What Architects Do.

THE AMERICAN INSTITUTE OF ARCHITECTS

Planning+Design Phase

Programming

Planning + Design Phase

Function

People
Activities
Relationships

Maximum number
Interaction/privacy
Hierarchy of values
Prime activities
Security
Progression
Segregation
Encounters
Transportation/parking
Efficiency

Statistical data
Area parameters
Personnel forecast
User characteristics
Community characteristics
Organizational structure
Cost of potential loss
Time-motion study
Traffic analysis
Behavioral patterns
Space adequacy
Type/intensity
Physically challenged guidelines

Activity grouping
Priority
Hierarchy
Security controls
Sequential flow
Separated flow
Mixed flow
Functional relationships
Communications

Area requirements—
by organization
by space type
by time
by location

Parking requirements
Outdoor space requirements
Functional alternatives

Site development costs
Environmental influences on costs
Building cost/SF
Building overall efficiency factor

Unique an important performar requireme that will in building s design

Biasing site elements
Environmental response
Efficient land use
Community relations
Community improvements
Physical comfort
Life safety
Social/psychological environment
Individuality
Wayfinding
Projected image
Client expectations

Goals | Facts | Concepts | Needs | Problem

Form

People
Activities
Relationships

Site analysis
Soil analysis
FAR and GAC
Climate analysis
Code survey
Surroundings
Psychological implications
Point of reference/entry
Circulation
Building or layout efficiency
Equipment costs
Area per unit

Cost parameters
Maximum budget
Time-use factors
market analysis
Energy source costs
Activities and climate factors
Economic data
LEED rating system
IGCC & other codes

Enhancements
Special foundations
Safety
Neighbors
Home base/officing concepts
On-premise: fixed, free, group
Off-premise: virtual office
Orientation
Accessibility
Character
Quality control

Budget estimate analysis
Balance budget
Cash flow analysis
Energy budget
Operating costs
Green building rating
Life cycle costs

Major form considerations that will affect building design

Extent of funds
Cost effectiveness
Maximum return
Return on investment
Minimizing operating costs
Maintenance and operating costs
Reduction of life cycle costs
Sustainability

Economy

Initial Budget
Operating Costs
Life cycle Costs

Adaptability
Tolerance
Convertibility
Expansibility
Linear/concurrent scheduling
Phasing

Cost control
Efficient allocation
Multifunction/versatility
Merchandising
Energy conservation
Cost reduction
Recycling

Attitude toward the budget and its influence on the fabric and geometry of the building

Time

Past
Present
Future

Historic preservation
Static/dynamic activities
Change
Growth
Occupancy date
Availability of funds

Significance
Space parameters
Activities
Projections
Durations
Escalation factors

Escalation
Time schedule
Time/cost schedule

Implications of changes and growth on long-range performance

Site Analysis

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SITE

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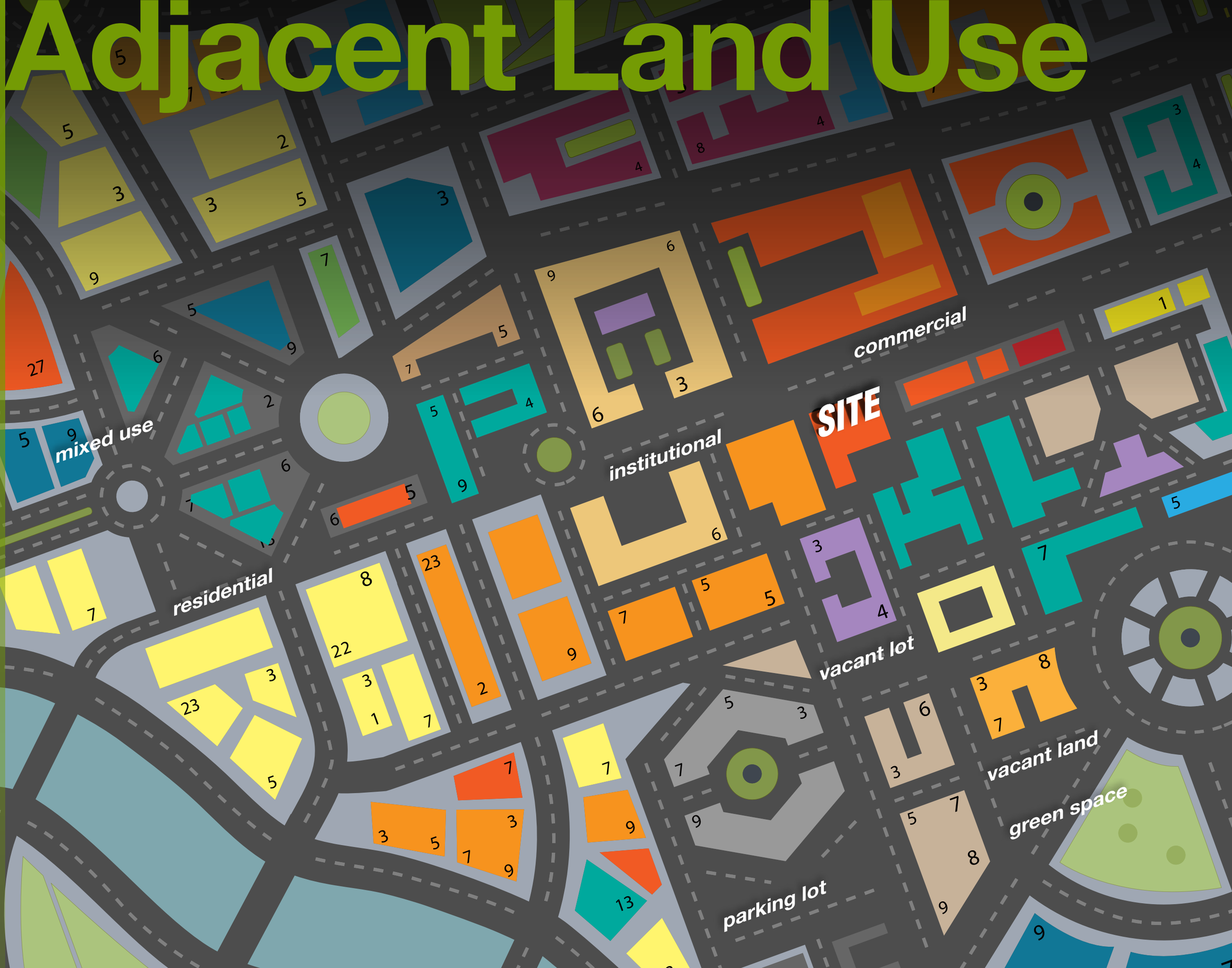
Adjacent Land Use



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Zoning

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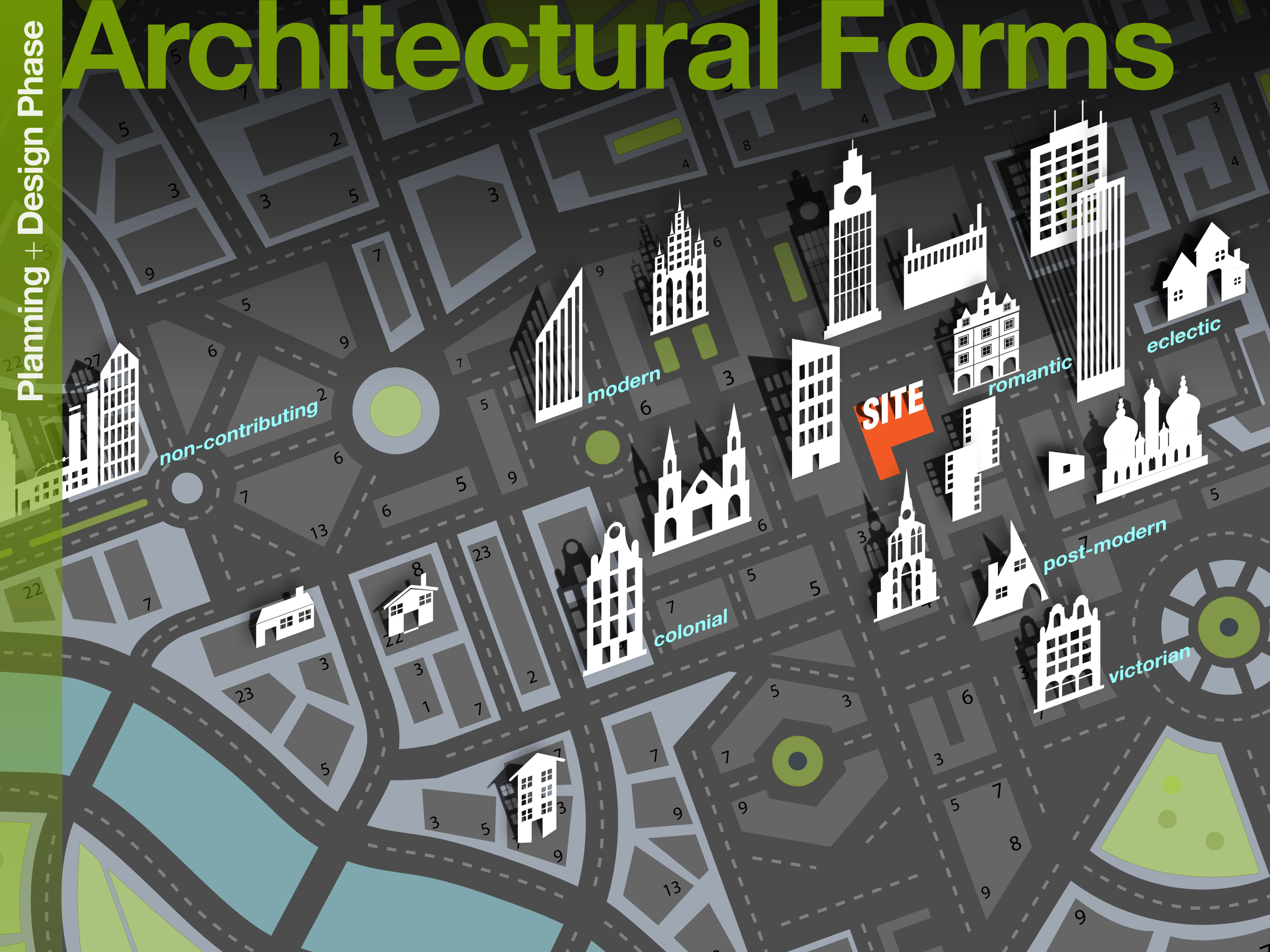
Architectural Forms



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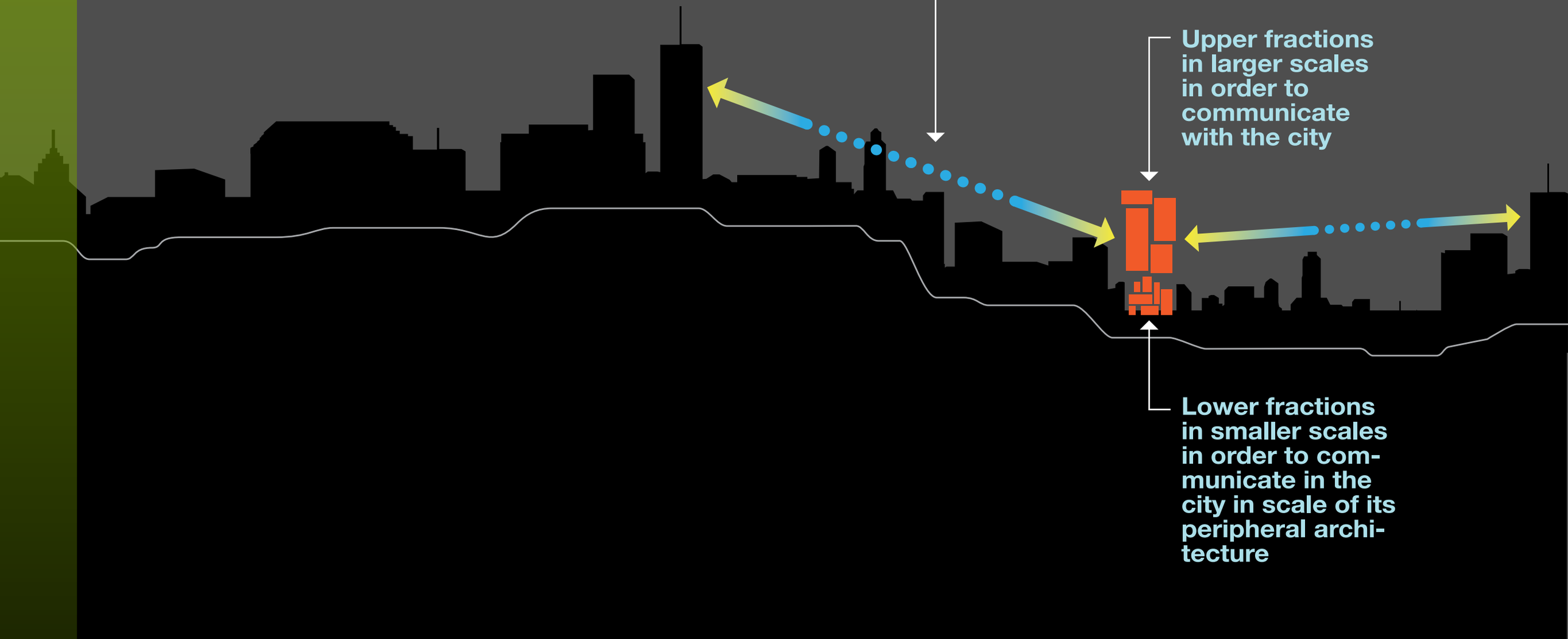
Scale



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Transit Access

existing bus routes

best new routes

existing subway

existing trolley routes

SITE

constraint

possible new routes

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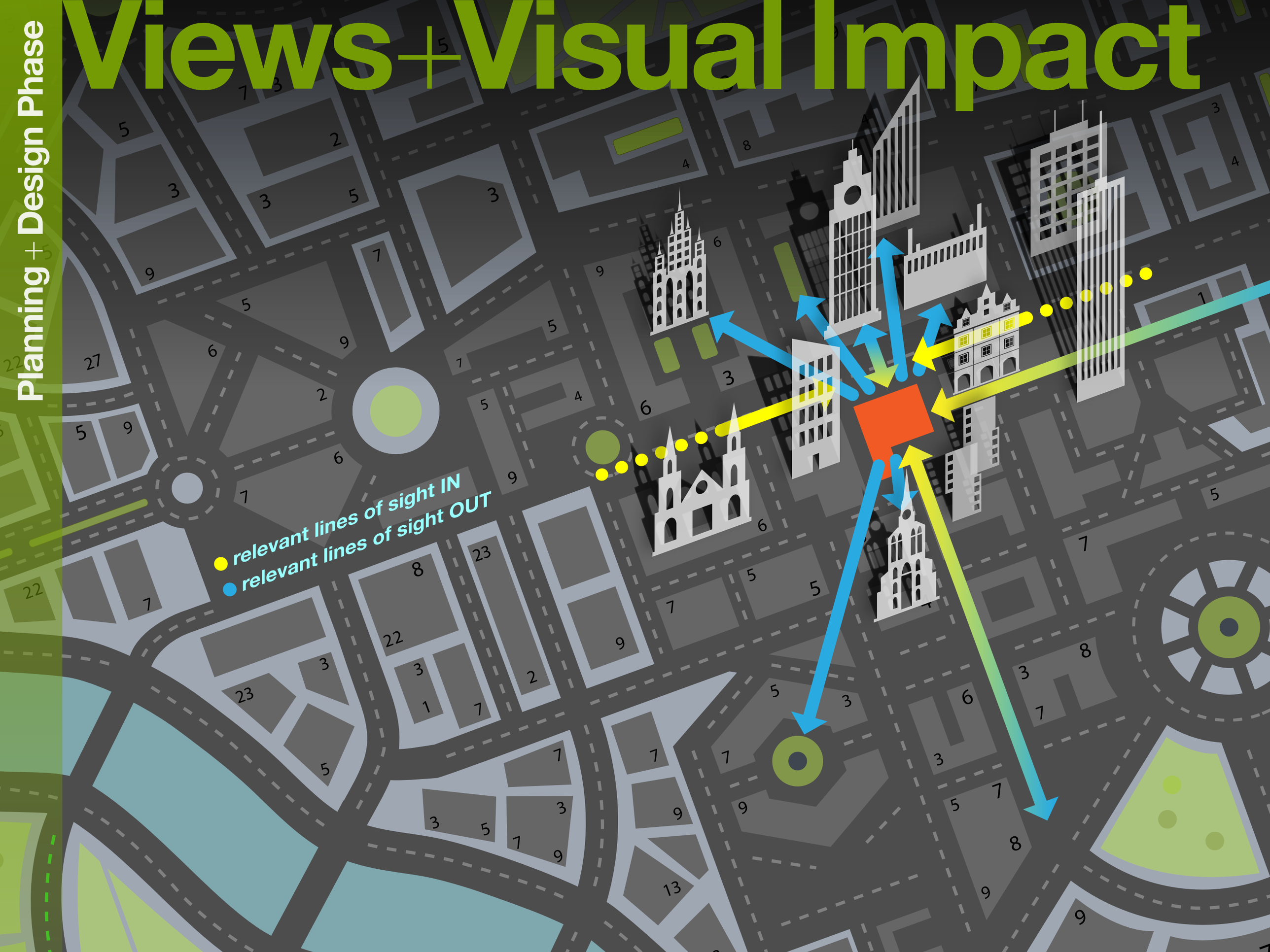
Views+Visual Impact



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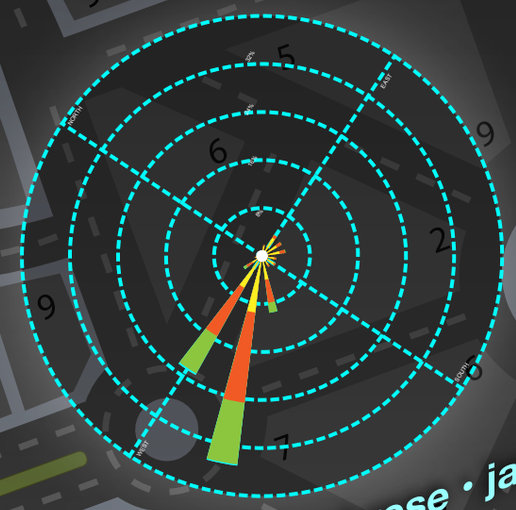
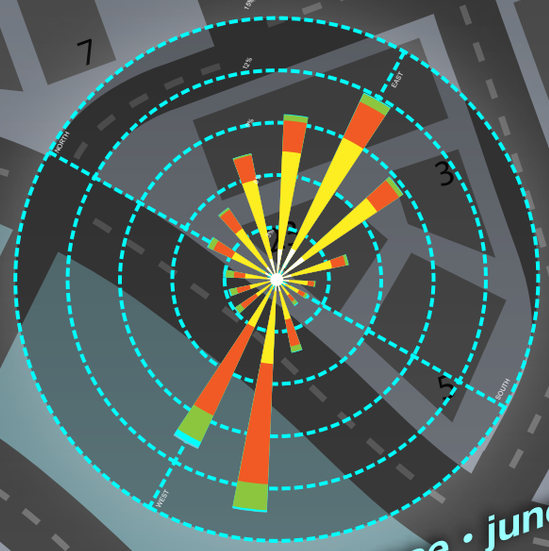
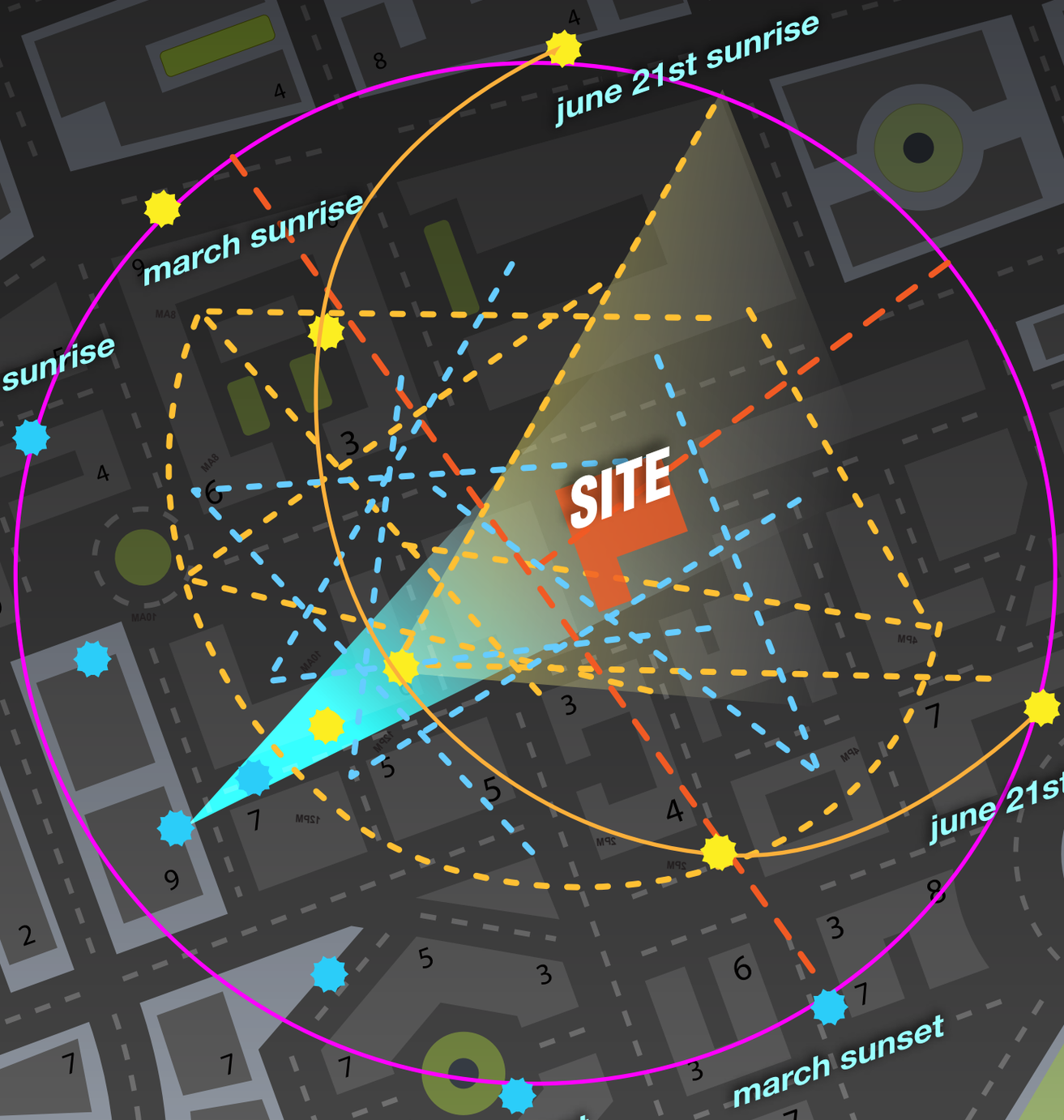
Sun Path + Breezes







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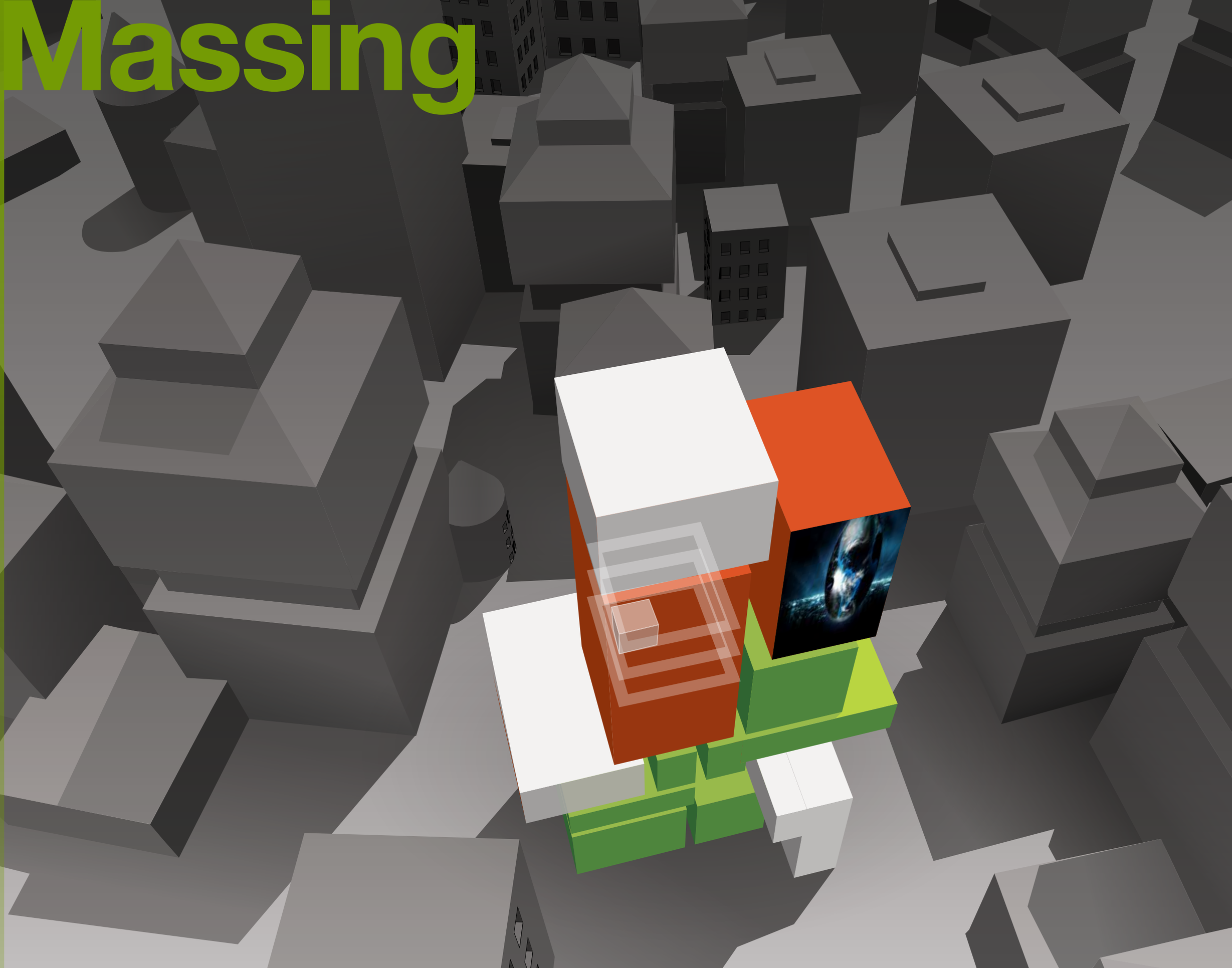
Circulation + Accessibility

- traffic | parking
- service | staff
- pedestrian
- public access
- fire | emergency

Planning + Design Phase

Massing



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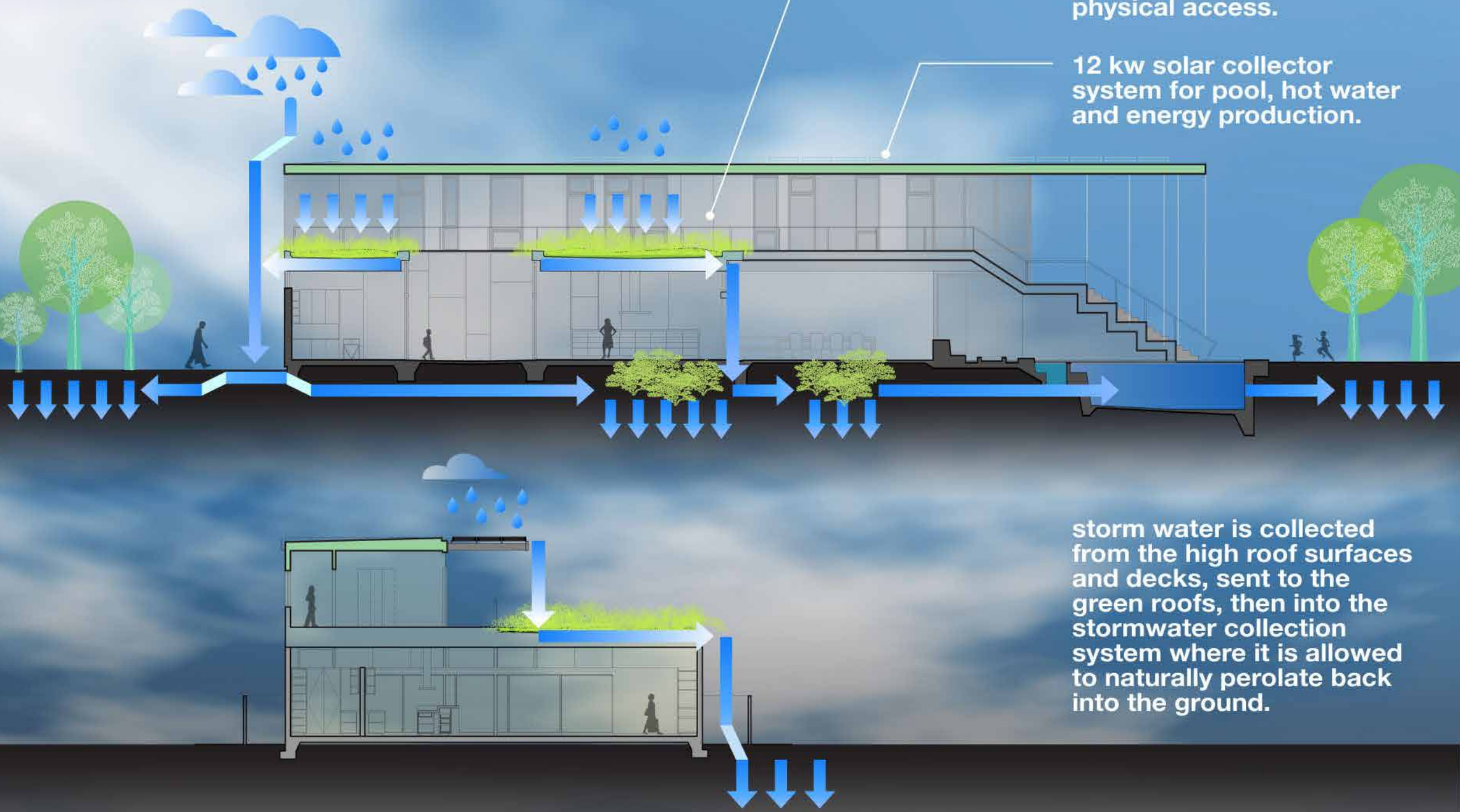
Water Management



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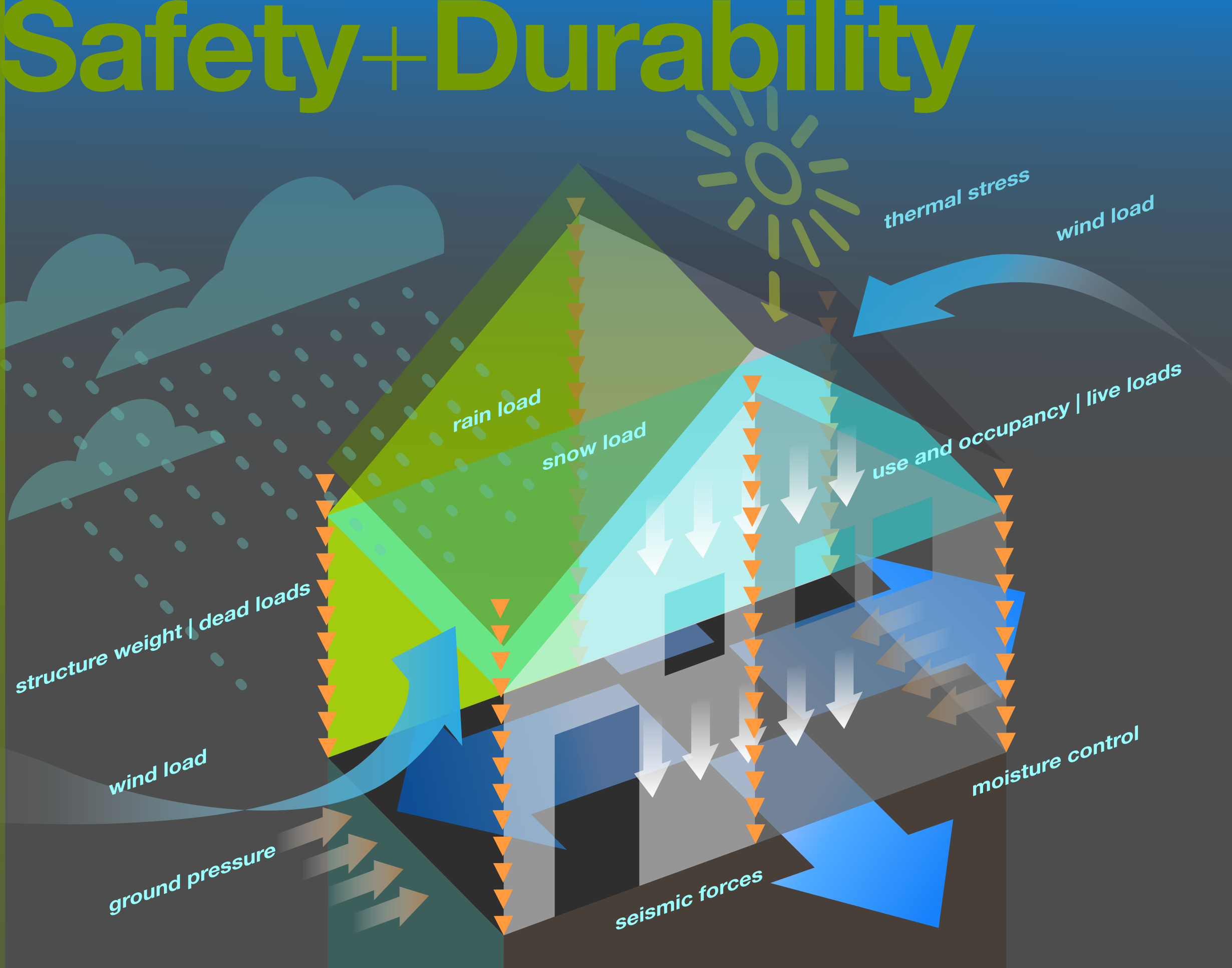
Safety+Durability



Planning + Design Phase

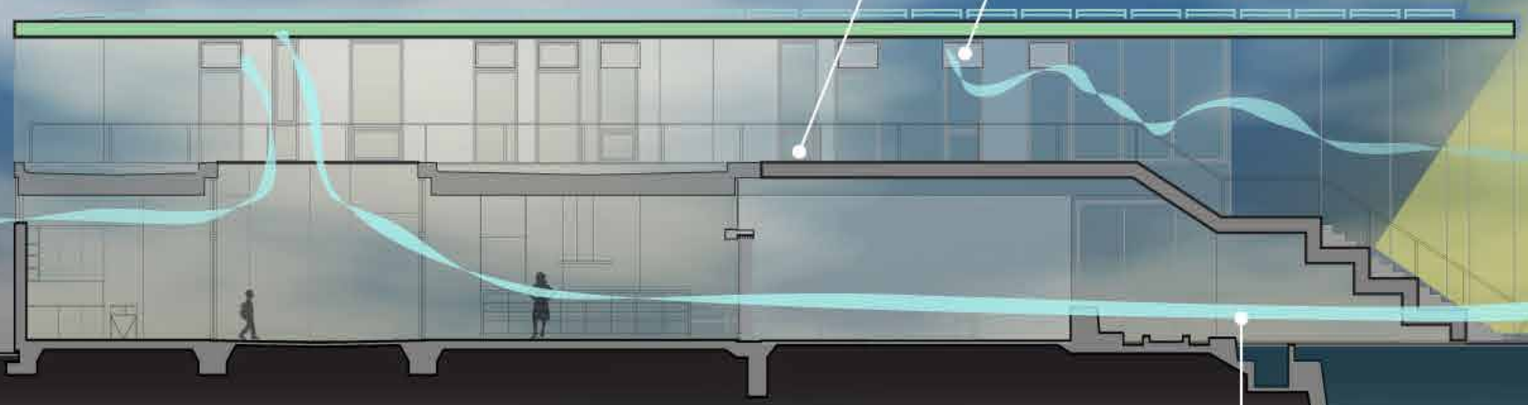
Ventilation+Air Quality

narrow floor plates increase natural daylight while cross ventilation reduces cooling loads and energy usage

louvered vents

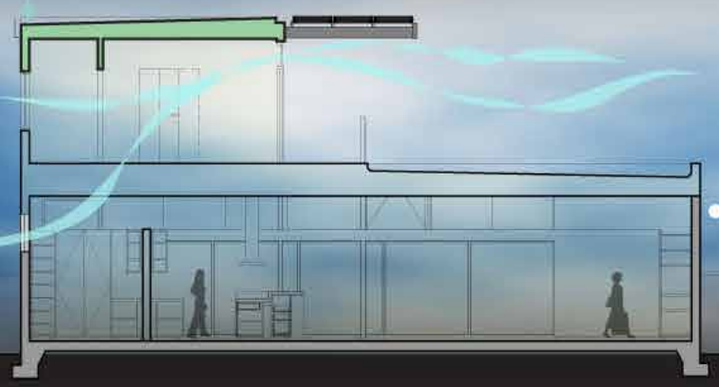
large roof overhangs provide maximum shade, reducing heat gain and increasing thermal comfort

Single room deep plan layout allows for maximum light, views and ventilation.



exterior courtyards combined with opposite side high and low windows provides good cross ventilation, air-flow and natural light

light colored roof materials with sarking and insulation



blown-in recycled cellulose insulation at all perimeter walls reduces infiltration and thermal bridging in combination with the vent skin cement board siding system

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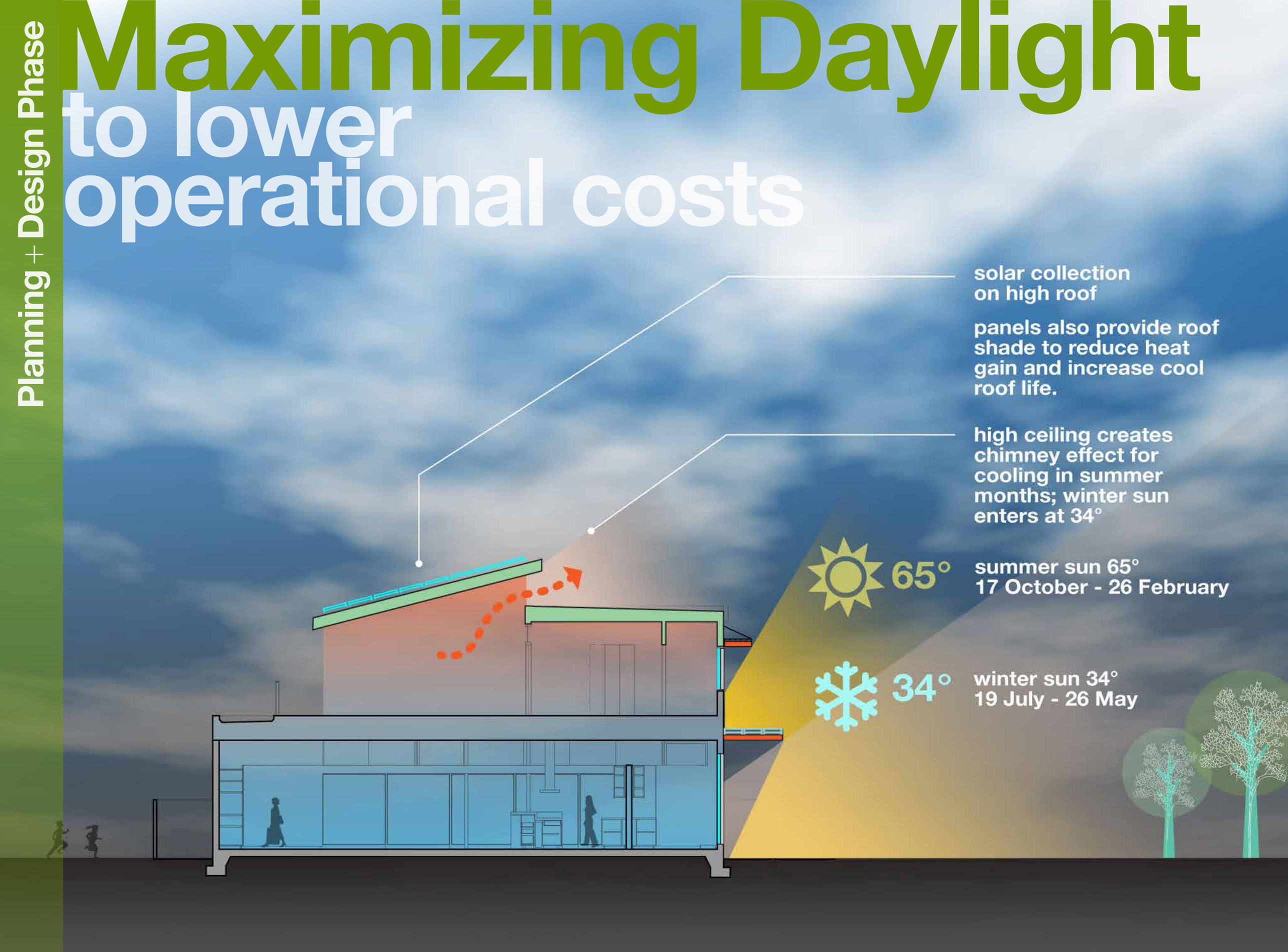
Maximizing Daylight to lower operational costs



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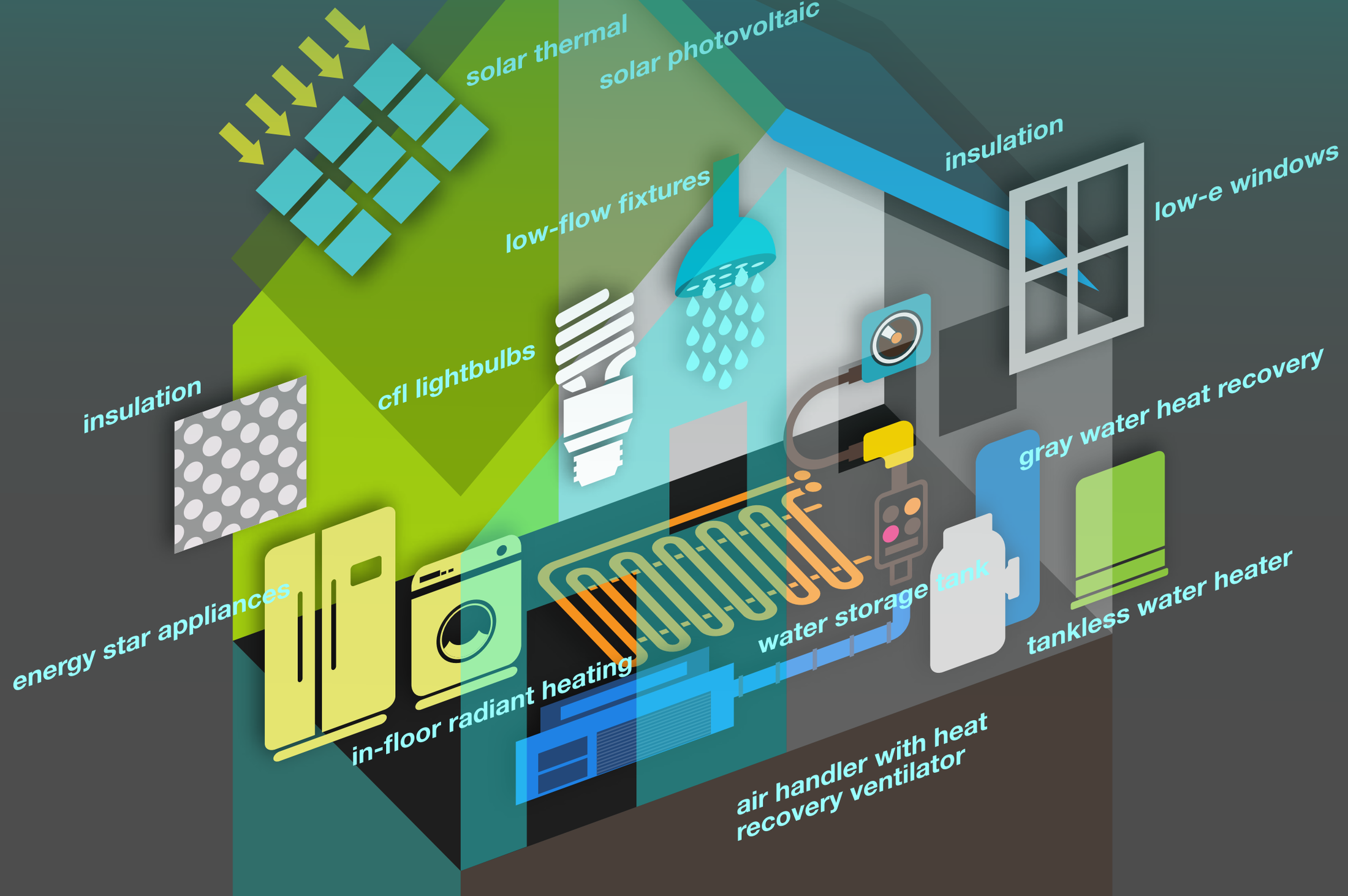
Integrating Technologies

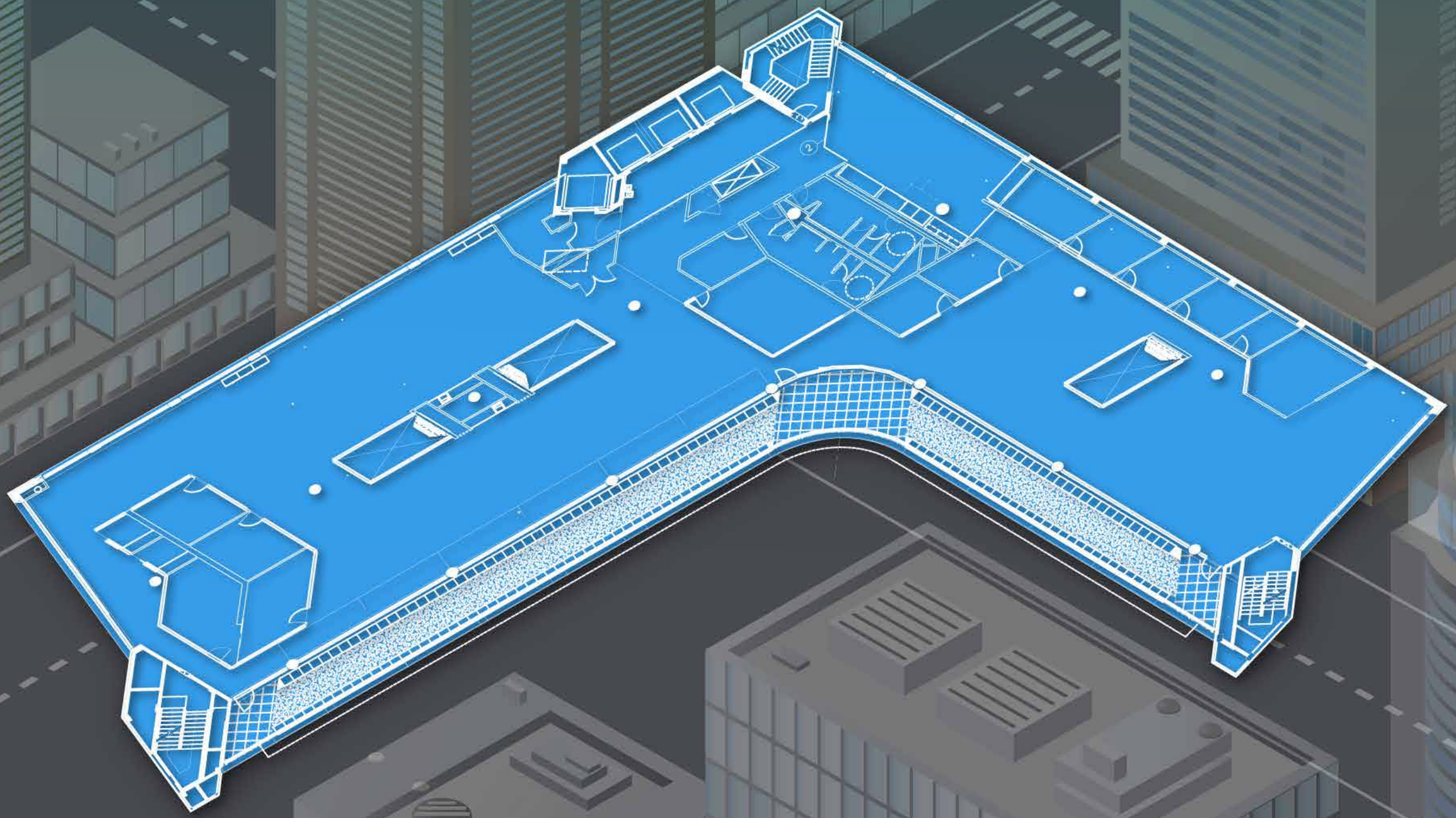


Construction Documentation Phase

Instructions to Build

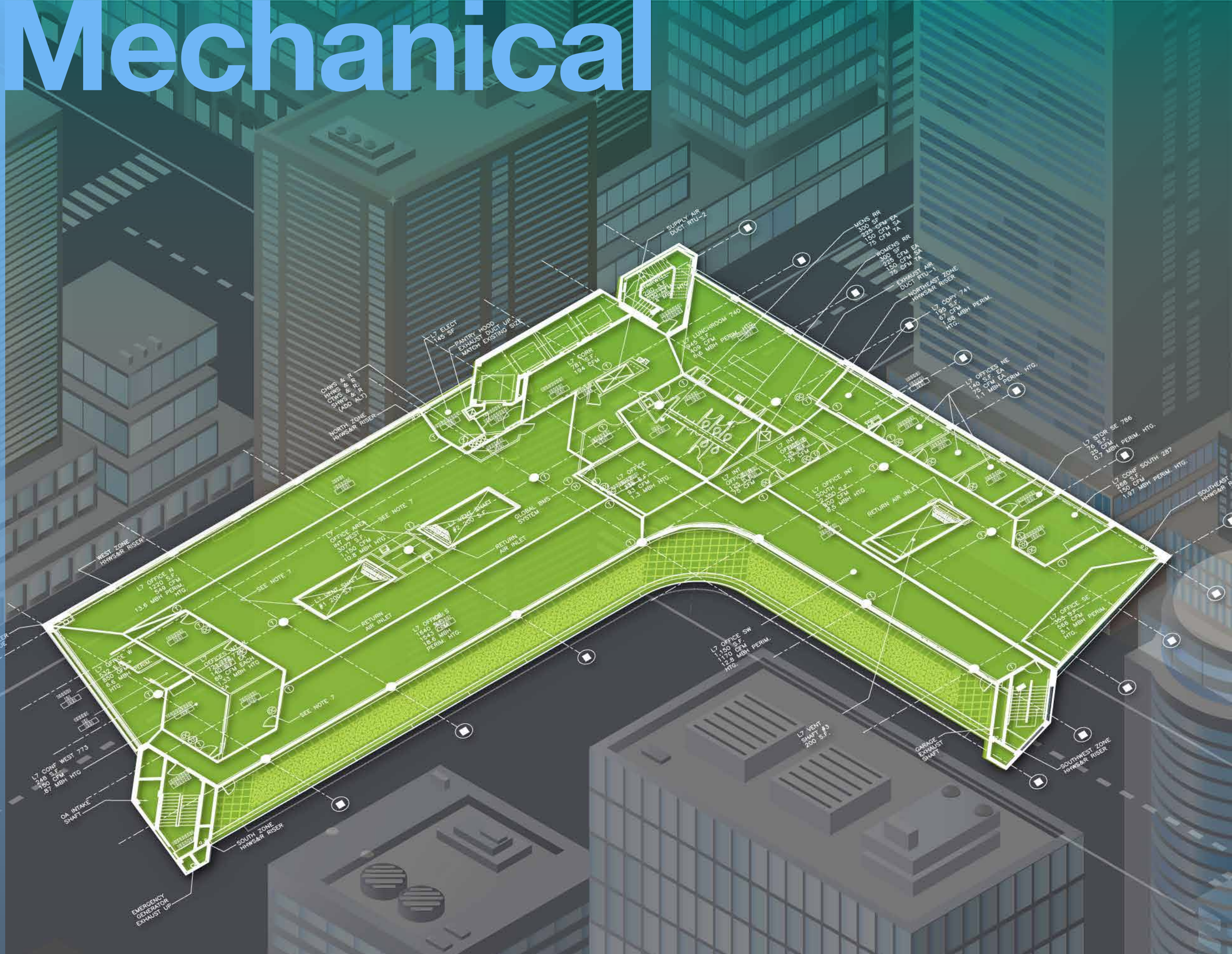
Architectural Floor Plan

Construction Documentation Phase—Instructions to Build



Construction Documentation Phase—Instructions to Build

Mechanical



Electrical

Construction Documentation Phase—Instructions to Build

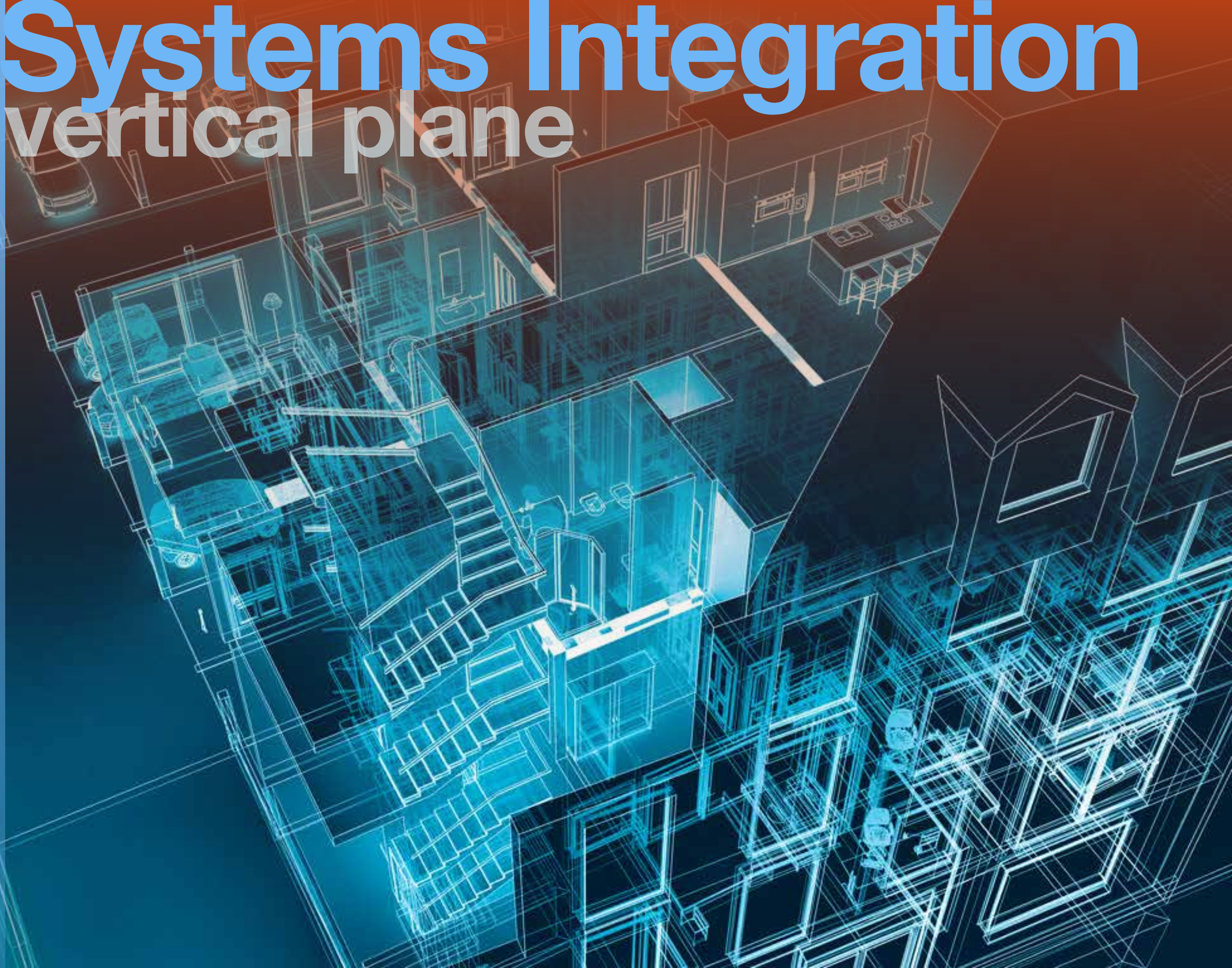
Plumbing

Construction Documentation Phase—Instructions to Build

Construction Documentation Phase—Instructions to Build

Systems Integration

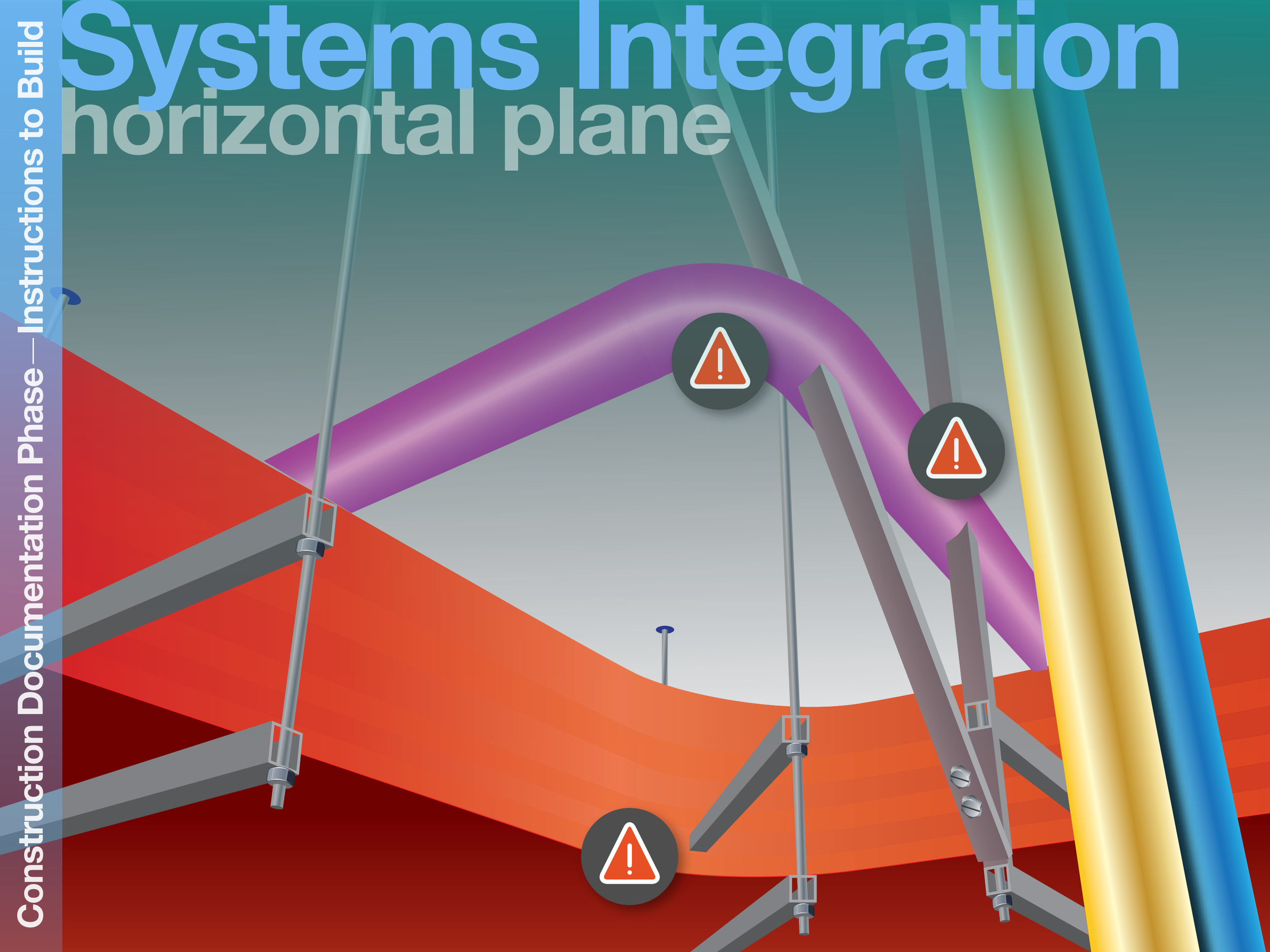
vertical plane



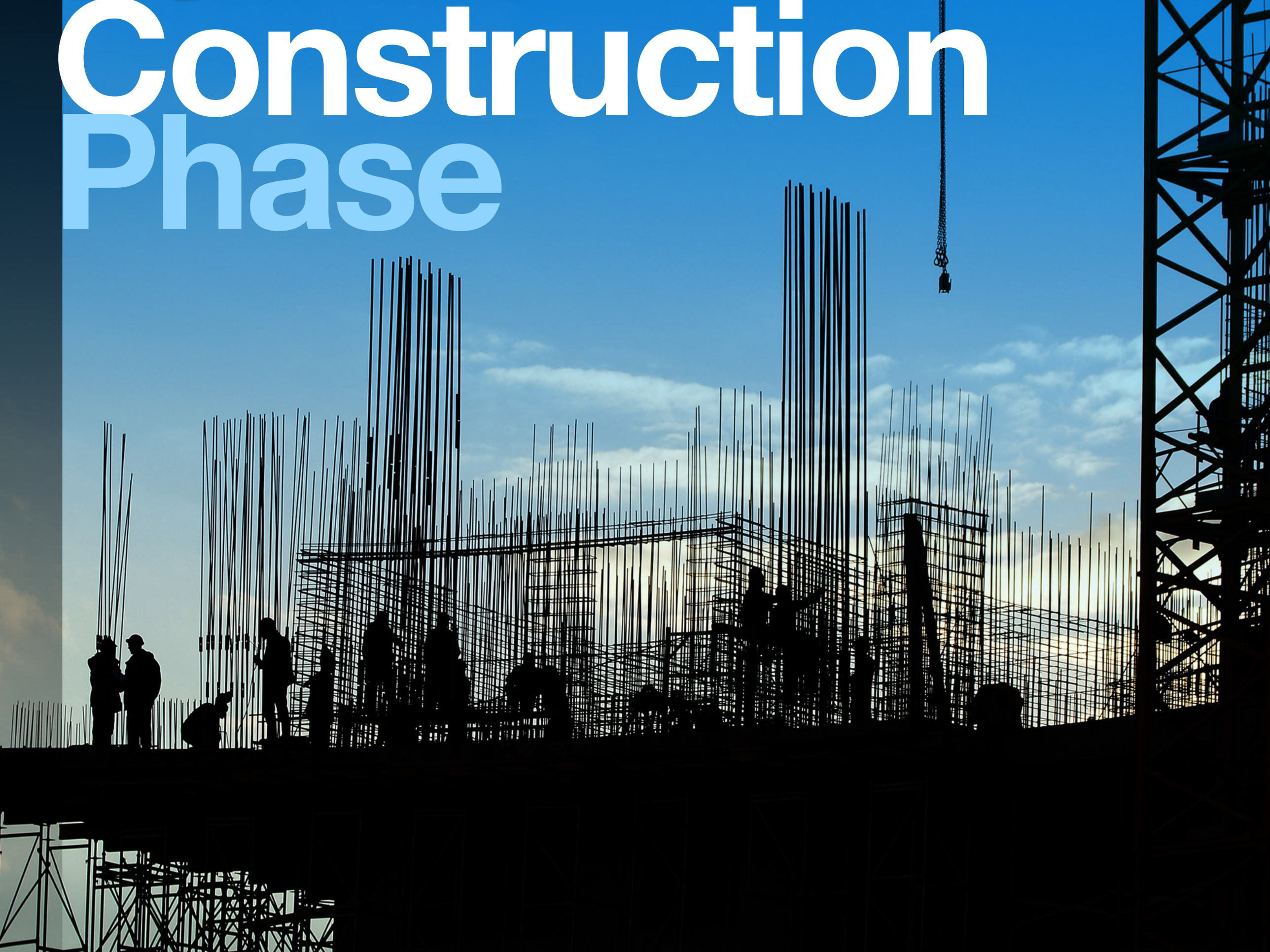
Construction Documentation Phase—Instructions to Build

Systems Integration

horizontal plane



Construction Phase



Construction Phase

Permitting

Construction Phase

Interviewing Contractors

Construction Phase

Coordinating Inspections

Construction Phase

Managing Change Orders

Post-Construction Phase

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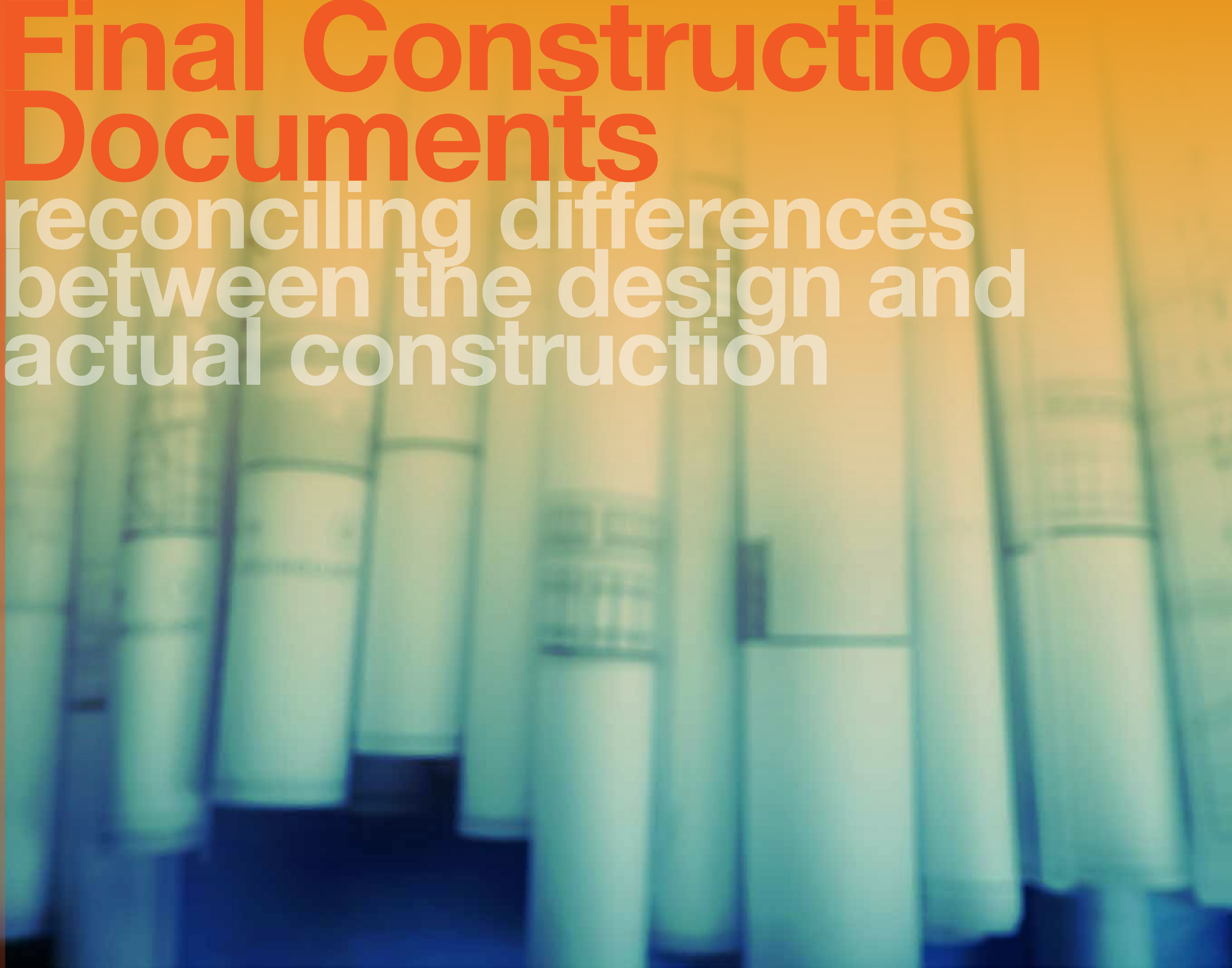
Post-Construction Phase

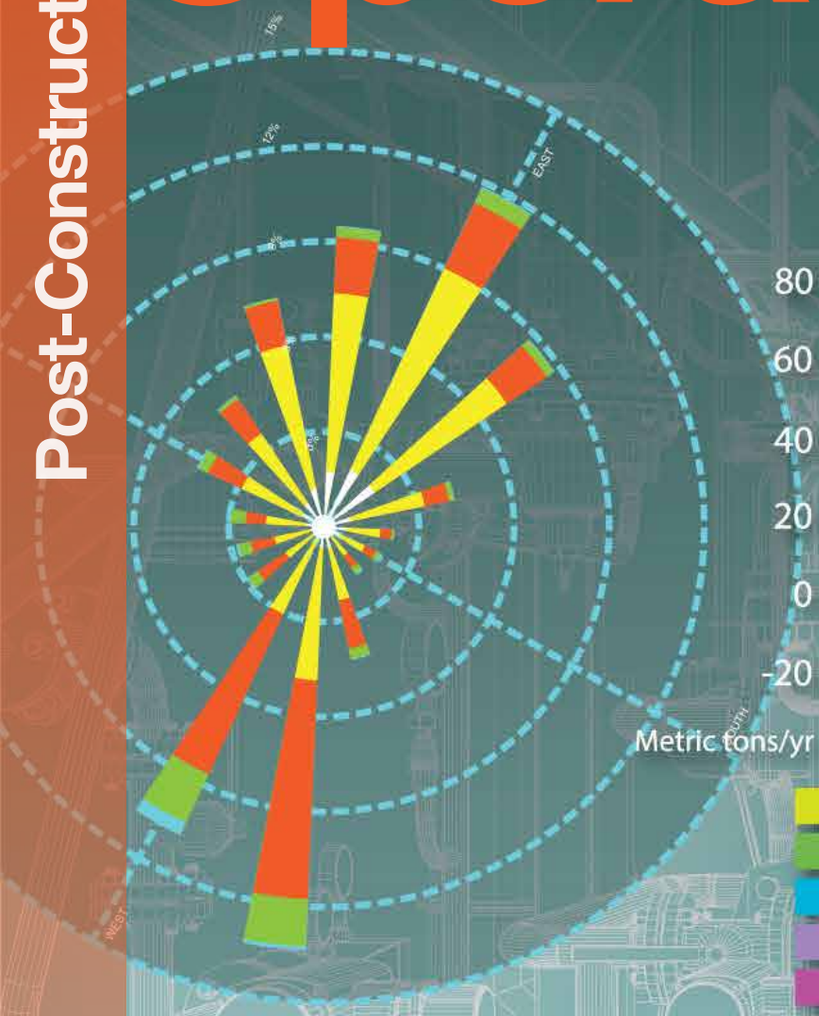
Final Construction Documents

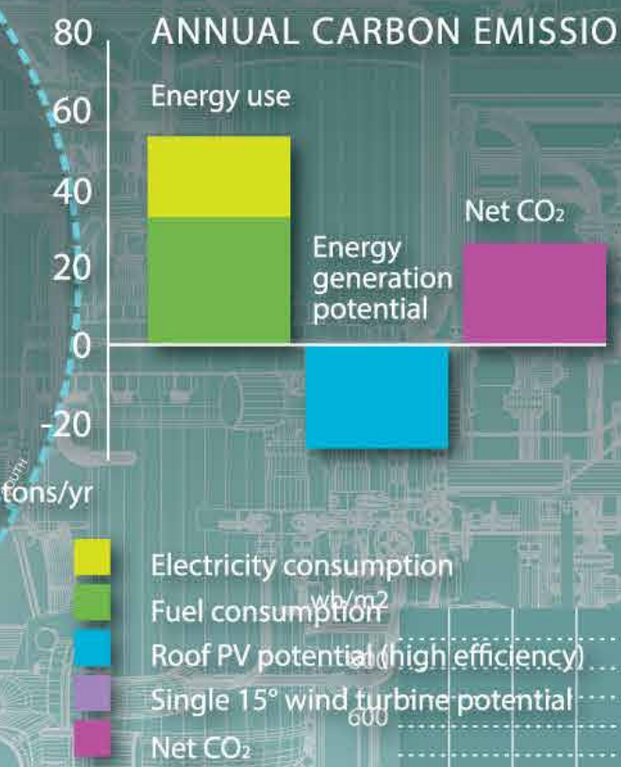
reconciling differences between the design and actual construction

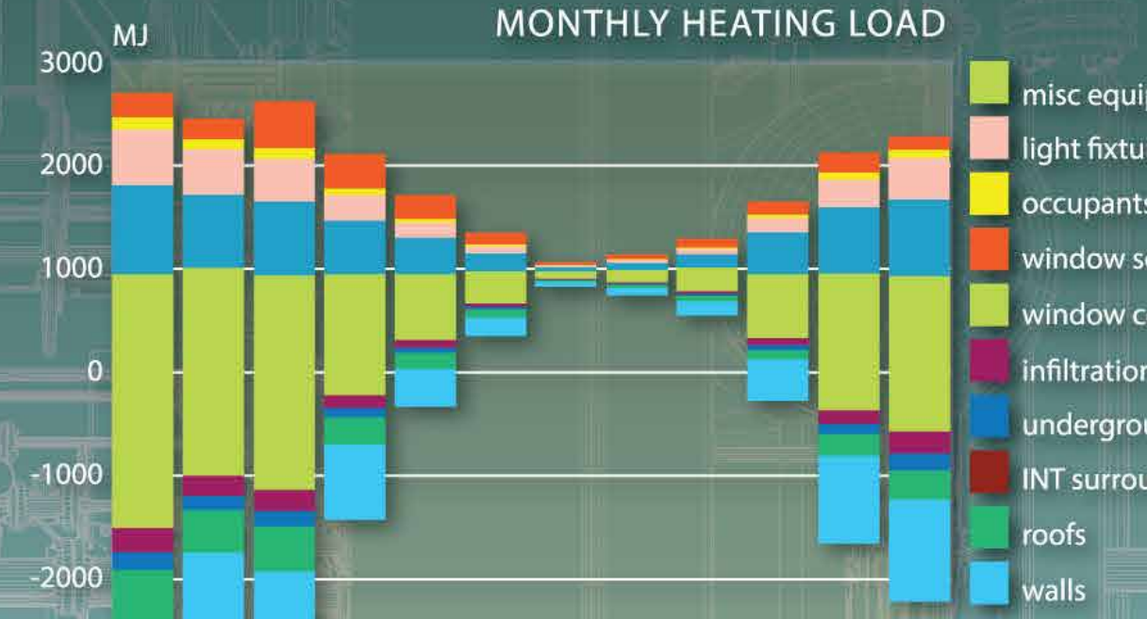


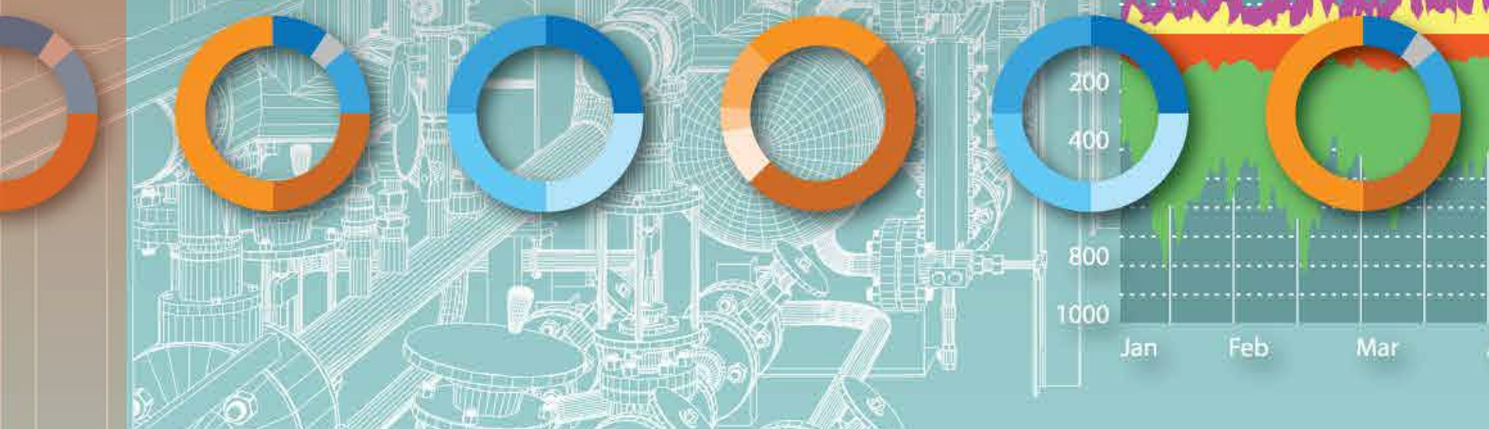
Post-Construction Phase

Maintenance+ Operation









Thanks

Special thanks to the following organizations for providing the architectural plans and other reference images that were used in the creative process of this document:

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