

Zoning Case 23-02 (1617 U St)

Shadow Study based on MU-10 By-Right Development Standards

Because the Applicant didn't do one

Assumptions

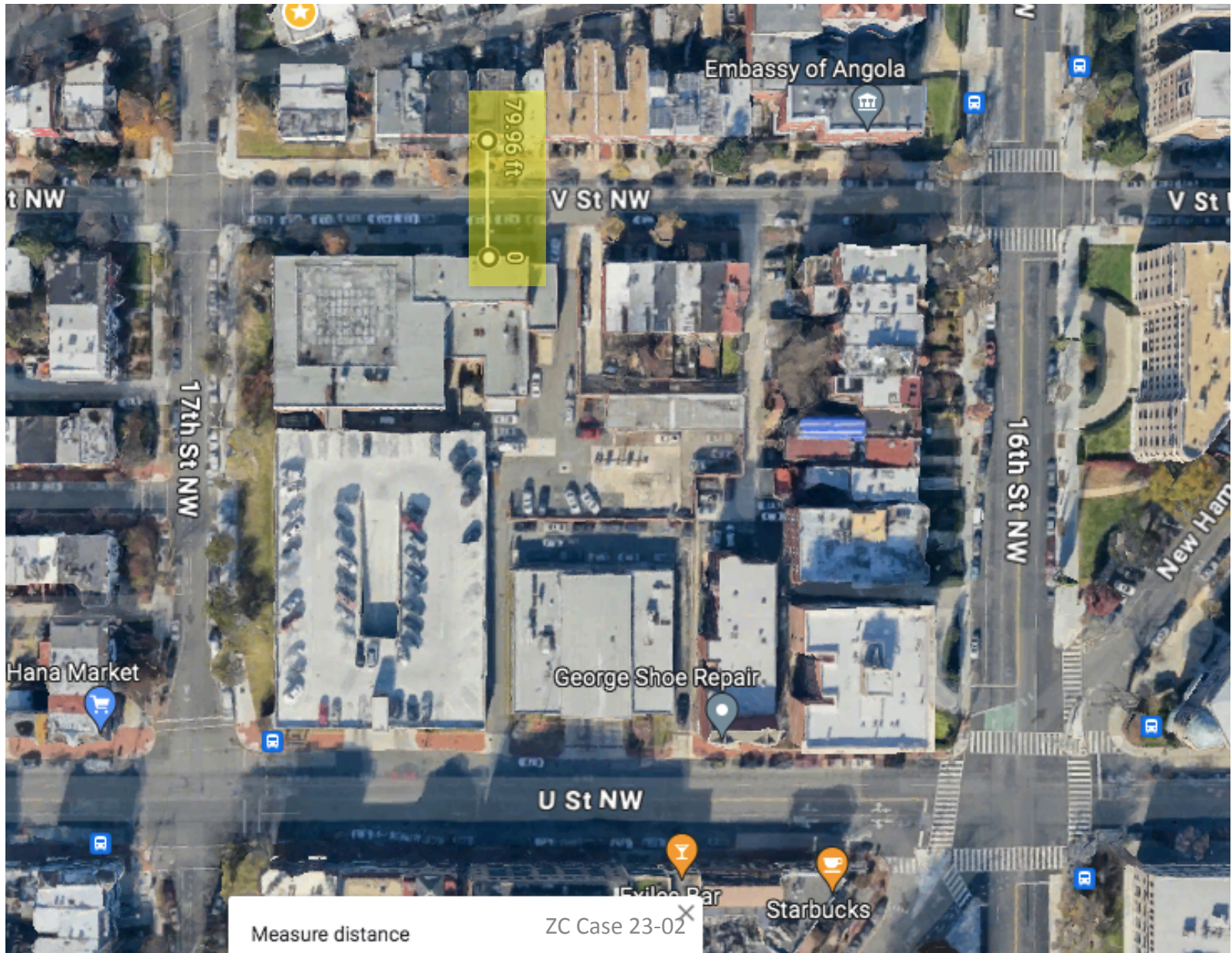
- In the summer, DC experiences noon sunlight at an angle of about 70 degrees from the horizon (peak June Solstice is about 75 deg)
- In the winter, DC experiences noon sunlight at an angle of about 30 degrees from the horizon (peak December Solstice is about 28 deg)
- Row homes on V St are about 20 feet tall on average

MU-10 Development Standards

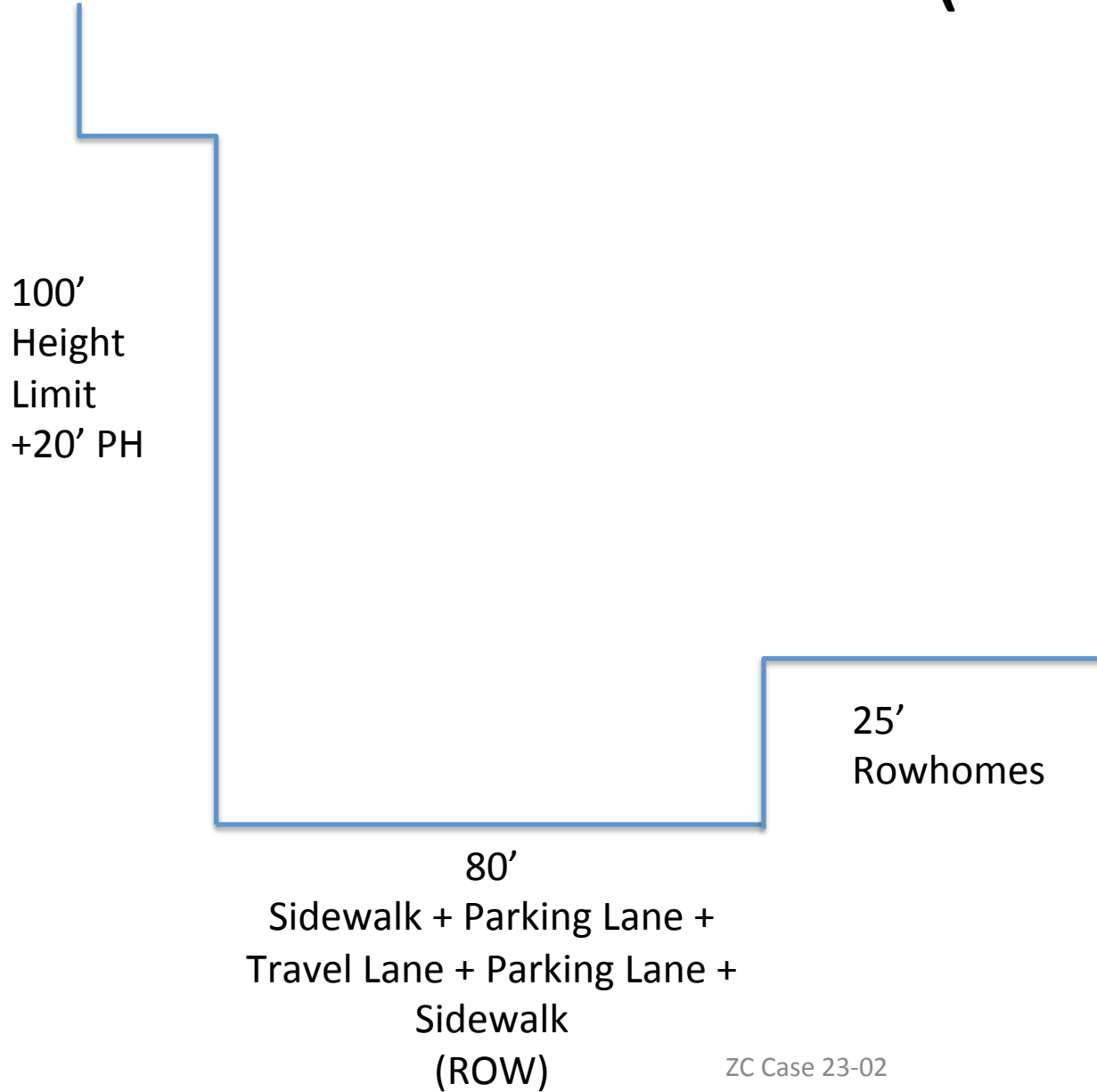
Comparison of Existing & Proposed Zones

	Existing Zone	Proposed Zone:
	MU-4	MU-10
Permitted Uses:	MU-Use Group E in Subtitle U, Chapter 5.	MU-Use Group G in Subtitle U, Chapter 5.
Height:	50 ft. maximum	90 ft. max 100 ft. max. with IZ
Floor Area Ratio (FAR):	2.5 max. 3.0 max with IZ (1.5 max. non-residential use)	6.0 max. 7.2 max. with IZ (3.0 max. non-residential use)
Penthouse Height:	12 ft. max./1 story 15 ft. total with second story for penthouse mechanical space	20 ft. max./ 1 story 20 ft. total with second story for penthouse mechanical space
Lot Occupancy	60% 75% IZ	75% 80% IZ
Rear Yard	15 ft. min.	The greater of 12 feet or 2.5" deep per foot of building height. Not required below first residential level.

Approximate Distance

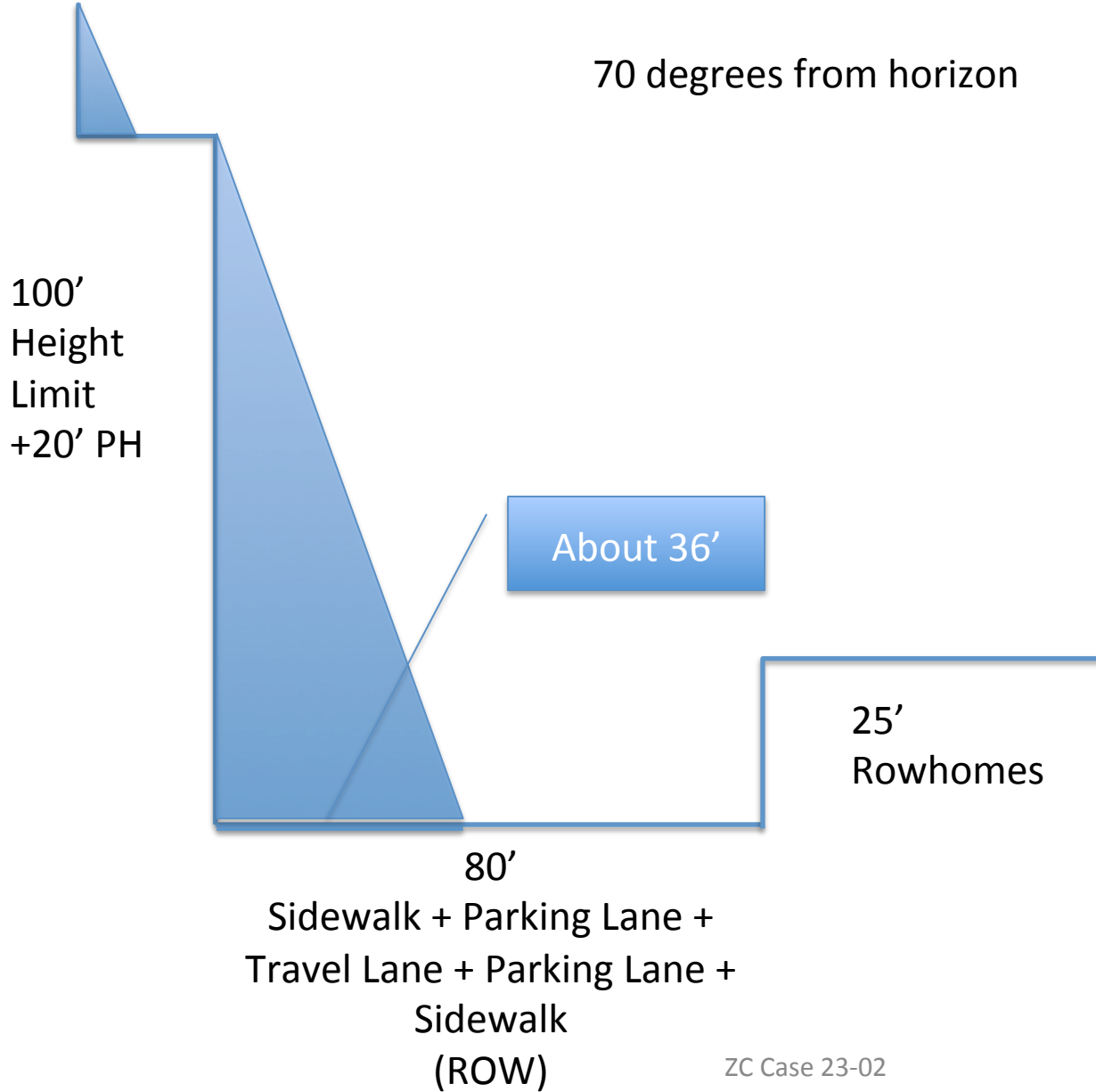


Cross Section (1"=25')



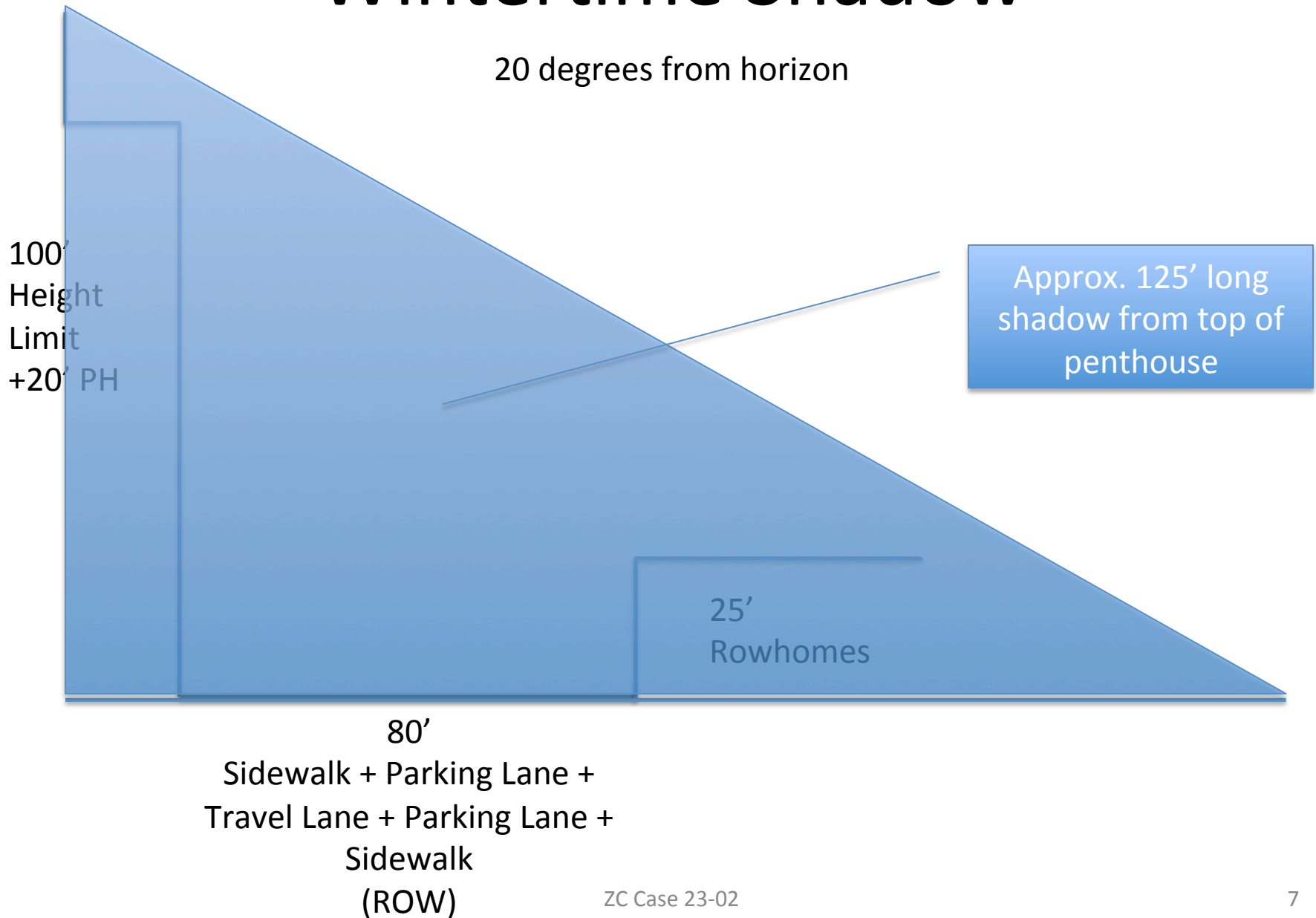
Summertime Shadow

70 degrees from horizon



Wintertime Shadow

20 degrees from horizon



'Median' / 'Average' Shadow

50 degrees from horizon

100'
Height
Limit
+20' PH

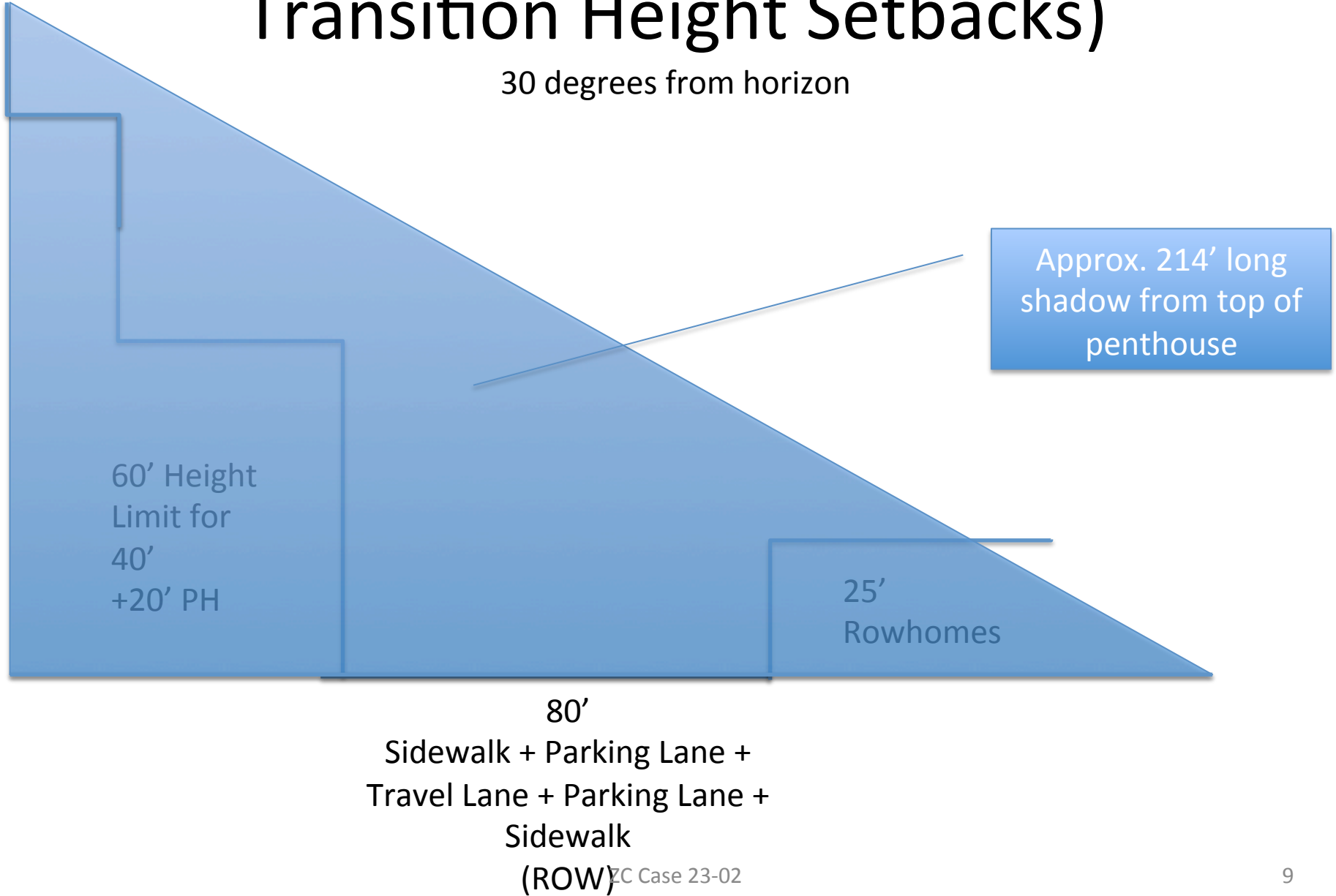
Approx. 84' long
shadow from top of
building

25'
Rowhomes

80'
Sidewalk + Parking Lane +
Travel Lane + Parking Lane +
Sidewalk
(ROW)

Wintertime Shadow (w/ proposed Transition Height Setbacks)

30 degrees from horizon



Context

- Solar panels will be less useful
- Gardens will be at jeopardy
- Seasonal depression will be more likely
- The rowhomes are unable to be re-build to a higher density or height due to the underlying zoning and historical district

Reasonable Compromise?

LOWER HEIGHT LIMIT AND DENSITY IN NEIGHBORHOOD CONSERVATION AREA



Generalized Policy Map

Site

U ST

- Future Planning Analysis Areas
- Resilience Focus Areas
- Proposed Boundary - State of Washington DC
- Policy Types
 - Enhanced/New Neighborhood Center
 - Enhanced/New Multi-Neighborhood Center
 - Institutional Uses
 - Land Use Change Areas
 - Land Use Change Areas (Federal)
 - Federal Lands
 - Regional Centers
 - Multi-Neighborhood Centers
 - Main Street Mixed Use Corridors
 - Neighborhood Commercial Centers
 - Central Washington
 - Neighborhood Enhancement Areas
 - Neighborhood Conservation Areas
 - Water
 - Parks

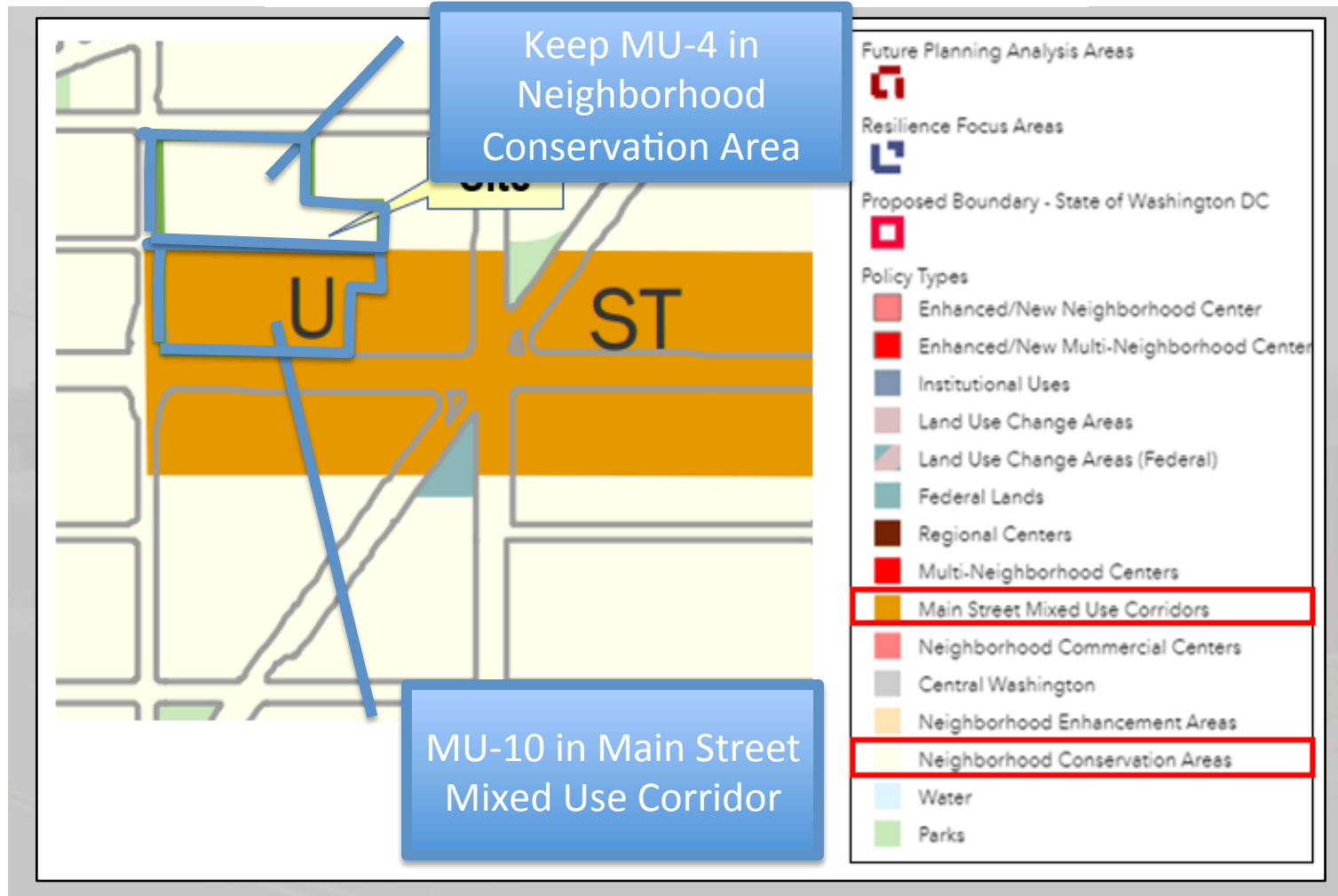
The guiding philosophy in Neighborhood Conservation Areas is to conserve and enhance established neighborhoods, **but not preclude development, particularly to address city-wide housing needs** [emphasis added] (10A DCMR § 225.5)

Densities in Neighborhood Conservation Areas are guided by the Future Land Use Map and Comprehensive Plan policies (10A DCMR § 225.5)

11

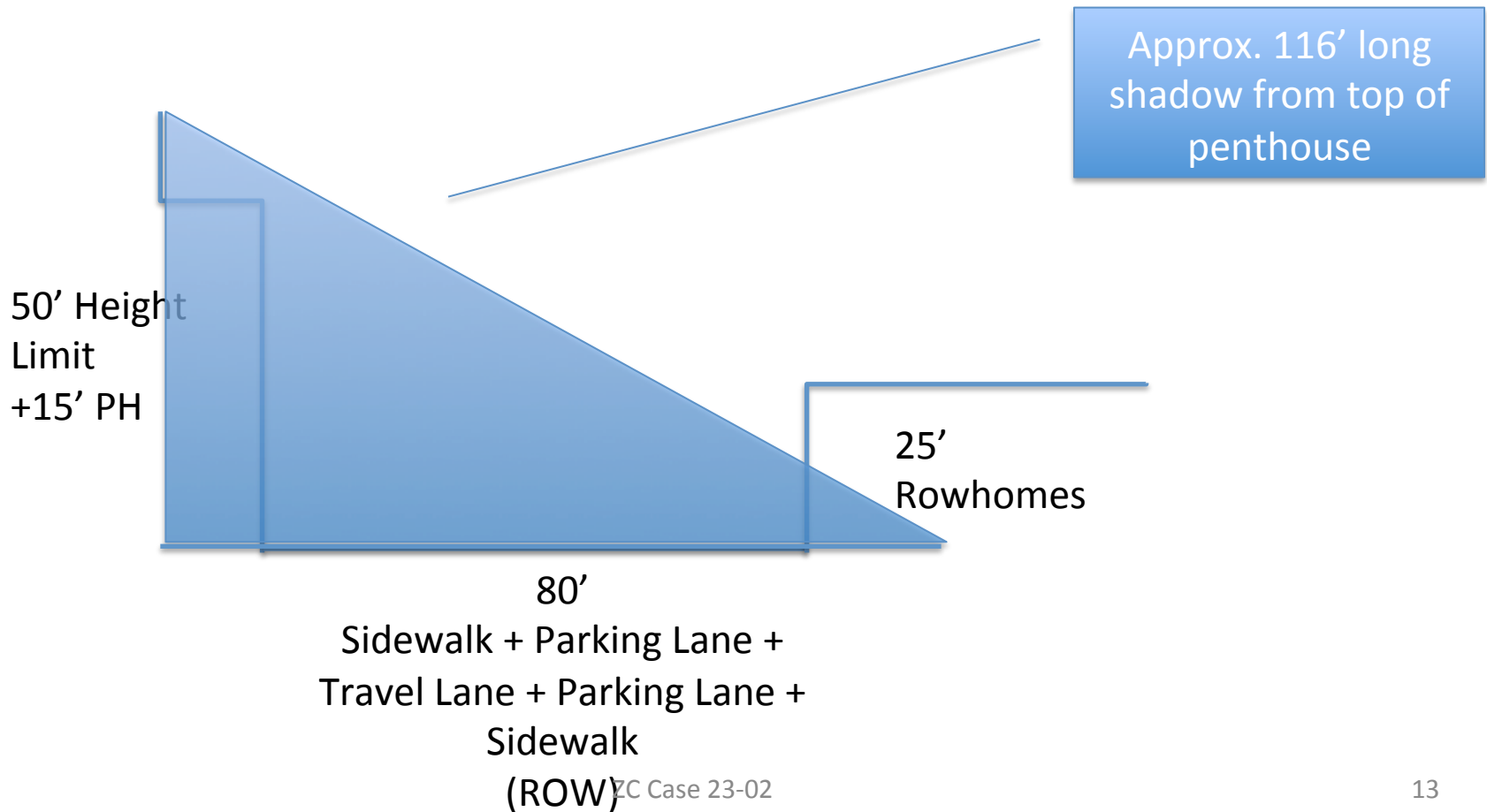
Reasonable Compromise?

LOWER HEIGHT LIMIT AND DENSITY IN NEIGHBORHOOD CONSERVATION AREA



Wintertime Shadow (w/ proposed Compromise)

30 degrees from horizon



Median / Average Shadow (w/ proposed Compromise)

50 degrees from horizon

