

Safety & Traffic Calming/Control

Heavy and speeding traffic is of great concern to the adults in Vinton. Residents cited uncontrolled intersections as contributing to speeding, especially along main routes to and from the hospital, downtown, and schools. Heavy traffic along these routes and the two state highways (Hwy. 218 and Hwy. 150), along with the speeding, creates conditions that make pedestrians feel uncomfortable and threatened crossing the streets.

The primary purpose of traffic-calming and traffic-control is to support the livability and vitality of residential and commercial areas through improvements in non-motorist safety, mobility, and comfort by reducing automobile speeds. Traffic calming is accomplished through the use of physical measures such as raised intersections, raised crosswalks, bump-outs, hardscape and vertical elements, including vegetation and structures. Numerous types of context-sensitive solutions for traffic calming measures were shown at the public design workshop, along with different crosswalk treatments. The methods and treatments preferred by workshop participants and the Vinton community (as represented by the visioning steering committee) are shown on this and the following boards.

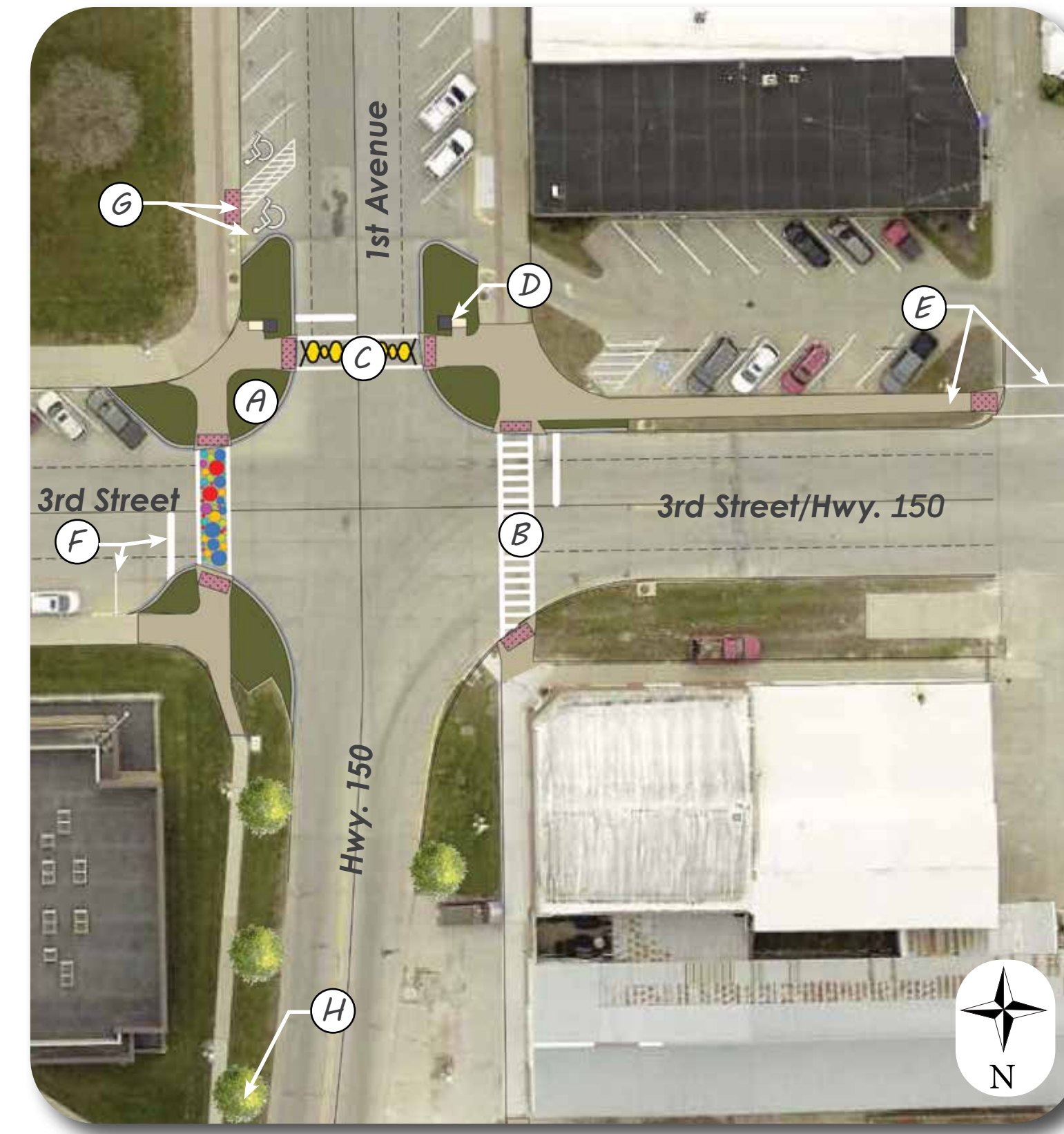
Traffic control is accomplished primarily through operational procedures, rules and laws, and physical components such as traffic signs, pavement markings, traffic lights, and advance-warning signs and devices. Consistent enforcement of rules and laws (i.e., speed limits) is an essential component to effectively addressing the safety and traffic calming/control in Vinton. Traffic calming/control elements shown on the following boards include: bump-outs, narrow streets, raised crosswalks, flashing warning lights and regulatory signage, street trees, decorative lighting, plantings, and vertical gateway markers.

Hwy. 150/3rd St. & 1st Ave. Intersection

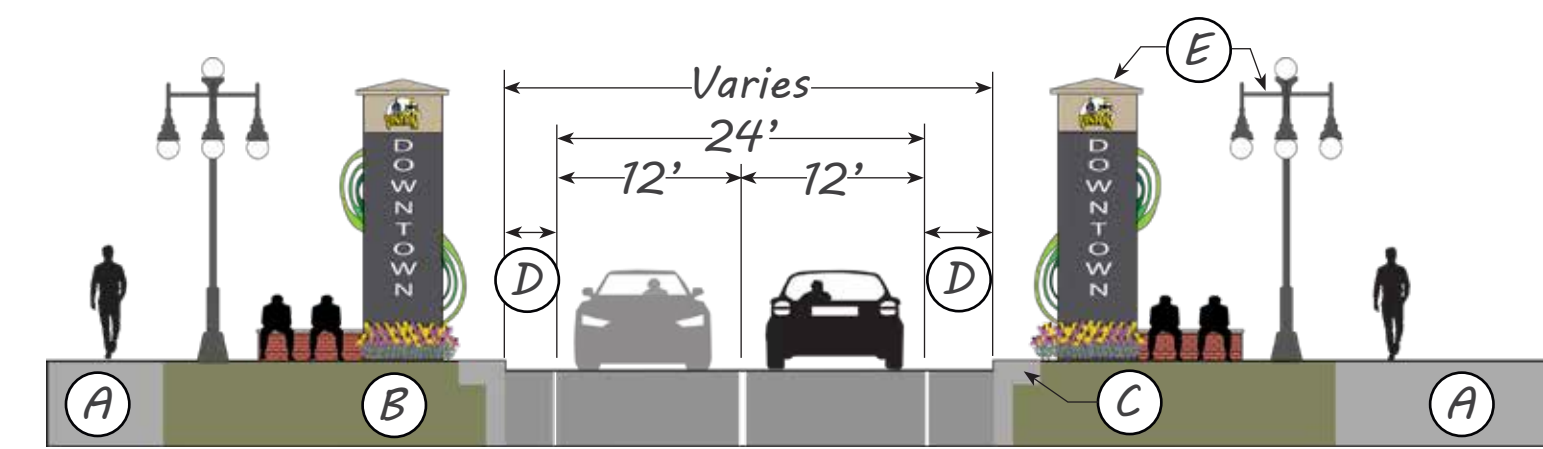
This intersection is significant to Vinton because it is one of the primary gateways into the historical downtown and is also part of the entryway corridor to the city. Unfortunately, it does not garner the attention of visitors that it needs in part because of the uncontrolled traffic flow and speeding traffic traveling from the north via Hwy. 150 and to the east via Hwy. 150/3rd St., and in part because of its lackluster appearance.



Existing aerial plan view of Hwy. 150/3rd St. & 1st Ave.



Concept Option 1: Monument option 1 & artistic crosswalk



Typical section of proposed downtown gateway entry

Typical Section Notes

- (A) Existing sidewalk enhanced/modified as applicable for ADA accessibility and connectivity
- (B) Landscaped bump-out
- (C) Curb and concrete planting edge
- (D) Excess road beyond driving lane, width varies
- (E) Existing downtown lighting & proposed monument

This board, along with board 8b, illustrate proposed improvements for this intersection to help with traffic calming and improve safety and user experience, as well as create more inviting and noteworthy gateways to the city and downtown.



Concept Option 1: Monument option 1 & decorative crosswalk

Intersection Highlights

- (A) Landscaped bump-outs enhance safety, streetscape aesthetics, user experience and both vehicular and pedestrian circulation while slowing traffic via the resulting narrowing of the street (street lane widths will still be wider than standard street lane widths as can be seen in the plan views and typical section)
- (B) High-visibility painted crosswalks at designated pedestrian crossings along Hwy. 150 & Hwy. 218 combined with crosswalk warning signs alerting motorists in advance of the crosswalks.
- (C) Decorative pedestrian crosswalks in the downtown to enhance safety and aesthetics, as well as to provide the opportunity to create an ambiance that showcases Vinton's unique characteristics.
- (D) Gateway monuments to capture the attention of passersby and intrigue them to visit, while also contributing to the downtown's ambiance.
- (E) Widened and ADA-compliant sidewalks and painted crosswalks along 3rd St. corridor to increase pedestrian safety, strengthen connectivity to key destinations and Hwy. 218, and to reinforce the importance of the 3rd St. corridor.
- (F) Painted and maintained pavement markings provide clear direction and delineation as to the location of pedestrian crossings, where motorists stop, where they can park, and how much space is allowable for parking.
- (G) ADA-compliant parking and the associated sidewalk access.
- (H) Street trees, decorative lighting, way-finding signage, traffic control devices, and AD-compliant sidewalks assist in traffic calming/control while physically and visually linking the downtown to Celebration Park, creating a more aesthetic gateway, and enhancing the safety and user experience of both the motorist and pedestrian.

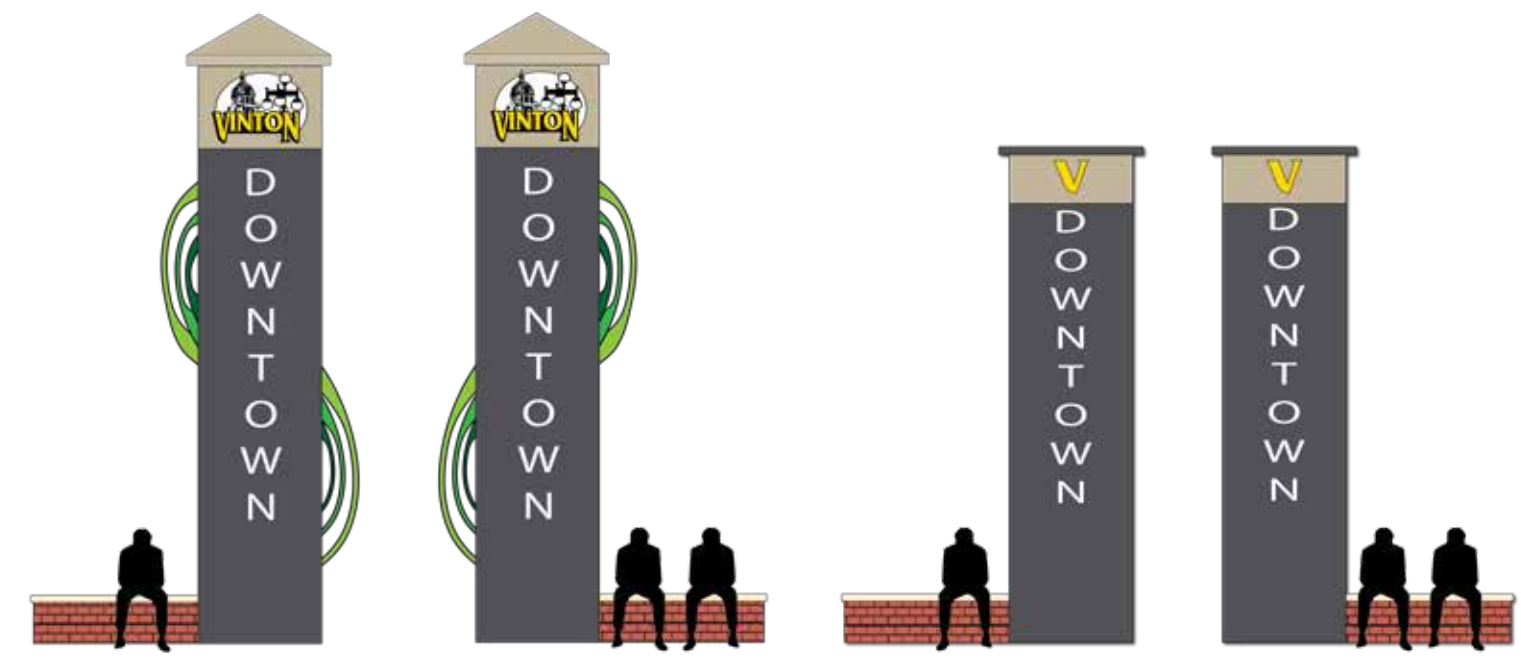
Hwy. 150/3rd St. & 1st Ave. Intersection (continued)

This board illustrates via section views and multiple image edits what the proposed improvements noted and shown in plan view on board 8a would look like. The images show how the various options proposed for gateway signage and crosswalk treatment change the character of the downtown.

Also addressed on this board are the critical design considerations that are necessary to maintain safe and proper intersection visibility that the design team took when developing the concepts. As can be seen, both horizontal and vertical clearances were considered in terms of visibility. The Iowa DOT provides design guidance for visibility requirements that are based in part by speed, traffic count, and geometric layout of the roadway.

Downtown Gateway Monument

Two concepts are illustrated on this board. Option 1 is the artistic option with a decorative metal serpentine detail extending from the sides of the monument in various shades of green that draw from the community identity color palette. Option 2 represents a basic and simplified design.



Downtown Monument Option 1

Downtown Monument Option 2



Photo of existing intersection from north side looking south along 1st Ave.



Intersection Concept Option 1: Monument option 1 & artistic crosswalk



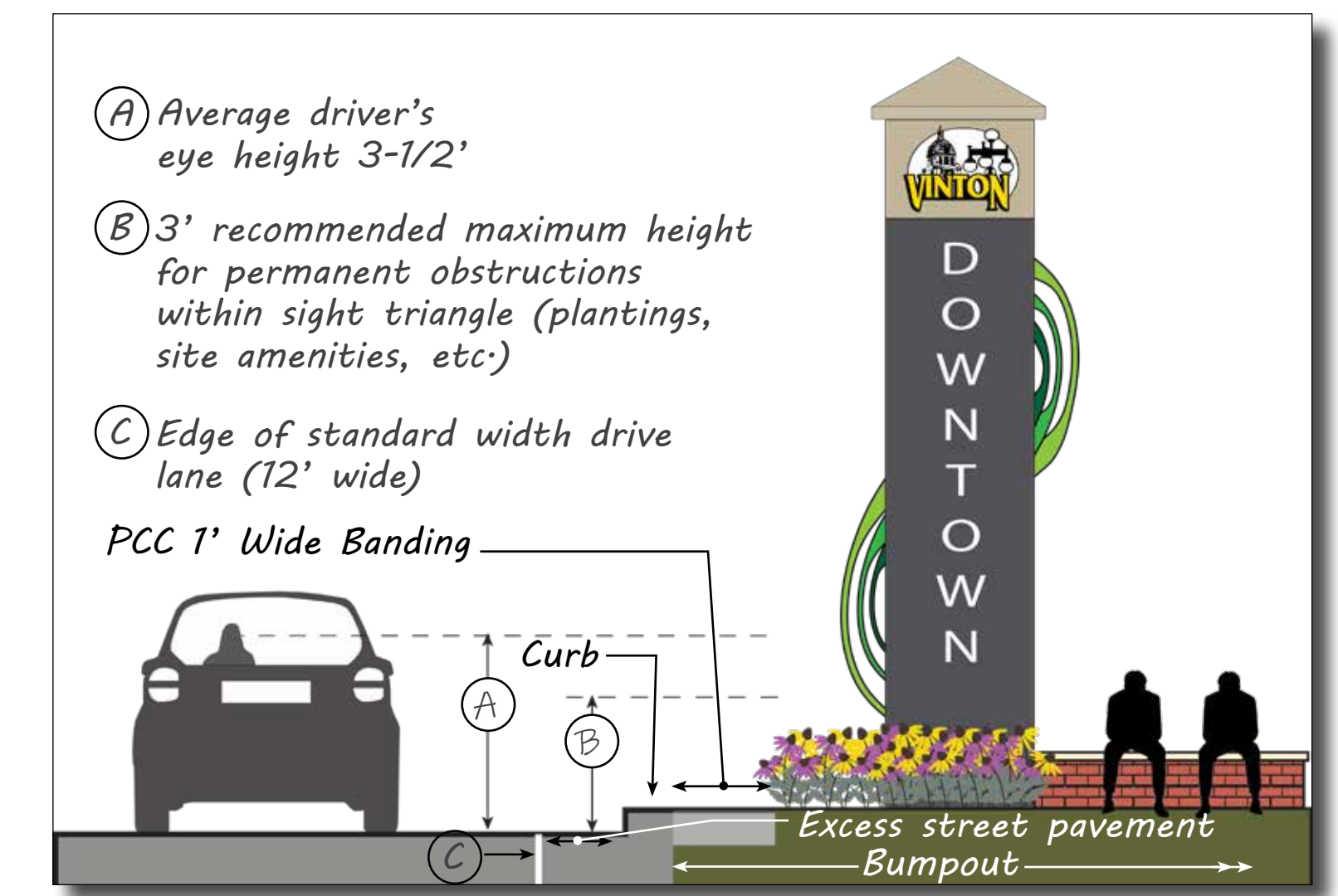
Intersection Concept Option 2: Monument option 1 & decorative crosswalk



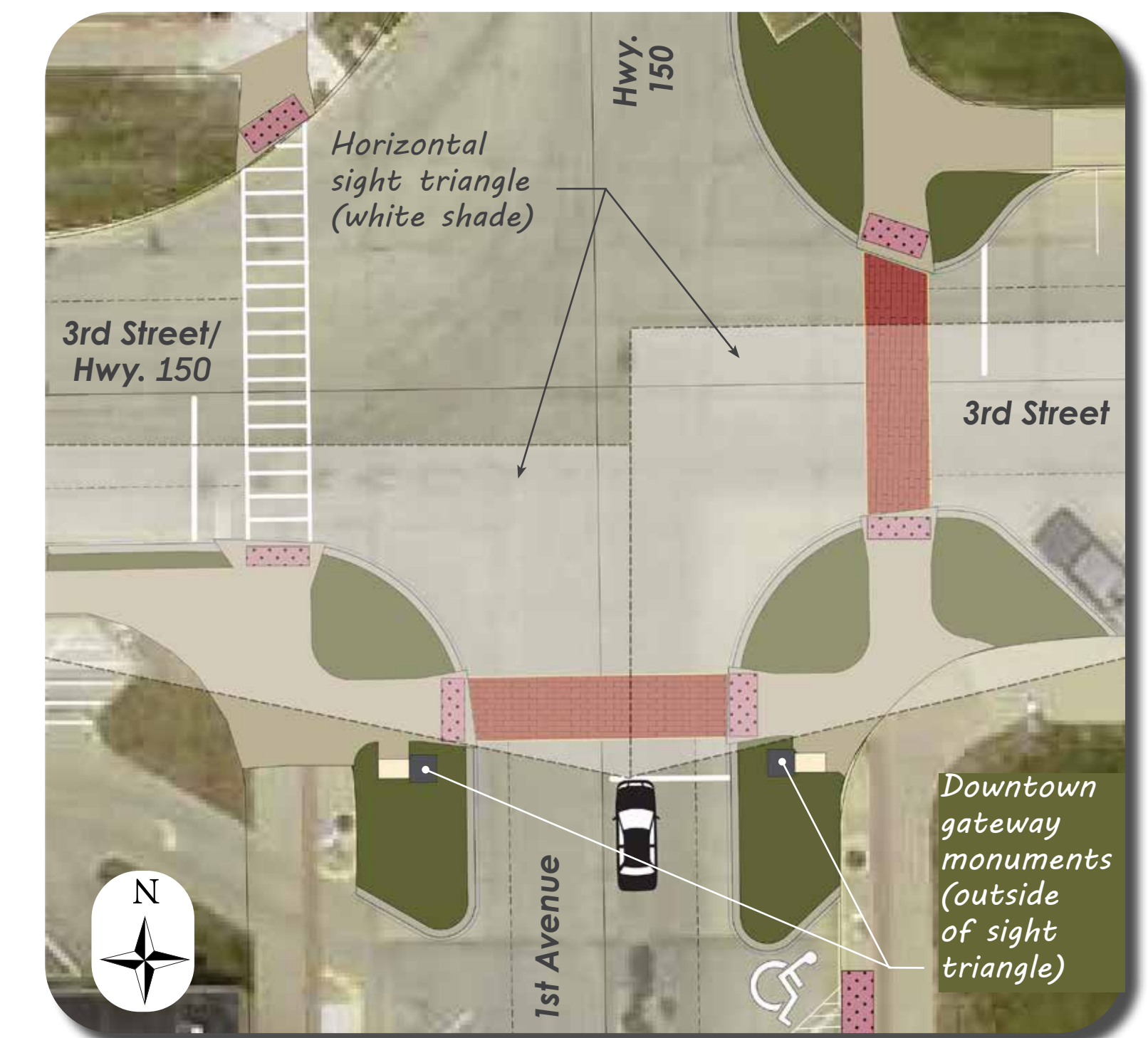
Intersection Concept Option 3: Monument option 2 & artistic crosswalk

Hwy. 150/3rd St. & 1st Ave. Intersection Visibility

The visibility (aka: sight triangle) at intersections is critical to ensure the safety of motorists and pedestrians. Iowa DOT design standards for determining this were considered, when applicable, during the development of the concepts presented on this and the other design boards. As can be seen, the gateway monument and associated seating are located outside of the sight triangle. Also of consideration is the height of items within the triangle - such as plantings, which as a general rule should not exceed 3-foot tall - refer to typical section.



Typical section of intersection enhancements based on Iowa DOT design criteria regarding vertical height of elements within the line of sight



Aerial plan view of the proposed intersection enhancements and line of sight (sight triangle) based on Iowa DOT standard design criteria



Intersection Concept Option 4: Monument option 2 & decorative crosswalk

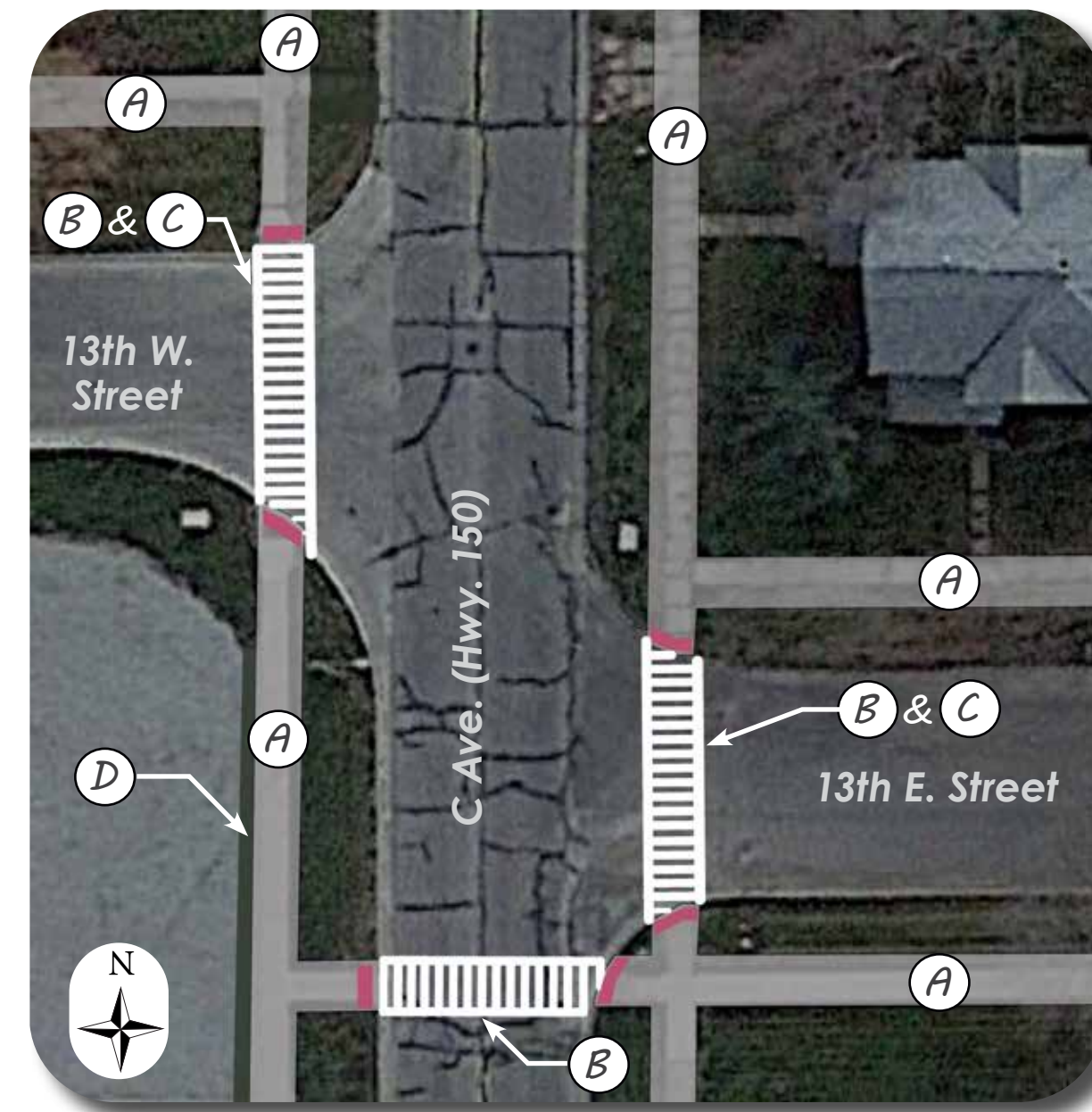
13th Street & C Ave. (Hwy. 150) Intersection

Residents identified this intersection as one of great concern due to the interaction that occurs between motorists and pedestrians. Both 13th Street and C Ave. (Hwy. 150) are heavily traveled primary corridors for motorists as well as for pedestrians, especially youth walking to and from school. The proposed concepts reduce the two existing pedestrian crossings of C Ave. (Hwy. 150) to one to minimize pedestrian and motorist interaction since there is currently no traffic control for C Ave. at this location.



Existing aerial plan view

Since Hwy. 150 is a state highway, any enhancements to the road, including traffic calming/control measures along it, need to be approved by the Iowa DOT BEFORE implementation - this includes traffic signage and pavement markings.



Aerial plan view of the proposed intersection enhancements and line of sight (sight triangle) based on Iowa DOT standard design criteria

13th St. & C Ave. Intersection Concept Highlights

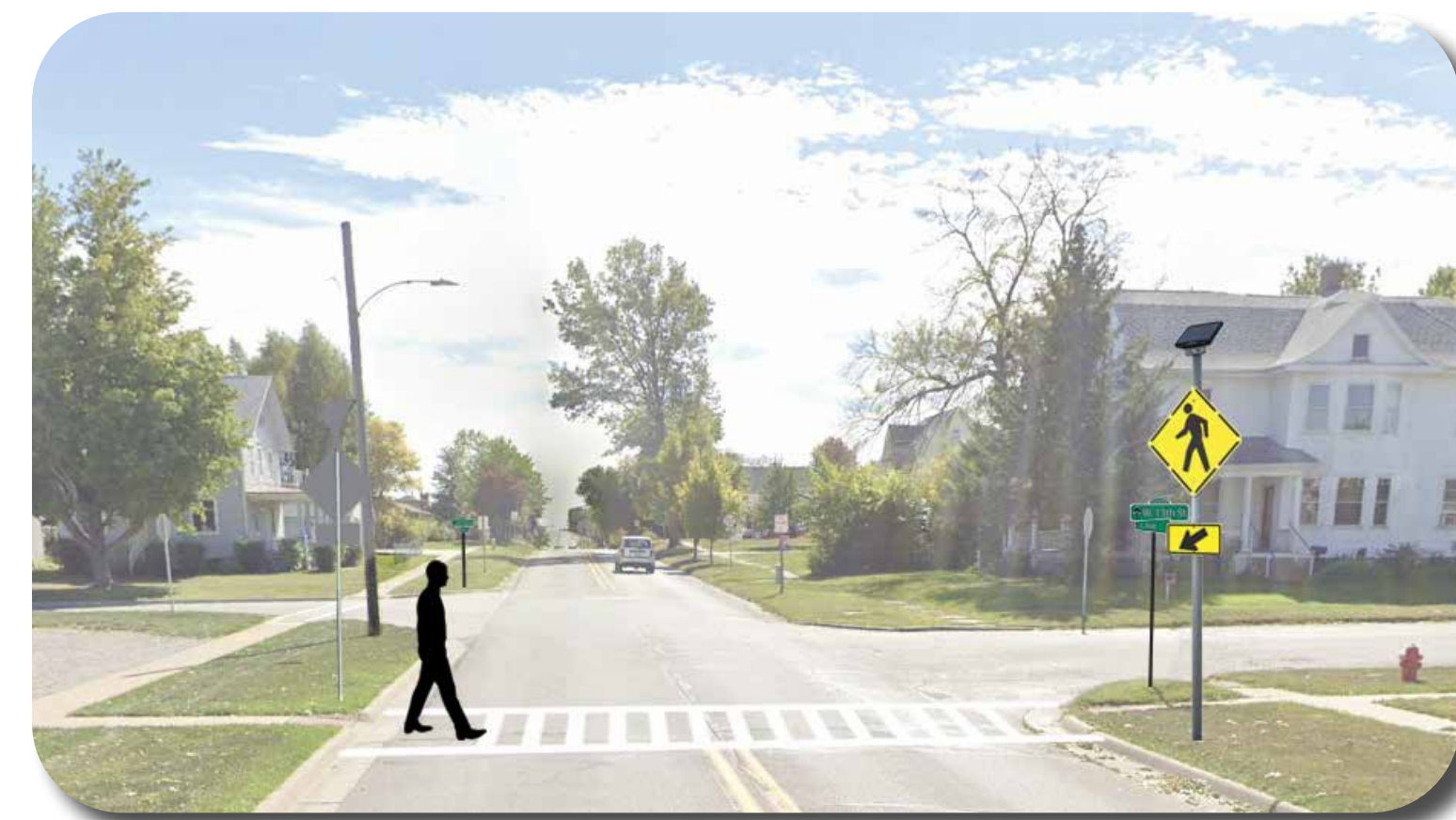
- (A) Existing sidewalk enhanced/modified as applicable for ADA accessibility and connectivity
- (B) High visibility painted crosswalk & the associated crosswalk warning signs with flashing lights
- (C) Possible location for raised crosswalk
- (D) Lawn buffer between parking lot and sidewalk



Existing C Ave. (Hwy. 150) looking southerly from north side of intersection with 13th St.



Existing 13th E. St. looking easterly from east side of intersection with C Ave. (Hwy. 150)



Concept showing C Ave. (Hwy. 150) proposed enhancements, including branded street signs and crosswalk warning signs



Concept showing 13th E. St. proposed enhancement

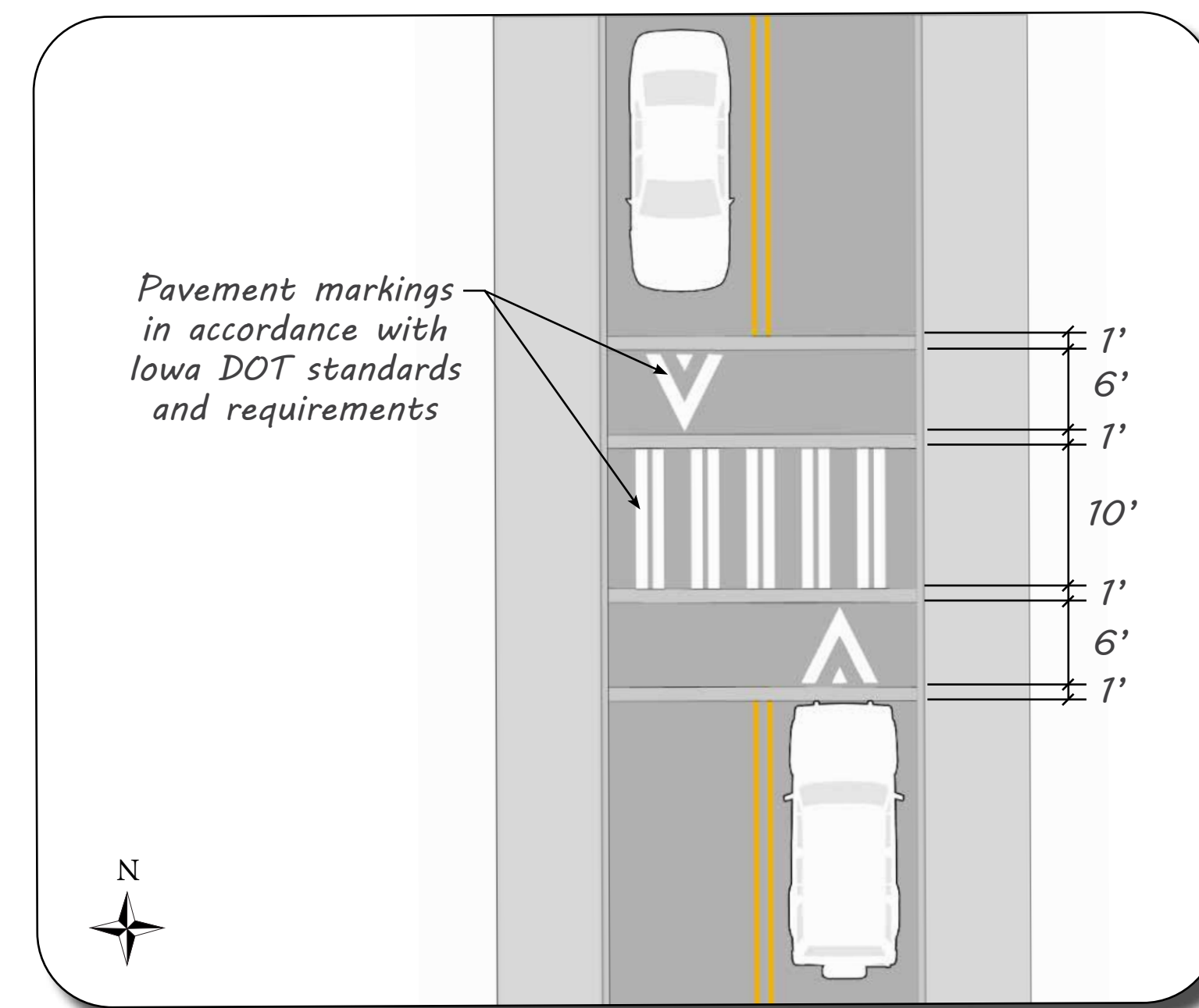
2nd Ave. & 6th St. Intersection

Fast moving traffic on a number of residential streets, including 2nd Ave., was repeatedly noted as a concern by residents. Community feedback during the design workshop indicates that raised crosswalks were one of the solutions for traffic calming that was acceptable to residents for implementation in Vinton.

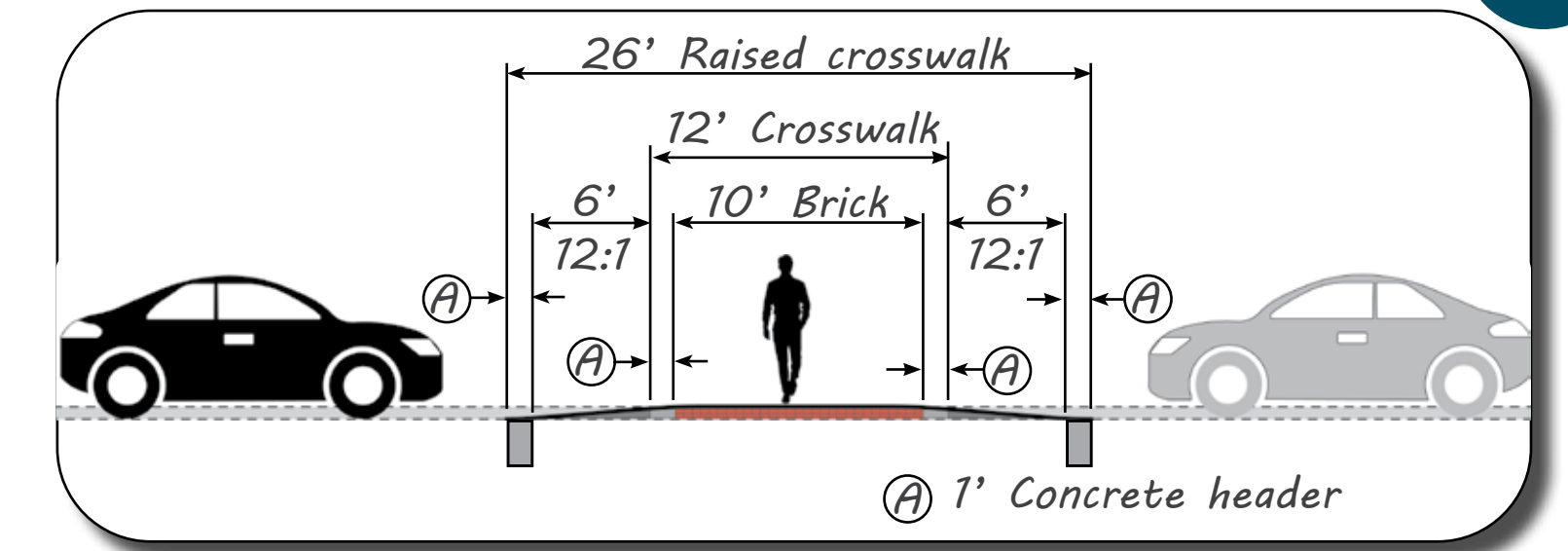
The crosswalk on the north side of the 2nd Ave. & 6th St. intersection was identified as an area that would benefit from raised crosswalks. One of the questions brought up was how a raised intersection could be integrated with the existing brick-paved street to maintain the existing character of the street. While the raised intersection can be constructed with asphalt, concrete, and brick, the concept shown on this board is for a brick crosswalk.



Existing aerial plan view



Typical raised crosswalk plan view



Typical raised crosswalk cross section



Plan view of proposed raised crosswalk with brick



Existing photo taken at intersection looking northerly along 2nd Ave.



Proposed concept showing brick crosswalk and concrete ramps