

DESIGN GUIDELINES

8TH AND PENN NEIGHBORHOOD REDEVELOPMENT ZONE

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EXECUTIVE SUMMARY

The 8th and Penn Neighborhood Redevelopment Zone is located in the historic East Lawrence manufacturing and railroad freight area and is part of the East Lawrence residential neighborhood. The proximity of the Kansas River made the historic industrial zone an ideal location for rail lines and associated freighting and manufacturing facilities. The redevelopment zone is composed of buildings, structures, and streetscapes that developed over a period of time and that had a variety of uses. Today, as in the past, there is a heterogeneous mix of warehouse and commercial/industrial facilities dating to the 1880s, large open spaces once used for rail yards and warehousing facilities, and several large, modern light industrial facilities. Although many of the older buildings and structures retain an individually distinct character and identity, their design patterns also contribute to the overall appearance of the area. Immediately adjacent to the west and south of the redevelopment zone are historic residential neighborhoods. These commercial/industrial and residential enclaves are separated by blocks that have lost their historic residential use and now are made up of vacant lots and/or a mix of commercial uses.

As in many communities, new residential and commercial growth presents unique challenges for this type of older mixed-use neighborhood. While individual buildings may have the potential to attract new businesses, if the area as a whole is to become viable, it must compete with other local and regional development zones. Experience demonstrates areas that create and/or retain a unique visual character that combines the historic and the new to enhance an existing “sense of place” are the most successful competitors.

The City of Lawrence has initiated a number of strategies to preserve, rehabilitate, and enhance the appearance of its older neighborhoods. This approach recognizes that conservation of buildings, neighborhoods, and sites of historic value is one of the best tools for recovering the worth of past investments while fueling a new economic force. To accommodate revitalization of this neighborhood and to merge old and new land uses, the redevelopment project will include changing the base zoning to C-5 and creating an Urban Conservation Overlay District (UC-O District) in accordance with the ordinances of the City of Lawrence, Kansas. There are historic resources located in the 8th and Penn Neighborhood Redevelopment Zone that are eligible for listing in the National Register of Historic Places and the Register of Historic Kansas Places. With the anticipated listing of these properties, all work (rehabilitation and new construction) in the redevelopment zone will be reviewed in accordance with the Kansas Historic Preservation Act of 1977, as amended,¹ and, possibly, Section 106 of the National Preservation Act of 1966, as amended,² to consider and mitigate the impact of development and adaptive reuse on the historic resources. It is also anticipated that the owners of qualifying historic buildings will participate in federal and state rehabilitation tax credit programs.

Because of these goals, the following design guidelines incorporate the “Secretary of the Interior’s Standards for Rehabilitation of Historic Properties”, which apply not only to rehabilitation for the adaptive reuse of historic and older buildings, but also to new construction and site development. The Secretary’s Standards are currently incorporated into federal, state, and local compliance ordinances and laws, and have been upheld by state and federal courts as a reasonable standard by which to guide protection of cultural resources.

¹ The Kansas statute requires that the State Historic Preservation Office and/or its local designee review and comment on proposed projects (such as this project) undertaken by other parties, but requiring issuance of a lease, permit, license, or other entitlement for use from the State of Kansas or any political subdivision of the State of Kansas that would affect a property and/or the environs of a property listed in the National Register of Historic Places or the Register of Historic Kansas Places.

² This will occur if the project involves an undertaking by a federal agency, such as funding, financing, grants, issuance of permits, and so forth.

These design guidelines will be incorporated into an Urban Conservation Overlay District zoning ordinance to ensure compliance with local, state, and federal preservation laws and will thereby provide a consistent set of standards specific to the built environment and physical conditions of the redevelopment zone.

The goal in utilizing these guidelines is not to reproduce a historical period or theme approach. The intent is to identify and protect historic resources and to utilize significant common historic patterns in the existing built environment that will contribute to a sense of place, while retaining and enhancing the existing historic fabric and visual character of the development zone. Inherent in these guidelines is the provision of direction to property owners and developers to ensure that changes to properties — rehabilitation, renovation, demolition, and new construction — enhance and complement the unique character of East Lawrence. The intended purpose of using these guidelines is to help accomplish the following:

1. Foster economic viability by encouraging redevelopment and new development.
2. Regulate exterior scale, massing, design, arrangement, texture, and materials within the conservation zone in order to not only promote compatibility within the development zone, but also to create linkages with the surrounding neighborhoods.
3. Preserve and protect the historic and architectural value of buildings, structures, sites, districts, and objects listed in, or eligible for, the National Register of Historic Places, the Register of Kansas Historic Places, and the Lawrence Register of Historic Places.
4. Maintain the unique identity of East Lawrence.
5. Meet the Kansas State Law requirements as set forth in KSA 75-2724 and any amendments hereafter and Chapter 22 of the City of Lawrence Code and any amendments hereafter related to environs review.
6. Build upon historical character and foster diversity while meeting the goals of the *Horizon 2020 Comprehensive Plan* and the *East Lawrence Neighborhood Revitalization Plan*.

FIGURE 1: 8TH AND PENN NEIGHBORHOOD REDEVELOPMENT ZONE

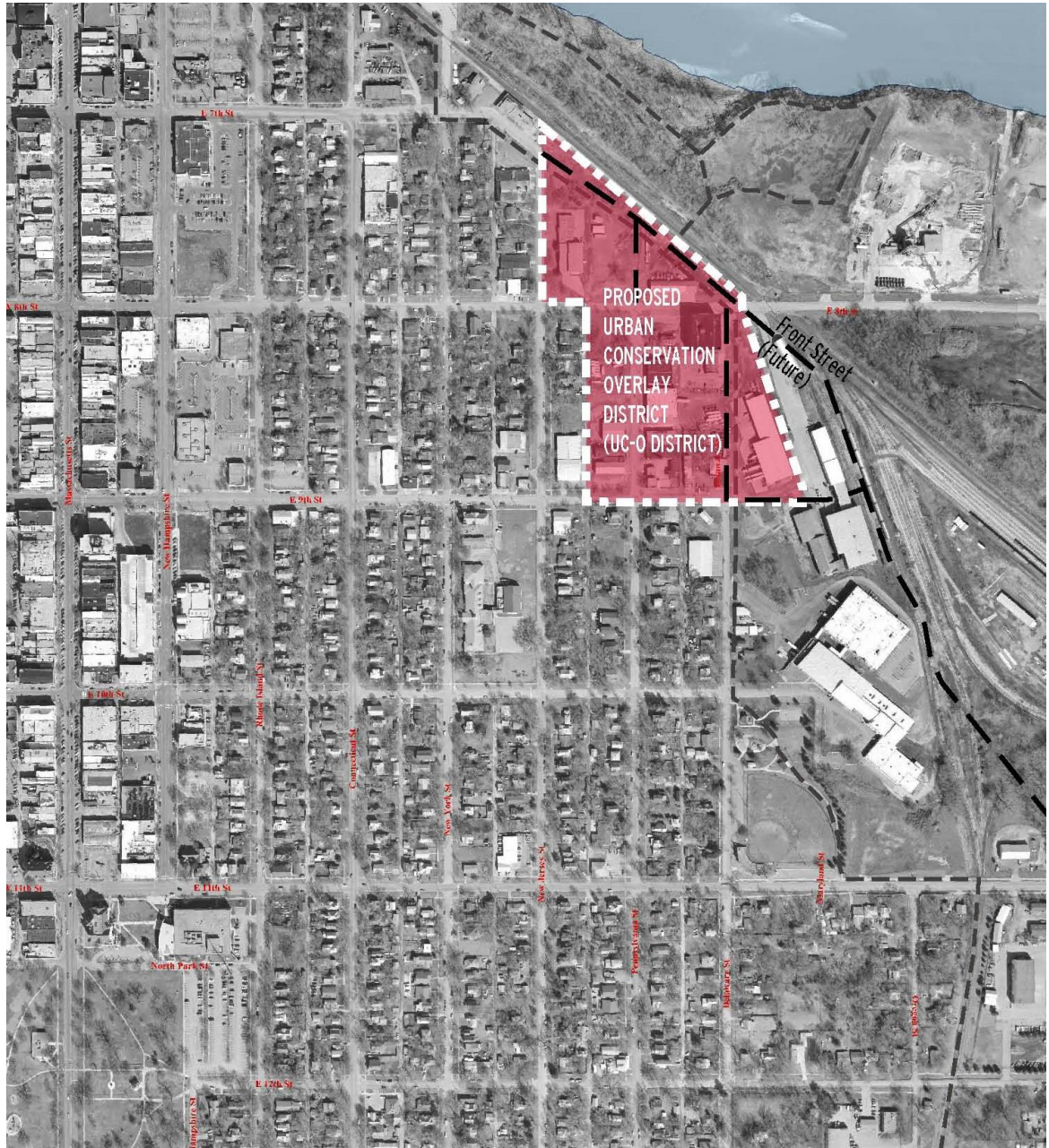
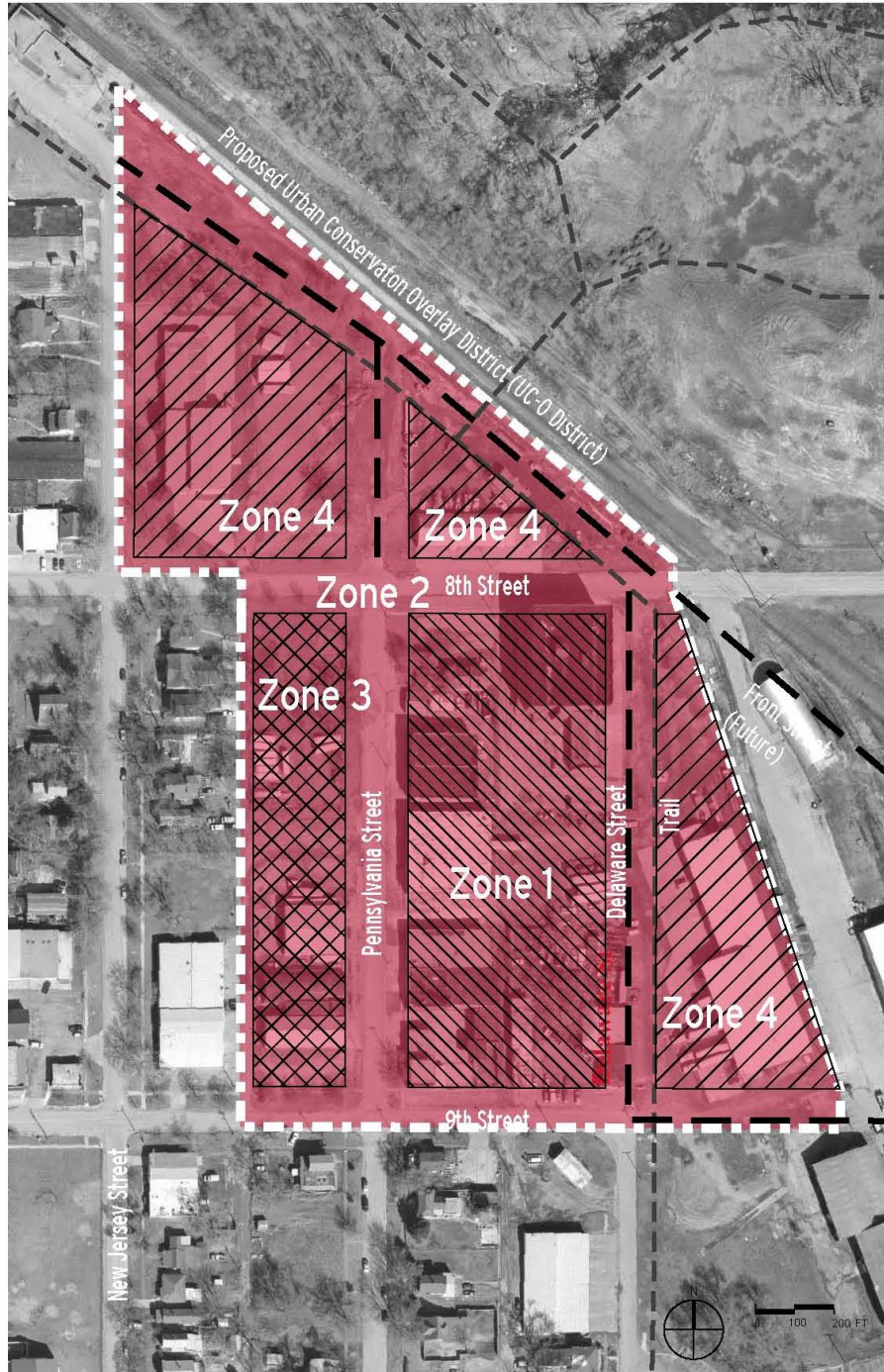


FIGURE 2: 8TH AND PENN NEIGHBORHOOD REDEVELOPMENT ZONE (ENLARGED)



ENVIRONS OVERVIEW

The first step in creating an attractive, cohesive sense of place that reflects the historic heterogeneous land uses in the 8th and Penn Neighborhood Redevelopment Zone is to identify character-defining elements and patterns created by these elements that currently provide a sense of place and identity. An analysis of the historic land use and the existing built environment revealed four (4) zones, each with distinctive history and appearance.

ZONE 1: HISTORIC DISTRICT

The centerpiece of the redevelopment zone is the group of masonry manufacturing buildings bounded by East 8th Street on the north, Pennsylvania Street on the west, Delaware Street on the east, and East 9th Street on the south that is eligible for listing as a historic district in the National Register of Historic Places. These industrial buildings range from one story to four stories in height and date from the 1880's through the 1920s. The buildings are ideal candidates for rehabilitation into mixed adaptive uses that will allow them to retain the necessary level of historic architectural integrity to continue to contribute to an understanding of the historic district's associations with commerce and architecture in Lawrence. These buildings are eligible for participation in federal and state rehabilitation tax credit programs.

ZONE 2: STREETSCAPES AND ALLEYS

The redevelopment zone retains many of the elements that defined its historic streetscapes and alleyways. These features and spaces compose the grid of streets, alleys, and sidewalks, as well as the off-axis railroad right-of-way. The majority of the public right-of-way areas are the spaces and infrastructure between the buildings' façades on both sides of the streets and generally includes the following:

1. Pedestrian spaces between the buildings and street curbs, including landscaping, lighting fixtures, informational signage, pavement materials, and steps accessing residences and driveways to rear lots, alleyways, or off-street parking areas
2. The street which contains lanes of traffic, crosswalks, and vehicle parking adjacent to the curbs
3. Alleyways
4. Railroad right-of-way and associated alignment

Other than the railroad right-of-way features and spaces, these streetscape and alley features are a continuation of the City's traditional platted grid of street and alley systems of the neighborhoods to the south and west of the redevelopment zone. As a whole, this grid contains important historic character-defining spaces, structures, and materials. The retention of these features will contribute to a visual transition and linkage between the adjacent historic residential streetscapes and the new development in the redevelopment zone. At the same time, retention, restoration, and enhancement augment the character of the East Lawrence Industrial Historic District (Zone 1).

ZONE 3: 800 PENNSYLVANIA MIXED-USE ZONE

The streetscape and lots bordering the industrial/manufacturing zone in the block bounded by East 8th on the North, Pennsylvania Street on the east, the alley between Pennsylvania Street and New Jersey Street, and East 9th Street on the south was historically a residential street.³ The loss of its historic residential character is due to demolition and the expansion of commercial/industrial buildings westward. This zone is adjacent to two intact residential areas — one west of New Jersey Street and one south of East 9th Street — that are part of the large East Lawrence historic residential neighborhood. Within Zone 3, there do not appear to be any historic buildings with sufficient integrity to communicate associations with the period of significance of the National Register East

³ The residential streetscape is intact in the Sanborn Fire Insurance Company map of 1927, a date that generally coincides with the end of the period of significance of the National Register East Lawrence Industrial Historic District.

Lawrence Industrial Historic District that comprises Zone 1 or with the residential resources on New Jersey Street. Zone 3 has the potential to become a transition zone between the existing single-family residential neighborhoods on the boundary of the redevelopment zone to the new commercial and residential uses planned in the redevelopment zone. In particular, this zone is ideal for development into higher density residential and limited commercial uses.

ZONE 4: EXISTING AND NEW CONSTRUCTION ZONE

This zone is composed of several irregularly shaped parcels that are adjacent to the railroad right-of-way and have traditionally served as areas for light manufacturing, storage, and railroad-related activities. Open space and temporary and permanent storage and manufacturing facilities defined these areas historically. Most of the buildings were large facilities of one to two stories in height aligned to both the historic street grid and the railroad's diagonal right-of-way and associated infrastructure. The infrastructure of this zone is industrial, featuring random curbing and no sidewalks. Within Zone 4, there do not appear to be any historic buildings dating to the period of significance of the buildings found in Zone 1 or to the residential enclave to the west. There are, however, buildings that are more than fifty years of age. Among them are Quonset Hut buildings dating to the World War II period and erected for industrial purposes. These areas within Zone 4 provide opportunities for new types of development that would retain open spaces and enhance the visual connection to the railroad right-of-way.

FIGURE 3: ZONE OVERVIEW



LAND USE PLAN

ZONING: LAND USE AND DEVELOPMENT STANDARDS

As stated in the *East Lawrence Neighborhood Revitalization Plan*, the unique character of the East Lawrence residential neighborhood is, in part, the coexistence of commercial, manufacturing and residential uses of land. In other words, this neighborhood has traditionally been a mixed-use community. Redevelopment and new development within the East Lawrence neighborhood should respect and expand this mixed-use tradition. The redevelopment concept for the 8th and Penn Neighborhood Redevelopment Zone proposes to do that through creating a horizontal and vertical mixture of land uses including residential, professional offices, inner-neighborhood commercial uses, and retail operations. Unfortunately at this time the Lawrence Zoning Code provides limited means and districts that provide for this type of development. Currently the only feasible way under the Lawrence Code to develop a mixed-use project in the 8th and Penn Neighborhood Redevelopment Zone is through a two-step procedure, including 1) the property in question must be rezoned to a base zoning district that controls the land uses within the district and 2) an Urban Conservation Overlay District (“UC-O District”) must be created that will control the design and development standards of the district.

LAND USE ALLOCATION

As the impetus to rezone the property and create a UC-O District for the 8th and Penn Neighborhood Redevelopment Zone is premised on creating a vital mixed-used neighborhood, it is important that restrictions be crafted that insure this vision comes to light. Namely, neither the Developer, City, nor the East Lawrence Neighborhood Association, desires this property to be developed for “big box” retail uses or as an area that is principally retail in use.

As such, retail uses shall be limited to a maximum of 25% of the net floor area for the UC-O District (See Appendix B). In addition, as the Poehler Mercantile Company building is to serve as the anchor and focus of the UC-O District, in no case shall a single retail shop or tenant occupy net floor area in excess of 16,000 square feet at ground floor level. A single retail shop or tenant may occupy in excess of 16,000 if they occupy multiple floors.

As currently drafted, the City of Lawrence Code provides limited zoning districts in which mixed-use development, including residential, professional offices, inner neighborhood commercial uses, and retail operations, may occur. Of these available districts, the City of Lawrence planning staff determined C-5, limited commercial district, the most appropriate zoning district for the 8th and Pennsylvania Neighborhood Redevelopment. While C-5 is the appropriate zoning for this redevelopment, this does not currently comply with *Horizon 2020*. As a result, there is currently a text amendment submitted to correct this omission. As such, Zones 1, 2 and 3 will be rezoned to a C-5 zoning district. This underlying base zoning will control the use of land, buildings, and structures within Zones 1, 2, 3 and 4.

2011 Update – The planning documents noted in the preceding paragraph were updated either during or after adoption of the guidelines. Zoning was modified to the Commercial Strip district (CS) and *Horizon 2020* was amended to support the development.

DESIGN AND DEVELOPMENT STANDARDS

Mixed-use development cannot easily meet the requirements of traditional zoning districts. Successful mixed-use development can only thrive in areas that not only allow for the mixture of land uses, but also allow development of adequate density so that “critical mass” may be achieved. The development standards found in traditional zoning districts are antithetical to creating this critical mass. Development standards that were drafted on the premise of low-density development that segregates and buffers differing land uses from each other through lot size regulations, large setbacks, height and density regulations, and parking minimums limit the development of mixed-use projects. The Lawrence Code recognized this problem and has provided a solution – the UC-O District. A UC-O District allows the City and a developer to tailor the development standards applicable to an area so that

mixed-use development of appropriate size, orientation, and setting can be built within a neighborhood or area. The Lawrence Code provides that upon creation of a UC-O District the specific development and design standards approved by the Historic Resource Committee, the City Commission and City Planning will guide development and redevelopment within the district. The Lawrence Code further provides that when development and design standards of the underlying base zoning district conflict with the development and design standards of the UC-O District, the standards of the UC-O District will govern.

The following development standards shall apply to any new development within this UC-O District:

LOT AREA AND YARD REGULATIONS

Standard	CS	IG	8 th & Penn UC-O
Min. Site Area	-	5,000 sq.ft.	NA
Max. Site Area	-	-	NA
Min. Lot Area (sq. ft.)	5,000 [5]	5,000	1872
Min. Lot Width (ft.)	100 [5]	50	16'
Front [9]	25 [5]	[1]	NONE
Side (Exterior) [2] [9]	[3]/20 [5]	[1]	NONE
Side (Interior-adj. R) [9]	10 [5]	[1]	NONE
Side (Interior-adj. Non-R)	0	[1]	NONE
Rear [4] [9]	20/25 [5]	[1]	NONE
Max. Front Setback	NA	NA	15'
Max. Lot Coverage (%)	80 [5]	85[5]	NA
Max. Impervious Lot Cover (%)	80 [5]	75[5]	NA
Area (sq. ft.)	50[5]	-	NA
Dimensions (ft.)	5[5]	-	NA
Max. Height (ft.)	35 [5]	75	NA
Abutting Street Right -of-Way			
Across from R District	NA	50'	NA
Across from Non-R District	NA	25 / 50**	NA
Abutting Other Lot Lines			
Abutting R District	NA	50'	NA
Abutting Non-R District	NA	15'	NA

**Arterial / Collector

This table (taken from the City of Lawrence Land Development Code 20-601) illustrates the difference in allowable setbacks between a typical C-S development, and development in the 8th and Penn UC-O District.

The elimination of the lot size and setback requirement allows development to obtain an urban density, similar to the commercial nature of historic zone 1, and promotes the creation of a defined street edge. Large setbacks and lot sizes are not conducive to the pedestrian friendly environment appropriate to this location. In the case of setbacks, it should be noted that during the site plan review process the City Planning staff may deem setbacks necessary to mitigate impacts.

BUILDING HEIGHT

The historic Poehler Mercantile Company building will serve as a visual anchor and reference point for the UC-O District. In keeping with the history of the area, the Poehler building is to remain the tallest structure in the District. Rooftop appurtenances, such as cellular and radio antenna, chimneys, mechanical equipment and screening, etc. shall be limited to a height not to exceed 10'-0" above the tallest point of the existing roof of the building.

To achieve that goal, all other buildings and structures, including stand-alone cellular towers, within the UC-O District shall have a maximum of three stories and 40'-0" above grade. Rooftop appurtenances, such as cellular and radio antenna, chimneys, mechanical equipment and screening, etc. shall be limited to a height not to exceed 50'-0" above grade. However, if the property in Zone 3 is developed with at least 75% of the residential units being affordable, with affordability being determined by the funding source requirements used to create the affordable units (if multiple sources are used, the most stringent funding requirements shall be used) the buildings in Zone 3 shall have a maximum of four stories and the building height in Zone 3 shall not exceed 48 feet. Rooftop appurtenances, such as elevator shafts, cellular and radio antenna, chimneys, mechanical equipment and screening, shall not exceed 10 feet above the tallest point of the roof of the building. The height permitted with any development will be determined based on the building design and the compatibility with the massing and scale of other development in the area.

DENSITY

Mixed-use development requires adequate residential density so that critical mass may be achieved. As such, and except for the Poehler Mercantile Company building itself, and the properties in Zone 3, the dwelling unit density shall not exceed thirty-four (34) units per net residential acre, as defined in the City of Lawrence Code Section 20-1007, or subsequent applicable City standards. Thirty-Four (34) units per acre were derived from the square footage of the Poehler Building divided by the number of residential units it is designed to hold if it were developed with a mix of uses. This number was compared to, and is lower than, the thirty-five (35) units per residential acre allowed in Lawrence Code for Planned Commercial Developments, Section 20-1008. Because the Poehler Building may develop solely with residential uses, the density for the Poehler building shall be unlimited and regulated by the number of parking spaces provided to support its residential use. When property in Zone 3 is developed with at least 75% of the residential units being affordable, with affordability being determined by the funding source requirements used to create the affordable units (if multiple sources are used, the most stringent funding requirements shall be used) the dwelling unit density may exceed the 34 dwelling unit per acre limit but shall not exceed a maximum density of fifty-nine (59) dwelling units per net residential acre.

BUILDING SETBACK

The minimum setback from right-of-way, property, or lot lines allowed in the UC-O District is zero (0). The maximum front yard setback from right-of-way, property lines, or lot lines allowed in the UC-O District is 15'-0". New development that is roughly coplanar with adjacent buildings and structures is encouraged.

In Zone 4, parking lots or primary buildings shall have a zero foot set back.

PARKING

Parking in the 8th and Penn Neighborhood Redevelopment Zone will be designed to reflect the desired mixed-use pedestrian scale character of the Redevelopment Zone. One of the virtues of a mixed-use development is that parking areas can be shared by different users at different times. For example, a residential parking space could be used by an office user while the home owner is away during working hours. This results in a neighborhood that is active, more comfortable for the pedestrian, and better for the environment. The mix of uses proposed in the 8th and Penn Neighborhood Redevelopment Zone allows for a reduction in the parking requirements, typical for zoning districts and land uses more closely associated with heavy vehicular traffic. This reduction creates a more pedestrian friendly district as the residents will not have to cross large expanses of parking to reach their destination. In addition, this will be more environmentally sensitive due to the reduction of heat islands and light pollution commonly caused by large, open parking lots.

Parking density for office/retail/commercial property shall consist of one (1) on- or off-street parking stall for every five hundred (500) square feet of floor area, or one (1) space for each 1.5 employees, whichever is larger. For food related uses, the requirement shall be 1 space per 250 square feet of space. This is consistent with the 1966 City of Lawrence Code for parking, Group 17. Accessible parking stalls will be provided in accordance with the Americans with Disabilities Act Accessibility Guidelines (ADAAG). It is estimated that there will be 46,500 square feet of retail space and 24,500 square feet of office space for an estimated parking requirement of 348 spaces.

Parking density for residential property shall consist of one (1) on- or off-street parking stall for every residential unit. For units with 2 bedrooms or more, 2 spaces per unit. This is consistent with the 1966 City of Lawrence Code for parking, Group 2-F. Accessible parking stalls will be provided in accordance with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Parking lots shall be setback from the lot line a minimum of three (3) feet to provide room for a vegetated buffer or other type of approved screening. Existing parking in historic Zone 1, and alley ways in all zones, shall be exempt from these requirements.

All off-street parking areas in Zones 3 and 4, and those containing five or more vehicles, shall be effectively screened on each side that adjoins or is across the street from any residential district with a view-reducing barrier. This barrier shall be at least three feet but not more than six feet in height.

Parking lot lighting shall be consistent with section 20-14A03 of the Lawrence Zoning Guidelines, or subsequent applicable City standards, and is discussed further on page 18, in the Lighting section of the Design Guidelines. In order to limit lighting impacts on adjacent residential properties, low bollard lighting will be utilized in parking areas adjacent to these properties in lieu of standard pole lighting.

DESIGN GUIDELINES

In addition to the development standards above, the following design guidelines are proposed to preserve the existing character-defining elements through rehabilitation and to enhance the surrounding areas with compatible new construction that capitalizes on the heterogeneous nature of the zone while also creating a cohesive entity that visually links with the adjacent neighborhoods. Thus, the purpose of these guidelines is to sensitively mediate the forces of change, create an opportunity for architectural innovation and problem solving, and enhance the existing neighborhood fabric. Given the varied nature of the project area, the chosen approach is to apply the Secretary of the Interior's Standards for Rehabilitation where applicable to each of the zones identified in the environs review.

Based on over 120 years of evolving preservation methodology involving the identification, evaluation, and protection of historic and cultural resources in Europe and America, "The Secretary of the Interior's Standards for

the Treatment of Historic Properties” provides a set of common-sense principles to encourage consistent preservation practices. The Secretary’s Standards for Rehabilitation may be applied to adaptive use of historic buildings, sites, structures, objects, districts, and cultural landscapes as well as to new construction and alterations affecting historic buildings as well as the environs of historic resources.

THE SECRETARY OF THE INTERIOR’S STANDARDS FOR REHABILITATION OF HISTORIC PROPERTIES

1. A (historic) property shall be used for its historic purpose or shall be placed in a new use that requires minimal changes to the defining characteristics of the building and its site and environment. (Applicable to Zone 1)
2. The historic character of a property will be retained and preserved. The removal of historic materials or alterations of features and spaces that characterize a property will be avoided. (Applicable to Zones 1 and 2)
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings shall not be undertaken. (Applicable to Zones 1, 2, 3 and 4)
4. Most properties change over time: those changes that have acquired historic significance in their own right shall be retained and preserved. (Applicable to Zones 1 and 2)
5. Distinctive features, finishes, and construction techniques that are examples of craftsmanship that characterize a property shall be preserved. (Applicable to Zones 1 and 2)
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, the visual qualities and, where possible, materials. Replacement of missing features shall be sustained by documentary, physical, or pictorial evidence. (Applicable to Zone 1)
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible. (Applicable to Zone 1)
8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken. (Applicable to Zones 1, 2, 3 and 4)
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing size, scale, and architectural features to protect the historic integrity of the property and its environment. (Applicable in varying degrees to Zones 1, 2, 3 and 4)
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired. (Applicable to Zone 1)

APPLICATION OF DESIGN GUIDELINES

Design guidelines serve as a communication tool in educating property owners and developers as to the community expectations for new construction and renovations of existing buildings. They will also serve as a guide for local, state, and national staff in reviewing various types of applications for alterations prior to the issuance of permits, as well as for utilizing incentives such as the federal and state rehabilitation tax credits. Given the architectural variety, multiple uses, and anticipated development over an extended period of time, the review of proposed alterations and new construction in the 8th and Penn Neighborhood Redevelopment Zone will be conducted on a case-by-case basis.

These guidelines are not meant to serve as a checklist for “good” design. Nor are they meant to be applied in such a stringent manner as to prevent creative design alternatives. However, it is the intent of these guidelines to provide guidance to the regulatory authorities to ensure that new construction and renovation is consistent with the character-defining elements identified in the guidelines.

REVIEW PRINCIPLES

The guidelines shall apply only to the exterior of buildings and to portions of existing and proposed buildings visible from the pedestrian level from public rights-of-way, including alleyways.

Existing buildings will be identified as “contributing” or “non-contributing” to the East Lawrence Industrial Historic District, as part of the National Register Listing. Contributing buildings should be more carefully reviewed than those buildings that have been identified as non-contributing to the National Register East Lawrence Industrial Historic District.

While economic costs are not a primary factor in the review process, cost will be considered in relation to the adherence of these guidelines.

It is not the intent of these guidelines to require existing buildings, structures, and sites to be in full compliance with these guidelines. Existing buildings that contain non-conforming elements are encouraged to make alterations that will improve the overall appearance of the building. As non-conforming buildings are altered, the proposed alterations shall be in compliance with these guidelines.

City staff will use these guidelines to review proposed projects in a consistent, fair, and equitable manner. If staff believes a proposed project does not meet the intent of the guidelines, the applicant may appeal first to the Historic Resources Commission, and, if necessary, to the City Commission. All new development, or redevelopment, within the UC-O District, shall require a site plan application and, when applicable, replat and/or rezone applications. Historic Resources Commission, Planning Commission, and City Commission review shall be required, when applicable, along with the standard site plan review. In addition to the typical documents required for submission during Site Plan Review, the submitter will also include any and all revisions to Appendix B of this document.

GENERAL GUIDELINES

NEIGHBORHOOD CONTEXT

The *East Lawrence Neighborhood Revitalization Plan* addresses a geographical area of diverse land uses and neighborhoods and includes the 8th and Penn Neighborhood Redevelopment Zone. The Plan’s goal is the revitalization and rehabilitation of its historic resources, as well as strengthening East Lawrence’s attractiveness and its diversity. These UC-O District guidelines enhance and further refine the general design guidelines and principles of the *East Lawrence Neighborhood Revitalization Plan*.

STORMWATER

The guiding principles for water quantity and quality goals include:

1. Preserve existing significant natural features
2. Maximize infiltration and minimize imperviousness
3. Select Best Management Practice that favor sheet flow and on-site infiltration of storm water versus piping or channeling
4. Apply “soft-engineered” solutions of plants, swales, and topographic depressions versus “hard-engineered” solutions of concrete channels, curb inlets and storm sewers
5. Utilize native plant species that are adapted to the microclimate of their proposed site placement
6. Incorporate Best Management Practice into the proposed architecture (e.g., water cisterns, pervious parking, roof water collection)

LINKAGES

Pedestrian linkages shall be accessible to people with disabilities. Pedestrian linkages should offer a variety of visual and textural stimuli, should provide locations for rest and some relief from sun, wind, rain and snow, and should be designed for safety in terms of slopes, materials, and visibility. Pedestrian linkages should incorporate some distinctive materials or landscaping in common to help create a visually coherent space and to help connect it to surrounding areas.



An effective pedestrian linkage that is accessible, safe, and interesting

PARKING

In general, surface parking lots should be located at the rear or sides of structures. Larger surface lots should be subdivided with landscaped islands that include trees. Pedestrian walkways adjacent to parking and driveways should be visually and spatially separated through the use of additional site elements, which could include bollards, lighting, landscaping, and special pavement treatments. In order to maintain the historic and industrial integrity of the area, some interior landscaping should be provided. However, surface parking areas shall not be required to meet the landscaping provisions set forth in 20-14A04.6, 20-1205, and 20-1217 of the City of Lawrence Zoning Code, or subsequent applicable City standards.

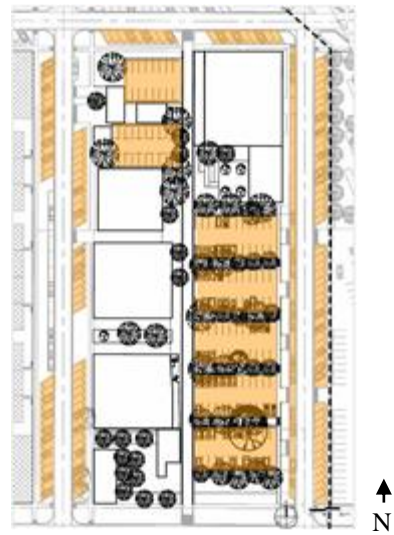
Gravel parking and pervious paving should be designed to let water infiltrate and be temporarily stored below the surface to reduce or eliminate runoff and allow the surface to be used for parking or pedestrian traffic. This environmental method of surface water run-off control reduces the amount of contaminants exiting the site by

allowing the water to permeate the ground surface. This reduction in site run-off, in turn, decreases the amount of contaminants leaving the site and entering into the city stormwater system or nearby river.

Unless otherwise noted, all parking lot sizes, drive lanes, accessible stall counts, and other design features shall be consistent with the City of Lawrence Code, Section 20-1205, or subsequent applicable City standards.



Example of Parking (recommended) – vegetated islands improve lot appearance.



Example of Parking Strategy – small lots at the rear or side of structures, and landscaped planters divide larger parking areas.



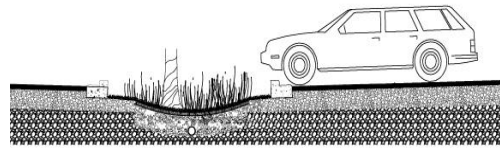
Example of street parking (recommended)



Example of compacted gravel system



Example of bio-swale



Site Section at parking with bio-swale

LIGHTING

The lighting should consist of artificial sources of illumination, particularly street lighting, pedestrian-level lighting, and lighting of signs and architectural features. The intent of the lighting plan will be to:

1. Enable people within a development zone or passing by to see well enough to find their destinations and to conduct their activities safely
2. Enliven and set the overall mood of a development zone
3. Increase the sense of security without negatively impacting surrounding residences

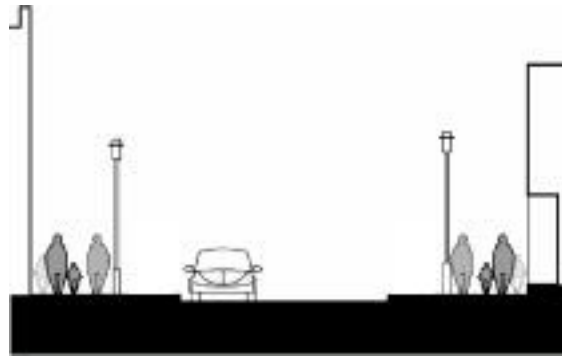
This will be addressed on three levels within the described zones:

1. Street and parking lighting (described in Zone 2)
2. Pedestrian lighting (described in Zone 3)
3. Building lighting (described in Zones 1 & 4)

Lighting should reflect the historic industrial/residential use, but provide sufficient illumination to promote health and safety and attract and accommodate pedestrian traffic. In order to limit lighting impacts on adjacent residential properties, low bollard lighting will be utilized in parking areas adjacent to these properties in lieu of standard pole lighting. Light fixtures shall be simple contemporary designs with no references to a particular historic era, and should be consistent throughout the redevelopment zone. All exterior fixtures will be fully shielded, include non-reflective, non-swivel heads mounted at a 45 degree angle, and be confined to net acreage.



Streetlights with zero up light



Site Section through street

SIDEWALK DINING AREAS

Creation of sidewalk dining areas shall be in accordance with the City of Lawrence “Guidelines for Sidewalk Dining Areas” as revised and approved in 2005. Placement of sidewalk dining areas shall be such that they do not restrict egress to and from building or public right-of-way.

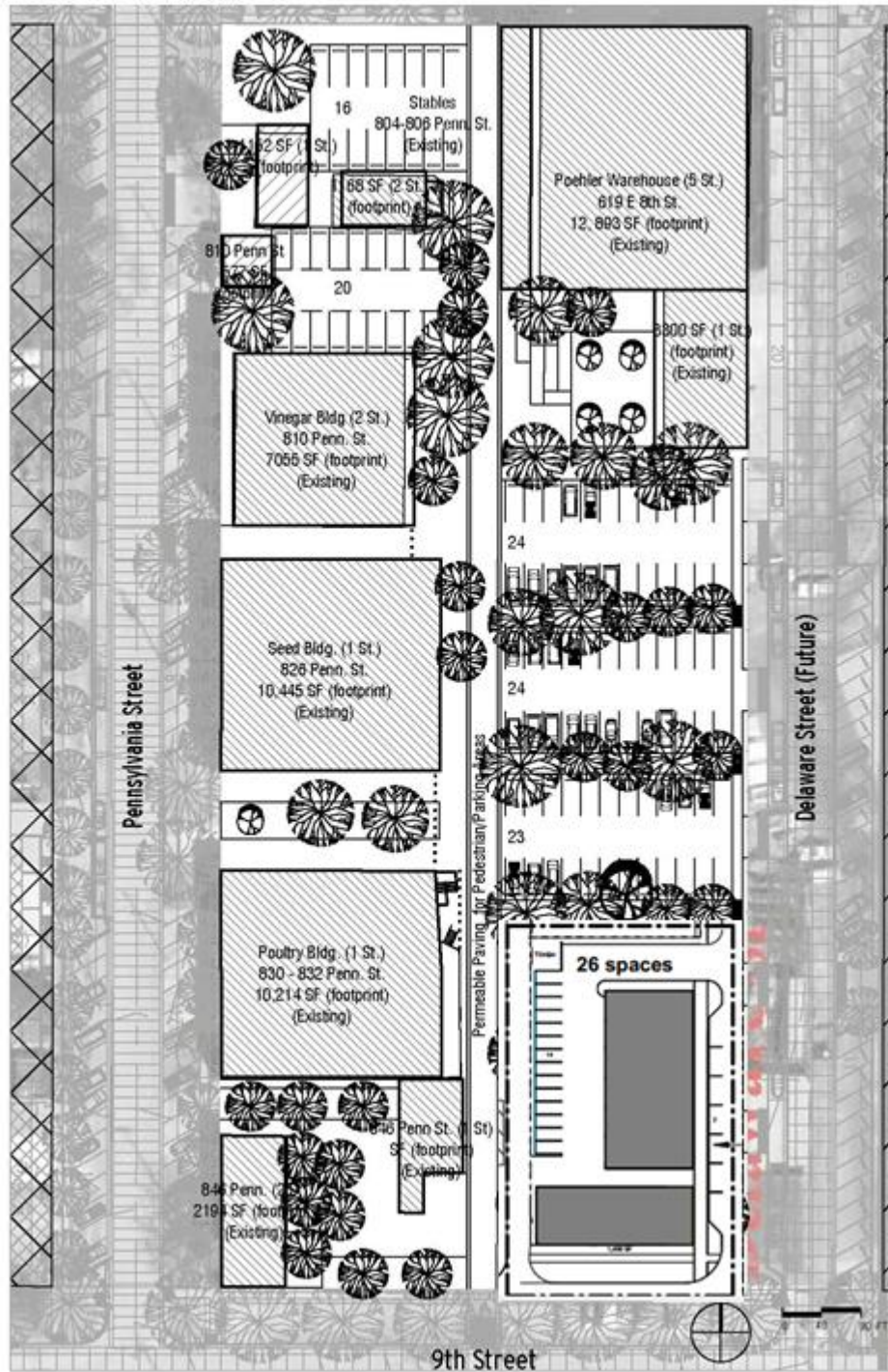
DEMOLITION

Demolition should be the result of a holistic planning and development process. Properties listed in the National Register of Historic Places, the Register of Historic Kansas Places, or the Lawrence Register of Historic Places are subject to additional review as required by KSA 75-2724 and/or Chapter 22, Code of the City of Lawrence. Moreover, demolition of properties within the environs of listed properties is also subject to review. Historic tax credit programs include the anticipated demolition as part of the compliance review process. Federal agencies must consider the impact of demolition on project undertakings as well.

Any demolition request not related to public safety shall be accompanied by additional documentation indicating the existing condition of the building and the proposed use for the site. Documentation shall include proposed elevations and an explanation of why it is not feasible to use the existing structure/building.

Demolition permits shall be reviewed by the Historic Resource Commission. If the permit is denied by the Historic Resource Commission, it may be appealed to the City Commission.

FIGURE 4: ZONE 1 HISTORIC DISTRICT — RECOMMENDED SITE IMPROVEMENTS



LAND USE PLAN

ZONE 1: HISTORIC DISTRICT

NEIGHBORHOOD CONTEXT

The boundaries of Zone 1 coincide with the boundaries of the National Register East Lawrence Industrial Historic District, correspond to the lot lines, and do not include the sidewalks, verges, and curbs that are included in Zone 2. The commercial/industrial buildings and spaces in Zone 1 determine both the functional and visual character of the 8th and Penn Neighborhood Redevelopment Area. Dating from the 1870s through the 1920s, they include examples of detached industrial buildings from almost every decade of the late nineteenth century through the onset of the Great Depression in the twentieth century. The goal in rehabilitating these buildings and structures is to preserve or recapture the original character of the buildings and their setting by adapting proposed changes to the building's character-defining features.

ARCHITECTURAL CHARACTERISTICS AND MATERIALS

ROOF SYSTEMS

A weather-tight roof is basic to the preservation of a building or structure. Because of the historic/commercial industrial character of Zone 1, the roof forms and materials associated with a building's historic use is very important. In Zone 1, the building function and form dictated the roof form and the desire for a fireproof building determined the choice of materials.

The roof forms found in Zone 1 include flat roofs, gable roofs, and shed roofs. Based on the existing building roofs and historic photographs, historic building materials and treatments included built-up composition roofs as well as sheet metal, galvanized iron, corrugated metal, and standing seam metal roofs. Historically, sheet metals (lead, copper, zinc, tin plate, and terne plate [iron dipped in an alloy of lead and tin]) and galvanized iron were common roofing materials in commercial/industrial areas and are appropriate substitute materials when the original is unknown or in new construction within Zone 1.

Although the coping on parapet walls is part of a masonry feature, it is often considered in the discussion of roofing materials. Terra-cotta and clay coping historically occurred in Zone 1. There is no evidence of the use of stone or metal coping.

If the roof is flat and is not visible from the public right-of-way, there are economic and physical advantages to substituting a built-up composition roof or other modern roofing system for what might have been a flat metal roof. If the roof is visible, substitute materials should match as closely as possible the scale, texture, and coloration of the historic roofing material, if known. If unknown, lead-coated copper, terne-coated steel, and aluminum/zinc-coated steel can successfully replace tin, terne plate, zinc, or lead roofing materials. Wood, tile, and slate roofing material are not appropriate. Terra-cotta and clay tile coping continue to be the appropriate materials for coping.



Roof Types in Zone 1

Recommended

Examining and determining the composition of the existing roof and any evidence of the earlier roof. Consulting with an architect, engineer, or roofing professional to understand the scope and detailing of the roof project and ensuring proper supervision of roofers and/or maintenance personnel.

Retaining the shape, materials, and colors of the original roof that are visible from the public right-of-way. Maintaining architectural details such as cresting, parapets, and cornices.

Replacing roof materials with similar materials that reflect the scale and texture of the traditional roof materials when they are visible from the public right-of-way.

Designing and constructing a new roof feature using visual documentation when a historic feature is completely missing. Using a new design for a missing historic feature that is compatible with the size, scale, material, and color of the building.

Installing mechanical and service equipment such as air conditioning, transformers, or solar collectors on the roof so that they are inconspicuous from the public right-of-way and do not damage or obscure important building features.

Patching roof leaks with materials similar to those of the roof construction.

Retaining the original roofline and parapet features

Resurfacing of flat/built-up roofing materials

Not Recommended

Hiring a roofing contractor without receiving a preliminary analysis of the existing conditions and scope-of-work by other professionals.

When repairing or replacing a roof, avoid using new roof forms, materials, colors, or elements that are visible from the public right-of-way.

Creating a false historical appearance or introducing a new roof feature that is incompatible in size, scale, material, or color.

Installing mechanical or service equipment so that it damages the building elements or obscures important building features.

Patching roof leaks with caulks or sealants as a means of long-term repair.



Because of the simple industrial design, the parapet and cornice treatment at the roofline are often one of the most important architectural elements of industrial buildings.

See also: Technical Preservation Services, Heritage Preservation Services Division, National Park Service *Preservation Brief 4: Roofing for Historic Buildings*.

CONCRETE



Existing concrete – Zone 1

Different types of concrete are found in Zone 1. Unreinforced concrete is a composite material containing aggregates (sand, gravel, crushed shell, or rock) held together by a cement combined with water to form a pliant mass that hardens as the concrete dries out (“cures”). Reinforced concrete is concrete strengthened by the inclusion of metal bars. Both unreinforced and reinforced concrete can be cast-in-place or precast. Cast-in-place concrete is poured on site into a formwork that is removed after the concrete sets. Precast concrete is molded off site into building components.

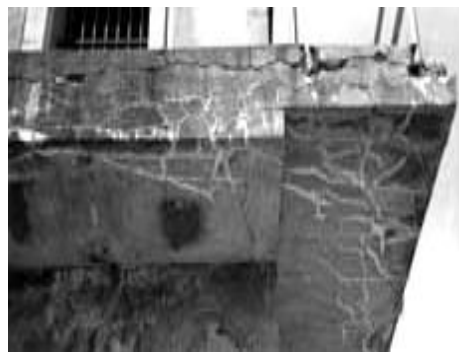
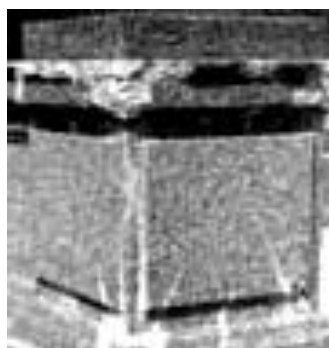
In Zone 1, concrete appears in foundations, supporting columns, sidewalks and driveways, curbing, loading docks, elevated exterior walkways, stair systems, and window sills.



Existing concrete – Zone 1

The condition of the historic concrete elements found in Zone 1 reflects a wide range of conditions.

1. **Cracking** occurs over time in virtually all concrete. Cracks can be either active or inactive. Active cracks widen, deepen, or expand through the concrete. Dormant cracks remain unchanged. Some dormant cracks pose no danger to the stability of the concrete element; however, cracks of any type provide channels for moisture penetration, which usually causes further damage.
2. **Erosion** is the weathering of the concrete surface by weather and environmental pollutants.
3. **Corrosion**, caused by the rusting of the reinforcing bars in concrete, can be a serious problem. Rust, which occupies significantly more space than the original metal, causes expansive forces within the concrete, initiating cracking and spalling. Loss of concrete diminishes the load-carrying capacity of the concrete structure.
4. **Spalling**, which is the loss of surface material in patches of varying size, is caused by a number of conditions including moisture penetration.
5. **Deflection**, which is the bending or sagging of concrete beams, columns, joists, or slabs, can seriously affect both the strength and structural soundness of concrete.



Common conditions of historic concrete – spalling (left) and cracking (right)

Recommended

Undertaking repairs only after the completion of planning and analysis by a structural engineer or architect.

Filling in cracks with new material that matches the historic material. Using patching materials that are compatible with the existing concrete as well as with subsequent surface treatments such as paint or stucco.

If replacement is necessary, removing loose, deteriorated concrete and cutting damaged concrete back to remove the source of deterioration. Removing rust from exposed rebar with a wire brush or sandblasting and coating with an epoxy. Installing a compatible patch that dovetails into the existing sound concrete so that it will bond satisfactorily with and match the original concrete.

See also: Technical Preservation Services, Heritage Preservation Services Division, National Park Service *Preservation Brief 15: Preservation of Historic Concrete: Problems and General Approaches*.

Not Recommended

Using temporary solutions that can expose a building to further and more serious deterioration.

Patching hairline cracks. Patching concrete without removing the source of deterioration.

BRICK AND STONE MASONRY

The masonry features found in Zone 1 include brick, stone, and combinations thereof. Other than the painted sign on the Poehler Building and portions of the façade on 804 Pennsylvania, all exterior masonry surfaces are unpainted.



Existing brick and stone masonry – Zone 1



Recommended

Retaining and preserving masonry features that are important in defining the overall character of a building such as walls, brackets, cornices, window surrounds, door surrounds, steps, columns, and details.

Providing proper drainage so that water does not stand or accumulate on masonry surfaces.

Cleaning masonry only when necessary to halt deterioration or to remove graffiti or bad stains with the gentlest method possible, such as using low-pressure water (<400 psi), mild detergents, and natural bristle brushes. Conducting masonry surface cleaning tests when cleaning is necessary. Observing tests over a sufficient period of time so that both immediate and long-term effects are known, enabling selection of the gentlest method possible.

Repairing cracks or missing bricks to prevent water infiltration and further damage. Removing only deteriorated portions of brick in such a way as to avoid destroying adjacent masonry.

Applying new mortar with the same strength, color, and texture as the original mortar. Testing the original mortar to determine its original composition.

Applying new mortar so that the joints match the original joints in width and profile.

Not Recommended

Removing or radically changing important masonry features. Applying paint or other coatings for purely cosmetic purposes to surfaces that were originally unpainted or uncoated.

Failing to treat causes of mortar joint deterioration such as leaking roofs or gutters, settling of the building, capillary action, or extreme weather exposure.

Applying paint or other coatings to masonry that has been historically unpainted or uncoated.

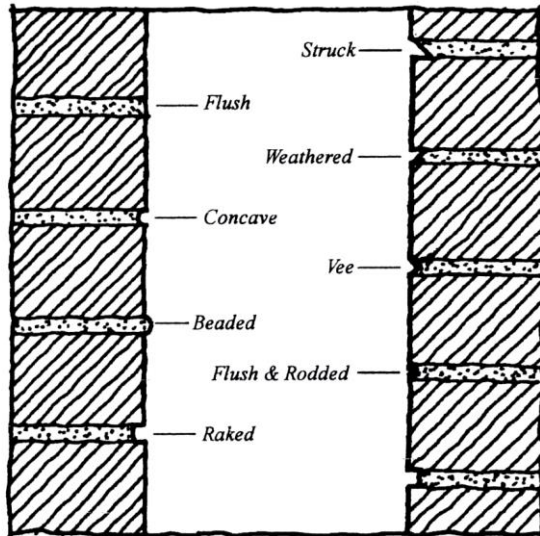
Cleaning masonry surfaces when they are not heavily soiled to create a new appearance and needlessly introducing chemicals or moisture into the original materials. Using abrasive or mechanical cleaning such as sandblasting that destroys the masonry. These methods allow water to penetrate the masonry and can result in severe damage to the brick or stone. Masonry damaged in this manner will deteriorate faster in the future. Cleaning masonry surfaces without conducting surface cleaning tests or allowing sufficient time to evaluate the immediate and long-term effects of the cleaning method.

Removing mortar from sound joints, then repointing the entire building to achieve a uniform appearance.

Using ready-mix mortars that have a high Portland cement content that, because it is stronger than old brick, will cause shifting and cracks.

Covering existing masonry with siding.

Recommended



New mortar should be applied so that the new joints match the original in width and profile

Applying surface treatments such as “breathable” water-repellent coatings to masonry only after re-pointing and only if masonry repairs have failed to arrest water penetration problems.

Repairing masonry by patching or piecing in.

Replacing the original material with the same material or a compatible substitute material.

Not Recommended

Applying waterproof or water repellent treatments as a substitute for masonry pointing and repairs. Covering brick or stone with stucco or non-porous coatings. Coatings often act as sealants that block the transfer of water.

Replacing an entire masonry feature when limited replacement is appropriate.

Using a substitute replacement material that does not match the original material.

Covering masonry walls with a non-synthetic cement stucco, synthetic stucco-like coating, or siding of any material.

Recommended

Leaving historic painted signage on masonry walls.

Cleaning masonry walls using the gentlest means possible.

Pressure cleaning historic brick or stone with water or water and a non-ionic detergent at a range of 100 to 400 psi from a

Not Recommended

Removing paint from buildings that were historically painted

Sandblasting, applying caustic solutions, and/or high-pressure water blasting.

distance of 3 to 12 inches after testing to find the least abrasive level.

Hand cleaning glazed architectural terra-cotta and tile coping with a natural bristle brush using non-ionic detergent and water.

Removing loose or deteriorated paint only to the next sound layer using the gentlest method possible prior to repainting.

Repairing causes of leaks, water infiltration, capillary action, and/or condensation

Using vapor permeable water-repellent coatings in selected areas only after a reasonable period of time has passed since a building has been made watertight and has dried out completely and only if moisture appears actually to be penetrating through the repointed and repaired masonry walls.

Using vapor permeable or “breathable” water-repellent coatings. Using waterproof coatings that seal the surface from liquid water and water vapor.

Cleaning masonry, when necessary to prevent biological growth, with low-pressure water (30 to 100 psi) and a natural- or synthetic-bristled scrub brush.

Removing graffiti as soon as possible by using non-abrasive chemical cleaners after careful testing.

Using anti-graffiti or barrier coatings.

REPLACEMENT OF MISSING MASONRY FEATURES



False brick “quoining” introduces design elements not found in the historic industrial district

Recommended

Designing and installing a new masonry feature such as steps or a door surround using accurate documentation of the appearance of the original feature. When there is no documentation of the original element, new designs should be compatible with the building in size, scale, material, and color.



Above: c. 1950 photograph of masonry openings and concrete docks, Barteldes Seed Company. Below: Current condition of the same entrance.

Not Recommended

Creating a false historical appearance by using historical treatments based on other buildings or conjecture. Introducing a new feature that is incompatible with the building in size, scale, material, and color.

See also: Technical Preservation Services, Heritage Preservation Services Division, National Park Service *Preservation Brief 1: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings*; *Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings*; *Preservation Brief 6: Dangers of Abrasive Cleaning to Historic Buildings*; *Preservation Brief 7: The Preservation of Historic Glazed Architectural Terra-Cotta*; *Preservation Brief 38: Removing Graffiti from Historic Masonry*; and *Preservation Brief 42: The Maintenance, Repair and Replacement of Historic Cast Stone*.

SIDING

No buildings in Zone 1 have siding

Recommended

Not Recommended

Covering the building's original wall materials with siding.

WOOD MATERIALS

Wood is used for structural members and flooring in some of the older buildings in Zone 1. It is also used in window and door framing, sashes, and in some soffit areas. It was seldom used for roofing shingles.

There are no wood roofs or siding in Zone 1. Wood appears in window frames and sashes; in pedestrian, garage, and loading dock doors; and as structural supports and flooring. All replacement elements should be in-kind. No synthetic materials should be used in new construction to replicate traditional wood features.

Recommended

Not Recommended

When damaged beyond repair, replacing all wood elements in-kind.

Replacing wood elements with synthetic materials.

Removing vegetation that grows too close to wood surfaces.

Keeping wood joinery adequately sealed, primed, and painted to avoid water penetration.

Priming all exposed wood surfaces before painting.

Providing proper drainage and ventilation to minimize rot.

Maintaining a slope on horizontal wood surfaces, such as entrance floors or sills, to ensure that water does not collect.

Recaulking joints where moisture might penetrate. Removing old caulk and dirt prior to recaulking.

See also: Technical Preservation Services, Heritage Preservation Services Division, National Park Service's *Preservation Brief 9: The Repair of Historic Wooden Windows* and *Preservation Brief #10: Exterior Paint Problems on Historic Woodwork*.

ARCHITECTURAL METAL FEATURES

In addition to the use of sheet metal as a roofing material as discussed in the Roofing section of these guidelines, galvanized iron, iron, and steel are also found in Zone 1. Historic and non-historic uses include fire escapes, lintels and loading dock door frames and dock edging, all of which were historically iron. Window frames and muntins utilized steel and galvanized iron. Downspouts were generally corrugated metal. Replacement should be in-kind in both contributing and non-contributing buildings and structures. New construction should use traditional materials.



Existing metal features – Zone 1

Recommended

Retaining and preserving architectural metal features that are important in defining the architectural character of a building.

Providing proper drainage so that water does not accumulate on surfaces.

Cleaning architectural metals to remove corrosion prior to repainting or applying other appropriate protective coatings. Identifying the type of metal prior to cleaning. Cleaning metals using the gentlest method possible as determined by research and/or testing. Applying an appropriate protective coating when necessary.

Not Recommended

Removing or radically changing important metal features. Removing a major part of the metal feature instead of repairing or replacing only the deteriorated metal. Removing metal features and then reconstructing the façade with new material in order to create an “improved” appearance.

Failing to treat the causes of corrosion, such as moisture from leaking roofs or gutters.

Using cleaning methods that alter or damage the color, texture, and/or finish of the metal. Removing the patina that a metal acquired over a period of time (the patina may be a protective coating on some metals).

Placing incompatible metals together without providing a reliable separation material to prevent galvanic corrosion. For example, copper corrodes cast iron, steel, tin, and aluminum. Exposing metals originally intended to be protected from the environment. Applying paint or other coatings to metals such as copper, bronze, aluminum, or stainless steel that were originally exposed.

Repairing metal features by patching, splicing, or otherwise reinforcing the metal. When damaged beyond repair, replacing the damaged portions with materials that match the original in size, scale, material, and color.

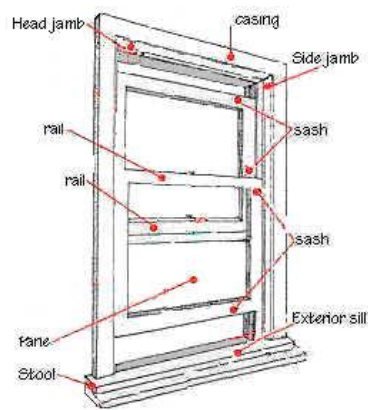
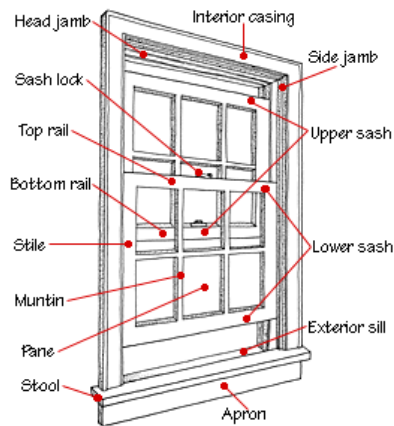
Replacing an entire feature when repair or replacement of only the damaged element is possible. Removing a metal feature that has irreparable damage and not replacing it. Replacing a metal feature with a new metal feature that does not have the same visual appearance as the original or introducing a new metal feature that is incompatible in size, scale, material, and color.

Reproducing in-kind a missing feature or when there is no documentation of the original feature, replacing the missing feature with a new design that is compatible with the size, scale, material, and color of the building.

See also: Technical Preservation Services, Heritage Preservation Services Division, National Park Service's *Preservation Brief 13: The Repair and Thermal Upgrading of Historic Steel Windows* and *Preservation Brief 27: The Maintenance and Repair of Architectural Cast Iron*.

WINDOWS

Serving as both an interior and exterior feature, windows are always a key element in the building's character. They reflect changes in technology and period of time. The historic functional and decorative features include frames, sashes, muntins, glazing, sills, heads, hood molds, moldings, and shutters. The dimensions and proportions of window parts greatly influence the overall appearance of the window. Lead abatement or thermal performance may be accomplished without the loss of historic windows and is not justification for replacement.



Typical window components found in late nineteenth and early twentieth century double-hung sash units

Both wood and metal windows occur in the buildings and structures in Zone 1 and have double-hung sash, casement, fixed pane, and awning units. When the design and materials of the original windows cannot be ascertained, wood, wood-clad metal and metal windows are compatible window materials for replacement windows and windows used in new construction. Synthetic materials, including vinyl windows, are not acceptable as replacement windows or as windows in new infill construction because of their inability to meet the traditional sash proportions due to their construction materials.

Recommended

Conducting an in-depth survey of the conditions of existing windows early in the rehabilitation planning process so that repair and upgrading methods and possible replacement options can be fully explored.

Retaining and repairing the original windows and their character-defining elements whenever possible. Repair may include incremental replacement of individual elements such as sills or sashes by patching, splicing, consolidating, or reinforcing with in-kind or compatible substitute materials.

Using low profile boxed skylights installed between rafters when not visible from the public-right-of-way.

Retaining and repairing the original windows and their character-defining elements whenever possible. Repair may include incremental replacement of individual elements such as sills or sashes by patching, splicing, consolidating, or reinforcing with in-kind or compatible substitute materials.

Not Recommended

Using vinyl window units.

Replacing windows that can be repaired. Replacing windows solely because of peeling paint, broken glass, stuck sashes, and high air infiltration. Removing or radically changing windows that are important in defining the character of a building.

Changing the number, location, size, and glazing pattern of windows by blocking-in windows or installing replacement sashes that do not fit the original window opening.

Using bubble or Plexiglas skylights that protrude from the roof plane.

Recommended



Repair and retain character of original window when possible

Accomplishing thermal upgrade by using exterior or interior storm windows that have minimal visual intrusiveness.

When damage can be avoided, modifying existing historic windows to allow reglazing with insulated glass.

Making windows weather tight by caulking and replacing or installing weather stripping.

When original window openings are altered, restoring them to their original configuration and detail.

When damaged beyond repair, replacing the original windows with windows that match the originals in profile, size, color, configuration, materials, and glazing.

Not Recommended



Typical historic industrial window treatments found in Zone 1

Using storm windows that are smaller than the window opening. Using storm windows that allow moisture to accumulate and damage the window frame.

Changing the appearance of a window through the use of inappropriate designs, materials, finishes, or colors that notably change the sashes, depth of reveal, muntin configuration and reflectivity, and color of the glazing (such as the use of mirrored or tinted glass) or the appearance of the frame. Using shutters.

Stripping windows of historic material such as wood, cast iron, and bronze.

Using a replacement window that does not match the original

Recommended

Using replacement glazing that is consistent in color and reflectivity with the glazing originally used at the building.

Using true divided lights.

Using replacement windows that capture the visual effect of how the original window operated.

Basing the replacement of non-historic or missing windows on photographic documentation, extant units in the building, or ensuring that they are consistent with the historic character of the building.

Providing a setback in the design of dropped ceilings when they are required for a new use to allow for the full height of the window openings.

Limiting the installation of additional windows to secondary, non-character-defining elevations to occur only when required by the new use to allow natural light and air or when other important adaptations are necessary for the building's new use.

When required by a new use, creating new window openings and using new window units that are simple and visually subservient to the original openings and units, and that are visually distinguishable from the original window openings and units.

Not Recommended



Incompatible new window lower right resulting in loss of the building's historic character.

Obscuring original window elements with signs, metal, or other materials. Using through-window air conditioning units on primarily façades.

Using tinted glass that does not appear as transparent from public-right-of-way.

Rising metal screens or bars covering window openings

Creating a false historical appearance because the replacement window is based on insufficient historical, pictorial, and/or physical documentation. Introducing a new design that is incompatible with the historic character of the building.

Inserting new floors or furred-down ceilings that cut across the glazed areas of windows so that the exterior form and appearance of the windows are changed.

Installing new windows, including frames, sashes, and muntin configurations that are incompatible with the buildings historic appearance or that obscure, damage, or destroy character-defining features.

Creating new window openings and using new window units that duplicate the fenestration pattern and detailing of a character-defining elevation.

Recommended

When adding new window openings and unit, using a simpler, slightly different glazing configuration.



Preserves historic signage and does not alter the more formal front bays, reserving alterations to the utilitarian portion of the façade above loading docks. Note smaller and simpler window design compared to the originals.

Not Recommended

Creating new window openings and using new window units that replicate the historic windows.

Installing vinyl window systems

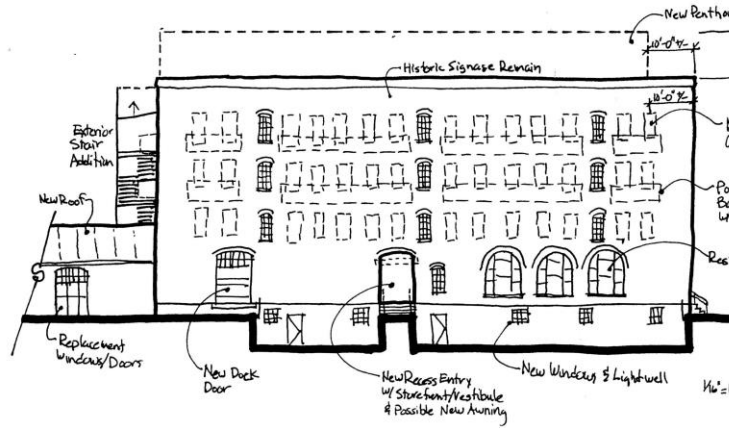


Diagram above has too many new openings and calls for balconies spanning the width of the new openings.

See also: Technical Preservation Services, Heritage Preservation Services Division, National Park Service *Preservation Brief 3: Conserving Energy in Historic Buildings*; *Preservation Brief 9: The Repair of Historic Wooden Windows*; *Preservation Brief 10: Exterior Paint Problems on Historic Woodwork*; *Preservation Brief 13: The Repair and Thermal Upgrading of Historic Steel Windows*; and the following National Park Service Interpreting the Secretary of the Interior's Standards for Rehabilitation (ITS) Bulletins: *ITS Number 14: Adding New Openings: New Openings in Secondary Elevations or Introducing New Windows in Blank Walls* and *ITS Number 21: Adding New Openings: Adding New Openings on Secondary Elevations*.

ENTRANCE DOORS

With a few exceptions, entrance doors in Zone 1 were functional non-retail commercial designs. Adaptive reuse of buildings for residential or retail use will require choosing replacement doors that are complimentary to the industrial character of the buildings.

Entrance doors were historically wood or metal. Appropriate substitute materials should be wood or metal when the original material is unknown or for new construction, with the use of vinyl or synthetic materials not appropriate in Zone 1.

Recommended



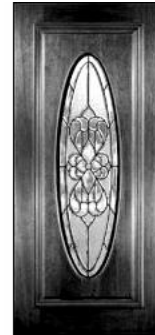
Retaining and repairing original doors. Maintaining original door hardware in good working order.

Preserving and retaining the original proportions of the door and the door opening.

Replicating the original door if it is damaged beyond repair and there is physical, pictorial, or photographic documentation as to its original appearance. If there is no documentation of the door's original appearance, replace it with a new unit that is compatible with the style and character of the historic building.

See also: National Park Service Interpreting the Secretary of the Interior's Standards for Rehabilitation (ITS) Bulletin: *ITS Number 4: Exterior Doors: Inappropriate Replacement Doors.*

Not Recommended



Using residential doors in functional industrial entrances.

Using generic historical stylistic reproductions that create the appearance of another period of time.

GARAGE AND LOADING DOCK DOORS

In industrial buildings that utilized loading docks and garages, the openings were commonly fitted with wood or metal segmental doors that rode on overhead tracks or roll-up metal doors. Sometimes these buildings used double-hinged, sliding, and other types of doors.



Examples of garage/loading dock doors – Zone 1



Example of garage/loading dock doors – Zone 1

Recommended

Replicating an original door if it is damaged beyond repair or is missing and there is physical, pictorial, or photographic documentation as to its original appearance; or, if required for the new use, installing a new glazing system that resembles the segmented panels of the historic doors. \

Retaining and repairing the building’s original door(s) and /or door opening(s).



Original door opening is retained. The new infill incorporates an entrance and half “closed” garage door as well as transparent glazing is an appropriate treatment where there is no documentation of the original door.

Retaining corner guards and bumper guards. Modifications such as replacing some of the upper wood panels with glass in order to provide natural light.

If there is no documentation of the door’s original appearance, replacing the door with a new unit that is compatible with the style and character of the historic building.

Not Recommended

Installing a replacement door that reflects historic residential garage door designs.

Altering the size of the original openings with infill. Removing character-defining elements. Altering a historic pattern of adjacent pedestrian-vehicular entrances with a new storefront design.



The infill storefront in the building above creates the false impression of an original retail store rather than the historical industrial use of the building

Recommended

Installing new glazing patterns that replicate the typical historic arrangement of intersecting stiles and rails found on the industrial garage and loading dock doors. This approach also clearly differentiates fenestration patterns for windows and doors.

Not Recommended

See also: National Park Service Interpreting the Secretary of the Interior's Standards for Rehabilitation (ITS) Bulletins: *ITS Number 2: Garage Door Openings: New Infill for Historic Garage Openings* and *ITS Number 16: Loading Door Openings: New Infill for Historic Loading Door Openings*.

ALTERATIONS TO REAR AND SECONDARY ELEVATIONS

In industrial and warehouse areas, secondary elevations often played an important role in the functional design of the building or structure. Features such as loading docks, vehicular entrances, and pedestrian/worker entrances related to the function of the building and are important character-defining elements. Secondary façades are somewhat less formal than primary façades. Often, materials and designs are plainer, window placement may be irregular, ornament is seldom used, and the façade's division into base, middle, and top may be less clear. New uses that introduce the public to these elevations should preserve the utilitarian nature of these elevations and their adjoining exterior spaces.

The most significant loss of historic features is the filling of original openings with brick or concrete block and the alteration/addition of loading dock entrances. There is a significant loss of the original loading docks, which were originally made of stone piers and post-and-beam construction. Concrete loading docks commonly appeared in the first decades of the twentieth century. Depending on the date of construction, either is appropriate for replacement or new construction.



Industrial character of rear and secondary elevations

Recommended

Determining if secondary elevations retain defining architectural and functional characteristics that visually communicate the building's historic building type.

Making minimal changes to the secondary elevation features that define the building's original architectural and/or functional property type.



Original façade

Not Recommended

Making changes to the visual characteristics of a secondary elevation that communicate a new use that is different from the original use.



Changes to visual character

Maintaining consistent patterns and using consistent materials between the ground floor and the upper floors, and incorporating a simple definition at the roofline.

Restoring existing openings that have been previously filled in or blocked.

Maintaining a clear separation between the loading areas and the pedestrian access areas for the sake of appearance and safety.

Utilizing masonry materials with a simple texture, minimal ornamentation, and informal door and window placement.

Designing and locating security gates, grills, and alarm boxes out of sight or in such a way that during non-business hours the building and surrounding area maintain their appearance as a safe and attractive pedestrian environment.

Locating and screening air conditioner equipment so that signage, sound, and exhaust air are not intrusive to newly defined public spaces.

Minimizing the intrusion of trash receptacles, utility lines, meter boxes, downspouts, and other functional hardware.

See also National Park Service Interpreting the Secretary of the Interior's Standards for Rehabilitation (ITS) Bulletin: ITS Number 33: Alterations to Rear Elevations.

NEW ADDITIONS

It may be necessary to add extra space to a historic building that is being rehabilitated to satisfy new use requirements. The best adaptive use design is always one that requires the least amount of change to the historic building. However, new spaces to house certain practical functions that were not part of the historic use, such as mechanical equipment, an elevator shaft, or a stair tower, or even new spaces to provide more rentable or occupiable space to make the project economically viable may be acceptable reasons for new additions. The Secretary of the Interior's Standards for Rehabilitation permit new additions to historic buildings if the additions meet certain criteria. Common to these criteria are the general concepts of similarity and subordination. Because of the size and placement of the buildings in Zone 1, their spatial relationship is important to communicating their historic associations. New additions to primary and secondary elevations should be avoided whenever possible. If necessary they should be clearly ancillary and subservient to the size, scale, massing of the preexisting building. Historic photographs as well as Sanborn Fire Insurance Company maps available in local research collections document the location, size, and, sometimes, materials of pre-existing structures and serve as an excellent guide in determining the location of new construction.

Recommended

Designing and constructing new additions that preserve the historic character of the building by visibly retaining significant historic materials and features.

Determining if the building can meet new use requirements by altering non-character-defining interior spaces rather than by constructing a new addition to the building.

Utilizing a design that is visually distinguishable from the historic building, but that is clearly subservient to the historic building.

Locating an attached exterior addition at the rear or on an inconspicuous side of a historic building.

Limiting the size and scale of an addition in relationship to the historic building.

Not Recommended

Designing and constructing new additions that result in the diminution or loss of the historic character of the resource, including its design, materials, workmanship, location, or setting.

Whenever possible, avoid designs and plans that cannot accommodate new uses without exterior additions.

Designing and constructing additions that create a false sense of history by closely replicating the exact form, material, style, and detailing of the historic building in such a way that the new addition appears to be part of the historic building.

Designing and constructing additions that are highly visible from the public right-of-way.

Designing and constructing a new addition so that its size and scale in relation to the historic building are out of proportion, thus diminishing the historic character of the historic building.

Recommended



This small glass connector between two historic buildings is appropriately set back. A similar approach may also be made between a historic building and an addition

Constructing a new addition so that there is the least possible loss of historic materials and so that character-defining features are not obscured, damaged, or destroyed. Utilizing elevator or stair towers that have a high degree of transparency and that expose the building's original materials and features.

Using small, recessed, transparent connector "hyphens" that expose original materials and features and distinguish the historic building from the new addition.

Restore existing openings that have previously been filled in or blocked

Placing new additions such as balconies, greenhouses, and other special use additions on secondary elevations, and limiting their size and scale in relationship to the historic building.

Not Recommended



Stair tower could have been incorporated in the building by enclosing existing stair well. Location of the new stairwell on a highly visible façade is inappropriate as is use of materials and scale and massing

Attaching a new addition so that the character-defining features of the historic building are obscured, damaged, or destroyed.

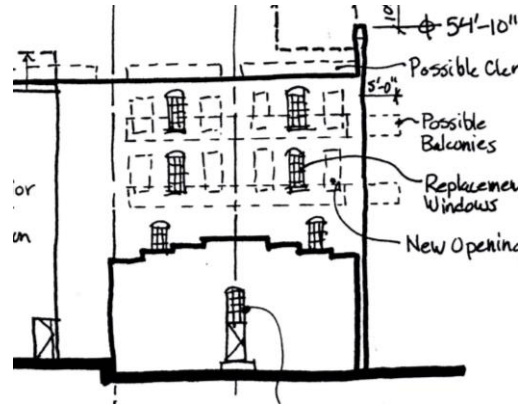
Designing and constructing new additions such as balconies or penthouse additions that obscure, damage, or destroy character-defining features of the historic building.

Recommended

Designing an additional penthouse story, rooftop garden, or greenhouse, when required, that is clearly subservient to the historic building, set back at least one full bay from the building's tall wall planes, and is as inconspicuous as possible when viewed from the street from within a several-block radius.

See also Technical Preservation Services, Heritage Preservation Services Division, National Park Service Preservation Brief 14 New Exterior Additions to Historic Buildings: Preservation Concerns; National Park Service Interpreting the Secretary of the Interior's Standards for Rehabilitation (ITS) Bulletins: ITS Number 3: New Additions to Mid-size Historic Buildings 1; National Park Service Interpreting the Secretary of the Interior's Standards for Rehabilitation (ITS) Bulletins: ITS Number 10: Stair Tower Additions Exterior Stair/Elevator Tower Additions; National Park Service Interpreting the Secretary of the Interior's Standards for Rehabilitation (ITS) Bulletins: ITS Number 18: New Additions to Mid-size Historic Buildings 2; National Park Service Interpreting the Secretary of the Interior's Standards for Rehabilitation (ITS) Bulletins: ITS Number 33; Alterations to Rear Elevations.

Not Recommended

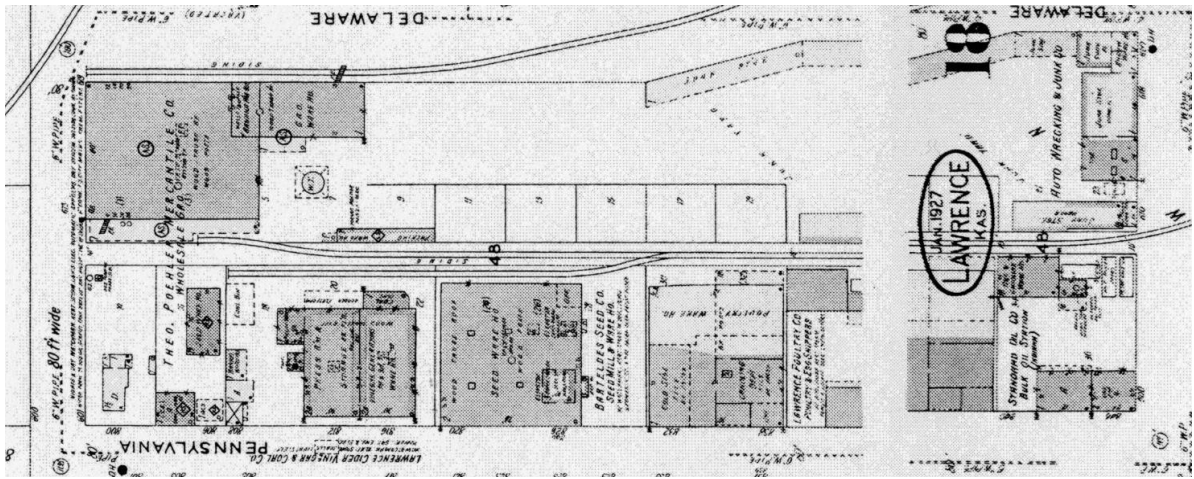


Sketch shows balconies that span the width of the elevation. A recommended alternative would be to limit the number of balconies and to have these span only one or two openings. The balcony should be painted to match the masonry wall.

Designing and constructing roof-top additions that dramatically change the historic appearance of the building. Constructing additional stories to the building so that the historic appearance of the building is radically changed.

NEW INFILL CONSTRUCTION

The arrangement of elements and spaces that define a historic district contribute to a unique sense of place. These elements combine several factors such as building materials, color, size, shape, placement of buildings and spatial relationships. To preserve these qualities, new construction should be compatible with the existing character-defining architectural and landscape elements of Zone 1. At the same time, new construction can and should be differentiated from older buildings by virtue of its own contemporary stylistic elements. New construction includes new buildings erected in previously undeveloped spaces and “infill” replacement buildings.



Old and new construction (1927 Sanborn Map)

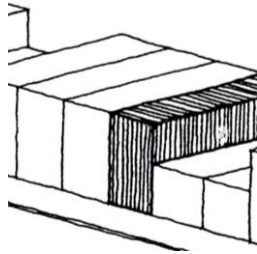
Recommended

Retaining the footprint, size, scale, and height and massing of the original building when constructing replacement buildings

Not Recommended

Recommended

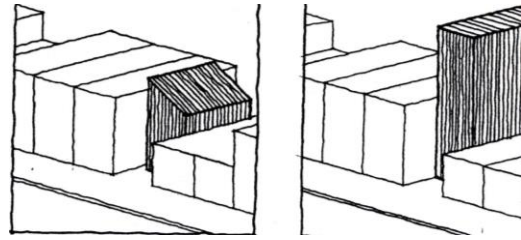
Locating front walls on the same plane as the façades of adjacent buildings and matching the rhythm of spacing between buildings and the rhythm of entrances and other projections or recesses to sidewalks.



Appropriate integration

Not Recommended

Utilizing new designs with inappropriate alignment, setback, spacing, massing, proportion, and scale.



Inappropriate alignment and setback

Erecting buildings of one or two stories. The height and scale of new buildings should match the height of adjacent historic buildings on the streetscape.

Matching the type, size, proportion, and pattern of openings on the primary façade and loading dock façades to that of the adjacent buildings. Storefront façades in new construction should reference the industrial loading dock entrances and doors in size and glazing.



Appropriate infill façade

Using materials, texture, and color that relate to and harmonize with those on nearby historic buildings and structures.

Continuing of the use of similar roof shapes, types, and materials.

Introducing materials and colors that do not relate to the traditional materials found in the National Register East Lawrence Industrial Historic District.

Using roof shapes, pitches, and materials not found in the National Register East Lawrence Industrial District.

SITE AND SETTING — EXTERIOR FEATURES AND OPEN SPACE

The Setting of Zone 1 is a heterogonous mix of buildings, structures, and spaces that evolved over an extended period of time. The relationship of these components and the random vegetation patterns and features contribute to a unique sense of place. The primary buildings and structures are oriented to the major streets, with the functional orientation of their loading docks to an alley that bisects the zone.

Common materials found in the setting are concrete, asphalt, dirt, brick, and stone. Common landscape features include wire, chain link, and board fencing; railroad rails, curbing, grasses, and a Cottonwood tree. All communicate the continuing industrial character of the zone.



Existing exterior features and open space

Setting

Recommended

Identifying, retaining, and preserving building and landscape features that are important in defining the historic character of the site and setting.

Retaining the historic relationship between buildings and landscape features such as alleys, open space, work areas, pathways, driveways, and so forth.

Creating subtle visual distinctions through the use of different hard surface materials between the historic spaces/materials and new space uses such as parking areas.

Designing new parking areas that are as unobtrusive as possible to minimize the effect of the historic spatial arrangement and character of the setting.

Removing non-significant buildings, structures, additions, or landscape features that detract from the historic setting.

Not Recommended

Creating a false sense of history by introducing landscape features that are based on conjecture or that impact an understanding of the industrial nature of the site or setting.

Removing or radically changing the features of the site and setting that are important in defining the historic character of the site or the National Register East Lawrence Industrial Historic District.

Destroying the relationship between the buildings and structures and the landscape features by widening existing streets or constructing inappropriately located new streets or parking facilities.

Using vacant lots that once held buildings or structures for unauthorized or spontaneous automobile parking.

Removing or relocating significant historic primary and secondary buildings and structures or character-defining landscape features, destroying their historic relationship.

Recommended

Retaining historic secondary ancillary buildings and structures such as garages and outbuildings. Retaining and preserving all character-defining features of outbuildings, including foundations, steps, roof forms, windows, doors, architectural trim, and materials. If replacement of an element is necessary, replace only the deteriorated item with one that matches the original in size, scale, proportion, material, texture, and detail.

Using new construction that is compatible with the historic character of the setting in terms of size, scale, design, material, color, and texture.

Revealing landscape features such as alleys and pathways that have been covered by paving or other materials over time.

Using screening devices for trash receptacles and storage units that visually blend into the rear façades.

Painting, or screening, mechanical units and service equipment to blend with the overall exterior color of the building, in accordance with City standards. Placing such equipment near secondary elevations out of view from the public right-of-way.

Screening dumpster units on all four sides with material that blends in with the main commercial building wall adjacent to the location of the dumpster. The height of the screening device should match that of the dumpster and the access door. Clustering dumpsters adjacent to alleys.

Utilizing satellite dishes one diameter in size or smaller and placing them in locations not visible from the public right-of-way.

Installing removable cellular tower poles, which may be attached to the roofs of buildings, but must be set back one bay from the perimeter wall?

Additional landscape screening may be required by City staff to lessen impact of parking, lighting, or noise on neighboring residential properties.

Landscape

Historically, Zone 1 did not have planned landscaping. Thus, the introduction of landscaping should be minimal and part of an overall design to denote the boundaries of the zone and to direct pedestrian traffic. Natural plants of the region, in particular of the East Lawrence area, should be utilized.

Not Recommended

Constructing prefabricated buildings or storage structures.

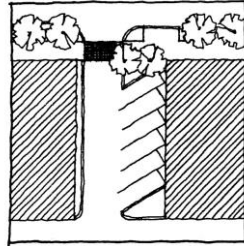
Introducing new building or landscape features that are out of scale or are otherwise inappropriate to the historic character of the setting.

Installing antennae and/or satellite dishes in places visible from the public right-of-way.

Installing cellular towers.

Recommended

Landscaping the perimeters of parking areas with trees and low plantings to provide pedestrian linkages, to reinforce the traditional grid system of the original street and alleys, and to screen the view of vehicles and surface paving.



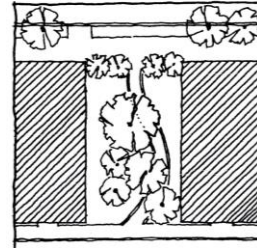
Planting trees and shrubs at the peripheral edges of a vacant lot to reinforce the traditional edge between the absent building wall and the sidewalk. The edges should coincide with the setback and configuration of adjacent buildings.

Maintaining traditional alleyways, lot delineations, and open spaces.

Introducing discreet, coordinated interpretive signage throughout the zone to educate visitors about the history of the buildings in Zone 1 and that of the surrounding areas.

Not Recommended

Introducing formal or exotic landscape designs that are inappropriate to the industrial setting.



Installing plantings near the buildings, destroying the open, partially hard-surfaced industrial site.

Using chain link or wood fences and/or other devices that discourage an understanding of the historic setting and its functional features.

PARKING

Vehicular parking historically occurred at the sides of buildings and on the street. Traditional open spaces provide opportunities for surface parking lots by maintaining the historic spatial relationships between buildings. Gravel or asphalt paving generally covered parking areas. In one or two instances, drives and parking areas with high traffic had concrete drive-through and/or parking spaces. These traditional materials continue to be appropriate as do other hard surface and gravel treatments. Drainage is a problem in this area and a combination of pervious and non-pervious treatments that designate historic space uses as well as assist in the control of water runoff is desirable.

Recommended

Locating surface parking lots in traditional open spaces.

Subdividing larger surface lots with landscaped islands that include trees.

Visually and spatially separating pedestrian walkways adjacent to parking and driveways through the use of additional site elements, including bollards, lighting, landscaping, and special pavement treatments.

Not Recommended

LIGHTING

The purpose of exterior lighting is to highlight the building entrance and its signage, as well as parking and public use areas, when natural light is insufficient or not present in a historic district. The level of lighting must reflect the building's historic use and must provide sufficient illumination to promote health and safety and to attract the pedestrian traffic required by the building's new use. Lighting types recommended in other zones apply to Zone 1 and should be consistent throughout the redevelopment area.

Unless noted otherwise, lighting in Zone 1 will be consistent with City of Lawrence Code Section 20-14A01 through Section 20-14A03, or subsequent applicable City standards. Parking lighting shall have a maximum initial illumination value no greater than 0.20 horizontal footcandles at the zone boundary. No more than 5 percent of fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down) with the exception of minor building lighting. These lighting requirements are adapted from IESNA RP-33-99.

Recommended

Using light fixtures that are as inconspicuous as possible and that are compatible with the industrial character of Zone 1.

Using dark sky fixtures.

Using incandescent lights to illuminate small projecting and flat signboards.

Designing the light source for signs as a part of the sign or hiding it from view.

Not Recommended

Using conduits that are visible from the public right-of-way.

Using fluorescent light fixtures and high intensity discharge lighting.

Using internally lit signs.

Using neon lighting that accentuates any shape or form of any of the building's elements.

AWNINGS

While the commercial/industrial buildings in Zone 1 did not have a retail function or storefronts, most were businesses that had a customer service area and offices on the first story near the entrance. The need to protect these areas from the heat and glare of sunlight (particularly on the west elevations along Pennsylvania Street) may have included canvas awnings above individual window openings on the first story. New uses may require similar protection from the elements in the entrance areas.

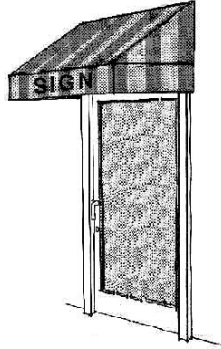
Recommended

Using fixed awnings of metal or synthetic materials that are compatible with the industrial character of the zone.

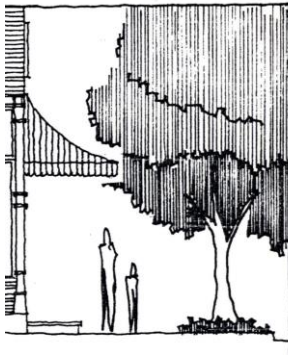
Not Recommended

Using awnings not compatible with the character of the zone.

Recommended



Not Recommended



Because of industrial character of buildings, typical storefront treatments that span the width of the façade are not appropriate. Each opening should have its own awning.

Using installations that do not damage the building or visually block or impair its distinctive architectural features.

Selecting colors, pattern, form, and materials that relate to and complement the surrounding buildings.

Using of materials, colors, and designs that detract from the character of the building.

See also Technical Preservation Services, Heritage Preservation Services Division, National Park Service *Preservation Brief 44 The Use of Awnings on Historic Buildings: Repairs, Replacement and New Design*; National Park Service Interpreting the Secretary of the Interior's Standards for Rehabilitation (ITS) Bulletins: ITS Number 27: *Awnings: Adding Awnings to Historic Storefronts and Entrances*.

ACCESS

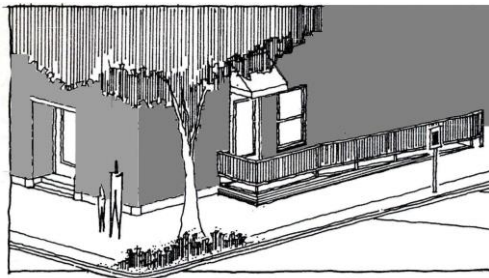
Originally, historic buildings were not designed to accommodate the needs of people with disabilities. Federal law requires that historic buildings occupied by employees or residents and visited for business or private purposes meet accessibility requirements for individuals with disabilities under the Americans with Disabilities Act (ADA) of 1990.

Recommended

Providing building access through a primary public entrance. If access through a primary entrance cannot occur without causing permanent damage to the character-defining features of the historic entrance, at least one entrance used by the public should be made accessible. Appropriate directional signage should be installed to direct disabled individuals from the primary historic entrance to the accessible entrance.

Installing mechanical wheelchair lifts or submergible lifts in unobtrusive locations with cover from the elements.

Installing ramps along side elevations that are designed and located to minimize the loss of any historic features at the connection point to the building. Installing ramps behind historic features such as walls, railings, or landscaping to minimize the visual effect from the public right-of-way.



Ramps should be installed on side elevations or behind historic features to minimize visual effect.

See also Technical Preservation Services, Heritage Preservation Services Division, National Park Service Preservation Brief 32 Making Historic Properties Accessible

SIGNAGE

The primary purpose of signage is to identify the business name and location. Sign location is an important element in the adaptation of new uses for industrial/warehouse facilities. Generally, each building should have a primary sign noting the name and location, and secondary signage with information about hours of operation and building use. Because of the need to retain the industrial character of the setting of Zone 1 and the fact that the commercial buildings do not have a sign frieze typical of retail storefronts, the following guidelines limit the types of signage options.



Appropriate signage

Recommended

Using signs that respect the size, scale, and design of the historic building and are pedestrian scaled; signs that do not obscure significant features of the historic building and neighboring buildings; and sign materials compatible with and characteristic of the building's period and style, including the following primary sign forms: (1) a single plaque on a flat surface on the first story wall plane near the entrance; (2) a projecting pendant sign mounted on a flat wall plane above the primary entrance; or (3) signage printed on awnings

Using simple legible primary signs containing only the name of the business and no secondary or incidental information.



Not Recommended

Using large, flashy signs designed to attract automobiles from a distance.



Using small, poorly proportioned signs with an inferior quality of design, materials, and execution.

Mounting signs on a roof.

Using signs on windows and/or doors that overpower the other building signs.

Using several signs and messages that compete with one another.

Recommended

Not Recommended

Selecting colors, materials, and a lettering style that relates to and complements the historic building and the surrounding buildings. In general, each sign should contain a maximum of three colors, two materials, and one lettering style.

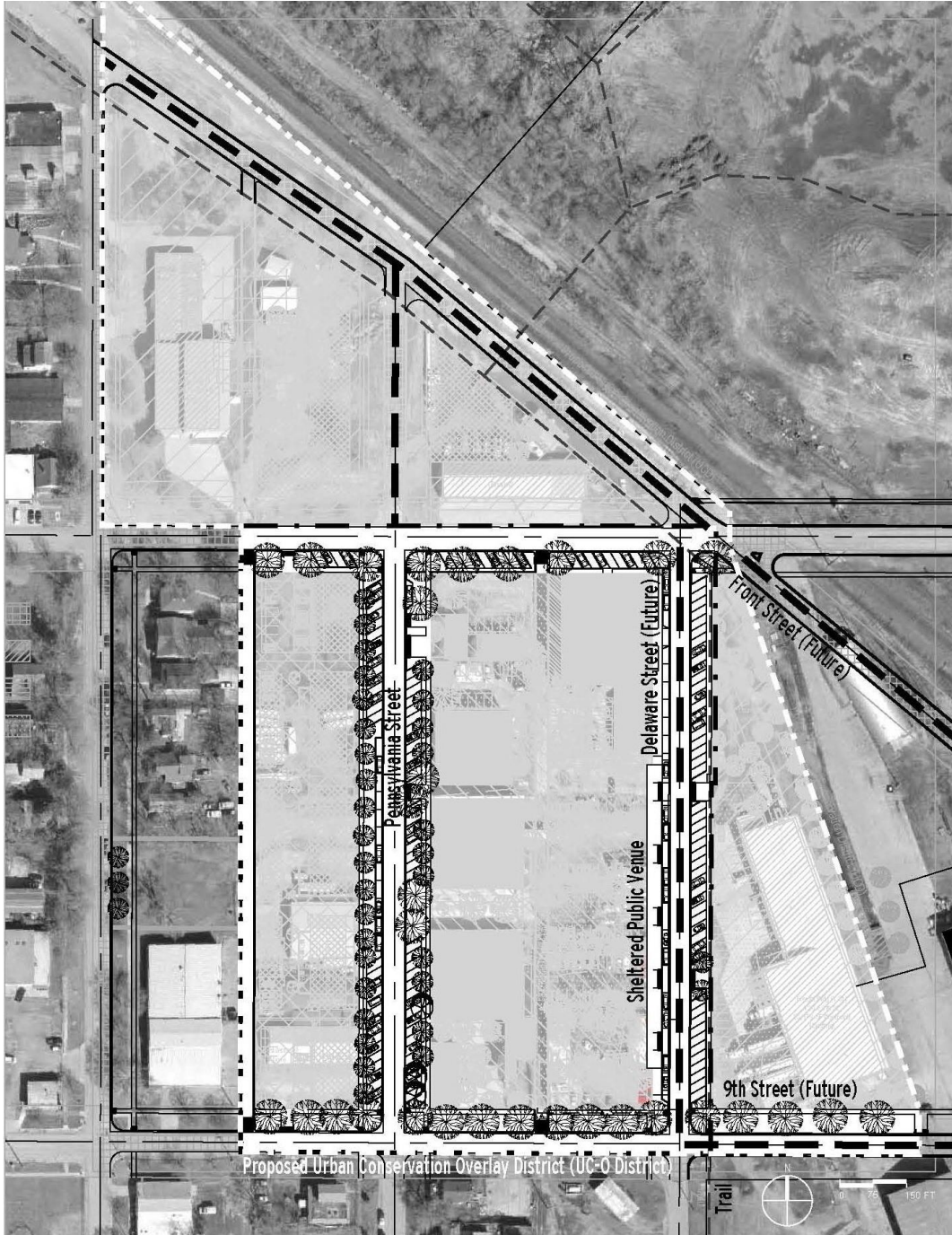
Using signs attached to building that do not damage the historic fabric and that ensure the safety of pedestrians. Installing fittings that penetrate mortar joints rather than brick with properly calculated and distributed sign loads.

Using signs painted on windows and doors for secondary information that do not obscure visibility from inside or outside the building.



See also: Technical Preservation Services, Heritage Preservation Services Division, National Park Service Preservation Brief 25 The Preservation of Historic Signs

FIGURE 5: ZONE 2 STREETSCAPES AND ALLEYS



LAND USE PLAN

ZONE 2: STREETSCAPES AND ALLEYS

NEIGHBORHOOD CONTEXT

The historic patterns of streets and alleys form the basis for the visual patterns that traditionally defined the redevelopment zone. This existing grid layout of streets and alleyways also serve as links that extend into adjoining neighborhoods and beyond. These features and spaces compose the grid of streets, alleys, and sidewalks, as well as the off-axis railroad right-of-way. Today, this public right-of-way zone plays an important role in defining the relationship between the manufacturing zone and the adjacent residential streets. Physical inspection of the zone and an analysis of historic photographs and maps indicate that these zones have significant loss of material and features. Reestablishment and retention of these established patterns is important in maintaining the visual character and identity of the historic manufacturing zone of East Lawrence.

ACCESS

Recommended

Retaining all alley dimensions and driveway access to alleys.

Retaining/reestablishing the width and number of vehicular traffic lanes to match existing conditions or the established grid in East Lawrence.

Providing curb cuts for ADA accessibility at street crossings.

Not Recommended

STREETSCAPE

Recommended

Removing built-up street overlay and exposing original brick.

Reestablishing the grass verge between the sidewalks and curbs at the corners of East 8th and Pennsylvania Streets, East 8th and Delaware Streets, East 9th and Pennsylvania Streets, and East 9th and Delaware Streets.

While retaining the grassy verge zones at the corners, pave the traditional verge zone for parking with a material different from that of the street, thus delineating the original street width and street/curb/verge configuration.

Retaining the historic parking zone on the north side of the Poehler Building on East 8th Street.

Retain the historic parking zone on the west side of the 804/806 building on Pennsylvania.

Constructing concrete and/or brick sidewalks to match the materials of those found in the adjoining neighborhoods along Pennsylvania and East 9th Street.

Not Recommended

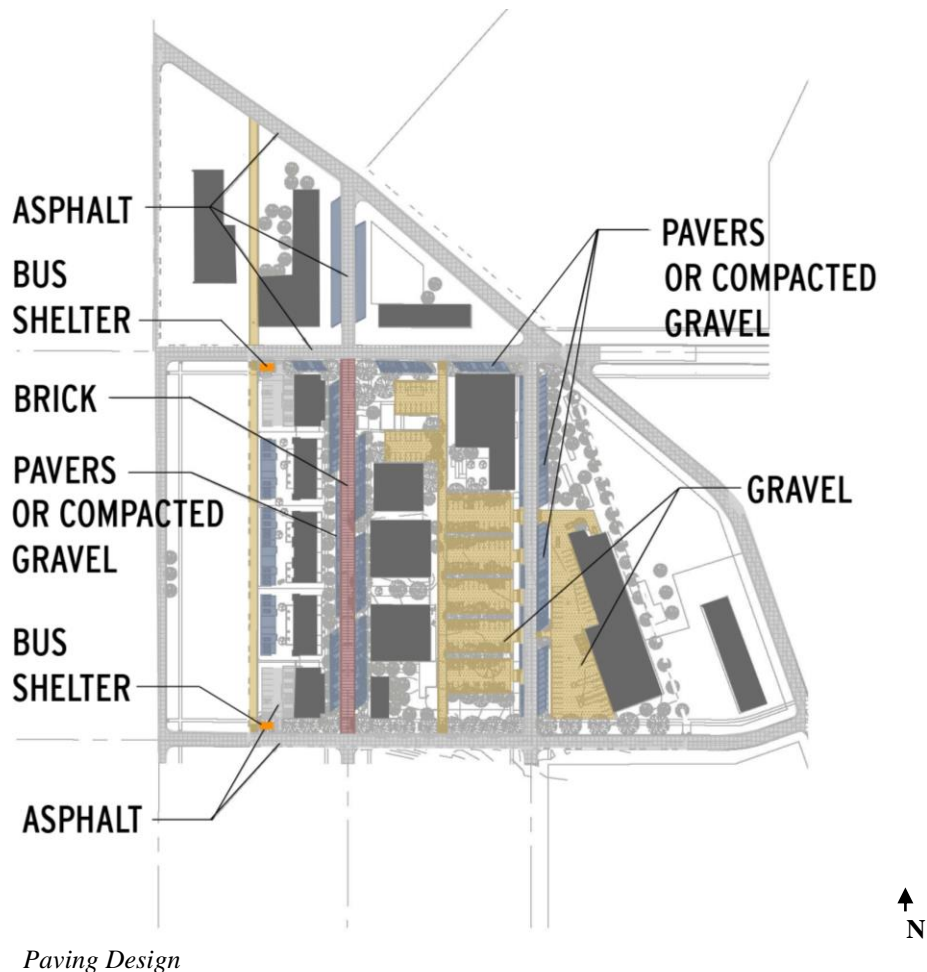
Recommended

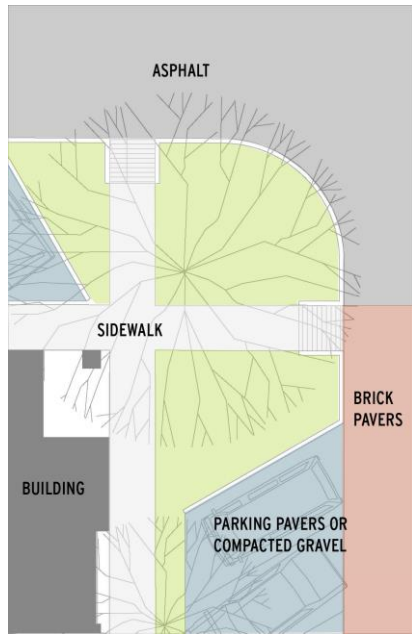
In Zone 1, Existing sidewalks shall remain. Repairs to existing sidewalks on Pennsylvania and Delaware Streets that conform to the dimensions of those shown on Pennsylvania and Delaware Streets, respectively, from the 1927 Sanborn Fire Insurance Company maps. New sidewalks in Zone 1 shall conform to City Standards. In Zones 3 & 4 sidewalks shall be constructed to a minimum width of 5'-0"

Establishing a sheltered bus venue on the west side of Delaware Street.

Establishing sheltered bus venues that are compatible with the listed properties and their environs.

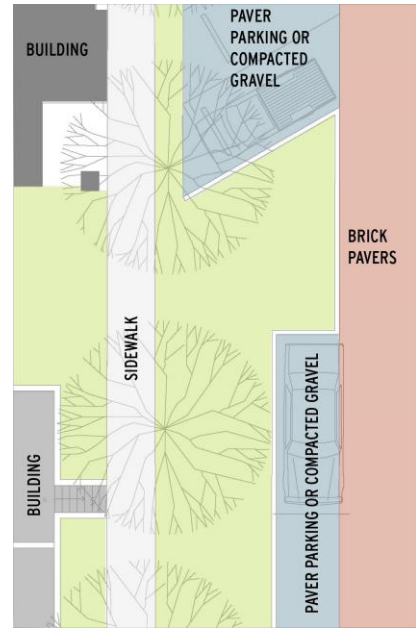
Not Recommended





Pedestrian/Parking Surfaces – Corner Condition

Show here at the west corner of 8th and Pennsylvania



Pedestrian/Parking Surfaces – Mid Block

Shown here mid-block between 8th and 9th on the west side of Pennsylvania

LANDSCAPE

The existing landscaping in Zone 2 primarily consists of unmaintained shrubs and weeds. Since most of Zone 2 borders the historical Zone 1, care should be given to not diverge from the industrial feel of the area. Historic conditions supersede the Design Guidelines for landscaping requirements in Zone 1.

Recommended

In addition to restoring portions of the traditional grass verges, planting street trees in the verge zones to define the separation between the sidewalk and the street. Creating a clear walking zone of at least ten feet between the trees and buildings, and maintaining a mature branching height of at least twelve feet above the street.

Planting trees large enough to add substantial greenery and shade, with a three-inch caliper at a minimum.

Using plantings that reinforce the city grid and cohesiveness of the area.

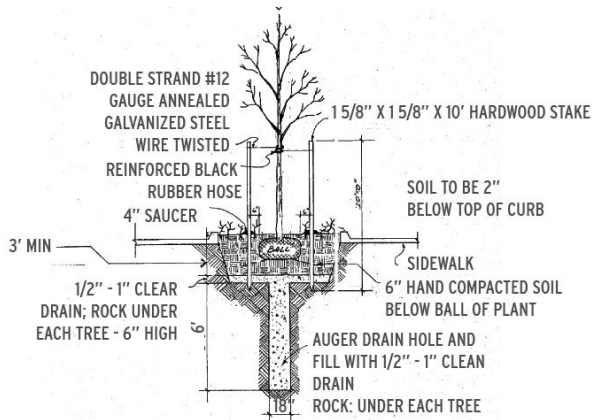
Not Recommended

Planting trees that produce large amounts of fruit or flowers. Planting small trees that will be less than thirty-six feet tall at maturity. Planting trees that are not native to the zone or that have marginal success in the zone. Planting trees with branches that break easily.

Installing artificial trees, shrubs, turf, or plants.

Using native trees approved by City of Lawrence Parks and Recreation Department. (See Appendix)

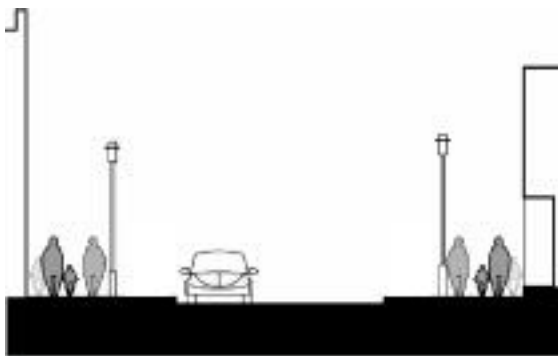
Planting a quantity of trees that complies with the minimum number required set forth in the City Standards.



Tree Well detail for 6" curb

LIGHTING

Unless noted otherwise, lighting for Zone 2 will be consistent with the City of Lawrence Code, sections 20-14A01 through Section 20-14A03. Street and pedestrian walkway lighting shall have a maximum initial illumination value of no greater than 0.20 horizontal footcandles at the zone boundary. No more than 5 percent of designed fixture lumens to be emitted at an angle of 90 degrees or higher from nadir (straight down) at the zone boundary. For zone boundaries that abut the public right of way, light trespass requirements may be met relative to the curb line in lieu of the zone boundary.



Recommended

Installing simple, contemporary, or generic pedestrian-scale street lights.

Not Recommended

Installing street lights with a historic appearance that replicate those used in retail and residential zones.

Pedestrian scale lighting

'Dark Sky' style lighting fixtures.

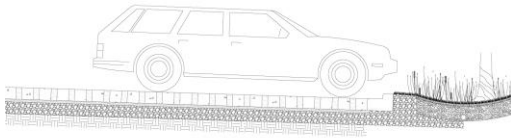
PARKING

Existing parking facilities are currently comprised of some unpaved on-street parking, primarily as roadside locations.

Recommended

Visually and spatially separating on-street parking from pedestrian walkways or plazas through the use of additional site elements, including landscaping and special pavement treatments.

Not Recommended



Site section at On-street Parking

FIGURE 6: ZONE 3 800 PENNSYLVANIA MIXED-USE ZONE



ZONE 3: 800 PENNSYLVANIA MIXED-USE ZONE

NEIGHBORHOOD CONTEXT

This zone is adjacent to the historic residential neighborhoods of East Lawrence and was once part of the residential enclave, but none of the original setting or residences remain. This zone should function as a buffer or transition zone between the residential neighborhoods to the west and south and the mixed-use of the historic industrial complex and new development. This zone should be reserved for new construction. Contemporary methods of design and construction have to be coordinated with the existing surroundings dating from the late nineteenth century. A continuous sense of space should be conveyed using traditional and new materials in new ways. *New construction should relate to the setback, size, form, patterns, texture, materials, and color of the features that characterize the environs of all listed properties. Where there are inconsistent or varied patterns the new construction should fall within the range of typical patterns in the environs of the listed properties. Future environs review within the conservation zone should be in the context of the character defining features of the listed properties.

SUSTAINABILITY

As a zone dedicated to new construction, this zone has the most potential for integration of sustainable building practices. Including aspects of green architecture into the building design early on is recommended, and will have the best chance for success.

Recommended

Having mixed residential/retail commercial use.



Not Recommended

Having commercial use only.



Examples of Mixed-use

**This language is taken directly from the "Standards and Guidelines for Evaluating the Effect of Projects on Environs".*

RESIDENTIAL BUILDINGS

ARCHITECTURAL CHARACTERISTICS AND MATERIALS

Recommended

Maintaining the massing character of the two- to three-story buildings in the area. Massing and building styles that compliment the height, width, and depth of the residential lots in the adjacent neighborhood and/or the original lot width.

Arranging architectural elements in a regular and repetitive pattern. Patterns can be found within individual buildings, such as the arrangement of windows, or in groupings of buildings along a street.

Arranging of open space in a regular and repetitive pattern.

Maintaining proportions and relationships between doors and windows that are compatible in placement and scale with the architectural character of the single family residences in the adjacent residential neighborhood.

Maintaining individual or shared entrance porches on residential buildings designated to provide semi-public space for neighborhood interaction.



Example of Housing Density and Fenestration

Maintaining consistency in the use of materials and textures.

Using traditional building materials found in East Lawrence.

Using traditional colors found in the buildings of East Lawrence.

Not Recommended

Dividing single-family residences into multi-family dwelling units.

Using synthetic building materials and/or poor quality building materials.

Recommended

Using architectural details that add visual interest to a building and that define the character of a building.

Using roof shapes and architectural characteristics that reference the traditional industrial/commercial built environment of East Lawrence, but incorporate a clear differentiation of old and new.

Having rear façades of residential buildings that include porches and decks and that create a transition from a residential to a commercial/industrial mixed-use appearance.

Not Recommended

Replicating historic architectural details associated with a particular style in such as way as to create a false sense of history by reproducing a historic house design.

BUILT TO LINES AND SETBACKS

Recommended

Locating the front walls of residential buildings on the same plane and matching the rhythm of spacing (or lack thereof) between buildings and the rhythm of entrances and other projections or recesses to sidewalks.

Having individual or shared entrance porches on residential buildings with individual sizes and locations that merges with and compliments the architectural diversity of East Lawrence.

Not Recommended

Constructing new buildings with inappropriate alignment setback and spacing, massing, proportion, or pattern that is out of character with the residential and small commercial buildings found in East Lawrence.

LANDSCAPE

Recommended

Having front yards with lawn, shrubbery, and tree plantings, typically found in East Lawrence.

Not Recommended

Introducing landscape features such as front yard fencing, statuary, walls, benches, yard lights, and so forth that were not traditionally found on the streetscapes of East Lawrence.

PARKING

Proposed parking for the residential portions of Zone 3 will be consistent in design and scale for the zone to serve as the transition zone between the historical properties in Zone 1 and the single family residential areas on New Jersey. Parking will be limited to single story structures that will be served by the alleyway.

Recommended

Using the rear portion of a lot accessed by an alley for parking spaces/structures.

Providing some green space at the rear of buildings.

Separating parking zones/structures from residential buildings with landscaped pathways.

Having parking structures that are subservient in size, scale, massing, and materials that create the impression of ancillary residential outbuildings.

Designing parking structures to be compatible with neighboring buildings, including materials.

Breaking up the overall massing of the parking structure with architectural details.

Low bollard lighting will be used to limit lighting impacts to adjacent residential areas.

Not Recommended

LIGHTING

Unless noted otherwise, lighting for Zone 3 will be consistent with the City of Lawrence Code, sections 20-14A01 through Section 20-14A03, or subsequent applicable City standards. Residential lighting will have a maximum initial illumination value of no greater than 0.10 horizontal footcandles at the zone boundary. No more than 5 percent of the total designed fixture lumens are at an angle of 90 degrees or higher from nadir (straight down). In order to limit lighting impacts on adjacent residential properties, low bollard lighting will be utilized in parking areas adjacent to these properties in lieu of standard pole lighting.

Recommended

Having exterior residential lighting at building entrances.

Not Recommended

COMMERCIAL/RETAIL CORNER BUILDINGS

ARCHITECTURAL CHARACTERISTICS AND MATERIALS

Recommended

Having corner business buildings that reference the original lot configuration through the use of vertical bays. If the building is bigger than two traditional lots, differentiating the bays to create the visual impression of an assembly of small commercial buildings.

Not Recommended

Having corner commercial buildings larger than the three original lot sizes.

Recommended



Typical Corner Building

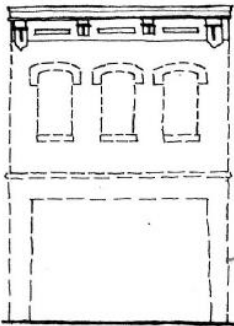
Using a corner entrance in combination with traditional entrances to create variety in fenestration.

Using traditional brick walls, but differentiating in design, color, texture, and pattern between commercial buildings to create a heterogeneous treatment.

Having a clear system of base, middle, and top; visual referencing of traditional storefront components (i.e., bulkhead, display window, sign frieze, second-story fenestration, and cornice/parapet).

Not Recommended

Designing commercial buildings that as a whole present the impression of suburban development patterns and design treatments rather than the heterogeneous appearance of evolution over a period of time on a lot-by-lot basis.



Base, Middle, and Top

BUILT TO LINES AND SETBACKS

Recommended

Locating the front walls of residential buildings on the same plane and matching the rhythm of spacing (or lack thereof) between buildings and the rhythm of entrances and other projections or recesses to sidewalks.

Having individual or shared entrance porches on residential buildings with individual sizes and locations that merge with and compliment the architectural diversity of East Lawrence.

SIGNAGE

Recommended

Using new signs that respect the size, scale, and design of the building (1) on a flat sign located in the frieze above the display window; (2) on a single plaque on the flat surface on the first-story wall plane near the entrance; (3) a projecting pendant sign mounted on the flat wall plane above the primary entrance; or (4) awning signs.

Using signs designed on a pedestrian scale.

Using one simple legible primary sign containing only the name of the business and no secondary or incidental information.

Using secondary signage painted on glass in windows and

Avoid

Constructing new buildings with inappropriate alignment setback and spacing, massing, proportion, or pattern that is out of character with the residential and small commercial buildings found in East Lawrence.

Not Recommended

Using small, poorly proportioned signs with an inferior quality of design, materials, and execution.

Mounting signs on a roof.



Roof Mounted Sign

Using large, flashy signs designed to attract automobiles from a distance.

Using several signs and messages that compete with one another.

Recommended

doors for secondary information that does not obscure visibility from inside or outside the building.

Selecting colors, materials, and a lettering style that relates to and complements the building and contains a maximum of three colors, two materials, and one lettering style.

Not Recommended

ACCESS

Recommended

Providing access to the parking lots only from the main streets.

Not Recommended

Access to commercial buildings from alley ways or vehicular routes that abut single family residences.

PARKING

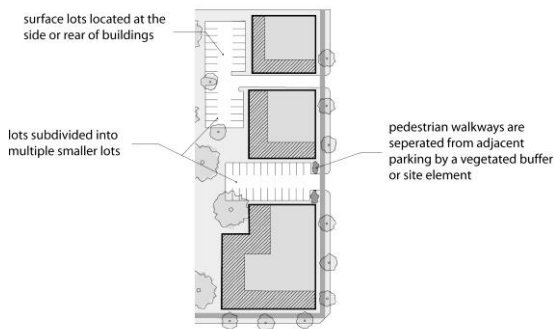
Proposed parking for the residential portions of Zone 3 will be consistent with the requirements of the City of Lawrence Code, sections 20-1205, or subsequent applicable City standards. Parking for commercial, retail and mixed-use uses shall be served from a public street in lieu of an alleyway.

Recommended

Locating surface parking lots at the sides or rear of buildings or structures.

Not Recommended

Having multiple small parking lots rather than single large parking lots.



Multiple Small Parking Lots

Subdividing larger surface lots with landscaped islands that have trees.

Visually and spatially separating pedestrian walkways adjacent to parking and driveways through the use of additional site elements, including bollards, lighting, landscaping, and special

pavement treatments.

Low bollard lighting will be used to limit lighting impacts to adjacent residential areas.

LIGHTING

Unless noted otherwise, lighting in Zone 3 will be consistent with City of Lawrence Code Section 20-14A01 through Section 20-14A03, or subsequent applicable City standards. Parking lighting shall have a maximum initial illumination value no greater than 0.10 horizontal footcandles at the zone boundary. Nor more than 5 percent of fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down) with the exception of minor building lighting. These lighting requirements are adapted from IESNA RP-33-99. In order to limit lighting impacts on adjacent residential properties, low bollard lighting will be utilized in parking areas adjacent to these properties in lieu of standard pole lighting.

Recommended

Using light fixtures that are as inconspicuous as possible with the exception of lighting compatible with the district.

Using incandescent lights to illuminate small projecting and flat signboards and ambient light to illuminate the overall façade.

Designing the light source for signs as a part of the sign or hiding it from view.

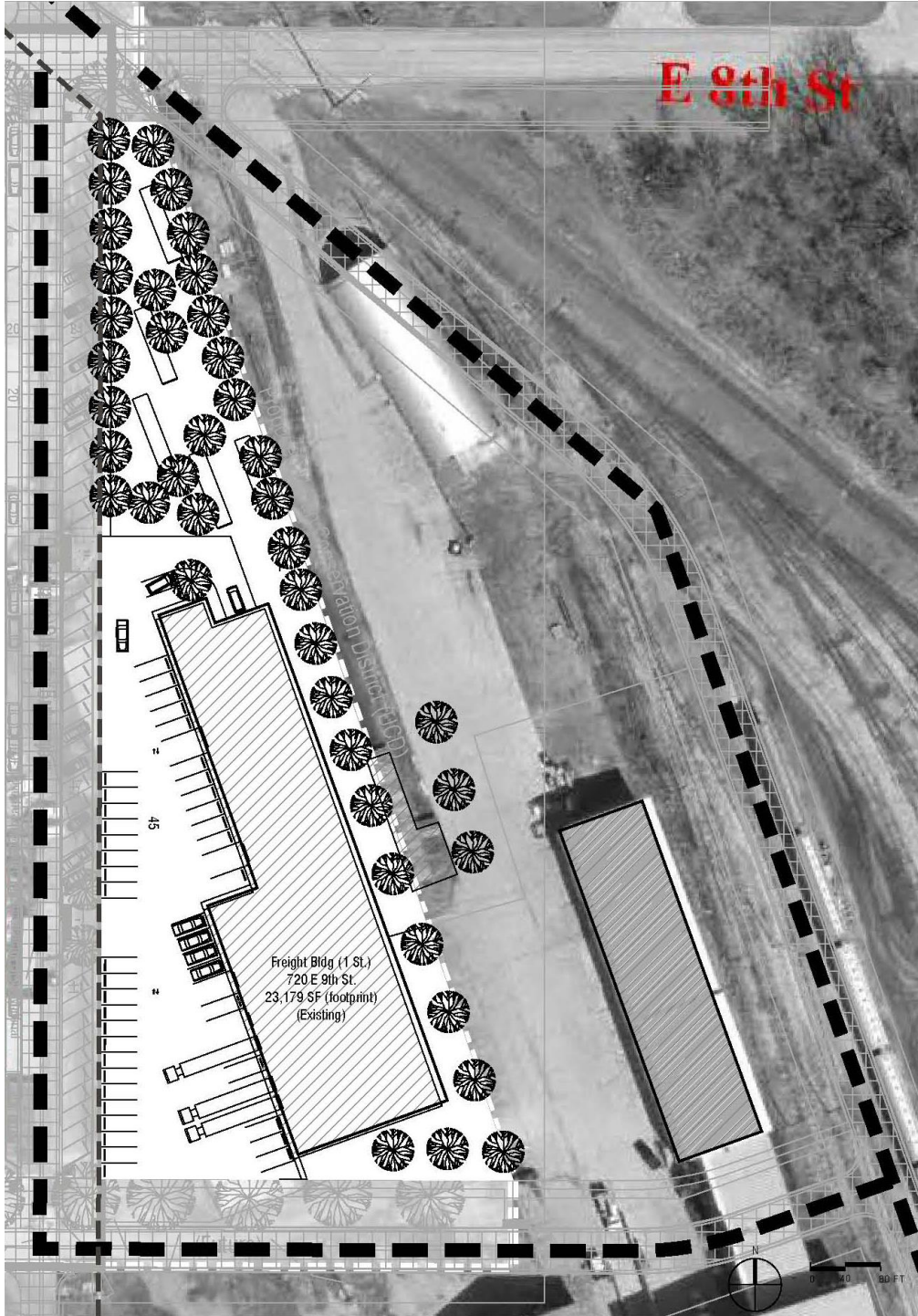
Not Recommended

Using conduits that are visible from the public right-of-way.

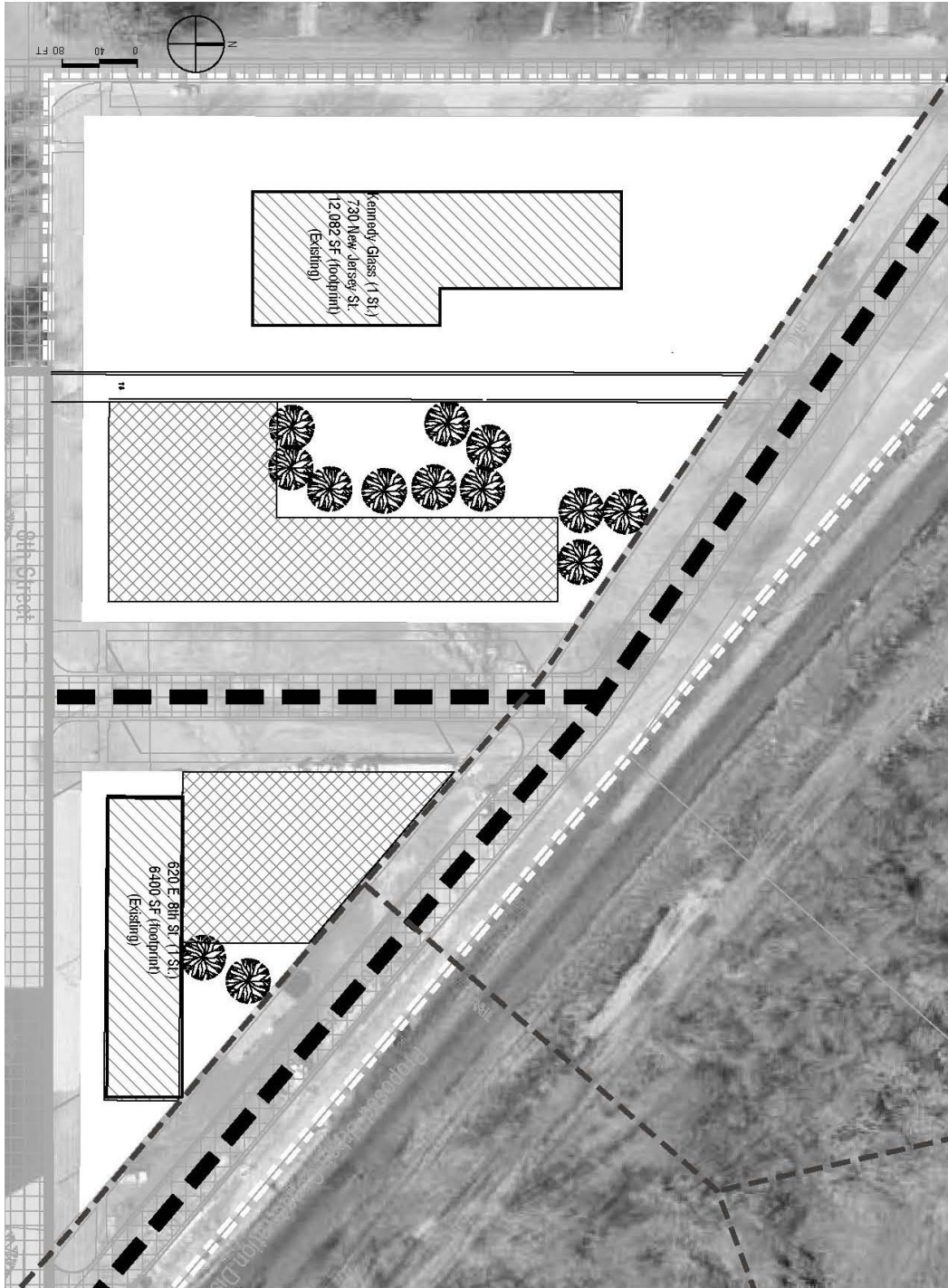
Using fluorescent light fixtures and high intensity discharge lighting.

Using neon lighting that accentuates any shape or form of any of the building's elements.

FIGURE 7: ZONE 4 EXISTING AND NEW CONSTRUCTION ZONE



**FIGURE 8: ZONE 4: EXISTING AND NEW CONSTRUCTION ZONE
(CONTINUED/ROTATED)**



LAND USE PLAN

ZONE 4: EXISTING AND NEW CONSTRUCTION ZONE

NEIGHBORHOOD CONTEXT

This zone is characterized by trapezoidal lots with alignments to both the traditional street grid system and the railroad right-of-way. The parcels were historically characterized by a lack of density, buildings of all sizes, and large amounts of open space, particularly in zones adjacent to railroad right-of-way. They contain several World War II-era Quonset Huts. This zone provides opportunities for new types of development that would retain open spaces and enhance the visual connection to the railroad right-of-way.

Due to its location, Zone 4 is a transitional buffer zone between the Historic and Residential Zones in the UC-O District and the more industrial uses of the railroad, concrete plant, and other potential future developments east of the UC-O District. As a result, the design, scale, massing, and lot openness of the zone should reflect this transitional nature.

SUSTAINABILITY

As a new construction zone, this zone has the most potential for integration of sustainable building practices. Including aspects of green architecture into the building design early on is recommended, and will have the best chance for success.

INFRASTRUCTURE

New construction in this zone will necessitate the need for new street and infrastructure additions, as well. Any additions of this character shall be consistent with those design guidelines established Zone 2, Streetscapes and Alleyways.

ARCHITECTURAL CHARACTERISTICS AND MATERIALS

Recommended

Retaining the Quonset Huts in adaptive re-use when economically feasible.

Incorporating new construction that uses mid- to large-scale buildings. Constructing buildings that reference the street grid or the railroad alignment.

Continuing new mixed-use residential commercial development patterns established in Zone 3 in the zone north of East 8th Street between New Jersey and Pennsylvania Streets, creating a buffer zone or locating large industrial size buildings within surrounding open space.

Building scale should be consistent with the zoned usage.

Building materials and fenestration should be consistent with building use but complementary to the surrounding zones.

Not Recommended

Constructing buildings of the size, scale, and density of the residential zones in East Lawrence.

“Big Box” architecture.

LANDSCAPE

Recommended

Retaining traditional open spaces.

Not Recommended

ACCESS

Recommended

Locating dual access drives for service and delivery vehicles so that they do not disrupt pedestrian or vehicular circulation and do not visually detract from the front of the buildings by shifting them to parking areas or providing alley access.

Designing and locating access drives so that they prevent headlights from shining into adjacent residential zones.

Not Recommended

Access routes for delivery vehicles that create routes directly through the residential areas.

PARKING

Recommended

Locating surface parking lots on all sides of the primary buildings and structures.

Retention of existing on-street parking in front of existing Zone 4 buildings.

Parking design should be consistent with other zones in the UC-O District.

Low bollard lighting will be used to limit lighting impacts to adjacent residential areas.

Not Recommended

Large surface lots.

SIGNAGE

Recommended

Having all signs conform with the Sign Code provisions of Article 7 of the Code of the City of Lawrence

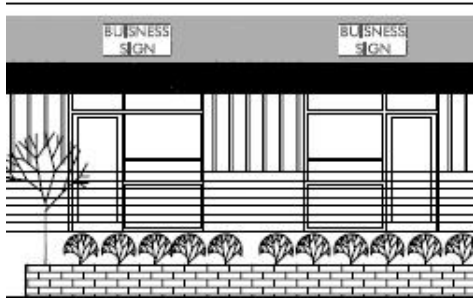
Depending upon the building's use, signs may be oriented toward both pedestrian and vehicular traffic.

Having storefront façades that do not extend past the storefront cornice line. Locating storefront signs in the zone

Not Recommended

between the display windows and the roofline or the second story. Signs for multiple storefronts within the same building should align with each other.

Using signs that reflect the overall symmetry of the building



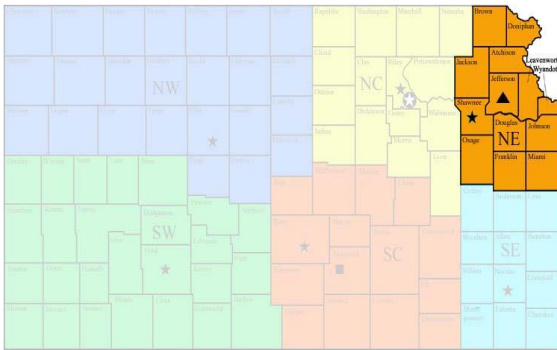
Examples of storefront signage

LIGHTING

Unless noted otherwise, lighting in Zone 4 will be consistent with City of Lawrence Code Section 20-14A01 through Section 20-14A03, or subsequent applicable City standards. Parking lighting shall have a maximum initial illumination value no greater than 0.20 horizontal footcandles at the zone boundary. Nor more than 5 percent of fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down) with the exception of minor building lighting. These lighting requirements are adapted from IESNA RP-33-99. In order to limit lighting impacts on adjacent residential properties, low bollard lighting will be utilized in parking areas adjacent to these properties in lieu of standard pole lighting.

APPENDIX A

Preferred Trees for Northeast Kansas



Growing trees successfully depends on the selection of the right trees for the intended site. It is important to match the growing conditions and space available on the site with the cultural requirements and projected size of each tree to be planted. The following four charts on the following pages show the tolerances of individual trees to various environmental conditions as well as the major landscape attributes of each tree. Not all recommended trees for planting in Northeast Kansas are included. The preferred trees listed were recommended by industry professionals such as city foresters, local tree boards, county and horticulture extension agents, commercial arborists and retail/production nursery interests.

KEY TO USING THIS INFORMATION:

TREE SPECIES AND CULTIVARS: The names of the trees are listed in the center of four different charts. Three of the charts list deciduous trees according to average mature height [a plus (+) indicates they may grow slightly larger.] The fourth chart lists evergreen trees. If improved cultivars of the trees are available and recommended, they are listed. Cultivars often possess improved plant characteristics like better fall color; a unique form; more attractive flowers, fruit or bark; greater heat tolerance; or increased pest resistance. Many trees are available in single and multi-stemmed form. Multi-stemmed forms are more likely to be damaged from snow, ice, or wind.

ENVIRONMENTAL TOLERANCES: The left side of each chart indicates whether the tree is tolerant to various environmental conditions including full sun, light shade, alkaline soil, drought or wet soil. Each chart also shows how resistant each tree is to insect and disease pests. A “**G**” (for good) under the appropriate column indicates the tree is strongly tolerant of the characteristic indicated. An “**F**” (for fair) signifies that the tree shows some tolerance. A blank space in a column indicates the tree is not tolerant and should not be subjected to that environmental condition. Specific information on the “alkaline soil” and “pests” categories follows:

ALKALINE SOIL: (**G**) = tree may tolerate soils with a pH up to 8.0 or more; (**F**) = tree generally will

tolerate an alkaline soil up to a pH of 7.5; (blank) = tree may not tolerate alkaline soils; do not plant in alkaline soils to avoid the problem of iron or manganese chlorosis.

PESTS: (G) = tree is usually free of insect and disease problems; (F) = tree encounters insect or disease pests on an infrequent basis and often is not permanently damaged; (blank) = tree may suffer from pests which may permanently damage or kill the tree and/or the tree may exhibit minor insect and disease problems on a frequent basis which may affect the aesthetics of the tree or insects may commonly be a nuisance.

LANDSCAPE ATTRIBUTES: The right side of each chart includes average mature height and spread of each tree. The size is sometimes highly variable due to the size and shape of different cultivars planted and variability among growing sites. The landscape attributes of flowers, fruit, autumn color and ornamental bark are also listed.

DESIRABLE FLOWERS: (G) = the flowers are showy, adding unique ornamental interest to the landscape; (F) = the flowers are not particularly showy, but may possess other desirable characteristics such as fragrance; (blank) = the flowers are generally considered insignificant.

SHOWY OR USEFUL FRUIT: (G) = fruits are generally aesthetically pleasing; (F) = fruits or nuts are not considered unusually showy, but may provide other interest or benefits such as attracting wildlife; (blank) = no showy or useful fruit.

AUTUMN FOLIAGE COLOR: (G) = the autumn leaf color is typically quite good (may vary with individual trees, cultivars and environmental conditions, however); (F) = the fall color may provide interest in some years; (blank) = autumn foliage color is generally not considered an asset of this particular tree.

ORNAMENTAL BARK: (G) = the bark or twigs are considered to be exceptionally ornamental; (F) = the bark or twigs (on at least some cultivars) lend interest to the landscape (good color, texture, etc.); (blank) = the bark or twigs are not generally considered to be ornamental.

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ENVIRONMENT (tolerant of)						LANDSCAPE ATTRIBUTES				
FULL SUN	LIGHT SHADE	ALKALINE SOIL (HIGH pH)	DROUGHT	WET SOIL	PESTS (RESISTANT TO)	SMALL DECIDUOUS TREES (usually under 20 feet at maturity) Trees with mature height 20 feet or less can be used within 15 feet on either side of utility lines.	MATURE HEIGHT	MATURE SPREAD	DESIRABLE FLOWERS	SHOWY OR USEFUL FRUIT
	G				F	Japanese Maple (Acer palmatum) Protect from summer wind and heat exposure.	15-25	15-25		

G	F	F	G	F	F	Amur Maple (Acer tataricum var. ginnala) Cultivars: 'Compactum', 'Flame' and other improved selections	15-20	15-20		
G	G					Serviceberry (Amelanchier x grandiflora) Cultivar: 'Autumn Brilliance'. Choose superior cultivars and native species.	15-25	15-20	G	G
G	F	G	F		F	Eastern Redbud (Cercis canadensis) Cultivars: 'Alba', 'Forest Pansy'	20-25+	20-25+	G	
G	F	G	F		F	Oklahoma Redbud (Cercis canadensis subspecies texensis 'Oklahoma')	15-20+	15-20+	G	
G	G				F	Chinese Fringetree (Chionanthus retusus)	15-25	10-25	G	G
G	G				F	White Fringetree (Chionanthus virginicus)	10-20	10-20	G	
G		F	F		F	Common Smoketree (Cotinus spp.) Purple and green leaf cultivars available	10-15	10-15	G	
G	F	G	G		F	Winterberry Euonymus (Euonymus bungeanus)	15-20+	10		G
	G				G	Star Magnolia (Magnolia stellata) Protect from summer wind and heat exposure.	15-20	10-15	G	
	G			F	G	Sweetbay Magnolia (Magnolia virginiana) Protect from summer wind and heat exposure.	10-30	10-20	F	

G		F	F			Flowering Crabapple (Malus spp.) Many cultivars available. Choose disease resistant cultivars only. Superior cultivars include: 'Prairiefire', 'Adirondack', 'Adams', 'Sargeant', Also refer to KSU Research and Extension Crabapple Publication MF-875.	varies	varies	G	G
G	F				F	Chokecherry (Prunus virginiana) Cultivar: 'Canada Red Select'	15-25	10-15	G	G
G		G	F		F	Japanese Tree Lilac (Syringa reticulata) Cultivar: 'Ivory Silk'	20-25	15-25	G	

ENVIRONMENT (tolerant of)						LANDSCAPE ATTRIBUTES				
FULL SUN	LIGHT SHADE	ALKALINE SOIL (HIGH pH)	DROUGHT	WET SOIL	PESTS (RESISTANT TO)	MEDIUM DECIDUOUS TREES (usually 20 to 40 feet at maturity)	MATURE HEIGHT	MATURE SPREAD	DESIRABLE FLOWERS	SHOWY OR USEFUL FRUIT
G	F	F	F	F	F	Trident Maple (Acer buergerianum) Some trees could suffer winter injury.	20-35	20-30		
G	G	F	G		G	Hedge Maple (Acer campestre) Cultivar: Queen Elizabeth™ ('Evelyn')	25-35	25-35		
F	F	F			G	Paperbark Maple (Acer griseum)	20-30	15-30		
G	F	F	F		G	Shantung (Purpleblow) Maple (Acer truncatum) Cultivars- hybrid with A. platanoides: 'Keithsform' (Norwegian Sunset™),	25-30	25-30		

						'Warrensred' (Pacific Sunset™).				
F	G				F	American Hornbeam (Carpinus caroliniana)	20-30	20-30		

G		F			G	American Yellowwood (Cladrastis kentukea)	30-50	40-55	F		F	
G		G	G			Goldenraintree (Koelreuteria paniculata)	30-40	30-40	G	G	F	
G		G	G	F	G	Osage Orange (Maclura pomifera) Cultivars: 'Wichita', 'Whiteshield'. Fruitless and thornless cultivars recommended for most community plantings.	30-40+	20-40			G	F
F	G					Saucer Magnolia (Magnolia x soulangiana) Protect from summer wind and heat exposure.	20-30	15-25	G			
G		F	F			Flowering Crabapple (Malus species) Many cultivars available. Choose disease resistant cultivars only. Superior cultivars include: 'Centurion'; 'Ralph Shay'; Siberian Crab (M. baccata 'Jackii'); 'Spring Snow'; 'Van Eseltine'; White Angel™ ('Inglis'); 'Red Splendor'. Also refer to KSU Research and Extension Crabapple Publication MF-875.	varies	varies	G	G		F
G	G	F	F		G	Hophornbeam (Ironwood) (Ostrya virginiana)	25-40	20-30		F	F	F
G		F	G		F	Callery Pear (Pyrus calleryana) Several improved cultivars available. Superior cultivars include: 'Chanticleer' (also labeled 'Cleveland Select'), 'Capital', 'Aristocrat', 'Redspire'. 'Bradford' is not a recommended cultivar.	30-40+	10-45	G	F	G	
G		G	G		G	Chinkapin Oak (Quercus muehlenbergii)	35-40+	40-45		F	F	
G		G	G		G	Western Soapberry (Sapindus drummondii)	25-40+	25-30	G	G	G	F

ENVIRONMENT (tolerant of)						LANDSCAPE ATTRIBUTES				
FULL SUN	LIGHT SHADE	ALKALINE SOIL (HIGH pH)	DROUGHT	WET SOIL	PESTS (RESISTANT TO)	LARGE and VERY LARGE DECIDUOUS TREES (usually 40 feet and larger at maturity)	MATURE HEIGHT	MATURE SPREAD	DESIRABLE FLOWERS	SHOWY OR USEFUL FRUIT
G	F	F				Freeman Maple (Acer x freemanii) Cultivar: 'Armstrong'; 'Jeffersred' (Autumn Blaze®); Autumn Fantasy™. Poisonous to horses.	50-60	40-50		
G	F	G	G			Norway Maple (Acer platanoides) Several cultivars available. Superior cultivars include: 'Emerald Queen',	40-50	40-50		

						'Superform' (Green leaf cultivars) and 'Fairview', 'Crimson King', 'Royal Red' (Red leaf cultivars).				
G	F			G		Red Maple (<i>Acer rubrum</i>) Cultivars: Red Sunset ® ('Franksred'); October Glory ®; 'Autumn Flame'; Burgundy Belle ® 'Magnificent Magenta' and columnar forms; Poisonous to horses.	40-60	35-50	F	
G	G	F				Sugar Maple (<i>Acer saccharum</i>) Cultivars: 'Commemoration'; 'Legacy'; Caddo; 'Fall Fiesta'; 'Bonfire'; all are more heat tolerant/leaf tatter resistant cultivars.	40-60+	30-50		
G				G	F	River Birch (<i>Betula nigra</i>) Cultivar: 'Heritage'	40-60	40-50	F	
G	F		F		F	European Hornbeam (<i>Carpinus betulus</i>) Upright cultivars available.	40-60	30-40+		
G		F	G		F	Persimmon (<i>Diospyros virginiana</i>)	35-50+	20-35	F	G
G		G	G		G	Ginkgo (<i>Ginkgo biloba</i>) Cultivars: 'Autumn Gold'; 'Princeton Sentry'; 'Magyar'. Male cultivars recommended for most community plantings.	50-60+	25-40		
G		G	G	F		Thornless Honeylocust (<i>Gleditsia triacanthos</i> var. <i>inermis</i>) Cultivars: 'Shademaster', 'Skyline', 'Imperial'.	40-60+	30-50		
G		G	G	F	G	Kentucky Coffeetree (<i>Gymnocladus dioica</i>) Seedless cultivars available.	50-60+	30-45		F
G				G		Sweetgum (<i>Liquidambar</i>)	50-75	35-50		F

						styraciflua)					
G	F			G		Black Tupelo (Black Gum) (Nyssa sylvatica)	30-50	20-30			
G	F	G	F	G		London Planetree (Platanus x acerifolia)	60-80	50-60			F

						Cultivar: 'Bloodgood'.						
G		F	G		G	Sawtooth Oak (Quercus acutissima)	35-40+	30-45		F	F	
G						White Oak (Quercus alba)	60-80	40-60		F	G	
G			F	G	F	Swamp White Oak (Quercus bicolor)	50-60	40-60		F	G	F
G			G	F	F	Shingle Oak (Quercus imbricaria)	50-60	40-60		F	F	
G		G	G	F		Bur Oak (Quercus macrocarpa)	60-80	50-70		F		
G			F	F	G	Willow Oak (Quercus phellos)	40-60	30-40			F	
G						Chestnut Oak (Quercus prinus)	60-70	60-70				
G		G	F		F	English Oak (Quercus robur)	40-60+	45-65		F		
G					F	Red Oak (Quercus rubra)	60-75	40-60		F	G	
G		F	F	F	F	Shumard Red Oak (Quercus shumardii)	60-80	40-60		F	G	
G			G	G	G	Baldcypress (Taxodium distichum)	50-70+	20-50		F	G	F
G	F	F			F	American Linden (Tilia americana) Cultivars: 'Redmond'	50-60+	35-40	F		F	
G	F	G			F	Littleleaf Linden (Tilia cordata) Cultivars: 'Greenspire'.	50-60	25-40	F		F	
G	F	G	G	F	F	Lacebark Elm (Ulmus parvifolia) Cultivars: 'Emeri I' (Athena®); 'Emeri II' (Allee®); Bosque™; 'Emerald Prairie'; 'Frontier'.	40-60	35-50		F	F	G

ENVIRONMENT (tolerant of)

FULL SUN LIGHT SHADE ALKALINE SOIL (HIGH pH) DROUGHTWET SOILPESTS
(RESISTANT TO) EVERGREEN TREES

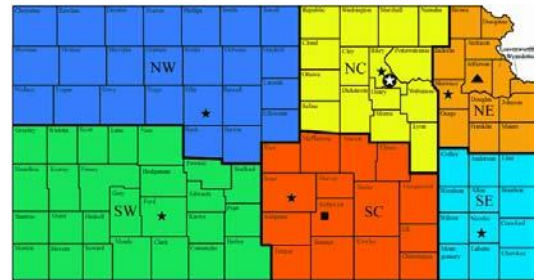
LANDSCAPE ATTRIBUTES

MATURE HEIGHTMATURE
SPREAD DESIRABLE FLOWERS
SHOWY OR USEFUL FRUIT
AUTUMN FOLIAGE COLOR
ORNAMENTAL BARK

G	G	G	G	G		Upright Chinese Juniper (Juniperus chinensis) Many cultivars available. See your KSU-County Extension office or local nursery for the best recommendations. Eastern Red Cedar (Juniperus virginiana) Many cultivars available. Superior cultivars include: 'Canaertii' (Canaert Red Cedar), 'Taylor', 'Burkii'; Black Hills Spruce (Picea glauca 'Densata') Norway Spruce (Picea abies) Limber Pine (Pinus flexilis) Cultivar: 'Vanderwolf's Pryamid'	varies 30-40+ 30-40+ 40-60 30-40	varies 10- 30 15-20 25-30 15- 30	G	G	F	F	F	F	F
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This publication is coordinated and updated by the Kansas Forest Service. For further information and assistance, or to provide feedback and recommendations to the preferred tree listing please contact:

*Kim Bomberger, NE / NC District Community Forester Preferred tree lists are available for other areas of the state.
Kansas Forest Service Visit us on the web for more information. 2610 Claflin Road Manhattan, KS 66502 785-532-3315
kbomberg@oznet.ksu.edu*



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APPENDIX B

8 th and Penn Neighborhood Redevelopment Density						
Existing Buildings	Bldg	Stories	Residential (Sq Ft)	Units	Retail (Sq Ft)	Office (Sq Ft)
	720 E. 9th					
	806 Penn	1			1115	
	804 Penn	2			1369	
	Poehler (Main)	1				15508
	2 nd floor + basement	2				12893
	Residential		25700	24		
	810 Penn	2			6627	
	826 Penn	1			10444	
	830-832 Penn	1				10220
	846 Penn West	2			2651	
	846 Penn East	1			1556	
	Totals		25700	24	23762	38621

Projected	Bldg	Stories	Residential (Sq Ft)	Units	Retail (Sq Ft)	Office (Sq Ft)
	8 th and Penn	3			3600	
	9 th and Penn	3			3600	
	Penn Row Phase II	3	11230	10		
	Penn Row Phase III	3	11230	10		
	Penn Row Phase IV	3	11230	10		
	Totals		33690	30	7200	0
	Overall Totals		59390	54	30962	38621

Total Development Area (Residential area + Retail area + Office area)
 Percentage Retail (not to exceed 25%; see page 11 of this document)

128973
 24.0%

Note: Built, unoccupied space shall be calculated as non-retail space for the purpose of determining a percentage of retail development for the 8th and Penn UC-O District.

Note: A revised Appendix B shall be submitted with each plan review as stated in the Review Principles section (pg. 16) of this document.