Installing a DEEP Foundation

A 30 YEAR BUILD OUT FOR THE DOWNTOWN EAST AREA
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TO THE BUSY PROFESSIONAL~

The DEEP Foundation proposal is a two phase proposal with a 30 year timeline that aims to increase residential and employment density within the downtown east neighborhood.

Within Phase 1, the Metrodome would be redeveloped while adjacent vacant land parcels would be developed. Phase 1 would see the reorientation of the Metrodome playing field towards the central business district and mixed use residential and commercial development built into the fabric of the rest of the Metrodome site footprint. Green infrastructure would be incorporated into the streetscape along Chicago Avenue and 11th Avenue, while the 5th and 6th Streets corridor would be opened for north-south pedestrian permeability as well as undergo traffic calming. A hotel is proposed over the Metrodome light rail station, additional medical housing for Hennepin County Medical Center (HCMC) is across the street to the south. Market rate housing in the form of condominiums and apartments are added to vacant land or are built within vacant structures on sites to the north and south of the Metrodome site.

In Phase 2, air rights development is selectively utilized within the Interstate 35W corridor to create human scale connection and development opportunities. A four story retail and student housing development is proposed over I-35W along Washington Avenue South. This would help address the lack of student housing in the area, provide grade A office space for retail and studio based businesses, and would address the 100 meter disconnect between two vibrant urban contexts along Washington Avenue South. Two additional air rights development proposals include; one, extending Currie Park across I-35W between the Central Corridor and Hiawatha light rail spurs in an effort to strengthen the park and trail connection between Cedar Riverside and downtown east; two, wall installation and land filling throughout the I-35W right of way between Washington Avenue South and the Central Corridor bridge. These proposals would further minimize the disconnect in the urban fabric while creating additional parkland and develop-able land.

Public participation in the process will be active and ongoing, utilizing a combination of public meetings, charrettes, online and print media, neighborhood development liaisons, and research.

The DEEP Foundation project at final build-out would add about 26,000 new daily trips to the entire development area, 20,500 or less of which would be by automobile. This is generated by the 2,000+ additional residential units, 700+ hotel rooms, HCMC housing, and 679,000 square feet of grade A commercial space. Car parking is handled by a new six story parking garage, and numerous underground parking garages. Phase 1 investment required is estimated at $391 million and will generate close to $13 million in rents each month.

Urbanist, mixed-use street scenes, top, photoshop render (1), bottom hand render (2).
A POIGNENT RESPONSE TO THE CHALLENGE OF DEVELOPING DOWNTOWN EAST AND ELLIOT PARK

Change happens. The impending shift in land uses in the Downtown East neighborhood and surrounding the West Bank Central Corridor LRT station is unmatched by any area in Minneapolis. Additionally the proposed renovation of the Metrodome (Mall of America Field) in Minneapolis will also bring new investment and energy into the area. In response to this an innovative two phase redevelopment is proposed to capture the economic, environmental, social and cultural assets of this area. The work in the “trench” along Washington Avenue for the CCLRT opens the possibility for even more innovative re-use of land in this area. As if this new transit corridor wasn’t enough motivation, there are a number of projects around Minneapolis considering innovative uses of land and the development of air rights:

- The Interchange at Target Field, LRT platform.
- Downtown East North Loop Master Plan, “The Cut” railroad trench.
- Ventura Village vision for developable air rights over I-35W at Franklin Avenue and I-94 between Portland Avenue and Chicago Avenue.
- Upper Riverfront Design Proposal to include a land bridge over I-94, connecting North Minneapolis to the Mississippi River.

Top photo, photoshop render created by Barett Steenrod, bottom, mixed use campus and technology proposal in Boston (3).
PROJECT AREA BOUNDARIES

The project area is bounded by 7th Street to the south, the West River Road to the north, Portland Avenue to the west and Cedar Avenue to the east. The project area includes the Metrodome site, I-35W and the Downtown East, Elliot Park and Cedar Riverside neighborhoods.

OBJECTIVES

- Integrate land use and transportation planning for the health and vitality of our urban community.
- Support alternative modes of transportation in an increasingly multi-modal area of the city.
- Encourage innovative infill projects and increased density in development.
- Preserve and reuse existing and older buildings where appropriate.
- Enhance corridors, connections and community through green infrastructure, open spaces, and air rights development.
- Integrate stadium and active recreation uses into the community.
- Support the small business and arts communities of Downtown East and the Historic Mills District, Elliot Park and Cedar-Riverside neighborhoods.
- Provide a range of housing options for the diverse population in this area.

The Project Area indicated inside the red border (4).
Historical Background

The city of Minneapolis has been shaped by the Mississippi river. Minneapolis, on the river’s west bank, was designated as a town in 1856 by the Minnesota Territorial Legislature. By 1867, the year rail service began between Minneapolis and Chicago; Minneapolis was incorporated as a city. Pre-1890, housing in the Twin Cities was densely clustered near employment and shopping cores within walking distance of downtown. The first immigrant neighborhood was Swedish and located in Minneapolis along Washington Avenue and East of Downtown (Adams & VanDrasek, 1993). By 1890s, the area was experiencing rapid residential growth.

With the Depression, population started to decline in the area. House were converted to be high density apartment buildings for low income individuals to live in (Elliot Park Neighborhood, Inc., 2009).

In the 1960s, there were active rail yards in the area. In 1973, Interstate 94 was completed and Interstate 35 was under construction (Elliot Park Neighborhood, Inc., 2009). By 1983, Hennepin County Medical Center moved into Downtown East and Westbound Interstate 94 was completed.

With the construction of the highway system and displacement of numerous businesses, the character of the neighborhood changed drastically. “Between 1950 and 1970, the population of Elliot Park dropped by 54%, highlighting the trend toward disinvestment in inner-city neighborhoods” (Elliot Park Neighborhood, Inc., 2009).

Like many neighborhoods in an urban setting, this area has experienced “a roller coaster ride – quickly falling from sophisticated elegances to significant disinvestment, and then rising again to become attractive for redevelopment, all in a matter of decades” (Elliot Park Neighborhood, Inc., 2009). To attract businesses, the city of Minneapolis rallied to have the Minnesota professional football field relocate from Bloomington to Downtown East.

More recent demographic information indicates that new populations of Somali, Russian, African American, Native American, Southeast Asian and Hispanic individuals now live in the area that surrounds Downtown East.
STAKEHOLDERS

It is important to look at the history of the stakeholders in and near the area to gain insight into how the area developed into what it is today.

Augustana Church

Augustana Church was founded in 1866 in Minneapolis and was located at 14th Avenue and Washington. On June 24th, 1883, Augustana church moved into its current location, 11th Avenue and 7th Street, in Downtown East (Johnston, 2011).

Guthrie Theater

The Theater originally opened in 1963 and relocated to Downtown East on July 25th, 2006. The new facility has three stages. The Guthrie employs over 900 people per year (Guthrie Theater, 2011).

Hennepin County Medical Center (HCMC)

The hospital was originally named City Hospital and began in 1887. In 1976, HCMC moved to their Park Avenue address in Downtown East Center (HCMC, 2011).

Hubert H. Humphrey Metrodome

Construction of the Metrodome began in December of 1979. The Metrodome was built on the eastern edge of the central business district on land zoned for light industrial near the rail-warehouse corridor along Washington Avenue (Adam & VanDrasek, 1993). The Metrodome opened for regular season baseball business on April 6, 1982 (CBS Sports). “Approximately 80 companies were awarded contracts to participate in the construction of the Metrodome, with most of the labor from Minnesota construction workers” (Metropolitan Sports Facilities Commission [MSFC], 2007). Before the Minnesota moved to their new stadium, “the Metrodome is used about 300 days every year” (MSFC, 2007). The Dome’s effect on the city economically has overall been positive even though it did not meet its initial projections (Adam & VanDrasek, 1993).
STAKEHOLDERS

North Central University (NCU)
North Central University is also central to Downtown East. The first class was established in 1930 with 26 students. By September of 1937, the class size had grown to over 200 so a new location was needed. NCU moved in the former Asbury Hospital on 910 Elliot Avenue which is its current location. NCU has been purchasing lands within Downtown East since its relocation (NCU).

Star Tribune
The Star Tribune is the largest newspaper distributor in Minnesota. The Star Tribune building is located on Portland Avenue in Downtown Minneapolis and was built in 1947, the building was designed by Larson and McLaren (Minnesota Historical Society, 2010). The Star Tribune is a product of the merging of three newspapers: the Minneapolis Tribune, the Star and the Minneapolis Journal (Star Tribune, 2010).

University of Minnesota
The University of Minnesota was founded in 1851. Danish immigrants settled where the university is located on the West Bank (Adam & VanDrasek, 1993). Construction of the West Bank began in 1963 (Adam & VanDrasek, 1993) and built over residential housing. Today 51,721 students attend school at the University of Minnesota - Twin Cities (U of M, 2011).

Stakeholders, top to bottom, Metropolitan Sports Commission (11), NCU (12), Star Tribune (13) and the Univ. of Minnesota (14).
PRESENT DAY MOVING TO THE FUTURE

This area is surrounded by natural and man-made geography. It is bounded by the Mississippi River to the north and east and by the Central Business District of Minneapolis to the west and Interstate 94 to the south and bisected north-south by Interstate 35W.

With the construction underway for the Central Corridor LRT in both Minneapolis and St. Paul, there are unique and innovative opportunities for redevelopment along the LRT route. The West Bank Area Implementation Study land use changes, reconfiguration of ramps and construction of street, redevelopment of parcels adjacent to Cedar Avenue Bridge and expansion of bridge deck and pedestrian realm on the Cedar Avenue Bridge all point to a new perspective on this disjointed and hostile pedestrian environment.

Over the last decade new mixed use and high end residential development has filled in the Historic Mill District along Washington Avenue as well as along 2nd Street. The city established a street grid in this area, where railroads and warehouses were the dominant uses for decades. New development in this area will continue the revitalization of Downtown East and the Mill District. However, establishing a new urban community in downtown has not been without its obstacles, specifically lack of connection due to former and current industrial land uses and the barrier of I-35W.

Existing land uses are commercial, light industrial and vacant parcels that are currently surface parking lots. GIS map created by Tom Olson.

A current view of Washington Avenue looking east illustrating the auto dominated streetscape as well as the gap in development across I-35W. Photo by Barett Steenrod.
In order to gain a comprehensive understanding of the project area we looked at the established visions of Downtown East, Elliot Park and Cedar Riverside. Citywide plans such as Access Minneapolis also provide context for future transportation changes that will impact the area.

A summary of the best practices and planning documents that affect the DEEP area and were consulted for this project:
- DEEP 2100 Downtown East Elliot Park, 2010
- West Bank Area Implementation Study, 2010
- Downtown East and Elliot Park Economic Development and Revitalization Analysis, 2010
- Access Minneapolis 10 Year Transportation Action Plan, 2009
- Cedar Riverside Small Area Plan, 2008
- Elliot Park Neighborhood Master Plan, 2003
- Downtown East/North Loop Master Plan, 2003
- Minneapolis Life Sciences Corridor, City of Minneapolis
- Neighborhoods of Downtown East, Elliot Park, Cedar-Riverside
- Commercial nodes: Mill District, Seven Corner, Cedar-Riverside

By listening to what these communities already have identified as issues and opportunities for the area, we can reconcile existing conditions and the

A current view of Washington Avenue looking west illustrating the inhospitable pedestrian and bicycle environment as well as the gap in development across the I-35W trench. Photo by Baret Steenrod.

Proposed site plan and land use changes associated with the development of the West Bank Central Corridor Light Rail transit station (15). This development sets a precedent for future DEEP area work as it is a mixed-use multi-modal infill development.
Interchange Multi-Modal Hub Proposal

Visioning exercise from Hennepin County of The Interchange Multi-modal Transit Hub at Target Field (16).

North Loop “Cut” Diagram

Rendering from the North Loop/Downtown East Master Plan of air rights development over the trench between 2nd Avenue North and 3rd Avenue North (16).

Northside Land Bridge Proposal

Image of a land bridge over I-94 connecting Farview Park to the Upper Riverfront in North Minneapolis, from the Tom Leader Group Upper Riverfront Design Competition winning proposal (16).
knowledge base available in these plans. Specific issues that have been previously identified that stood out to us in our perceptions of the area are:

**Issues:**
- Lack of pedestrian, bicycle and green connections, wayfinding
- Lack of diversity in housing
- Limited access between Cedar-Riverside, Downtown East and Elliot Park

Problem areas identified in Cedar-Riverside Small Area Plan: Washington Avenue Bridge over I-35W, the street along Bluff Park, the bike path along Hiawatha LRT and the Cedar bridge across Washington trench

**Opportunities:**
- Reconnecting/realigning streets in an opportunity that the Cedar Riverside neighborhood has acknowledged in their small area plan with the ultimate goal of a more cohesive and multi-modal transportation network
- Accessible, well-designed, safe, green public spaces (Cedar-Riverside Small Area Plan)
- Safe and “meaningful” bicycle and pedestrian connections (CRSAP)
- Preservation of historic and existing buildings while reweaving a new urban fabric through forward thinking, community oriented quality design

**Inventory of Parks and Open Spaces**

The project area contains the open spaces and parks that are the signature of Minneapolis. From neighborhood
parks to the river parkway, there are significant community facilities that provide recreation and leisure for residents of all ages. The parks in this area also provide important community centers for residents, specifically the Brian Coyle Community Center and Currie Park in Cedar-Riverside and Elliot Park in the Elliot Park neighborhood. Creating enhanced connections to provide more accessibility to the Mississippi River for residents of Elliot Park and Cedar-Riverside is integral to creating a more comprehensive green infrastructure in this area.

Parkland within DEEP area:
- Currie Park in Cedar-Riverside
- Elliot Park
- Gold Medal in the Mill District
- West River Road (part of the Grand Rounds Scenic Byway)
- Mill Ruins Park
- Bluff Street Park in Cedar-Riverside

Creating green corridors along Chicago Avenue and 11th Avenue on the west and east side on the Metrodome will provide visible connections of Elliot Park to the riverfront and bicycle and pedestrian trails. This can easily be achieved through by utilizing the existing bike lanes along 11th Avenue and further streetscape improvements along Chicago Avenue and additions to the urban canopy using new Silva cell technology to ensure healthy trees.

The existing parks and bicycle facilities show a disconnected green infrastructure in Downtown East. (17)
DEEPer opportunites:
- Medium to high density (1.0-3.0 FAR)
- Mixed use: multifamily residential and street level commercial
- Multi-modal transportation hub with a renewed focus on a pedestrian oriented environment
- Activity and amenity area: arts corridor and connections and passive and active recreational spaces

PUBLIC TRANSPORTATION

Light Rail Transit
Currently the Hiawatha Light Rail line crosses above I-35W northwest diagonally and stops at the Metrodome. This site will be the departure for the future Central Corridor Light Rail line, which will run along the Hiawatha track, diverging on the east side of I-35W, then aligning with Washington Avenue at grade.

Local Bus Service
Local bus service is provided by Metro Transit, with Washington Avenue and 4th Street as major bus routes served by the hi-frequency 16 and the limited stop 50 running east-west, originating in downtown Minneapolis and terminating outside of downtown St. Paul. The route 5 bus runs north-south out of downtown Minneapolis down Chicago Avenue through Elliot Park. Route 7 bus runs north-south along Riverside Avenue and connect to Washington Avenue via Cedar Avenue.

Recommended Phasing for DEEP Area

An initial vision of Phase I and II proposed land uses and redevelopment sites. Phase I includes renovation of the Metrodome, redevelopment of the area around the Metrodome LRT station and the addition of green corridors along Chicago and 11th Avenues. Phase II includes the construction and development of a freeway lid deck over I-35W and green space infill as well as the establishment on an Arts Corridor along the expanded Washington Avenue. Figure by Tom Olson.
**Bicycle**

The project area includes multiple on-street bicycle lanes, as well as separated bike paths on the West River Road and along the Hiawatha LRT until it reaches 11th Avenue. There are plans for the extension of this bike path, as it currently ends at the surface parking lot on the south side of the Valspar building on 11th Avenue.

The Cedar-Riverside area and the University of Minnesota have high volumes of bicyclists. A bike trail follows the Hiawatha LRT, terminating in downtown East at 11th Avenue. On-street bike lanes extend the length of Riverside Avenue, terminating at Cedar Avenue and along 4th Street heading east out of downtown. An east-west on-street bike lane is present on 2nd Street North as well as a north-south lane on 11th Avenue. North-south on street bike lanes run on Park and Portland Avenues, respectively. A recreational bike path follows the West River Road to the north of the study area.

**Pedestrian**

The pedestrian realm in Downtown East and Cedar-Riverside is disjointed and is need of maintenance and reconnection. Streetscape improvements in the Mill District have added a more pedestrian friendly environment, however areas near the Metrodome (specifically where 3rd Street meets 10th Avenue) are still dangerous for pedestrians and lack safe and visible crossings and signage.
Road and Bicycle Infrastructure

Bicycle Counts for the project area from the City of Minneapolis show the high volume of riders along the Hiawatha LRT trail as well as the disconnection as the trail meets 11th Avenue on the east side of the Metrodome. The City has planned an extension of the trail which will enhance the bicycle connections in the area (16).

A current view looking east towards the Metrodome along 3rd Street at the intersection of Chicago Avenue, illustrating the hostile pedestrian and auto-dominated environment. Photo by Barett Steenrod.

The current road network and bicycle facility network. The project area is transected by multiple bicycle routes and is fairly well connected by this mode of transportation; however there is room for improvement (16).
**CASE STUDIES_AIR RIGHTS DEVELOPMENT**

**Cap at Union Station in Ohio**
Location: Columbus, Ohio  
Construction costs: $7.8 million  
Size: 48,725 square feet; 25,496 square feet of leasable space

The Cap at Union Station is a successful example of developing air rights over a highway. Constructed in 2004, this shopping area runs along Columbus’s High Street over Interstate 670 and boasts over 25,000 square feet of leasable space that is currently occupied by nine retail shops and restaurants. The presence of these types of businesses is unique to this development as, at the time of its construction, other prominent developments over highways were either convention centers or intensely landscaped bridges. Unlike its predecessors, the Cap is one of the first speculative retail projects constructed over a highway. This allows part of its maintenance and construction to be financed by the revenue generated by the occupying establishments.

An birdseye of the Cap spanning I-670 and bridging a divide cut by the highway decades ago (17).
Aside from its innovation, it is also a good example of development that has the public interest in mind. The bridge that the Cap replaced crossed I-670, a relic of the urban renewal and highway construction boom from the mid-20th century. Its construction was devastating to the urban fabric of Columbus as it severed the Short North, an arts and entertainment district, from the downtown area. As a way to address the scar left by this “engineered gash” as described by New York Times architecture critic Herbert Muschamp, an ambitious developer and officials met in the late 1990s to collaborate on developing the Cap. The benefits of its development have been two-fold: a seamless urban landscape that reconnects the Short North to downtown and economic revitalization through the investment in art and business establishments within the Short North district (ULI, 2005).

Because of the development model it provides and the success it has experienced since its construction, the developer, engineers, and city officials involved in its manifestation believe the Cap could be replicated in other cities whose urban fabric has been severely damaged by highways. This proposal agrees and envisions a similar type of development along the Washington Avenue Bridge. While not completely replicable, it has many elements that provide great inspiration for air-rights development within Downtown East, such as:

- The establishment of retail and restaurant spaces to generate revenue for the construction and maintenance of the building.
- A civic focus to reconnect neighborhoods.
- Inspiring reinvestment in communities at both ends of the bridge, in particular the arts and culture community.
- The creation of a viable corridor directly connecting commercial areas and artist communities.
- Housing a day-to-night mix of businesses.
San Francisco’s AT&T Park was the result of a collaboration between the San Francisco Giants and architects HOK Sports and was done largely without involvement of public funds; there was a $10 million tax abatement and $80 million for infrastructural improvements. The stadium has also resulted in $1.2 million in direct annual rents to the city for use of the land. While the owners of the park have admitted that another largely private stadium development in the U.S. is highly unlikely, the precedent suggests the viability of creating a well-designed space at near-market cost.

Since its opening, the stadium has seen nearby development of a Safeway grocery store and public library branch. What’s more, there has also been nearby location of a life-science research campus for UCSF, a hospital, parkland, and 1,500 new housing units brought online as well as a planned 6 million square feet of office space with more on the way at the time of this report. Business has generally flourished in the area and developers have cited the ballpark as a catalyst for development. Part of this is owed to the fact that city planners incorporated AT&T Park into their master plan for the Mission Bay area, giving a focus to the neighborhood vision and tying development into a cohesive framework. This last part in particular is important in considering redevelopment of the Vikings Stadium in downtown east; while the number of games generated by a football stadium is far less than that for baseball, it can still serve as an effective anchor for new development if done correctly.
Highlights of AT&T Park’s development included:

- A small urban footprint in a city with limited land availability.
- Close proximity to the city’s entertainment district, in walking distance to parks, bars, theaters and major retail outlets.
- Attractive, pedestrian-oriented design with enhanced accessibility and scenic, sweeping views both of and from the stadium.
- Increased property values related to the development, reflected in intensified development activity and increased densities surrounding the stadium.

CASE STUDIES_ENVIRONMENTAL PERFORMANCE

University Avenue Corridor Reconstruction

The reconstruction of University Avenue for the Central Corridor LRT project will involve a dramatic revamping of street infrastructure. In addition to new, TOD-centric development, there will also be a new stormwater management system installed to ensure that runoff from impermeable surfaces infiltrates into soils via catch basins in lieu of stormwater drains. This new system expects to capture upwards of 70 percent of a one-inch rainfall – a commendable achievement given the extensive infrastructure already in place along University Avenue. The key to the new infiltration system will be the inclusion of highly absorptive street curb catch basins and infiltration trenches of adequate depth to properly maximize the filtration of sediment and contaminants (Sustology, 2010).

Storm sewer design cross-section instilled in University Avenue by Kimley-Horn and Associates and HZ United (20).
Marquette Avenue and 2nd Avenue Corridor Reconstruction

The Marquette Avenue-2nd Avenue S. (MARQ2) project involved a collaboration between city government and transportation authorities and received federal funding via the Urban Partnership Agreement (UPA). Intended to reduce downtown congestion, the project also incorporated certain sustainability features such as use of recycled aggregate materials, the planting of over 200 trees, use of pervious pavers atop Silva cells to maximize infiltration and improve tree health, etc. The trees themselves act as carbon sponges and serve to remove pollutants from the soil, which improves watershed health well before runoff reaches the river. An efficient street lighting system was also installed, allowing the city to dim city lights and identify areas that need repairs and maintenance. (Mason, 2011).

Portland Stormwater Strategy

Located adjacent to the University within downtown Portland, the Southwest 12th Avenue Green Street project is unique. It is exceptional in the matter in which the pedestrian zone of this street has been changed to sustainably control stormwater runoff. This retrofit design illustrates how both new and existing streets in greatly urbanized areas can be planned to provide direct environmental benefits as well as being aesthetic and incorporated into the city streetscape.

The 12th Avenue Green Street project controls stormwater on-site using a landscape approach. This was accomplished by disconnecting the street’s stormwater runoff from the storm drain system which go directly into the Williamette River. Stormwater flows off the curb and into the first of four stormwater planters. A foot long cut into the curb directs the runoff into the first stormwater planter. Once inside the planter, the water will collect until it reaches a depth of six inches. Within each planter, the water will infiltrate into the soil at a rate of four inches per hour. When there are heavy rains, the water will leave trough the planter’s second curb cut and flow back into the street and in time will enter the next downstream stormwater planter. Once
the stormwater goes beyond the capacity of the planters, the water will leave the last stormwater planter and then will be input into the existing storm drain system. The stormwater planter system has the capability to reduce the intensity of runoff of 25-year storm events by at least 70 percent.

The work along the Southwest 12th Avenue Green Street has achieved three crucial goals. First, it is a low-cost in terms of its design and implementation. Second, it has positive environmental impacts and exemplifies community livability. Third, it can serve as a model for other areas that are dealing with important national and local stormwater regulations (ASLA, 2006).

**CASE STUDIES_CULTURE**

**An Urban Arts Corridor: Gordon Square Arts District**  
**Location:** Cleveland, Ohio  
**Cost:** $30 million

Gordon Square Arts District, in Cleveland, Ohio, is an example of an arts district being created for economic revitalization within an inner city. In 1997, plans for the arts district began. Three theaters, Capitol Theater, Cleveland Public Theater, and Near West Theater, serve as anchors for the arts district and have lead the redevelopment of the commercial corridor. This project has been led by three non-profits.

Beyond its investment in the arts, it has generated significant economic benefits. It is “a powerful combination of housing, new businesses, the arts, and neighborhood beautification are sparking the development of new jobs for residents” (Gordon Square). By 2008, the project had enough private and public funding to complete its Detroit Avenue streetscape, linking the theaters and generating new and rehabbed businesses, homes, restaurants, and shops” (Markusen & Gadwa, 2010). The public art elements were designed by an environmental artist who worked with developers and architects for the half-mile stretch along the Avenue. The public art elements were inventive reflections of Lake Erie’s landscape and the Avenue functions as the District’s central spine.
Installing a DEEP Foundation | A 30 Year Build Out of the Downtown East Area

A study done on the economic impact of the project found that from 2004 until 2009, 245 construction jobs were funded annually. It is forecasted that when the project is completed in 2013, 643 new non-transient jobs, at least 10% of them will be in the arts. The majority of forecasted permanent jobs will be in retail, restaurants, and clubs. “More than half the $30 million in streetscape and theatre renovations has been lent or granted by public agencies (local, regional, state, federal) and private non-profit foundations, developers, philanthropists, and utility company partners” (Markusen & Gadwa, 2010). It has been claimed that the Gordon Square Arts District will generate half-a-billion dollars in economic development in the area. While every planning situation differs, there are several aspects of the Gordon Square Arts District that provide insight into new possibilities within Downtown East:

The establishment of an art district through the anchors of three theaters in the region. Within Downtown East there are several theaters including Guthrie, Southern, and Mixed Blood. The Art District created economic revitalization to an inner city area. Renovation and construction in the area had a ripple result generating more upgrading and attracting young talent to the area.
A DEEP VISION
High amenity infill development that supports alternative transportation while weaving a new urban fabric of meaningful connections to serve the local and regional community.

A DEEP PROPOSAL

Integrated Mixed Use Urban Sports Stadium Complex|Phase 1
The stadium is reworked to face downtown. Street level commercial development with residential facilities on higher floors is integrated into the complex to bring the residential density to the neighborhood that will support vibrant street life.

Freeway “Decking”|Phase 2
This project features a range of uses from passive to active recreational uses in parks or recreation centers, as well as a mix of uses such as residential or office combined with commercial activity. Successful and proposed projects that use developable air rights (specifically freeway lid decking) can be found in cities domestically as well as internationally.

Washington Avenue Arts Corridor Locus|Phases 1 and 2
Land Bridge is locus for arts corridor that runs west along Washington Avenue, ending with a proposed arts development near Gold Medal Park. Land Bridge is also the genesis for “bridges and islands” green spaces that are developed out of the remnant slope land in the I-35 corridor.
MAKE NO SMALL PLANS

The motivating factors in considering this proposal are the future use of the Metrodome site (Mall of America Field), the land use changes following the construction of the Central Corridor LRT along Washington Avenue and the potential for developable air rights over I-35W. As the land use changes surrounding the site of the future West Bank station between Cedar and 10th Avenue bridges on Washington Avenue, there will be a place for this proposal at the table.

OUR RECOMMENDED LAND USE

- Renovation of Metrodome and east parking lot
- Green corridors along Chicago Avenue and 11th Avenue
- Added/enhanced pedestrian connections/bridge across I-35W
- Air rights development over I-35W

Phase I

Renovation of the Metrodome, renovation of east parking lot into a public amenity plaza (added green space, street vendors/mobile food carts)
Streetscape improvements including the greening of Chicago & 11th Avenues to reaffirm these streets as corridors in the Downtown East and Elliot Park neighborhoods and support direct connections to the Mill District, Mississippi River and West River Road.
Redevelopment and infill of vacant buildings and surface parking lots near the Metrodome, centered on the Metrodome Light Rail station

Green pedestrian bridge/connection over I-35W between Cedar-Riverside and Downtown East
Phase II

Developable air rights over I-35W with the construction of freeway lid decking one-half block south and north of Washington Avenue. An arts Corridor Connection along Washington Avenue is formally created; this by taking a cue from what already is present. Added open and green space in the form of park and bridge islands for public use and stormwater management.
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- Hotel
- Residential
- Mixed Use
- Commercial Entertainment
- Medical Housing
- Parks, Open Space
Trips Generated by Proposed Development Changes

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<td>1,014</td>
<td>337</td>
<td>1,292 Phase Independent</td>
</tr>
<tr>
<td>62,383</td>
<td>29,190</td>
<td>82,068</td>
<td>29,863</td>
<td>70,655 Total Build-Out</td>
</tr>
<tr>
<td>54,862</td>
<td>23,383</td>
<td>67,647</td>
<td>25,671</td>
<td>59,803 Trips less student/medical housing</td>
</tr>
<tr>
<td>49,375</td>
<td>21,045</td>
<td>60,882</td>
<td>23,104</td>
<td>53,823 Trips with 10% internal capture</td>
</tr>
<tr>
<td>43,889</td>
<td>18,707</td>
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<td>47,843 Trips with 20% internal capture</td>
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<td>38,403</td>
<td>16,368</td>
<td>47,353</td>
<td>17,970</td>
<td>41,862 Trips with 30% internal capture</td>
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<tr>
<td>32,917</td>
<td>14,030</td>
<td>40,588</td>
<td>15,403</td>
<td>35,882 Trips with 40% internal capture</td>
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</tbody>
</table>

**1,284** Trips/ Hour  Over 16 hours from 6 am to 10 pm.  
**21** Trips/ Minute  Over the entire site.

Factors and Assumptions in Forecast for Traffic Demand Generation
Values taken from Trip Generation, Vol. 8.

Trip Generation is based on the following independent variables:
- Per 1000 sq. ft. for building classifications that are commercial in nature (restaurants, drinking establishments, library, office space, health clubs, and retail).
- Per dwelling unit for residential classifications (condominiums, apartments, and assisted living).
- Per room for hotel classification.
- For all dwelling units or hotel rooms, 1200 sq. ft. was taken as the size of the independent variable, except in the condition where all condominium dwelling units were of the medium to luxury end, in which case the dwelling unit was assumed to be 1500 sq. ft. 1200 sq. ft. was also considered to be a proxy average value based on all dwelling unit sizes.

Several assumptions were made in projecting traffic demand. While care was taken to use the most reliable data possible, the data set available for some land use projections was inconsistent. Traffic demand estimates are for weekdays, as not all categories had data for weekends. Traffic demand does not account for stadium events, as these events are infrequent, occur on weekends, and data was not available for venues larger than ice hockey/basketball arenas.

Traffic demand is based on taking floor area per structure and dividing by the value of the independent variable. Some residential structures in the plan were smaller in room number than the range of rooms from which trip demand is based on Trip Generation, Vol. 8. For this reason, the trip
generation estimate for non-priority residential developments is possibly skewed high.

Traffic demand was not based on use of regression equations as not all regression equations were given for the classification used in this study.

The trips generated for student housing and medical housing were projected to be very high and completely unrealistic, as residents of such facilities when sited within walking proximity to a hospital or university, will not drive. These facilities were removed from contributing to external trips before adjusting trips generated for internal capture.

Internal capture adjustment could not be technically applied as the data sources used for traffic analysis were based on daily trips generated, not AM peak and PM peak trips generated. However, internal capture of trips for a mixed use development is estimated at a minimum of 10% and a maximum of 40% of trips using the AM and PM peak methods. Adjustments of 10-40% were made for the DEEP Project as a result.

Since data on small to medium sized residential areas within central cities is hard to come by, the projected vehicle trips generated each day is expected to be an over- assumption. To address this, the estimate of traffic generated at minus one standard deviation is accepted as the best estimate of traffic generated. Therefore, a reasonable expectation is that at complete buildout, the entire development will add another 20,500 vehicle trips per weekday. This value includes a conservative estimate that 20% of trips will be within the development. However, due to the close proximity to the central business district, two LRT lines and well over a dozen bus lines, non-automobile trips into the could be substantially less. If 40% of trips were non-automobile, than the number of new vehicle trips would be closer to 15,000 per weekday.

While 15,000 extra trips may appear to be a great deal more demand, this level of vehicle demand will bring the traffic counts in downtown east closer in-line to the counts in downtown west. At this point in time, the vehicle loads on the central city streets are 2,000-3,000 less in the DEEP area than in the rest of downtown. A worries of significant congestion are unwarranted as the streets are under-utilized and have excess capacity.
A cost benefit analysis is a technique for assessing the social costs and benefits of a capital investment project, and helps determine the feasibility of the project. In this part of the report, we will apply the cost benefit analysis to measure the proposed infill development in Downtown East and Elliot Park in terms of the monetary benefits and costs. Also, we incorporate the social benefits that can be generated. Because more data collection work is needed to do a detailed analysis, the analysis here tries to provide a preliminary estimation of the possible benefits and costs for the projects involved.

**BENEFIT ANALYSIS**

Based on our land use plan, we will have several mixed use buildings with street level being commercial or retail, and new condos and apartments accommodating different economic groups as well as the stadium providing more recreational spaces and serving as an anchor of the economic growth of this area.

**ECONOMIC BENEFITS**

To measure the potential benefits these types of use will generate, we estimate the rental incomes for each type of use separately based on the rental prices for existing facilities in Downtown East and Elliot Park area. As for residential uses, we collect the rental information of condos and apartments ranging from high-price ones, market value ones and affordable ones currently in this area, and find the average rental price per square feet for each type of housing. Based on this and our proposed areas of residential development of each type, we estimate the total benefits from rental income those residents projects can generate. We did similar work with the commercial and office uses in our proposed development. To make it more reasonable, we also incorporate the typical vacancy rate for each type of use in our calculation. For the renovated stadium, the main benefits it will generate is through tax revenue.

And referring to the Hennepin County tax records and tax revenue statistics of the current Viking stadium, we figure out that stadium would generate $26 million a year in tax revenue. The estimated benefits from residential, commercial and retail uses are in the table below.

So the rough estimation of potential benefit from rental incomes that the proposed development will generate is about $12.8 million monthly, and $154,381,766 on a year basis.

Also, it is predictable that land values adjacent to the new development over I-35W will increase. And, sales tax and revenues generated by new businesses will benefit the city. With new residents and more visitors to the area, local businesses can be revitalized.

Besides economic benefits that can be measured in a quantitative way, the infill development in Downtown East and Elliot Park will also bring about many positive social benefits that are difficult to measure. These include public health improvement, environmental benefits and a strong sense of community through enhanced interaction.

**HEALTH BENEFITS**

The multi-modal and mixed-use development will improve public health by supporting greater physical activity. With a focus on a pedestrian oriented environment, our proposed development will create a walkable, pedestrian-friendly community. Human-scale, pedestrian-oriented development provides safe, accessible opportunities for integrating physical activity into our daily routines. For example, sidewalks can create safe environments for children to walk to school while bike lanes may encourage more people to bike to work. Also, added open space for recreation will benefit active and healthy lifestyles of residents of all ages. And mitigation of air and noise pollution will have a positive impact on the health of residents.
ENVIRONMENTAL BENEFITS
Enhanced bicycle and pedestrian and multi-modal connections will encourage residents and visitors to the area to use alternative forms of transportation and thus decrease auto-dependency. This will help mitigate negative environmental impacts from the freeway such as air and water pollution as well as sound and noise. Other potential environmental benefits include the added capacity for storm water treatment due to proximity to Mississippi River.

COMMUNITY BENEFITS
By encouraging alternative modes of transportation such as walking, biking, and public transit, the proposed development can provide opportunities for social interaction that are less prevalent when traveling in a personal automobile. Additionally, these alternative transportation modes allow us to be more acutely aware of the environment around us, thereby creating an appreciation for our community’s natural areas and resources. This combination of increased social opportunities and appreciation for our surroundings contributes to people’s sense of community and may result in an increased willingness to participate in local government, volunteer for emergency services, or assist with organizing events in the community.

COSTS
The largest proportion of costs of our proposed development is the construction of new mixed-use buildings. The estimation of construction costs is based on Salyor Publications Construction Costs and Reed Construction Data 2009. These two sources provide the construction costs based on per square footage in Minneapolis, and differentiate costs across different types of uses and building stories. Based on our development plan, the total square footage for luxury apartment or condos is 115,883, and the estimated construction cost for this type of building in Minneapolis is approximately 156 per square feet. The cost estimation of other types of housing, including market value apartments, student housing and affordable apartments, and commercial and retail uses are also reached in this way. Applying different costs to each category of our proposed development, we get the total construction costs of roughly $391.4 million. The detailed summary of construction is provided in the table 2 above.

In addition to construction costs, other major capital costs are infrastructure costs. The rough estimation of increased infrastructure to support our proposed development is 10.2 million, including new parking lots, sidewalks and road renovation.

In making the cost analysis, we are assuming that the cost of land acquisition is negligible. But in real development, this part of cost should be taken into consideration. Also, other costs will be incurred in the form of infrastructure maintenance, engineering, financing, legal fees, and other pre-construction and post-construction expenses. Because our analysis here only provide a preliminary estimation of the potential costs associated with the proposed infill development, more data collection are needed in order to have a detailed estimation.

In planning our Phase II development, the bulk of costs involved lie with the extension of a base plate over I-35W capable of supporting retail and residential mixed use development. We use a conservative estimate of $450/sq. foot construction costs for this component of the development alone. Development of the newly created 43,215 square feet of space is expected to run at $156/sq. foot. Meanwhile, rents are expected to be in line with others in the area, at $17/sq. foot for retail and studio space and $1.2/sq. foot. In any case expected monthly incomes from the development and associated tax revenues are not liable to cover costs of development for many years; this development will be substantially subsidized by the city.
Overall, based on the benefit and cost analysis, the internal rate of return (IRR) for our proposed multi-modal and mixed use development in Downtown East and Elliot Park in a 10-year period of time will be approximately 32%, given a yearly discount rate of 0.25.

While proposed changes in land use within the DEEP area are expected to be in accord with the overall character of the surrounding neighborhoods, certain elements of the area’s existing zoning ordinance will merit change in order to accommodate growth. In particular, this means extension of surrounding downtown business districts and office-residential districts to encompass the retail/commercial uses abutting the urban stadium development and extension of downtown business districts to encompass the proposed air rights development.

**FUNDING**

Funding for a project of this complexity would be assembled through a variety of sources, both at a local, state and federal level.

Larger freeway lid deck projects have been incorporated into freeway construction or reconstruction projects and have used federal funds from the Federal Highway Administration (FHWA) or the U.S. Department of Transportation (USDOT). Federal funding for housing can also be used for housing through the U.S. Department of Housing and Urban Development (HUD). The Environmental Protection Agency (EPA) funding can also be used for redevelopment projects that may require the clean-up of a polluted brownfield site.

**Overall Site Considerations**

New development on the lid deck needs to cover cost of construction of decking. I-35W is below grade and does not necessitate the “cut and cover” approach for construction, which would require the freeway to be depressed below grade and then covered by decking. Traffic planning and management during construction is crucial to the area.
Overview of Benefits
Financial/Economic
- Land values adjacent to the new development over I-35W will increase.
- Sales tax and revenue generated by new businesses will benefit the city.
- Visitors to the area will bring business to local businesses
- New residents will also support nearby businesses (restaurants, etc.).

Health
- Added open space for recreation will benefit active and healthy lifestyles of residents of all ages.
- Mitigation of air and noise pollution will have a positive impact on the health of residents.

Environmental
- Air pollution mitigation from the freeway.
- Sound and noise mitigation from the freeway.
- Added capacity for stormwater treatment (proximity to Mississippi River).
- Enhanced bicycle and pedestrian and multi-modal connections will encourage residents and visitors to the area to use alternative forms of transportation.

Social
- Sense of community.
- Support of local businesses.
- Support and strengthen social capital of small businesses, entrepreneurs and artists.

The construction of decking will be cost prohibitive unless higher densities are achieved on the new site.
Public participation is at the center of the planning process. Our goal is to empower Downtown East by fully incorporating the needs of all stakeholders and encouraging all affected and interested individuals to communicate. Multiple opportunities will be provided to continuously gather public inputs to guide the planning and implementation processes. Individuals and organizations will be given the chance to have their voices heard and questions answered. Participation is a key factor in creating a plan for Downtown East that reflects the wants and needs of participants. After all, “the best plans are those that represent the collective will of the community” (Kelly & Becker, 2000).

Our objective is to improve Downtown East by fully incorporating and anticipating needs of all stakeholders into the planning design. The goals of the planning and participation processes are to involve the public, engage the community, and ensure the participation is representative of the Downtown East community. The public should be involved to avoid any contention and to allow for a flow of information to ensure the best results for the area. To this extent, we have three overarching goals.

Goal 1 is to engage the community. Effective public participation begins with efforts to engage the community. Without stakeholders actively involved in the planning process, public opinion has little way of shaping the plan. From the start, we will communicate the importance of the project and establish a welcoming environment to ensure broad participation.

Goal 2 must be to ensure diversity is represented. Ethnic diversity should be acknowledged, but less apparent forms of diversity such as difference in housing type or business type provide challenges to achieving a collected vision of the corridor.

The last goal is to make sure education is happening constantly. We want to be educating participants and stakeholders because we understand that there will probably always be some members of the community who may remain unaware of the planning efforts surrounding the Downtown East. We will be factual in our presentation of material, but
will be subjective to the importance of the project to the City of Minneapolis. Our education will also inform participants and stakeholders about the planning process itself; ensuring that any individual that wants to participate knows how and when they can.

Establish methods to accept input: Listening to the public is ineffective if there are no measures to absorb their opinions. Input often comes in the form of questions and concerns. We will ensure that questions get passed to appropriate staff and officials and also coordinate responses in a timely matter.

Analyze public input: Public input will come in many forms: online, at public meetings, phone calls, steering committee minutes, and many more. We will classify these comments into overarching community themes and concerns, but will ensure that the integrity of each message is maintained throughout the consolidation process.

The program relies heavily on constant public and stakeholder involvement. Our firm feels that it is important to have citizens’ input so that the community is something that they value and not based on the perspective of a planner.

A variety of techniques will be used to ensure wide public participation in the planning process. Our firm will reach out to community not only in Downtown East but also in Elliot Park and Cedar Riverside since Downtown East is a corridor between these communities. Several techniques will be used to engage different social groups that are less likely to participate in the planning process.

Our firm, DEEP, has several goals we hope to achieve through participation of the planning process. It is our goal to engage as many stakeholders as possible. We will take actions to encourage people who do not typically participate in the planning process so they may understand how this plan may affect them. By doing this we will reduce the chance of opposition during the implementation of the plan.

There will be transparency throughout the process so people can know what is going on and we can build trust with community members. One of the most difficult things to do in the planning process is to establish trust, having transparency is one of the many ways that we can remedy that. This will
also create quality participation from citizens. In addition, we will establish a steering committee consisting of local residents, city officials, neighborhood organizations, and leaders in the local businesses. The steering committee will help guide the participation process, oversee the implementation of the plan and guarantee momentum for the plan will continue once the plan is finalized. The Steering Committee will also serve as a coalition of leader will help pursue and push solutions to issues. Also the steering committee will take some responsibility to reach out to certain organizations for their participation in the planning process. Appointment of members of the steering committee will be based on their different features and the power they hold in the community.

To begin this process we conducted a stakeholder analysis power interest matrix to define what organizations would be impacted by a project in this area (Bryson, 2004).

**Outreach Methods**

To inform citizens of upcoming meetings, we will advertise through different mediums. Also, we plan to use many tangible techniques for higher quality engagement and better understanding of the planning process. Our outreach methods include:

- **Flyers** – Informational flyers will be distributed at various location including businesses and religious and educational institutions. This will a way to communicate with local citizens of upcoming meetings.
- **Advertisement in the newspaper** – Meetings will be advertised in the local newspaper for further outreach.
- **Neighborhood Associations** – Information on meetings will be sent to neighborhood organizations. Neighborhood associations will be likely candidates to participate in the planning process.
- **Email** – We will create an email list of possible participants and sent them information on meetings.
- **Direction Mailings** – We will send direct mailings to everyone’s address within the site.
- **Advertising at bus stops & billboards in the area**
• Announcing meetings on local radio stations – including Somali Voice on KFAI (KFAI)
• Our firm will also reach out to religious leaders in the area to encourage people in their congregation to participate in the planning the process.

Techniques:

Exercises that we plan to use to encourage meaningful participation include:
• Ice breakers – Our organization will have ice breaker activities for people to get to know one another and for participants to communicate with one another.
• Visioning Exercise – Visioning is a collaborative process whereby citizens’ desires for their city or region are molded into an image of locality in its ideal future state. This process typically joins a representative cross-section of community stakeholders of specifying a normative future and is a goal-orientated process. In order to ensure that the visioning process goes efficiently, our firm will ensure that the creative and collaborative aspects of the visioning process must be balanced by feasibility projections and grounding in actions scenarios (Myers & Kitsuse, 2000).
• Block exercise – We will have citizens use blocks to indicate what they would like to see the area look like. The blocks will be used to gain information about what the numbers and size of lanes, the size of sidewalks, among other things.
• Public Meetings – Public meetings will be held so that all stakeholders will be able to share their information and thoughts with one another. This will help stakeholders realizes common goal that may not have been apparent previously.
• Open houses – Open houses are a type of meeting that we will hold to encourage participation with people who may not feel comfortable with standing in front of a large group of people and sharing their opinions. It is a more relaxed atmosphere than other types of meetings.
• Surveys – Our firm will conduct surveys at local business
including restaurants as a way to gain information from the layman. It is important to know what the everyday citizen wants from their community. This may also help us gain information from individuals whom work in the area but choose not to live there and what would make Downtown East a place that they would like to live in.

- Translators – Translators will be present at our public meetings to facilitate communication with East African immigrants.

Participation in the planning process will happen in a three part phase. Phase One will be to engage the community. Our organization will attend neighborhood association meetings to inform residents about the upcoming process. One of the purposes of this phase is to gather general ideas and strategies from local residents for improving traffic and walking environment of Downtown East. Several public meetings will be held to inform and educate the public about the plan. During the first phase, we will appoint members of the steering committee.

Phase Two, we will be conversing with the community. During this phase, our firm will be holding a variety of forums listed above to obtain feedback on plans for the area. The second phase focuses on gathering public ideas for change and engaging the community in the design process. Several design workshops will be held in different communities.

Phase Three is the designing the plan. During this phase we will hold closing meetings on the project and conduct an evaluation of results of the project.

Our firm will be coordinating with the University of Minnesota to conduct a longitudinal study. This study will help facilitate dialogue and communications with individuals and organizations during the project development.

In order to gain useful and valuable feedback on how the participation process went, our firm will conduct a post development analysis. This will occur at different points to optimize participation. We plan to analysis the participation process two years after the completion of phase of the development of the project and again in 2025. We plan to obtain this information through several different medium, including but not excluded to: direct mailings, emailed surveys, and a place on the project website to provide feedback.
Increase...

engagement within Downtown East, Elliot Park, and Cedar Riverside communities. Form an exploratory committee or an interim steering committee to measure and encourage community support. Begin a visioning process that elicits and integrates the needs of local stakeholders into future redevelopment plans.

Continue...

researching air rights proposals and redevelopment projects in Minneapolis and neighboring cities. Compile information on pricing and construction and conduct early engineering feasibility studies regarding extension of base plates over I-35W.

Research...

tax structures to identify and explore funding opportunities. Examine the feasibility of a land use tax to incentivize conversion of excess surface parking lots into higher-value uses; explore possibility of FHWA funding, CDBG opportunities, subsidized community development loans and lines of credit for local businesses.

Explore...

land use alternatives for the Metrodome site in further detail. Be prepared to recognize and react to vicissitudes of urban stadium development politics by acknowledging the possibility of non-stadium infill development.


Installing a DEEP Foundation | A 30 Year Build Out of the Downtown East Area

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15. West Bank Station Area Implementation Study, p.40.
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