

Missile Drive Design Charrette

**Prepared for:
Cheyenne Metropolitan Planning Organization**

Missile Drive Design Charrette



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Background

Missile Drive serves as a gateway entrance from I-25 to the City of Cheyenne, Wyoming. The present roadway is two lanes in each direction with a 16-foot wide median. There are no sidewalks along Missile Drive as it approaches I-25. The existing Missile Drive intersection at Westland/24th Street is signalized. Another intersection is located at Old Happy Jack Road/19th Street, which is stop sign controlled with free flow movement on Missile Drive. This intersection is constructed at a skewed angle, which creates unnecessary motorist conflict areas. The I-25 interchange at Missile Drive will be reconstructed from its existing cloverleaf free-flow traffic configuration to a diamond style design with traffic signal controlled ramp intersections with Missile Drive.

The Cheyenne Metropolitan Planning Organization has identified a need to reconstruct Missile Drive. They designed the corridor to the 10 percent plan level as part of the West Cheyenne plan. As part of this study a public open house was held in December 2008. At this meeting the 10 percent design was presented to see if there were any comments before the plan was taken to 35 percent.

The purpose of the Missile Drive Design Charrette was to identify future land use changes that might occur along Missile Drive and to identify potential roadway street improvements that would make the roadway more of an asset to existing and new development, support pedestrian and bicycle mobility in the corridor, and enhance the gateway image to downtown Cheyenne. The planning horizon for this charrette was to look out in the future (50 to 100 years).



Meeting Details

Two separate public outreach activities were undertaken to identify future conditions along Missile Drive. These activities involved the conduct of a Focus Group meeting and the Design Charrette. For each meeting efforts were made to invite many area business and resident stakeholder representatives to provide input on the future of the Missile Drive corridor. A Missile Drive Fact Sheet was handout out at each meeting and is attached to this report.

Focus Group Meeting

This meeting was conducted on Monday, February 16th from 3:00 pm to 5:00 pm at the Cheyenne Public Library. A total of five area residents and a representative of the UP Railroad participated in the meeting. A list of focus group participants is included as an attachment to this report along with meeting guidelines. The Focus Group meeting was used to provide background information for the Design Charrette

Design Charrette

This meeting was conducted on Tuesday, February 17th from 6:15 pm to 8:30 pm at the Cheyenne Public Library. A total of 18 people participated in the charrette. A list of Charrette participants is included as an attachment to this report along with a set guidelines used as part of the Charrette.

Meeting Results

A brief summary of the common themes identified at the focus group and Design Charrette are described below. Details notes from each meeting are included in the attachments to this report.



Focus Group Meeting

The following common themes were expressed at the Focus Group meeting:

- a. Development change in the corridor has been very slow
- b. A clear vision of the future development in the corridor is difficult to describe due to existing mix of uses
- c. Need to protect access to concrete redi-mix plant
- d. Do not take land from Martin Luther King (MLK) park

- e. Connect Greenway to Warren Air Force Base, New Freedom Elementary School
- f. Improve Missile Drive amenities and landscaping
- g. Area flooding issues should be addressed

Design Charrette

The following common themes were expressed at the Design Charrette:

- a. Missile Drive enhancements should create a gateway progression into downtown.
- b. Drainage issues exist in 19th Street area
- c. MLK Park needs to be enhanced as part of future development plans
- d. Old Happy Jack Road railroad tunnel is not a critical roadway link
- e. Need to connect greenway, sidewalk and bicycle enhancements to destinations east of I-25
- f. Roadway enhancements with landscaping would benefit corridor
- g. 19th and 20th Street intersection alternative connections and/or a roundabout at Missile Drive should be looked at further
- h. Need to maintain access to existing businesses along Old Happy Jack Road
- i. Potential new development could include a super market, hospital campus, hotel, office and/or service commercial
- j. Future residential development could be encouraged through greenway improvements

The following surprises were discussed at the charrette:

- a. The residential trailer park area may experience turnover in the future leading to potential redevelopment
- b. No clear opinion if new residential development would be appropriate in the corridor due to conflicts with existing development land uses
- c. The I-25 interchange area could become a high intensity campus type development zone
- d. Need to maintain street connectivity on both sides of Missile Drive
- e. Consider roundabout at 19th Street/Old Happy Jack Road intersection with Missile Drive

Conclusions

Both the Focus Group and Charrette participants found it difficult to create a clear future land use scenario for the corridor. Potential future development could include limited residential with some major campus style office, hospital or mixed business park development. It was generally agreed that a development plan should be prepared to provide guidance and incentive for future development. Current land uses are mixed business and light industrial in nature and not conclusive to residential or commercial development.

Two major concerns agreed on by all participants was the need to solve existing drainage problems in the 19th Street area and to enhance MLK Park amenities as a valuable neighborhood resource. Upgrading of the Greenway corridor would be consistent with existing and future area development enhancements.

It was unclear to all participants on the value of retaining Old Happy Jack Road. The roadway tunnels under the railroad were seen by all as very distinctive and of value to retain. However, it was the tunnels were not seen as providing a critical street network link and do not provide a good route to serve pedestrian/bicyclists considering its close proximity with planned enhancements for the Greenway Corridor and a lack destination connections.

It was agreed that improving Missile Drive as a complete street with landscaping, sidewalks and a gateway theme is a good idea. Benefits anticipated from those improvements include traffic calming, development acceleration, and a change in character from a roadway connection for interstate trucking to creation of an identity for the immediate area and connection to downtown. Street connectivity with 24th Street and possibly 19th Street and 20th Street was considered important to integrating the Missile Drive corridor with the surrounding neighborhoods.



Appendix A
Missile Drive Corridor Fact Sheet

Missile Drive Traffic Fact Sheet

- **Traffic Volumes**

Missile Drive

- Existing daily traffic volume: 6,600 to 7,600 vehicles
- 20 year traffic growth projection: 9,000 to 16,000 vehicles

19th Street

- Existing daily traffic volume: 2,700 vehicles
- 20 year traffic growth projection: 5,800 vehicles

- **Intersection Peak Traffic Period Operation**

Missile and 24th-Westland Intersection

- Currently all movements operate at Level of Service C or better
- 20 year projection is expected to have all movements continue to operate at Level of Service C or better

Missile Drive and 19th – Old Happy Jack Road Intersection

- Currently all movements operate at Level of Service C or better
- 20 year projection is expected to have some movements operating at Level of Service E.

- **Traffic Safety**

- Over 5 year period from 2003 through 2007
 - o 19 reported crashes (about 4 per year)
 - o 6 crashes occurred at 24th –Westland intersection with Missile Drive
 - o 3 crashes occurred at 19th –Old Happy Jack Road intersection with Missile Drive
 - o 17 occurred during daylight time period
 - o 9 occurred during 3:00 to 6:00 pm time period
 - o 6 occurred during months of June and July

Appendix B
Focus Group Meeting

Missile Drive Focus Group

Meeting Notes

March 16, 2009

Five area residents along with a representative of the UP Railroad participated in the meeting.

Meeting Purpose: to identify the long-range development potential of the corridor.

It was agreed that change in the corridor has been very slow

Major concerns of the participants were:

- Do not take land from the park
- Local flooding and drainage issues
- Roadway is a heavy trucking route
- Do not eliminate Old Happy Jack Road business access to Missile Drive
- Continuous changes in City 'red tape' discourages development
- Short weaving distance for traffic turning left between Westland and I-25 interchange ramps
- Impact of extending 20th Street to Missile Drive on concrete accessibility and neighborhood street system between 19th and 20th streets

Future considerations include:

- Improve roadway amenities
- Enhance Greenway and connect to Warren Air Force base, new Freedom Elementary school or Bunk House development
- Enhance and increase parklands
- Do not degrade access to concrete plant
- New development potential could include an airport or hospital campus
- It may be hard to become a mixed use development corridor as current development is primarily light industrial/business
- Changing Old Happy Jack to a pedestrian/bike trail would be OK due to railroad tunnel constraints
- Railroad conducts structural adequacy checks on tunnel and overpass, enhancement of abutments should be OK to consider for gateway treatment
- Median landscaping would be a good improvement

Appendix C
Design Charrette

Missile Drive Corridor Charrette

March 17, 2009

Group 1 Notes

Facilitator: Jeremy Call, EDAW

Future Land Use: What will the corridor land use be like in 30-50 years?

- PlanCheyenne is a good starting point, and for the most part provides a likely scenario for this district's future. West Lincolnway will continue to be "motel row" with some new restaurants and retail moving in to support the growing hotel industry, which would likely leave the Missile Drive Corridor as mostly office and service commercial. It is not a prime area for retail or restaurants.
- The major driver for land use change is not the roadway re-design but future re-development east of I-25 due to the potential Air Force Base closure, NCAR, a new hotel or hospital, or residential community. A new hospital would result in support medical and technical offices and possibly restaurants being located east of the I-25 interchange.
- Residential is not likely in this district of the City, as it has continually trended towards commercial, office, service commercial. Existing mobile home subdivisions will likely convert to commercial oriented uses. Two exceptions are where the older single-family residential neighborhoods could become higher density mixed use (office/residential) as downtown moves west (Ames, Dillon, Snyder Avenues) and northeast of the Missile Drive/I-25 interchange (though constrained by railroad uses). West of Snyder will continue to transition from residential to office.
- A supermarket could be a possibility, perhaps on the northeast corner of the I-25 interchange, as this district is underserved by grocers.
- The Back 40 property – west of the Cheyenne Ice Rink – provides the greatest new industrial / commercial land use opportunity.
- Morandin and Costello property owners do not have a vision for new development on their vacant properties, but are open to ideas and office makes sense. There has been little marketing activity.
- Maintaining the commercial viability of the Ready-Mix concrete plant and corresponding access is a priority for the property and business owners.
- The railroad spur down Reed Avenue could be removed, providing a re-development impetus for downtown office/mixed use.

Road Character and Realignments

- The I-25 interchange and West Lincolnway form bookends to the corridor, and should be acknowledged through streetscapes, signage, and urban design opportunities.
- None of the 19th Street/Missile Drive intersection alternatives were endorsed. Most felt that the one-way conversions of 20th Street and 19th Street at Missile Drive complicated the alternatives. Why not merge the one-way streets together at Ames, Snyder or Reed Avenue (especially if railroad spur were to be vacated)? This would simplify the intersection and allow 19th Street to be straightened to approach Missile Drive at a perpendicular.
- The Dey Avenue/19th Street intersection needs to provide adequate turning radii for Ready Mix concrete trucks to access the business. Approximately 60 trucks per day exit/enter the site.
- The group described the future character of Missile Drive as a “boulevard” or “complete street” with bike lanes, plentiful landscaping and street trees, vehicular and pedestrian lighting, crosswalks, planted median, and bus stops.
- Lengthy debate regarding closing the Happy Jack Tunnel to vehicles. While closing the tunnel would provide safety benefits, the group reached consensus that leaving it open would benefit businesses and development opportunities. The tunnel does not seem to be a natural bike/ped route or sightline in the larger greenway and Missile Drive context.

Greenway

- Goal: create a gateway to downtown. The greenway is a defining characteristic, and the lack of park, pedestrian and bike facilities suggest a sterile and auto-dominated city image.
- Funding is available to build the greenway trail from MLK Park to I-25.
- Safety, homelessness and transients are a significant constraint for park and greenway users. The homeless shelter on West Lincolnway, the facilities at MLK Park, underpasses, railroads (all transients jump the railroad before it enters security at the AFB) and the City greenway properties make this area heavily used by transients.
- Bike lanes and sidewalks would not be needed on southbound Missile Drive south of the RR tunnel, as users should reach the greenway. Adequate cross-connections are essential to allow users to reach the greenway.
- Additional bike/ped facilities are needed on 17th Street and 18th Street between Missile Drive and the Cheyenne Ice Rink and Mini-Golf Course.
- Bike/ped facilities are needed north of the railroad tunnel to I-25.
- The strip of MLK Park adjacent to Missile Drive is sterile – provide pedestrian amenities like sculpture, trees, display gardens, dog walk, farmers market, or other eye-catching linear features that could be enjoyed by both park users and vehicles on Missile Drive.
- A concept plan has been prepared by the City for Pat Griffin Park as part of the hotel development. Need to obtain a copy of this plan from the City (Teresa Moore).
- Lighting along the trail should be different than vehicular lighting.
- The concrete wall along the Ready Mix plant should be screened with ornamental trees or vines
- The segment from Westland Rd to 19th Street should remain in a natural character as a natural retreat between the two parks.
- A new 19th Street / Missile Drive intersection should accommodate a below-grade trail crossing

Group 2 Notes

Facilitator: Sreyoshi Chakraborty, Cheyenne MPO

Land-use

- High Intensity development at the I-25/ Missile Interchange, to utilize it as an activity area. Opportunity for greater use of land is possible due to realignment of the interchange (by WYDOT), which frees up land for other uses.
- Developments west of I-25 would comprise of a mixed-use employment campus character. This would include the Holdings property, CRMC and NCAR campus.
- The residential/ trailer park areas should see a turnover in the next few years and have the potential to be developed as hotels.
- The BNSF corridor is seen as a great potential for the future. If this corridor could be utilized as an Amtrak or a light rail corridor for the city, then there is potential for high-density development along this corridor, potentially in the form of a TOD. This is the NE corner of Missile Drive and is seen more desirable for residential use that blends in with the downtown character.
- Question on what you can do with unused old interchange at I-25 and Missile?
 - Will be a clear zone
 - Can put bushes (low)
 - Minimal obstructions
 - 30' away from road – clear zone
 - Maintenance problem – be willing to see or trade
 - Ex – motels, restaurants
 - Enterprise car rental along Missile are encouraging businesses
 - Storage units
 - Gas stations are problematic (can't bury gas tanks in area)
- Cheyenne planning perspective
 - Benefits come for measuring amounts of traffic and traffic projections
 - Missile Dr. remains aesthetically sleepy and run down
 - Hospital has SW of interchange – corporate business park
 - Missile drive connects military base with downtown
 - What about the trailer park and three other residential properties along Missile
 - Some feel that trailer park will be consumed as traffic increases, and Missile becomes commercial and upscale residential
- What if RR is moved?
 - Will probably never move
 - Amtrak wanting to come through in the future
 - Maybe RR is a good divider line
- Character areas of use ~ 3 main character areas

- North of Missile Dr. and east of RR (more residential – mixed use – attractive for downtown workers like batch plant)
- South of Missile and east (commercial)
- West of RR (highway, mostly commercial – hotels, restaurants, etc.)
- City of Cheyenne is expanding

Road Character and Realignment

- Should be built to an urban arterial standard with a boulevard look. Current road lacks character or any sense of place. Seems like a sea of asphalt, lacks sidewalks and other amenities along the road. Should at a minimum have sidewalks, landscaped median and traffic calming features to prevent people from speeding and to make it more inviting.
- Lighting, and visual themes that are more human scale should be used for this corridor.
- 24th Street is not anticipated to be problematic because of low intensity uses along it. 24th Street is too wide, till Snyder. The intersection of 24th and Missile however lacks character. 24th leads into an old residential neighborhood, eventually leading to the Capitol Building. However, the 24th and Missile intersection fails to provide a visitor a sense of arrival. We felt that an urban design feature such as a water feature along with the greenway or a roundabout at the intersection will provide some character to this area and also provide a nice gateway feature into town.
- Missile and 19th design works fine, however drainage issues at 19th and Missile need to be resolved while redesigning it.
- 24th Street might be problematic – more local use – seems OK
- What about Missile or Westland as access to downtown? (most likely traffic route is down Missile)
- First impression coming in on Missile is a sea of asphalt
 - Not eye appealing, not enticing, needs to invite people into the City
 - Pershing St. example
 - Like Full Blvd. idea...like the planning concept plan
 - Jeff said lots of extra land devoted to automobile sales?
 - Something more "human scale" with the lights, not the big highway lights that are there now
 - Make business friendly
 - Need to slow drivers down
- 24th Street – entry to capitol and current hospital
 - How do we make a comfortable characteristic for 24th Street?
 - Need something to appeal/buffer to separate commercial/mobile home and residential
 - Maybe narrow 24th St. to make more appealing
 - Look at other consultants proposal...rendering that was completed in proposal stage

- Need a visual cue to say "this is the way to the capital"
- Make it appealing
- Roundabout at Missile and 24th to give improvement, direction to capitol
- Old Happy Jack short-cut, worthwhile road
 - Serve a lot of local use___
 - Or maybe close it?
 - Short-cut and bypass when train is on RR
 - Roundabout idea is liked for Old Happy Jack and 19th
 - Option 1 is liked

Greenway

- Possible destinations to connect the existing greenway – Warren AFB, Happy Jack Road, Freedom Elementary School, Little America, Original City Cornerstone. The original city cornerstone might be a nice landmark point to connect the greenway to. Preservation Planner indicated that the cornerstone exists in the property that WYDOT would now give away as a result of the interchange reconfiguration.
- Enhancements at MLK Park, along the greenway are required. A unifying theme for the entire greenway corridor is required, maybe through lighting, native vegetation and landscaping treatments. Also, this greenway theme can be the unifying element for the whole corridor. The greenway should also serve as a connector for various uses along the corridor.
- The greenway crossing design under Missile to the other side of the Crow Creek needs to be figured out for ensuring that it continues to the destinations mentioned above.
- Enhances "gateway to City" concept
- Good access from west of I-25 to City
- Pedestrian lights through park area
- Need unification of the greenway along the creek (aesthetics)
- Like the greenway concept

Group 3 Notes

Facilitator: Andy Dana, Ayres Associates

Land Use

- Residential throughout the corridor is a strong possibility if a greenway connection is provided
- Provide land use that will slow traffic down; currently Missile Drive is perceived as a short cut but there isn't enough distance to necessitate a shortcut.
- Goal: create a gateway that indicates once you hit Missile Drive you are in Cheyenne. Provide a nice progression into downtown; create an experience
- Back 40 Development is a huge opportunity; currently the Cheyenne Events Center has poor access and this development could complement the Events Center through access and use
- Encourage high density multi-family mixed use development in the employment campus area
- Provide mixed use with an office emphasis in the commercial emphasis area
- Create a buffer of green space between these zones
- Provide green space and commercial uses in the industrial area that complements potential hotel development
- Small retail; no big box
- Create gateways at Missile Dr and I-25, and Missile and Lincolnway

Road Character and Realignments

- Provide pedestrian amenities like sculpture, trees, sidewalk and bike lanes
- Provide several stop lights so you have a chance to observe around you
- Reconfigure all roads to connect into existing downtown grid
- Signalize 19th and Happy Jack to reduce traffic speed
- Roundabout option is reasonable for cost, efficiency and traffic volume

Greenway

- Connect MLK Park to Happy Jack
- Provide on-grade connections throughout the greenway
- Maximize safety issues (the culvert for example)