

INTEGRATED
MULTISECTOR
MULTISCALE
MODELING

IM3 FUTURE URBAN MORPHOLOGY MODELING CHAIN

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IM₃

From SELECT

URBN-LMC Land Cover Projection

- Thematically consistent multisector Land Use, Land Cover system for the CONUS
- Adaptable to multiple IAM frameworks

PMA
Building
Volume
Constraint

- Urban scaling principles applied at neighborhood scale
- Average building volume and diversity in building types

 Generative Al based on Urban Tissues

Produces
 neighborhood
 type building
 footprints,
 heights and
 placement

AutoBEM Building Archetypes

70

EP

NATURF Morphology Ensembles

To WRF

- Current neighborhood morphology
- Current and future building characterization

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