

CHAPTER 1 GENERAL PROVISIONS

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VARIANCE REQUEST FORM

1.1 PURPOSE

These Engineering Design Standards and Construction Specifications, also called the “Standards” or “Engineering Standards”, are established by the Engineering Division of the Public Works Department for the design and construction of public and private improvements in the Town of Breckenridge (Town).

The purpose of these Standards is to set forth certain rules and regulations so there is reasonable degree of assurance that the development of public and private improvements will be completed so that the health, safety, welfare and property of the Town and citizens will be safeguarded and protected; and to assure there will be a certain uniformity in performance with respect to design and construction of public and private improvements; and thereby securing for the present and future residents of the Town the beneficial effects of public and private development, while protecting the community against actions that would deteriorate the quality of the natural and manmade environment. These Standards are established to serve the following objectives:

1. Update Town Standards to reflect changes in the engineering and construction industries
2. Provide greater consistency with local, state, federal, and other agency codes
3. Provide consistent design and construction basis for infrastructure within the Town
4. Ensure public welfare and promote efficient development that considers the future of the community
5. Protect the water quality of the Blue River and its tributaries
6. Protect wetlands and other sensitive habitats in a mountain environment
7. Mitigate traffic caused by development
8. Improve pedestrian and bicycle facilities
9. Provide improved access for people with disabilities
10. Provide guidelines on navigating the Engineering Division development review process
11. Protect the public by establishing the minimum acceptable level for design and construction of infrastructure

To provide consistency in the design of infrastructure within the Town, these Standards generally follow criteria or design methodology that are in conformance with regulations and laws established by the following agencies. Where no requirement is given in the Town Engineering Standards, the following documents shall govern.

1. American Association of State Highway and Transportation (AASHTO)
2. Colorado Department of Transportation (CDOT)
3. Colorado Revised Statutes (CRS)
4. Federal Americans with Disabilities Act (ADA) Regulations
5. Federal Highway Administration (FHWA)
6. Federal Statutes and Regulations (CFR)
7. Mile High Flood District (MHFD)
8. National Cooperative Highway Research Program (NCHRP)
9. U.S. Department of Transportation, Manual of Uniform Traffic Control Devices (MUTCD)
10. United States Access Board (PROWAG and ADAAG)
11. National Cooperative Highway Research Program (NCHRP)

Additionally, the following guides and manuals listed below shall be referenced and used in conjunction with these Standards. Where no requirement is given in the Town Engineering Standards, the following documents shall govern. In the event of a conflict between Town Engineering Standards and the following documents, the more stringent requirement shall typically govern. The most recent version of the documents below shall govern.

1. AASHTO Green Book
2. AASHTO Roadside Design Guide
3. CDOT Roadway Design Guide
4. CDOT Bridge Design Manual
5. CDOT Pavement Design Manual
6. CDOT Drainage Design Manual
7. FEMA National Flood Insurance Program (NFIP)
8. International Fire Code (IFC), 2018
9. ITE Trip Generation Manual, 10th Edition, Institute of Transportation Engineers, 2017
10. ITE Trip Generation Handbook, 3rd Edition, Institute of Transportation Engineers, 2017
11. Highway Capacity Manual, 6th Edition: A Guide for Multimodal Mobility Analysis, Transportation Research Board, 2016
12. State Highway Access Code, State of Colorado, March 2002
13. Manual on Uniform Traffic Control Devices, 2009 with Revisions 1 and 2, Federal Highway Administration, May 2012
14. Mile High Flood District (MHFD) Design Manuals

The following Town Documents shall be referenced and used in conjunction with these Town Engineering Standards. In the event of a conflict between Town Engineering Standards and the following documents, the more stringent requirement shall typically govern. The most recent version of the documents below shall govern.

1. Title 9 of the Breckenridge Town Code, also referred to as the Town Development Code
2. Blue River Walkway Improvements Plan
3. Breckenridge Free Ride Transit Master Plan (2020)
4. Breckenridge Sidewalk Master Plan
5. Breckenridge Transit Master Plan (2020)
6. Cucumber Gulch Recreation Master Plan
7. Handbook of Design Standards
8. Joint Upper Blue Master Plan
9. Park Ave SH 9 Roundabout Modeling and Construction Feasibility Study (2017)
10. Sustainable Breckenridge Plan
11. The Arts District of Breckenridge Master Plan
12. Town of Breckenridge Capital Improvements Program
13. Town of Breckenridge Code of Ordinances (Including the most recent versions of Titles, Chapters, and Ordinances Pending Codification)

14. Town of Breckenridge Comprehensive Plan
15. Town of Breckenridge Goals and Objectives Report
16. Town of Breckenridge Open Space and Trails Master Plan
17. Town of Breckenridge Small Cell Procedures and Design Guidelines
18. Town of Breckenridge Vision Plan (2002)
19. Town of Breckenridge Water Construction Standards
20. Transportation, Parking, and Urban Design Study (2016)
21. Upper Blue Nordic Master Plan (revised 2011)

Additional standards and documents referenced for construction specifications are included in Chapter 9. See Chapter 9 for additional information on construction standards and specifications.

Several modifications were made to the criteria in the documents listed above to include flexibility, encourage context-sensitive design, and reflect the local values of the Town. The modifications recognize the constraints of the Town's topography, the desire to maintain and enhance natural drainageways, and the mountain environment of the community. The Town of Breckenridge Engineering Standards supplement or modify the above criteria.

These Standards provide the minimum acceptable standards for safe, consistent, effective, and economical infrastructure. Actual site design may require additional detail or more conservative design parameters to address site-specific issues.

1.2 AUTHORITY

These Standards have been developed by the Engineering Division of the Public Works Department of the Town of Breckenridge. Authority for review and approval required for these Standards shall be per 10-1-3 of the Town Code. Per Section 10-1-3, the Town Engineer has the authority to administratively formulate, update, amend, and add regulations to these standards.

1.3 JURISDICTION

These Standards shall apply to all projects, both private and public, in the Town of Breckenridge, except where superseded by other government regulations.

1.4 AMENDMENTS & REVISIONS

The Engineering Division may periodically update these Standards to reflect current practices or policy revisions per Section 10-1-3 of the Town Code.

1.5 OTHER STANDARDS

Where no requirement is given, the current edition of the AASHTO, CDOT, Urban Storm Drainage Criteria Manual (USDCM), Manual of Uniform Traffic Control Devices (MUTCD), Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG) design standards, or ADA Accessibility Guidelines (ADAAG) or other agency/document listed in Section 1.2 of these Standards shall govern unless otherwise approved by the Engineering Division. Where the Town's documents do not cover a specific situation, consult the Engineering Division to confirm the appropriate standards. If a specific situation is not covered by these, the applicant shall propose a design standard for the Town to review and approve before proceeding with development. In addition to these Standards, designers, developers, and contractors are responsible for following all other applicable federal, state, and local regulations. Where there is a conflict between these Standards and other codes or regulations, the more stringent standard shall generally apply unless otherwise approved by the Town Engineer.

1.6 RIGHT TO ENFORCE OTHER STANDARDS

These Standards may not include all requirements necessary for future development. Special site conditions, project types, or other conditions may warrant the use of additional standards and criteria not included in these Standards. The Town reserves the right, in the Town's best interest, to issue and enforce more stringent criteria when appropriate as determined by the Town Engineer.

1.7 RIGHT TO REQUIRE PUBLIC IMPROVEMENTS

The Town Engineer may require public improvements due to direct or indirect impacts of development. Public improvements may include utilities, streets, sidewalks, trails, open space, parks, bridges, street lights, transit improvements, detention and water quality, wetland enhancements, stream restoration, and any other public improvements as determined by the Town Engineer. Utility work may include Town water, Town fiber (supply and install of equipment), sanitary sewer, storm sewer, street lights, and other utilities as determined necessary. All construction costs of public improvements shall be the responsibility of the development. The Town shall not be responsible for any of the design, development, and construction costs of the public improvements. See the following chapters of these Standards for additional public improvement standards.

1.8 REVIEW & APPROVAL

The Engineering Division will review submittals for general compliance with these Standards per Chapter 2 of these Standards. An approval by the Town does not relieve the owner, contractor, engineer, or designer from responsibility of ensuring that calculations, plans, specifications, and construction are accurate and in compliance with these Standards, accepted engineering practices, or other applicable requirements and regulations.

1.9 CONSTRUCTION SPECIFICATIONS

Construction specifications and details are included in Chapter 9 of these Standards and may be frequently updated. If the Town does not have a required construction specification or detail, CDOT construction specifications and the CDOT M&S Standards shall be used. If neither the Town nor CDOT has a construction specification or detail required for a project, the proposed specifications and details shall be submitted to the Engineering Division for review per Chapter 2 of these Standards.

1.10 VARIANCES

All applications for designs varying from these Standards shall obtain written approval of the variance from the Town Engineer on the Town's Variance Request Form prior to final approval of the plans. The following will be considered when evaluating variances:

1. Site-specific constraints,
2. Effect on safety,
3. Right-of-way constraints,
4. Public benefit,
5. Availability of other alternatives, and
7. Need for mitigation measures.

Variations must be requested in writing using the Town's Variance Request Form (included as an attachment to this chapter) and at a minimum include plans, text, and supporting documentation as necessary to support the information provided in the Variance Request Form.

The variance request must be prepared by or under the direct supervision of a Colorado-licensed professional engineer and be stamped and signed certifying that the variance will not result in any hazard to the public or increase the likelihood of damage to any public or private properties.

Upon receipt of a written request for a variance from a particular provision of these Standards, the Town Engineer will issue a determination on whether the variance should be granted or denied given the specific circumstances for which it was requested. The Town Engineer will provide a copy of the determination to the applicant. Determinations made by the Town Engineer in interpreting and enforcing these Standards involve the considered application of professional engineering and transportation planning judgment and skill in the context of each situation. If a variance request is denied, the applicant may appeal the denial per the provisions of the Town Code.

1.11 GLOSSARY

When the following words, phrases, or abbreviations appear in these Standards, they shall have the following definition and meaning. Where a word, phrase, or abbreviation appear in these Standards, but are not defined below, the definitions and meanings shall be assigned per the Town Code, other referenced standards, or industry accepted definitions.

100-year storm and 2-year storm: These terms refer to the statistical recurrence interval of different types of storms. A recurrence interval is a statistically determined average period of time within which a given rainfall intensity and duration will be equaled or exceeded only once. For example, the 100-year storm refers to the intensity and duration of rainfall which, on the average, will be equaled or exceeded once during a 100-year period. The larger the recurrence interval, the higher the intensity. The 100-year storm will have a higher intensity and total volume than the 2-year storm.

100-year flow/flood: a peak discharge that can be expected to be equaled or exceeded once every hundred years. This event has a 1% chance of occurring during any given year. Discharge rates, water surface elevations, and floodplain boundaries for the Blue River and its major tributaries are provided in the FEMA Flood Insurance Study. .

AASHTO: American Association of State Highway and Transportation Officials

ABC: Aggregate Base Course.

acceleration lane: a speed change lane, including tapered areas, for the purpose of enabling a vehicle entering a roadway to increase its speed to a rate at which it can more safely merge with through traffic.

access: driveway or other point of access such as a street, road, or highway that connects to the general street system. Where two public roadways intersect, the secondary roadway will be the access.

acre foot: a measurement of water volume. An acre foot equals the amount of water necessary to cover an acre at a depth of one foot (43,560 cubic feet).

ADT: Average Daily Traffic. The total bidirectional volume of traffic passing through a given point during a given time period, divided by the number of days in that time period.

alley: Minor public street adjacent to the side or rear of residential, commercial, or industrial property and used for vehicle access.

applicant: The person or designated agent responsible for preparation of Town permit applications and associated permit responsibilities. The terms "applicant" and "developer" may be used interchangeably.

approach: the portion of an intersection leg which is used by traffic approaching the intersection.

auxiliary lane: the portion of the roadway adjoining the traveled way for speed change, turning, weaving, truck climbing, maneuvering of entering and leaving traffic, and other purposes supplementary to through- traffic movement.

ASTM: American Society for Testing and Materials.

basin: an area of land, so defined by a physical boundary that when rain falls upon this area, all the resulting stormwater runoff will drain by gravity toward a common watercourse (natural stream, reach,

river, or manmade channel, ditch, gutter, etc.) and ultimately exits the area at the specific point (known as the outfall).

bicycle facilities: a general term denoting improvements and provisions made by public agencies to accommodate or encourage safe and efficient bicycling or other alternative modes of transportation.

bicycle lane (bike lane): the portion of the roadway that has been designated by striping, signing, pavement markings, colored pavement, or other markings for the preferential or exclusive use of bicycles.

bridge: any structure conveying a roadway or path over a body of water or other feature. Structures shall be designed to carry a combination of loading per appropriate codes and designed by a registered professional engineer. Arch culverts, large diameter culverts, and other structures may be classified as bridges.

building permit: a written document issued by the Town Building Division to allow a developer or contractor to complete building improvements per building codes.

CAD: abbreviation for Autodesk AutoCAD software. Town requires submittals as .dwg extension electronic files compatible with the most recent version of Autodesk AutoCAD Civil 3D software.

capacity: the maximum number of vehicles that have a reasonable expectation of passing over a given roadway or section of roadway in one direction during a given time period under prevailing roadway and traffic conditions.

CDOT: Colorado Department of Transportation

commercial: an area of the Town in which all or a portion of the development is for commercial use. An area may be defined as commercial, even if the majority of the area is zoned as residential use, but there is a sufficient amount of commercial development to generate many commercial pedestrian and vehicle trips.

chicane: offset curb extensions which change the path of vehicular travel from straight to curvilinear and promote traffic calming.

civil construction drawings: detailed engineering plans required for all projects with public infrastructure.

CMP: corrugated metal pipe

CO: Certificate of Occupancy. A written document issued by the Building Division indicating that a building or site is in a condition suitable for occupancy.

code: the latest official adopted ordinance, policies, codes, and/or regulations of Town of Breckenridge or other agencies.

construction: any grading, excavation, earth disturbing activities, roadway work, paving, vertical building, utility work, directional boring, and any other alteration or modification to a site or right-of-way.

consultant engineer: a Colorado licensed professional engineer working on behalf of the Developer.

contract documents: the executed contract agreement, approved plans, technical specifications, and permits, and all other documents prepared by a Colorado licensed professional engineer for construction a facility

contractor: the person, firm, or organization to whom a construction contract is awarded by the Developer, or who has been issued a right-of-way work permit. Contractor may be the same entity as the Applicant or Developer, or may be a separate entity.

contour interval: a contour is a line drawn on a map through points of equal elevation. A contour interval is the elevation difference between contour lines.

critical volume: a traffic volume (or combination of volumes) for a given street which produces the greatest utilization of capacity for that street in terms of passenger cars or mixed vehicles per hour.

cross-section: a view of the interior or horizontal cut through a roadway, structure, or object and includes a representation of all relevant elements.

cross-slope: slope of the pavement surface, excluding gutter, measured perpendicular to the street centerline.

cross-street flow: flow of stormwater runoff across the traffic lanes of a street from external sources, as distinguished from sheet flow of water falling on pavement surface.

culvert: a covered channel or pipe that takes a watercourse under a road, through the downstream embankment of a detention facility or below ground. Some “culverts” may also be classified as “bridges”.

days: calendar days, not normal working days unless stipulated as working days.

deceleration lane: a speed change lane, including tapered areas, for the purpose of enabling a vehicle that is to make an exit turn from a roadway to slow to a safe turning speed after it has left the main stream of faster moving traffic.

design hour volume: hourly traffic volume used for street design and capacity analysis, usually one or more peak hours during a 24-hour period.

design speed: the typical vehicle rate in miles per hour (mph) which a street is designed to accommodate. Design speed shall typically match the posted street speed limit.

design vehicle: the vehicle a street must consider and accommodate for acceptable speed, turning movements, loading, and other considerations.

designer: the person, firm, or organization responsible for the creation and submission of contract documents or construction plans for the construction of a facility. Designer shall be a Colorado licensed professional engineer.

detached sidewalk: a sidewalk that is offset from the roadway and curb by a minimum distance of four feet.

detail: an engineered drawing illustrating all features and requirements for construction of a structure or facility.

detention facility: a basin or structure designed for the storage of stormwater runoff that allows for slower, controlled release during or immediately following a storm. A typical facility consists of a detention pond with an embankment on the downstream side, and a pipe or concrete box outlet. The size of the pond is based on a specific design storm and the amount of water that can be discharged through the outlet. Design features may be incorporated into detention facilities to allow them to function as sediment ponds.

developer: the private person, partnership, or corporation legally responsible for the construction of streets, subdivisions, infrastructure, or any other public or private improvement. Developer shall secure all required approvals and permits from the Town and assume full and complete responsibility for the project. The terms “owner,” “applicant,” and “permit holder” may be used in place of “developer” and hold the same definitions and responsibilities.

development: construction of improvements on land that is vacant or containing minimal infrastructure or improvements.

development code: title 9 – land use and development, of the Town of Breckenridge Code.

development permit: a written document from the Town community development department to complete development per codes, standards, and other documents.

drainageway: a route or course along which water moves or may move to drain an area. A “natural” drainageway refers to the route or course in an area prior to the construction of any urban improvements.

drainage easement: a grant to the Town of the right to control development, access, or maintenance of a drainage right-of-way or an area subject to periodic flooding.

driveway: a constructed access serving three or less units and connecting to a street or adjacent driveway. May also be called a “private access.”

easement: the portion of public or private land dedicated to the public or another entity for the installation, maintenance, and use of utilities, drainage, vehicle access, pedestrian access, snow storage, or other public uses. Easements may be granted through a subdivision plat or other legal instrument as approved by the Town Attorney. Easements shall grant the legal right of use of the property by the grantee. Easements may grant the Town the ability to complete maintenance work, but does not require the Town to complete maintenance.

Encroachment License Agreement: A written document granting a property owner the ability to construct and maintain private improvements within a Town ROW or easement. The encroachment license is revocable and sets many requirements of the property owner for the encroachment.

EPA: United States Environmental Protection Agency.

ESA: Environmentally sensitive areas. An area such as wetlands, streams, lakes, ponds, Cucumber Gulch Wildlife Preserve, and other special wildlife habitat areas which require special requirements to protect their sensitive nature during development.

fees: monetary charges which compensate the Town for services rendered or infrastructure constructed.

FEMA: Federal Emergency Management Agency.

FHWA: Federal Highway Administration, Department of Transportation.

field order: a written notice given by the Town to the Designer, Contractor, or Developer detailing a change, request, mandate, or corrective action necessary to conform to these Standards, approved plans, or other applicable Local Entity Codes.

final acceptance: the written notification from the Town, after the Town finds the warranty period to be satisfactorily completed, that all public improvements are free of defects and the Town releases the Developer from future maintenance obligations.

FIRM: Flood Insurance Rate Map.

floodplain development permit: a document granted to developers or contractors to construct improvements or complete earthwork activities within 100 feet of the 100-year floodplain.

freeboard: the elevation difference between the normal maximum level of water surface and the bottom of the confining structure, which is provided so debris may more readily pass through the structure without creating blockage and waves and other movements of the water will not overtop such confining structures.

grade: the inclination or slope of a channel, canal, conduit, street, etc., or other natural ground surface, usually expressed in terms of the percentage or number of units of vertical rise (or fall) per unit of horizontal distance.

grading plan: a detailed engineering plan showing contours, slopes, existing elevations, proposed elevations, retaining walls, and other grading features for a site.

HCM: Highway Capacity Manual. Publication of the Transportation Research Board of the National Academies of Science which defines the ideal conditions of uninterrupted traffic flow.

HMA: Hot Mix Asphalt.

HEC: Hydrologic Engineering Center, an element of the USACE, Institute for Water Resources (CEIWR) that supports the nation in its water resources management responsibilities by increasing technical capability in hydrologic engineering and water resources planning and management.

HMS: Hydrologic Modeling System (HEC-HMS) developed by the USACE to simulate the complete hydrologic processes of dendritic watershed systems.

LOS: level of service. A qualitative measure used to relate the quality of motor or pedestrian vehicle traffic service; usually measured from a LOS A to LOS F.

initial acceptance: the Town's process to initially accept ownership after the Developer has completed all proposed improvements identified in the approved plans and agreements, and after the Town has inspected and approved improvements. Initial acceptance begins the two year warranty period.

infrastructure: public roadways, sidewalks, pedestrian routes, trails, stormwater improvements, potable water improvements, sanitary sewer improvements, lighting, irrigation, fiber optic cable and conduit, other utilities, stormwater management, transit facilities, retaining walls, signage, and any other structures, improvements, or installations as determined by the Town Engineer.

inlet: 1) an opening into a storm sewer system for the entrance of surface storm runoff; 2) a structure at the upstream end of a conduit; or 3) the upstream connection between the surface of the ground and a drain or sewer for the admission of surface or storm water.

inspector: an authorized representative of the Town Engineer, assigned to make inspections to assure work is completed in compliance with plans, standards and specifications.

intersection sight distance: the minimum distance required for the driver of a motor vehicle stopped at a stop sign on a minor street or driveway to see approaching vehicles, pedestrians, and bicyclists along the intersecting major street and have sufficient space to make any allowed move to cross the major street or merge with traffic on the major street without causing vehicles, pedestrians, or bicyclists traveling at or near the design speed on the major street to slow down.

ITE: Institute of Transportation Engineers

landscaping: materials including, without limitation, grass, ground cover, shrubs, trees, perennials, annuals, non-living material commonly used in landscape development, and irrigation systems.

LTS: Level of Traffic Stress. A measure which quantifies the amount of discomfort which bicyclists experience near vehicular traffic.

MHFD: Mile High Flood District, formerly the Urban Drainage and Flood Control District (UDFCD).

MHT: Method of Handling Traffic. "MHT" may also be referred to as a "Traffic Control Plan (TCP)". Detailed drawings outlining the layout of traffic control devices for a project and signed by a TCS.

MUTCD: Manual on Uniform Traffic Control Devices.

minor storm and major storm: these terms refer to the recurrence intervals of storms used to design stormwater infrastructure. The minor storm (also called the initial storm) is the 2- to 10-year storm depending on land use at the design location. The major storm is the 100-year storm, and the uncontrolled runoff from this storm could possibly cause major property damage or even loss of life.

multimodal: inclusion of several different modes of transportation. Examples include vehicular, pedestrian, bicycle, bus transit, gondolas, and other public transit modes.

NFIP: National Flood Insurance Program.

NRCS: Natural Resource Conservation Service.

open channel: a watercourse which conveys stormwater runoff within the drainage basin to the outfall of the basin. It has a defined bed and banks that confine the runoff, but it has a surface open to the atmosphere and cannot develop pressurized flow.

ordinance: a law established by the Town of Breckenridge.

O&M Plan: operations and maintenance plan. A written document defining work and maintenance procedures to maintain infrastructure and facilities to function per the original design intent.

OSHA: Occupational Safety and Health Administration.

PAR: Pedestrian Access Route. A continuous and unobstructed path of travel provided for pedestrians with disabilities within or coinciding with a pedestrian circulation path.

PDF: Portable Document Format. Town requires electronic file submittals to be a PDF compatible with the most recent version of Adobe Acrobat.

PE: a Colorado licensed professional engineer.

peak hour: the hour in a day which produces the highest volume of vehicle or pedestrian traffic for a portion of roadway, intersection, or pedestrian route in a day.

pedestrian: a person afoot or in a wheel chair or other pedestrian mobility device.

permitee: the holder of a valid permit for the Town of Breckenridge. "Permitee" may be used interchangeably with "developer".

PHF: Peak Hour Factor. A calculation used to convert the hourly traffic volume into the flow rate that represents the busiest 15 minutes of the peak hour. PHF is calculated through the following equation: (total hourly volume) / [(peak 15-minute volume within the hour x 4)].

plans: construction plans completed and stamped by Colorado licensed professional engineer for public or private improvements.

PLS: a Colorado licensed professional land surveyor

private Improvements: any land, structures, infrastructure, or other object to be used, owned, and maintained by a private person, partnership, or corporation.

project: the public or private improvements designated in the approved plans, which are to be constructed in conformance with these standards. "project" includes private projects, public capital projects, utility projects, ROW projects, and any other improvements in the Town.

private street: a roadway serving four or more units or lots. Private streets are not owned or maintained by the Town of Breckenridge.

project engineer: the professional engineer, registered in the State of Colorado, assigned to a project by a Town permit holder to inspect and observe construction and to complete and sign and stamp construction inspection and observation reports.

public improvement: any land, structures, infrastructure, or other object dedicated to the Town, public, or other agency. Public improvements are typically conveyed to the Town and subsequently owned and maintained by the Town. Also include facilities which will be privately owned but serve the public, or private facilities serving a large number of people, such as utilities and stormwater drainage.

punch list: a written list of work items, compiled by the inspector, which do not conform to these Standards, the plans, specifications, or other codes that govern the project. The developer is responsible for completing the list of work items prior to initial acceptance.

rational method: a design method which determines a peak runoff rate based on drainage area, rainfall intensity, and imperviousness for watersheds of 90 acres or less.

record drawings: design drawings updated by a professional engineer, depicting all modifications from the design that occurred during construction.

redevelopment: removal or modification of existing improvements, remodeling, and construction of new improvements on a site which has existing improvements. Sites with minimal existing improvements is not considered redevelopment.

report: a document containing analyses, surveys, tests, exhibits, and other pertinent data prepared by a Colorado licensed professional engineer.

road: the entire width of a public right-of-way, including the roadway, pedestrian routes, landscaped areas, shoulders, and other areas within the right-of-way.

ROW: right-of-way. Land owned by the Town for the use of a public street, alley, sidewalk, path, or other use.

ROW permit: right-of-way permit. A document granted by the Town to a developer or contractor to construct any public or private improvements in the ROW, or for any equipment, materials, or encroachment in the ROW, or disruption to pedestrians or vehicles within a ROW.

SCS: Soil Conservation Service. A hydrological method that uses geographical rainfall time distributions, curve numbers and time of concentration to determine peak runoff that may be used for water sheds of any size or when hydrograph routing is required for design.

SCS method: Soil Conservation Service method.

SFHA: Special Flood Hazard Area. An area identified by FEMA as an area having flood-related hazards and where the NFIP floodplain management regulations must be enforced.

shared use path: a paved path at least 10 feet wide for pedestrians, bicyclists, and other non-motorized transportation uses.

SIA: Subdivision Improvement Agreement. A written document establishing a surety and requirements for a developer to complete improvements in the Town.

sidewalk: paved path for pedestrian use within a ROW or easement and separated from the roadway by a curb or detached at least four feet.

sight distance: the length of roadway which is visible to a vehicle operator.

site plan: a detailed engineering drawing showing proposed improvements to a site.

snow storage: additional area within a right-of-way, easements, or private property for stacking and storing snow and ice. May also be called snow stacking areas.

specifications: a written document describing in detail the scope of work, materials to be used, methods of installation, and quality of workmanship for construction work.

stable channel/ditch: a streambed, drainageway, or ditch in which sediment transport conditions are in balance, neither acquiring significant deposits of sediments nor experiencing significant erosion.

standards: these Town of Breckenridge Engineer Standards, inclusive of all attachments, amendments, and referenced/supplemental codes and standards.

stop work order: a written directive from the Town revoking the developer's and contractor's rights to continue work on the project due to nonconformance with these standards, plans, specifications, or other project documents.

SSD: Stopping Sight Distance. The minimum length of roadway required to be visible for a vehicle operator to safely recognize an object within a roadway and stop the vehicle prior to colliding with the object. SSD can also be defined as the sum of the braking distance and the distance traversed by a vehicle during the reaction time.

storage lane: additional lane footage added to a deceleration lane to store the maximum number of vehicles likely to accumulate during a critical period without interfering with the through lanes.

stormwater runoff: the water from precipitation running off from the surface during and immediately following a period of rain.

storm sewer system: also called a storm drain system; a system of inlets, manholes, and conduits that conveys runoff to drainageways and natural channels. Storm sewers are necessary whenever the street capacity to carry the design storm runoff is exceeded by either the minor or the major storm.

street: the entire width of a public right-of-way, including the roadway, pedestrian routes, landscaped areas, shoulders, and other areas within the right-of-way.

street flow: the total flow of stormwater runoff in a street, usually the sum of the gutter flows on each side of the street.

subdivision: a tract of land surveyed and divided into separate parcels or lots. "Subdivision" may also refer to a neighborhood or several adjoining lots in the Town.

subdivision permit: a type of development permit issued by the Town Community Development Department for dividing a tract of land into separate parcels or lots.

substantial completion: the period when the work has progressed to the point where it is sufficiently complete so some or all of it can be utilized for the purposes which it is intended.

SUE: subsurface utility engineering. The Colorado Senate Bill 18-167 that amended Title 9, Article 1.5 of the Colorado Revised Statutes to improve safety by modifying requirements associated with the location underground utilities prior to construction.

surcharged: a condition when the hydraulic grade line within a storm sewer rises above the elevation of an inlet.

surety: a financial instrument, such as cash, bond, letter of credit, or other instrument acceptable in form to the Town Attorney, securing the developer's responsibility to complete construction of improvements for a project. Surety shall also be a financial instrument to secure the Developer's obligations through the warranty period.

SWMM: Storm Water Management Model, developed by the EPA and used for hydrologic and hydraulic analysis.

SWMP: Stormwater Management Plan. A construction plan and associated written narrative required for construction sites to prevent pollution, contamination, or degradation of waters of the State and to prevent discharge of pollutants from a project site.

TDM: Transportation Demand Management. A set of strategies aimed at reducing travel demand or to redistribute the demand in space or in time.

TCS: certified Traffic Control Supervisor.

Town: abbreviation for the Town of Breckenridge. Town may refer to the entire municipality, the Town Engineering Division, or other Town Departments and Divisions.

Town Code: The Town of Breckenridge Municipal Code. Includes all codification and ordinances pending codification. Town Code is a collection of laws passed by the Town and have the force and effect of law for the Town. The Town Code can be found online.

Town Engineer: the Town of Breckenridge Town Engineer or Town Engineering Representative selected by the Town Engineer.

TIS: Traffic Impact Study. An assessment of the adequacy of the existing or future transportation infrastructure to accommodate additional trips generated by a proposed development, redevelopment, or land rezoning which is prepared and stamped by a Colorado licensed Professional Engineer.

Traffic calming: the combination or mainly physical measures that reduced the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users.

trail: any path used by pedestrians or bicyclists within a ROW or easement.

UBSD: Upper Blue Sanitation District.

USACE: United States Army Corps of Engineers.

USDCM: Urban Storm Drainage Criteria Manual, published by the MHFD.

USGS: United States Geological Survey.

utility: a network of infrastructure supplying a service to the Town. Examples include gas, electric, sewer, water, and communication.

variance: an approved deviation from these Standards or other rules of the Town of Breckenridge.

vehicle: an instrument for the purpose of conveying people or objects. Vehicles are typically motorized. Wheelchairs and other pedestrian mobility devices are not considered vehicles.

warranty: a written guarantee from developer or contractor guaranteeing all improvements from material and workmanship defects.

warranty period: the two year period of time after the initiation acceptance when the developer or contractor is responsible for warranty of improvements.

wetlands: areas including lakes, streams, ponds, areas of seasonal standing water, and other bodies of water with a predominance of wetlands vegetation (such as willows, rushes, or sedges), or areas with boggy soils. Wetlands definitions and delineations shall be consistent with those of the Army Corps of Engineers.

wheel path: the three foot wide portion on both sides of a roadway travel lane starting two feet from the center of the lane.

work: all construction activity, including materials, labor, supervision, use of tools and equipment, and all other effort required to complete the project in full compliance with these standards, approved plans, specifications, and other documents.