

Olive Boulevard Design Guidelines

University City, MO



EXISTING CONDITIONS

A P P E N D I X - B



CORRIDOR CHARACTERISTICS

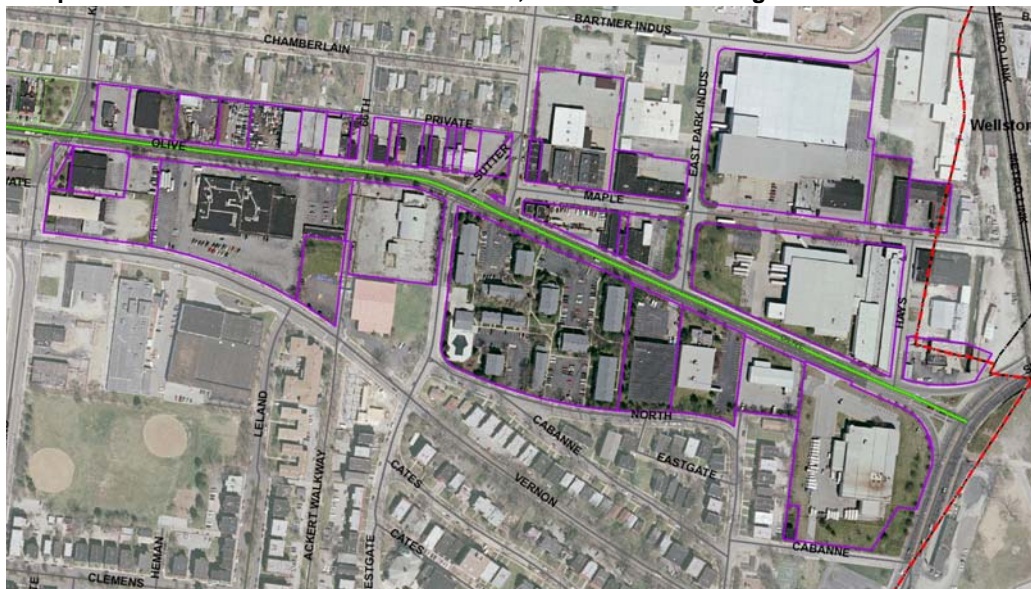
As discussed in the *Chapter 1- Introduction*, the Olive Boulevard corridor characteristics are diverse; therefore the proposed “Design Guidelines” are divided into various “Districts”. These “Districts” or commercial neighborhoods are categorized based on:

- Adjacency
- Similarities in land use patterns
- Density
- Street Configuration
- Perceived “theme” of the area (such as industrial areas, international restaurants, City Park, etc)
- Historic relevance

Development along Olive Boulevard follows traditional investment patterns as the alignment extends westward from the City of St. Louis into St. Louis County. Development along Olive Boulevard within the City occurred during the 1920’s and 1950’s to Hanley Boulevard. During the 1960’s and 1970’s larger commercial development began to occur and finally, during the 1980’s, strip centers and other low density commercial development extended westward to I-170.

District 1 – Industrial Parks: Early development contained small homes close to the street, later converted to office space and other commercial uses. An industrial park located near the intersection of Skinker and Olive Boulevards near the eastern terminus of the subject corridor extends to Kingsland Avenue. It appears that smaller, residential type structures were demolished to stimulate the industrial investment which included the creation of larger development parcels through the assembly of multiple parcels of land. This assembly allowed for larger building configurations, internal street circulation and traffic control, control of density within the defined area, and specific zoning applicable to the stated purpose of the development.

Map:A.1: District 1 – Industrial Park District, Skinker Blvd to Kingsland Ave



Source: St. Louis County GIS and Univercity City



District 2 – Parkway District: Development along this sector of the corridor is characterized by small residential and commercial properties integrated into a typical 1940's to 1960's urban fabric. Uniquely, many of the land parcels are

Map A.2: District 2 – Parkway District



Source: St. Louis County GIS and University City

placed diagonal to the street creating a slightly skewed neighborhood pattern on the north side of the street. The south side of Olive Boulevard within this proposed district is characterized by a super market and strip center at Pennsylvania Avenue and a series of small commercial uses. An architecturally interesting fire house is located in front of the supermarket on the southeast corner of Olive Boulevard and Pennsylvania Avenue. However, the distinguishing characteristic of this district includes Heman Park. The park is bifurcated by River Des Peres and its floodplain and includes a community center, soccer arena, ball fields, a public works facility, and a trash transfer station operated by the City.

District 3 – International Commercial District: This section of Olive Boulevard

Map A.3: District 3 – International Commercial District



Source: St. Louis County GIS and University City

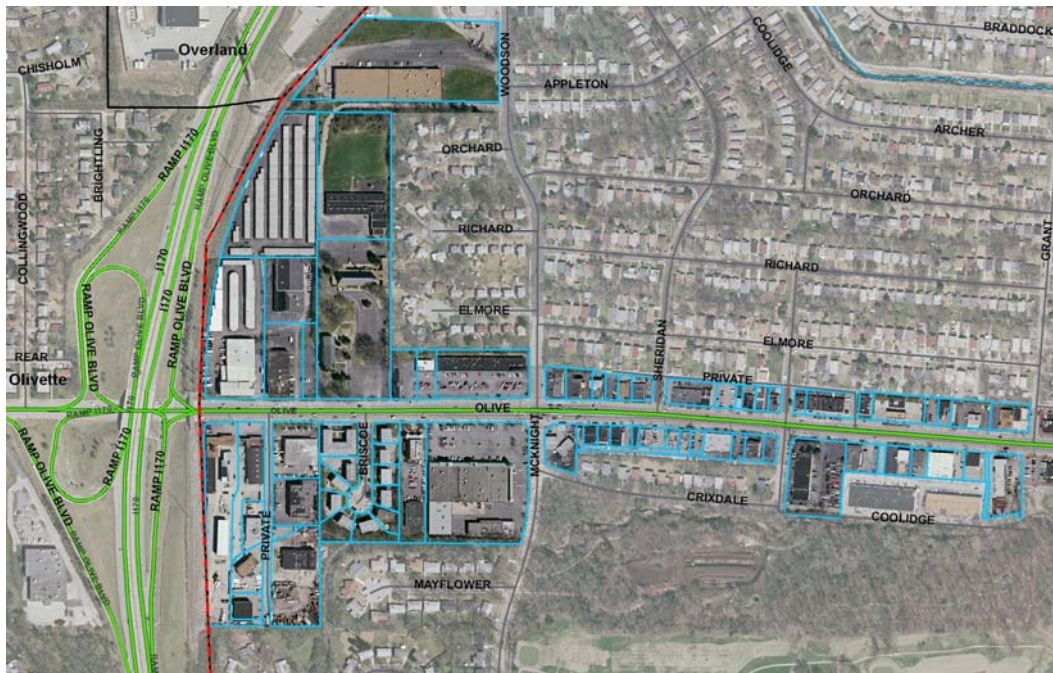


extends from Midland Boulevard to Grant Road and is characterized by small, independent commercial buildings and small strip centers, a large portion of which contain ethnic restaurants, groceries, services, and banking. On the southwest corner of Hanley Road and Olive Boulevard an historic Jewish Cemetery provides a shaded and park like presence.

The predominant feature of this District however is the floodplain and floodway created by the main channel of River Des Peres. Portions of this river are piped, while in this area the river is at grade as it creates the east and west boundaries of this proposed District. Due to these floodplain conditions, redevelopment of this area will be challenging and will impact land use, zoning, and financing of new investment.

District 4 – Interchange District: The construction of a new interchange at I-170 and Olive Boulevard will change the characteristics of this proposed district to the extent that access and visibility have been altered which may prompt planning and redevelopment of land in this district. Small strip centers and independent standing structures characterize the eastern side of this district which gradually phase into larger more industrial and heavy commercial buildings closer to the actual interchange alignment.

Map A.4: District 3 – International Commercial District



Source: St. Louis County GIS and University City

NATURAL CHARACTERISTICS ALONG OLIVE BLVD

Soils Hydrology and Composition: The study area is basically made-up of soil belonging to the Urban Land Harvester Complex and Fishpot series (Refer Map-1). Urban Land Harvester Complex is urban man-made soil considered to be of good quality for development purposes. Fishpot series is another type of soil that can be found along river channels and is made up of poorly drained soils with



moderately slow permeability and is not considered as desirable for development.

Hydrology in the Olive Boulevard area is dominated by the main channel of River Des Peres, along with several of its tributaries, the Southwest Branch, and the West Fork Creek. These streams, along with their associated floodplain and floodway conditions thread through this length of Olive Boulevard (Refer Map-II). Historically, this corridor was subjected to heavy flooding from the river and its tributaries and the original “farm-to-market” road (Olive Boulevard) was constructed as a “corduroy” or plank road, with logs sunk in the roadbed to allow wheeled traffic to pass when the road was muddy or otherwise impassable.

The floodplain conditions prohibit extending the shallow depth of many of the existing commercial properties along the corridor resulting in limited redevelopment options for those projects requiring deeper parcels. Also, due to the location and size of existing floodplain areas along the alignment, any existing buildings now located within these areas will become restricted development land if vacated and/or demolished.

Topography: Overall the topography of the subject site is flat except for man-made berms and other landscape features. A portion of the study area is within floodplain which is characterized by low areas and relatively flat ground which slopes to river bank conditions (Refer Map-I).

EXISTING LAND USE

The Existing Land Use Map-III illustrates the general location of various land use categories along the corridor. It is used to evaluate current patterns of land use and assess needs for future growth. University City currently has ten (10) land use categories ranging from residential to commercial and industrial uses. The parcels contained in the study area fall under any one of the seven (7) categories listed below:

- Single family
- Multi-family
- Commercial
- Institutional
- Industrial
- Parks and Recreation
- Vacant

The Olive Boulevard corridor is primarily commercial in land use character, and includes retail shops, wholesale businesses, restaurants, big box developments, offices, and certain warehouses. Industrial uses are primarily concentrated at the east and west termini points of the corridor at Skinker Boulevard on the east and I-170 on the west. The residential uses are medium to high density structures scattered throughout the corridor. Institutional uses are spread throughout the area and important landmarks along the corridor include an historic cemetery, a large city park, a city owned day care center, a city public works facility and several schools.



P-A.1: Examples of commercial land use



P-A.2: Examples of Residential land use



P-A.3: Examples of Industrial land use



Source: Arcturis

EXISTING ZONING

University City currently has eleven (11) zoning districts ranging from residential to commercial and industrial uses. The parcels contained in the design guidelines fall within any one of the five (5) zoning districts listed below.

General Commercial: The General Commercial category (GC) accommodates a wide range of commercial land uses, including limited manufacturing and warehousing uses which can be developed at a scale and density that is compatible with adjacent properties:

- Minimum Lot Size: 12,500 SF
- Minimum Right-of-Way Setback: 35 feet
- Minimum Property Line Setback: 25 feet
- Site Coverage: 70 % (May be increased on a scale of 1 to 10 based on conditional permit)

High Density Residential: The purpose of the High Density Residential “HR” category is to protect and conserve areas of predominantly multi-family apartments, encourage increased density, and provide for the construction of new high density residential developments commonly referred to as townhouse apartments, garden apartments, and condominiums:

- Minimum lot size: 20,000 SF
- Minimum Right-of-Way Setback: 20 feet
- Minimum Property Line Setback: 10 feet



- Typical Floor Area Ratio (FAR):1.0 (Buildings with elevator(s) FAR changes with the area to be developed meaning that if lot area is one (1) acre FAR may be increased to 2.0 and if a lot is three (3) acres in size FAR may be 3.0)

Medium Density Residential: The purpose of the Medium Density Residential (MR) category is to protect and conserve areas of predominantly multifamily apartments built at medium density and to provide for the construction of new medium density residential developments commonly referred to as townhouse apartments, garden apartments and condominiums:

- Minimum Lot Size: 20,000 SF
- Minimum Right-of-Way Setback: 20 feet
- Minimum Property Line Setback: 10 feet

Industrial Commercial: The Industrial Commercial (IC) category is intended to encourage light industrial, light manufacturing, warehousing, office, and retail development. The land uses within this designation are intended to be developed at a scale and density which does not impact adjacent property such as noise, vibration, smoke, dust, toxic or noxious emissions or byproducts, explosive hazard or increased truck traffic. Expressly prohibited uses in this district include heavy industrial operations such as, but not limited to, foundries, refineries, incinerators, tire and rubber reclamation facilities, and processing of flammable liquids, gases, explosives, caustic and hazardous chemicals:

- Minimum Lot Size: No minimum required lot size (lot area and dimensions are to be sufficient to meet parking and other requirements)
- Minimum Right-of-Way Setback: 35 feet
- Minimum Property Line Setback: No building setback is required from a property line other than from a right-of-way line

Public Activity: The Public Activity (PA) category is intended to encourage those uses and groupings of uses which are distinctly public in character and to encourage the retention of certain properties in relatively undeveloped condition, such as public recreation uses or semi-public cemeteries:

- Minimum lot size: while there is no minimum lot size required it should be able to accommodate minimum setback
- Minimum Right-of-Way Setback: 15 feet
- Minimum Property Line Setback: No building setback is required from a property line other than from a right-of-way line

FUTURE LAND USE

The City of University City has updated its comprehensive plan in 2005. As a part of the plan, a Future Land Use plan was proposed. Map-IV illustrates the general location of various proposed land use categories along the corridor as per comprehensive plan update. The parcels contained in the study area fall under any one of the seven (7) proposed categories listed below:



- Single family
- Multi-family
- Commercial
- Mixed use/ Transit oriented development
- Institutional
- Parks, Recreation and open space
- Industrial

INFRASTRUCTURE AND COMMUNITY FACILITIES

The corridor west of Ferguson, within the maintenance of the Missouri Department of Transportation, currently includes an approximate 75' right-of-way with an ultimate maximum allowed right of way of 90'. The current travel way varies, but is typically 2 travel lanes in each direction, with a center turning lane at major intersections. Many of the intersections include electric traffic signals.

East of Ferguson, the alignment is maintained by the St. Louis County, and includes two travel lanes in each direction (See Map-V). The alignment becomes more restricted in this area due to the reduction in the number lanes and a series of medians along the entire extent of this portion of the roadway. Buildings tend to be closer to the street and more industrial uses add heavier vehicular traffic to the traffic movements.

Connections: In addition to Skinker Boulevard and I-170, other important intersections along Olive Boulevard include:

- Warson Road
- North and South Boulevard
- Hanley Road
- Pennsylvania Avenue
- Kingsland Avenue

In some cases these major intersections have a moderate impact on access and market enhancement due to their interrupted alignments and lack of connectivity to other economic markets in the area.

Utilities: Olive Boulevard is a major utility corridor with electric, water, storm sewers, telephone and cable lines and natural gas service. Overhead lines include electric and telephone wires on poles running the full length of the corridor creating visual clutter and distracting from any aesthetic investment.

Public Transportation: Public transportation is provided by Metro Bus, #91-Olive, with connections to the Delmar Metro Station to the east and Chesterfield Mall to the west. Bus stops are located at approximately 10 to 15 minute walking distance between stops with major stops at Midland Avenue, Hanley Road, North South Boulevard, and near the Woodson/McKnight intersection.

Community Facilities: Community facilities along or adjacent to the corridor include the Heman Park and Centennial Commons recreational complex, as well as Ruth Park and the Ruth Park Golf Course (set off the corridor, just south of

P-A.4: Utilities



Source: Arcturis



the new I-170 and Olive Boulevard interchange). There are also several private community facilities such as schools, daycare, churches and a cemetery and certain public facilities (See Map-V).

STREETSCAPE TREATMENT

The streetscape consists of elements along the street right-of-way that define its appearance, identity, and functionality, including land uses, building facades, street furniture, landscaping, trees, sidewalks, signage, and pavement treatments.

The streetscape along Olive Boulevard varies widely and ranges from areas that have no sidewalk or landscaping to more planned streetscapes and public amenities.

P-A.5: Variation in current streetscapes along Olive Blvd



Source: Arcturis

The City has developed requirements for the corridor which are administered by the Department of Public Works and include such streetscape amenities and enhancement elements as:

- Pedestrian Scale Lighting
- Sidewalks Finishes and Paving on the Public Right-of-Way
- Decorative Fencing and Walls
- Trees, Shrubs and Tree Grates

These requirements are enforced for new developments (see picture below: “New Streetscape Elements”) requiring that investors install landscape elements



in the right-of-way along Olive Boulevard where applicable. The design guidelines contained herein are meant to enhance and complement existing requirements and are not intended to assert immediate action for those improvements in place at the time of their adoption.

P-A.6: New Streetscape Elements



Source: Arcturis

Median: Currently raised medians are sporadically located along Olive Boulevard. The street alignment is five lanes wide, two on either side of the centerline, and including one turning lane. The Missouri Department of Transportation (MoDOT) does not have restrictions related to the construction and landscaping of medians as long as their presence does not interfere with traffic flow. If designed and installed at key locations and well placed turning points, medians can help improve traffic flow and enhance pedestrian access at intersections and other predetermined street crossings.

The safety benefits of median improvements have been the subject of numerous studies. Studies of both particular corridors and comparative research of different types of median treatments indicate the significant safety benefits from access management techniques. According to an analysis of crash data in seven states, raised medians reduce crashes by over 40% in urban areas and over 60% in rural areas. A study of corridors in several cities in Iowa found that two-way left turn lanes reduced crashes by as much as 70% and improved the level of service by one full grade in some areas while increasing lane capacity by as much as 36%.

A study of median treatment in the State of Georgia found that raised medians reduced pedestrian involved crashes by 45% and fatalities by 78%, compared to two-way left-turn lanes¹.

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¹ "Benefits of Access Management Brochure", Available at http://www.ops.fhwa.dot.gov/access_mgmt/docs/benefits_am_trifold.htm, Accessed November 01, 2007



Landscaping: Presently, landscaping is not uniform and includes multiple species and planting layouts in multiple areas along the corridor. In some areas tree locations block pedestrian movement and vehicular visibility and signage.

The “Olive Boulevard Design Standards” lists fourteen (14) trees that form the “plant pallet” for the corridor. Additionally, there are four (4) tree grate designs from which new and redevelopment owners may select as part of their landscape options.

It is recommended that the following issues be included in any new projects:

- create planting pallets by choosing specific trees and grates that vary within districts
- classify trees, meaning street trees, accent trees and canopy trees for each district
- create landscape design possibilities that include number of trees, type of grate, surface plantings and water detention options as required

As with buildings, plantings range in age from newly planted to older and more deteriorated stock. Some of the individual plants appear to be stunted or deformed, dead or dying.

Lighting: Lighting is provided both by vehicular-scale cobra head lights (Required by MoDOT at every street intersection), as well as lower level, pedestrian scale decorative lights, installed as required by the “Olive Boulevard Design Standards”. However, there are locations that have inconsistent spacing of street lights and, when coupled with overgrown plants, results in inadequate lighting and lack of streetscape continuity.

Some properties lacking tenants or owner occupancy have little or no lighting resulting in “black out” areas along the corridor. This condition creates real and perceived safety issues and discourages pedestrian access to the corridor at these locations.

Curb Gutter and Sidewalk: Age, land use, and varied design criteria create a wide variety of curb and gutter sections including straight curb and gutter, mountable curbs, and open, uncurbed areas that allow automobiles to park directly in front of buildings.

Sidewalk finishes include: asphalt infill, stamped asphalted concrete, and concrete. In several locations sidewalks are in poor conditions and in need of maintenance. The width of these walks varies from less than 2’ up to 6’. A few sidewalks are as wide as 10’ in newly developed areas.

P-A.6: Landscaping



Source: Arcturis

P-A.7: Lighting



Source: Arcturis



Currently sidewalks are required to be at least 5' in width. Pictures P-A.8 & A.9 show examples of old sidewalk conditions compared to new concrete sidewalk construction installed per regulation.

Gutter design (both placement and types) varies greatly throughout the corridor. Pictures P-A.8 & A.9 illustrate typical curb and gutter conditions at stormwater inlets.

P-A.8: Sidewalks and curbs



P-A.9: Gutter Detail



Street Furniture: Street furniture includes seating, public convenience elements such as bike racks and water management systems that not only control water run-off, but are designed to add interest and visual appeal using water features. Therefore, the term “street furniture” typically includes:

- seating and benches
- trash reciprocals
- bike racks
- newspaper and magazine boxes
- water fountains
- planters

Currently there is no particular pallet for street furniture.

Views: The predominant views along the Olive Boulevard corridor include the street alignment, elements along the corridor such as curbs, signage, and



median design, and secondarily, landscaped areas between the street and development sites, including parking lots, lighting, and building facades, storefront design and architectural details.

OTHER STREETSCAPE ELEMENTS

Public Art: The term public art refers to works of art and specific design elements along the corridor and in the median that are planned and installed with the specific intention of being viewed by the public. Public art often responds to site specificity, community involvement and collaboration. Some forms of public art are designed to encourage public interaction or intended to be whimsical while other art forms contribute to the overall aesthetic appeal of streetscapes. Public art can give unique identity to any space and can create activities that encourage people to gather and participate. Appropriately designed kiosks can also contribute to the overall streetscape aesthetics and create economic opportunities for small business owners and unique, one of a kind products. Presently, there is no significant or purposeful art along the Olive Boulevard corridor.

Water features: Landscape architecture includes a full range of fountain, pool, pond, cascade, waterfall, and stream design elements that can enhance the aesthetic quality of an environment as well as provide important water quality and retention areas. Although this corridor is significantly impacted by the River Des Peres floodplain, presently there are no water features or water related design features along the Olive Boulevard corridor.

ARCHITECTURE, TENURE AND AGE OF STRUCTURES

Architecture: Architecture along the corridor consists of small, design obsolete, single story buildings in varying degrees of repair. In some locations, small single family homes have been converted to commercial uses and strip centers with out parcel buildings are punctuated by newer, suburban style shopping centers, as well as isolated two-story mixed use buildings (see pictures P-A.1, A.2 7 A.3). There are a few historically significant buildings, such as the firehouse at Olive Boulevard and Pennsylvania Avenue that reflect interest architectural details.

A variety of materials and architectural styles have been used to construct buildings along the corridor. Although diversity in architecture creates vibrancy along the corridor, design guidelines need to address market demand, safety, and a cohesive environment that can foster investment and market access. Elements such as height, setback, transparency, and customer amenities are important to the overall unified vision of the corridor while protecting the individuality and architectural integrity of structures.

Age of structures: Most of the structures along the corridor were constructed from 1950 to 1970 (Refer Map-VI) and many of these properties are characterized by surface parking lots in front of single story structures. Other structures built before 1930 are shown in orange on the map and although considered older structures within the City's overall municipal fabric, only a few



structures, such as the old fire station mentioned above, are historically significant. Others are in a deteriorated condition and need to be replaced or renovated depending on their structural condition.

Parking: Most structures are served by parking lots located in the front or to the side of the individual buildings. Therefore, building frontage along the corridor is primarily dominated by parking lots with set backs extending from the Olive Boulevard right-of-way to the building walls. Newer suburban-style shopping centers are usually served by large parking lots along the right-of-way presenting an expansive, open view to vehicular and pedestrian traffic along the corridor.

P-A.10: Parking Conditions along Olive Blvd



Source: Arcturis

Owner vs. Rental of Properties: Many of the structures along Olive Boulevard are rental properties (Refer Map-VII). Typically, buildings occupied by tenants tend to be less maintained and the constant renewal or releasing of tenant space places excessive wear and tear on the structures. Some of the poor maintenance conditions observed along the corridor are associated with the constant removal and re-installation of signage along the cornice and fascia areas. Exceptions to this overall private ownership issue are properties owned and maintained by public entities such as city parks, institutional use, and cemeteries.

SIGNAGE

Signage along Olive Boulevard is extremely varied with no uniformity of design. For example, internally illuminated neon signs are used on the western sector of the corridor while painted and unlighted signs are concentrated on the eastern sector of the corridor. Individual buildings and multi-tenant buildings have signage that complements or creates a uniform and cohesive appearance due to single tenancy, however, strip centers with multiple tenancies have such a wide variety of signage that they compete and add confusion to the overall appearance of buildings. Typically, color and size of font establishes a unified appearance and creates a more commercial environment overall.

More uniform signage can enhance the overall visual appearance of the corridor and provide continuity and interest to the various commercial activities along Olive Boulevard.



P-A.11: Signage along Olive Boulevard



Source: Arcturis

COMMERCE ALONG OLIVE BOULEVARD

As suggested by the proposed designation of districts along Olive Boulevard, commerce, aesthetics, public elements and advertising can also be implemented based on defining existing and future economic opportunities within various sectors of the corridor.

The Industrial Park District commerce is mainly represented by light industrial uses, such as warehousing, distribution, and auto related goods and services. These uses are classified as “business to business” rather than “business to consumer” establishments.

For example:

- Cunningham Business Park
- Cintas
- Matheny Heating and Cooling

These uses require heavy use of large trucks and need to be accessible to streets and highways for safe, efficient transport of goods. Several of the businesses, however, have alternate locations on streets either to the north or the south. These uses contribute to the commerce along Olive Boulevard, but because they are “business to business”, they may be less visible to the general public.

The Parkway District includes commercial uses that serve local residents, and their uses are typical of general and convenience store operations in the St. Louis area. A partial list would include:

- Schnucks Supermarket
- Walgreens Drugstore
- Aldi's Market

The University City Olive Link is a 3 mile stretch of commerce & culture located on Olive Boulevard between Interstate-170 and Skinker Rd. in University City. There are over 310 restaurants and businesses in the area. It is the purpose of the Olive Business Association (OBA) to create, enhance, and promote commerce within the University City Olive Link





- Pete's Shur-Sav Market
- Jack in the Box Fast Food Restaurant

The patrons of these establishments are generally near by neighborhoods, also including neighborhoods to the east and in the City of St. Louis.

The "International Commercial District" has a diverse mix of restaurants, retail stores and services that generate traffic from throughout the St. Louis Metropolitan area. These specialties include (not an inclusive list):

- Apothecaries (doctors and dentists) offering traditional Chinese medicine
- Jamaican, East African and Ethiopian markets and restaurants
- Asian, Latin and Philippine markets, groceries and restaurants
- European seafood, delicatessens, and butchers
- There is a heavy concentration of Asian, Latin, and African restaurants, markets and gift stores that draw not only from the St. Louis Metropolitan area and beyond.

The preponderance of Asian establishments here are represented not only by the business associations mentioned above, but also by the Chinese Chamber of Commerce in Greater St. Louis. This organization provides assistance to business owners throughout the St. Louis area.

It is important to note that in all the proposed districts, there are also thriving businesses that cater to local neighborhoods. These businesses include department stores, grocery stores, fast-food, clothing and shoe stores, as well as service businesses such as banks, salons, appliance and computer repair, laundries and dry-cleaning. Professional services provided in the area include insurance companies, attorneys, accountants, and estate planning companies.

The "Interchange District" includes a mix of wholesale, retail, warehouse and storage, as well as corporate offices. Mercantile sale of home products and installation services in this area attract buyers regionally from throughout the greater St. Louis area. These goods and services are conveniently located near the intersection of Olive Boulevard and Interstate I-170 allowing easy accessibility to the region's highway systems. The merchants and owners in this area are represented by the Olive Business Association and the "Olive Link".