INTRODUCTION
What is Complete Street Design?

A Complete Street is one that allows pedestrians, bicyclists, transit riders, and motorists of all abilities to safely travel between destinations.

In addition to providing facilities for bicyclists, pedestrians, and transit users, Complete Streets encourage sound land use decisions and policies that foster environments that appeal to people traveling by foot and bicycle: minimal building setbacks, wayfinding signs, landscaped corridors, benches and other amenities.

[Complete Street Toolbook, South Carolina 2010]
What Makes a Great Street?

Memorable streets have common features. They are places for people and are designed with them in mind. Typically, a good street features:

- GENEROUS FOOTPATHS
- LIGHTING FOR PEOPLE
- TREES AND SHADE
- ACTIVE AND OPEN FACADES
- STREET FURNITURE
- HUMAN SCALE
- ARTWORKS AND CULTURAL MARKERS
- BIKE LANE

[George Street Concept Design Plan, 2012]
Streets Are Public Spaces
In addition to providing space for travel, streets play a big role in the public life of cities and communities and should be designed as public spaces as well as channels for movement.

Design for Safety
In 2012 in the U.S., over 34,000 people were killed in traffic crashes, which were also the leading cause of death among children aged 5–14.

Great Streets are Great for Businesses
Well-designed streets generate higher revenues for businesses and higher values for homeowners.

Streets Are Ecosystems
From pervious pavements and bioswales that manage storm-water run-off to street trees that provide shade and are critical to the health of cities, ecology has the potential to act as a driver for long-term, sustainable design.

Streets Can Be Changed
Transportation engineers can work flexibly within the building envelope of a street. This includes moving curbs, changing alignments, daylighting corners, and redirecting traffic.

Act Now
Cities across the U.S. have begun using a phased approach to major redesigns, where interim materials are used in the short term and later replaced by permanent materials once funding is available and the public has tested the design thoroughly.

[NACTO Street Design Guide]
Problem Statement

Incomplete streets – those designed with only cars in mind – limit transportation choices by making walking, bicycling, and taking public transportation inconvenient, unattractive, and, too often, dangerous.  

[Smart Growth America]

Conventional street design in the United States has centered around the automobile, often lacking facilities for biking or walking.  

[South Carolina Complete Street Toolbook, 2010]

Goals

Improve safety and encourage more walking and bicycling.
Research Questions

How can the street be improved by Complete Street Design?

What are the design tools in Complete Street?

How can the concept of Complete Street be used increase the safety for all types of transportation?
Literature Review

Boston Complete Streets Design Guidelines

Multimodal
Streets are designed for pedestrians of all ages and abilities, bicyclists, transit users and motor vehicle drivers. Multimodal designs ensure streets are safe and shared comfortably by all users.

Green
Streets are energy efficient, easy to maintain, and include healthy trees, plants, and permeable surfaces to manage storm water. Design features encourage healthy, environmentally friendly, and sustainable use of Boston’s street network.

Smart
Streets are equipped with the physical and digital information infrastructure required to move all modes of transportation more efficiently, support alternatives such as car and bicycle share, and provide real-time data to facilitate trip planning, parking, and transfers between modes of transportation.
To further implementation of complete streets in Chicago, transit will come second in this new order, followed by Bicycle then Automobiles (private motor vehicles). This inversion of the dominant, auto-based paradigm will allow the city’s transportation network to grow safely, sustainably and equitably into the 21st Century.
Literature Review

STRENGTHEN NEIGHBORHOOD INTERACTION
Adaptations to the right-of-way that provide invitations for people to stay and interact are vital to livable and dynamic neighborhoods. These changes provide a measurable economic and social return on investment to both local businesses and residents.

ENCOURAGE ACTIVE TRANSPORTATION AND SAFE STREETS
Right-of-way interventions that support walkability and bikeability provide human health benefits while reducing congestion and CO2 emissions from vehicles. An increase in pedestrian and bicycle use of the right-of-way calms traffic speeds and reduces the collision rate in a virtuous cycle.

ACTIVATE STREETS FOR NEW USES AND PLAY
Street space, ranging from parking spaces to entire blocks, can serve a variety of functions. In addition to mobility, streets can be programmed as places to play and socialize. The right-of-way can be adapted using many combinations of strategies to achieve more diverse uses.

FOSTER HUMAN AND ECOLOGICAL HEALTH
The right-of-way has the potential to bolster human health and mobility. At the same time, it can support natural processes and ecological systems that have a direct relationship with human health. The need is intensified in our cities as urban density places high demands on ecological systems.
**Goals and principles**

**Design for Safety**
- Prioritize safety for all street users
- Research, test, and evaluate innovative safety treatments

**Design to Balance Access and Mobility**
- Provide safe, accessible, convenient, and comfortable facilities
- Accommodate truck traffic while minimizing their impacts
- Meet or exceed ADA standard

**Design for Context**
- Preserve the unique character of neighborhoods
- Maintain aesthetic consistency

**Design Streets as Public Spaces**
- Design streets to encourage activity for all ages
- Expand usable public open space by reallocating road space

**Design for Sustainability**
- Minimize impermeable surfaces and maximize green on street
- Reduce streets’ rate of heat absorption by maximizing trees

**Design for Cost-Effectiveness**
- Design streets to meet the city’s future needs
- Establish well-considered goals early in project development
STRATEGIES
As cities grow they will need to accommodate more people without sacrificing quality of life. The adaptations portrayed in this document are space-efficient and can support the social and economic growth of our urban centers by making them more livable, walkable and bikeable.
Complete Street Design

STRATEGIES

PARKING SPACE
Parklet
Curb Bulb
Sidewalk Extension

STREET SPACE
Temporary Street Transformation
Street Park
Shared Street
Bike Lane and Path
Gateway
Raised Crosswalk / Intersection

RESIDUAL SPACE
Pocket Park
Eco/Social Median
Triangle Plaza
DESIGN TOOLS
Complete Street Design

TOOLS
Complete Street Design

TOOLS

PARKING SPACE

STREET SPACE

RESIDUAL SPACE
Parking Space Tools

PARKLET

Parklets transform on-street parking spaces into small spaces for people to use and enjoy. They provide pedestrian amenities such as seating, landscaping, and bike parking. The first parklet program began in San Francisco in 2009, and the model has been adopted by many cities in the U.S.

Parklets typically involve a public-private partnership between the city and a community sponsor. The sponsor is responsible to design, build and maintain this public space with permits from the city.

KEY CONSIDERATIONS

- Parklets are for everyone to enjoy and must be ADA accessible
- Avoid streets with high speeds or traffic volumes
- Avoid slopes greater than 5%
- Application and permitting required
- Maintenance plan
- Weather and seasonal use
- Adjacent land uses
Parking Space Tools

PARKLET

“Parklets promote a low-cost, easily implementable approach to public space improvement through projects that energize and reinvent the public realm.

San Francisco Pavement to Parks Website
Parking Space Tools

**CURB BULB**

Curb bulbs, or ‘curb extensions’, are a strategy to extend the sidewalk into the parking lane at key locations. A curb bulb located at an intersection can shorten pedestrian crossings and improve safety by slowing down turning vehicles. A curb bulb can be also located midblock to provide a pedestrian crossing and is used to calm traffic by visually narrowing the roadway.

In addition to improving safety, curb bulbs can provide a space for public amenities such as bike parking, transit stops, seating and green infrastructure. For example, a curb bulb bioretention cell can capture and clean stormwater run-off from impervious surfaces.

**KEY CONSIDERATIONS**

- Pedestrian crossings
- Impacts on bicycle traffic
- Catch basin locations
- Corner radius for large vehicles
Parking Space Tools
CURB BULB
Street Space Tools

SIDEWALK EXTENSION

Wider sidewalks can improve the pedestrian’s experience of the city. In commercial areas, wider sidewalks can provide room for café seating, street furniture, trees and landscaping. Sidewalk extensions can also work well on transit streets to accommodate higher volumes of pedestrians waiting for buses and trolleys.

A pilot project can quickly test sidewalk extension zones as illustrated on this page. After the pilot has proven its viability and value, the sidewalk extensions can be made permanent, with additional long-term amenities.

KEY CONSIDERATIONS

- Pedestrian crossings
- Impacts on bicycle traffic
- Catch basin locations
- Pedestrian volumes
- Corner radius for large vehicles

“A wide sidewalk offers pedestrians enough space to walk at their chosen pace, stand, sit, socialize, or merely enjoy their surroundings. Wider sidewalks also offer more space for landscaping and amenities, making the streetscape more useful and attractive and also acting as a buffer between traffic and pedestrians.

SF Better Streets Website
Street Space Tools

SIDEWALK EXTENSION
Street Space Tools

**STREET PARK**

A Street Park is a permanent transformation of a portion of a non-arterial street into a pocket park space. A Street Park closes a portion of a street permanently to cars and reclaims this space for new uses such as play, urban farming or community gathering.

This street transformation strategy works well on quiet residential streets and may be suitable for streets that have been identified as neighborhood greenways. A Street Park can be designed to provide safe bicycle connections while diverting automobiles from these streets.

**KEY CONSIDERATIONS**

- Suitable for residential streets or neighborhood greenways
- Emergency vehicle access
- Neighborhood support
- Impact on driveway access
- Existing dead-end streets
Street Space Tools

STREET PARK
Street Space Tools

TEMPORARY TRANSFORMATION

By opening a street to pedestrians and limiting through traffic, streets can support physical activity, social interaction and play and can strengthen community. Play streets, farmers markets and festival streets are examples of street uses that transform streets on a recurring basis. Block parties and summer streets are examples of annual events that transform street space for new uses on a less-frequent basis.

Designated play streets can supplement other public spaces such as parks and provide kids and adults opportunities to engage in physical activities in their neighborhoods. Several cities in the U.S. (New York City, Chicago, Minneapolis, San Francisco) have play street programs underway which offer activities such as bicycle parades, relay races and musical performance while diverting automobiles from these streets.

KEY CONSIDERATIONS

- Non-arterial streets
- Avoid transit routes
- Mixed-use streets or higher density neighborhoods
- Impacts to residences or businesses

Open streets initiatives temporarily close streets to automobile traffic, so that people may use them for walking, bicycling, dancing, playing, and socializing.

Openstreetproject.org
Street Space Tools

TEMPORARY TRANSFORMATION
Street Space Tools

**SHARED STREET**

A shared street is a street that invites pedestrians, cars and cyclists to use the street space without separating the users. By removing the curb and adding new surface treatments such as paver to a street, the street is transformed into a space primarily for pedestrians, with bikes and cars allowed as ‘guests’. This strategy is often implemented by creating a continuous level surface or ‘carpet’ between the two framing building facades.

Shared streets are best implemented on streets with lower volumes of traffic and higher volumes of pedestrians. The Dutch concept of the woonerf (translates as ‘living street’) applies a similar concept in a typically residential context, mixing users with amenities and other traffic calming measures. In all contexts, it is important to provide visual and tactile cues, to slow the speed and delineate the spaces where vehicles are not permitted.

**KEY CONSIDERATIONS**

- Traffic volume and speed, not suitable for arterial streets
- Alleyway and driveway access
- Linkages to other pedestrian oriented streets
- Level ground plane without curb
- Quality surface materials, tactile strips for the visually impaired
- Active building frontages
Street Space Tools

SHARED STREET
Street Space Tools

BIKE LANE & PATH

Bikeways are typically designed as bike lanes within the roadway delineated with markings or as bike paths physically separated from traffic for most of their length. Another typical design is the shared lane. Bikeways in parks, or in other places with heavy pedestrian traffic can also be designated by bike stamps.

Physical separation of bikeways can sometimes be preferable on wide or busy streets, on major bike routes, or along long, uninterrupted stretches. Separation can take the form of a painted buffer demarcating the bike lane behind a “floating” parking lane, a narrow curb or raised median, or a wider raised median with landscaping. An alternative form of separation is gradeseparation, where the bike path is located at sidewalk grade or in between sidewalk and roadway grade.

KEY CONSIDERATIONS

- Vision-impaired pedestrians
- Emergency-vehicle and paratransit access to buildings
- Snowclearing and street-sweeping needed
- Designed commercial vehicles loading and unloading zone
Street Space Tools

BIKE LANE & PATH

Painted Bike Lane, København, Denmark

Protected Bike Lane, Queens, New York
Street Space Tools

**MID-BLOCK NARROWING**

Two curb extensions that create a pinch point. A mid-block narrowing (also referred to as a “choker”) physically or visually constrains the roadway, thereby slowing vehicular traffic or alerting drivers to the presence of a mid-block crossing. The curb extensions themselves can be of any variety, for example with plantings or other functional elements.

Reduce lane width at mid-block narrowing to impact vehicle speeds; on low-traffic residential streets, mid-block narrowing can be combined with other design treatments, including raised crosswalks, raised speed reducer, or vertical elements for maximum effectiveness.

**KEY CONSIDERATIONS**

- Width of the streets or lanes
- Emergency-vehicle passing
- Space for greening, community facilities and bicycle parking
- Pavement material of mid-block narrowing zone
Street Space Tools

MID-BLOCK NARROWING
Street Space Tools

LANE NARROWING & LANE REMOVAL

Lane Narrowings remove excess width from existing moving lanes without changing the number of moving/traffic lanes. Lane Removals reassign underused traffic lanes to other functions. These design techniques, while not traffic-calming devices, have powerful traffic-calming benefits. Both may be accomplished by adding markings, turning lanes, pedestrian refuge islands, expanded pedestrian space, on-street or separated bicycle lanes, parking, or other functions.

KEY CONSIDERATIONS

- Traffic conditions must be considered in planning lane removals
- Commercial loading and other uses should be considered
- Space for greening, community facilities and bicycle parking
- Effects of narrowings on turning movements should be tested
Multi-lane corridors may be good candidates for lane removal in concert with other treatments, such as signal timing changes.
Lane narrowing and removal should be prioritized on corridors with safety or speeding concerns, or where prioritization of non-general traffic is desirable.
A combination of traffic-calming and visual measures used at the entrance to a low-speed street to slow entering vehicles and discourage through-traffic. Useful at all roadway transitions to slower-speed environments, gateways are especially suited to entrances to residential side streets and shared streets. The design elements of a gateway can include curb extensions, a raised sidewalk or driveway treatment, a raised median, landscaping or trees, and community facilities such as seating and public art.

KEY CONSIDERATIONS

- May impact street drainage or require catch basin relocation
- May require loss of curbside parking in some cases
- May impact underground utilities
- Effects of narrowings on turning movements should be tested
Street Space Tools

RAISED CROSSWALK / INTERSECTION

A marked pedestrian crosswalk at an intersection or a mid-block location constructed at a higher elevation than the adjacent roadway. A raised crosswalk is essentially a speed table, with the full width of the crosswalk contained within the flat portion of the table, usually 10- to 15-feet wide. It combines the benefits of a raised speed reducer with enhanced visibility for the pedestrian crossing.

Raised intersections are flush with the sidewalk and ensure that drivers traverse the crossing slowly. ADA-compliant ramps and detector strips are always required.

KEY CONSIDERATIONS

- May impact street drainage or require catch basin relocation
- May require loss of curbside parking in some cases
- May impact underground utilities
- Use enhanced, high-visibility street materials to further draw attention to raised intersection
Street Space Tools

RAISED CROSSWALK / INTERSECTION
Residual Space Tools

**ECO / SOCIAL MEDIANS**

Medians or center islands are generally used for traffic calming on wider segments. In addition to slowing traffic speeds, medians can provide opportunities to increase stormwater infrastructure and urban tree coverage.

In some cases, where there is sufficient width, medians can also be transformed into linear park spaces. On some low-traffic volume streets, these residual spaces can provide opportunities for neighborhood amenities, including urban agriculture, playgrounds and seating.

**KEY CONSIDERATIONS**

- Traffic volume
- Width of the street and median
- Drainage of the street
- Pedestrian and bicycle access
Residual Space Tools

TRIANGLE PLAZA

A triangle plaza is a break in the grid and streets cross at oblique angles. A portion of the street can often be closed and connected to leftover space ‘islands’ to create a new public space.

Cities such as New York and San Francisco have recently created ‘Pavement to Plazas’ or ‘Pavement to Parks’ initiatives aimed at transforming residual spaces for people. These cities have reclaimed leftover space using paint, planters and inexpensive materials. Such projects have had much success, leading to permanent design solutions for these spaces.

KEY CONSIDERATIONS

- Business access and driveways
- Volume and speed of traffic
- Nearby pedestrian activities
- Pedestrian crossings
- Community support
- Maintenance
Residual Space Tools

TRIANGLE PLAZA
CASE STUDY
CASE STUDY
MARIAHILFER STRASSE

LOCATION: Vienna, Austria
CLIENT: City of Vienna, Department of Urban Design
DESIGNER: Bureau B+B urbandesign and landscape

PURPOSE
The main goal is to provide a greater quality of life for residents, visitors, local businesses and shops. The 1.6km long street is divided into two zones. The core zone will be reconfigured into a true pedestrian zone, the two other areas will be designed along shared space principles. Shared space is an urban design approach which seeks to minimize demarcations between vehicle traffic and pedestrians.

CONTEXT
This transformation took place in dialogue with the future users. Organized by the Viennese office stadtland who are specialized in participation procedures. In the past year, together with a broad range of experts from the city of Vienna, the office has worked on a simple as possible but future-oriented design for the renewal of the shopping boulevard. The starting point for the design was to transform the Mariahilferstrasse from a common shopping street with two sidewalks divided by busy traffic into a metropolitan shopping boulevard fit for a European capital city.

PLANNING + DESIGN
The design proposed a uniform ground level. Orientation is provided by two lines of kerbstones forming a red thread through the design. An asymmetrical street profile generates the spaces where they are desired. City lounge areas with so-called “dialogue furniture” offer places for meeting and interaction.

An elegant, timeless and pedestrian friendly avenue forms a unity between historical facades, ground and urban elements. The new attractive common spaces will invite young and old to observe, stroll and pause all year round.
CASE STUDY
MARIAHILFER STRASSE
CASE STUDY
MARIAHILFER STRASSE
CASE STUDY
MARIAHILFER STRASSE

SHARED STREET

INTERSECTION WITH CROSSWALK

PLANTING+SEATING
CASE STUDY
MARIAHILFER STRASSE
CASE STUDY
MARIAHILFER STRASSE
CASE STUDY
MARIAHILFER STRASSE

STREET FURNISHING ZONE
CASE STUDY
GEORGIA STREET

LOCATION: Indianapolis, Indiana, United States
CLIENT: City of Indianapolis
DESIGNER: RATIO

PURPOSE
Located at the heart of the historic Wholesale District and a spine that connected the new major venues, was identified at the time as an important corridor for future improvement. However, it would not see the impetus for its realization until 2009, when City leaders recognized the unique potential the street offered to their bid for hosting the 2012 Super Bowl. By bringing together the original hopes for Georgia Street with new aspirations of a green, pedestrian-centered, outdoor event venue, the city gained a contemporary public space that anchors the convention and entertainment district.

CONTEXT
As a pilot project for the US-based Sustainable Sites Initiative, the goals and principles of the Georgia Street project were bolstered by the tenets of this program. The design was driven by the philosophy, illustrated in the strategies described here, that a street’s many functions should not only overlap but be integrated together, ensuring that function, sustainability, beauty and fiscal responsibility are not at odds.

DESIGN STRATEGIES
- Humane Mobility
- Enhanced Public Space
- Integrating Ecological Services
CASE STUDY
GEORGIA STREET
CASE STUDY
GEORGIA STREET
STREET LIGHTING
CASE STUDY
POWELL STREET PROMENADE

LOCATION: San Francisco, California, United States
CLIENT: City of San Francisco
DESIGNER: Hood Design Studio

PURPOSE
On one of the busiest thoroughfares in San Francisco, four city blocks of parallel parking are replaced with a new pedestrian promenade. The Powell Street Promenade provides a 6’2” extension of the existing sidewalk, combining material innovation, technology and urban design into a new landscape that offers refuges for pedestrians amid the street’s busy vehicular and historic cable car traffic. It is the largest example of the city’s “Pavement to Parks” program, which seeks to reclaim swathes of urban land for pedestrian amenities.

CONTEXT
The existing city street included cable car tracks, vehicular thoroughfare, street parking, and sidewalks on each side of the street. The Powell Street Promenade installation replaced the existing street parking adjacent to the existing sidewalks on both sides of the street. Powell Street is one of the busiest pedestrian zones in America, second only to New York’s Times Square in number of visitors with 25,000 to 35,000 visitors per weekend day. The streets are lined with retail stores and restaurants. The historic San Francisco Cable Car transports more than 7.5 million passengers per year through this area of Powell Street.

DESIGN INTENT
The design merges surface with furnishings creating a new constructed walk that floats between street and sidewalk, giving visitors and new experience adjacent to cable cars and storefronts.

The new walking surface is constructed of aluminum grating with spacing between 1/8” and 3/16.” This narrow dimension allows for ADA approved pedestrian surface while accommodating surface drainage. This structure also connects benches, planters, rails and photovoltaic towers so that they emerge from the walking surface skeuomorphically in one sculptural gesture along the street.
CASE STUDY
POWELL STREET PROMENADE
CASE STUDY
POWELL STREET PROMENADE
CASE STUDY
POWELL STREET PROMENADE

PARKLET
CASE STUDY
POWELL STREET PROMENADE
SITE ANALYSIS
SITE ANALYSIS
LOCATION

DOWNTOWN GREENVILLE

WEST VILLAGE

PENDLETON STREET

AUGUSTA STREET
SITE ANALYSIS

Bus Route

TROLLEY

ROUTE 2
White Horse Road Via Pendleton St

ROUTE 6
Anderson Rd

ROUTE 9
West Parker - Berea - Wood side

ROUTE 10
Augusta Rd
SITE ANALYSIS

Bicycling

Swamp Rabbit Trail
Striped Bike Lane
Shared Bike Lane
SITE ANALYSIS

Parks

Mayberry Park
West Greenville Center
Sheeless Joe Memorial Park
Fluor Field
McPherson Park
Falls Park on the Reedy
Cleveland Park
Tindal Ave Park
SITE ANALYSIS

River and Creek

- Long Branch
- Reedy River
- Brushy Creek
SITE ANALYSIS

Railroad & Mills

- Woodside Mill
- Poinsett Mill
- Judson Mill
- Brandon Mill
- Dunean Mill
- Mills Mill - Loft
- Olan Mill
SITE ANALYSIS
PENDLETON ST AT WEST VILLAGE
SITE ANALYSIS - EXISTING PARKING + TRANSPORTATION
PENDLETON ST AT WEST VILLAGE
SITE ANALYSIS - EXISTING PARKING + TRANSPORTATION
PENDLETON STREET AT WEST END
CONCEPTUAL DESIGN
CONCEPTUAL DESIGN
PENDLETON ST AT WEST VILLAGE
HISTORIC COMMERCIAL STREET IN MILL DISTRICT AND ART VILLAGE
2 LANE STREET
2013 AVERAGE DAILY TRAFFIC COUNT: 7200

HISTORY
ART
PLACE
ARTBOMB STUDIO PARKING LOT
PENDLETON ST AT WEST VILLAGE
FLAT IRON TRIANGLE SPACE
PENDLETON ST AT WEST VILLAGE
ON STREET PARKING + TRIANGLE
PENDLETON ST AT WEST VILLAGE
VACANT PARCEL NEXT TO PLAZA PARKING
PENDLETON ST AT WEST VILLAGE
Using the vacant parcel and street end space to create a street park.

Extend the existing triangle for a new gathering space.

Transfer the on street parking to parklet and sidewalk but keeping some parking for mid-size trucks.

By using different pavement, the street could be temporary closed to automobiles and become a street plaza for events.

New public space with street furniture, light and plants.

Gateway and crosswalk with pedestrian signal for intersections.

Reduce one lane to increase more pedestrian space and build a gateway for art village.
CONCEPTUAL DESIGN
PENDLETON ST AT WEST END
PLACE BETWEEN HIGH VOLUME TRAFFIC HIGHWAY AND WEST END DISTRICT
4 LANE STREET
2013 AVERAGE DAILY TRAFFIC COUNT: 8800

CONNECTIVITY
BICYCLE
COMMUNITY
CONCEPTUAL DESIGN
PENDLETON ST AT WEST END
PLACE BETWEEN HIGH VOLUME TRAFFIC HIGHWAY AND WEST END DISTRICT
4 LANE STREET
2013 AVERAGE DAILY TRAFFIC COUNT: 8500
PENDLETON AND S CALHOUN INTERSECTION
PENDLETON ST AT WEST END
SIDEWALK EXTENSION + TRIANGLE SPACE
PENDLETON ST AT WEST END
CONCEPTUAL DESIGN
PENDLETON ST AT WEST END

- Narrowing the 4 lane into 2 lane to add more space for pedestrian and stripped bike lane both sides.
- Transfer the existing parking lot into a new public space with street furniture, light and plants.
- Narrowing the middle of street for specific locations.
- Add street trees and light for pedestrian, cyclist and automobile.
- Add crosswalk, pedestrian signal and median for walkability.
CONCEPTUAL DESIGN
AUGUSTA ST
HIGH VOLUME COMMERCIAL STREET SURROUNDED BY RESIDENTIAL AREA
4 LANE STREET
2013 AVERAGE DAILY TRAFFIC COUNT: 19700

GREEN
COMMERCE
SHARE
CONCEPTUAL DESIGN

AUGUSTA ST

HIGH VOLUME COMMERCIAL STREET SURROUNDED BY RESIDENTIAL AREA

4 LANE STREET

2013 AVERAGE DAILY TRAFFIC COUNT: 19700

Painted Intersection

Pedestrian Crosswalk

Curb Bulb

Community Gateway

Street Park

On Street Parking

Green Street with Bike Lane
CONCEPTUAL DESIGN
AUGUSTA ST

- Painted Intersection
- Pedestrian Crosswalk
- Street Park
- Green Street with Bike Lane
- Community Gateway
- Curb Bulb
Using corner space to build community gateway for residents and local business.

Reduce one lane to create space for stripped bike lane and sidewalk.

Transfer the existing parking lot into a new public space with street furniture, light, and plants.

Use different pavement for crosswalk and add pedestrian signal.
SITE PLAN
WEST VILLAGE
SITE PLAN - SEGMENTS
WEST VILLAGE

Segment A
- Artbomb Studios Street Park
- Draper St Crosswalk
- Calder St Crosswalk
- Cracker Jacks Triangle Park
- Saco St Crosswalk
- Pocket Park
- Street End Playground
- Sidewalk Extension

Segment B
- Pendleton St Parklet
- Smith St Crosswalk
- Traction St Crosswalk
- Traction St Gateway
- Sidewalk Extension

Segment C
- Irvine St Crosswalk
- Flat Iron Triangle Park
- Traction St Gateway
- Burdette St Lane Narrowing
- Pedestrian Pathway
- Sidewalk Extension
NEW SPACES
WEST VILLAGE
SEGMENT A
Street Plan
West Village
Segment A

- Decrease the parking space for sidewalk.
- Crosswalk with brick paver.
- Adding more greens on parking lot.
- Intersection with scored concrete pavement.
- Artbomb Studios Street Park.
WEST VILLAGE
SECTION A-A'

BEFORE

AFTER
EXISTING CONDITION
WEST VILLAGE
SEGMENT B
Street Plan
West Village
Segment B

- Triangle park with outdoor seats and plants.
- Crosswalk with brick paver.
- Intersection with scored concrete pavement.
- Decrease the parking space for new plants and benches.
- Parket park build on vacant parcel with trees and outdoor seats.
WEST VILLAGE
SECTION B-B'

BEFORE

AFTER

Vacant Parcel
Sidewalk
Bike Lane
Bike Lane
Parking

Tree Barrier
Pocket Park
Sidewalk
Bike Lane
Bike Lane
Sidewalk
Parking

88
8
37
20
37
10
58
20
13
32
25
32
- Crosswalk with brick paver.
- Intersection with scored concrete pavement.
- Community gateway with trees on curb bulb.
- New plants and benches on sidewalk.
- On street parking for mid size trucks.
- Parket that transfers on-street parking to sidewalk or outdoor spaces.
- Remove the right-turn only lane to increase sidewalk space.
EXISTING CONDITION
WEST VILLAGE
SEGMENT D
PROPOSED NEW SPACES
WEST VILLAGE
SEGMENT D
Intersection with scored concrete pavement.

Triangle park with tree plaza and sign of west village.

Pedestrian pathway connects Pendleton St and Traction St.

Crosswalk with brick paver.

Parket that transfer on street parking to sidewalk or outdoor spaces.

Reduce one lane on Burdette St to gain sidewalk and on street parking.
STREET PLAN
PENDLETON ST AT WEST END
SEGMENT A

Reduce one lane on Pendleton St to increase sidewalk space and bike lane.

Mid-block narrowing as a speed reducer and crosswalk.

Crosswalk with brick paver.

Reduce one lane on Pendleton St to increase sidewalk space and bike lane.
EXISTING CONDITION
PENDLETON ST AT WEST END
SEGMENT B
Mid-block narrowing as a speed reducer and crosswalk.

Reduce one lane on Pendleton St to increase sidewalk space and bike lane.

Crosswalk with brick paver.
EXISTING CONDITION
PENDLETON ST AT WEST END
SEGMENT C
Mid-block narrowing as a speed reducer and crosswalk.

Reduce the parking space to build a street park for the communities.

Median and street trees to protect crossing pedestrian and cyclist.

Enlarge the triangle space for pedestrian sidewalk.
PENDLETON ST AT WEST END
SECTION C-C'

BEFORE

AFTER
SITE PLAN - SEGMENTS

AUGUSTA ST

Segment A

Community Gateway
Stripped Bike Lane
McDaniel Ave Crosswalk
Sidewalk Extension

Community Gateway
Stripped Bike Lane
Faris Rd Crosswalk
Cureton St Crosswalk
Sidewalk Extension
Outdoor Seating

Segment B
EXISTING CONDITION
AUGUSTA ST
SEGMENT A
Reduce parking space on the corner to build a square with seats as a community gateway.

Reduce parking space on the corner to build a square with seats as a community gateway.

Remove one lane to add striped bike lane on both side of Augusta St.

Crosswalk with brick paver.

Reduce the parking space to build a street park for the communities and stores.
EXISTING CONDITION
AUGUSTA ST
SEGMENT B
NEW SPACES
AUGUSTA ST
SEGMENT B
Reduce the parking space to build a street park for the communities and stores.

Using same pavement for pedestrian walkway to build a iconic type on Augusta st.

Tree garden for fire house as a recreational public space.

Crosswalk with brick paver.
Conclusion

People + Space + Transportation

Street design is a continuous process that changes every day; the complete street works for three sites in Greenville are designed according to their particular background and atmosphere. The design tools could be countless but the core principles are simple - people, space and transportation.