

COMBINED WORKING GROUP NARRATIVE
Prepared By:
5th Avenue Development Working Group Participants

Working Group (WG) participants were selected by the Steering Committee and, beginning in early April, the six groups conducted a series of five meetings (over a two-month period) focused on their relevant subject matter. Specific group activities included:

- Defining and reviewing existing conditions
- Engaging with technical consultants and professionals, reviewing and questioning technical studies and analysis
- Inviting and considering community feedback on the working group topic
- Identifying and collaborating on potential solutions
- Considering the work of other Working Groups and potential tradeoffs between the findings and recommendations of each group

WORKING GROUP OBJECTIVES

Ryan prepared an action plan for each WG and submitted the plans to the Steering Committee for review and approval at the April 11 meeting. Each plan included a key objective, listed below.

- **Design WG.** Establish a “baseline” narrative for the 5th Avenue design development that is functional, aesthetically pleasing and in line with the expectations of the City and community.
- **Land Use WG.** Focus on intended uses for the 5th Avenue development that are financially feasible, align with the City’s goals and address the ideas / concerns provided by the community.
- **Parking WG.** Focus on potential parking improvements for the 5th Avenue development addressing current commuter parking and the project’s potential parking needs.
- **Pedestrian Safety & Connectivity WG.** Focus on intended uses for the 5th Avenue development that are financially feasible, align with the City’s goals and address the ideas / concerns provided by the community.
- **Storm Water WG.** Complete an analysis for the 5th Avenue development, addressing compliance with local ordinances for the new development and options to either solve or positively impact existing storm water conditions within the identified area.
- **Traffic & Transportation WG.** Focus on potential infrastructure solutions for the 5th Avenue Development areas that are financially feasible and functionally improve the multi-modal operations of the area.

The following narrative summarizes the effort of each group, along with the analysis completed and key findings and/or recommendations.

DESIGN AND LAND USE WORKING GROUPS

Members Design WG: Lauren Collander, Alyssa Faczek, Tim King, Cindi Swanson, Amy Emery, Allison Laff, Councilman Hinterlong, Jim McDonald, Curt Pascoe, Brett Bunke

Members Land Use WG: Rocky Caylor, Jeff Havel, Phil Meno, Scott Parrill, Katie Davis, Amy Emery, Allison Laff, Christine Jefferies, Jim McDonald, Curt Pascoe, Kyle Schott, Councilwoman Anderson

The Design and Land Use Working Groups focused on defining conceptual themes and ideas related to the potential development. The design group was careful not to push too far with design ideas and precedent imagery, while the land use group studied potential uses, but did not dictate location. The result of this effort is a narrative that will guide the discussion as we move into concept creation.

Analysis included:

- Office & retail market studies provided by CBRE (Appendix B)
- [Residential Market Study prepared by Appraisal Research Counselors](#)
- [Naperville's Design Guidelines](#)
- [The 2009 5th Avenue Study](#)
- [Design Group Input Deliverable dated December 19, 2017](#)
- [Land Use Group Input Deliverable dated December 19, 2017](#)
- 5th Avenue Land Use and Height survey (Appendix B)
- Review and discussion of “like-kind” developments (Appendix A)
- [The City of Naperville's Analysis of Impediments of Fair Housing Report](#)
- [Universal Design: Housing for the Lifespan of People](#)

The work product for these groups is a combined narrative that:

- creates a **Vision Statement** for the development
- identifies **Concept Principles**
- summarizes the **Market Studies** and the **Land Use & Height survey**
- establishes a set of desired **User Experience Outcomes**
- outlines a list of **Additional Considerations**

VISION STATEMENT

We envision this development as a vibrant, new mixed-use district. Designed to be accessible to all, transit-oriented and complementing the “best of Naperville,” this new district’s showcase character would have a draw of its own, while serving as an important gateway to the existing vibrant downtown district. Bold in concept and respectful of the surrounding context, the area would be more than a place to park and ride, it would become a welcoming destination to live, work, play and begin the exploration of Naperville.

USER EXPERIENCE OUTCOMES

Based on the above aspirations, users will experience a welcoming space that flexes to accommodate their needs depending on the day of the week, time of day, season, etc. With careful attention to design, the character and quality of the development will shine through. The area will cater to each user experience.

Specifically:

- **Visitors** arriving to Naperville will appreciate the welcome they receive. Design choices will clearly convey that you are entering the City through an important gateway that respects the destination-like feeling that is Naperville.
- Like visitors, **commuters** will appreciate the efficiency of travel to and from the train station, achieved in part due to exceptional wayfinding and accessibility design elements. Commuters will

also enjoy expanded access to convenient transportation choices allowing all to safely access the train station. Physical amenities like covered walkways, attractive lighting, and other elements that cannot be seen (e.g. sustainable building features, expanded wireless access, etc.) will benefit new and long-time commuters alike.

- New **employees and residents** within the 5th Avenue Development area will enjoy full access provided for all abilities, a unique combination of on-site amenities, and innovative and adaptable indoor and outdoor spaces. Design features will cater to the interests of residents of all ages who enjoy convenient access to the train and Downtown Naperville, but also call this area home.
- And finally, those living in **adjacent neighborhoods** will appreciate the attention given to the project's **design elements**, including varying roof lines and setbacks, building articulation, stepping back of upper stories, wrapping parking decks, etc. Furthermore, additional focus will be given to the development's **transitional areas** to protect the integrity and quality of life residents enjoy today. The design choices will seek to improve safety for families traveling to and through the area. New public spaces will foster interaction within the district to provide an even stronger feeling of community.

DESIGN – CONCEPT PRINCIPLES

The following principles, together with the community input received to date, will guide the creation of the design concept.

1. **Adherence to Naperville's Building Design Guidelines with a focus on the following:**
 - a. 4-sided design
 - b. High quality building materials
 - c. An enhanced public realm
 - d. Alignment with appropriate PUD principles, including setbacks, adjacencies, massing, etc.
2. **Focus on design quality & character.**
 - a. **Train station.** The station will continue to be the primary focal point of the area. Clear sightlines and vistas to the site and supporting wayfinding elements will be carefully preserved and designed in recognition of the train station as a community center and destination. A central plaza celebrating and providing visual access to the train could be incorporated into the site plan.
 - b. **Surrounding residential neighborhoods.** The design should provide appropriate transitions to the surrounding residential area and complement the character of the neighborhood while incorporating modern amenities.
 - c. **Northern gateway.** The design should embody its role as the northern gateway to downtown Naperville.
 - d. **High-quality asset.** Both the design and uses should make decisions to encourage the long term function of this development as a high-quality or investment grade asset. Specific attention should be given to :
 - i. Building systems and maintenance
 - ii. Life-cycle costs
 - iii. Floor plate sizes
 - iv. User amenities
3. **Incorporate intelligent design practices.** Renewal of the 5th Avenue area will create a destination for Naperville and cement its position at the forefront of thoughtful and intelligent design, by giving attention to the following:
 - a. Meaningful sustainability elements (i.e. - LEED, dark-sky, solar, electric charging stations, irrigation, etc., are all options)

- b. Embracing the spirit of universal / accessible design standards, including, but not limited to:
 - i. Efficiency of use
 - ii. Awareness
 - iii. Understanding
 - iv. Flexibility
- c. Adaptable program elements to accommodate multiple uses of the same space
- d. Efficiency of use (i.e., parking, transportation, etc.)
- e. Evaluation of smart systems (i.e., Wi-Fi, street lighting control, etc.)

LAND USE – CONCEPT PRINCIPLES

The development will be successful if it is balanced, satisfies a number of diverse needs and enhances the quality of life for area residents, users and the community as a whole. As this is, most importantly, a transit hub, the needs of the commuters, especially parking, need to be met in an efficient and pleasant manner. The following principles are intended to shape this Transit-Oriented Development.

1. **Transit-Oriented Development.** The development will support the continued operation of the area as a multi-modal transit hub, with the goal of organizing all modes of transportation for greater efficiency and public safety than exists today.
 - a. **Train Station:** While not included in the current scope, improvements to the station may be considered to enhance connectivity, way-finding, architectural presence and commuter experience.
 - b. **Commuter Parking:** The current parking layout will be replaced with a combination of parking solutions with the goal of improving function (i.e. access/egress) and connection to the train station.
 - c. **Transit (PACE, Kiss 'N Ride & Ride-share):** Locations for these transit functions will be provided on both the north and south sides of the tracks, with the majority of the services located near the train station (along the south side). Creating a separate transit zone / plaza will streamline station access and improve both the commuter experience and pedestrian safety.
2. **Diverse Mix of Uses.** Appropriate uses include residential, commercial office, boutique retail, public spaces and parking. A successful mix of uses will enhance the area for all users and reflect market conditions, economic realities and community input.
 - a. **Residential:** Per the initial market study there is interest in and demand for a variety of housing types, including rental units (market rate & attainable), townhomes and condos. The goal is to appeal to a variety of ages and incomes, including young professionals, empty-nesters, seniors, students, etc.
 - i. Preliminary residential market study (Appendix B) supports the potential for all of the following:
 1. Multi-family (rental): approximately 350 to 400 units (phased)
 2. Condominium (sale): approximately 30 to 50 units
 3. Townhome (sale): approximately 30 to 50 units
 - b. **Commercial Office:** Distinct from suburban office product, the office space will use smaller floor plates and create a more active, urban feel where local businesses feel welcome. This product could be placed within more traditional spaces, as well as spaces that feel more retail in context.
 - i. Preliminary office market study (Appendix B) suggests there is demand for transit oriented office space of approximately 75,000sf to 125,000sf total.
 - c. **Retail:** The retail uses will likely be destination-oriented and serve the users in the area.

- i. Preliminary retail market study (Appendix B) suggests the 5th Avenue development could justify up to 25,000sf of retail.
- ii. Additional specialty use retail (grocer) could justify greater than 25,000 sf of retail, subject to location within the development area.

Public Spaces: In accordance with the *Naperville's Building Design Guidelines*, buildings will frame special public spaces such as parks, plazas, outdoor seating, the streetscape, and most notably, the train station, combining amenities with safety for all users.

LAND USE & HEIGHT SURVEY

The Land Use & Height survey was issued on March 13 to the following groups:

- **Engaged:** Individuals who signed up for the City's or the Ryan 5th Ave enewsletter
- **Commuters:** Individuals who signed up for the City's Commuter Connect enewsletter
- **Crossover:** Individuals who are on both the Engaged and Commuter lists
- **Resident sample:** Random sample of 5,000 Naperville mailing addresses
- **Opt-in:** Individuals who responded to the survey via the public link on the 5th Ave website

The survey remained open until May 11 with Ryan and City providing frequent reminders encouraging folks to take the survey.

GROUP	ENGAGED ONLY		COMMUTERS ONLY		CROSSOVER		RESIDENT SAMPLE	OPT-IN
METHOD	EMAIL		EMAIL		EMAIL		MAIL POSTCARD	WEBSITE
SENT	MARCH 13 & 28		MARCH 13 & 28		MARCH 13 & 28		MARCH 19	MARCH 13
COUNT	721		3,700		700		5,000	N/A
BOUNCE	14.3%	103	10.7%	396	15.4%	108	N/A	N/A
OPEN	57.0%	353	42.6%	1,408	44.8%	265	N/A	889

RESPONSE	209		315		91		84	646
RATE	33.8%		9.5%		15.4%		1.7%	N/A

* Response rates are determined by removing the bounced emails from the total sent.

At our May 24 WG meeting, the group reviewed the results of the survey as presented by Jeff Andreason (aQity). Please refer to Appendix B for additional detail. aQity will continue to review the survey results and will present their findings at the combined working group meeting (June 4), the steering committee meeting (June 12) and to City Council (June 19).

ADDITIONAL CONSIDERATIONS

- Metra should provide comment on the final concept relative to ridership.
- Any improvement to the existing train station will require direction from City Council.
- Should the concept propose commuter parking on the DCM / commuter lot, additional consideration should be given to the safety of pedestrians in the area.
- All market studies should be updated (when appropriate) to reflect current market conditions.

- As the concept evolves, all options for the location of the DuPage Children's Museum should be considered.

PARKING WORKING GROUP

Members: Mike Marek, Elizabeth Kelly, Andrew Wallace, Christopher Kuehner, Jen Loudon, Councilwoman Obarski, Kyle Schott, Curt Pascoe, Jim McDonald

The Parking Working Group reviewed potential parking improvements for the 5th Avenue Development. These improvements addressed current commuter parking and contemplated parking to support new development. Along with parking consultant Kimley-Horn, the group focused on a multi-level analysis of existing parking conditions, parking structure design best practices, Transit Oriented Development (TOD) case studies and hypothetical parking deck placements. In doing so, opportunities for efficiency, consistency with desired traffic patterns and an overall enhanced commuter experience were identified.

Analysis included (Appendix C):

- [The 2009 5th Avenue Study](#)
- 2012 Naperville Metra Station Bus Depot and Commuter Access Feasibility Study
- [Group Input Deliverable dated December 19, 2017](#)
- Metra & Pace fact sheet
- Studies provided by Kimley-Horn including:
 - o Parking Deck Case Studies
 - o Parking: Best Practices
 - o Technology and Future-Proof Design
 - o Theoretical Parking Deck “Fit Test”
 - o Temporary Parking Concepts
 - o Alternative Transportation Solutions
- City of Naperville permit holder distribution map
- “Planning For The Future” – Ascent, Winter 2018 – Article referencing parking deck adaptability.

The work product for this group is a narrative that:

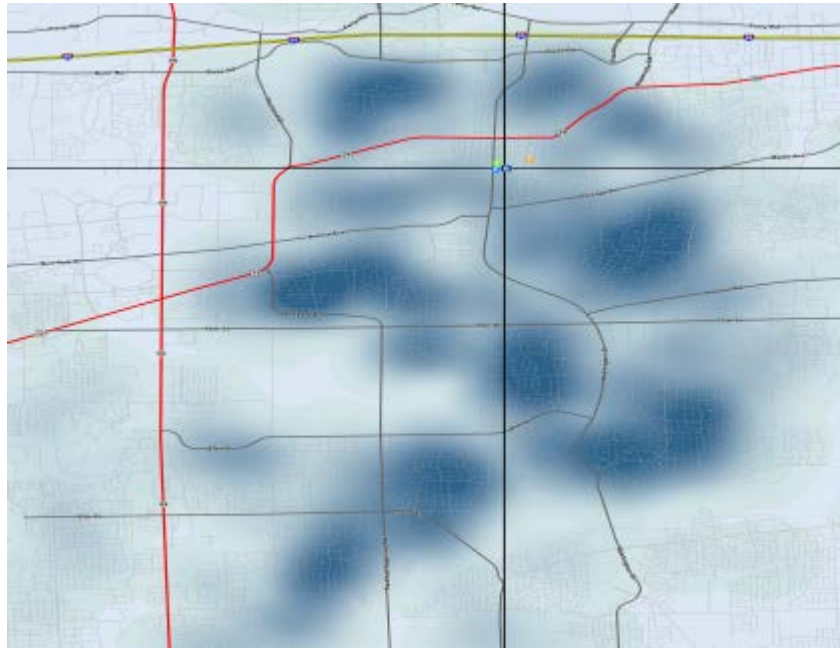
- Discusses **Existing Parking Concerns**
- Identifies **Concept Principles**
- Outlines **Additional Considerations**

EXISTING PARKING CONCERNS

Given community input and specific commuter experience the group discussed and identified existing parking concerns, which included the following:

- **Parking Supply.** Current commuter parking counts total 1,681, including Boecker daily stalls, and per the RFQ, commuter stall counts cannot be reduced.
- **Parking Demand.** Per community input, additional demand exists.
- **Parking Use/Operations.** The City currently offers quarterly permits and daily fee parking. Quarterly permit stalls are not fully occupied on a daily basis, while daily fee parking stalls are generally fully occupied early each morning. Quarterly permits do not accommodate current commuter trends such as telecommuting and carpooling/ridesharing. The limited permit types, combined with variability in parking occupancy, suggests potential for increased efficiency of existing permit spaces.

- **Parking Distribution.** The current distribution of commuter parking spaces is not balanced relative to the distribution of permit holder residences. This imbalance negatively impacts commute times and contributes to traffic congestion. Approximately 20% of the current 1,681 commuter stalls are located on the south side of the BNSF tracks, whereas 84% of the current permit holders, live on the south side of the tracks. Below is a heat map, generated by the City of Naperville, that illustrates permit holder locations.



Heat Map showing parking permit holder locations (Dots indicate train station)

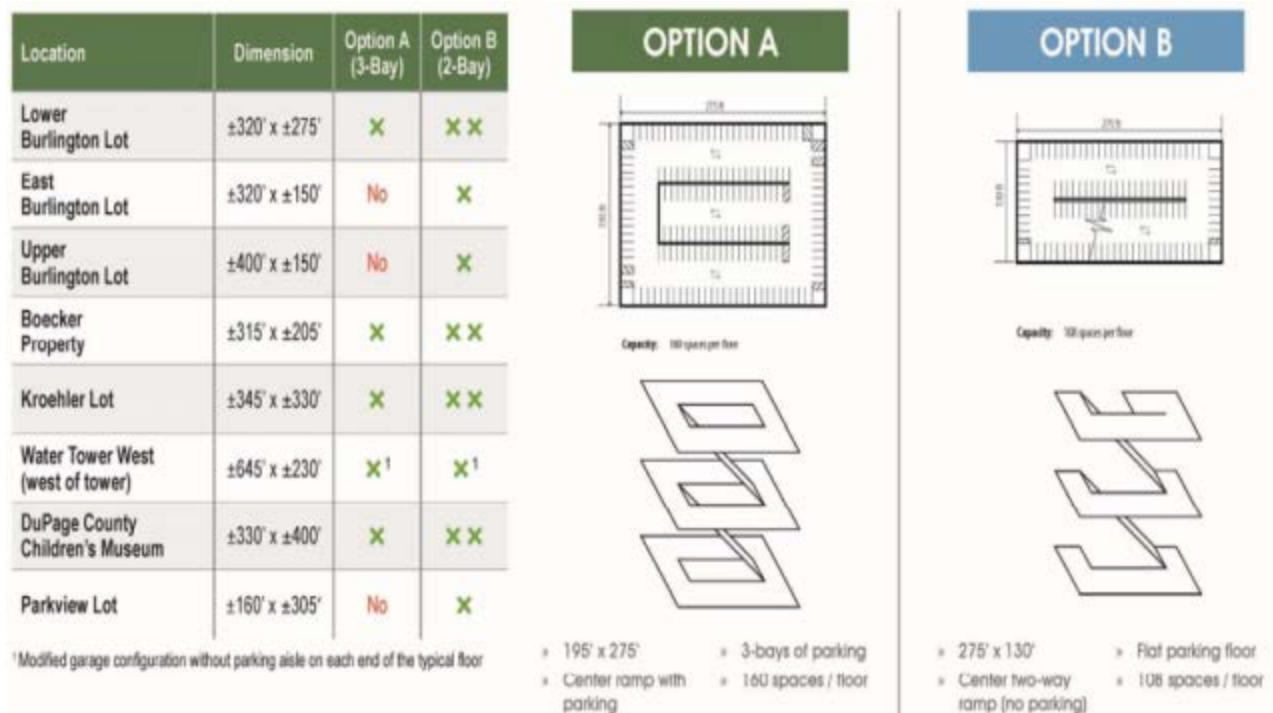
CONCEPT PRINCIPLES

The following principles, together with the community input received to date, will guide the creation of the design concept. Specifically, these principles work to address parking concerns related to the 5th Avenue development that are efficient, balanced and adaptable for the future to ensure an enhanced parking experience for commuters and all other users.

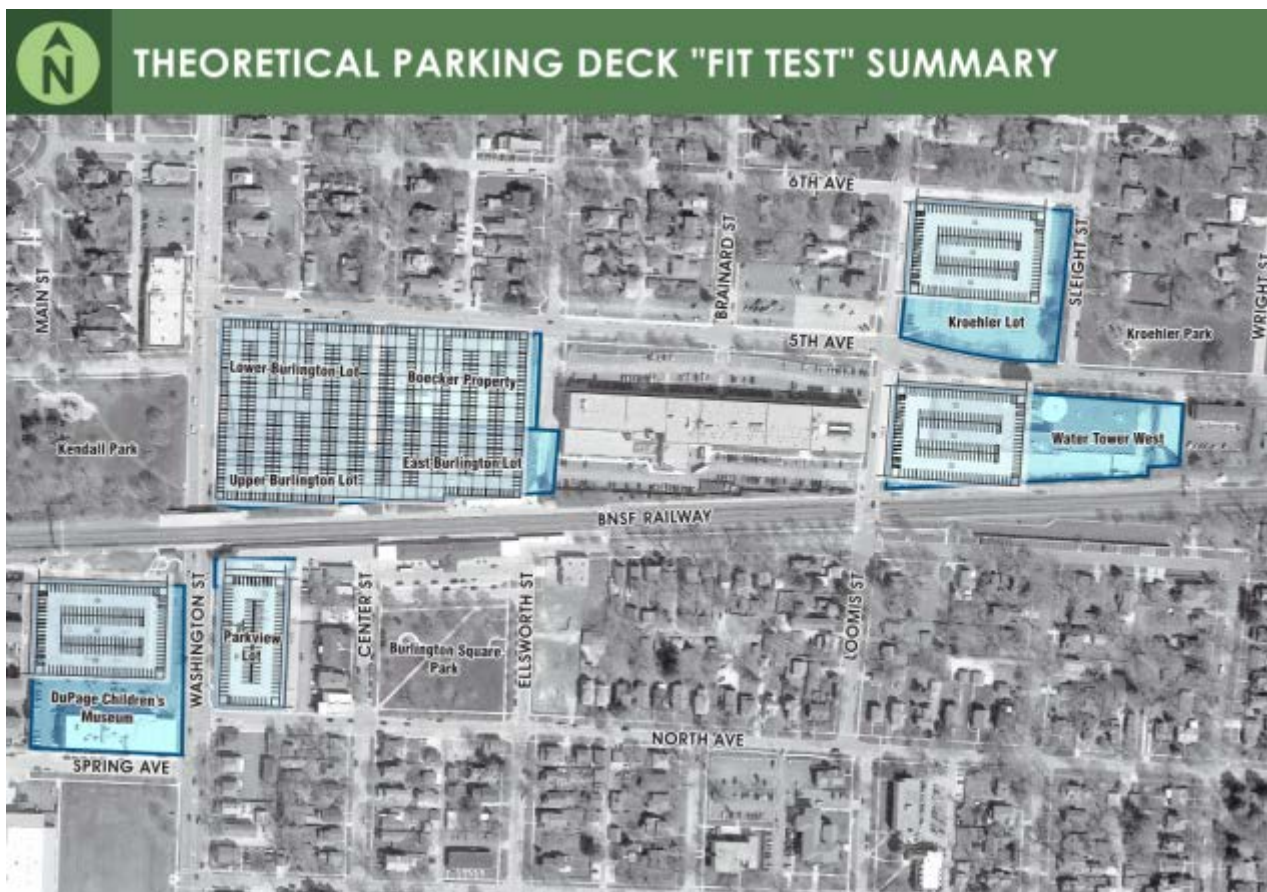
1. **Focus on commuter parking solutions that are balanced and efficient.** The group identified best practices related to parking deck design and then reviewed case studies of various parking decks noting how some practices (e.g. access points, guidance systems) were implemented. In addition, a theoretical parking deck “fit test” was completed identifying parking efficiency, (i.e. most stalls per square foot), at each lot.
 - a. The Burlington lots are well suited for efficient commuter parking. Parking remaining in this area also corresponds to existing commuter habits.
 - b. The DCM/commuter lot is well suited (geometrically) for commuter parking. Located on the south side of the BNSF tracks, this location provides for a right-out to southbound Washington Street, a movement cited by commuters as important to an efficient evening commute. It was noted that increased commuter parking at this location could present a pedestrian safety concern.

- c. The Parkview lot is less efficient due to its depth (east/west) but the location allows for south side access. A right-in onto North Avenue is available for the morning commute that was noted as positive.
- d. The Kroehler lot is (geometrically) efficient in its current state. Based on community input, placement of a parking deck at this location was noted as not favorable based on proximity to single family residences.
- e. The Water Tower West lot can support commuter parking, however, the water tower placement impacts the efficient use of this site. This location provides a right-out to eastbound 5th Avenue and proximity to southbound Columbia Avenue, a route cited by commuters as a key alternative to Washington Street during the evening commute.

The information below summarized this parking analysis. Additional details are provided in Appendix C.



Efficient Parking Design Options



Theoretical Parking Deck Fit Test

2. **Concept should assume phasing construction to limit off-site temporary parking demand.**

The group studied multiple options for temporary parking (during construction), including

- a. Off-street parking at neighboring parks
- b. Local street parking
- c. Phased parking with the development
- d. Remote Parking

Phased parking within the development area was identified as being the most beneficial to both the commuters and community due to the minimized impact to current commuter and neighborhood habits and existing infrastructure.

The information below outlines potential options for temporary parking.



Temporary Parking Option at Water tower Lot



Phased Temporary Parking/Construction Brainstorming

3. **Parking trends and potential future usage should be taken into consideration.** Per the illustration below, the group studied potential parking trends and “future-proofing” parking structures through design.

“FUTURE-PROOF” DESIGN ELEMENTS



Concept site plan



Speed ramps located outside parking deck
Tri-Rail Beach Deck, Dania, FL

- Flat floor plates and speed ramps
- Stairs and elevators in center
- Greater floor-to-floor heights (i.e., 15-foot minimum rather than 10-12 feet typically provided)
- Transit stops and other mobility modes
- Pick-up/drop-off zones for Transportation Network Companies (e.g., Uber, Lyft)
- First floor commercial (e.g., utilities, waterproofing)

Taking this information into concept allows the development to be adaptable to future conditions and land uses should parking needs change.

- a. Adaptable parking structures require additional height and cost, in order to be retrofitted for new uses in the future.
- b. The Kroehler lot could offer flexibility should it remain a surface commuter parking lot in the near term.

Additional Considerations

The group believes it is important to note the following as additional considerations for concept creation

- Commuter parking should be distributed among multiple locations to minimize deck congestion and coordinate with various commuter routes.
- Permit holders reside primarily on the south side of the BNSF tracks. As such, south side parking options could reduce commute times and traffic on the north side of the tracks.



Map showing Southside parking at DCM and Parkview, with right out at DCM and right-in at North Avenue

- Ingress and egress patterns and their relation to existing and future traffic conditions, should be considered.
- In order to facilitate efficient ingress and egress, separation of commuter parking and alternative transportation modes (i.e. Pace Suburban Bus, kiss-n-ride, taxis, transportation network companies such as Uber & Lyft) should be considered.
- Technology (e.g. parking guidance systems, electronic message signs) is available to enhance the commuter experience.



Potential Technology Options

PEDESTRIAN SAFETY & CONNECTIVITY WORKING GROUP

Members: Patty King, Steve Purduski, Mary Lou Wehrli, Mary Mansfield, Kelly Dunne, Jen Loudon, Kyle Schott, Jim McDonald

The Pedestrian Safety and Connectivity Working group reviewed potential infrastructure improvements for the 5th Avenue development that are practical and address the ideas/concerns provided by the community during group input sessions. Along with civil consultant Kimley-Horn, the group analyzed existing and potential pedestrian patterns, safety improvements and connectivity enhancements.

Analysis included (Appendix D):

- [2009 5th Avenue Study](#)
- [Group Input Deliverable dated December 19, 2017](#)
- Metra & Pace fact sheet
- Studies provided by Kimley-Horn, including:
 - o pedestrian routes
 - o street crossing treatments
 - o rail crossings options and analysis
 - o Washington Street and 5th Avenue corridor improvements
- City of Naperville crash data for surrounding area (last 3-year period)
- Connectivity and Safety Matrix was built inclusive of pros/cons and a cost analysis

The work product for this group is a narrative that:

- Maps existing **Pedestrian Safety Concerns**
- Identifies **Concept Principles**
- Outlines **Additional Considerations**

PEDESTRIAN SAFETY CONCERNS

The group identified existing resident and commuter pedestrian patterns, along with published school routes for Ellsworth Elementary, St. Peter and Paul Elementary / Junior High and Washington Junior High. Given this input, Kimley-Horn created the Existing Route Map (Appendix D) illustrated below.

- Areas in blue represent existing pedestrian patterns
- Areas in red represent existing frontage without sidewalks
- Areas in yellow represent pedestrian crossing concerns, including:
 - Key intersections
 - Train platforms
 - Ellsworth Street Underpass
 - Loomis Street rail crossing
 - Washington Street underpass
 - With input from the Combined Working Groups, the group believes it is important to prioritize the potential intersection improvements.



*Existing Route Map/Intersection Map – Appendix D

Various crossing treatments were reviewed for applicability and potential benefits as shown in Appendix D and include:

- Stop sign control
- Pedestrian crossing signage (Standard and Increased Signage)
- Curb extensions and speed tables
- Rectangular rapid flashing beacons and in-pavement lighting.



CONCEPT PRINCIPLES

The following principles, together with the community input received to date, will guide the creation of the design concept. Specifically, these principles work to address pedestrian experience and enjoyment, which include feelings of comfort, safety and character; all of which can be enhanced through use of aesthetically pleasing materials, upgraded lighting and wayfinding, greenspace and landscaping, and public art where appropriate.

1. **Improve pedestrian safety and experience at existing rail crossings.** The group reviewed a number of case studies of various rail crossings in neighboring communities and identified the following options for the 5th Avenue development. All rail crossing improvements should accommodate a mix of pedestrian, bicycle, stroller and wheelchair traffic.
 - a. **Loomis Street at-grade crossing** improvements including the addition of a pedestrian gate, sidewalk extension across BNSF tracks/right of way and ADA curb ramps along the east side of the street.
 - b. **Ellsworth Street underpass** safety and aesthetic enhancements including but not limited to wall and ceiling resurfacing, waterproofing, new lighting and barrier walls.
 - c. **Washington Street underpass** upgrades to finishes such as decorative metal panels/signage/public art at concrete walls and overpass steel as well as the addition of LED lighting under viaduct. Additional improvements were researched including structurally widening of the existing underpass; however, this was identified as not practical from a financial and coordination perspective.
2. **Concept should consider a new pedestrian underpass west of Washington Street.**
 - a. Community and working group members authored Tunnel Considerations (Appendix D) which provides considerations in favor of constructing a new underpass rail crossing including:
 - i. Infrastructure and long-term planning goals
 - ii. Safety
 - iii. Usage
 - iv. Accessibility
 - v. Alternative to current sub-standard options
 - vi. Overwhelming community support
 - b. Review of an additional rail crossing included:
 - i. Conceptual pedestrian underpass
 1. Cost Analysis \$3-\$5 Million
 2. Accommodates wheeled devices – universal design consideration.
 3. Benefits multiple pedestrian user types (commuter, neighborhood residents, students)
 4. Considers aesthetics and security, in addition to functionality.
 5. Similar projects have occurred recently in neighboring communities such as the City of Wheaton and the Village of Lombard.
 6. The “cow tunnel” was reviewed and not seen as a practical and financially viable alternative to construction a new underpass. Location lacks community support and not convenient to commuters.



Deerfield Road Pedestrian Underpass, Deerfield, IL

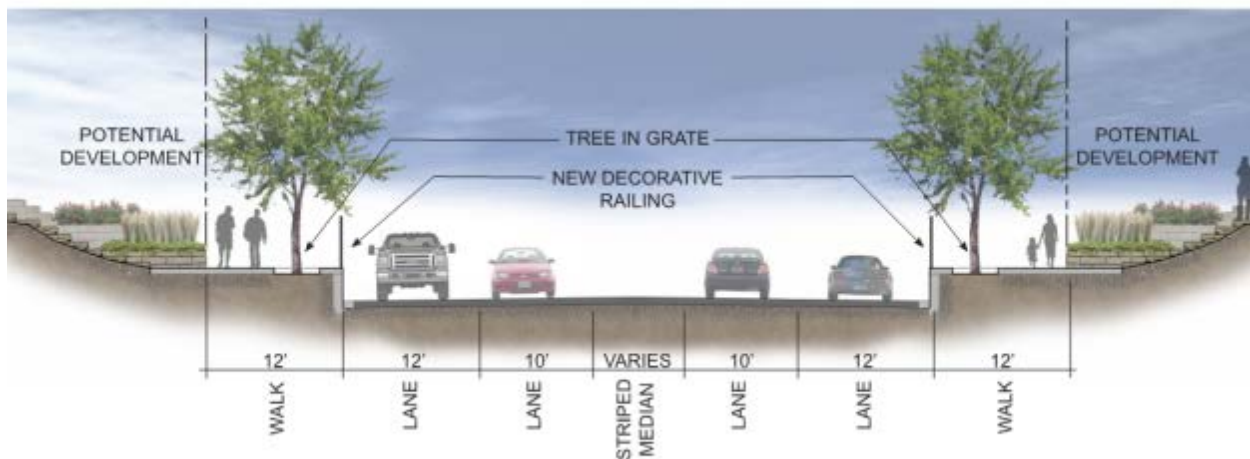
- ii. Conceptual pedestrian overpass:
 - 1. Cost Analysis - \$2-\$4 Million
 - 2. While above grade options were reviewed, the group preferred an underpass alternative due to:
 - a. Functional practicality – Overpass option was not seen as user-friendly from both a connectivity and accessibility standpoint due to the required use of stairs, elevators or long ramps.
 - i. The group did note an overpass could be tied directly into development uses (linking structures), which may provide a practical benefit to those users.
 - b. Neighborhood character (Height) – Minimum height of 23 feet (measured from tracks to bottom of structure) would be required by BNSF due to signalization line of site.



NOTE: Any proposed rail crossing is subject to Metra/BNSF agreement and engineering.

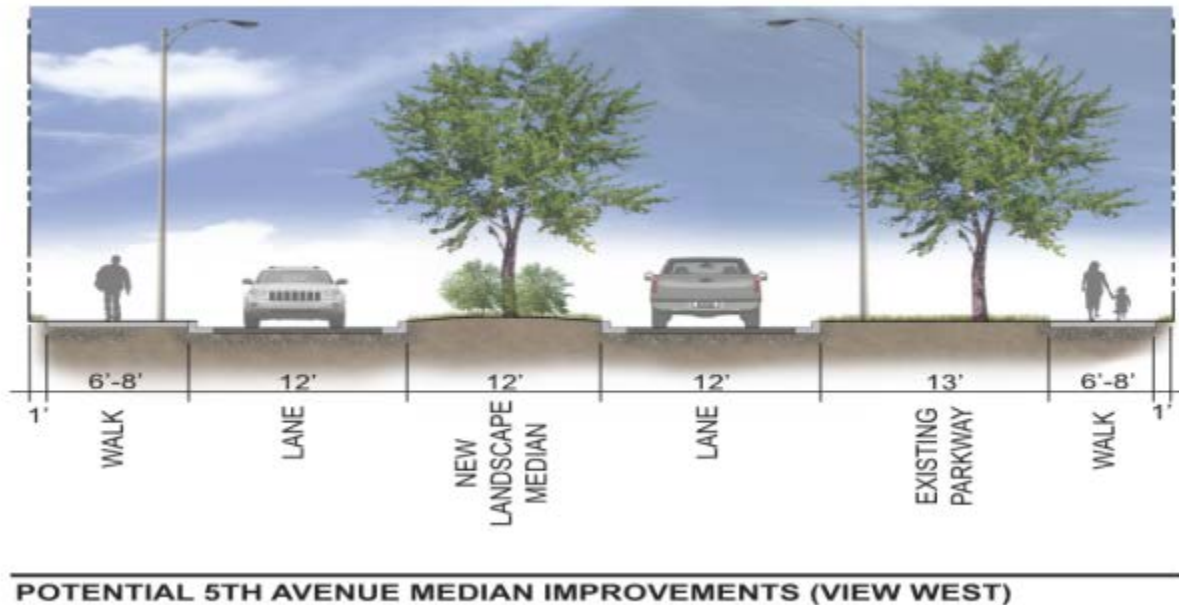
3. **Concept should improve the 5th Avenue and Washington Street corridors along the development frontage.**

- a. Improvements could include the removal of on-street parking, enhanced pedestrian crossings, adding (pedestrian-scale) street lighting, additional landscaping/hardscape and wider sidewalks.
- b. In addition to accommodating a variety of users (i.e. commuters, residents, students, visitors) and vehicular traffic, these corridors should act as pedestrian transitions to and from the development.
- c. Street crossings should be designed to minimize pedestrian/bicyclist and vehicular conflicts.
- d. Washington Street section improvements north and south of the BNSF tracks
 - i. Wider sidewalks, added landscape and decorative railings on east and west sides of Washington Street would create an enhanced sense of comfort and safety.
 - ii. Introduction of stepped retaining walls would provide more open space and an opportunity for mid-block entry into development, parks and possible future parking areas.



POTENTIAL WASHINGTON STREET SIDEWALK IMPROVEMENTS (VIEW NORTH FROM SOUTH OF BNSF OVERPASS)

- e. 5th Avenue section potential improvements
 - i. Potential removal of 5th Avenue on-street parking in order to provide additional space and improve sight lines for pedestrians and vehicles.
 - ii. Addition of a median – is not recommended by group due to emergency vehicle access, snow removal and maintenance and pedestrian visibility considerations.
 - iii. Widening sidewalk along the north and south sides of 5th Avenue and reducing the width of the vehicle travel lanes/parking area to shorten pedestrian crossing distance.



Additional Considerations

The group believes it is important to note the following as additional considerations for concept creation.

- Commuter experience between train platforms, to/from neighborhoods and parking areas must be considered, including but not limited to:
 - o Washington Street stairwells – upgrades or potential relocation.
 - o Ellsworth Street underpass – aesthetic and/or accessibility improvements.
 - o 4th Avenue sidewalk
 - o 5th Avenue Station sidewalk
 - o Routing through the development
 - o Potential west underpass
- Utilize enhanced signage, wayfinding and/or technology where appropriate to improve safety and accessibility.
- Dedicated school routes should be maintained or improved.
- Pedestrian improvements should be coordinated with infrastructure geometries defined by traffic studies and guided by safety and user experience.
- Improvements should be located to benefit a maximum number of pedestrians, including commuters, residents, students, and visitors.
- From review of parking and traffic working group materials, the pedestrian working group notes that Kroehler Lot remaining as commuter parking offers pedestrian safety concerns due to high volume of pedestrians crossing 5th Avenue at Loomis Street during peak times.
- Improvements should be coordinated with future bicycle route plans considering both space and access.
- Neighborhoods of consideration
 - o Park Addition
 - o Pilgrim Addition
 - o WHOA
 - o ECHO
 - o 5th Avenue Development Residents

STORM WATER WORKING GROUP

Members: Russ Alber, Christopher Drew, Dominic Nugent, Greg Scalia, Councilman Coyne, Councilwoman Gustin, Bill Novack, Andy Hynes, Curt Pascoe, Kyle Schott, Jim McDonald

The storm water working group convened to complete an analysis and engineering review for the 5th Avenue development; addressing compliance with local ordinances for the new development and options to solve/positively impact existing storm water conditions within the identified area.

Analysis included (Appendix E):

- [Group Input Deliverable dated December 19, 2017](#)
- Locations of storm water concern as identified by area residents
- [DuPage County Storm Water Ordinance](#)
- Conceptual storm water analysis by WBK Engineering dated April 16 and May 16, 2018

The work product for this group includes a narrative that:

- summarizes **Identified Storm Water Concerns**
- reviews **Local Ordinance Requirements**
- discusses **Conceptual Storm Water Solutions**
- identifies **Concept Principals**

IDENTIFIED STORM WATER CONCERNS

The group compiled and mapped areas of resident concern, received through the group input process, individual email, and local neighborhood canvassing by residents. Local and regional history of storm water design and storm water events were discussed. These areas were cross-referenced against existing topography and the City's existing storm water infrastructure. This produced 4 key areas of concern:

- Ellsworth Street Sag: A low point on Ellsworth Street north of 5th Avenue.
- Sleight Street Sag: A low point on Sleight Street north of 5th Avenue.
- Main Street Sag: A low point on Main Street north of 5th Avenue.
- 5th Ave & Eagle Street Convergence: A convergence of storm sewers near 5th and Eagle.

The topography and storm water utility geometry of these areas can be seen on the Existing Conditions Map (Appendix E).

LOCAL ORDINANCE REQUIREMENTS

Specific to the development, the design must meet local ordinance. These ordinances include the DuPage County Storm water Ordinance and the City of Naperville Ordinance. Current ordinances require storm water detention if impervious surfaces are increased by over ½ acre. Considering that existing conditions of the lots included within the Request for Qualifications (RFQ) are nearly all impervious surface, storm water detention specific to the development concept is unlikely to be required. However, this grants flexibility to the City in the design of area storm water improvements.

Storm water quality control must also be considered; final engineering of the design must meet quality requirements of the ordinances through Best Management Practices (BMPs). The group agrees the concept must consider these requirements, as noted in **Concept Principals**.

CONCEPTUAL STORM WATER SOLUTIONS

The group reviewed nine potential locations for area storm water improvements, to determine if detention was feasible from an engineering perspective. Locations included all 5th Avenue development lots, as well as other open spaces within the area. This analysis included a review of storm water utility routing, topography, and overland flow routes. Details are available in the Storm Water Feasibility Matrix, Storm Water Feasibility Map, and Outflow Map (Appendix E). From this discussion, four locations were determined viable from an engineering perspective:

- Kroehler lot (owned by City)
- Burlington lot (owned by City)
- Kendall Park (owned by City; Park District lease)
- Mill Street soccer fields (owned by CSD 203)

Wills Burke Kelsey Engineering (WBK) was directed by the City to begin conceptual storm water analysis at these locations. During this time, the City also began televising area storm sewers to check for blockages, which could affect existing drainage capacity. To date, no major blockages have been found. Upon completion of WBK's conceptual analysis, the group convened to review WBK's findings and prepare planning-level budgets. A summary of findings and budgets are available in the Storm Water Improvement Cost Analysis (Appendix E).

Within Park Addition, analysis suggests storm water in the area of the Sleight Street Sag may be positively impacted through underground detention vaults on the Kroehler lot combined with area storm sewer improvements. The use of vaults would allow for surface parking or multi-story development above.

Additionally, storm water in the area of the Ellsworth Street Sag may be positively impacted through underground detention vaults on the Burlington lot combined with area storm sewer improvements. The use of vaults would allow for multi-story development above.

The concept should include the flexibility to install these vaults as part of construction, as noted in **Concept Principals**.



Within Pilgrim Addition, storm water in the area of the Main Street Sag may be positively impacted through a storm water basin or vault in Kendall Park, combined with area storm sewer improvements. Conceptual calculations suggest a majority of Kendall Park must be converted under this scenario. It is unlikely this space could be utilized as active recreation, but would provide passive open green space. Installation of a vault within Kendall Park could allow for active recreation above; however, cost is increased significantly.

The Mill Street soccer fields could be repurposed to positively impact storm water in the area of the 5th Avenue and Eagle Convergence. Conceptual calculations suggest a majority of the soccer field must be converted under this scenario. It is unlikely this space could be utilized as active recreation, but would provide passive open space with native wetland vegetation. Installation of a vault within the fields could allow for active recreation above; however, cost is increased significantly.

The group notes that Kendall Park and the Mill Street soccer fields are not included in the 5th Avenue RFQ prepared by the City, and require support from CSD203 and the Naperville Park District for implementation. These users were not approached as part of the Working Group efforts.



It is important to consider that these distinct solutions serve distinct identified storm water concerns. These concepts are individual and separate. Implementation of one solution will have minimal benefit at other locations of concern. Please see the Storm Water Improvement Map (Appendix E) for an overall summary of conceptual improvement locations.

CONCEPT PRINCIPALS

1. **Implement best management practices per the City of Naperville and DuPage County storm water ordinances.**
 - a) These may include both storm water quantity and quality control, based on final engineering of the development.
2. **Consider area-wide storm water solutions.**
 - a) Notes:
 - i) Per the City of Naperville, any storm water improvements should place a priority on the impact to habitable structures, such as storm water runoff entering a habitable structure either over the top of foundation or through a basement window.
 - ii) Storm water solutions have been analyzed using the 10-year storm event.
 - iii) If directed by Council, storm water detention on Kendall Park should be incorporated into a new vision of the entirety of the park as it relates to Pilgrim Addition and the 5th Avenue development. The park is not included in the scope of the 5th Avenue Development RFQ released by the City.
 - iv) The Mill Street soccer fields are currently owned by CSD 203. No discussions with CSD 203 were held as part of Working Group efforts. The fields are not included in the scope of the 5th Avenue Development RFQ released by the City.

Other Considerations

- Localized solutions could be implemented to help alleviate storm water concerns.
- Conveyance of larger storms may be feasible; cost will increase significantly.

TRAFFIC & TRANSPORTATION WORKING GROUP

Members: David Gosse, Pat Pechnick, Gary Smith, Charlie Wilkins, Andy Hynes, Jen Loudon, Councilwoman Gustin, Curt Pascoe, Kyle Schott, Jim McDonald

The Traffic & Transportation Working Group was focused on potential infrastructure solutions for the 5th Avenue development areas that are practical and functionally improve the multi-modal (vehicles, transit, pedestrians, bicycles) operations of the area. The group analyzed feasibility, concept geometry, planning level estimates, and pros / cons (for various options).

Analysis included (Appendix F):

- [2009 5th Avenue Study](#)
- [2012 Naperville Metra Station Bus Depot and Commuter Access Feasibility Study](#)
- [Traffic Group Input Deliverable dated December 19, 2017](#)
- [Transportation Group Input Deliverable dated December 19, 2017](#)
- Metra & Pace fact sheet
- Conceptual engineering geometry provided by Kimley-Horn

The work product for this group is a narrative that:

- summarizes **Potential Traffic Improvements** and **Multi-Modal Options**
- identifies **Concept Principles**

POTENTIAL TRAFFIC IMPROVEMENTS

As a starting point, the group investigated available right-of-way (ROW) for all traffic improvements recommended in the 2009 5th Avenue Study, as well as additional improvements suggested during Group Input sessions or Stakeholder Meetings. Improvements which would require the taking of private property were considered to be not feasible with no additional study.

Intersections with available ROW

- Washington & 5th
- Washington & 6th
- Columbia & 5th
- Columbia & North
- Loomis & 5th
- Ellsworth & North
- Washington & North

Intersections without available ROW

- Washington & Ogden
- Washington & Benton
- Loomis & Ogden
- Loomis & North
- Mill & 6th

The suggested improvements and planning-level estimates are available in the ROW Study Map and Traffic Improvement Feasibility Matrix (Appendix F).

For those intersections with available ROW, Kimley-Horn produced conceptual geometry and planning-level estimates, which the group reviewed. While reviewing these documents, the Working Group noted pros and cons of the various improvements. These comments are memorialized in the Traffic Feasibility Working Group Comments (Appendix F). In particular, the group aimed to take advantage of existing

infrastructure where possible, and to consider the character of neighboring uses when evaluating area traffic & transportation improvements.

Key intersections included in this analysis are:

- 5th Avenue and Washington Street
- North Avenue and Washington Street

Reference the Traffic Improvement Concept Geometry, included in Appendix F.

5th Avenue and Washington Street

Two options at Washington and 5th Avenue were considered. Group members suggested introducing dual-left turn lanes from 5th Avenue to Washington Street, allowing for greater capacity during the PM peak hour. As the Parking Working Group discovered, the vast majority of commuter parking permit holders reside south of the tracks, resulting in a large number of left turns at this location. Should they be warranted, concept geometry by Kimley-Horn suggests that dual-left westbound turn lanes can be implemented on 5th Avenue without the taking of private land for right-of-way. Additionally, a northbound right-turn lane could be constructed.



The Working Group determined that the concept should assume dedication of right-of-way for these improvements from the Burlington lots, as noted in the **Concept Principles**.

Alternatively, the Group considered full realignment of 5th Avenue across Washington Street. While realigning the intersection is feasible, the group had the following concerns:

1. Increased access would simultaneously result in increased neighborhood traffic.
2. This design would eliminate signalized access from the existing BMO Bank drive-through tellers, which will not be feasible without BMO's support.
3. Realignment impacts the development & parking efficiency of the Burlington lots.



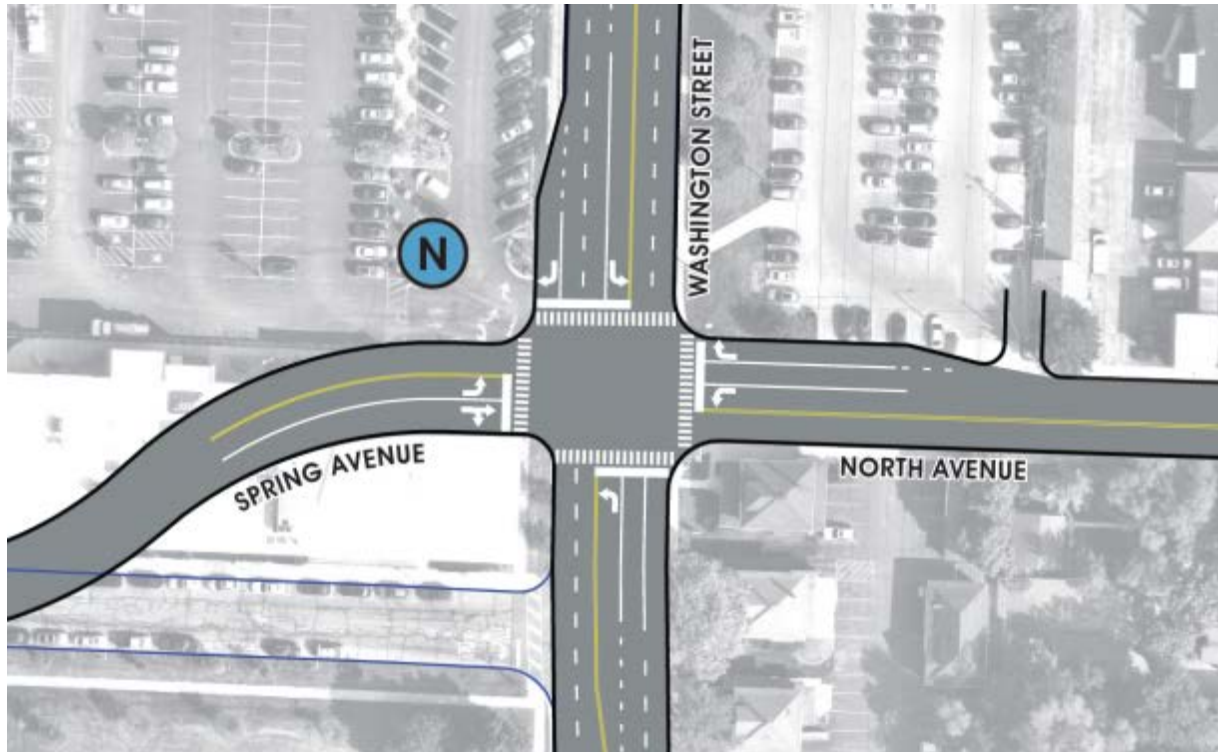
North Avenue & Washington Street

The intersection of North Avenue and Washington Street presents unique challenges due to the intersection configuration and traffic flow patterns. In addition to intersection improvements, the Group discussed opportunity to convert North Avenue into a two-way street, as recommended by the 2012 bus depot study. This conversion could improve traffic flow to the multi-modal bus depot and Children's Museum lot, while reducing neighborhood traffic on School Street. This two-way conversion would require the realignment of North Avenue.

The Working Group reviewed two alternatives provided by Kimley Horn. The first aligns North Avenue with the existing Children's Museum entrance, without the taking of private land for right-of-way. While improving traffic flow, this realignment could also improve pedestrian access and safety at the intersection by providing more typical geometry.



Alternatively, Spring Street could be routed to align with North Avenue. While this alignment streamlines access to Washington Street, it would require the relocation of the DuPage Children's Museum. Aligning Spring St. could also increase neighborhood traffic on Spring between Mill and Washington.



The present location of the museum has a significant impact on traffic and the functionality of the existing intersection. The Working Group determined investigation of these realignment options should continue throughout concept creation, as noted in **Concept Principles**.

MULTI-MODAL OPTIONS

The multi-modal aspect of the development is important to ongoing commuter access and City operations. The Working Group spent significant time discussing operations and options for the multi-modal depot, in particular the 2012 Naperville Metra station bus depot and commuter access feasibility study.

After Stakeholder Meetings with both Metra and Pace, Ryan created the Metra / Pace Fact Sheet (Appendix F) detailing facts and figures of multi-modal operation. Pace operates 20 routes which currently use the multi-modal at 5th Avenue. Seventeen routes arrive from the south, and 3 come from the north. These routes currently utilize the south and north sides of the station, respectively. The Working Group questions whether the bus depot can be consolidated onto the south side of the tracks, however, unless otherwise directed by Council, the concept should incorporate the same distribution of routes. Kimley Horn produced the Transit Design Requirements (Appendix F) detailing considerations of bus depot design.



Metro C Line Bus Rapid Transit, Brooklyn, MN



SANDAG/MTS Light Rail Transit Blue Station, San Diego, CA

Kimley Horn produced Bus Depot Concept Sketches for the Parkview lot, Children's Museum lot, and expanded service at Burlington Square. The Working Group discussed pros, cons, and costs of these options at length, which are available in the Pace Bus Depot Location Analysis (Appendix F).



Parkview Lot

Children's Museum Lot

Burlington Square

Given the cost of construction, operations, and maintenance of an understructure depot at the Parkview lot or Children's Museum lot, City should consider keeping the bus depot open-air at Burlington Square. Additionally, it is important to note that future Pace routing, quantity of buses, and level of service is not determined by City. Pace funding is provided by a variety of sources, including County, State, and Federal dollars. Changes in funding could result in changes in services; City should select an option that maintains flexibility to respond to Pace's future level of service.

Kiss-n-ride function is equally important; according to a 2014 survey, commuter access to the station is as follows:

- 51% of riders drive themselves to the 5th Avenue station.
- 21% carpool or are dropped off via auto.
- 15% use public transit.
- 12% walk or bike to the station.
- 1% use other methods.

Burlington Square offers the City several options for Pace and kiss-n-ride service. Expanded kiss-n-ride could be provided, though with impacts to Burlington Square Park. The concept should consider multi-purpose uses for expanded hardscape areas, to increase the public amenity space around the bus depot. One example is a covered kiss-n-ride, providing a permanent home to the farmer's market. Other options could include basketball courts, outdoor event space, or food truck court.



The Working Group agrees that commuters must be given options for kiss-n-ride both north and south of the tracks. Kiss-n-ride areas should be considered in multiple locations; however, the Group acknowledges the additional cost of placing kiss-n-ride within a parking structure. The concept should consider a balance between distribution of multiple kiss-n-ride locations, and ability to enforce regulations.

Regardless of bus depot and kiss-n-ride locations, enforcement has emerged as a key factor for ongoing operations of any multi-modal design. As example; Group Input sessions noted that Pace buses idle and park on neighborhood streets. However, the current depot is designed to park 12 buses as requested by Pace. It is not known why buses are idling elsewhere. Both Pace buses and kiss-n-ride users require additional signage and enforcement to encourage smooth and functional operation.

CONCEPT PRINCIPLES

1. **Intersection of 5th and Washington Street will likely need to accommodate westbound dual left turns and a northbound right turn lane. It is likely it will not require re-alignment.**
 - a) Notes:
 - i) Improves commuter ingress / egress at peak times.
 - ii) The vast majority of parking permit holders reside south of train tracks.
 - b) The concept should assume right-of-way dedication from the Burlington lots for these improvements.
2. **Concept should continue to study re-alignment options at the intersection at North and Washington.**
 - a) Notes:
 - i) Conversion of North Ave to two-way operation is important for multi-modal operation.
 - ii) Intersection function is key considering potential uses for DCM/commuter lot
 - iii) Pedestrian safety concerns given current geometry
3. **Pace and kiss-n-ride functions should be provided both north and south of the tracks.**
 - a) Notes:
 - i) Supports current Pace routes
 - ii) Encourages distributed traffic patterns
 - iii) Supports commuter access via kiss-n-ride
 - iv) Separate bus & kiss-n-ride traffic
 - b) Separation of bus traffic and kiss-n-ride is important to ongoing function
 - c) Enforcement under both existing and future conditions is critical

Additional Considerations

- 5th and Columbia had recommended improvements and signalization in the 2009 5th Avenue Study. However it is important to consider the character and context of the neighboring uses when evaluating area traffic improvements.
- Vehicular traffic on 6th from Mill to Washington was noted as a resident concern.
- Traffic improvements and potential realignments will impact existing traffic patterns and the daily habits of users.
- A traffic impact analysis (TIA) will be completed as part of the development review process, in accordance with staff requirements.