TOWN OF BASALT

COMPLETE STREET DESIGN

COMPLETE STREET DESIGN

INDEX

BASALT COLORADO

COMPLETE STREET DESIGN ADOPTED BY RESOLUTION NUMBER16, 2005 AND PASSED ON OCTOBER 25, 2005 BY A VOTE OF 5-0

PARTICIPANTES:

BETSY SUERTH, DEPUTY TOWN MANAGER
GLENN HARTMANN, COMMUNITY DEVELOPMENT COORDINATOR; MELISSA LAESER, SENIOR PLANNER
JOHN WENZEL, PUBLIC WORKS DIRECTOR; BILL HARDING, FIRE MARSHAL
JOHN C. LAATSCH & ASSOCIATES, INC, CONSULTANT

COMPLETE STREET DESIGN

INTRODUCTION

This manual outlines the overall street design requirements and mandates street functionality by street-type to meet the needs of current and future development in Basalt. Design details and requirements are outlined in this manual. The details are presented and the requirements shall be met by anyone proposing to modify the transportation system.

All transportation and associated facilities shall meet Americans with Disabilities Act requirements. For specific requirements, download the United States Justice Department's 28 CFR Part 36 ADA Standards for Accessible Design, Revised July 1, 1994. You can find this document on the United States Department of Justice's website online at www.usdoj.gov.

ORGANIZATION OF STREET DESIGN MANUAL

Creating a pedestrian environment as the highest priority within the overall transportation system and ensuring all modes are adequately considered and properly addressed is a goal of this document and of the Town of Basalt. To do this, the transportation system had to be looked at as a unique and dynamic system special to the Town of Basalt. Traditional street categories such as 'arterial', 'collector' and 'local' were not used in this document. Basalt streets may function like traditional streets, but their location, use, mobility and purpose vary from the traditional model. To better plan for the future of Basalt and Basalt's transportation system, the following street categories were created:

- Residential Hillside
- Residential Valley
- Transitional
- Neighborhood
- Town Center
- Alleys
- Light Industrial

Within each of the above categories, features associated with their mobility purpose and function (infrastructure features) have been studied and outlined in this document.

This document is categorized in four sections. First, each street category has a feature section, outlining the overall purpose and components. The second section is devoted to the details of design for each street category with respect to geometries, striping, signs, landscaping, environment, traffic calming, emergency access, drainage, etc... The third section is primarily focused on the emergency access component and the last section deals with design components of all of the features that will create the street.

COMPLETE STREET DESIGN

PEDESTRIAN TOWN

PURPOSE OF COMPLETE STEET DESIGN

This manual is intended to provide a comprehensive toolkit for the creation of safe, pleasant, efficient, interesting and active mobility corridors in the Town of Basalt.

The Town of Basalt is a pedestrian environment with the overriding priority of the pedestrian and pedestrian facilities guided by the alignment and conductivity of the transportation system as the dominant element of design.

Basalt is walkable and its streets are complete in that all forms of mobility use them. Therefore, they should be enhanced to enable universal forms of movement to take place. While there needs to be functionality to the management of the vehicle, there also needs to be safety, accessibility and pleasure for individuals walking or using alternative transportation to move and enjoy the qualities of Basalt.

Pedestrians are people who are walking, pushing a baby carriage, carrying a bag of groceries, strolling with children or riding in a wheelchair…in a setting where others are doing the same thing. A pedestrian friendly environment is immediately recognizable.

COMPLETE STREET DESIGN

GOALS OF COMPLETE STREET DESIGN

The standards in all of the sections have been developed to achieve the following goals for a multi-modal community:

- Give priority to pedestrian and alternative transportation mode movements
- Ensure direct connectivity and continuity, for all mobility types, throughout the community with focus on adjacent land uses such as nearby schools, commercial areas, other neighborhoods and recreation areas
- Incorporate active public spaces preserving a strong sense of community
- Minimize street and ROW widths
- Manage supply of parking to match the character of the street
- Evaluate conventional emergency responses that support performance-based emergency access
- Maximize the efficient use of space for utility and drainage infrastructure

This document is the next step in cultivating Basalt's pedestrian friendly community. The ideas set forth in this manual have been built upon through many processes and work products, including the Town Master Plan, the Model Transit-Oriented Development Program, the River Master Plan, the River Corridor Plan and several Design Charettes. These ideas put into context the community desire to preserve and cultivate small town character through Basalt's mobility corridors.

COMPLETE STREET DESIGN

RESIDENTIAL HILLSIDE

FEATURES

STREET CHARACTERISTICS

Residential Hillside streets are characterized by their geographic/typographic nature. Streets of this nature are located on steeper slopes and provide access to residential areas. The residential areas serviced by these streets are typically single family or multifamily homes on small to medium sized lots. These streets typically have low traffic volume and the traffic lanes serve as multi modal corridors.

Landscaping on these streets is usually comprised of landscaping located on the residential lots. These streets function to allow residents to gain access to a larger street network and access other areas of the community.

There are no sidewalks on streets of this nature due to right-of-way width restraints on the steeper slopes. Streets serve as multimodal pathways often accommodating pedestrians, bicyclists and vehicles where potential conflicts are minimized due to low speeds.

Streets may be striped in order to provide the best use of the right-of-way and not limit mobility. Pedestrians and bicyclists are further accommodated by integrating alternative pedestrian pathways into the overall land use plan.

Right-of-way, geographic or topographic limitations may not allow for on-street parking on residential hillside streets.

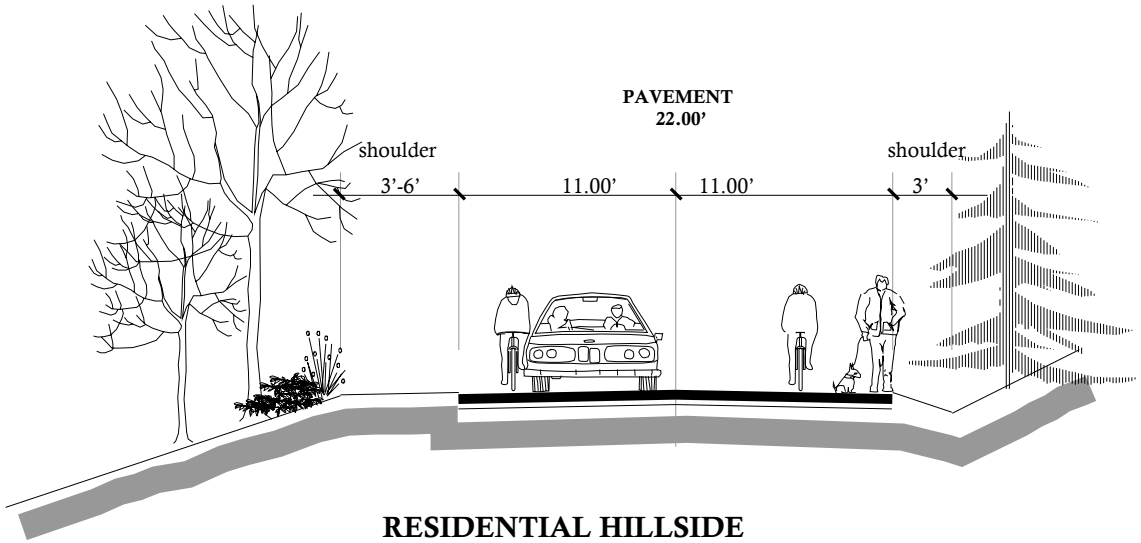
Curb and gutter tends to be absent on Residential Hillside streets and drainage facilities are provided in the right-of-way using swales and ditches adjacent to the street or as part of the street cross section. Utilities are typically incorporated in the public right-of-way.

Emergency access is located in key turnaround areas and is located to insure overall neighborhood safety. Regulatory signs and markings may be present to ensure the safest neighborhood possible.

COMPLETE STREET DESIGN

RESIDENTIAL HILLSIDE

STREET CHARACTERISTICS



RESIDENTIAL HILLSIDE

COMPLETE STREET DESIGN

RESIDENTIAL VALLEY COUNTRY

FEATURES

STREET CHARACTERISTICS

Residential Valley Country streets are characterized by providing limited access with low traffic volumes to residential areas. Speeds on residential valley country tend to be higher than residential hillside streets, but are still slow enough to create a neighborhood feeling.

Residential Valley Country streets typically service single family homes on larger lots with longer driveways. Homes in these areas tend to be setback farther from the public right-of-way and street.

Landscaping is typically part of the private landscaping located on the residential lots.

There are no sidewalks on streets of this nature due to the low traffic volumes. Pedestrians may accommodated with alternative pathways incorporated into the overall land use and transportation plans.

Streets may be striped for traffic-calming purposes and streets incorporate a shoulder. This allows all users to utilize the street in the public right-of-way. Parking is allowed on shoulders.

Curb and gutter tends to be absent from these streets and drainage is provided in swales located in the public right-of-way as part of the street cross section. Space is designated in the public right-of-way for adequate snow storage and utilities.

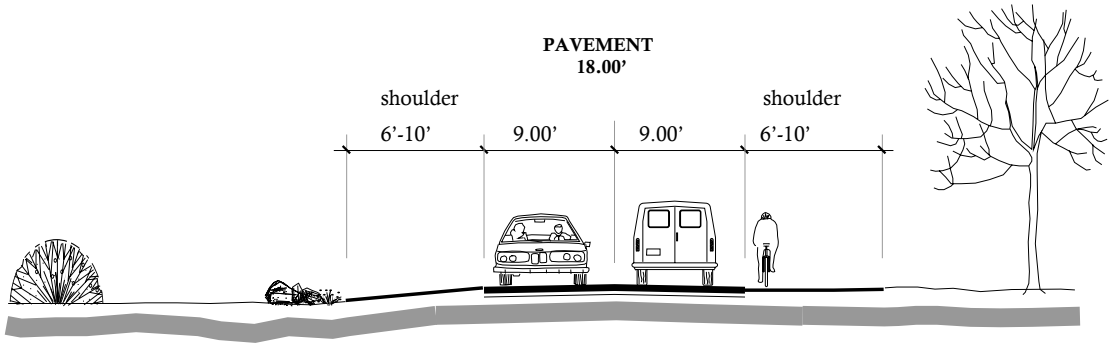
If additional access or circulation does not exist, emergency access is accommodated through hammerheads or cul-de-sacs with appropriate easements or right-of-way dedication.

COMPLETE STREET DESIGN

RESIDENTIAL VALLEY COUNTRY

STREET CHARACTERISTICS

Lane width is minimized while providing a composite width for emergency access using functional shoulders



RESIDENTIAL VALLEY COUNTRY

COMPLETE STREET DESIGN

TRANSITIONAL

FEATURES

STREET CHARACTERISTICS

Transitional streets are characterized as either providing access from one area type to another or consisting of different character areas in its overall make up, thus transitioning users through Town. These streets have access to residential, commercial and mixed-use areas and provide a safe connector to the rest of the community. Streets are typically characterized with two travel lanes delineated with striping. These streets typically have a variety of users as they typically have diverse adjacent land-uses and different character types.

Sidewalks and/or trails are provided on streets of this type either on one side or both and their presence is dependent on the adjacent land-use. Pedestrians are further accommodated by alternative pedestrian pathways incorporated into the overall land-use plans connecting them to other parts of the Town.

Gathering areas are provided on streets of this nature if they are appropriate with the area character to enhance the pedestrian experience and create a more pleasant environment. Street lighting is present in areas to delineate character transitions, at intersections and in higher density areas.

Parking may be provided on transitional streets where the specific character of the area warrants parking.

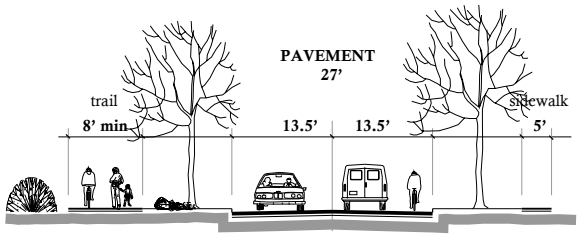
Pervious shoulders or curb and gutter may be present on transitional streets and drainage is properly accounted for using best management practices. Utilities are provided with adequate easements (special conditions apply to environmentally sensitive areas).

COMPLETE STREET DESIGN

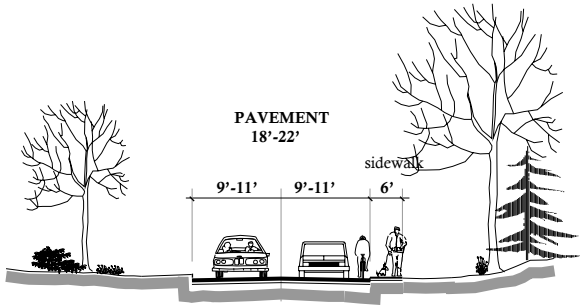
TRANSITIONAL

STREET CHARACTERISTICS

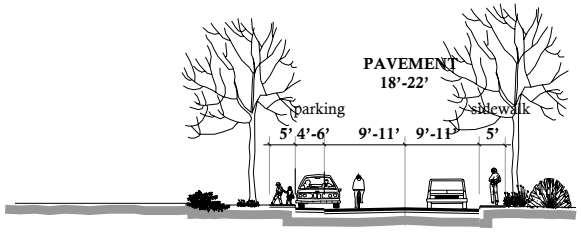
Sidewalk minimum width is six feet when topographic or other limitations prevent the construction of sidewalks on both sides of the street.



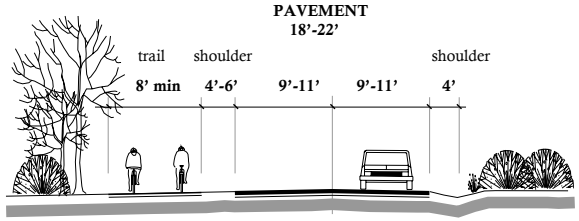
STREET SECTION OPTION 1



STREET SECTION OPTION 2



STREET SECTION OPTION 3



STREET SECTION OPTION 4

COMPLETE STREET DESIGN

RESIDENTIAL NEIGHBORHOOD

FEATURES

STREET CHARACTERISTICS

Residential Neighborhood streets provide access to, in and through residential neighborhoods. Residential areas serviced by residential neighborhood streets are single family and multi family areas.

Streets are typically characterized with two travel lanes. These streets typically have a low volume and a variety of users.

Sidewalks are provided on both sides of the streets and sidewalks can either be detached or attached to the curb and gutter. Where sidewalks are detached a landscaped planting strip is present.

Street trees are present on these streets and add to the overall user enjoyment of the street. Pedestrians are further accommodated by alternative pedestrian pathways incorporated into the overall land use plans.

Parking is allowed on these streets in a limited fashion.

Curb and gutter are standard on these types of streets and drainage is properly accounted for with best management practices.

Utility easements are present in these streets and low key street lighting is present to create a more attractive and safe street to be utilized at all times of day.

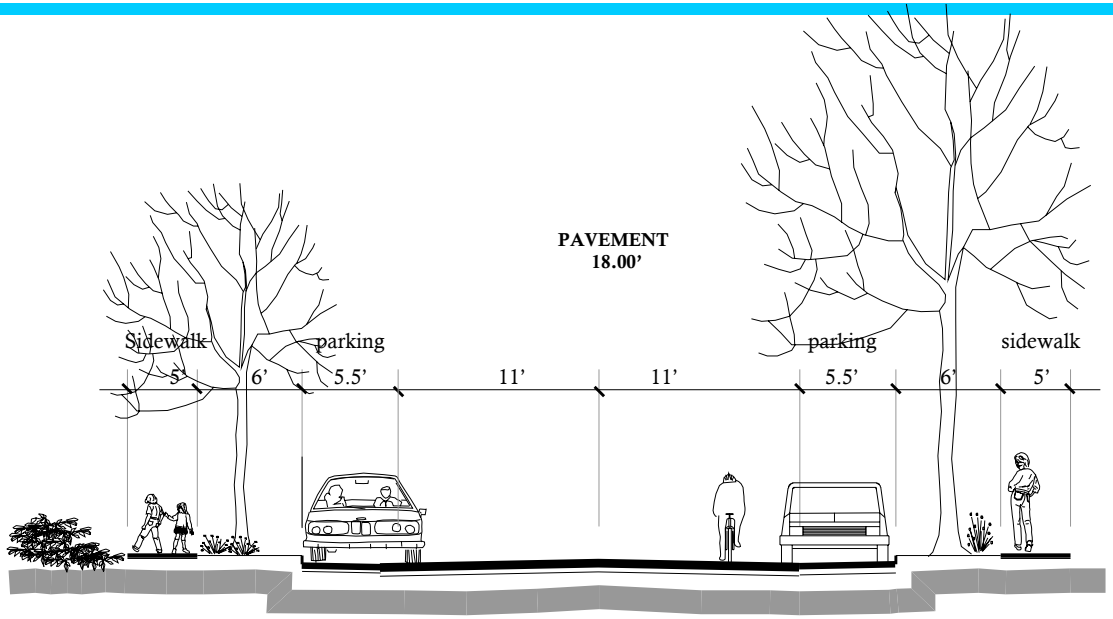
Emergency access is provided and existing intersections in a grid and/or loops are used to function as turnarounds for emergency vehicles.

COMPLETE STREET DESIGN

RESIDENTIAL NEIGHBORHOOD

FEATURES

STREET CHARACTERISTICS



RESIDENTIAL NEIGHBORHOOD

COMPLETE STREET DESIGN

TOWN CENTER

FEATURES

STREET CHARACTERISTICS

Town Center streets are the streets utilized to access mixed use and commercial areas. These streets typically carry a higher volume of traffic and have more pedestrians and bicyclists present.

Transit is an active component of these areas and inter modal connections are prioritized.

Town Center streets are pedestrian oriented streets. Sidewalks are present on both sides of the street, delineated crosswalks are present and traffic calming standards are implemented.

Pedestrian gathering areas are defined and enhanced through lighting, benches, bike parking and public green spaces. Gathering areas are further enhanced by connections to other alternative connector paths. Urban-like plazas are present and can include public gardens, public art and other enhancement characteristics.

Trees are present to provide shade, coverage and enhance the overall feel of the streetscape. Alternative pedestrian pathways from other areas are integrated into the pedestrian system on Town Center streets and connections are created for pedestrian enjoyment.

Parking is provided on both sides of the street and parking spaces are typically delineated with striping. Diagonal and parallel parking is appropriate in this type of environment.

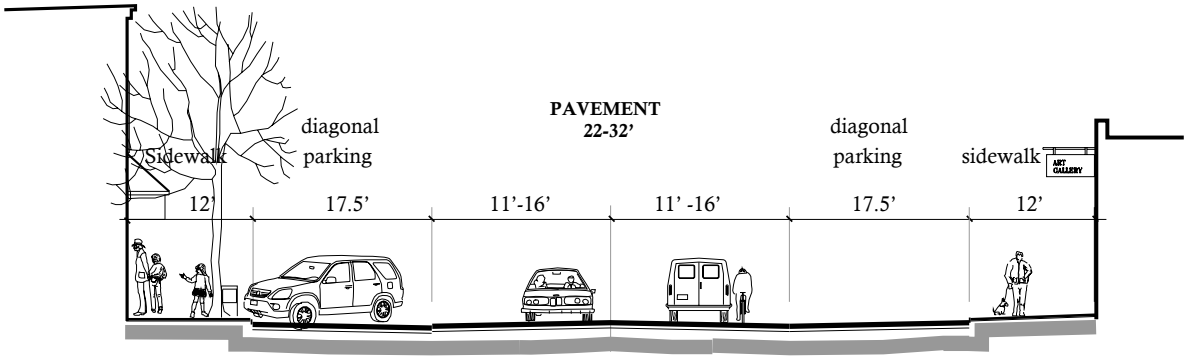
Curb and gutter is standard on this type of street and drainage is properly accounted for using best management practices.

Emergency access is provided and typically based on aerial standards due to the higher density associated with these types of streets

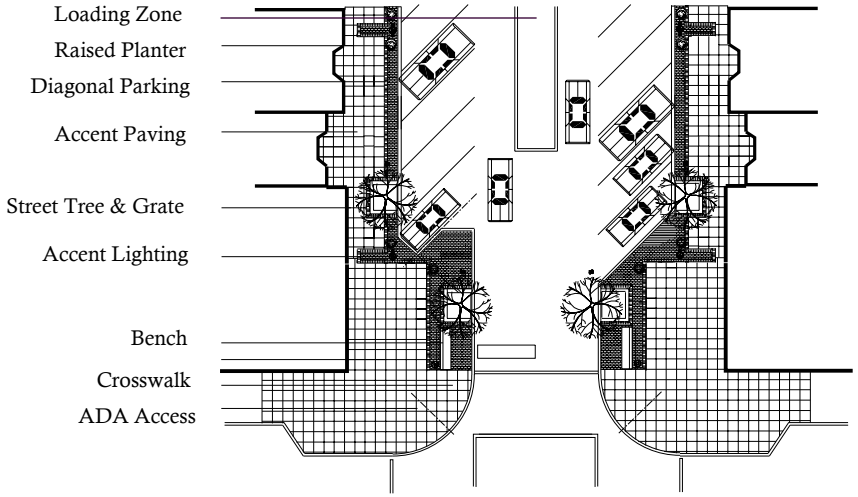
COMPLETE STREET DESIGN

TOWN CENTER

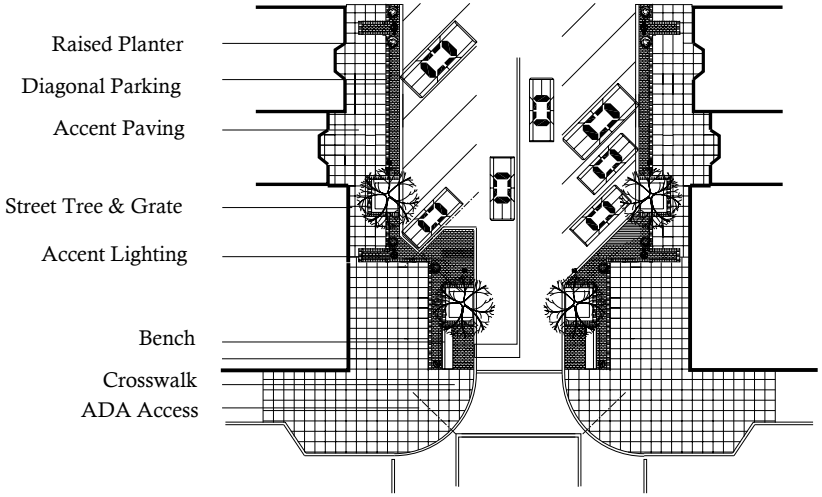
STREET CHARACTERISTICS



TOWN CENTER



LOADING ZONE LAYOUT

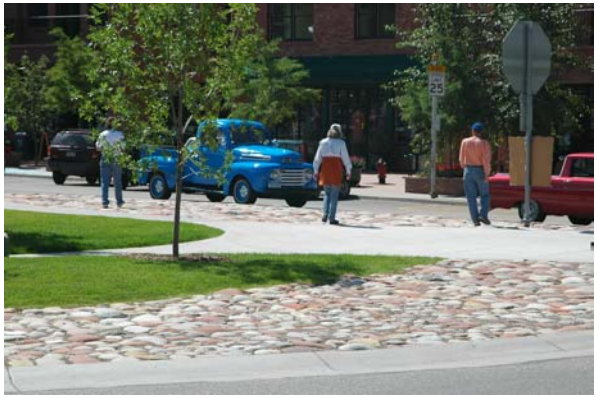


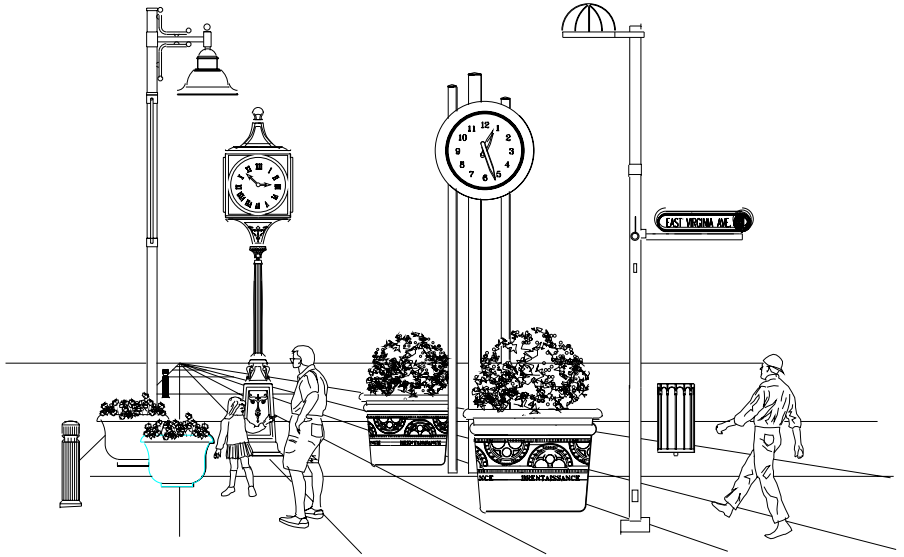
TYPICAL LAYOUT

COMPLETE STREET DESIGN

TOWN CENTER

STREET CHARACTERISTICS





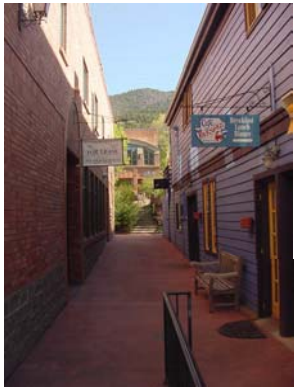
COMPLETE STREET DESIGN

ALLEYS & PASSAGEWAYS

STREET CHARACTERISTICS

Alleys are narrow "streets" that allow connection from residences and/or commercial spaces to the overall transportation network. Alleys are narrower than typical streets.

FEATURES



Right-of-way limitations may not allow for on-street parking in alleyways. Alleys are used to access off-alley parking areas and also by operational services such as trash removal. Pedestrians can utilize them as alternative pedestrian connector paths. Typically alleys have utility easements incorporated into them and drainage is accounted for using best management practices.

Trees, landscaping and fences are not typically present in alleys while passageways may include extensive ornamental landscape details, art and benches. Alley access is limited by its width and the clear space must remain unencumbered so as to support plowing and other public works services.

There is typically no emergency access provided in alleys and emergency service accesses are provided from one of the higher ordered streets.

There is typically no emergency access provided in alleys and emergency service accesses are provided from one of the higher ordered streets.

Passageways are less defined then sidewalks or trails but provide for a variety of pedestrian connections linking neighborhoods, parks and businesses. These connections vary greatly in design and character.

COMPLETE STREET DESIGN

LIGHT INDUSTRIAL

FEATURES

STREET CHARACTERISTICS

Light Industrial streets are present in commercial and industrial-zoned areas. Street widths tend to be wider to accommodate delivery vehicles and other vehicles accessing the adjacent sites. Transit maybe a component of these streets and facilities to encourage intermodal connections.

Pedestrians are accommodated for with the use of sidewalks or pedestrian pathways and/or trails. Alternative pedestrian pathways from other areas can be integrated into the pedestrian system on Light Industrial streets to provide safer and more pleasant connections away from the vehicle transportation and delivery areas. These pathways should connect to the overall pedestrian transportation system and provide access to other areas of the street. Pedestrian gathering areas are present, but not as defined or as grand as in the Town Center streets.

Parking maybe permitted in the street right-of-way on Light Industrial streets. This minimizes the conflict with delivery vehicles and parked vehicles in the right-of-way.

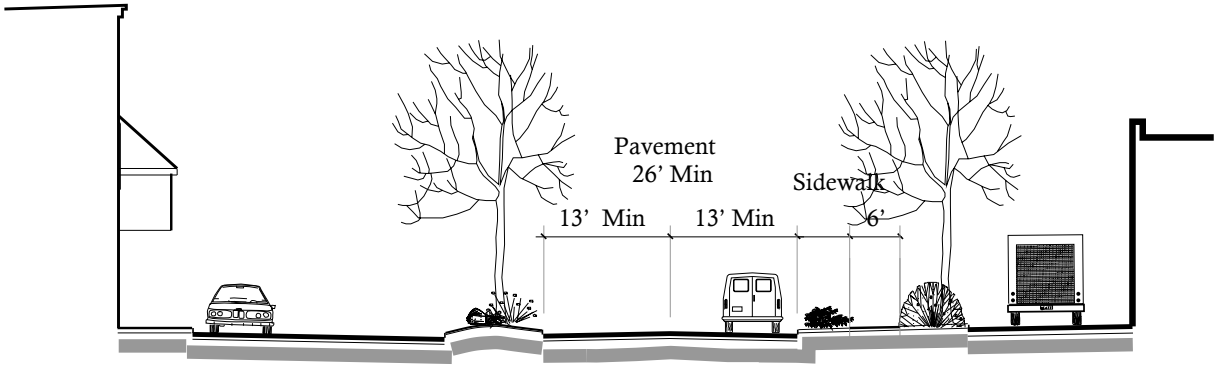
Curb and gutter is standard on this type of street and drainage is accounted for using best management practices.

Emergency access is provided and is based on the appropriate measures associated with public safety in these types of land uses.

COMPLETE STREET DESIGN

LIGHT INDUSTRIAL

STREET CHARACTERISTICS



LIGHT INDUSTRIAL

COMPLETE STREET DESIGN

SUMMARY

This document is the next step in cultivating Basalt's pedestrian friendly community. The ideas set forth in this manual have been built upon through many processes and work products, including the Town Master Plan, the Model Transit-Oriented Development Program, the River Master Plan, the River Corridor Plan and several Design Charettes.

These ideas put into context the community desire to preserve and cultivate small town character through Basalt's mobility corridors.

TOWN OF BASALT

COMPLETE STREET DESIGN SITE DESIGN GUIDELINES

COMPLETE STREET DESIGN

MATRIX

Master Features	Residential Hillside	Residential Valley Country	Residential Neighborhood	Transitional	Alleys & Passageways	Town Center	Light Industrial
Widths (in feet)							
Travel Lanes (gutter to gutter)	11'	9'	11'	9' - 11'	12 to 16' (one lane total)	11	13' minimum (with adequate turning radius)
Pavement (gutter to gutter)	22'	18'	22'	18' - 22'	12 to 16'	22' or 32' w/optional loading zone (not including pavement for parking)	26' minimum
Parking	no	on shoulder	5.5' bays	yes[4]	no	yes-17.5' diagonal	Limited-custom designed to fit area
Striping	yes[1]	yes[1]	no	yes[4]	no	yes	yes
Shoulders	3' to 6'	6' to 10'	no	optional[5]	no	no	no
Crosswalks	no	no	yes[3]	yes	no	yes	yes[3]
Signs Info/Regulation	yes[1]	yes[1]	yes[1]	yes	yes	yes	yes
Street Lights Illumination	at selected I Intersections	at selected intersections	at selected intersections	yes-to delineate transition, intersections and higher density areas	no	adjacent to sidewalk and at intersections	at selected intersections
Transit Stops	no	no	no	yes	no	yes	no
Planting Strips	no	no	yes	optional[5]	no	yes	yes
Turf	no	no	yes	optional[5]	no	no	yes
Street Trees	no		yes	optional[5]	no	yes	yes
Surface Types	asphalt	asphalt	asphalt	asphalt	asphalt	asphalt	asphalt + snow storage areas
Snow Storage for Right-of-Way Areas	yes	yes	yes	yes	yes	yes-must have plan including area for snow storage throughout winter season	yes
Sidewalks	no	no	5' min	5' min when appropriate	no	12' min	5'min
Bike lanes	no	optional	optional	optional[5]	no	optional	optional
Trails	alternative pedestrian connector routes	alternative pedestrian connector routes	alternative pedestrian connector routes	optional[5]	no	alternative pedestrian connectors	for shortcut routes
ADA compliance levels	no	no	yes	yes	no	yes	yes
Benches	no	no	no	optional[5]	no	yes	yes
Public Art	no	no	no	no	no	yes	for respit areas/pocket parks
Trash Receptacles	no	no	no	optional[5]	no	yes	for respit areas/pocket parks
Planters	no	no	no	optional[5]	no	yes	no
Plazas	no	no	no	no	no	yes	no
Bike Racks	no	no	no	yes[4]	no	yes	yes

1= where needed for safety ; 3 = Provide connections for special conditions; 4 = specific to character of area; 5 = only when appropriate with area character; 6 = width determined by area character where appropriated; 7= multi-model

COMPLETE STREET DESIGN

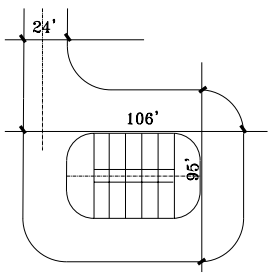
MATRIX

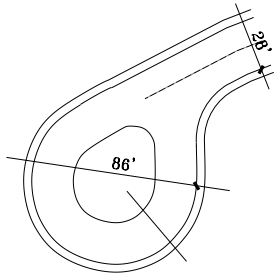
Master Features	Residential Hillside	Residential Valley Country	Residential Neighborhood	Transitional	Alleys & Passageways	Town Center	Light Industrial
TRAFFIC CALMING							
Medians	no	no	no	optional[5]	no	yes	no
Chicanes	optional	optional	yes	optional[5]	no	no	no
Bulb Outs	optional	optional	optional	optional[5]	no	yes	optional
Neckdowns	no	no	optional	optional[5]	no	yes	optional
Loading Zones						yes-9'	
Speed Humps	no	no	no	no	no	no	no
Speed Tables	no	no	no	no	no	no	no
Signs	for safety	no	for safety	optional[5]	no	yes	yes
Striping	for safety	no	for safety	optional[5]	no	yes	yes
4 = specific to character of area	5 = only when appropriate with area character						
EMERGENCY ACCESS							
Hydrants Spacing	500'/250'	450'/225'[2]	500'/250'[2] 450'/225'(if >3600sf)	0 - 500'[5]	NA	300/180[2]	180/300'
Bollards	no	no	no	optional[5]	NA	yes-to protect hydrants, trails, etc.	for protection of hydrants of needed
Parking Restrictions	yes	no	yes	optional[5]	yes	yes	yes
Composite Width	min 20'	min 20'	min 20'	min 20'	NA	26'	min 26'[2]
Turning Radius	varies[2]	30'	30'[2]		TBD	30'	30'
Pull Outs	yes	yes	no		no	yes[2]	yes-26'
Pinch Points	yes	no	yes		no	yes 20' min	no
Turnarounds	performance based	cul-de'sac	not needed		no	loops or grid	loops or grids
Dead Ends			no		yes	no	no
Gradient	seven percent	seven percent	seven percent	five percent		five percent	five percent
2=refer to appendix for more detailed information and exceptions	5 = only when appropriate with area character		6 = emergency access areas may be incorporated into site design and not necessarily needed in the ROW				
DRAINAGE (Meeting the Stormwater Management and Erosion Control Standards contained in the Public Works Manual)							
Swales	yes	yes	no	optional[5]	yes	no	yes
Roof Drainage	private	private	private	yes	Private	private	yes
Detention							
NPS treatment	if possible	BMP	yes	yes[4]	yes	yes	yes
Regional Detention	yes	yes	yes	optional[5]	yes	yes	yes
Intakes/Grates	no	no	no	optional[5]	yes	yes	yes
Culverts	yes	yes	yes	optional[5]	yes	no	yes
Curb & Gutter	no	no	yes	optional[5]	no	yes	yes
4 = specific to character of area	5 = only when appropriate with area character						

COMPLETE STREET DESIGN

FIRE / RESCUE

EMERGENCY ACCESS





PREFERED CANOE AND CUL-DU-SAC DESIGN

General Emergency Description

Emergency services deal with different types of emergencies; therefore, we have a variety of vehicles. Some are very large and require much more area to maneuver and operate than most others. For example, ladder trucks are in excess of 40 feet in length and when set up to operate with outriggers deployed, they can exceed18 feet in width. Additional room is needed for fire personnel to utilize the equipment stored on the sides of the trucks. Also the number of vehicles needed on an incident and the room to quickly accommodate multiple apparatus is crucial. Depending on the situation, structure fires require a lot of manpower and equipment.

An initial response to a structure fire requires an engine companies, ladder truck, rescue truck, command vehicle, ambulance, and police cars. As the incident evolves or the action is larger more equipment from other jurisdictions would be needed. It may also be necessary that equipment leave the site for a period of time and return later.

Features

Streets for meeting standards toward emergency response shall comply with the requirements of the International Fire Code section 503, and shall extend to within 150 feet of all portions of a facility or building as measured by an approved route around the exterior of the building or facility.

Hydrants - Existing fire hydrants can be counted toward required hydrant service and a ten percent deficiency to the spacing requirement is acceptable. Existing hydrants that are on adjacent private property can be counted toward hydrant service if the property owner dedicates an easement.

Surface - The road surface shall be designed and maintained to support the imposed loads of the anticipated responding apparatus so as to provide all-weather driving capabilities.

Dead Ends - Street areas determined as dead ends in excess of 150 feet in length shall be provided with an approved area for turning around of fire apparatus. These turnarounds can be performance based meeting the definition below.

Dead ends servicing more than 30 single family homes or 100 dwelling units in multifamily are not allowed unless secondary access is achieved or all applicable residences are completely sprinklered with an approved automatic sprinkler system.

Turning Radius - Inside turning radius shall be 30 feet. This turning radius is allowed to decrease progressively with increased adjacent and present street widths with the approval of the Fire Marshal. The needed radius for emergency use can be a component of rolled curb and sidewalk design

COMPLETE STREET DESIGN

RESIDENTIAL HILLSIDE

EMERGENCY ACCESS

General Emergency Description

The general character of Residential Hillside is rural design in nature with little in the way of improvements either in the nature of the roadway, the pedestrian accommodations, right of way improvements, signage or lighting. Many sections of the Hillside Residential Zone has been and presently are non-conforming to the access provisions of the fire code. As fill in development occurs improvements to the existing for enhanced safety is always a consideration.

Streets have limited access and minimal abilities to provide comprehensive service. The conditions are generally not flexible; therefore a need toward creative and performance based alternatives to national and local standards. On site trials may be needed to meet public safety requirements. The various components to the street, road, shoulders, walks, and driveway need to be incorporated toward responses.

Features

Street Width - For those streets serving more than two residences the width shall be an unobstructed minimum 20 feet. The minimum required street width of twenty feet is allowed to be a composite of driving lanes, shoulders, bike path and/or sidewalk curb with rolled curbs. These composite parts must be designed to handle the imposed loads of apparatus. If the street width cannot be obtained then the impacted residence(s) shall require alternative means of fire protection such as being equipped throughout with an approved automatic sprinkler system.

Pinch Points - A reduction from the twenty foot width is allowed for portions of the streetscape that are effected by terrain or environmental sensitive constraints. Pinch points may also be utilized in areas as pedestrian connector paths. Agreed upon methodologies between the fire department and the community development department, to accomplish fire safety objectives will be incorporated into the approved design

Dead Ends - Street areas determined as dead ends in excess of 150 feet in length shall be provided with an approved area for turning around of fire apparatus. These turnarounds can be performance based meeting the definition below.

Hydrants - Average spacing between hydrants is 500 feet with the maximum distance from any point on street frontage to a hydrant being 250 feet. Hydrant spacing may be required to be reduced to meet fire safety objectives toward alternative design. Existing fire hydrants can be counted toward required hydrant service and a ten percent deficiency to the spacing requirement is acceptable.

Parking Restriction - Parking is not provided for on hillside residential streets. Regulatory signs and/or markings are required in areas determined by the FD and CD staff as essential such as turnarounds and hydrant locations.

Performance Based Turnarounds.

In those areas where standard cull de sac or hammerhead turnarounds cannot be achieved due to terrain limitations, environmental sensitive, or legal easement constraints, alternate turnarounds meeting defined performance will be permitted. The turnaround needs to be evaluated by the Basalt Fire district and the Town of Basalt community development department as part of an overall fire management and maintenance plan that may include special protection features meeting International Fire Code Section 503, Exception 1 and/or 2. * Approved designs can be inclusive of extended distance from subject property(s), multipoint turnarounds, designs specified to smaller but essential apparatus etc. Agreed upon methodologies between the fire department and the community development department, to accomplish fire safety objectives will be incorporated into the approved design

COMPLETE STREET DESIGN

RESIDENTIAL VALLEY COUNTRY

EMERGENCY ACCESS

General Emergency Description

Residential valley country is characterized by providing limited access with low traffic volumes. Speeds tend to be higher than Hillside but still slow enough for residential occupancies. Valley Country services single-family homes on large lots and setbacks from public right of way are long.

Paved sections of the streets have narrow drive lanes totaling 18 feet with the emergency width a composite of the drive lanes and road shoulders. The roads may be striped for calming purposes. The longer driveways servicing the homes typically handle parking. The longer driveways may also be considered as part of the defined apparatus access dependent on setback length. If parking is provided it can be accommodated through a widen shoulder designed for typical vehicle widths up to eight feet. Pedestrian circulation is provided with alternative pathways incorporated into the overall transportation plans.

If additional access or through circulation does not exist than turnarounds providing for multiple maneuvering capabilities shall be provided with appropriate easements or right of way dedication.

Features

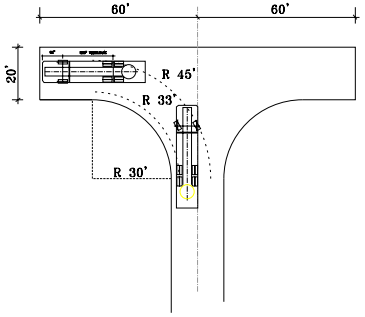
Street Width – The minimum obstructed street width for emergency response shall be 20 feet. This 20 feet width shall be a composite of drive lanes and road shoulders. If all points of the exterior wall of a residence are not within 150 feet of the public way then the driveway will be part of the defined apparatus access. In this case the minimum width of the driveway shall be 16 feet allowed as a composite of drives lane and road shoulders designed to H20 loading requirements.

Turning Radius - Inside turning radius shall be 30 feet.

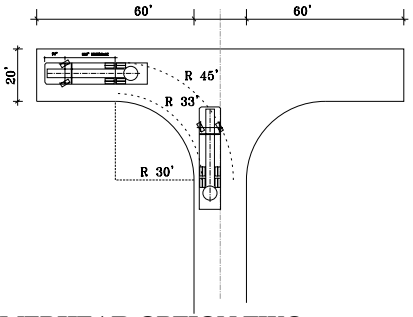
Dead Ends – . These turnarounds can be those listed in Appendix D, Section D103.4 of the International Fire Code with modified

Cull De Sacs with inside landscaping circles or canoe style turnaround incorporating parking areas and gathering areas. These turnarounds can be configured as a component of the overall street design allowing for multiple maneuvering capabilities within the specifications depicted. Dead ends servicing more than 30 homes are not allowed unless secondary access is achieved or all applicable residences are completely sprinklered with an approved automatic sprinkler system.

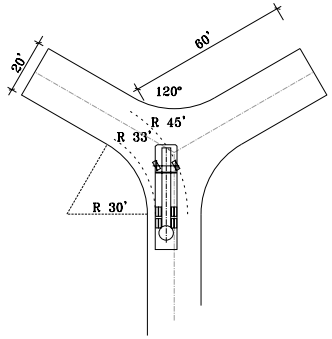
Hydrants –Average spacing between hydrants is 400 feet with the maximum distance from any point on street frontage to a hydrant being 225 feet. Hydrant spacing may be required to be reduced to meet fire safety objectives toward alternative design.



HAMMERHEAD OPTION ONE



HAMMERHEAD OPTION TWO



HAMMERHEAD OPTION THREE

COMPLETE STREET DESIGN

TRANSITIONAL

FEATURES

EMERGENCY ACCESS

General Emergency Description

Transitional is characterized by the change of conditions from one type of land use to another. Road conditions will change, the type of vehicle use and parking will change, pedestrian activity will change and the type of public improvements will change.

It is important that the emergency access features reflect the condition of the particular land use and the access requirements that correspond to that land use and road design type be applied. If there is any question as to the type of use or the beginning of one road design type and another the access requirements with the greater requirements shall apply.

COMPLETE STREET DESIGN

TOWN CENTER

EMERGENCY ACCESS

General Emergency Description

Town Center streets are the streets utilized to access mixed-use and commercial areas. These streets typically carry a higher volume of traffic and have more pedestrians and bicyclists present.

Trees are present to provide shade, coverage and enhance the overall feel of the streetscape. Alternative pedestrian pathways from other areas are integrated into the pedestrian system on Town Center streets and connections are created for pedestrian enjoyment.

Parking is provided on both sides of the street and parking spaces are typically delineated with striping. Diagonal and parallel parking is appropriate in this type of environment.

Emergency access is provided and typically based on aerial standards due to the higher density associated with these types of streets. Turnarounds are achieved through loops and grids.

Features

Street Width – Fire apparatus roads shall have a minimum unobstructed street width of 26 feet in the immediate vicinity of any building or portion of building more than 30 feet in height. (IFC Section D105.2) At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building. Other access routes as required based upon size and height of the building or facility shall have a minimum unobstructed width of 20 feet.

Pinch Points – Areas that have been determined as part of the overall alternate pedestrian pathway and have minimal effect on emergency response will be allowed a pinch point of no less than 20 feet. Agreed upon methodologies between the fire department and the community development departments, to accomplish fire safety objectives as applicable will be incorporated into the approved design.

Dead Ends – In areas where no alternative to a dead end exist then these areas are subject to special review by the fire department and community development department. Agreed upon methodologies between the fire department and the community development departments, to accomplish fire safety objectives as applicable will be incorporated into the approved design.

Hydrants –Average spacing between hydrants will vary based on size and construction type of facility and the type of hazard that may be associated with a particular industry. In general average spacing can anticipate 300 feet with the maximum distance from any point on street frontage to a hydrant being 180 feet. Hydrant spacing will comply with table C105.1 of the International Fire Code. Hydrant spacing may be required to be reduced to meet fire safety objectives toward alternative design. Existing fire hydrants can be counted toward required hydrant service and a ten percent deficiency to the spacing requirement is acceptable.

Grade – The grade requirement should not exceed 5%.

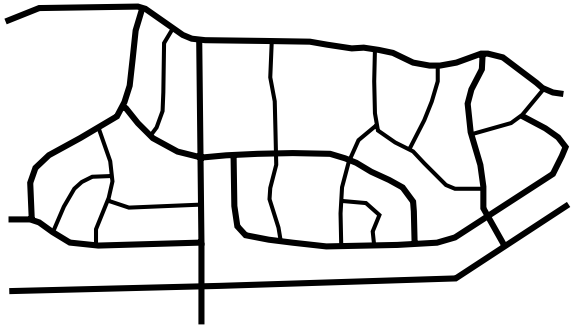
Alternative Aerial Performance; In those areas where street width and the distances for aerial performance cannot be achieved due to master plan delineation, terrain limitations, environmental sensitive, or legal easement constraints, alternates meeting defined performance measures will be permitted. The performance alternative needs to be evaluated by the Basalt Fire District and the Town of Basalt community development department as part of an overall fire management and maintenance plan that may include special protection features. Agreed upon methodologies between the fire department and the community development department, to accomplish fire safety objectives will be incorporated into the approved design. Approved designs may incorporate all or some of the following performance objectives:

Horizontal and/or vertical conveyance – Means of horizontal or vertical conveyance shall be provided where necessary to support fire-fighting and emergency support functions.

Staging areas- where interior operations may be necessary, areas to stage equipment from which to safely conduct and control suppression operations will be provided.

Interaction of access and means of access – Exterior an interior egress and emergency access shall be arranged and maintained so that building occupants and emergency responders are unimpeded as each accomplishes its objectives of egress and access respectively.

When necessary to ensure timely and effective emergency operations, fire fighting equipment or devices to support such operations shall be provided and maintained readily available for use by emergency responders.



Access by loops and grids

NEIGHBORHOOD

EMERGENCY ACCESS

General Emergency Description

Residential neighborhoods service single family and multifamily areas. Two travel lanes typically characterize streets. These streets typically have a low volume and a variety of users. Parking is allowed on these streets in limited fashion. Pedestrian circulation is provided through sidewalks both attached and detached and further accommodated by alternative pathways incorporated into the overall land use plans.

Emergency access is provided and existing intersections in a grid and/or loops are used to function as turnarounds for emergency vehicles. In those areas where building heights would require aerial response performance based aerial response is acceptable.

Features

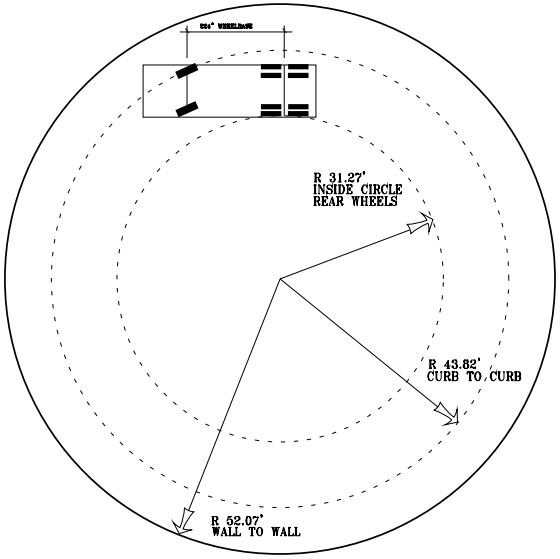
Street Width – The minimum obstructed street width for emergency response shall be 20 feet.

Pinch Points - At intersections and areas where turning occurs the pinch point is no less than 20 feet. A reduction from the twenty-foot minimum width to 18 feet is allowed in portions of the streetscape for identified pedestrian connector paths. Agreed upon methodologies between the fire department and the community development departments, to accomplish fire safety objectives as applicable will be incorporated into the approved design.

Dead Ends – These turnarounds can be those listed in Appendix D, Section D103.4 of the International Fire Code with modified Cull De Sacs with inside landscaping circles or canoe style turnaround incorporating parking areas and gathering areas.

Hydrants –For single family homes average spacing between hydrants is 500 feet with the maximum distance from any point on street frontage to a hydrant being 250 feet. For multifamily hydrant spacing will comply with table C105.1 of the International Fire Code. Hydrant spacing may be required to be reduced to meet fire safety objectives toward alternative design. Existing fire hydrants can be counted toward required hydrant service and a ten percent deficiency to the spacing requirement is acceptable.

Turning Radius - Inside turning radius shall be 30 feet. This turning radius is allowed to decrease progressively with increased adjacent and present street widths with the approval of the Fire Marshal. The needed radius for emergency use can be a component of rolled curb and sidewalk design



DESIGN CRITERIA
HISTORIC

Historic character of architecture and of place adds much to the life experiences of a town but it is also very important to integrate that character into the design of the street environment. Signage and plaques that describe the historic story enrich the experience of walking alone a pedestrian path.

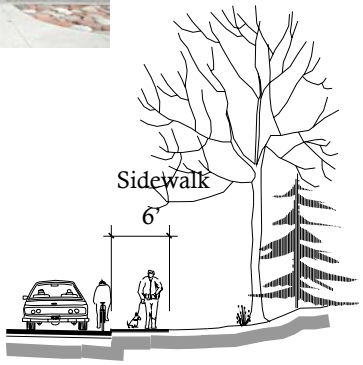
COMPLETE STREET DESIGN

PUBLIC WORKS

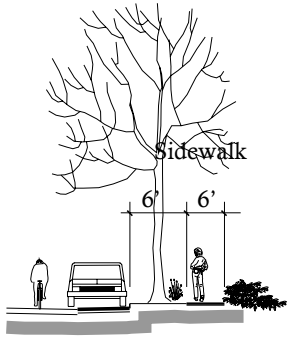
DESIGN CRITERIA
PEDESTRIAN & BICYCLE

TYPICAL SIDEWALKS

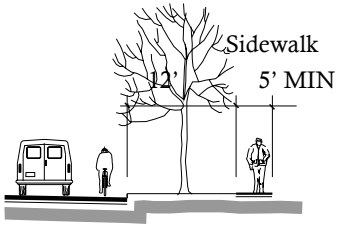
TOWN CENTER



TRANSITIONAL



RESIDENTIAL NEIGHBORHOOD



TRANSITIONAL

COMPLETE STREET DESIGN

PUBLIC WORKS

DESIGN CRITERIA
PEDESTRIAN & BICYCLE

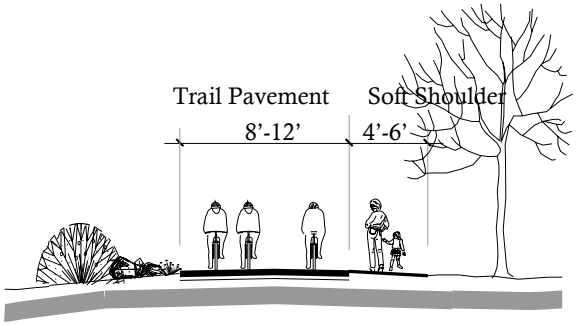
ALTERNATIVE CONNECTOR PATHS

ADA CONSIDERATIONS

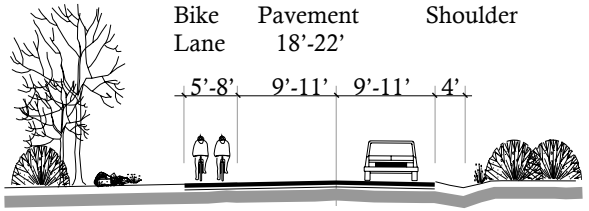
Conductivity is a corner stone to community linkage and compliance with ADA requirements provides and assures access for all. While we do live in a mountain environment access is often difficult due to the natural grade changes, however accommodation and consideration are always available.

SCHOOL SAFE ROUTES

A cornerstone of pedestrian safety and complete street design should set the routes for kids to and from school as a priority. Widths of sidewalks should be increased by 1' in width, crosswalk markings, school signage, speed limits, site clearances need to reflect a priority for safety. Safe walking routes must be set by all parties of interest from teachers and school officials, parents and government leaders.



TYPICAL TRAILS



TYPICAL BIKE LANE

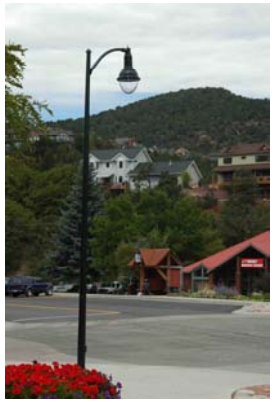
CONDUCTIVITY

Community access from neighborhood to neighborhood and from each to the community at large is a critical element to the concept of complete street design and the community experience of the Town of Basalt. This mobility needs to be present and identifiable and creates the inter lacing vital to the community.

COMPLETE STREET DESIGN

PUBLIC WORKS

DESIGN CRITERIA LIGHTING & STREET ELEMENTS



STREET LIGHTS

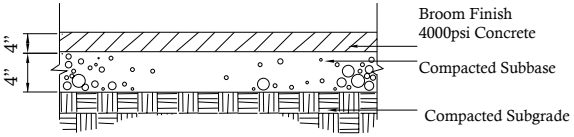
FURNITURE OPTIONS

PUBLIC ART

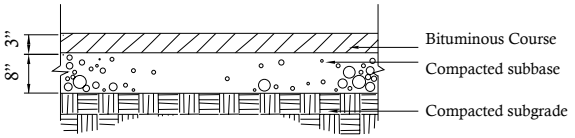
COMPLETE STREET DESIGN

PUBLIC WORKS

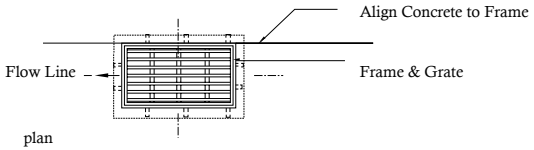
DESIGN CRITERIA
INFRASTRUCTURE

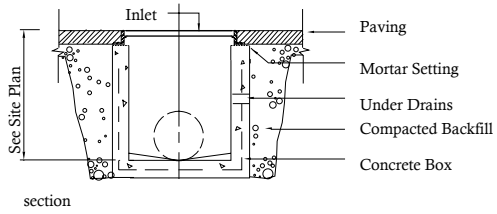


TYPICAL SIDEWALKS

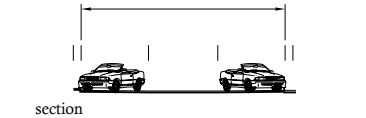


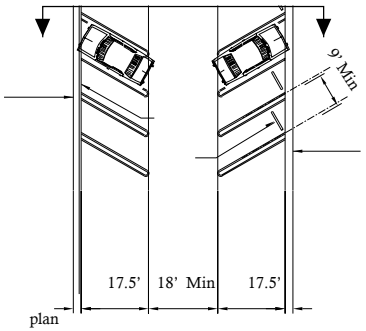
TYPICAL ROAD PAVING



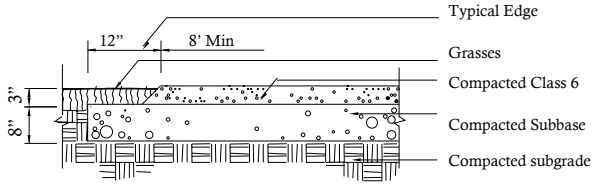


TYPICAL STORM INLET





60 DEGREE
DIAGIONAL PARKING



TYPICAL SOFT TRAIL