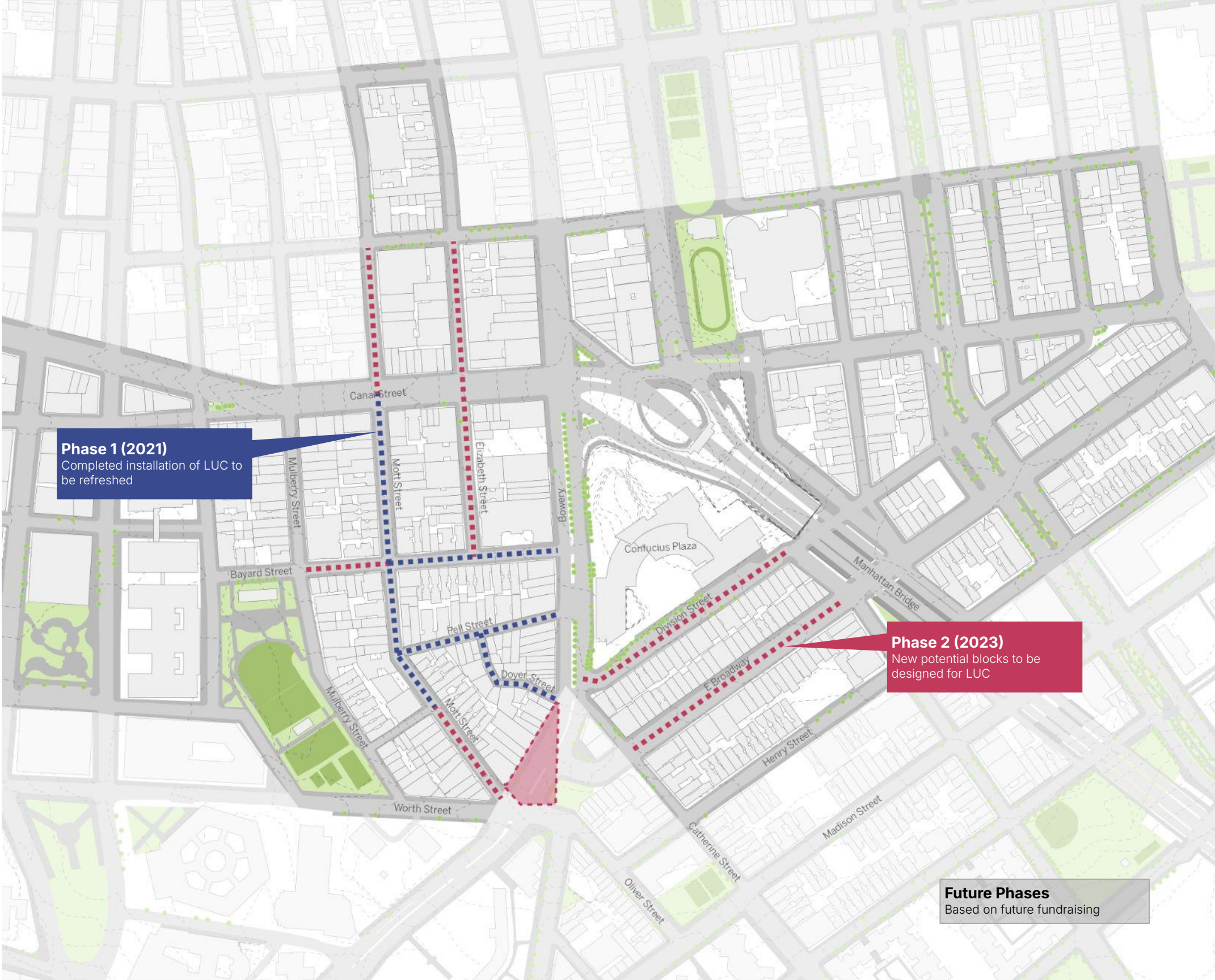


Site Analysis and Lighting Survey

November 14th, 2023

SCOPE OVERVIEW



Phase 1 (2021)
Completed installation of LUC to be refreshed

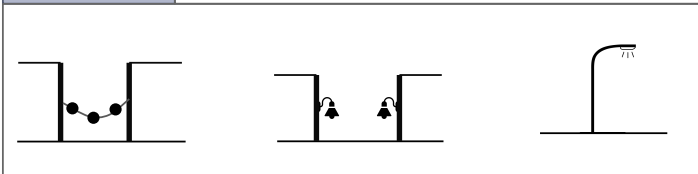
Phase 2 (2023)
New potential blocks to be designed for LUC

Future Phases
Based on future fundraising

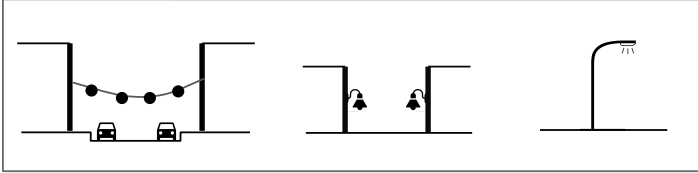
ZONES

Defining Street Conditions

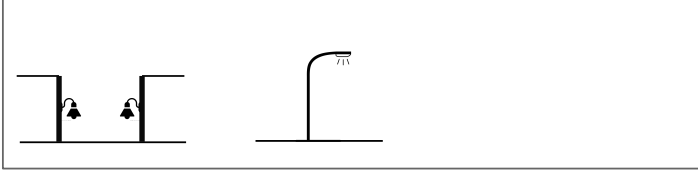
ZONE 1 Pedestrianized Streets with String Lights
Pell St, Doyers St



ZONE 2 Narrow Streets with String Lights
Mott St, Elizabeth St, Bayard St



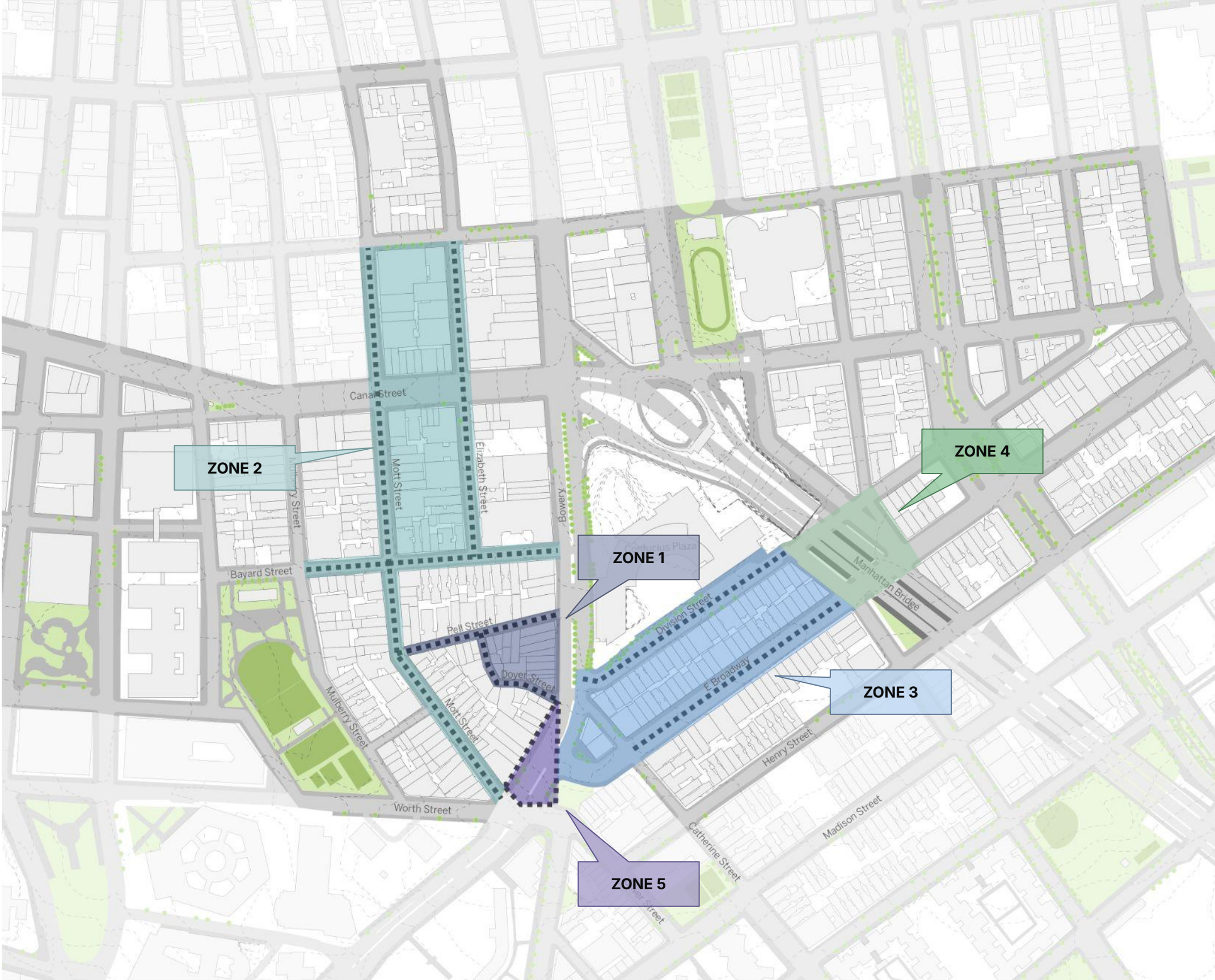
ZONE 3 Wide Streets with Wall-Mounted Lights
East Broadway, Division St



ZONE 4 Bridge Underpass
Manhattan Bridge






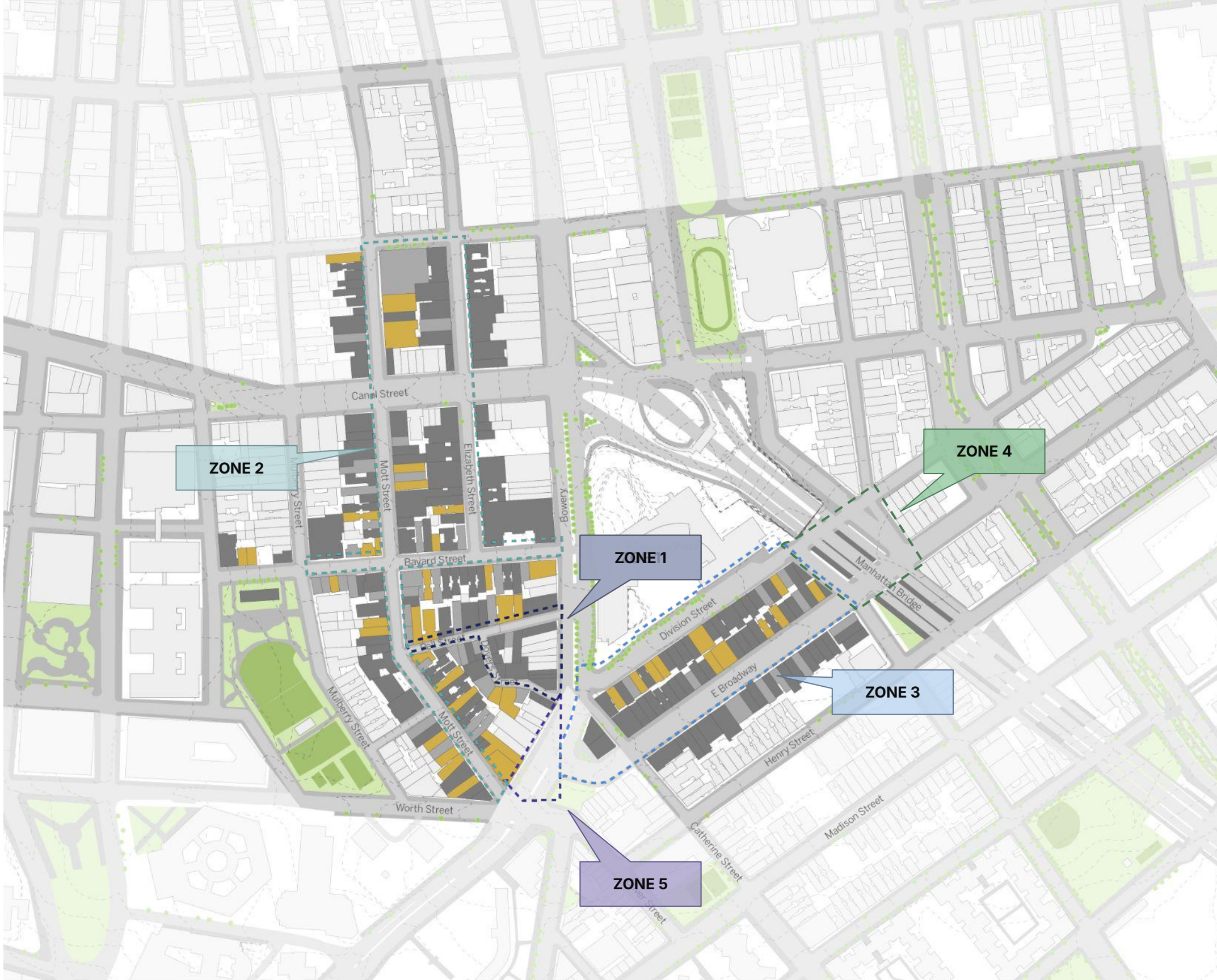
ZONE 5 Plaza Lighting
Chatham Square



NIGHT USES

Site Analysis

-  Closes after 9 pm
-  Closes Between 7 - 9pm
-  Closes Before 7 pm



SCOPE OVERVIEW

Lighting Survey

SEPTEMBER 27, 2023

Sunset - 9PM

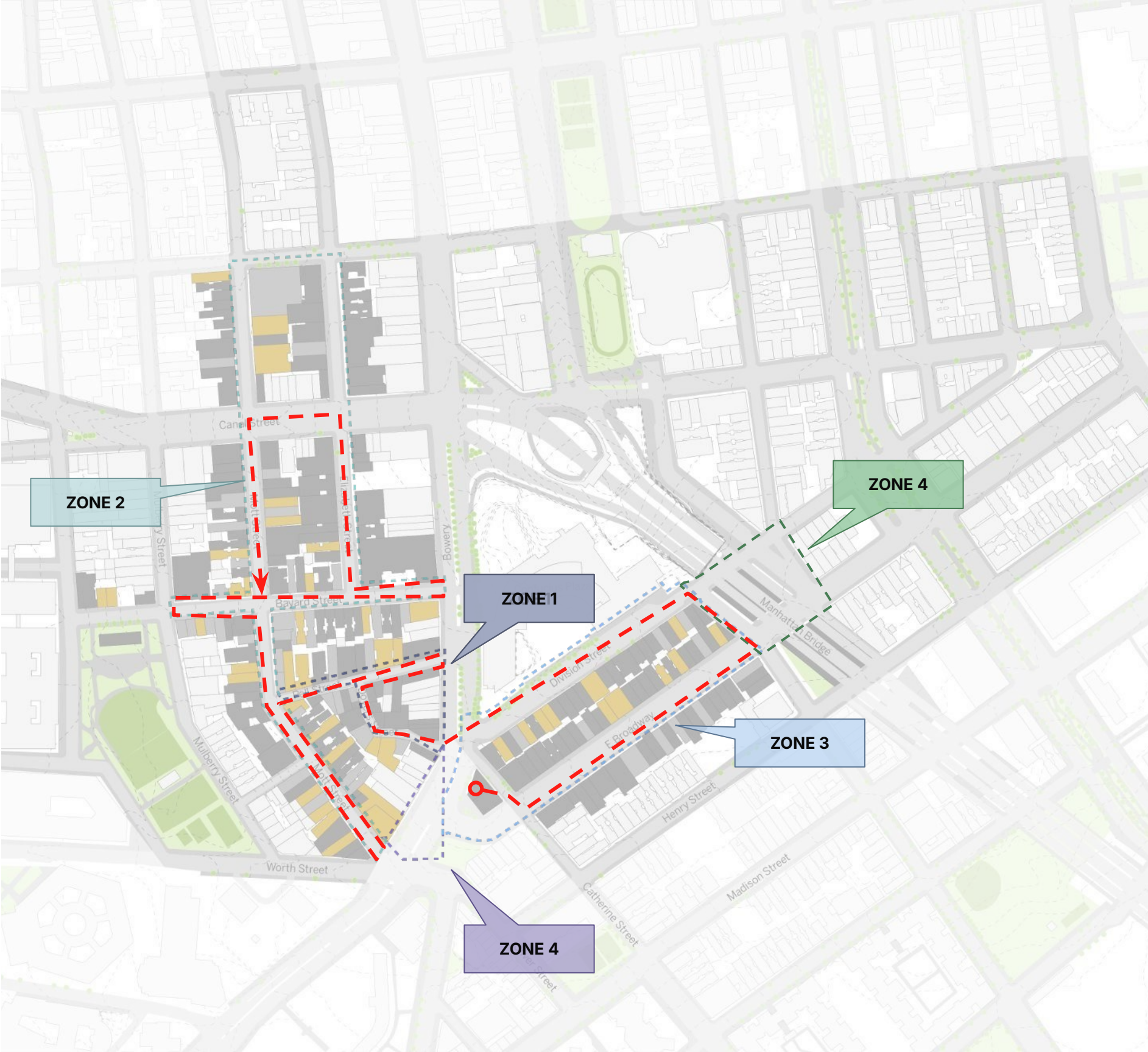
Equipment:



Illuminance Meter
(Measure quantity of light on the ground)



DSLR Camera, Tripod +
Luminance Meter
(Measure and mapping of perceived "brightness" in visual field)



ZONE 1

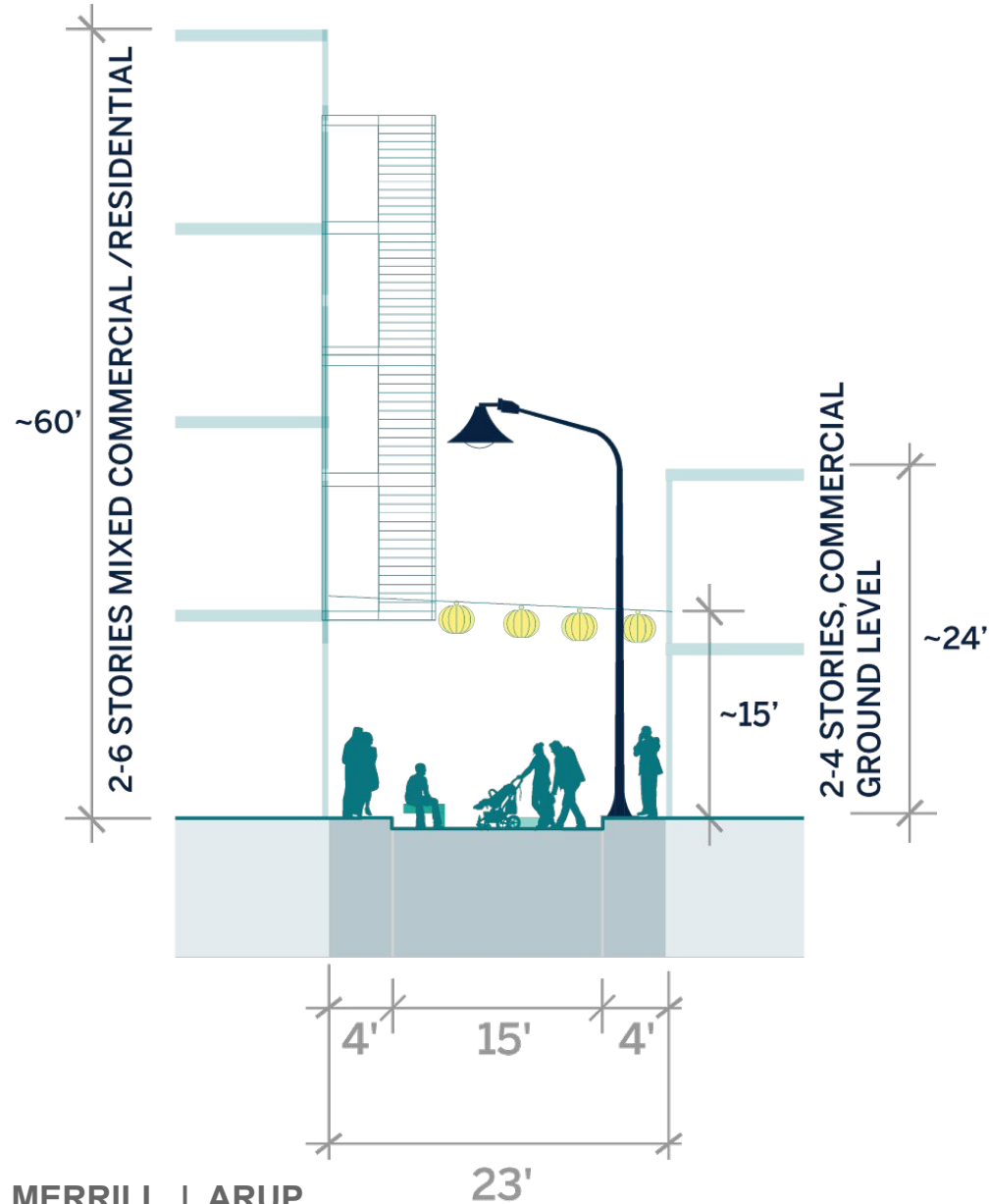
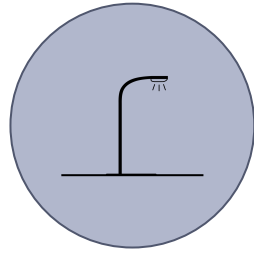
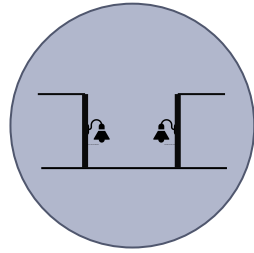
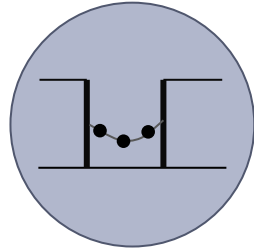
Pedestrian-only Street Condition (Doyers St, Pell St)



ZONE 1

Pedestrian-only Street Condition (Doyers St, Pell St)

Doyer St



ZONE 1

Lighting Survey

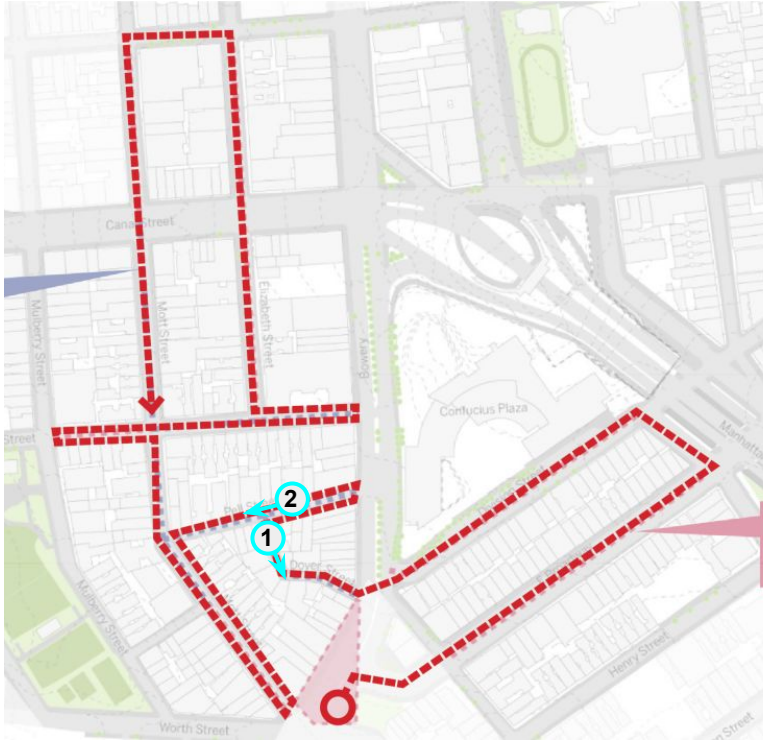
LUMINANCE MAPPING



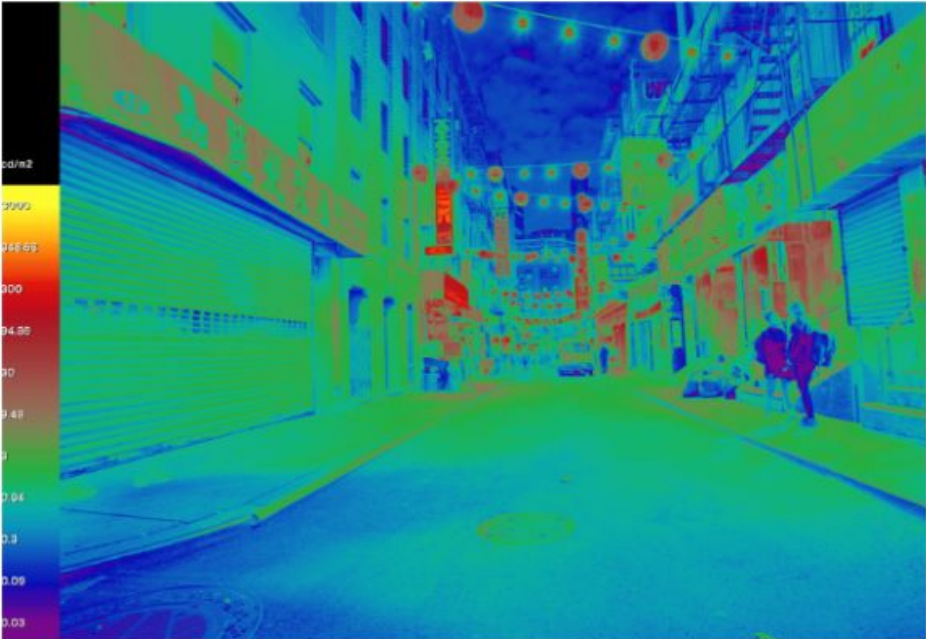
1) View down Doyers Street



False color HDR photo indicating Luminance in cd/m2.



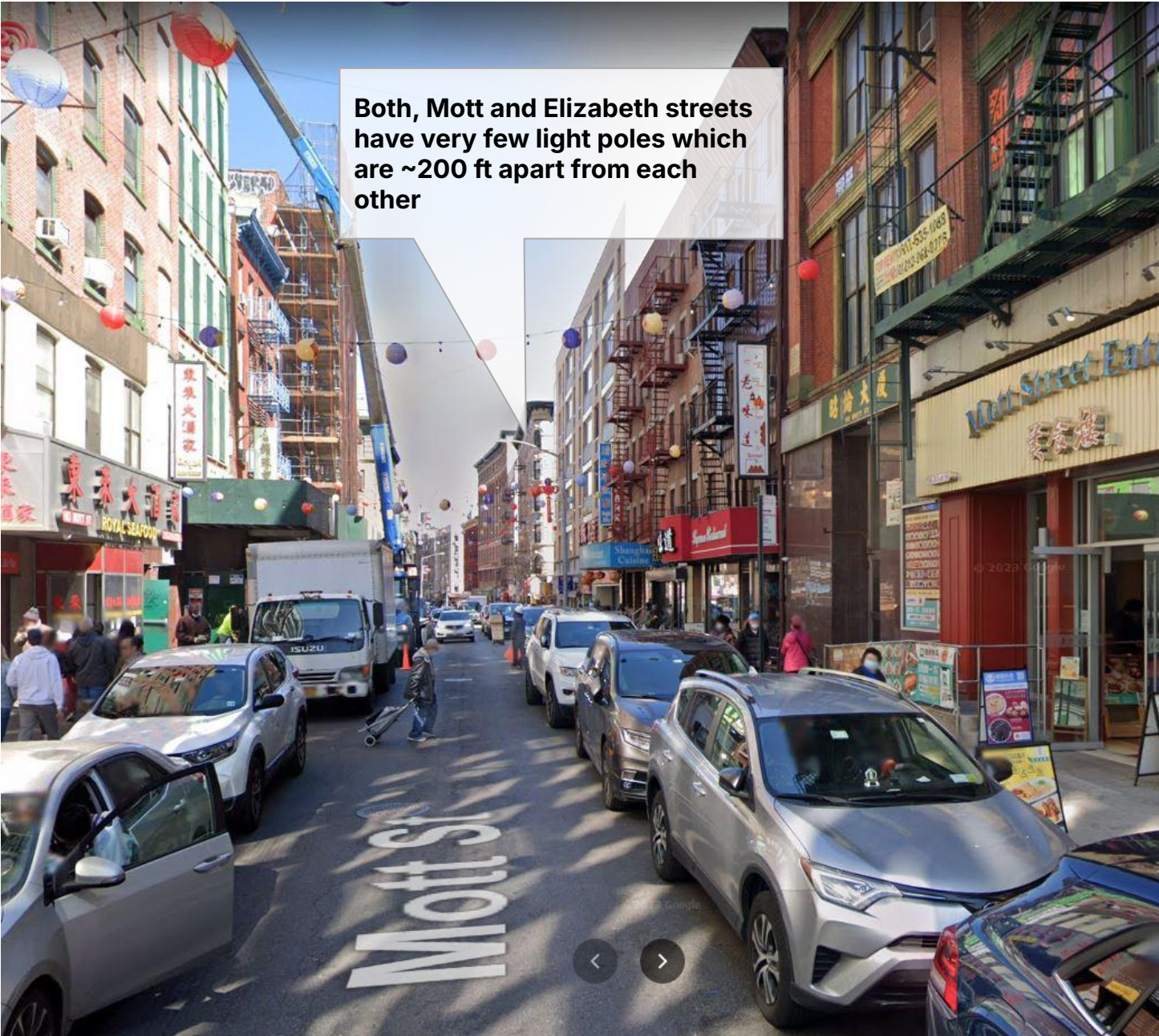
2) View down Pell Street



False color HDR photo indicating Luminance in cd/m2.

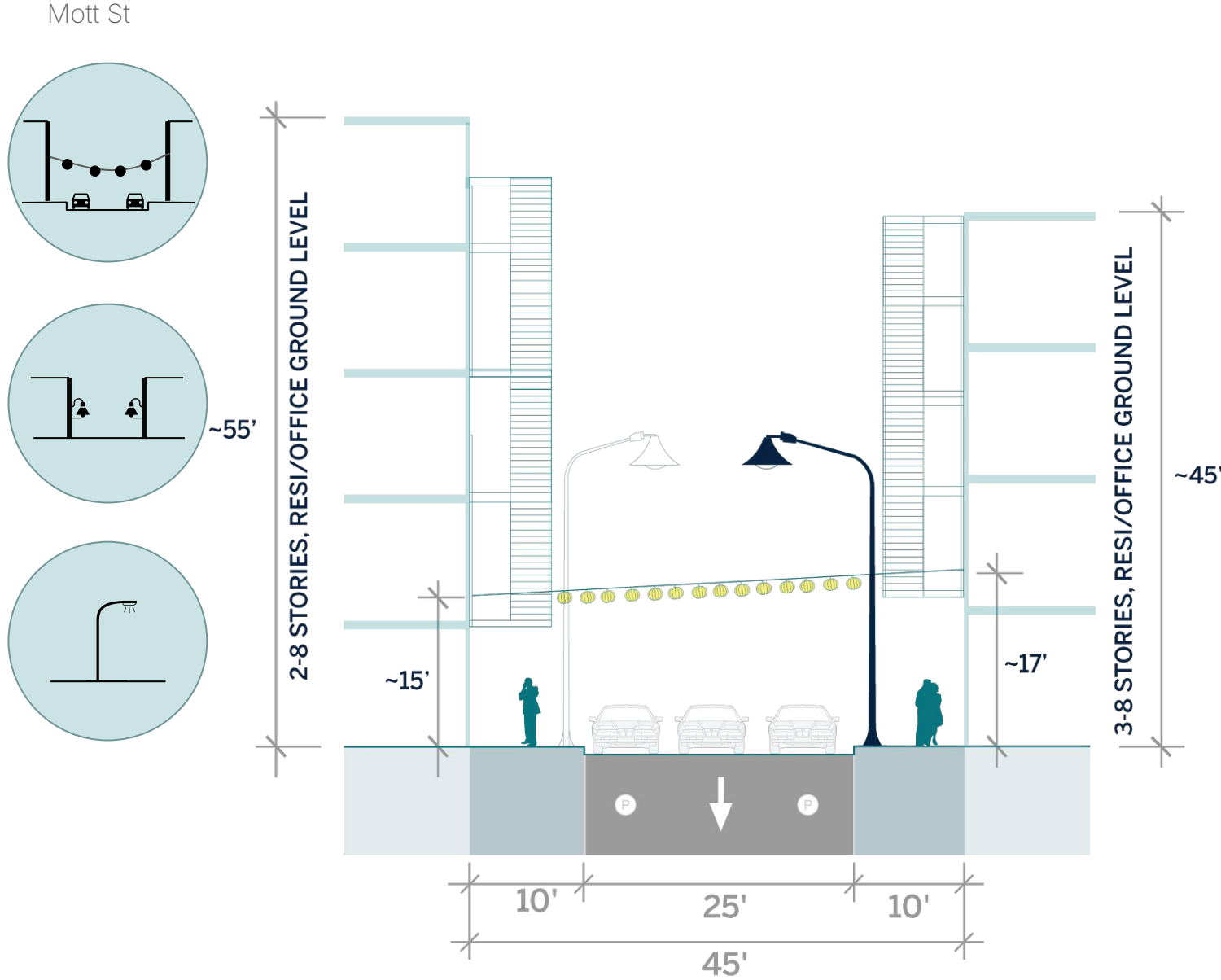
ZONE 2

Narrow Street Conditions (Mott St, Elizabeth St, Bayard St)



ZONE 2

Narrow Street Conditions (Mott St, Elizabeth St, Bayard St)



ZONE 2

Lighting Survey

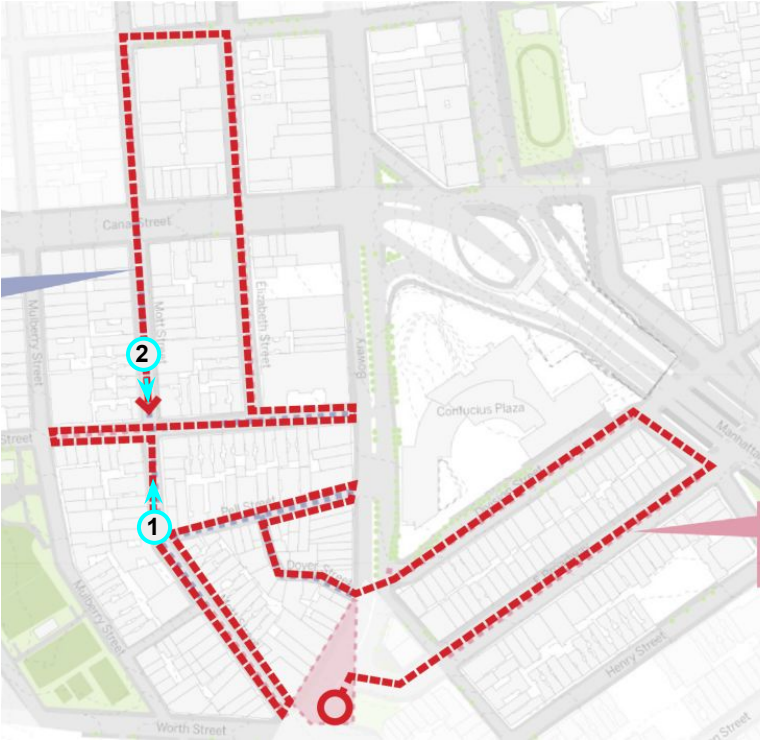
LUMINANCE MAPPING



1) View North down Mott Street, below Bayard Street



False color HDR photo indicating Luminance in cd/m2.



2) View South down Mott Street, above Bayard Street



False color HDR photo indicating Luminance in cd/m2.

ZONE 3

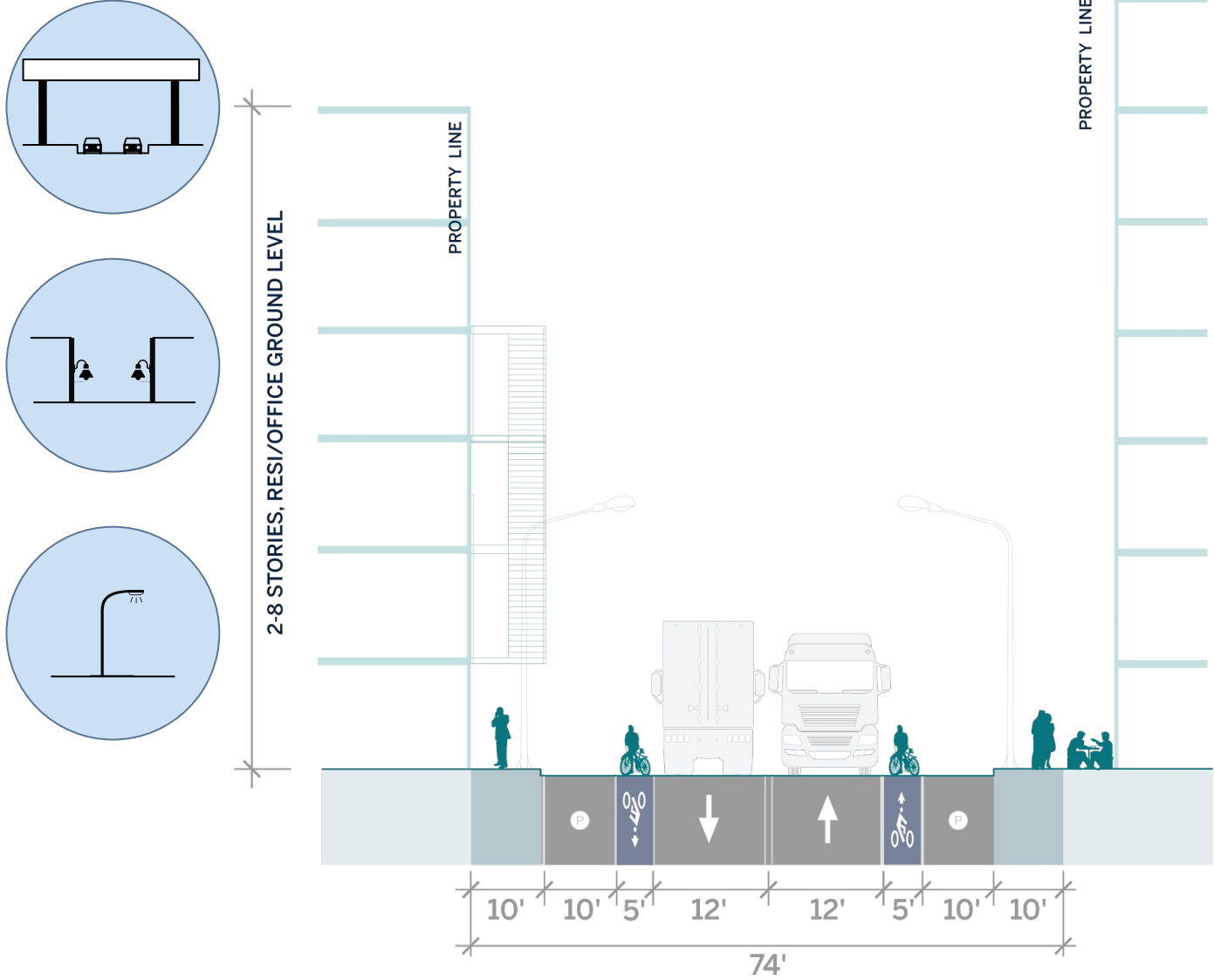
Wide Street Condition (East Broadway, Division St)



ZONE 3

Wide Street Condition (East Broadway, Division St)

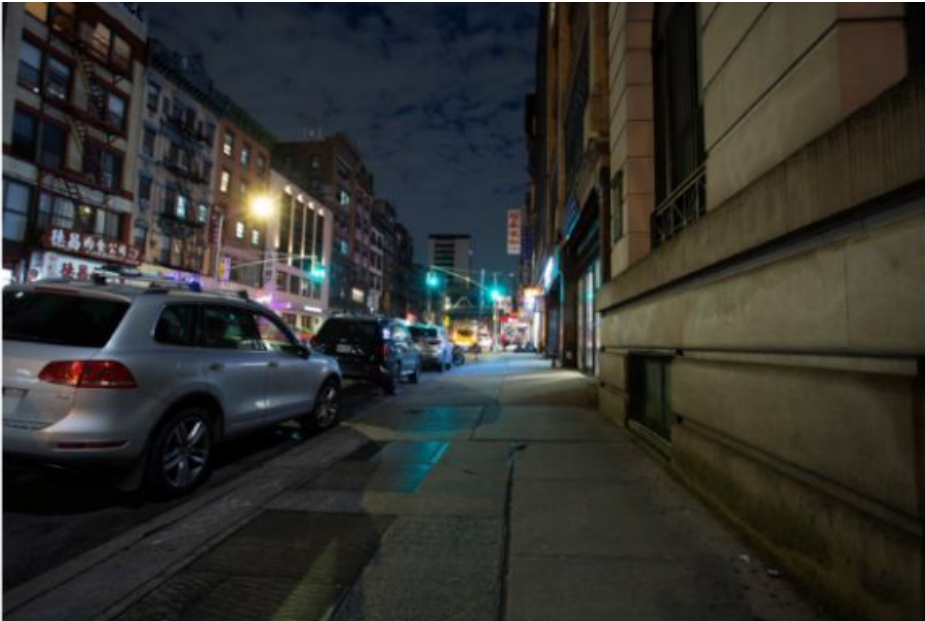
East Broadway



ZONE 3

Lighting Survey

LUMINANCE MAPPING



1) East Broadway approaching Market Street



False color HDR photo indicating Luminance in cd/m2.



2) East Broadway approaching Market Street



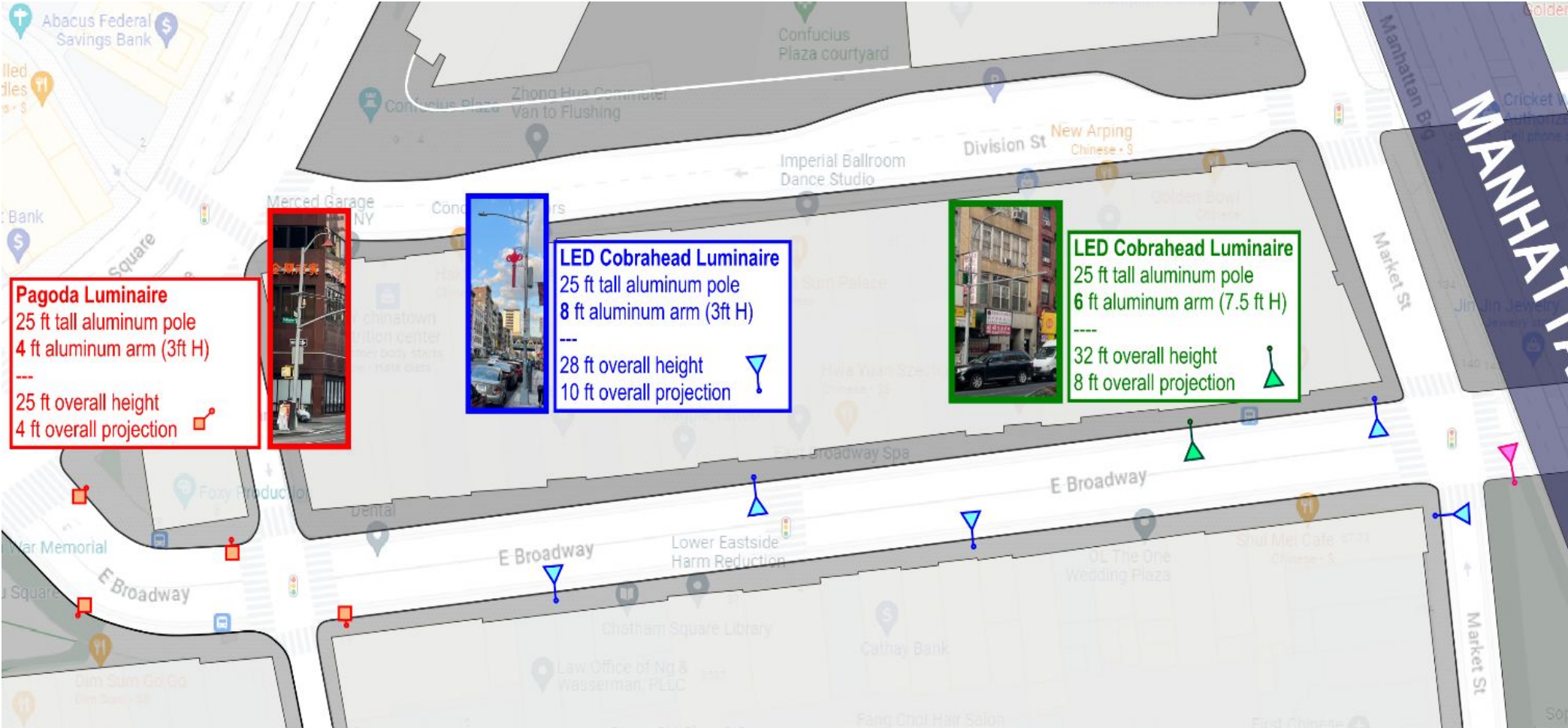
False color HDR photo indicating Luminance in cd/m2.

ZONE 3

Lighting Survey

DOT STREET LIGHTING TYPES AND LOCATIONS ON EAST BROADWAY

	Avg Illuminance (fc)	Uniformity
Roadways		
Collector	1.0 - 1.2	4:1
Local	0.8 - 1.0	4:1
Intersections		
Collector/Collector	2.0 - 2.5	4:1
Collector/Local	1.5 - 2.0	4:1
Local/Local	1.5	4:1
Plazas, Under the EI	2.0	4:1
Pedestrian Sidewalks	0.6 - 0.8	Up to 6:1
Shared Bikeways	0.8 - 1.0	4:1

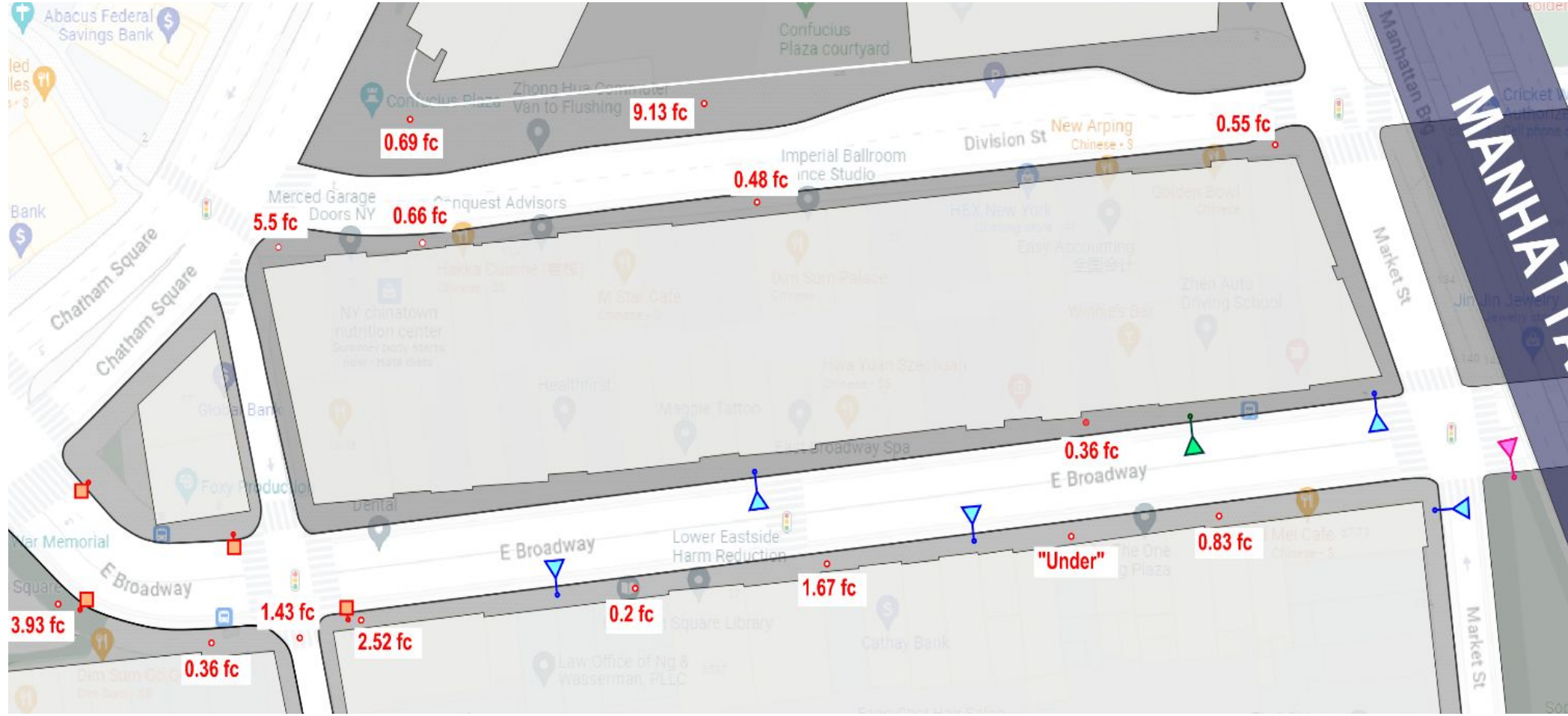


ZONE 3

Lighting Survey

SPOT MEASUREMENTS OF ILLUMINANCE AT THE GROUND

	Avg Illuminance (fc)	Uniformity
Roadways		
Collector	1.0 - 1.2	4:1
Local	0.8 - 1.0	4:1
Intersections		
Collector/Collector	2.0 - 2.5	4:1
Collector/Local	1.5 - 2.0	4:1
Local/Local	1.5	4:1
Plazas, Under the EI	2.0	4:1
Pedestrian Sidewalks	0.6 - 0.8	Up to 6:1
Shared Bikeways	0.8 - 1.0	4:1

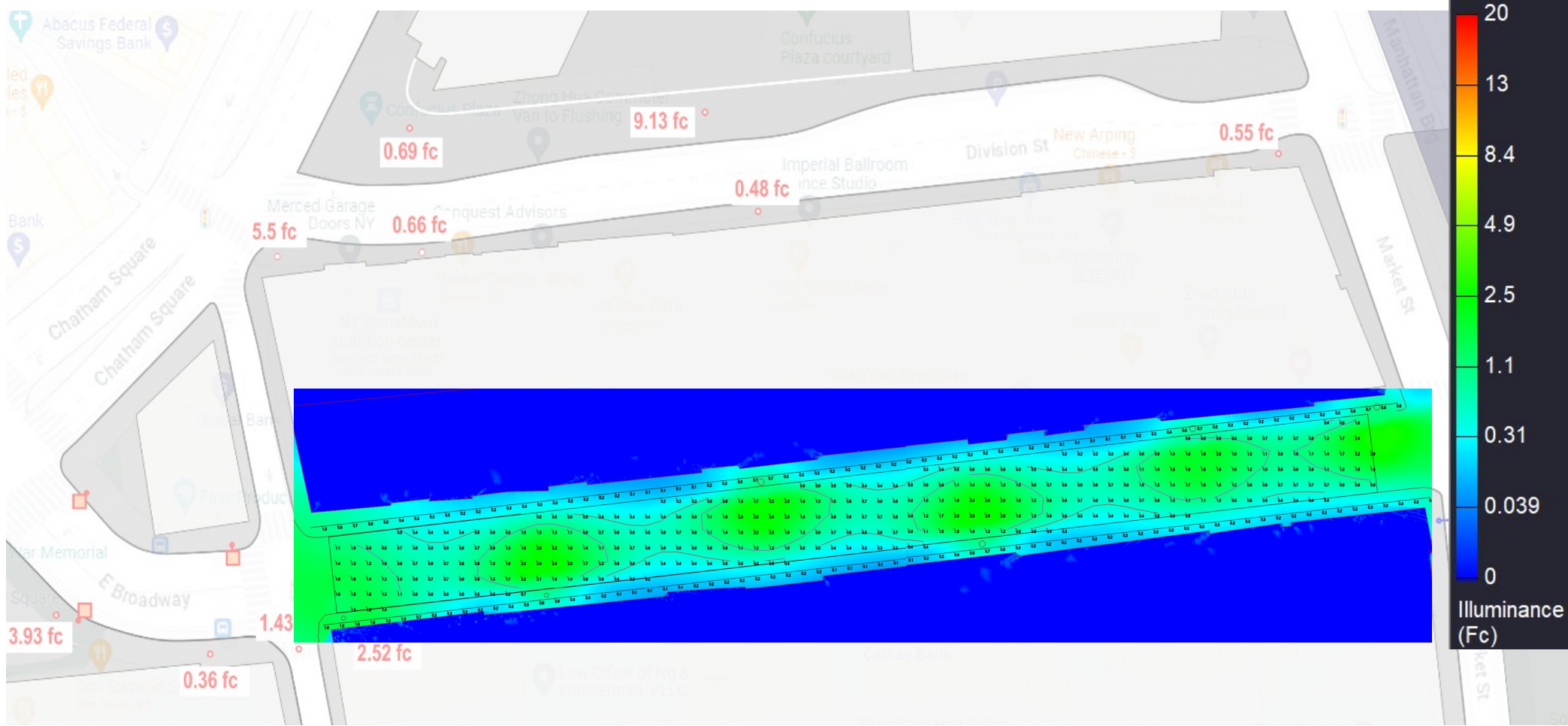


ZONE 3

Lighting Survey

PHOTOMETRIC STUDY OF DOT STREET LIGHTING ALONG EAST BROADWAY

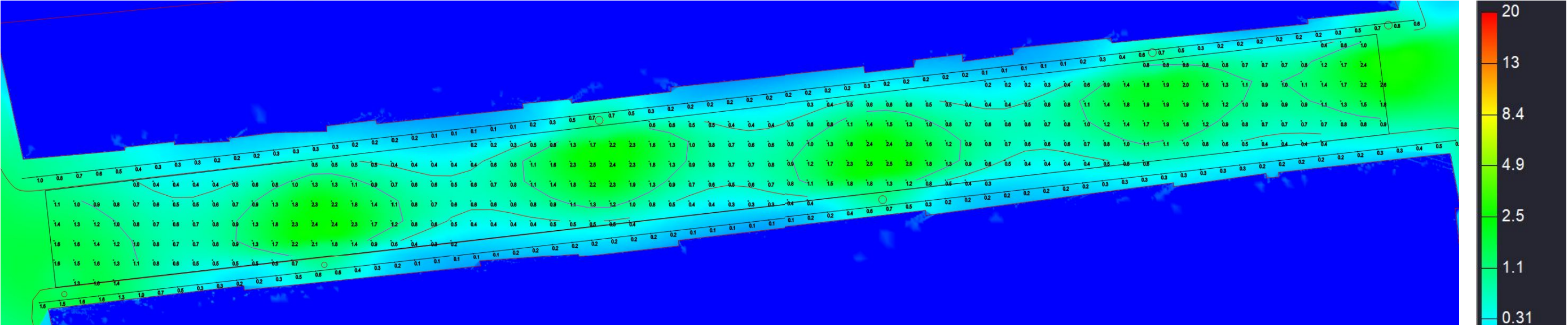
	Avg Illuminance (fc)	Uniformity
Roadways		
Collector	1.0 - 1.2	4:1
Local	0.8 - 1.0	4:1
Intersections		
Collector/Collector	2.0 - 2.5	4:1
Collector/Local	1.5 - 2.0	4:1
Local/Local	1.5	4:1
Plazas, Under the EI	2.0	4:1
Pedestrian Sidewalks	0.6 - 0.8	Up to 6:1
Shared Bikeways	0.8 - 1.0	4:1



ZONE 3

Lighting Survey

PRELIMINARY PHOTOMETRIC CALCULATION - EAST BROADWAY BETWEEN CATHERINE ST & MARKET ST



Luminaire Schedule								
Symbol	Label	Description	Tag	LLF	Luminaire Lumens	Luminaire Watts	Total Watts	
⊙	Ltl06305	SDCA3-250I IPS-V	PAGODA	0.010	17510	250	1000	
⊕	Cooper Cobra 81W (110W Max) T	ARCH-S-PA1-80-730-U-T2R-AP-10MSP-PR7	COBRAHEAD	0.810	10653	81.1	567.7	

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Max/Min	Avg/Min
Roadway	Illuminance	Fc	1.0	2.6	0.2	13.0	5.0
Sidewalk-North	Illuminance	Fc	0.3	1.0	0.1	10.0	3.1
Sidewalk-South	Illuminance	Fc	0.4	1.6	0.1	16.0	3.7