

# Street and Circulation Standards



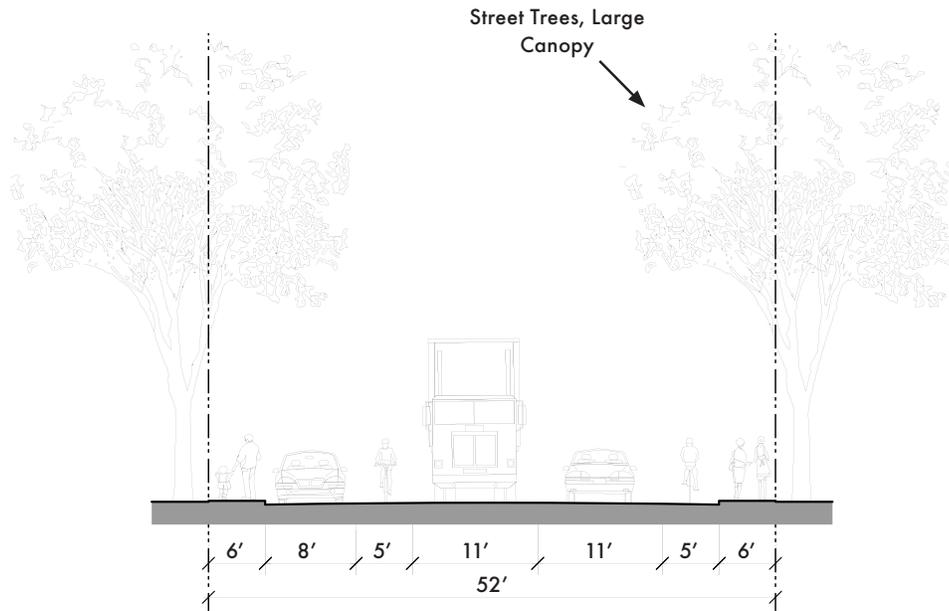
## Introduction

This section provides standards for improvements to existing and new streets, stairs, and pedestrian paths in the project area. Circulation classifications are organized in the above diagram and described in the sections that follow.

The LAMUSP defines new street and circulation improvements, such as roundabouts, that are necessary and essential to the continued revitalization of the project area. It also recognizes that much of the Arsenal’s unique character lies in its circulation network of narrow streets and pedestrian paths and stairs, and subsequently defines areas for renovation and preservation.

## Key

- Study Area
- Military East
- Jefferson Street
- Adams Street
- Park Street
- Neighborhood Street 1
- Neighborhood Street 2
- Neighborhood Avenue
- Railroad Street
- Roundabouts
- Required Stair Renovations
- Required Off-Street Pedestrian Connections
- Existing Streets (Unchanged)

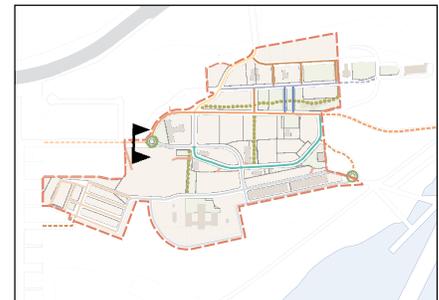


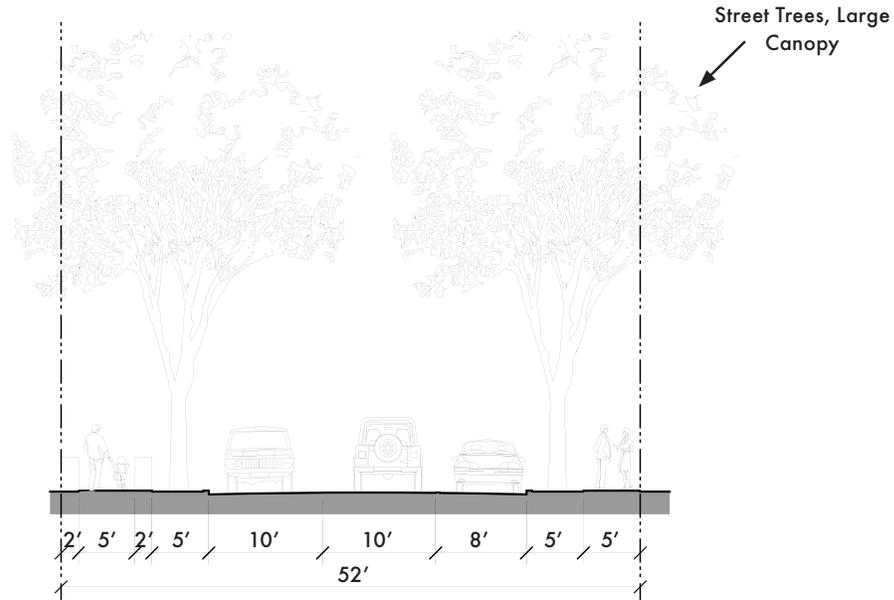
### Military East

Military East serves as the main connection between the Arsenal, Downtown, and freeway. Military East will serve as a primary access route for trucks and bicycles. The street should be designed with 11' travel lanes to accommodate trucks, 5' bicycle lanes in both directions, and on-street parking on one side. Existing on-street parking should be eliminated on the north side of the street and travel lanes should be narrowed in order to accommodate the addition of bicycle lanes. Street trees will have to be accommodated outside of the right-of-way. At the entrance to the Arsenal, large street trees should be introduced. These street trees should be distinct and should have a consistent species and spacing that will continue along the primary access to the upper ridge along Adams Street to Park Road and along Park Road to Jefferson Street.

### Design Standards

Design Speed:	35 mph
R.O.W. Width:	52'
Width of paving:	48'
On-Street Parking:	8'
Travel Lane Width:	11' (shared)
Bicycle Lane Width:	5'
Drainage Type:	Open
Width of Sidewalk:	5' (typical)
Sidewalk Easement:	N/A
Width of Planter:	5'
Type of Trees:	Large
Spacing of Trees:	40'



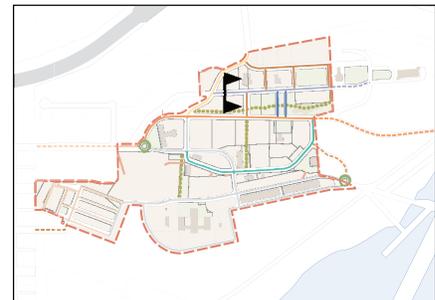


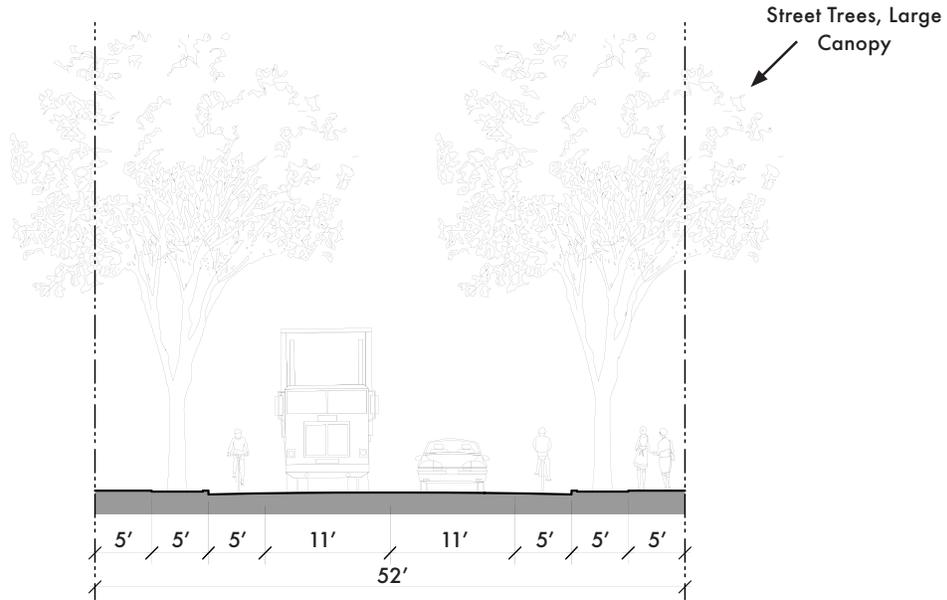
**Jefferson Street**

Jefferson Street provides a “front door” for the historic Officer’s Row along the ridge. The sidewalk should be lined with 3’ high hedges on the north side of the street and on-street parking should be provided on the south side of the street. Large street trees, which begin at the entrance to the Arsenal and follow Military East, should continue along Jefferson Street east of Military East. These trees should be of a consistent species and spaced at a regular interval. The right-of-way indicated above exceeds the existing 40’ right-of-way by 12’. If the wider right-of-way cannot be achieved, a 5’ sidewalk easement on the south side of the street and a 7’ sidewalk easement on the north side of the street should be imposed.

**Design Standards**

Design Speed:	20 mph
R.O.W. Width:	52’
Width of paving:	28’
On-Street Parking:	8’
Travel Lane Width:	10’ (shared)
Bicycle Lane Width:	N/A
Drainage Type:	Open
Width of Sidewalk:	5’ (typical)
Sidewalk Easement:	N/A
Width of Planter:	5’ (typical)
Type of Trees:	Large
Spacing of Trees:	40’





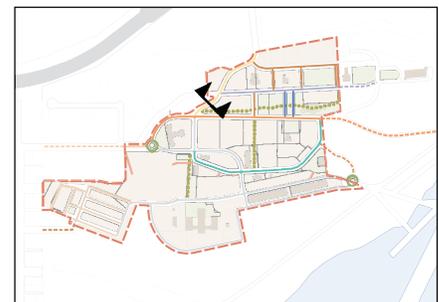
**Park Road**

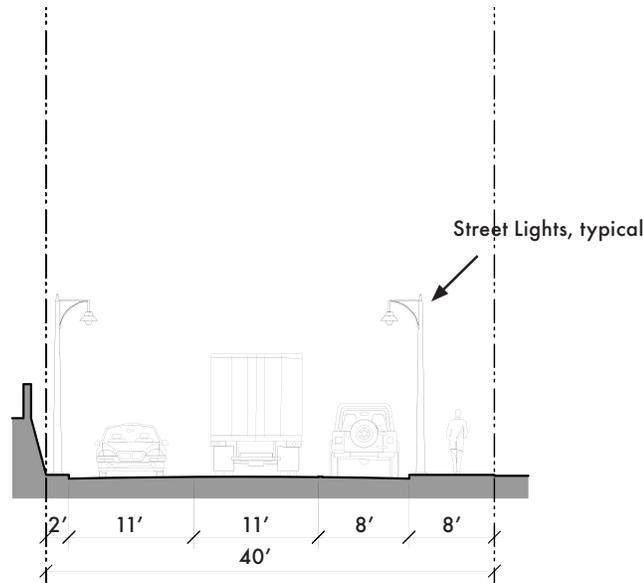
Park Road will serve as a primary access route for trucks and bicycles. The street should be designed with 11’ travel lanes, to accommodate trucks, and 5’ bicycle lanes in both directions. The portion of Park Road between Adams and Jefferson Street should continue the large street trees which begin at Military East and continue along Jefferson Street. These trees should have a consistent species and spacing with the trees along Jefferson Street. The rest of the street trees along Park Road should be of a different species.

This Street section should be used for Adams Street from Military East to Park Road.

**Design Standards**

Design Speed:	35 mph
R.O.W. Width:	52’
Width of paving:	32’
On-Street Parking:	N/A
Travel Lane Width:	11’ (shared)
Bicycle Lane Width:	5’
Drainage Type:	Open
Width of Sidewalk:	5’ (typical)
Sidewalk Easements:	3’ (south)
Width of Planter:	5’ (typical)
Type of Trees:	Large / Med.
Spacing of Trees:	40’





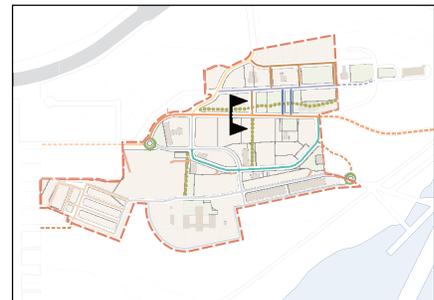
**Adams Street**

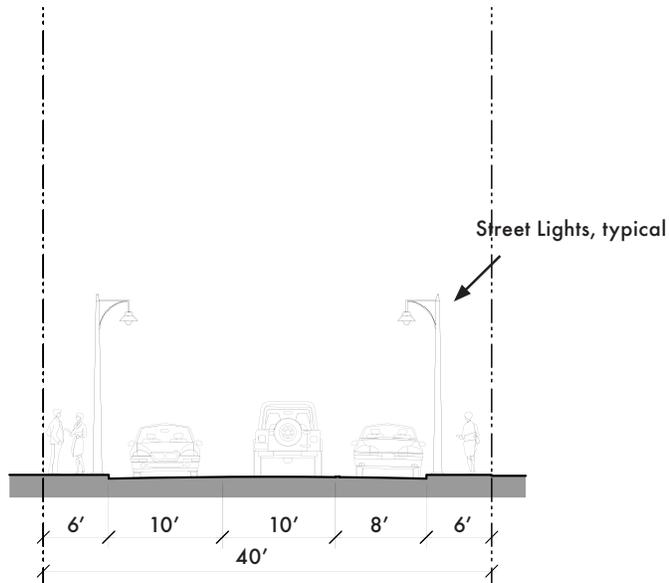
Adams Street should have a more industrial character than the streets located at the top of the Jefferson Ridge, but should be more formal than the “Railroad” Streets in the lower portion of the site. The travel lanes should be reconfigured to allow for two 11’ travel lanes that will accommodate trucks and 8’ on-street parking on one side. Instead of street trees, street lights should be placed at a regular interval along the street and should be located at the curb side of the sidewalk. The sidewalk on the south side of the street should be 8’. The sidewalk on the north side of the street should only be 2’ deep to accommodate the street lights. An easement within the lots on the north side of Adams will accommodate a retaining wall and an elevated pedestrian walk at a higher grade.

The portion of Adams street between Military East and Park Road should be designed according to the Park Road street section. This portion should continue the large street trees which begin at Military East and continue along Jefferson Street. These trees should have a consistent species and spacing. In this area, the R.O.W varies and may not be able to accommodate a sidewalk on the north side of the street due to topographic constraints.

**Design Standards**

Design Speed:	25 mph
R.O.W. Width:	40’
Width of paving:	30’
On-Street Parking:	8’
Travel Lane Width:	11’ (shared)
Bicycle Lane Width:	N/A
Drainage Type:	Open
Width of Sidewalk:	8’ (South)
Sidewalk Easement:	N/A
Width of Planter:	N/A
Type of Trees:	N/A
Spacing of Trees:	N/A



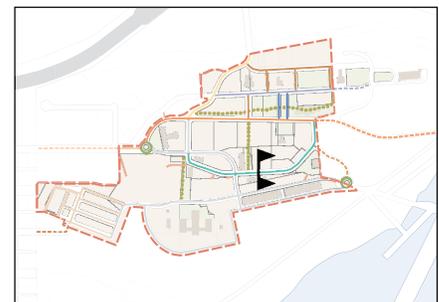


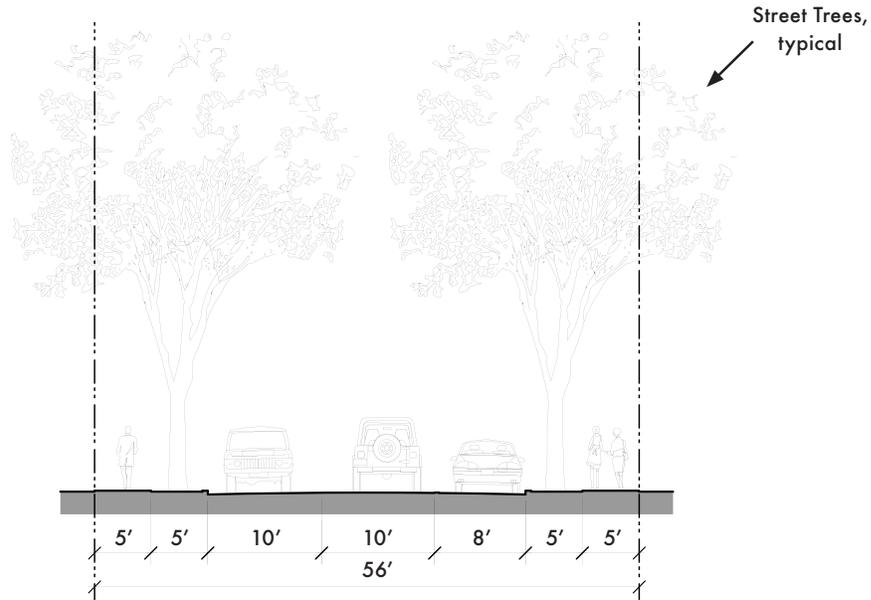
**Grant Street**

Grant Street should have a more industrial character than the streets located at the top of the Jefferson Ridge, but should be more formal than the “Railroad” Streets in the lower portion of the site. The travel lanes should be re-configured to allow for two 10’ travel lanes with 8’ on-street parking on one side. Instead of street trees, street lights should be placed at a regular interval along the street. The street lights should be located at the curb side of the 6’ sidewalk on both sides of the street.

**Design Standards**

Design Speed:	20 mph
R.O.W. Width:	40’
Width of paving:	28’
On-Street Parking:	8’
Travel Lane Width:	10’ (shared)
Bicycle Lane Width:	N/A
Drainage Type:	Open
Width of Sidewalk:	6’ (typical)
Sidewalk Easement:	N/A
Width of Planter:	N/A
Type of Trees:	N/A
Spacing of Trees:	N/A



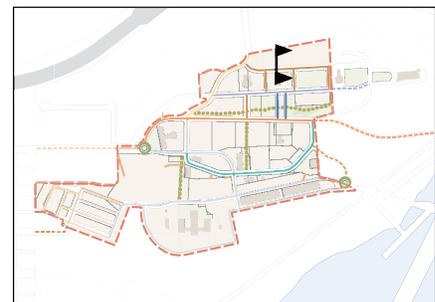


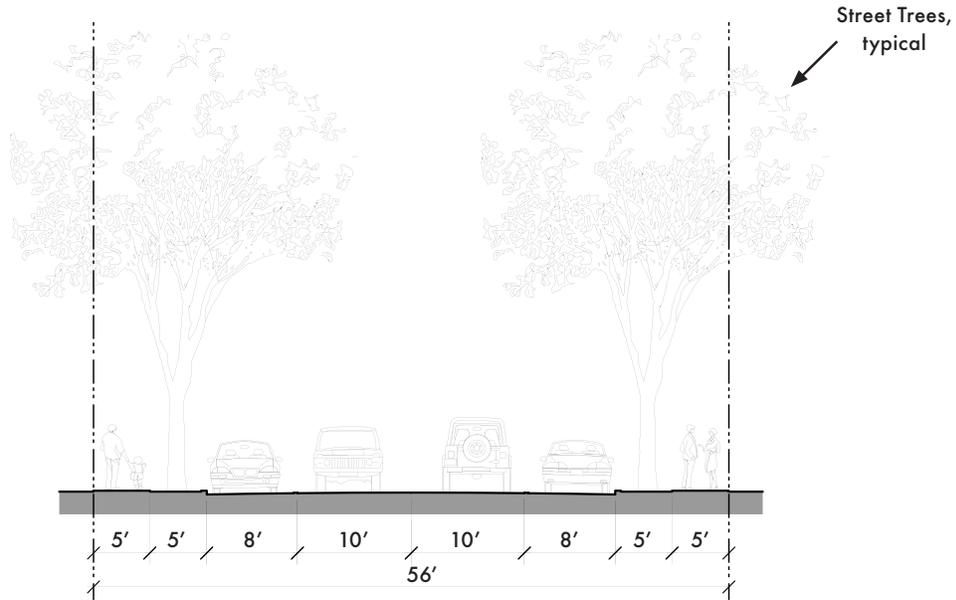
**Neighborhood Street 1 (Madison)**

This street type is characterized by two travel lanes and street parking on one side. In most cases the on-street parking should be located on the south side of the street due to the site’s typical primary access from the west. Street trees should be planted at a regular interval but should be of a different species than the street trees along Jefferson Street.

**Design Standards**

Design Speed:	20 mph
R.O.W. Width:	48'
Width of paving:	28'
On-Street Parking:	8'
Travel Lane Width:	10'
Bicycle Lane Width:	N/A
Drainage Type:	Open
Width of Sidewalk:	5' (typical)
Sidewalk Easement:	N/A
Width of Planter:	5' (typical)
Type of Trees:	Medium
Spacing of Trees:	40'



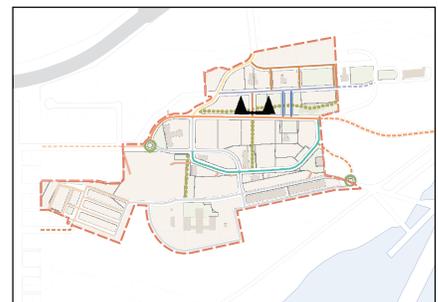


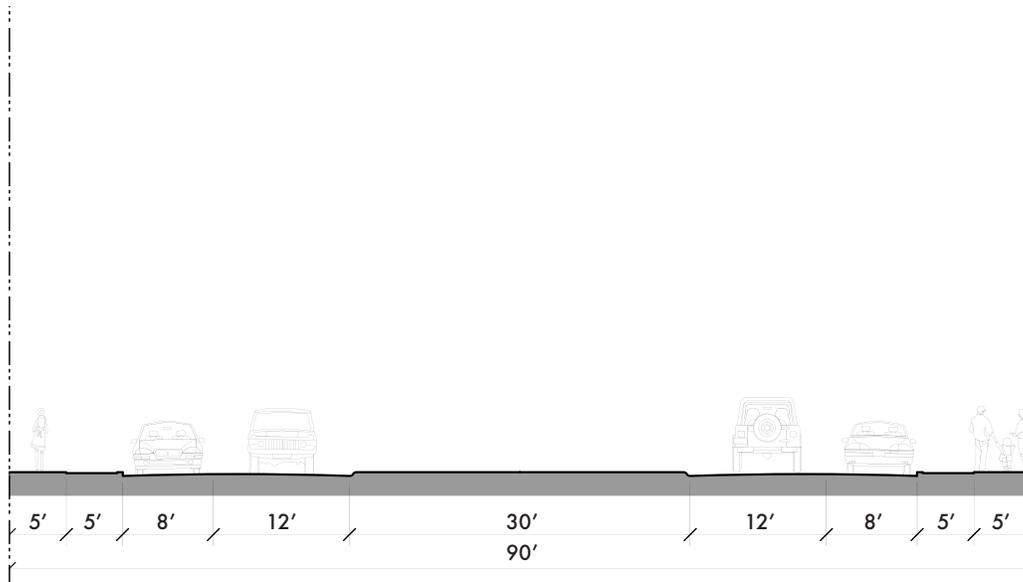
### Neighborhood Street 2

This street type is characterized by two travel lanes with street parking on both sides. Street trees should be planted at a regular interval but should be of a different species than the street trees along the Jefferson Street ridge.

### Design Standards

Design Speed:	20 mph
R.O.W. Width:	56'
Width of paving:	36'
On-Street Parking:	8'
Travel Lane Width:	10'
Bicycle Lane Width:	N/A
Drainage Type:	Open
Width of Sidewalk:	5' (typical)
Sidewalk Easement:	N/A
Width of Planter:	5' (typical)
Type of Trees:	Medium
Spacing of Trees:	40'



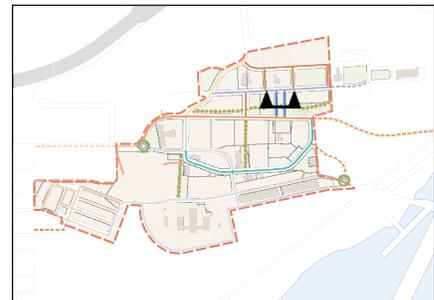


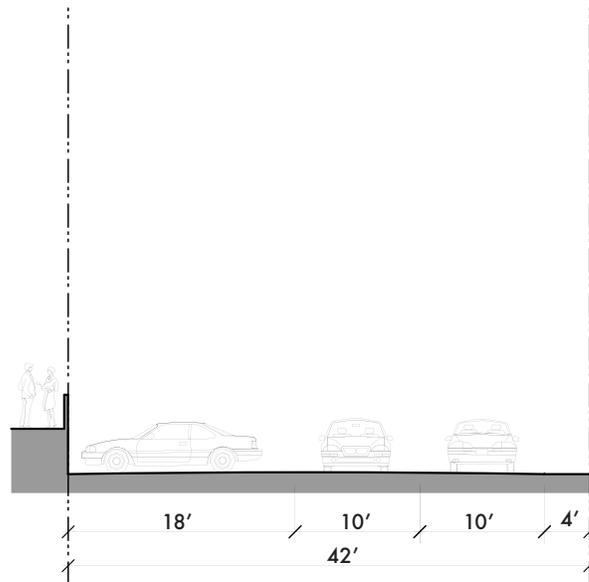
**Neighborhood Avenue**

This street type is used to preserve the historic sight lines on the Jefferson Ridge. It is characterized by a 30’ wide central greenway flanked by two 12’ travel lanes. Rolled curbs at the edge of the greenway and stabilized grass will be used to allow for fire truck access. Street trees are eliminated and low growing plants should be used in the planting strips to prevent obstruction of the historic sight lines.

**Design Standards**

Design Speed:	20 mph
R.O.W. Width:	90’
Width of paving:	40’ (2 @ 20’)
On-Street Parking:	8’
Travel Lane Width:	12’
Bicycle Lane Width:	N/A
Drainage Type:	Open
Width of Sidewalk:	5’ (typical)
Sidewalk Easement:	N/A
Width of Planter:	5’ (typical)
Type of Trees:	N/A
Spacing of Trees:	N/A



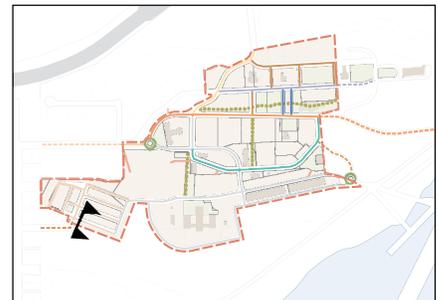


**Railroad Street**

The new “Railroad” streets seek to imitate the street section of the existing “Railroad” Streets, such as Jackson Street and Tyler Street. These streets should have an informal character and should be paved from building face to building face. The informal character should be used to reduce traffic speeds and allow for bicycles and pedestrians to feel comfortable within the street.

**Design Standards**

Design Speed:	15 mph
R.O.W. Width:	42'
Width of paving:	42'
On-Street Parking:	18'
Travel Lane Width:	10'
Bicycle Lane Width:	N/A
Drainage Type:	Open
Width of Sidewalk:	N/A
Sidewalk Easement:	N/A
Width of Planter:	N/A
Type of Trees:	N/A
Spacing of Trees:	N/A



## Roundabouts

Two roundabouts are recommended for implementation within the LAMUSP project area: One at the intersection of Military East, Jefferson, Adams and Polk Streets, and one at the intersection of Tyler Street, Jackson Street, and a future Grant Street extension. To ensure vehicle safety, roundabouts shall meet the “Urban Compact” or “Urban Single Lane” design parameters as defined by the U.S. Department of Transportation, and shall be designed to accommodate trucks and industrial vehicles.



*Roundabout locations*

## Pedestrian Paths

Much of the pedestrian infrastructure in the Arsenal is degraded or incomplete. Completing a highly connected pedestrian network is critical to achieving the overall goals of the Lower Arsenal Mixed Use Specific Plan. The following projects along existing streets shall be implemented as street improvements are made to the project area:

- Grant Street and Adams Street near the flagpole at end of Military East: Complete missing sidewalk segments.
- Park Road from Grant Street to Benicia Bridge path: Complete missing sidewalk segments.
- Grant and Polk Streets east of Park Road: Complete missing sidewalk segments.
- Adams Street at Cleveland: Complete missing sidewalk segment.
- Polk Street south of Adams Street: Complete missing sidewalk segment.
- South and east sides of Grant Street, between Polk Street and Adams Street: Adding missing sidewalk can occur as development progresses.



*Sidewalk and Path locations*

Additional off-street pedestrian connections shall be implemented as follows:

- From Adams Street and Park Road northeast through Jefferson Ridge open space to Jefferson Street south of Commanding Officer’s Quarters, providing access to the Clocktower along Jefferson Street.
- From Adams Street south to Grant Street on axis with the Duplex Officers’ Quarters and Storehouse.
- From Grant Street and Polk Street south to Blacksmith’s Shop.

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**Stairs**

The following stairs shall be improved and repaired as development proceeds:

- Jefferson Street to Adams Street, west of Park Street
- Military East southeast to Jackson Street
- Intersection of Park Road and Grant Street, west to Jackson Street
- Grant Street south and west to Jackson Street, west of Polk Street underpass
- Grant Street southwest to Jackson Street, east of Arts Benicia
- Polk Street underpass (2 sets of stairs)



*Stair locations*