



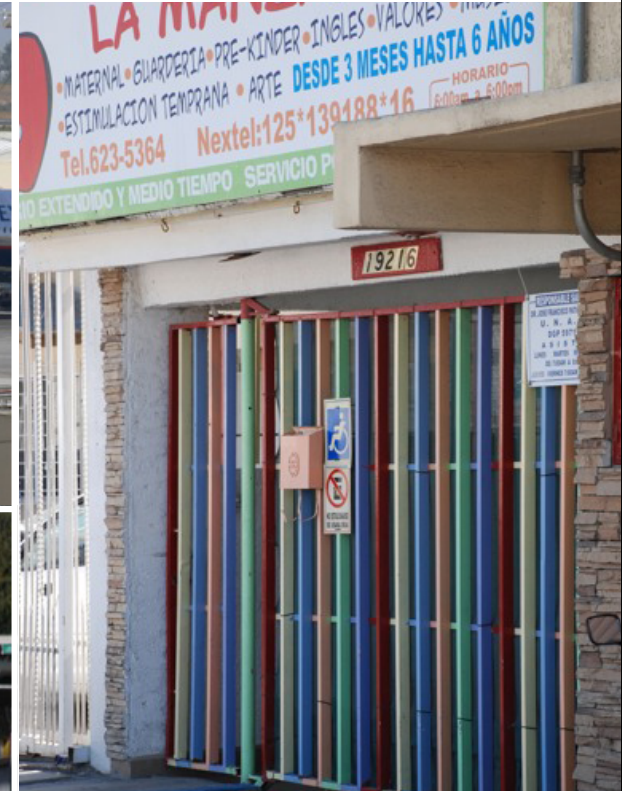
OTAY MESA MESA DE OTAY

TATE SNYDER KIMSEY

SITE CONTEXT | UNITED STATES



SITE CONTEXT | MEXICO





PROJECT FACTS

- **BUSIEST COMMERCIAL BORDER CROSSING IN CALIFORNIA**
- **PROCESSES 1.4 MILLION TRUCKS + \$31B IN GOODS**
- **MAIN COMMODITIES: ELECTRIC MACHINERY, TV EQUIPMENT, VEHICLES + PARTS, MEDICAL OR SURGICAL INSTRUMENTS, MECHANICAL APPLIANCES, AND TEXTILES**
- **4,278,694 PASSENGER VEHICLES PROCESSED**
- **37,694 PASSENGER BUSES PROCESSED**
- **10,929,192 PERSONS PROCESSED**

DATA FROM FISCAL YEAR 2009

PROJECT CHALLENGES

- **DRUG ENFORCEMENT:**
 - 831 LBS COCAINE SEIZED
 - 1,221 LBS METHAMPHETAMINE SEIZED
 - 419 LBS HEROIN SEIZED
 - 87,785 LBS MARIJUANA SEIZED
- **FUGITIVES:** 257 WANTED FUGITIVES APPREHENDED
- **CURRENCY:** \$909,025 SEIZED
- **INTELLECTUAL PROPERTY RIGHTS:** 38 SEIZURES VALUED AT \$2,679,009 MSRP

DATA FROM FISCAL YEAR 2009



- | | | | |
|----|--|----|--|
| 1. | COMMERCIAL EXPORT BUILDING | 4. | NON-COMM. INBOUND PRIMARY INSPECTION BOOTHS/CANOPIES |
| 2. | COMMERCIAL HAZMAT INSPECTION DOCKS | 5. | MAIN BUILDING |
| 3. | NON-COMM. INBOUND SECONDARY INSPECTION SPACES/CANOPIES | 6. | COMMERCIAL IMPORT INSPECTION BUILDING + INSPECTION DOCKS |

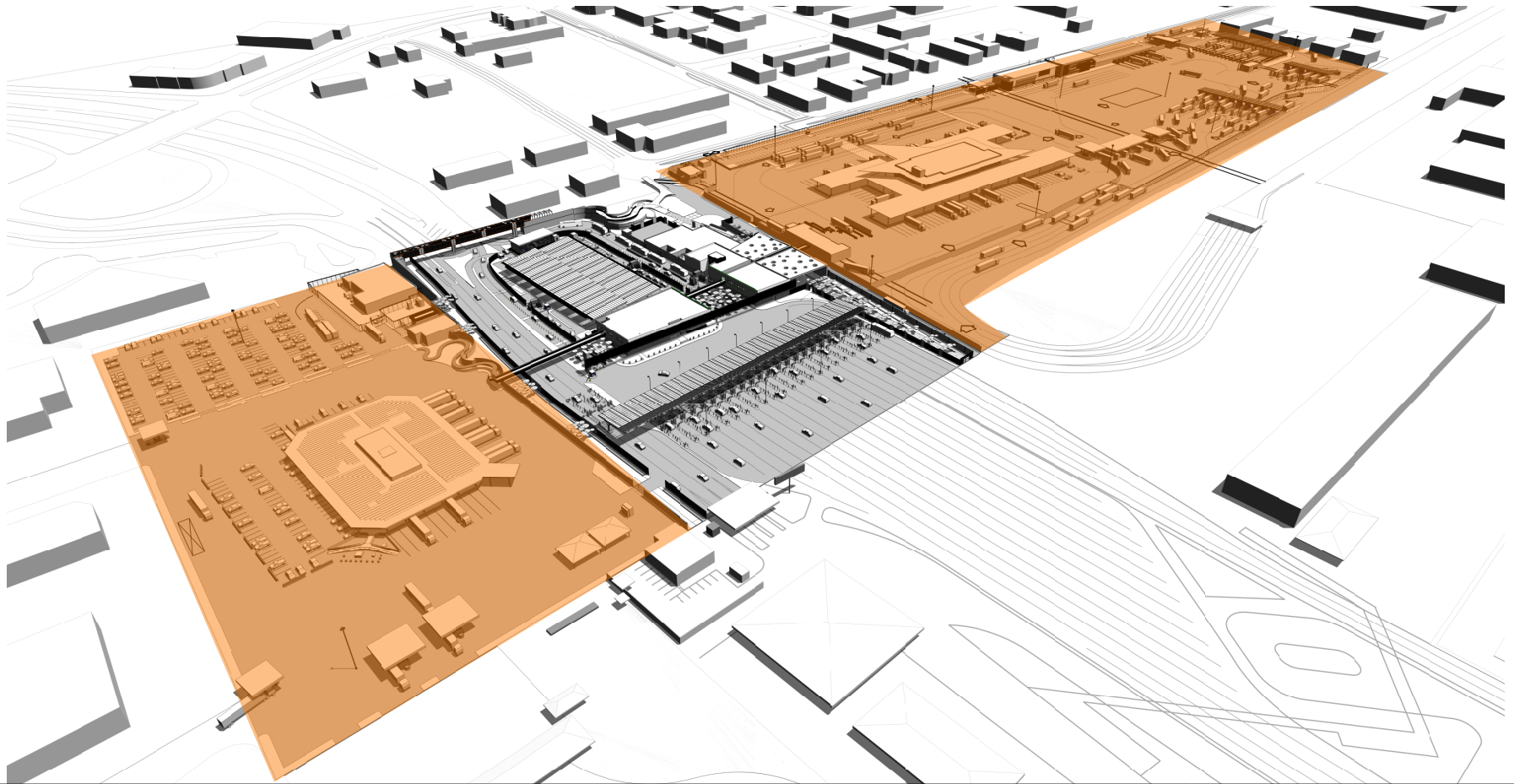
SITE CONCEPTS

SITUE CONCEPTOS

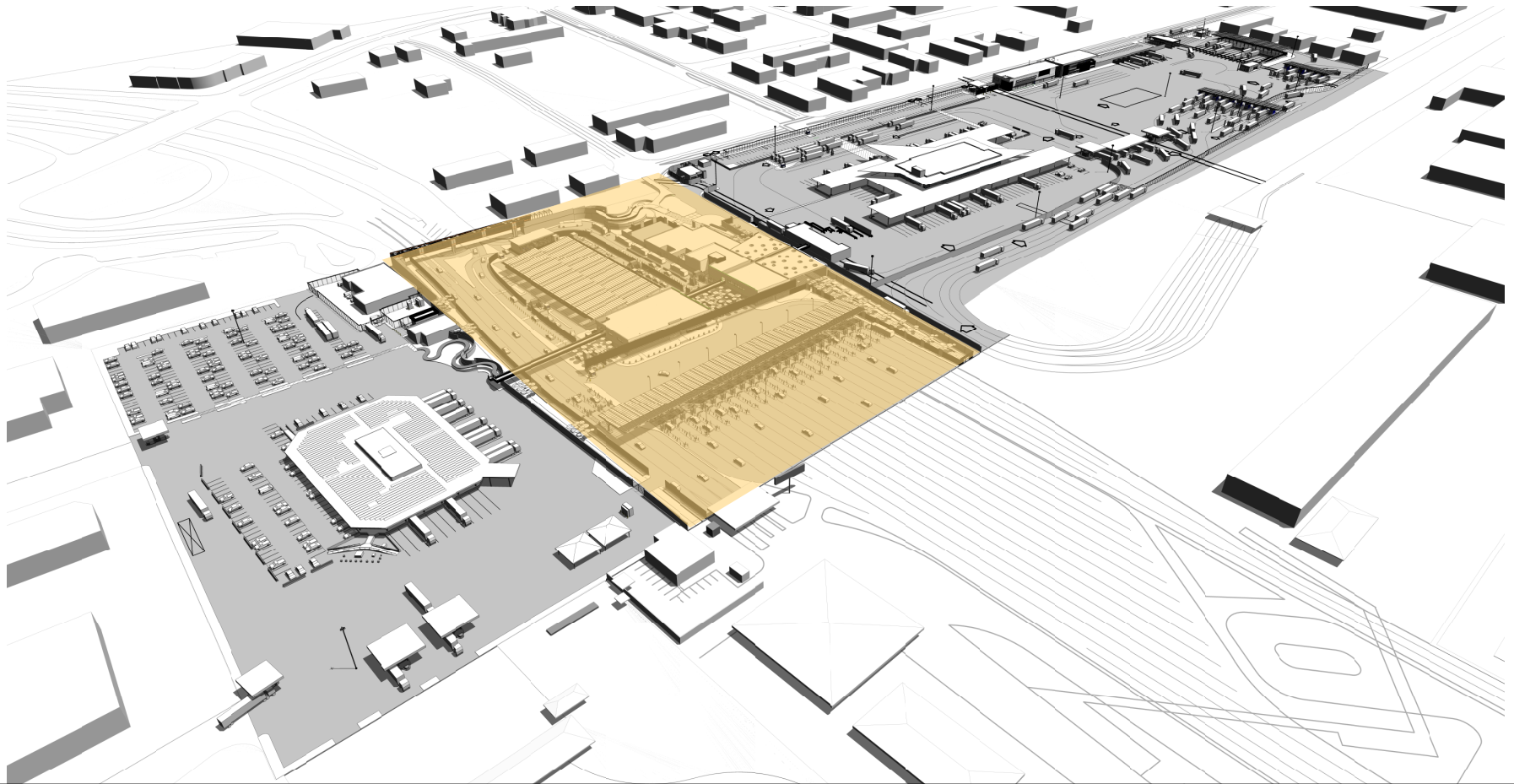
MODES OF TRAFFIC



COMMERCIAL ZONE



PUBLIC ZONE





PEDESTRIAN

PEATON







PRE-PRIMARY LANDSCAPE SECTION



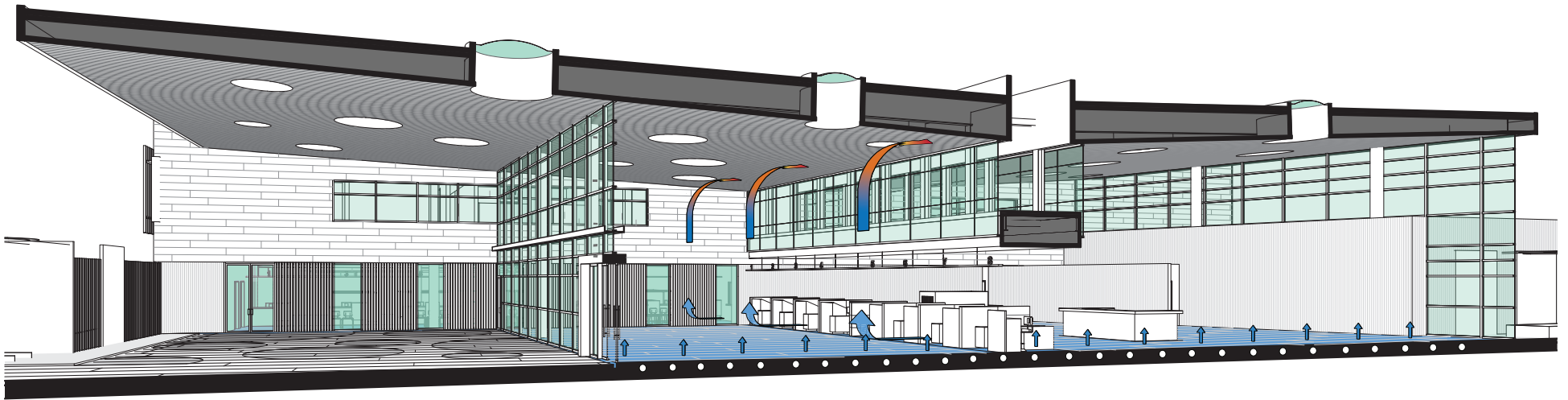




MAIN BUILDING SECTION



MECHANICAL SYSTEMS



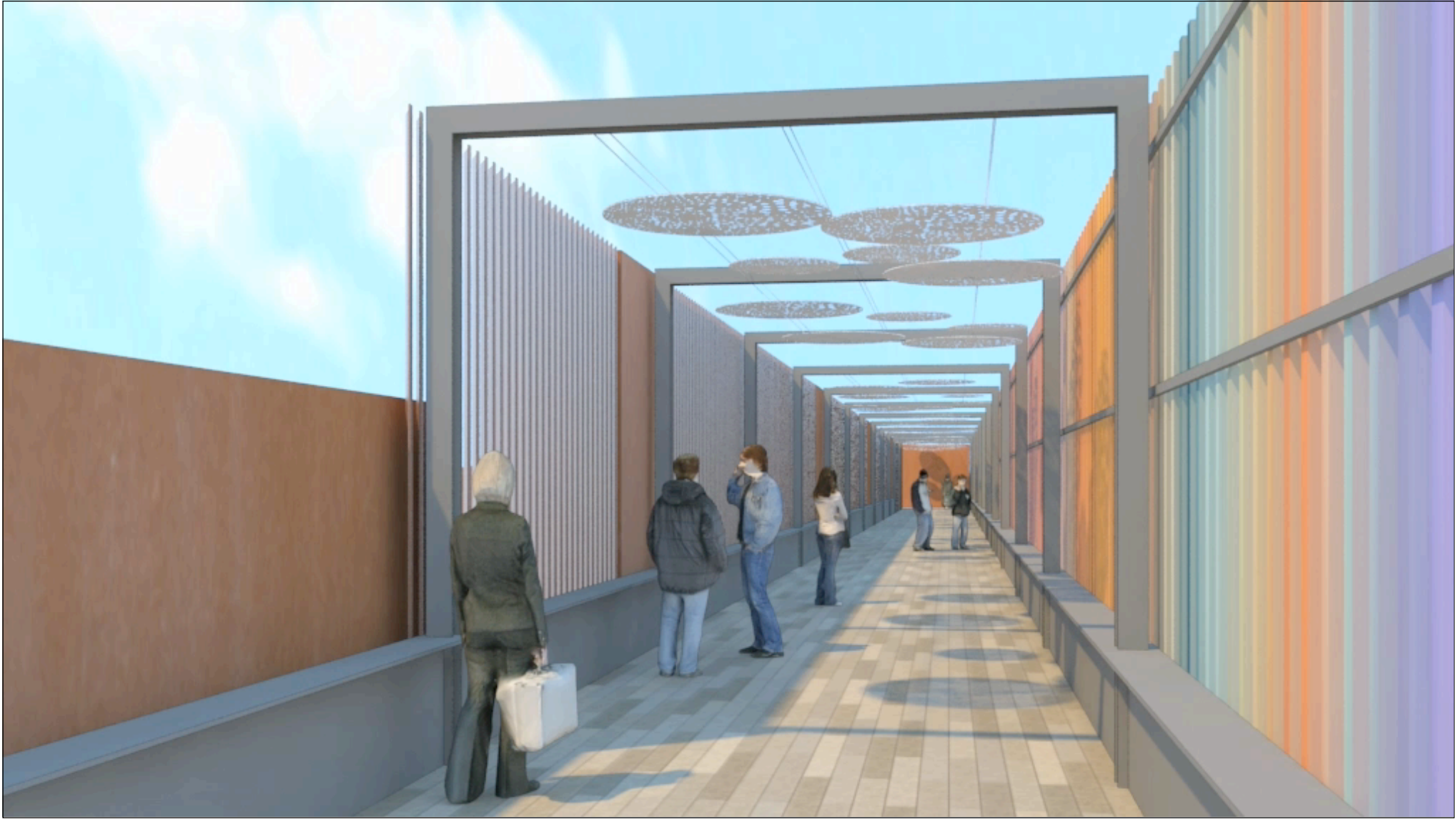


POST-PRIMARY LANDSCAPE PLAN









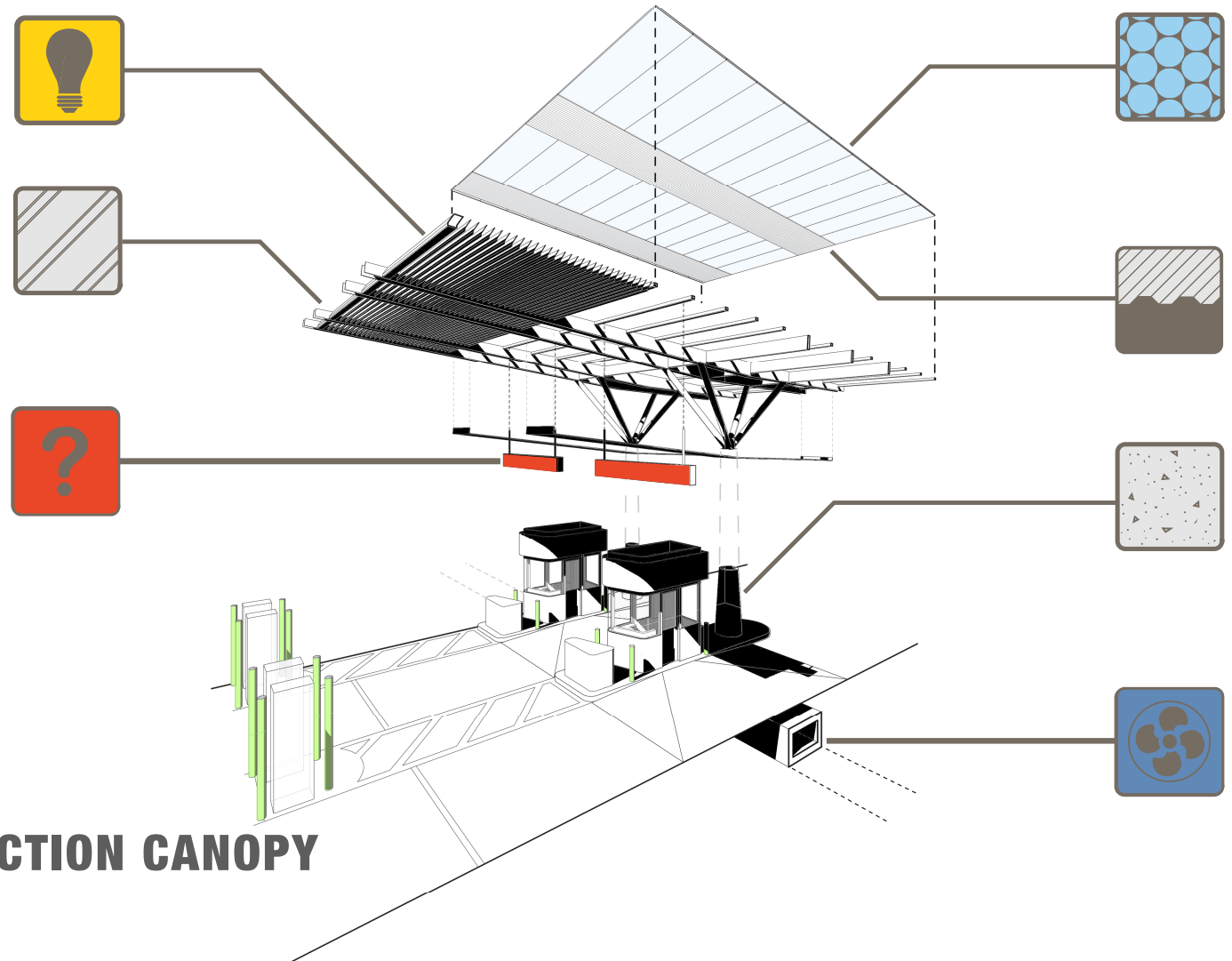
NON-COMMERCIAL POV

NO COMMERCIAL



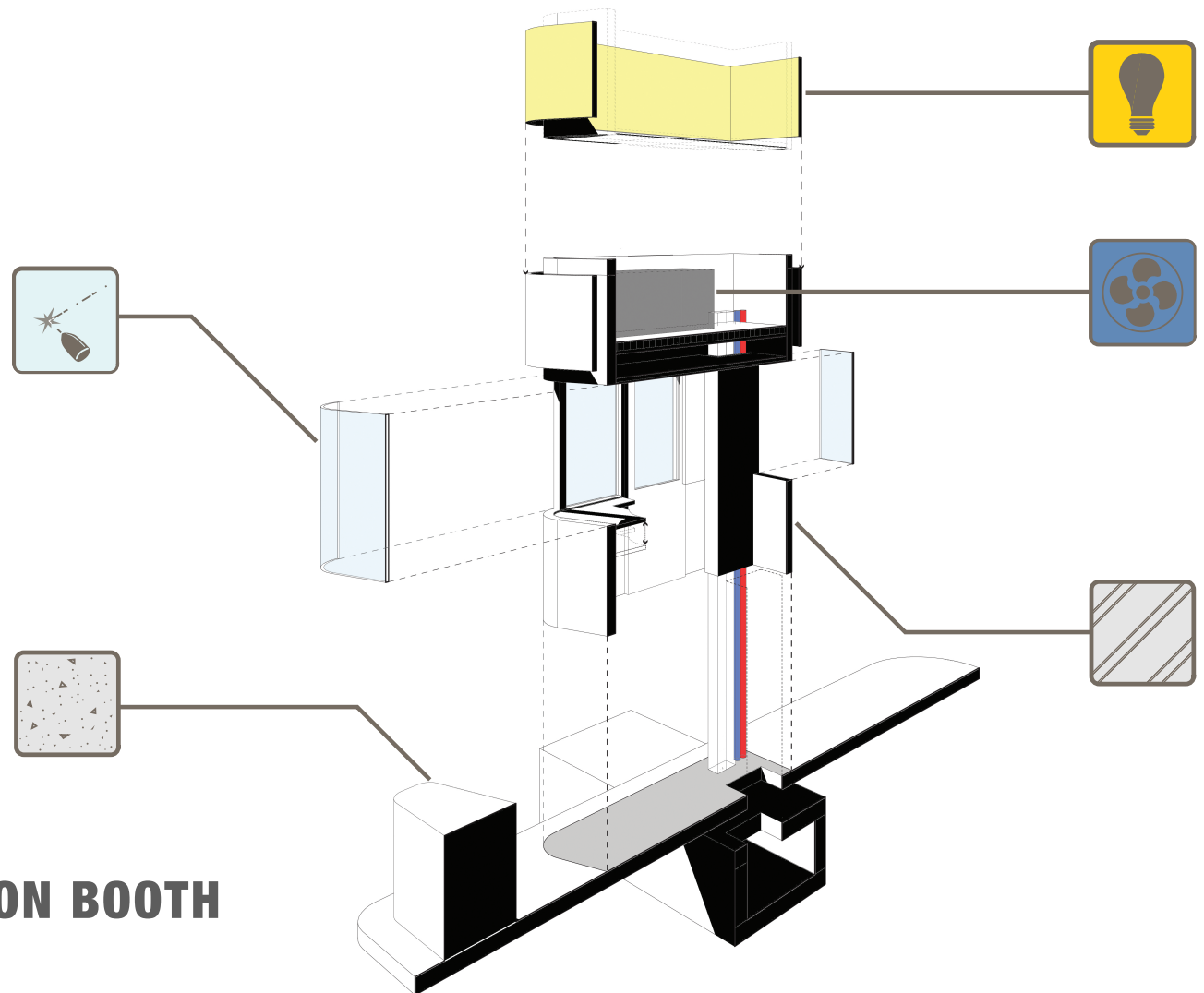




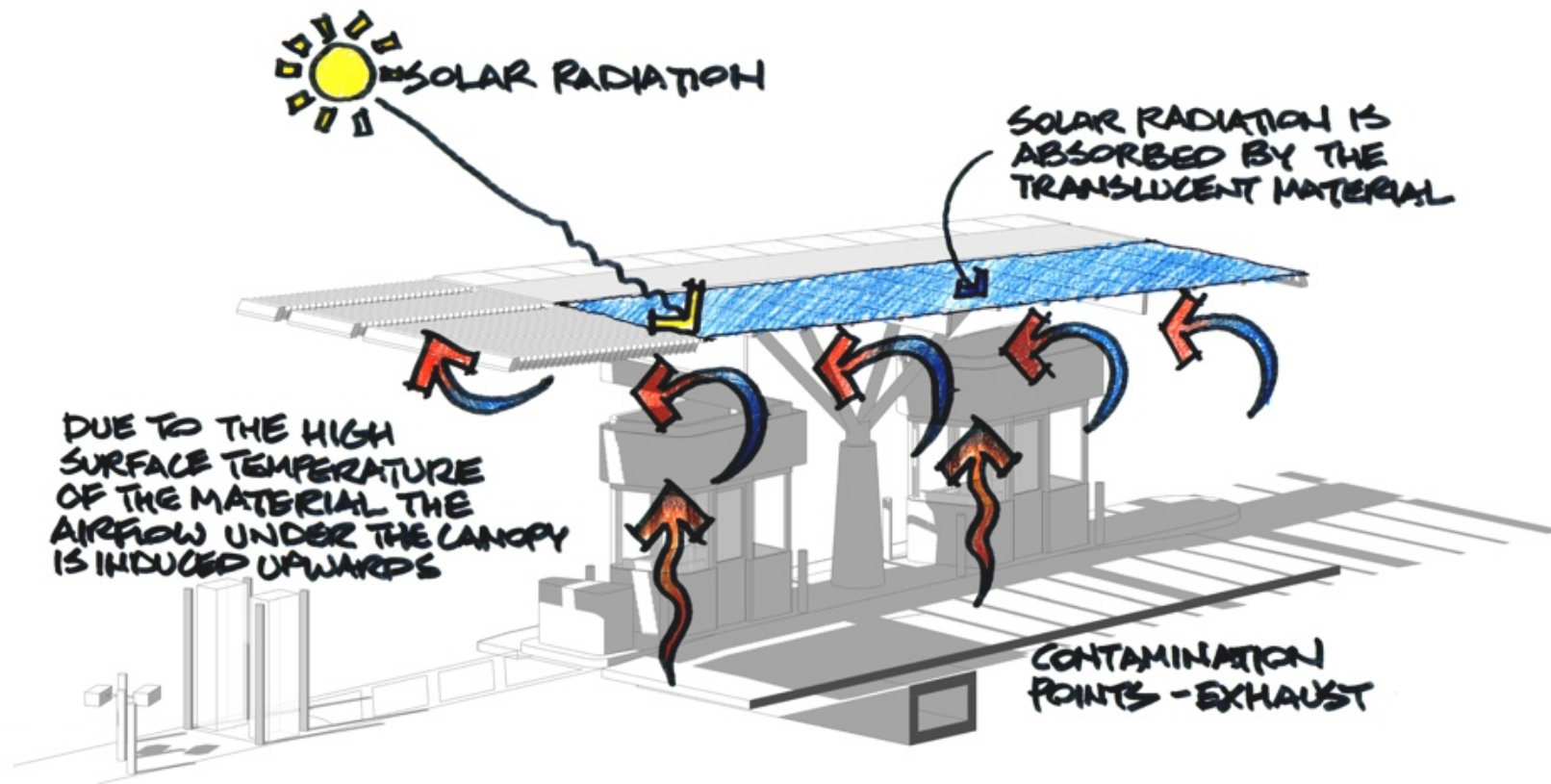


PRIMARY INSPECTION CANOPY

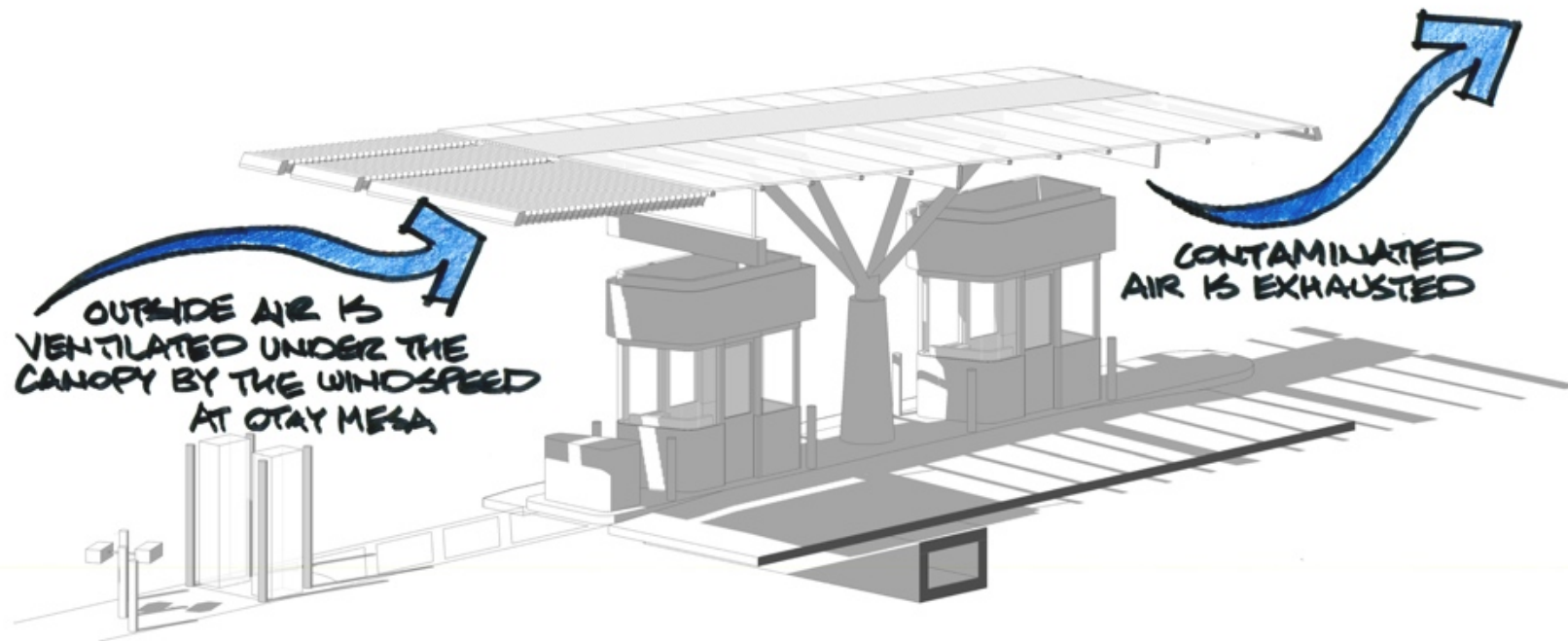
PRIMARY INSPECTION BOOTH



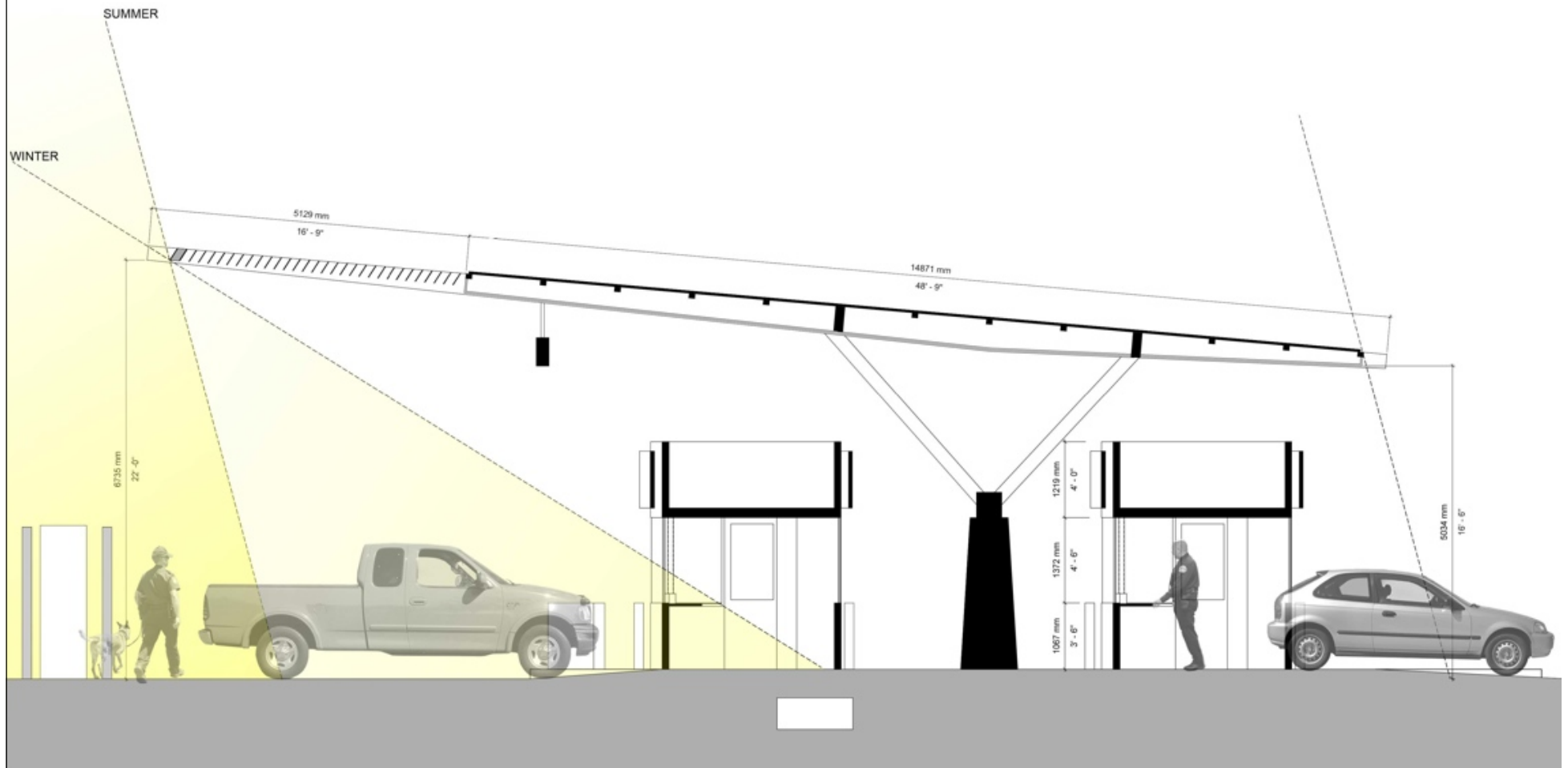
STRATIFIED INDUCTION



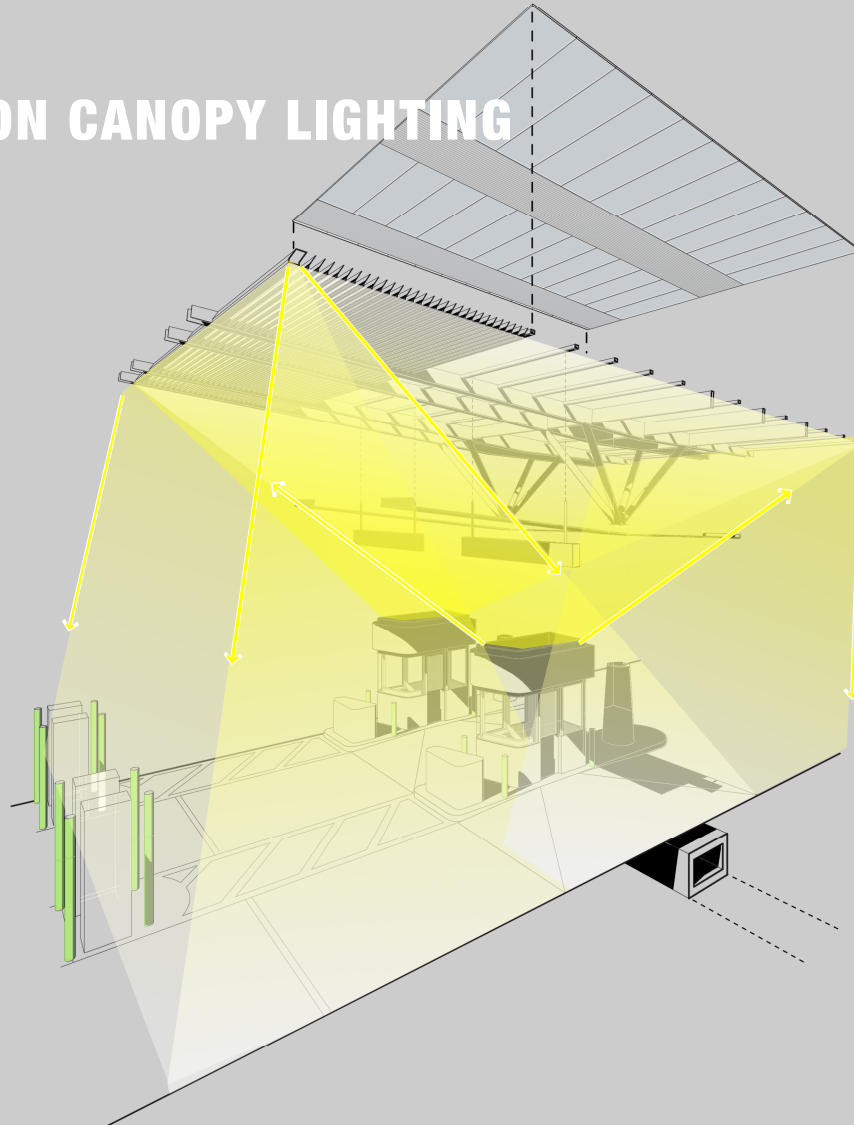
WIND PRESSURE



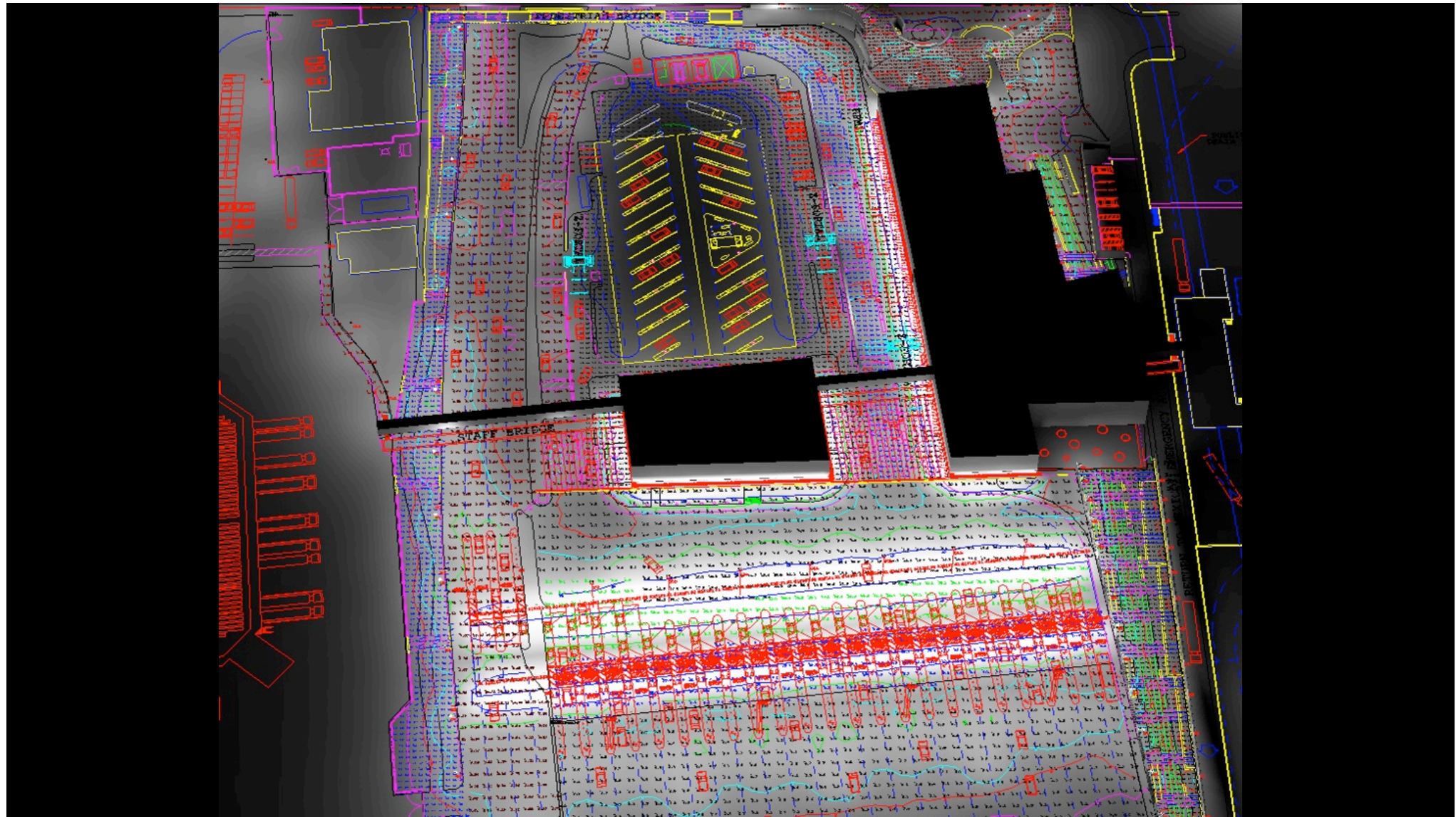
CANOPY DAYLIGHTING



PRIMARY INSPECTION CANOPY LIGHTING



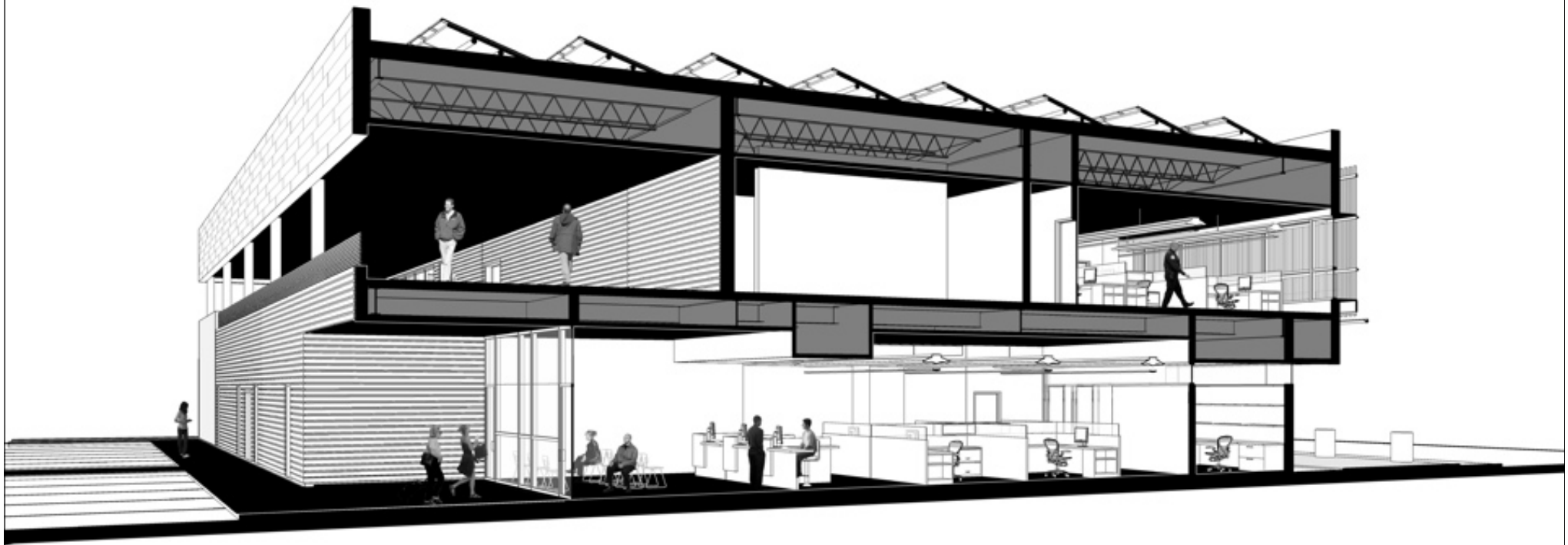




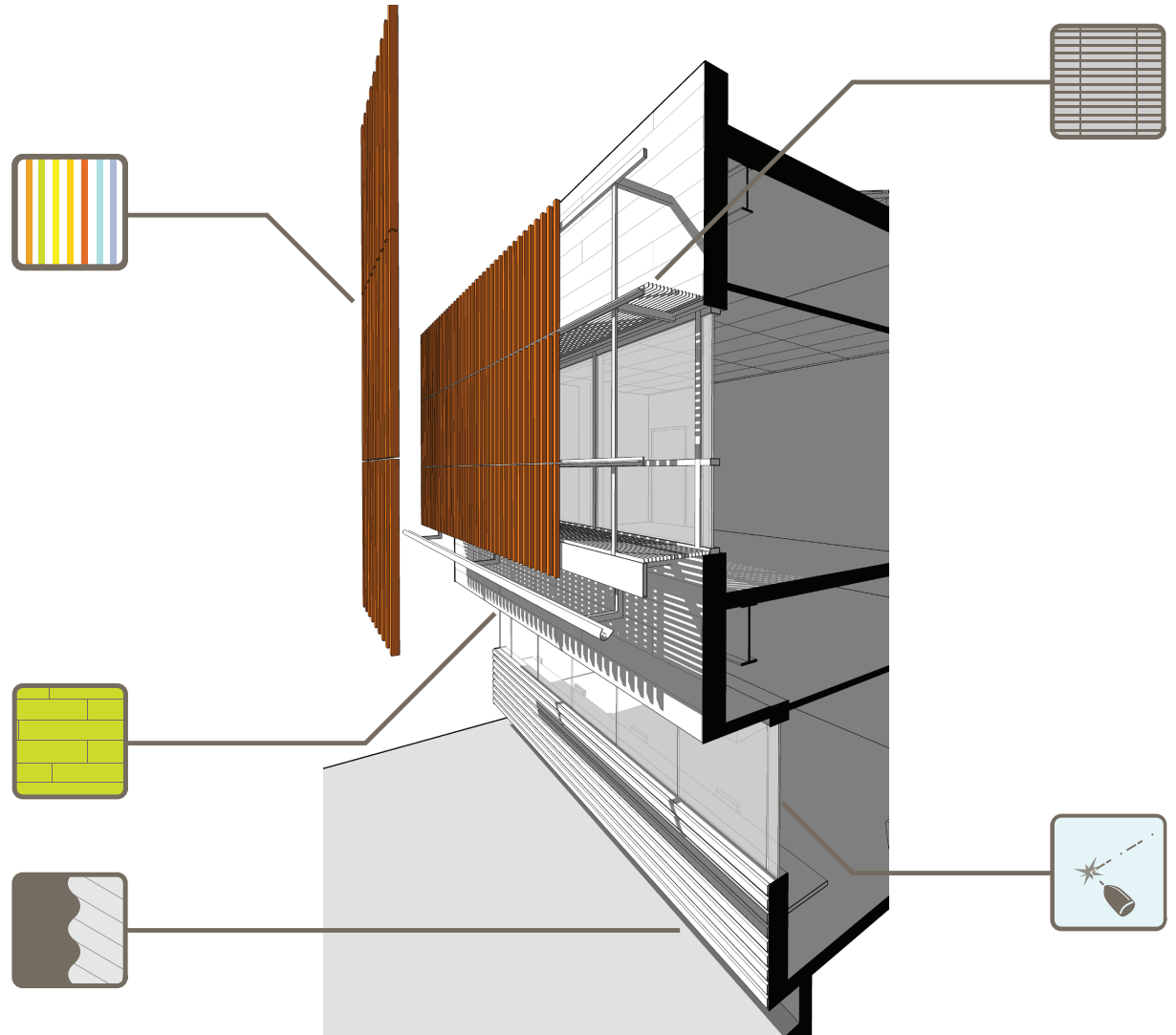




HEADHOUSE SECTION



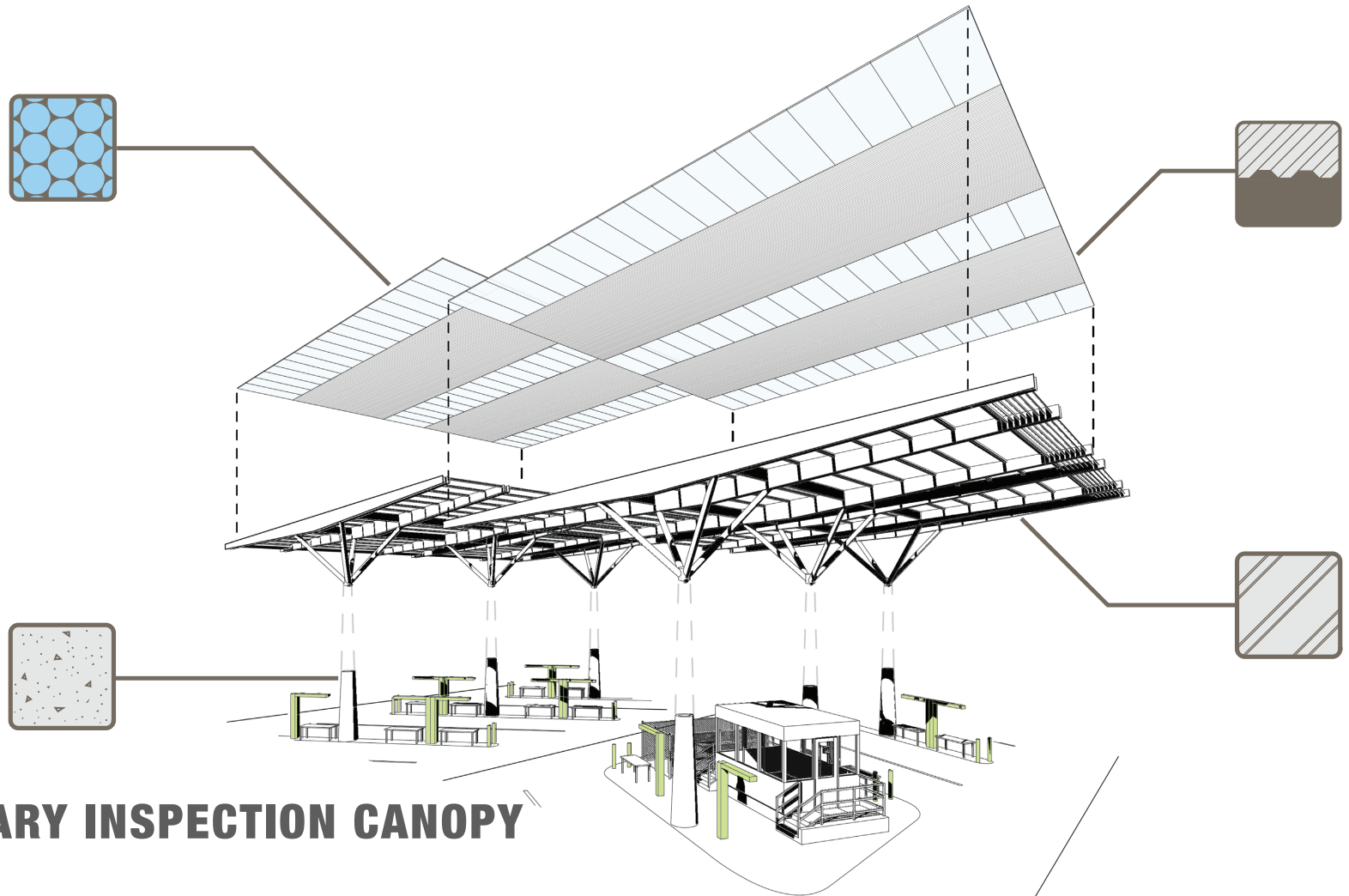
SCREEN WALL DETAIL





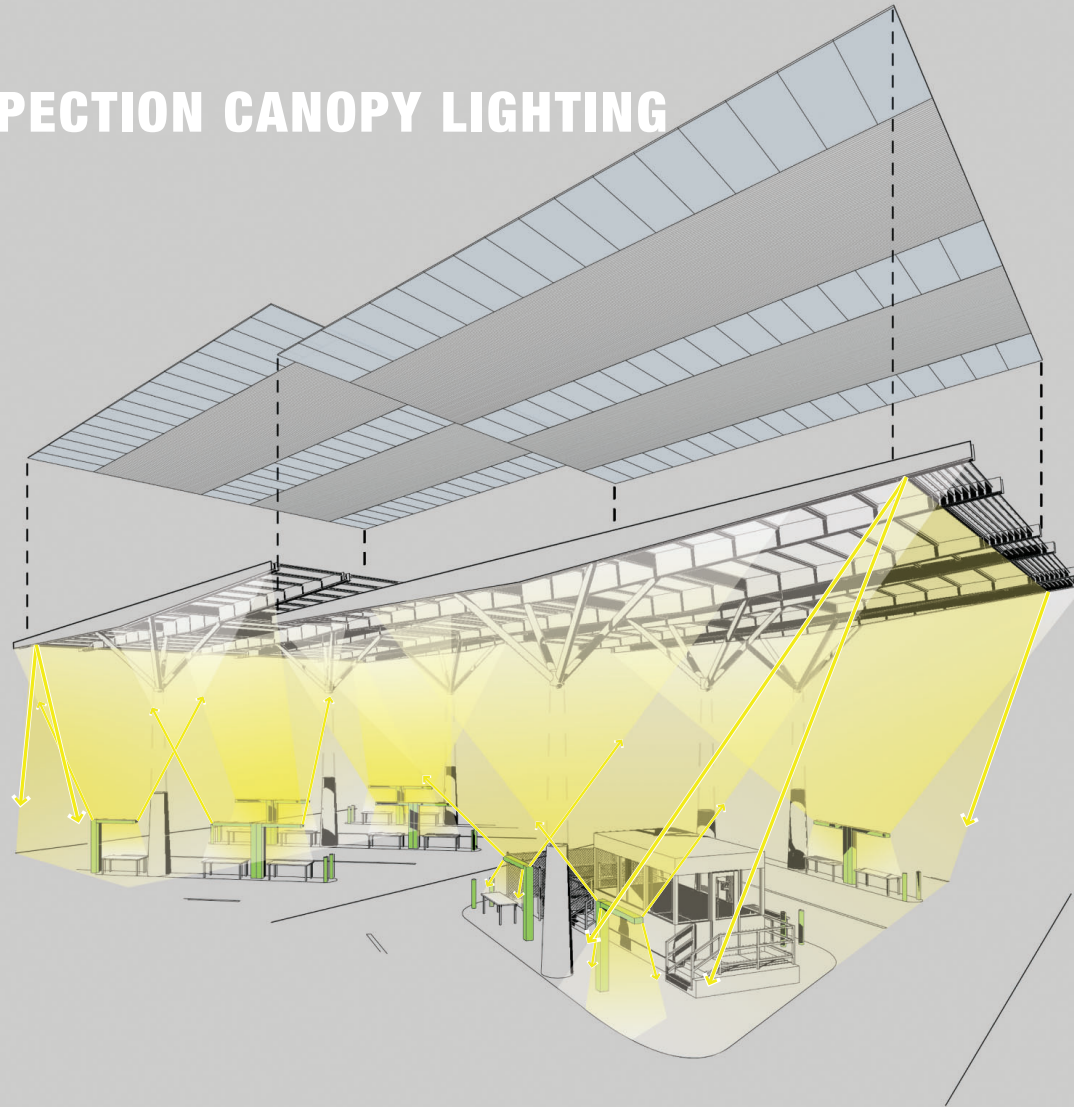
NORTH VIEW





SECONDARY INSPECTION CANOPY

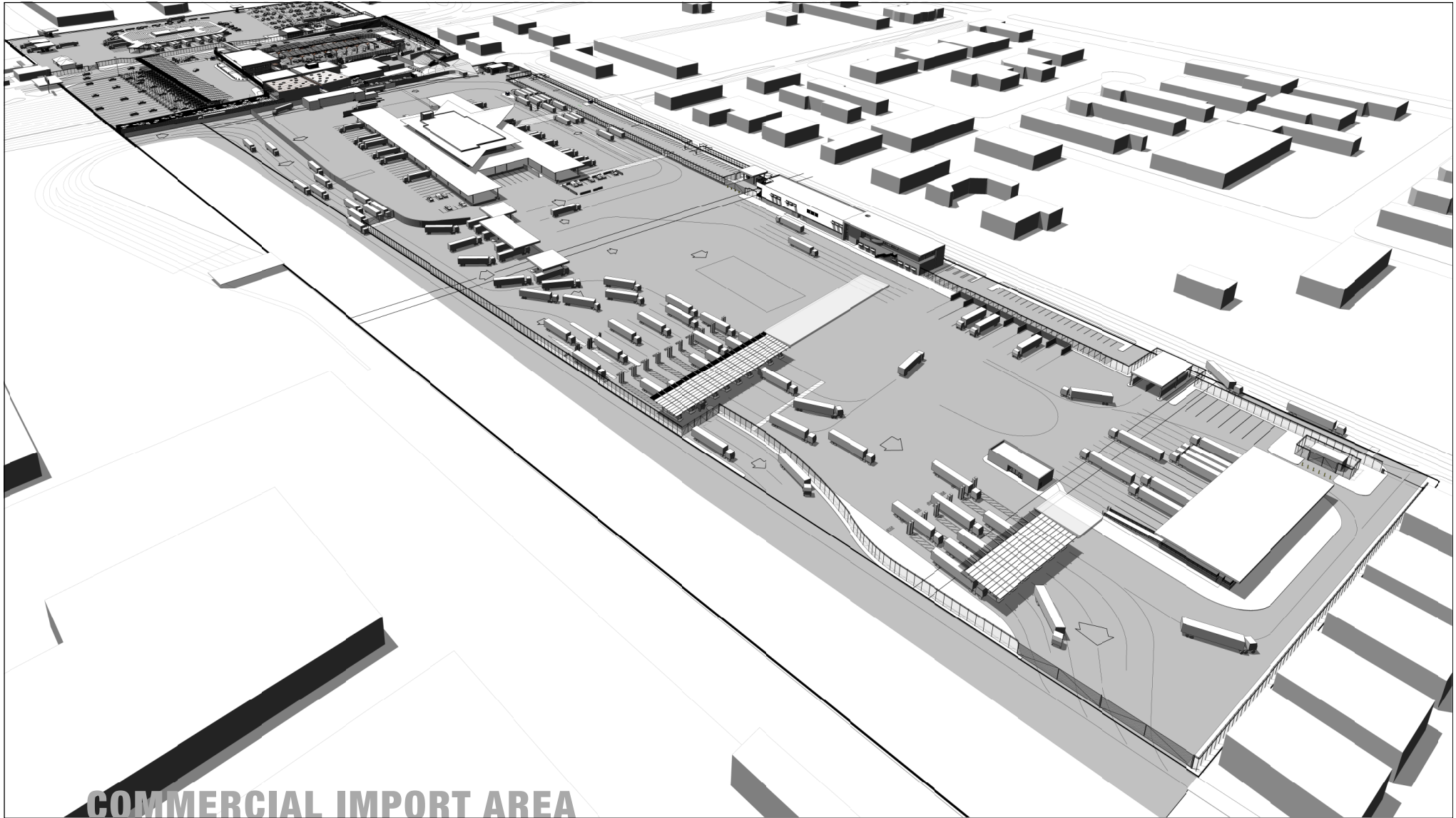
SECONDARY INSPECTION CANOPY LIGHTING



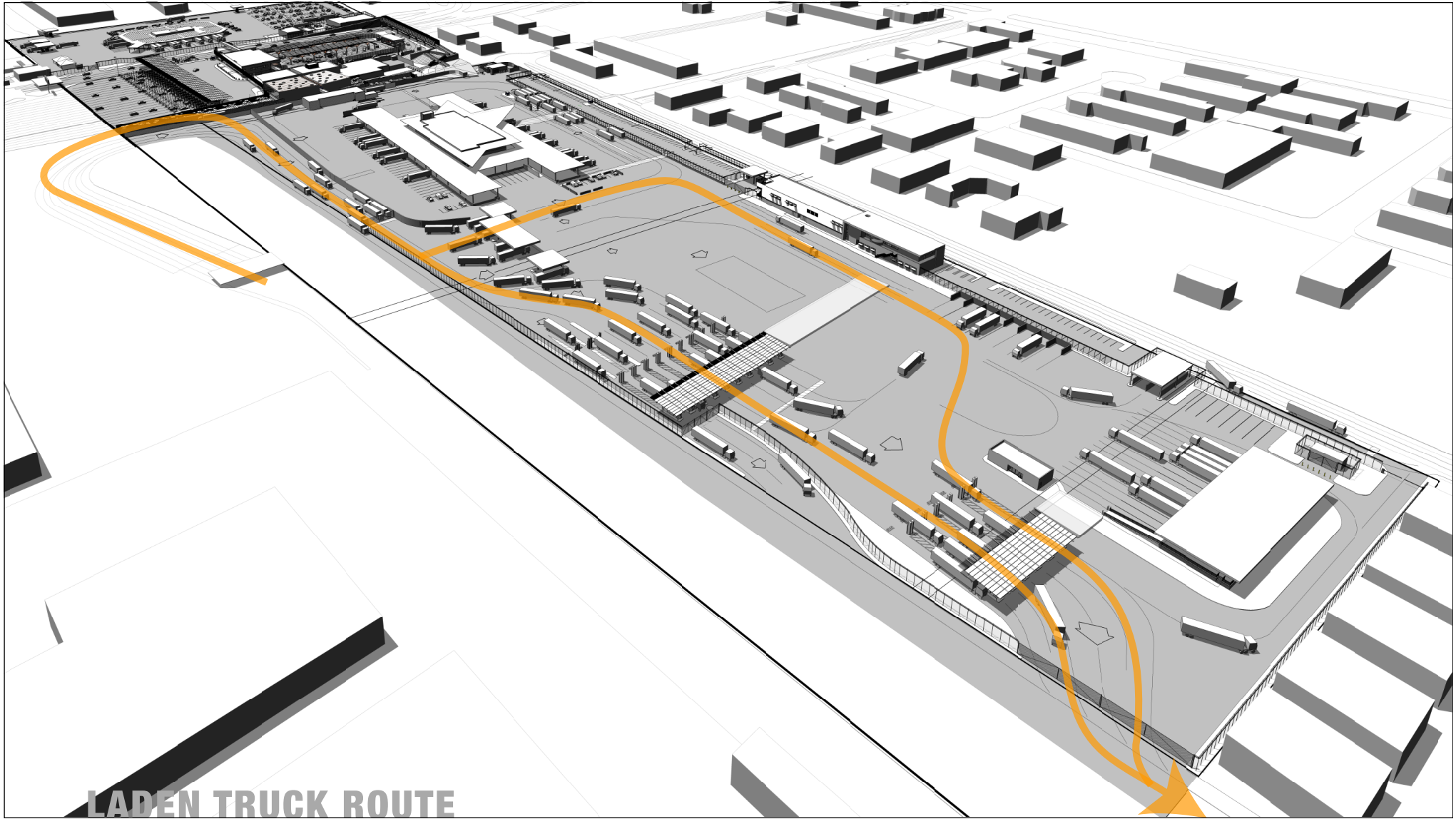


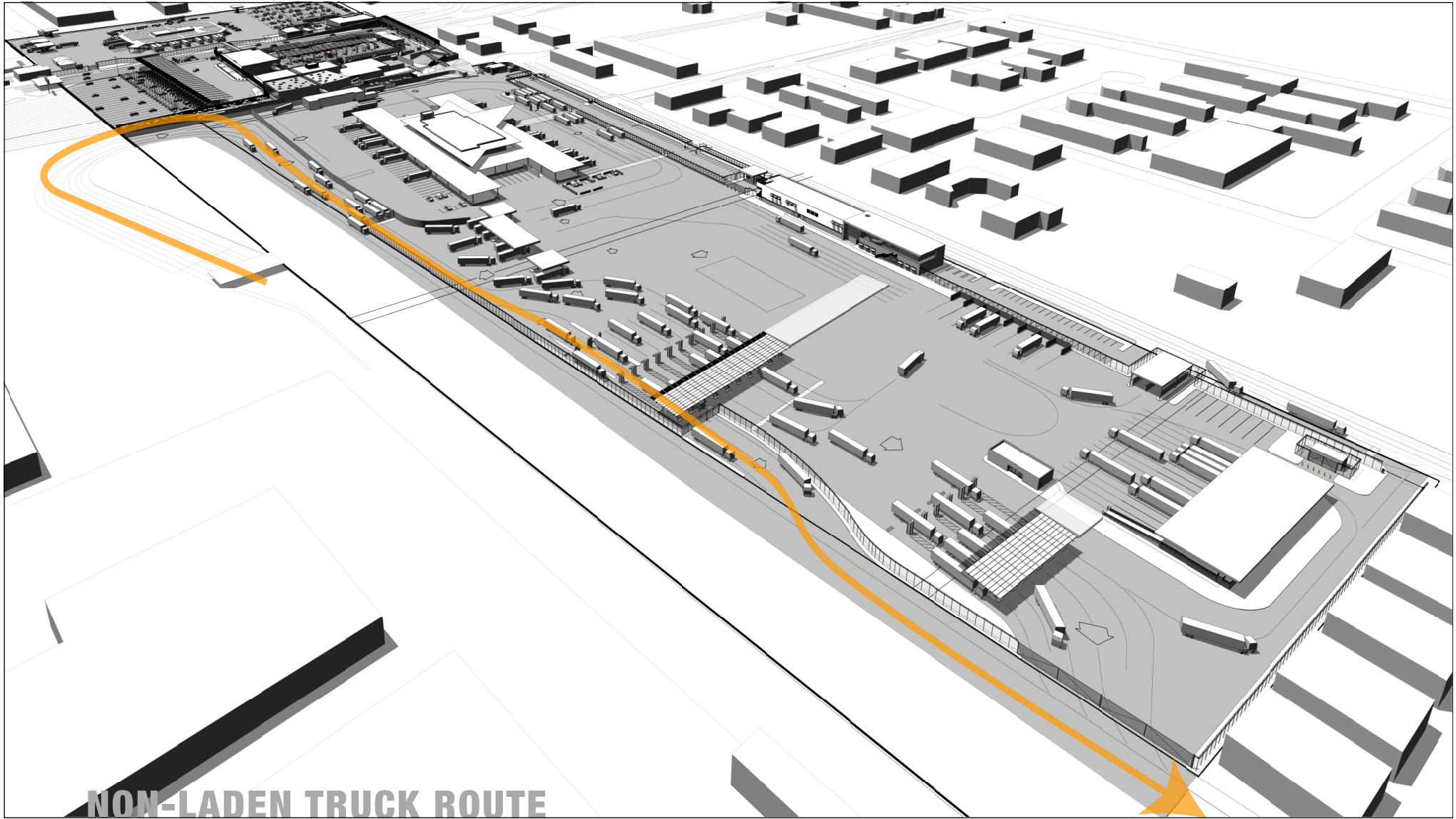
COMMERCIAL IMPORT

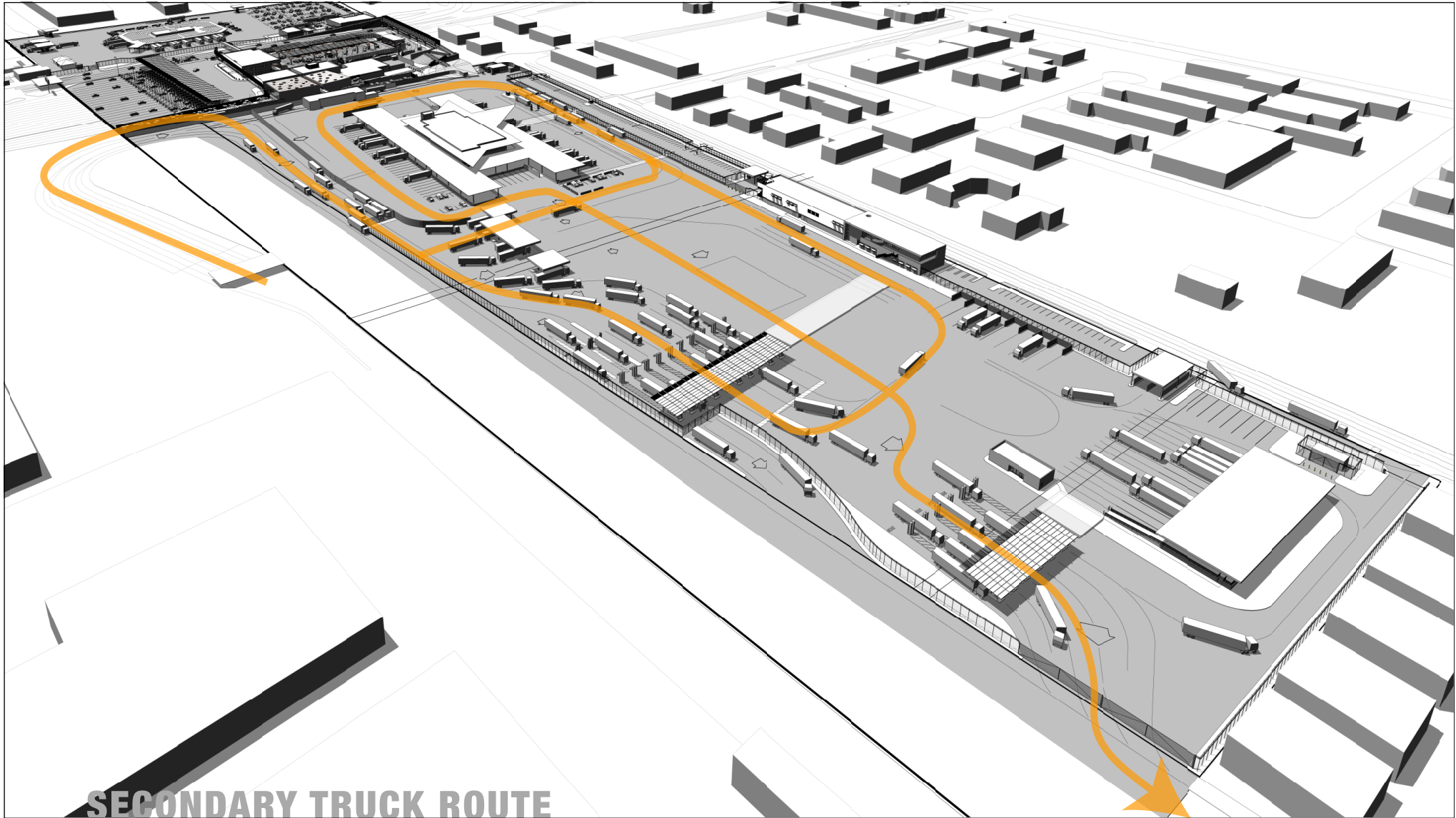
COMMERCIAL IMPORT



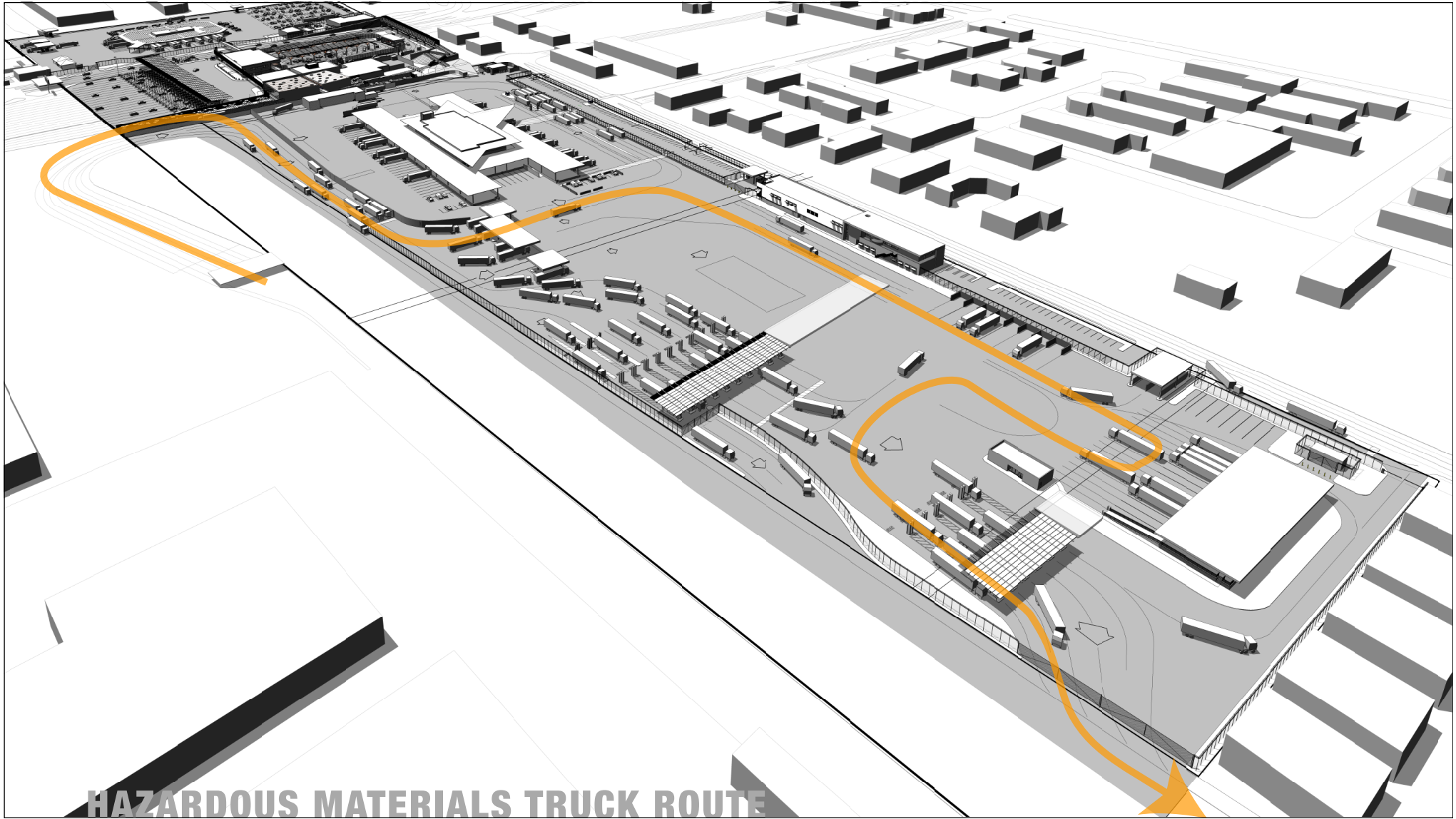
COMMERCIAL IMPORT AREA

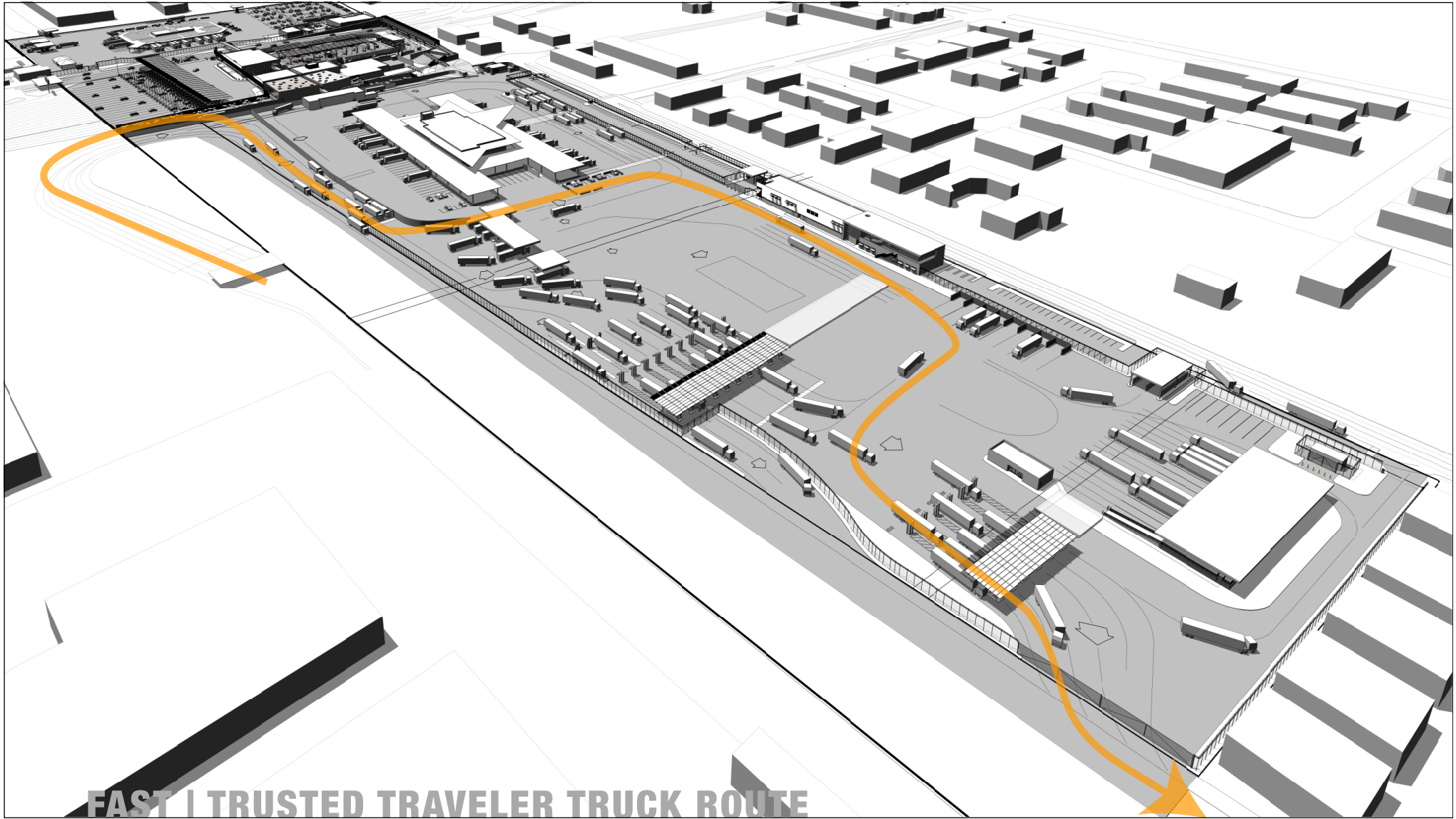


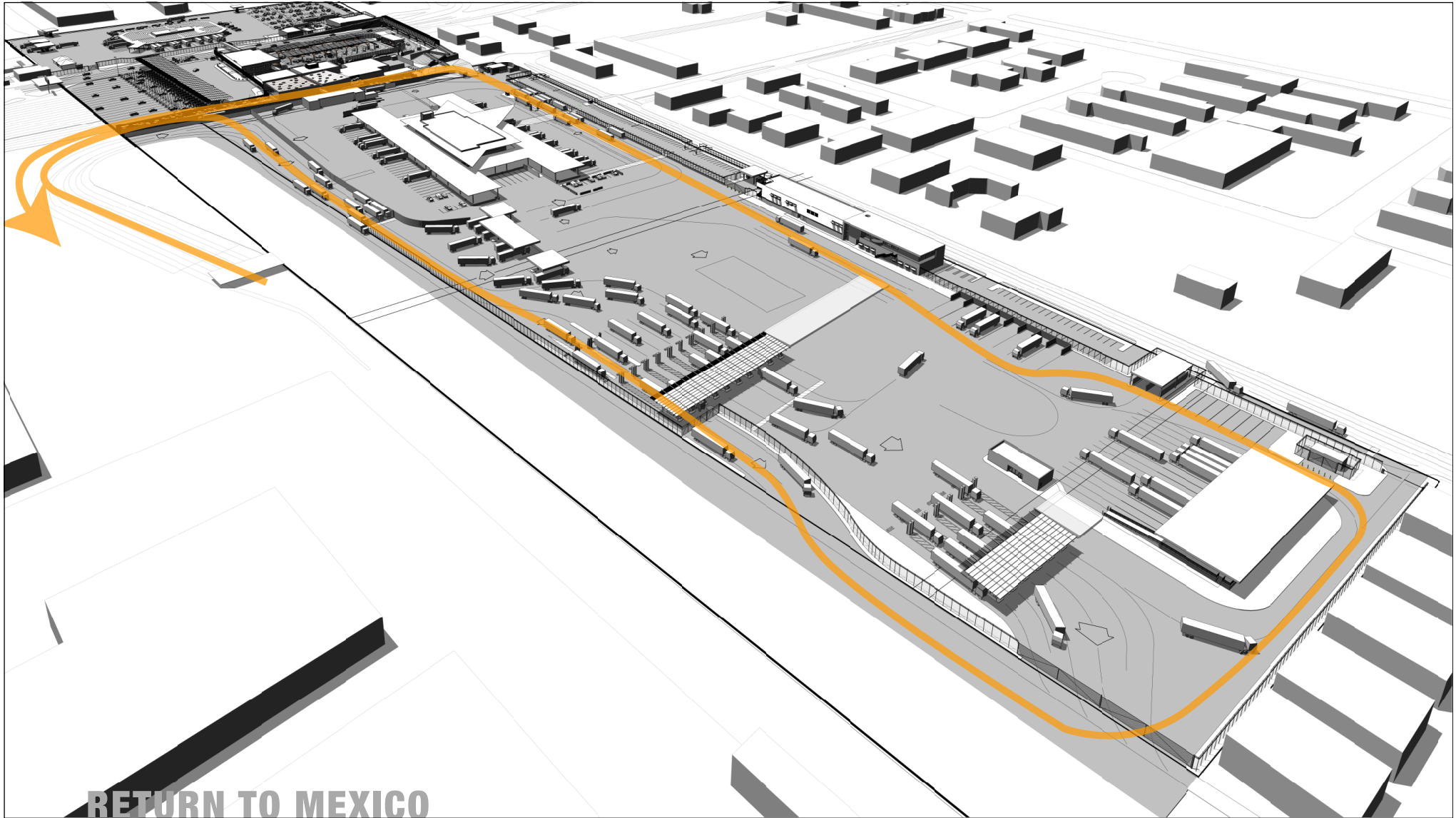




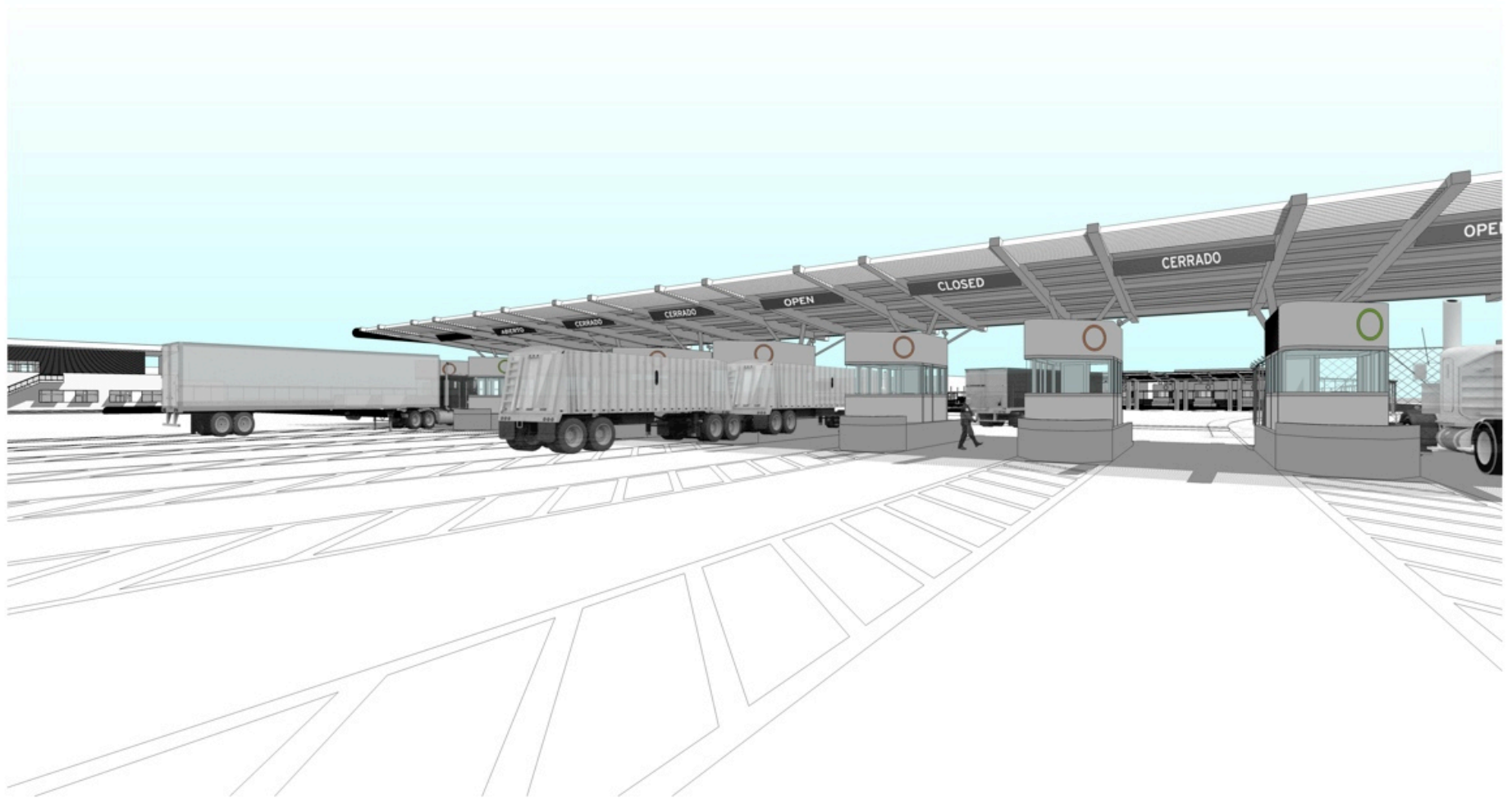
SECONDARY TRUCK ROUTE







RETURN TO MEXICO



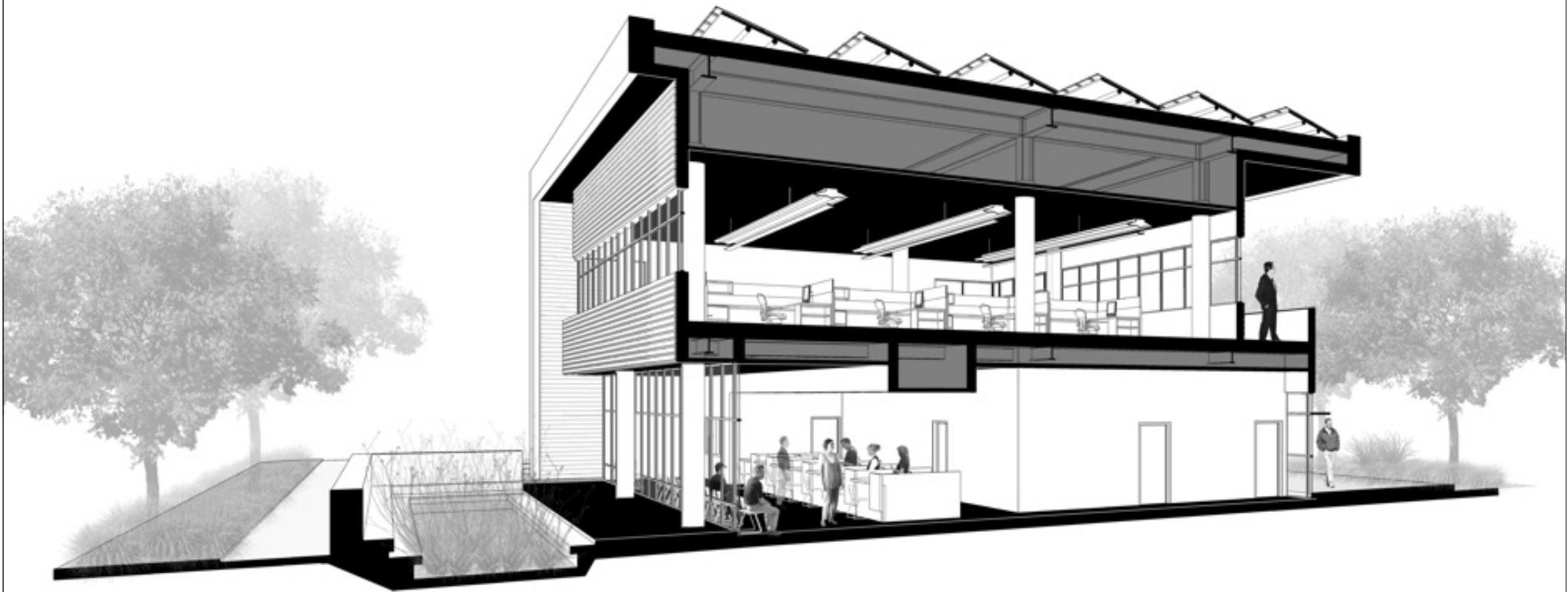
COMMERCIAL INSPECTION







COMMERCIAL ANNEX BUILDING SECTION



SUSTAINABLE DESIGN

DISENO SOSTENIBLE

SUSTAINABILITY CONCEPT

OCCUPANT COMFORT

WASTE TO RESOURCE

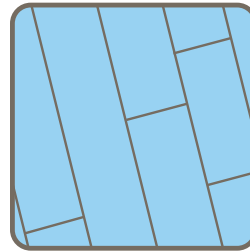
NET ZERO



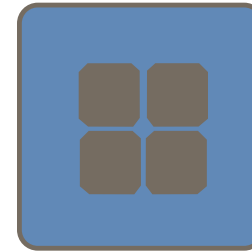
VEGETATION



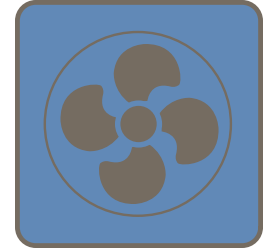
DETENTION



LIGHT PAVING



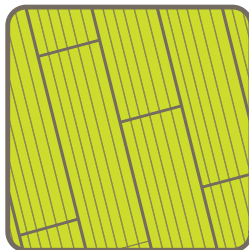
PHOTOVOLTAICS



MECHANICAL
EQUIPMENT



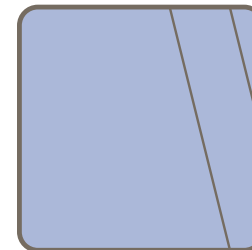
BIOSWALES



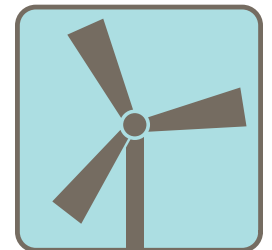
PAVERS



DRAGON POWER



COOL ROOF



WIND POWER

SITE COMFORT ISSUES



HEAT ISLAND EFFECT

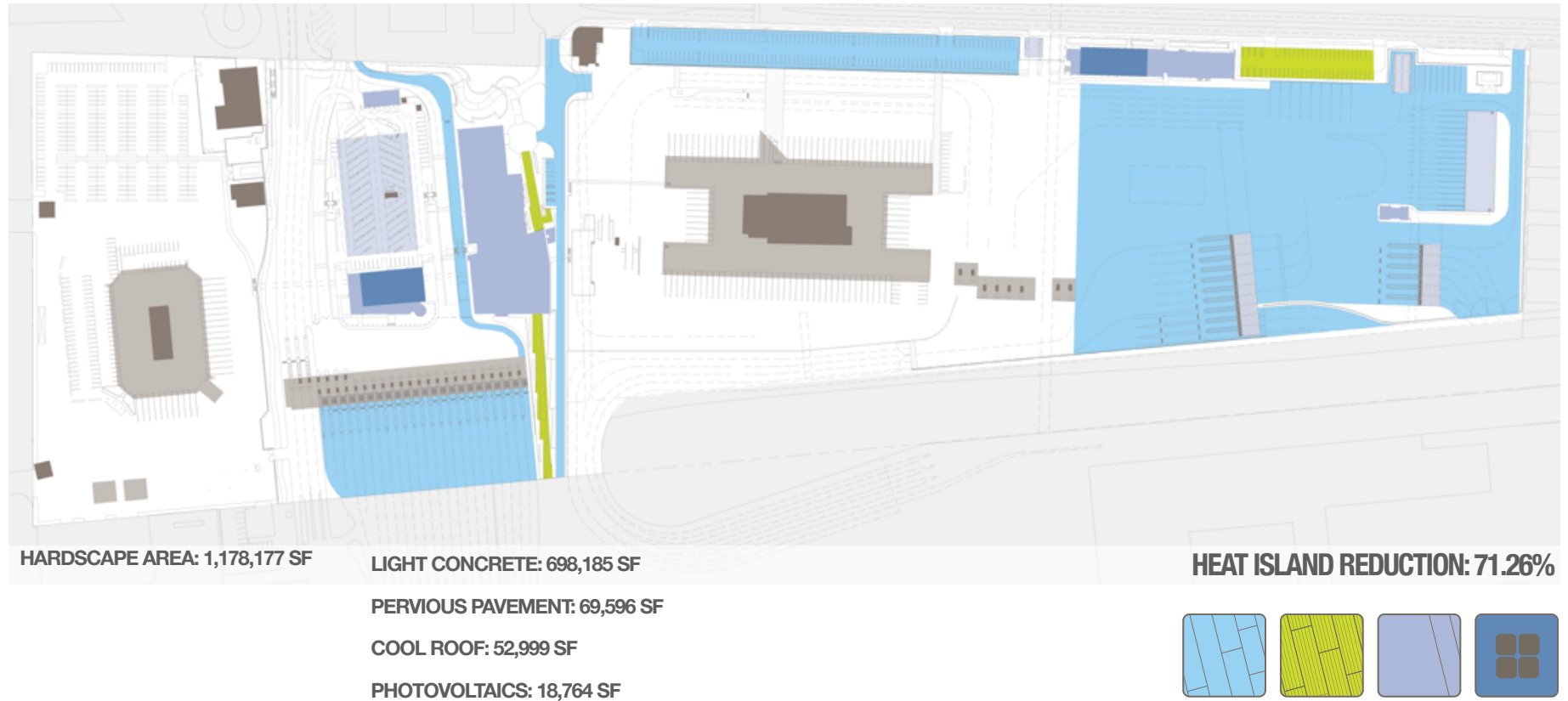


POOR AIR QUALITY

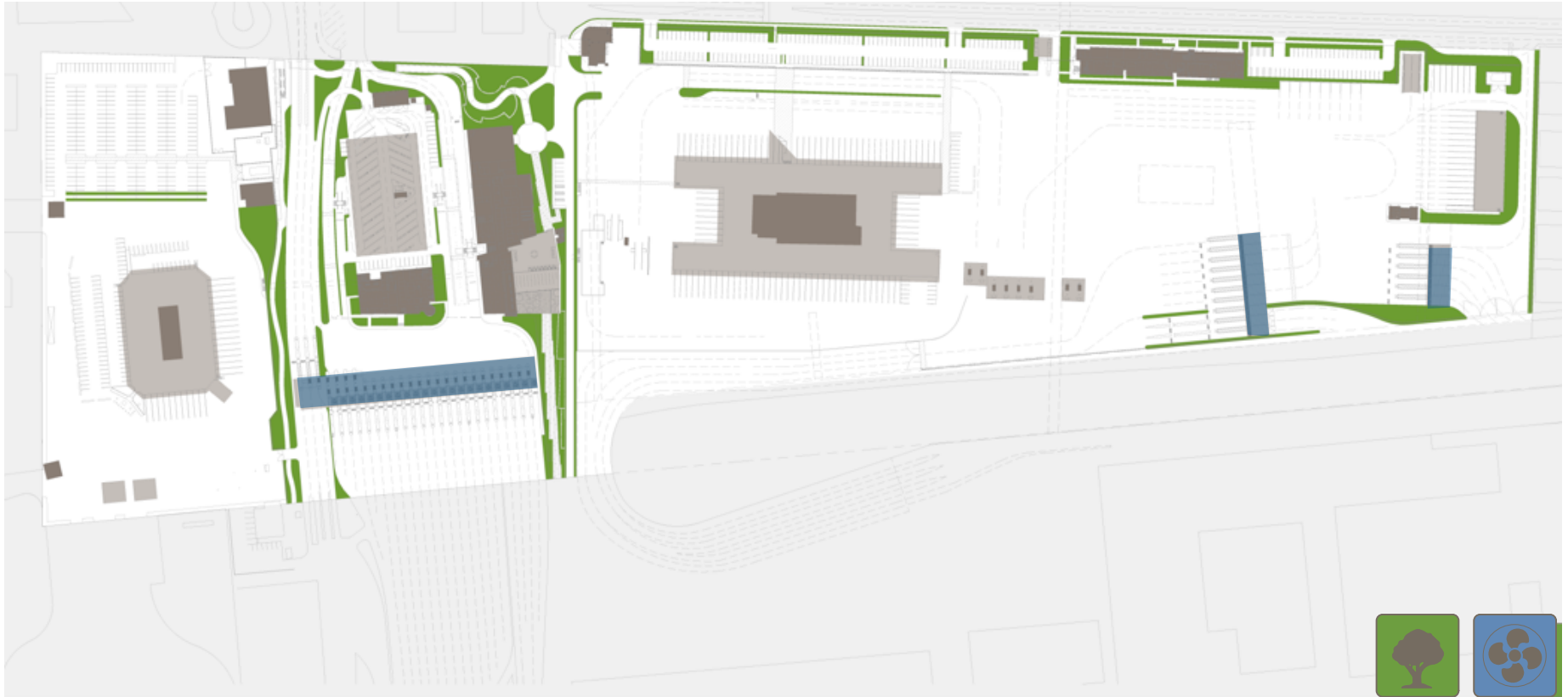


STORMWATER RUNOFF

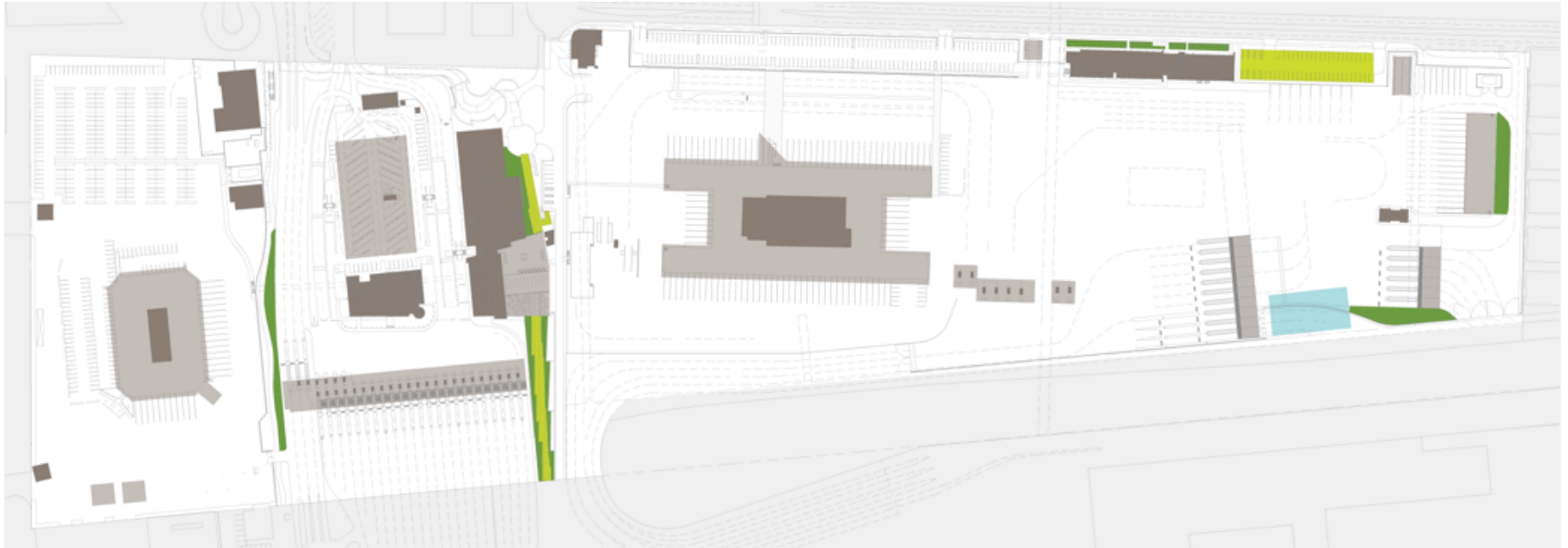
COMFORT RESPONSE | HEAT ISLAND REDUCTION



COMFORT RESPONSE | AIR QUALITY REMEDIATION



COMFORT RESPONSE | STORMWATER CONTROL



PRE-DEVELOPMENT RUNOFF: 200 CFS [100 YEAR]

UNDERGROUND DETENTION LOOP: 25,000 CF

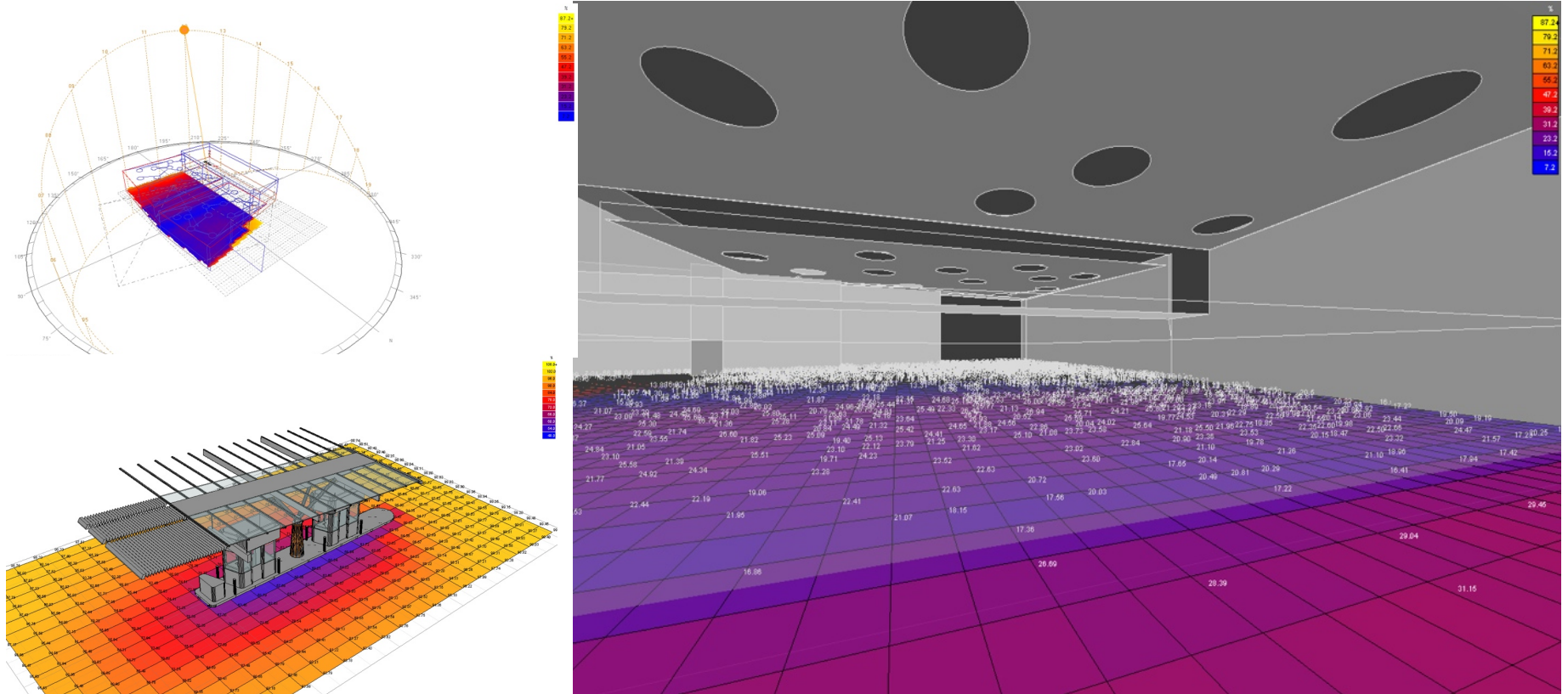
BIOSWALE DETENTION: 38,000 CF

DETENTION PONDS: 21.58 CFS

POST-DEVELOPMENT RUNOFF: 200 CFS [150 YEARS]

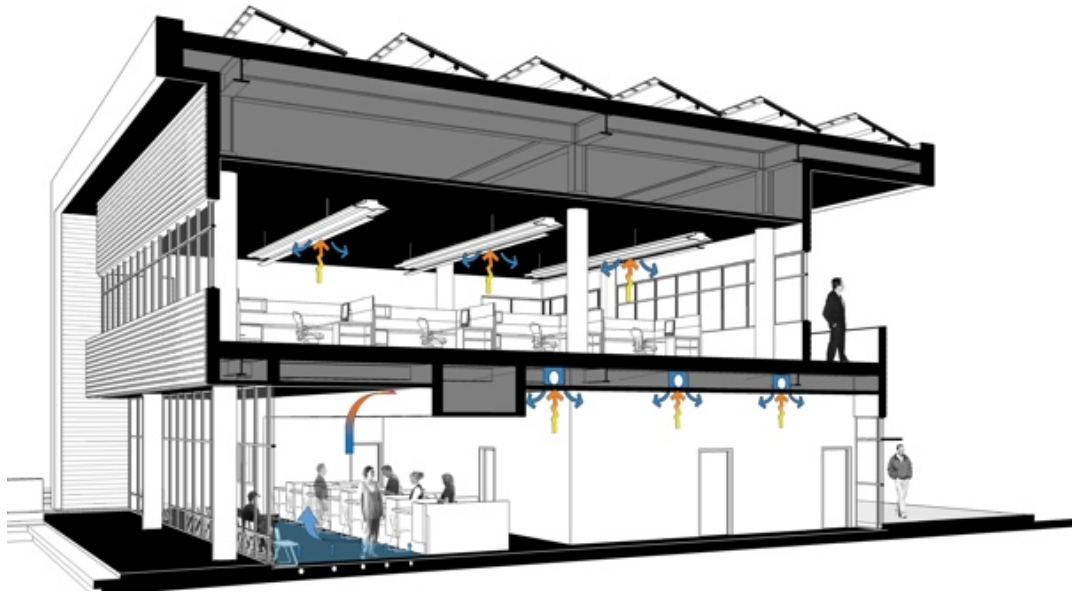


PASSIVE STRATEGIES | DAYLIGHT + SHADE

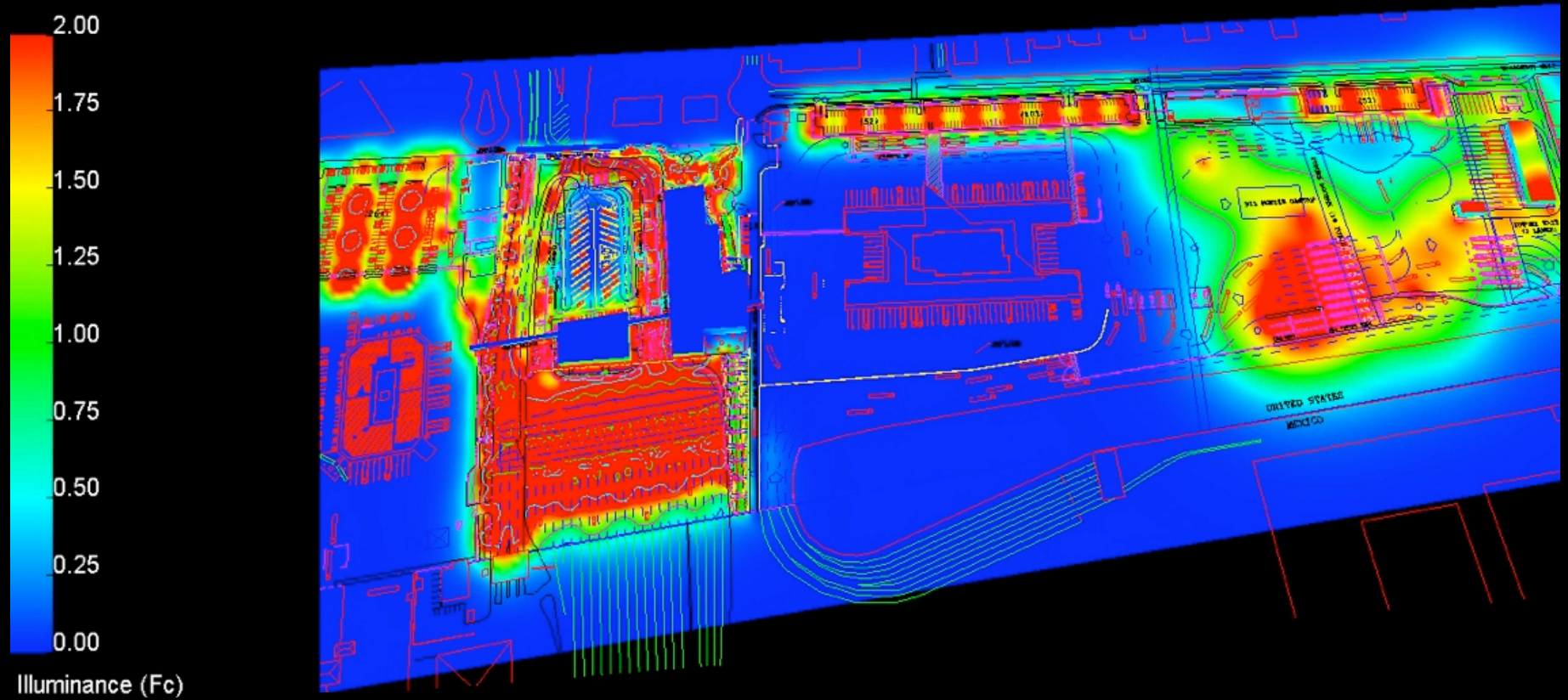


ACTIVE STRATEGIES

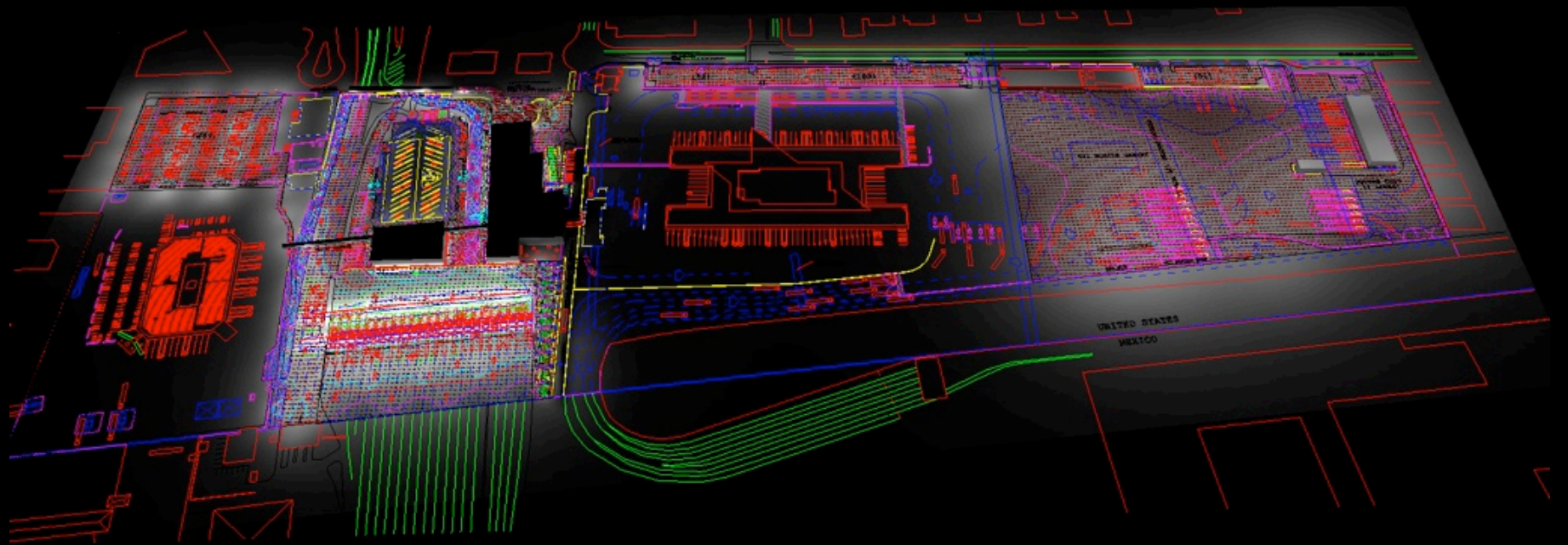
- ACTIVE BEAMS
- RADIANT FLOORS
- DISPLACEMENT VENTILATION
- UNDERFLOOR AIR DISTRIBUTION
- EFFICIENT LIGHTING



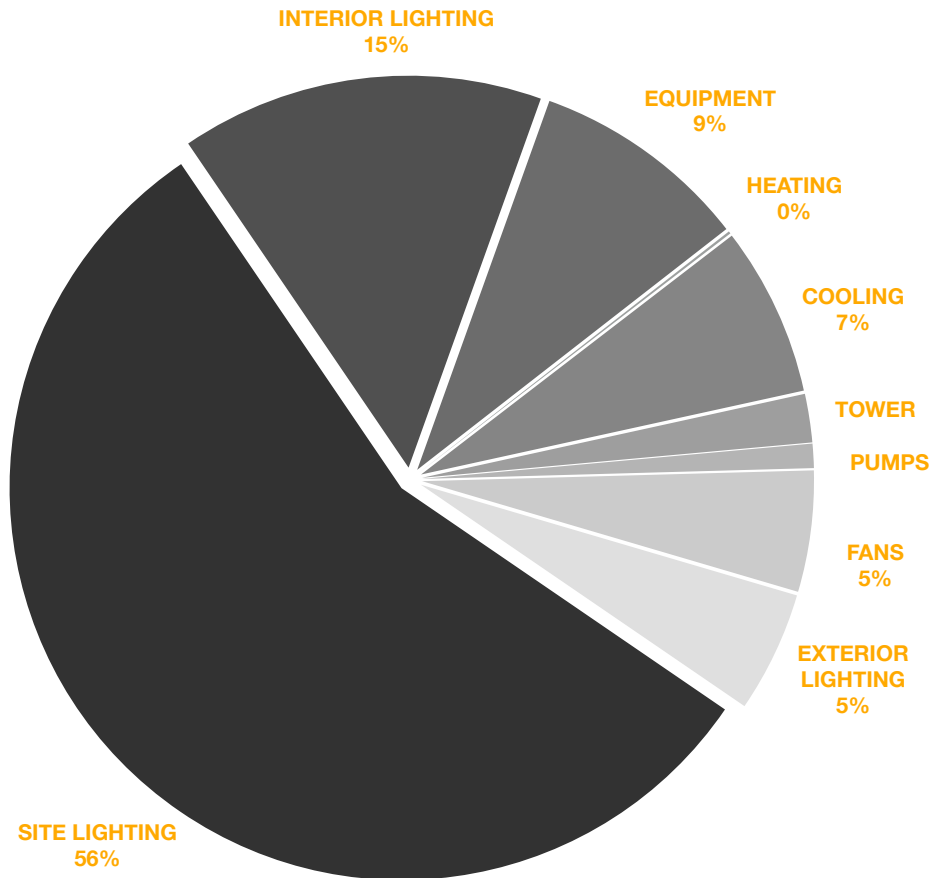
EXTERIOR ILLUMINATION LEVELS



EXTERIOR ILLUMINATION LEVELS | UNIFORMITY



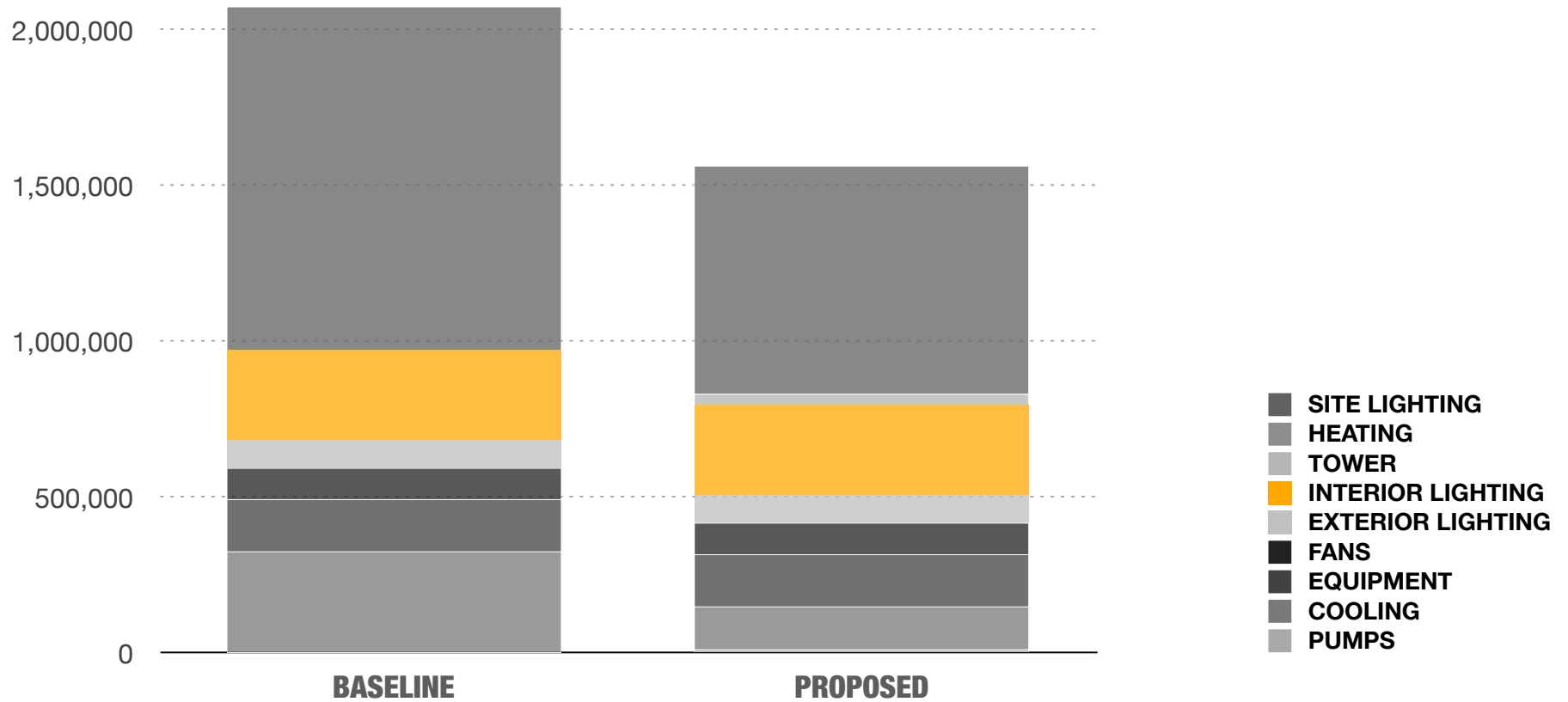
SITE ENERGY USAGE



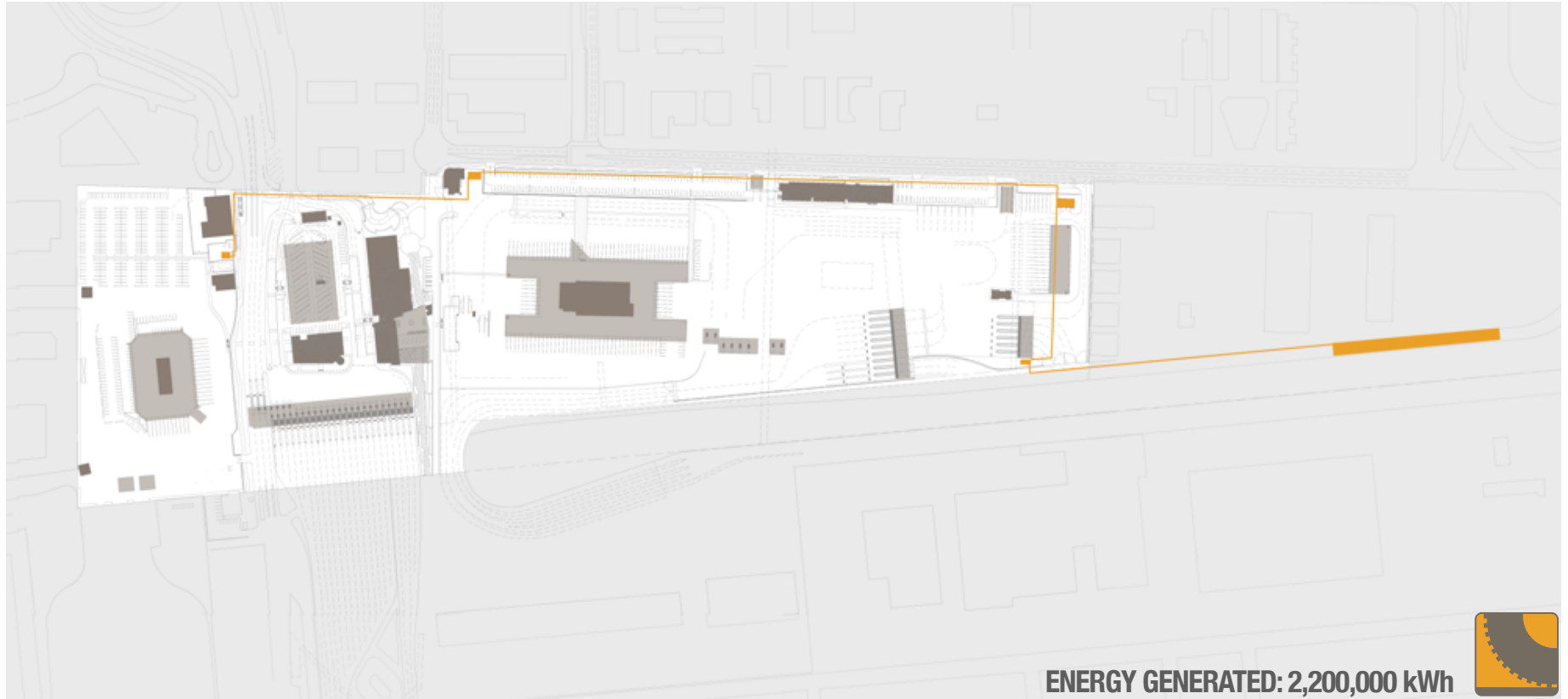
ASSUMPTIONS

- GLAZING MEETS MINIMUM ASHRAE 90.1, 2007 WITH A 0.45 SHGC
- GLASS TO WALL RATIO = 30%
- EXTERIOR WALLS = R30
- ROOF = R45

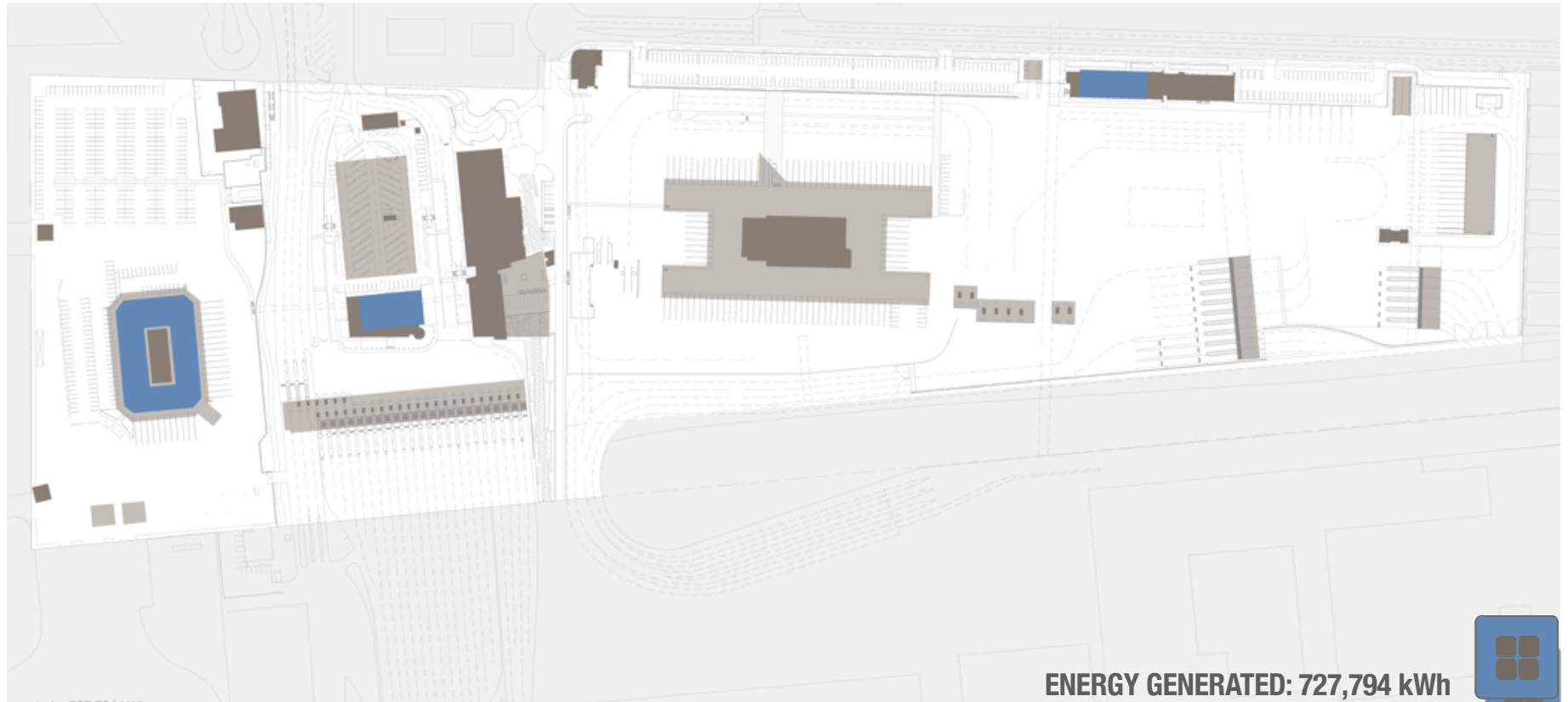
ELECTRICAL USAGE | CONSERVATION



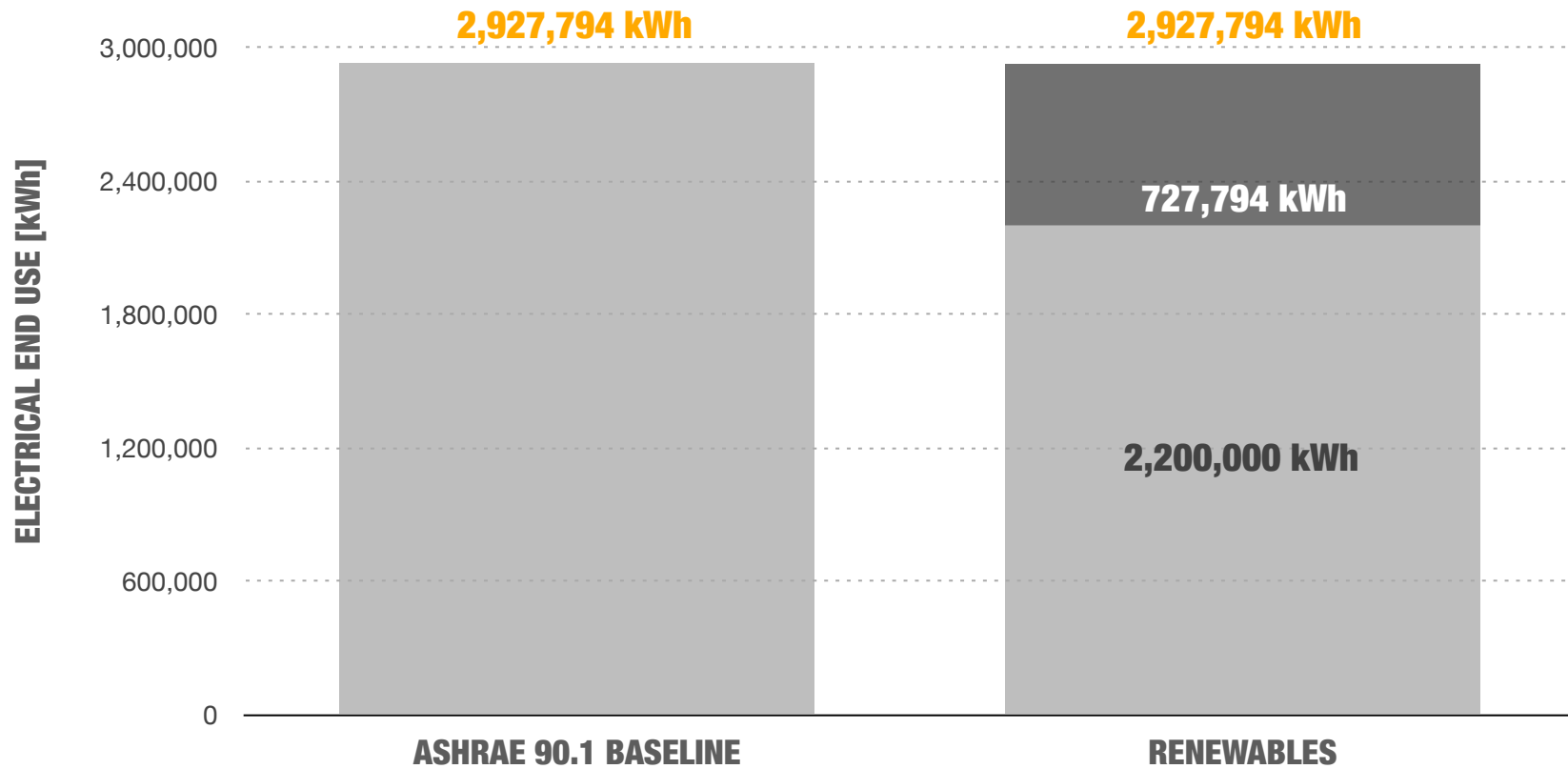
NET ZERO | DRAGON POWER



NET ZERO | SOLAR POWER



NET ZERO CALCULATIONS





QUESTIONS

PREGUNTERS