



## Section 3

# DEVELOPMENT FRAMEWORK

### 3.2 Signature Elements

Signature elements illustrate the primary concepts recommended in this Plan applied to four specific locations in South Loop, shown in *Figure 3.10* below. They highlight key land use, urban design, and sustainability concepts that will transform South Loop into a walkable, mixed-use urban neighborhood.

Many of the ideas presented in individual signature elements can be applied in other locations in South Loop. However, the signature elements represent priority areas for implementation.

**Figure 3.10** Location of South Loop District's Signature Elements



Source: Bloomington Planning Division, 2011.

### 3.2.1 Lindau Link

Lindau Link is envisioned as a place to gather, linger, and meander. It will be designed as a “complete street” that invites pedestrians and accommodates bicyclists, drivers, and transit. *See right sidebar on next page.* Its streetscape will foster storefront and sidewalk-level activity and incorporate sustainable design and stormwater practices. It will establish a direct, pedestrian-oriented connection between South Loop’s two anchor developments – Mall of America (MOA) and Bloomington Central Station (BCS). *See Figure 3.11, below, Figure 3.12, page 3.17, and Figure 3.13, page 3.19, for illustrations of the projected future development.*

#### Location

Lindau Link extends between 24th Avenue and BCS. Between 24th and 30th Avenues, it will function as a

through road, generally following the existing 81st Street alignment. East of 30th Avenue, Lindau Link becomes a pedestrian and bicycle only corridor

**Figure 3.11 Looking North at Lindau Link from 24th Avenue**

The street functions for a variety of users – pedestrians, bicyclists, drivers and transit

Three to five-story offices front Lindau with parking located behind buildings

Flexible on-street parking supports ground-floor retail and service businesses



Public plazas and visual landmarks create identity and promote street-level activities

A more urban character and density attracts pedestrian and bicycle use

Pervious pavement and native landscape plantings provide stormwater management

*Source: Bloomington Planning Division, 2011.*

through the BCS development before terminating at 34th Avenue. While this signature element focuses on the road, it also affects the abutting properties to the north and south.

### Existing Conditions

The existing Lindau Lane extends between TH 77 (Cedar Avenue) on the west and 24th Avenue on the east. It provides an important access into the MOA and the South Loop District. MOA Phase 2 expansion will occur on the north side of Lindau Lane. Existing development along the proposed Lindau Link alignment include a hotel, small offices, manufacturing and assembly, the 28th Avenue LRT station and park & ride ramp, an electric substation, and vacant parcels.

### Key Opportunities

Lindau Link presents the opportunity to establish a direct physical and visual link between the two anchor developments in South Loop.

Key opportunities include:

- Concentrating mixed-use development along Lindau Link will **create a more urban character and density** that attracts pedestrian and bicycle use.
- Establishing a concentration of restaurants, retail, and boutique hotels along Lindau Link can **create street-level activity linking the MOA and BCS**.
- **Creating a continuous east-west connection** through the heart of South Loop that will improve circulation and potentially serve as a corridor for a **district energy distribution system**.

- Redevelopment of adjacent parcels presents an opportunity to **create a finer-grained street grid with pedestrian-scaled blocks**.

- **Expanding transit access and circulation** through the District by establishing a route that directly connects the 28th Avenue LRT station and the MOA transit station, which is a hub for LRT, Bus Rapid Transit (BRT), express and regular bus services.

- **Enhancing access to the Minnesota Valley National Wildlife Refuge (MNVNR)** by extending Lindau Link east to 34th Avenue and designing 28th Avenue as the principle north-south “green street” through South Loop. Between 30th and 34th Avenues, Lindau Link will be designed to only accommodate pedestrians and bicyclists.

### Features and Development Principles

#### Land Use and Building Design

A mix of office, retail and hotel uses envisioned along the Lindau Link. Retail and restaurants will provide activity at the sidewalk level. Hotels located along Lindau Link will provide additional activity in the evening after office hours.

#### Principles

- Encourage **mixed-use development with active ground floor uses and transparent storefronts** that provide a safe, comfortable, and interesting pedestrian environment.
- Encourage **sustainable building and low-impact design** techniques.



### What is a “Complete Street?”

Complete Streets is not a prescriptive roadway design. Individual “complete” street designs vary based on context, including topography, road function, the speed of traffic, pedestrian and bicycle demand, local land use, and other factors. The City will implement Complete Streets in such a way that the character of the project area, the values of the community, and the needs of all users are fully considered. Therefore, Complete Streets will not look the same in all environments, neighborhoods, or development contexts, and will not necessarily include exclusive elements for all modes.

See **Section 3.3.2 Circulation Framework**, page 3.49.





Photo credit: Wallace Roberts & Todd, LLC.

Buildings define the street edge in Market Common, Arlington, Virginia.



Vertical mixed use with ground-floor retail invites pedestrian traffic.

- Use **buildings to define and enclose the streetscape**, creating a pedestrian-scaled environment.
- Ensure **building shadows** do not result in continuous shade at street level.

**Movement and Circulation**

Lindau Link and major cross streets (e.g, 28th Avenue) will be designed to accommodate multiple modes of transportation and pedestrian activity. On-street parking will be available to accommodate ground floor retail and service uses. Longer-term parking will be concentrated in shared lots or structures located behind buildings with access from side streets.

Between 24th and 30th Avenues, Lindau Link will be developed as a multi-modal street that invites pedestrians, bicyclists, drivers, and transit, while providing stormwater management. East of 30th Avenue, it will become a bicycle and pedestrian path through BCS and connect to the MVNWR.

**Principles**

- Utilize **complete street design concepts** to ensure streets function for a variety of users – pedestrians, bicyclists, automobiles, and transit – and provide streetscape **amenities that enhance the pedestrian experience and safety**.
- Locate **structured parking facilities** to be accessed from cross streets and to minimize their frontage along Lindau Link.

- Promote **shared parking strategies**.
- Provide flexible **on-street parking** to support ground floor businesses.
- Implement a **public bike-share program**.

**Parks and Open Space**

Lindau Link will incorporate landscaping and green infrastructure features that will convey a park-like character through the heart of South Loop. This “greenway” will connect MOA, its western terminus, with BCS Park, and a new trailhead access into the MVNWR at its eastern terminus at 34th Avenue.

Plazas created around the intersection with 24th Avenue will use common materials and landscaping to visually and physically connect MOA with the east side of South Loop. Sculpture or public art in these plazas will be used to create a visual landmark to denote this important gateway node along 24th Avenue. This is discussed in more detail in the 24th Avenue Corridor signature element, *see Section 3.2.2, page 3.21*. Courtyards created along Lindau Link, can provide activity areas for office building and ground floor tenants.

Lindau Link will incorporate a variety of sustainable design features, such as LED lighting, pervious pavement, recycled materials, and native landscape plants. Infiltration features will be used to provide stormwater management, particularly in green spaces, such as the center median and the triangular open space north of the 28th Avenue LRT station.





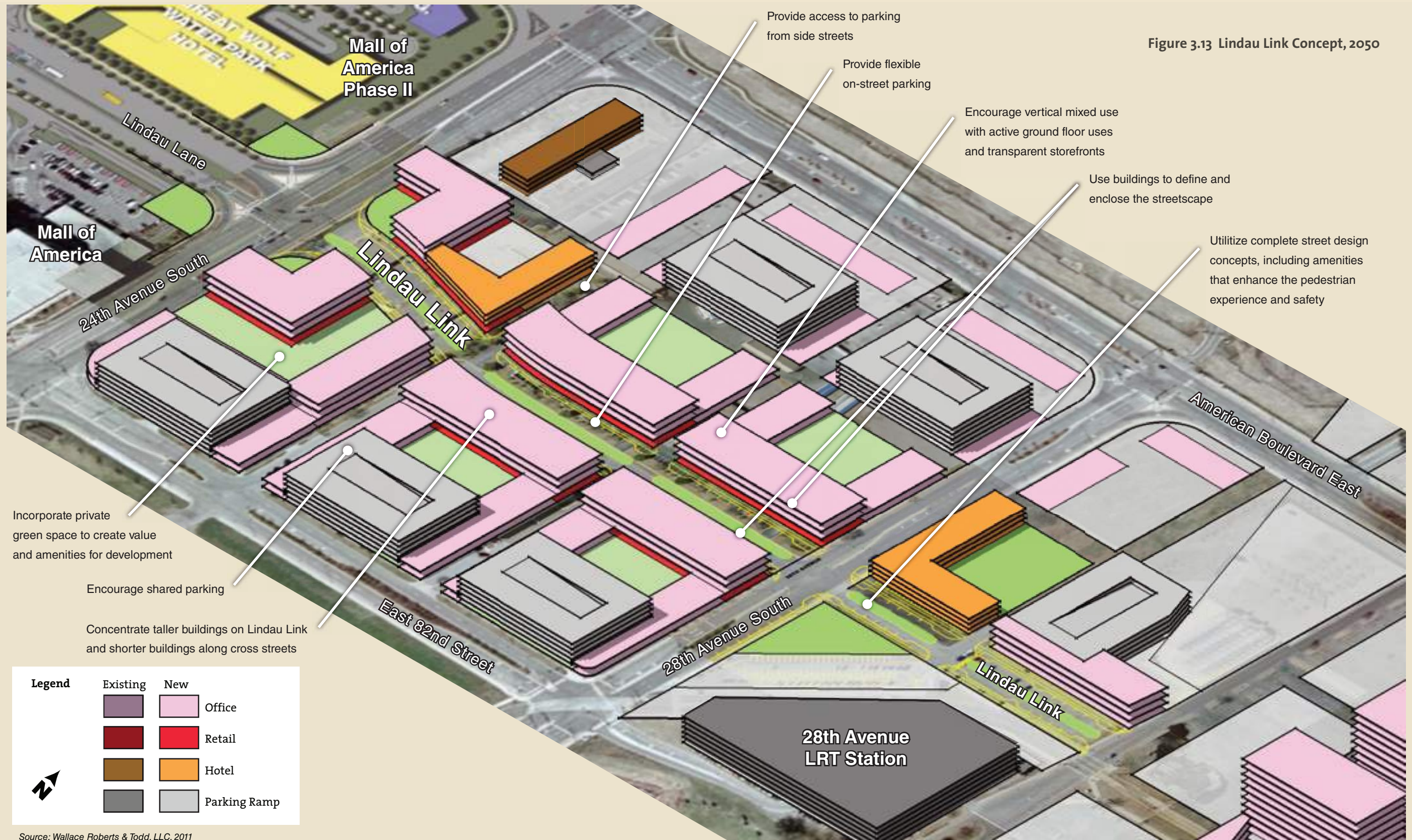
Figure 3.12 Lindau Link Concept, 2030

Source: Wallace Roberts & Todd, LLC, 2011



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Source: Wallace Roberts & Todd, LLC, 2011



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**Principles**

- Incorporate **public plazas and visual elements** at key intersections (e.g., 24th Avenue, 28th Avenue) to **create identity**.
- Develop **multi-purpose utility corridors** to combine compatible utilities in a single conduit (e.g., water, sanitary sewer, and energy system distribution lines.)
- Enhance **connections to the MVNWR** by creating new trailheads, improving trail and roadway connections, and installing wayfinding signs.

**Implementation Strategy and Phasing**

Public investment priority will be given to support construction of Lindau Link from 24th Avenue to 30th Avenue as a means to leverage private development along Lindau Link. After 2030, the priority for public investment will focus on eastward extension of Lindau Link as a pedestrian and bicycle corridor between 30th and 34th Avenues.



**Aerial view of 24th Avenue looks north at Lindau Lane.**

**3.2.2 24th Avenue Gateway Corridor**

The 24th Avenue Corridor serves as a major gateway to South Loop that can convey a strong sense of arrival and identity. Streetscape improvements, a major redevelopment of the Mall of America (MOA) transit station, and new buildings along 24th Avenue will transform the appearance and function of this corridor. Trees and rain gardens will define and soften the street edge, add visual appeal and help manage stormwater using low-impact design (LID) infiltration techniques. See **Figure 3.14**, page 3.23, and **Figure 3.15**, page 3.24, for illustrations of the future development.

**Location**

The 24th Avenue Corridor extends between I-494 on the north and the intersection of Killebrew Drive and East Old Shakopee Road on the south.

**Existing Conditions**

The 24th Avenue Corridor is a high-volume arterial road that accommodates through traffic and vehicles entering and leaving South Loop businesses, particularly the MOA. It provides primary truck and transit access to the MOA and the MOA Transit Center. The MOA Transit Center is the terminus of the

Hiawatha LRT Line and the third busiest transit hub in the metro area.

Development along 24th Avenue currently consists of hotels, office-warehouses, the MOA and several large, undeveloped parcels. These parcels are future development sites (including MOA expansion) and most are currently used as overflow parking for MOA.

The corridor currently lacks visual cohesion and appeal due to the road width, vacant lots, minimal landscaping, and the visually imposing MOA parking ramp.



Wayfinding signage enhances the user experience.

These factors result in an uninviting pedestrian environment and lackluster streetscape character.

### Key Opportunities

The 24th Avenue Corridor presents several opportunities to transform this major roadway into a visually distinctive gateway and transit corridor. Key opportunities include:

- Capitalizing on the high traffic volumes by **creating distinct gateways at major intersections** (e.g., American Boulevard, Lindau Lane, and Killebrew Drive/East Old Shakopee Road). Gateways incorporating **public art and/or wayfinding signs** will improve the appearance of the corridor, create identity, and improve circulation.
- Locating new buildings, trees and landscaping along the street edge will **enclose and create pedestrian-scale along the corridor**.
- Utilizing **infiltration features** along the street edge will **create value** for adjacent properties by filtering and **reducing stormwater runoff** and becoming an attractive **landscape feature**.
- Designing MOA Phase II to **improve the visual character of 24th Avenue and provide pedestrian and streetscape enhancements**.
- Utilizing excess southbound capacity projected on 24th Avenue to **optimize transit service, and improve access, visibility, and capacity of the MOA Transit Center**.

[See *Airport South District Plan – Traffic Analysis memorandum* dated July 29, 2009.]

- **Connecting to the regional trail system** via intercity and Nine Mile regional trails.
- **Improving access and visibility of the MOA Transit Center** will support increased transit use and improve accessibility to the rest of South Loop.
- **Adding transit center capacity** will help serve the increased transit ridership anticipated with future development in the District.

### Features and Development Principles

#### Land Use and Building Design

New development will establish a building edge along both sides of 24th Avenue that will change the character of the corridor. MOA expansion, proposed to occupy a full block on the west side of 24th, will include a mix of retail, office, and additional lodging and entertainment venues.

#### Principles

- Provide **physical and visual links** between MOA and development on the east side of 24th Avenue.
- New buildings should provide street-level openings onto 24th Avenue to **improve pedestrian access and enliven the streetscape**.
- New buildings should be designed and located to **create a sense of enclosure and pedestrian scale** along 24th Avenue.

#### Movement and Circulation

As the primary gateway into South Loop, 24th Avenue will continue to carry a large amount of traffic and transit service. However,



identified excess road capacity can be used to accommodate MOA Transit Center renovation, improve car and bus operations, or create a planted median to improve traffic management and provide a refuge for pedestrian crossing.

**Principles**

- **Improve transit services and facilities**, including major renovation of the MOA Transit Center. The MOA Transit Center renovation should include:

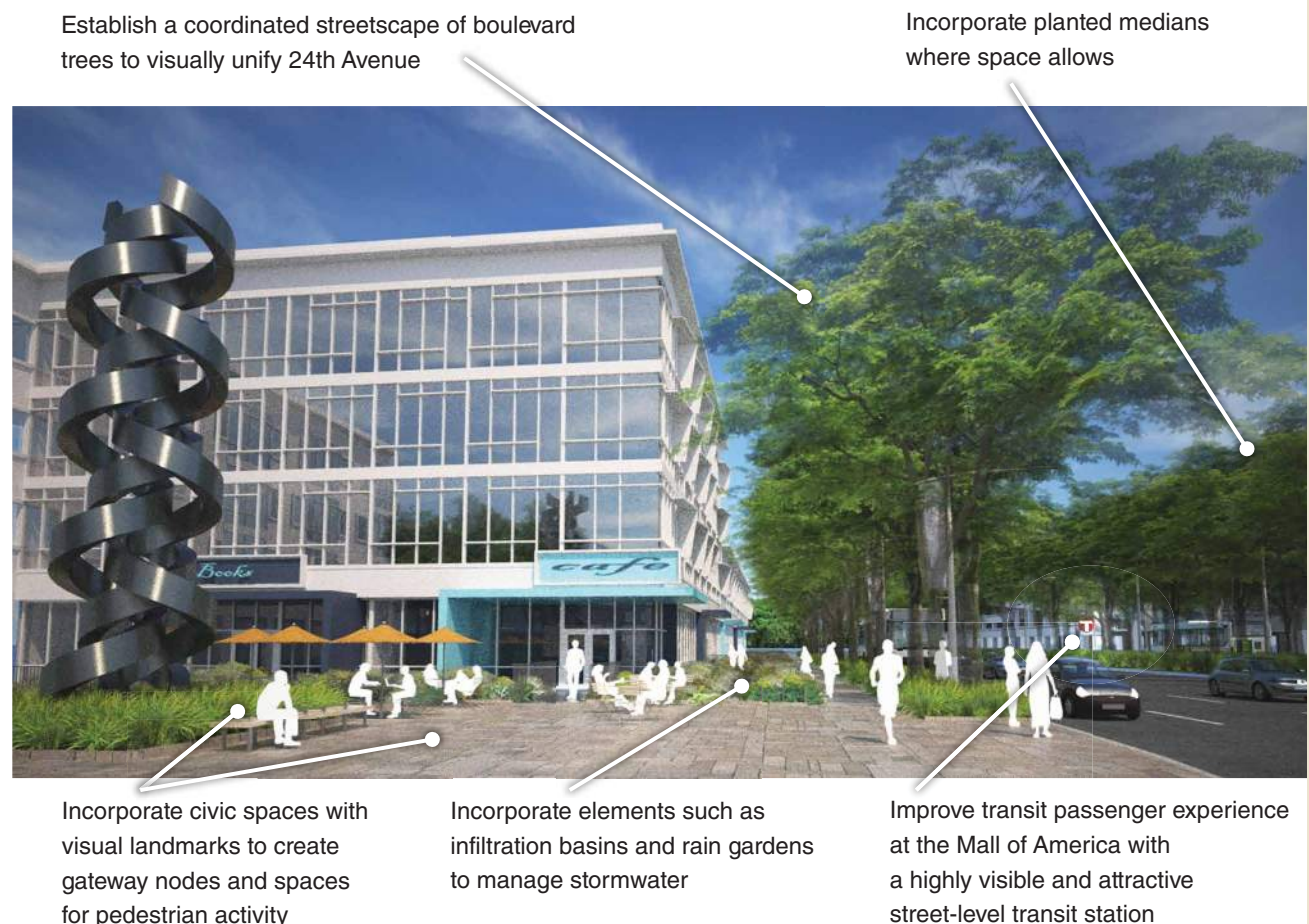
- Enhanced **identification and wayfinding signage**.

- Creation of a **station “storefront”** that provides presence and visibility on 24th Avenue.

- **Bus pick-up and drop-off areas** along 24th Avenue in addition to those inside the parking ramp, that could improve bus rapid transit (BRT) service.

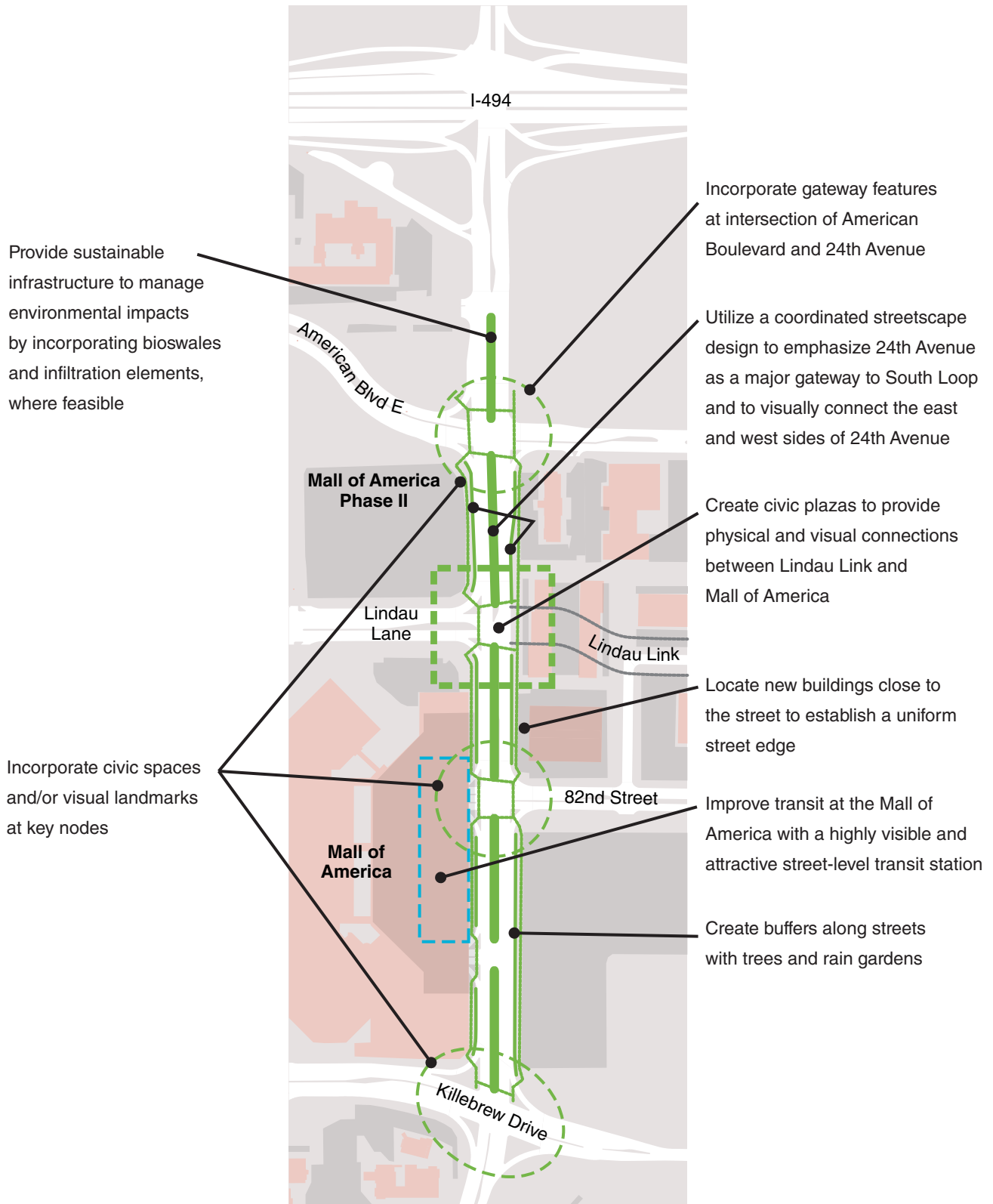
- **Improve the pedestrian experience** by providing expanded sidewalks with boulevard trees to provide buffers and pedestrian scale.

**Figure 3.14 24th Avenue Corridor looking South from Lindau Link**



Source: Wallace Roberts & Todd, LLC

Figure 3.15 24th Avenue Corridor: Gateway Concept, Plan View



Source: Wallace Roberts & Todd, LLC



### Parks and Open Space

Public plazas, street trees and landscaping on both sides of 24th Avenue and a new, planted median can establish visual continuity, help decrease the scale of the roadway, and provide shade and buffering for pedestrians comfort. Where space is available, rain gardens along the edge of 24th Avenue can be used to collect stormwater runoff from the street as well as from the roofs of adjacent buildings. At Lindau Link, public plazas will be created to visually and physically connect Lindau Link with the entrance to MOA and accentuate the prominence of this intersection.

### Principles

- **Create gateway features and public plazas** at key intersections. Gateways and plazas should include placemaking elements, such as wayfinding signs, public art, lighting, and landscaping.
- Establish a **coordinated streetscape design to visually connect** the east and west sides of 24th Avenue.
- Use street trees and boulevard plantings to **create buffers to increase pedestrian comfort**.
- Incorporate **sustainable infrastructure to manage stormwater** and improve the appearance of

public plazas and boulevards. This may include elements such as: **rain gardens, infiltration basins, pervious pavement, and high-efficiency lighting**.

### Implementation Strategy and Phasing

Public investment will be focused on transit improvements along 24th Avenue. Highest priority will be given to developing a coordinated civic space around the intersection of 24th Avenue and Lindau Link. This will include new plazas that visually and physically connect MOA and Lindau Link.

Other key investment priorities include reconstruction of the MOA Transit Center incorporating a transit storefront and creating gateway nodes at key intersections along the corridor to enhance South Loop identity and wayfinding. Public investment will also be considered in conjunction with private development to implement streetscape amenities including sidewalks, street trees, and sustainable infrastructure.



### Transit-oriented development (TOD)

TOD is moderate to higher-density development located within easy walking distance of a major transit stop. It generally includes a mix of residential, employment and shopping opportunities physically designed to enhance access by pedestrians and bicyclists without excluding the auto.

Source: Metropolitan Council Regional 2030 Transportation Policy Plan - Final, November 2010.

### 3.2.3 34th and American Neighborhood

The area around the intersection of 34th Avenue and American Boulevard is envisioned as a new mixed-use neighborhood with up to 3,500 multi-family dwellings located to take advantage of the Hiawatha light rail transit (LRT) and proximity to the Minnesota Valley National Wildlife Refuge (MVNWR). Use of transit-oriented development (TOD) principles makes this a distinctive neighborhood in the region. See *Figure 3.16, page 3.27*, and *Figure 3.17, page 3.29*, for illustrations of the future development.

#### Location

The 34th and American neighborhood is centered on the American Boulevard LRT Station at the intersection of 34th Avenue and American Boulevard. The Minneapolis/St. Paul International Airport (MSP) is located across I-494 just north of the neighborhood.

#### Existing Conditions

Development in the area currently consists of hotels, office buildings, and off-site airport parking lots. This neighborhood serves as a gateway to South Loop and Bloomington for people arriving by transit or car via 34th Avenue.

The American Boulevard LRT Station is a split station design with platforms located north and south of American Boulevard. This is one of four LRT stations located in South Loop. The Hiawatha LRT provides the neighborhood quick and convenient access to the airport and downtown Minneapolis.

Portions of the South Loop District are within MSP runway safety zones where residential land uses are not allowed. However, residential development is permitted in this area of the District, where the noise exposure is below 70 decibels. The Reflections condominiums, in the

adjacent Bloomington Central Station (BCS), provide a glimpse of the character envisioned for this transit-oriented neighborhood. Approved BCS plans include an additional 800 dwellings located just southwest of the American Boulevard LRT station.

The MVNWR forms the south and east edge of the neighborhood and is owned and managed by the U.S. Fish and Wildlife Service (USFWS). An existing multi-purpose trail along I-494 enters South Loop near the MVNWR Headquarters. This trails serves both bicycle commuters and recreational users, providing connections to trails in Dakota County and to trails extending west through Bloomington.

#### Key Opportunities

The 34th and American Neighborhood possesses unique amenities for establishing a mixed-use residential neighborhood centered on the American Boulevard LRT station. Key opportunities include:

- Proximity to I-494 and MSP make South Loop a **highly desirable location for businesses** seeking convenient access to the region, and national and international markets.



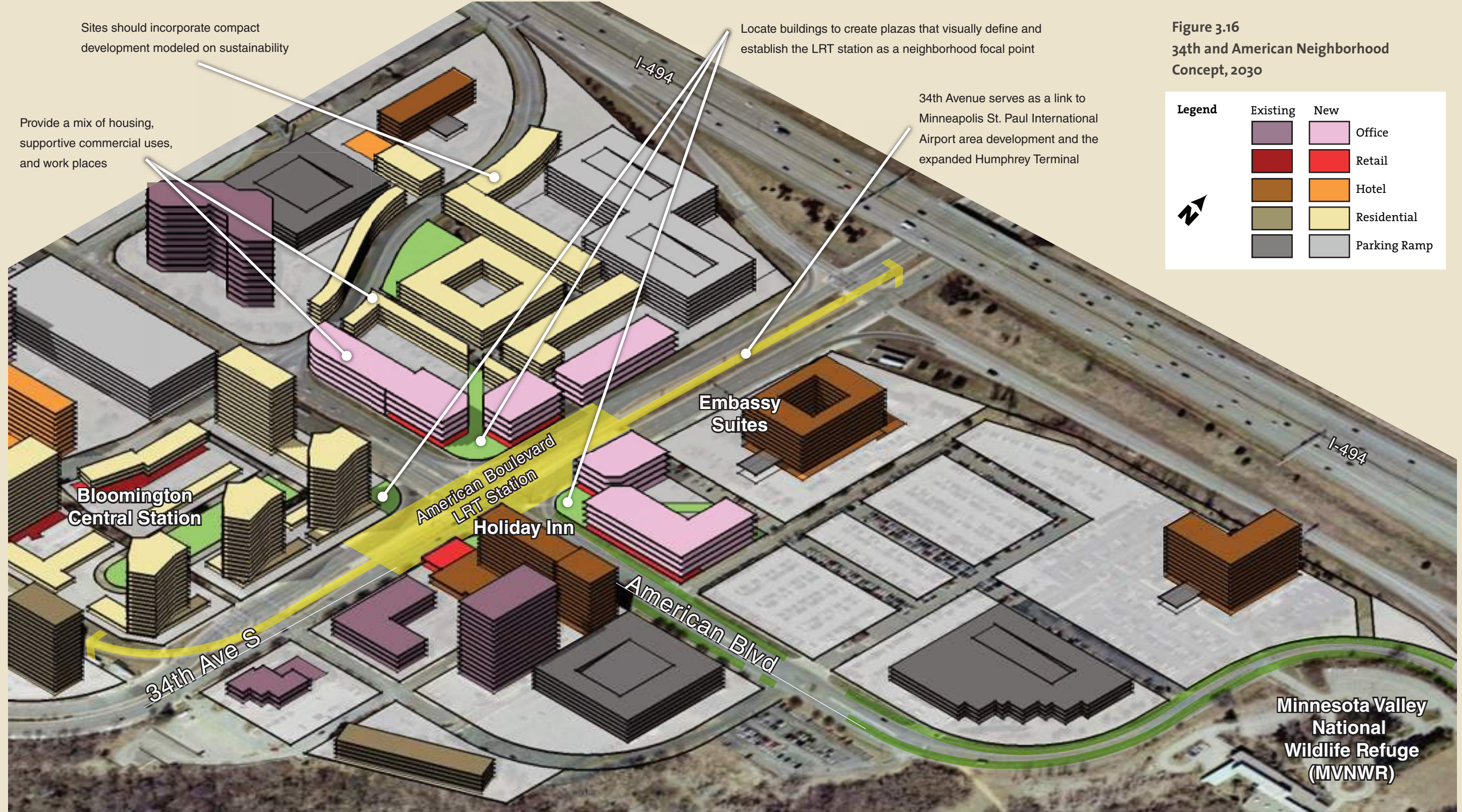


Figure 3.16  
34th and American Neighborhood Concept, 2030

Source: Wallace Roberts & Todd, LLC



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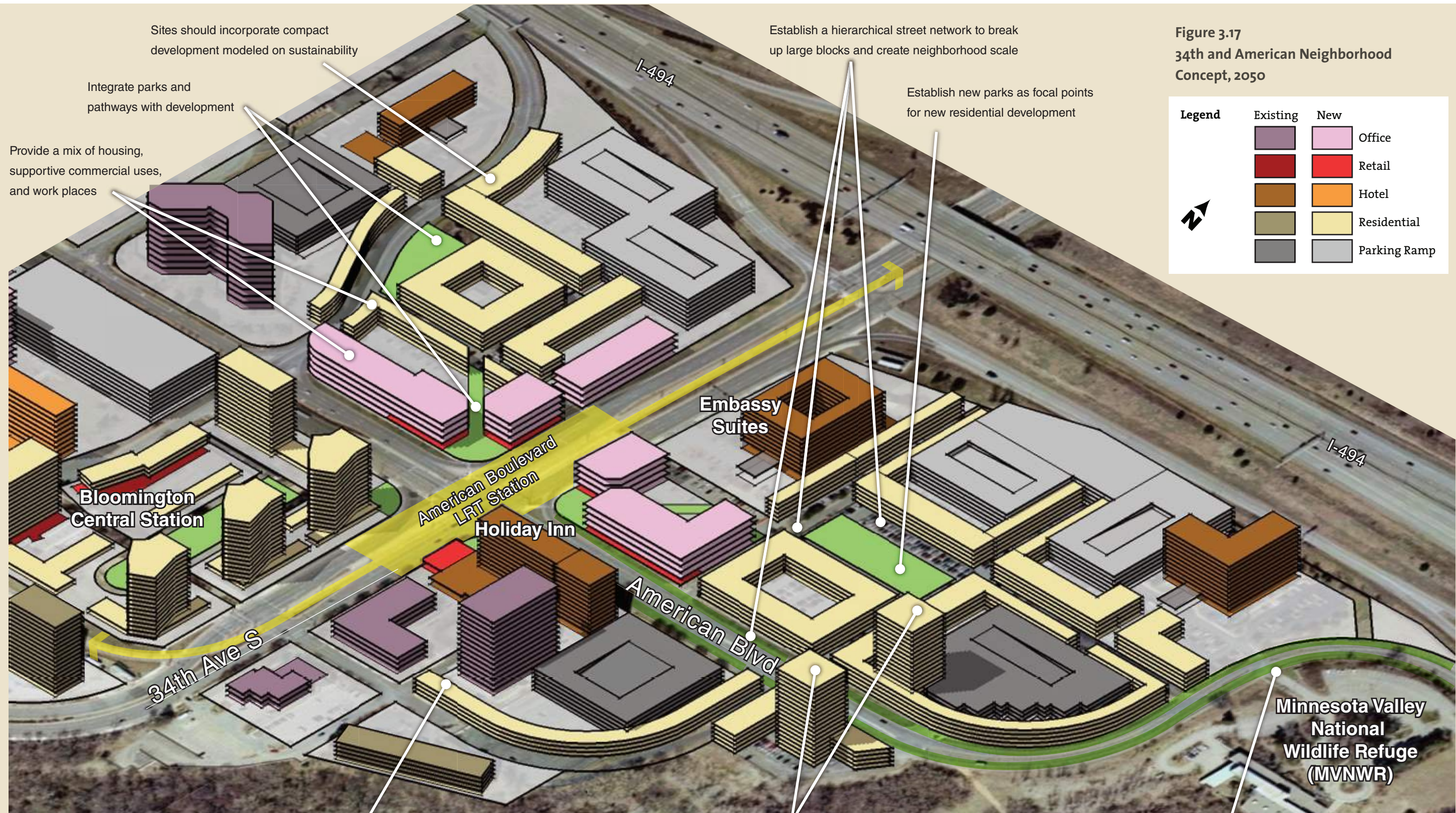


Figure 3.17  
34th and American Neighborhood  
Concept, 2050

**Legend**

Existing	New	
		Office
		Retail
		Hotel
		Residential
		Parking Ramp

Sites should incorporate compact development modeled on sustainability

Integrate parks and pathways with development

Provide a mix of housing, supportive commercial uses, and work places

Establish a hierarchical street network to break up large blocks and create neighborhood scale

Establish new parks as focal points for new residential development

Bloomington Central Station

American Boulevard LRT Station

Holiday Inn

Embassy Suites

34th Ave S

American Blvd

I-494

Minnesota Valley National Wildlife Refuge (MVNWR)

Locate buildings to establish a uniform street edge

Locate taller buildings to take advantage of views into the MVNWR

Provide an attractive parkway-like access to the MVNWR Headquarters



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- Direct access to the Hiawatha LRT line provides **connections to the Mall of America (MOA), MSP, the University of Minnesota, and downtown Minneapolis.**
- South Loop is also well served by bus routes, including **proposed Bus Rapid Transit (BRT) service** to Minneapolis, Eden Prairie, and Dakota County. *See Section 3.3.2, page 3.54, for more information on transit service.*
- Interim land uses (e.g., remote airport parking), currently occupy about two-thirds (24.6 acres) of the developable land in this area. This amount of under-developed land immediately adjacent to an LRT station presents an **excellent opportunity for new, TOD development.**
- Proximity to the vast open space and natural assets of the MVNWR gives this neighborhood tremendous appeal. The MVNWR Headquarters and Visitors Center, located along the neighborhood’s eastern boundary, provides **access to an extensive system of trails and nature-based recreation and education programs.**

**Features and Development Principles**

**Land Use and Building Design**

The neighborhood’s organizing principle is transit-oriented development (TOD). Providing an integrated mix of housing, convenience retail, and employment at densities that support transit service will encourage both day and evening activity and create a pedestrian-friendly neighborhood.

In mixed-use development, shared parking becomes a viable and attractive option. Locating parking structures adjacent to I-494 can help buffer residential uses from roadway noise.

Around the American Boulevard LRT station, new office and convenience retail complement the existing hotel on the southeast corner and future BCS residential buildings on the southwest corner. Buildings will be designed to frame new plazas at the corners of the intersection, creating a defined public space centered on the LRT station. In the northwest and northeast quadrants, a variety of housing types will frame new local streets and parks. Taller residential buildings will be located to capture views into the river valley and the MVNWR.

**Principles**

- Promote TOD concepts that provide **a range of housing types, convenience service and retail uses, and work places.**
- Site layout and building massing should result in **compact development that incorporates sustainable design features**, such as passive solar, day lighting, and sun shading.
- **Encourage shared parking** and locate parking structures to buffer residential uses from I-494.

**Movement and Circulation**

The American Boulevard LRT Station is the central focus of this neighborhood. Ensuring safe and convenient pedestrian access to the LRT station is complicated by





its split-station design and the substantial amount of traffic on American Boulevard and 34th Avenue. Pedestrian crossings must be carefully designed and maintained to enhance safety and pedestrian comfort. The feasibility of constructing a pedestrian bridge crossing over 34th Avenue will be evaluated relative to new development in the northeast and northwest quadrants.

New residential development will be served by a network of new streets and sidewalks. This network will support local vehicular traffic and allow people to visit neighbors, run errands, go shopping, or go to work on foot, bike, or transit.

South Loop is directly connected to MSP via 34th Avenue, which also provides airport access from the regional highway system. Improvements to the intersection of 34th Avenue and I-494 are planned that will improve traffic flow and accommodate physical changes to the airport proposed in the *MSP 2030 Conceptual Plan*. Improvements to the interchange and 34th Avenue will need to be coordinated with other road improvements proposed for this area.

#### Principles

- Establish the **American Boulevard LRT station as a neighborhood focal point**.
- Provide **safe and direct pedestrian routes** to the LRT station and throughout the neighborhood.
- Establish a **fine-grained street network** that supports multiple modes of transportation, maximizes

circulation flexibility, and enhances neighborhood livability and placemaking.

#### Parks and Open Space

New residential development will be oriented around parks and playgrounds linked by pedestrian and bicycle trails. Parks will serve as placemaking elements, lending aesthetic appeal and value to adjacent properties. Active parks, with playgrounds, can become local gathering places and focal points for neighborhood recreation. Other open spaces may consist of public or private plazas and landscaped areas.

New public plazas at the intersection of 34th Avenue and American Boulevard will function as a gateway to South Loop and create a focal point around the American Boulevard LRT station. Pedestrian paths will connect the LRT station to parks in the southwest, northwest, and northeast quadrants.

All streets are lined with trees for aesthetic appeal, to provide shade, and create a sense of pedestrian scale. Where possible, boulevards and open spaces will include infiltration features such as rain gardens and pervious pavement that can filter and reduce stormwater runoff. The segment of American Boulevard east of 34th Avenue will include additional landscaping and trail improvements to highlight its function as the primary entrance to the MVNWR Headquarters.

#### Principles

- Create a **network of urban parks and plazas** connected by well-



landscaped streets, sidewalks, and trails.

- **Integrate parks and pathways with new development** to create amenities, increase value, and maximize pedestrian and bicycle connections.
- Create an **attractive access to the MVNWR Headquarters and Interpretation Center facility.**

### Implementation Strategy and Phasing

Early public investment priorities will focus on creating gateway plazas around the intersection of 34th

Avenue and American Boulevard. These will be framed by new office, retail, and residential development and will be implemented when new development occurs. Public investment in new streets, parks and trails will be timed to coordinate with and foster private redevelopment in this area. To minimize disruptions to traffic flow, public improvements affecting 34th Avenue will be coordinated with proposed improvements to the intersection of 34th Avenue and I-494, which are planned to occur before 2020.

### 3.2.4 Bluff Edge

The Bluff Edge embodies the natural character that lends unique appeal to South Loop. It encompasses the transition zone between the developed urban upland areas of South Loop and the natural open space and conservation resources of the Minnesota Valley National Wildlife Refuge (MVNWR). Balancing resource and habitat protection with new development on sites adjacent to the bluff will be a primary challenge. A cooperative working partnership between the City and the U.S. Fish and Wildlife Services is essential to preserve and manage the natural beauty and rich ecosystem of the MVNWR.

#### Location

The Bluff Edge follows the entire east/southeastern edge of South Loop generally surrounding the 800-foot elevation contour and interfaces with the MVNWR, a unique natural resource for South Loop, Bloomington, and the Region.

#### Existing Conditions

The Bluff Edge encompasses three distinct areas: the urban upland area, the steeply sloped and forested bluffs, and the Minnesota River floodplain. These three areas support a wide variety of vegetation and

diverse habitats, with high ecological and natural resource value.

Much of the urban upland and forested bluff is in private ownership. The upland areas (above the 800-foot contour) support moderate to high intensity office, retail, and residential development. Areas at or below the 800-foot elevation are within the Bluff Protection (BP) Overlay Zoning District. The *Bluff Report District Plan*, adopted in 1982, led to the creation of the BP Overlay zones and design guidelines for development in those environmentally sensitive areas.





Two projects that have established a standard for bluff edge development are the Ceridian office building, above, and Cypress Semiconductor.

The floodplain is public property; most of the floodplain in South Loop is in the Long Meadow Lake Unit of the MVNWR. The MVNWR boundary generally follows the 722-foot contour. These bottomlands include flood plain forest, wetland complexes, and the Minnesota River.

### Key Opportunities

The Bluff Edge encompasses the transition zone between the upland urban development areas in South Loop and sensitive natural areas and ravines along the bluff edge. Protecting natural resources and incorporating sustainable features into new development are fundamental principles of this plan that are particularly relevant in this area. Key opportunities include:

- New development on sites adjacent to the bluff can **benefit from the natural character of the MVNWR and river valley views**.
- **Establish a north-south pedestrian/bicycle route** along 28th Avenue through South Loop, connecting to the key east-west route along Lindau Link.
- **Improve the appearance and identity of the entrance to the MVNWR Visitors Center.**
- **Incorporate green infrastructure (e.g., infiltration) and native landscaping along streets** to help draw natural aspects of the MVNWR and bluff edge environment into the developed upland portions of South Loop.
- **Increasing awareness of and access to the MVNWR and available**

**recreational opportunities** can help brand the South Loop as a place with tremendous scenic and recreational amenities.

### Features and Development Principles

#### Land Use and Building Design

There are three prime sites for new development adjacent to the bluff. These include: Spruce Shadows Farm and the adjacent Forest Glen parcels, Long Meadow Circle, and near Appletree Square, shown in pink on **Figure 3.18, page 3.35**. New development must be sensitive to the natural features and resource base unique to sites along or near the bluff (i.e., steep ravines, slope erosion, soil compaction, seeps, etc.). Low impact development (LID) techniques that mimic natural processes will be used to manage stormwater runoff, minimize disruption to natural site features, and foster energy efficiency.

#### Principles

- **Utilize sustainable site design practices**, such as infiltration and pervious pavement, to manage stormwater.
- **Limit and mitigate bluff encroachments** to preserve the urban-natural edge along the bluff as a natural resource transition zone.
- Orient buildings to **maximize solar access and day-lighting**.
- **Foster compact development.**
- **Utilize native landscape plants.**

**Movement and Circulation**

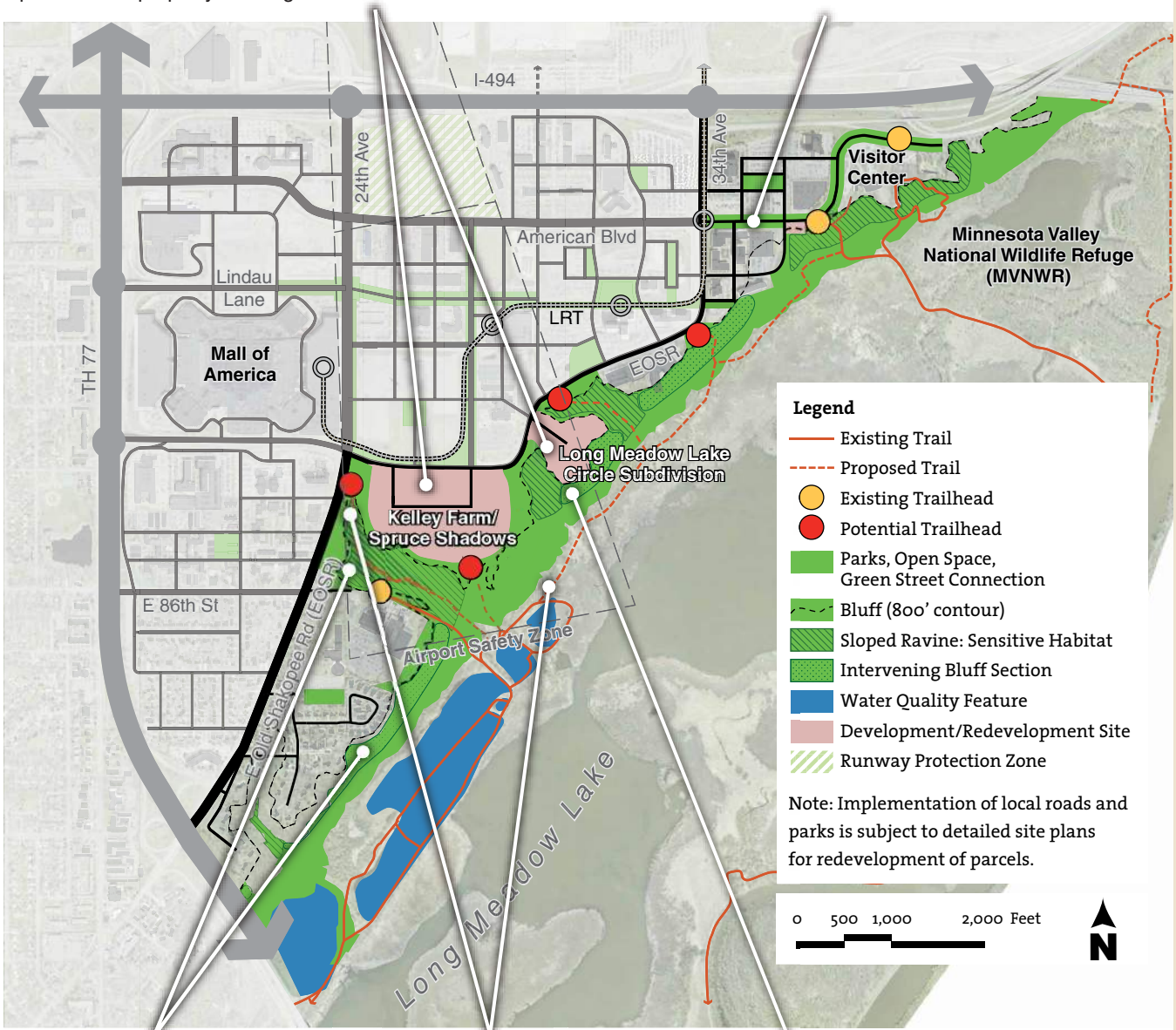
Additional landscaping and pedestrian and bicycle amenities along American Boulevard, east of 34th Avenue, will create a greenway-like character to enhance the entrance to the MVNWR

Headquarters and Visitors Center. Pedestrian and bicycle amenities will also be provided along 28th Avenue to create an attractive connection to the MVNWR at a proposed new trailhead near the bluff top. The location of this new trailhead will

**Figure 3.18 Bluff Edge Concept**

Utilize low-impact sustainable development practices on property abutting the bluff

Create an attractive greenway-like access to the MVNWR Visitor Center and trails



Work with MVNWR to protect and manage sensitive ravine and bluff environments

Enhance MVNWR access and trail opportunities

Preserve the urban-natural edge as a natural resource transition zone

Source: Wallace Roberts & Todd, LLC, 2011





be determined in conjunction with development of the Kelley Farm/Spruce Shadows property. The alignment of the new trail into the MVNWR will be determined in cooperation with the Refuge staff.

#### Principles

- **Establish a network of pedestrian paths and sidewalks** connecting the developed upland area of South Loop with the MVNWR.
- **Provide an attractive access to the MVNWR Headquarters and Interpretation Center facility.**

#### Parks and Open Space

Public parks and open space along the bluff provide a continuous natural corridor consisting of habitats and ecosystems from hillside forest to wet meadows. Much of this is located within the MVNWR. Increasing awareness and access to the MVNWR is an important objective of this plan so residents, hotel guests, and office workers can enjoy the recreation opportunities provided by the MVNWR.

Four new trailheads are proposed to increase access to the MVNWR, see *Figure 3.18*, page 3.35. New trails will connect the trailheads to the MVNWR trail system. Trailhead facilities and connecting trail design and alignment will be coordinated with the USFWS. Trails will incorporate sustainable design techniques to ensure they do not impact sensitive natural resources.

The City will work with the USFWS to coordinate trail connections between the new trailheads and proposed trails in the MVNWR. These include a proposed trail connecting the MVNWR

Headquarters and Visitors Center to the Old Cedar Avenue Bridge and the proposed Minnesota Valley State Trail. Specific alignments have not been determined for either trail at this time. The MVNWR trail, as noted in the *Minnesota Valley Comprehensive Conservation Plan (2004)*, is proposed along the bottom of the bluff while the State Trail is planned to follow the main channel of the Minnesota River located east and south of Long Meadow Lake.

A new park and trailhead will be created southeast of the intersection of 24th Avenue and East Old Shakopee Road/Killebrew Drive. The park is envisioned as a dog park, with limited picnic facilities and a small parking lot. The park abuts Forest Glen Park and the new pedestrian trail through the ravine will provide access to the MVNWR.

#### Principles

- **Increase MVNWR access and complete trail connections.**
- **Design trails to minimize impacts on natural resources.**
- **Design new trailheads to coordinate with MVNWR trailheads.**
- **Preserve and protect cultural and historic assets.**

#### Implementation Strategy and Phasing

Initial public investment priorities will focus on development of new trailheads to improve access to the MVNWR and creation of a new public park southeast of the corner of 24th Ave South and East Old Shakopee Road, adjacent to Forest Glen Park. The City will continue to work cooperatively with the USFWS to protect and manage natural resources adjacent to the MVNWR.