

PROJECT 03

RIO GRANDE DEPOT

ARC 3210 | Architecture Design Studio IV | Prof. Brandon Ro, AIA, NCARB

DESIGN BRIEF

See course website via Canvas for additional info



“Out life is a constant journey, from birth to death. The landscape changes, the people change, our needs change, but the train keeps moving. Life is the train, not the station.”

– **Paulo Coelho**

“There’s something about the sound of a train that’s very romantic and nostalgic and hopeful.”

– **Paul Simon**



“One entered the city like a god; one scuttles in now like a rat.”

– **Vincent Scully**, comment about new Penn Station

“The train is a small world moving through a larger world.”

– **Elisha Cooper**

“If your train’s on the wrong track every station you come to is the wrong station.”

– **Bernard Malamud**



“Trains, like time and tide, stop for no one.”

– **Jules Verne**

“I just take the train from platform nine and three-quarters.”

– **Harry Potter**

“Classical architecture is the cutting edge of architecture for the 21st century. Classical architecture has a proven track record.”

– **Allen Greenberg**, American architect

21ST CENTURY TRAIN STATIONS



Transportation via rail or trackway systems has been around since prehistoric times, even dating to as early as 3800 BCE in England and 600 BCE in Greece. Around the world and throughout history, train stations have played an important role in the movement of people and goods. Travel by rail has been a means of connecting faraway places. Each station serves as a poetic gateway where people come and go.

A Brief History of Railroads in America

Trains played a significant role in the development of America in the 19th and early 20th centuries. The expansion of the rail system opened up new territories for settlement and commerce, and transformed the economy and society in numerous ways.

One of the most significant impacts of trains was their ability to facilitate the movement of goods and people across long distances quickly and efficiently. This enabled businesses to transport raw materials and finished products to and from markets across the country, stimulating economic growth and development. It also allowed people to travel further and faster than ever before, connecting distant regions and communities and facilitating the growth of tourism and leisure travel.

The railroads also played a crucial role in westward expansion and the settlement of the American West. The government supported the construction of railroads to facilitate the movement of settlers and goods, which helped to open up new territories for settlement and agriculture. In addition, the railroads spurred the growth of towns and cities along their routes, as people and businesses were attracted to the opportunities provided by the transportation system.



Railroads of the United States in 1918

Overall, the development of trains in America had a transformative impact on the economy, society, and culture of the nation. It facilitated the movement of goods and people across long distances, helped to settle new territories, and stimulated the growth of industry and commerce. To this day, America still has the largest rail network in the world.



Resurgence of American Train Travel

Over the past few hundred years in the United States, train stations have become an important and integral part of society. Millions of Americans have used train stations to travel to different destinations both near and far. While travel by rail has seen a steady decline for the past half century, it is beginning to come back into popularity for several reasons.



One of the primary reasons is that it is seen as a more environmentally friendly mode of transportation compared to driving or flying. Another reason for the growing popularity of train travel is that it offers a more comfortable and relaxing way to travel. In recent years, there has also been an increased focus on improving and expanding train infrastructure in America which has made train travel more convenient and accessible for passengers. Finally, train travel can often be a more affordable option for certain routes, especially when compared to air travel.

Overall, the growing popularity of train travel in America is driven by a combination of environmental concerns, comfort and convenience, improved infrastructure, and affordability. As these factors continue to drive demand, it is likely that train travel will continue to grow in popularity in the coming years.



Rethinking the 21st Century Train Station

While train stations have continued to evolve over the centuries, they remain important civic and cultural connectors. Historic train stations have been adaptively-reused as new libraries, theatres, hotels, performing arts centers, museums, entertainment venues, dining, shopping, etc. Train stations are more than mere utilitarian buildings, since they are a type of architecture has the potential to defend the authenticity of human experience. They “need to house our minds, memories, desires, and dreams,” writes Juhani Pallasmaa. New questions are being raised about the function and purpose of the 21st century train station.



- How can a train station bridge the knowledge and transportation realms of past, present, and future?
- Is the function of a train station only as a transportation hub? Or should it serve a broader community or cultural purpose?
- How can a train station serve as a symbolic gateway between places, cities, states, countries?
- How can the design of the train station represent all the collective wisdom that has come down through the ages?
- Since visitors will live in the twenty-first century, a futuristic building might be considered, but who can predict the architecture of the future?
- If the train station is to fit into the time continuum of western culture as a whole, how might the classical language of architecture work better than any other style?



Architects must wrestle with these difficult questions as they consider designing a train station for the twenty-first century. They must also learn to balance the shifting design priorities that arise when considering client-user needs, site planning, civic presence, socio-political values, architectural programming, cultural ideals, and contextual issues.



Denver & Rio Grande Western RR Station, c. 1910. Courtesy of Utah State Historical Society

DESIGN CHALLENGE



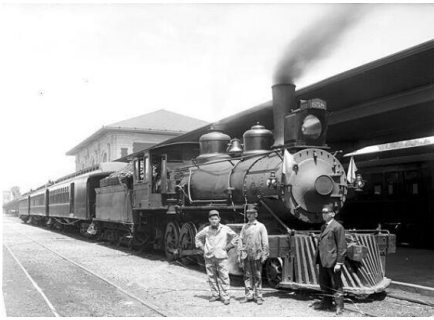
A citizen proposal titled the “Rio Grande Plan” has spurred debate and discussion between the Utah Transit Authority, Salt Lake City Redevelopment Agency, local politicians, State of Utah, Utah State Historical Society, and the public. The proposal seeks to restore rail service to the Rio Grande Depot and reconnect a divided community through the use of a subterranean train box.

Your architecture firm has been hired to conduct a feasibility study that investigates the historic Rio Grande Depot building in Salt Lake City and its potential as an adaptive-reuse project that fits into the larger “Rio Grande Plan.” The existing building is 417 feet long and 98 feet wide. The building includes a basement, main and upper level, and an attic with approximately 93,500 GSF of usable space.

Primary site drivers include the following: 1) creating a civic gateway that responds to the prominent downtown location, 2) providing intermodal connections (bus, train, taxi, bike, etc.), and 3) providing a financially feasible adaptive-reuse proposal for the existing building.

Each design team should familiarize themselves with the following documents:

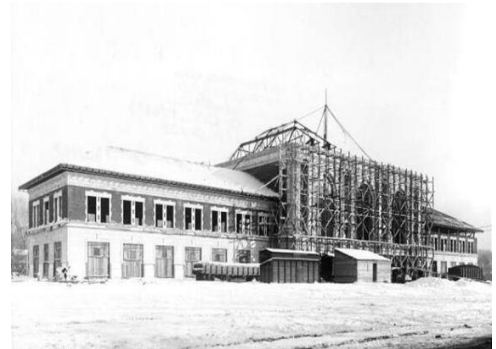
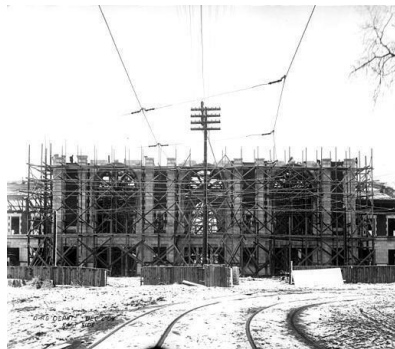
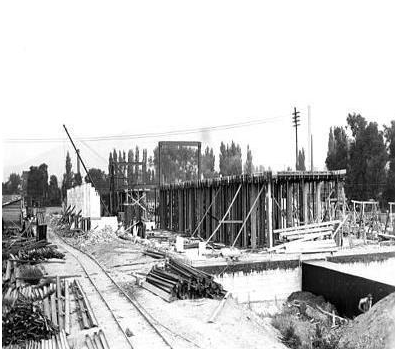
- Rio Grande Plan
- Salt Lake City General Land Use Plan
- Salt Lake City Municipal Code



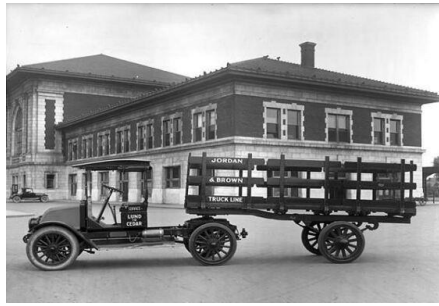
RIO GRANDE DEPOT HISTORY

From Wikipedia

“The Denver and Rio Grande Western Depot, commonly referred to as the Rio Grande Depot, is a former train station on the western edge of Downtown Salt Lake City. The depot was constructed by the Denver and Rio Grande Western Railroad in 1910 at a cost of US \$750,000. The depot was the main jewel of the Denver and Rio Grande Western Railroad, and was designed by Chicago architect Henry Schlacks, who was best known in Chicago for his design of churches, but had also designed the Denver and Rio Grande Depot in Grand Junction, Colorado, for the railroad. It was specifically intended to surpass the nearby Salt Lake City Union Pacific Depot, which had been built the previous year for US \$300,000. Schlacks's relationship with D&RG was fraught with antagonism, mainly over his pay, which led to delay in the depot's construction. One interesting, and ironic, point was that Schlacks's brother was D&RG's vice president.



“The depot was built with elements of Renaissance Revival and Beaux Arts. The high-arched windows at the center were originally installed with green glass to keep the waiting area cool. The depot included a barber shop, a restaurant, a men's smoking room and a women's lounge. There was also a telegraph office and a souvenir/snack bar. The depot opened Salt Lake City to a new influx of immigrants. The depot was also a central point in shipping soldiers off to war in both World War I and World War II. The rise of highway auto travel in the 1950s struck a blow to rail travel and service at the depot dwindled.

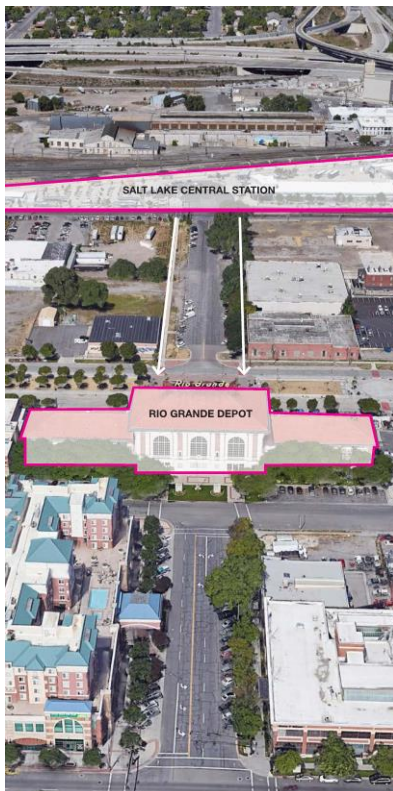


“From 1986 to 1999, the depot served as Salt Lake City's Amtrak station, replacing the Union Pacific Depot. It was served by the California Zephyr, Desert Wind, and Pioneer trains, with the latter two having been discontinued in 1997. The California Zephyr runs once daily between Chicago and Emeryville, California. The former Desert Wind ran daily from Chicago to Los Angeles, and the former Pioneer ran daily Chicago to Seattle. By 1999, Amtrak had moved to the Salt Lake City Intermodal Hub, after which the tracks near the depot were permanently removed.”

“The depot was listed on the National Register of Historic Places in 1975. The State of Utah purchased the depot in 1977 for US \$1 and the building is currently home to the Utah State Historical Society and its research center, the Utah Department of Heritage & Arts, as well as the Rio Gallery.

“The depot was damaged during the 2020 Salt Lake City earthquake, requiring tenants (including a café and the Utah Division of State History) to relocate.”

FUTURE PLANS



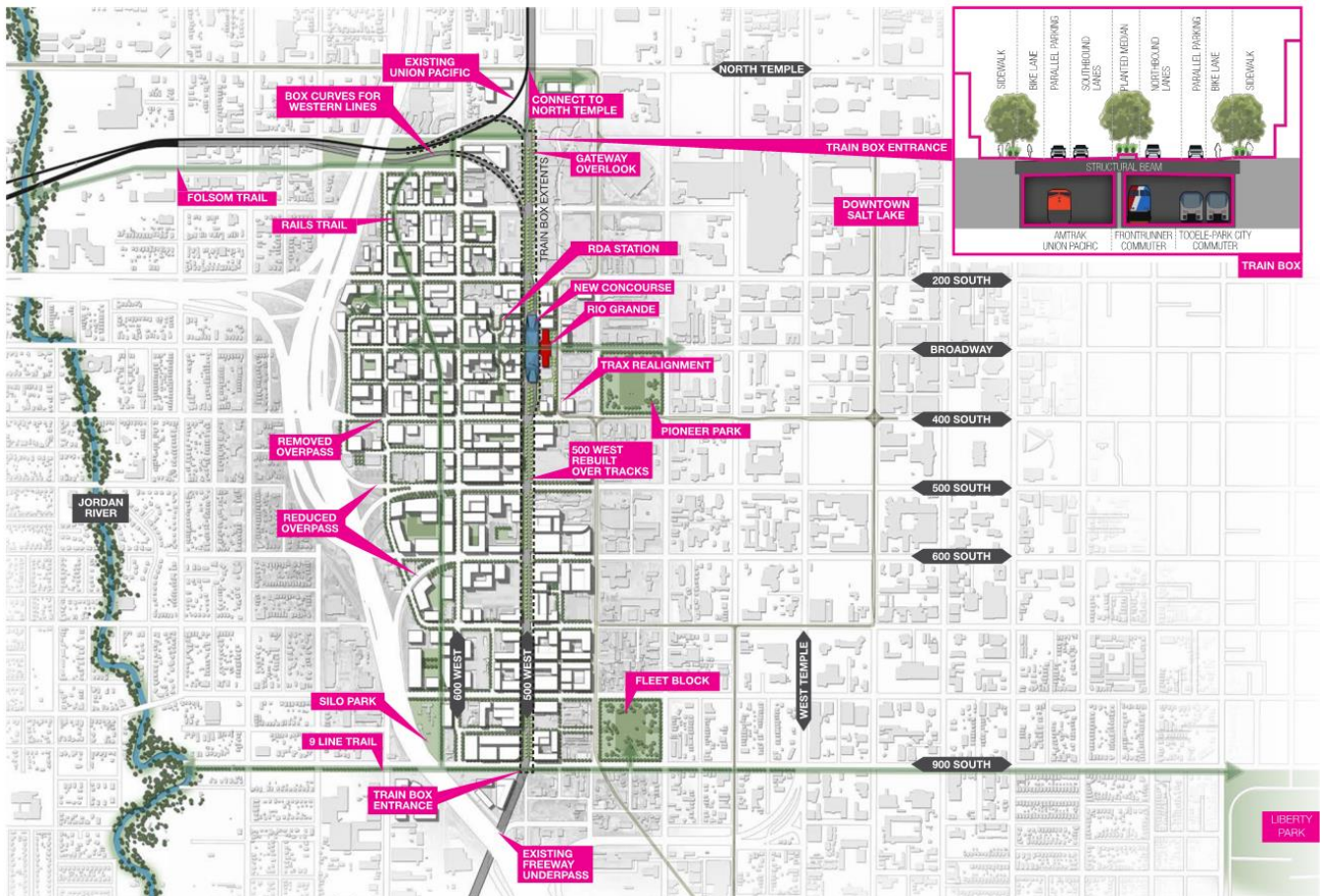
From Wikipedia

“Since 2015, the Salt Lake City Redevelopment Agency has designated the areas directly west of the Rio Grande Depot as "Station Center" and made their redevelopment into a mixed-use, transit-oriented district one of its priorities. The Depot itself is now considered by the agency to be a ‘barrier to development’ because of its position blocking 300 South Street.

Rio Grande Redevelopment Plan

“In 2020, citizen professionals proposed reopening the Depot as Salt Lake City's main passenger rail and bus terminal, replacing Salt Lake Central Station. The ‘Rio Grande Plan’ would move all downtown rail traffic underground into a cut-and-cover trench along 500 West, with Amtrak and FrontRunner trains serving sunlit platforms on the west side of the Depot. UTA's bus and TRAX light rail routes would stop at the east side of the Depot on Rio Grande Street, while regional buses would board at the north and south sides. The proposal would also eliminate three overpasses, five grade crossings, and 52 acres of rail yards—opening up redevelopment opportunities while improving safety and connectivity. The authors estimate the cost of the project would be \$300 to \$500 million, pointing to comparable work in Reno and Denver.

“By 2021, the plan had started to gain traction among the Salt Lake City Council and other stakeholders. To move forward, the plan would require buy-in from the Utah state government, UTA, and Union Pacific.”

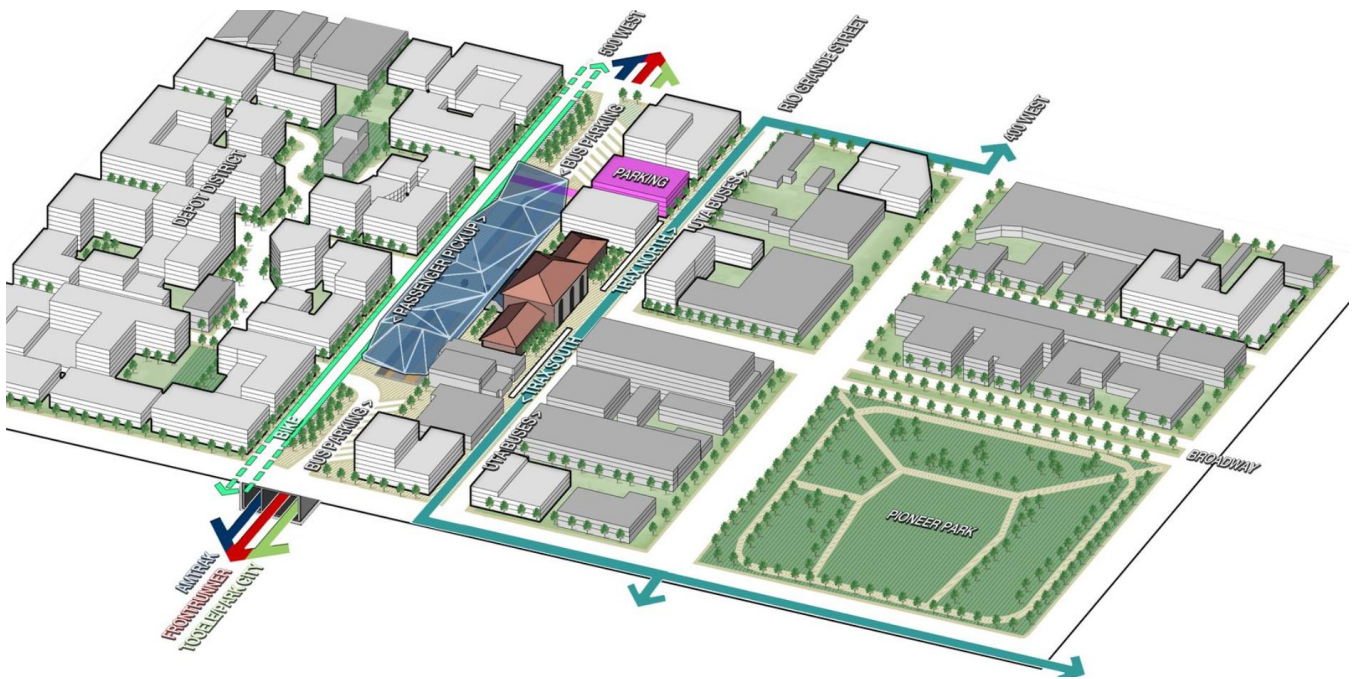


Proposed Masterplan by the Rio Grande Plan

SITE

The project’s immediate site includes the existing Rio Grande Depot building (300 S. Rio Grande Street, Salt Lake City, UT 84101). It also includes a portion of land along 500 west and Rio Grande Street that extends between 400 south to 200 south. According to the original site survey description, the site is 1452 feet long and 330 feet wide. The overall building dimensions are 417 feet long and 98 feet wide.

Parking will be addressed through a new parking structure to the north of the Rio Grande Depot. It is proposed that the Rio Grande Depot will resume its historic place in the urban fabric as not only an important intermodal transportation hub but also as a major gateway to the city. All design proposals for the building must meet general accessibility requirements and address broader transportation connections.



Proposed Train Box and Passenger Canopy by the Rio Grande Plan

ARCHITECTURAL PROGRAM

The architectural program for the Rio Grande Depot will be developed by each team during the pre-design phase. Each team’s architectural program will be unique and come as a result of their analysis of the Rio Grande building, historic context, urban renewal assessment, train station precedents, and redevelopment plans. The program must fit within the existing 94,000 GSF footprint of the existing building except for the train box and its canopy.

READING / VIDEOS

Rio Grande Depot

- Brandon Johnson, “One Building’s Life: A History of Salt Lake City’s Denver and Rio Grande Depot,” *Utah Historical Quarterly*, v.78, no.3 (Summer 2010): pp.196-217.
https://issuu.com/utah10/docs/uhq_volume78_2010_number3/s/10369680
- Kirsten Allen, “The Denver and Rio Grande Depot: A Century of Change,” *Utah Historical Quarterly*, v.78, no.3 (Summer 2010): pp.218-229.
https://issuu.com/utah10/docs/uhq_volume78_2010_number3/s/10369632
- Rio Grande Plan website: <https://riograndeplansaltlakecity.org/>
- Christian Lenhart and Cameron Blakely, “The Rio Grande Plan Booklet”
<https://drive.google.com/file/d/1jwAW8DEc0WZXguTWE1qA6tZJWQkXoRY-/view>
- 17 March 2023, “Why isn’t Utah Transit Authority supporting the Rio Grande Plan?” *Building Salt Lake*.
<https://buildingsaltlake.com/why-isnt-utah-transit-authority-supporting-the-rio-grande-plan/>

- Rio Grande Depot - Sanborn Maps,
<https://collections.lib.utah.edu/ark:/87278/s6m38nm3/1661943>
<https://collections.lib.utah.edu/ark:/87278/s6m38nm3/1661942>
- Denver and Rio Grande Railroad Station, Architectural Drawing, Partial Floorplan,
<https://collections.lib.utah.edu/ark:/87278/s6b56zm8>
- Denver and Rio Grande Railroad Station, Architectural Drawing, Overall Floorplans,
<https://collections.lib.utah.edu/ark:/87278/s6m38nm3/1661950>
- Denver and Rio Grande Railroad Station, Architectural Drawing, Square Footage Analysis,
<https://collections.lib.utah.edu/ark:/87278/s6m38nm3/1661952>
- Denver and Rio Grande Railroad Station, Architectural Drawing, Elevation,
<https://collections.lib.utah.edu/ark:/87278/s6m38nm3/1661946>
- Denver and Rio Grande Railroad Station, Architectural Drawing, First Floor program diagram,
<https://collections.lib.utah.edu/ark:/87278/s6m38nm3/1662175>

Historic Preservation / Train Stations

- Brown, Christopher. *Still Standing: A Century of Urban Train Station Design*. Bloomington: Indiana University Press, 2005.
- Edwards, Brian. *The Modern Station: New Approaches to Railway Architecture*. New York: Taylor & Francis, 2013.
- Fitch, James Marston. *Historic Preservation: Curatorial Management of the Built World*. Charlottesville: University Press of Virginia, 1990.
- Hamilton, D. Kirk, and David H. Watkins. *Evidence-Based Design for Multiple Building Types*. Hoboken, NJ: John Wiley & Sons, 2009.
- Semes, Steven W. *The Future of the Past: A Conservation Ethic for Architecture, Urbanism, and Historic Preservation*. New York: W.W. Norton & Company, 2009.
- Swartzburg, Susan Garretson, Holly Bussey, and Frank Garretson. *Libraries and Archives: Design and Renovation with a Preservation Perspective*. Lanham, MD: Scarecrow Press, 1998.
<https://books.google.com/books?id=VT5w8Cav4bcC&printsec=frontcover#v=onepage&q&f=false>
- Tomlan, Michael A. *Historic Preservation: Caring for Our Expanding Legacy*. New York: Springer, 2014.
- Tyler, Norman, Ilene R. Tyler, and Ted J. Ligibel. *Historic Preservation: An Introduction to Its History, Principles, and Practice*. 3rd ed. New York: W. W. Norton, 2018.
- Ware, William R. *The American Vignola: A Guide to the Making of Classical Architecture*. New York: Dover, 1994. Older edition PDFs available online: (Book 1)
<https://archive.org/details/cu31924091026504/page/n1> (Book 2)
<https://archive.org/details/americanvignola00vigngoog/page/n5>
- Yi, Sirong. *Principles of Railway Location and Design*. London: Academic Press, 2017.
- Young, Robert A. *Historic Preservation Technology: A Primer*. Hoboken, NJ: John Wiley & Sons, 2008.

ASSESSMENT

The weight of each of the projects and assignments will be broken down as follows:

PROJECT 03: Rio Grande Depot

Pre-Design Phase (Site, Precedent, Programming Analysis) 10%

Schematic Design Phase (Interim Review) 10%

Design Development Phase (Final Review) 15%