# Tudor and Sloan Concept Plan

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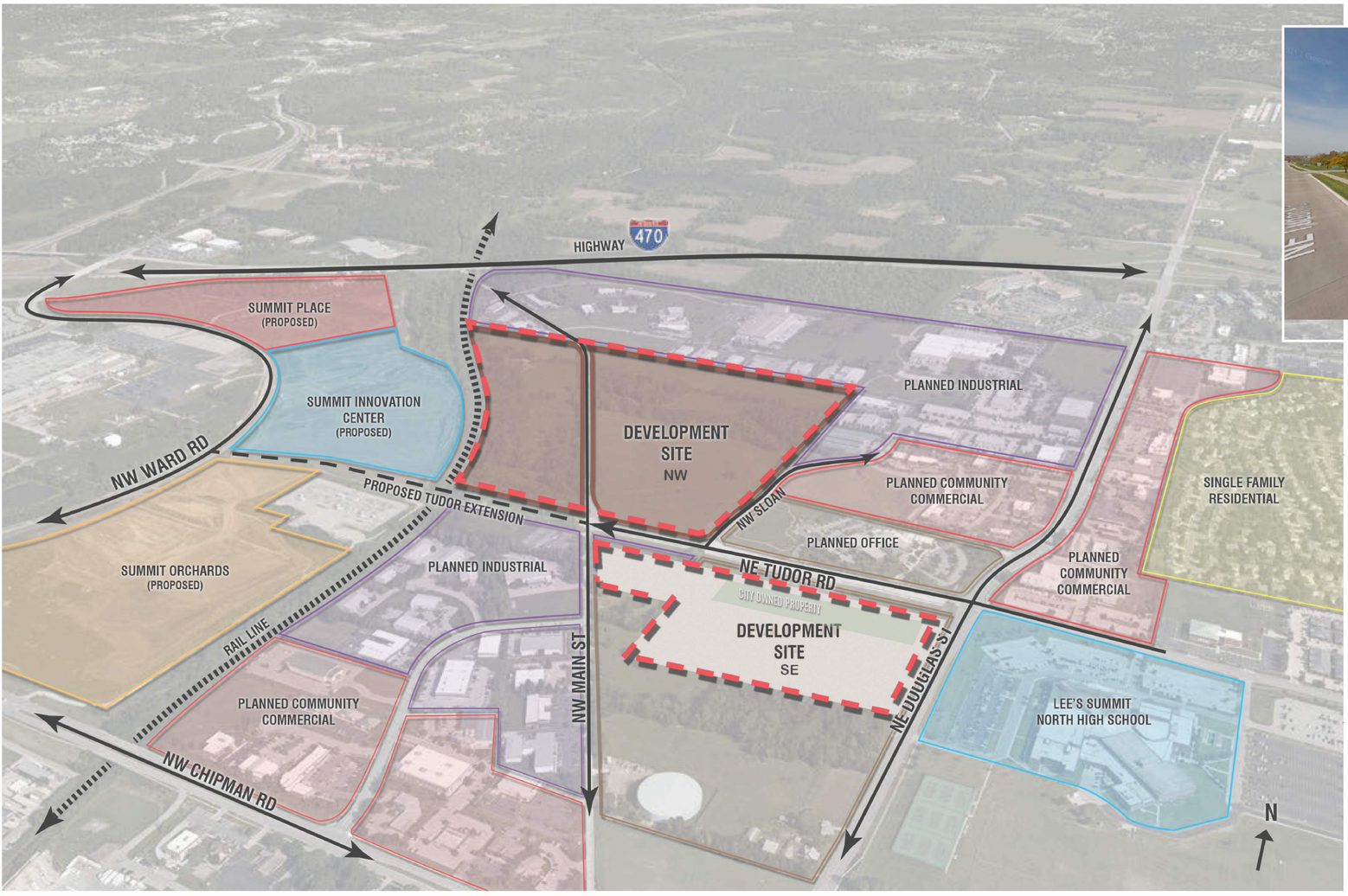
## PMIX - Planned Mixed Use Development



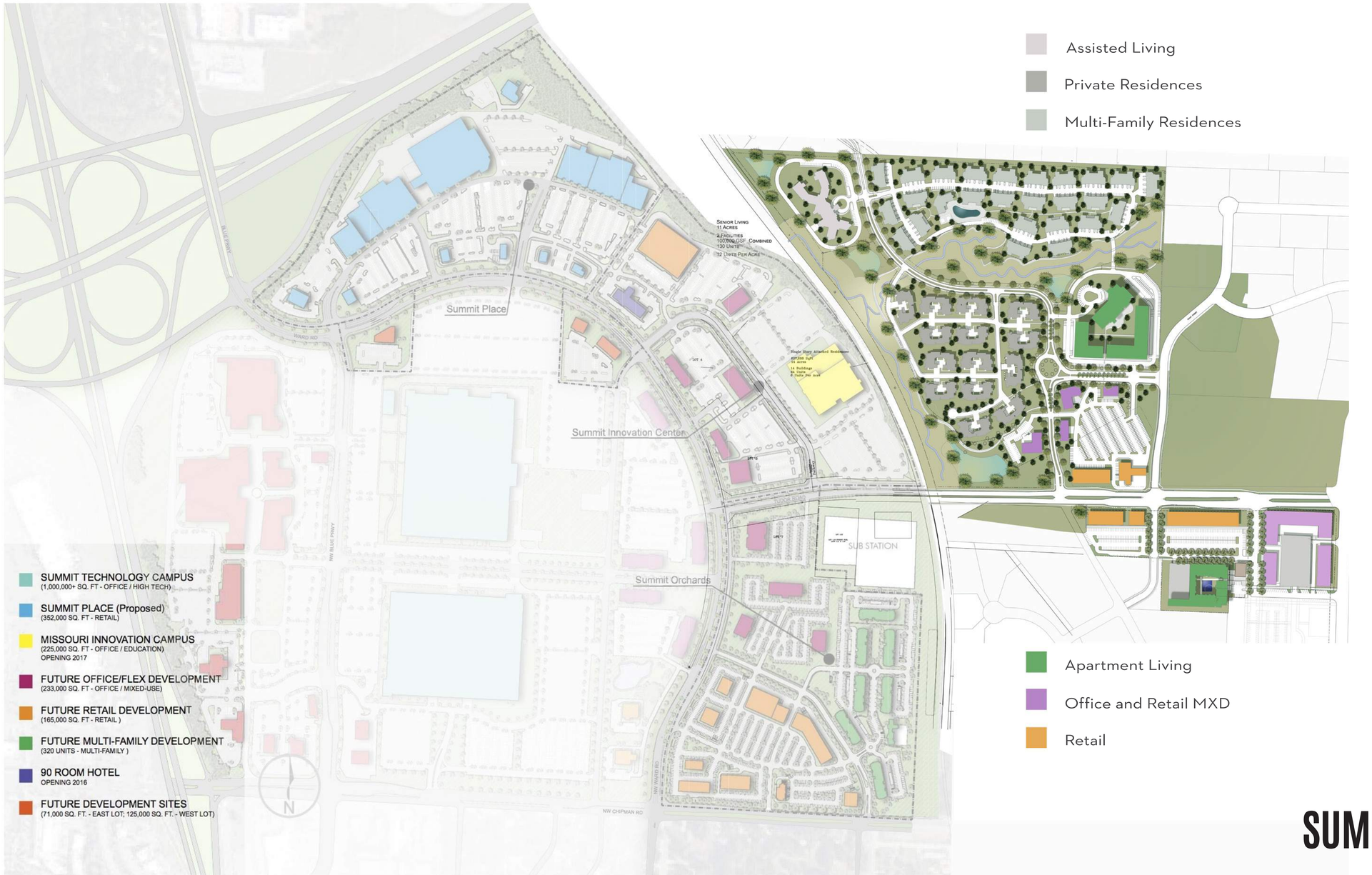


# PMIX

*Planned mixed use district*

Mixed use design gives form, shape, and character to groups of buildings, to whole neighborhoods, and the city. It is a framework that orders these elements into a network of streets, squares, and blocks. Mixed use blends architecture, landscape and city planning together to make developments greater than the sum of their parts.

The property we are submitting for **Concept Plan** Approval is located on the North West corner of Tudor and Sloan. It is directly adjacent to the Summit Technology Campus, Summit Place, Missouri Innovation Campus, Future Office, Retail and Multi-Family developments, as well as a 90 Room Hotel. It is also the beneficiary of a wonderfully enhanced NE Tudor, a city investment that greatly enhanced and elevated the entire region as well as the property on which we propose. Manicured lawns line the street, a landscaped center median has been developed, pedestrian pathways are provided across the new bridge to the Summit Technology Campus lit with new roadway lighting..




# TUDOR AND SLOAN

*Lee's Summit, Missouri*

Our location at Tudor and Sloan is a gateway transition from the Summit Technology Campus Mixed use development to NE Douglas which houses Lees Summit High School, St Lukes Hospital, the Lees Summit Police Department the Reed Performing Arts Company and much more. We propose a transition that "Greens" mixed use.

***Our Concept Plan blends a mixed use residential neighboorhood consisting of contemporary residential building types including residenetial style appartments, patio homes, assisted living and age restricted appartments, with comercial retail and horizontal and vertical mixed use developments.***

With coordination and guideance from the city planning department, we have expanded our Concept Plan to the South of Tudor. While we can continue to design and create concepts to the South, our submittal limits development to property under our ownership and control. Again, with City coordination, our design does incorporate city owned property on the South West corner of Sloan and NE Douglas Street.

# SUMMIT TECHNOLOGY CAMPUS

***Mixed - Use walkable environments South of Tudor - "Creative Placemaking"***

***Beautiful environments planned for high end multi-family residences***

***Sloan entrance focus; Primary access to development***

**Mixed Use Environments.**

"Success stems from "Creative Placemaking" – combining elements of the built environment in a copelling way that attracts people—it is the essence of a successful, contemporary real estate development. "Creative placemaking animates public and private spaces, rejuvenates structures and streetscapes, improves local business viability and brings diverse people together to celebrate, inspire, and be inspired."

**High end Multi-Family Residences**

The Tudor and Sloan residential mixed use developments are planned for high value properties with first class amenities. Two story apartment homes composed as single family residences wrap around a clubhouse, pools, and tennis courts. The required broad stream corridor will provide a beautiful natural buffer between the residences and other planned developments. Walking and bike trails, native plantings and groomed lawn and landscape areas will provide residences with a beautifal environment they can call home.

**Primary Entrance from Sloan**

Sloan will become the primary entrance to the Tudor and Sloan Development. The planned reconfiguration of Mainstreet, "On the boards" at the City of Lee's Summit planning department, will limit Mainstreet as a through street and Sloan will become the primary North South access road. Our team has designed the concept plan with this in mind


# PMIX

*Planned mixed use district*

**I** Type - Assisted Living  Density @ 12 units/acre

**II** Type - Multi-Family  Density @ 15 units/acre

**III** 17 Acre Stream Corridor Buffer

**IV** Type - Single Family :  Density @ 6 units/acre

**V** Type - Apartments : Density @  40 units/acre

**VI** Type - Office/Retail : Density @ .25 FAR

**VII** Type - Retail : Density @ .2 FAR

**VIII** Type - Retail : Density @ .25 FAR

**IX** Type - Apartments : Density @ 70 Units/acre

**X** Type - Vertical Mixed Use : Density @  PDP

# PROPOSED USE AND DENSITY

*Assisted Living - Memory Care Facility*


*Multi - Family Residences*


*High Density Single Family*

*Age Restricted Apartments*

*Mixed Use : Office, Retail and Apartment*



*Low Density Office and Retail*

*Vertical Mixed - Use and Wrap Apartment*

**SANITARY SEWER IMPACT STATEMENT**

*Design Criteria*
The sanitary sewer infrastructure is to be designed based on the City of Lee's Summit Design Criteria Section 6500-Sanitary Sewers. The concept plan proposes a mixed-use development, approximately 80 acres in size, comprised of industrial, office, retail, and residential establishments.

Our design will comply with Section 6501.C.2 "for non-residential lands greater than 8 acres and less than 100 acres in total area", assuming an Equivalent Development Unit (EDU) equal to 1.0/unit for all residential use and the EDU outlined in Table 6501-1 of Section 6500 for all non-residential uses.

*Existing Sanitary Sewer Infrastructure*
There is an existing sanitary line running south to north along the west side of the property, and a line running east to west through the center of the property. Both lines have 15' dedicated sanitary sewer easements. The line running east to west ties into the north/south line and flows to the northwest corner of the property. The sizes and flowlines of these existing lines are unknown at this time.

*Proposed Sanitary Sewer Design*
All proposed sanitary mains will be gravity mains of 8" or greater, and will be sized to account for the peak base flow, peak inflow, and peak infiltration, based on the City of Lee's Summit design criteria.

The following approximate land areas allocated for each land use have been proposed in the preliminary concept plan. The EDU values listed here are copied from Section 6500 and will be used to generate a conceptual sanitary sewer design.

| Land Use Description: | Land Use Area (Ac.) | Total Building Area, BA (sf.) | Equivalent Development Units, EDU |
|---|---|---|---|
| Assisted Living | 4.7 | TBD | Industry Specific (Varies) |
| Commercial/Retail | 7.6 | TBD | 0.2/1000 ft$^2$ |
| Residential (11 units/Ac) | 46.3 | TBD | 1.0/unit |
| Senior Living | 8.1 | TBD | 0.4/unit |
| Wetlands | 13.96 | N/A | N/A |
| **TOTAL** | **80.7** | | |

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Mick Slutter, P.E.



Renaissance Infrastructure Consulting



**PUBLIC WATER IMPACT STATEMENT**

The water main infrastructure is to be designed based on the City of Lee's Summit Design Criteria Section 6900-Water Mains. The concept plan proposes a mixed-use development, approximately 80 acres in size, comprised of industrial, office, retail, and residential establishments. To estimate the daily demand and fire flow requirements for the determination of pipe sizing, our design will comply with Section 6901.C.1 and 6901.C.2.

The ALTA survey shows record of one waterline running north/south along the existing Main Street (Old Kansas City Lee's Summit Road). All water main extensions will tie into the existing main. All proposed public water mains will be sized to accommodate the peak hour demand at maximum day demand (based on building use) in addition to providing adequate fire protection on the day of maximum customer demand as outlined in Section 6900.

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**STORM DRAINAGE IMPACT STATEMENT**

*Storm Drainage Design Methodology*
All stormwater drainage infrastructure will be designed using the guidelines presented in APWA 5600 and the MARC BMP Manual. Based on section 5608.4.C.1.a, the designed post-development peak discharge rates from the site will not exceed the following:

- 50% storm peak rate less than or equal to 0.5 cfs per site acre
- 10% storm peak rate less than or equal to 2.0 cfs per site acre
- 1% storm peak rate less than or equal to 3.0 cfs per site acre

In addition to providing adequate flood control, the extended dry detention basins will also be designed to comply with 5608.4.C.1.b, providing 40-hour extended detention of runoff from the local 90% mean annual event.

*Existing Site Characteristics*
The existing site is approximately 80.7 acres in size with a stream running east to west within the property boundary which is conveyed to a larger stream running south to north at the west end of the property. All runoff within the site outfalls to the northwest corner of the property. Based on the FEMA Flood Insurance Rate Map (FIRM) panel number 29095C0417G revised January 20, 2017, the property lies within the following flood designations:

- "Zone A", as defined as areas having 1% annual chance flood. No base flood elevations have been determined.
- "Zone AE", as defined as areas having 1% annual chance flood. Base flood elevations have been determined.
- "Zone X OTHER FLOOD AREAS", as defined as areas having 0.2% annual chance flood
- "Zone X", as defined as areas outside the 0.2% annual chance floodplain.

From APWA 5605.3.B.2, stream buffer setbacks will be required. The east-west and north-south streams have total drainage areas of 144.45 and 242.87 acres, respectively. Based on the APWA requirements and the tributary areas to the streams, a 60' stream buffer setback required along the east-west stream, and a 100' stream buffer setback is required along the north-south stream. Approximately 10.6 acres of the 80.7-acre site lies within the stream buffer setback, leaving 70.1 acres to be considered for treatment and detention.

*Proposed Site Characteristics*
Four detention basins have been proposed to serve the site. Table 1 lists the volumes provided by each detention basin. The attached grading plan concept outlines the locations of the proposed detention basins.

**Table 1. Detention Volume Summary**

| Detention Basin Description | Volume Provided (cf): | Volume Provided (Acre-ft) |
|---|---|---|
| Detention Basin A | 388689.03 | 8.92 |
| Detention Basin B | 66055.07 | 1.52 |
| Detention Basin C | 161581.48 | 3.71 |
| Detention Basin D | 302843.99 | 6.95 |
| **TOTAL** | **919169.57** | **21.1** |

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C02

Preliminary Exhibits

17-0213
HWA Lee's Summit

Grading Plan Concept

MAIN STREET

Stream Buffer (Typ.)

Proposed Basin A
Top Elevation Area: 65344 SF

Proposed Basin B
Top Elevation Area: 16743 SF

Proposed Basin C
Top Elevation Area: 29821 SF

Proposed Basin D
Top Elevation Area: 51600 SF

100'

100'

60'

60'

NORTH

1"=100'
0 50' 100'

| NO. | BY | DATE | REVISION |
|---|---|---|---|
| | CMK | 8/17/2017 | ORIGINAL SUBMITTAL |


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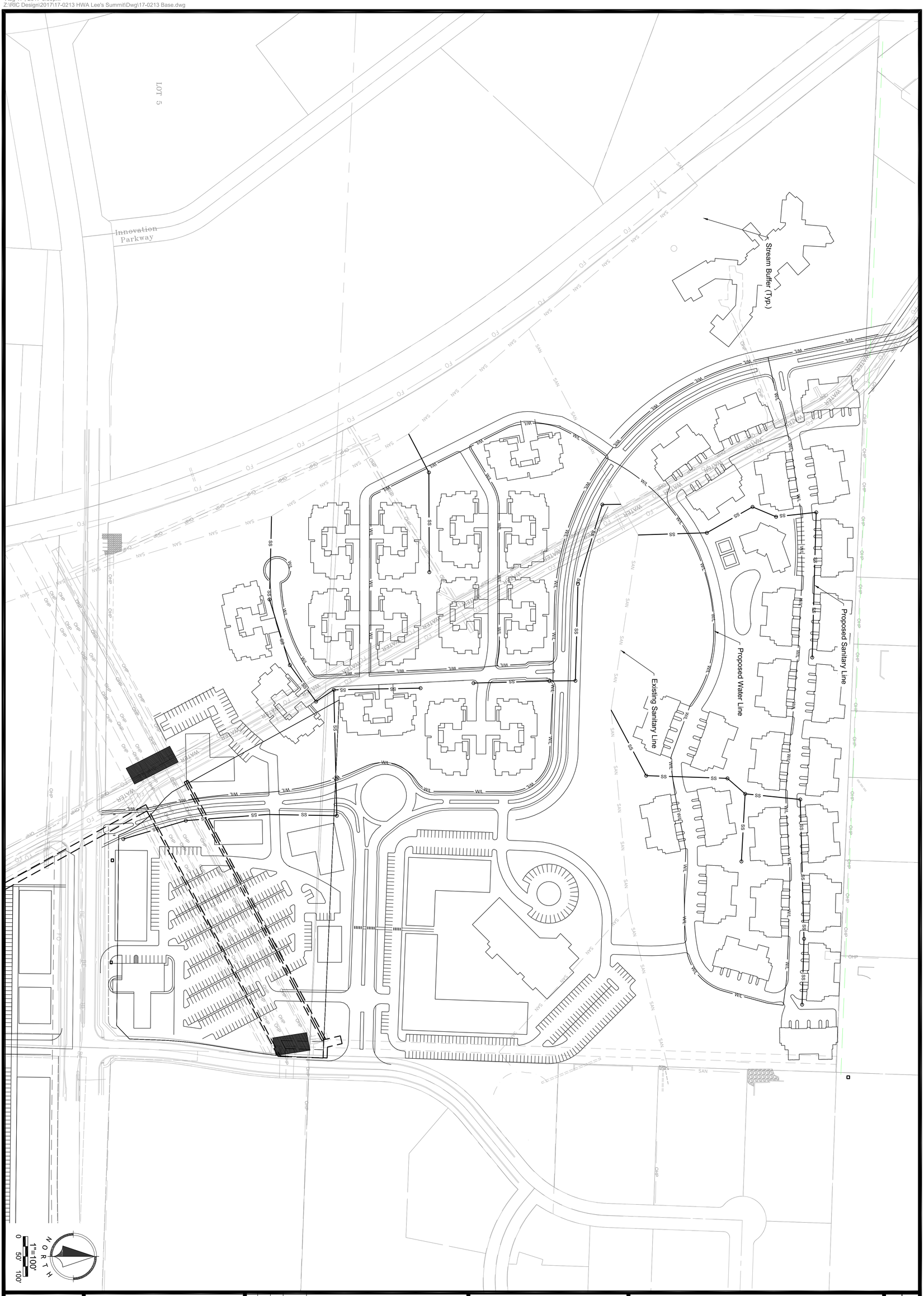


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Utility Concept

Concept Set

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