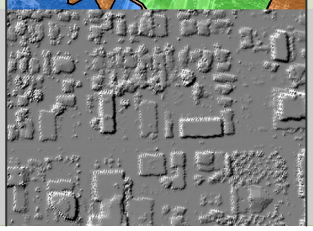
UTC ASSESSMENT GEOSPATIAL DATA REQUIREMENTS

	DESCRIPTION		PURPOSE	REQUIRED?
BUILDINGS	Building footprints consisting of unique polygons for each structure.		• Existing UTC metrics summarize UTC overhanging buildings • Possible UTC estimates exclude building footprints	Required. Needed for Possible UTC calculations. Optional if LIDAR is available.
ROADS	Road polygon boundaries. Each road polygon should fall within a PROW polygon, but the layers are separate.		• Summarize Existing UTC overhanging roads • Possible UTC estimate exclude road polygons	Highly useful, but not required. Needed for Possible UTC calculations.
PROW	Polygon boundaries for the Public Rights-of-Way. This typically consists of all non-parcel land, excluding water.		• Existing UTC summary for ROW • Possible UTC estimate for ROW (urparian only)	Required. Without this layer ROW UTC metrics cannot be generated.
IMAGERY	High-resolution multispectral imagery. Must include a near-infrared band. If the imagery is being orthorectified existing base orthophotographs should also be provided.		• Deriving land cover	Required for land cover mapping. Preference is for leaf-on, digitally acquired, and 1m or better resolution.
PARCELS	Property parcel boundaries. Attributes should include a unique parcel ID and the land use type.		• UTC metrics summarized by parcel • UTC metrics summarized by land use	Required. Parcels provide crucial boundary and attribute information for which to summarize UTC metrics.
GEOGRAPHIES	Geographical polygon boundaries by which to summarize the data, such as neighborhoods. Each separate polygon must have a unique code. Multiple layers may be submitted		• Area of interest (city boundary) • Summarizing UTC metrics	Optional. Adds the ability to summarize the UTC metrics in ways that are meaningful to decision makers.
LIDAR	Bare earth and reflective surface high-resolution elevation data. Can be point vector data or raster.		• Assist in land cover mapping • Structural analysis of UTC	Optional. LIDAR greatly improves differentiating tree canopy from low-lying vegetation. Also can be used to differentiate buildings from pavement.

The UTC assessment can be modified to incorporate additional data to further refine the UTC metrics. Examples include impervious features, recreational fields, and water bodies.

CONTACT
Jarlath O'Neil-Dunne
University of Vermont
Spatial Analysis Laboratory
802.656.3324
joneildu@uvm.edu