

PARKING ASSESSMENT - INTRODUCTION

A successful downtown or urban corridor plan relies on an adequate supply of parking at different times of the day and in the appropriate locations. Assessing the present supply and the future need of parking based upon the future land use concepts is essential to development. The following parking inventory was completed using a combination of aerial photography and field verification. Appendix A contains the raw data. Three types of parking spaces were identified: restricted parking lots (not shared), shared parking lots, and on-street parking.

PARKING ASSESSMENT – 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

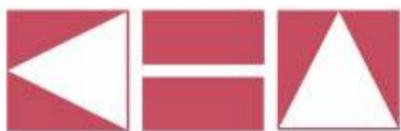
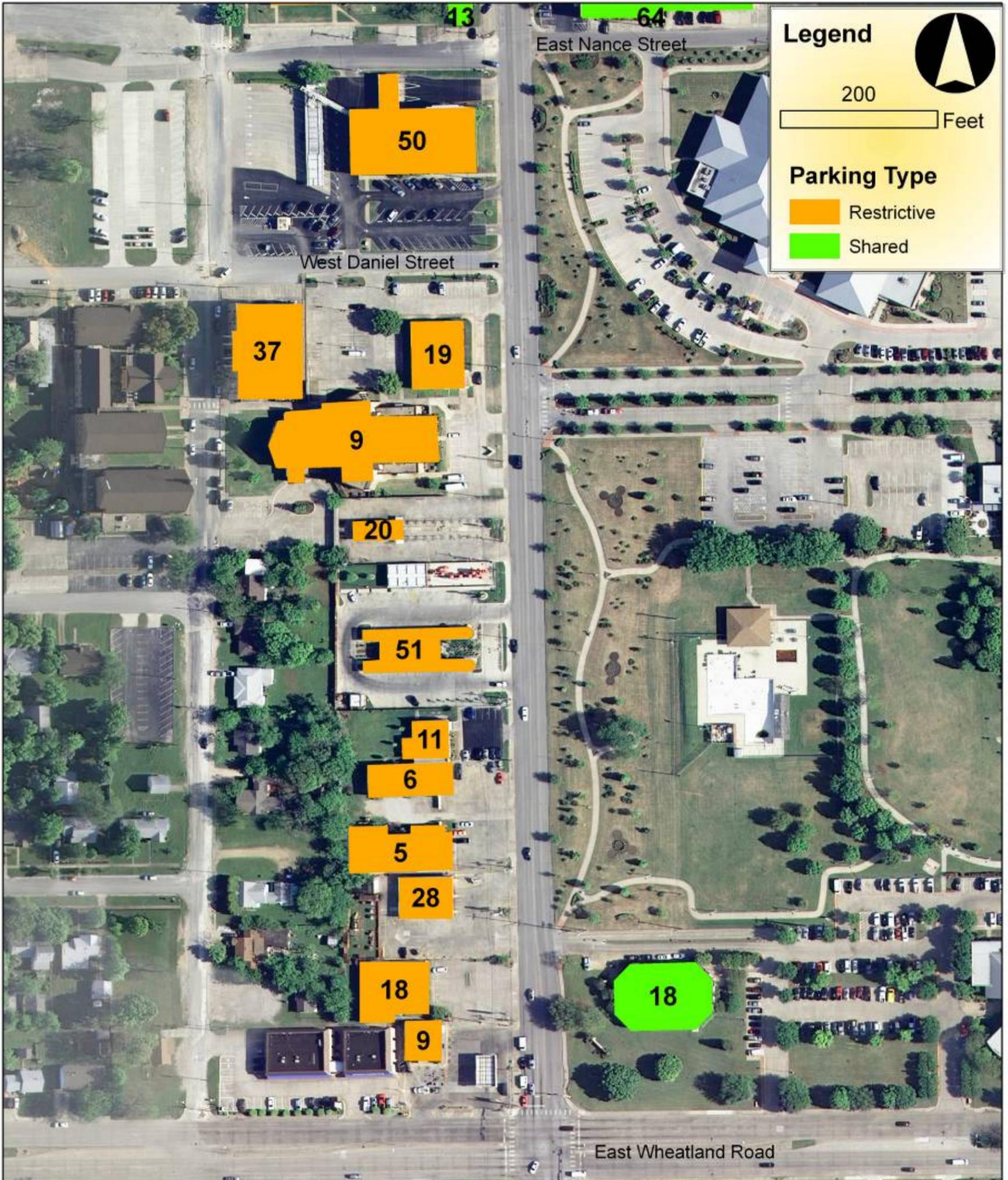
Wheatland Road to West Nance Street

The location of parking in this segment of North Main is mainly found in-front of buildings in restricted parking lots. These lots are not well buffered from the street. This creates a sea of concrete beginning at the driveway, overlapping the pedestrian realm and washing onto the buildings.

There are no on-street parking spaces in this section. Adding on-street parking would be difficult due to the presence of numerous and closely spaced driveways. Parking spaces for the library and other uses in Armstrong Park were not considered in this assessment. They may be considered for future demand estimates based upon time of day needs and conflicts with municipal operations.

Parking Type	Number
Restricted	263
Shared	18
On-Street	0
TOTAL	281

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West Nance Road to Center Street

The parking location and function drastically improves in this section of North Main. The provision of on-street parking aids in buffering the pedestrian realm, calms the street, improves driveway spacing and frames the entrances of buildings. The only complaint is the dimensions of the on-street parking stalls. The perpendicular to curb stall depth is 15'. The Institute of Transportation Engineers recommend 17' 8" for a 45 degree angled parking stalls, like those found on this section of North Main Street.

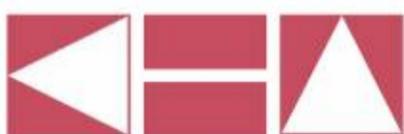
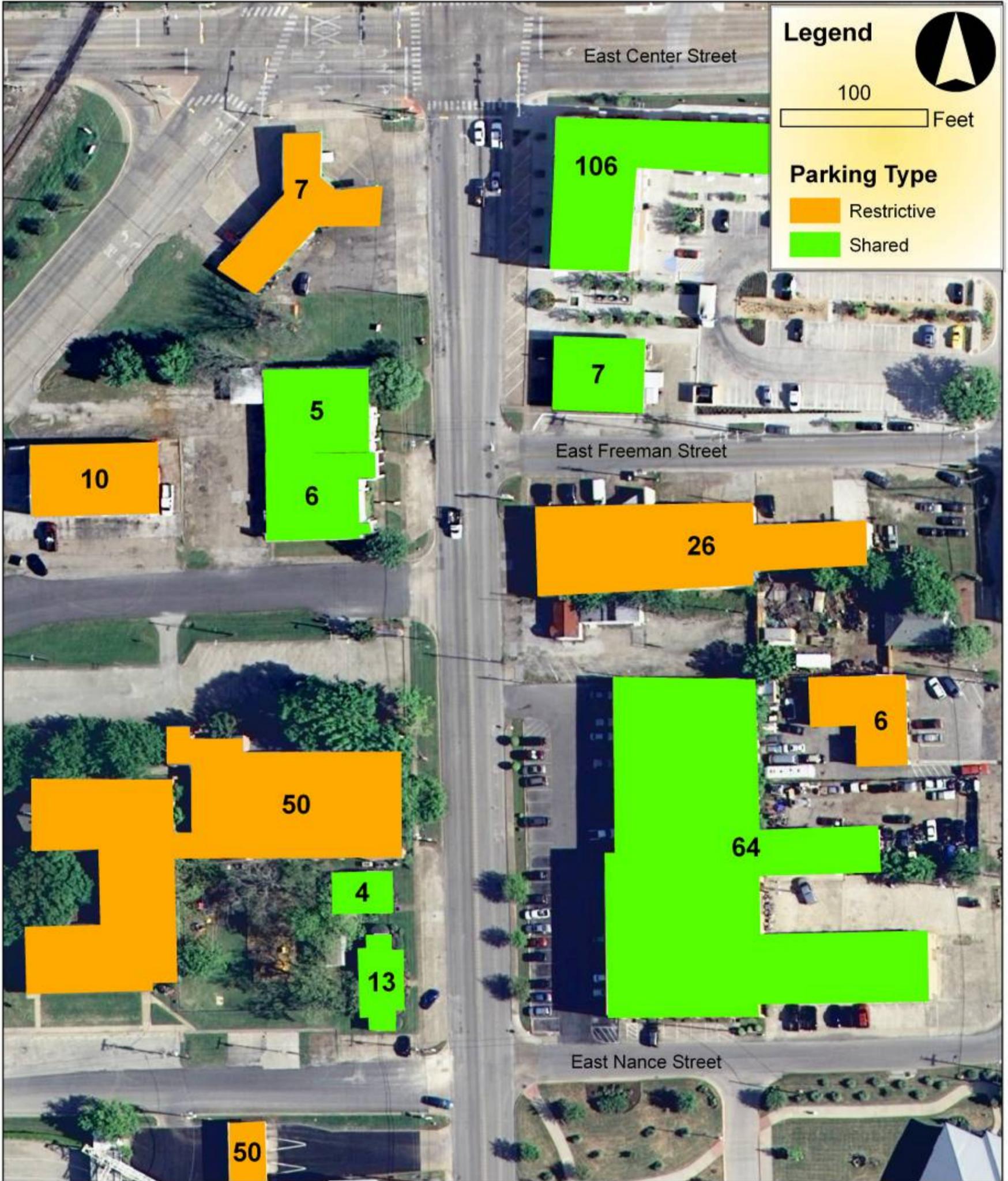
The shared parking lot in front of the office complex at 210 North Main is poor example of off-street parking. Due to the design and size of the parking area, the sidewalk is immediately adjacent to the street, then a small landscaped buffer to the first row of parking spaces, a wide access lane, and another row of parking spaces about the build-to-line. This arrangement is not conducive to a pedestrian environment for passersby or people exiting and entering vehicles. To reach the front door all patrons must walk in the access lane amongst passing vehicles. A similar condition persist in the next segment of North Main Street.

Angle	Stall Width	Stall Depth (Perpendicular to Curb)	Min. Width of Adjacent Lane	Curb Overhang
45°	8.5 ft - 9.0 ft.	17 ft., 8 in.	12 ft., 8 in.	1 ft., 9 in.
50°	8.5 ft - 9.0 ft.	18 ft., 3 in.	13 ft., 3 in.	1 ft., 11 in.
55°	8.5 ft - 9.0 ft.	18 ft., 8 in.	13 ft., 8 in.	2 ft., 1 in.
60°	8.5 ft - 9.0 ft.	19 ft., 0 in.	14 ft., 6 in.	2 ft., 2 in.
65°	8.5 ft - 9.0 ft.	19 ft., 2 in.	15 ft., 5 in.	2 ft., 3 in.
70°	8.5 ft - 9.0 ft.	19 ft., 3 in.	16 ft., 6 ft.,	2 ft., 4 in.
90°	8.5 ft - 9.0 ft.	18 ft., 0 in.	24 ft., 0 in.	2 ft., 6 in.

Typical design vehicle dimensions: 6 ft., 7 in. by 17 ft., 0 in. Use 9.0-foot wide stall in commercial areas with moderate to high parking turnover.
Source: Adapted from Dimensions of Parking, 4th Edition, Urban Land Institute

Parking Type	Number
Restricted	99
Shared	162
On-Street	46
TOTAL	304

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Center Street to East Davis

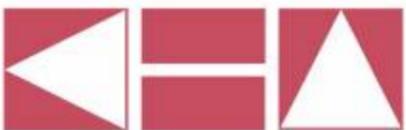
Similar to the condition in-front of 210 North Main, this section begins with on-street parking that is then transitioned into a shared parking lot. Also, like the previous section the on-street parking stalls are less than standard and in the aerial on the next page you can see a large white truck extending well into the driving lane.

Unlike the previous segment, the sidewalk is adjacent to the buildings and access to storefronts is less impeded by parked and moving cars. However, the parking area is un-buffered from the street, leaving little space for landscaping.

Many options for modification to these parking areas, the pedestrian realm and the street realm exist because the City owns the parking areas.

Parking Type	Number
Restricted	0
Shared	138
On-Street	36
TOTAL	174

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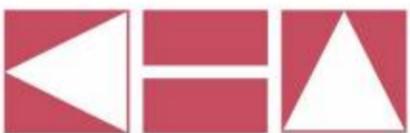
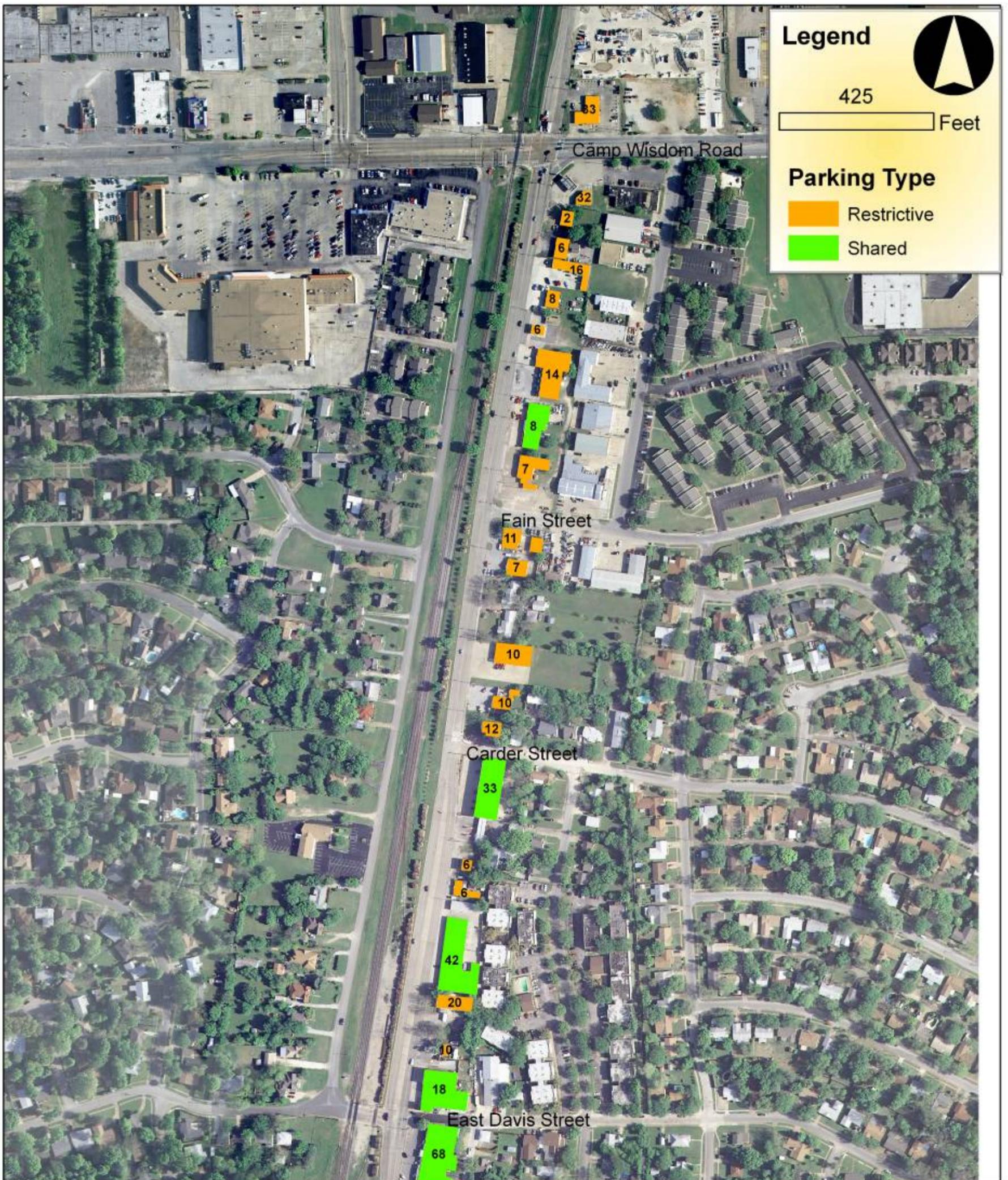
East Davis to Camp Wisdom Road

Much like the first segment of this study, the parking situation in this segment is highly restricted and poorly located. There is no on-street parking and the provision of any is limited due to the high number of driveways. The parking areas disturb or totally dissolve the pedestrian realm and are not buffered from the street.

Most concerning is the presence of parking lots that have a narrow depth from the street, less than 40'. These are just far enough off the street to not be considered on-street, but close enough to cause disruptions to traffic and pedestrians. Typically these parking lots are stripped or oriented to provide for 90 degree pull-in parking. Parking of this orientation requires drivers to slow to a very low speed (less than 5 MPH) to enter the space. Also, cars entering from the southbound (opposing) lane must "square-up" to enter the parking stall. This is facilitated by the presence of a 12' two-way left-turn lane in the center of North Main Street. Even with this lane cars will impede traffic when entering and departing from these types of parking stalls.

Parking Type	Number
Restricted	216
Shared	101
On-Street	0
TOTAL	317

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CONCLUSION

Most of the North Main Street area of Duncanville is not strategic in the location and usage of parking.

DISCUSSION

Many customers refuse to walk more than a block or two to a particular destination, yet distances needed to walk in many downtowns are similar to those encountered in many suburban shopping malls. The difference to the between the two experiences is often the perceived distance to the destination. Walking in a mall offers the customer a variety of amenities, providing additional reasons to visit the mall. In the same fashion, North Main in Duncanville must, in addition to maximizing parking, create an attractive environment to walk from parking areas to destinations. This means creating shady, cool streets with amenities and plenty of shops. Where there are no shops along the street, clear visual clues should lead the pedestrian to the next destination.

The presence and availability of on-street parking serves several critical needs on urban thoroughfares: to meet parking needs of adjacent uses, protect pedestrians from moving traffic and increase activity on the street.

Usually, on-street parking cannot by itself meet all of the parking demand created by adjacent land use and typically will supplement the off-street parking supply.

On-street parking provides the following benefits:

- Supports local economic activity of merchants by providing proximate access to local uses, as well as visitor needs in residential areas;
- Increases pedestrian comfort by providing a buffer between pedestrians and moving traffic;
- Slows traffic, making pedestrian crossing safer;
- Enables drivers and their passengers to become pedestrians conveniently and safely;
- Increases pedestrian activity on the street since people will walk between their parking space and destination, providing more exposure to ground floor retail and



increasing opportunities for social interactions;

- Increases local economic activity by increasing the visibility of storefronts and signs to motorists parking on street;
- Supports local businesses by reducing development costs for small business by decreasing onsite parking needs;
- Provides space for on-street loading

and unloading of trucks, increasing the economic activity of the street and supporting commercial retail uses; and

- Provides an indication to the motorist that desired operating speeds are reduced and that he/she is entering a low or moderate travel speed area.

The next phase of this study will estimate future parking demand and devise innovative ways to provide parking.