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Transform Community Planning and Development with Engaging 3D GIS Solutions

June 6, 2022

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Introduction

Robert Kain
Principal
Houseal Lavigne

Marc Goldman
Director AEC Industry Solutions
Esri

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HOUSEAL LAVIGNE

GEOSPATIAL SERVICES

We are an innovation-based planning and geospatial firm. We pride ourselves on creativity, collaboration, and delivery of high-quality plans and high-fidelity visualizations. Our team approach is built on strong relationships, the exchange of ideas, and a commitment to the integration of technology. Our priorities are to do good, have fun, work hard, and provide responsive, visionary, and viable solutions to our clients and partners.

ALL SCALES

We provide master planning, GIS, and visualization services for study areas of **all sizes and scales**, including entire regions, entire cities, downtowns, neighborhoods and special districts, and individual sites and buildings.

RENOWNED EXPERTS

We are the recognized leaders in creating GIS-enabled smart cities in digital twins. For more than a decade **our work has been showcased by industry software companies** to demonstrate the capabilities and potential of their programs.

HIGH SPEED & HIGH QUALITY

We pride ourselves in the quality of work and the speed in which we can deliver. We **understand the importance of deadlines** and meet or exceed the challenges without compromising the quality of our design and fidelity of our graphics.

UNREAL DEVELOPERS NEWTORK

Trimble Visiting Professionals Program

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We are an **Esri Business Partner** with an ArcGIS Urban Specialty. This gives Houseal Lavigne the opportunity to work with Esri in shaping best practices and defining how their services can be better integrated within the planning profession.

ArcGIS Urban Specialty

ArcGIS Online Specialty

Release Ready Specialty

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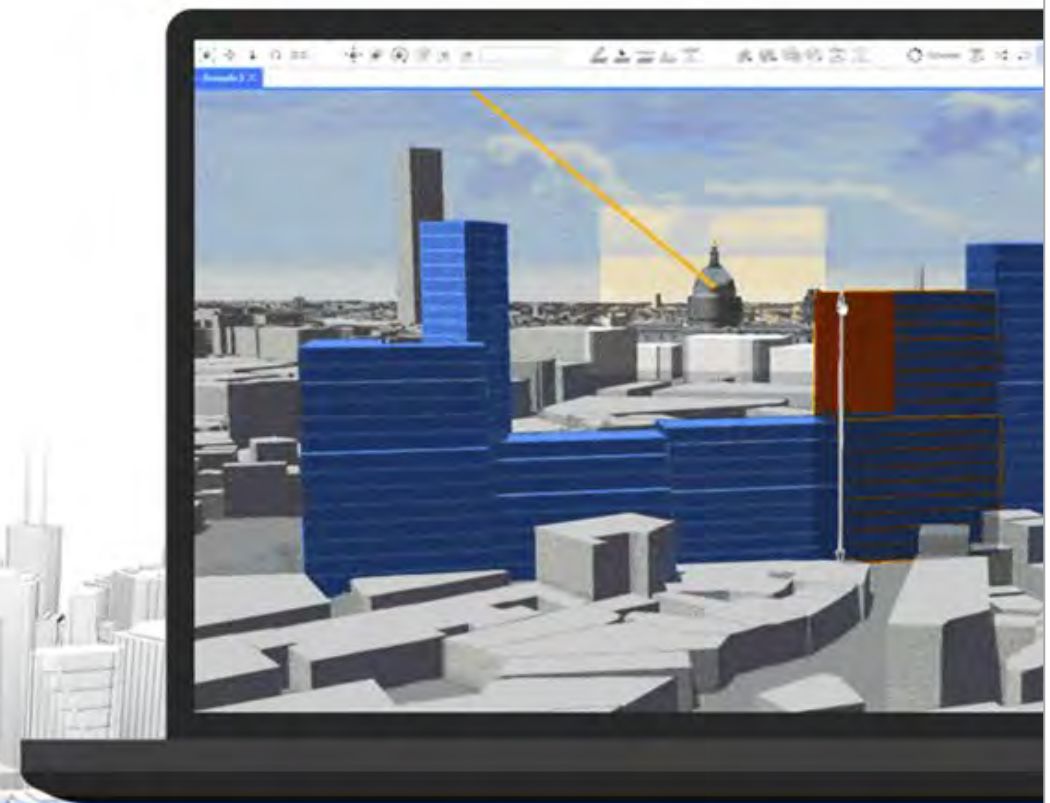
ArcGIS CityEngine

Advanced 3D city design software



CityEngine is advanced 3D modeling software for creating huge, interactive and immersive urban environments in less time than traditional modeling techniques. The cities you create using CityEngine can be based on real-world GIS data or showcase a fictional city of the past, present, or future.

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CHICAGO, IL

HLA OFFICES & DOWNTOWN THEATRE DISTRICT

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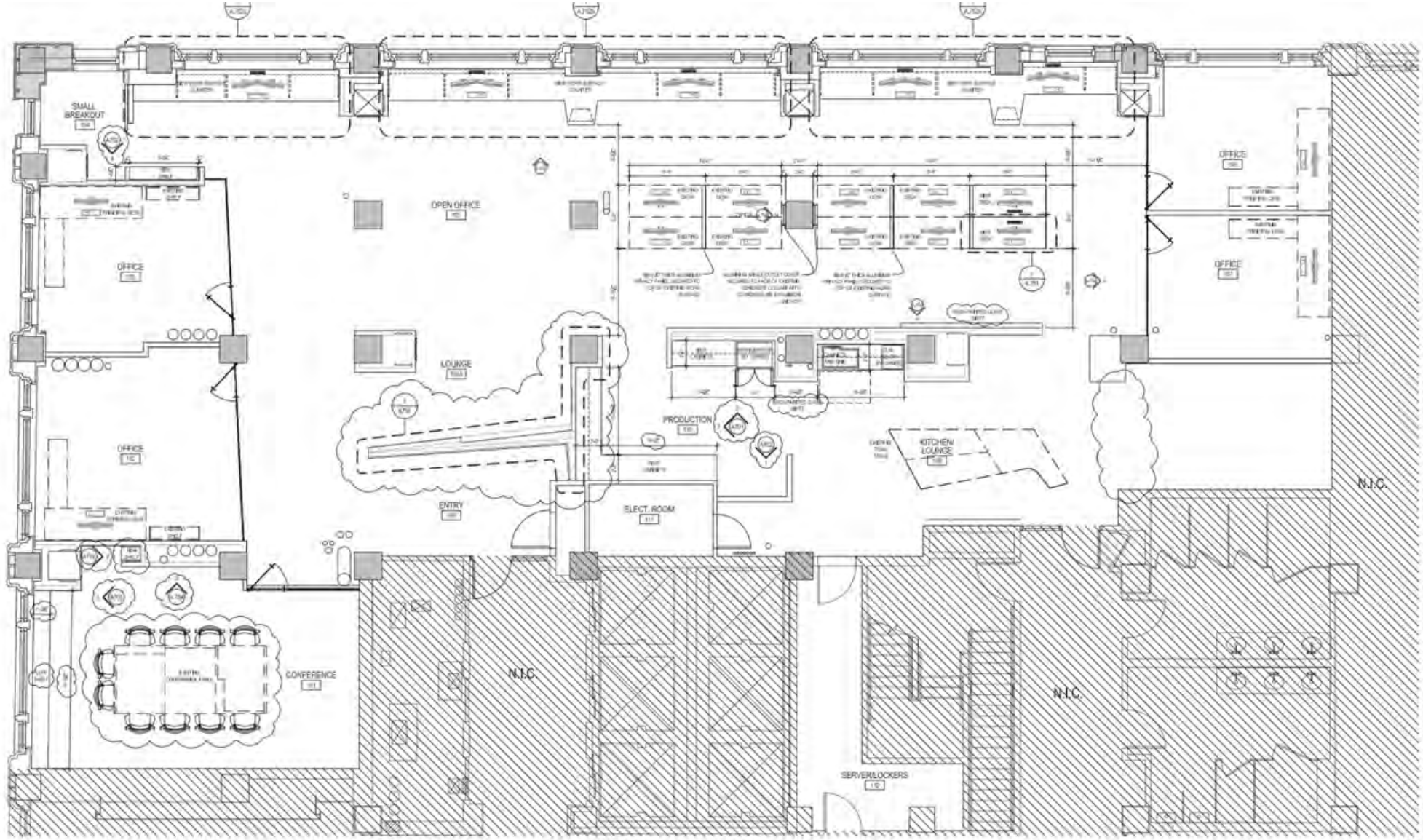

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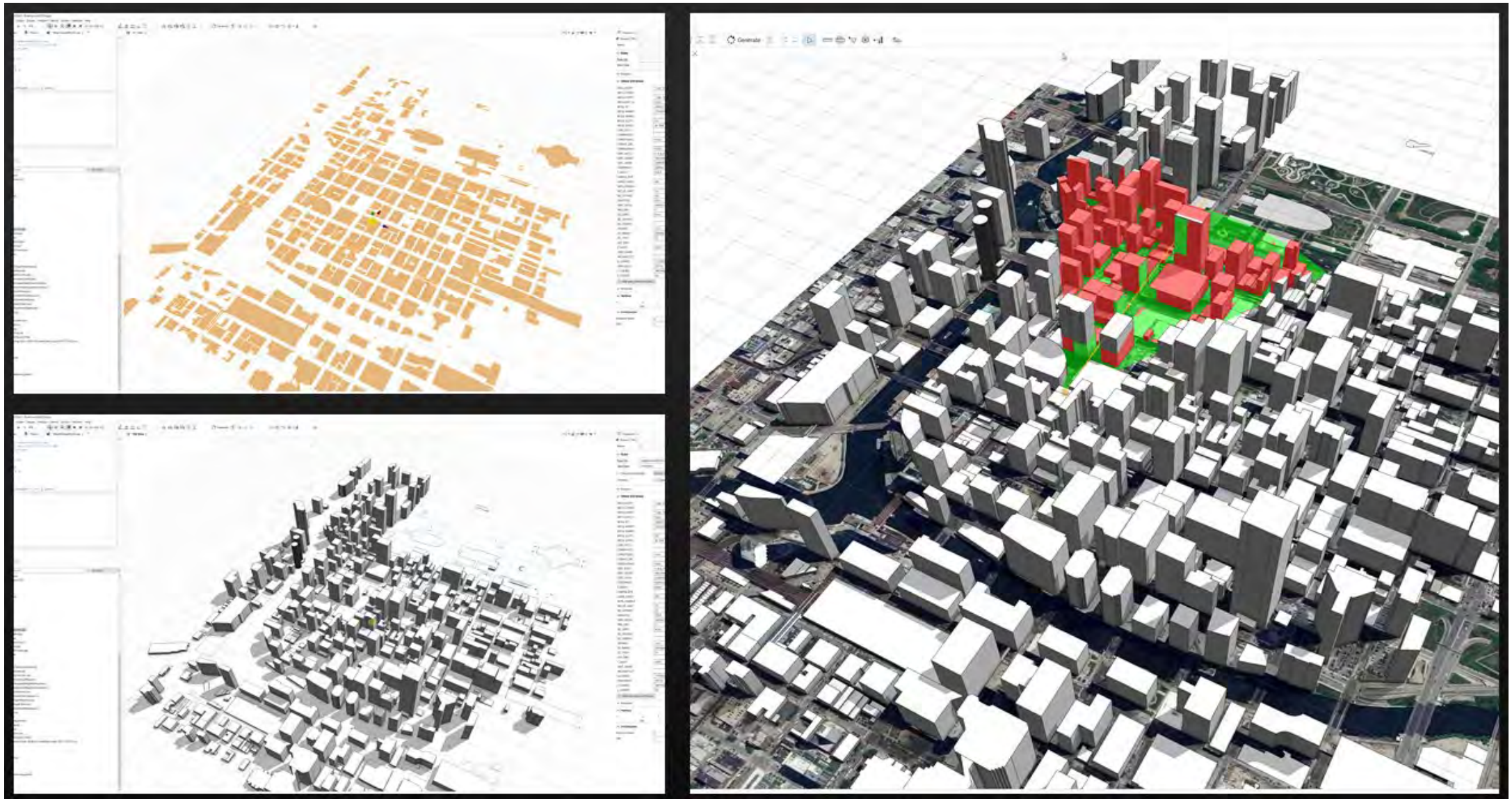

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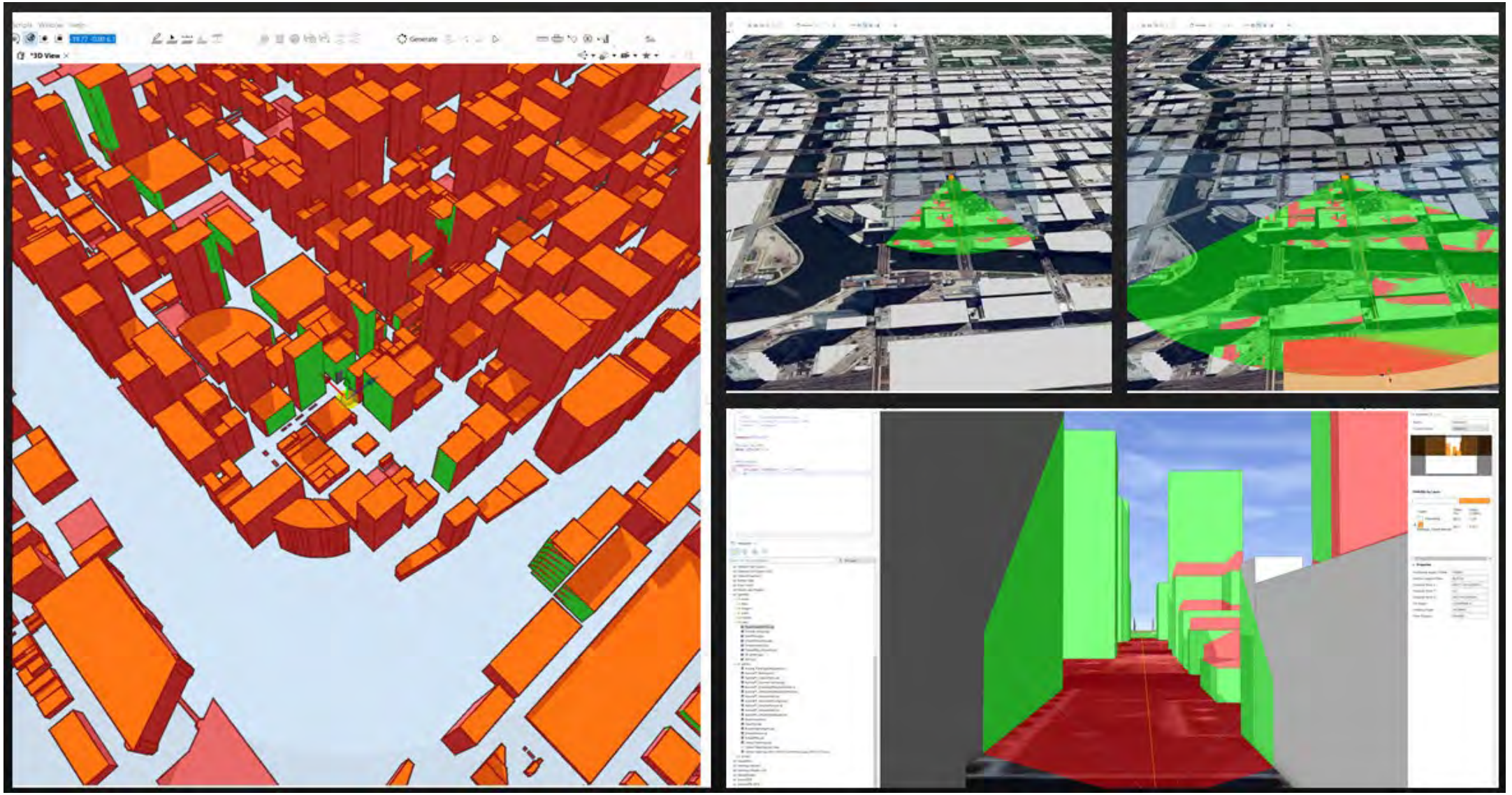

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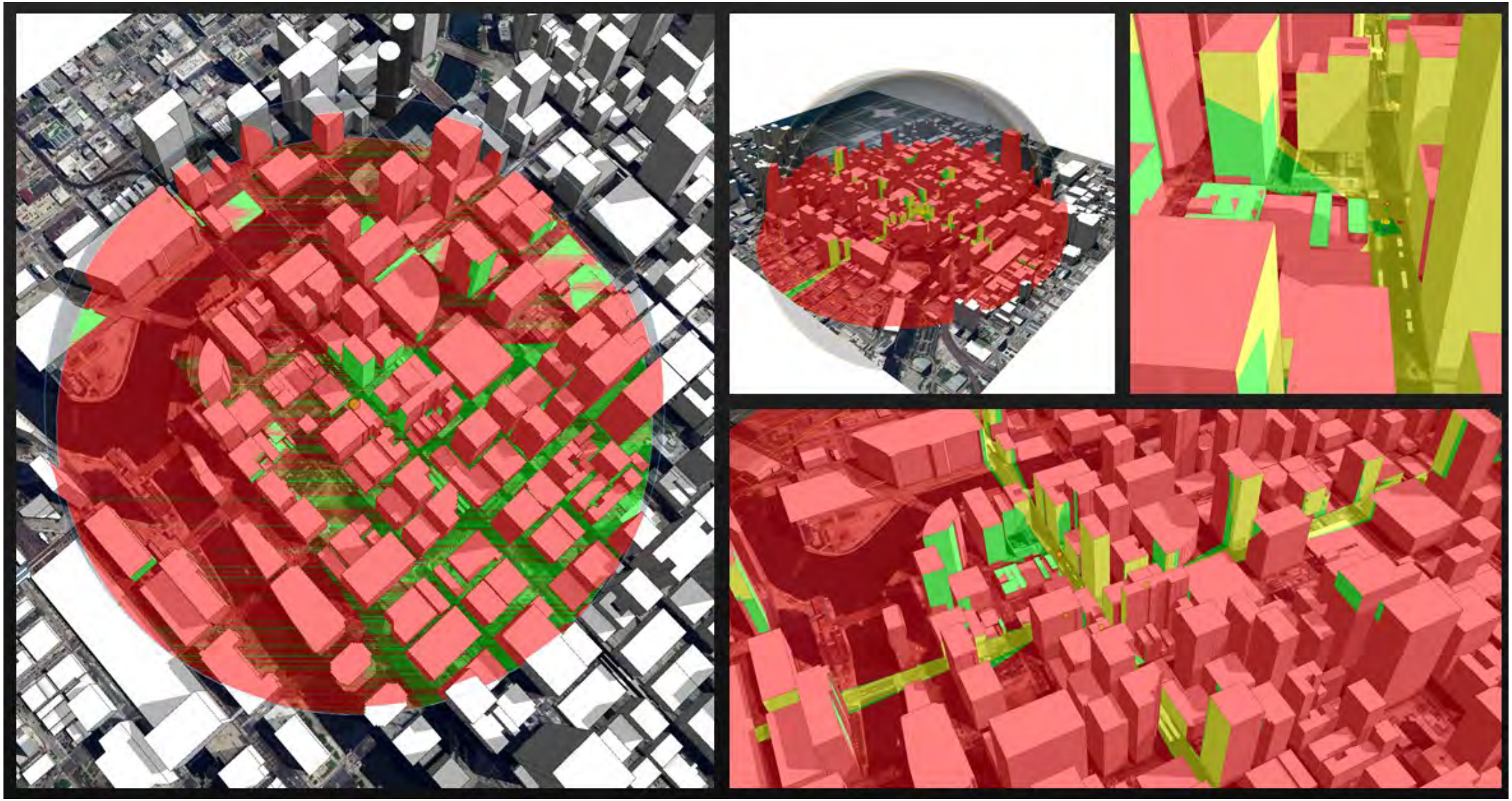

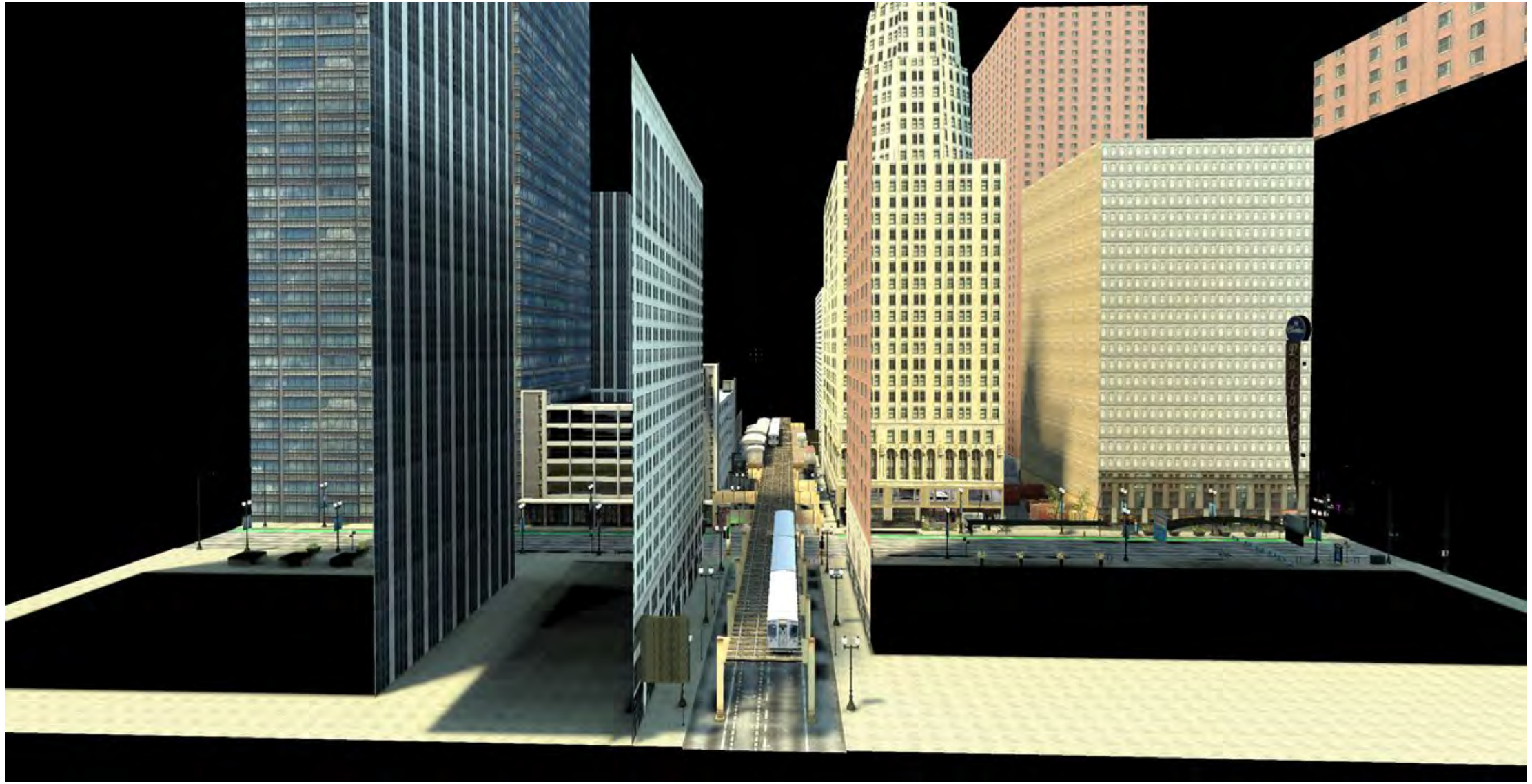

198 W Randolph St
Chicago, Illinois
Google, Inc.
Street View - Jun 2018
Public Parking
SELF PARK
AROUND THE CORNER
N Wells St
RANDOLPH & WELLS, CHICAGO, IL
GOOGLE STREET VIEW
Google

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Expand side panel
Google, Inc.
Street View - Oct 2017
STEAKHOUSE
LUNCH DINNER
HOTEL ALL
STARBUCKS COFFEE
W Randolph St
Google
RANDOLPH STREET, CHICAGO, IL
GOOGLE STREET VIEW
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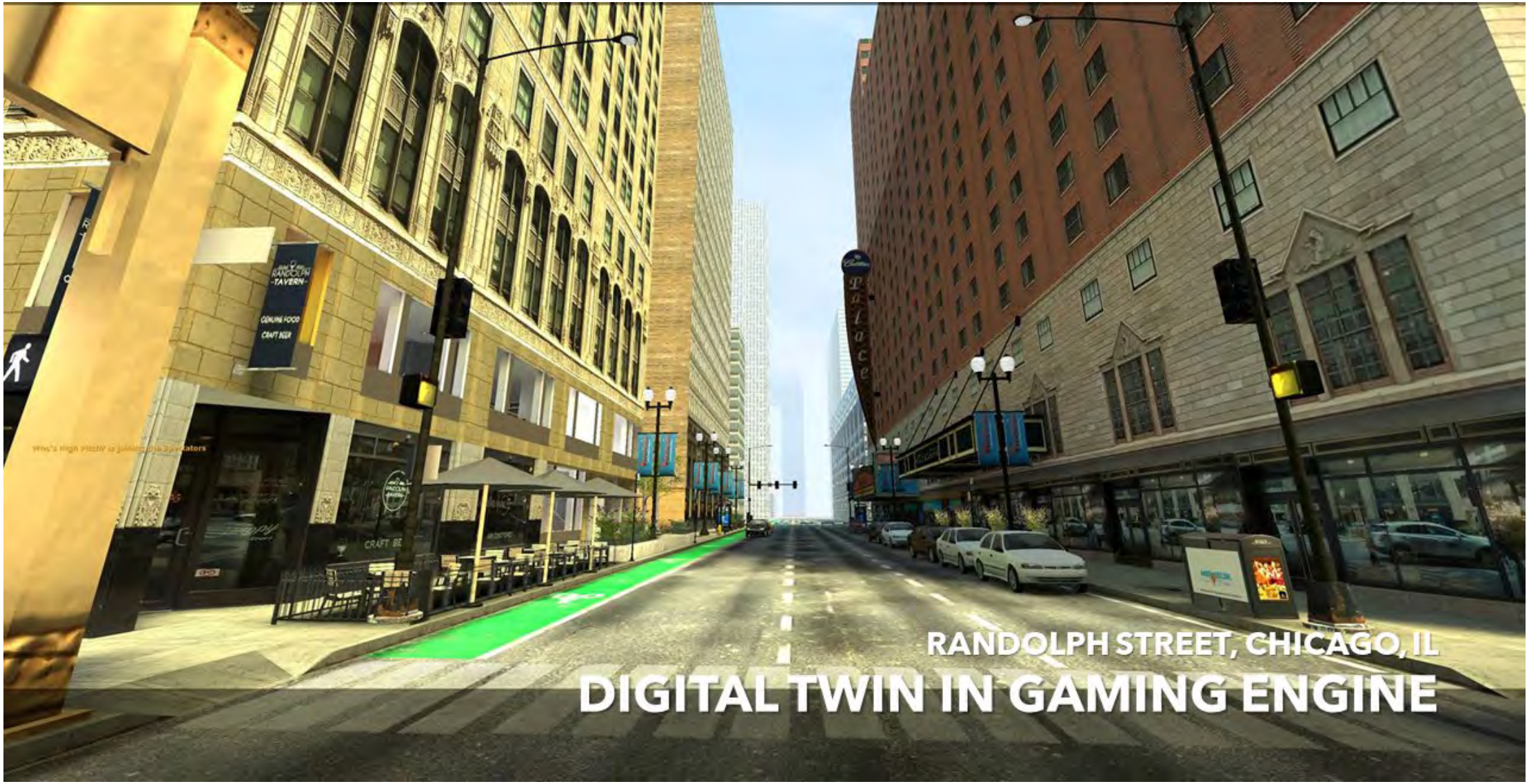

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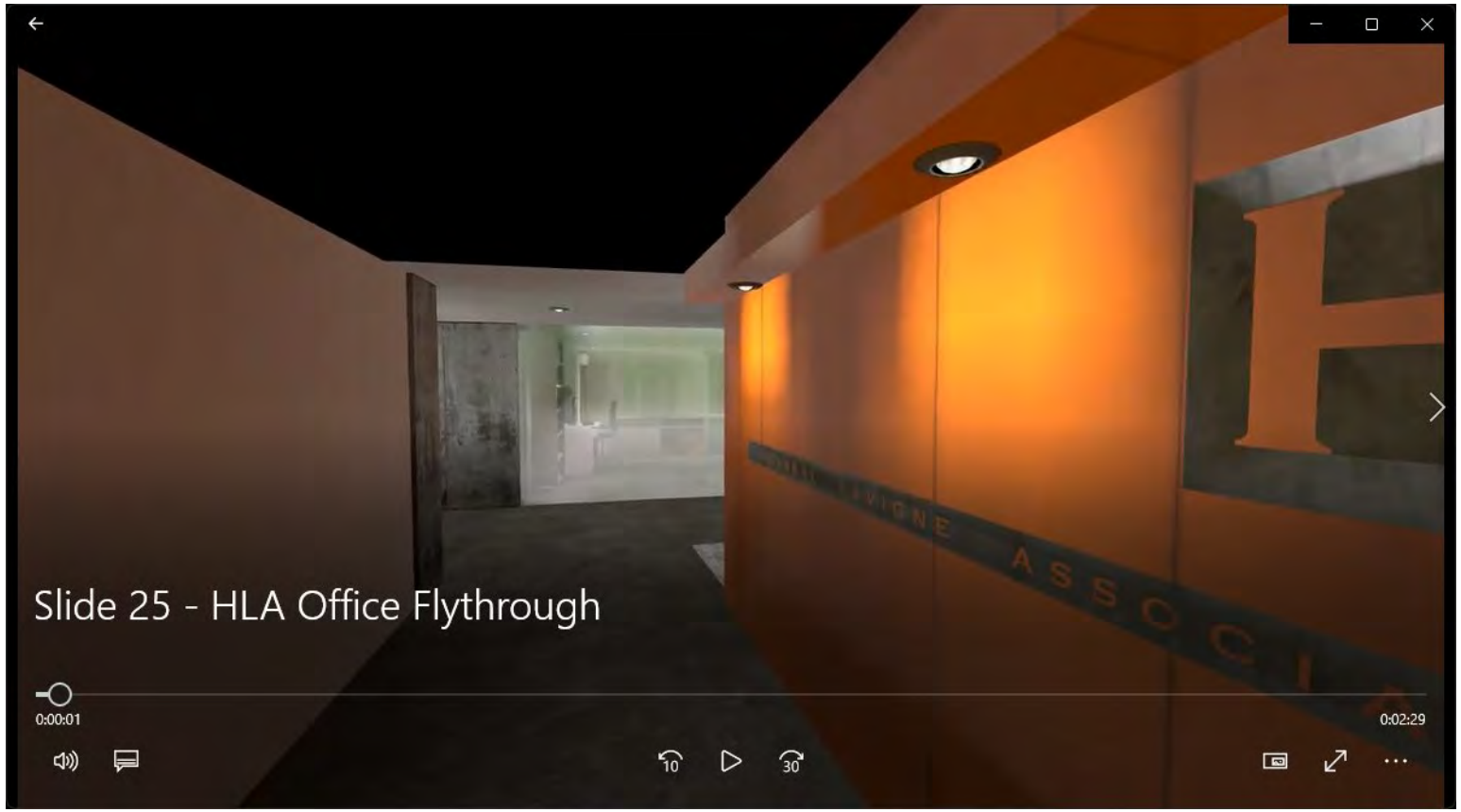

IN-GAME FLYTHROUGH ANIMATION

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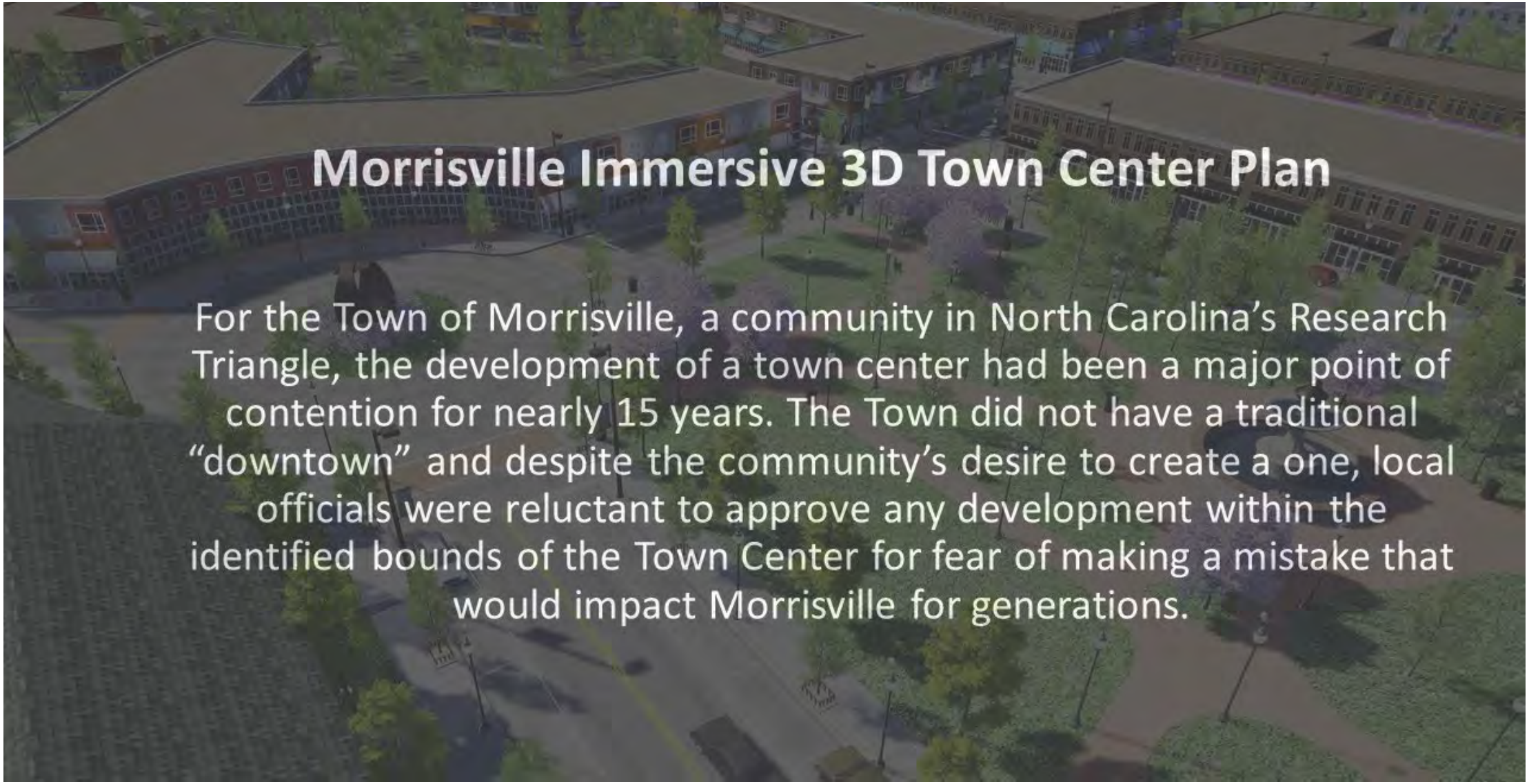

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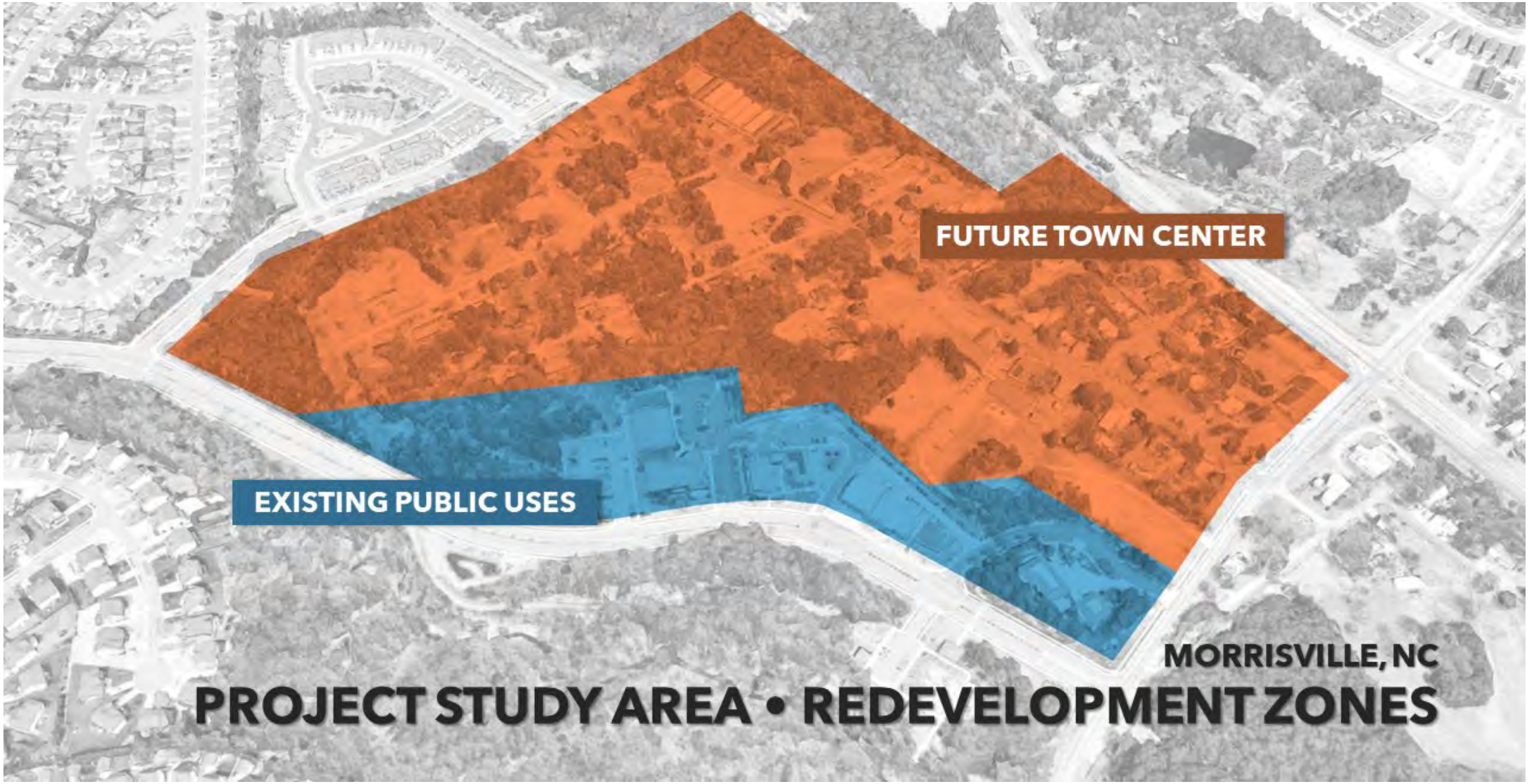
MORRISVILLE, NC
PROJECT STUDY AREA • SITE AERIAL IMAGEE



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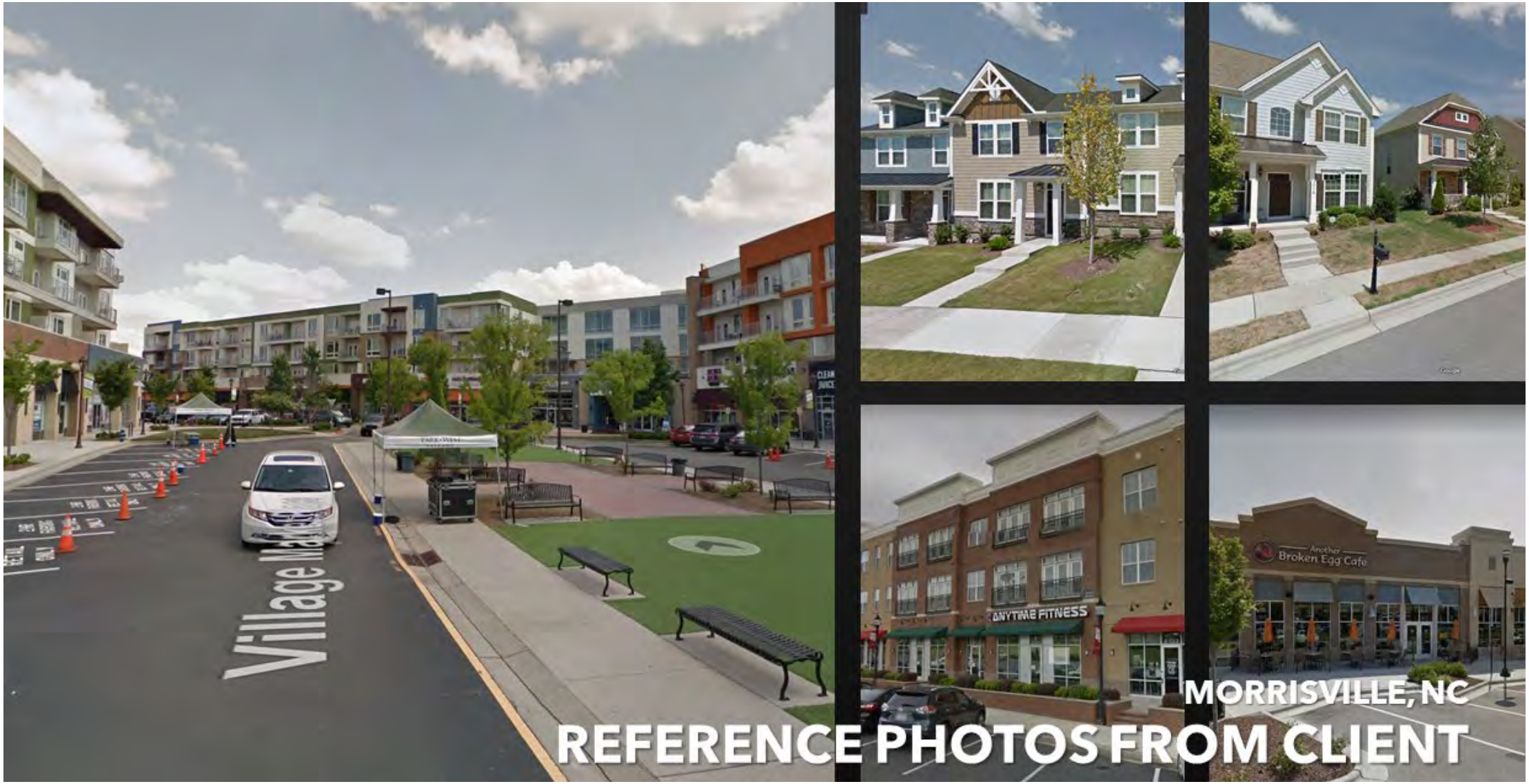

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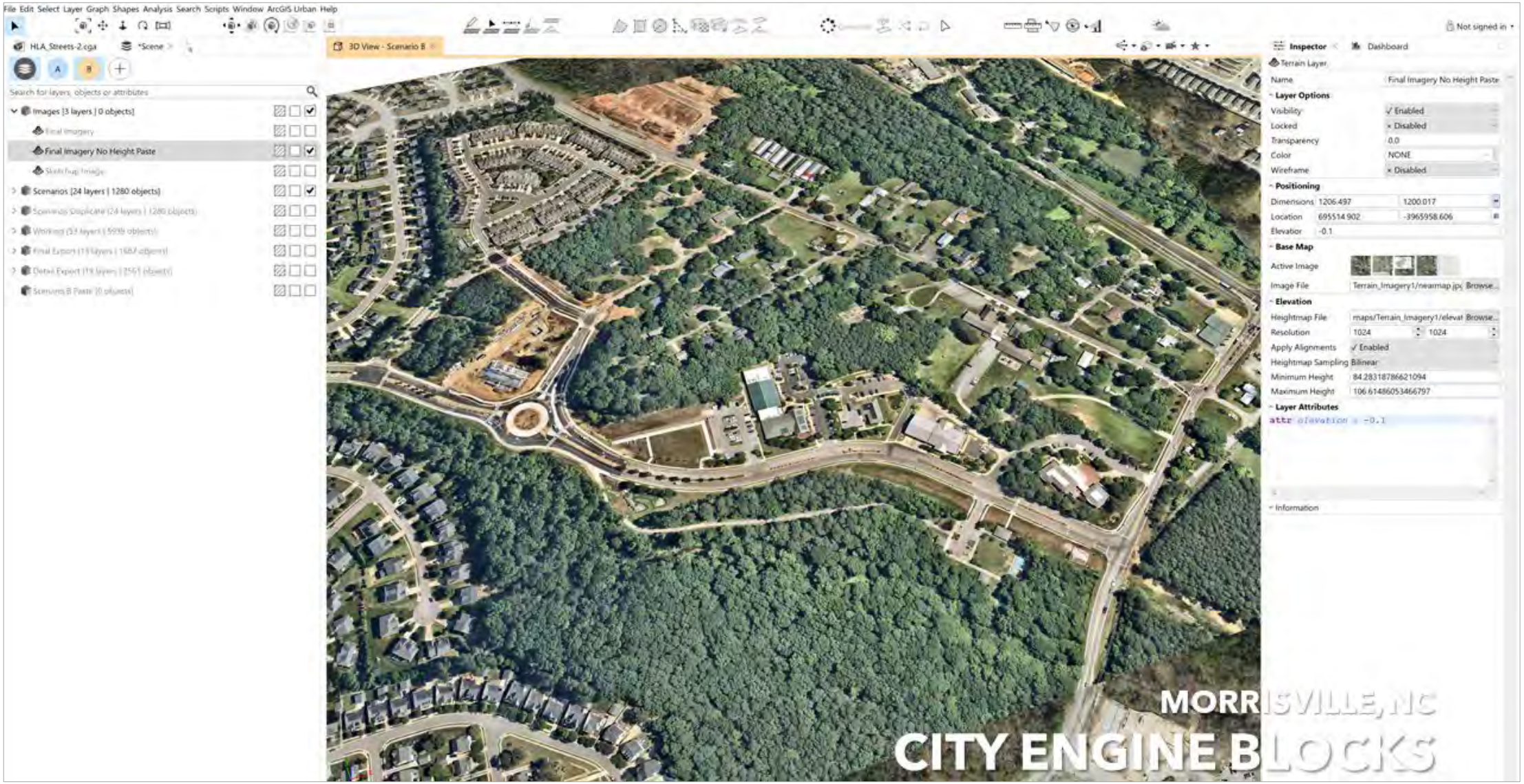

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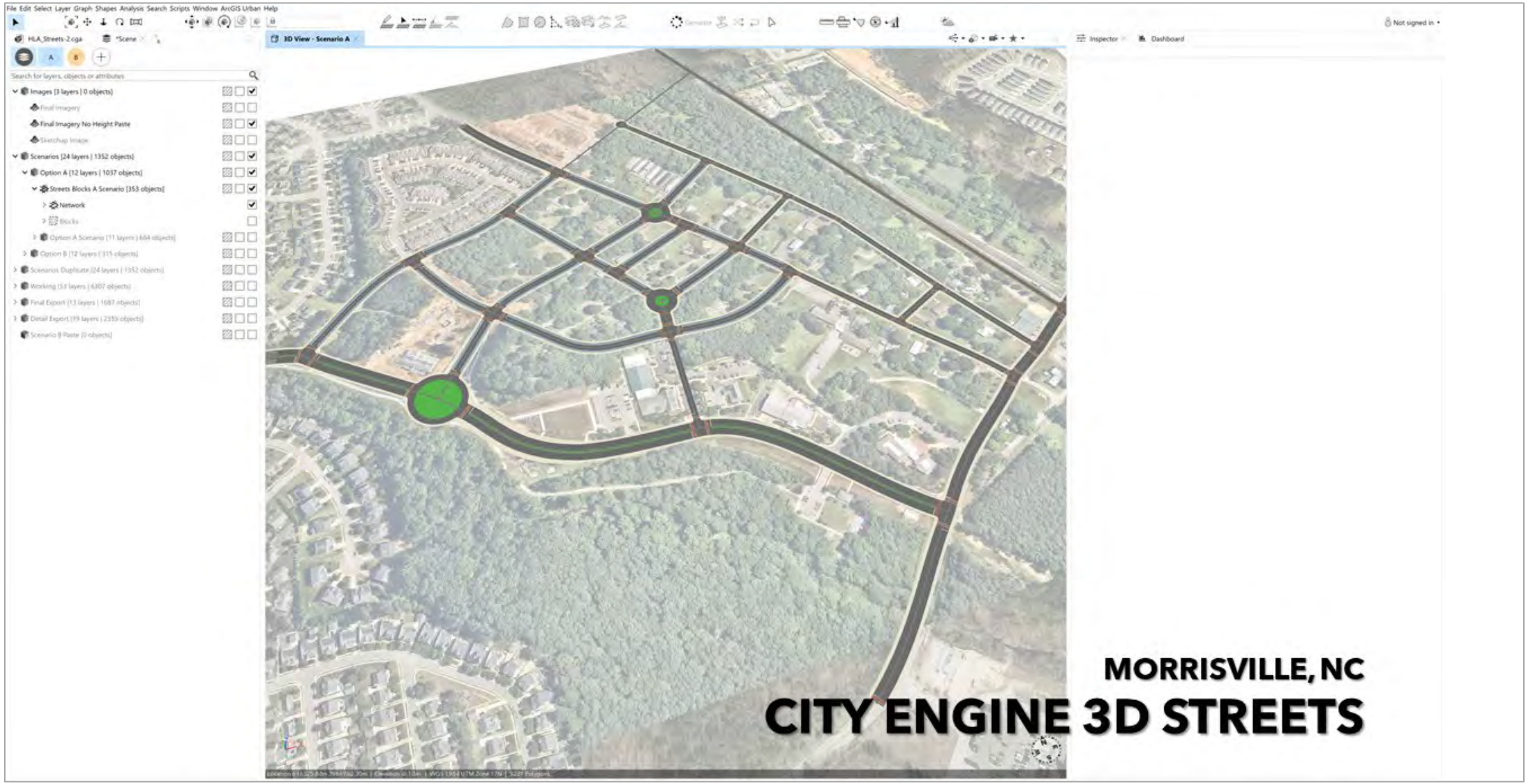

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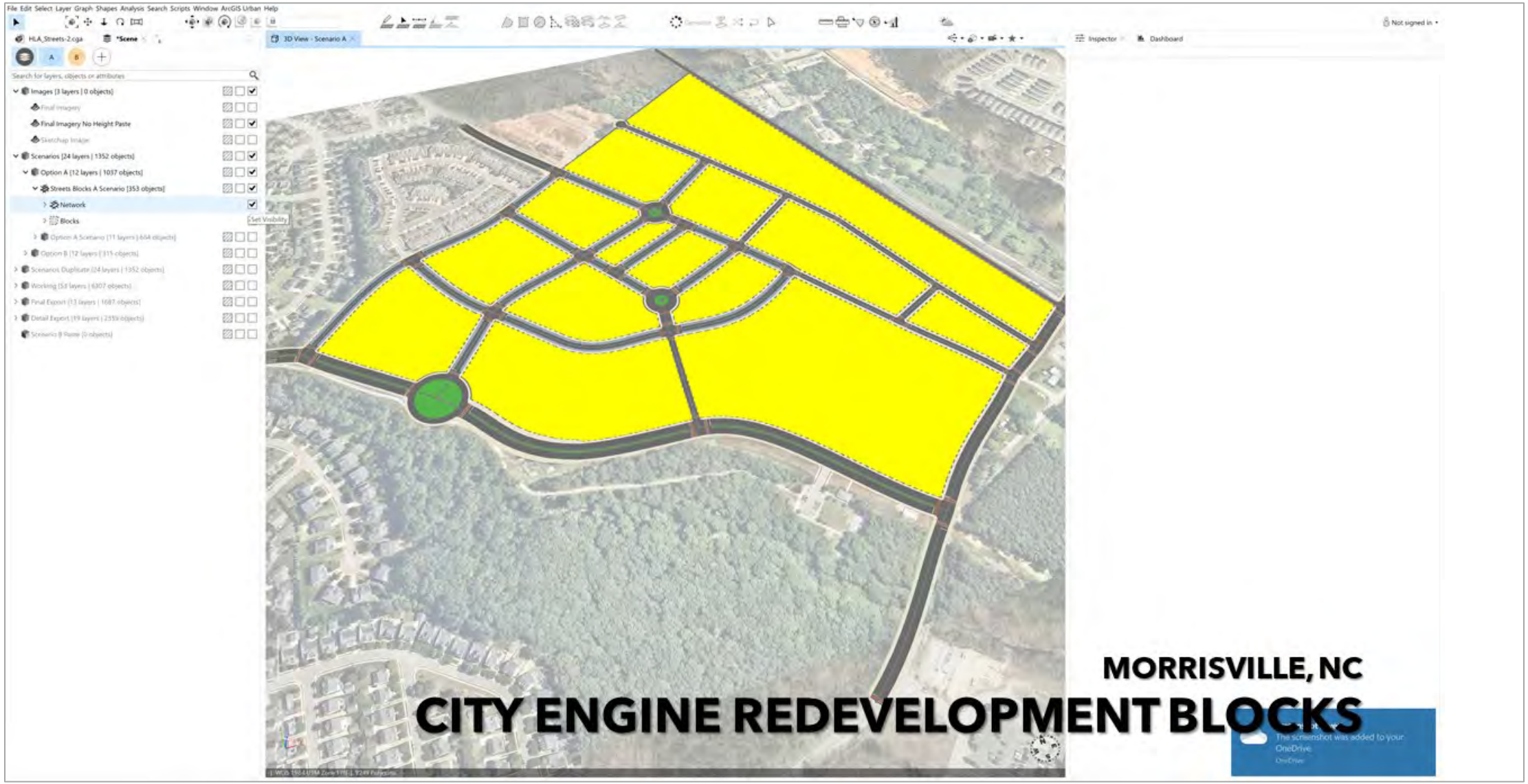

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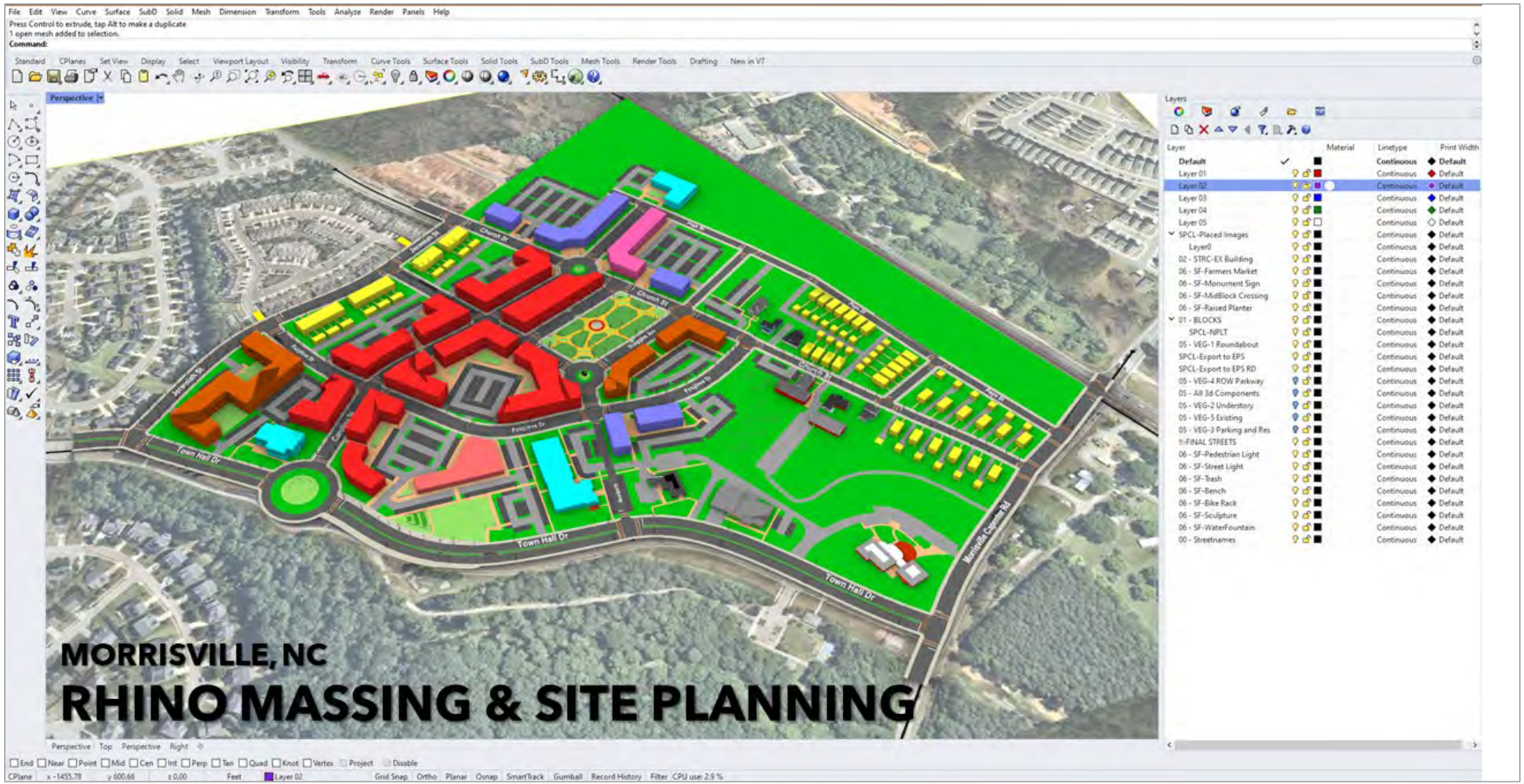

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CITYENGINE DASHBOARDS & METRICS

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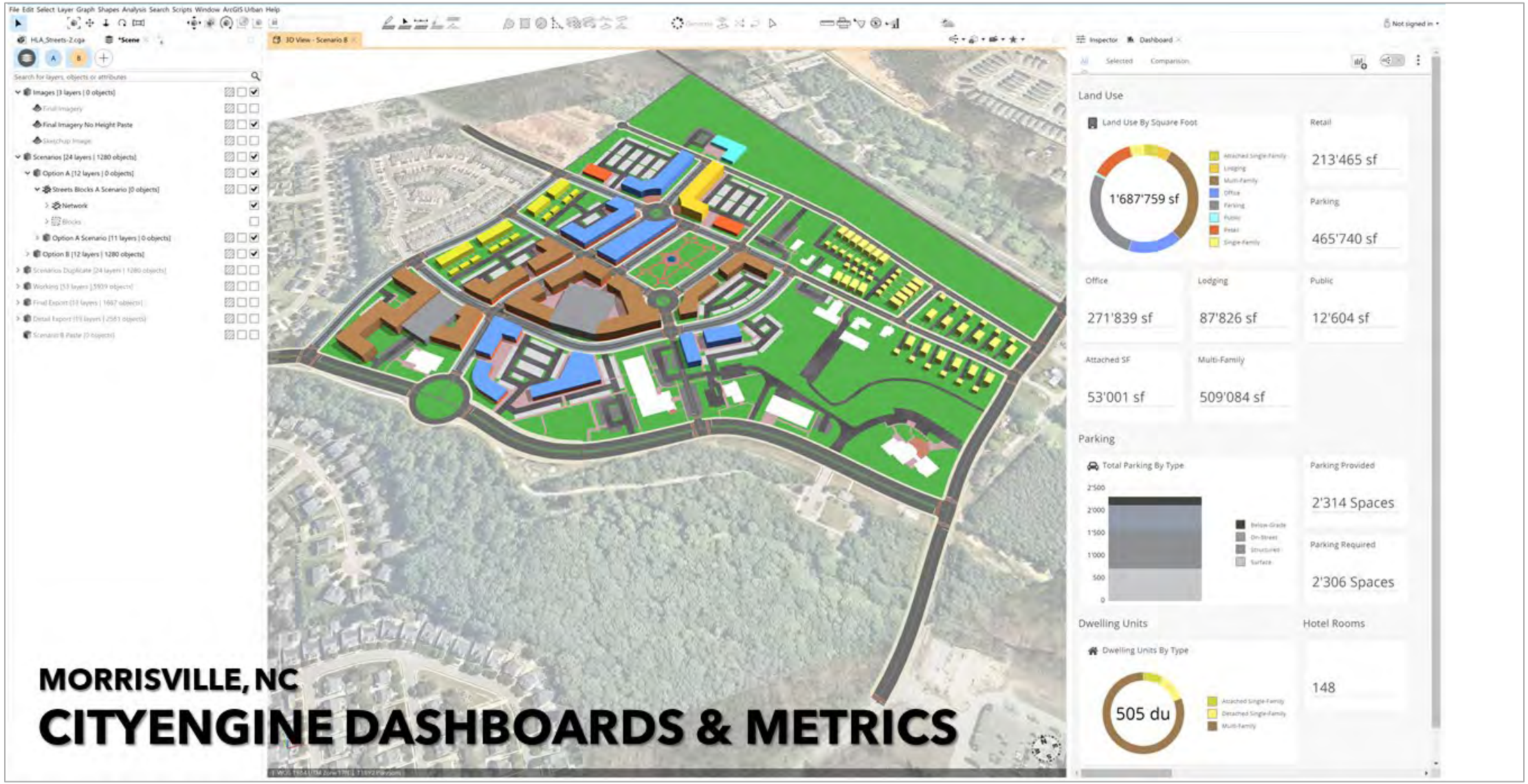

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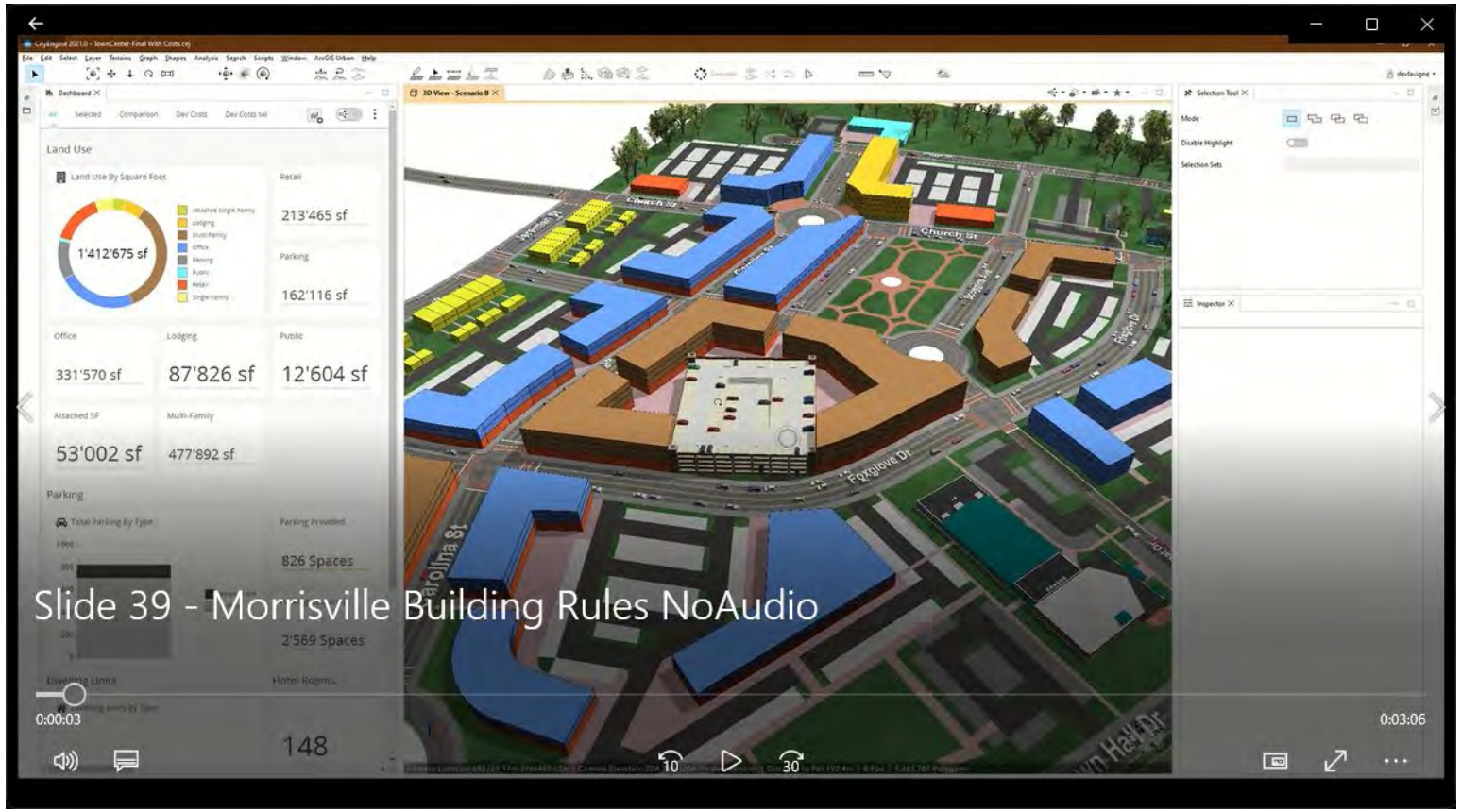

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CITYENGINE BUILDING RULES

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Morrisville Town Center Redevelopment Scenarios

Overview

A comparison of two development scenarios for Morrisville's Town Center.

CityEngine Web Scene by devlavigne

Created: Jul 24, 2019 Updated: Oct 22, 2019 Number of Downloads: 218

View Application

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Description

A comparison of two development scenarios for Morrisville's Town Center.

Option A limits most parking to surface lots (one larger multi-family building in the western corner is partially serviced by below-grade parking). Option B provides 2 parking garages which allow for greater density through the Town Center.

Town Center Scenario Comparison

Option A

Land Use

Retail 211'398 sf

Parking 178'986 sf

Office 126'228 sf

Lodging 43'913 sf

Public 12[illegible]

Attached SF 53'001 sf

Multi-Family 204'025 sf

Option B

Land Use

Retail 213'465 sf

Parking 465'740 sf

Office [illegible]

Lodging [illegible]

Public [illegible]

Attached SF 53'001 sf

Multi-Family 509'084 sf

Details

Size: 15 MB

Owner

devlavigne

Tags

3D, Houseal Lavigne, CityEngine Webscene, Morrisville, CityEngine, HLA, Houseal Lavigne Associates

Credits (Attribution)

Devin Lavigne, Nik Davis, Houseal Lavigne Associates, LLC.

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CITYENGINE INTERACTIVE WEBSCENE

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Morrisville Town Center Redevelopment Scenarios
SHARE
HELP
SIGN IN
HOUSEAL LAVIGNE...
Information
Shape
Reports
Dwelling Units 28
Dwelling Units.Multi-Family 28
Dwelling Units.Multi-Family#color 0
LandUse 57078.31
LandUse.Multi-Family 28539.15
LandUse.Multi-Family#color 0
LandUse.Retail 28539.15
LandUse.Retail#color 0
Parking Required 171
Parking Required.Multi-Family 57
Parking Required.Retail 114
Carolina St
Foxglove Dr
Jeremiah St
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SHARE
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HOUSEAL LAVIGNE...
Information
Shape
Reports
Dwelling Units 84
Dwelling Units.Multi-Family 84
Dwelling Units.Multi-Family#color 0
LandUse 114156.31
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Parking Required.Multi-Family 171
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Jeremiah St
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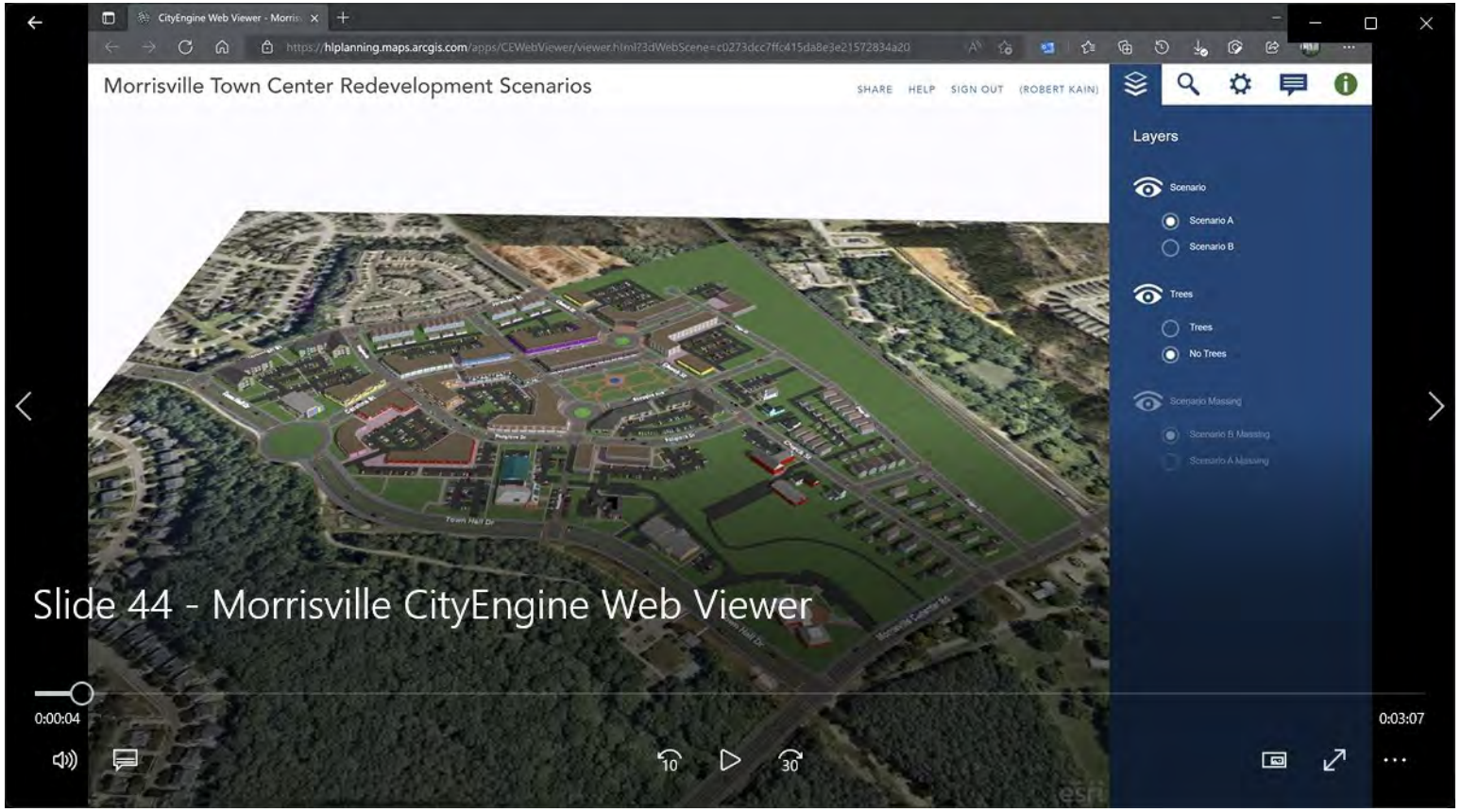

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CITYENGINE WEB VIEWER

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Scenario A – Less Dense
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UNREAL ENGINE GAME DEVELOPMENT

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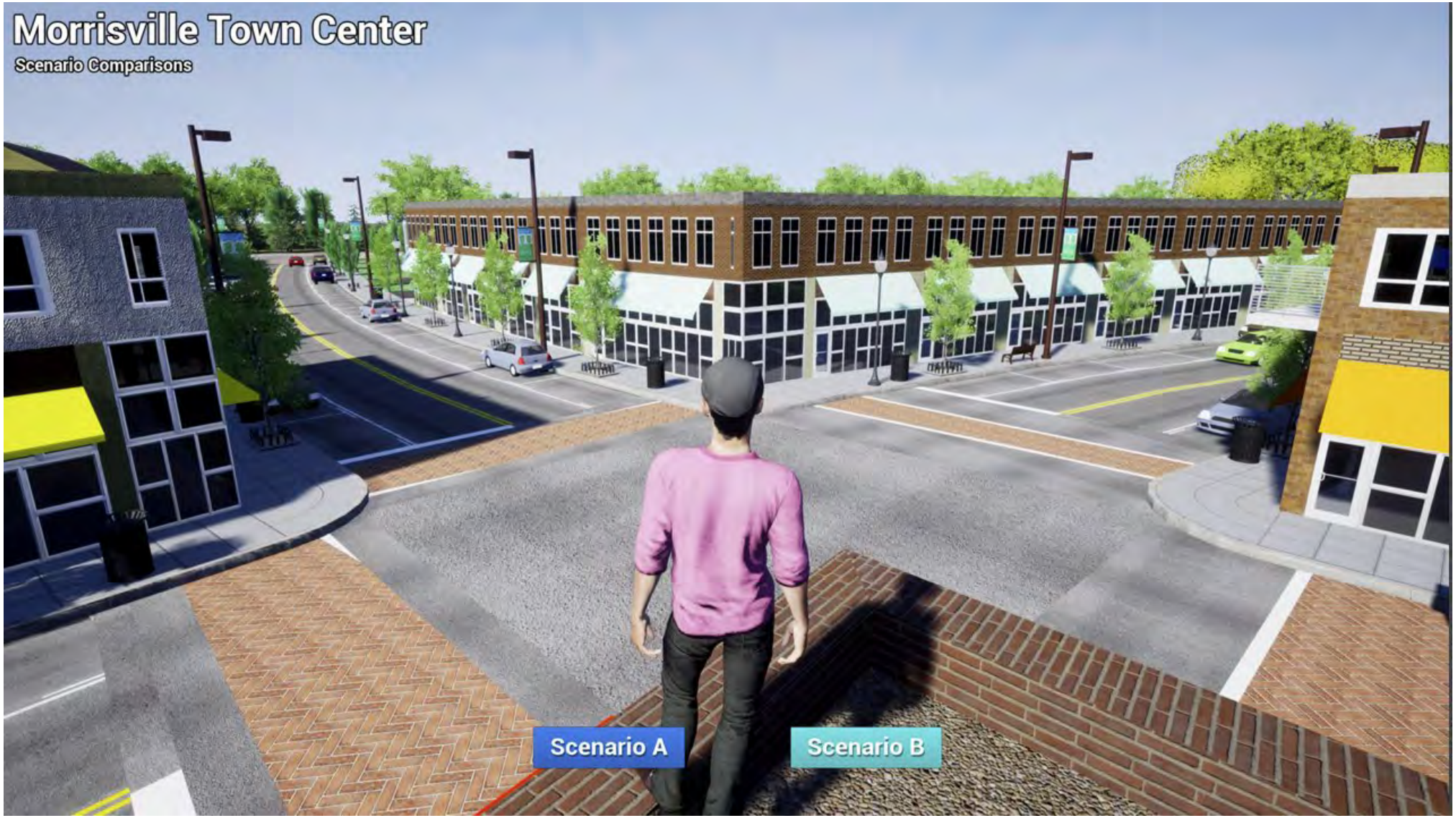
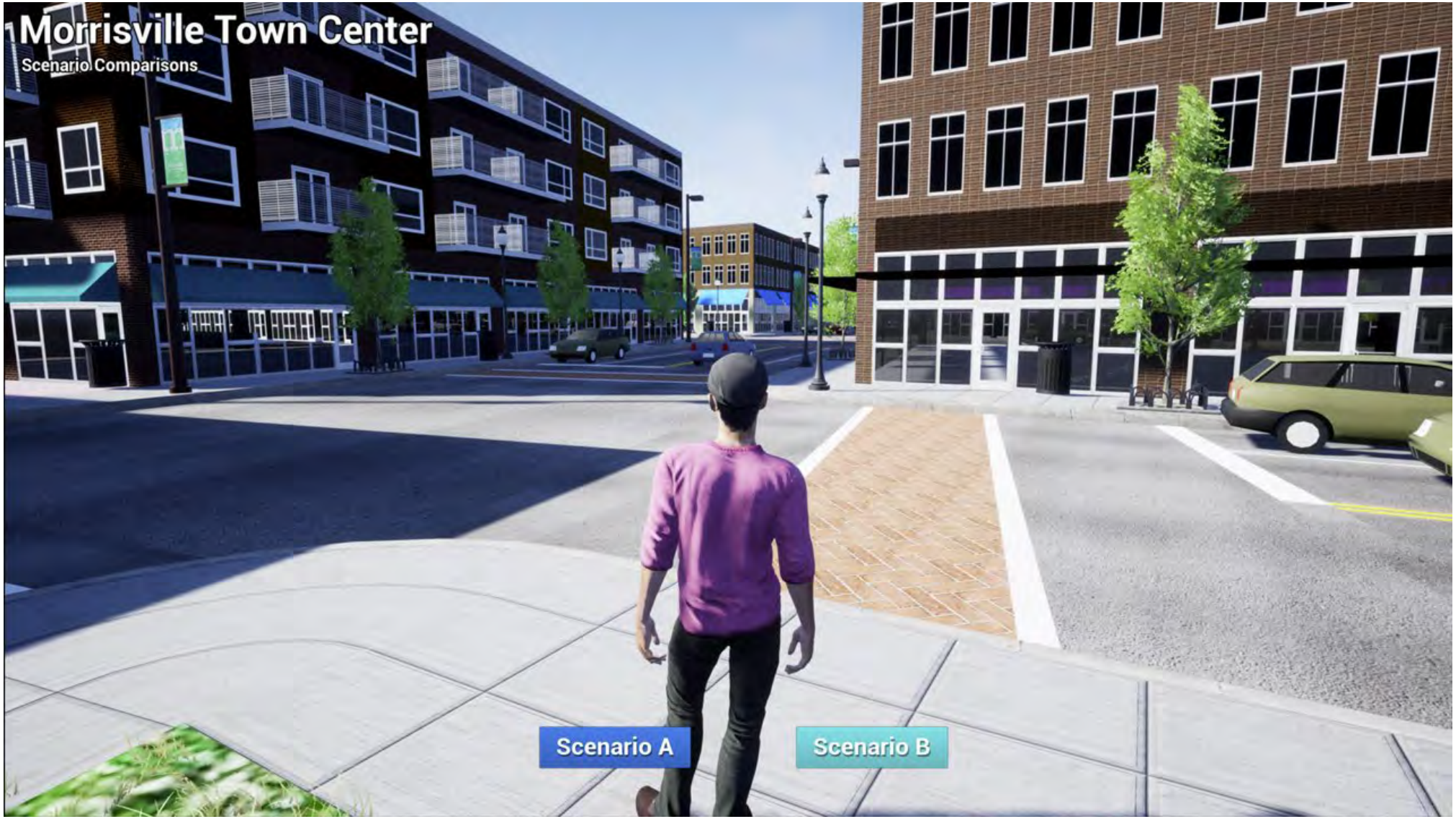

Morrisville Town Center
Scenario Comparisons
Scenario A
Scenario B


Morrisville Town Center
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Scenario A
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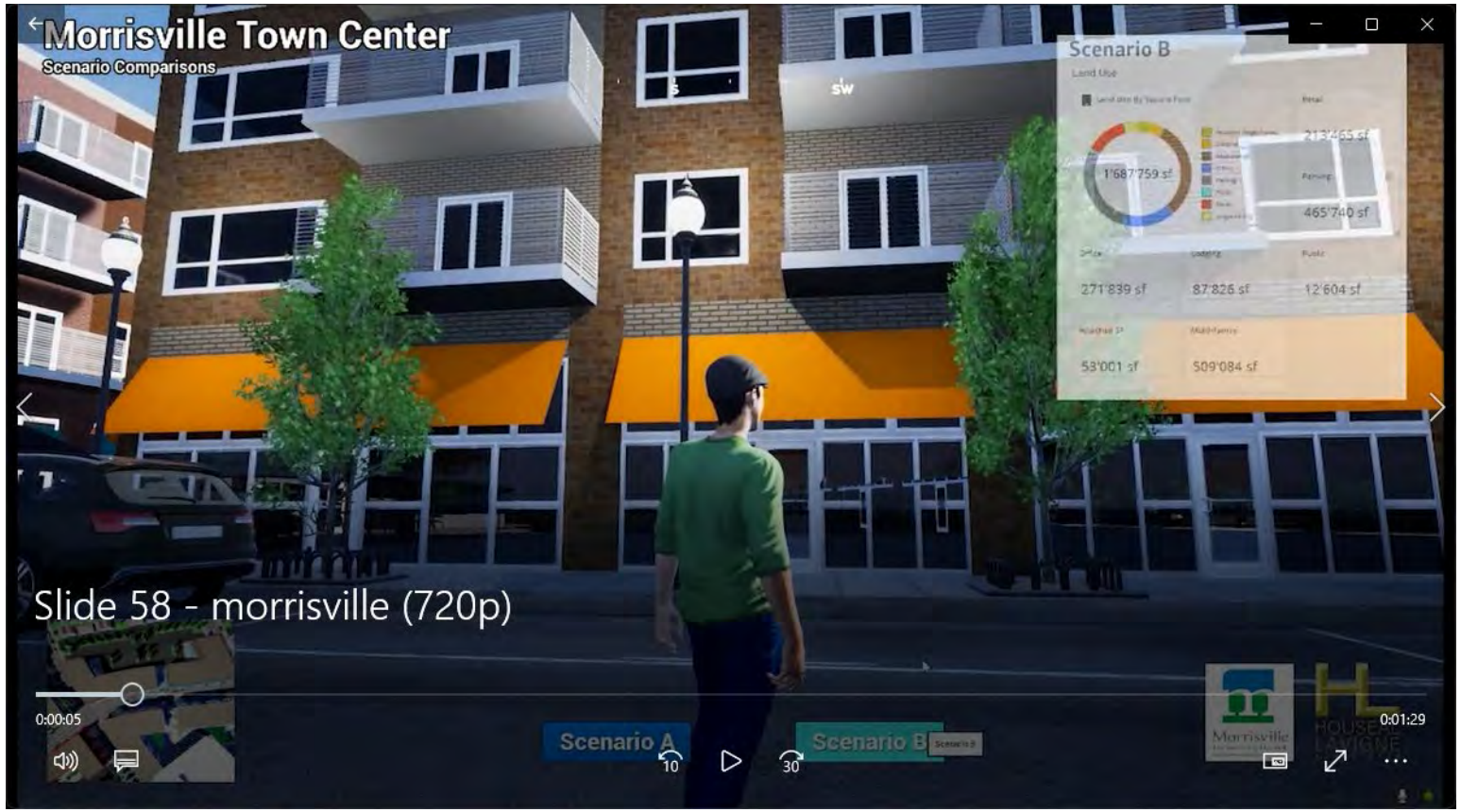

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DATA LOCATIONS
ArcGIS Online
Load 3D Buildings
ArcGIS Online
Load Streets
ArcGIS Online
Load Entourage
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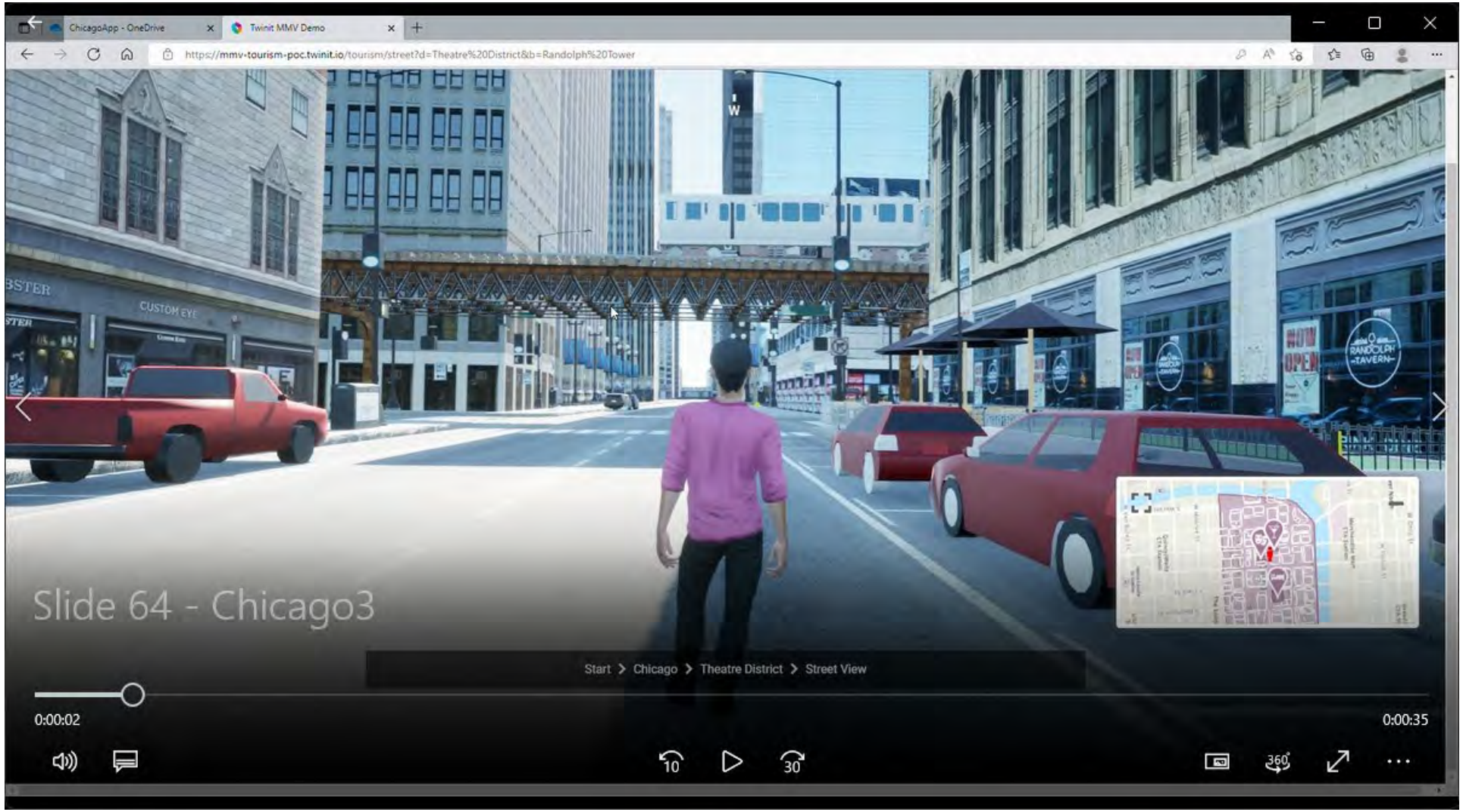

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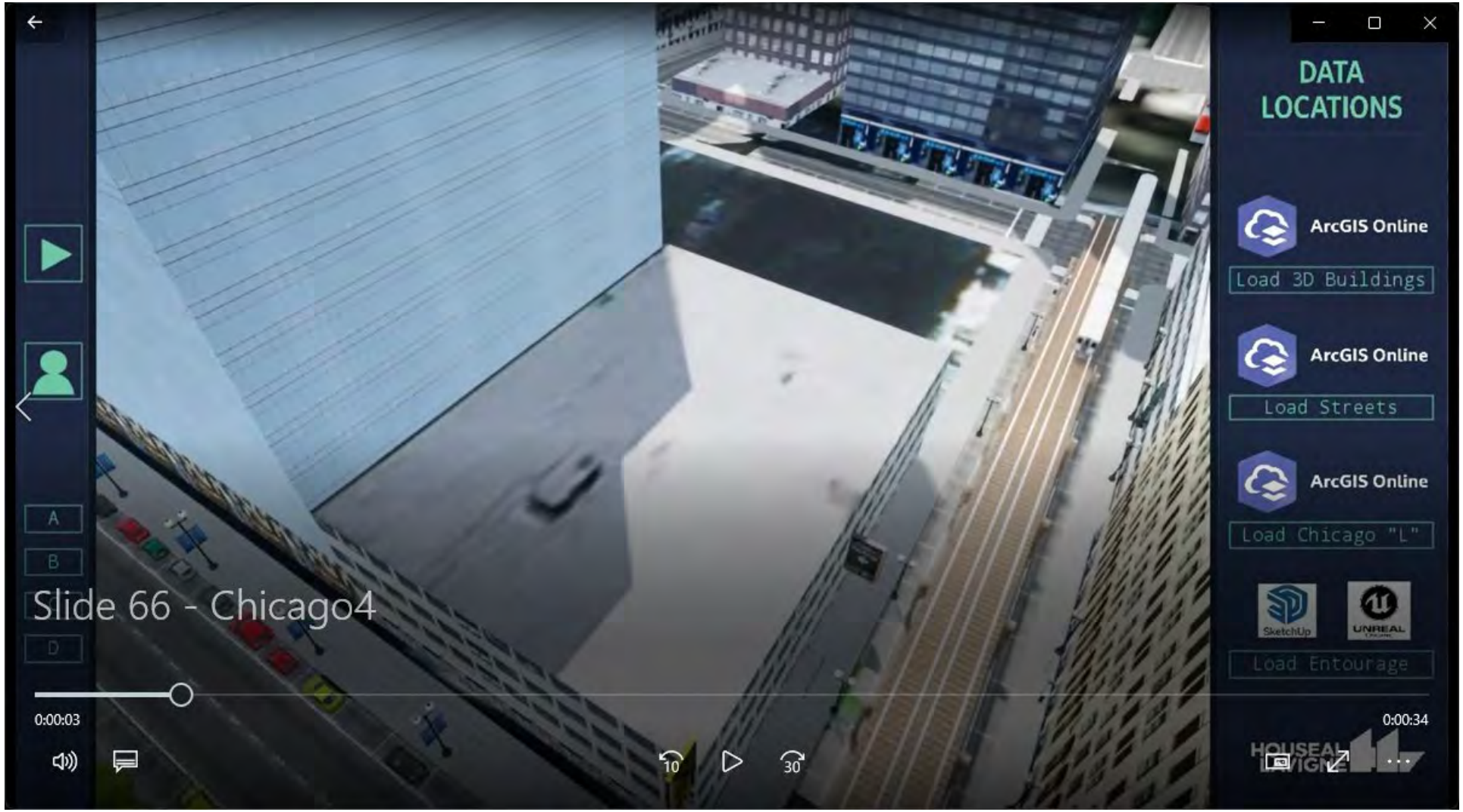

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Questions and Answers with:

Robert Kain
Principal
Houseal Lavigne

Marc Goldman
Director
AEC Industry Solutions
Esri

Todd Danielson
Editorial Director
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