	Lake Charles Inventory						
Attribute	**Description**	**Format**	**Source**	**Field**	**Transformation**	**Detail**	**Phase**
ID	Building unique ID.	integer	Auto-Populated	Assigned Data	None	Sequential integer value starting at	Asset Description
Latitude	Latitude of the Building Centroid (inside polygon).	Floating point number	Building Footprint	Assigned Data	Extracted from centroid of building polygon	Units of decimal degrees	Asset Description
Longitude	Longitude of the Building Centroid (inside polygon).	Floating point number	Building Footprint	Assigned Data	Extracted from centroid of building polygon	Units of decimal degrees	Asset Description
OccupancyClass	Subclassifications of buildings across various categories of Residential and Commercial	Choices: RES1, RES3, COM1	StreetView	Augmented Data	A pretrained Convolutional Neural Network in BRAILS is used to classify the occupancy type of residential buildings based on street view images.	RES1 - Single Family Dwelling RES3 - Multi Family Dwelling - Duplex COM1 - Comercial Building	Asset Description
BuildingType	Primary construction material type	Choices: Wood	Assumed Value	Augmented Data	IF RES1 or RES3, BuildingType=Wood	Assumes all residental bulidings are wood, based on statistical analysis of available data	Asset Description
YearBuilt	Year of Construction	Integer (4-digit)	StreetView	Augmented Data	SURF is used to train a neural network on the year built information from National Structure Inventory (NSI).	The neural network is used to infer the year built information for each building based on the spatial patterns it learned from the NSI dataset.	Asset Description
NumberofStories	Number of stories above grade	Integer	StreetView	Augemented Data	Processed from streetview imagery using computer vision techniques		Asset Description
MeanRoofHt	Mean height of roof system in ft	Floating point number	Aerial + Street Level Imagery	Augmented Data	Derive from the elevations extracted from streetview data	Used only for RES3	Asset Description
DWSII	DesignWindSpeed II in mph	Floating point number	ATC API (ASCE 7)	Augmented Data	Design Wind Speed for Category II construction, per ASCE 7-16	https://hazards.atcouncil.org/#/	Asset Description
FloodZone	FEMA FloodZone designation as defined by Flood Insurance Rate Maps (FIRMs)	Choices: FEMA Flood Zone Designations (see Detail)	Assigned Value	Assigned Data	Defaults to "X" (moderate to low risk)	https://snmapmod.snco.us/fmm/document/fema-flood-zone-	Asset Description
AvgJanTemp	Average temperature in January below or above critical value of 25F.	Choices: Above, Below	NOAA	Augmented Data	Defaults to "Above"		Asset Description
LULC	Land Use Land Cover class	Integer (2-digit)	WebGIS	Augmented Data	Values from 1 to 92 assigned, each associated with a land use class	LULC conversion	Asset Description
RoofShape	Roof classified into equivalent hip, gable or flat	Choices: Hip, Gable, Flat	Aerial Imagery	Augmented Data	Images classified using convolutional neural network that has been trained on satellite images		Asset Description
RoofSlope	Slope of roof (ratio of rise/vertical over run/horizontal dimensions) covering the majority of	Floating point number	Aerial + StreetView Imagery	Augmented Data	Derive from elevations and polygon (footprint) geometry	Roof slope convention	Asset Description
Garage	Presence of attached garage	Choices: 0, 1	StreetView	Augmented Data	Processed from streetview imagery using computer vision techniques	0: no attached garage (detached or none at all) 1: attached garage	Asset Description
AnalysisDefault	Defines the default level of fidelity for analysis	Choices: 1, 2, 3	Assigned Value	Augmented Data	IF NumberofStories1>6, AnalysisDefault=2; ELSE AnalysisDefault=1	1: Hazus-compatible, 2 and 3: higher fidelity analysis not yet	Asset Description
HazusClass-W	Hazus building classes as defined for wind hazards	Choices: WSF1, WSF2, WMUH1, WMUH2, WMUH3	Assigned by Rulesets	Augmented Data	IF OccupancyClass=RES1 & NumberofStories = 1, HazusClass-W=WSF1 ELSEIF OccupancyClass=RES1 & NumberofStories > 1, HazusClass-W=WSF2 ELSEIF OccupancyClass=RES3 & NumberofStories = 1, HazusClass-W=WMHU1 ELSEIF OccupancyClass=RES3 & NumberofStories = 2, HazusClass-W=WMHU2 ELSEIF OccupancyClass=RES3 & NumberofStories > 2, HazusClass-W=WMHU3	Assuming only WSF1, WSF2, WMUH1, WMUH2, WMUH3 will be used.	Asset Representation
HPR	Defines Hazard Prone Regions (HPR) for the purposes of Hazus wind vulnerability assignments	Choices: yes, no	Assigned by Rulesets	Augmented Data	Apply Hazus Building Attribute Rulesets - Wind		Asset Representation
WBD	Defines Wind Borne Debris (WBD) for the purposes of Hazus wind vulnerability assignments for WSF1-	Choices: yes, no	Assigned by Rulesets	Augmented Data	Apply Hazus Building Attribute Rulesets - Wind		Asset Representation
SWR	Defines Secondary Water Resistance (SWR) for the purposes of Hazus wind vulnerability assignments for WSF1-2, WMUH1-3	Choices: yes, no	Assigned by Rulesets	Augmented Data	Apply Hazus Building Attribute Rulesets - Wind		Asset Representation
RoofCvr	Defines roof cover for the purposes of Hazus wind vulnerability assignments for WMUH1-3, MMUH1-3	Choices: N/A, BUR, SPM	Assigned by Rulesets	Augmented Data	Apply Hazus Building Attribute Rulesets - Wind		Asset Representation
RoofQual	Defines roof cover quality for the purposes of Hazus wind vulnerability assignments for WMUH1-	Choices: N/A, poor, good	Assigned by Rulesets	Augmented Data	Apply Hazus Building Attribute Rulesets - Wind		Asset Representation
RDA-Wood	Defines Roof Deck Attachment (RDA) for wood for the purposes of Hazus wind vulnerability assignments for WSF1-2, WMUH1-3	Choices: A, B, C, D	Assigned by Rulesets	Augmented Data	Apply Hazus Building Attribute Rulesets - Wind	WSF and WMUH: A = 6d @ 6"/12" B = 8d @ 6"/12" C = 6d/8d mix @ 6"/6" D = 8d @ 6"/6"	Asset Representation
R2WC	Defines Roof to Wall Connection (R2WC) for the purposes of Hazus wind vulnerability assignments for WSF1-2, WMUH1-3	Choices: strap, toe-nail	Assigned by Rulesets	Augmented Data	Apply Hazus Building Attribute Rulesets - Wind		Asset Representation
shutters	Defines use of window opening protection for the purposes of Hazus wind vulnerability assignments for WSF1-2, WMUH1-3	Choices: yes, no	Assigned by Rulesets	Augmented Data	Apply Hazus Building Attribute Rulesets - Wind		Asset Representation
Agarage	Defines presence of attached garage for the purposes of Hazus wind vulnerability assignments for WSF1-2, MSF1-2	Choices: none, SFBC 1994, standard, weak	Assigned by Rulesets	Augmented Data	Apply Hazus Building Attribute Rulesets - Wind		Asset Representation

Terrain	HAZUS-defined terrain classifications (x100) based on LULC data	Choices: 3, 15, 35, 70, 100	LU/LC Data	Augmented Data	IF FloodZone = V OR VE OR V1-30 OR A OR AE OR A1-30 OR AR OR A99, Terrain = 3 IF LULC = 30-39 OR 50-59 OR 62 OR 70-79, Terrain = 3 IF LULC = 20-29, Terrain = 15 IF LULC = 11-15 OR 61, Terrain = 35 IF LULC = 16 OR 17 OR 41-43, Terrain = 70		Asset Representation