The Ecology of Streets:
Designing and Planning Communities for Social, Environmental, and Economic Health

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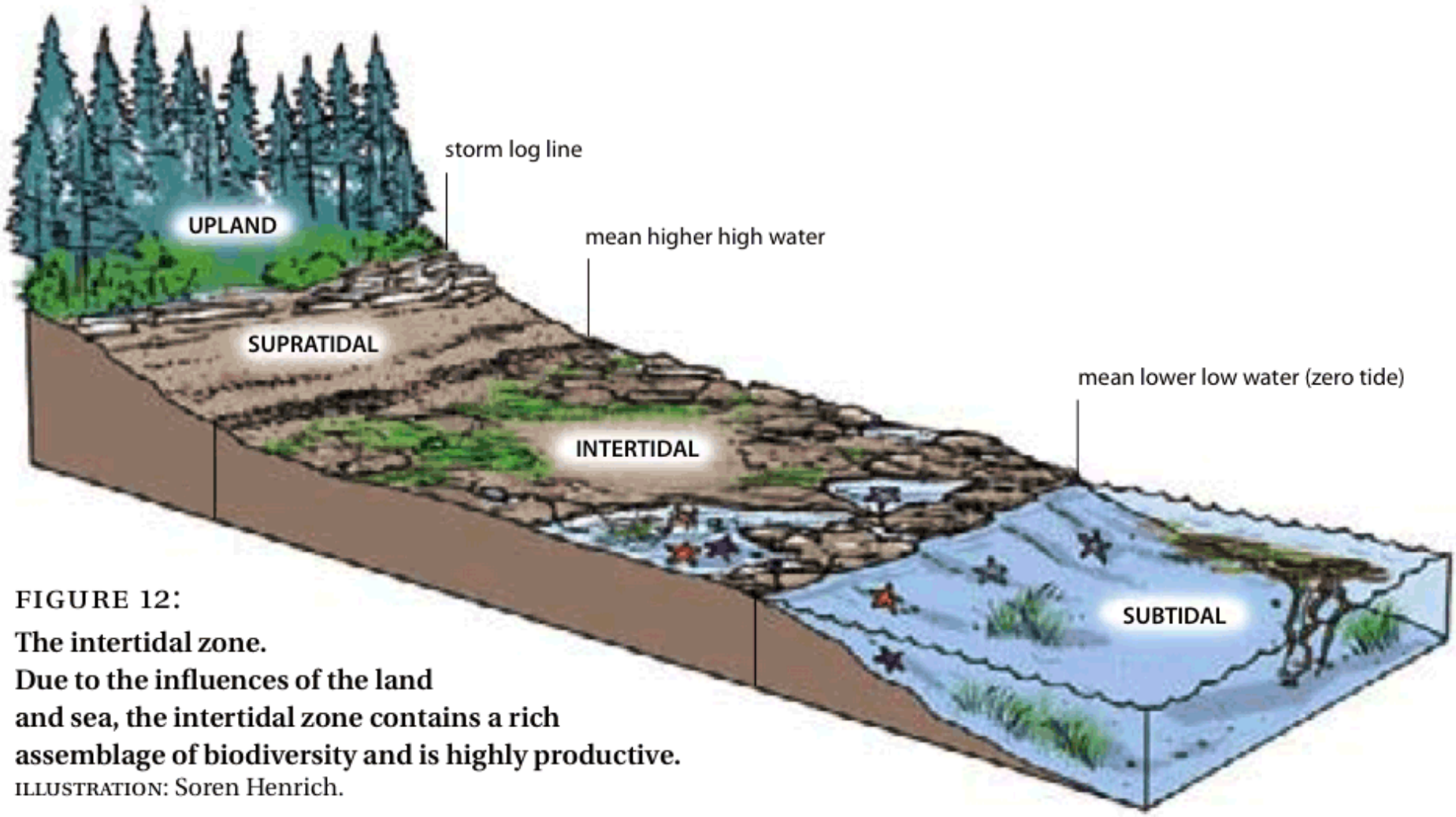

FIGURE 12:
The intertidal zone.
Due to the influences of the land and sea, the intertidal zone contains a rich assemblage of biodiversity and is highly productive.
ILLUSTRATION: Soren Henrich.

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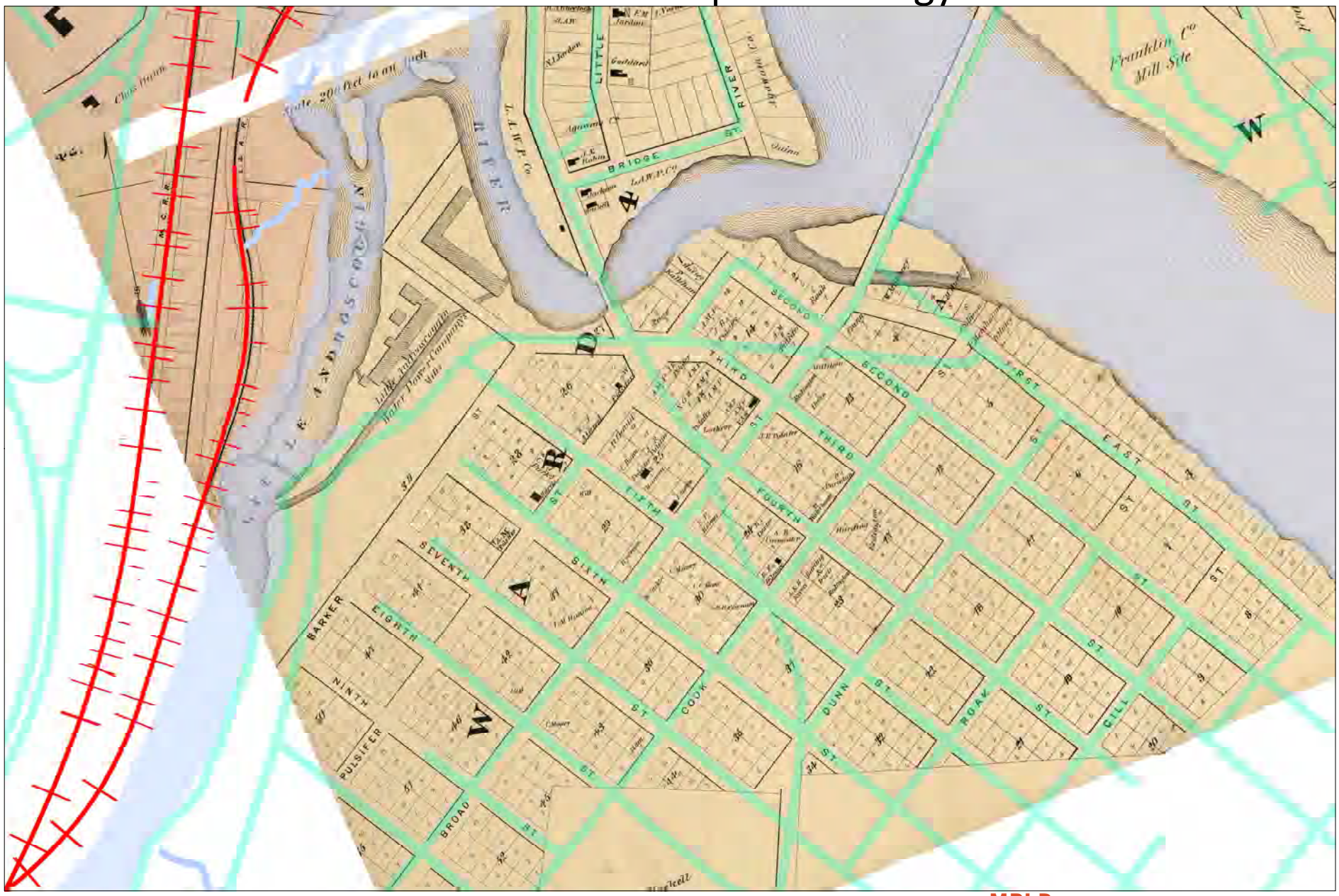

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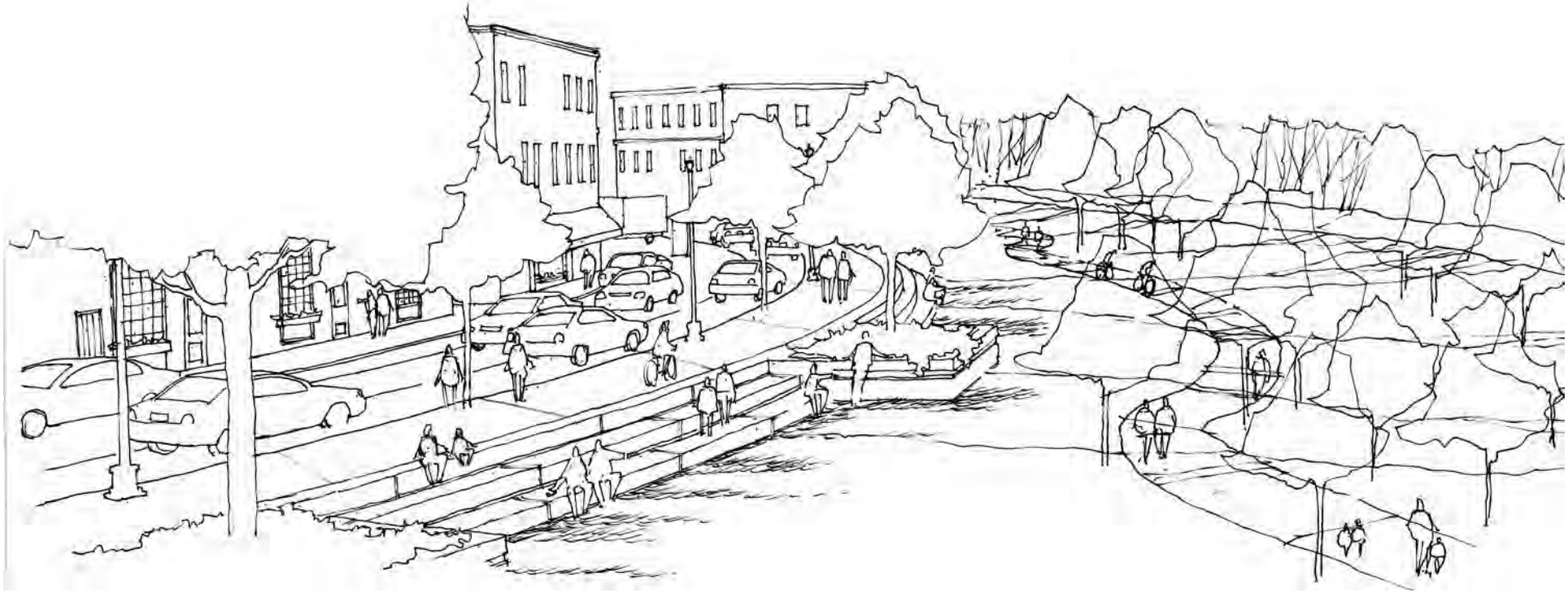

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	Existing Conditions	One-Way Loop	Grid	Option 1 Variation	Option 1	Option 2	Riverway
Metrics							
Study Area	18 Acres +/-	18 Acres +/-	18 Acres +/-	18 Acres +/-	15 Acres +/-	15 Acres +/-	18 Acres +/-
Existing Residential Units	101 Units +/-	65 Units +/-	59 Units +/-	55 Units +/-	49 +/-	55 Units +/-	57 Units +/-
Proposed Residential Units	0	150 Units +/-	186 Units +/-	191 Units +/-	82 +/-	54 Units +/-	192 Units +/-
Total Residential	**101 +/-**	**215 Units +/-**	**245 Units +/-**	**246 Units +/-**	**131 +/-**	**109 Units +/-**	**249 Units +/-**
Existing Commercial	85,048 SF +/-	15,579 SF +/-	15, 579 SF +/-	15,579 SF +/-	15,867 SF +/-	24,953 SF +/-	17,149 SF +/-
Proposed Commercial		90,000 SF +/-	111,600 SF +/-	118,800 SF +/-	76,065 SF +/-	63,225 SF +/-	115,200 SF +/-
Total Commercial	**85,048 SF +/-**	**105,579 SF +/-**	**127, 179 SF +/-**	**134,379 SF +/-**	**91,932 SF +/-**	**88,178 SF +/-**	**132,349 SF +/-**
100-Year Flood Plain	9 Acres +/-	5.5 Acres +/-	5.5 Acres +/-	5.5 Acres +/-	5.5 Acres +/-	5.5 Acres +/-	1.5 Acres +/-
ROW	5 Acres +/-	5 Acres +/-	4.40 Acres +/-	4.5 Acres +/-	4 Acres +/-	4.40 Acres +/-	4.50 Acres +/-
Riverfront Park	1.2 Acres +/-	1.2 Acres +/-	1.2 Acres +/-	1.5 Acres +/-	1.55 Acres +/-	1.4 Acres +/-	1.7 Acres +/-
Net Residential Density	**9 Units Per Acre +/-**	**18.22 Units Per Acre +/-**	**19.97 Units Per Acre +/-**	**20.50 Units Per Acre +/-**	**14 Units Per Acre +/-**	**12 Units Per Acre +/-**	**21 Units Per Acre +/-**
On-Street Parking Off-Street Public Parking Off-Street Private Parking	90 +/- 14 +/- 256 +/-	146 +/- 0 348 +/-	160 +/- 0 398 +/-	181 +/- 0 412 +/-	123 +/- 14 +/- 299 +/-	125 +/- 14 +/- 241 +/-	170 +/- 0 291 +/-
Sub Total Existing Parking	*360 +/-*	*494 +/-*	*558 +/-*	*593 +/-*	*436 +/-*	*380 +/-*	*461 +/-*
Total Required Parking by Uses	425 +/-	674 +/-	791 +/-	816 +/-	502 +/-	458 +/-	814 +/-
Total Required w/ 1/3 Shared Efficiency	280 +/-	452 +/-	530 +/-	547 +/-	337 +/-	307 +/-	546 +/-

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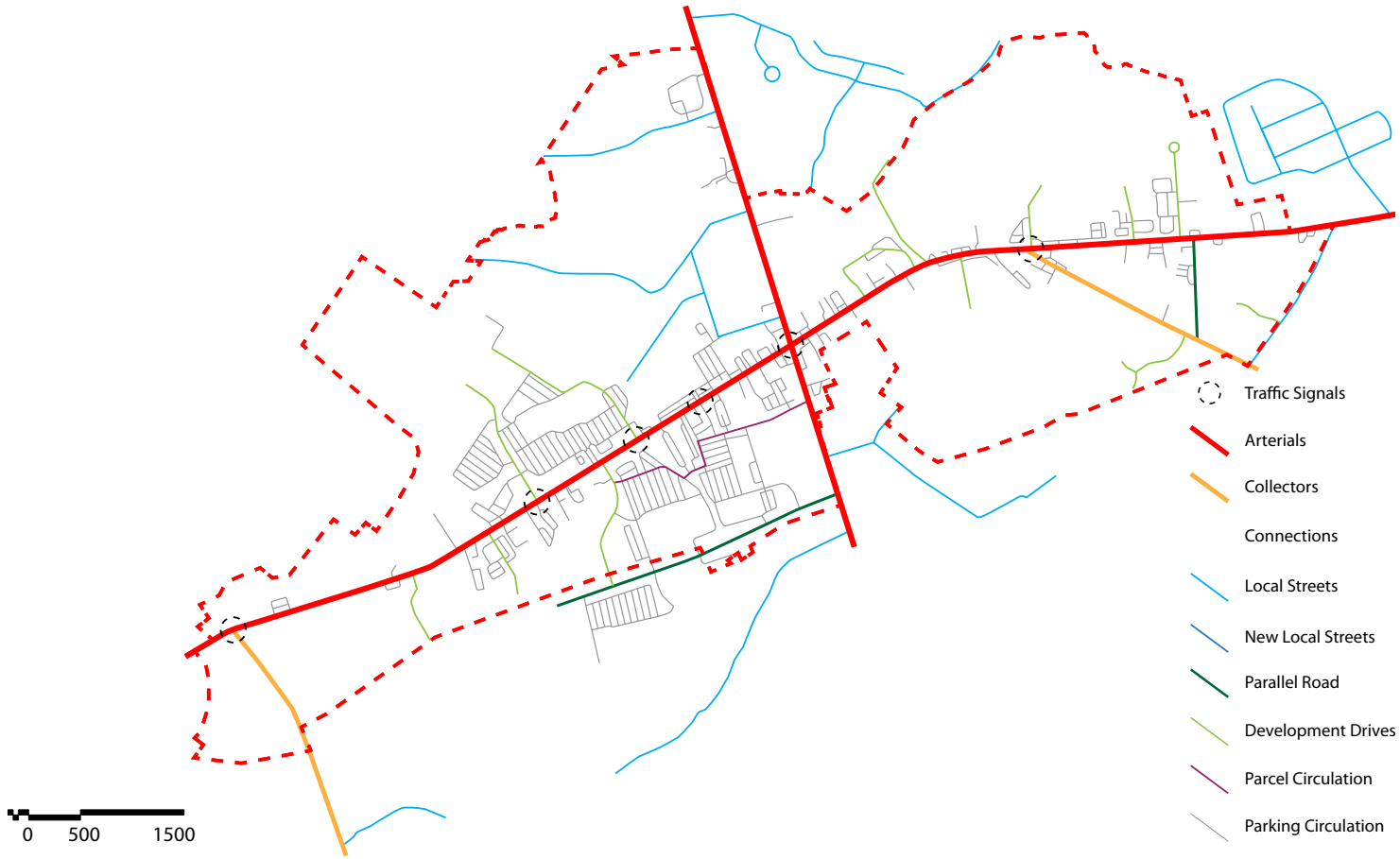

Existing Connectivity

21st Century Downtown Plan
Windham, ME

TY·LIN INTERNATIONAL
engineers | planners | scientists

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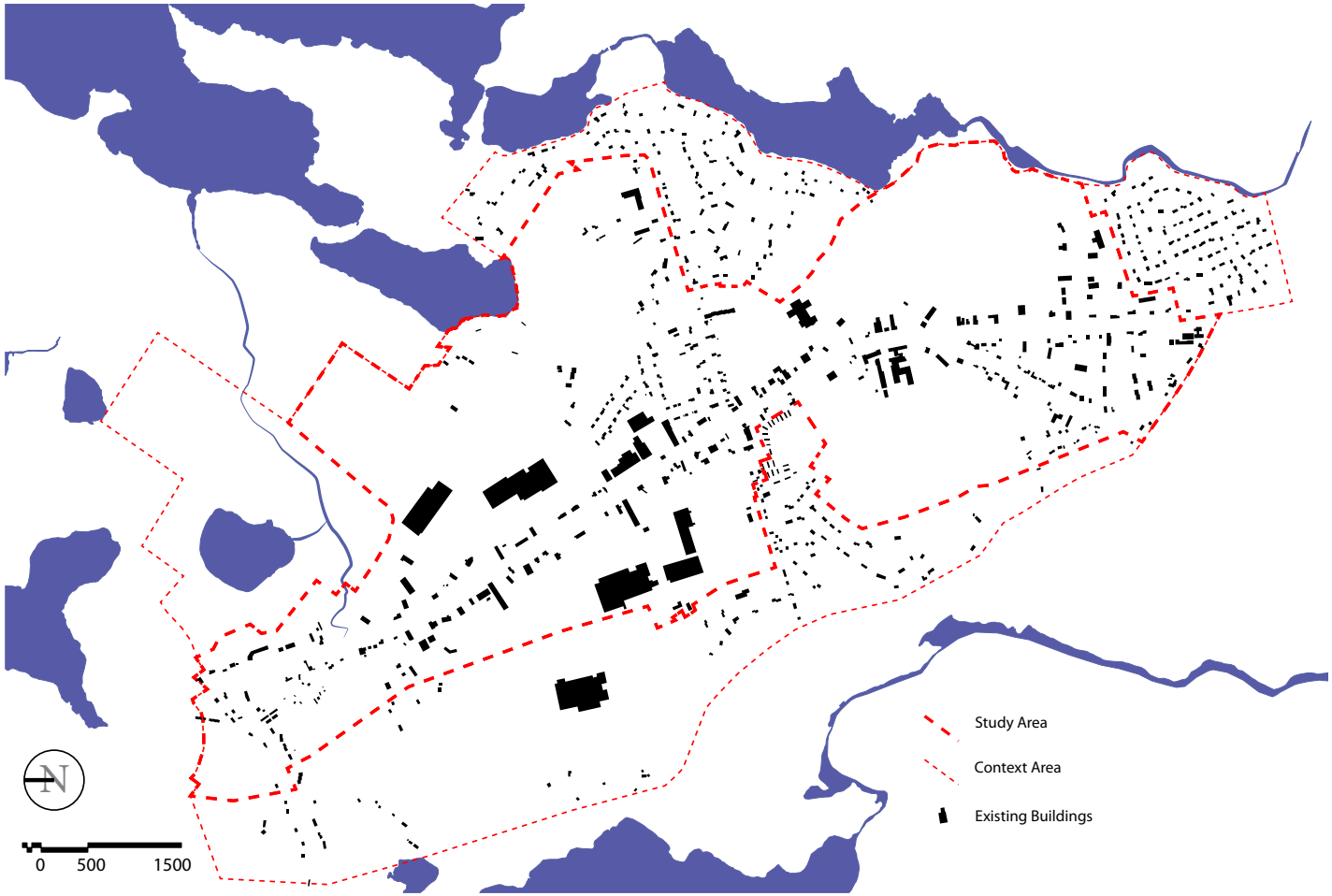

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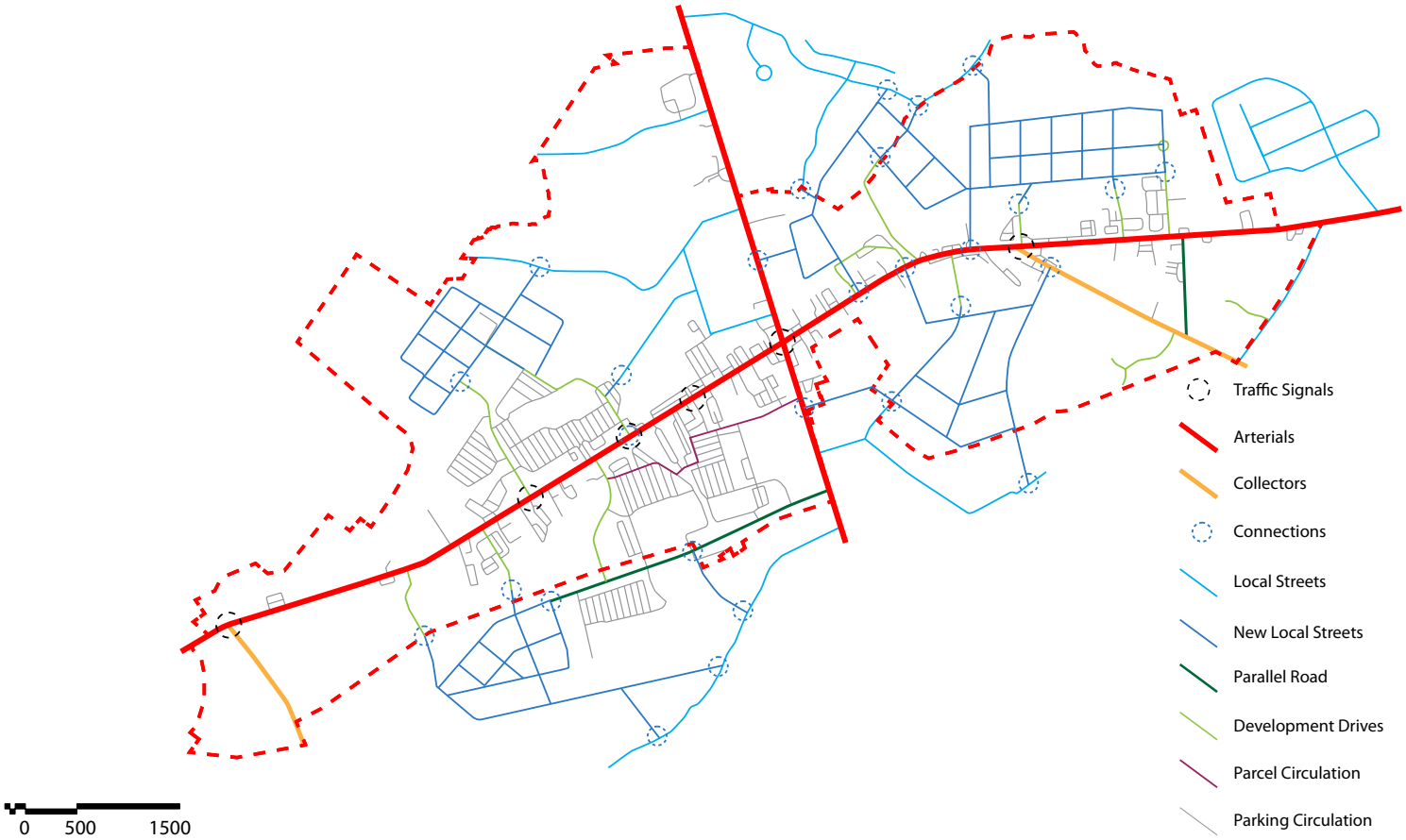

Connectivity w/ New Neighborhoods

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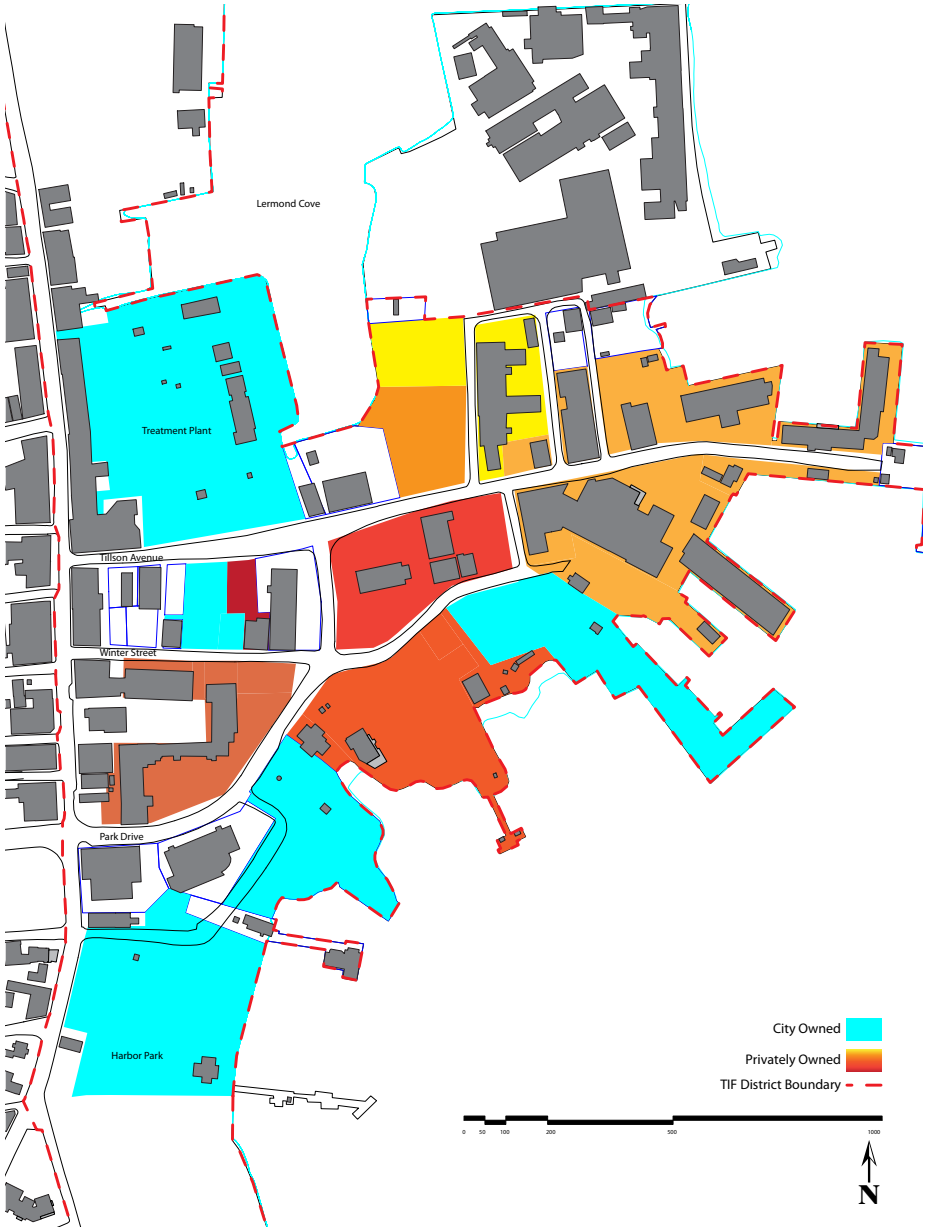

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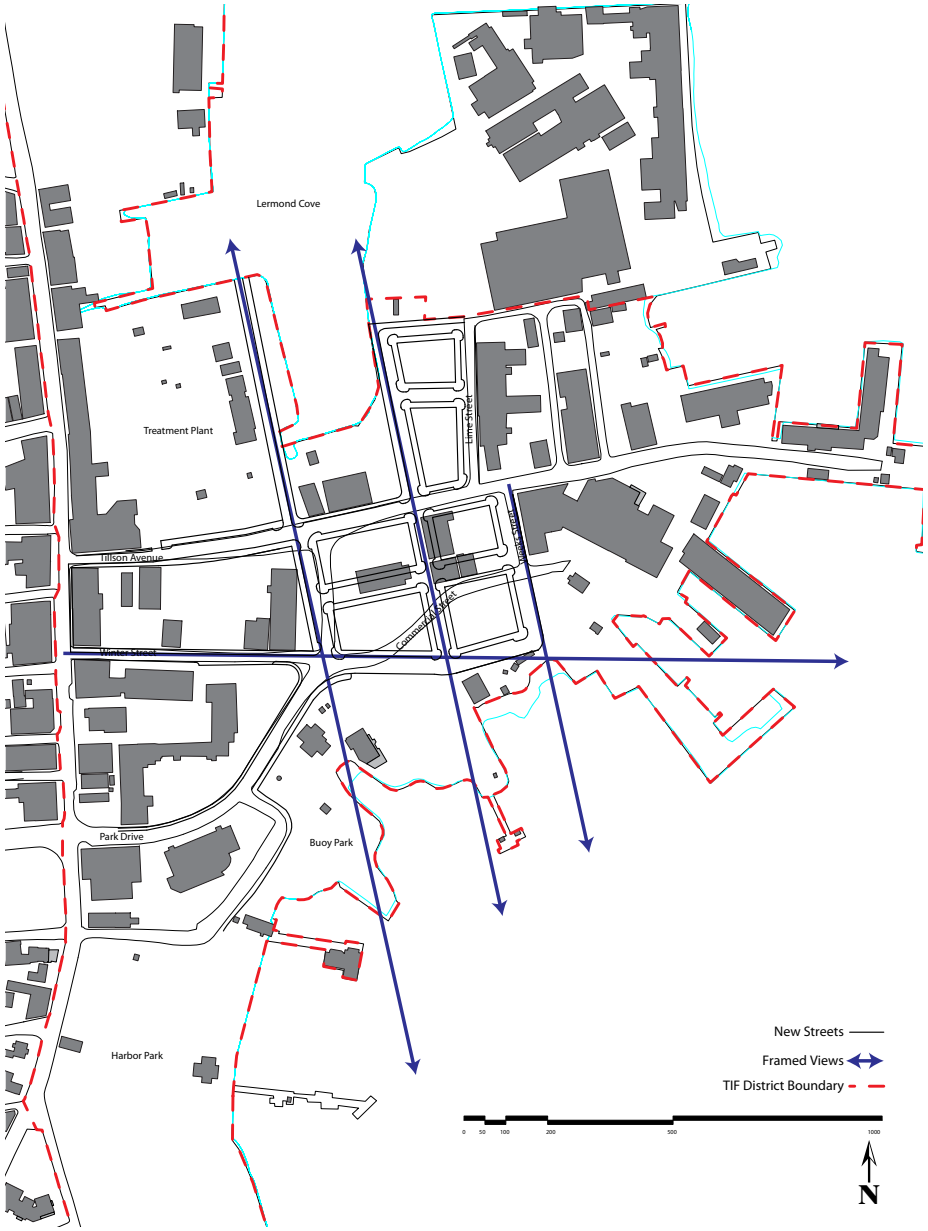

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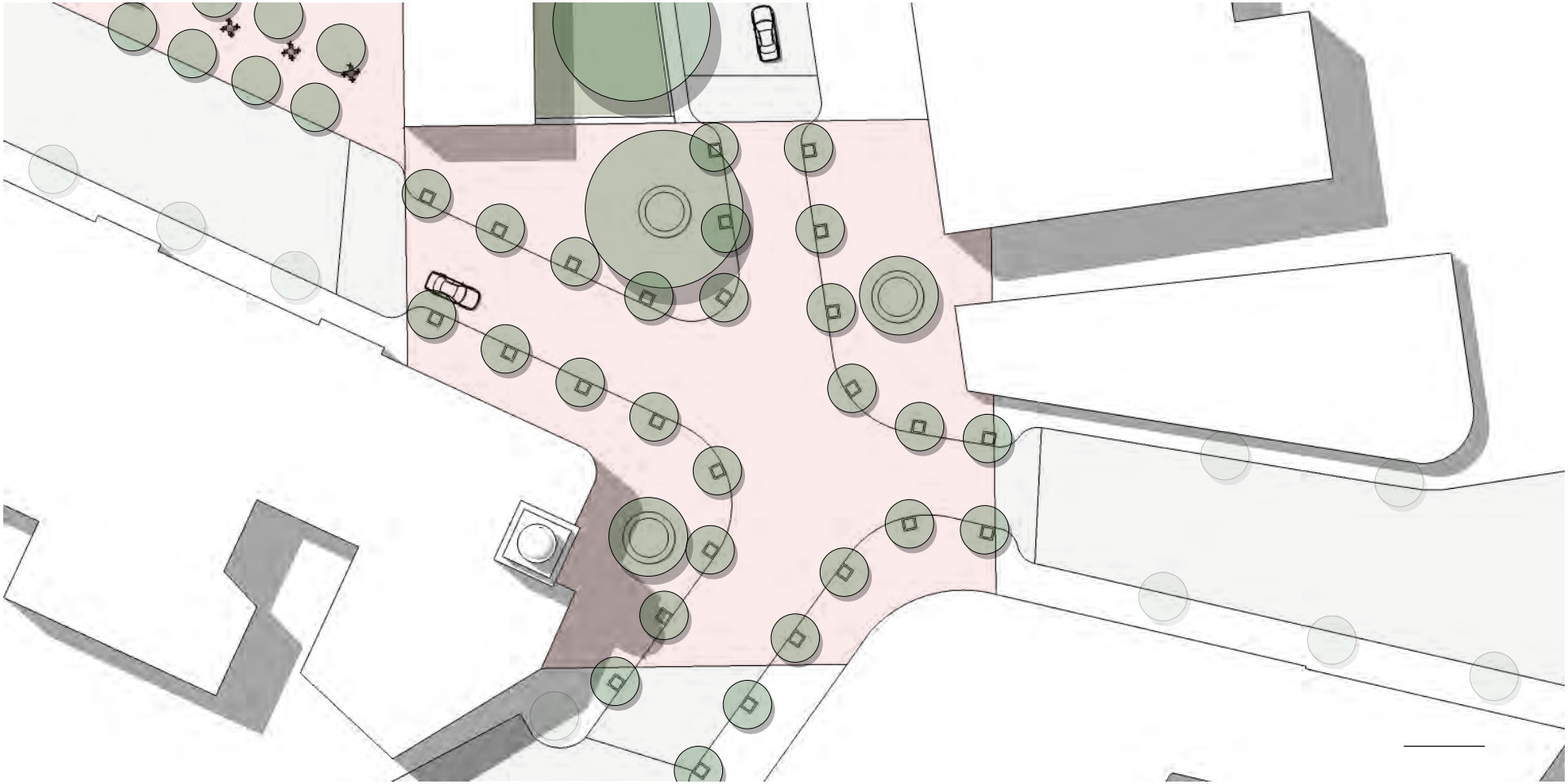

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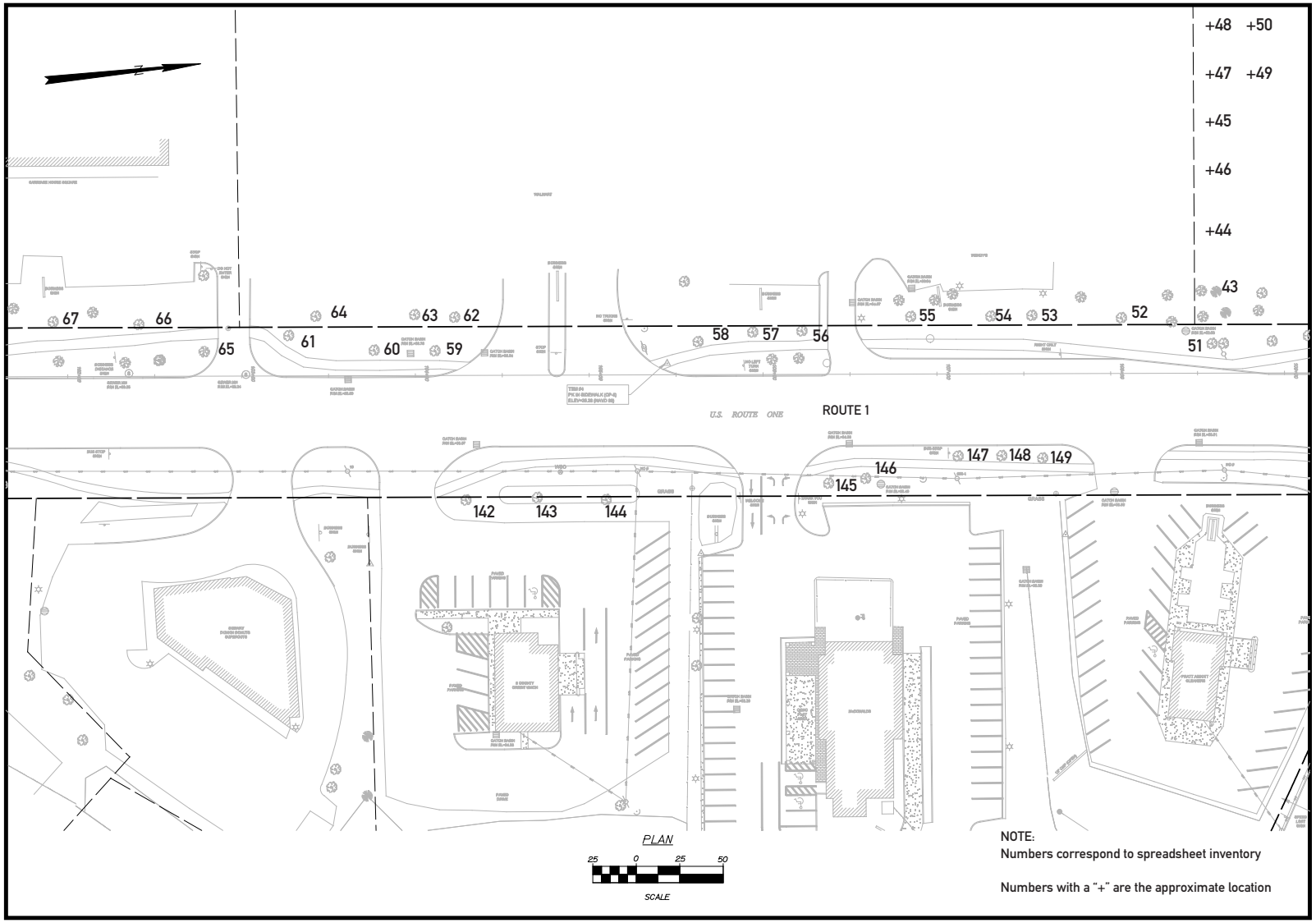

FALMOUTH, MAINE | PROJECT CANOPY | ROUTE 1 TREE INVENTORY

April 2013

SHEET 5 OF 10

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Interception:

- The canopy of a tree may store 100 gallons or more until saturation after one to two inches of rainfall.
- A typical medium street tree has the potential to intercept 2,380 gallons of water a year and a mature evergreen may intercept 4,000 gallons a year.
- In one study, the canopy of a nine-year old Callery Pear intercepted 67% or 58 gallons of rain during a one-inch storm event.

Soil Infiltration:

The impervious surface of an "urban forest" can absorb up to 18" of water before releasing it to natural channels and groundwater.

Consumption (transpiration):

- Roots absorb water, which is then transpired back to the atmosphere as water vapor.
- A single mature oak tree has the potential to transpire 40,000 gallons of water a year.

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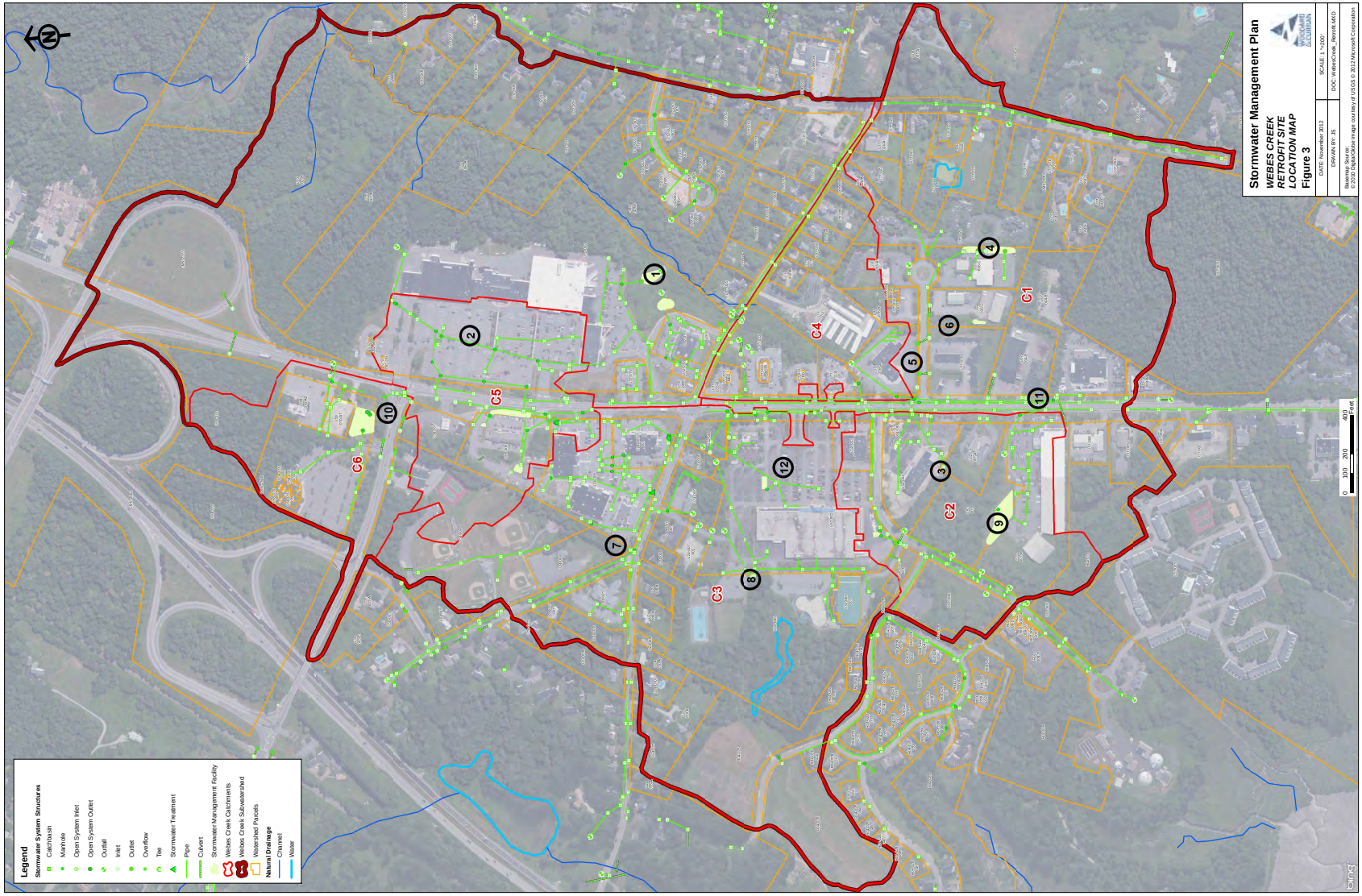

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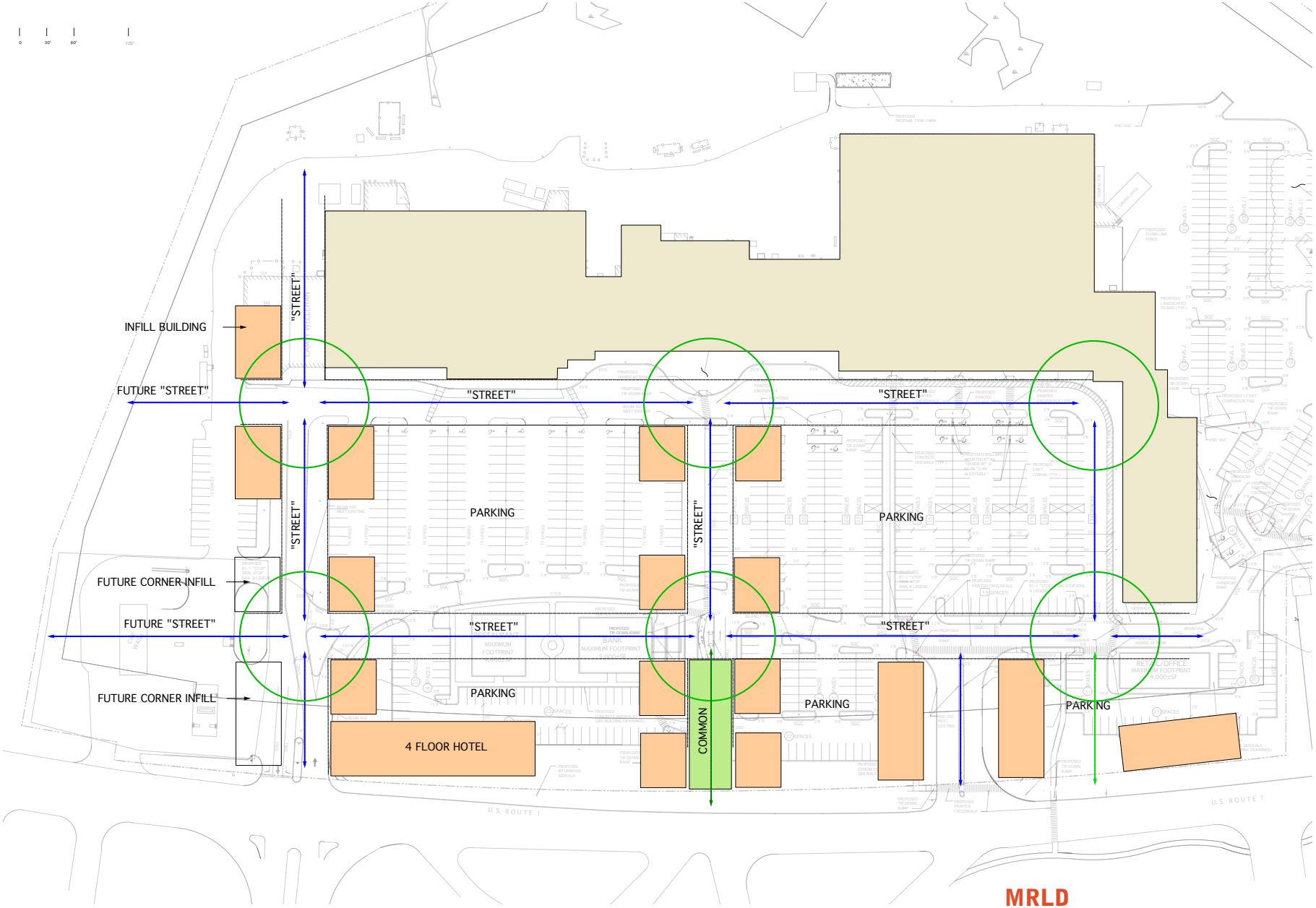

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Thank You!