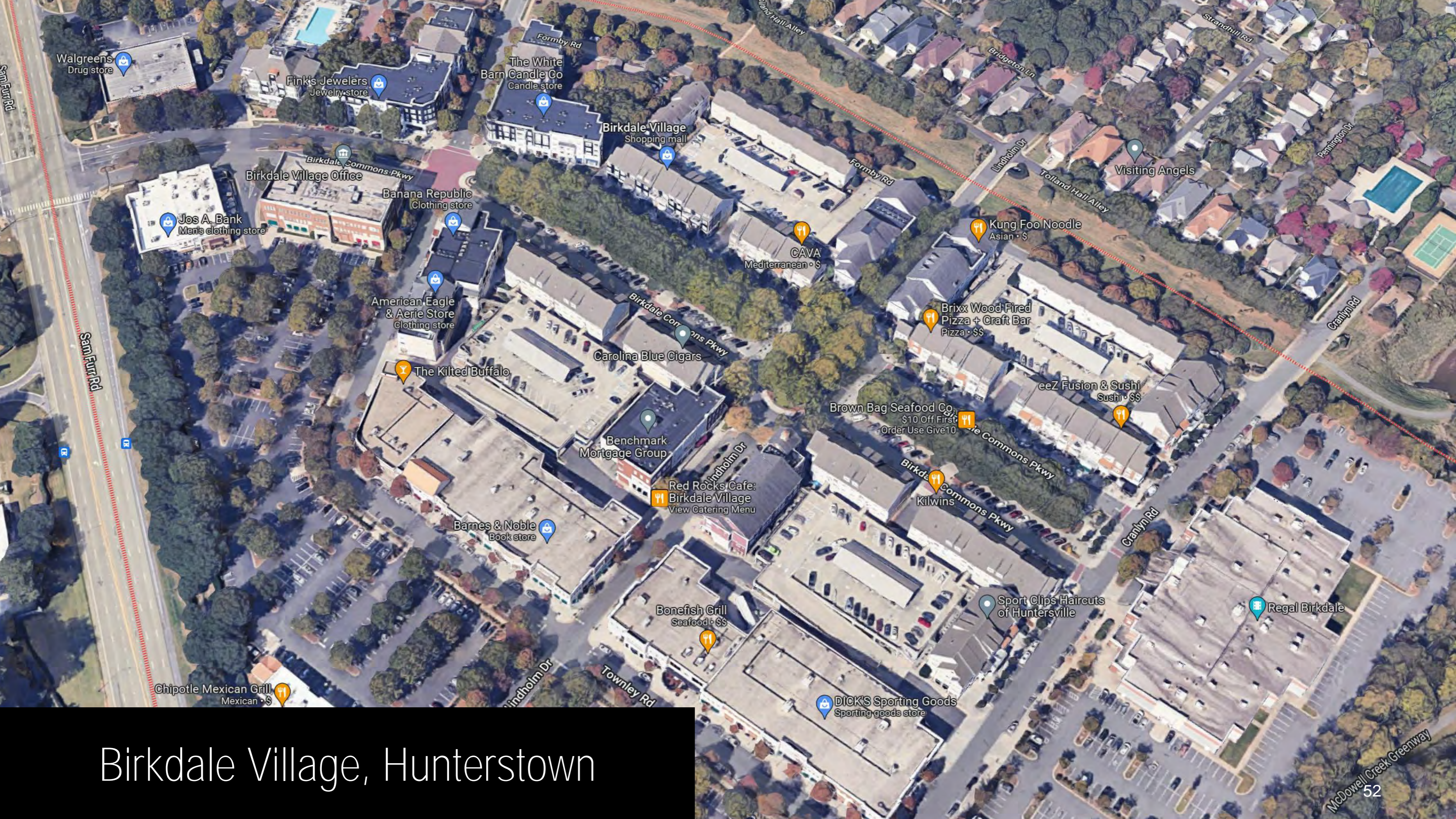
Roadway Types

-  Boulevard
-  Main Street
-  Major Street
-  Minor Street
-  Commercial/Service (groundfloor)

0 125 250 500 Feet



Grace Park, Morrisville



Walgreens
Drug store

Fink's Jewelers
Jewelry store

The White
Barn Candle Co
Candle store

Birkdale Village
Shopping mall

Birkdale Commons Pkwy
Birkdale Village Office

Banana Republic
Clothing store

Jos A. Bank
Men's clothing store

American Eagle
& Aerie Store
Clothing store

The Kilted Buffalo

Carolina Blue Cigars

Benchmark
Mortgage Group

Barnes & Noble
Book store

Red Rocks Cafe:
Birkdale Village
View Catering Menu

Bonefish Grill
Seafood • \$\$

Chipotle Mexican Grill
Mexican • \$

CAVA
Mediterranean • \$

Kung Foo Noodle
Asian • \$

Brixx Wood Fired
Pizza + Craft Bar
Pizza • \$\$

Brown Bag Seafood Co.
\$10 Off First
Order Use Give10

eeZ Fusion & Sushi
Sushi • \$\$

Kilwins

Sport Clips Haircuts
of Huntersville

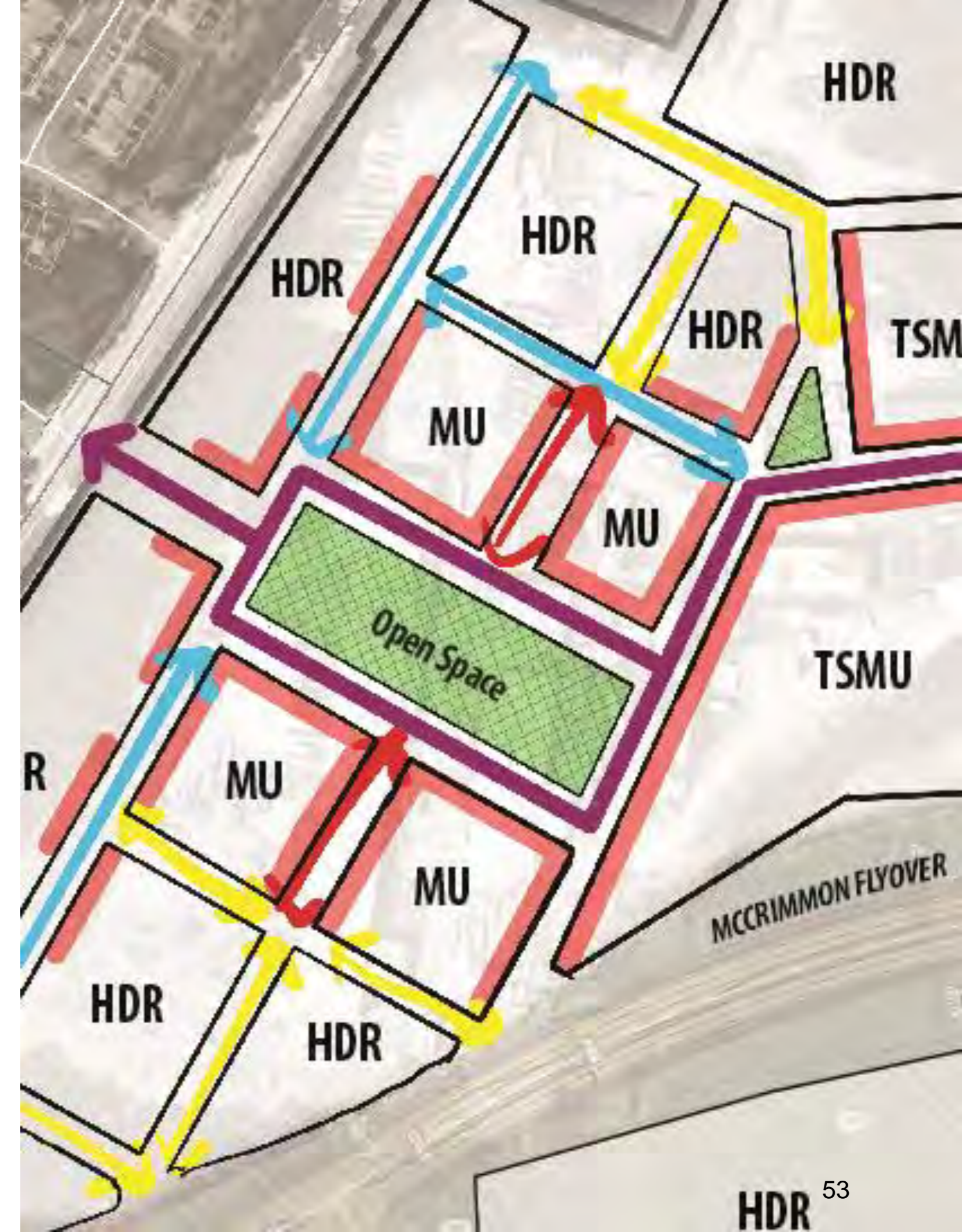
DICK'S Sporting Goods
Sporting goods store

Regal Birkdale

Birkdale Village, Hunterstown

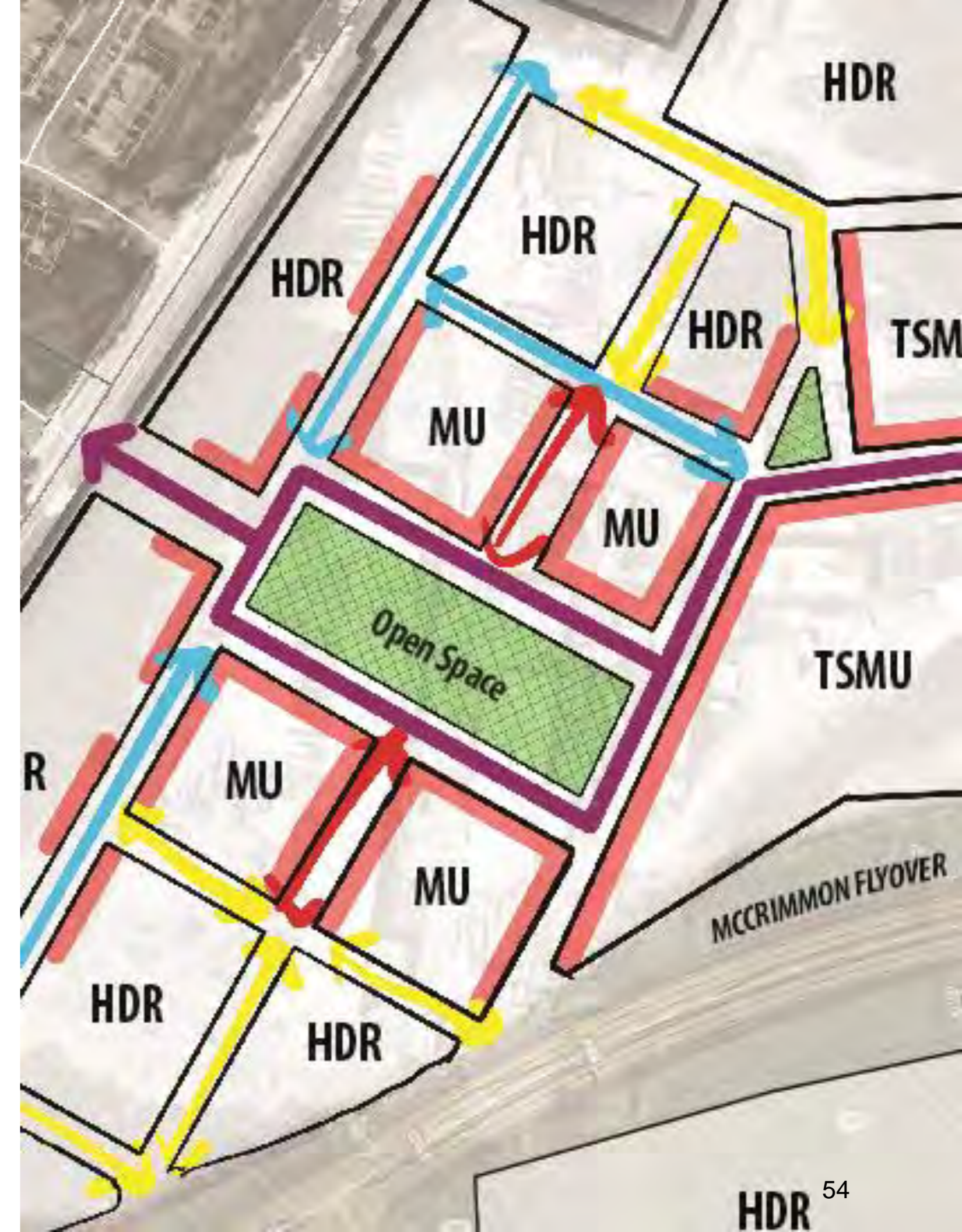
PZB Discussion

- Generally supportive of the staff preferred option
- Preferred rectangular blocks over long, linear roadways



TC Discussion

- What do you think about the rectangular block pattern of the preferred sketch plan option?
- Which of the sketch plans is your preferred option?



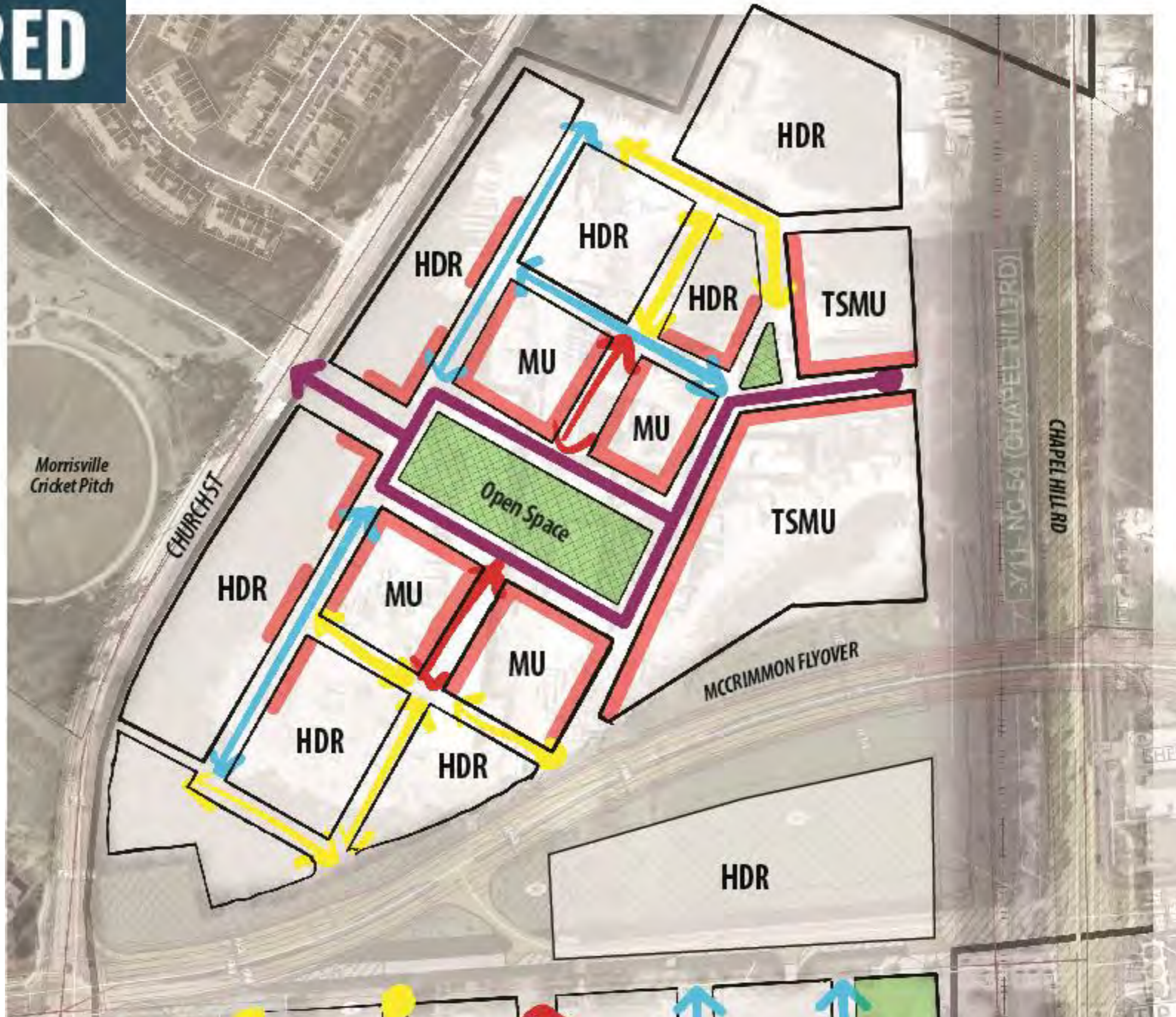
ROAD TYPES



PREFERRED

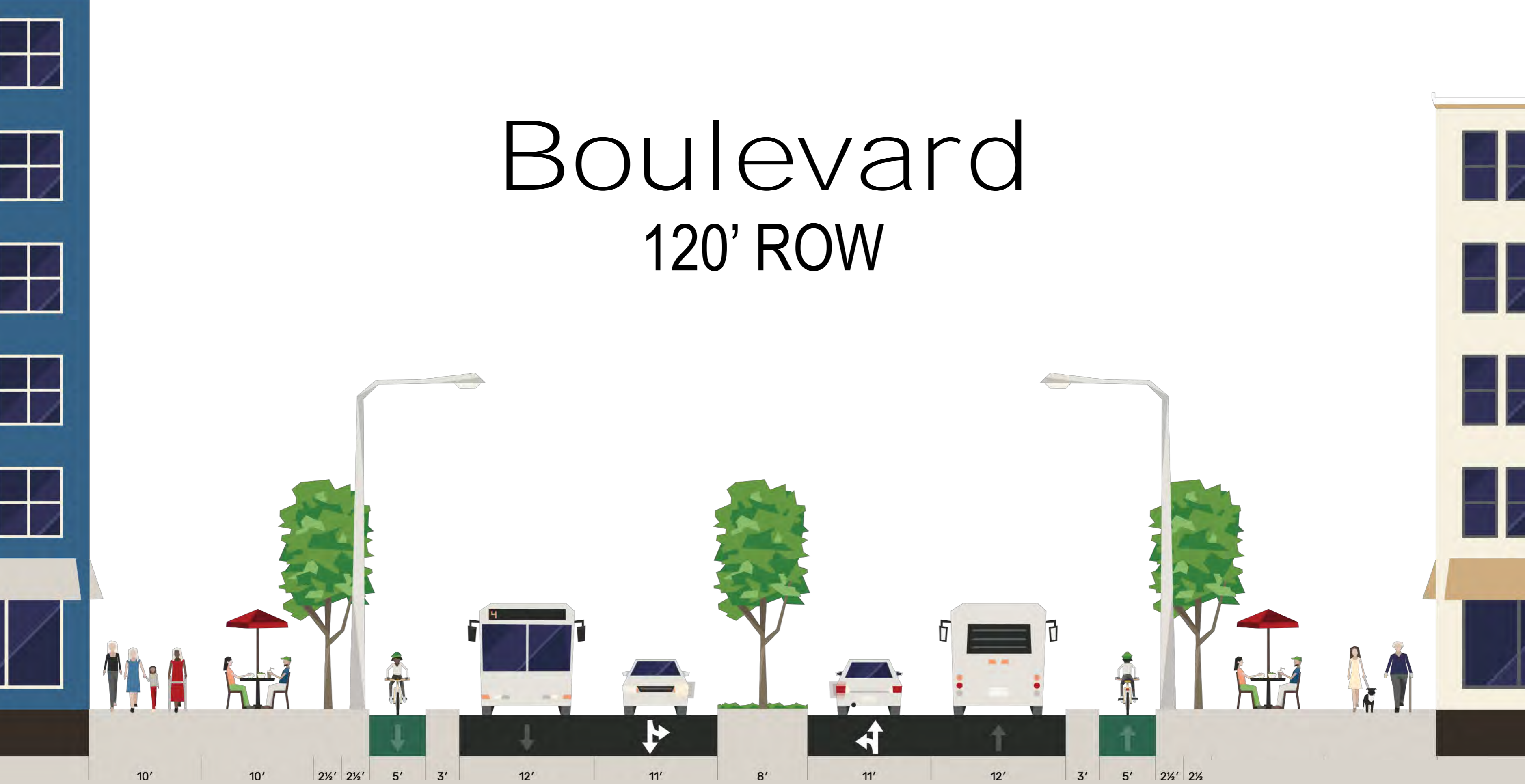
Roadway Types

-  Boulevard
-  Main Street
-  Major Street
-  Minor Street
-  Commercial/
Service (groundfloor)



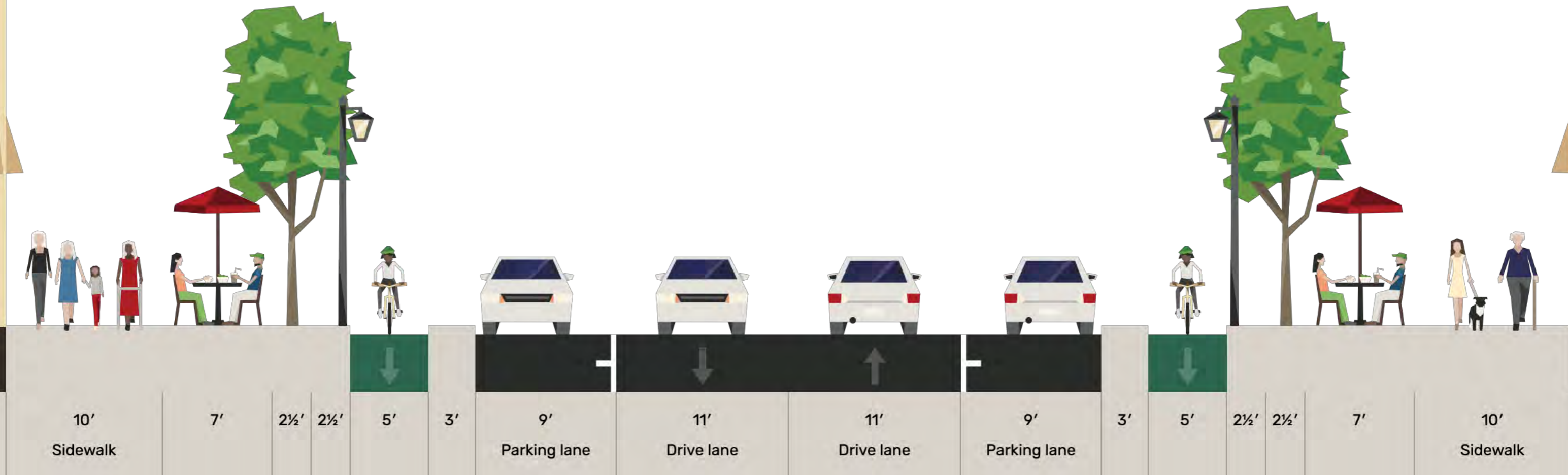
Boulevard

120' ROW



Main Street

100' ROW



Major Street

90' ROW

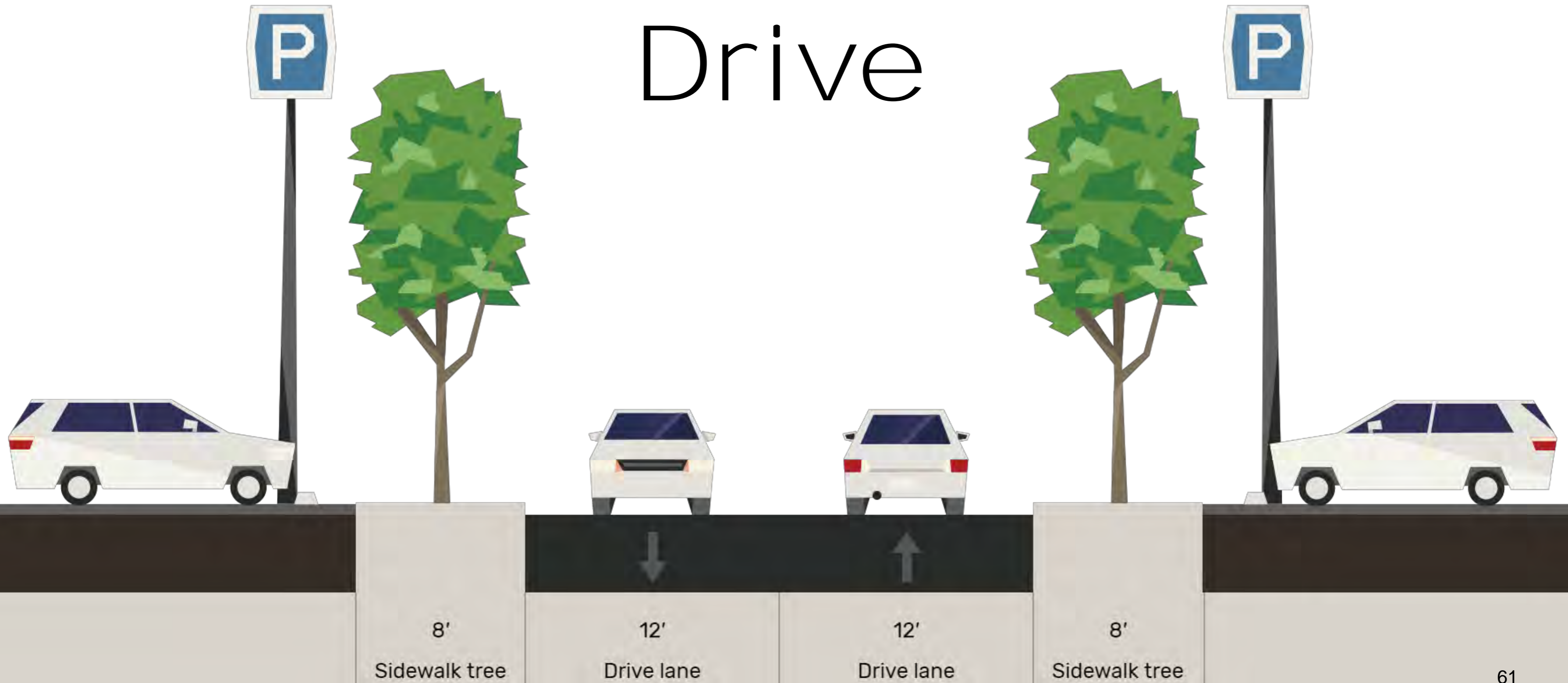


Minor Street

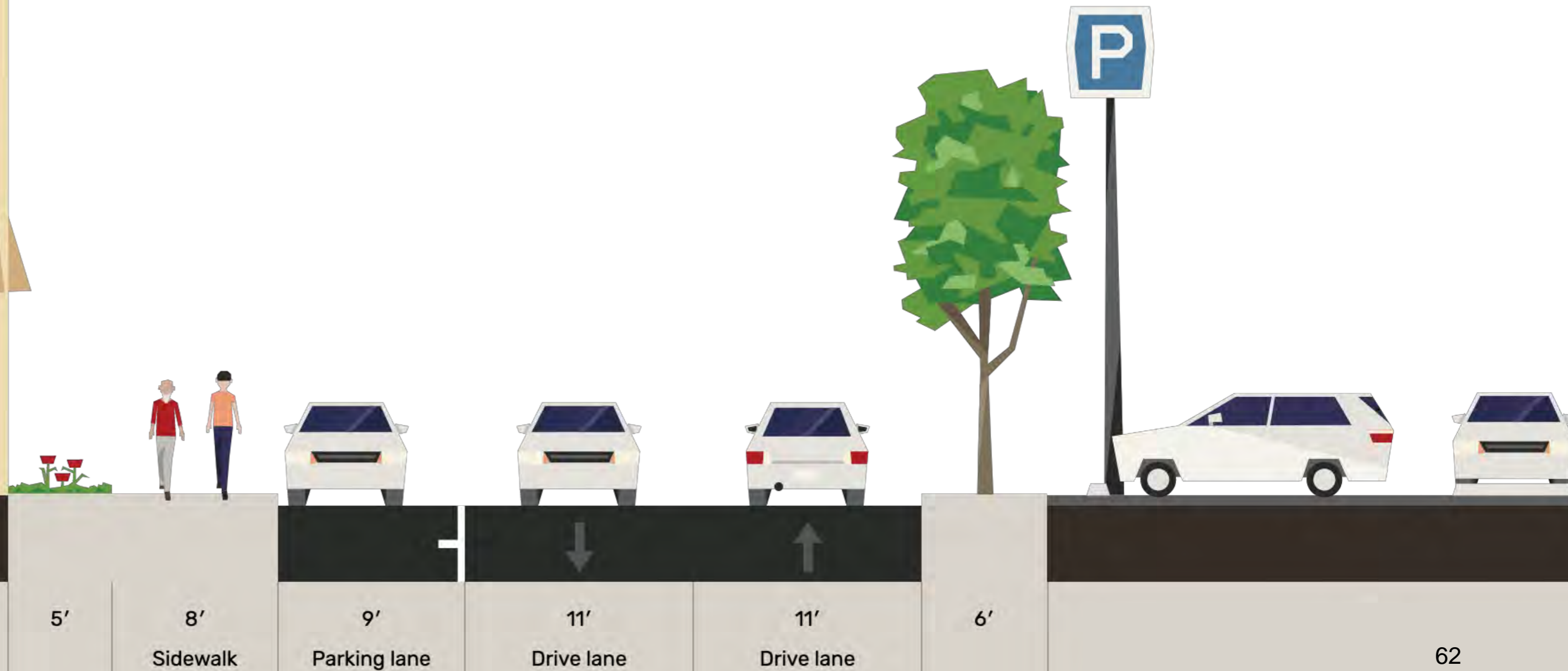
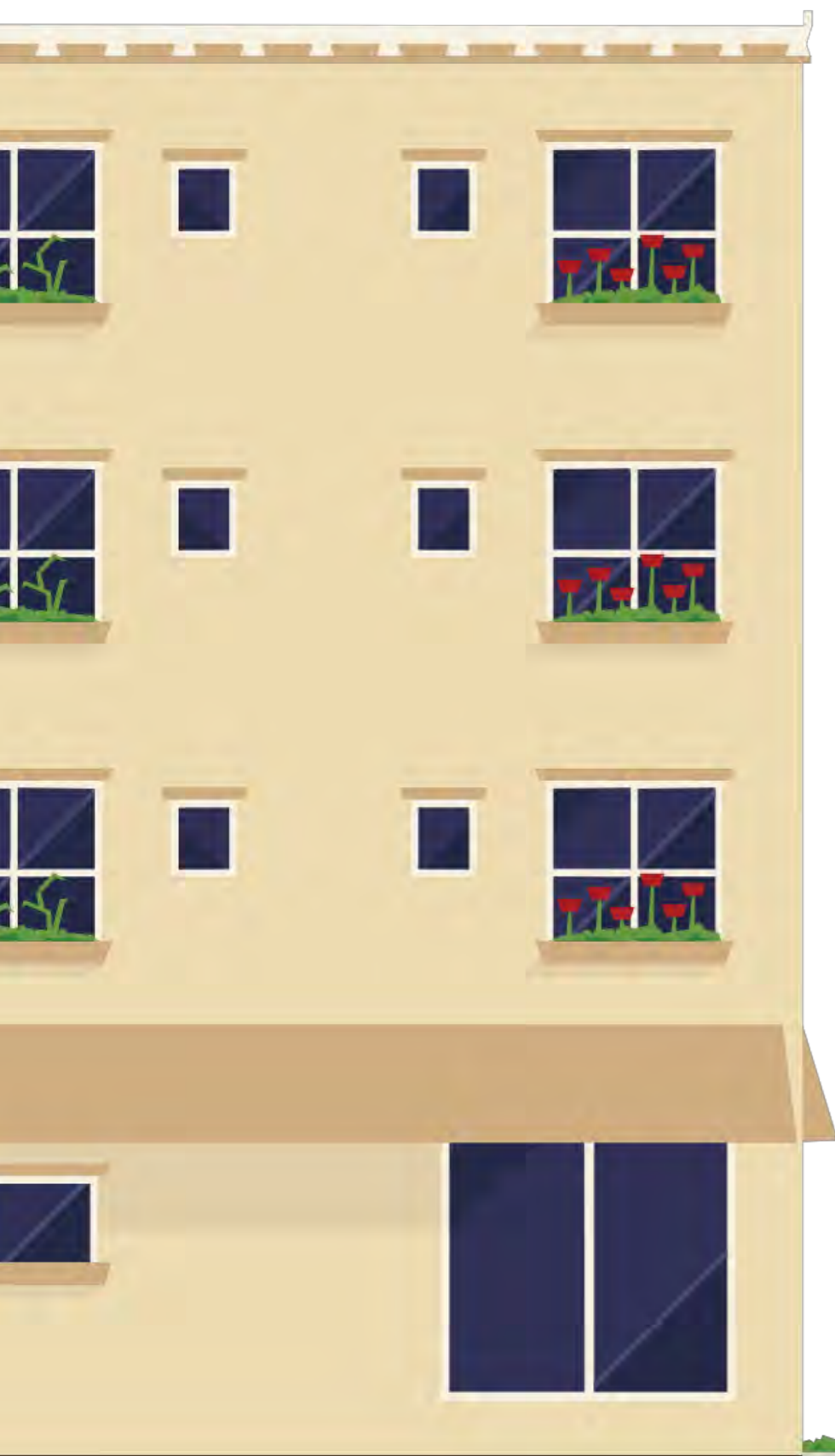
80' ROW



Internal Drive



Internal Parking



PZB Discussion

- Please note: the street cross sections have been updated since the PZB meeting
- Generally supportive of wider sidewalks and protected bike lanes

TC Discussion

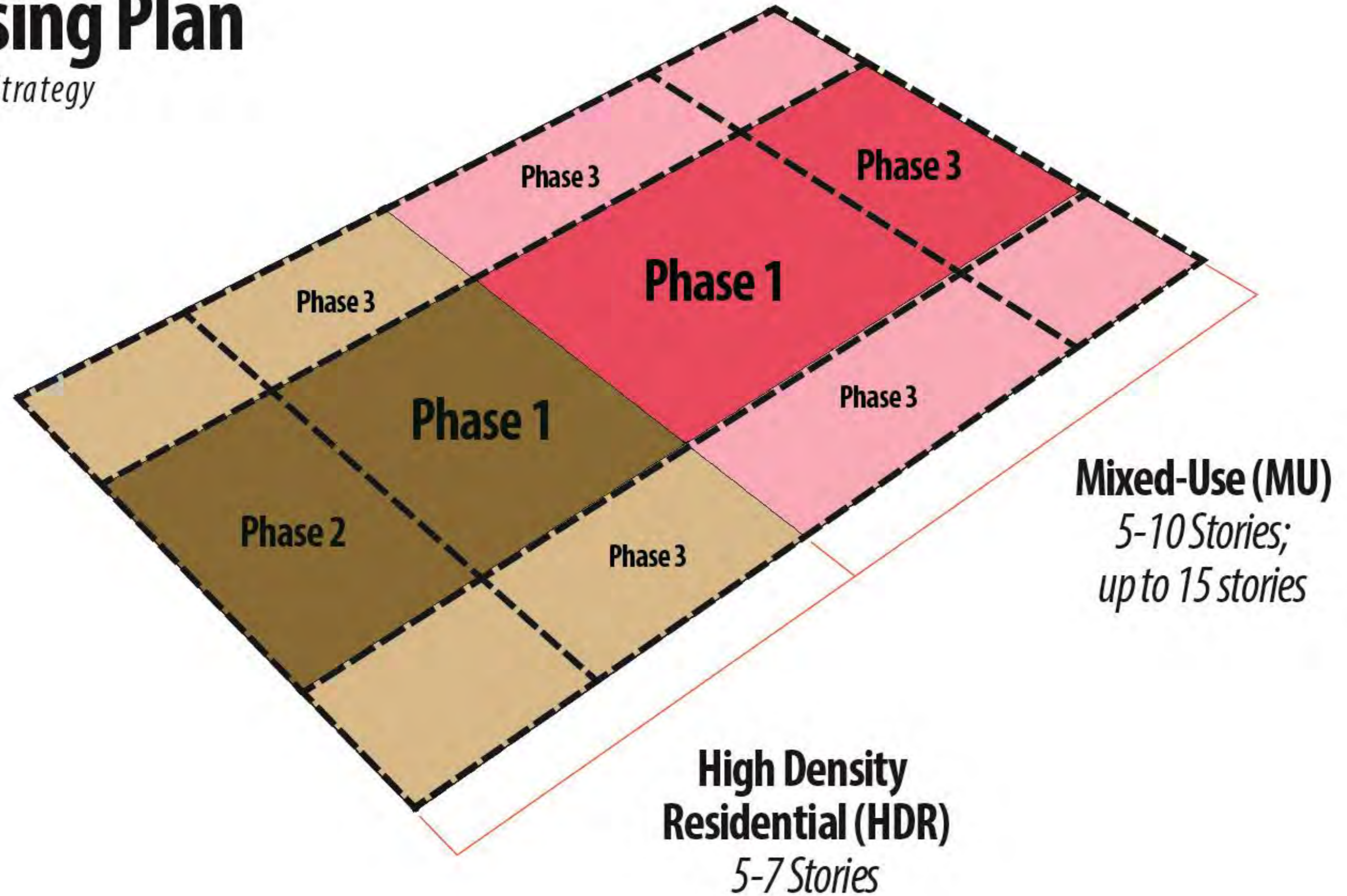
- Do you prefer additional parking flexibility, such as allowing/requiring 45- or 60-degree parking throughout?
- Besides pedestrian, biking, and driving facilities, what other features should be provided (i.e. outdoor dining)?

POTENTIAL PHASING APPROACH



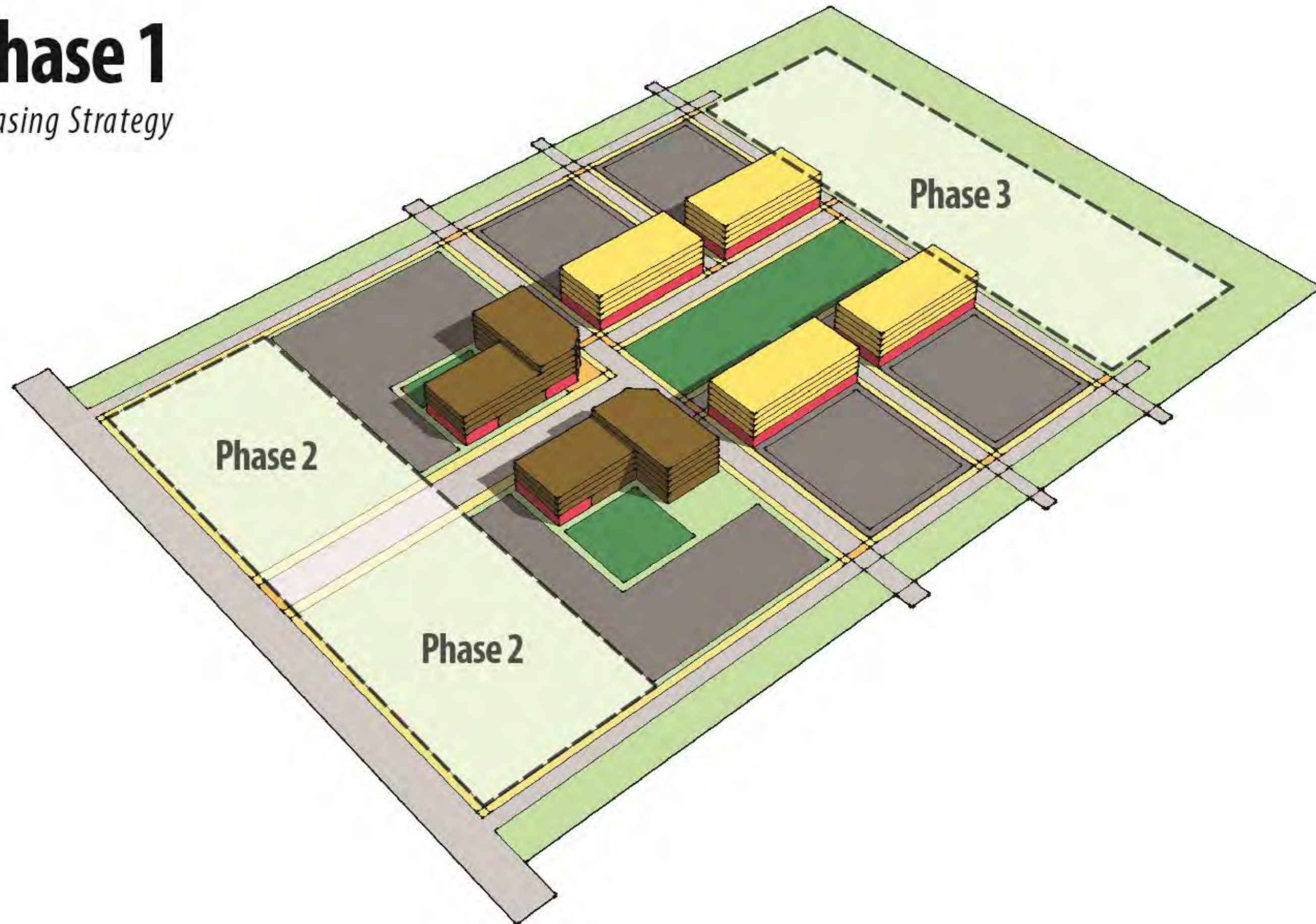
Phasing Plan

Phasing Strategy



Phase 1

Phasing Strategy



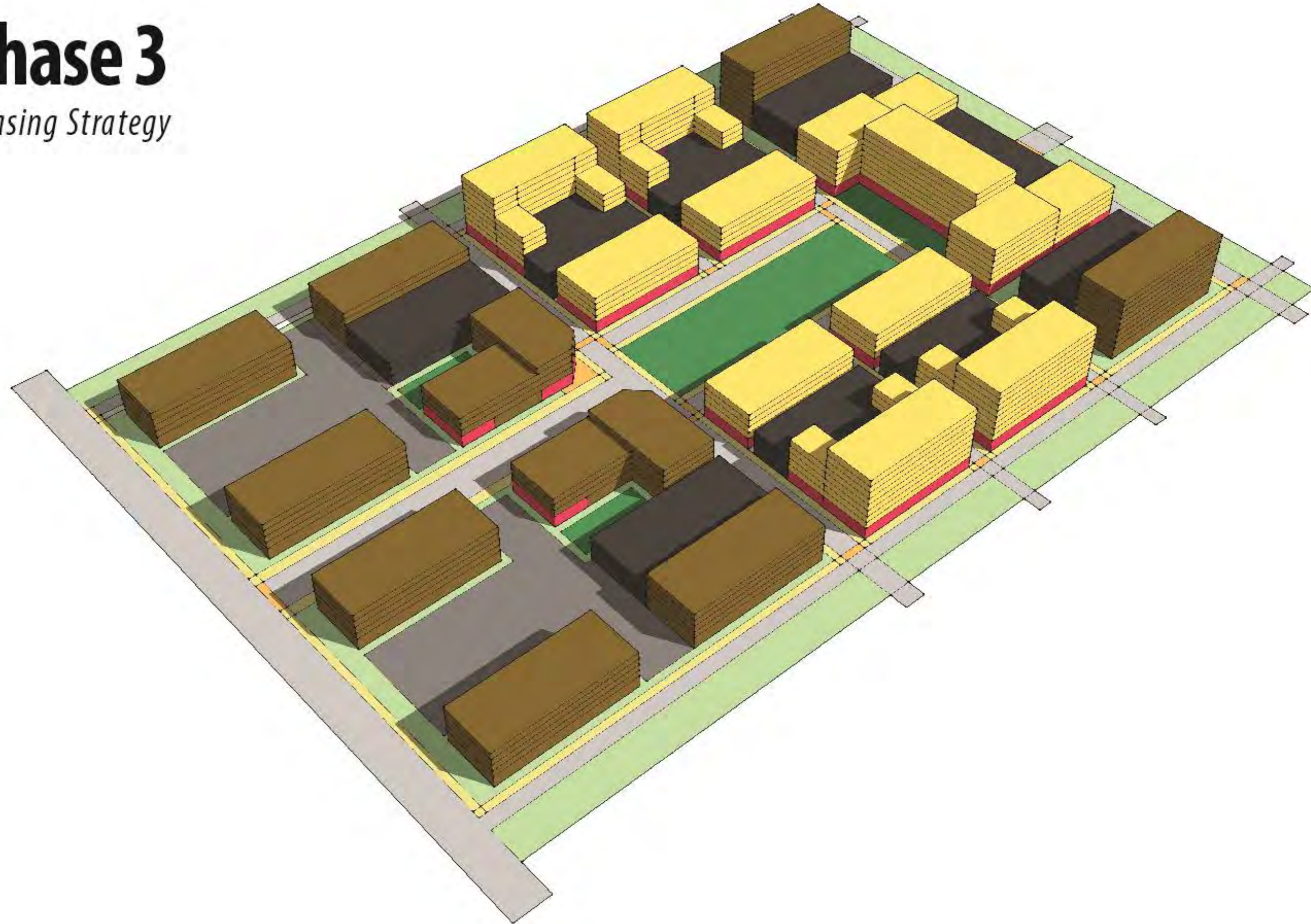
Phase 2

Phasing Strategy



Phase 3

Phasing Strategy



NEXT STEPS



Phase 1 - Design Typology/Redevelopment Plan

Step 2: Design Typology Toolkit

- Jan Typology Approach - Land Use; Roadway; Streetscape; Intersections/Crosswalks; etc
Bubble Diagrams (Initial Sketch Plans)
Preferred Schematic Sketch Plan
Developer Listening Session
Transit Providers
- Feb PZB Working Session
- Mar Town Council Working Session

Step 3: TOD Plan & Visualizations

- Feb Initial 3D Massing Model
- Mar Transit Providers & NCDOT (3d)
Developer Listening Session
- **Summer** 3D Massing Model (3b)
Final TOD Redevelopment Plan (3g)

Phase 2 – TOD Zoning District Standards

Step 5: Draft TOD Zoning District Standards

- May Draft TOD District Development
- Jun Draft TOD District Staff Review/Refinement
- Jul Draft TOD District PZB
- Aug Draft TOD District TC
Public Open House

Step 6: TOD Zoning District Adoption

- Sep Final TOD District and Public Hearing
- Oct Final TOD District Adoption
- Apr **Phase 3: Full UDO Update kickoff**

THANK YOU!

Appendix A – Examples of Building Heights

Single Family Detached

- 440 Carolina Street.
- 35' in height.



Single Family Attached

- 160 Sears Ridge Way.
- 33' in height.



Multifamily

- 5860 McCrimmon Parkway.
- **50' in height.**
- 4 stories.



Office

- 3025 Carrington Mill Blvd
- **87' in height.**
- 5 stories.
- 6.5 stories including the parapet wall and mechanical penthouse.



Office

- 411 W Chapel Hill Street, Durham.
- 14 stories.
- 199' in height.



Mixed-use w/Structured Parking

- 301 Hillsborough Street, Raleigh.
- Mixed-use.
 - Pendo Headquarters
- 19 stories.
- **263' in height.**



Sports Arena

- 1400 Edwards Mill Road, Raleigh.
- 108' in height.

