A New Way To Connect To Travel

Northstar Commuter Rail Community

Ryan Quast

Theoretical Premise

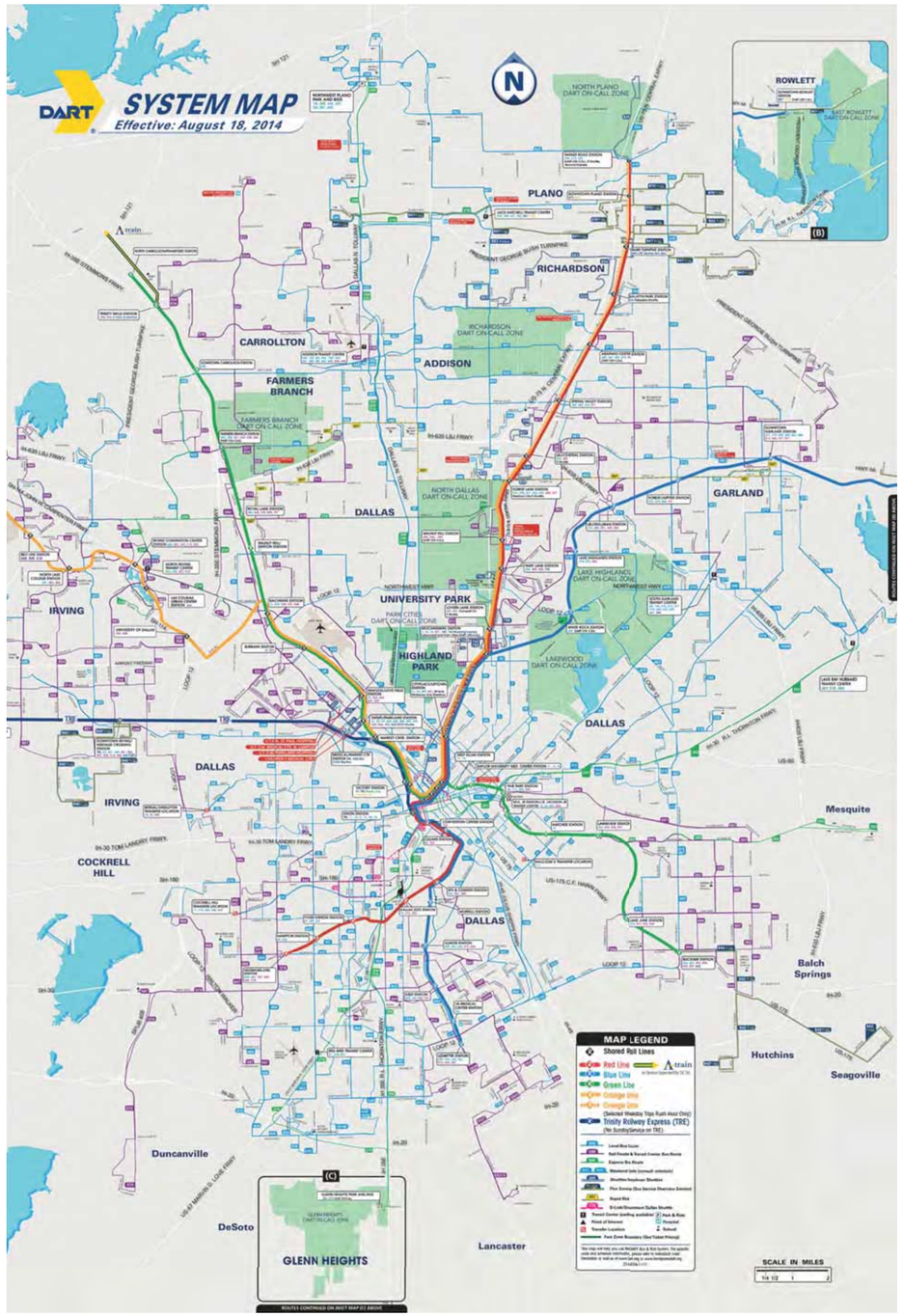
This thesis examines how architecture can make mass transit more accessible and desirable to the public, while also taking the considerations of the public to mould the design into a more improved form and function. Specifically, it examines how making downtown areas accessible through public transportation and creating an on-site living population would enhance the lives of those that would be using the system.

A key focus was to create a community of these on-site mass transit commuters that have ways of connecting amongst each other, while also connecting with the urban and suburban communities it neighbors and connects to. This transportation hub and multi-family living complex in the suburbs also looks to enhance the image of public transportation to that of an advanced transportation system that is both safe and reliable for the public.

Case Studies

D.A.R.T. (Dallas Area Rapid Transit)

An example of how communities connected to a major downtown center thrive and create a huge economic benefit for those cities and its citizens

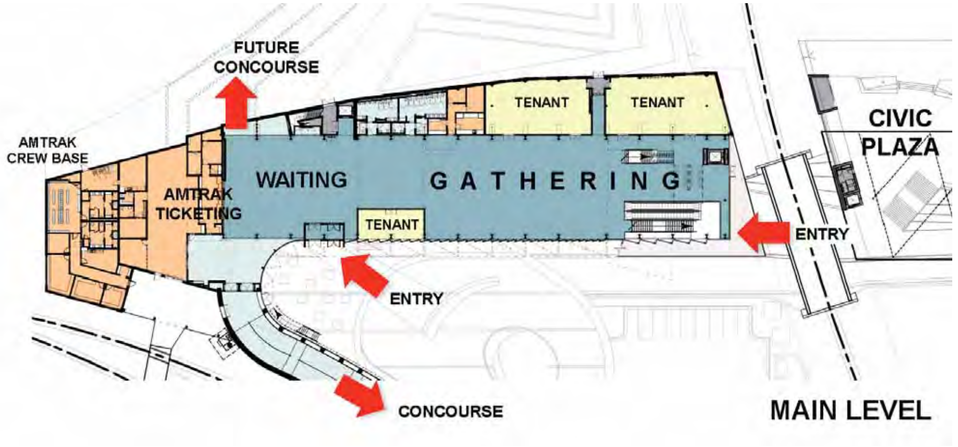


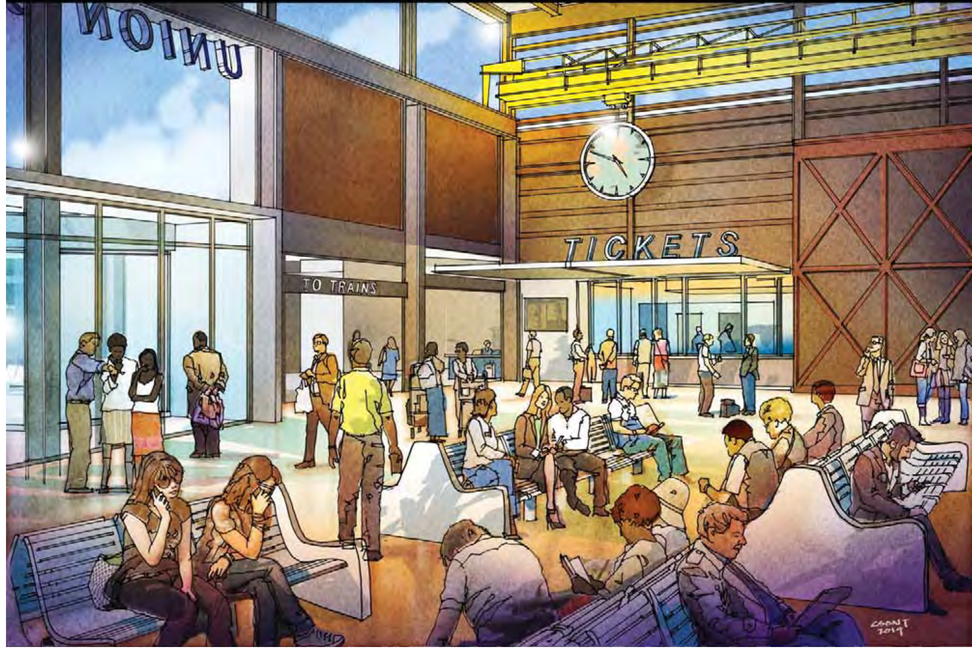
The Residence at the COR

The focus of a larger Ramsey, MN community that was similarly built along the Northstar Commuter Rail line. A larger community development than this thesis, it was largely a failure due to it being disconnected from transit and commercial developments

Union Station: Raleigh's Multi-Modal Transit Center

A redesign of a large part of an older industrial district in Raleigh, North Carolina that took a modern approach amongst these historic buildings. Many key features of the program were decided on following this open and flowing design for a station.





Apartments Along the Hiawatha Light Rail

And problems with downtown living

Smaller amount of space

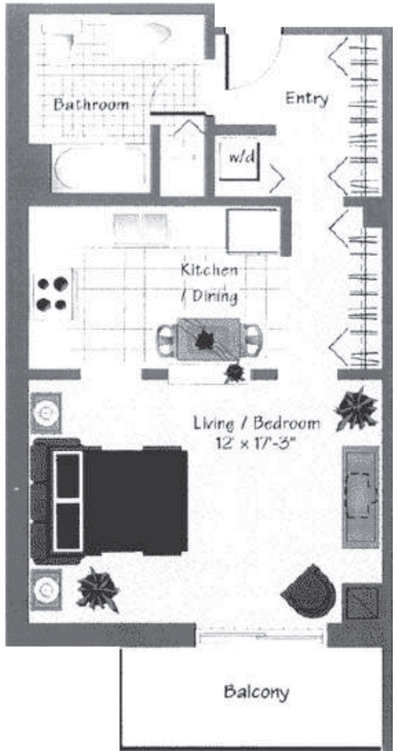
Older layout configurations in many buildings

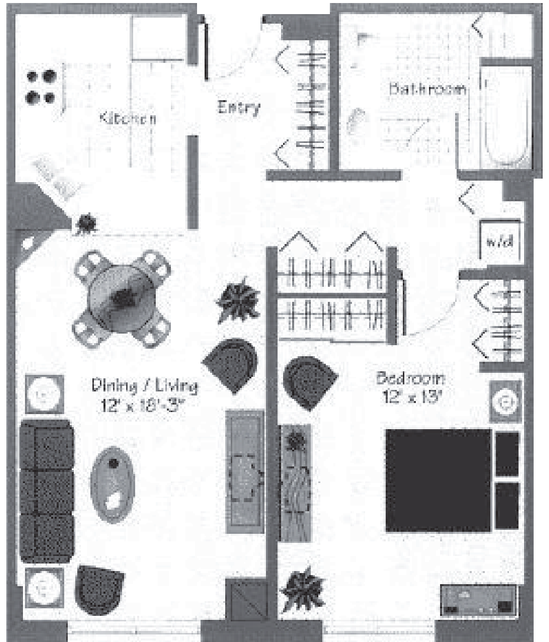
Price of land and construction is much higher

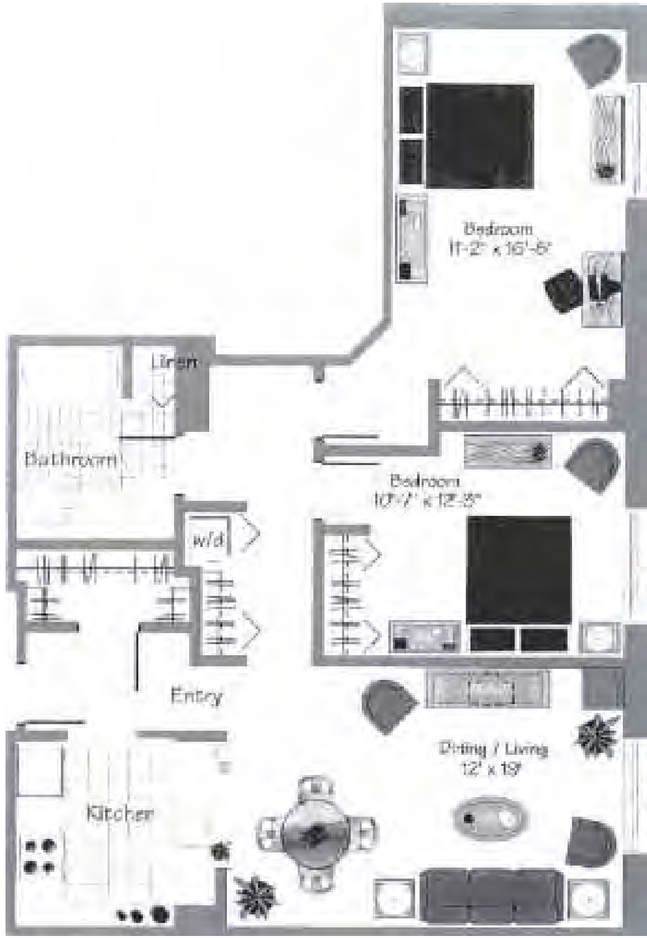
Connectivity in cheaper downtown is still an issue

Less amenities available

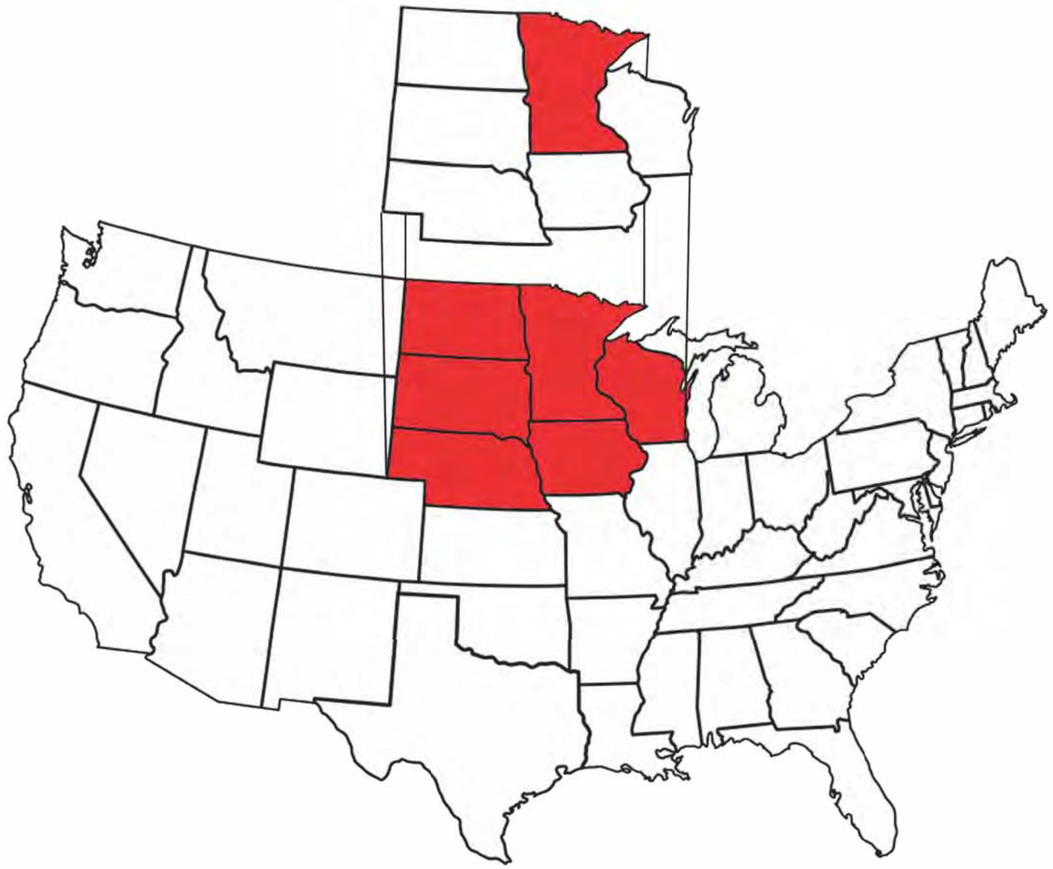
Green/open space is limited in many areas

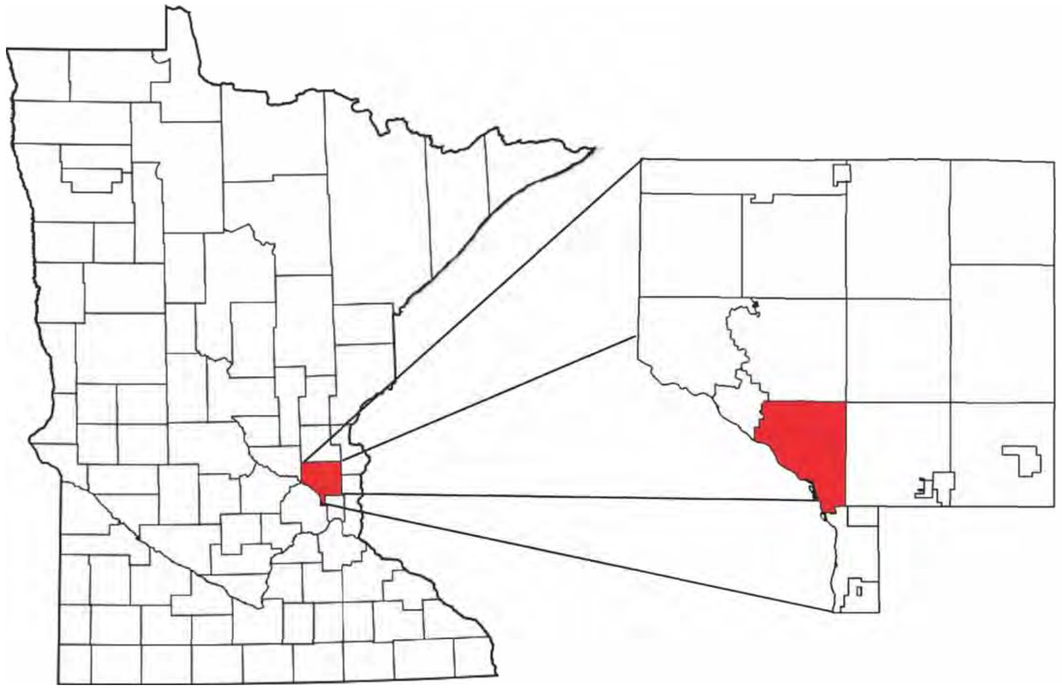


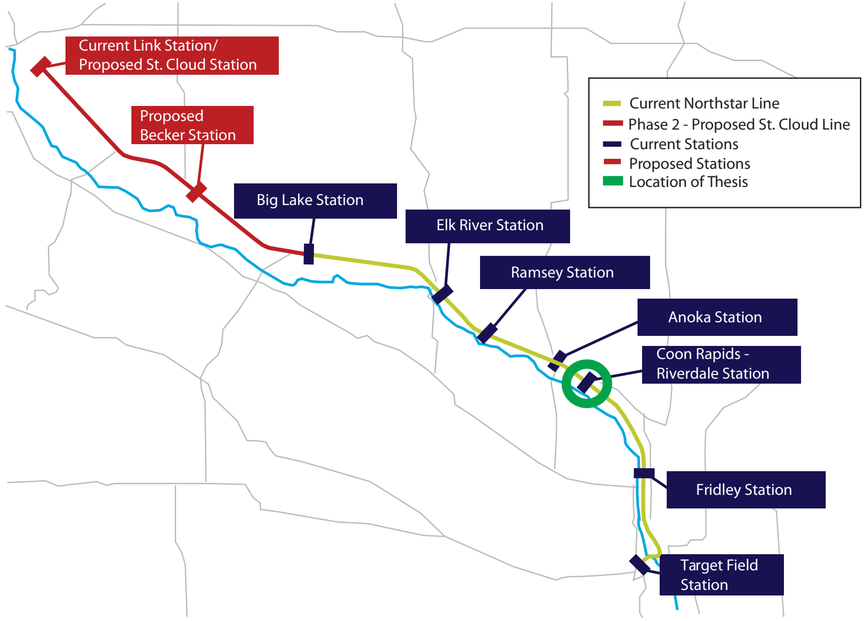




Site Location: Coon Rapids, MN
Northstar Commuter Rail Lines



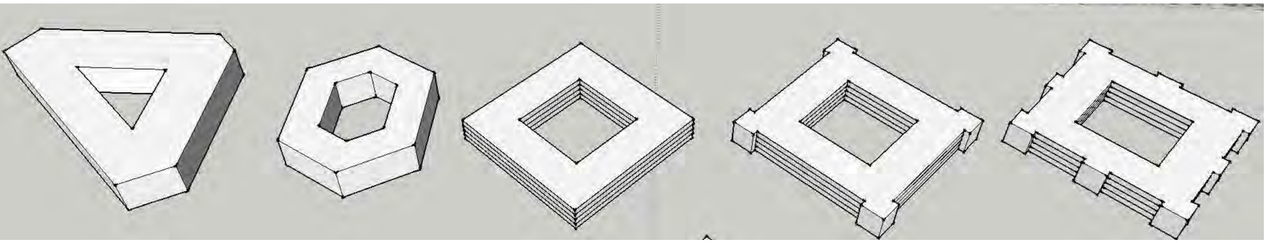


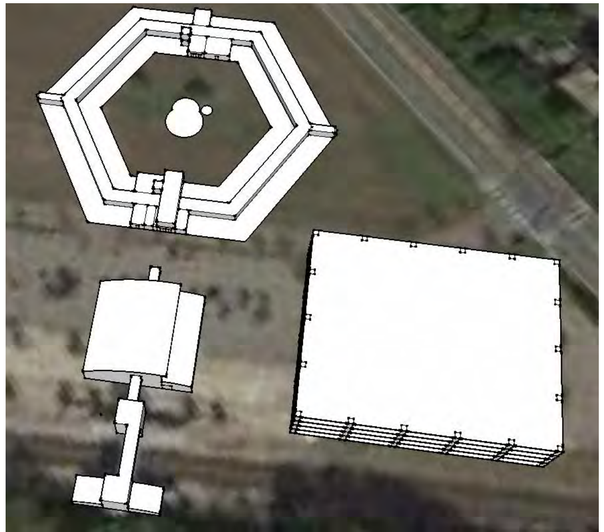


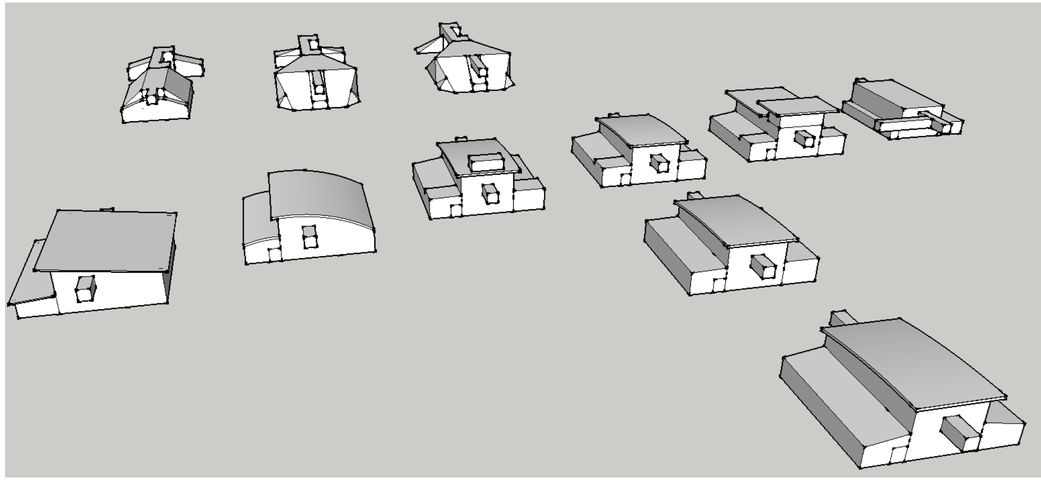
Requirements and Process

Connection to transit center and vehicle parking
Additional amenities compared to downtown
High-end finishes for upscale urban feel
Connection to other tenants in building
Inner community courtyard
Outdoor green space
Shared experience of public transportation
Positive and powerful visual impact on site to attract attention

Accessible to the public both visually and physically
Open, easily redefined spaces for multi-purpose use
Small commercial development included
Plaza around station for outdoor use
Connect to downtown building styles







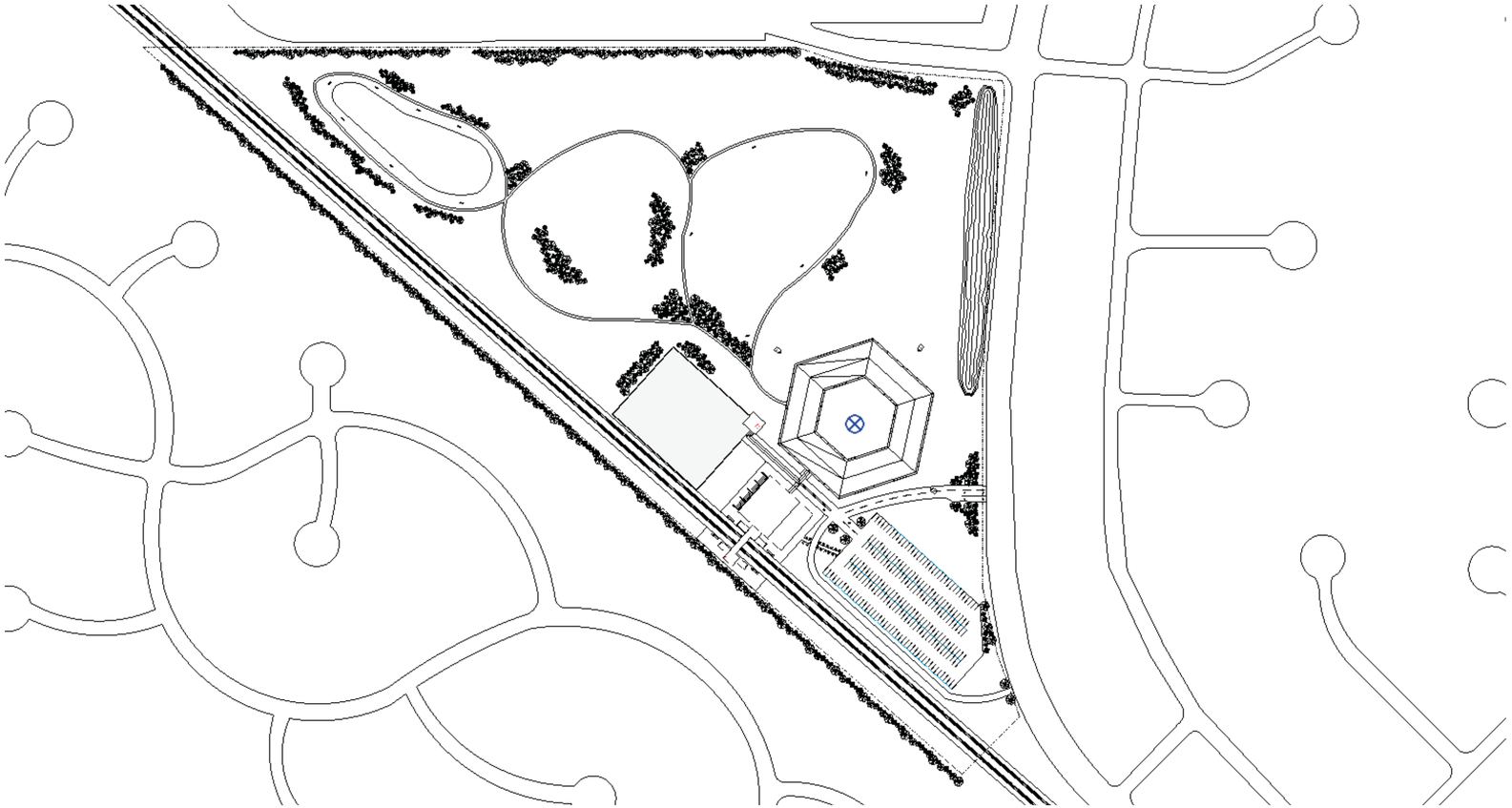
Reinventing the Site

Promoting community living amongst like-minded individuals

Advancing the concept of mass transit and public transportation

Create an environment that mixes the positives of both downtown and suburban living

- Amount of space
- Dual park aesthetics and environment
- Connectivity to both communities



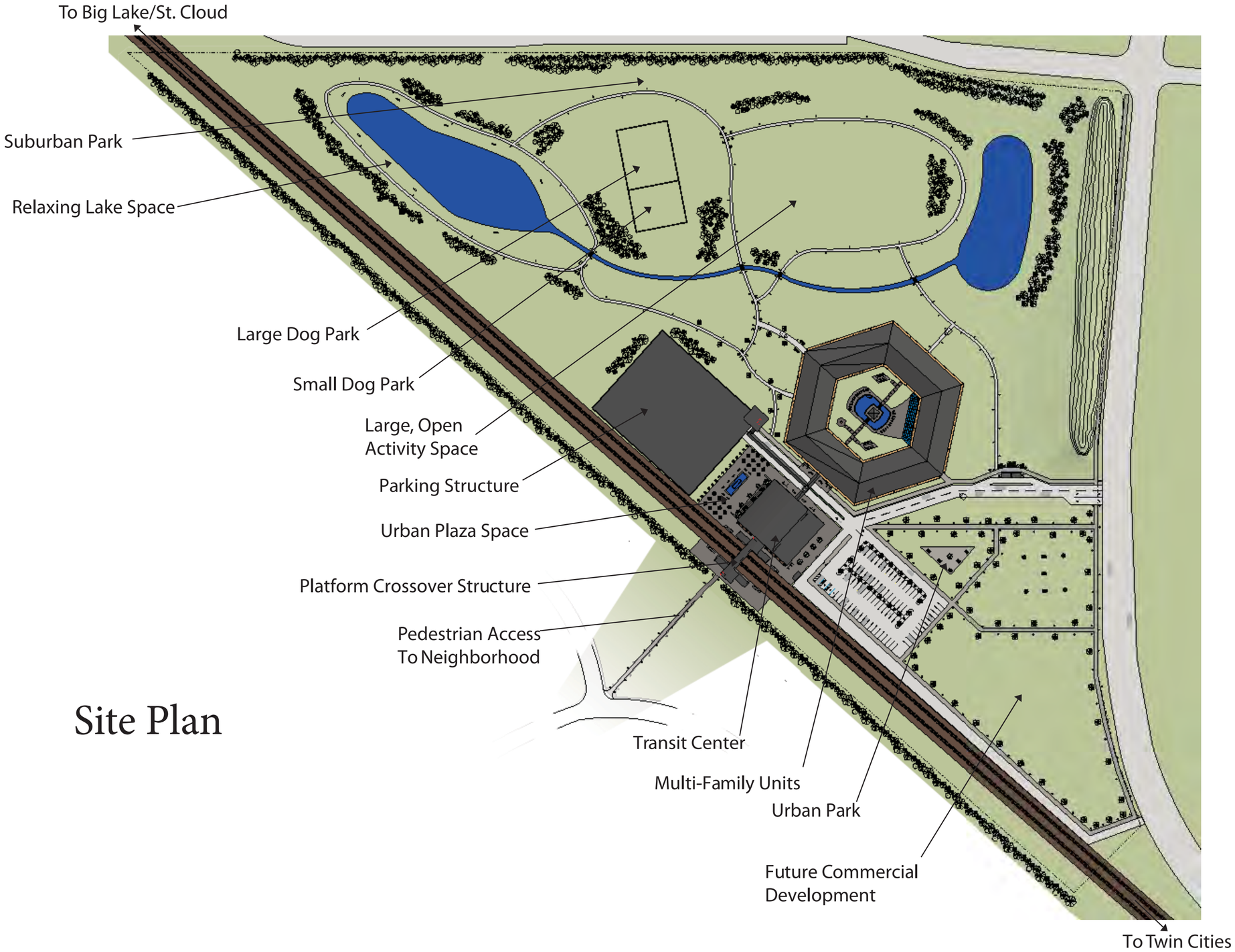
Current Site Context

Site and Riverdale Context

Site and Neighborhood Context

West view from NW corner of site

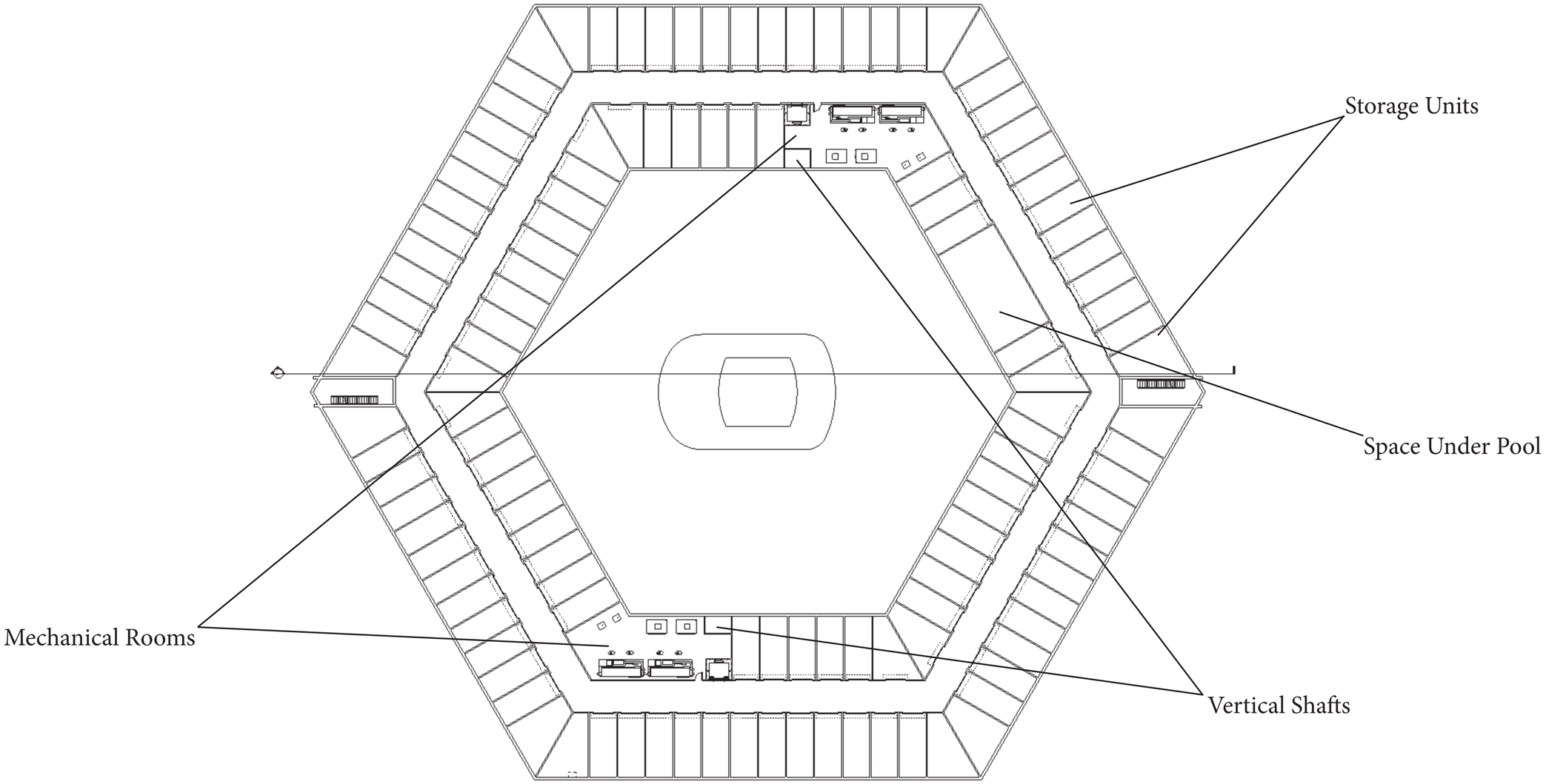
South view from NW corner of site


To Big Lake/St. Cloud
Suburban Park
Relaxing Lake Space
Large Dog Park
Small Dog Park
Large, Open
Activity Space
Parking Structure
Urban Plaza Space
Platform Crossover Structure
Pedestrian Access
To Neighborhood
Transit Center
Multi-Family Units
Urban Park
Future Commercial
Development
To Twin Cities

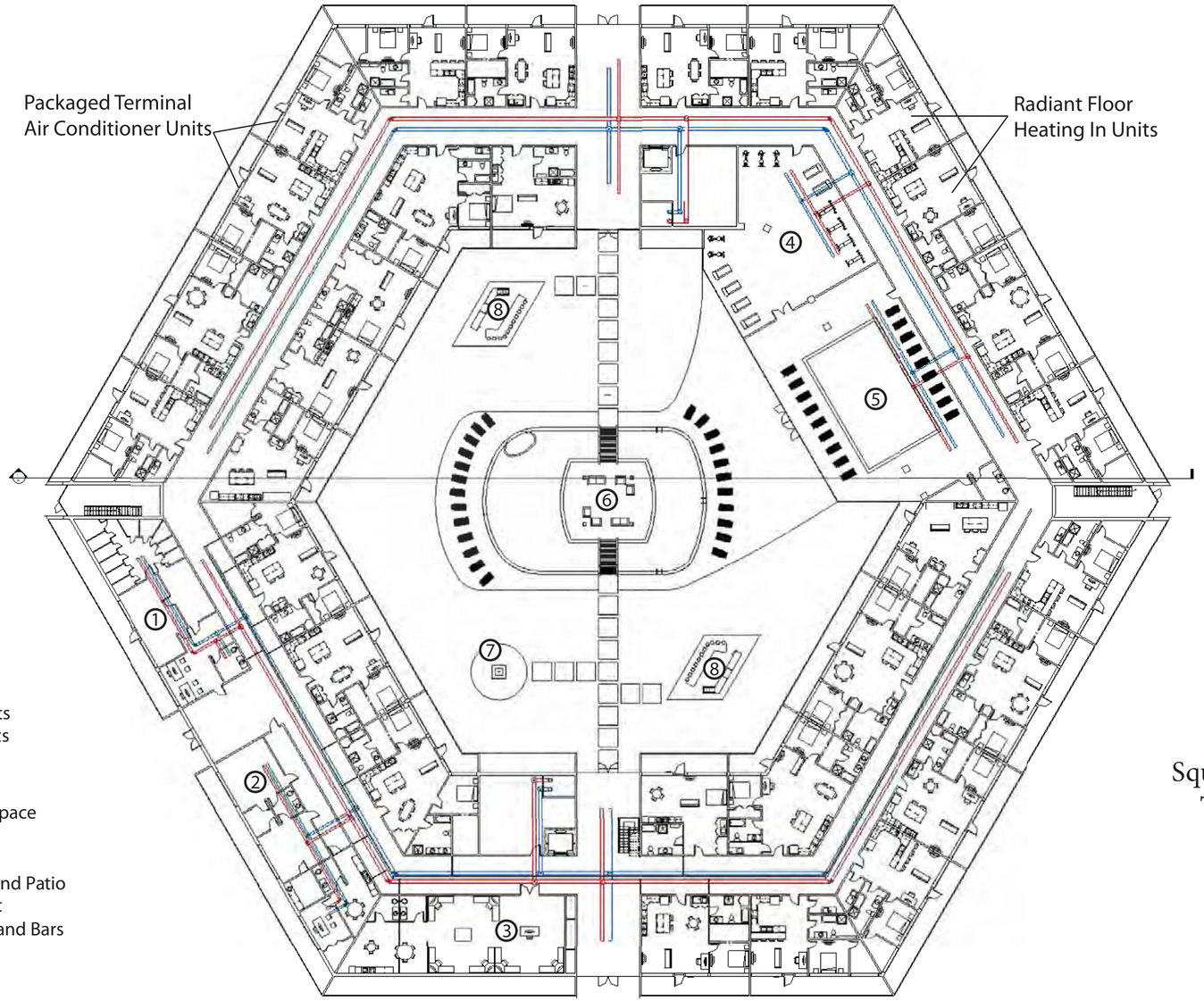
Site Plan

Site Overview

Apartment Basement Level Floor Plan



Apartment First Level Floor Plan

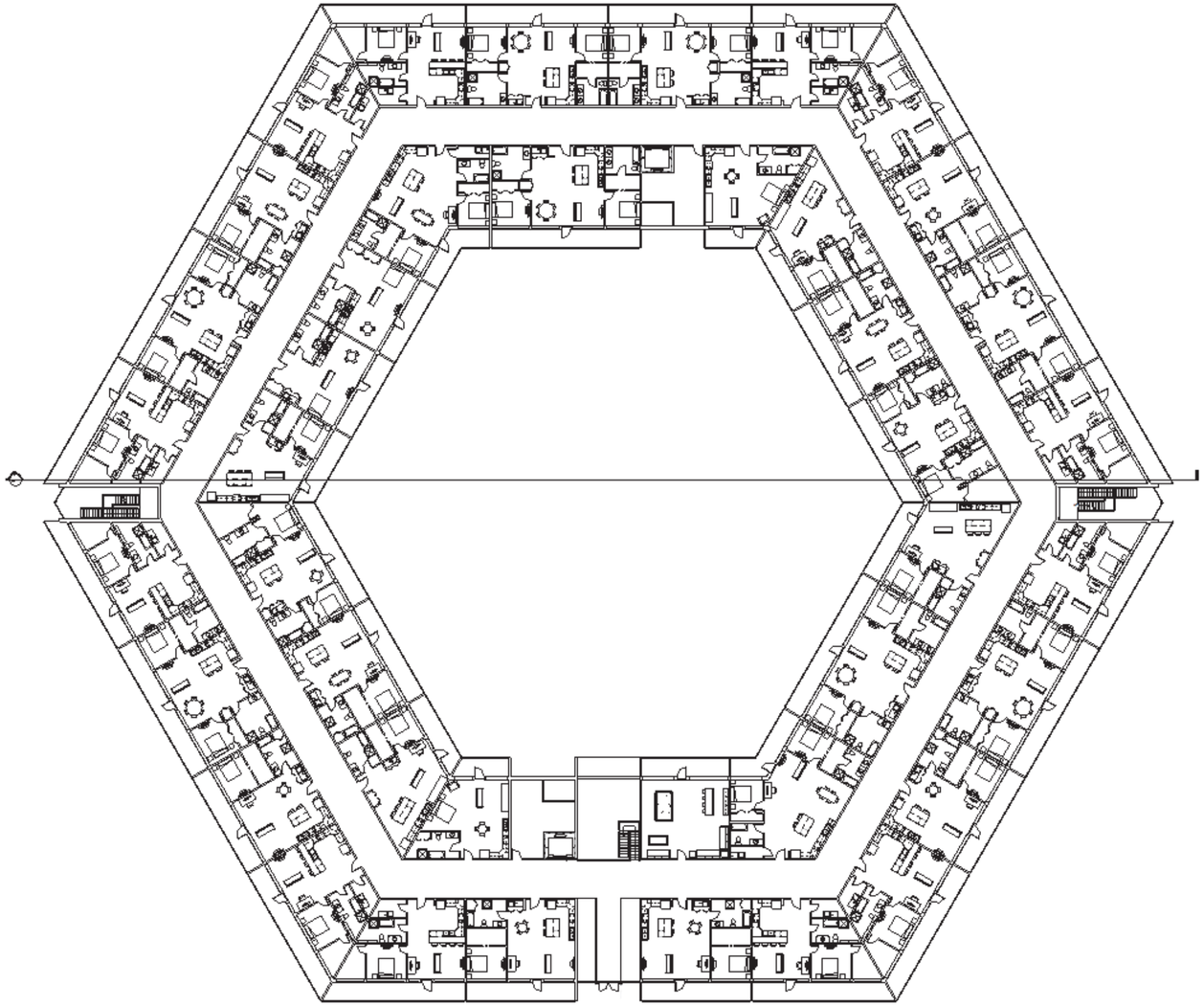


Supply Air Ducts
Return Air Ducts
1 Pet Daycare
2 Child Daycare
3 Owner Office Space
4 Fitness Room
5 Indoor Pool
6 Outdoor Pool and Patio
7 Outdoor Firepit
8 Outdoor Grills and Bars

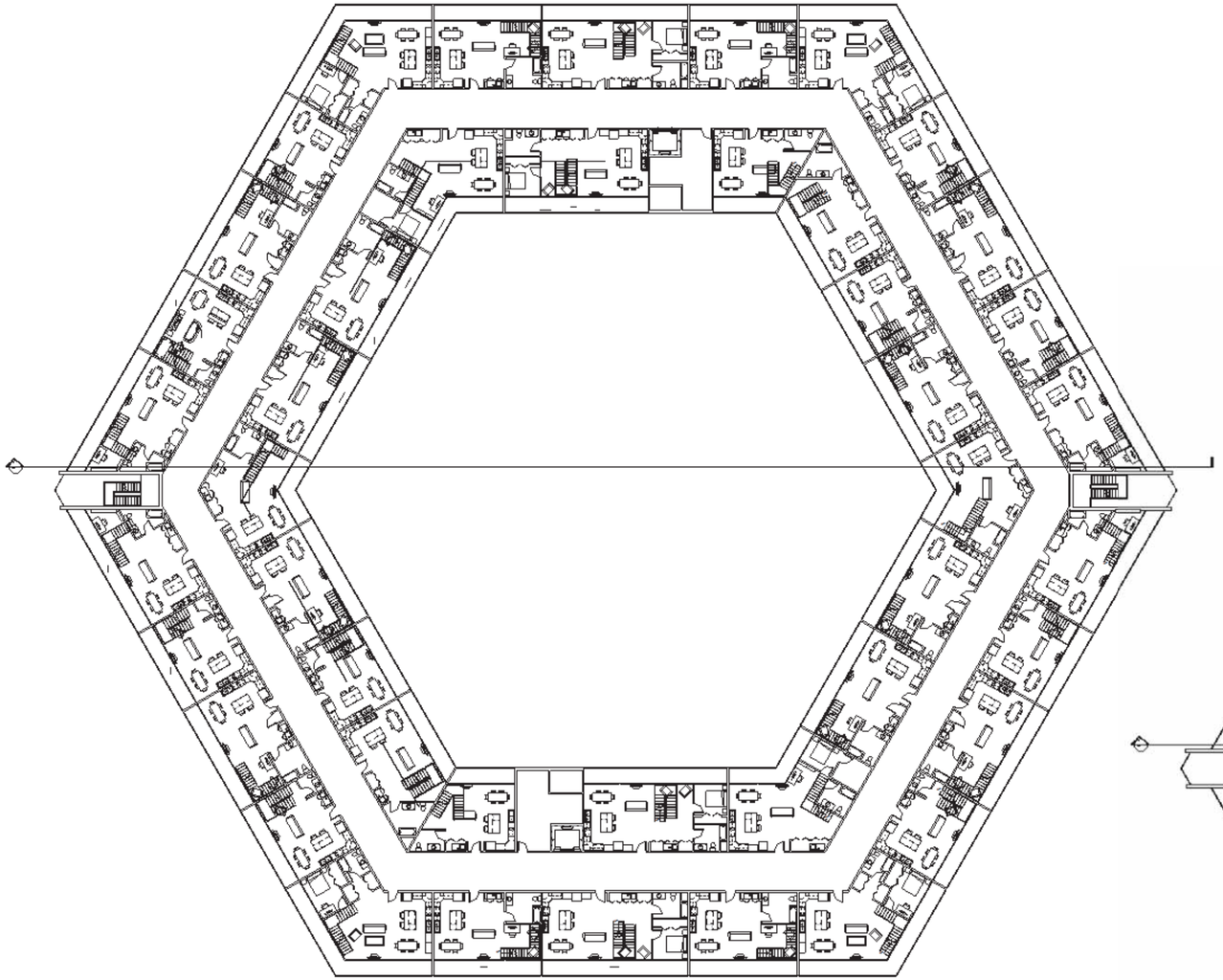
Square feet per level = 53,586 ft^2
Total square feet = 267,930 ft^2

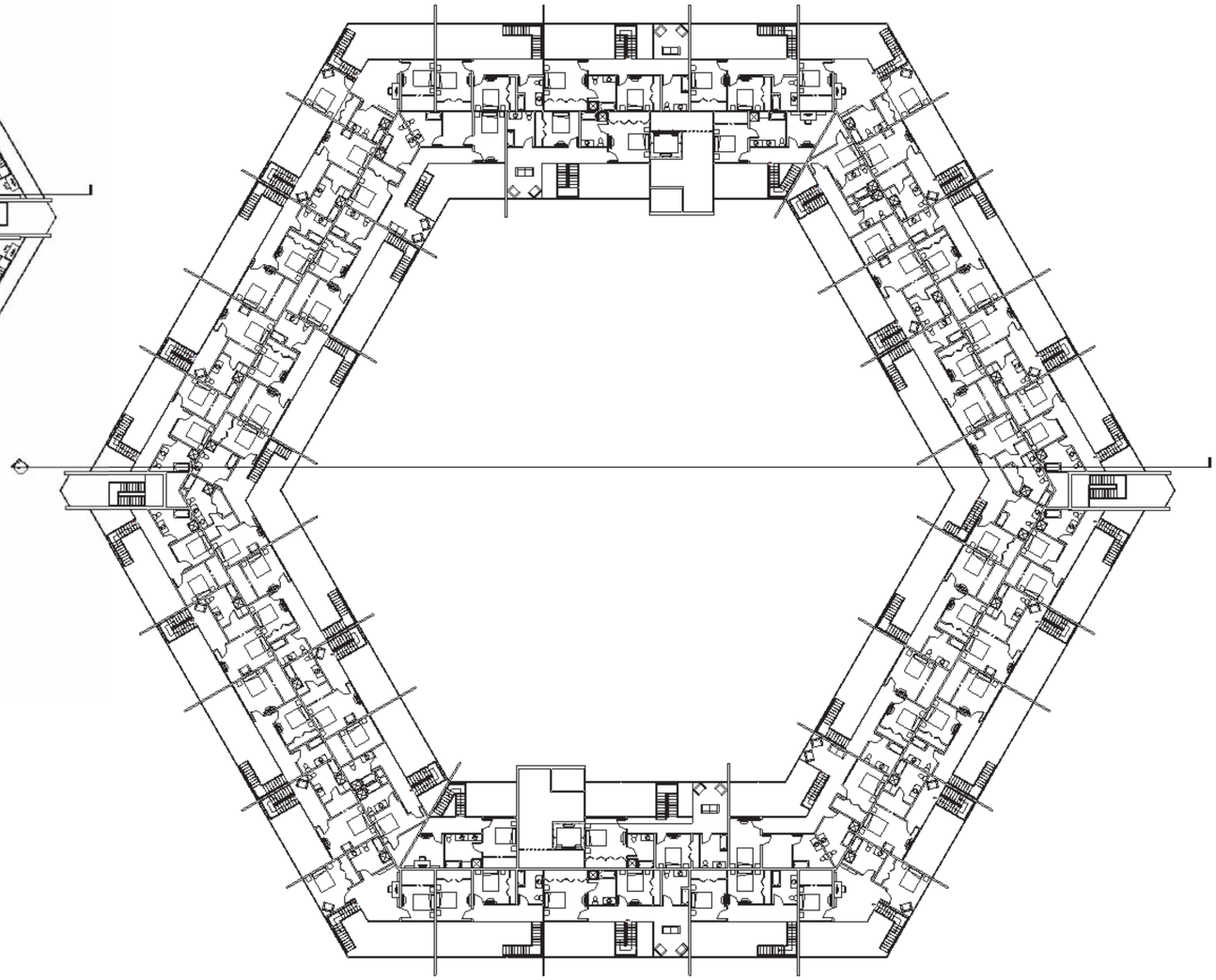
Total Units = 155

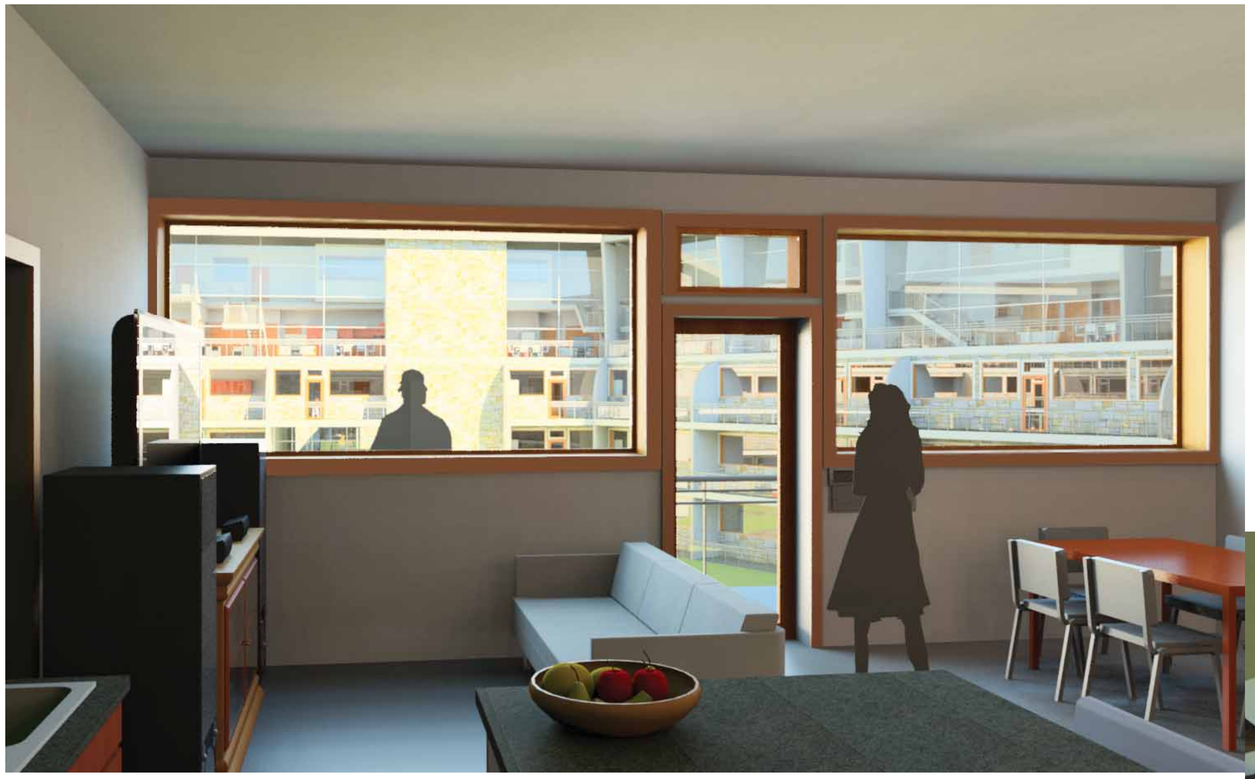
Apartment 2nd & 3rd Level Floor Plans



Apartment Two Story Unit Floor Plans





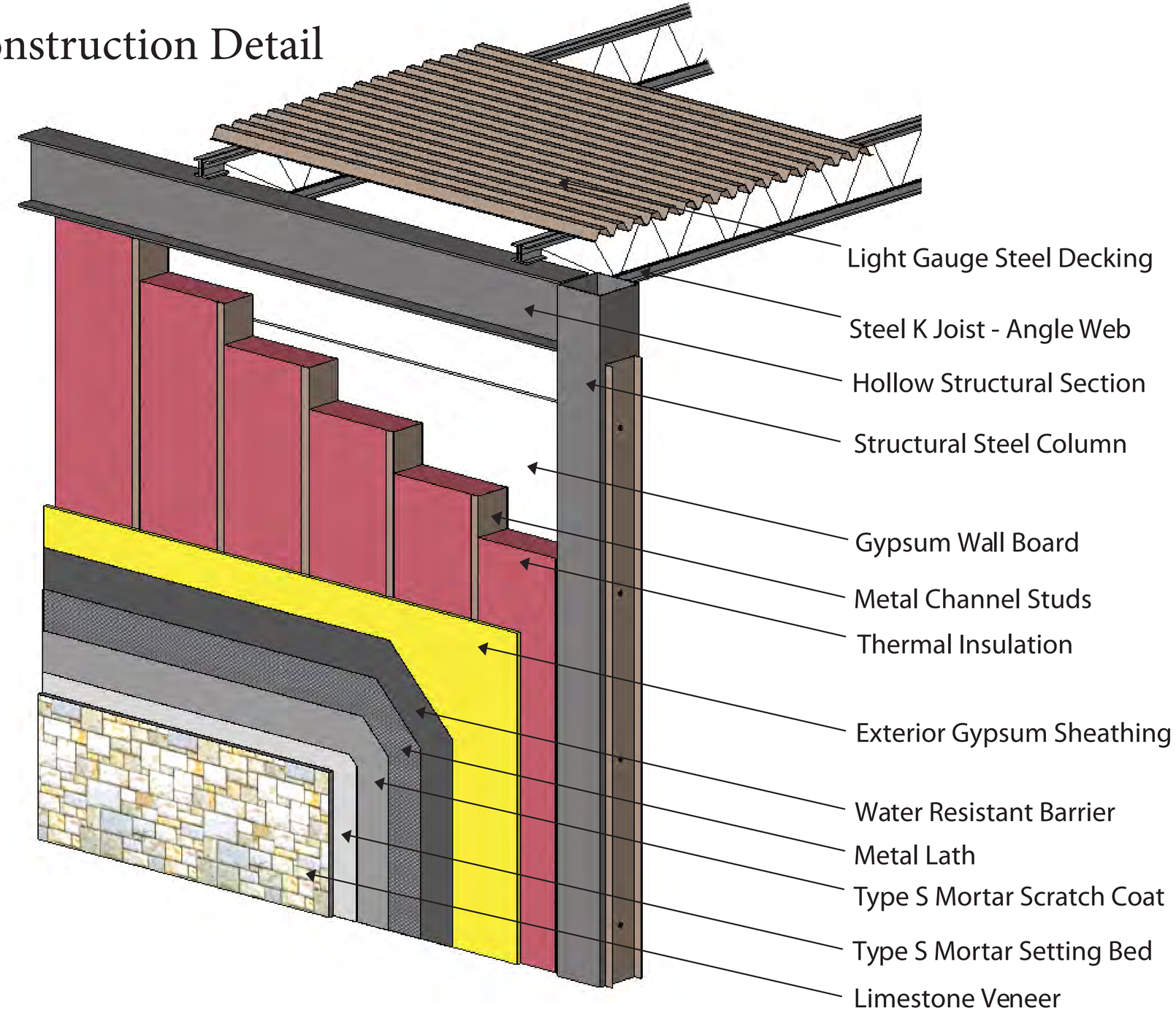


Open Concept Standard Unit to Courtyard

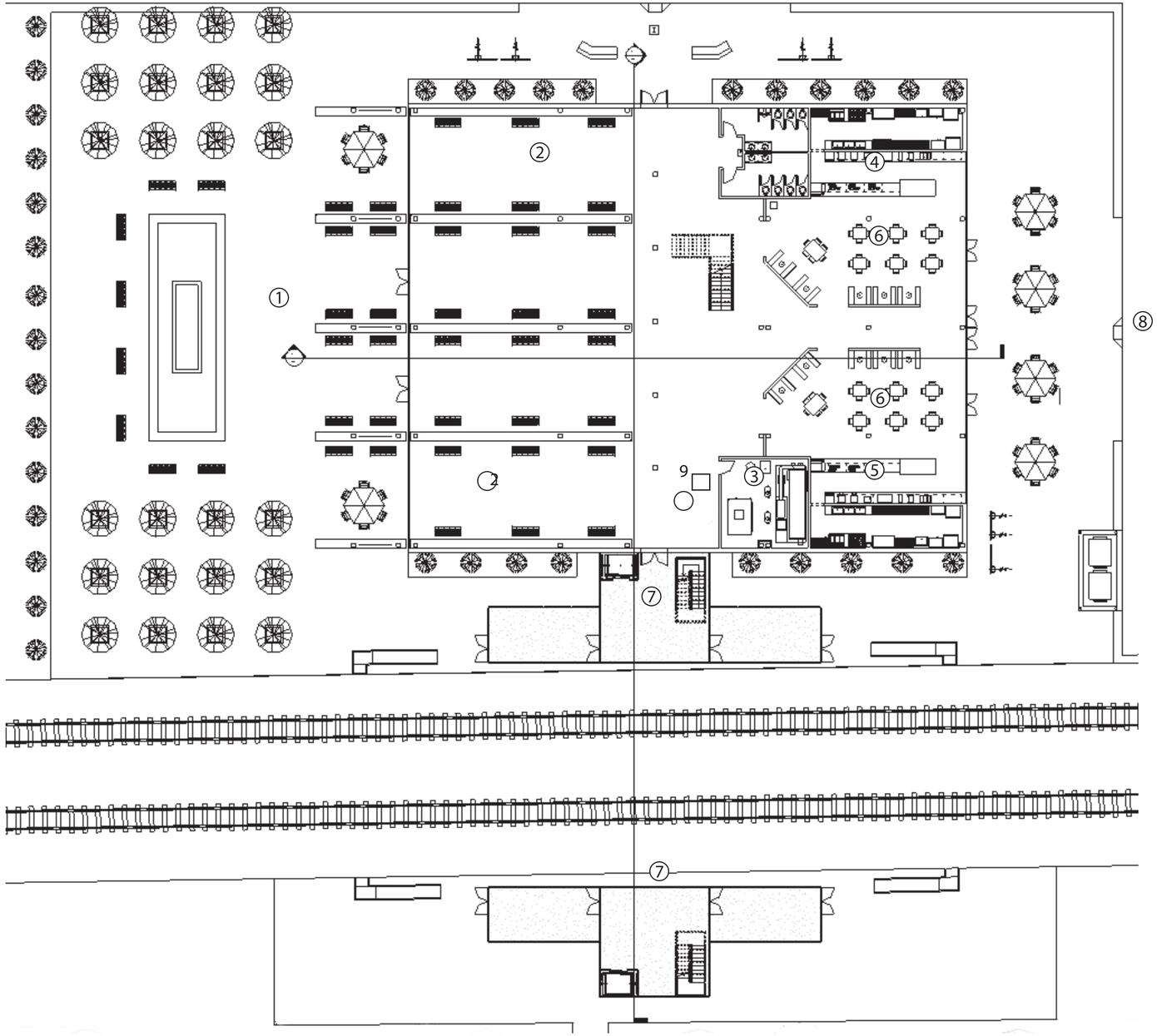
Two Story Unit View to Suburban Park

Inner Apartment Courtyard

Apartment Construction Detail

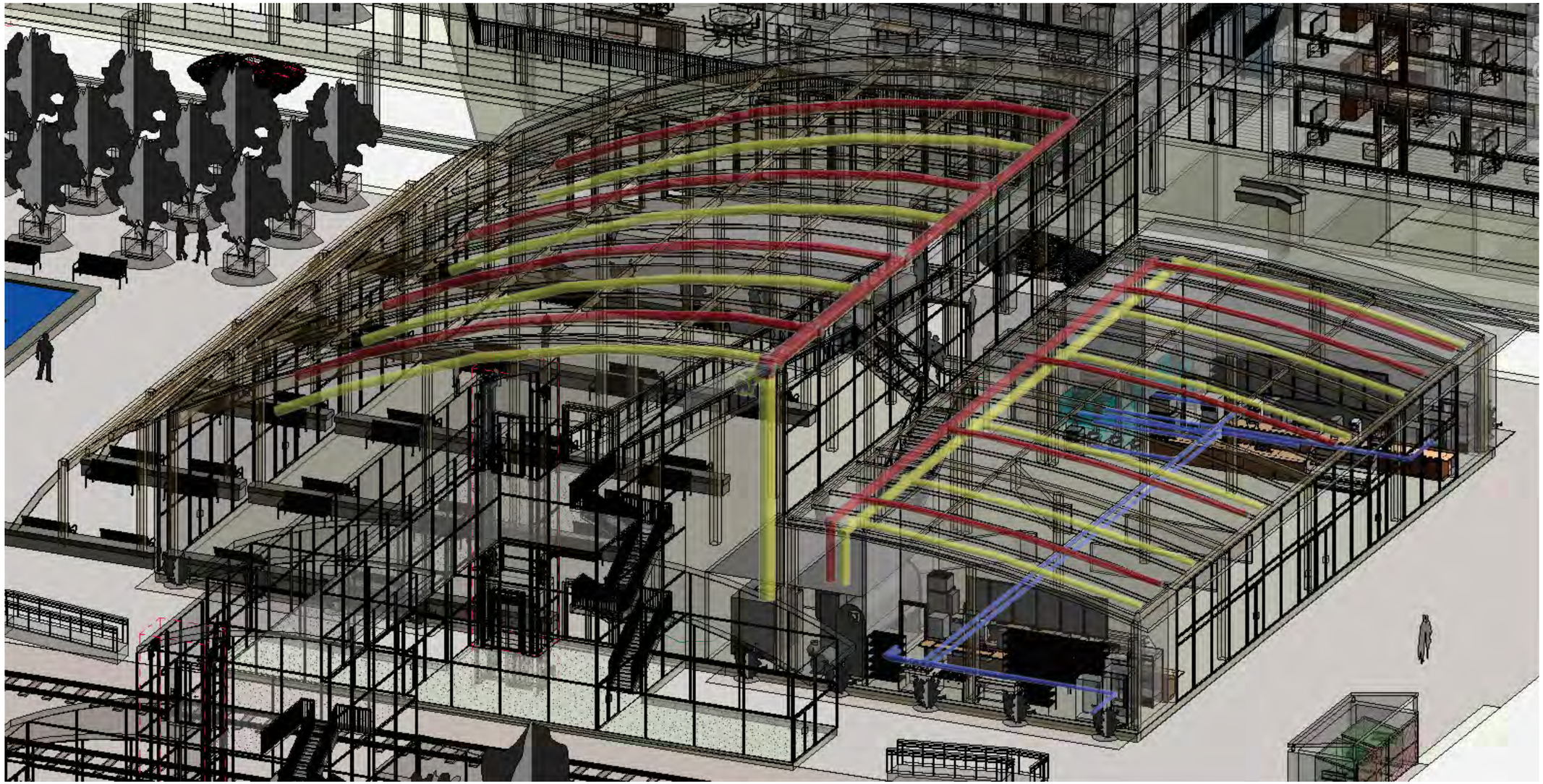


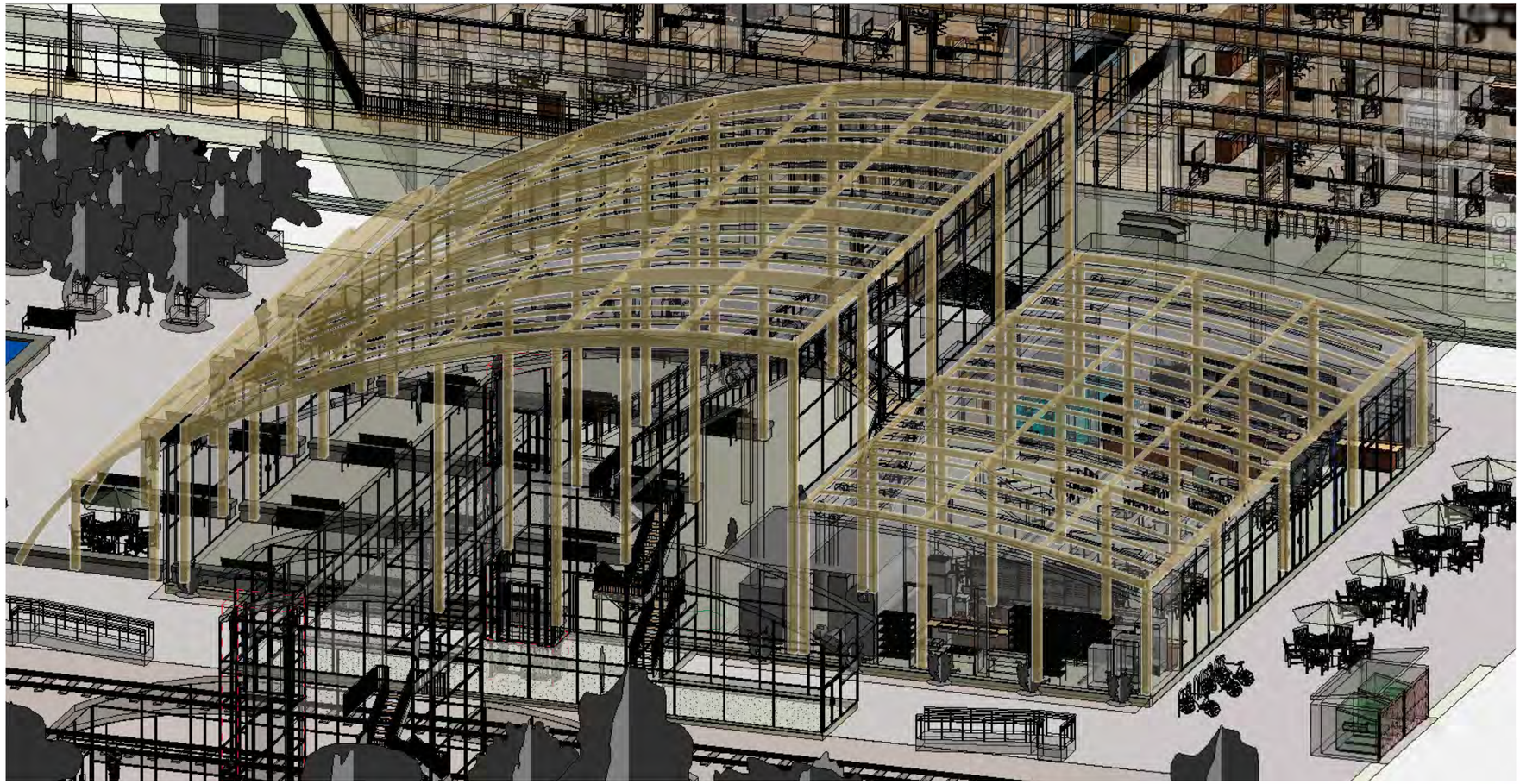
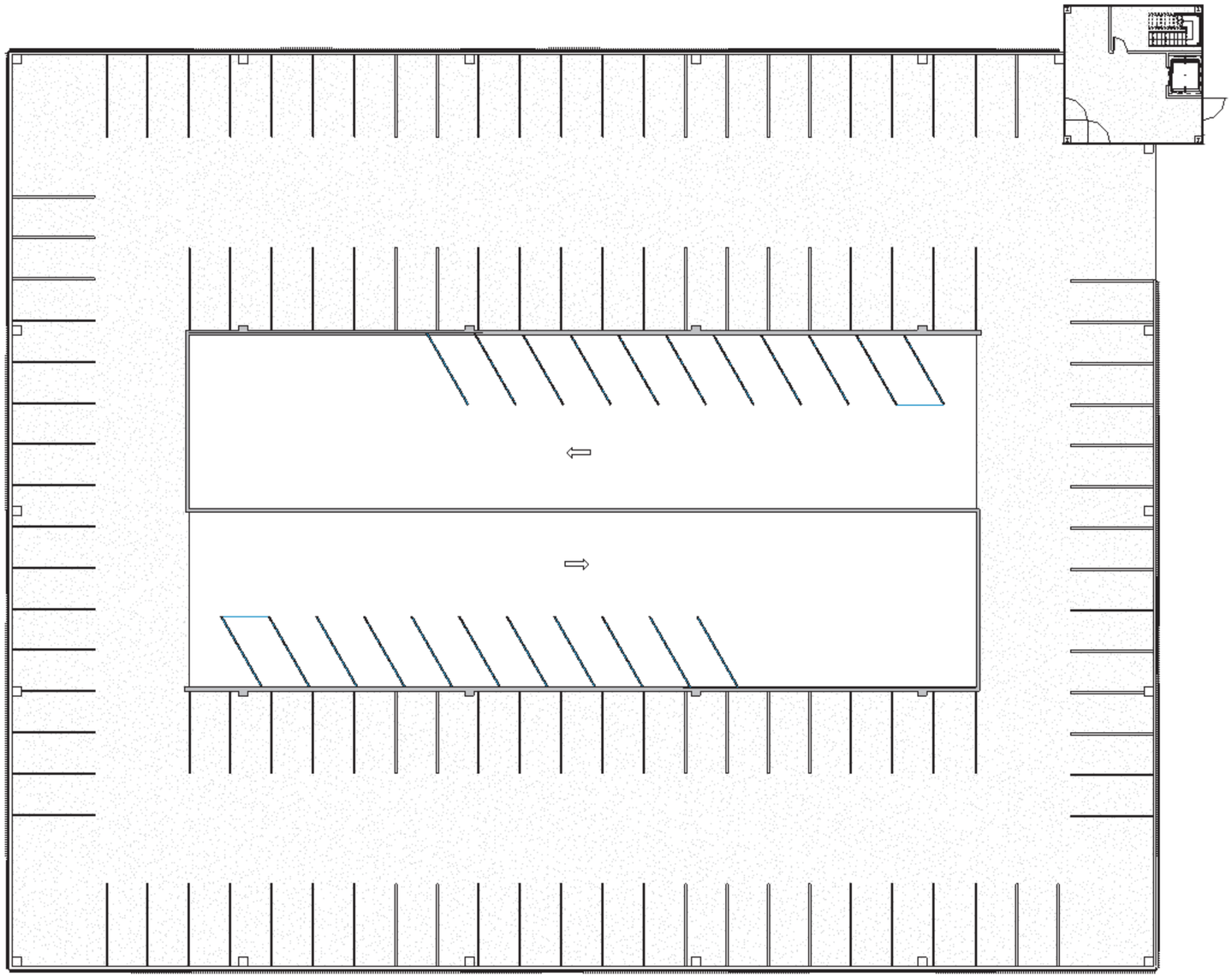
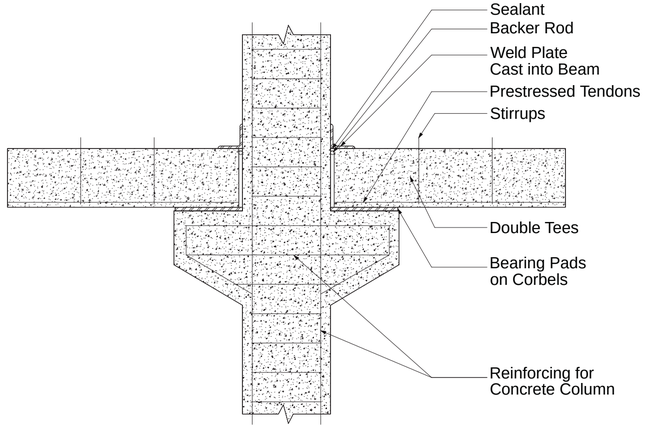
Transit Center Floor Plan



1. Urban Plaza
2. Large, Open Seating
3. Mechanical Room
4. Coffee Shop
5. Deli Shop
6. Restaurant Seating
7. Crossover Platform
8. Bus Pick-up/Drop-off
9. Ticket Kiosk

Iced Espresso
Iced Coffee and Iced Tea
Frappuccino
Iced Espresso
Iced Coffee and Iced Tea
Frappuccino
Brewed Coffee
Espresso
Brewed Coffee
Espresso
Tea
Tea





Parking Structure First Floor Plan