

SHAW EXHIBIT 4 - OPEN SPACE

Zone	Personal (SF or % of Gross Site Area)	Common Open Space (% Gross Site Area)	Civic Open Space (% Net Site Area, ≥ 4 acres sites)
RR	None	None	None
LA	23-4C-1070		
R1	None	5% ¹	10%
R2	None	5% ¹	10%
R3A&B	None	5% ¹	10%
R3C&D	100 sf ²	None	None
R4	100 sf ²	None	None
RM1A	5% ³	5% ⁴	10%
RM1B	None	5%	None
RM2A	5% ³	5% ⁴	10%
RM2B	None	5%	None
RM3A	5% ³	5% ⁴	10%
RM4	None	5%	None
RM5	5% ³	5% ⁴	10%
MU1A	100 sf ²	None	None
MU1B	100 sf ²	None	None
MU1C, MU1D	None	5%	None
MU2	5% ³	5% ⁴	10%
MU3	5% ³	5% ⁴	10%
MU4A	None	5% ⁴	10%
MU4B	5% ³	5% ⁴	10%
MU5	5% ³	5% ⁴	10%
MS1	None	5%	None
MS2	None	5%	None
MS3	None	5%	None
CC	None	5% ¹	10%
DC	None	5% ¹	10%
UC	None	5% ¹	None
CR	None	5% ⁴	10%
CW	None	5% ⁴	10%
IF	None	5% ^{4,5}	10%
IG	5% ³	5% ^{4,5}	10%
IH	None	None	None
R&D	None	5% ^{4,6}	None

Red- Code reference wrong.

Note 1 23-4C-1020 (Large Site Requirements) requires compliance with 23-4C-1030 when site more than one acre.

Note 2 Ground Level min. 10' width & 10' depth. Above Ground min. 5' width & 5' depth. Cottage Court must comply with 23-4E-6160

Note 3 Multi-family uses only in compliance with 23-4E-6240.

Note 4 For Non-residential sites > 2 acres and all multi-family with 10 or more units.

Note 5 List 5% for multi-family and non-residential, but then ¹ states that only applies to commercial uses.

EXHIBIT 5 - COMPATIBILITY SETBACKS AND STEPBCKS

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Zone	Height w/o DB	Height w/ DB ⁽¹⁾	Min. Setback -adjacent to or across an alley < 20 feet in width (≤75' width lot/>75' width lot) ⁽²⁾					Stepback -adjacent to, across an alley from, or across a ROW < 60' wide			
			Trigger	Front	Side St.	Side	Rear	Trigger	≤ 25'	>25' - 50'	>50'- 100'
RM1A	35'	None	R	25'/25'	15'/15'	15'/20'	30'/30'	None			
RM1B	45'	None	R	10'/10'	5'/5'	15'/20'	30'/30'	None			
RM2A	40'	None	R	25'/25'	15'/15'	15'/20'	30'/30'	R	18'	35'	
RM2B	40'	55'	R	10'/10'	5'/5'	15'/20'	30'/30'	R	18'	35'	45'
RM3A	60'	None	R	15'/15'	15'/15'	10'/20'	30'/30'	R	18'	35'	45'
RM4A	60'	80'	R	5'/5'	5'/5'	15'/20'	30'/30'	R	18'	35'	45'
RM5A	90'	None	R	15'/15'	15'/15'	20'/20'	50'/50'	R	35'	35'	45'
MH	35'	None	R	15'/15'	15'/15'	50'/50'	50'/50'	None			
MU1A-D ⁽³⁾	32' /45'	None	All Zones	25'/25'	15'/15'	15'/20'	30'/30'	None			
MU2A	45'	None	R	15'/15'	15'/15'	15'/20'	30'/30'	R	18'	35'	
MU2B	60'	None	R	15'/15'	15'/15'	15'/20'	30'/30'	R	18'	35'	45'
MU3A	60'	None	R	10'/10'	10'/10'	15'/20'	30'/30'	R	18'	35'	45'
MU3B	60'	None	R	10'/10'	10'/10'	15'/20'	30'/30'	R	18'	35'	45'
MU4A	60'	75'	R	10'/10'	10'/10'	15'/20'	30'/30'	R	18'	35'	45'
MU4B	60'	75'	R	15'/15'	15'/15'	10'/20'	30'/30'	R	18'	35'	45'
MU5A	80'	None	R	30'/30'	30'/30'	15'/20'	30'/30'	R	18'	35'	45'
MS1A&B	35'	None	R	10'/10'	10'/10'	15'/20'	30'/30'	R	18'	35'	
MS2A&B	45'	None	R	10'/10'	10'/10'	15'/20'	30'/30'	R	18'	35'	
MS2C	45'	None	R	10'/10'	10'/10'	15'/20'	30'/30'	R	18'	35'	
MS3A	60'	85'	R	5'/5'	5'/5'	15'/20'	30'/30'	R	18'	35'	45'
MS3B	60'	85'	R	5'/5'	5'/5'	15'/20'	30'/30'	R	18'	35'	45'
CC ⁽⁴⁾	120'	FAR?	All Zones	5'	5'	0'	0'	R	18'	35'	45' ⁽⁵⁾
UC ⁽⁶⁾	190'+	FAR?	All Zones	5'	5'	0'	0'	R	18'	35'	45'
DC ⁽⁷⁾	No Limit	None	All Zones	10' (max.)	10' (max.)	N/A	N/A	None			
CR	40'	None	R	50'/50'	50'/50'	20'/20'	30'/30'	R	35'	35'	
CW ⁽⁸⁾	25'	None	R	25'/25'	25'/25'	15'/20'	30'/30'	None			
IF	60'	None	R	15'/15'	10'/10'	15'/50'	50'/50'	R	35'	35'	45'
IF	60'	None	RM	15'/15'	10'/10'	15'/25'	25'/25'	R			
IG	60'	None	R	25'/25'	25'/25'	15'/50'	50'/50'	R/RM	35'	35'	45'
IG	60'	None	RM	25'/25'	25'/25'	15'/25'	50'/50'	R/RM			
IG	60'	None	MU/MS	25'	25'	15'	50'	R/RM			
IH	120'	None	R	25'/25'	25'/25'	25'/50'	50'/50'	R	35'	35'	45'
IH	120'	None	RM	25'	25'	25'	30'				
IH	120'	None	MU/MS	0'	0'	15'	15'				
R&D ⁽⁹⁾	45'-90'	None	R/RM	25'/25'	10'/10'	15'/25'	30'/30'	None			

R&D ⁽⁹⁾	45' 00"	None	MU/MS	25'	10'	45'	15'	None			
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- Note 1 To receive a affordable housing bonus, a project must comply with Article 23-3E (Afordable Housing).
- Note 2 Where one value shown, setback does not vary based with lot width. For IG and R&D zones, R and RM setbacks shown are for lot widths less than and greater than 100'. For IH, R setback is for lot widths less than and greater than 200'.
- Note 3 No compatibility setbacks/stepbacks. Includes note, "Existing buildings located closer are considered nonconforming."
- Note 4 Section 23-4D-9070 has additional setback requirements for Downtown Overlay Zone. Includes subzones with 40', 60', 80' and 120' max. heights.
- Note 5 Lesser of 45' or subzone max. which is greater for subzones with C-60, C-80 and C-120.
- Note 6 Includes subzones allowing 80', 120', 180' and unlimited height. Density bonuses have not been determined.
- Note 7 Refers to additional setabck standards in 23-4D-7070. This is probably incorrect and should reference 23-4D-9070.
- Note 8 35' height allowed with Land Use Commission approval of CUP.
- Note 9 Height of a building may exceed 45' by 1' for each additional 2' that the building is set back beyond 100' from the front and side lot lines and beyond 50' from the rear lot line, up to a maximum height of 90'.
- Note 10 MU2A& B, MU4B has additional compatibility requirements when within 50' of R Zone cannot have outdoor seating or amplified sound.

SHAW EXHIBIT 3 - PERMITS FOR BARS AND RESTAURANTS

Zones	MU1A	MU1B	MU1C	MU1D	MU2A	MU2B	MU3A	MU3B	MU4A	MU4B	MU5A	MS1A	MS1B	MS2A	MS2B	MS2C	MS3A	MS3B
Restaurants																		
With Alcohol	-	CUP	-	CUP	-	P	P	P	P	P	P	-	MUP	-	MUP	MUP	P	P
Drive Through	-	CUP	-	CUP	CUP	CUP	-	CUP	CUP	MUP	P	-	-	-	CUP	CUP	MUP	MUP
Late Night	-	CUP	-	CUP	-	-	CUP	CUP	CUP	P	MUP	CUP	CUP	CUP	CUP	CUP	CUP	CUP
Micro-Brewery/ Micro-Distillery	-	MUP	-	MUP	-	P	P	P	P	P	P	-	MUP	-	P	P	P	P
Bar/Night Club																		
Level 1(no outside seating, no late hours)	-	CUP	-	CUP	-	CUP	CUP	P	MUP	P	P	-	MUP	-	MUP	MUP	P	P
Level 2	-	-	-	-	-	-	-	MUP	CUP	P	MUP	-	-	-	-	-	MUP	MUP

Related Standards: 23-4E-6150
23-4E-6290

COMPATIBILITY STANDARDS

§ APPLICABILITY.

Properties that trigger compatibility standards shall include those zoned:

- (A) residential house-scale form; or
- (B) planned unit development (PUD).

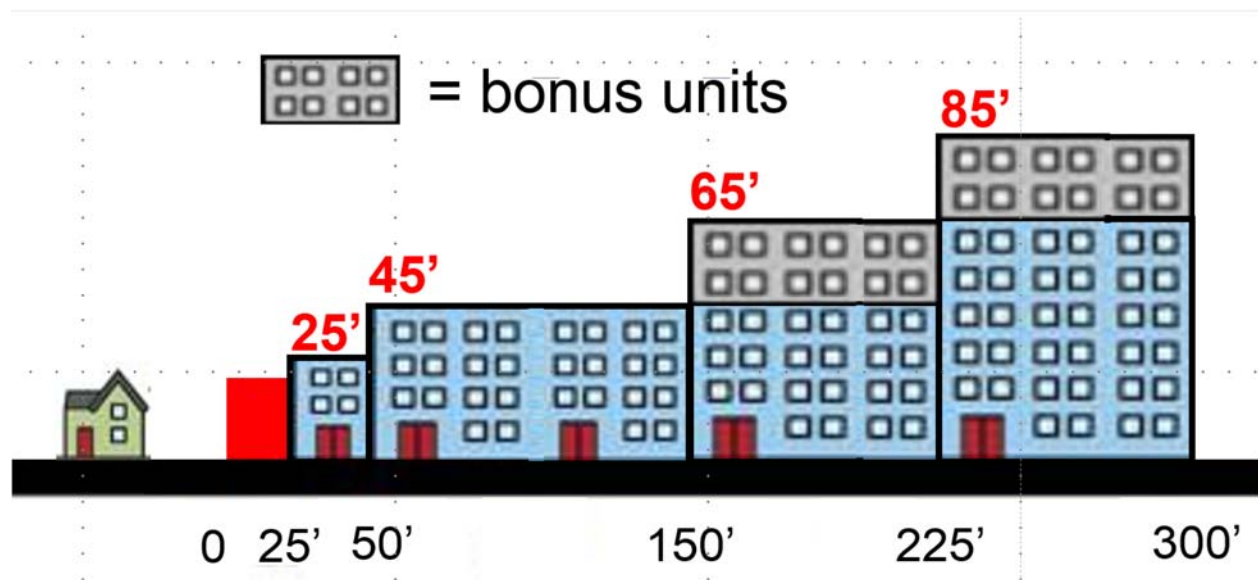
§ EXCEPTIONS.

This article does not apply to structural alterations that do not increase the square footage or height of a building, or changes of use that do not require additional off-street parking.

§ DIMENSIONAL STANDARDS.

All required distances shall exclude the widths of intervening alley or street rights-of-way.

- (A) **Setback:** All structures shall be set back at least 25 feet from a triggering property.
- (B) **Height:** The maximum height of a structure from a triggering property shall be:
 - (1) 25 feet, if between 25 and 50 feet;
 - (2) 45 feet, if between 50 and 150 feet;
 - (3) 45 feet with a possible density bonus increase of 20 feet, if between 150 and 225 feet;
 - (4) 65 feet with a possible density bonus increase of 20 feet, if between 225 and 300 feet.



§ DESIGN REQUIREMENTS.

(A) **Screening:** All areas used for parking, storage, waste receptacles or mechanical equipment shall be screened from a triggering property. Such screening may be a fence, berm or vegetation and shall be maintained by the property owner. Fences shall not exceed six feet in height.

(B) **Lighting:** Exterior lighting shall be hooded or shielded so that it is not visible from a triggering property.

(C) **Noise:** The noise level of mechanical equipment shall not exceed 70 db at the property line of a triggering property.

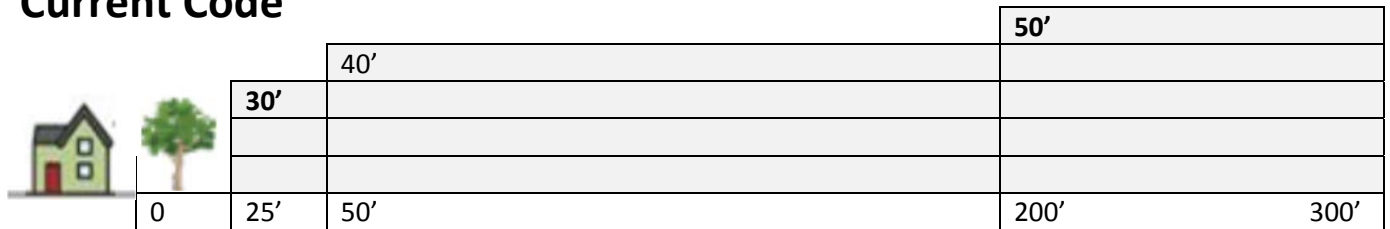
(D) **Waste:** Waste receptacles, including dumpsters, shall not be located within 20 (or 50) feet of a triggering property. The City shall review and approve the location of and access to each waste receptacle. Collection of such receptacles shall be prohibited between 10 pm and 7 am.

(E) **Parking:** From a parking structure facing and located within 100 feet of a triggering property:

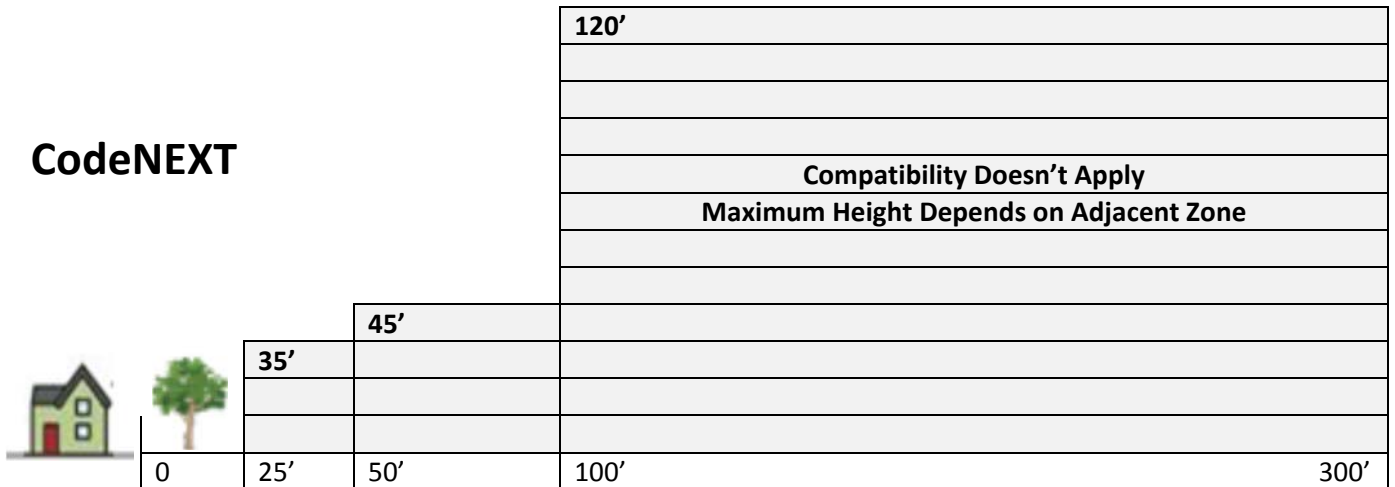
- (1) Vehicle headlights shall not be directly visible;
- (2) Parked vehicles shall be screened from the view of any public right of way; and
- (3) All interior lighting shall be screened from the view of a triggering property.

(F) **Intensive Uses:** Intensive recreational uses, such as swimming pools, tennis courts, ball courts and playgrounds, shall not be located within 50 feet of a triggering property.

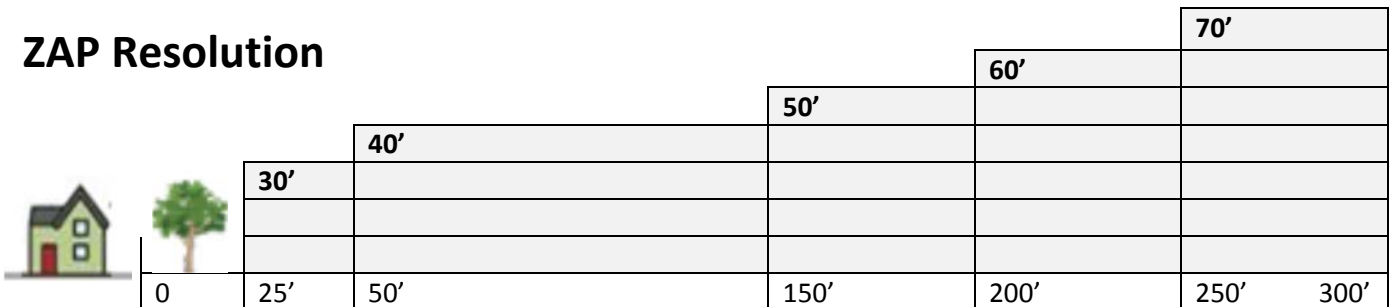
Current Code



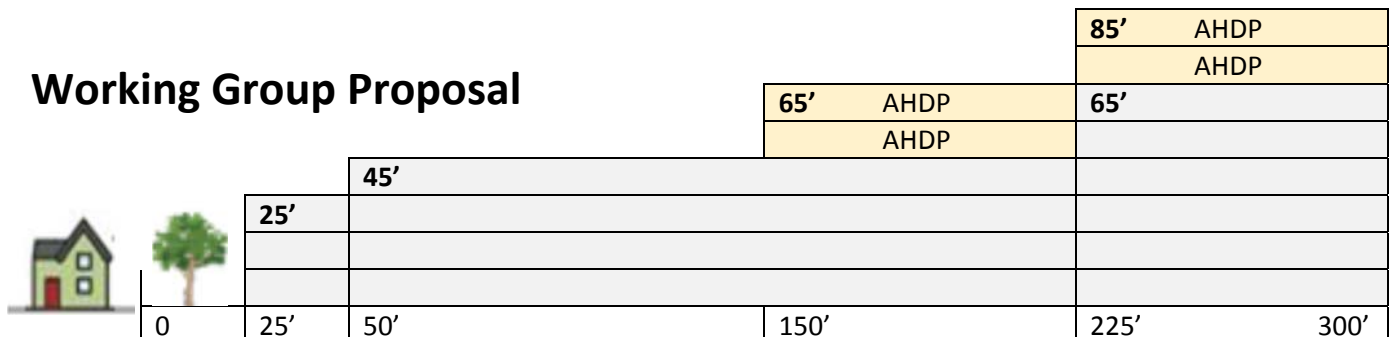
CodeNEXT



ZAP Resolution

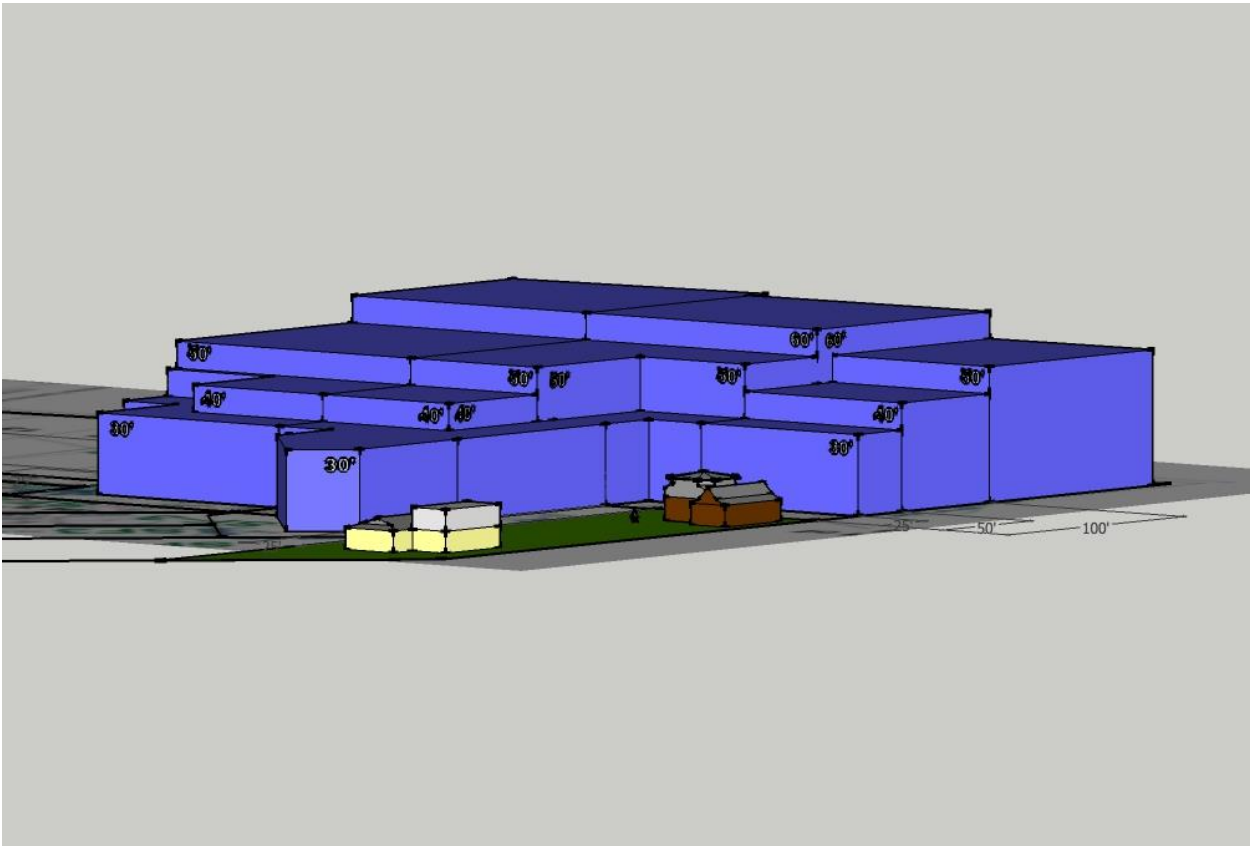


Working Group Proposal

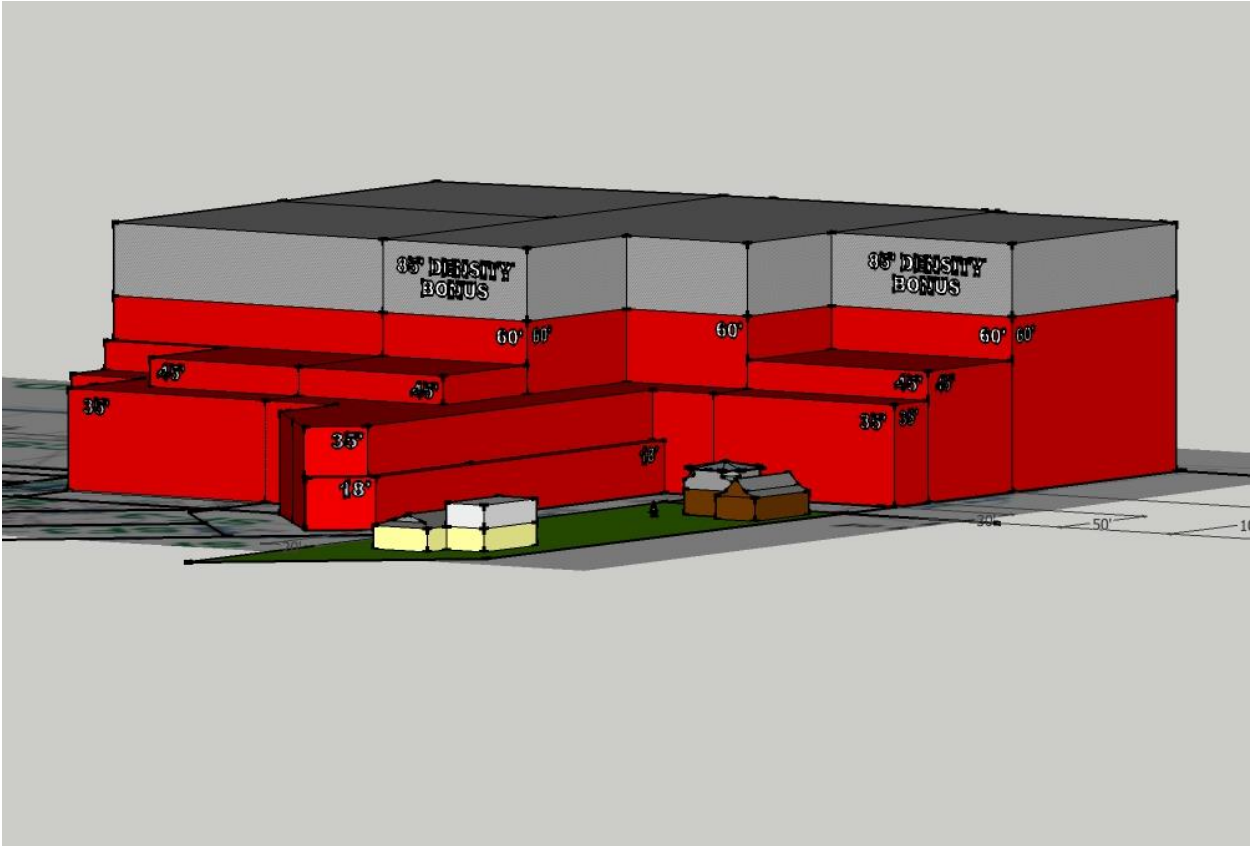


Compatibility Alternatives

Compatibility Comparisons



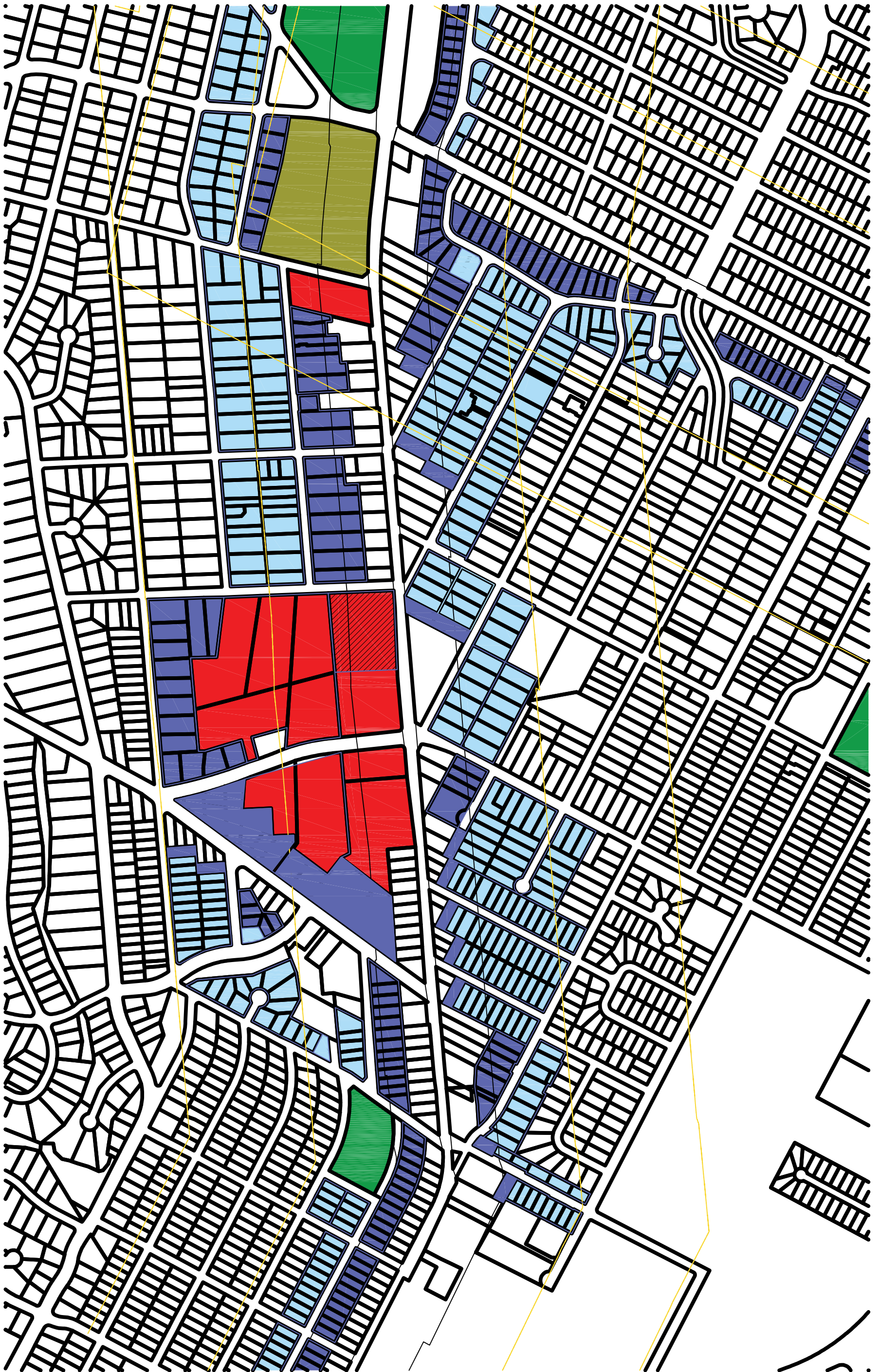
Current



Draft 3



ZAP





Lot Depth Analysis of MU and MS Zones Excluding Floodplain

IA Corridor

Lakes

Lot Depth

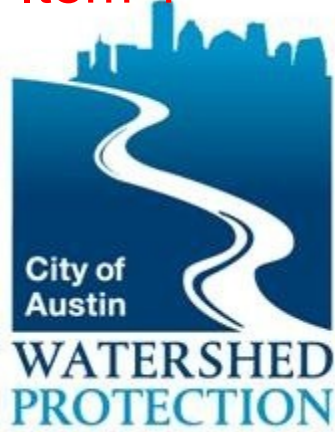
- <100
- 100 - 149
- 150 - 199
- 200 - 249
- 250 - 299
- >300



Date: 3/27/2018

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

This product has been produced by the Development Services or Planning and Zoning Department for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or completeness.



Drainage Modeling Summary:
Evaluating the Impact of the Proposed
CodeNEXT Regulations on Flood Risk Reduction and
Maximum Single-Family Residential Buildout on Flood Risk

April 25, 2018

The Watershed Protection Department's (WPD) mission is to protect lives, property, and the environment by reducing the impact of flood, erosion, and water pollution. We carry out this mission by constructing drainage projects, enforcing development regulations, and providing programs such as the inspection and maintenance of drainage infrastructure. These efforts help to mitigate existing drainage and flooding problems and prevent future problems. In response to the public's desire, recommendations from the Flood Mitigation Task Force, and the impetus of our mission to reduce the impacts of flooding, WPD has proposed new regulations in CodeNEXT that we believe will help reduce flood risks citywide. This summary discusses the results of engineering studies to determine the potential flood risk reduction benefits of the proposed regulations.

The current Land Development Code (LDC) includes regulations that require the control of post-development stormwater runoff from all development such that new development will not result in additional adverse flooding to other properties. To satisfy these regulations, development typically includes one of these three options: on-site stormwater controls, usually with a detention pond; off-site improvement or addition of stormwater infrastructure; or a payment-in-lieu of detention program. When determining the amount of pre-development stormwater runoff, the regulations allow the developer to include the amount of impervious cover that exists on the site at the time of application.

As part of the current CodeNEXT draft regulations, re-development of commercial, multi-family, and residential subdivision projects would be required to construct on-site stormwater controls to limit post-development stormwater peak flow rates from new and redeveloped impervious cover to that with zero impervious cover. Off-site stormwater infrastructure improvements or a payment-in-lieu of detention will still be an option as long as the developer can prove through a drainage analysis that the development will not create additional flooding downstream. These off-site options are dependent on this site-specific drainage analysis and must be approved by the City.

The intent of these proposed regulations is to require properties that were developed prior to the current drainage regulations to do their proportionate share to reduce the risk of flooding to other properties. For decades, the LDC has required that new development reduce the risk of flooding in proportion to each site's flood impacts. In large part due to development prior to regulations put in place by the City in the late 1970s and 1980s, there are more flood risks citywide than the Watershed Protection Department has resources to mitigate. The goal of the proposed CodeNEXT regulations is for both new development and re-development to assist in reducing flood risks.

WPD initiated an engineering study to better understand the effectiveness of the proposed CodeNEXT regulations in reducing flood risks along a typical major creek and within an urban drainage system. We refer to these as creek flooding and local flooding.

Because the proposed CodeNEXT regulations are not proposed to apply to individual single-family building permits, WPD also investigated the potential impact of residential buildout up to the maximum allowed impervious cover. Currently, compliance with most drainage requirements is not reviewed for individual one- and two-unit building permits, as the drainage requirements are not designed for this type and scale of development.

CodeNEXT proposes to better tailor applicable regulations and permit review procedures to a project's overall scale and intensity. To that end, CodeNEXT will not require compliance with the proposed requirement to limit peak flows to predevelopment conditions for individual homes and small multi-family structures, but it does propose to add a new requirement that most residential building permit applications include an engineer's certification that new construction will not change existing drainage patterns in a manner that negatively impacts adjacent property. The purpose of this requirement is to avoid lot-to-lot drainage impacts.

More details about both studies are provided in the remainder of this summary.

Local Flood Modeling

To assess the impact of the proposed CodeNEXT regulations on stormwater levels along an urban drainage system, WPD performed modeling of storm drain systems in four selected areas of the City utilizing an engineering model called StormCAD. The advantages of the StormCAD model are that it's relatively simple to build and effectively determines how efficiently stormwater flows through the pipes of the drainage system. However, it is not the best model to predict the depth of stormwater that flows along the ground when the pipes have reached their capacity. We use StormCAD as a starting point prior to proceeding with a more advanced model if indicated by the StormCAD model.

In order to represent development of properties according to the proposed CodeNEXT regulations, impervious cover for all multi-family and commercial parcels was set to zero in the model's runoff coefficient calculations to simulate pre-development peak flow conditions. The StormCAD modeling results clearly indicated an improvement in the capacity of the storm drain system and justified using a more advanced engineering model for more detailed results.

Staff selected an area near South Lamar at Del Curto Road in the West Bouldin Creek watershed as the study area for the advanced modeling effort because it has a combination of residential and commercial properties that are generally representative of Austin's central core. See Figure 1 at the end of the report for a map of the study area. The advanced model, also called a 2D model, is able to account for stormwater flowing through the storm drain pipes as well as stormwater flowing above ground to simulate water levels at the potentially impacted buildings.

Four scenarios were analyzed to assess the impact of the proposed CodeNEXT regulation on localized flooding. Scenario 1 simulates existing conditions in impervious cover, scenario 2 simulates the full buildout of multifamily/commercial properties under the current proposed CodeNEXT regulations, scenario 3 simulates the full buildout of multifamily/commercial properties under the current proposed CodeNEXT regulations with the maximum buildout of residential impervious cover, and scenario 4 simulates the maximum buildout of single-family residential impervious cover. In order to represent development of properties according to the proposed CodeNEXT regulations, engineering data such as curve numbers and times of concentration were adjusted as well.

The results of the 2D modeling effort show a reduction in flood risk due to the proposed CodeNEXT requirements. Table 1 below indicates the maximum and average reductions in the levels of the stormwater. The analysis shows peak flooding depths were reduced by up to 4.8 inches, and peak flows were reduced by up to 23% in the 2-year storm event. A total of seven buildings see a reduction in flood depths greater than one inch in the 2-year storm, with 32 buildings experiencing a reduction in depths greater than one inch in the 100-year storm. See Figure 1 for a map of the potential benefits of re-development mitigation in the 100-year storm. This analysis suggests that the proposed CodeNEXT regulation regarding mitigation for re-development provides measurable and beneficial reductions in flood risk.

Table 1: Benefits of proposed CodeNEXT mitigation to greenfield conditions for re-development compared to existing conditions

Storm Event	Number of Buildings Removed from Flood Risk	Number of Buildings with a Reduction in Flood Depths > 1 inch	Maximum Reduction (inches)	Average Reduction (inches)
2-year	5	7	1.9	1.2
10-year	5	12	3.0	1.7
25-year	4	20	4.8	1.3
100-year	3	32	2.6	1.2

The 2D modeling effort also examined the impact of the buildout of single-family residential areas to maximum allowed impervious cover on localized flood risk. The future development of residential properties increased peak flows at Del Curto, Kinney, and Thornton by between 1.2% and 3.2% in the 2-year storm event, and between 0.3% and 0.7% in the 100-year storm event. Peak flooding depths were increased by up to 1.4 inches in the 2-year storm, with the increase for 10- through 100-year events ranging from 0.12 to 0.24 inches. For the Del Curto study area, one building would see an increase in flood depths over one inch in a 2-year storm event. No buildings were impacted during the 10-year, 25-year and 100-year storm event. See Figures 2 and 3 for maps of the 25-year and 100-year events, respectively.

Overall, these results indicate that the redevelopment of residential properties to the maximum allowed impervious cover has a minimal impact on flood risk within the studied area. In this particular study area, the estimated flood depth reductions due to the proposed CodeNEXT regulation of post-development peak flows exceeds the flood depth increases from residential buildout.

Creek Flood Modeling

WPD staff selected the four areas shown in Figure 2 to analyze the impact of the proposed CodeNEXT regulations on creek flood levels: West Bouldin Creek watershed (South Lamar Boulevard), Country Club West Creek watershed (Riverside Drive, east of IH35 area), Hancock Branch of Shoal Creek (Brentwood Neighborhood), and Upper Tannehill Branch watershed (IH35 at Airport Boulevard). WPD selected these areas because they are generally fully developed, include portions of major re-development corridors identified in the Imagine Austin Comprehensive Plan, and have enough land use variety to cover the breadth of the impacts we would expect to see from the proposed CodeNEXT regulations.

Detention was selected as the most easily modeled form of mitigation to represent the proposed CodeNEXT regulations. However, in practice, the proposed mitigation approach would require that each re-development project be evaluated to determine the most effective strategy to address downstream flooding. In some cases, this would be on-site flood detention; in others, it might be the improvement of downstream conveyance either directly or through a payment-in-lieu of detention program. In all cases, the development would not be allowed to result in additional adverse flooding to other properties.

WPD staff developed a methodology for this analysis that represents the impact of detention distributed throughout the properties with the potential for re-development without modeling each individual detention pond directly. This method adjusts the Peak Rate Factor (PRF), which is a component of the NRCS Unit Hydrograph transform within the engineering model. Reduction of the PRF flattens the runoff hydrograph and reduces the peak flow produced by each subbasin. This effectively mimics the storage within the subbasin that would be provided by detention.

The Creek Flood modeling analysis shows that the proposed CodeNEXT regulations would have a measurable and beneficial impact on both flood levels and floodplain extents. The City's floodplain models, maps and regulations are based on the assumption of full development without detention in the watershed. The mitigation scenario was compared to this full development condition per the zoning recommendations in CodeNEXT. As expected, the magnitude of the benefit seen is dependent on the amount of land with the potential for re-development and on the location of this land within the watershed. For all watersheds studied, the average overall flow reduction was approximately 13% (ranging from 0 – 25%). The average depth reduction was up to 5 inches for a 25-year event and up to 4 inches for the 100-year storm event. Refer to figures 3 through 7 and table 1 for summaries of the average flow and depth reduction benefits for different areas within the evaluated watersheds.

The Creek Flood modeling analysis also examined the relative flooding impact of full impervious cover buildout of single-family residential areas under CodeNEXT. From a regulatory standpoint, the City's floodplain models and maps already account for full single-family residential buildout. This analysis helps answer the question about the degree of impact that residential buildout alone may have on flood risk.

As would be expected of an increase in impervious cover, the modeling shows a mathematical increase in flood depth between existing impervious cover conditions and the residential maximum allowed impervious cover conditions. However, this change is comparatively minimal; the flood depth differences averaged 0.5 inches over all storm events, with an average increase in peak flows of 1.8%. For the 100-year event, depth differences averaged 0.3 inches. The depths of flow in more frequent storm events (e.g. 2-year, 5-year, etc.), which tend to be more contained within existing channel banks, are more significantly affected which skews the average depth in all storm events.

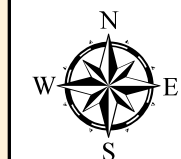
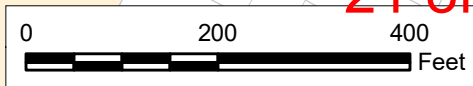
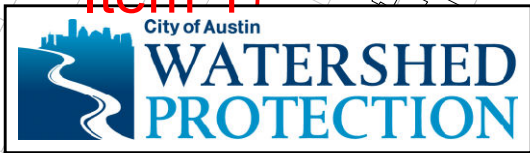
Summary

The proposed CodeNEXT regulations requiring that re-developing properties mitigate to pre-development conditions has the potential to help the City address long-standing flood risk issues, especially in the urban core. The analyses summarized here show that mitigation for re-development as proposed in CodeNEXT (for simplicity modeled in the form of detention) provides measurable and beneficial reductions in flood risk.

- The magnitude of flood risk reduction depends on the location within the watershed and the amount of land area that is likely to redevelop within the watershed.
- The observed reduction is greater in the upstream portions of the studied watersheds and tends to decrease as the contributing area increases along the larger streams.
- The observed variation in flood risk reduction illustrates the need for a variety of mitigation measures, such as on-site stormwater controls, off-site improvements, or payment-in-lieu of detention, that will allow the mitigation approach to be tailored depending on the location within the watershed and the condition of the downstream drainage system.
- The 2D modeling exercise found that development of all single-family areas to the maximum impervious cover limits allowed by the proposed CodeNEXT zoning does not have a significant impact on flood risk within the studied watersheds.

The proposed CodeNEXT regulations produce demonstrable flood risk reductions. However, they will not provide an immediate solution to the City's flooding problems. Over time as existing development redevelops, the requirements will reduce the risk for flooding to buildings in or near the floodplain and thus reduce the cost of post-flood recovery to those affected by flooding. The proposed requirements could also make implementation of City-funded flood risk reduction projects within the urban core more cost-effective by reducing the magnitude of flows that must be managed through drainage system improvements and helping directly construct or contribute financially to such improvements.

It is important to reiterate that detention is not the only potential mitigation measure that could be associated with these proposed regulations. In practice, each re-development project would need to be evaluated to determine the most effective strategy to address downstream flooding. In some cases, this would be on-site flood detention, in others, it would be the targeted improvement of downstream conveyance either directly or via payment-in-lieu of detention towards such a project.



Limits of 2D Zone

Storm Drain

Flooding Complaints

Building

Yard

Street

Parcel Groups

Group C (Commercial/Multifamily)

Group A, B

S2 Decrease from S1 WSE (100-Year)

2 - 3"

1 - 2"

0.5 - 1"

S2 Limits of Inundation (100-Year)

Buildings with S1 Inundation Reduced by ≥1" (100-Year)

Buildings Removed from S1 Flood Risk (100-Year)

Buildings at Risk of S2 Flooding (100-Year) (58 buildings)

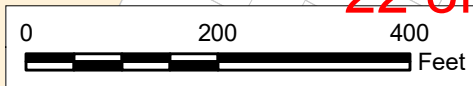
The structure and utility locations shown in this drawing are for informational purposes only and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. Unless otherwise noted on the drawing, they do not represent an on-the-ground survey and represent only the approximate relative location.

CodeNEXT Scenario 2: Greenfield Conditions
100-Year Differential of S2 with S1

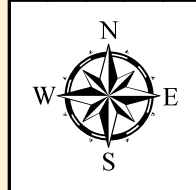
FRESE AND NICHOLS, INC.
FRESE AND NICHOLS, INC.
10431 MORADO CIRCLE
SUITE 300
AUSTIN, TEXAS 78759
PHONE: 512-617-3100
FAX: 512-617-3101

FIGURE
S2-9

Figure 1. Del Curto Local Flood study area showing benefits of re-development mitigation (100-year event)



PROJECT NO.	AL1111
DATE CREATED	Date: 2/9/2018
DYUIM & COORDINATE SYSTEM	NAD83 State Plane (North Texas Central)
FILE NAME	Name: S4-8 Differential S4 with S1
PREPARED BY	JSJ

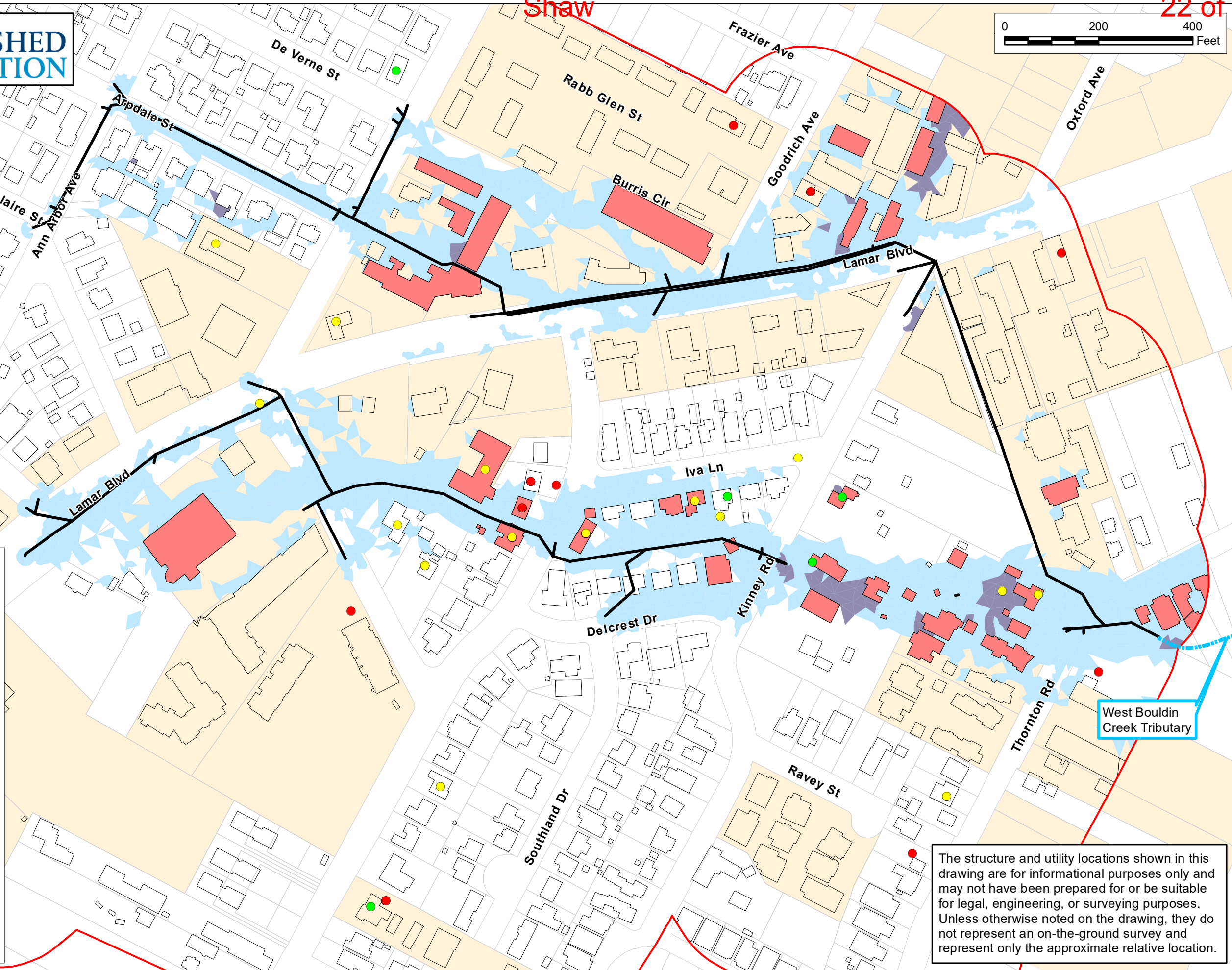


CodeNEXT Scenario 4: Future Conditions 25-Year Differential of S4 with S1

FREESE AND NICHOLS, INC.
10431 MORADO CIRCLE
SUITE 300
AUSTIN, TEXAS 78759
PHONE: 512-617-3100
FAX: 512-617-3101

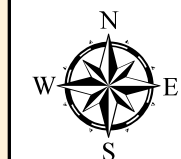
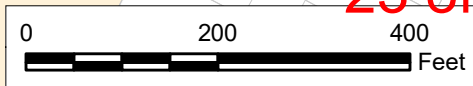
FIGURE S4-8

- Limits of 2D Zone
- Storm Drain Alignment
- Flooding Complaints**
 - Building
 - Yard
 - Street
- Parcel Groups**
 - Group C (Commercial/Multifamily)
 - Group A, B
- S4 Increase from S1 WSE (25-Year)**
 - 0.1 - 0.5"
 - 0.5 - 1.5"
 - S4 Limits of Inundation (25-Year)
 - Buildings with S1 Inundation Increased by ≥1" (25-Year)
 - Buildings Added to S1 Flood Risk (25-Year)
 - Buildings at Risk of S4 Flooding (25-Year) (44 buildings)



The structure and utility locations shown in this drawing are for informational purposes only and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. Unless otherwise noted on the drawing, they do not represent an on-the-ground survey and represent only the approximate relative location.

Figure 2. Del Curto Local Flood study area showing the impact of the buildout of single-family residential areas to maximum allowed impervious cover (25-year event)



CodeNEXT Scenario 4: Future Conditions
100-Year Differential of S4 with S1

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FIGURE
S4-9

- Limits of 2D Zone
- Storm Drain
- Flooding Complaints**
 - Building
 - Yard
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- Parcel Groups**
 - Group C (Commercial/Multifamily)
 - Group A, B
- S4 Increase from S1 WSE (100-Year)**
 - 0.1 - 0.5"
 - 0.5 - 1.5"
 - S4 Limits of Inundation (100-Year)
- Buildings with S1 Inundation Increased by ≥1" (100-Year)
- Buildings Added to S1 Flood Risk (100-Year)
- Buildings at Risk of S4 Flooding (100-Year) (62 buildings)

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Figure 3. Del Curto Local Flood study area showing the impact of the buildout of single-family residential areas to maximum allowed impervious cover (100-year event)

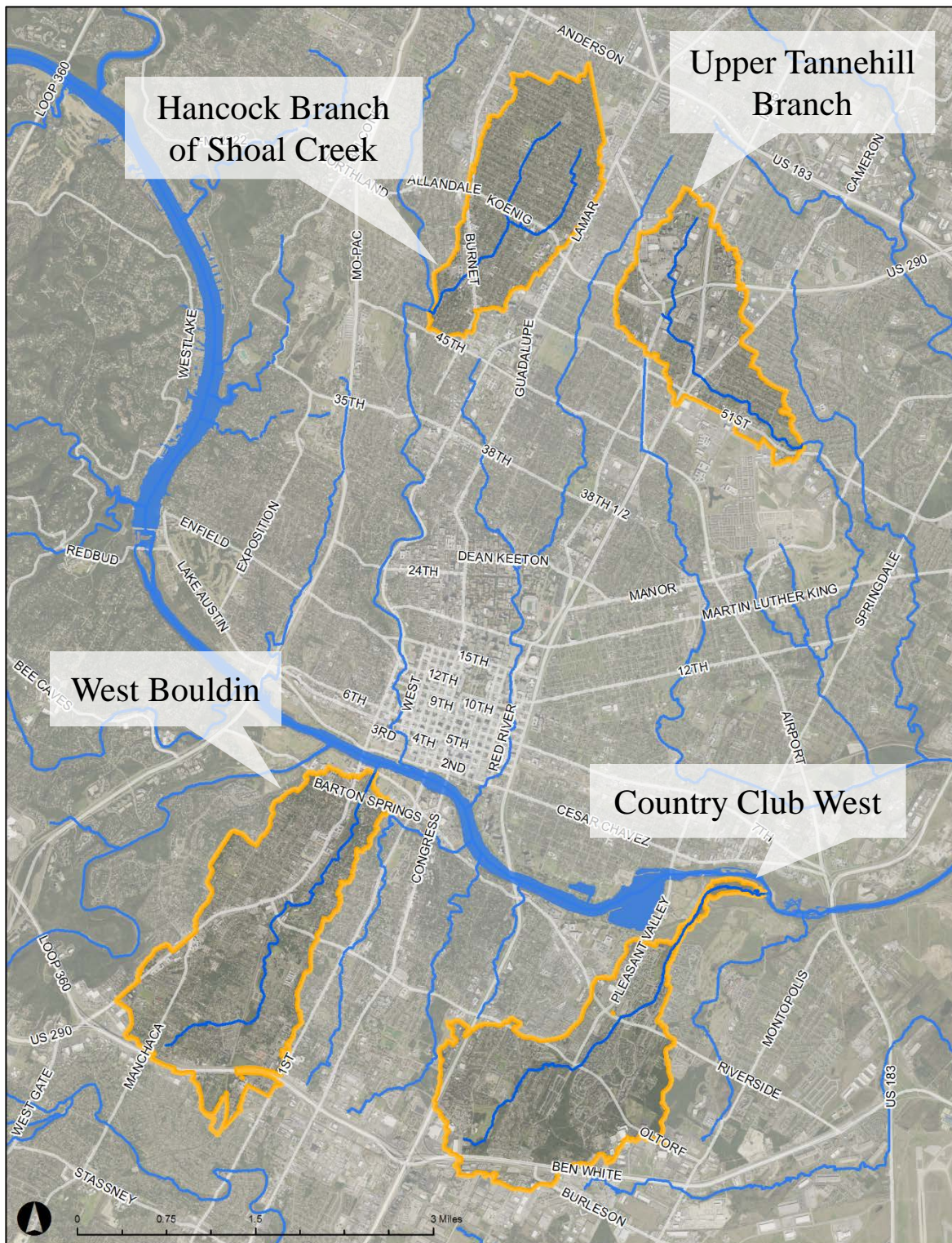


Figure 4. Four areas of Creek Flood analysis: West Bouldin, Country Club West, Hancock Branch of Shoal Creek, and Upper Tannehill watersheds.

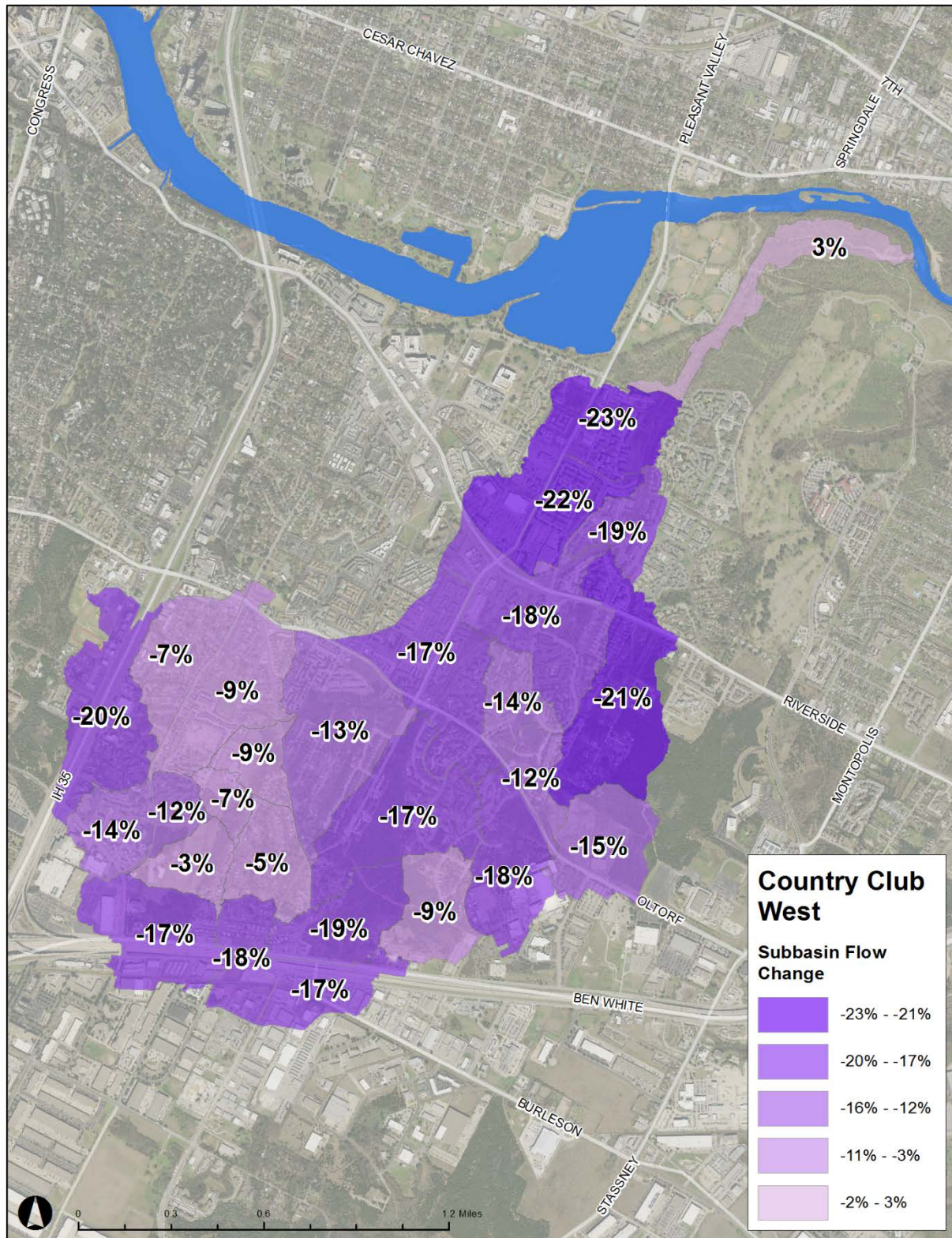


Figure 5. Percent change in subbasin flows between Mitigation Alternative (Ponds) and CodeNEXT proposed maximum allowable impervious for Country Club West. Negative numbers indicate a reduction in flow for the subbasin in the Mitigation Alternative analysis.

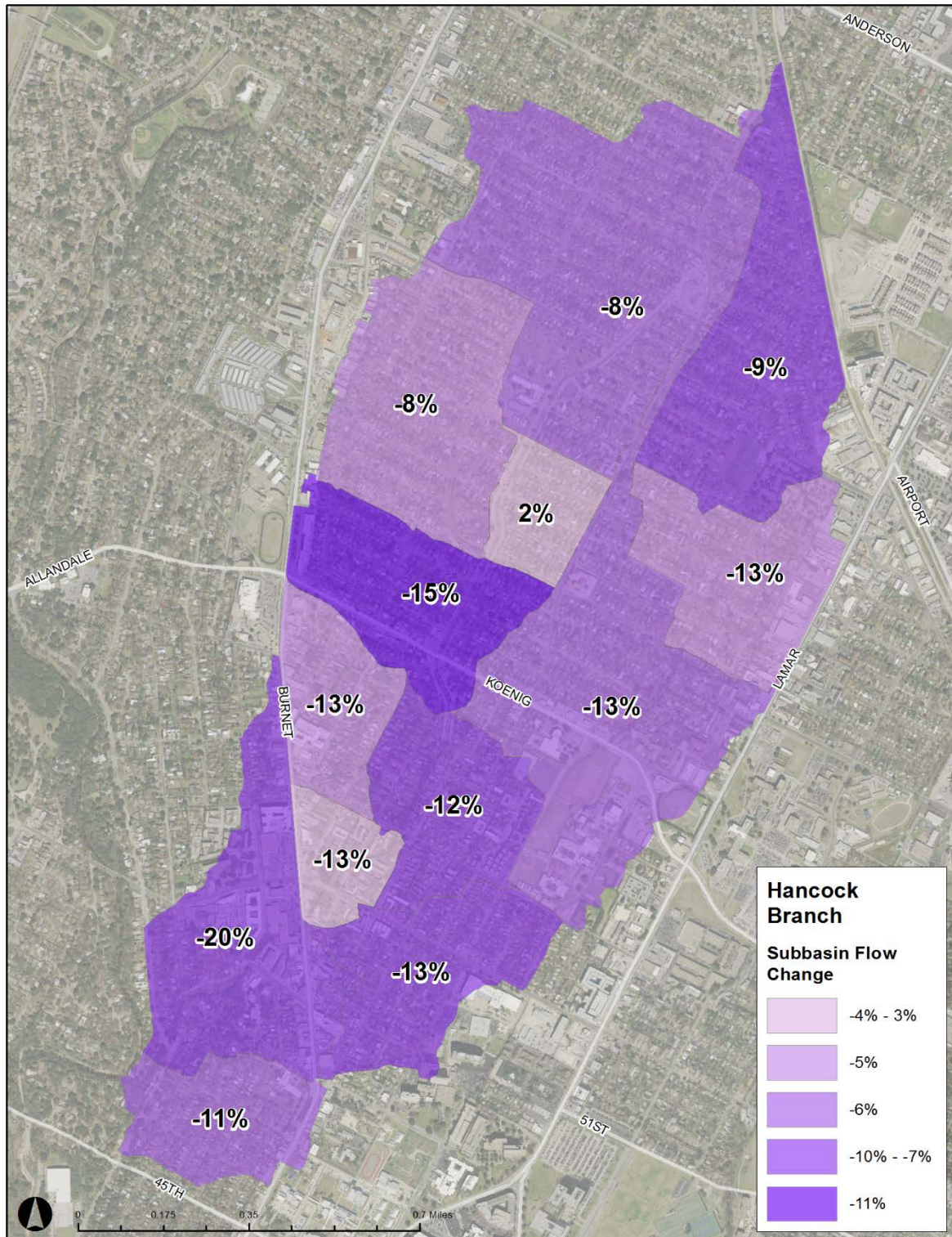


Figure 6. Percent change in subbasin flows between Mitigation Alternative (Ponds) and CodeNEXT proposed maximum allowable impervious for Hancock Branch of Shoal Creek. Negative numbers indicate a reduction in flow for the subbasin in the Mitigation Alternative analysis.

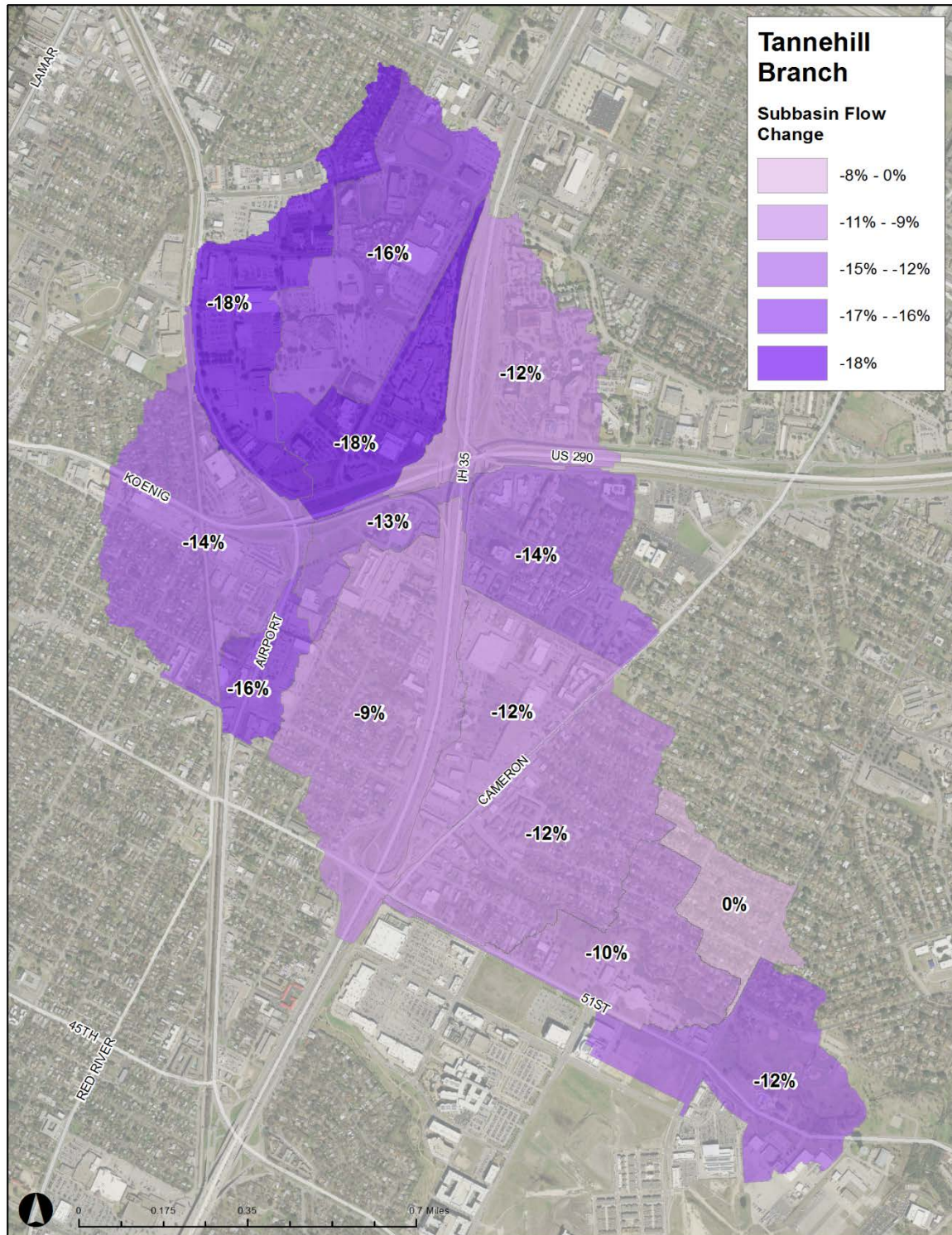


Figure 7. Percent change in subbasin flows between Mitigation Alternative (Ponds) and CodeNEXT proposed maximum allowable impervious for Tannehill. Negative numbers indicate a reduction in flow for the subbasin in the Mitigation Alternative analysis.

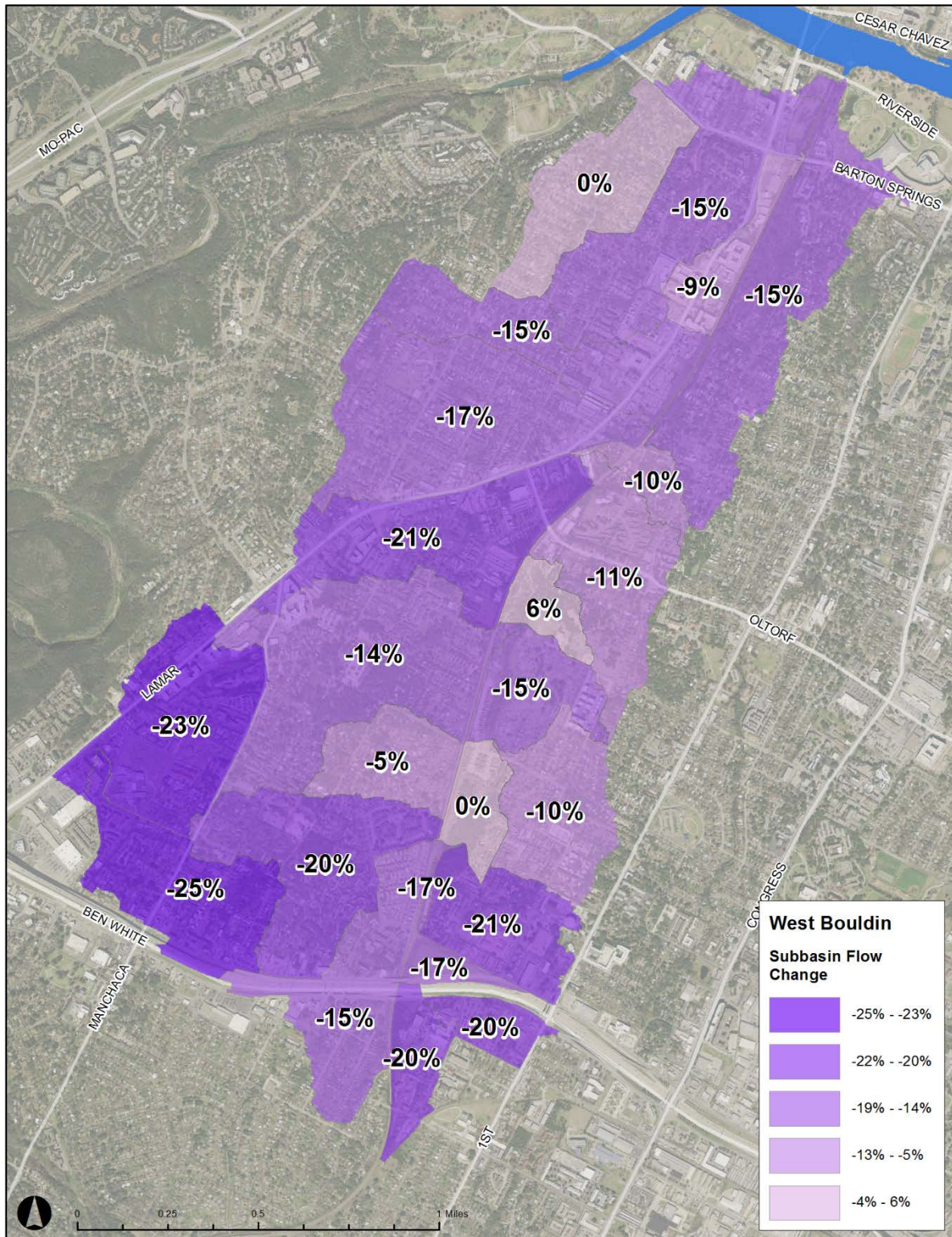


Figure 8. Percent change in subbasin flows between Mitigation Alternative (Ponds) and CodeNEXT proposed maximum allowable impervious for West Bouldin. Negative numbers indicate a reduction in flow for the subbasin in the Mitigation Alternative analysis.

Table 2: Summary of average flood depth reductions between CodeNEXT maximum allowable impervious cover (full development) and mitigation with ponds

Watershed and Stream Reach	Average Depth Reductions for Selected Design Storms (Inches)					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
West Bouldin						
South of North Fork	-2.8	-2.4	-2.5	-2.9	-2.9	-3.1
North of North Fork	-2.9	-4.4	-3.4	-4.9	-4.1	-4.0
North Fork Trib	-2.9	-4.2	-4.0	-4.1	-3.6	-4.0
Shoal Creek						
Hancock Branch	-1.9	-2.0	-2.0	-1.7	-1.6	-1.4
Grover Branch	-1.0	-0.8	-0.8	-0.8	-1.0	-1.1
Country Club West						
Mainstem	-1.6	-2.0	-2.3	-2.5	-3.0	-2.6
CCW1	-1.7	-2.2	-2.3	-2.7	-2.8	-2.9
CCW2	-2.1	-2.6	-3.3	-3.5	-3.3	-3.4
CCW3	-1.6	-2.0	-2.3	-2.6	-2.8	-2.9
CCW3a	-0.5	-0.6	-0.6	-0.7	-0.8	-0.8
CCW4	-2.6	-3.2	-3.7	-3.6	-3.9	-4.0
CCW5	-1.8	-2.9	-2.7	-3.4	-2.6	-2.3
Tannehill Branch						
Upstream IH35	-4.6	-4.8	-4.4	-3.8	-3.9	-3.4
Downstream IH35	-1.6	-1.7	-1.7	-1.4	-2.3	-1.6
Bartholomew Pond to Manor	-1.5	-1.2	-1.6	-1.1	-0.7	-1.5

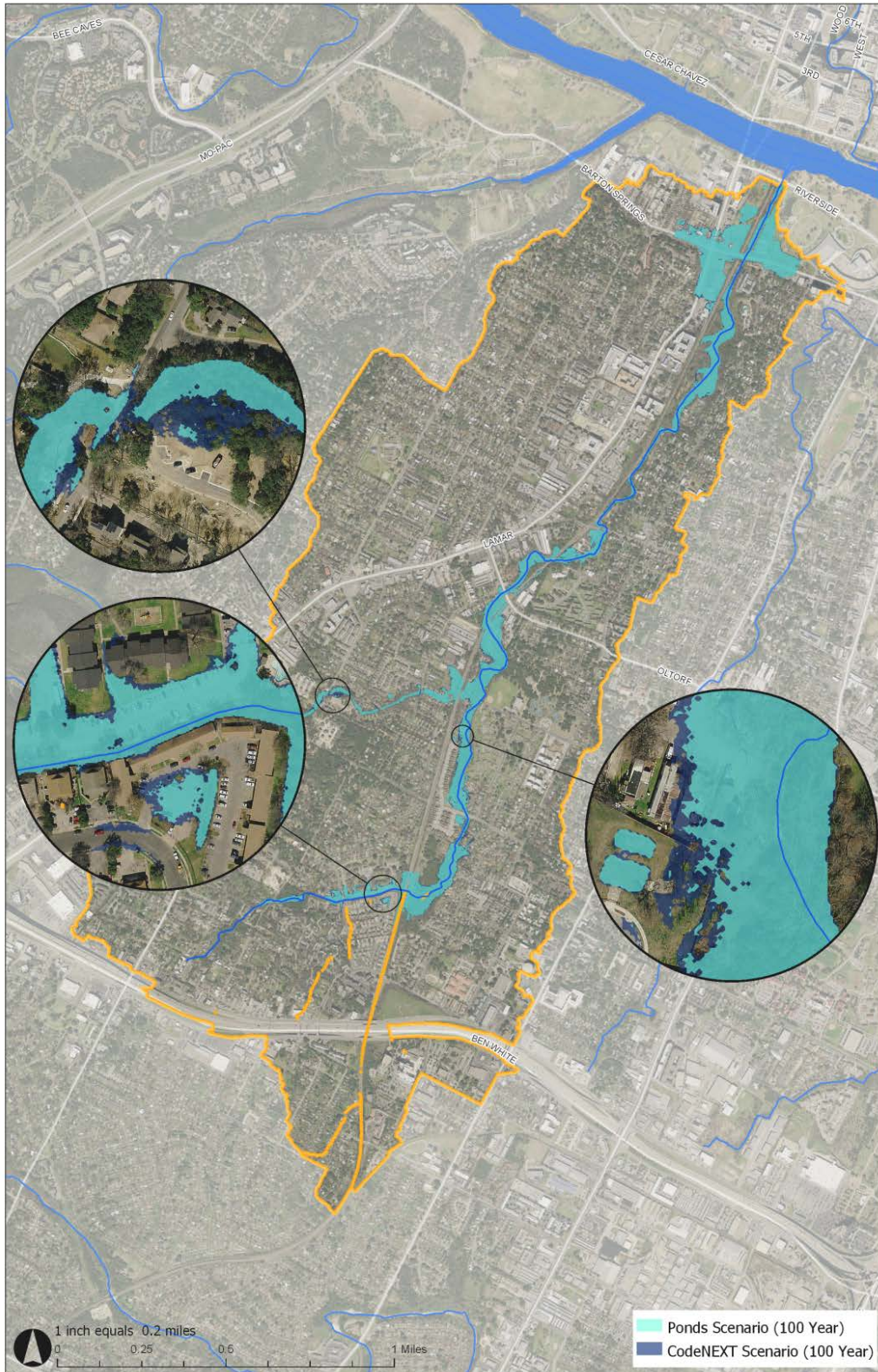


Figure 9. Floodplain comparison between CodeNEXT Maximum scenario and the Mitigation Alternatives scenario (ponds). Notice that while there are minimal floodplain delineation changes there are floodplain elevation reductions as shown in the Table

CODENEXT MAPPING EVALUATION

MAPPING WORKING GROUP

POLICY SCENARIO



PC MAPPING WORKING GROUP

COMMISSIONERS:

- Stephen Oliver (*chair*)
- Fayez Kazi
- Conor Kenny
- Trinity White
- Todd Shaw
- William Burkhardt (*ex-officio*)

The City of Austin Planning Commission (PC) established a working group to provide a venue for collaboration between PC and City staff/CodeNEXT consultants involved in the creation of the CodeNEXT zoning map. Working group appointees take on the responsibility of representing PC goals and objectives in the mapping process, and will work closely with staff and consultants to ensure feedback and recommendations from the Planning Commission as a whole are integrated into the map prior to City Council review.



WORKING GROUP GOALS

- To define a process by which the map would be easier to digest
- To create a gauge by which to test the map and our assumptions
- To take a more detailed look at the factors that could go into informing the map

It is **NOT**

- To create a map in secret
- To replace future planning efforts



SINCE WE LAST SPOKE

1. The MWG has been working toward being able to present the full commission with a mapping scenario that builds on Draft 3.
2. The scenario includes feedback from the full commission
3. It does NOT represent a recommendation for a final map by the Mapping Workgroup
4. It does give us a place to have a conversation from and an opportunity to explore some of the PC recommendations.



AUSTIN LAND DEVELOPMENT CODE

PC Mapping Working Group
February 2018

SHAPING THE AUSTIN WE IMAGINE



CODENEXT

CODENEXT MAPPING EVALUATION

MAPPING WORKING GROUP

POLICY PRIORITIES



PC MAPPING WORKING GROUP

COMISSIONERS:

- Stephen Oliver (*chair*)
- Fayez Kazi
- Conor Kenny
- Trinity White
- Nuria Zaragoza (*outgoing*)
- Todd Shaw (*incoming*)
- William Burkhardt (*ex-officio*)

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HOW DID WE GET HERE

WHERE DID WE START?

- Nearest Equivalency Map; Scenarios

DIAL IT IN FURTHER

- Priority Levers
 - Individual strategies that would objectively begin to inform the mapping process
 - Based on the goals of Imagine Austin and the Envision Tomorrow's capabilities



WHAT WE HAVE LEARNED

FINE TUNING

- Adjusted the scale to see if the effect was direct or exponential
- Eliminated some factors that were far fetched
- Tested some of our assumptions
 - Some levers had effect we expected but not necessarily where we would have assumed
 - Some levers had way less or way more of an impact on the number of units then we expected
- More data to come as the levers are run through the different indicators



HOW WILL THIS BE USED

CHEAT SHEET

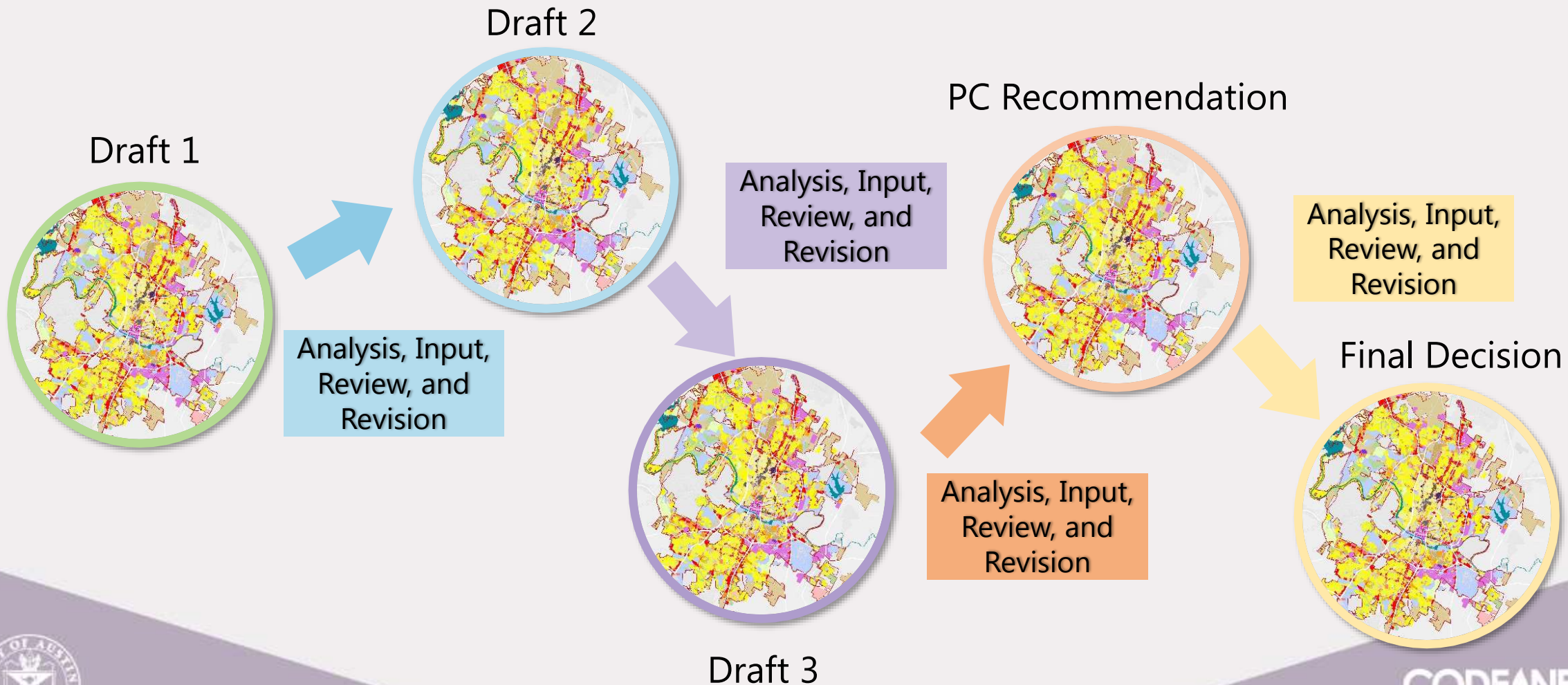
- Begin to grade the Levers based on the indicators and their feasibility
- A conversation aid to help us have a more nuanced, well informed conversation.

TONIGHT'S PRESENTATION

- Types of levers that could be used to help the commission to form a more sophisticated recommendation
- **NOT** necessarily what we would want to see implemented
 - Too blunt, need more nuance

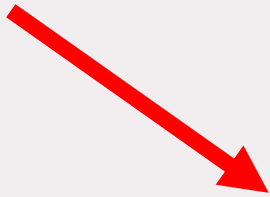


THE ITERATIVE APPROACH

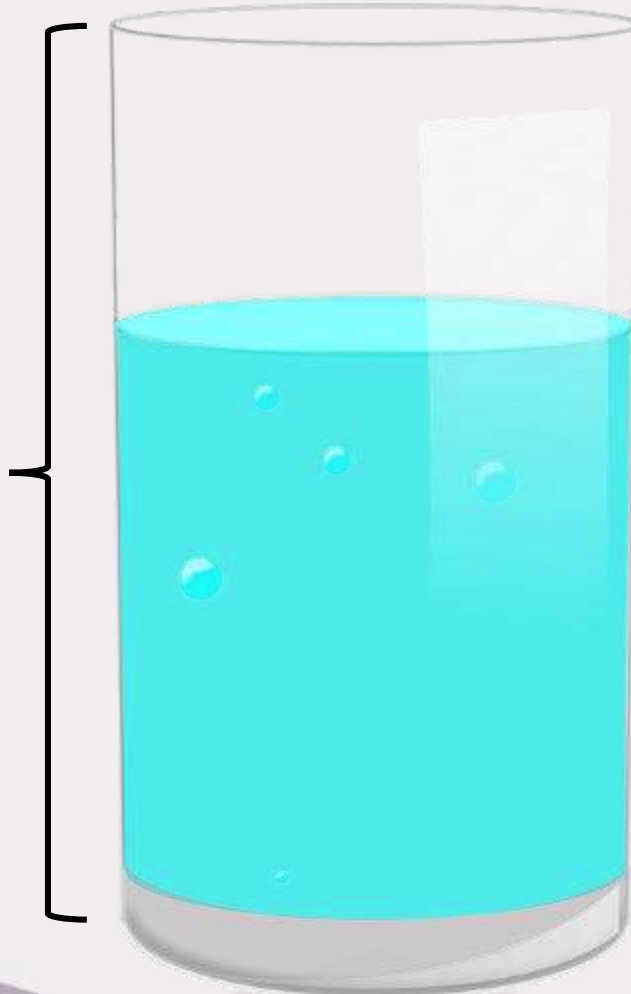


WHAT IS ZONING CAPACITY (VERSUS A FORECAST)

THIS ANALYSIS



CAPACITY

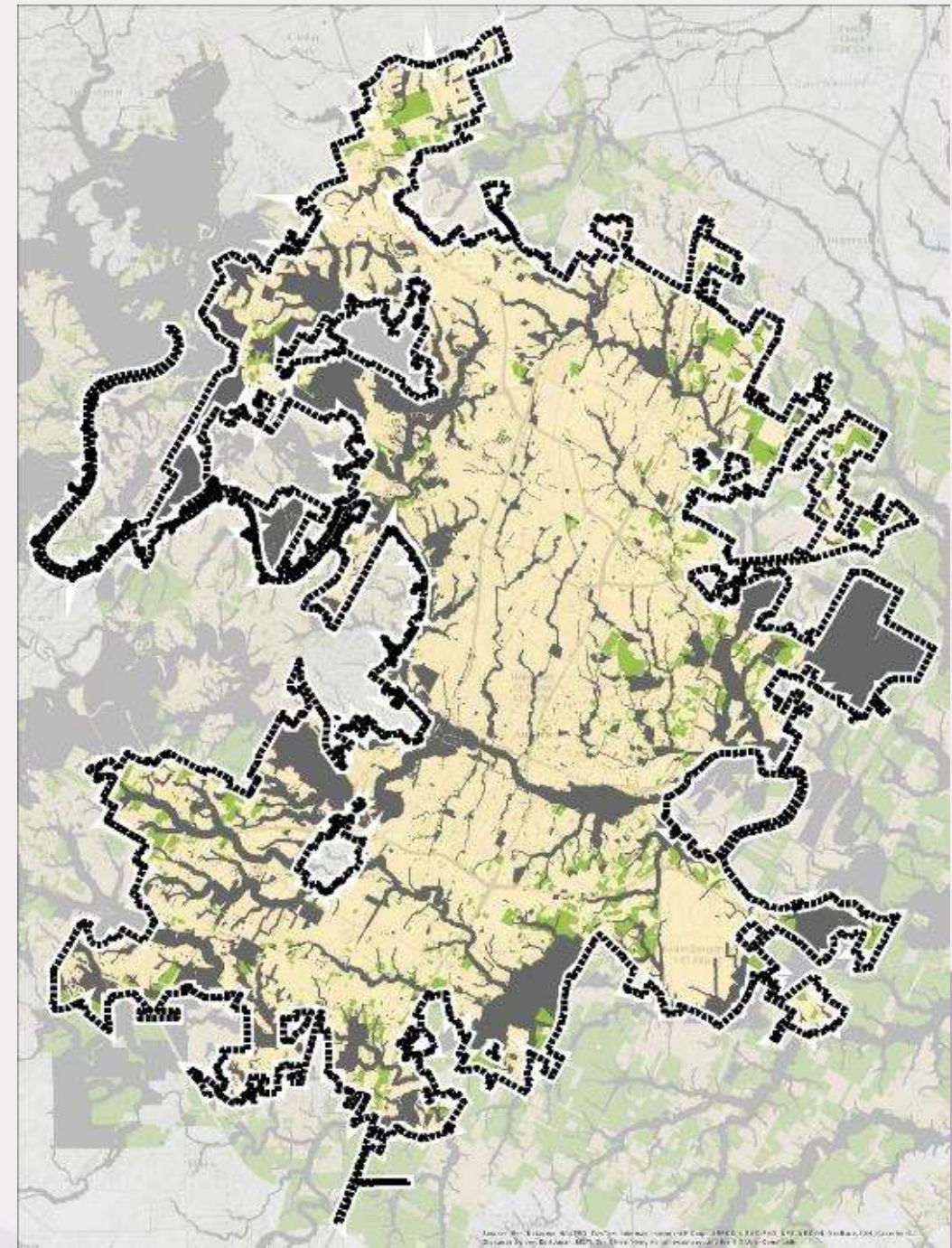
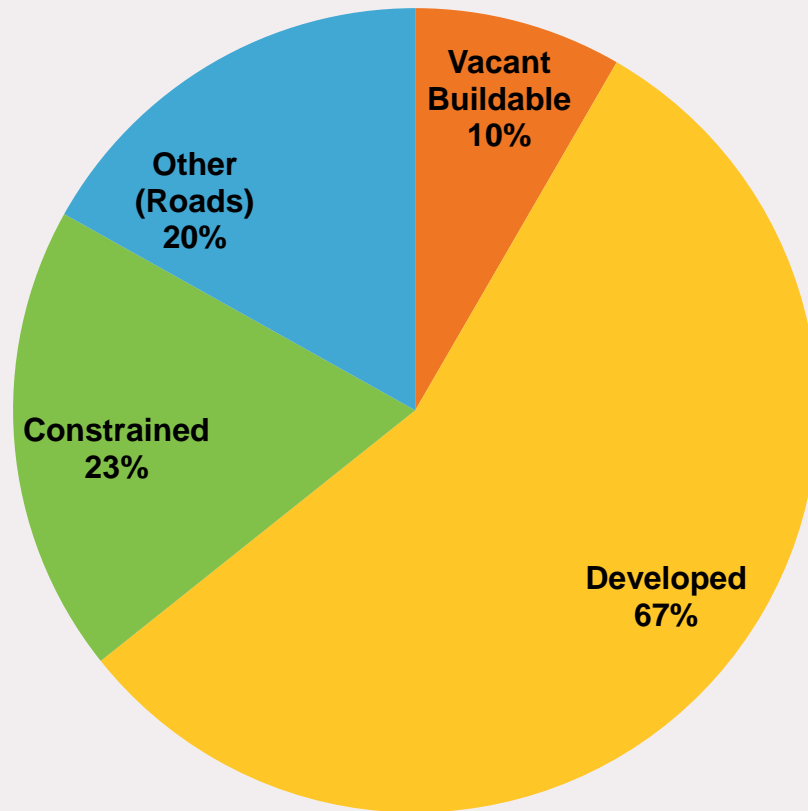


Capacity is the zoning entitlement on land that is vacant or feasible to redevelop

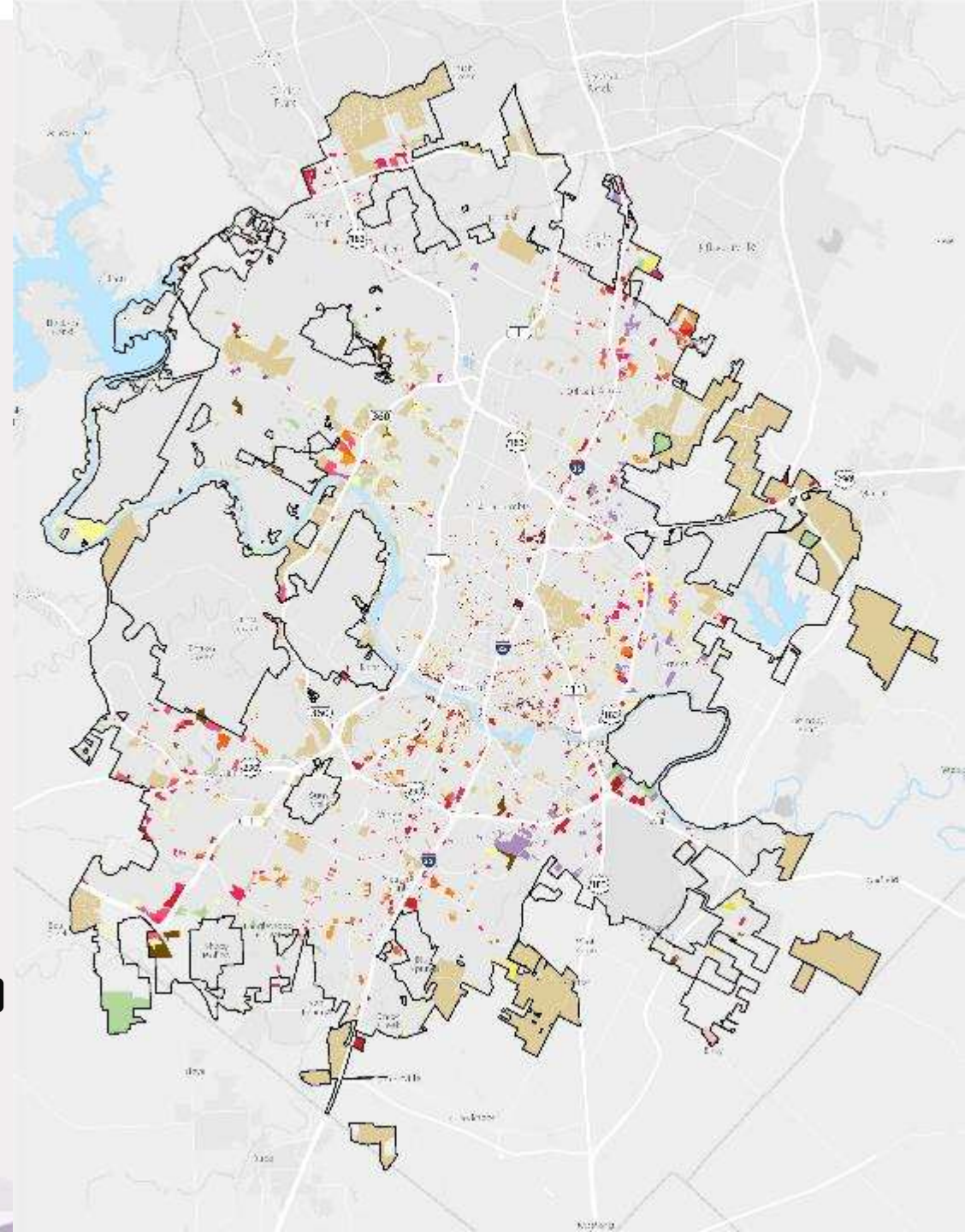
Capacity should be greater than forecast to prevent shortages in zoned land in a growing community

FORECAST

CAPACITY IS BASED ON VACANT AND UNCONSTRAINED LAND



- Also on Parcels feasible to Redevelop
- Redevelopment feasibility changes based on the zoning entitlement
- We are using a pro forma economic feasibility test



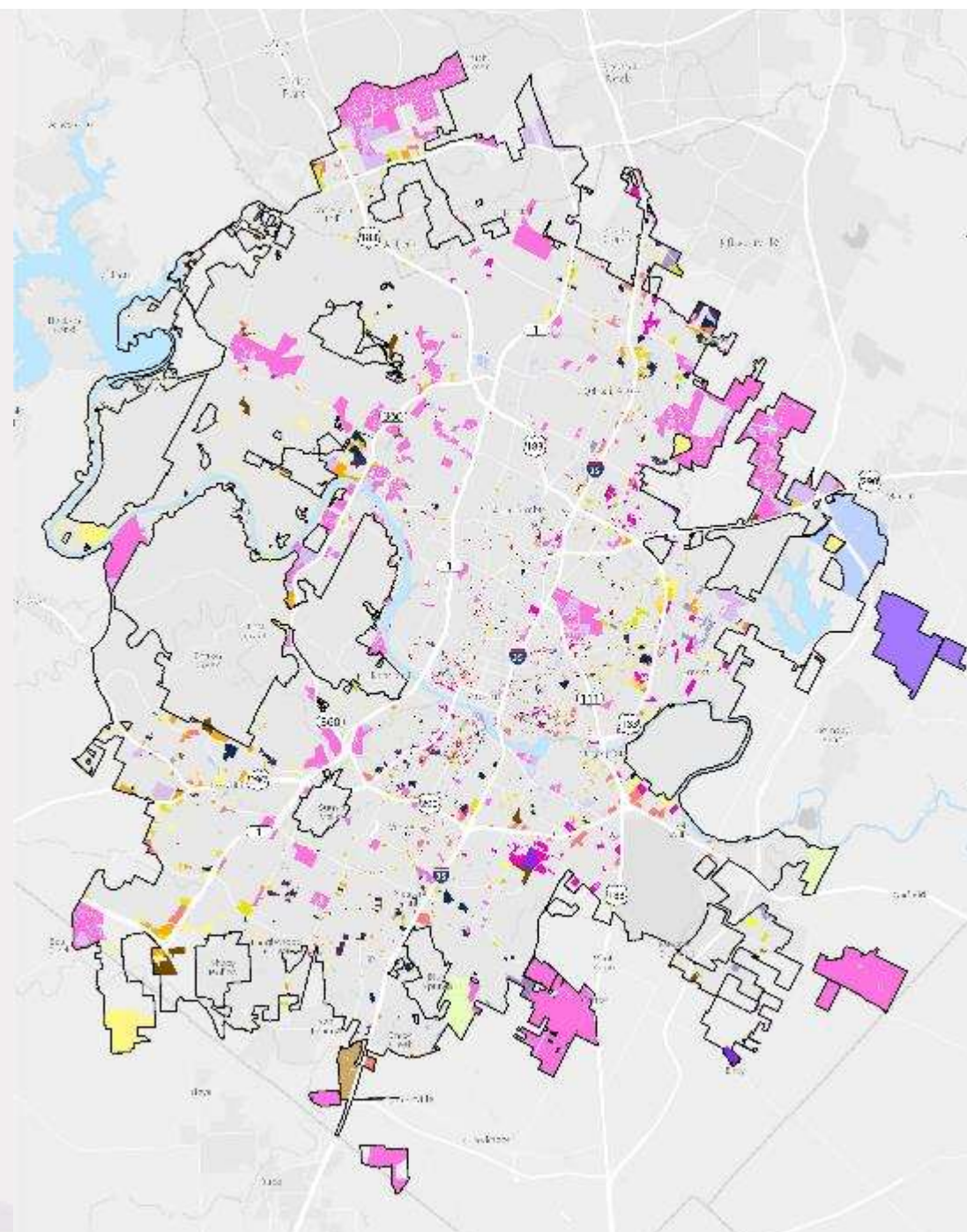
HOUSING CAPACITY

“Nearest Equivalency” Map

Zoning Map with the CodeNEXT **closest equivalent zone** to current code entitlements

Capacity based on new zones

- Calibrated Envision Tomorrow to calculate based on new zoning standards and map



HOUSING COMPARATIVE ASSESSMENT

UPDATED BASED ON STATED SOLUTIONS

CURRENT CODE

141,215 HOUSING UNITS

CODENEXT EQUIVALENCY
SHAPING THE AUSTIN WE IMAGINE

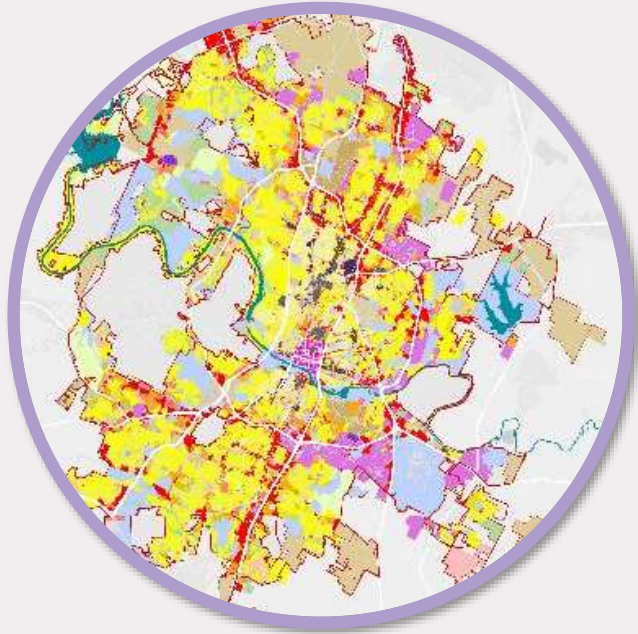
139,420 HOUSING UNITS

1,795 Unit Delta



TEST ZONING SCENARIOS TO LEARN THE EFFECTS OF PRIORITIES

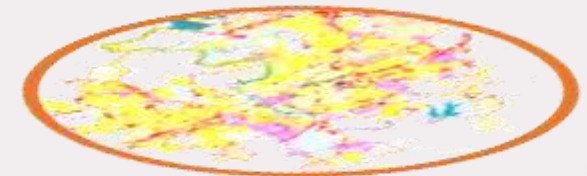
"No Change" Zoning Map (Nearest
Equivalency or Neutral Priority)



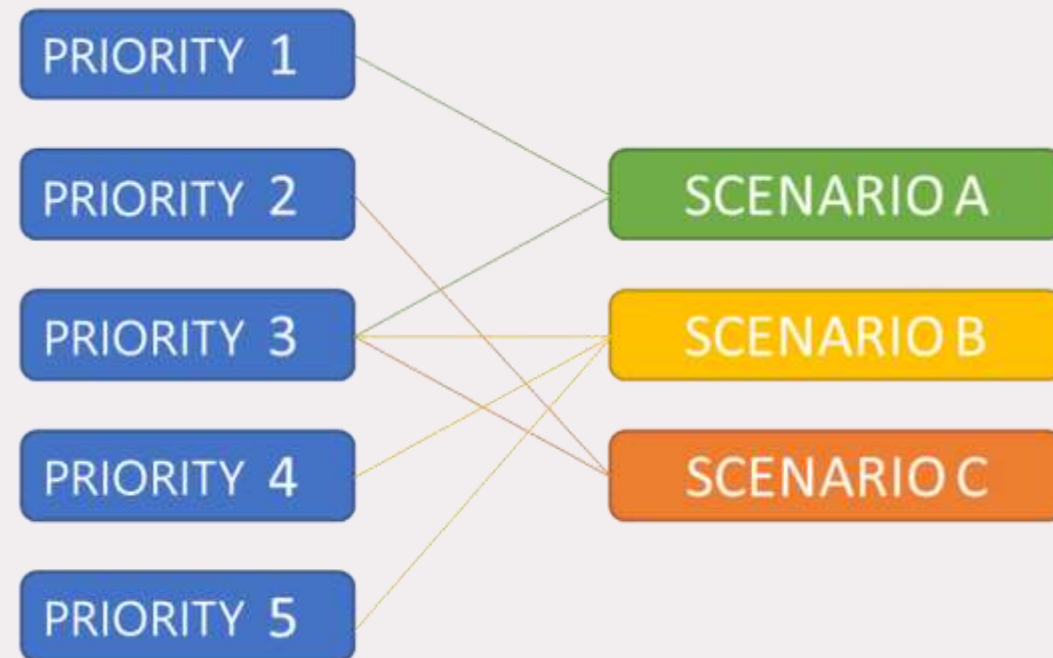
FOCUSED HOUSING

MAX HOUSING

MAX AFFORDABILITY



SCENARIOS MADE OF PRIORITIES THAT WE CAN TURN OFF AND ON



SCENARIOS ARE CRASH TEST DUMMIES

16

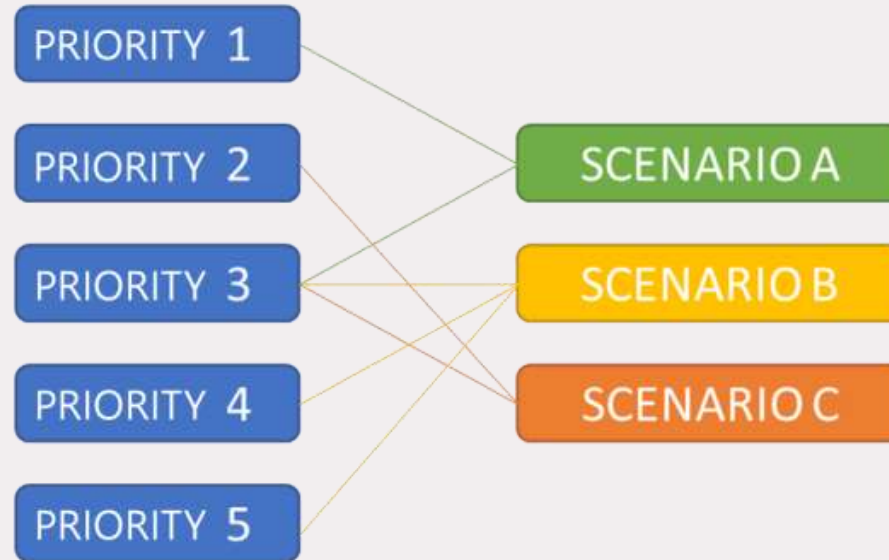


IMPORTANT DISTINCTIONS

- Priority Levers and Scenarios are “crash test dummies” – NOT Zoning Map Proposals
- Designed to be distinctive – NOT subtle or refined
- Illustrate and quantify directional impacts – NOT accurate or representative the nuance if applied in practice



GETTING TO A LIST OF PRIORITIES



Step 1:
Test priorities
independently



Step 2:
Test priority
interactions

Step 3:
Evaluate priority
performance

SCENARIO COMPARISON

	NEAREST EQUIVALENCY: Current Code With Draft 2 Language	SCENARIO A: Vacant Land and Non-Residential Infill	SCENARIO B: Increase Overall Housing Capacity	SCENARIO C: Maximize Income- Restricted Affordable Housing
Priority LEVERS:	N/A	3 – 5 – 7 – 8 - 9	1-2-3-4-6-9-10-11	1-3-4-6-9-10-12-14-15-16
HOUSING UNIT CAPACITY:	146,246	173,399	296,098	479,053
<i>RELATIVE TO nearest equivalency:</i>	N/A	1.2X (+27,093)	2.0X (+149,852)	3.3X (+332,807)
AFFORDABLE UNIT CAPACITY:	N/A	N/A	N/A	17,972
<i>RELATIVE TO nearest equivalency:</i>	N/A	+0	+0	+17,023



SCENARIO A:

VACANT LAND AND NON-RESIDENTIAL INFILL

Baseline nearest equivalency: **146,246**

Priority 3: Density in IA Centers: **157,086 (+10,841)**

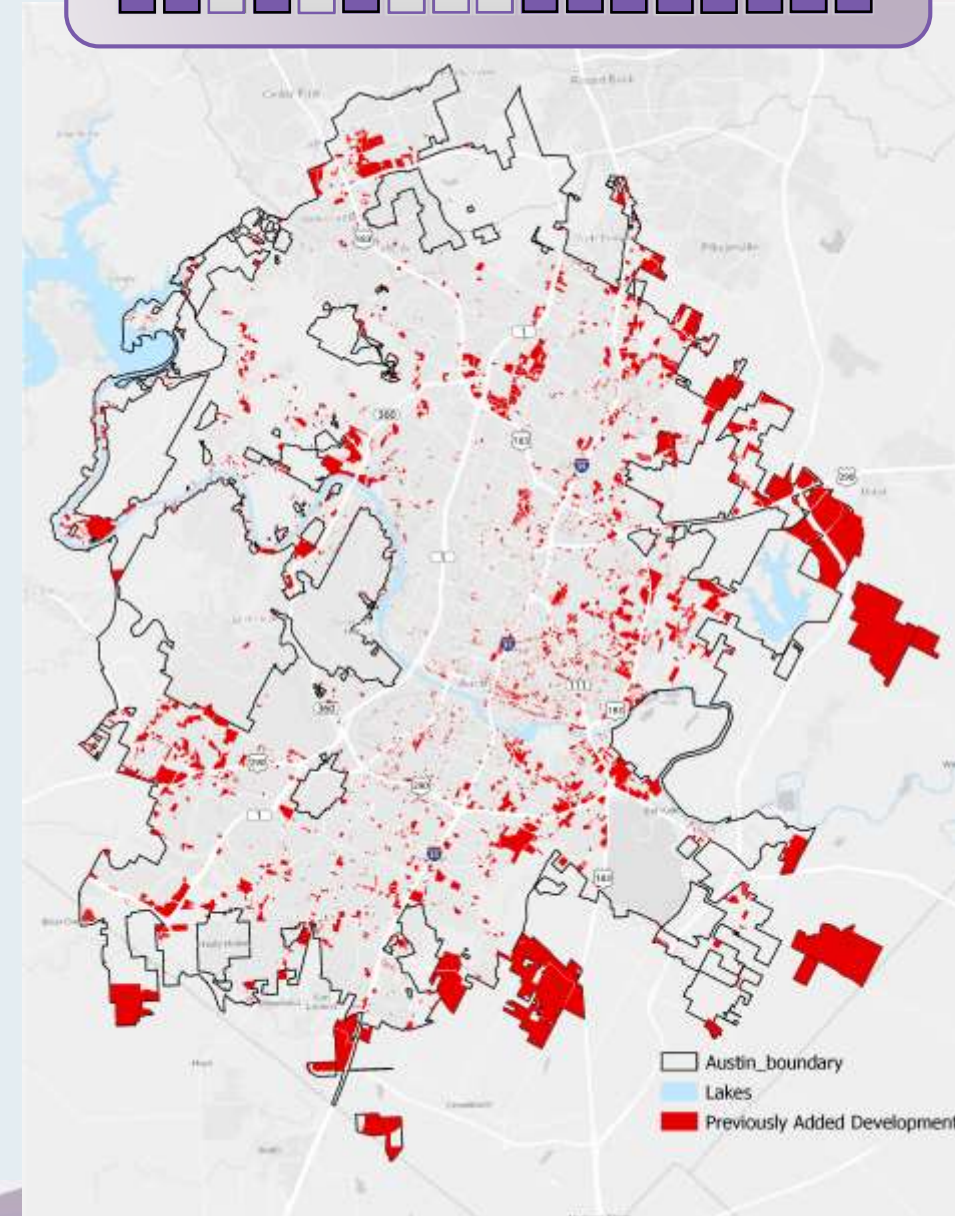
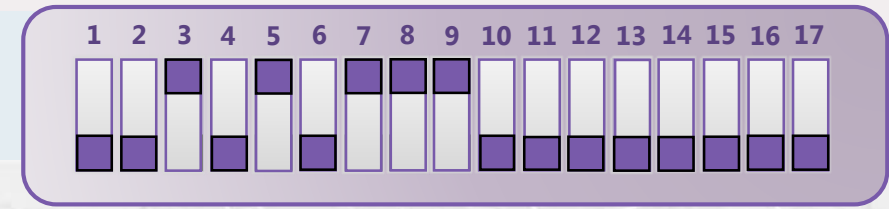
Priority 5: Increased Entitlements around Schools (R3C): **160,425 (+3,338)**

Priority 7: Limit Redevelopment of Single Family: **155,757 (-4,667)**

Priority 8: Limit Redevelopment of Multifamily: **150,508 (-5,249)**

Priority 9: Encourage Infill in R Zones: **176,453 (+25,944)**

TOTAL HOUSING UNIT CAPACITY
NEGATIVE CHANGE IN TOTAL CAPACITY
POSITIVE CHANGE IN TOTAL CAPACITY



SCENARIO B:

INCREASE OVERALL HOUSING CAPACITY

Baseline nearest equivalency: **146,246**

Priority 1: Mixed Use in Commercial: **196,595 (+50,349)**

Priority 2: ADUs Possible in More Locations: **206,563 (14,311)**

Priority 3: Density in IA Centers: **221,624 (+10,679)**

Priority 4: Density Along Major Corridors: **258,692 (+37,089)**

Priority 6: Increased Entitlements around Schools (R4A): **263,799 (+5,107)**

Priority 9: Encourage Infill in R Zones: **291,460 (+27,661)**

Priority 10: Encourage Missing Middle Redevelopment: **296,098 (+4,638)**

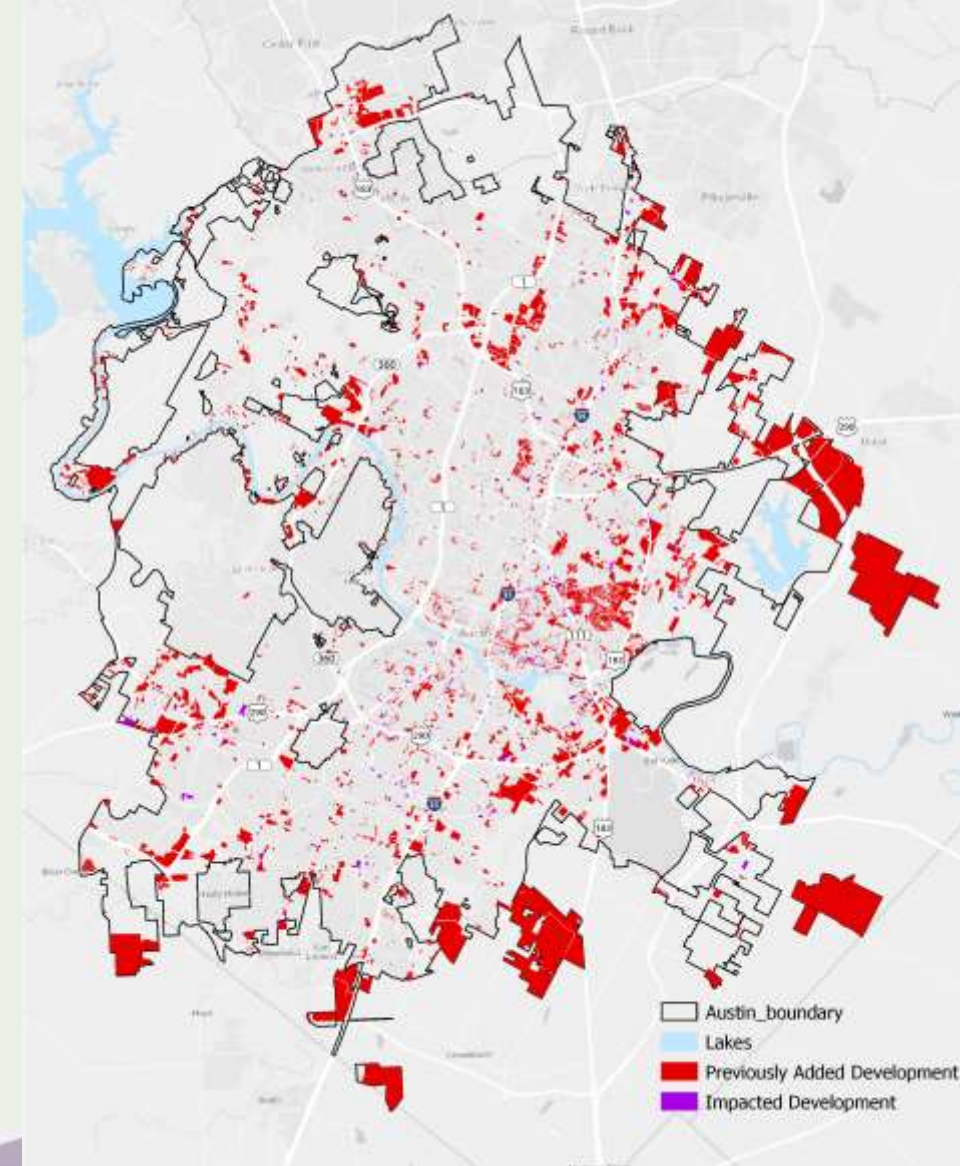
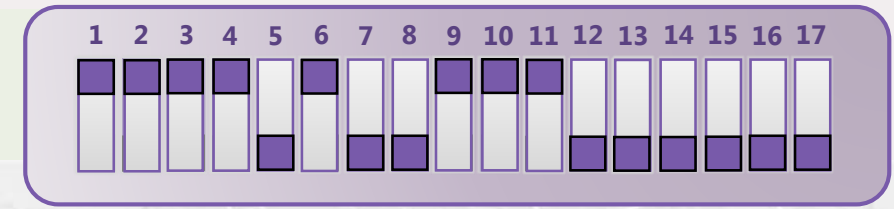
Apply Title 23 Compatibility: **290,605 (-5,493)**

Priority 11: Remove Title 23 Compatibility: **296,098 (+5,493)**

TOTAL HOUSING UNIT CAPACITY

NEGATIVE CHANGE IN TOTAL CAPACITY

POSITIVE CHANGE IN TOTAL CAPACITY



SCENARIO C:

MAXIMIZE INCOME-RESTRICTED AFFORDABLE HOUSING

Baseline nearest equivalency: **146,246**

Priority 1: Mixed Use in Commercial: **196,595** | 0 (+50,349 | +0)

Priority 3: Density in IA Centers: **206,563** | 0 (+9,968 | +0)

Priority 4: Density Along Major Corridors: **241,123** | 0 (+34,560 | +0)

Priority 6: Increased Entitlements around Schools (R4A): **245,881** | 0 (+4,758 | +0)

Priority 9: Encourage Infill in R Zones: **271,656** | 0 (+25,775 | +0)

Priority 10: Encourage Missing Middle Redevelopment: **275,978** | 0 (+4,322 | +0)

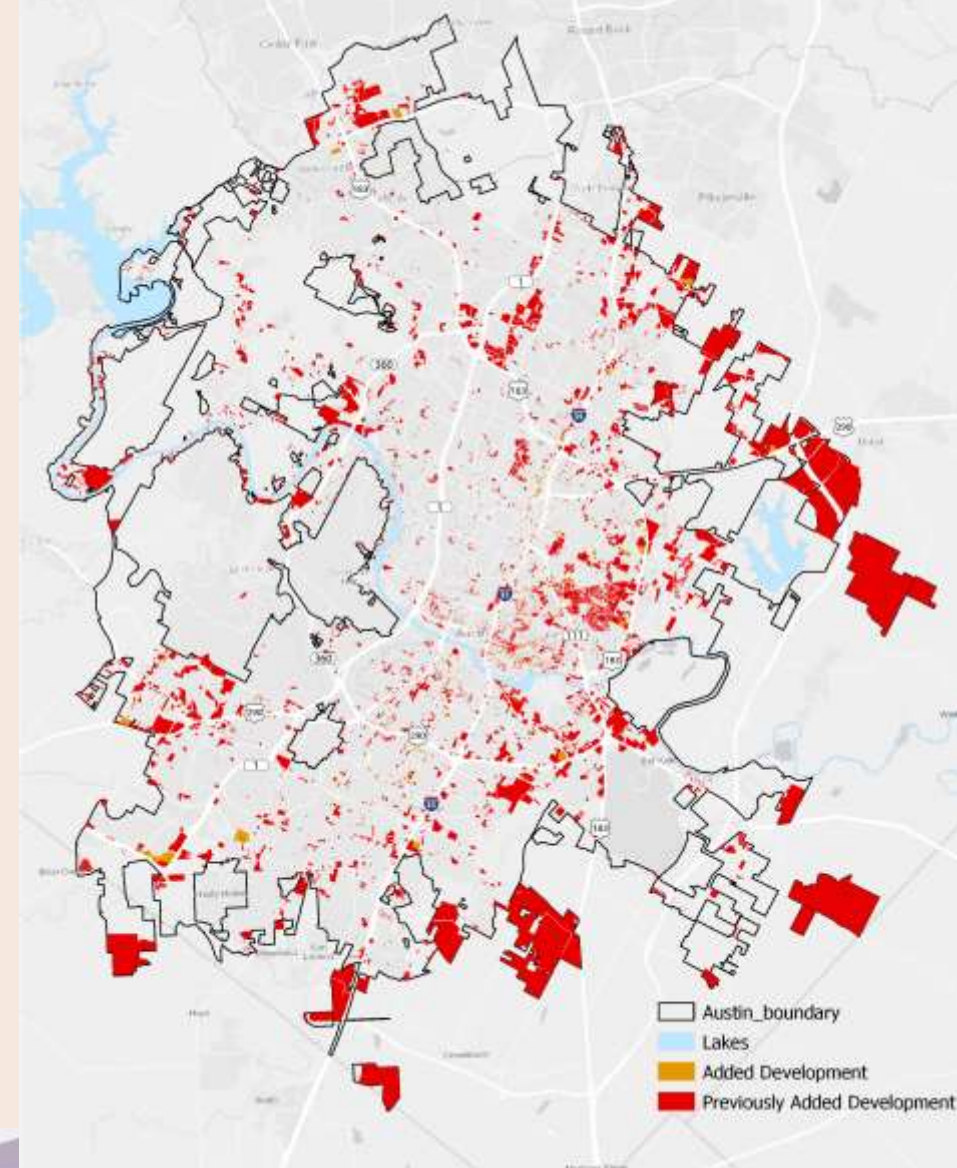
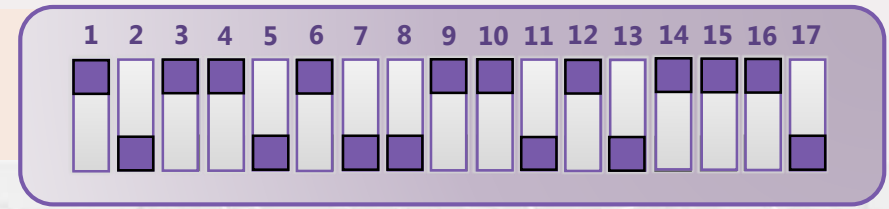
Priority 12: Apply Bonuses in Draft 2: **369,371** | 8,328 (+93,393 | +8,328)

Priority 14: Upzone + Bigger Bonuses: **489,566** | 8,837 (+120,195 | +509)

Priority 15: Match Existing Base Entitlements: **467,525** | 17,542 (-22,041 | +8,705)

Priority 16: Mimic VMU: **479,053** | 17,972 (+11,528 | +430)

TOTAL HOUSING UNIT CAPACITY
TOTAL AFFORDABLE UNIT CAPACITY
NEGATIVE CHANGE IN TOTAL CAPACITY
POSITIVE CHANGE IN TOTAL CAPACITY
CHANGE IN AFFORDABLE UNIT CAPACITY



EVALUATED PRIORITY LIST

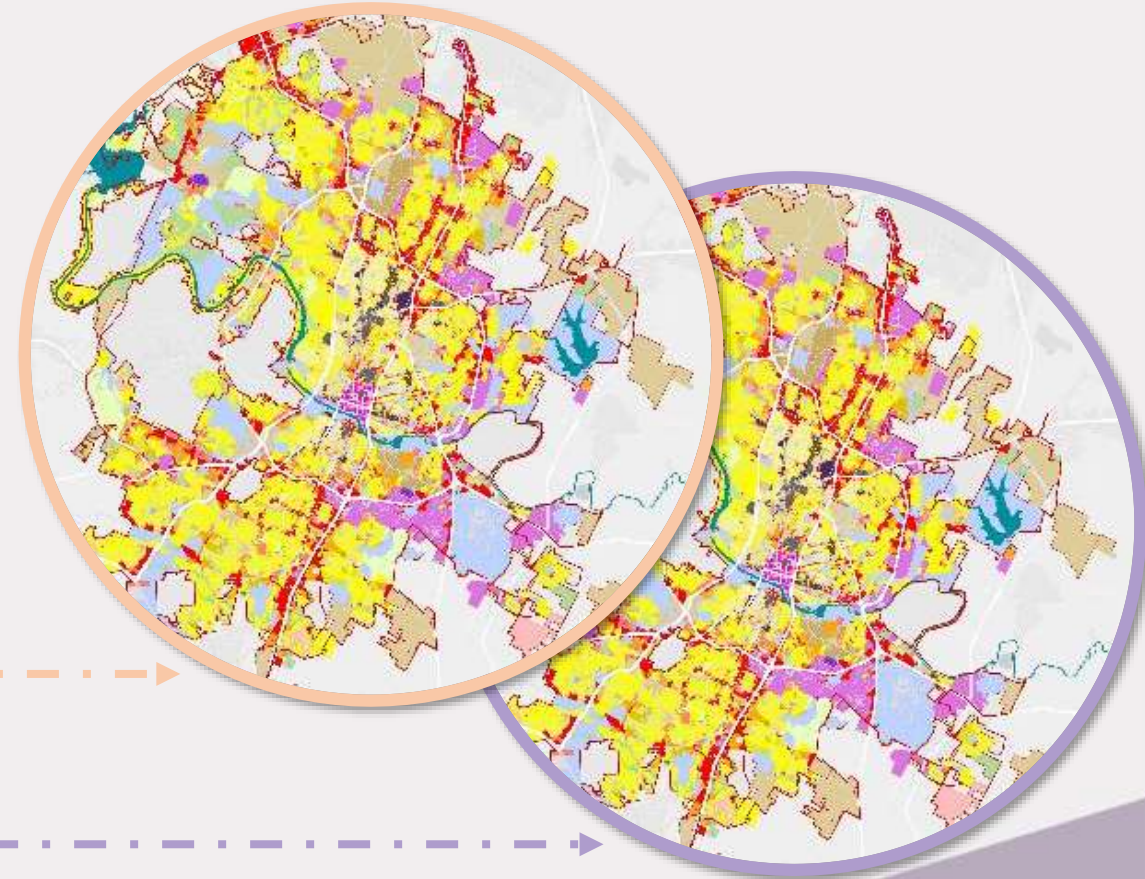
POLICY ID	DESCRIPTION	CAPACITY	MAPPING WORKING GROUP EVAL
P1	Permit Mixed Use in Commercial Zones	46,324	●●●●●●●
P2	ADUs in More Locations	10,525	●●●●●○
P3a	Increase density on non-residential land in IA Centers (1/8 mile)	11,679	●●●●●●●
P3b	Increase density on non-residential land in IA Centers (1/4 mile)	17,238	-----
P4	Increase density on non-residential land within 1/8 mile of major thoroughfares	39,894	●●●●●●●
P5	Increase density within 1/8 mile of schools (R3C)	2,927	●●●●●●●
P6	Increase density within 1/8 mile of schools (R4A)	4,313	●●●●●●●
P7	Limit redevelopment of existing single family in R zones	(2,108)	○●●●●●●
P8	Limit redevelopment of older multifamily properties	(3,512)	●●●●●●●
P9	Encourage infill development of missing middle housing on vacant land	25,620	●●●●●●●
P10	Encourage redevelopment of detached single family housing into missing middle housing	4,323	○●●●●●●
P11	Remove title 23 compatibility requirements	1,360	○●●●●●●
P12	Apply Draft 2 bonuses	76,848	●●●●●●●
P14	Upzone to more intense zones, particularly zones with larger bonuses	73,664	●●●●●●●
P15	Create new versions of some Draft 2 zones (MU/MS) so that the zones allow residential only as a bonus	89,640	●●●●●●●
P16	Create new versions of some Draft 2 zones (MU/MS) to mimic the base entitlements of current VMU zones	16,380	●●●●●●●
P17	Create new versions of Draft 2 small-scale zones (R1, R2, R3, R4, MU1 zones) that incorporate bonuses	10,525	●●●●●●●
P18a	Missing Middle in IA Centers (R3C)	7,049	●●●●●●●
P18b	Missing Middle in IA Centers (R4A)	8,805	-----
P19a	Missing Middle within 1/8 mile of major thoroughfares (R3C)	23,344	●●●●●●●
P19b	Missing Middle within 1/8 mile of major thoroughfares (R4A)	28,266	-----

- Lack of interest in further discussion
- Interest with caveats
- Interest in discussing further
- Not evaluated as of 2/1/18



POLICY PRIORITIES ALLOW US TO EVALUATE THE DRAFT MAP

	Nearest Equivalency	"Draft 3"
POLICY 1: ALLOW MIXED USE IN COMMERCIAL ZONES	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/>
POLICY 2: ADUs EVERYWHERE	<input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
POLICY 3: INCREASE ENTITLEMENTS IN IA CENTERS	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
POLICY 4: INCREASE ENTITLEMENTS ON CORRIDORS	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>



FOR ILLUSTRATIVE PURPOSES ONLY



CODENEXT

COMPARE DRAFTS BASED ON REPORT CARD INDICATORS



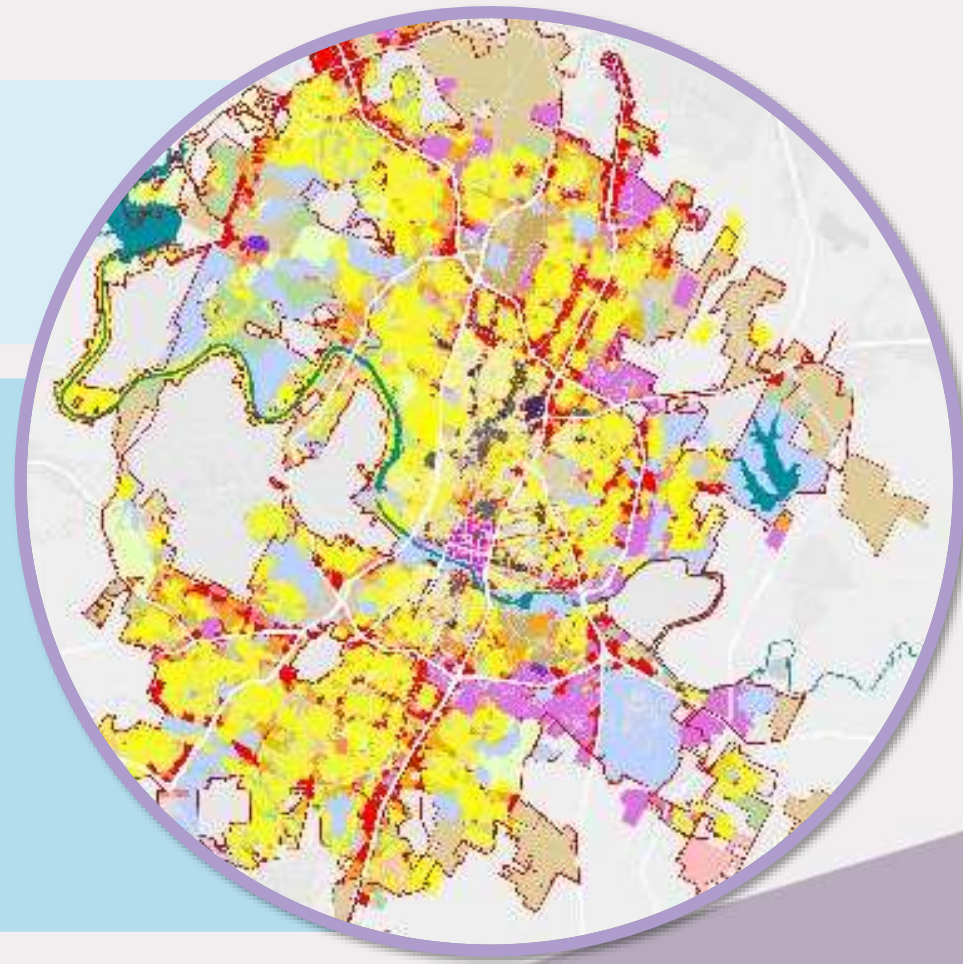
NEAREST EQUIVALENCY

Priority 0: “Nearest Equivalency” Scenario

- Current code translated to “Draft 2” code
- Redevelopment based on feasibility in current code

What is “Nearest Equivalency?”

- This Zoning scenario would use the new Draft 2 language, but with proposed AHBP bonuses turned off
- Does not include MU zones in the Draft 2 code
- Priorities and scenarios are added to it to show how it would affect the city
- Both the Nearest Equivalency Map and Current Code have an estimated capacity of about **140,000 units**



P1

EXPAND MIXED USE

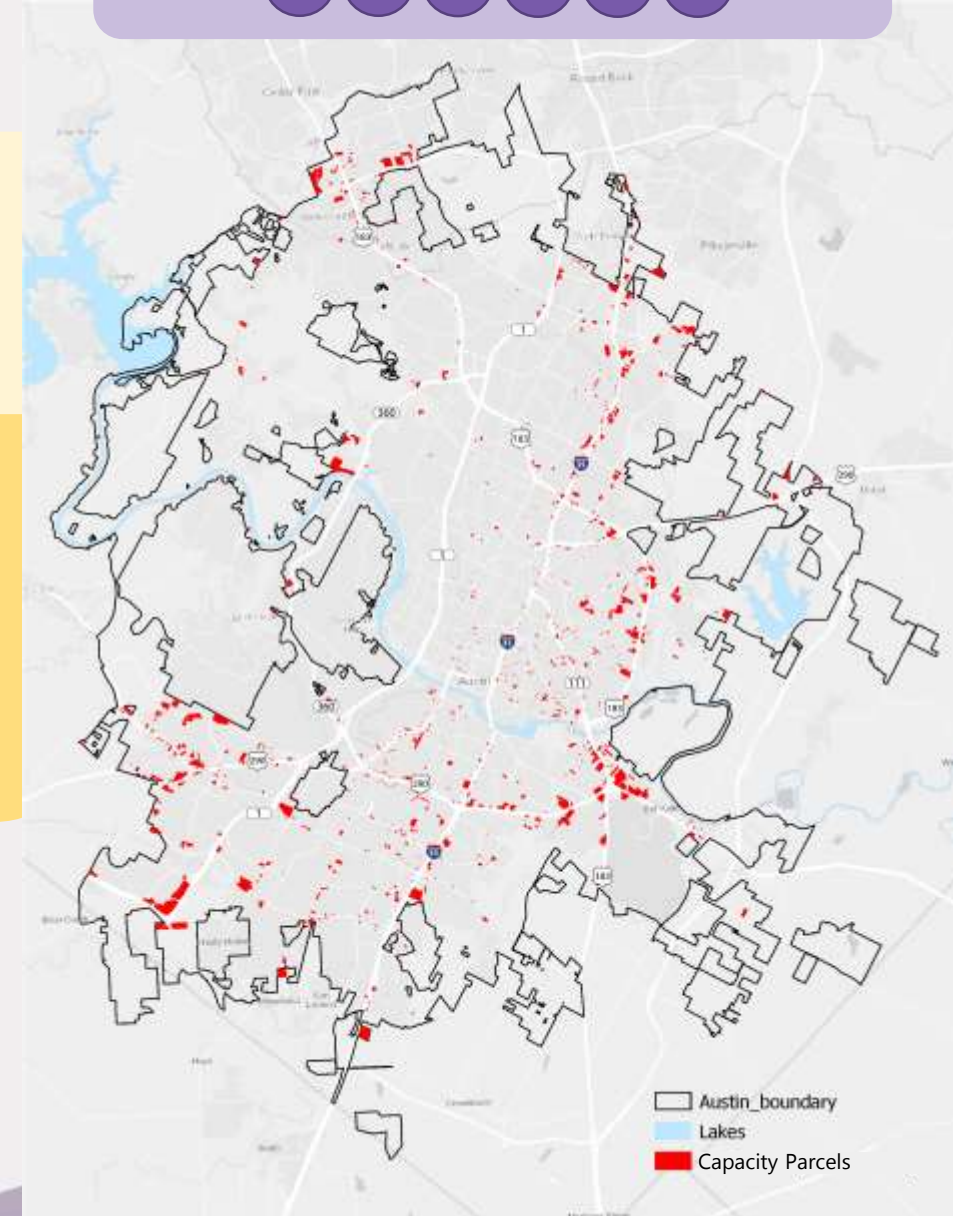
Priority 1: Mixed Use in Commercial Zones

- MU zones applied to areas zoned commercial in current code without "v" or "mu" in their zoning string

CAPACITY CHANGE
(RELATIVE TO NEAREST EQUIVALENCY)

+46,324
HOUSING UNITS

MAPPING WORKING GROUP INTEREST



ADUs EVERYWHERE

Priority 2: Encourage ADUs and Increase Land Capacity

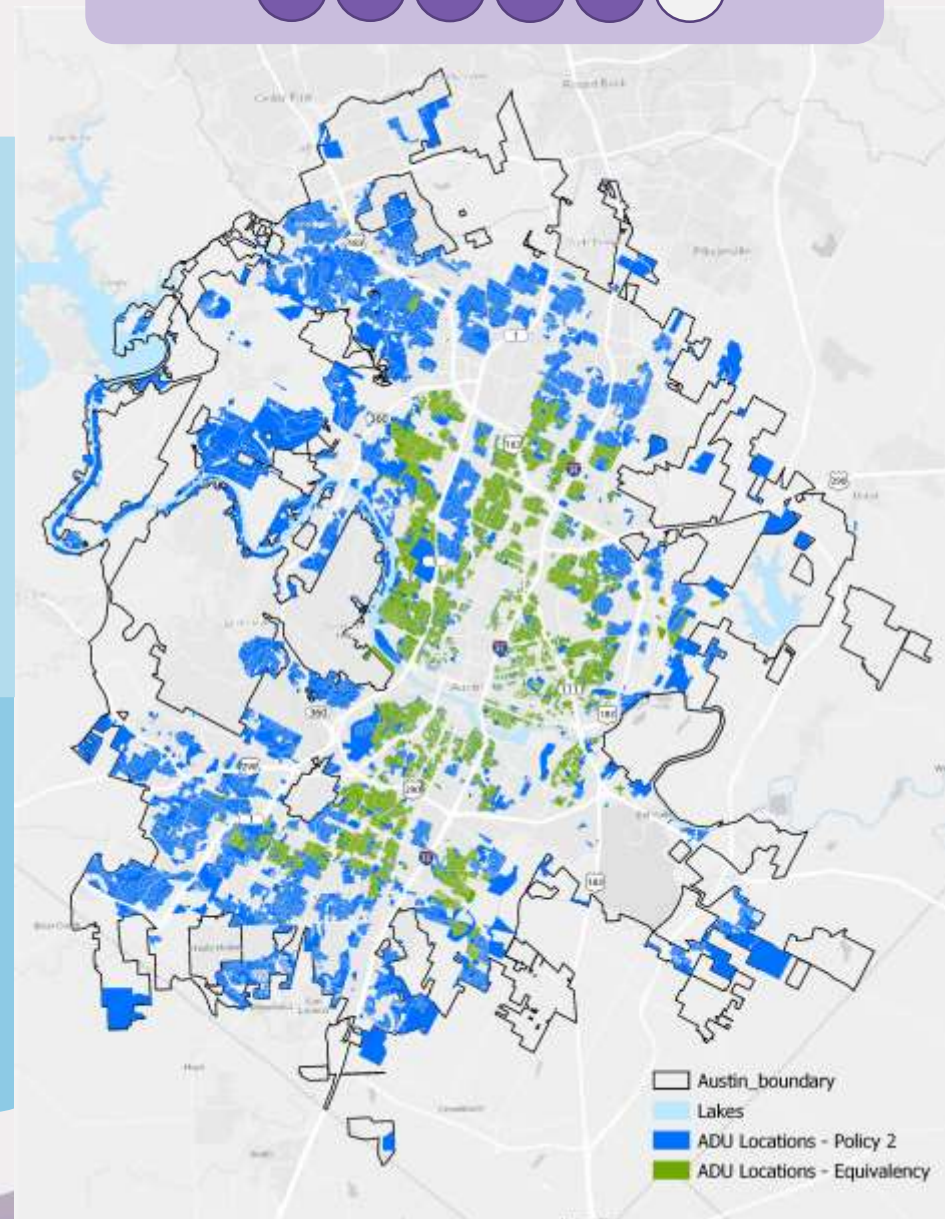
- ADUs possible on 148,922 parcels (94% of single-family zoned lots) up from 68,760 in “nearest equivalency” (43%)
- Package of incentives such as fee waivers, parking reductions, and internal ADUs encourage development
- Assume ADU production rises from 2.5% of annual permits to 10% (similar to Portland, OR)

CAPACITY CHANGE

(RELATIVE TO NEAREST EQUIVALENCY)

+10,525
HOUSING UNITS

MAPPING WORKING GROUP INTEREST



P3

IA CENTERS

Priority 3: Increase Density in IA Centers

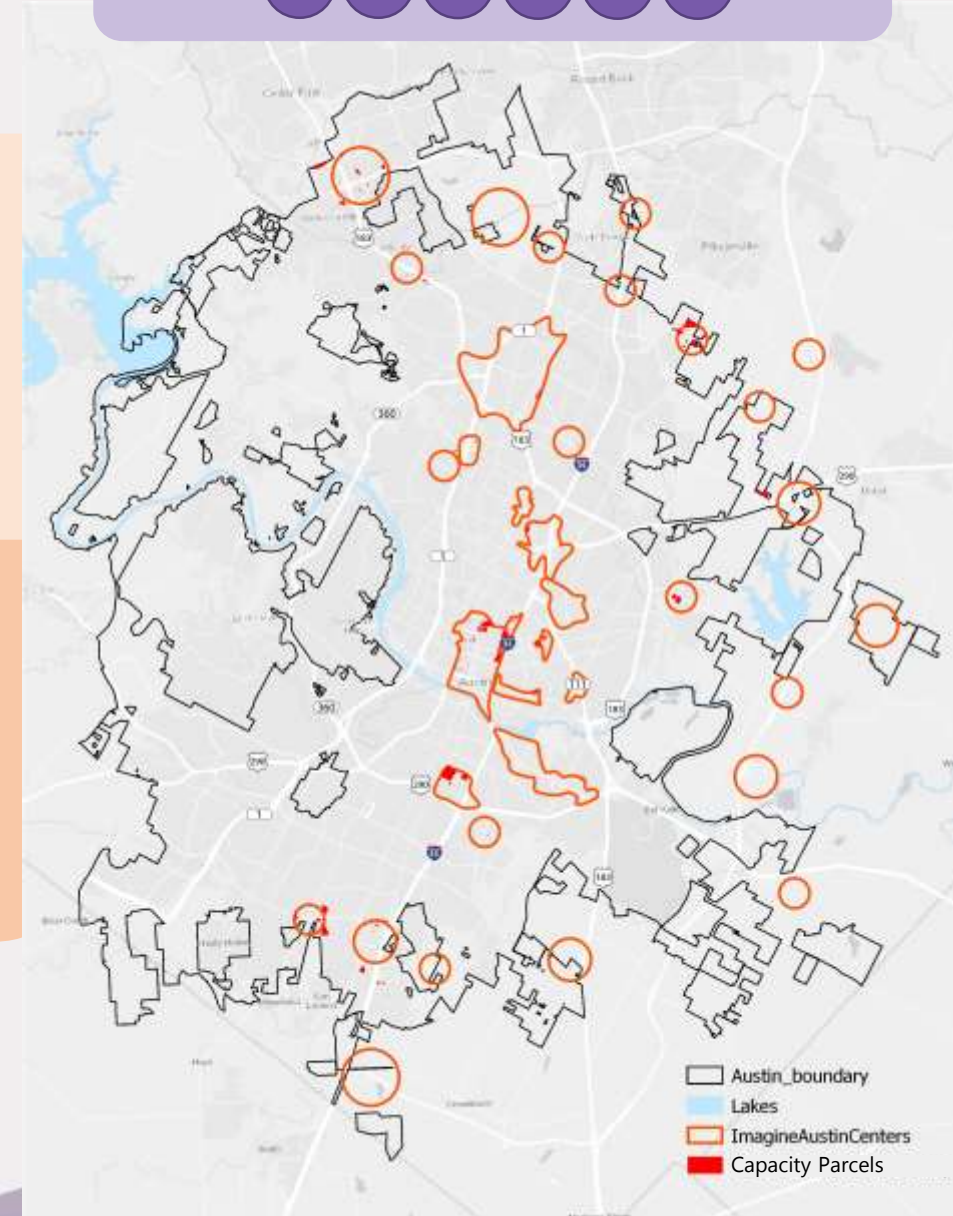
- Upzone parcels up to 1/8 mile away from Imagine Austin Centers to MS2B
- Exclude residential parcels
- Feasibility test is done to assess where redevelopment might occur

Note: Increasing distance to 1/4 mile adds an additional 5,558 units

CAPACITY CHANGE
(RELATIVE TO NEAREST EQUIVALENCY)

+11,679
HOUSING UNITS

MAPPING WORKING GROUP INTEREST





Priority 4: Increase Density Along Major Thoroughfares

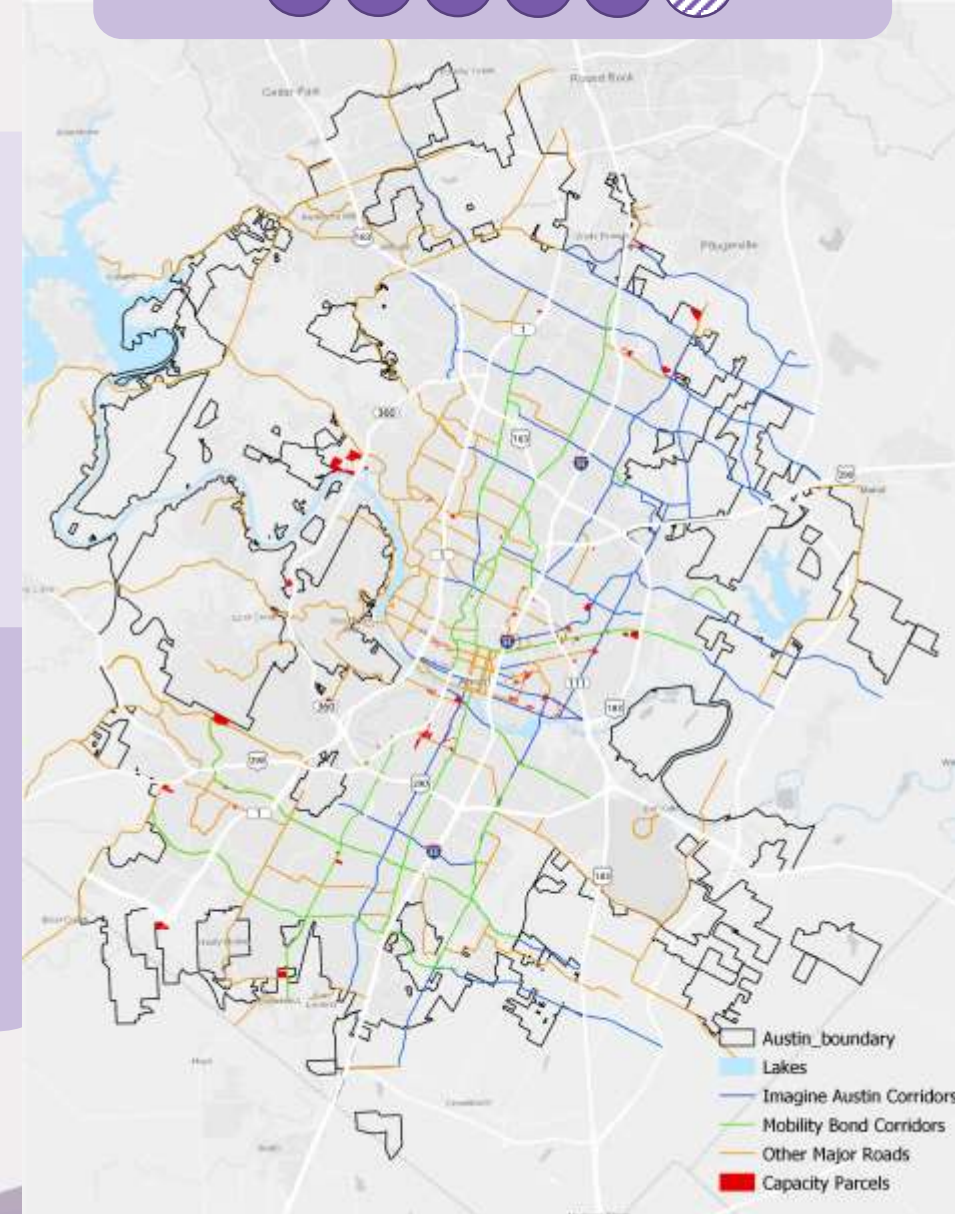
- Commercial land within 1/8 mile of Imagine Austin Corridors, Mobility Bond Corridors, and all other major thoroughfares.
- Exclude residential parcels
- Upzone parcels to MS2B
- Feasibility test is done to assess where redevelopment might occur

Note: Increasing distance to ¼ mile adds an additional 13,800 units

CAPACITY CHANGE

(RELATIVE TO NEAREST EQUIVALENCY)

+39,894
HOUSING UNITS



P5

AISD SCHOOLS (R3C)

Priority 5: Increase Density Around AISD Schools to R3C

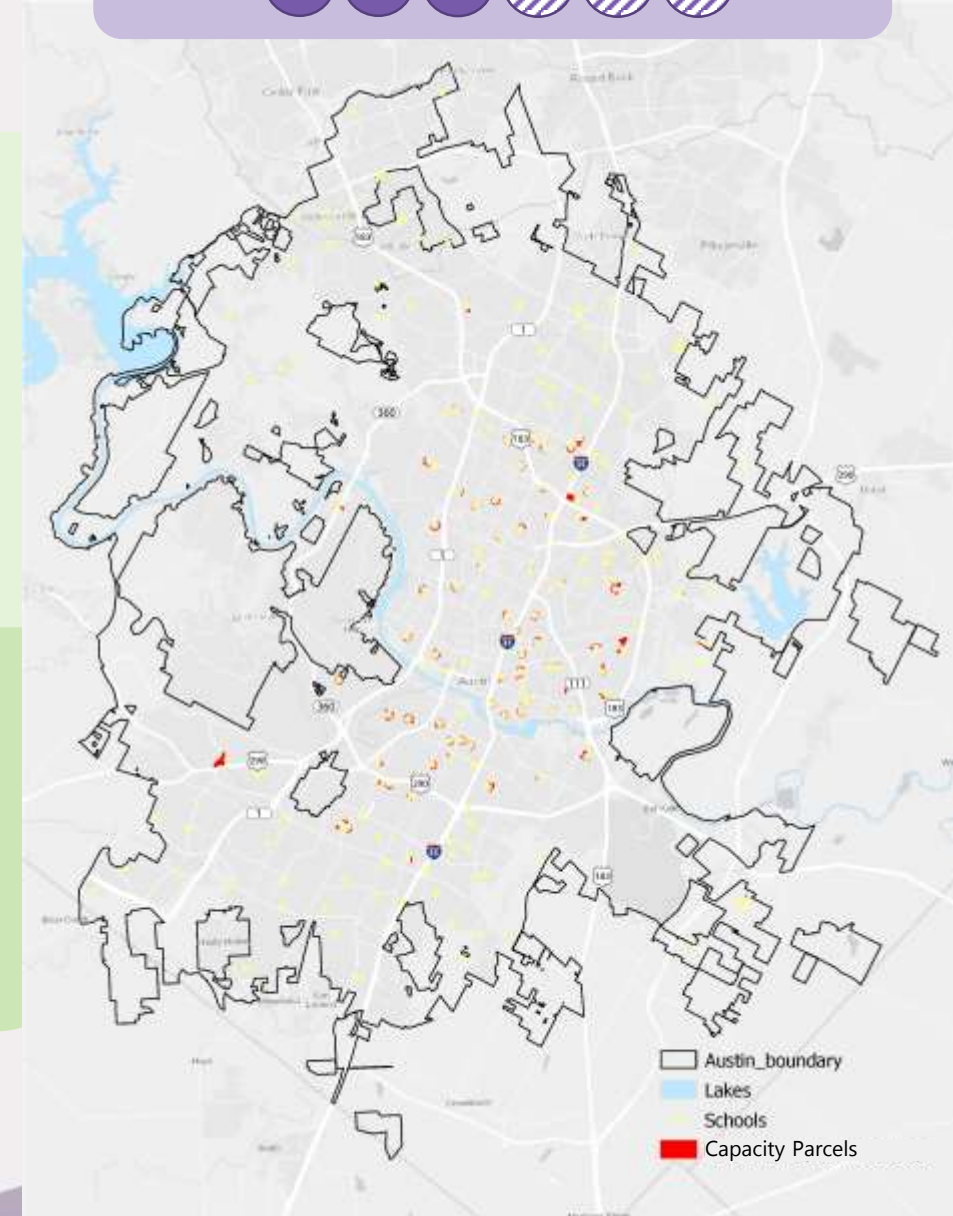
- Increase entitlements on parcels within 1/8 mile of public schools
- Parcels zoned R1 or lower upzoned to R2B
- Parcels zoned R2 upzoned to R3C
- Feasibility test is done to assess where redevelopment might occur

CAPACITY CHANGE

(RELATIVE TO NEAREST EQUIVALENCY)

+2,927
HOUSING UNITS

MAPPING WORKING GROUP INTEREST



P6

AISD SCHOOLS (R4A)

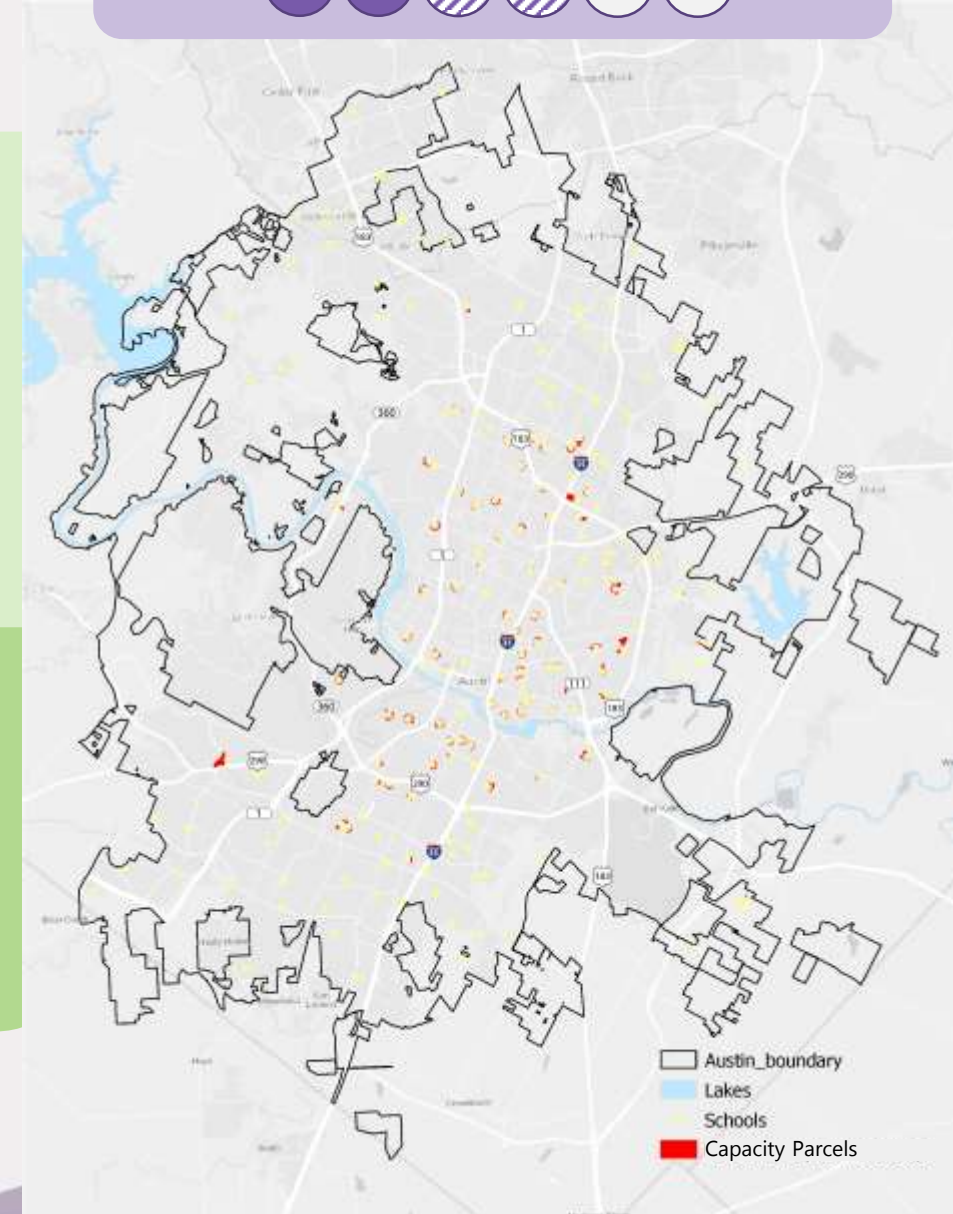
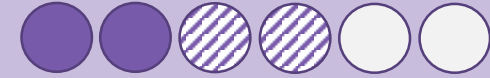
Priority 6: Increase Density Around AISD Schools to R4A

- Increase entitlements on parcels within 1/8 mile of public schools
- Parcels zoned R1 or lower upzoned to R2B
- Parcels zoned R2 upzoned to R4A
- Feasibility test is done to assess where redevelopment might occur

CAPACITY CHANGE
(RELATIVE TO NEAREST EQUIVALENCY)

+4,313
HOUSING UNITS

MAPPING WORKING GROUP INTEREST



P7

LIMIT SINGLE FAMILY REDEVELOPMENT

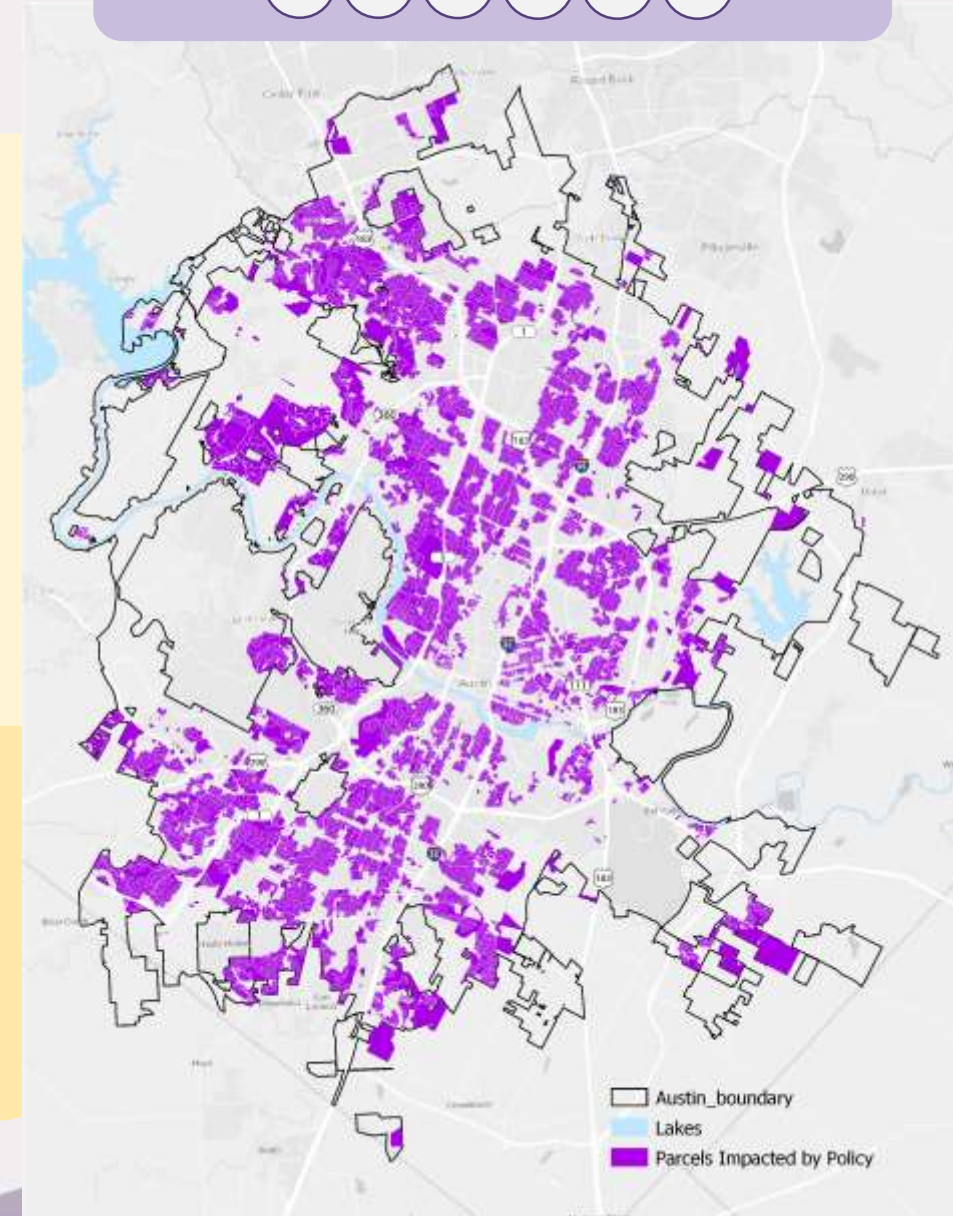
Priority 7: Limit Redevelopment on Existing Single Family Parcels in R Zones

- Any R zoned parcel with an existing single family home is excluded from any future development
- In “nearest equivalency” this only blocks SF demolitions at the rate at which they already occur in Austin (~465 per year)
- When combined with other priorities, this Priority has a much larger impact

CAPACITY CHANGE
(RELATIVE TO NEAREST EQUIVALENCY)

-2,108
HOUSING UNITS

MAPPING WORKING GROUP INTEREST



P8

PRESERVE EXISTING MULTIFAMILY

Priority 8: Limit Redevelopment of Existing Older Multifamily Housing Stock

- Entitlements on existing multifamily use (in any zone) are kept static
- Threshold for age is built before 1985
- Relatively small impact even when combined with other priorities

Note: P8 blocks ~7,800 units of capacity in Nearest Equivalency, but preserves ~4,300 existing multifamily units.

CAPACITY CHANGE

(RELATIVE TO NEAREST EQUIVALENCY)

-3,512
HOUSING UNITS

MAPPING WORKING GROUP INTEREST



P9

MISSING MIDDLE INFILL

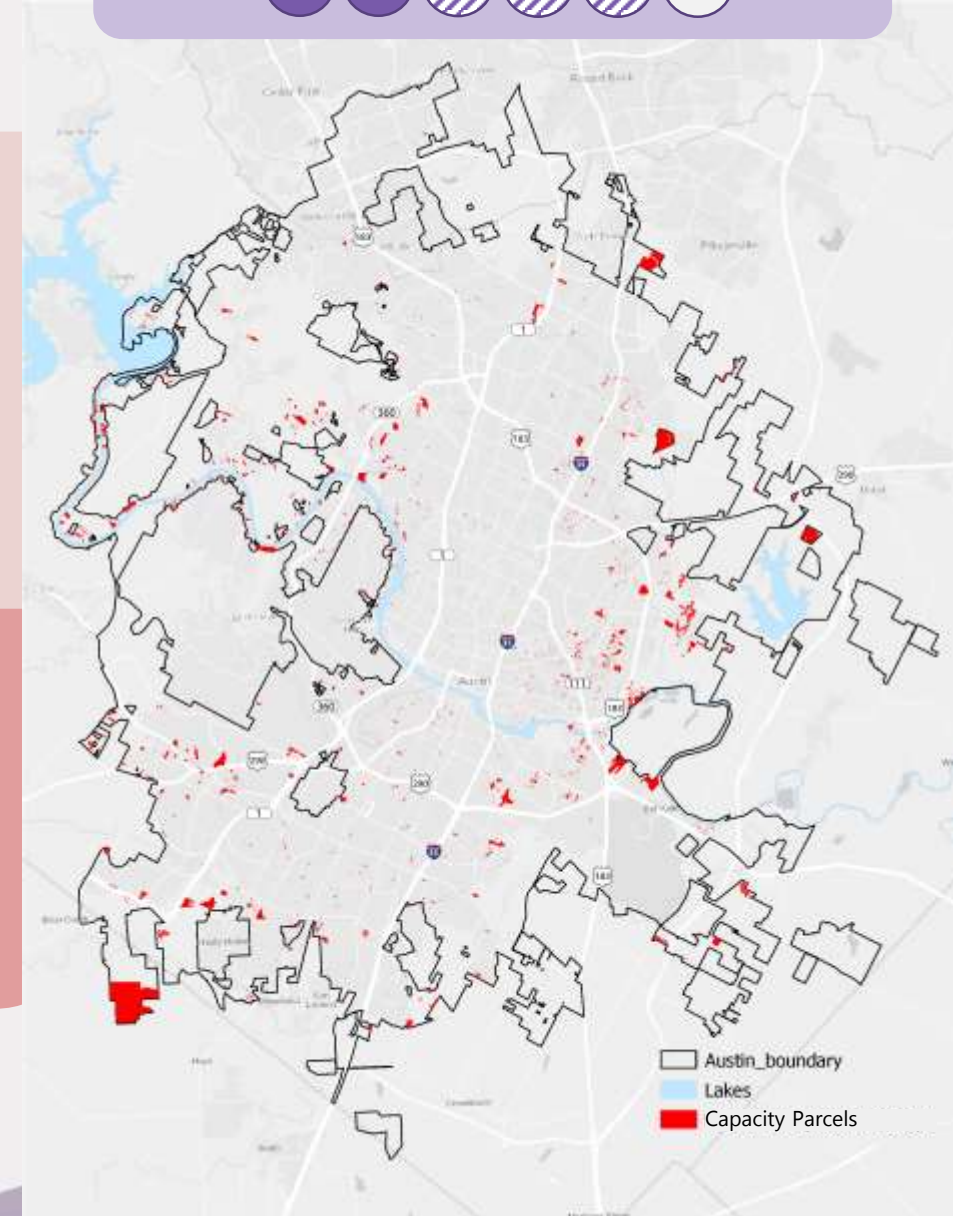
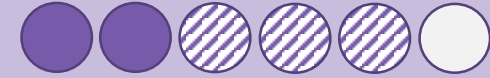
Priority 9: Encourage Missing Middle Housing on Vacant Land in R Zones

- R4A is applied to all vacant land zoned RR, LA, R1, R2, or R3 in “nearest equivalency”
- R4A allows a range of missing middle housing types including cottage courts, duplexes, and multiplexes

CAPACITY CHANGE
(RELATIVE TO NEAREST EQUIVALENCY)

+25,620
HOUSING UNITS

MAPPING WORKING GROUP INTEREST



P10

MISSING MIDDLE REDEV

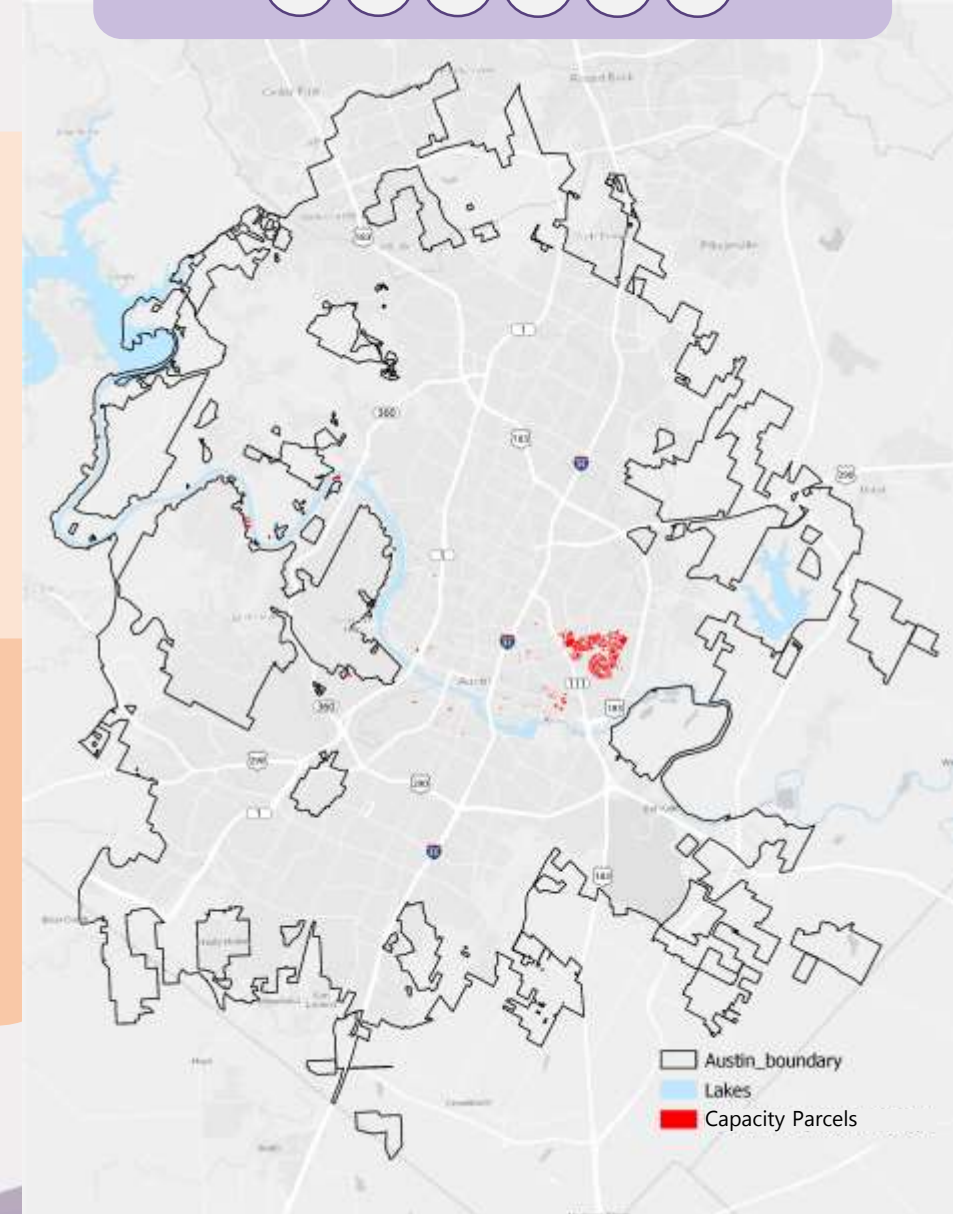
Priority 10: Encourage Redevelopment of Existing Single Family in R Zones to Missing Middle

- R4A is applied to developed land zoned RR, LA, R1, R2, or R3 in “nearest equivalency” based on a feasibility test
- R4A allows a range of missing middle housing types including cottage courts, duplexes, and multiplexes
- Impacted land area is disproportionately in East Austin

CAPACITY CHANGE
(RELATIVE TO NEAREST EQUIVALENCY)

+4,323
HOUSING UNITS

MAPPING WORKING GROUP INTEREST



P11

TURN OFF COMPATIBILITY

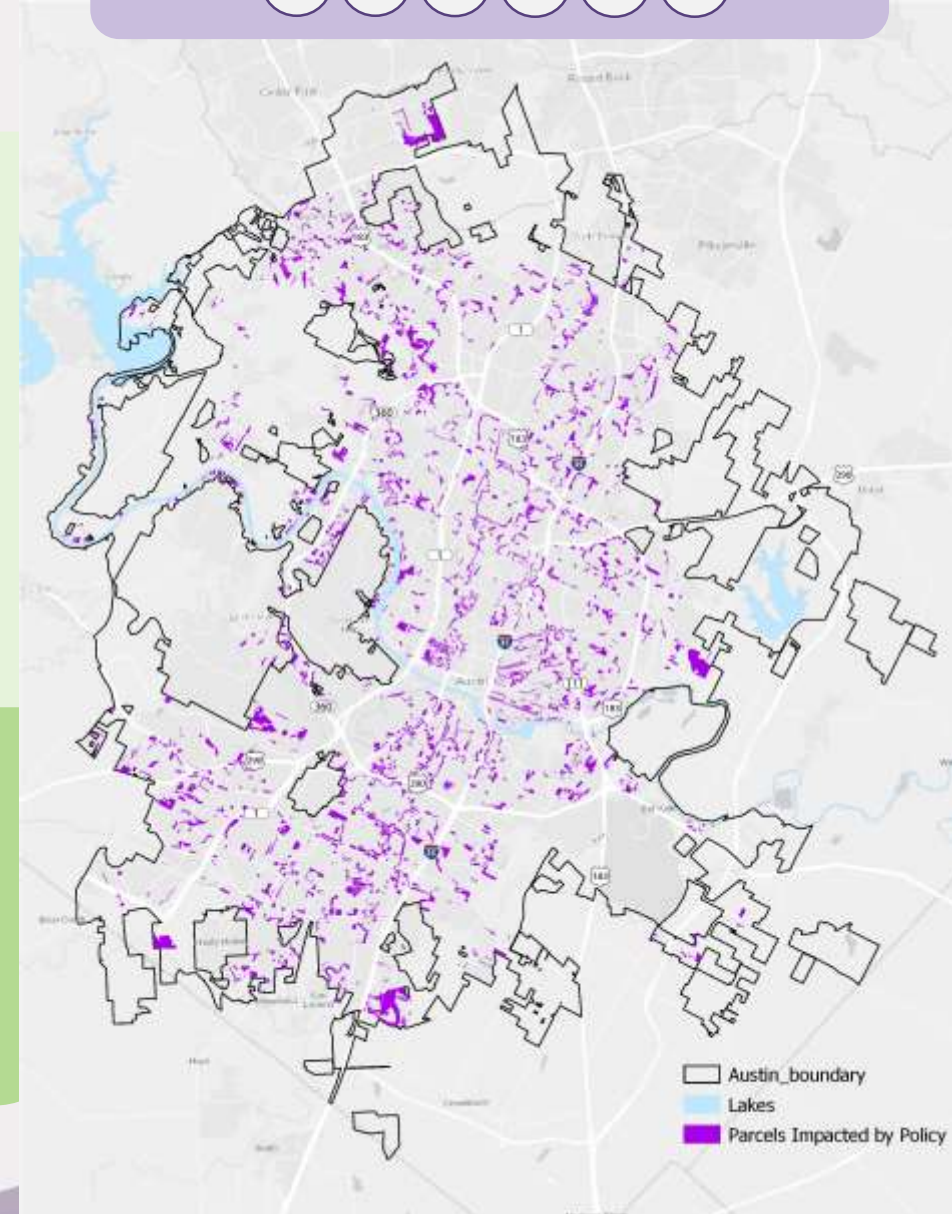
Priority 11: Remove Single Family Compatibility Requirements (Title 23 Compatibility)

- Any redevelopment potentially impacted by compatibility is allowed to reach typical densities
- Relatively minor impact to "nearest equivalency" map
- When combined with other priorities such as #1, #3, or #4, impact of this Priority is much more pronounced

CAPACITY CHANGE
(RELATIVE TO NEAREST EQUIVALENCY)

+1,360
HOUSING UNITS

MAPPING WORKING GROUP INTEREST



DRAFT 2 BONUSES

Priority 12: Apply Bonuses in Draft 2 Code

- Any modeled development that has a bonus option, takes it. Represents bonus opportunity, not a forecast of bonus uptake.
- Bonuses are calculated relative to maximum base entitlements. For example, a bonus of 1 floor with a 4 floor base entitlement receives a 25% bonus.

CAPACITY CHANGE

(RELATIVE TO NEAREST EQUIVALENCY)

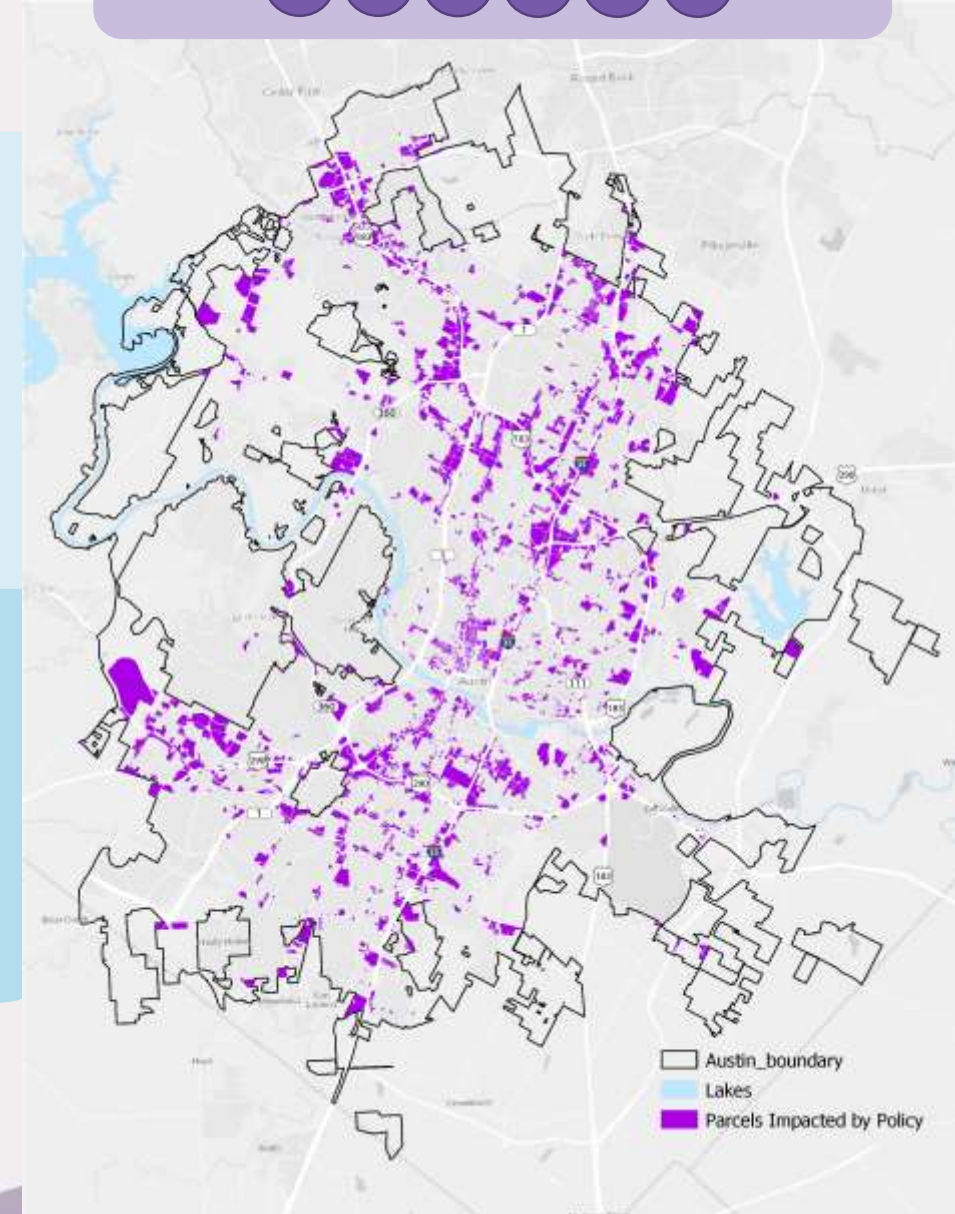
+76,848

TOTAL UNITS

+949

AFFORDABLE UNITS

MAPPING WORKING GROUP INTEREST



P14

MORE INTENSE BONUS ZONES

Priority 14: Replace Less Intense Bonus Zones With More Intense Bonus Zones

- Specific RM and MU zones are upzoned to the next level of intensity
- Feasibility tests are run to estimate change in redevelopment potential
- Where bonuses apply, they are re-applied

CAPACITY CHANGE

(RELATIVE TO NEAREST EQUIVALENCY)

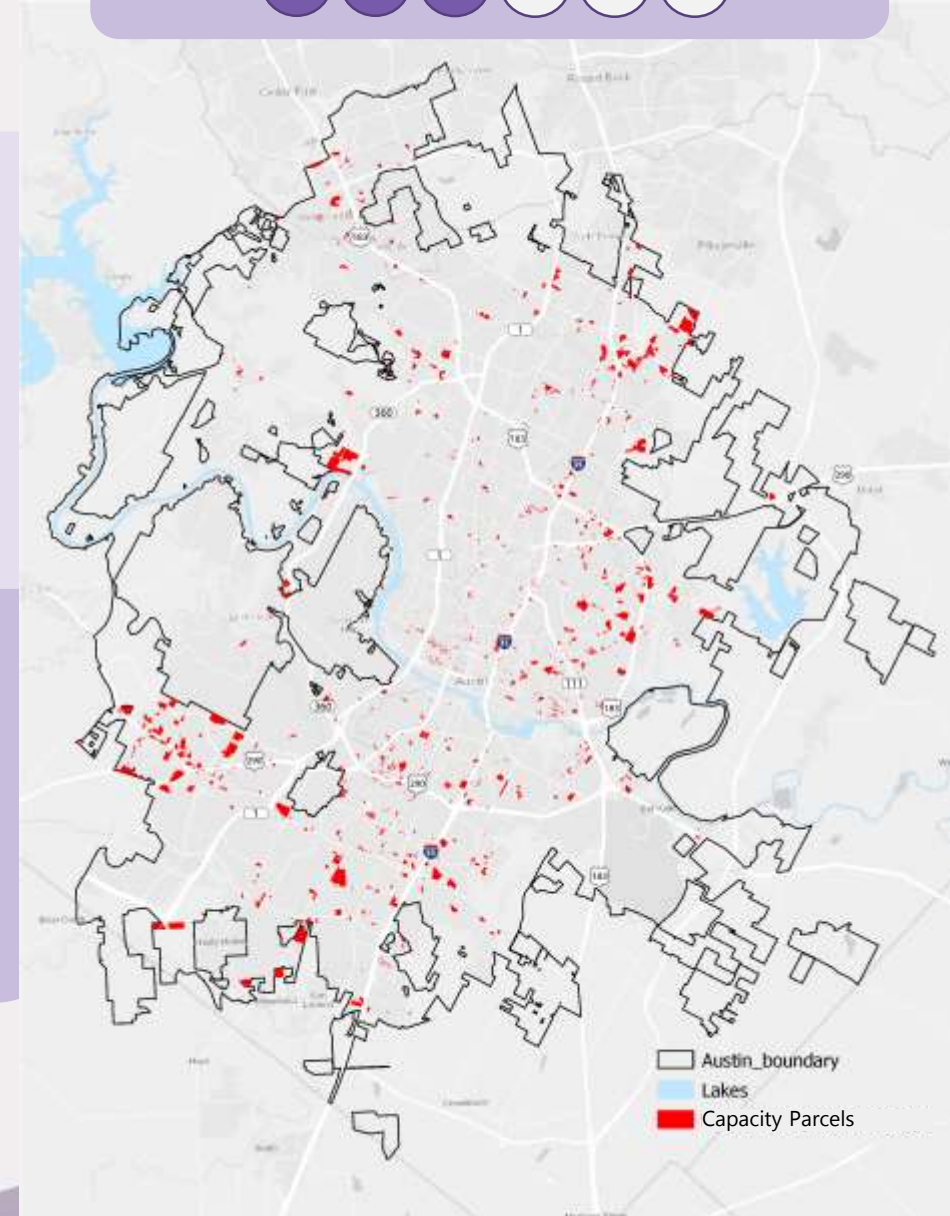
+73,664

TOTAL UNITS

+1,903

AFFORDABLE UNITS

MAPPING WORKING GROUP INTEREST



P15

RESIDENTIAL ONLY AS A BONUS

Priority 15: Apply Versions of MU That Mimic Existing Base Entitlements

- Applied to parcels where MU zones were painted in existing commercial zones and the parcels did not have a "v" or an "mu" in their zone string
- Assume full participation in the affordable housing bonus
- Some parcels will drop out due to relative increase in commercial feasibility compared to base and bonus residential entitlements

CAPACITY CHANGE

(RELATIVE TO NEAREST EQUIVALENCY)

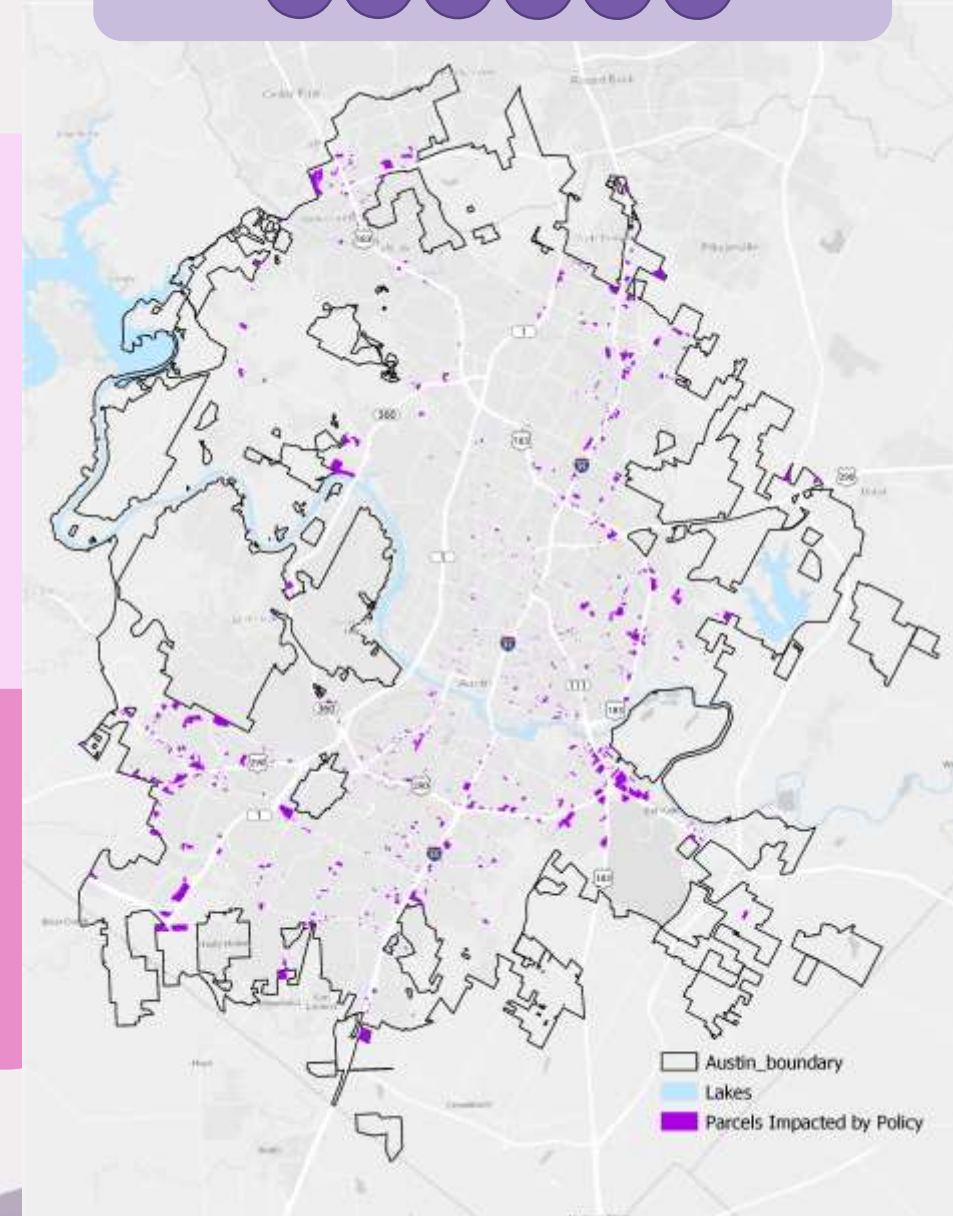
+89,518

TOTAL UNITS

+13,951

AFFORDABLE UNITS

MAPPING WORKING GROUP INTEREST



P16

RESIDENTIAL BASE AND BONUS

Priority 16: Apply Versions of MU That Mimic Base Entitlements of VMU

- Applied to parcels where MU zones were painted in existing commercial zones and the parcels have a "v" or an "mu" in their zone string
- Assume full participation in the affordable housing bonus
- Some parcels will drop out due to relative increase in commercial feasibility compared to base and bonus residential entitlements

CAPACITY CHANGE

(RELATIVE TO NEAREST EQUIVALENCY)

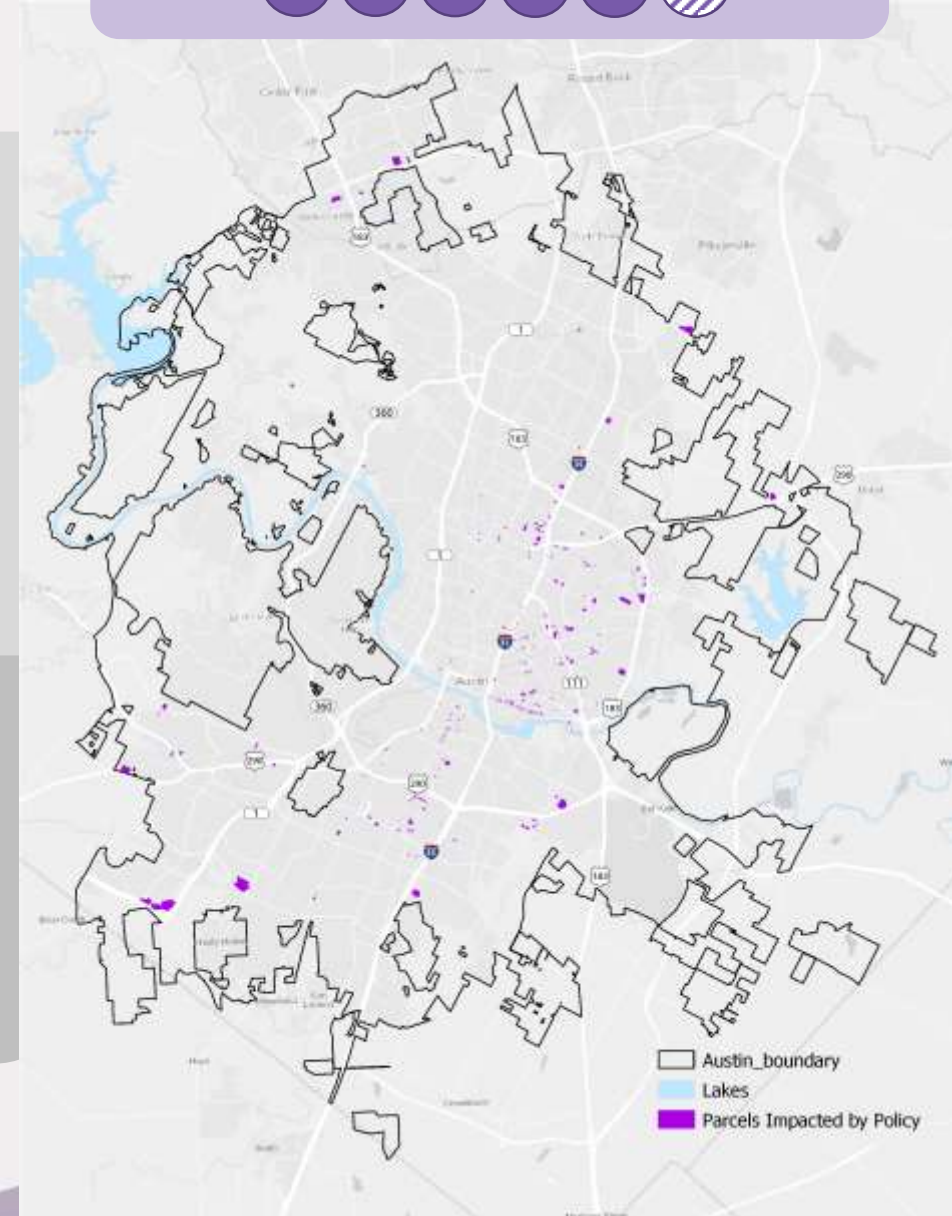
+16,380

TOTAL UNITS

+2,231

AFFORDABLE UNITS

MAPPING WORKING GROUP INTEREST



P17

SMALL SCALE BONUS ZONES

Priority 17: Create Bonuses for Residential Zones and Small Scale Mixed Use Zones

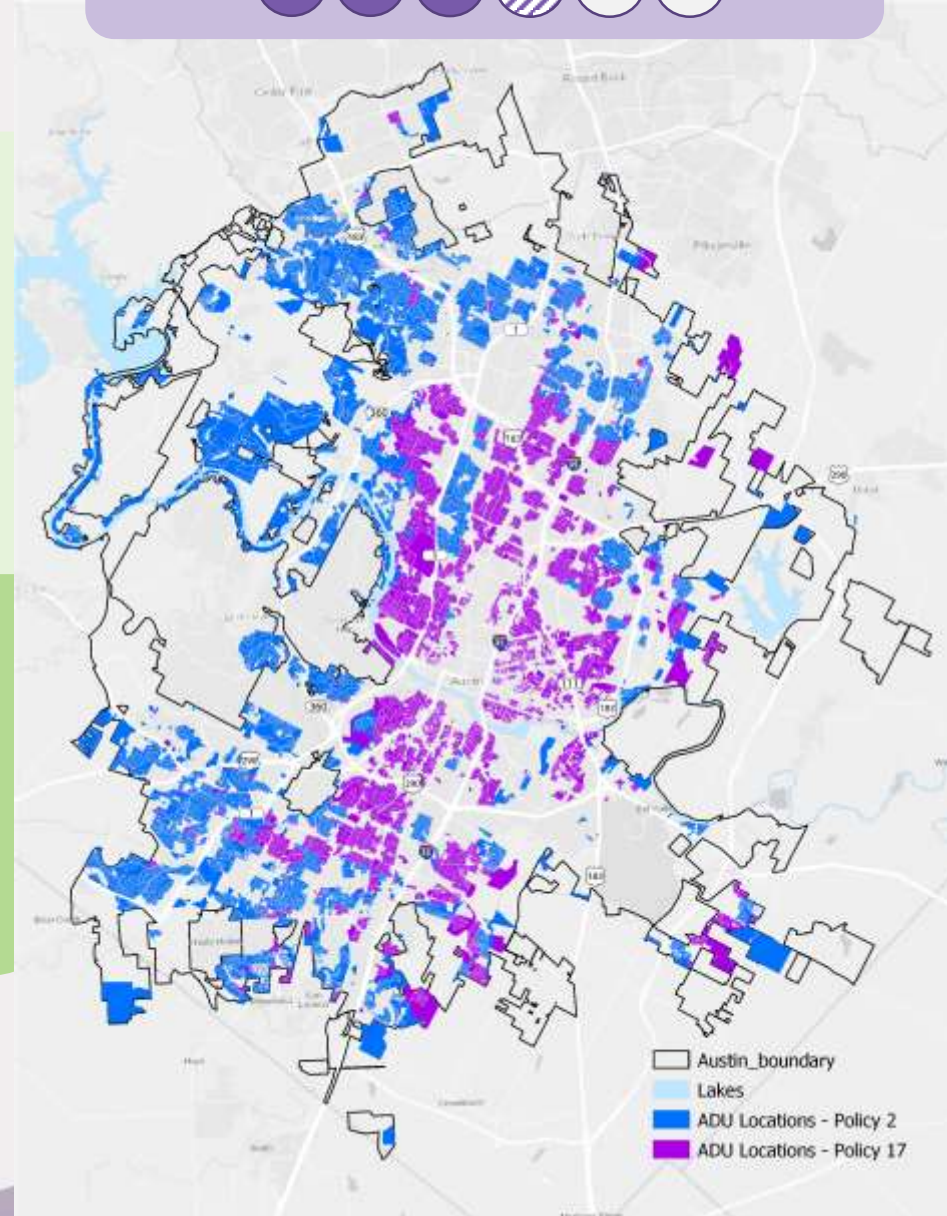
- Allow additional affordable units to be built in R1, R2, R3, R4, and MU1 zones
- Typically allows an internal and external ADU if one of the ADUs is registered as part of the CodeNEXT Citywide Affordable Housing Bonus Program

CAPACITY CHANGE

(RELATIVE TO NEAREST EQUIVALENCY)

*Included in higher Policy 2
ADU Production Rate*

MAPPING WORKING GROUP INTEREST



P18

MISSING MIDDLE IN IA CENTERS

Priority 18: Upzone to Missing Middle Densities in Imagine Austin Centers

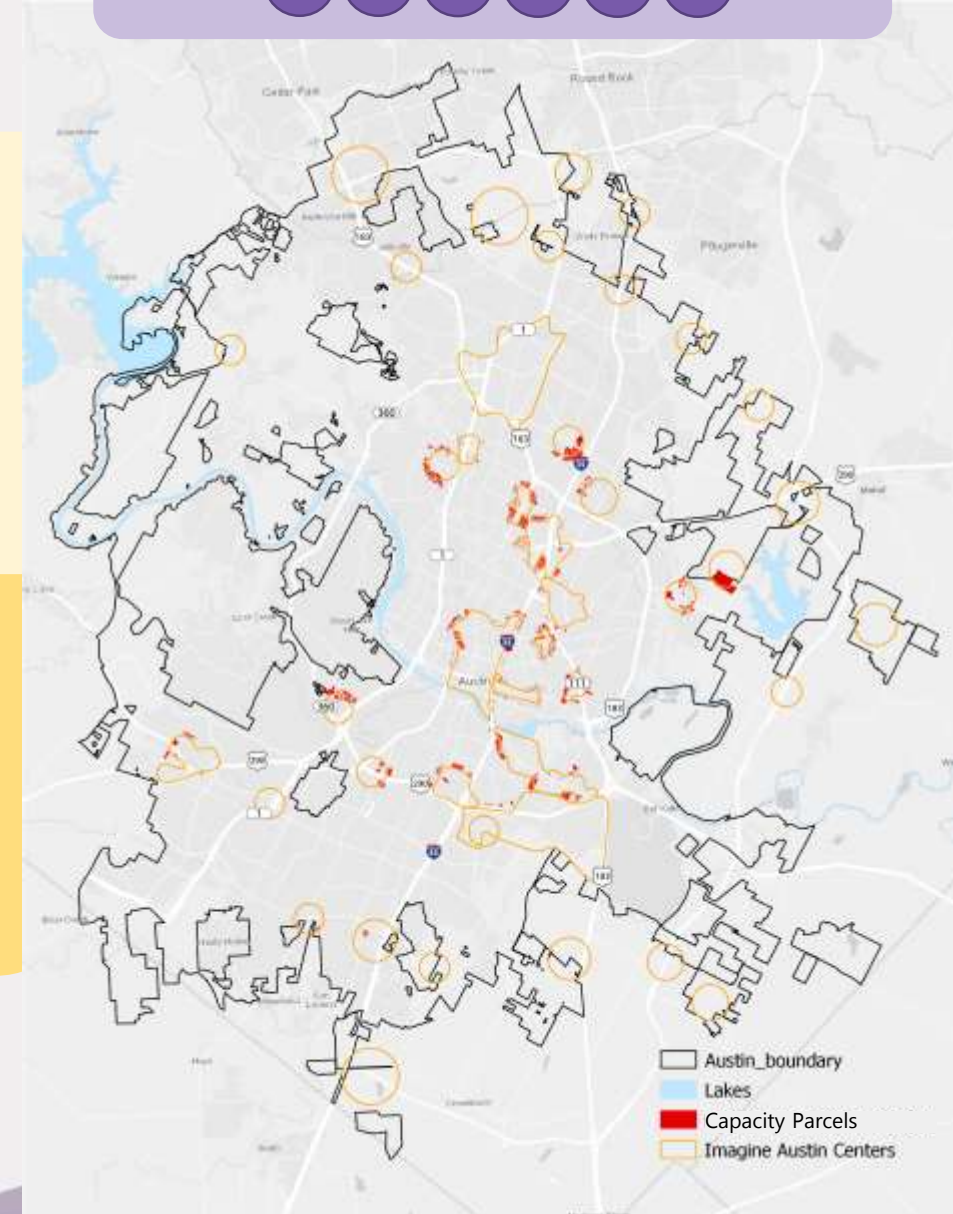
- Within 1/8 of a mile of centers, upzone R zones to R3C
- Would allow missing middle along in areas identified by Imagine Austin as priorities for growth and investment.

Note: Upzoning to R4A adds an additional 1,800 units.

CAPACITY CHANGE
(RELATIVE TO NEAREST EQUIVALENCY)

+7,049
HOUSING UNITS

MAPPING WORKING GROUP INTEREST



P19

MISSING MIDDLE ALONG CORRIDORS

Priority 19: Upzone to Missing Middle Densities in Along Major Corridors

- Within 1/8 of a mile of corridors, upzone R zones to R3C
- Would allow missing middle along in areas identified by Imagine Austin as priorities for growth and investment.

Note: Upzoning to R4A adds an additional 5,000 units.

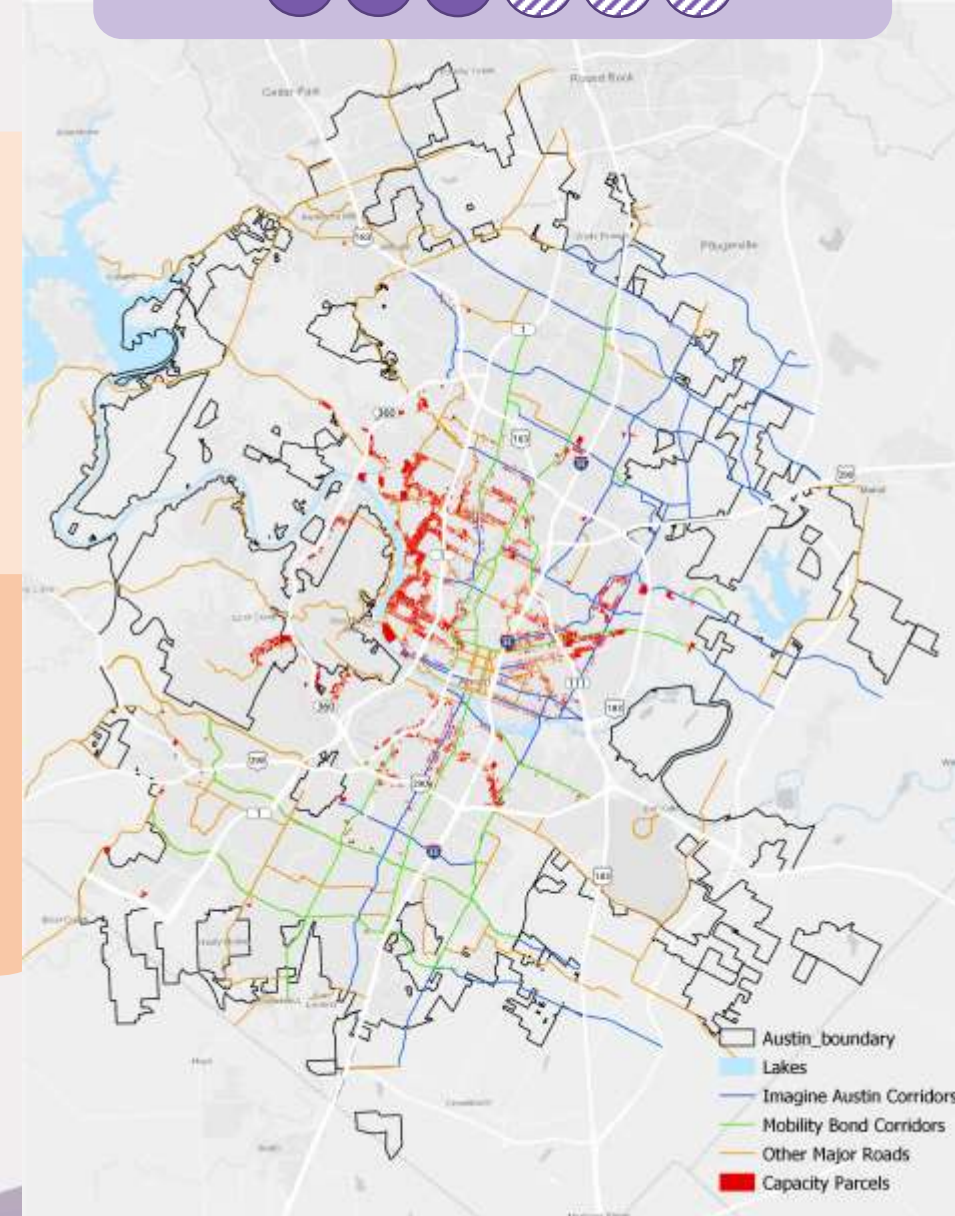
CAPACITY CHANGE
(RELATIVE TO NEAREST EQUIVALENCY)

+23,344
HOUSING UNITS

P18 AND P19 PROVIDE
MORE CAPACITY THAN
P9 AND P10 COMBINED



MAPPING WORKING GROUP INTEREST



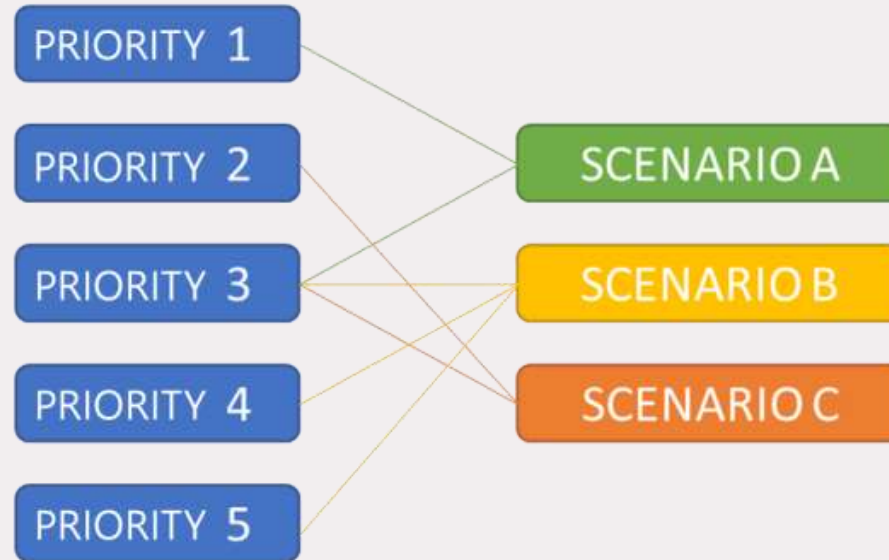
EVALUATED PRIORITY LIST

POLICY ID	DESCRIPTION	CAPACITY	MAPPING WORKING GROUP EVAL
P1	Permit Mixed Use in Commercial Zones	46,324	●●●●●●
P2	ADUs in More Locations	10,525	●●●●●○
P3a	Increase density on non-residential land in IA Centers (1/8 mile)	11,679	●●●●●●
P3b	Increase density on non-residential land in IA Centers (1/4 mile)	17,238	-----
P4	Increase density on non-residential land within 1/8 mile of major thoroughfares	39,894	●●●●●●
P5	Increase density within 1/8 mile of schools (R3C)	2,927	●●●●●●
P6	Increase density within 1/8 mile of schools (R4A)	4,313	●●●●●●
P7	Limit redevelopment of existing single family in R zones	(2,108)	○●●●●●
P8	Limit redevelopment of older multifamily properties	(3,512)	●●●●●●
P9	Encourage infill development of missing middle housing on vacant land	25,620	●●●●●●
P10	Encourage redevelopment of detached single family housing into missing middle housing	4,323	○●●●●●
P11	Remove title 23 compatibility requirements	1,360	○●●●●●
P12	Apply Draft 2 bonuses	76,848	●●●●●●
P14	Upzone to more intense zones, particularly zones with larger bonuses	73,664	●●●●●●
P15	Create new versions of some Draft 2 zones (MU/MS) so that the zones allow residential only as a bonus	89,640	●●●●●●
P16	Create new versions of some Draft 2 zones (MU/MS) to mimic the base entitlements of current VMU zones	16,380	●●●●●●
P17	Create new versions of Draft 2 small-scale zones (R1, R2, R3, R4, MU1 zones) that incorporate bonuses	10,525	●●●●●●
P18a	Missing Middle in IA Centers (R3C)	7,049	●●●●●●
P18b	Missing Middle in IA Centers (R4A)	8,805	-----
P19a	Missing Middle within 1/8 mile of major thoroughfares (R3C)	23,344	●●●●●●
P19b	Missing Middle within 1/8 mile of major thoroughfares (R4A)	28,266	-----

- Lack of interest in further discussion
- Interest with caveats
- Interest in discussing further
- Not evaluated as of 2/1/18



GETTING TO A LIST OF PRIORITIES



Step 1:
Test priorities
independently



Step 2:
Test priority
interactions

























Step 3:
Evaluate priority
performance

DRAFT 3 – A HIGH LEVEL LOOK

	NEAREST EQUIVALENCY: Current Code With Draft 2 Language	DRAFT 2	DRAFT 3: Preview Version (2/12 release)
BASE UNIT CAPACITY:	139,420	189,499	200,621
BONUS UNIT CAPACITY:	5,174	85,646	83,220
AFFORDABLE UNIT CAPACITY:	1,500	5,000	COMING SOON
TOTAL UNIT CAPACITY:	144,594	275,145	283,841



DRAFT 3 – PRIORITY PERFORMANCE

Policy	Nearest Equiv	Draft 3	Policy	Nearest Equiv	Draft 3
Mixed-Use in Commercial			Draft 2 Bonuses		
ADUs Everywhere			Bonuses Without Residential Base		
Density on Commercial in IA Centers			Mimic VMU Bonuses		
Density on Commercial Along Corridors			Small Scale Bonuses (R1, R2, etc.)		
Increase Density Around Schools			Missing Middle in IA Centers		
Limit Redevelopment of Older Multifamily			Missing Middle Along Corridors		



NEXT STEPS

1. Draft 3 is due to be released on February 12th
2. Consultant team will produce Envision Tomorrow indicators for Draft 3.
3. PC priority evaluation can evolve as Draft 3 is studied.
4. The next round of map or text changes should address PC evaluation.
5. Mapping working group to schedule Draft 3 work sessions.



1. After Staff's presentation on April 18th the MWG decided to use D3 as the basis for our map.
2. During that meeting it became clear that D3 takes more of the on the ground realities of today's zoning into consideration than the equivalency did.
3. The additional aspects of D3 were policies taken from Imagine Austin and recent Council directives.
4. These policies aligned with the policy recommendations from PC:
 - Park and conservation zoning
 - Affordability in new mixed use (-A)
 - Density along corridors
 - More permissive of ADUs



ROOM FOR IMPROVEMENT

Where is the room for improvement over D3?

1. Missing Middle

2. Mode Split

3. Affordable Housing Bonus

4. Corridor density

- More equitable dispersion throughout all major thoroughfares

Total housing capacity

Total housing capacity in very high, high and moderate opportunity areas:

Very high
High
Moderate

Total **bonus** housing unit capacity and **income-restricted** units

Bonus Income-restricted

Total capacity **within urban core vs. outside urban core**

Within urban core
Outside urban core

Total capacity **housing mix**

Single family large and std
Single family medium
Single family small
Townhouses
Multi family

Nearest Equivalency
Land Development Code

145,000 units

71,183 units
25,922 units
21,862 units
23,353 units

5,000 units
1,500 units

43,023 units
101,977 units

46,903 units
9,783 units
10,824 units
33,806 units
43,683 units

CodeNEXT Draft 3

287,000 units

132,255 units
47,429 units
33,239 units
51,533 units

126,000 units
6,600 units

86,039 units
200,961 units

46,859 units
7,580 units
21,952 units
36,079 units
173,604 units



WHY CREATE A MWG SCENARIO?

1. This will give the PC another version to consider in our final recommendation
2. It allows us to take a closer look at some of the ideas and recommendations from PC
 - Analyze the indicators & vet specific policies
3. Allowed us to explore major thoroughfares West of Mo-Pac
4. It gives us more data to consider in our deliberation

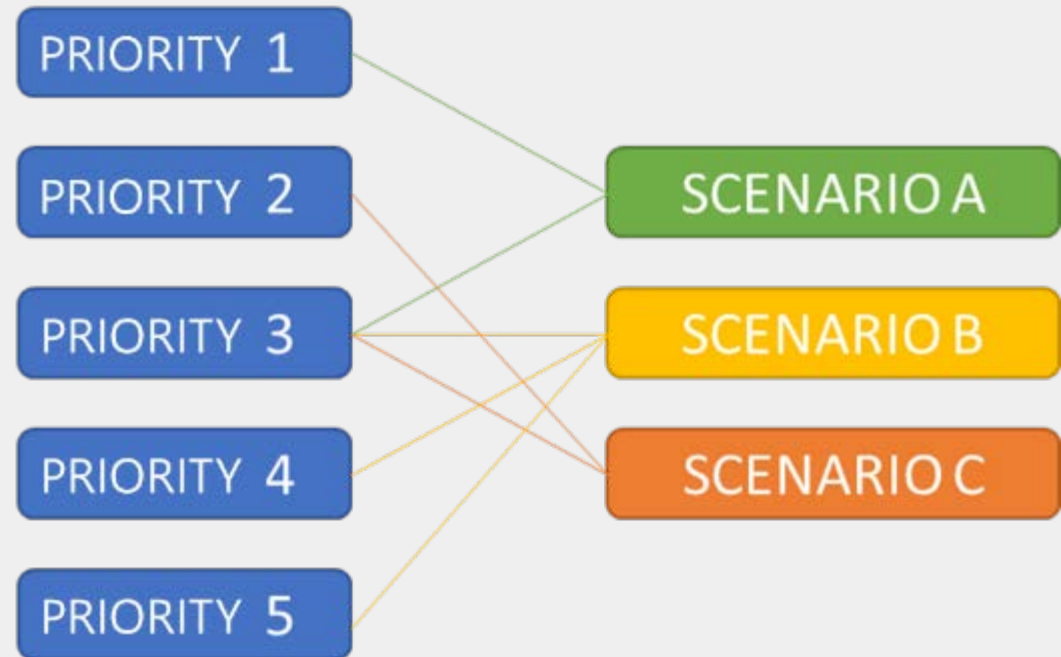


HOW SHOULD THIS BE USED BY PC GOING FORWARD?

1. This is more food for thought!
2. We hope that this gives the PC a chance to have a conversation about...
 - Whether these policies are worth pursuing
 - How to incorporate these policies
 - a) through our mapping recommendation to Council or
 - b) through future planning efforts



SCENARIOS MADE OF PRIORITIES THAT WE CAN TURN OFF AND ON



SCENARIOS ARE CRASH TEST DUMMIES

11



IMPORTANT DISTINCTIONS

- Priority Levers Scenarios are “crash test dummies” – NOT Zoning Map Proposals
- Designed to be distinctive – NOT subtle or refined
- Illustrate and quantify directional impacts – NOT accurate or representative the nuance if applied in practice

“Humans are underrated”

-Elon Musk



SCENARIOS ALLOW US TO EVALUATE THE DRAFT MAP

POLICY 1: ALLOW MIXED
USE IN COMMERCIAL
ZONES

POLICY 2: ADUs
EVERYWHERE

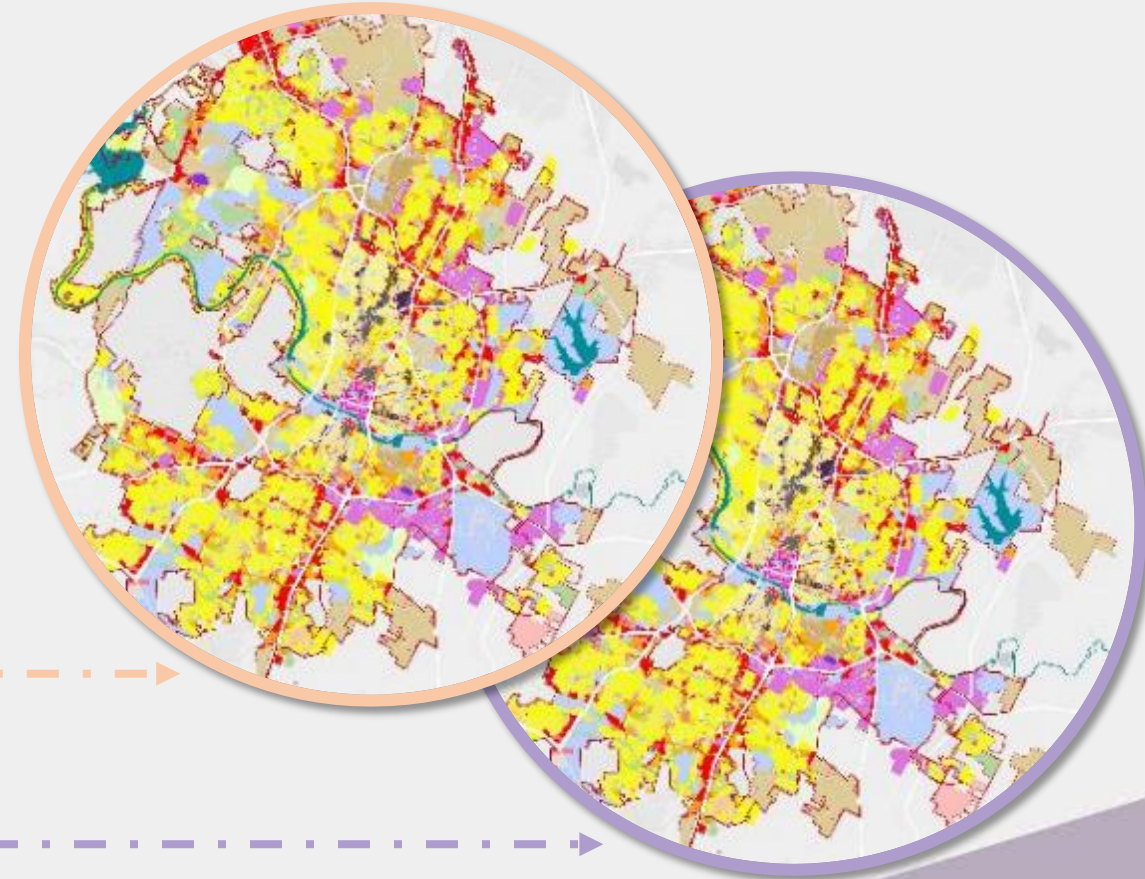
POLICY 3: INCREASE
ENTITLEMENTS IN IA
CENTERS

POLICY 4: INCREASE
ENTITLEMENTS ON
CORRIDORS

Nearest
Equivalency



"Draft 3"

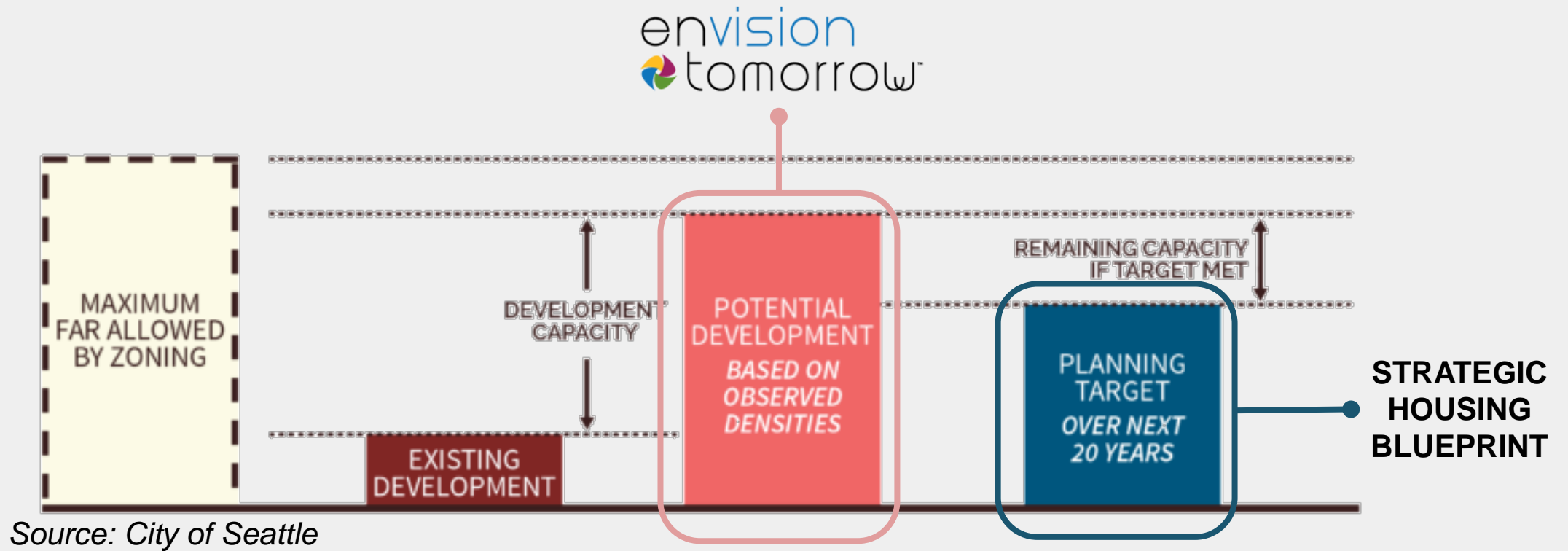


FOR ILLUSTRATIVE PURPOSES ONLY



CODENEXT

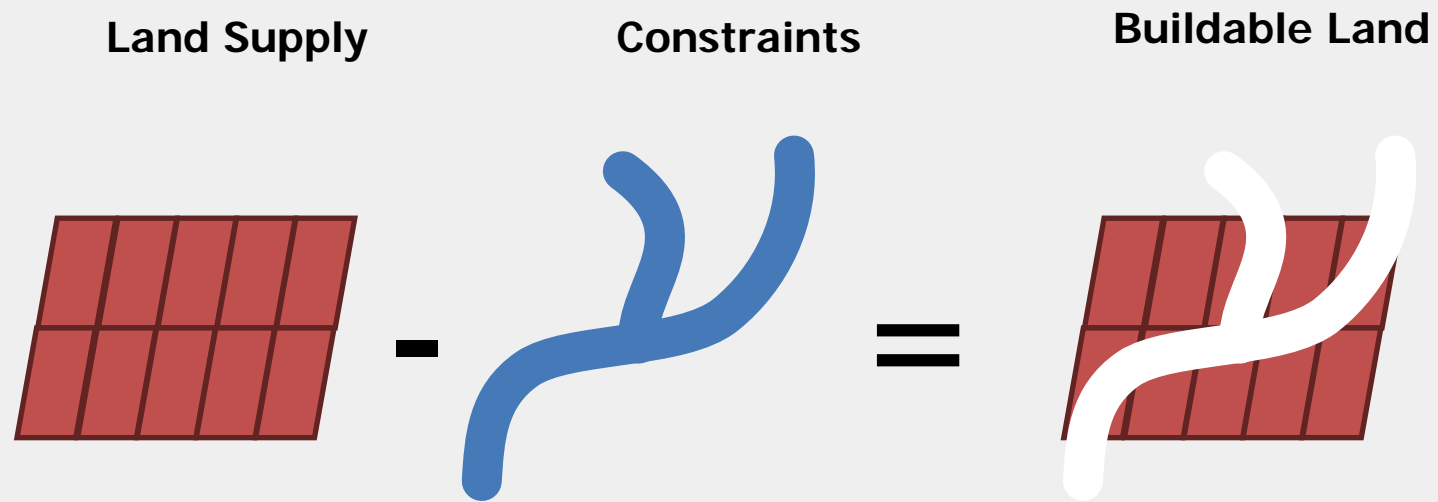
HOUSING CAPACITY



CAPACITY FORECAST \neq
CAPACITY FORECAST $= 2x$
(OR MORE)

CONSTRUCT BUILDABLE LANDS LAYER

Buildable Lands =
Land Supply – Constraints (Environmental & Policy)

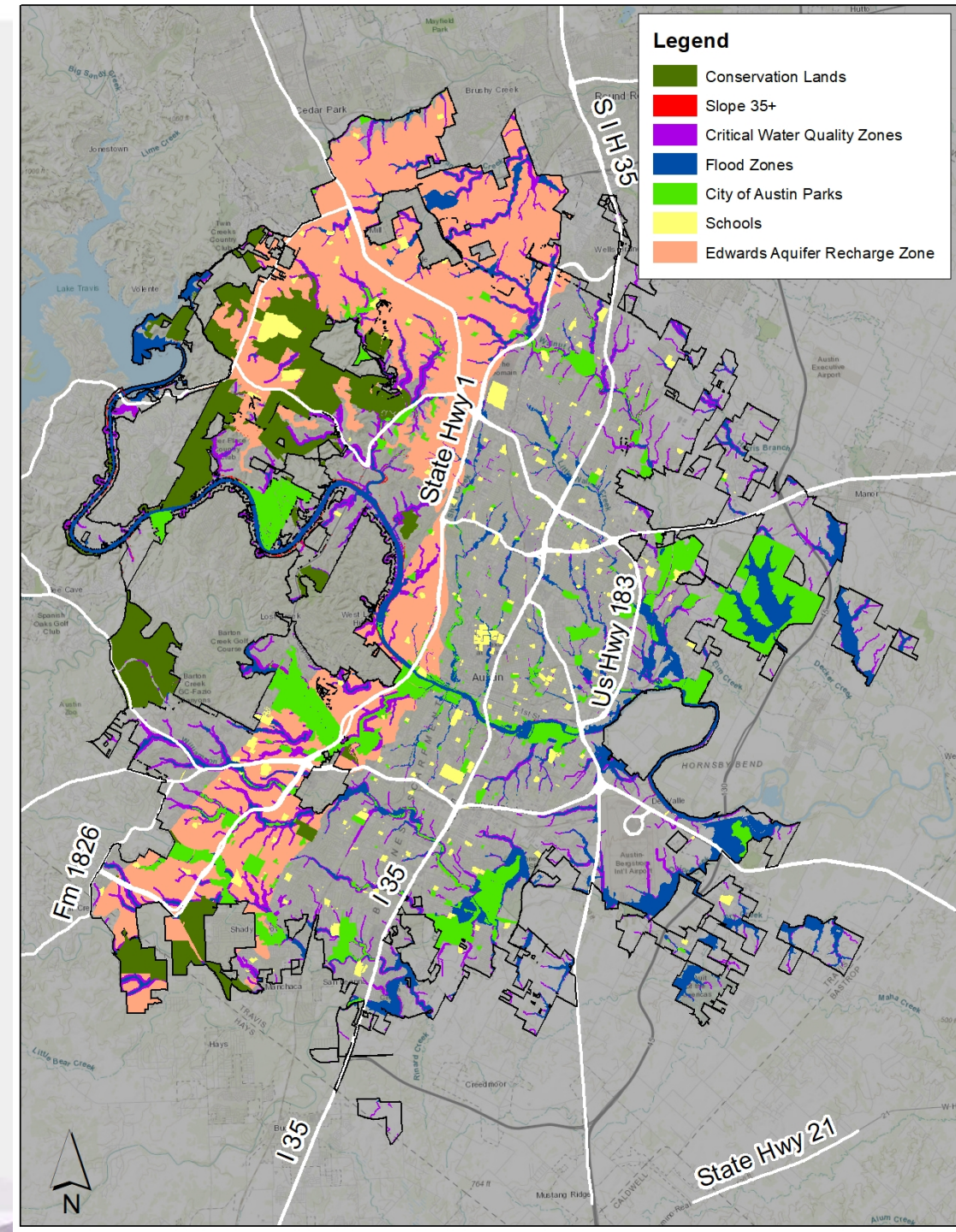


Hard Constraints

- Steep Slopes
- Critical Water Quality Zones
- FEMA Flood Zones
- City of Austin Parks
- Educational Institutions
- Zoned Conservation Land

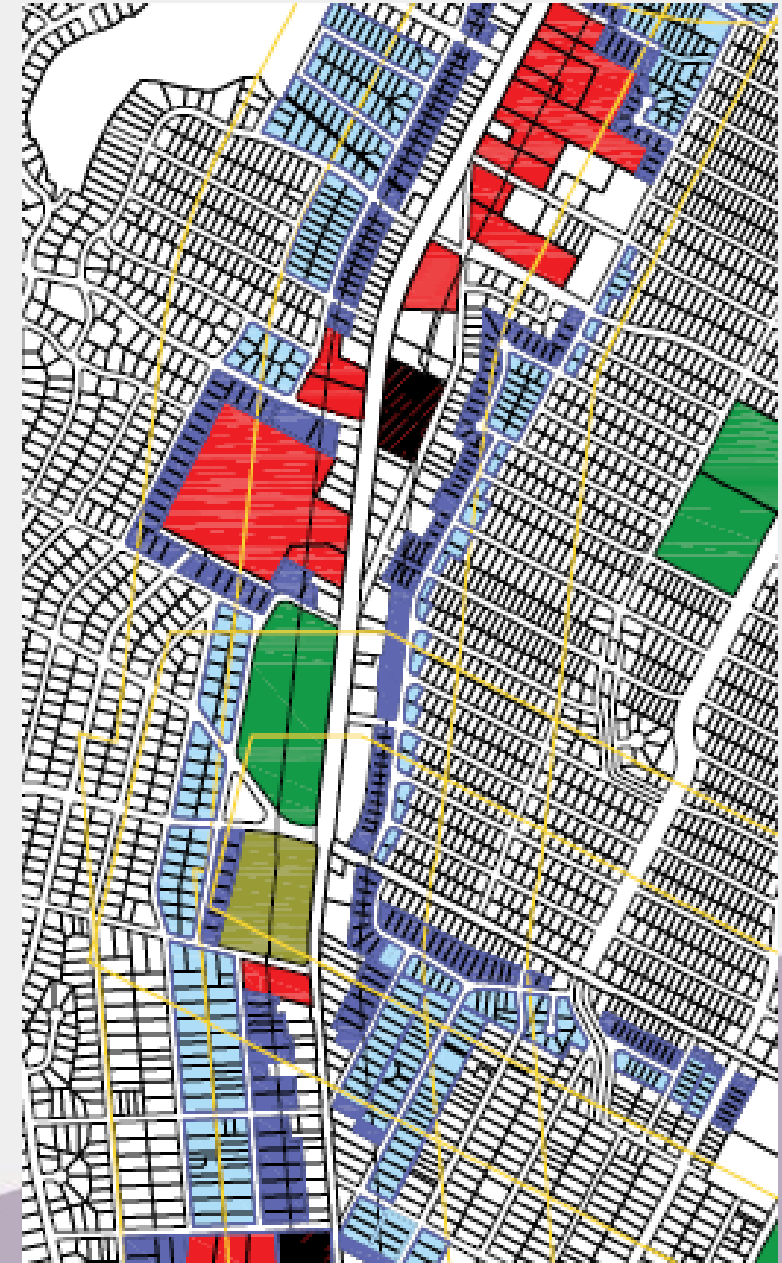
Soft Constraints

- Edwards Aquifer Recharge Zone

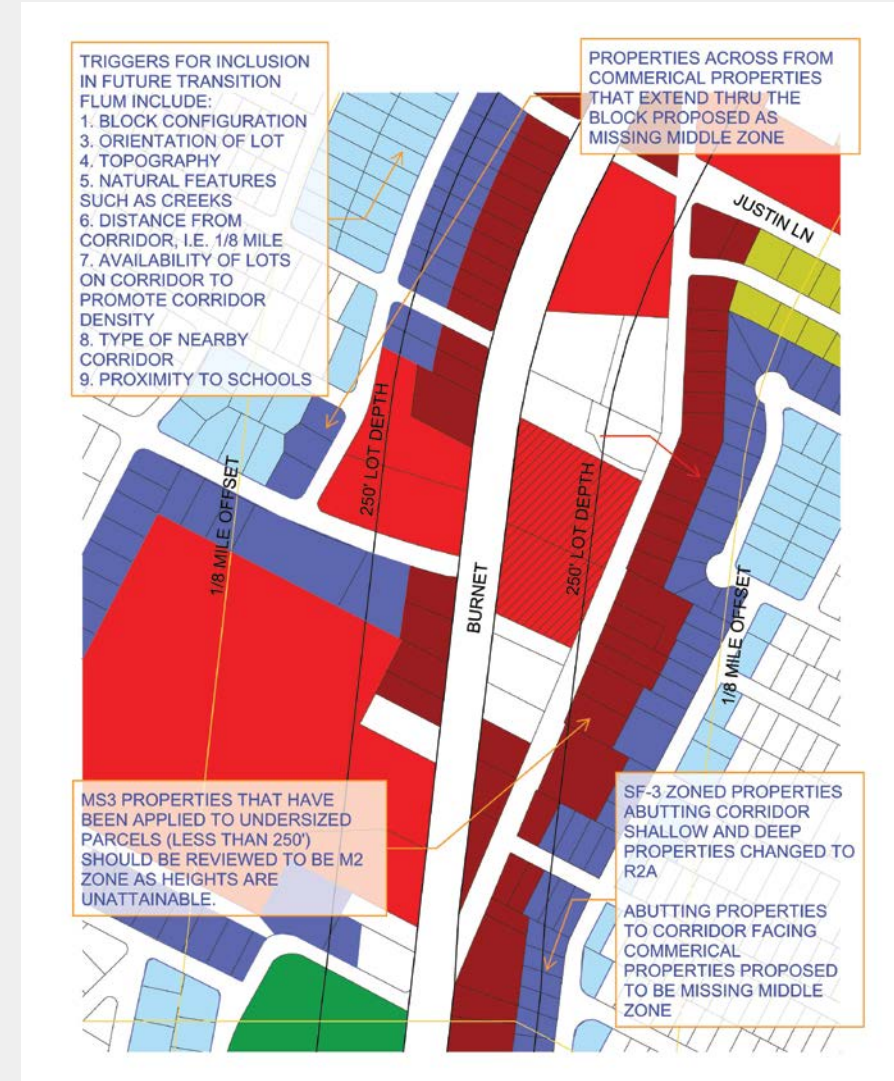
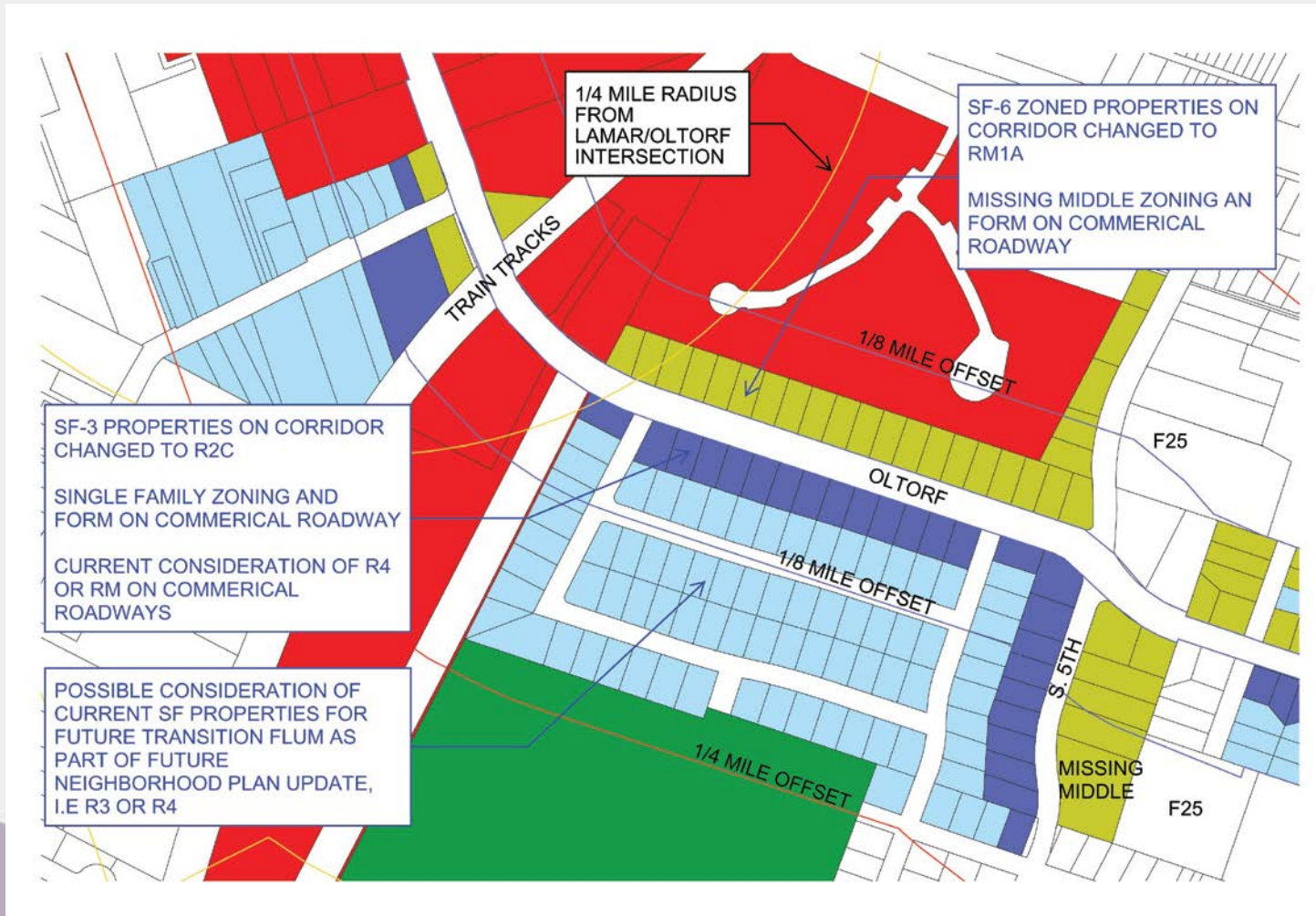


MWG STRATEGIES: TRANSITION ZONES

1. RM1C applied to parcels adjacent to any MU2+ or MS2+ along specific corridors
2. Missing middle applied to residential parcels fronting certain corridors
3. Some MS zones re-mapped to higher intensity based on lot depth

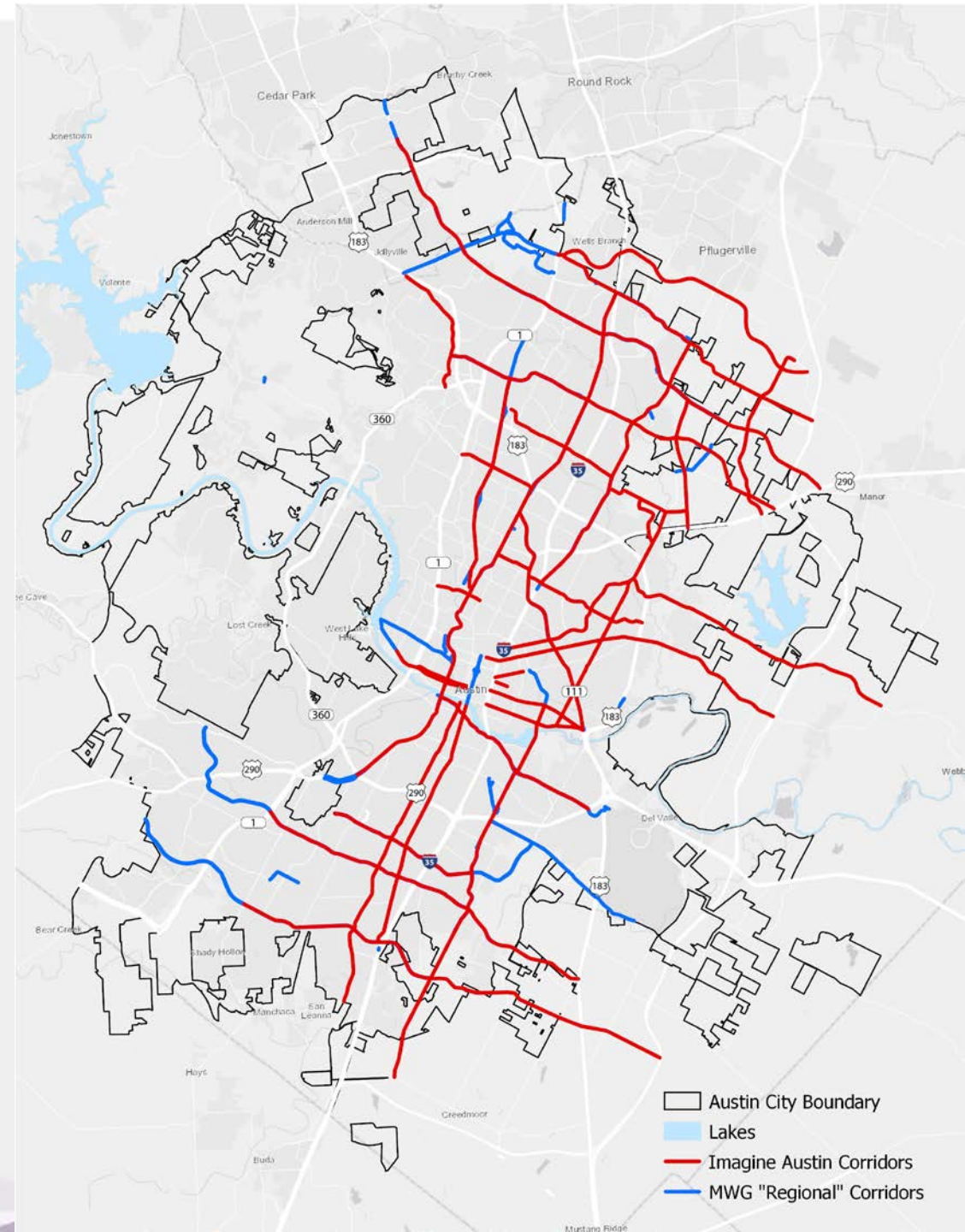


MWG:TRANSITION ZONES



ADDITIONAL STRATEGIES

1. "Regional Corridors" to add to IA Corridors as a way to apply transitions
2. Larger bonus entitlements for some zones
3. More intense MS zones



MWG SCENARIO:

Baseline Draft 3: **202,731**

Lever 1: Mixed Use in Commercial: **203,137** | 0 (+406 / +0)

Lever 2: Density in IA Centers: **212,827** | 0 (+9,690 / +0)

Lever 3: Missing Middle in IA Centers: **221,821** | 0 (+8,994 / +0)

Lever 4: Density along Major Corridors: **254,651** | 0 (+32,830 / +0)

Lever 5: Missing Middle along Major Corridors: **263,100** | 0 (+8,449 / +0)

Lever 6: Transition Zones along Major Corridors: **271,592** | 0 (+8,492 / +0)

Lever 7: MS Re-Map along Major Corridors: **273,553** | 0 (+1,961 / +0)

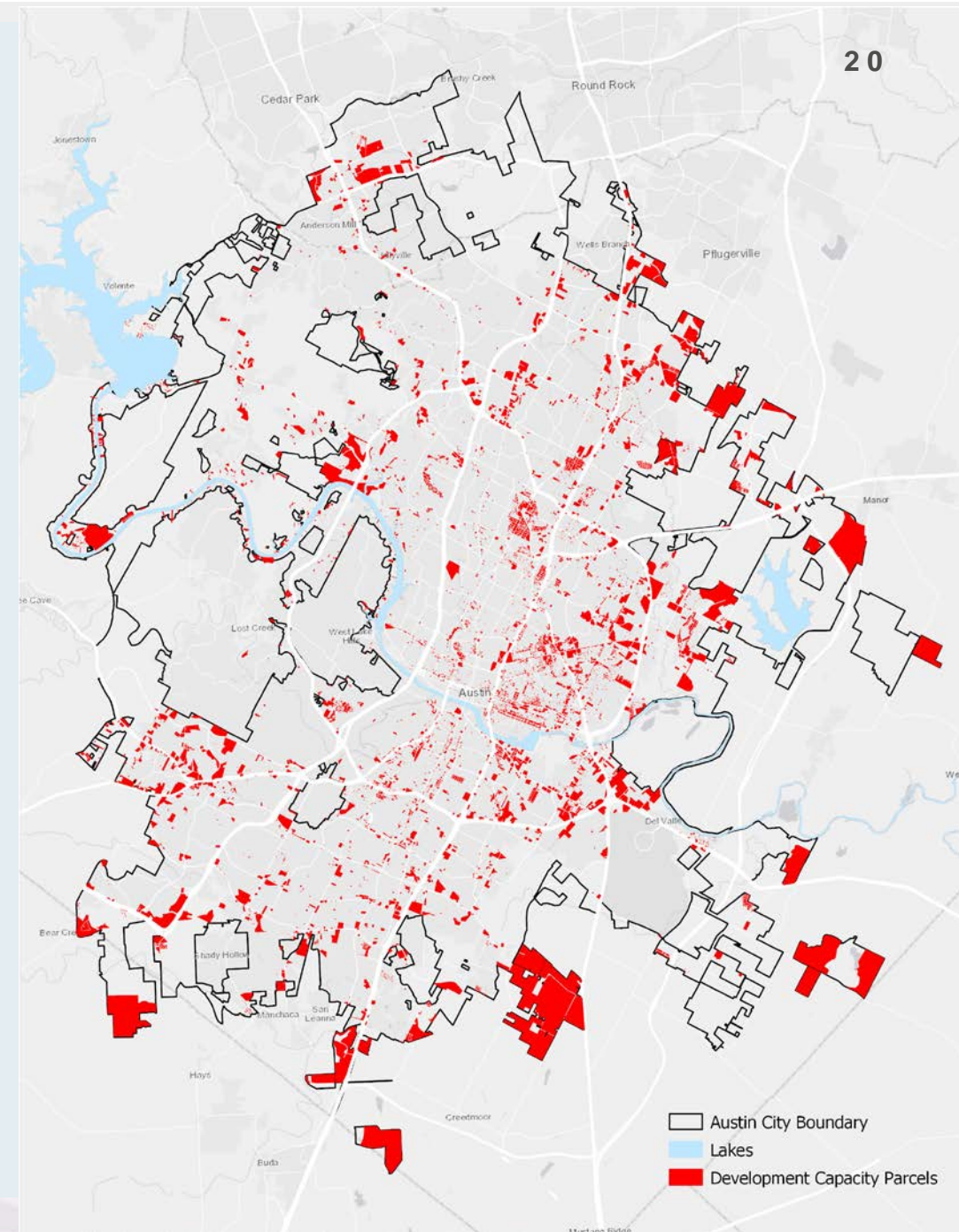
Lever 8: Limit Redevelopment of Existing Multifamily: **264,582** | 0 (-8,970 / +0)

Lever 9: Apply Title 23 Compatibility: **258,492** | 0 (-6,091 / +0)

Lever 10: Apply Draft 3 Bonuses: **543,520** | 9,165 (+285,028 / +9,165)

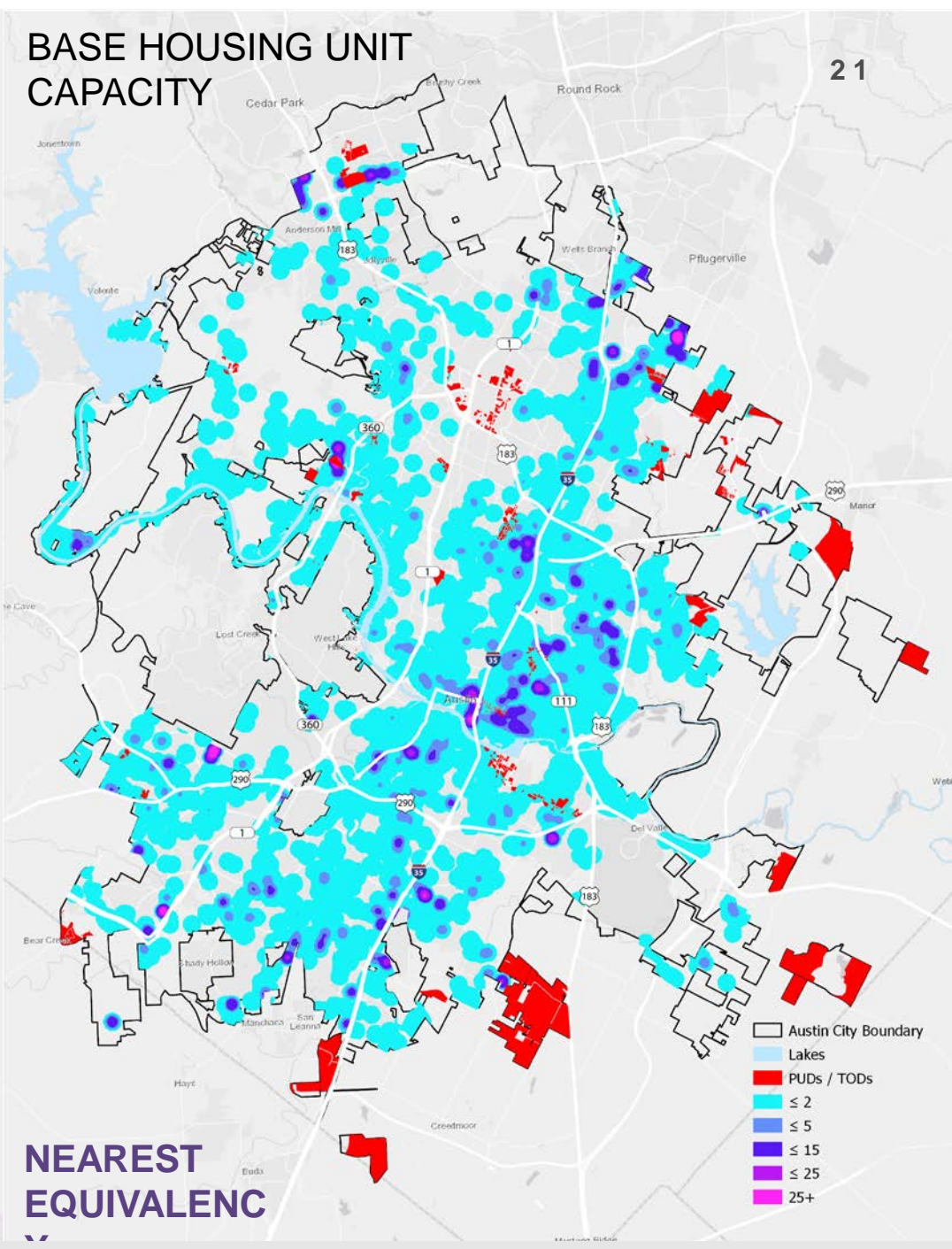
Lever 11: Apply Draft 3 “-A” Zones: **543,520** | 13,407 (0 / +4,242)

TOTAL HOUSING UNIT CAPACITY
TOTAL AFFORDABLE UNIT CAPACITY
NEGATIVE CHANGE IN TOTAL CAPACITY
POSITIVE CHANGE IN TOTAL CAPACITY
CHANGE IN AFFORDABLE UNIT CAPACITY



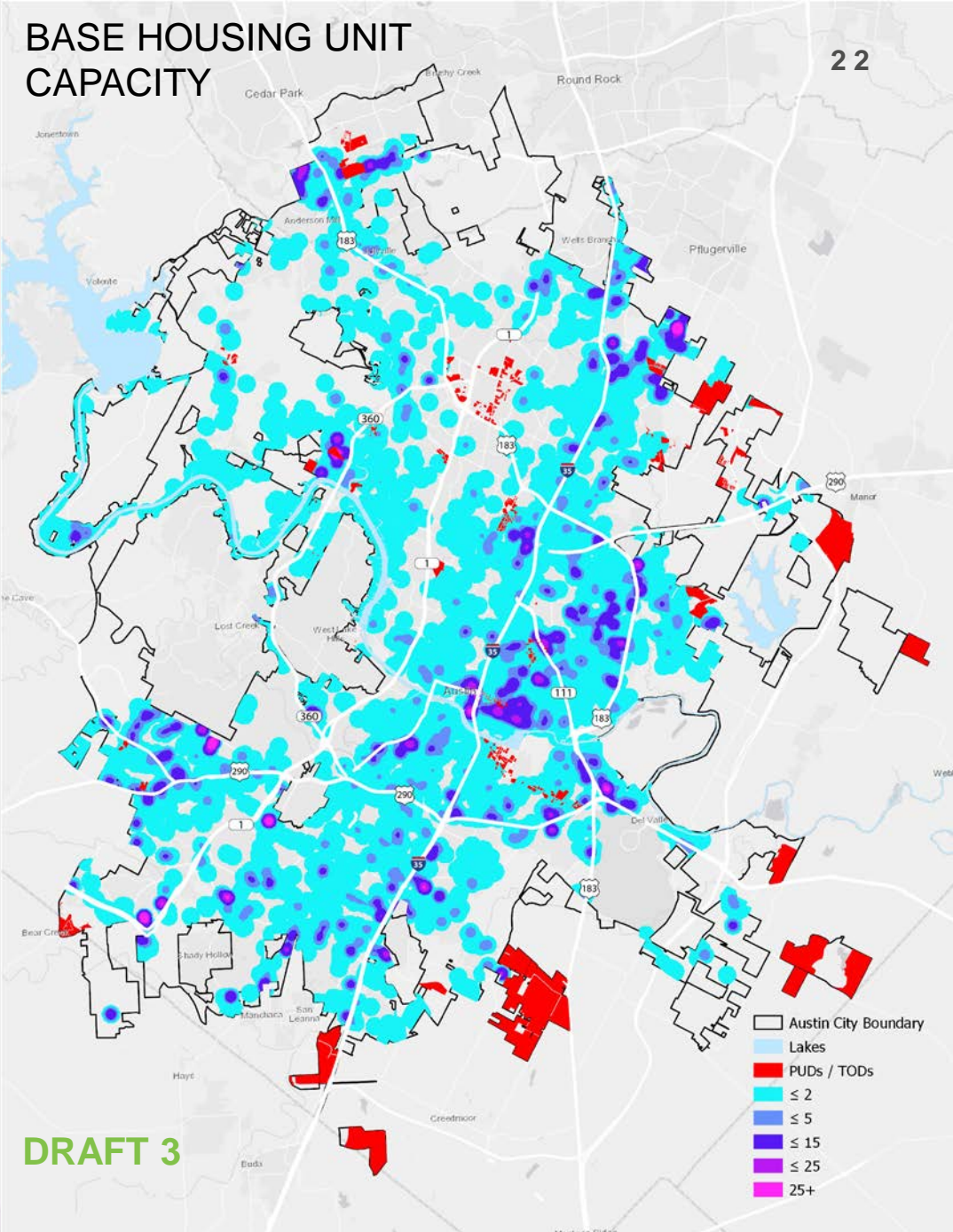
DRAFT 3: A HIGH LEVEL LOOK

	NEAREST EQUIVALENCY	DRAFT 3	MWG SCENARIO
BASE UNIT CAPACITY:	140,000	160,000	190,000
BONUS UNIT CAPACITY:	5,000	127,000	350,000
AFFORDABLE UNIT CAPACITY:	1,500	6,500	13,500
TOTAL UNIT CAPACITY:	145,000	287,000	540,000



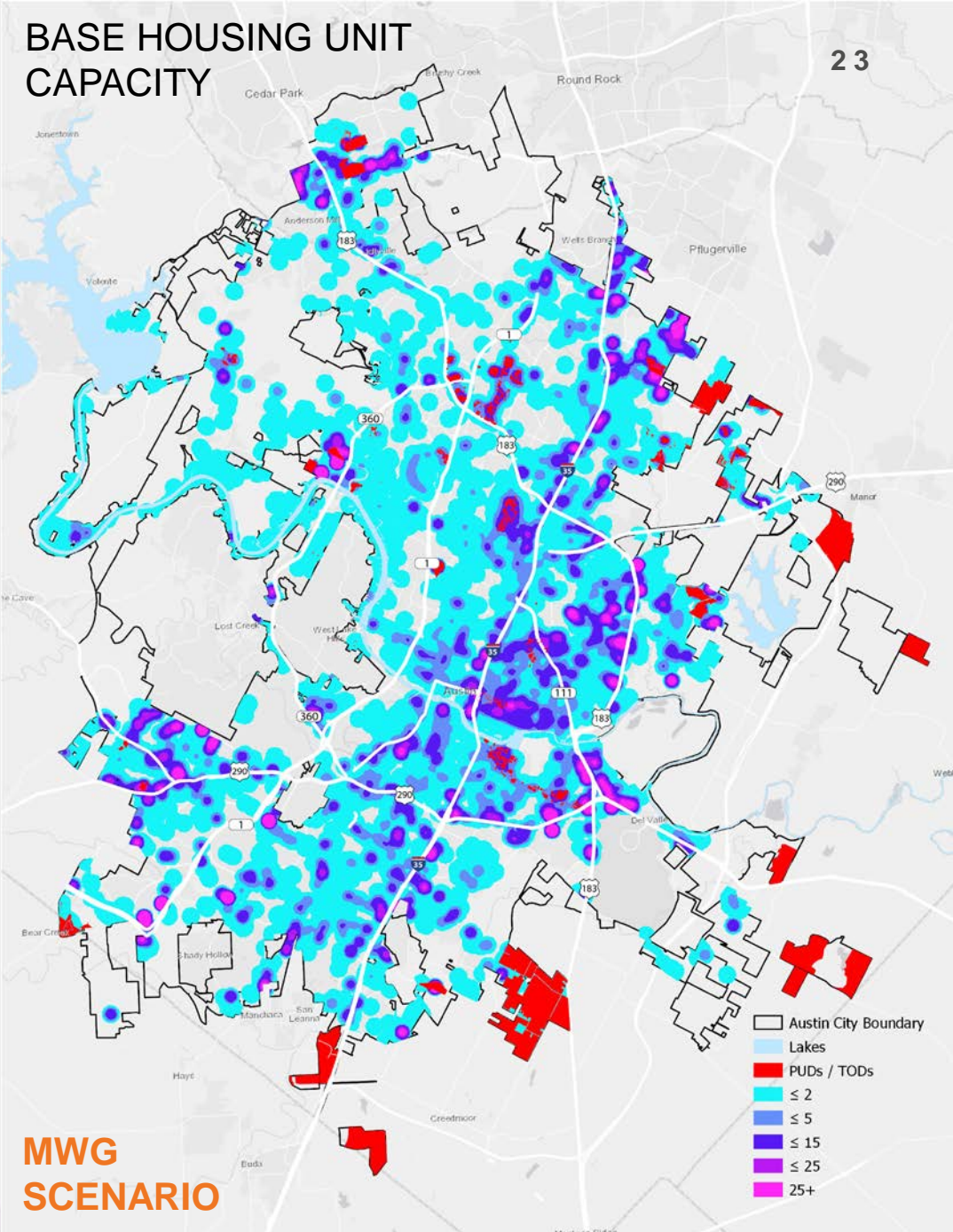
DRAFT 3: A HIGH LEVEL LOOK

	NEAREST EQUIVALENCY	DRAFT 3	MWG SCENARIO
BASE UNIT CAPACITY:	140,000	160,000	190,000
BONUS UNIT CAPACITY:	5,000	127,000	350,000
AFFORDABLE UNIT CAPACITY:	1,500	6,500	13,500
TOTAL UNIT CAPACITY:	145,000	287,000	540,000



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COMPLETE COMMUNITIES

THRIVING



IMAGINEAUSTON
Vibrant. Livable. Connected.



PATHS TO PROSPERITY

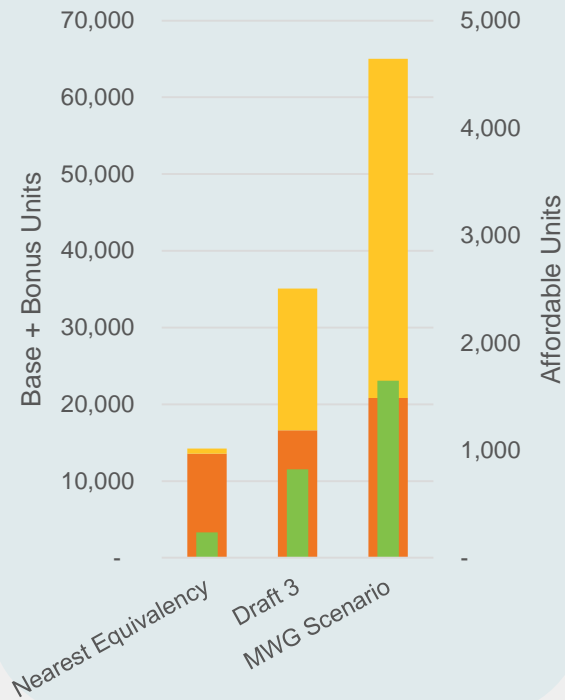


NATURE INTO CITY

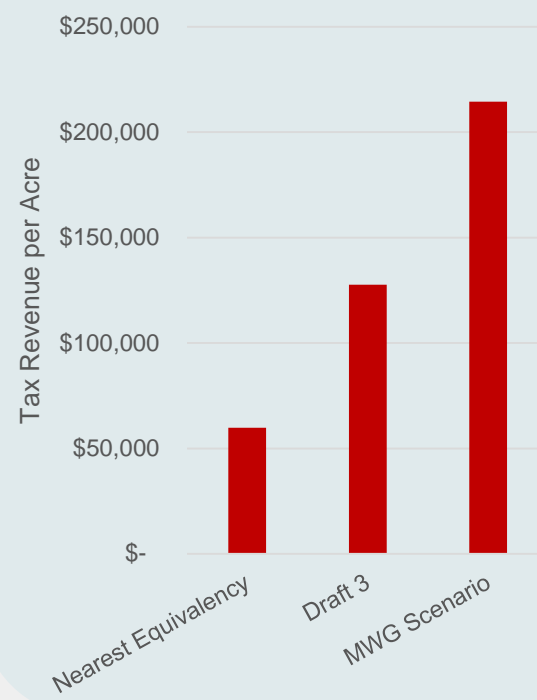


THRIVING AUSTIN

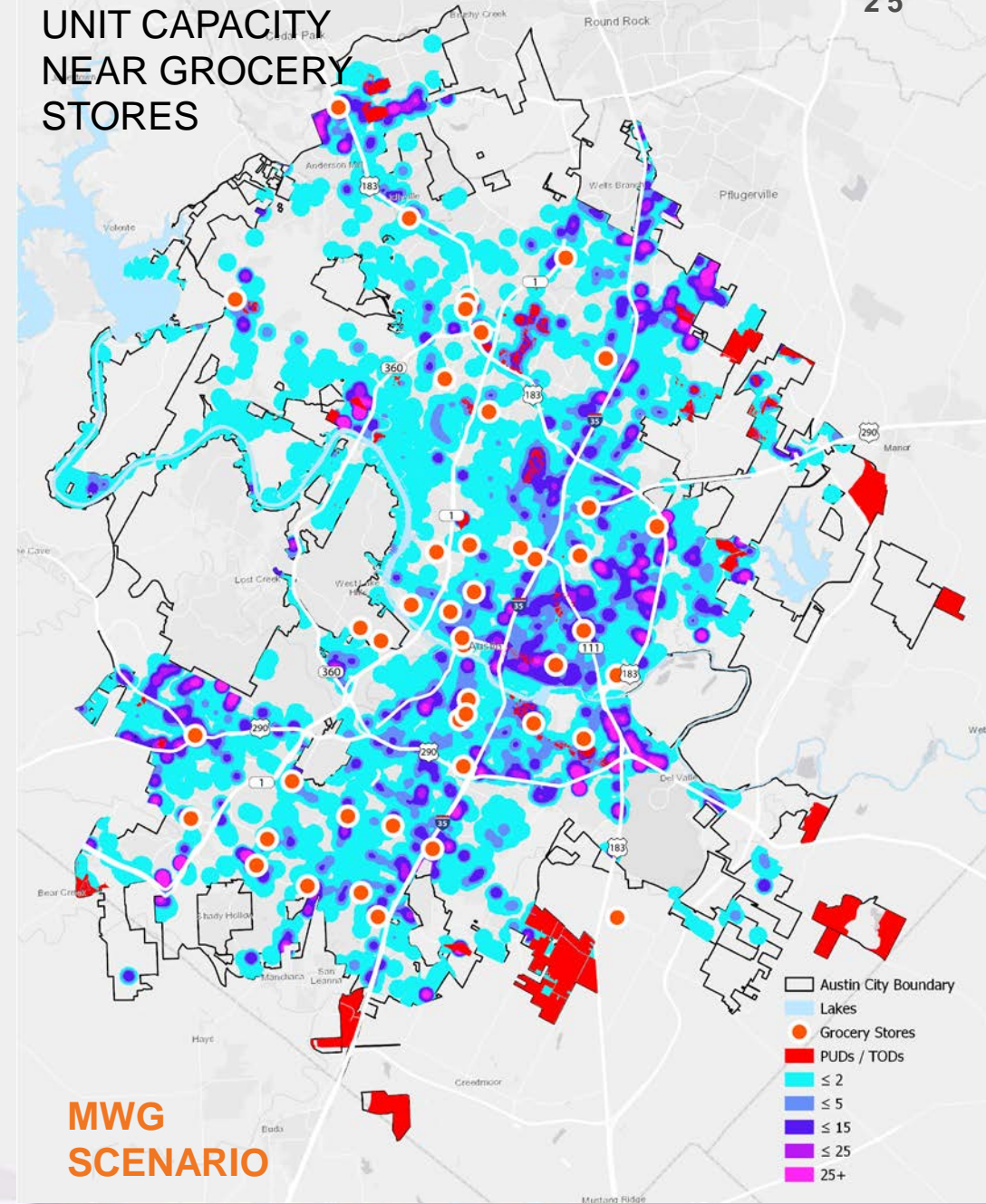
Housing unit capacity within 1/2 mile of grocery stores



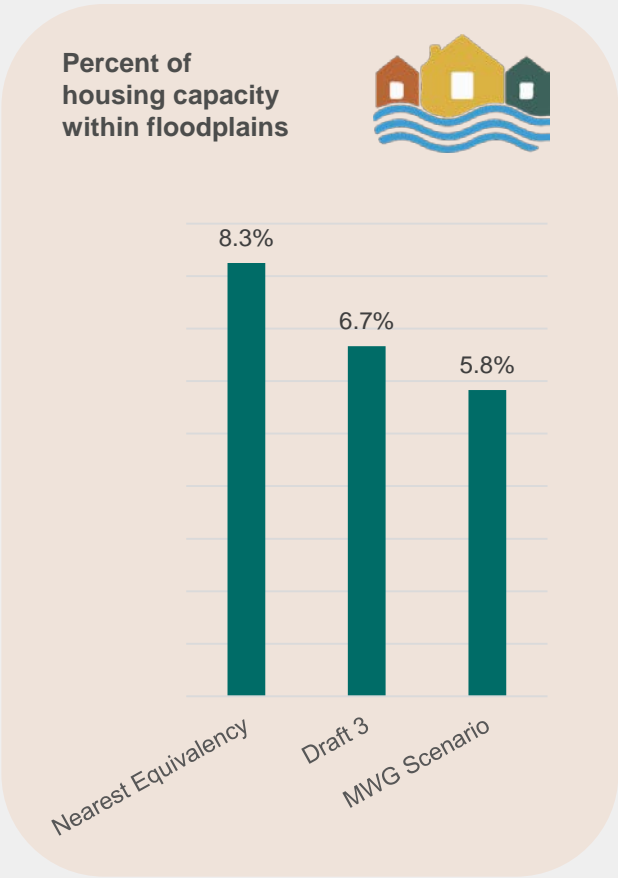
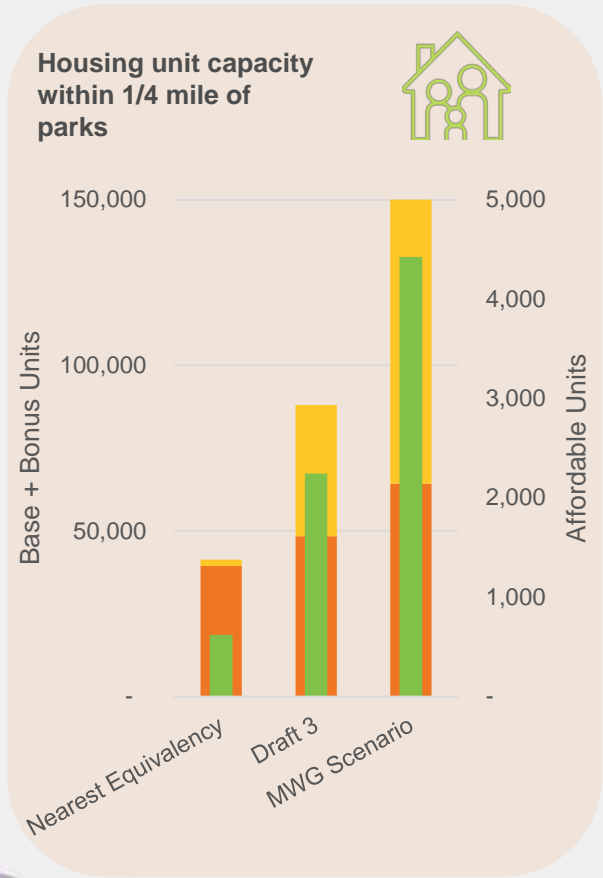
Tax Revenue Capacity per Acre



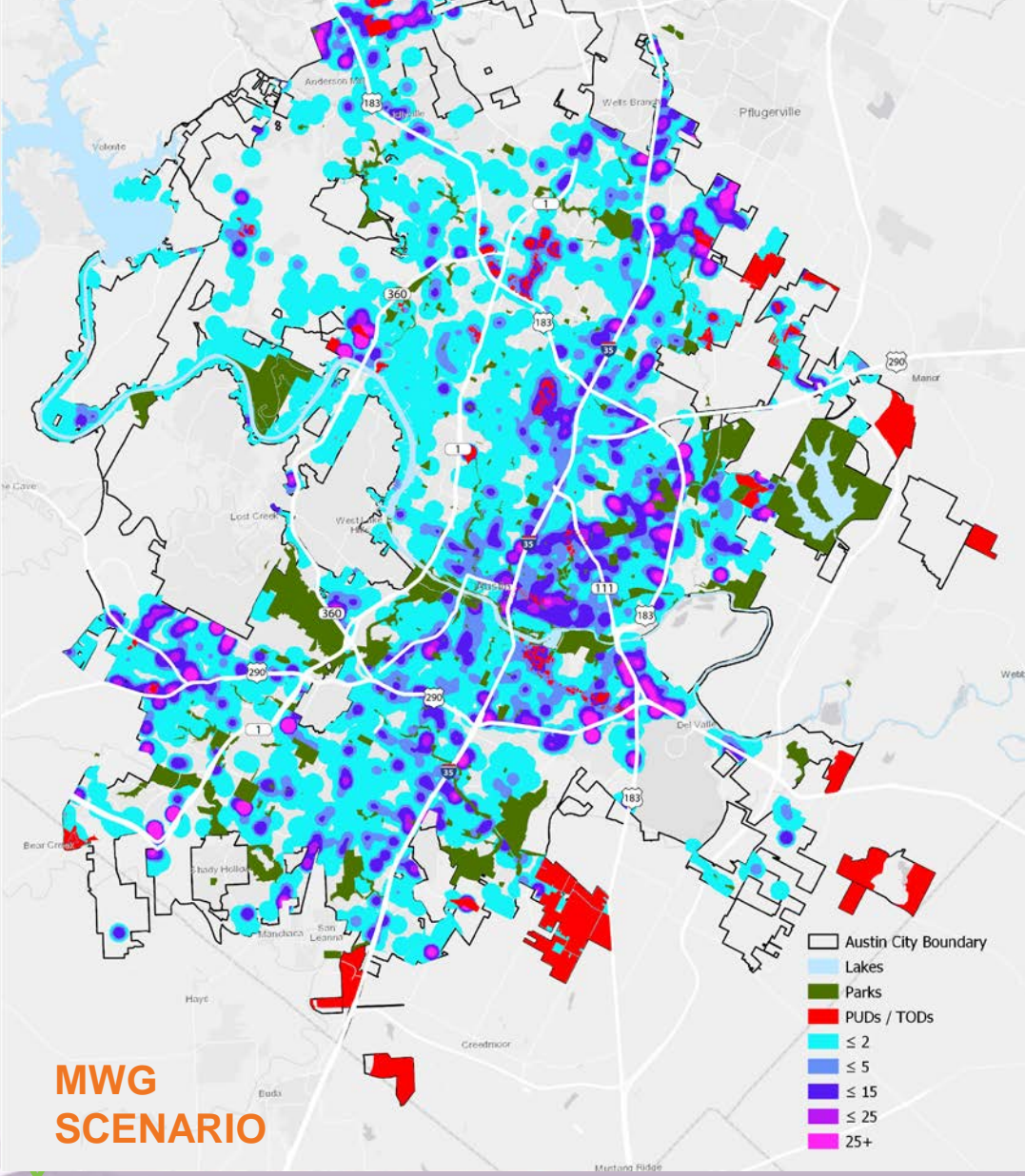
BASE HOUSING UNIT CAPACITY NEAR GROCERY STORES



NATURE IN THE CITY

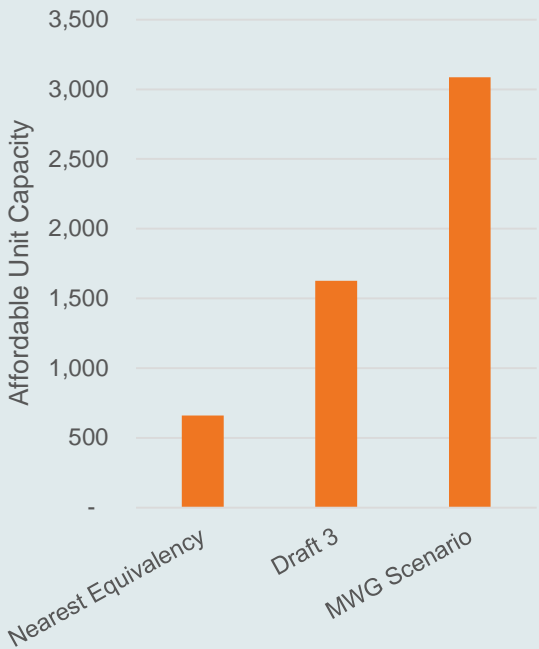


BASE HOUSING UNIT CAPACITY NEAR PARKS

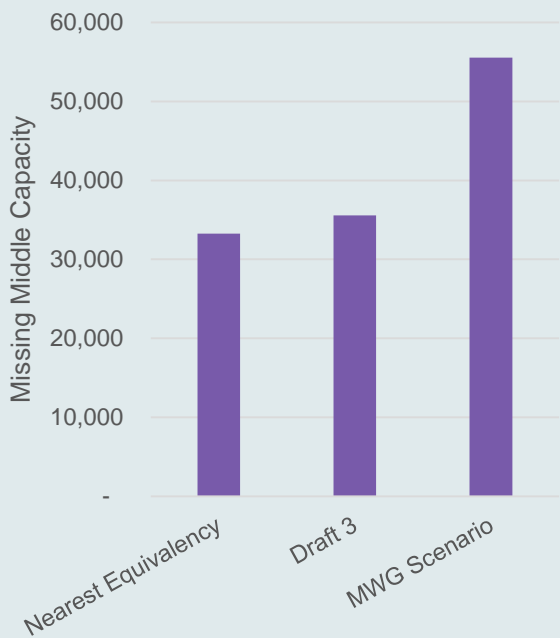


PATHS TO PROSPERITY

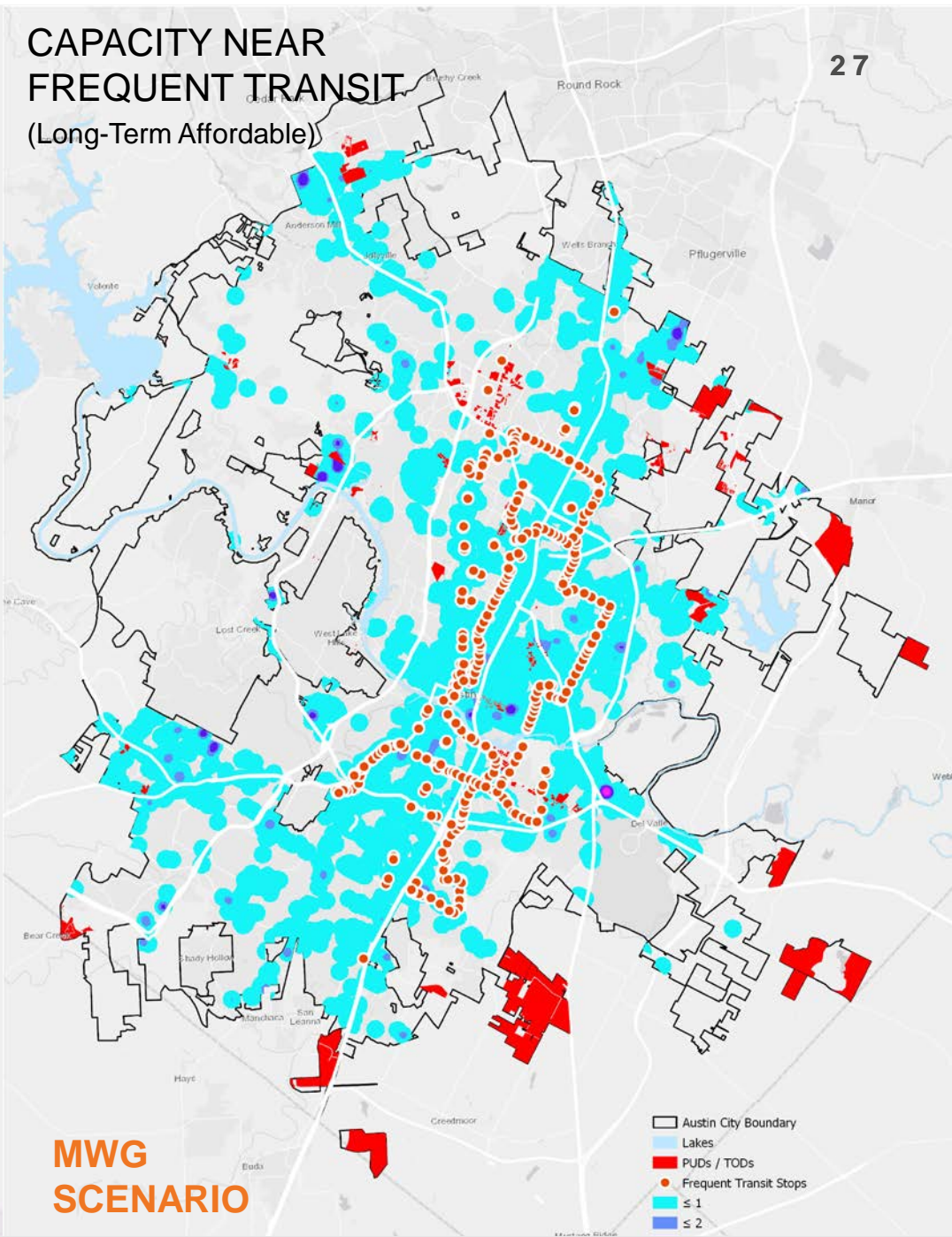
Affordable Unit Capacity
within 1/2 mile of frequent
transit



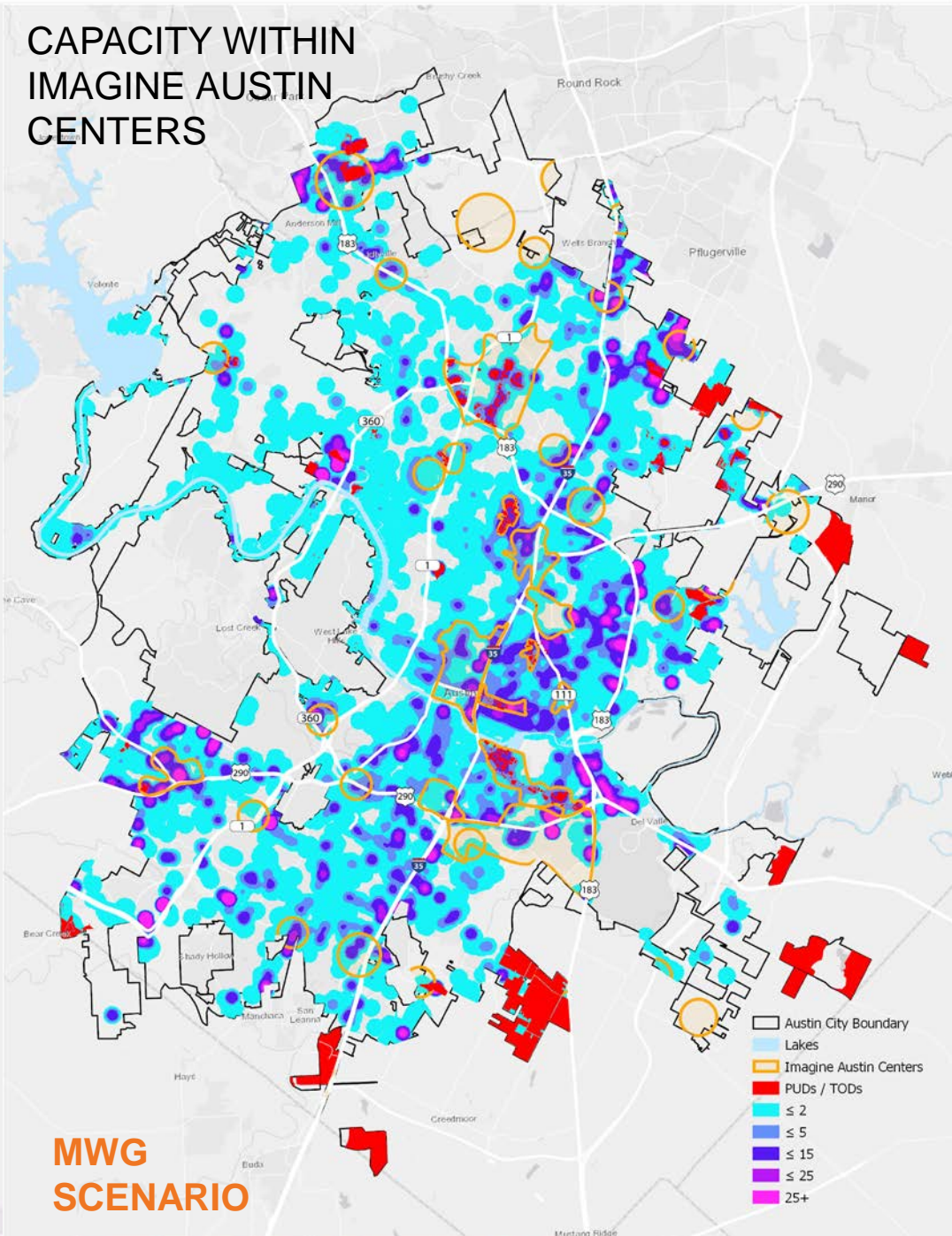
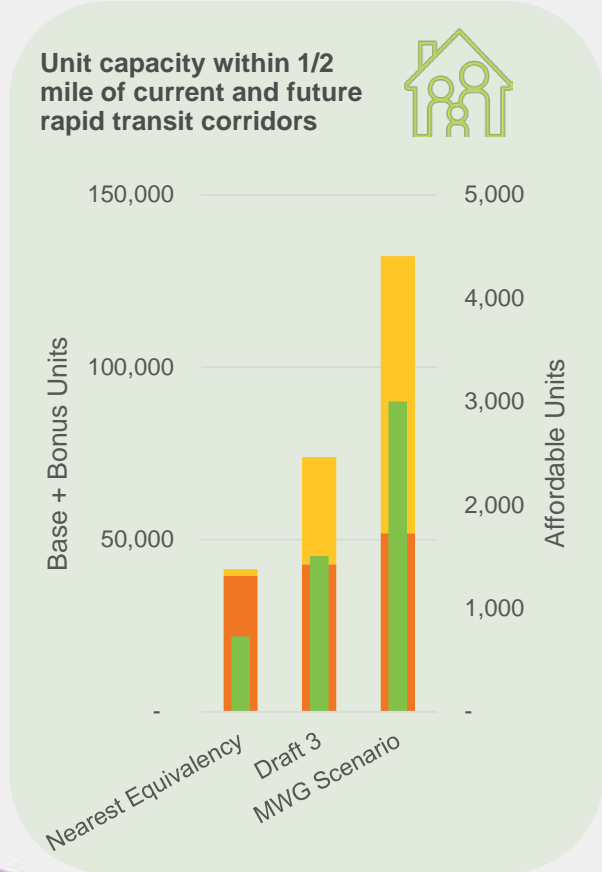
Total Capacity for new
Missing Middle housing:



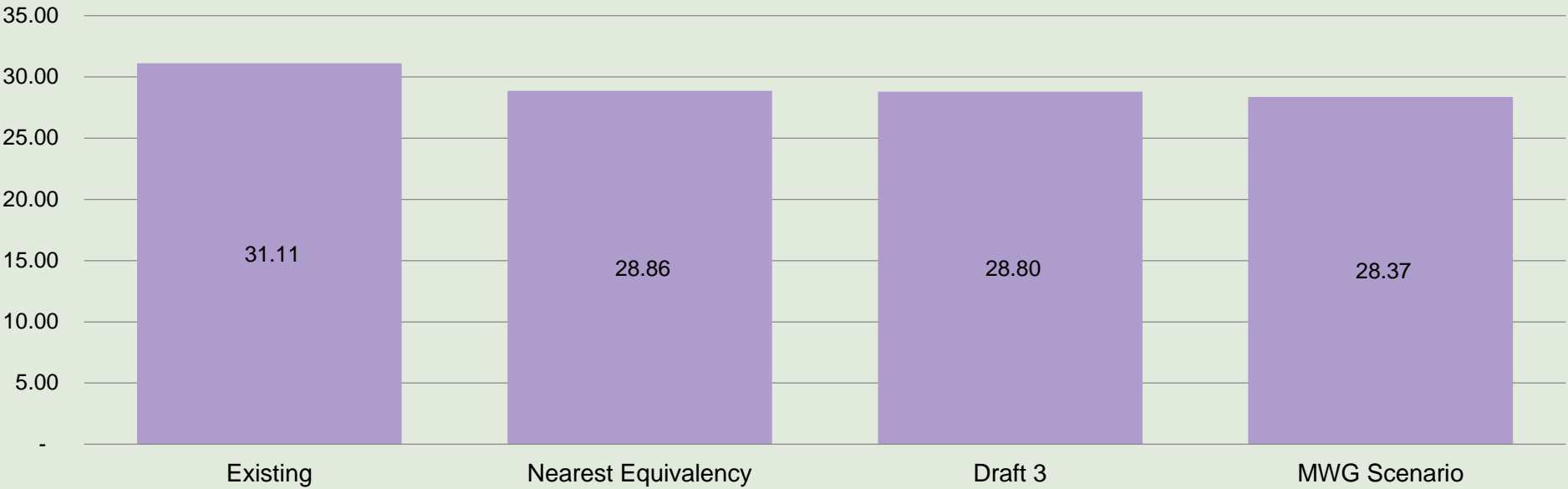
CAPACITY NEAR FREQUENT TRANSIT (Long-Term Affordable)



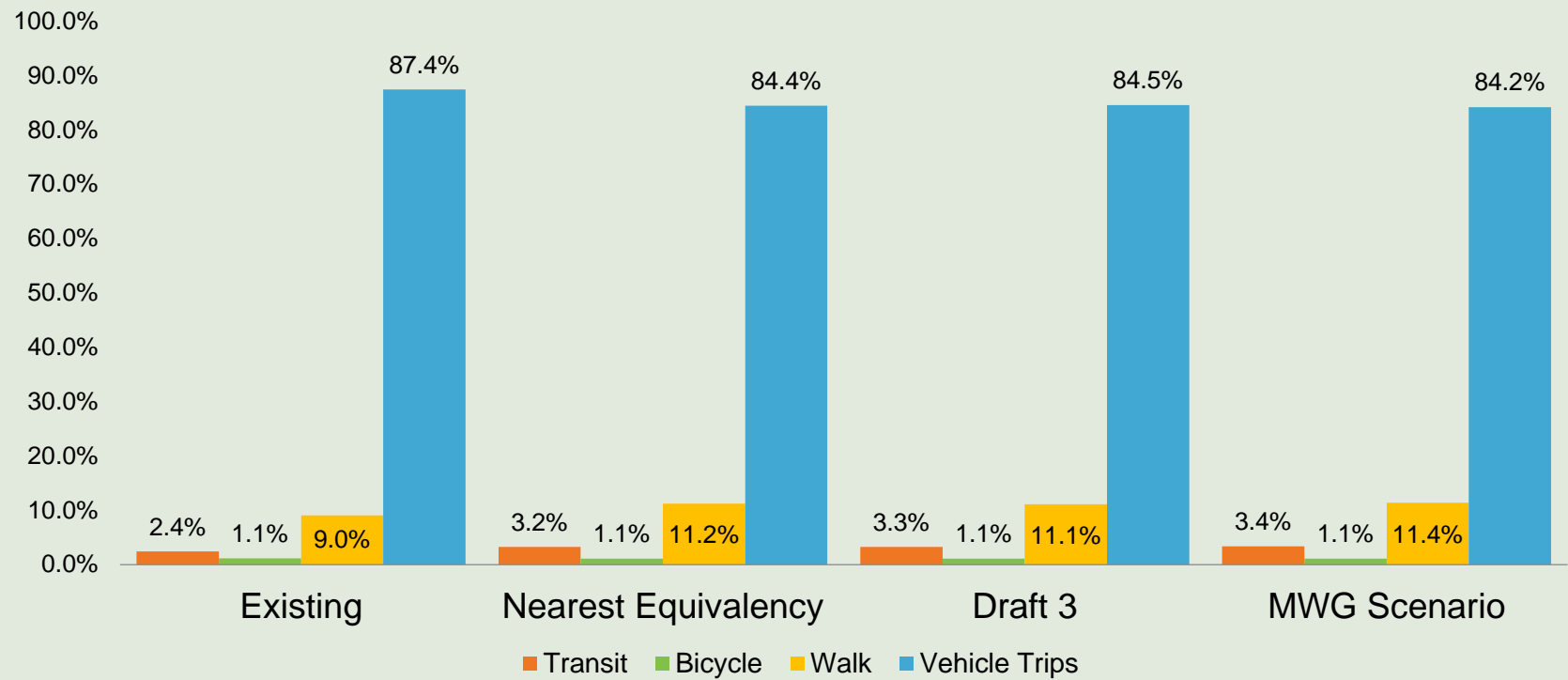
COMPACT AND CONNECTED



Average vehicle miles traveled (VMT) per household



Percent of household trips by mode (mode split)



WHERE DO WE GO FROM HERE?

MWG Recommended Strategies:

- More opportunities for missing middle in more corridors
- Transition zones
- Greater bonus entitlements for certain zones
- More intense MS zones

MWG Recommended Goals:

- Increase opportunities for Missing Middle
- Reduce auto mode Split
- Affordable Housing Production
- Increase density in Major Corridors

