

**WALKABILITY AUDIT - INTRODUCTION**

Prior to any design considerations, the consulting team undertook a walkability audit of the corridor. This type of analysis will help inform the design team as to the current state of affairs for the pedestrian, which is directly linked with the success of businesses in the corridor.

The audit findings are presented on the following pages by street segment and side of street, either North or South bound and by element of the street "realm". First, let's define the "realms" of a healthy street.

**STREET REALMS**

To properly plan for all the elements of a corridor, it is essential to account for the four street "realms," which are the intersection realm, travelway realm (between curbs or other pavement edges), the context realm, the interface with adjacent buildings, sites, and land uses, and the pedestrian realm (pavement edge to right-of-way line),

The four realms that together comprise the thoroughfare and its context are:

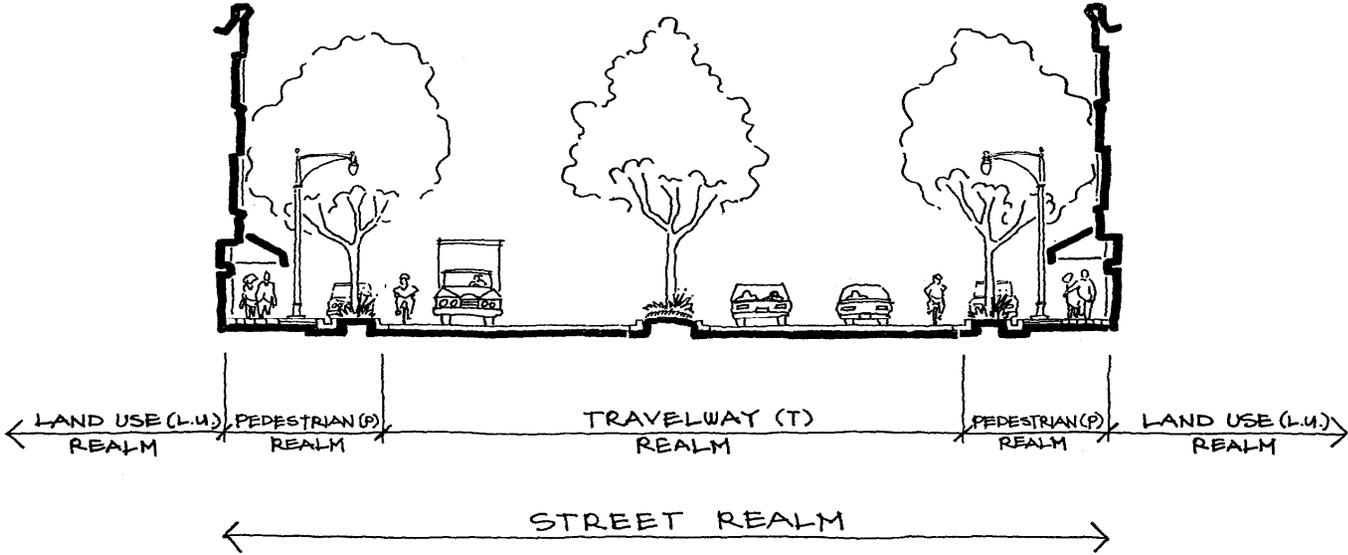
- Intersection Realm: Public right of way and a portion of abutting private property that together form a frame including the intersection at its center. The intersection realm is characterized by a high level of

activity and shared use, multi-modal conflicts, complex movements, and special design treatments.

- Travelway Realm: Public right-of-way from curb-to-curb including parking lanes, which are part of an overlap zone with the pedestrian realm and travel lanes for private vehicles,

goods movement, transit vehicles, and bicycles. Medians are also part of the travelway realm. Transit stops and loading/unloading zones are included in the travelway realm.

- Context Realm: Properties and activities adjacent to the public right of way with surroundings that contribute to character and

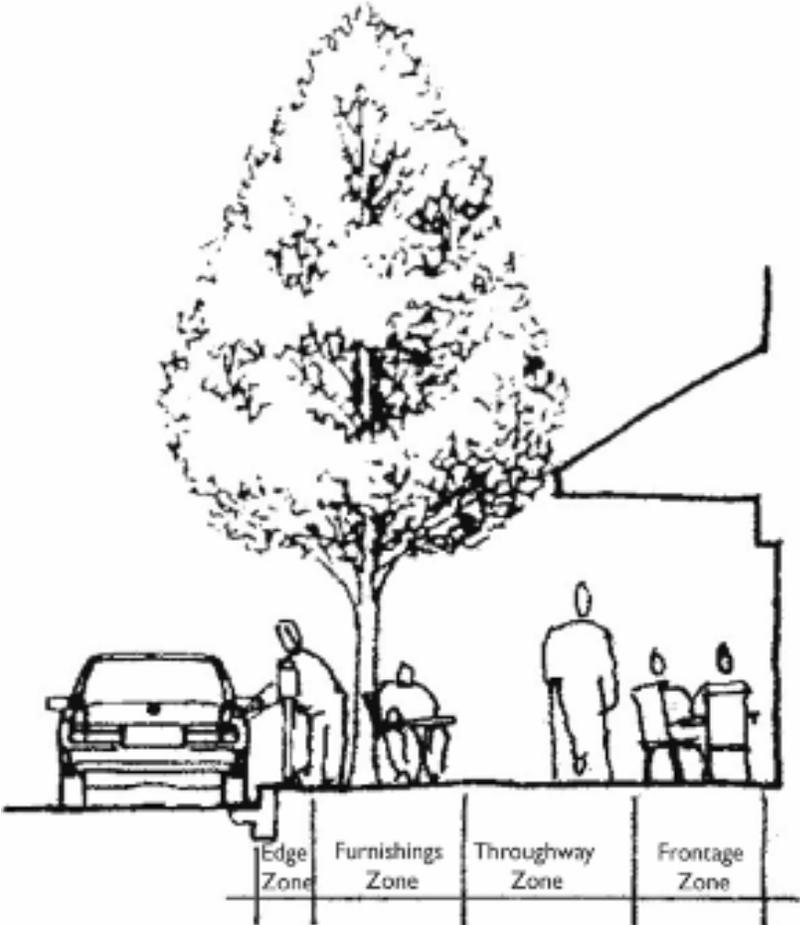


**THE STREET REALM**

mobility. Buildings, landscaping, land use mix, site access, public and semi-public open spaces are the primary shapers of context. Some transportation facilities, notably transit stations and parking lots and structures, are included in the context realm.

- Pedestrian Realm: Public right of way typically including planting area and sidewalk, from curb to the front property line of adjoining parcels. The pedestrian realm is further divided into a series of zones that highlight different uses. These include: edge zone, furnishing zone, throughway zone, and, on blocks with predominance of ground-floor retail, frontage zone. The relative importance of the zones is in part the function of land use. Transportation facilities including bus shelters and waiting areas and bicycle parking may be part of the pedestrian realm. Often the on-street parking lane overlaps with the pedestrian realm because of the pedestrian activity generated by parked vehicles.
- Context/Pedestrian Overlap: Ground floor building frontage and any overhanging elements (arcades, awnings, etc) create one part of the overlap between the private development in the context realm and the public space of the pedestrian realm. Also included are paths and walkways on private property adjoining the thoroughfare.
- Pedestrian/Travelway Overlap: The travelway areas where pedestrians are common are the parking lane and the crosswalks (marked or unmarked). The parking lane frequently doubles as space for transit loading and unloading and in some locations it may also occasionally be used for community events such as farmer’s markets, parade viewing, etc. In such cases use of the travelway realm is often restricted in order to maximize the comfort of people using the overlap zone

Using these parameters the following walkability audit was generated for the study corridor. Pedestrian analysis maps of the frontages on North Main show a rating of the pedestrian experience based on comprehensive observation using the typical frontages the study area. Green denotes the best frontages and the good ones, the Yellow denotes the acceptable, and the Red denotes the poor ones, which are unlikely to be *willingly used by pedestrians*.



WALKABILITY AUDIT – BY STREET SEGMENT AND STREET REALM CONDITION

The Main Street Corridor was divided into the following segments for analysis:

- Wheatland Road to West Nance Street
- West Nance Road to Center Street
- Center Street to East Davis
- East Davis to Camp Wisdom

Wheatland Road to West Nance Street

The signalized intersection of Wheatland Road and North Main Street is defined by four ten foot travel lanes and one twelve foot turning lane on all approaches. The crosswalks are clearly marked and pedestrian crossing controls are provided for all movements. Pedestrian crossing time is adequate. Driveways near the intersection create traffic and pedestrian conflicts.



Pedestrian Lighting in Armstrong Park

Other conditions include: poor sidewalk concrete condition, frequent driveways with steep side slopes, uneven joints, poor lighting and no buffer with traffic lane. These conditions are most evident on the west side of the street. The East side of the street is dominated by

Armstrong Park, which provides us with a great example of a pedestrian light pole.

The predominant land use contexts in this segment of North Main is public on the east side and service and retail on the west side. These land uses are Setbacks near Wheatland are 80' to 100'. Closer to West Nance Road setbacks are reduced to 30' to 50' as pictured to the right.

The pedestrian realm is typically provided adjacent to the street in the form of a 4' to 5' concrete sidewalk. The presences of electric utility poles at an average distance of 140' (some being much closer as pictured) create obstructions in the already undersized sidewalk.

The context/pedestrian overlap is stressed in this segment due to building orientation to automobiles and parking lots. The entrances to most buildings in this section of the corridor are oriented toward parking lots and are not accommodating to pedestrian traffic.

The travelway/pedestrian overlap is found in this segment only at Wheatland Road and North Main and is determined to be adequate.



Intersection/Travelway Realm

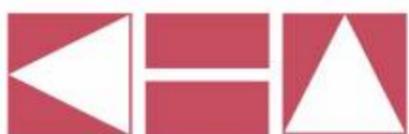
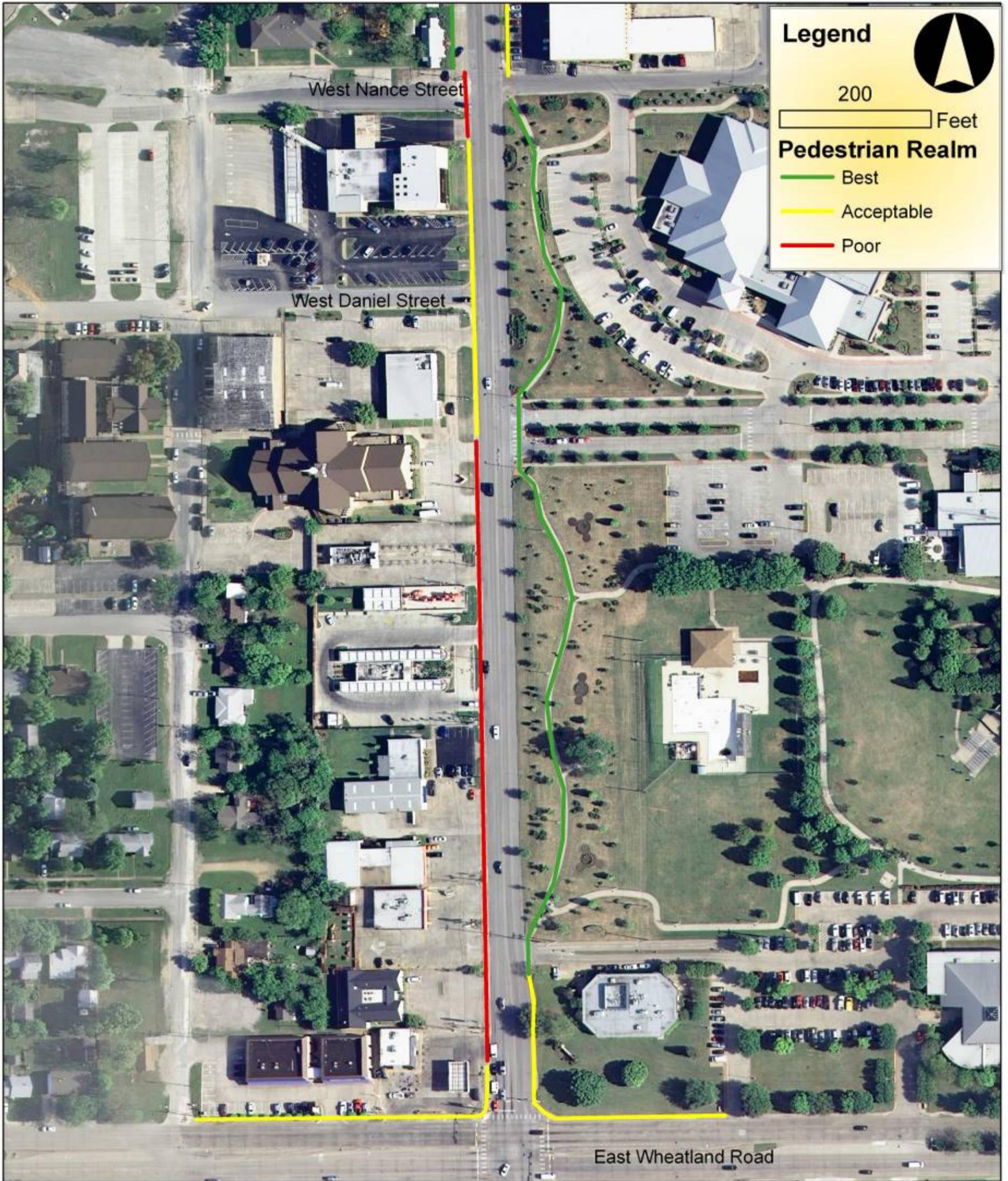


Context Realm



Pedestrian Realm

# Draft North Main Street Pedestrian Realm Assessment



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West Nance Road to Center Street

The signalized intersection of Center Street and North Main Street is defined by four ten foot travel lanes and one twelve foot turning lane on all approaches. The east bound approach also has a shared through or left lane. The crosswalks are clearly marked and pedestrian crossing controls are provided for all movements. Pedestrian crossing time is adequate. Driveways from the southwest quadrant interfere with the intersection, thus creating traffic and pedestrian conflicts.

Land uses in the segment vary from office, service, day care, youth center, retail, restaurant and public. This is truly a mixed-use segment. The mix of uses means the pedestrian realm will be used by many, including children. Building setbacks vary from 80' at 210 Main to 20' at 215 Main. The new mixed-use center at 100 Main establishes a setback of 44'. The presence of on street parking in-front of the mixed use center and in-front of 113 North Main and 215 North Main add to the urban environment and work to buffer the sidewalk from the travel lanes. However, the placement of "temporary" storage buildings or other visual blight in the context realm detracts from the pedestrian experience.

The pedestrian realm varies from nearly perfect conditions in front of 100 North Main to poor conditions adjacent to 103 North Main. Of greatest concern is the lack of wheelchair ramps at the intersection of Freeman Road. Secondly,

the sidewalk ends north of 113 North Main and does not begin until the intersection with Center Street.

Other conditions include: poor sidewalk concrete condition, frequent driveways with steep side slopes, uneven joints, poor lighting and no buffer with traffic lanes.



Public Art at Mixed-Use Center

The context/pedestrian overlap is embraced in the 100 North Main area, with public art as the joining element. Other areas do a good job of addressing the street with proper front door locations and pedestrian level signage.

The travelway/pedestrian overlap is found in this segment only at Center Road and North Main. The pedestrian control buttons are poorly positioned here, but crossing times are adequate.



Intersection/Travelway Realm

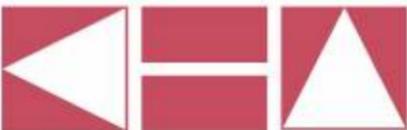
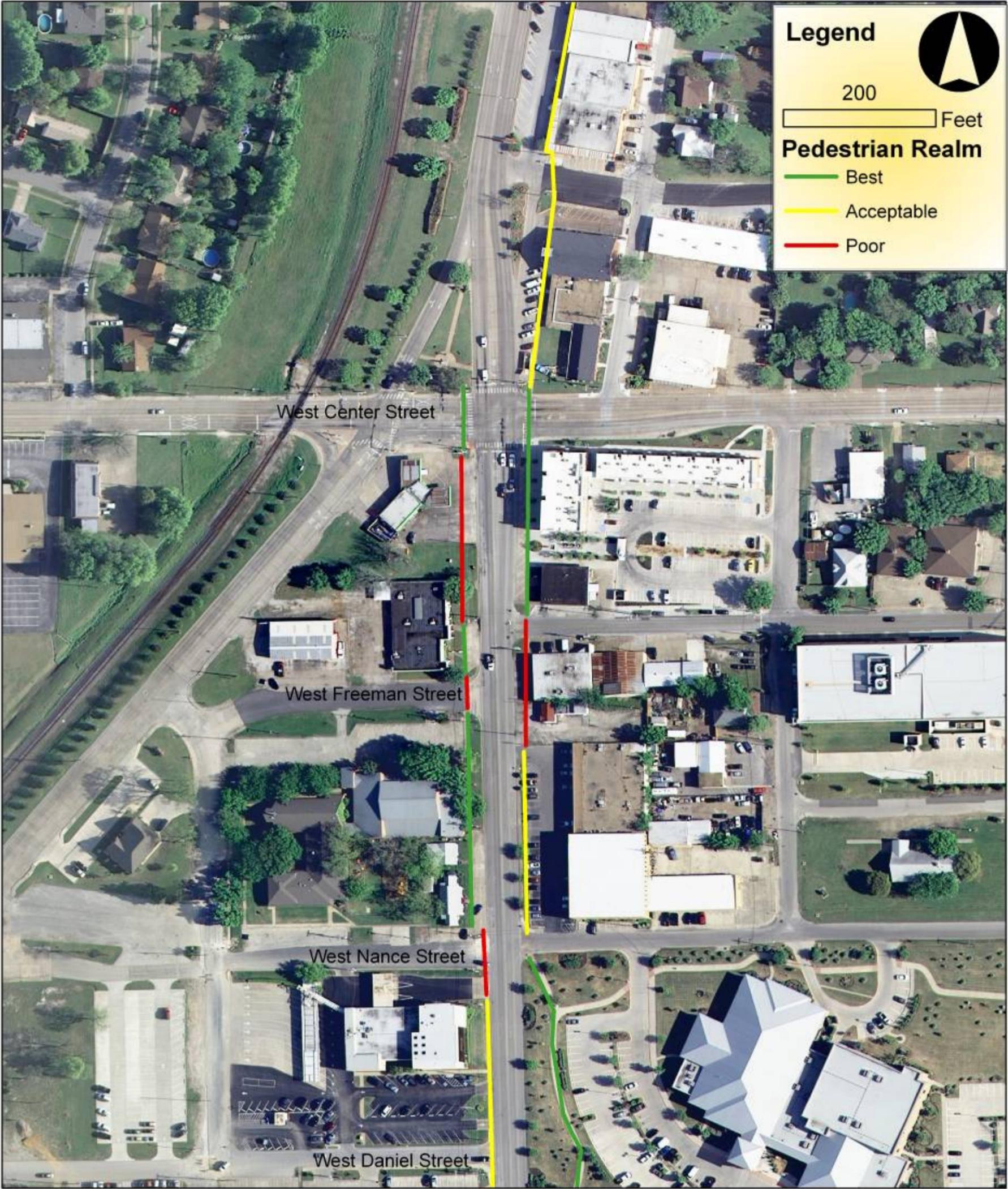


Context Realm



Pedestrian Realm

# Draft North Main Street Pedestrian Realm Assessment



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Center Street to East Davis

The signalized intersection of East Davis Street and North Main Street is defined by four ten foot travel lanes and one twelve foot turning lane on the North and South approaches. The crosswalks at this intersection are in need of re-striping. Pedestrian crossing controls are provided crossing main on the south side only. These buttons are positioned in a poor location on the east side. Pedestrian crossing time is adequate. Traffic control devices at this intersection are old and are being suspended by guide wire.

The context realm is cut in half from this point to the end of the study area by railroad r-o-w on the west side of North Main, with the exception of the grain store. Land uses in this segment are typical main street uses, including a pharmacy with a café, electronics repair, barbershop and other neighborhood level retailers and services. Building setbacks range from 20' to 45'.

The importance of the railroad on the development and history of Duncanville is noted in a Texas Historical Commission marker at the intersection of East Davis and Main Street. The location and orientation of the marker makes it difficult to be read by pedestrians and/or drivers. Geometric improvements at East Davis



could not only improve visibility of this historical marker, but could make pedestrian travel safer and easier.

The pedestrian realm for a majority of this segment is adjacent to the building facades along a 5' path, which is buffered by angled parking. Connections from the building fronts to the intersection crosswalks are poorly defined or nonexistent.

The context/pedestrian overlap in this segment is great. Buildings provide front doors related toward the sidewalk.

The travelway/pedestrian overlap in this segment is good except for the wide and poorly defined driving isle in the angled parking lot.

This creates a separation from the travelway and reduces the amount of space available for the pedestrian realm.



Intersection/Travelway Realm

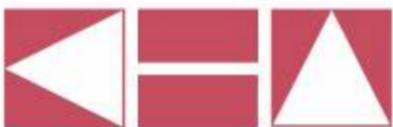


Context Realm



Pedestrian Realm

# Draft North Main Street Pedestrian Realm Assessment



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East Davis to Camp Wisdom Road

The signalized intersection of Camp Wisdom Road and North Main consist of four travel lanes and one left turn lane in all approaches. Additionally, the north bound approach of North Main has a right turn slip lane and the eastbound approach of Camp Wisdom has a right turn only lane. Pedestrian crossing control devices are provided for all movements except on the west side of the intersection for the north to south movement. Pedestrian are restricted from performing this movement. The travelway realm from East Davis to Carder Road widens to accommodate at twelve foot two way left turn lane. Perceivably, this was added to accommodate the multiple driveways found in this section and to make navigating into the 90 degree parking easier.



there are eclectic and valuable businesses along this segment, such as the North Main Sno-Cone Shop. Uses like this are incentives to walk a few blocks for a refreshing treat while shopping at other stores.

The pedestrian realm in this segment is distressed or non-existent. Sidewalks are absent from the corner of East Davis and North Main Street. Sidewalks are present sporadically and in

an unconnected fashion from 418 North Main to 624 North Main, before ending completely at 624 North Main. The recent completion of the QT filling station has added a 5' sidewalk with wheel chair ramps at the corner of Camp Wisdom Road.

The context/pedestrian overlap in this segment is extremely limited due to poorly positioned 90 degree off-street parking. Front doors are typically related to the street and could provide a nice entrance for pedestrians.

The travelway/pedestrian overlap in this segment is stressed by the widening of the cross-section and general lacking of pedestrian accommodations.

Beyond the first few buildings north of East Davis Street, the corridor begins to loose its main street urban form. Fewer structures share a common wall, parking, driveways and sidewalks in this segment of the corridor. The set-back at the East Davis intersection is 22'. It opens up to 30' at 418 North Main and further north at 716 North Main the setback is 70'. The land uses in this section also depart from the typical main street uses, turning to more auto oriented uses, such as filling stations and auto repair shops. Vacant, abandoned and underutilized lots are frequent. Nonetheless,



Intersection/Travelway Realm

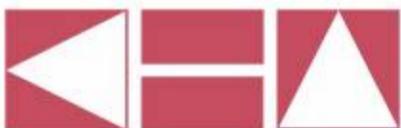
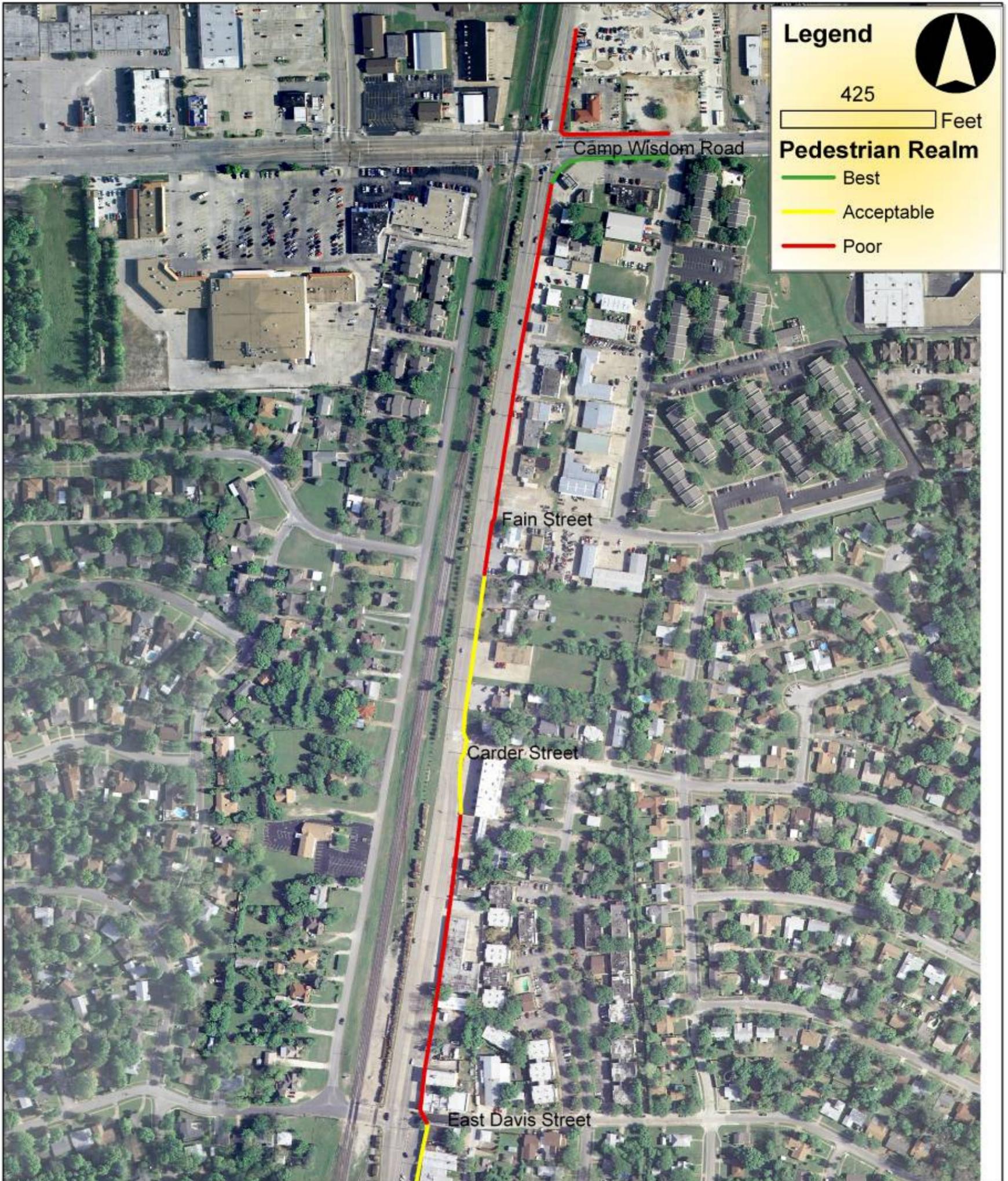


Context Realm



Pedestrian Realm

# Draft North Main Street Pedestrian Realm Assessment



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**CONCLUSION**

Most of the North Main Street area of Duncanville is not particularly attractive to pedestrians.

**DISCUSSION**

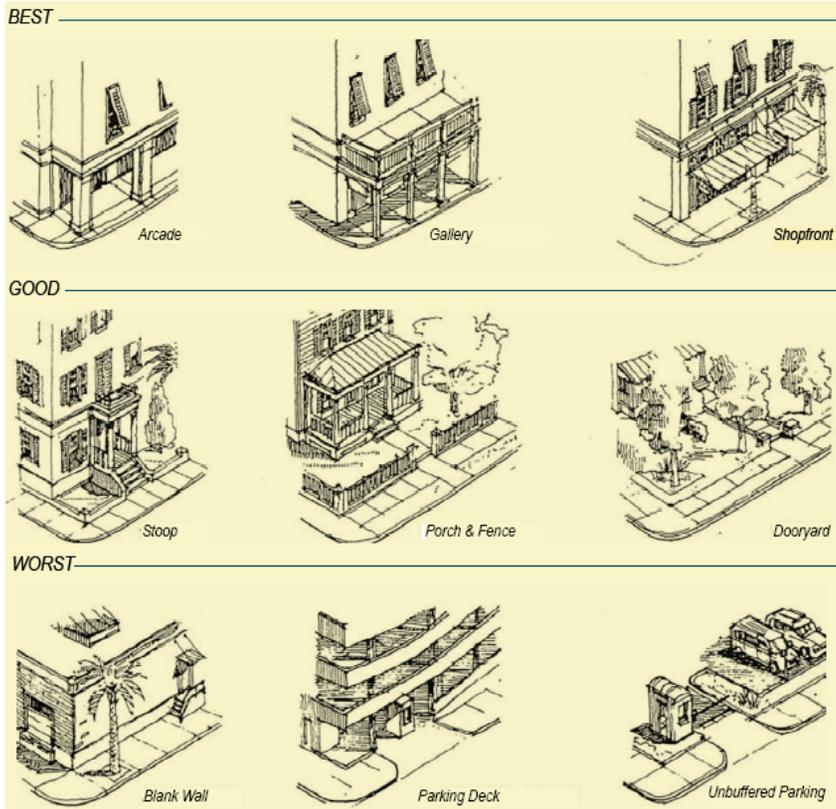
An environment conducive to pedestrian activity is the principal factor that grants urban areas a competitive advantage over newer suburban subdivisions, shopping centers and office parks. People shopping for dwellings and businesses looking for premises will choose the available suburban locations unless the area offers a viable pedestrian activity. Suburban developments have many advantages, but they are intrinsically unable to support active pedestrian life. To be successful, pedestrian environments must be mixed-use, with residences, shops and workplaces, as well as entertainment venues that enables the area to become a relatively complete 24-hour city.

Many studies have uncovered the attributes of an interesting streetscape. There is consensus that one of the most important aspects is the frontage. A frontage is the way in which a building meets the sidewalk on its first floor — i.e. the stimulus that the pedestrian walks past. There is a gradation regarding what frontages are most attractive and which are least. The most attractive by far are shopfronts, followed by dwellings with

short setbacks equipped with stoops or porches, then followed by houses with deep common lawns (which are neutral). Finally there are the progressively negative blank walls, parking garages and open parking lots. There are examples of all these types of frontages along the North Main Street Corridor. However, buildings dating from the 60's to present typically ignore the importance of street

frontage and emphasize parking and vehicular access. This comes from the outdated urban design principles and the idea that parking would allow downtowns to compete with the suburban shopping centers.

In fact, downtowns can never compete with suburban shopping centers on the basis of the former doing what the latter does best — providing parking. Downtowns compete only where they have the advantage of an active pedestrian life. Even where North Main Street has good frontages, they are discontinuous: and are constantly interrupted by parking lots, blank walls, etc. Starting with its existing assets, the corridor must be woven together again.



*This diagram shows typical pedestrian frontages, ranging from the most pedestrian friendly to the least pedestrian— friendly.*