Calhoun Towers

Minneapolis, MN

Environmental Assessment Worksheet
February 21, 2017

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1.	**Project Title**	CALHOUN TOWERS
2.	**Proposer**	**Bader Development**
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4.	**Reason for EAW Preparation**	Mandatory EAW per Minnesota Rules 4410.4300(19)(D) as the development includes in excess of 375 attached units.
5.	**Location and Maps**	The index of figures can be found on the following page.
	County	Hennepin
	City	Minneapolis
	PLS Location	T28, R24, S5
	Watershed	Minnehaha Creek Watershed District
	GPS Coordinates	44.946439; -93.323696
	PIDs	05-028-24-22-0035; 05-028-24-21-0241; and 05-028-24-21-0243

The following is a complete list of figures in this EAW which can be found in Appendix **A**.

Figure #	***Figure Title***
1	Regional Location Map
2	Project Area
3	USGS Map
4	Existing Cover Types
5	Proposed Cover Types
6	Soils
7	Existing Land Use and Zoning
8	National Wetland Inventory
9	Shadow Study

6. Description

The description section of an EAW should include the following elements for each major development scenario included:

a. Provide a project summary of 50 words or less to be published in the EQB Monitor.

The project proposes residential development of 739 new multifamily units, parking, and common outdoor areas at 3430 List Place in the City of Minneapolis. The 22-story Calhoun Tower building with 113 units, exists onsite and will remain as part of the project. The site is located adjacent to the proposed West Lake Street station for the Southwest Light Rail Transit (LRT – Metro Green Line Extension) and the Cedar Lake LRT Regional Trail. The Midtown Greenway ends just to the northeast of the site. The project will be developed over four development phases beginning in 2018 with full project build out by 2025.

b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

The area being studied by the EAW is located in Minneapolis, MN, within Hennepin County (see **Figure 1**). The proposed development site will encompass approximately 6.13 acres situated to the south of Lake Street, southeast of Chowen Avenue South, west of Abbott Avenue South, and north of List Place (see **Figure 2**). The land is relatively flat as shown on the USGS map (see **Figure 3**). Approximately half of the study area is currently covered by green space and trees while the other half is developed for an existing residential tower (Calhoun Tower) (see **Figure 4**).

The project proposes residential development of 739 new multifamily units, parking, and common outdoor areas at 3430 List Place in the City of Minneapolis. The project will be developed over four development phases. The table below outlines the number of residential units and parking spaces proposed for each of the four project phases along with an approximate construction schedule. Additional

detail for each phase is provided subsequently.

Phase	Units	Parking	Start	Finish
Existing Tower	113	227	-	-
Phase I (West Tower)	242	413*	Fall 2018	Fall 2020
Phase II (East Tower)	254	249	Fall 2019	Fall 2021
Phase III (South Building)	124	108	Fall 2020	Spring 2022
Phase IV (HCRRA Parcel)	124	92	Fall 2022	Spring 2025
Total	**857**	**862**	**Fall 2018**	**Spring 2025**

** Includes the existing 227 parking spaces*

An existing 22-story residential tower is located in the southern portion of the development site, and provides the City with 113 multifamily residential units. To the north of the tower, there is a surface level parking lot (101 stalls) accessible from Abbott Avenue South, and an underground parking garage that provides additional parking for the existing development (bringing total existing parking up to 227 stalls). The existing tower will remain as part of the proposed project, but the surface parking lot and underground garage will be greatly enhanced with a five story parking structure to be constructed during Phases I and II of development as described below.

Construction of Phase I is anticipated to begin in the fall of 2018, and anticipated to be completed by the fall of 2020. This phase is located on the western side of the project site, south of Lake Street, and north of the existing tower. This phase would include construction of a new 22-story tower referred to as the "West Tower." Development in this phase would include 242 multifamily residential units, and the western half of the five story parking structure bringing total site parking up to 413 spaces.

Construction of Phase II is anticipated to begin in the fall of 2019, and anticipated to be completed by the fall of 2021. This phase is located on the eastern side of the project site, south of Lake Street, and north of the existing tower. This phase would construct another 22-story tower referred to as the "East Tower," as well as residential units that would be built in front of the parking garage along Abbott Avenue South. Development in this phase would include a total of 254 multifamily residential units, and the eastern half of the five story parking structure totaling an additional 249 parking spaces (bringing the total number of off-street parking spaces to 662 after the first two phases).

Construction of Phase III is anticipated to begin in the fall of 2020, and anticipated to be completed by the spring of 2022. This phase is located south of the existing tower on the south side of the project site. This phase would construct a six (6) story building referred to as the "South Building," as well as residential units that would be built in front of the parking garage along Abbott Avenue South matching the Phase II units. Development in this phase would include 124 multifamily residential units, and 108 additional parking spaces in a new garage below the building.

Construction of Phase IV is anticipated to begin in the fall of 2022, and anticipated to be completed by spring of 2025. This final phase is located on the north side of the project site to the north of List Place. This phase would construct a six (6) story residential building referred to as the "HCRRA Parcel." Development in this phase would include 124 multifamily residential units, and 92 parking spaces in another new garage beneath the building. Upon completion of the project, a total of 857 units and 862 off street parking spaces will exist on the site.

The Metropolitan Council has a temporary construction easement for staging and construction activities associated with the West Lake Street LRT station on a portion of the site slated for development in Phase IV. Upon completion of the construction of the West Lake Street LRT Station, this easement will be terminated and construction of the proposed development phase can proceed.

Metro Transit has identified necessary roadway realignments on Abbott Avenue South and Chowen Avenue South to allow for bus drop off at the proposed West Lake Street LRT station. These improvements have been incorporated into the project site plan; however, the project proposers are actively coordinating with Metro Transit on minor revisions to the proposed roadway alignments to accommodate the proposed project.

c. Project Magnitude Data

Total project acreage.....6.13 acres

Number & Type of residential uses ..... 857 units/multi-family

Building Heights ..... 22 stories/269 feet

d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

A governmental unit is not carrying out the project. The purpose of the project is to provide needed residential housing to accommodate an increasing population in the City of Minneapolis. As discussed in the land use section below, planning for the area has been guided for residential development to fill a need in this area. The project will benefit future and current city residents by providing transit oriented development, increased customer base for the nearby commercial establishments, more eyes on the streets, as well as affordable housing options in Phase IV of the development.

e. Are future stages of this development (including development on any other property) planned or likely to happen?

Full project development is proposed to be completed by 2025. No future phases of development, other than those described as part of the project, are proposed on the project site and there are no known plans for development on any other property in the vicinity.

f. Is this project a subsequent stage of an earlier project?

The site is occupied by an existing residential building, Calhoun Tower. The existing tower, constructed in 1962, includes 113 multifamily residential units, 227 parking spaces, and is 22 stories tall. No known

environmental review was completed at that time.

7. Cover Types

Estimate the acreage of the site with each of the following cover types before and after development:

- Wetlands – identified by type (Circular 39)
- Watercourses – rivers, streams, creeks ditches
- Lakes – identify protected waters status and shoreland management classification
- Woodlands – breakdown by classes where possible
- Grassland – identify native and old field
- Cropland
- Current development

Please refer to **Figures 4 & 5** for a visual depiction of the following before and after cover types within the study area:

	Before	After
Types 1-8 wetlands	**0.00 ac**	**0.00 ac**
Deep Water/Streams	**0.00 ac**	**0.00 ac**
Wooded/forest	**0.00 ac**	**0.00 ac**
Brush/Grassland	**0.00 ac**	**0.00 ac**
Cropland	**0.00 ac**	**0.00 ac**
Lawn/landscaping	**2.16 ac**	**1.56 ac**
Impervious surfaces	**3.97 ac**	**4.57 ac**
Stormwater Pond	**0.00 ac**	**0.00 ac**
Other (describe)	**0.00 ac**	**0.00 ac**
TOTALS:	**6.13 ac**	**6.13 ac**

8. Permits and approvals required.

List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.

Currently Assumed Approvals Needed

Unit of Government	Type of Application	Status
FEDERAL		
Housing and Urban Development	• Low-Income Housing Tax Credit (LIHTC)	
Federal Aviation Administration	• Airspace hazard permit (for any structures more than 200 feet above ground level)	
STATE		
MN Pollution Control Agency	• Sanitary Sewer Extension Permit • National Pollution Discharge Elimination System Construction Permit (NPDES)	
MnDNR	• MN Natural Heritage Database Review	Complete
State Historic Preservation Office	• Archeological/historic sites review	Complete
MnDOT	• Airspace Obstruction Permit	
REGIONAL/LOCAL		
Metropolitan Council Environmental Services	• Sanitary Sewer Extension Permit	
City of Minneapolis	• Building permit(s) • Erosion and Sedimentation Control Plan Approval and Permit • Stormwater Management Plan Approval • Land Use Applications • Sidewalk Construction Permit • Certificate of Occupancy • Utility Connections & Meter Set Permit • Right-of-Way Registration • Tax Increment Financing (TIF) • Bonds	
Minnehaha Creek Watershed District	• Grading/Erosion Control Permit • Stormwater Permit	

9. Land Use

a. Describe:

i. Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.

The project site is located at 3430 List Place in the City of Minneapolis adjacent to the proposed West Lake Street station for the Southwest Light Rail Transit (LRT – Metro Green Line Extension). The site is occupied by an existing residential building, Calhoun Tower. The site includes areas of mowed grass and mature trees.

A shopping center, which includes a Whole Foods Market, is located to the east adjacent to the project site. Multifamily housing is located to the west and south. Lake Street is located to the north of the site, and further north there is single-family housing. The Cedar Lake LRT Regional Trail is adjacent to the site to the northwest and is accessible from Chowen Avenue South. The Midtown Greenway ends just to the northeast of the site. Abbott Avenue South runs along the eastern boundary of the site and also bisects the site.

The Midtown Greenway is a former railroad corridor that runs along 29th Street from Bde Maka Ska (Lake Calhoun) to the Mississippi River. The intent for the Greenway is to combine rail transit service, in the form of a future streetcar, with bike and pedestrian trails. The Greenway is currently owned by the Hennepin County Regional Transit Authority and was completed in 2006. The Cedar Lake LRT Regional Trail runs along former railways from Hopkins to downtown Minneapolis, and connects with other bike and pedestrian trails.

The site is located in a developed urban area, and no prime or unique farmlands are present.

ii. Plans. Describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.

The Minneapolis Plan for Sustainable Growth (the Minneapolis Plan), was adopted by the Minneapolis City Council on October 2, 2009. The Minneapolis Plan designates the current land use of the project site as Medium-Density Housing and vacant (Map 1.1E), and the future land use of the site as Urban Neighborhood and Parks and Open Space (Map 1.2E). The following policies from the Minneapolis Plan apply to the project site:

- **Land Use Policy 1.3:** Ensure that development plans incorporate appropriate transportation access and facilities, particularly for bicycle, pedestrian, and transit.

- **Land Use Policy 1.8:** Preserve the stability and diversity of the city's neighborhoods while allowing for increased density in order to attract and retain long-term residents and businesses.
  - *1.8.1 Promote a range of housing types and residential densities, with highest density development concentrated in and along appropriate land use features.*

- **Transportation Policy 2.4:** Make transit a more attractive option for both new and existing riders.
  - *2.4.3 Encourage higher intensity and transit-oriented development to locate in areas well served by transit.*

- **Housing Policy 3.1:** Grow by increasing the supply of housing.
  - *3.1.1 Support the development of new medium- and high-density housing in appropriate locations throughout the city.*

- **Housing Policy 3.2:** Support housing density in locations that are well connected by transit, and are close to commercial, cultural and natural amenities.
  - *3.2.1 Encourage and support housing development along commercial and community corridors, and in and near growth centers, activity centers, retail centers, transit station areas, and neighborhood commercial nodes.*

The Midtown Greenway Land Use and Development Plan, approved by the Minneapolis City Council on February 23, 2007, is a small area plan that currently guides land use and development in the Midtown Greenway Corridor. The project site is located within the boundaries of this plan. The plan identifies future land use on the project site as high density housing with densities ranging from 40 to 120 dwelling units per acre. The plan does state that the project area (specifically Lake Street just west of its intersection with Excelsior Boulevard noted) should include medium- or high-density housing to support the future transit-oriented nature of the area. This is a noted change in the proposed development pattern for this area. Additionally, the plan states that the most intensive residential uses should correspond to transit station locations.

Excluding land that will be devoted for street right of way, the project site will have approximately 5.8 acres. A project with a total of 857 units on 5.8 acres of land would provide a density of 147 units per acre.

It is anticipated that with the completion of the new comprehensive plan, Minneapolis 2040, that the density guidance for the project site will be in line with the applicant's overall proposal. Given that Phase IV is not anticipated to be start construction in four years, it may be more realistic to evaluate the density of the first three phases of the project. If the first three phases of new construction are carried out as proposed with a total of 733 units the project density would be 126 units per acre, which is generally in alignment with the density guidance of the Midtown Greenway Land Use and Development Plan

The site is located within the Minnehaha Creek Watershed District, and is governed by their Watershed Management Plan. The current Watershed Management Plan was adopted on January 11, 2018. Applicable regulations within this plan are described in the Water Resources section of this EAW.

iii. Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.

The site is zoned R6 Multiple-family District (high density) and C3S (Community Shopping Center District) – see **Figure 6**. As described in the Minneapolis Code of Ordinances, the R6 district "is established to provide an environment of high density apartments, congregate living arrangements, and cluster developments." The R6 zoning designates a maximum floor area ratio of 3.0 for multifamily housing with a maximum height of six stories.

The C3S district "is established to provide for the development of major retail centers throughout the city, where both adequate land area and transportation access can be provided. In addition to commercial uses, residential uses, institutional and public uses, parking facilities, limited production and processing and public services and utilities are allowed."

According to Flood Insurance Rate Maps, Panel Number 27053C0354E dated September 2, 2004 published by the Federal Emergency Management Agency, the project site is located in Flood Zone X which is outside of the 500-year flood plain.

b. Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.

The proposed project is an allowed use within the existing zoning. The project is consistent with the goals and policies of the Minneapolis Plan, the Southwest Light Rail Transit study, and the Midtown Greenway Land Use and Development Plan to provide high density housing near transit station locations.

To facilitate approval of the project, a Planned Unit Development (PUD) will be requested. The purpose of PUDs is to allow flexibility in exchange for amenities that result in higher quality development that utilize the unique features of a site.

c. Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 9b above.

To date, the developer has been working with all parties to address potential incompatibilities early in the development process. A coordinated realignment of West 31st Street was completed to ensure all land around the LRT station could meet the desired density potential sought by the planning documents noted above and not be hampered by unnecessary impediments. The realignment was also key to establishing an important and needed drop off point for future LRT passengers helping this future station to become both convenient and user friendly. To help facilitate construction of the station, the site has ~~been~~ also been designed in a manner that will allow the Met Council to use a portion of the land as a staging area during construction, and later seeing utilization of that land for development of Phase IV which in turn will help support the transit station. Moving forward through the City's PUD application and review processes, the applicant will continue to work closely with City staff to ensure that mitigation measures are applied as needed.

10. Geology, soils and topography/land forms

a. Geology – Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have

on these features. Identify any project designs or mitigation measures to address effects to geologic features.

Surficial geologic deposits beneath the site include outwash deposits of the Des Moines Lobe and Grantsburg Sublobe consisting of sand, loamy sand, and gravel, overlain by loess deposits, 4 feet thick or less. Bedrock, approximately 100 – 200 feet below the ground surface, consists of Middle Ordovician aged fine to medium grained, friable quartz sandstone of the St. Peter Sandstone Formation. There are no known geologic features such as sinkholes, shallow limestone formations, aquifers, or karst conditions on the site.

b. Soils and topography – Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to the stormwater "water resources" question.

Approximately 65% of the proposed study area is currently being used for buildings and parking areas, and the remaining 35% is dominated by landscaped areas and mature trees. The project site is relatively flat.

An initial review of soils in the area (see **Figure 7**) shows that no prime farmland is located onsite. The breakdown of soil types based on the Hennepin County Soil Survey is as follows:

Map Symbol	SCS Soils Classification	≈ Acres	% of site	Farmland Rating
L52C	Urban land-lester complex, 2 to 18 percent slopes	3.37	55%	Not prime farmland
L55B	Urban land-Malardi complex, 0 to 8 percent slopes	0.12	2%	Not prime farmland
U1A	Urban land-Udorthents, wet substratum, complex, 0 to 2 percent slopes	2.64	43%	Not prime farmland

11. Water Resources

a. Describe surface water and groundwater features on or near the site in a.i. and a.ii. below.

i. Surface water - lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.

The project site lies within the Minnehaha Creek Watershed District which drains to the Mississippi

River. The Minnesota Department of Natural Resources (DNR) Public Water Inventory Map (PWI) and the National Wetland Inventory (NWI) Map were reviewed; no wetlands, watercourses, or waterbodies are located on the project site (**Figure 8**). Bde Maka Ska (Lake Calhoun) is located approximately 0.2 miles to the southeast of the project site, and the Mississippi River is located approximately six miles east of the project site. Additionally, Cedar Lake is located approximately 0.38 miles to the north, and Lake of the Isles is located approximately 0.64 miles to the northeast of the project site.

According to the 2016 Minnesota impaired waters inventory and the MPCA's impaired waters viewer (IWAV), no impaired watercourses or waterbodies are located within the project site. Nearby impaired waters include the Mississippi River (07010206-503) and the Minneapolis Chain of Lakes including Bde Maka Ska (Lake Calhoun) (27-0031-00). The Mississippi River is impaired for mercury in fish tissue and for fecal coliform; and the Chain of Lakes, including Bde Maka Ska (Lake Calhoun), are impaired for mercury and perfluorooctane sulfonate (PFOS) in fish tissue.

ii. **Groundwater** – aquifers, springs, seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.

Depth to groundwater is estimated at approximately 10 to 20 feet below ground level. Groundwater flows are anticipated to be east/southeast towards Bde Maka Ska (Lake Calhoun) and the Mississippi River. The project is not located within a wellhead protection area, and no wells were identified on the project site. The site is located near the Drinking Water Supply Management Area (DWSMA) for both the cities of Edina and Richfield.

b. **Describe effects from project activities on water resources and measures to minimize or mitigate the effects** in Item b.i. through Item b.iv. below.

i. **Wastewater** – For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.

1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.
2) If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system.
3) If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges.

The proposed development will generate wastewater typically associated with residential households. Wastewater will be conveyed to the Metropolitan Wastewater Treatment Plant operated and maintained by Metropolitan Council Environmental Services (MCES) in St. Paul, via the City of Minneapolis sanitary sewer system. Interceptor 1-MN-330 is located to the north of the site.

It is estimated that the proposed development will generate an average of 202,486 gallons per day (GPD) in addition to flows generated by the existing site. This estimate is based on equivalent Sewer Availability Charge (SAC) values and unit parameters taken from the Met Council SAC Procedure Manual (2017) and illustrated in the table below, with one sac per 274 gallons per day. Wastewater from the proposed development will be conveyed via new sanitary sewer pipe, installed and connected as part of the development, to the existing public sanitary sewer main line.

Use	Building SF	SAC Equivalent	Unit	Rate (Unit/SAC)	SAC	GPD	GPM	Peak GPM	Peak CFS
Existing Residential	N/A	113	Each	1	113	27,911	22	88	0.19
Proposed Residential	N/A	739	Each	1	739	202,486	141	564	1.26
Total	N/A	852	Each	1	852	233,448	163	652	1.45

A peaking factor of 4.0 was used to determine that 652 gpm is the anticipated total peak gallons of wastewater that could be generated per minute onsite. The existing 12" sanitary sewer has a capacity of approximately 750 gpm assuming minimal slope of 0.22 ft per ft.

The Metropolitan Council's Metropolitan Wastewater Treatment Plant experienced an average wet weather design flow of 314 mgd with an average daily influent of 131.35 mgd from November 2016 to November 2017. The facility is capable of treating the volume and composition of wastewater projected to be generated by the development without pretreatment or other plant facility improvements. The receiving waterbody from the Metropolitan Wastewater Treatment Plant is the Mississippi River.

ii. **Stormwater** - Describe the quantity and quality of stormwater runoff at the site prior to and post construction. Include the routes and receiving water bodies for runoff from the site (major downstream water bodies as well as the immediate receiving waters). Discuss any environmental effects from stormwater discharges. Describe stormwater pollution prevention plans including temporary and permanent runoff controls and potential BMP site locations to manage or treat stormwater runoff. Identify specific erosion control, sedimentation control or stabilization measures to address soil limitations during and after project construction.

Stormwater surface drainage on the site occurs via sheet flow in various directions--away from the existing building--to perimeter stormwater catch basins which eventually drain to municipal systems. According to the USEPA Urban Nonpoint Source Fact Sheet (2003), 55% or more of stormwater volume in areas dominated by impervious surface (75-100% impervious) leaves a site as runoff. Given that the site is currently comprised of one building and a paved surface parking area, it is reasonable to assume that the majority of stormwater leaves the site as runoff, although some may be infiltrating into the landscaped areas of the site. Existing site runoff would likely contain pollutants associated with the predominant parking land use including but not limited to road salts, sediment, oil, grease, heavy metals, and chemicals from motor vehicles. Runoff captured by the stormwater

system drains to the Mississippi River. No stormwater treatment currently occurs onsite.

Minneapolis, as a large MS4 (Municipal Separate Storm Sewer System) city, is required by federal and state law to obtain and implement a NPDES Stormwater permit administered by the MPCA. MS4s are required to develop and implement a stormwater pollution prevention plan program (SWPPP), and submit an annual report to the MPCA. Because the project would involve disturbance of more than one acre of land, a Stormwater Pollution Prevention Plan (SWPPP), National Pollutant Discharge Elimination System (NPDES) permit, or compliance with the city's ordinance (Chapter 54) for stormwater management is required.
The project will be required to provide both temporary and permanent erosion and sediment control as required by the City of Minneapolis, Minnehaha Creek Watershed District, and the MPCA NPDES permit. Temporary erosion control measures may include rock entrances, silt fences, biorolls, erosion control mats, inlet protection, rock check dams, temporary seeding and mulching, and temporary sediment basins, as needed. In compliance with the Permanent Stormwater Management System in the NPDES Construction Permit, permanent BMPs such as filtration practices are anticipated to be constructed onsite to remove suspended solids from runoff prior to discharge from the site.

Additional stormwater treatment onsite is required in compliance with Minnehaha Creek Watershed District (MCWD) and the City of Minneapolis. MCWD rules state that the proposed discharge rate from the site shall not exceed existing development for the 2-, 10-, and 100-year Atlas 14 twenty-four hour rainfall events. Estimated discharge rates are shown in the table below for existing conditions and after project development.

Discharge Rates	Existing Site (CFS)	Proposed Site Without Treatment (CFS)
2-Year	8.90	12.42
10-Year	18.78	23.25
100-Year	42.74	48.02

Additionally, abstraction of the first inch of runoff from all impervious surfaces onsite must be provided. If infiltration is infeasible, credit towards this standard may be achieved through filtering the first two inches of rainfall. One inch of runoff from the 4.57 acres of impervious onsite generates 16,589 cf of stormwater, while two inches generates 33,178 cf. The City of Minneapolis requires a 70% reduction of total suspended solids (TSS) from all disturbed surfaces, while MCWD requires no net increase in total phosphorus (TP) loading from the existing conditions.

The Minnesota Impact Design Standards (MIDS) Calculator determines existing and proposed phosphorus generation onsite as listed in the table below. The calculator uses an event mean concentration of 0.3 mg/l and 54.5 mg/l for total phosphorus (TP) and total suspended solids (TSS) respectively.

	TP (lb/yr)	TSS (lb/yr)
Existing	5.667	1084.1
Proposed	8.680	1577

Due to the presence of contaminated soils onsite, filtration (rather than infiltration) will need to be provided. An underground perforated pipe or chamber system with a sand filter, and either HDPE or clay liner, will be used to provide both rate control and filtration onsite. Other permanent best management practices onsite may include seeding, mulching, and sodding.

Per the Minnesota Stormwater Manual, sand filters can provide 85% TSS and 50% TP removal. This is sufficient removal to meet Minnehaha Creek's requirement of no net increase in phosphorus and Minneapolis's requirement of 70% TSS removal. Should removal of total phosphorus greater than 50% be required onsite, proprietary devices for phosphorus removal would need to be considered. Based on the discharge rates for the 2-, 10-, and 100-year events and a required filtration volume of 33,178 cf, an estimated 26,700 cf of live storage is required in addition to the filtration volume to contain and pass stormwater runoff through the site.

Treated stormwater will discharge from the site to an existing storm sewer network to the north of Abbott Avenue S. As part of the municipal improvements being undertaken by the Southwest Light Rail projects, Abbott Avenue S is being relocated. Coordination on utility relocation and roadway location will be required to ensure site plan feasibility and proper discharge of stormwater from the site. The ultimate discharge for the existing storm sewer is the Mississippi River.

Given that stormwater runoff from the existing site is generally untreated, it is anticipated that the proposed project would provide an overall improvement by providing some treatment of runoff prior to entering the public storm sewer system.

iii. **Water appropriation** - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation.

The City of Minneapolis supplies drinking water to the site from the municipal distribution system (Minneapolis Water Works). No wells were identified on the project site. The City of Minneapolis obtains water from the Mississippi River for potable consumption under DNR water appropriation permit No. 786216-1. The permit allows a total system pumping capacity of 125,000 million gallons per year (MG/Y). According to DNR Water Appropriation Records as of 2011, the City reported pumping 20,084.1 MG/Y (average 55.0 million gallons per day). Based on equivalent SAC values as outlined under the wastewater section, it is estimated that the proposed development will consume an average of 230,000 GPD of drinking water. It is assumed that the 8" water main adjacent to the site has sufficient capacity to provide adequate drinking water supply to the site. Further coordination on capacity of the 8" water main will be required with the city.

iv. **Surface Waters**

1) **Wetlands** - Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed, and identify those probable locations.

   As stated above, there are no wetlands, watercourses or waterbodies located on the project site (see **Figure 8**). Two wetlands were identified to the west of the project site. These wetlands will not be impacted by development of the proposed project.

2) **Other surface waters**- Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.

   The proposed project will not involve any physical or hydrologic alterations of any surface waters.

12. Contamination/Hazardous Materials/Wastes

a. Pre-project site conditions - Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.

A Phase I Environmental Site Assessment (ESA) was prepared for the majority of the project site by Nova Consulting and is included in Appendix **C**. The northern parcel was not included. An ESA identifies environmental conditions and historical conditions on the site related to the presence or likely presence of any hazardous substance or petroleum product in, on or near the site, including any past release that has been addressed in accordance with applicable requirements. An ESA includes records retrieval and review of records, site reconnaissance, and interviews of people with knowledge of the site.

The Phase I ESA included a review of the available historical information which indicated that the site

was undeveloped from at least 1937 through 1962 when the current apartment building was constructed. Based on historical and regulatory information reviewed, areas of unpermitted dumping were located on the northeast portion of the project site (not studied directly as part of the ESA) and at the southwest project site boundary. The Polansky Dump was identified by the Environmental Data Report (EDR) to be located along the southwest boundary of the Property, and several of the east/northeast adjacent properties were identified on the Voluntary Investigation and Cleanup (VIC) database for soil and groundwater impacts related to an unpermitted dump. Additionally, geotechnical boring logs completed prior to construction of the current improvements indicate the presence of 10 to 20 feet of fill including concrete, glass, bricks, cinders, ash, and wood at several locations throughout site. Historical dumping activities on the site and surrounding area may have resulted in onsite impacts to the subsurface, and therefore represents a recognized environmental condition (REC).

City of Minneapolis Building Inspection files indicate that two 3,000-gallon gasoline underground storage tanks (UST) and a pump were historically utilized onsite for fueling tenant vehicles. Documents indicate that the gasoline tank and pump were installed on October 31, 1963 and removed on December 13, 1985. According to maintenance personnel, the USTs were located east of the parking garage, in the area of the northern-most entry drive and garage door (currently not in use).

Although no releases were reported at the time of tank removal, the removal contractors were not identified, and no records of confirmatory sampling were readily available or provided. In the absence of this documentation, the potential for petroleum impacts (in connection with the former gasoline USTs) cannot be ruled out, and the potential for such impacts represents a REC.

Based on the outcomes of the Phase I ESA above, a Phase II ESA was completed by Nova Consulting and is also included in Appendix **C**. The objective of the Phase II ESA was to evaluate the shallow soil, groundwater, and soil vapor at the site for the presence and concentrations of contamination associated with the two RECs.

The Phase II ESA included:

- Conducting soil borings throughout two of the parcels on the site to a depth of up to sixteen feet below land surface (bls);
- Converting the soil borings to temporary groundwater sampling points;
- Collecting up to one groundwater sample and one soil sample from each boring and submitting them for chemical analysis;
- Collecting and classifying the soil samples collected from the test borings, and screening them for the presence of unusual odors and/or staining, including the presence of organic vapors;
- Installing three temporary sub-slab soil vapor probes inside the existing building;
- Collecting and submitting one soil vapor sample from each of the temporary sub-slab points for laboratory analyses of VOCs and methane.

Laboratory analytical results indicate that the historic onsite placement of fill, unpermitted dumping, and petroleum storage tank operations have resulted in impacts to subsurface soil, soil vapor, and groundwater

beneath the site. Metals and PAHs (polycyclic aromatic hydrocarbons) were detected in several soil samples at depths ranging from 1 to 7 feet bls at concentrations that exceed the applicable MPCA SLVs (soil leaching values) and residential SRVs (soil reference values). Benzo(a)pyrene was detected above the MDH HRL (Health Risk Limits) in groundwater samples collected; and, PCE (tetrachloroethene) and 1,3-butadiene were detected in sub-slab soil vapor samples at concentrations that exceed the 33x residential ISV (intrusion screening value) threshold levels.

Calhoun Towers LLC acquired the Subject Property on December 21, 2016, and subsequently enrolled the Subject Property in the MPCA Voluntary Brownfields Program. A Subsurface Investigation Work Plan (the "Work Plan") was submitted to the MPCA on February 21, 2017, to further characterize the magnitude and extent of the identified impacts at the Subject Property, and to assess applicable response actions that would be required upon the planned redevelopment activities. The MPCA approved the Work Plan in a letter dated April 14, 2017, which included interim control measures (installation of a raised garden bed) to mitigate potential direct contact exposure by tenant gardening activities.

The subsequent investigation conducted by Nova confirmed that the soil at the Subject Property is contaminated with tetrachloroethene (PCE), trichloroethene (TCE), arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, benzo(a)pyrene (BaP) equivalents, and polychlorinated biphenyls (PCBs); and that soil and groundwater is also contaminated with petroleum compounds. In addition, soil vapor sampling identified numerous volatile organic compounds (VOCs) in soil vapor, including 1,3 butadiene and PCE at concentrations above the MPCA's action level of 33x the intrusion screening value.

A Response Action Plan/Construction Contingency Plan (RAP/CCP) dated September 1, 2017, and a RAP Addendum #1 dated September 22, 2017, was submitted to the MPCA for review and approval. The MPCA approved the RAP/CCP and Addendum #1 in a letter dated October 17, 2017. The proposed response actions primarily included the excavation and off-site disposal of impacted soils during construction, the installation of engineering controls to mitigate potential vapor intrusion concerns, and the implementation of a Vegetative Cover Maintenance Plan (VCMP) as an interim measure to prevent direct exposure to contaminated soil.

Additionally, in a letter dated November 22, 2017, the MPCA issued a Retroactive No Association Determination (RNAD) to Calhoun Towers, LLC for Past Actions, and a No Association Determination (NAD) for Proposed Actions.

b. Project related generation/storage of solid wastes - Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.

Construction of the proposed project will result in the generation of solid waste and construction waste material. All waste and unused building materials will be properly disposed of off-site.

During project operation, municipal solid waste will be hauled away by a local, licensed garbage hauler and new residents will be encouraged to recycle.

c. Project related use/storage of hazardous materials - Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any above or below ground tanks to store petroleum or other materials. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.

During construction and operation of the project, vehicles containing gasoline will be present on site. Minimal amounts of gasoline may be stored on site in approved containers with secondary leak protection. Toxic or hazardous materials present after construction will be consistent with residential uses and may include pesticides and herbicides. The potential for contamination is considered to be low. No above or below ground tanks are proposed to be stored onsite following construction.

d. Project related generation/storage of hazardous wastes - Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.

Construction of the project will not involve the generation of significant amounts of hazardous waste. Hazardous waste generated will be properly disposed. The proposed project site may generate or require the storage of hazardous waste materials onsite that would be typical of residential uses.

13. Fish, wildlife, plant communities, and sensitive ecological resources (rare features)

a. Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.

The site is developed with existing structures and surface parking and includes area of mowed grass and mature trees. The site is located in an urban area and is surrounded by residential areas and commercial land uses. The site is located near the Midtown Greenway and the Cedar Lake LRT Regional Trail. These corridors may provide some opportunities for wildlife movement. Nearby aquatic habitats include Bde Maka Ska (Lake Calhoun) 0.2 miles to the southeast, Cedar Lake 0.38 miles to the north, and Lake of the Isles 0.64 miles to the northeast.

b. Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota County Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-____) and/or correspondence number (ERDB #20180195) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.

The Minnesota Department of Natural Resources reviewed the Natural Heritage Information System

(NHIS) to determine if any rare natural features could be impacted by the proposed project. Correspondence dated November 28, 2017 indicates that the proposed project is not anticipated to impact any known rare features.

c. Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.

Development of the project would convert the existing urban site, developed with existing structures and surface parking, into high-density housing. Preparation of the site for each phase of development will likely result in the removal of all existing trees except for (possibly) scattered specimens on the periphery of the development site. To address this loss, the development plans include a robust landscaping and replanting plan specifically designed to enhance the long-term health and maintenance of on-site vegetation. The temporary disturbance to available habitat will allow for creation of both landscape and hardscape elements throughout the site to support the project's multi-modal design; and new pockets of trees, shrubs, and bushes will supplement the ample nearby habitat which exists along the Midtown Greenway. Upon conclusion of the project, it is anticipated that a total of 230 trees will be planted on the site (80 overstory trees, 90 ornamental trees, and 60 evergreens). Given the urban nature of the project site, increased development is not expected to result in a decline in wildlife abundance or species diversity.

There is opportunity for invasive weed species to be introduced during project construction; however, it is not anticipated that these species would persist following construction. The proposed project would be landscaped with turf grass and landscape trees and shrubs per a city-approved landscaping plan. Consequently, areas of exposed soils where invasive weed species might appear are not anticipated. If areas of invasive species do develop, they would be controlled in accordance with local and state invasive and noxious weed regulations.

d. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to fish, wildlife, plant communities, and sensitive ecological resources.

No impacts to fish, wildlife, plant communities, or sensitive ecological resources are anticipated.

14. Historic properties

Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.

The SHPO was contacted regarding the potential for historic, cultural, or architectural resources on and near the site. In correspondence dated September 29, 2017, in their search of the Minnesota Archaeological Inventory and Historic Structures Inventory, SHPO identified no archaeological resources

on the project site. SHPO's records, included in Appendix **B**, indicate that the existing building onsite, Calhoun Towers, is listed in the History/Architecture Inventory, number HE-MPC-6442. The Calhoun Towers is not listed in the National Register of Historic Places (NRHP) nor has it been determined eligible for listing in the NRHP. The existing tower will remain in place and no impacts are anticipated.

SHPO's records also indicate there are numerous historic resources in the project vicinity including homes, buildings, and bridges. Calhoun Parkway has been evaluated as being eligible for listing in the National Register and is listed as CEF (Certified Eligible). Offsite resources are not anticipated to be impacted by the development of the project.

SHPO went on to note that because the majority of archaeological sites in the state and many historic architectural properties have not been recorded, important sites or structures may exist within the search area and may be affected by development projects within that area. Although no known archaeological resources have been identified onsite, in the event that a possible resource is encountered during project construction, all activities will cease and proper authorities will be contacted.

15. Visual

Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

The proposed new towers will be 22-stories tall like the existing tower bringing continuity to the site and the appearance of purpose to the area (as opposed to a stand-alone tower). As a result of high ceilings on some floors, modern building techniques, and necessary mechanical areas on the top of each building; the two new towers will be taller than the existing structure and will therefore become the prominent visual feature on the site drawing attention away from the older structure. That said, the older structure will also see its exterior cleaned and updated or painted in areas to tie in with the new development and ensure a visually pleasing appearance to the surrounding area. The future six-story buildings in Phases III and IV will architecturally tie into the design of the new towers, and will primarily be visible to the surrounding lands. The mixture of materials to be used throughout the project will also provide a consistent visual theme to the surrounding area.

The property is located within viewing distance to the Midtown Greenway and Cedar Lake LRT Regional Trail. Views of the lower levels of the existing and proposed development would be partially obstructed by tree cover and will be partially obstructed by the future West Lake LRT Station. Likewise, trees along the Midtown Greenway (which will not be impacted by this project) largely block views of the lower portion of the development during leaf-on conditions from the nearby Lakewood Isles Apartments and The Lakes Citihomes developments to the northwest. The current onsite building is visible from the surrounding area including Lake Street West and Excelsior Boulevard. Further away, the existing single tower can also be seen from the nearby waters of Bde Maka Ska (Lake Calhoun) to the southeast and Cedar Lake to the north. In general, the existing Calhoun Tower and the nearby Lake Pointe Tower, both now in excess of 40 years old, are the two prominent visual features in this area and neither are going to be removed or changed without a catalyst. Visual effects from sources such as vapor plumes or glare from intense lights are not anticipated.

16. Air

a. Stationary source emissions - Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants, and any greenhouse gases. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.

No stationary source of air emissions is proposed as part of the project. The natural gas heating and cooling systems for the proposed buildings will consist of standard furnace/air conditioning systems. Emissions from the heating and cooling units would be typical of other buildings in the area.

b. Vehicle emissions - Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.

The most critical pollutant associated with vehicular traffic in Minnesota is carbon monoxide (CO). Carbon monoxide (CO) is one of five vehicle emission pollutants for which the US Environmental Protection Agency has standards. CO is a colorless, odorless and tasteless toxic gas produced by the incomplete burning of carbon in fuel. Motor vehicle emissions will be associated with vehicles traveling to and from the development site, and from construction equipment necessary for the proposed construction activities. Following project completion, vehicle-related air emissions in the area—including carbon monoxide levels—will see a relatively small increase due simply to the increase in traffic to and from the site. Notably though, the transit oriented design of the project and its location next to a SWLRT station will encourage many trips to and from the site to be completed absent a car. Walking, biking, and the use of mass transit (LRT or bus) will ensure overall per-person emissions are reduced from that which would typically be expected from this type of development. Accordingly the project is expected to have a negligible impact on air quality.

In general, concentrations of carbon monoxide are typically greatest at intersections with poor levels of service because of excessive idling or acceleration of vehicles. Levels of service at area intersections will remain consistent following this project per the completed traffic study described in Question 18. Furthermore, the existing concentration of carbon monoxide at the project location is considered to be low because no part of Hennepin County has been identified as a Carbon Monoxide Level Non-Attainment Location. The Minnesota Pollution Control Agency has a nearby ambient air quality monitoring station in Saint Louis Park (MPC Station SPPRC 250) to track volatile organic compounds (VOCs), carbonyls, and fine particulates; so air quality in the area will continue to be monitored over time.

c. Dust and odors - Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 16a).

Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.

Odors generated during construction will be mitigated by maintenance of the construction equipment to the manufacturers' specifications and by using appropriate fuel additives when necessary. Grading and construction will temporarily generate dust. BMPs and other standard construction methods will be used to reduce construction impacts such as intermittent applications of water to exposed soils as needed to reduce dust during dry weather. Construction dust control is required to be in conformance with City of Minneapolis' ordinances and the NPDES Construction Stormwater permit. Following construction, no dust is anticipated. The operation of the project is not anticipated to involve processes that would generate odors.

17. Noise

Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

The site is located in an urban area and is surrounded by residential areas and commercial land uses. Existing noise sources are those typical of urban areas and consist mainly of traffic on the area roadways. The nearest sensitive receptors are the onsite residential uses. Following completion of the first project phase, additional onsite sensitive receptors will be located in the residential units constructed. During construction of future phases, these receptors would be subject to construction noise.

Grading and construction will temporarily generate noise. BMPs and other standard construction methods will be used to reduce construction impacts such as limiting hours of operation to comply with the noise regulations in City ordinance. Construction noise will be limited to daytime hours consistent with the City of Minneapolis' construction and noise ordinances (7 am to 10 pm on weekdays, 9 am to 9 pm on weekends and holidays).

18. Transportation

a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.

Proposed Development

Today there are currently 113 units within the existing Calhoun Tower, but once construction is fully completed, the proposed development is expected to include a total of approximately 857 residential apartments (i.e. 744 new units). The proposed development is expected to be constructed in four phases. The first two phases (Phase 1 and Phase 2), which are planned to be constructed by year 2021, would include a total of approximately 496 residential apartments. The remaining 248 residential apartments would be constructed by year 2025 (Phase 3 and Phase 4).

Under existing conditions there are currently 227 parking spaces. After construction of Phase 1 and Phase 2, there is expected to be a total of 662 off-street parking spaces. With construction of Phase 3 and Phase 4, there is expected to be an additional 200 spaces, for a total off-street parking supply of 862 spaces. As proposed, the development would keep the existing Calhoun Tower access on List Place, and construct a new access to the proposed development along Abbot Avenue. Access to both the existing Calhoun Tower and proposed development parking areas would be provided via the new access locations on Abbott Avenue.

Trip Generation

To account for traffic impacts associated with the proposed development, a trip generation estimate for the weekday a.m. and p.m. peak hours, as well as on a weekday daily basis was developed. This trip generation estimate was developed using a combination of existing traffic counts collected at the site driveways and the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. Since the proposed development is located within an urban area with nearby pedestrian/bicyclist facilities (i.e. Cedar Lake Trail) and transit access (existing bus lines and planned light-rail), trips for the proposed development are expected to generate at a similar rate to the existing apartments. The existing apartments generate trips at a rate approximately 25 to 30 percent lower than a typical suburban apartment as presented in the ITE Trip Generation Manual. This trip generation reduction is related to the amount of pedestrian, bicyclist, and transit facilities within the area, as well as other key land uses that reduce the vehicular dependency for area residents. Therefore, the trip generation rate of the existing apartments within the study area was utilized as it represents the most accurate trip generation of the area. It should be noted that the Southwest Light Rail Transit (SWLRT) is not expected to be operating by year 2021, therefore, no additional reduction was assumed for year 2021 conditions.

Under Phase 1 and 2 conditions (i.e. year 2021), the proposed development is expected to generate approximately 186 weekday a.m. peak hour, 207 weekday p.m. peak hour, and 2,081 weekday daily trips to/from the site under year 2021 conditions, as shown in Table 1. This accounts for the current level of pedestrian, bicyclists, and transit service (i.e. no SWLRT service), as well as the current adjacent land uses. When accounting for the existing area apartments previously noted, the total area is expected to generate approximately 491 a.m. peak hour, 542 p.m. peak hour, and 5,470 daily trips.

Table 1 Phase 1 and Phase 2 (Year 2021) Vehicular Trip Generation Estimate

Land Use Type	Size	Weekday A.M. Peak Hour Trips		Weekday P.M. Peak Hour Trips		Weekday Daily Trips
		In	Out	In	Out	
Year 2021 (Phases 1 and 2)						
Calhoun Towers Phases 1 and 2 (1)	500 Units	27	166	146	67	2,150
Existing Apartments (1)	772 Units	42	256	226	103	3,320
Year 2021 Total Area Development Trips		**69**	**422**	**372**	**170**	**5,470**

(1) Based on data collected at adjacent existing apartments.

The addition of SWLRT in the year 2022 immediately adjacent to the proposed development site will provide significantly improved transit service and connectivity within the immediate study area. This is expected to change travel pattern behaviors and mode-choice (i.e. more likely to utilize transit relative to a personal vehicle) for both current and future area residents. Research from residential apartment developments adjacent to other LRT stations indicates that the current apartment vehicular trip generation could be expected to be reduced by up to 75 percent. However, for purposes of this assessment, an additional 15 percent modal reduction was applied to the current apartments to account for a reduction in vehicular trips as a result of SWLRT. When combined with the current 25 to 30 percent modal reduction within the area (as identified based on the existing data collected), the overall modal reduction rate for area apartments would be approximately 45 percent.

To account for traffic impacts associated with Phases 3 and 4 of the proposed development, a trip generation estimate for the weekday a.m. and p.m. peak hours, as well as on a weekday daily basis was developed. This trip generation estimate was developed using the same approach identified as Phases 1 and 2, but also include the 15 percent SWLRT modal reduction applied to both existing and future residential land uses. Results of the trip generation estimate, shown in Table 2, indicate that Phases 3 and 4 for the proposed development are expected to generate approximately 92 weekday a.m. peak hour, 102 weekday p.m. peak hour, and 1,028 weekday daily trips under year 2025 conditions. When accounting for all four phases of the proposed development, as well as the existing apartments and SWLRT modal reduction, the total area residential development trip generation is expected to be approximately 496 weekday a.m. peak hour, 546 weekday p.m. peak hour, and 5,523 weekday daily trips. Overall, general area trips are expected to remain relatively level between year 2021 and year 2025 build conditions, primarily as a result of the SWLRT modal reductions.

Table 2 Phase 3 and Phase 4 (Year 2025) Vehicular Trip Generation Estimate

Land Use Type	Size	Weekday A.M. Peak Hour Trips		Weekday P.M. Peak Hour Trips		Weekday Daily Trips
		In	Out	In	Out	
Year 2021 Development (Existing and Phases 1 and 2)						
Calhoun Towers Phases 1 and 2	500 Units	27	466	146	67	2,150
Existing Apartments (1)	772 Units	42	256	226	103	3,320
Year 2021 Development Subtotal Area Trips		69	422	372	170	5,470
SWLRT Trip Reduction (15%)		- 10	-63	-56	-26	-821
Year 2021 Total Development Area Trips		59	359	316	144	4,649
Year 2025 (Phases 3 and 4)						
Calhoun Towers Phases 3 and 4 (1)	239 Units	13	79	70	32	1,028
SWLRT Trip Reduction (15%)		- 2	-12	-11	-5	-154
Year 2025 Phase 3/4 Subtotal Area Trips		11	67	59	27	874
Year 2025 Total Area Development Trips		**70**	**426**	**375**	**171**	**5,523**

(1) Based on data collected at adjacent existing apartments.

For additional background and analysis of the above summary, please see Appendix **D** which outlines all traffic-related aspects of the project during construction and operation.

b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW. Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 (available at: http://www.dot.state.mn.us/accessmanagement/resources.html) or a similar local guidance.

Intersection Analysis

An intersection operations analysis was completed for existing, year 2021 no build and build conditions, and year 2025 no build and build conditions. Between year 2021 and year 2025, it is expected that the Southwest Light Rail Train (SWLRT) will begin operations. Intersection capacity analysis results are shown in Tables 3 and 4 for the a.m. and p.m. peak hours, respectively. The results indicate that the study intersections currently are expected to operate at an acceptable overall LOS D or better during the a.m. and p.m. peak hours with the existing geometric layout and traffic controls, except for the Lake Street/Dean Parkway intersection, which is expected to operate at a LOS E during the a.m. peak hour under year 2021 build conditions. It should be noted that an intersection signal optimization was assumed by year 2025.

Table 3. AM Peak Hour Intersection Capacity Analysis

Intersection	Level of Service (Delay)				
	Existing	Year 2021		Year 2025	
		No Build	Build	No Build	Build
Lake Street and France Avenue	C (27 sec.)	C (27 sec.)	C (27 sec.)	C (29 sec.)	C (31 sec.)
Lake Street and Drew Avenue	A (4 sec.)	A (4 sec.)	A (4 sec.)	A (4 sec.)	A (5 sec.)
Lake Street and Market Plaza	B (11 sec.)	B (11 sec.)	B (12 sec.)	B (10 sec.)	B (13 sec.)
Lake Street and Excelsior Boulevard	C (32 sec.)	C (31 sec.)	C (31 sec.)	C (27 sec.)	C (30 sec.)
Lake Street and Dean Parkway	D (54 sec.)	D (53 sec.)	**E (63 sec.)**	D (52 sec.)	D (51 sec.)
Excelsior Boulevard and Market Plaza	B (13 sec.)	B (13 sec.)	B (13 sec.)	B (10 sec.)	B (10 sec.)
Excelsior Boulevard and Calhoun Commons	A (3 sec.)	A (3 sec.)	A (3 sec.)	A (3 sec.)	A (3 sec.)
Excelsior Boulevard and Abbott Avenue (1)	A/B (12 sec.)	A/B (12 sec.)	A/C (17 sec.)	A/B (10 sec.)	A/C (23 sec.)
Excelsior Boulevard and List Place (1)	A/A (9 sec.)	A/B (11 sec.)	A/B (12 sec.)	A/B (10 sec.)	A/B (10 sec.)
Excelsior Boulevard and 32nd Street	B (13 sec.)	B (12 sec.)	B (15 sec.)	B (10 sec.)	B (14 sec.)
Excelsior Boulevard and France Avenue	B (18 sec.)	B (19 sec.)	B (19 sec.)	B (18 sec.)	B (19 sec.)
32nd Street and Chowen Avenue (1)	A/A (5 sec.)	A/A (5 sec.)	A/A (5 sec.)	A/A (5 sec.)	A/A (5 sec.)

(1) Indicates an unsignalized intersection with side-street stop control, where the overall LOS is shown followed by the worst approach LOS. The delay shown represents the worst side-street approach delay.

Table 4. PM Peak Hour Intersection Capacity Analysis

Intersection	Level of Service (Delay)				
	Existing	Year 2021		Year 2025	
		No Build	Build	No Build	Build
Lake Street and France Avenue	C (26 sec.)	C (26 sec.)	C (28 sec.)	C (27 sec.)	C (29 sec.)
Lake Street and Drew Avenue	A (7 sec.)	A (7 sec.)	A (7 sec.)	A (8 sec.)	A (8 sec.)
Lake Street and Market Plaza	D (36 sec.)	D (38 sec.)	D (39 sec.)	D (40 sec.)	D (40 sec.)
Lake Street and Excelsior Boulevard	C (31 sec.)	C (31 sec.)	C (35 sec.)	C (31 sec.)	C (35 sec.)
Lake Street and Dean Parkway	D (40 sec.)	D (40 sec.)	D (41 sec.)	D (39 sec.)	D (42 sec.)
Excelsior Boulevard and Market Plaza	C (22 sec.)	C (22 sec.)	C (21 sec.)	C (20 sec.)	C (26 sec.)
Excelsior Boulevard and Calhoun Commons	A (9 sec.)	A (9 sec.)	A (9 sec.)	A (8 sec.)	B (10 sec.)
Excelsior Boulevard and Abbott Avenue (1)	A/B (13 sec.)	A/C (15 sec.)	A/C (24 sec.)	A/B (11 sec.)	A/D (28 sec.)
Excelsior Boulevard and List Place (1)	A/A (7 sec.)	A/B (10 sec.)	A/B (11 sec.)	A/B (11 sec.)	A/B (11 sec.)
Excelsior Boulevard and 32nd Street	B (13 sec.)	B (15 sec.)	B (16 sec.)	B (13 sec.)	B (16 sec.)
Excelsior Boulevard and France Avenue	C (26 sec.)	C (26 sec.)	C (27 sec.)	C (26 sec.)	C (28 sec.)
32nd Street and Chowen Avenue (1)	A/A (3 sec.)	A/A (2 sec.)	A/A (2 sec.)	A/A (2 sec.)	A/A (2 sec.)

(1) Indicates an unsignalized intersection with side-street stop control, where the overall LOS is shown followed by the worst approach LOS. The delay shown represents the worst side-street approach delay.

Under the various analysis scenarios, the westbound 95th percentile queue at the Lake Street/France Avenue intersection is expected to range from approximately 500 to 600 feet during the a.m. peak hour and the westbound 95th percentile queue at the Lake Street/Dean Parkway intersection is expected to range from approximately 750 feet under existing conditions to 900 feet under year 2025 no build and build conditions, with delays over one minute. This queue extends through the Lake Street/Thomas Avenue intersection to the east approximately 25 percent of the time. This queue is associated with the Lake Street and Excelsior Boulevard split west of this intersection, as motorists change lanes to get into the appropriate lane to reach their destination. With queues of this magnitude, there is also cycle failure at the Lake Street/Dean Parkway intersection (i.e. vehicles stopped in the queue do not proceed through the intersection during the green phase). During the a.m. and p.m. peak hours, eastbound and westbound 95th percentile queues along Lake Street exceed 450 feet at several study intersections and most notably throughout the Lake Street, Market Street, and Excelsior Boulevard "triangle" area. On average, the queue's inside of the "triangle" will occupy the available internal storage. These queues can make access from the Calhoun Commons shopping center to Market Plaza difficult during the peak hours.

Additionally, motorists experience a rolling queue effect through study area intersections during the various no build and build scenarios, with low vehicles speeds and congestion. There is a rolling queue along Lake Street in both the eastbound and westbound directions between Drew Avenue and Dean Parkway. The rolling queue along Excelsior Boulevard extends from Lake Street to the north to the Calhoun Commons driveway to the south.

It is understood that there can be specific times and event days (including inclement weather and vehicle crashes) during the year when the queues and congestion during the peak hours along Lake Street and Excelsior Boulevard can be more severe than indicated in the September 2017 analysis. Likewise, there

are times during the year where the study intersections may operate better than indicated in the September 2017 analysis.

It should be noted that under year 2025 build conditions, on average, motorists turning from Abbott Avenue onto Excelsior Boulevard will experience approximately 23 seconds of delay, however, left-turning motorists can expect higher delays than right-turning vehicles. This 95th percentile queue along Abbott Avenue is expected extend approximately 175 feet (i.e. 7 or 8 vehicles) during the a.m. peak hour. This intersection should continue to be monitored to determine if any traffic control modifications are necessary to accommodate vehicles turning from Abbott Avenue onto Excelsior Boulevard, from both the development and potential "kiss and ride" and circulator bus drop-off and pick-ups at the West Lake LRT station.

Based on the results of the intersection capacity analysis, area signal timing should be optimized to allow for acceptable overall intersection operations under year 2021 build conditions. Assuming this optimized signal timing is in place, year 2025 no build and build conditions are expected to operate at acceptable overall LOS, with similar queues and delays to existing conditions.

Please see Appendix **D** which outlines all traffic-related aspects of the project construction and operation.

c. Identify measures that will be taken to minimize or mitigate project related transportation effects.

Based on the results of the intersection capacity analysis for, area signal timing should be optimized to allow for acceptable overall intersection operations under year 2021 build conditions. Assuming this optimized signal timing is in place, year 2025 no build and build conditions are expected to operate at acceptable overall LOS, with similar queues and delays to existing conditions.

Future improvements at the intersection of Excelsior Boulevard and Abbott Avenue may be warranted, if determined to be operationally necessary by the City, to accommodate vehicles turning from Abbott Avenue onto Excelsior Boulevard from both the development and potential "kiss and ride" and circulator bus drop-off and pick-ups at the West Lake LRT station. Currently, it is expected that approximately six (6) buses will turn from Excelsior Boulevard onto Abbott Avenue during the peak hours, while exiting at the circulator loop at the Excelsior Boulevard/32nd Street intersection. It was assumed that "kiss and ride" volume would be minimal due to the lack of parking facilities (i.e. no parking area to wait for riders) and the distance from the nearest highway (TH 100) to accommodate the "on-the-way" drop off and pick-ups.

Additionally, improvements noted within the West Lake Multi-Modal Transportation Study completed by the City of Minneapolis in 2015 are expected to be implemented which will accommodate pedestrians and bicyclists. A list of the following area improvements is included below for both year 2021 and 2025 conditions:

These improvements are generally assumed to be implemented by the year 2021, regardless of the Calhoun Towers planned development, although they have not been officially approved and/or included within the City of Minneapolis budget. Project partners include Hennepin County, Minneapolis Park Board, Three Rivers Park District, and Metro Transit. The planned improvements are outlined as follows:

1. Provide enhanced crosswalk markings, countdown timers, ADA/push button compliance, modified curb ramps, and signal timing optimization at the following locations:
    a. Lake Street and Dean Parkway
    b. Lake Street and Excelsior Boulevard
    c. Excelsior Boulevard and France Avenue
2. Construct a bike facility along the 31st Street/Chowen Avenue/32nd Street loop to connect the future LRT station and Lake Calhoun.
3. Allow for an eastbound contraflow bike lane on 32nd Street, east of Excelsior Boulevard. This roadway is currently a one-way westbound facility. A contraflow bike lane would complement the planned bike facility along the 31st Street/Chowen Avenue/32nd Street loop.
4. Provide pedestrian and bicycle crossing treatments with colored pavement markings at queue areas, as well as the Excelsior Boulevard/32nd Street intersection.
5. Provide a trail pull-off area and bike storage facility at the West Lake Station.
6. Extend the median nose to improve the crosswalk buffer for pedestrians at the Lake Street/Drew Avenue intersection.
7. Extend the eastbound left-turn striping to serve the turn-lane demand at the Excelsior Boulevard/Market Plaza intersection.
8. Enhance trail crossing markings and modify the curb radius at the southwest corner of the Lake Street/Dean Parkway intersection to minimize future impacts and improve pedestrian safety.

In addition to year 2021 planned improvements identified in the West Lake Multi-Modal Transportation Study, there are also several “long-term” improvement recommendations that were identified for the study area. These recommendations include pedestrian, bicyclist, and vehicular improvements that are expected to occur over the next 10 to 15 years. The following improvements were specifically recommended to be implemented prior to SWLRT operations:

1. Provide enhanced crosswalk markings, countdown timers, ADA/push button compliance, modified curb ramps, and signal timing optimization at the following locations:
    a. Lake Street and Drew Avenue
    b. Lake Street and Market Plaza
    c. Excelsior Boulevard and 32nd Street
    d. Excelsior Boulevard and Calhoun Commons
    e. Excelsior Boulevard and Market Plaza

2. Provide a pedestrian connection between the Calhoun Commons Shopping Center and the West Lake Station.

The following additional improvements were recommended to be implemented under a "long-term" condition (i.e. between 2022 and 2030):

1. Optimize signal timing throughout the study area.
2. Provide wayfinding signage for the West Lake Station.
3. Reduce curb radius to slow turning motorists and reduce crossing distance for pedestrians at the Excelsior Boulevard/France Avenue intersection.
4. Reduce travel lane widths on Excelsior Boulevard between France Avenue and Lake Street.
5. Provide a trail connection along Market Plaza from Calhoun Village to Lake Calhoun.
6. Reconfigure the median to add pedestrian staging/queueing areas along with shortened crossings at the Lake Street/Excelsior Boulevard intersection.
7. Reconstruct medians along Excelsior Boulevard from Market Street to Lake Street.
8. Fill lighting gaps throughout the study area, locate utility infrastructure outside of sidewalk paths as redevelopment occurs, and maximize sidewalk widths as development occurs.

These improvements have not been included within a City budget and funding sources remain unknown at this time.

A Travel Demand Management Plan (TDMP) is currently under City review and further improvements and strategies to reduce vehicular traffic are expected to be agreed upon. Please see the proposed draft Travel Demand Management Plan (TDMP) in Appendix **E** which outlines the measures to be taken to minimize or mitigate project related transportation effects.

19. Cumulative potential effects

(Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items)

a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.

Phase I of the project is proposed to be completed by 2020 and the final phase (IV) is anticipated to be completed by 2025. Any impacts to the environment will meet Federal, State, and Local regulation and will be mitigated as required; therefore, it is not anticipated that impacts from each phase will combine to create any cumulative potential effect not already examine herein.

b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales

and timeframes identified above.

Construction of the Southwest Light Rail Transit line (METRO Green Line Extension) is anticipated between now and 2025, and an environmental review for that project has been previously completed. Coordination of the Calhoun Towers project and the future West Lake Street Station are on-going and will continue through the buildout of each project. Critically, the potential for cumulative impacts has already been given significant thought, and the interplay between both projects has driven aspects of the layout and phasing of the Calhoun Towers development. For example, West 31st Street was realigned in a manner that supports the future LRT station in three ways: 1) it allowed for creation of a pickup/drop off point which is viewed as a critical element for all transit stations; 2) it created an area that can specifically be set aside as a work staging area to support the future station construction; and 3) it facilitated a layout that could support the level of density both needed and desired to support this transit element. Opening of the SWLRT will have a direct impact on the travel patterns from the development site as a significant number of trips to and from the site will transition to the rail line. Because the interplay between both projects is critical to each project's success, the impacts associated with both projects will continually be monitored and assessed and mitigated measures implemented as needed.

c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.

Besides SWLRT noted above, no further development or redevelopment is planned adjacent to the proposed project site at this time. Development of the project is not anticipated to cause any future projects. Continued redevelopment of the area is always a possibility, but any such changes in land use on an adjacent site would be reviewed as required by the City, and if necessary, a separate environmental review may need to be completed as a part of such a redevelopment. At that point, the drivers of such a project would need to coordinate efforts and reviews with the Calhoun Towers site to identify cumulative impacts that cannot be identified at the present day.

20. Other potential environmental effects

If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

No additional environmental effects have been identified.

RGU Certification

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.

- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.

- Copies of this EAW are being sent to the entire EQB distribution list.

Signature: Hilary Dvorak Date: 3/2/2018

Title: Principal City Planner