

# Article 7



## Development Standards

### Article 7 • Development Standards

This Article 7 is intended to apply to all types of development regulated by the Land Use Code. Except as may otherwise be required by law, the Director may waive or alter any of these requirements if they are determined to be inappropriate or unnecessary in a particular instance given the nature and extent of the proposal.

#### 7-100 General Restrictions on Development

- A. Character of the Land
  1. Land which is found by the Board of County Commissioners to be unsuitable for subdivision or development due to physical constraints shall not be subdivided or developed unless methods are used to solve the problems created by these unsuitable land conditions.
  2. Land shall be used in a manner appropriate to the constraints.
- B. Self-imposed Restrictions
  1. If the applicant voluntarily commits to restrictions or requirements greater than those contained within this Code the commitments may be required to be indicated on the final plat, contained within the development agreement, or in restrictive covenants.
  2. If the commitment is accepted by the Board of County Commissioners in their approval of any subdivision, the commitment shall be fully enforceable under these Regulations as a requirement of the subdivision approval.

#### 7-200 Development Design

- A. The following shall be considered requirements for development design.
  1. All subdivisions shall result in the creation of lots which are developable and capable of being built upon in conformance with this Code, the Building Code, or other County adopted regulations.
  2. The design of the development shall eliminate or mitigate the potential effects of hazardous site conditions.
  3. Lots shall be laid out to provide positive drainage away from all buildings.
  4. Individual lot drainage shall be coordinated with the general storm drainage pattern for the area.
  5. Drainage shall be designed to avoid concentration of storm drainage from any lot to an adjacent lot.
  6. Lot area, width, frontage, depth, shape, location, and orientation shall conform to all provisions of this Code and be appropriate for the location of the development and for the type of use allowed.
  7. All lots shall front on and have access to a public right-of-way or approved private access easement.
  8. All proposed points of access must comply with the Transportation Standards.

9. No lot shall be divided by a municipal or County boundary line, road, alley or other lot.
  10. Internal and external links to public trails and open space abutting the property shall be provided.
  11. Extensions required for future development shall be provided.
  12. Lot boundaries should conform to descriptions in liens or mortgages so that the division of a lot through a foreclosure does not occur.
  13. Maintenance of common facilities must be accomplished either through covenants and a homeowners association, a separate maintenance agreement, or some other perpetual agreement.
  14. The overall development design should conform to the Comprehensive Plan.
- B.** The following guidelines shall be used to the greatest extent possible.
1. The design and development of subdivisions should preserve the natural terrain, drainage, existing topsoil, and vegetation, including tree masses and large individual trees.
  2. The layout of lots and blocks should provide desirable settings for structures by making use of natural contours, maintaining existing views, affording privacy for the residents and protection from adverse wind, noise, and vehicular traffic.
  3. Development design should provide for efficiency in the installation and provision of all public and private facilities and services.
  4. The development should provide for solar access on site and on adjacent properties.
  5. The development design should maintain stands of trees or other vegetative cover to reduce the effects of winds on buildings.
  6. Lot dimensions should be adequate to allow for the provision of necessary private service and off-street parking facilities needed by the type of use and development allowed.
  7. Double frontage lots should be avoided except where essential to provide separation of residential development from expressways, major arterials, or to overcome specific disadvantages of topography and orientation.
  8. Landscaping should be provided, especially as a buffer between different types of uses both within and adjacent to the development. Xeriscape should be used instead of traditional landscaping.
  9. Side lot lines should be at right angles to, or radial to the center of curvature of the street or road on which the lot fronts. Where lot lines are not at right angles or radial to street lines, this shall be indicated on the final plat.
  10. Lots should be arranged to minimize the number of outlots.
  11. Lots should use natural and man made divisions, such as fences and easements, as their boundaries.
  12. All lots should have reasonable access to open space, trails, park land or recreation facilities that are set aside for either development use or use by the general public.
  13. Recreation facilities should be centrally located to all residents of the development.
  14. The development design should be coordinated with the storm water drainage and flood control systems.
  15. Utility, access, or drainage easements should not divide a lot.
  16. Common water and sanitation facilities should be located on separate outlots commonly owned by the users.
  17. Residential lots should be located to minimize adverse influences due to airports and airport operations.
  18. The newly created residential lots should be located nearest to utilities and roads to minimize the amount of construction of these improvements and the loss of agricultural land.
- C.** The following applies where phasing of the development is requested.
1. The phasing schedule shall be noted in the development agreement.
  2. A single phase shall not divide a block.
  3. All phasing shall be approved by the Board of County Commissioners.
  4. Modifications to the phasing schedule shall be made only after review and approval by the Board of County Commissioners.
  5. The phasing schedule shall recognize the need for proper drainage, secondary access, water and waste systems and open space at all times during the phasing schedule.

## 7-300 Water Systems

- A. The State Engineer and County Engineer shall be considered the County's experts in evaluating the reliability of the water supply source. It shall be the responsibility of the applicant to provide such evidence as may be required by the State and County Engineers.
- B. Boulder County Public Health shall be considered as the County's expert in evaluating the quality of the proposed water supply source. It shall be the responsibility of the applicant to provide such evidence as may be required by Boulder County Public Health.
- C. Water supplies shall be treated by a method acceptable to Boulder County Public Health to conform to minimum local and State requirements. Public Health may require test wells.

## 7-301 Water Reliability Requirements

- A. In addition to the requirements of the State Engineer and Public Health, the following provisions shall be used to evaluate the adequacy of the water source intended to serve the proposed development:
  1. Sufficient water supply
    - a. The average daily demand of the entire service area and the proposed development will be based upon 300 gpd (gallons per day) per residential unit or 75 gpd per capita, whichever is greater.
    - b. The average daily demand for commercial and industrial uses will be reviewed based on the anticipated demand of the proposed development. Appropriate multipliers may be utilized in calculating this amount.
    - c. Each residential lot shall have adequate water to meet required landscaping.
  2. Irrigation Water
    - a. The irrigation demand shall be based on information submitted by the Soil Conservation Service. Such material shall take into account the type of vegetation to be maintained, the soil characteristics, the historic yield of the property, and available water rights.
    - b. All areas shall be evaluated for water demand.
    - c. The development agreement shall include any requirements for water.

## 7-302 Water Service

- A. Every effort should be made to secure public water system extension; however, where water service is not physically or economically feasible, a central well and distribution system is preferred over individual wells.
- B. The applicant must submit a letter of intent for service from the water supplier at the time of sketch plan application with a contract for service prior to final plat recordation.
- C. For proposed developments within 2,000 feet of an existing water system, or within a community service area, the Board may require the subdivider to make provisions for the extension of service. This includes escrow funds for the installation of water mains and house connections in addition to the installation of domestic wells.
- D. If a private water supply system is proposed, the applicant shall submit engineering plans to the County to be reviewed by the Land Use Department, County Engineer, and County Public Health.
  1. If a private central water supply system is proposed, evidence must be submitted regarding the ability of the system to meet the minimum requirements of State and County Public Health regulations and this Section. Evidence regarding the means to repair and maintain the water system is also required.
  2. Special review may be required for use of a central water system.

## 7-303 Wells

- A. The following provisions shall apply for the use of wells.
  1. Individual on-site wells will not be permitted for developments with densities greater than one residential unit per acre.
  2. The well shall have adequate water quality, quantity, and dependability for the proposed density prior to preliminary plan approval.
    - a. The well should be continuously pumped or bailed at a minimum rate of three gallons per minute per domestic unit for a minimum of five hours. After five hours of pumping or bailing at such a rate, recorded data should show that the well is producing at a minimum rate of three gallons per minute per domestic unit and that the quality of water recovered from the well after five such hours of pumping or bailing, meets public health standards for potability.
    - b. Water samples from the well tests shall comply with Primary Drinking Water Regulations for the State of Colorado issued by the State Department of Health.

## 7-304 Water Distribution System

- A. The water distribution system internal to the development shall be sized to meet both the initial and future demands of the proposed development. Oversizing for likely extensions may be required, with that oversizing to be paid for by future development.
- B. In constructing the internal water distribution system, the following design provisions shall apply:
  - 1. The system shall be sized for maximum day demand plus fire or peak hour demand, whichever is greater.
    - a. Maximum day demand may be assumed as 3.0 times average day demand, and maximum hour demand may be assumed to be 6.0 times average day demand unless calculations indicate otherwise. Designs using standards other than these must be approved by the County Engineer.
    - b. Minimum residual pressures shall be 40 psi under maximum hour demands; 20 psi if direct flow is used.
    - c. The actual pressure in the supply system under the conditions specified shall be used in designing the distribution system.
      - (i) If future connection to a different supply system is anticipated, critical pressure in that system may be used as the starting design pressure.
      - (ii) Assumed future supply pressures and points of connection for designing the system in all other cases shall be subject to the approval of the County Engineer.
    - d. Minimum main sizes shall be six inches except for short culs-de-sac. Where the external supply or pressure is not adequate to meet requirements, additional pipe diameter, parallel or looping lines, or additional storage or pumping shall be provided to meet the requirements.
  - 2. Standards for fire flows shall be as follows:
    - a. The distribution system shall be designed for the following fire flows in addition to the maximum day rate:

**Table 7-304-B-2-a**

Population on System	gpm	Duration Hours
0 - 250	500	2
251 - 1,000	1000	4
1,001 - 2,000	1500	6
2,001 - 4,000	2000	8
4,001 - 6,000	2500	10
6,001 - 10,000	3000	10

- b. Each fire hydrant shall be assumed to flow 500 gpm in low density areas and 1000 gpm in high density or commercial/industrial areas. Fire flows shall be assumed to flow from hydrants or groups of hydrants which will produce the critical pressure on the system.
            - (i) The minimum size of the main on which fire hydrants are located shall be 6 inches in diameter.
            - (ii) All hydrants shall be fitted with National Standard threads unless other agreements are reached with the agency providing fire protection.
  - 3. The quality and materials specifications for all water systems must be submitted for review and are subject to the approval of the County Engineer. Proposed specifications should include the following:
    - a. The strength rating for distribution piping and fittings with fire flow demand is to have a minimum safety factor of four times the anticipated internal operating pressure.
    - b. The system is to be designed for a minimum service life of 50 years.
    - c. Sufficient cover to prevent freezing.
    - d. Dead-end mains are to be provided with a suitable means for flushing.
- C. New water systems shall be designed with sufficient treatment and storage capacity to serve the specified maximum hour demands for a period of 6 hours or a maximum day demand plus the required fire demand of the specified duration.

## 7-400 Sewage Treatment

- A. Boulder County Public Health shall be considered Boulder County's expert concerning the adequacy of the proposed sewage treatment system.
- B. In addition to the requirements of Boulder County Public Health the provisions of this article shall be used to evaluate the adequacy of the sewage treatment system intended to serve the proposed development.

## 7-401 Public Systems

- A. Every effort should be made to secure public sewer extension; however, where connections to an existing public sewer are not physically or economically feasible, a central collection system and treatment plant is preferred.
- B. The applicant must submit a letter of intent for service from the sanitation service at the time of sketch plan application with a contract for service prior to final plat recordation.
- C. For proposed developments within 2,000 feet of an existing sanitary sewer main, or in a community service area, the Board may require the subdivider to make provisions for the extension of service. This includes escrow funds for the installation of sewer mains and house connections in addition to the installation of temporary individual on-site sanitary disposal systems.
- D. Where the proposed development is within a community service area, individual on-site wastewater systems will not be permitted. Where sewer service is not available, a central treatment plant and collection system in accordance with appropriate municipal standards may be used.

## 7-402 Private Systems

- A. For private systems, the applicant will be required to submit formal plans to the County which will be reviewed by the Land Use Department, County Engineer, and County Public Health. The recommendations of these referral agencies will be given to the Planning Commission and the Board of County Commissioners.
- B. On-site Systems

Where individual or central on-site treatment systems are proposed, lots shall be laid out to provide a suitable treatment area for each lot or grouping of lots based upon criteria established by Boulder County Public Health.

1. Where leach fields are proposed, evaluation of suitable treatment area shall include soil suitability, well slopes, surface hydrology, and water table depth, including anticipated variation with time.
  - a. Percolation tests shall be sufficiently representative to reasonably assure that each lot will have a suitable treatment area.
  - b. Larger lots may be required due to the capacity of the proposed treatment system.
2. The applicant must contact Boulder County Public Health to determine specific problems in the general vicinity which might affect the proposed on-site wastewater systems.
3. For central systems, the applicant must submit engineering data to prove that each site in the development is capable of accommodating an on-site wastewater system or accommodating an alternative engineered system in accordance with Boulder County Public Health requirements.

## 7-403 Sewage Collection

- A. Collection systems shall be designed and sized in accordance with guidelines and requirements furnished by the sewage agency providing the service and Boulder County Public Health.
  1. Collection systems shall be sized to meet present and future demands of the proposed development.
  2. Oversizing for likely extensions may be required, with that oversizing to be paid for by future development.
  3. For situations where guidelines and standards are not available, those designs intended for use shall be submitted for review and are subject to approval by the County Engineer.
  4. Approval of the proposed system by the service agency is required where applicable as a condition of approval by the County Engineer.
  5. The constructed systems shall not permit infiltration rates in excess of 200 gallons per inch of diameter per mile of pipe per day, unless otherwise specified by the service agency.

## 7-500 Solid Wastes

Where suitable public or private solid waste storage and collection systems are not available to serve the proposed development, individual unit or group storage containers and/or container sites and periodic collection of containers may be required. Volume generation rates to be used in determining the size, number, and type of containers and frequency of pickup shall be subject to approval by the County Engineer.

## 7-600 Subdivision Roads

### 7-601 Continuation of Roads and Dead End Roads

- A. The following shall apply to dead end roads and roads which will be continued.
  1. The arrangement of roads shall provide for the continuation of major roads between adjacent properties when the continuation is necessary for the convenient movement of traffic, effective fire protection, or for efficient provision of utilities.
    - a. If the adjacent property is undeveloped and the road must be temporarily dead-ended, right-of-way shall be extended to the property line, and the construction and maintenance of a turnaround of approximately 80 feet in diameter may be required for temporary use, with plat notation that land outside the normal road right-of-way shall revert to abutting property owners whenever the road is continued.
  2. Where a road does not extend to the boundary of the development, and its continuation is not required for access to adjoining property, its terminus should be no closer than 50 feet to the boundary.

### 7-602 Reserve Strips

- A. Reserve strips in the form of one foot outlots may be required to control or restrict access to perimeter or stub roads.
- B. Such strips shall be utilized only where their ownership and control is accepted by the public agency having jurisdiction.
- C. The outlots should be deeded to the public agency at the time of recordation of the final plat.

### 7-603 Private Roads

- A. The use of private roads, which meet the specifications contained in the Transportation Standards, is encouraged and is permitted upon review by the Planning Commission and approval by the Board of County Commissioners.
- B. Private roads shall be designed to discourage use by the general public.

### 7-700 Reserved

### 7-800 Reserved

## 7-900 Drainage

- A. The 2016 Storm Drainage Criteria Manual (SDCM), available from the County Engineer, shall be the authoritative reference for drainage and is incorporated into the Land Use Code by this reference. The Urban Storm Drainage Criteria Manual, available through the Urban Drainage and Flood Control District, may be used as an authoritative supplement. The Transportation Standards shall be used for design standards and specifications.
- B. Complete drainage systems for the entire development area shall be designed by a professional engineer, licensed in the State of Colorado.
- C. All drainage plans required to be submitted as part of a land use application under this Code must comply with the SDCM. The drainage system plan shall be depicted graphically identifying all existing drainage features which are to be used; all proposed surface drainage structures; and all appropriate designs, details, and dimensions necessary to clearly explain proposed construction materials and elevations.
- D. Development proposed within a Floodplain Overlay District, shall be capable of receiving a floodplain development permit from the County Engineer prior to receiving final approval.
- E. Land which is subject to a possible upstream dam failure shall not be developed unless the potential flooding condition is alleviated according to plans approved by the County Engineer, unless otherwise approved by the State Engineer.
- F. Storm drainage systems shall be separate and independent of any sanitary sewer system and shall be designed in compliance with the following requirements:
  1. The drainage system shall be designed to consider the drainage basin as a whole and shall accommodate not only runoff from the development area but also, where applicable, the system shall be designed to accommodate the runoff from those areas adjacent and upstream from the development itself, as well as its effects on lands downstream.
  2. If a development is proposed in phases, a general drainage plan for the entire area shall be presented with the first phase and appropriate development stages for the drainage system for each section shall be indicated.

## 7-901 Drainage Easements

- A. Dedication to the County of a storm water or drainage easement or right-of-way may be required if a proposed development is traversed by a watercourse, drainageway, channel, stream, water supply ditch, or canal. This right-of-way shall conform to the lines of such watercourse, and be of such width and construction as will be adequate for the purpose of maintenance, and the exclusion of improvements of the type which would interfere with runoff.
  1. Where possible, the drainage shall be maintained by an open channel with rip-rap or grass lined banks, or such channel design that is in accordance with the SDCM. This channel shall be of adequate width for maximum potential volume off flow.
  2. The minimum requirements for such easements or rights-of-way shall be based on a base flood, but shall not be less than 20 feet in width.
  3. Where topography or other conditions are such as to make impractical the inclusion of drainage facilities within road rights-of-way, perpetual unobstructed easements at least 20 feet in width for such drainage facilities shall be provided across property outside the road lines and with satisfactory access to the road. Drainage easements shall be carried from the road to a natural watercourse or to other drainage facilities.
  4. When a proposed drainage system will carry water across private land outside the development, appropriate drainage rights must be secured and indicated on the plat or the site plan.
  5. Low-lying lands along watercourses subject to flooding or overflowing during storm periods, whether or not included in areas for easement dedication, shall be preserved and retained in their natural state as drainage ways.
  6. Provision for the maintenance of such drainage areas shall be included as part of the development approval.

## 7-902 Water Table

- A. The following provisions shall apply to areas of high ground water. Stipulation may be required as part of the development agreement to mitigate problems associated with ground water.
1. In cases where the water table is proposed to be artificially lowered, the design water table must be determined prior to the completion of the subdrain system. Confirmation of the lowering of the water table must be made after construction. Also, provisions must be made for maintenance of the subdrain system, including funds for maintenance, as well as individual or group responsibility for on-going maintenance.
  2. The following shall apply to buildings with basements:
    - a. the finished basement floor elevation shall be six inches or more above the design water table; and
    - b. where the finished basement floor elevation ranges from six inches to two feet above the design water table, the basement shall be equipped with a peripheral subdrain which flows to a sump or sumps, daylight, or other approved point.
    - c. In each case the ultimate discharge point for peripheral Subdrain shall be reviewed and approved in conjunction with subdivision approval.
    - d. Acceptable ultimate discharge points include:
      - (i) at-grade on lots larger than one acre provided that water will not flow onto adjacent property;
      - (ii) buried storm drainage systems provided that freezing will not be a problem; and
      - (iii) major natural waterways.
    - e. Unacceptable discharge points include:
      - (i) roadside ditches
      - (ii) street gutters
      - (iii) at-grade on lots one acre or smaller and adjacent property
    - f. Where the finished basement floor elevation is more than two feet above the design water table, no special requirements for subdrainage shall be imposed.
  3. In relevant cases as described above, where the elevation of the design water table is within 10 feet of the pre-construction grade at the building site then the development agreement shall provide for the following:
    - a. the elevation of the design water table shall be shown on structural plans submitted with the building permit application
    - b. the elevation of the finished basement floor shall be shown on the structural plans submitted with the building permit application
    - c. a licensed surveyor shall certify that the basement floor was constructed at the elevation specified on the approved structural plans as a precondition for issuance of the certificate of occupancy.
  4. Crawl spaces shall be permitted only where the design water table is a minimum of three feet below the interior finished crawl space grade.
  5. In cases where the artificial lowering of the water table may interfere with established water supplies, water rights, and/or aquatic environments, the County may prohibit such lowering.

## 7-903 Erosion and Sediment Control

- A. If the plans for development entail the potential to cause erosion, a soil erosion and sedimentation plan shall be submitted for the County's review and acceptance.
- B. The plan shall include good engineering, hydrologic, soil restoration and revegetation and pollution control practices as outlined in the County's Storm Drainage Criteria Manual, Urban Storm Drainage Criteria Manual, Volume 3 – Best Management Practices, or the Colorado Department of Transportation's Water Quality Control standards.
- C. Installation of erosion and sediment control measures is required prior to beginning construction, and may be required to be maintained post-construction, as necessary.
- D. Financial guarantees may be required if deemed necessary to secure performance and may include provisions for enforcement of both the permanent and temporary erosion and sediment control facilities.

## 7-904 Stormwater Quality Management Permit Requirements

- A. Purpose/Intent** The intent of this section is to protect and enhance the water quality of Boulder County's watercourses and waters of the state; comply with and implement the Clean Water Act, the Colorado Water Quality Control Act including the state Water Quality Control Division's ("WQCD") Colorado Discharge Permit System ("CDPS") Stormwater Management Program, and related County water quality and land use authority; and provide for the health, safety, and welfare of Boulder County citizens by controlling the discharge of construction activity-generated stormwater to the municipal/county separate storm sewer system (MS4) from within the County's unincorporated Urbanized Area (or such other permit area as may be as authorized under the County's CDPS General Permit issued by the state WQCD), and to state waters located within or flowing from the unincorporated County generally. The objectives of this section are therefore to:
1. Regulate the contribution of stormwater-conveyed pollutants to the MS4 (under the County's CDPS General permit), and more broadly to state waters located within or flowing from the unincorporated County, generated from construction activity and development;
  2. Reduce pollutants in stormwater discharges from construction activity by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity that disturbs or breaks the topsoil or results in the movement of earth or land;
  3. Require the installation of temporary and permanent stormwater runoff controls and best management practices ("BMPs") to prevent the deterioration of water quality related to stormwater discharges from construction activities and sites;
  4. Provide reliable mechanisms to assure the effective, ongoing maintenance of required permanent BMPs;
  5. Maintain structural stormwater control facilities and nonstructural stormwater management practices so that they continue to function as designed and do not threaten public safety;
  6. Establish procedures for monitoring, inspection, and enforcement as necessary to ensure compliance with County stormwater regulations; and
  7. Facilitate compliance with water quality-related state and federal standards and permits.
- B. Applicability**
1. This section applies to all stormwater entering the County's MS4 storm drainage system, and other waters of the state located within or flowing from unincorporated Boulder County, generated from construction activity on any developed or undeveloped lands within the unincorporated County, as provided by this section, unless exempted.
- C. Responsibility for Administration**
1. The County Engineer shall administer, implement, and enforce the provisions of this section.
- D. Requirements for Stormwater Quality Permit; Limited Permit Exemptions**
1. A stormwater quality permit from the County Engineer is required for construction activity resulting in the following total disturbed area:
    - a. One acre or more; or
    - b. Less than one acre if construction activity is part of a larger common plan of development, even if multiple, separate and distinct land development activities may take place at different times on different schedules, so long as the common plan will ultimately disturb one acre or more.
  2. The County Engineer may require a stormwater quality permit regardless of the size of the total disturbed area, in conjunction with approval of a final subdivision plat, special use permit, or other site specific development plan under this Code, or if the construction activity is adjacent to a watercourse or wetlands.
  3. Agricultural land management activities, except point source discharges subject to National Pollutant Discharge Elimination System ("NPDES") or CDPS stormwater permitting requirements, are exempt from this section.
  4. A Special Review permit authorizing oil and gas operations subject to a stormwater control plan approved under Article 12-700 or 12-701 of this Code shall be considered the equivalent of a County Engineer stormwater quality under this Article 7-904 and a separate permit application under this Article 7-904 for such operations shall not be required. .
- E. Application Requirements**
1. Applications for stormwater quality permits shall be filed on a form prescribed by the County Engineer. A complete application shall include:
    - a. Signature by the landowner or the owner's authorized representative, and identification of the operator and other persons responsible for compliance with the permit. The County Engineer shall have the discretion to require that persons identified as operators, or other persons who are known at the time of application as being responsible for implementation of any approved permit, sign the application as applicants.

- b. Documentation of an application for a Colorado Department of Public Health and Environment (“CDPHE”) stormwater general permit for construction.
- c. A Stormwater Management Plan (“SWMP”) including but not limited to the following:
  - (i) Best Management Practices (“BMPs”) to be installed on a temporary basis as necessary to control stormwater discharges from the construction site both prior to and during construction;
  - (ii) A site plan or plans depicting the affected site in sufficient detail to show significant site features (natural and manmade), areas proposed to be disturbed and developed, existing easement areas and restricted development areas, and locations of proposed temporary BMPs; and
  - (iii) Identification of any affected MS4 or waters of the state anticipated to receive stormwater discharge from the site.
- d. For construction activity within the Urbanized Area, a final drainage plan including a narrative describing proposed permanent BMPs and methods for their perpetual maintenance, identification of the parties responsible for perpetual maintenance of proposed permanent BMPs, a site plan showing locations of the proposed permanent BMPs, and, as required by the County Engineer, engineered drawings or design schematics for proposed permanent BMPs.
- e. All BMPs designed to meet the requirements of this section shall generally comply with the Urban Drainage and Flood Control District’s Urban Storm Drainage Criteria Manual, Volume 3 – Best Management Practices; the Colorado Department of Transportation’s (“CDOT”) “Erosion Control and Stormwater Quality Guide,” or any other alternative methodology, which is demonstrated to be effective and approved by the County.
- f. All other information deemed necessary for the adequate processing of the application, as required in the discretion of the County Engineer.
- g. Payment of a permit fee in an amount determined by the County Engineer as reasonably necessary to defray the costs of administering the County’s stormwater quality program under this section.

**F. Application Approval and Permit Requirements**

1. Within thirty (30) working days after receipt of a complete stormwater quality permit application, the County Engineer shall make a decision on the submitted application. The County Engineer may extend the 30 days for a reasonable period of time if, during the review process of the complete application, the County Engineer discovers problems or deficiencies requiring additional information to be provided or a response from the applicant or related agencies or interested parties. The County Engineer shall notify the applicant in writing of any such extension and the problems or deficiencies involved, and shall attempt to make a decision as soon as reasonably possible after the initial 30 days. Failure of the County Engineer to issue a decision within the specified time period shall not result in the application being automatically approved as submitted, and the County Engineer shall retain jurisdiction to make a decision on the application at the soonest possible time.
2. If the County Engineer determines that insufficient information has been provided to make a decision on the application, or that the application as submitted cannot adequately reduce the discharge of pollutants to the maximum extent practicable and protect water quality, the County Engineer shall deny the application. If a permit is denied, the County Engineer shall notify the applicant in writing of the grounds for denial, and if appropriate shall suggest corrective actions that may be taken to obtain a permit.
3. If the County Engineer determines that the application is adequate to reduce the discharge of pollutants to the maximum extent practicable and protect water quality, the County Engineer shall approve the application, and issue the stormwater quality permit, including any reasonable conditions to mitigate conditions specific to the site, provide for the adequate installation and maintenance of temporary and permanent BMPs, and allow for reasonable adjustments in required BMPs in response to changing or unanticipated conditions in the field. Any approved permit shall also contain the following standard operating requirements:
  - a. The permittee must keep the accepted SWMP on site at all times and shall make the SWMP available for County Engineer inspection upon request.
  - b. The permittee shall provide timely installation and maintenance of all required temporary BMPs required in the SWMP. Nonfunctioning, damaged, or destroyed BMPs shall be repaired or restored immediately. All BMP maintenance, repair, and restoration work shall be documented on the accepted SWMP required to be kept on site and available for County Engineer inspection.
  - c. The responsibility to maintain and reconstruct or repair all BMPs, both temporary and permanent, shall run with the land and be binding on subsequent owners. Permanent BMPs, which shall be required for construction activity in the Urbanized Area, shall be maintained in perpetuity.
  - d. The permittee shall inspect all temporary BMPs at least every 14 days and within 24 hours after any precipitation or snowmelt event that causes surface runoff. An erosion control supervisor (“ECS”) must conduct all BMP inspections and keep a detailed record of same, as part of the SWMP required to be kept on site and available for County Engineer inspection.
  - e. When the County Engineer deems it necessary for the reasonable implementation of this section, the County Engineer may require the provision of a financial guarantee to assure required performance under the permit.

- (i) The financial guarantee shall be in the form of an acceptable letter of credit with a banking institution in the State of Colorado, or a cash deposit.
  - (ii) The amount of the financial guarantee may include warranty collateral to assure the performance of the required improvement for an appropriate period after completion or acceptance.
  - (iii) The amount and term of the guarantee and provisions for its release shall be in the reasonable discretion of the County Engineer.
- f. By accepting the issued permit, the permittee consents, both for itself and its successors in interest, to allow the County Engineer and associated County agents access to the property which is the subject of the permit, for purposes of inspecting compliance with the permit including its approved SWMP, approved final drainage plan, and all required BMPs, both temporary and permanent. County access may occur at any time for this purpose and without prior notice to the permittee, including the landowner, operator or any responsible party under the approved permit, so long as the permit is active or BMPs or other requirements under the permit are required to be met or maintained.
- g. In instances where the County Engineer has reason to believe that an unannounced inspection is not necessary to assessing compliance, the County Engineer may provide prior notice of a forthcoming inspection to the permittee.
- h. The County Engineer shall record any approved permit in the real property records of Boulder County, to provide notice to subsequent owners or persons in interest of the requirements of the permit, of the ongoing obligation to maintain permanent BMPs, and of the County Engineer's right of entry for inspection and enforcement purposes under the permit without prior consent of the permittee (including the landowner, operator, or other responsible party under the approved permit). Recordation of a permit cover sheet or of the permit itself, without all approved plans or attachments, shall be considered adequate notice of the full contents of the permit, so long as the material recorded indicates that the full permit file can be located in the official records of the County Engineer.
- G. Changes to Issued Permit; Required Permit Amendments**
1. Upon receipt of a stormwater quality permit, the permittee may make minor modifications to the SWMP and its approved temporary BMPs. To qualify as a minor change, the permittee must document that the change is necessary to provide equivalent water quality protection while still fulfilling the purposes of this section and not increasing adverse water quality impacts. The permittee shall promptly record all minor modifications on the SWMP required to be kept on site and available for County Engineer inspection.
  2. Whenever there is a change to the accepted SWMP or any other aspect of an approved permit involving design, construction, operation, or maintenance which has the potential to cause a reduction in water quality protection or have a significant effect on hydrology or stormwater discharge from the project or site, this shall be considered a substantial modification to the approved permit, and may not proceed unless the County Engineer first approves an amendment to the permit filed and processed in accordance with the permit application procedures specified in this section, above. In the alternative, the permittee may request that the County Engineer determine whether a proposed change is minor or substantial in accordance with the considerations specified in this section. The County Engineer may impose reasonable terms and conditions on any approval of the proposed change as minor, to assure that the change is not substantial and otherwise complies with the issued permit and this section, which terms and conditions shall become part of the issued permit.
- H. County Confirmation of Compliance with Issued Permits; Ongoing Requirements To Maintain Permanent BMPS**
1. Upon completion of the construction or development covered by a stormwater quality permit, the permittee shall request that the County Engineer perform a final inspection to confirm compliance with the accepted SWMP and all other requirements of the permit related to controlling stormwater and other construction site discharges prior to and during construction.
  2. If the approved permit requires the construction and maintenance of permanent BMPs, those BMPs must be installed at the time of final inspection, or an additional financial guarantee meeting the terms of subsection 7-904.F.3.e, above, must be provided, as required by the County Engineer, to assure such performance. The permittee must provide "as built" plans, certified by a Colorado licensed Professional Engineer, for any required permanent BMP within 30 days after BMP construction is completed or such other time period specified in the permit by the County Engineer.
    - a. As a condition of approval of the permit and its required permanent BMPs, the permittee shall agree to maintain the BMPs to their design capacity in perpetuity, unless the BMP facility is dedicated to and accepted by the County for ownership and maintenance.

- b. The obligation to maintain permanent BMPs shall be memorialized on the subdivision plat, annexation plat, development agreement, or other binding agreement or instrument in a form acceptable to the County Engineer, that shall be binding on all subsequent owners of the permanent BMPs and recorded in the office of the County Clerk and Recorder. Permanent BMPs included in a final drainage plan and as depicted in the submitted as-built plans must undergo ongoing inspections to document maintenance and repair needs and to ensure compliance with the requirements of the ongoing BMP maintenance agreement. Continuing permittee and owner (or other responsible party) consent for the County Engineer to enter the property or site to inspect permanent BMPs for required operation and maintenance, shall be considered to be provided as part of the stormwater quality permit issuance, as provided in subsection F.3., above.
- c. Any person who transfers ownership of land on which BMPs are located or will be located, or who otherwise transfers ownership of BMPs or responsibility for the maintenance of BMPs to another person or entity, shall provide written notice to the County Engineer within 30 days after such transfer and shall also provide clear written notice of the maintenance obligations associated with the BMPs to the new or additional owner prior to that transfer. Failure to provide proper notice will not absolve any person from meeting the requirements of this section.

**I. Enforcement and Penalties**

1. **Violation:** It is unlawful for any person to violate any provision of a stormwater quality permit or fail to comply with any of the requirements of this section. Any person who violates any of the provisions of this section may be subject to one or more of the enforcement actions outlined below.
2. **Enforcement:** All personnel authorized by the County Engineer shall have the power to conduct inspections, give verbal direction, issue notices of violations, perform abatement actions, seek judicial permission and relief, and implement other enforcement actions under this section or as otherwise authorized by law.
3. **Right of Entry To Investigate Suspected or Known Violations:** Whenever the County Engineer has reason to believe that there exists or is likely to exist any condition which constitutes a violation of this section, the County Engineer shall have the right to enter the subject property at any reasonable time to inspect and determine whether a violation exists.
  - a. **Consent for Entry, or Administrative Search Warrant, Required:** Before entering any property, the County Engineer shall make a reasonable effort to locate the owner and obtain consent to enter. If such consent cannot be obtained, the County Engineer may seek entry by submitting a sworn affidavit to the proper court of jurisdiction, setting forth facts sufficient to support a reasonable belief that a violation exists or is likely to exist and that further investigation of the property is thus warranted. Such request for entry may include the right for the County Engineer or its designees to set up devices on the property, conduct sampling, take photographs, or perform other investigations deemed reasonably necessary to investigate the alleged violation or assess the effect of any unauthorized erosion or discharges.
  - b. **Consent for Entry, or Administrative Search Warrant, Not Required:** Consent to enter or an administrative search (inspection) warrant shall not be required if entry is authorized under an existing stormwater quality permit or other prior authorization of the owner or permittee; to make observations from public property, other private property, or portions of the subject property that are open or accessible to the public or in which the owner otherwise lacks a reasonable expectation of privacy; or where the County Engineer deems an emergency situation to exist which imminently threatens the public health or safety.
4. **Notice of Violation:** If the County Engineer determines that a violation of this section exists and exercises discretion to pursue enforcement, the County Engineer shall provide written notice, in letter or electronic form, to the property owner of record, and to any known permittee or operator if different from the owner. The notice shall describe the alleged violation, the steps required to abate the violation, and a reasonable timetable for compliance.
5. **Stop Work Order:** The County Engineer may also, in writing sent to or served on the property owner and/or permittee or operator, order that the activity constituting a violation be stopped until further notice from the County Engineer. If the owner and/or operator or permittee cannot be located, the notice to stop shall be posted in a conspicuous place upon the area where the activity is occurring and shall state the nature of the violation. It shall be unlawful for any owner and/or operator or permittee to fail to comply with a stop work order.
6. **Judicial Enforcement Remedies Generally:** If compliance is not timely achieved, the County Engineer or County Sheriff, as applicable, may enforce this section in any court of competent jurisdiction, seeking civil or criminal remedies, as appropriate, and relying on any applicable legal enforcement authority, including but not necessarily limited to county zoning regulatory enforcement under C.R.S. Sections 30-28-124 and 30-28-124.5; county building code enforcement under C.R.S. Section 30-28-209; and county ordinance enforcement under Part 4 of Article 15 of Title 30, C.R.S. In addition, any condition caused or permitted to exist in violation of this section is a threat to public health, safety, and welfare, and is declared and deemed a public nuisance, with any court of competent jurisdiction empowered to enjoin such violations upon proof thereof. In any such action the County may recover its costs and attorneys' fees, and collect applicable penalty assessments, as authorized by law.

7. Judicial and Penalty Assessment Enforcement Remedies under County Ordinance Powers (C.R.S. Sections 30-15-402-410, including the simplified county court procedures of Part 1 of Article 2 of Title 16, C.R.S., and the penalty assessment provisions of C.R.S. Sections 16-2-201 and 18-1.3-503): Any person who violates a county ordinance adopted pursuant to Part 4 of Article 15 of Title 30, C.R.S., commits a class 2 petty offense under state law which shall be punished by a fine of not more than one thousand dollars for each separate violation. Each day that a violation is proven to exist may be considered a separate offense. Under this authority, the Board of County Commissioners adopts the following graduated fine schedule: \$500 for the first violation, and \$1,000 for the second or repeat violations. Pursuant to C.R.S. Section 16-2-201, the arresting officer may give the violator a penalty assessment notice, or a summons and complaint may be issued pursuant to the simplified county court procedures of Part 1 of Article 2 of Title 16, C.R.S. The County Engineer and official designees are hereby designated to enforce the ordinance provisions of this section as authorized in C.R.S. Section 30-15-402.5, and the County Sheriff is empowered to enforce county ordinance provisions under C.R.S. Section 30-15-410.
  8. Administrative Remedy of Abatement of County Ordinance Violation under C.R.S. Section 30-15-401(11): Any violation that the County Engineer determines is part of the County's stormwater quality management program required by the County's Municipal Separate Storm Sewer System (MS4) CDPS General Permit issued by the state WQCD, and that the owner, operator or permittee fails to abate following notice of violation provided as required under this section, may be administratively abated by the County in accordance with C.R.S. Section 30-15-401(11), as incorporated herein. The following provisions shall govern such proceeding:
    - a. The County Engineer shall seek an administrative entry and abatement (seizure) warrant from the county or district court having jurisdiction over the property from which the violation is to be abated, which the court shall issue upon the County Engineer's presentation of this section (which has been adopted as a C.R.S. Section 30-15-401(11) ordinance); a sworn or affirmed affidavit stating the factual basis for the warrant; evidence that the property owner has received notice of the alleged violation and has failed to abate the condition within the reasonable prescribed period; a general description of the location of the subject property; and a general list of corrective action needed.
    - b. Within ten (10) days after the date of issuance of the administrative entry and abatement (seizure) warrant, the County Engineer shall execute the warrant in accordance with the directions by the issuing court; provide or mail a copy of the warrant to the property owner; and submit proof to the court of execution of the warrant, including a written inventory of any property impounded by the County Engineer.
    - c. Upon completion of these requirements, the County Engineer may assess the reasonable cost of the abatement, including five percent for inspection and other incidental costs in connection with the abatement, upon the subject property, by recording a notice of such assessment with the County Clerk and Recorder. The notice shall specify the basis for and amount of the assessment, and a reasonable time within which the assessment must be paid to the County, which generally shall be within thirty (30) days unless the County Engineer determines a longer or shorter payment period is reasonable.
    - d. Once recorded, the assessment notice shall be a lien against the subject property until paid, and shall have priority based upon the date of recording. If the assessment is not paid within the time specified in the notice, the County Clerk and Recorder, upon request of the County Engineer or other responsible County official, may certify that fact to the County Treasurer, who shall collect the assessment, together with a ten (10) percent penalty for the cost of collection, in the same manner as taxes are collected. State law for assessment and collection of general taxes, including the laws for the sale and redemption of property for taxes, shall apply to the collection of the assessment authorized in this section.
  9. Remedies Not Exclusive: The remedies listed in this chapter are not exclusive of any other remedies available under any applicable federal, state or local law, and the exercise of any remedy specified herein shall not necessarily prejudice the pursuit of other listed remedies. It is within the discretion of the County Engineer to seek cumulative remedies.
- J. Administrative Appeals
1. Any person aggrieved by the inability to obtain a stormwater quality permit under this section, or by the County Engineer's final decision on an issued permit or interpretation of the provisions of this section, may file an administrative appeal with the Board of County Commissioners. An appeal must be filed in writing with and received by the County Engineer no later than thirty (30) days after the final action or decision being appealed. Upon receipt of an appeal authorized in this section, the County Engineer shall schedule a public hearing before the Board of County Commissioners on the appeal at the soonest time practicable, considering the Board's schedule, staff time needed to prepare a presentation on the appeal, the issues presented in the appeal, and timing concerns of the appellant.
  2. Notice of a Board of County Commissioners' hearing on the appeal shall be published in a newspaper of general circulation within the County, and provided to the appellant, no later than fourteen (14) days prior to the hearing.

3. At the hearing, the Board shall consider the documents and testimony presented by the appellant and its representatives, the County Engineer, any other involved County staff, and any interested members of the public. The Board shall make a decision based on the entire record before it, either affirming in whole or in part, or overturning, the decision of the County Engineer. The Board's decision shall be considered final upon the Board's adoption of a written resolution memorializing its decision at the public hearing.

**K. Related Provisions**

1. In addition to requirements in this section, stormwater quality and discharge of pollutants into the municipal separate storm sewer system (MS4, or County storm drain system) are subject to regulation under Boulder County Public Health's Ordinance 2012-4, "An Ordinance Concerning Illicit Discharge and Stormwater Quality."
2. Other permits or approvals under this Code, and related regulations of the County, such as those of the Transportation Department and County Public Health, may be necessary before construction or development can commence.

## 7-1000 Water Supply Ditches

- A. An easement must be platted for any existing ditch or lateral.
- B. The following provisions shall be required for the handling of irrigation ditches traversing areas proposed to be subdivided for development.
  - 1. Existing ditches must be accurately located on the plat by appropriate survey data. The preliminary plan must show the top of ditch banks relative to easement limits proposed.
  - 2. The written approval of the ditch owner or representative may be required for any proposed modifications of a ditch at the sketch plan and preliminary plan phases of the subdivision process. Written approval of final plans for such uses shall be required for final plat approval.
  - 3. Where the County Engineer determines that extraordinary requirements are proposed by a ditch company as conditions of subdivision approval, the County Engineer may recommend that the Board of County Commissioners approve other requirements.
  - 4. Irrigation ditches are not to be realigned unless expressly approved by the Division Engineer and then the realignment is to be in a manner approved by the ditch owner and the County Engineer.
    - a. Ditch realignments shall be referred to the Soil Conservation Service for review and comment during review of the preliminary plan.
  - 5. Prior to county acceptance of any public improvement located within the ditch easement, the applicant shall provide a certificate of clearance from the appropriate official of the ditch company to the effect that all work required as a condition of plat approval has been satisfactorily performed.
  - 6. Road crossings over a public water course or ditch shall be bridged or culverted in a manner consistent with the County's requirements, standards, and specifications and in accordance with the hydraulic requirements of the ditch company.
    - a. The ditch company shall be consulted regarding all proposed ditch crossings and written consent of the ditch company may be required by the County Engineer for such crossings.
  - 7. The ditch easement shall extend the length of the ditch through the subject property and the size of the ditch easement shall be based on the following:
    - a. The minimum ditch easement shall be the area between the ditch banks, as measured between the top of each ditch bank plus 15 feet on one side of the ditch and five feet on the other side of the ditch to provide for vehicular access and maintenance activities.
      - (i) The side with 15 feet is to be such that continuous vehicular access along the length of the ditch can be provided.
      - (ii) The top of the ditch is considered to be the lowest point, as measured at any cross-section, at which water could not overflow.
    - b. Additional easement width may be required where the ditch company can demonstrate the legal right for the additional width in order to continue the historic maintenance and/or use of the ditch.
    - c. Additional easement width may be required where there is a dedication of land paralleling the ditch easement for a needed public purpose.
    - d. Except where otherwise provided, the ditch easement shall be an exclusive easement for the use of the ditch company. Exceptions to an exclusive easement will be at road rights-of-way, along trails or bikeways and where drainage and other utility easements are overlapping.
  - 8. Notwithstanding the width of the ditch easement proposed by the developer, within the specifications of this Section, or approved by the Board of County Commissioners, the ditch company may have rights to an easement or right-of-way which is larger in size either under the rules of adverse possession and prescription, or under applicable state or federal law existing at the time the ditch was constructed. Activities of the County or subdivider are not intended to annul or abridge these rights.
  - 9. Unless otherwise approved by the County Engineer and the applicable ditch company, ditches are not intended to be used as drainage facilities.
  - 10. If the Board determines the existence of a ditch through a proposed development may result in improper use of that ditch for recreational purposes by residents of the development, then the developer may be required by the Board to take protective measures.

## 7-1100 Fire Protection

- A. It is the intent of Boulder County to work with the Fire Protection Districts and Fire Departments in the County to assure the highest level of fire protection service that is available and reasonable.
- B. To work towards a reasonable level of fire protection the following requirements apply:
  - 1. Where a central water system is provided, fire hydrants shall be provided in all developments and shall be separated by no more than 600 feet. No dwelling shall be more than 300 feet from the nearest hydrant.
  - 2. Fire fighting water sources for the proposed development shall meet the requirements set forth in the National Fire Protection Association, National Fire Code, or the specific fire code regulations as jointly adopted by Fire Protection Districts and the Board.
  - 3. In areas that cannot meet the distance and time requirements a local water source shall be provided. The source may be either a lake or pond with an all weather access or a cistern. Cisterns shall be connected to a water source in such a manner that they will be constantly maintained at full available capacity.
  - 4. Capacity of cisterns shall be based on the requirements set forth in the National Fire Code, as cited in Section 7-1100(B)(2), above.
  - 5. Cisterns or other similar systems will not be allowed without an adequate backup water supply source.
  - 6. Storage systems that require recharging by hauling of water will not be permitted unless there is no suitable alternative and binding provisions are made for recharging.
  - 7. Written approval from the applicable fire agency is required if on-site storage is to be waived.
  - 8. When fire protection facilities are to be installed by the developer, such facilities including all surface access roads shall be installed and made serviceable prior to and during the time of construction.
  - 9. Subdivision agreements or other documents shall provide for continued maintenance of fire protection systems and means of enforcement by Boulder County.
- C. Fire Hazard Areas
  - 1. Additional fire precaution measures may be required because of fire hazard in the following areas:
    - a. areas rated as fire hazards by the State of Colorado Forest Service;
    - b. where slopes in or adjacent to proposed developments are in excess of 20%; or
    - c. where the local fire protection agency identifies a specific fire danger.
  - 2. In these areas all slash (fallen trees, shrubs, pulled stumps, and other combustible materials) may be required to be disposed of from an area extending to at least 150 feet from the road centerline prior to the acceptance of any roads.
  - 3. All slash must also be removed from the vicinity of the home sites prior to final building inspection.
  - 4. A forest management program for the reduction of wildfire danger may be required, including provisions for continuous proper forest management to maintain a low wildfire danger.
  - 5. The Board may require other mitigation efforts as conditions of final approval where there is the determination that these efforts will reduce the recognized fire hazard.
  - 6. A development proposal shall be referred to the appropriate fire protection experts as part of the development review process.

## 7-1200 Utility Location

- A. Utilities include, but are not limited to water, sewer, gas, electric power, telephone and cable television.
- B. The following shall apply to the location of utility services.
  1. All utility facilities shall be located underground throughout the development except in situations or locations where undue hardship result from compliance with this requirement and the overriding intent of this Code has been demonstrated. All utility lines, including appurtenances, shall be placed either within public road rights-of-way or within the subdivision easements or rights-of-way provided for the particular facilities in accordance with the approved utility service plan.
  2. Easements shall be free from conflicting legal encumbrances, avoid unnecessary removal of trees or excessive excavations, and be reasonably free from physical obstructions.
    - a. Easements centered on common rear lot lines shall be at least 16 feet wide.
    - b. Where an easement abuts a rear lot line which is not the rear lot line of another lot, or which is on the perimeter of the development, the easement width shall be 10 feet or more.
    - c. Where easements are combined with a water course, drainage way, channel, or stream, an additional utility easement of at least 10 feet in width shall be provided if the use would be in conflict with drainage requirements or wetlands.
    - d. Multiple use of a given easement is encouraged to minimize easements.
    - e. Where topographical or other conditions are such as to make impractical the inclusion of utilities within the rear lot lines, perpetual unobstructed easements at least 10 feet in width shall be provided along side lot lines with satisfactory access to the road or rear lot lines. Easements shall be indicated on the plat.
  3. In all cases, the applicant shall work with the utility companies to provide reasonably sized easements in appropriate locations.
- C. The final plat shall note all easements.
  1. Ditch easements shall, in general, be dedicated to the ditch company.
  2. Public utility easements, drainage easements, etc., including all easements that are for the benefit of the public, unless otherwise indicated on the plat, shall be dedicated to Boulder County.
    - a. These easements are the property of Boulder County.
    - b. The County shall act as custodian of the easements and may limit the use of such easements to the purposes indicated on the plat.
    - c. The use or uses for each easement shall be designated on the plat to avoid use conflicts.
  3. Permits for construction within the easements may be required by the Board of County Commissioners.
  4. After review by public utilities, or other service providers, providing designated services to the area in and around the development, the Board of County Commissioners may vacate platted easements after review of the vacation by the Planning Commission.

## 7-1300 Dedication Requirements

- A. The Board of County Commissioners, after review by the Planning Commission, may require the dedication of sites and land areas within a development which are deemed necessary to serve the residents of that proposed subdivision or development.
- B. In lieu of a dedication of sites and land areas, the Board of County Commissioners, after review by the Planning Commission and with advice from the potential receiving body, may require payment of a sum of money not exceeding the full market value of such sites and land areas or combination of such land dedication and such payment.

## 7-1301 Dedicated Land

- A. All dedicated lands shall be designated on the final plat as outlots.
  - 1. Outlots shall be deeded to Boulder County or other appropriate agency at the time of recordation of the final plat.
  - 2. Disposition of the outlots shall be shown on the face of the final plat.
- B. Title insurance, acceptable to Boulder County, which is provided by a title insurance company authorized to do business in the State of Colorado, and a certificate of representations and warranties concerning title and usability of the property on a form provided by Boulder County shall be required at the time of recordation of the final plat.

## 7-1302 Required Transportation Dedications

- A. The following shall be required for development.
  - 1. All transportation facilities, including but not limited to roads, streets, alleys, shared use pathways, or other public transportation ways located within the subject property, the benefit of which is to the current or future residents of the subject property, shall be dedicated as public rights-of-way unless specifically approved as private rights-of-way and so designated on the plat or exemption documents.
  - 2. In addition to any other dedication requirements of this Article, land shall be dedicated to Boulder County for rights-of-way for perimeter transportation facilities.
  - 3. Where, in the opinion of the County Engineer, a development will have an adverse impact on the Boulder County transportation system, the applicant may be required by the Board to make necessary improvements to the impacted facilities as a condition of plat approval.
    - a. The Board may establish a special area road improvement fund applicable to impacted areas requiring improvement.
    - b. Any land being subdivided in one of these areas shall be required to make appropriate payment to the fund or establish the means for such payment through the development agreement.
- B. The following shall pertain to road dedications and reservations.
  - 1. New perimeter street systems in new subdivisions shall be laid out so as to eliminate or avoid new perimeter half-streets. Where an existing half-street is adjacent to a new subdivision, the other half of the street shall be improved and dedicated by the subdivision developer. The Board of County Commissioners may authorize a new perimeter street where the subdivision developer improves and dedicates the entire required street right-of-way width entirely within the subdivision boundaries.
  - 2. When, due to topography, hazards or other design constraints, additional road width is necessary to provide for the public safety by cut and/or fill area, drainage area or other road appurtenances along roads, then dedication or right-of-way in excess of the minimum standards shall be required.
- C. Refer to the Transportation Standards for dedication details.

## 7-1303 Required Park Dedications

- A. The following shall be required for subdivisions and exemptions.
  1. The standard for required park dedications is 25 acres per 1000 occupants for residential areas and/or up to three percent of the total land utilized for commercial, industrial, or other nonresidential areas.
  2. Where a trail alignment is required as a condition of approval, and where the total land set aside for such trail exceeds the required dedication amount, then the land designated as trail land shall be reserved for future acquisition by Boulder County.
- B. Criteria for Park Dedications
  1. In determining which land areas are appropriate for dedication as parks, the Planning Commission and Board of County Commissioners shall consider the following criteria in requiring park dedications:
    - a. The assurance of the continuity of open space links, trails, and other major components of the recreation system.
    - b. The assurance that areas set aside for parklands have been examined for compliance with all regional plans, particularly the Boulder County policies and development statement for parks and recreation and the Boulder County Parks Department capital development schedule.
    - c. The assessment of the suitability of proposed land dedications for park, recreation and open space needs.
    - d. The examination of the size, shape, topography, geology, presence and condition of ground cover and timber; condition of soil; drainage; location; access; and availability of water to lands proposed for park, and recreation uses.
    - e. The assurance of the protection of natural and historical features, scenic vistas, watersheds, air quality, timber, and wildlife.
    - f. Parklands that are intended to be used for trail rights-of-way shall conform to the following additional criteria:
      - (i) The land may be either set aside as a dedicated easement or as a deeded outlot.
      - (ii) The minimum width for such trail easement or outlot shall be based on the particular reasonable needs of the trail, its location, the surrounding terrain, and the projected usage. In no instance shall the width be less than 12 feet, and in all cases the easement shall be adequate width to handle the proposed uses.
      - (iii) User safety shall be a primary consideration in locating a trail easement adjacent to collectors or arterial streets.
      - (iv) There shall be provisions for public access to the trail easement within the subject property.
      - (v) The trail easement may overlap and include property previously included in other easements such as ditch, canal, utility, or conservation easements; public or private open space; or other easement. However, no easement may compromise the functional use of any other easement.
    - g. Park land shall not be considered as part of the land set aside for open space or agricultural preservation as provided for PUD's or NUPUD's.

## 7-1304 Required School Dedications

- A. The following shall be required for subdivisions and exemptions.
  1. Dedication requirements shall be 750 square feet of land per dwelling unit for single family residences and 500 square feet per dwelling unit for multifamily residences or other reasonable criteria approved by the specific school district and passed by Resolution of the Board of County Commissioners.
  2. When, after recommendation of the appropriate school district, dedication of all or portions of required school lands is not deemed feasible or in the public interest, the school district may recommend to the Board of County Commissioners one of the following options:
    - a. Guarantee of future land dedication may be requested by the school district when dedication of all or portions of required school lands is not deemed feasible or in the public interest in a particular phase of development. In this case, the developer must submit a letter guaranteeing future dedication of land for school sites to the appropriate school district.
    - b. Cash-in-lieu of land in accordance with this article.
- B. Such dedication shall be a condition of approval by both the Planning Commission and the Board of County Commissioners.

## 7-1305 Other Required Dedications

- A. The following shall be required for subdivisions and exemptions.
  - 1. The applicant shall dedicate drainage ways, drainage basins, floodway areas, etc. as drainage easements as required by the Board.
  - 2. Utility easements shall be set aside so as to provide areas for the provision of those utilities.
  - 3. The applicant may be required to dedicate or reserve suitable lands for sites for fire stations or other public safety facilities as may be reasonably required by the Board to protect the health, safety and welfare of the future residents of the proposal.
- B. Such dedication shall be a condition of approval by both the Planning Commission and the Board of County Commissioner.

## 7-1306 Reservations

- A. In addition to other public dedication requirements, the Board reserves the option to require that certain lands be reserved for schools or other public purposes listed in Article 7.
- B. These lands are reserved for acquisition by Boulder County on a payment schedule established by the Board of County Commissioners which shall be based on the fair market value at the time of purchase, as determined by the County Assessor, or another designated appraiser and accepted by the Board of County Commissioners.
- C. Unless the Board approves some other time period, these lands shall be reserved for a period not to exceed five years.

## 7-1307 Cash-in-lieu

- A. The applicant, at the option of the Board after advice from the potential receiving body, may pay Boulder County cash-in-lieu of land dedication in those cases where the dedication of land is unacceptable.
  - 1. Payment shall be based on the market value, to be determined after completion of the platting process, of the entire property as it is valued after platting.
  - 2. A proportionate amount of this value shall be assigned to any parcels or properties requested by Boulder County for public use.
  - 3. If required, property values shall be established by appraisal, provided in the first instance by the applicant, and accepted by the Board of County Commissioners.
  - 4. Minimum payment for cash-in-lieu of land dedication shall be \$500 for any required dedication.
  - 5. Any payments shall be placed in designated Boulder County maintained interest bearing escrow accounts.
- B. Combination of Dedication and Cash-in-lieu
  - 1. The applicant, at the option of the Board after advice from the potential receiving body, may meet the dedication requirements of this Article 7 through a combination of cash-in-lieu and land dedication in those cases where a portion of the dedication of land is unacceptable.
  - 2. The value of the combination of both the land dedication and the cash-in-lieu of land shall not exceed the full market value of the total required dedication of sites and land areas.
  - 3. Full market value shall be established in accordance with the provisions of Section 7-1307(A)(1), above.

## 7-1308 Release of Land or Cash

- A. After final approval of a subdivision plat and receipt of dedications, the Board shall give written notification to the appropriate school districts and local government entities.
  - 1. Following such notice, a school district or local government entity may request the dedication for a use authorized by this section.
  - 2. After review by the Board the land or funds will be transferred to the appropriate school district or local government entity.
- B. In the case of school and park sites: after completion of the platting it is determined the receiving body no longer finds a need for such land they may request that the Board sell the land.
  - 1. Prior to a sale, both the Planning Commission and the Parks and Open Space Advisory Board shall review the action.
  - 2. Any moneys paid to the Board from the sale of such dedicated sites and land areas shall be held by the Board to be used for any of the following:
    - a. the acquisition of reasonably necessary sites and land areas or for other capital outlay purposes for schools;
    - b. the development of sites and land areas for park purposes; or
    - c. growth-related planning functions by school districts for educational purposes.
  - 3. Such moneys shall be held and released in accordance with the processes established by Section 7-1307 of this Code.
- C. Funds may be released to the appropriate school district or local government entity if the Board finds that the proposed use of the fund is compatible with the intent of the cash-in-lieu payment or sale of the land. At the time of release of funds, Boulder County shall retain a reasonable management fee for the holding and maintenance of such escrow accounts, provided that the management fee does not exceed the amount of interest generated by the account.

## 7-1400 Supplementary Requirements for Lots and Yards

### 7-1401 Supplementary Requirements for Lots

- A. In measuring the minimum lot area one-half of the area of adjacent public rights-of-way may be included provided the measured public rights-of-way do not exceed ten percent of the total lot area.
- B. In those instances where the right of way has increased by acquisition of property on only one side of the original right-of-way, the original centerline should be used to measure the original size of the property.

### 7-1402 Supplementary Requirements for Yards

- A. Cornices, canopies, eaves or similar architectural features may extend two feet into a required yard.
- B. Fire escapes may extend six feet into a required rear yard.

### 7-1403 Supplemental Requirements for Yards Along Major Roads

- A. Existing Freeways, Expressways, Principal Arterials, Minor Arterials, and Collectors shall be designated on the Boulder County zoning maps.
- B. Along these designated roads, the minimum yard requirements for all structures, with the exception of signs, shall be not less than either:
  - 1. the normal zoning district requirement,
  - 2. the zoning district front yard requirement, or
  - 3. the following distance from the centerline of the existing roadway
    - a. freeways, expressways 160 feet
    - b. principal arterials 110 feet
    - c. minor arterials 110 feet
    - d. minor arterials in mountainous terrain 55 feet
    - e. collectors not in mountainous terrain 90 feet

## 7-1500 Survey Monuments

- A. All survey work shall, at a minimum, comply with the standards contained in C.R.S. 38-51-101 and 102 and this Code. All horizontal and vertical monuments shall be established by a Land Surveyor registered in the State of Colorado.
- B. Permanent plat boundary monuments shall be set at locations approved by the County Engineer. In general these include:
  - 1. Survey monuments for external boundaries of all platted subdivisions shall be set not more than fourteen hundred feet apart along any straight boundary line; at all angle points; at the beginning, end, and points of change of direction or change of radius of any curved boundaries defined by circular arcs; and at the beginning and end of any spiral curve; and at all public land corners.
  - 2. Internal subdivision survey monuments shall be established at all road centerline intersections; the center of radius for culs-de-sac; the road centerline Point of Curvature's and Point of Tangent's of curves, or the Point of Intersection's of curves; and at the end of the centerline for dead-end streets.
  - 3. All monuments shall be solidly embedded in the ground. Affixed securely to the top of each monument shall be a durable cap bearing the Colorado registration number of the land surveyor responsible for the establishment of said monument.
  - 4. State plane coordinates are required to be furnished to the County Engineer for all subdivision boundary monuments that are within one mile of a first or second order monument.
- C. At least one permanent benchmark shall be established in a new or replatted subdivision.
  - 1. The benchmark shall be a domed brass cap firmly affixed to a permanent structure, i.e., a concrete bridge headwall, concrete irrigation structures, or other sizeable concrete masses. The cap can also be set in a solid rock formation or in the ground in a 6 inch diameter, 36 inch deep concrete monument. The cap is not to be set in sidewalks, curbs, driveways, streets, utility poles or trees.
  - 2. The benchmark shall be located with at least 3 horizontal ties shown on the plat.
  - 3. The elevation and the datum used to establish the benchmark shall be recorded on the plat and submitted to the County Engineer.
  - 4. The elevation datum of the benchmark shall be surveyed from United States Geological Survey, Bureau of Land Management, or Boulder County Floodplain monuments.

## 7-1600 Outdoor Lighting

### A. Purpose and Intent

It is the intent of this Section to define practical and effective measures by which the obtrusive aspects of outdoor light use can be minimized while preserving safety, security, and the nighttime use and enjoyment of property. These measures will curtail the degradation of the nighttime visual environment by encouraging lighting practices that direct appropriate amounts of light where and when it is needed, increasing the use of energy-efficient sources, and decreasing the waste of light and the generation of glare resulting from poorly shielded or inappropriately directed lighting fixtures.

### B. Applicability

1. **New Uses, Buildings and Major Additions or Modifications.** For all proposed new land uses, developments, buildings, and structures that require a building permit, or site plan review, all outdoor lighting fixtures shall meet the requirements of this Code.
2. Any new lighting shall meet the requirements of this Section with regard to shielding.
3. If a property or use with nonconforming lighting is abandoned as defined in Section 4-1000, then all outdoor lighting shall be reviewed and brought into compliance with this Code before a new use is approved.
4. **Exemptions**
  - a. Lighting for public roadways is exempt from the provisions of this Code.
  - b. Lighting in historic districts may be exempted from these regulations
  - c. Seasonal decorations using typical unshielded low-wattage incandescent lamps shall be permitted.

### C. Shielding

1. Any lamp installed must be shielded such that the light is projected below the horizontal plane created by the shield.
2. **Effective Shielding Standard.** All light fixtures shall be installed and maintained in such a manner that the shielding is effective as described in the definition in Article 18 –162A for fully shielded fixtures.
3. **Light Trespass Standard.** Beyond the shielding requirements of Section C.1, all light fixtures shall be located, aimed or shielded so as to minimize stray light trespassing across property boundaries.

### D. Specific Uses.

1. **Outdoor Display Lots and Parking Lots.**
  - a. Lighting sources shall be mounted no more than 12 feet above finished grade.
  - b. Fully shielded lighting is required.
2. **Service Station Canopies.**
  - a. All luminaries mounted on or recessed into the lower surface of service station canopies shall be fully shielded and utilize flat lenses.
  - b. **Total Under-Canopy Output:** The total light output used for illuminating service station canopies, defined as the sum of all under-canopy initial bare-lamp outputs in lumens, shall not exceed 20 lumens per square foot of canopy. All lighting mounted under the canopy, including but not limited to luminaries mounted on the lower surface or recessed into the lower surface of the canopy and any lighting within signage or illuminated panels over the pumps, is to be included toward the total at full initial lumen output.

### E. Submission of Plans and Evidence of Compliance

1. The applicant shall submit, as part of the application for a building permit, evidence that the proposed work will comply with this Code. The submission shall contain but shall not necessarily be limited to the following:
  - a. plans indicating the location on the premises of all lighting fixtures, both proposed and any already existing on the site;
  - b. description of all lighting fixtures, both proposed and existing. The description may include, but is not limited to, catalog cut sheets and illustrations by manufacturers;
  - c. photometric data, such as that furnished by manufacturers, or similar showing the angle of cut off of light emissions.

- F. Approved Materials and Methods of Construction or Installation/Operation**
  - 1. The provisions of this Code are not intended to prevent the use of any design, material, or method of installation or operation not specifically prescribed by this Code, provided any such alternate has been approved by the Land Use Department. The alternative may be approved with a finding that it:
    - a. provides at least approximate equivalence to those applicable specific requirements of this Code
    - b. is otherwise satisfactory and complies with the intent of this Code.
- G. Prohibitions.**
  - 1. The use of laser source light or any similar high intensity light for outdoor advertising or entertainment, when projected above the horizontal, is prohibited.
  - 2. The private operation of searchlights is prohibited.
- H. Temporary Exemption.**
  - 1. Any person may submit a request to the Land Use Department for a temporary exemption. The request shall contain the following information:
    - a. specific Code exemption(s) requested;
    - b. duration of requested exemption(s);
    - c. proposed location on premises of the proposed light fixture(s);
    - d. purpose of proposed lighting;
    - e. information for each fixture as required in Section E.1;
    - f. previous temporary exemptions, if any, and addresses of premises thereunder;
- I. Other Exemptions**
  - 1. Nonconformance
    - a. All other outdoor light fixtures lawfully installed prior to and operable on August 5, 2003 of this amendment are exempt from the requirements of Article 7-1600. There shall be no change requiring the issuance of a building permit without conforming to all applicable requirements of this Code.
    - b. Emergency lighting used by police, firefighting, or medical personnel, or at their direction, is exempt from all requirements of this code for as long as the emergency exists.
    - c. Swimming Pool and Fountain Lighting. Underwater lighting used for the illumination of swimming pools and fountains is exempt from the lamp type and shielding standards of Section C, though it must conform to all other provisions of this code.

## 7-1700 Wildlife Impacts

- A. Unless exempted pursuant to Subsection (I), below, all land use development applications which require a development report under Article 3-203(F) of this Code (subdivisions, PUDs, special review and limited impact special review approvals, rezonings, and exemptions), shall be required to include a wildlife impact report as provided herein, prepared by a wildlife expert approved by the County Parks and Open Space Department, and retained by the applicant, whenever the property which is the subject of the application meets any one of the following criteria:
1. Is located within a Critical Wildlife Habitat, a Significant Natural Community, or a Riparian Corridor, as designated on the adopted Environmental Resources maps of the Boulder County Comprehensive Plan.
  2. Is located within a Natural Area or Natural Landmark listed in the Environmental Resources Element of the Boulder County Comprehensive Plan and mapped in the Boulder County Zoning Maps.
  3. Is located within a Boulder Valley Natural Ecosystem as designated on the adopted Boulder Valley Natural Ecosystems Map of the Boulder Valley Comprehensive Plan.
  4. Is located within a Critical Parcel Candidate Land as designated in the official records of the Front Range Backdrop Project as maintained in the Boulder County Land Use Department.
  5. Is located within any critical habitat for state- or federally-designated threatened or endangered species as shown on any maps adopted under the critical wildlife habitat provisions of Article 8 of this Code.
  6. Is determined by the Boulder County Parks and Open Space Department to serve as significant habitat for any of the listed "Species of Special Concern in Boulder County" (1994 adopted list, as it may be duly updated from time to time).
  7. Is determined by the Boulder County Parks and Open Space Department to serve as significant habitat for any of the species on the Colorado Division of Wildlife's "Colorado Listing of Endangered and Threatened Wildlife Species and Species of Special Concern" (May 15, 1998 adopted list, as it may be duly updated from time to time).
  8. Is determined by the Boulder County Parks and Open Space Department to serve as significant habitat for the black-tailed prairie dog (*Cynomys ludovicianus*), with reference to any published maps of Boulder County Public Health, the Colorado Division of Wildlife, or other such competent information source.
  9. The wildlife species listed in subsections (6), (7), and (8) directly above shall hereafter be referred to as "Species of Special County Concern" with respect to the subject land development proposals.
- B. The required wildlife impact report shall include an inventory of any Species of Special County Concern that are found on the subject property; an assessment of the property's status as significant habitat for any Species of Special County Concern; an assessment of the proposed development's impact on any Species of Special County Concern found on the subject property, and on the property's status as significant habitat for any Species of Special County Concern; a review of possible mitigation measures to reduce or alleviate any material negative impact on such Species of Special County Concern or on the property's status as significant habitat for any Species of Special County Concern; and a recommendation regarding whether the proposal can proceed without causing material adverse impact on a Species of Special County Concern or its significant habitat, and, if so, on what basis the proposal can avoid such impact.
- C. The Board, in reviewing development proposals required to submit a wildlife impact report hereunder, shall have the discretion to deny proposals which the Board determines will have a material adverse impact on a Species of Special County Concern, or may materially and adversely impact habitat which is determined to be significant for such Species. In the alternative, if the Board determines it to be reasonable under the facts of the particular application, the Board may require mitigation measures to protect the Species of Special County Concern or its significant habitat on the subject property.
- D. Mitigation measures may include, but shall not necessarily be limited to: avoidance of the area of Species of Special County Concern's significant habitat; construction of berms, landscaping, or other physical devices to protect the Species of Special County Concern or its significant habitat from material harm by the proposed development; relocation of all or part of the Species of Special County Concern to another suitable property; acquisition of other property to provide replacement habitat of a comparable quantity and quality to that being impaired; donation of a conservation easement to the County if warranted to assure adequate preservation and management of a Species of Special County Concern or its significant habitat; or a combination of these or other reasonable measures.

- E. The Board may determine the appropriate mitigation measures considering the required wildlife impact report, the advice of other professionals or consultants in the field, and the advice of the County Parks and Open Space Department, all based on accepted biological knowledge and the particular circumstances and impacts of the proposed development. These circumstances may include but are not limited to the prevalence of the Species of Special County Concern in the general area of the development and in the County as a whole; the prevalence of predator species in the general area of the development; the relationship of the affected property to Environmental Conservation Areas identified on the Boulder County Comprehensive Plan and similar ecological areas identified in other Comprehensive Plan or in intergovernmental agreements to which the County is a party; and other relevant ecological and biological factors.
- F. As used in this Article 7-1700, "significant habitat" means an area or property which contains a Species of Special County Concern, or which has a high potential to serve as significant habitat for such Species based on the ecological, biological, or physical characteristics of the property as well as on the property's proximity or relationship to other known locations of the Species or to other significant habitat for the Species.
- G. Unless the Land Use Director determines that a longer period is necessary due to such factors as seasonal considerations, scope of the required report, or work demands of an approved wildlife expert, an applicant can generally expect that a required wildlife impact report will be completed within 45 days after a request for such report.
- H. Existing expert wildlife impact reports may be used to satisfy, in whole or in part, the wildlife impact report requirement of this Article 7-1700, provided the County Parks and Open Space Department determines that such existing report is adequate for this purpose, considering such factors as the existing report's date and scope and the nature of the development proposed in the application.
- I. The Land Use Director may exempt any of the following, otherwise covered applications from the foregoing wildlife impact report requirement:
  - 1. Subdivision exemption applications proposing a change or development which can be reasonably determined at the pre-application stage to have no material impact on a Species of Special County Concern or significant habitat for such Species (such as a minor boundary line adjustment to resolve an existing structural encroachment).
  - 2. Applications where the subject property is encumbered by a conservation easement or other form of binding land management or preservation plan which adequately protects any Species of Special County Concern or significant habitat for such Species found on the property.