

**Date:**

7/7/21

Applicant:

Mapleton City

Location:

N/A

Prepared By:

Sean Conroy, Community
Development Director

Public Hearing:

Yes

Attachments:

1. Summary of changes.
2. Proposed ordinance.
3. PC minutes.

REQUEST

Consideration of an ordinance adopting amendments to Mapleton City Code Title 17 regarding subdivision requirements.

BACKGROUND/DESCRIPTION

Mapleton City Code (MCC) Title 17 includes the City's subdivision ordinance. MCC section 17.01.020 indicates that the intent of the subdivision ordinance is as follows:

- A. To facilitate the orderly development of the city.*
- B. To implement the city's transportation and circulation element of the general plan.*
- C. To facilitate the development of a safe and efficient street system.*
- D. To facilitate the orderly transfer of the ownership of building sites in a manner consistent with state law.*
- E. To ensure adequate water, sewer, drainage, utilities, and other services to developing areas of the city.*
- F. To establish the rights, duties, and responsibilities of subdividers with respect to the development of subdivisions within the city; and*
- G. To facilitate the development of a trail system.*

Title 17 outlines the process and procedures for applying for a subdivision as well as the improvement requirements for new development. Staff is proposing numerous amendments to Title 17 to bring the subdivision ordinance more in line with current practice and to more fully implement the intent of the subdivision ordinance and the General Plan. A summary of the proposed changes is included in attachment "1". The full changes are shown in strikeout and underline in attachment "2".

A couple of notable changes include:

- 17.12.020.A(2): Staff is proposing a new road designation called a "Country Lane". This is intended for areas in the city where no curb, gutter or sidewalk will be proposed to more fully implement the General Plan's goal of maintaining the rural character of the City.
- 17.12.070.B: This new language gives the Council discretion to require larger lots than the minimum size for the zone when necessary to create a buffer to existing development.

- 17.16.085.C-D: This section allows the City to require the applicant to install commercial decorative street lights when a residential project is proposed along Highway 89 and other commercial corridors.

RECOMMENDATION

Adopt the attached ordinance.

Attachment "1" - Summary of Proposed Changes

Section	Change
17.04.020.B(3)	Includes clarifying language regarding residual lots.
17.04.040.E	Added a note that if final plat not approved after 2 years, preliminary plat is voided.
17.04.060.F-G	Added a 1 year time frame for final plat approvals with provisions and the ability to extend for 1 year.
17.04.100	Includes clarifying language regarding residual lots.
17.04.130	- Includes clarifying language regarding the provision of adequate public facilities. - Added a note that costs associated with 3rd party engineering review (water model) is paid by developer. - City may require upsizing of infrastructure in accordance with City master plans.
17.12.020.A(2)	Replaces “minor street” designations with “major local”, “minor local” and “country lane”.
17.12.040	Includes clarifying language regarding asphalt mix.
17.12.050	- Increases the off-set requirement for new roads from 125’ to 150’. - Added a note that City Engineer can’t approve grade above 12%. - Includes clarifying language regarding engineering standards. - Adjusts the dimensions for cul-de-sacs. - Includes a requirement for public utility easements. - Establishes traffic study requirements.
17.12.070.B	Added standards for requiring larger lots than the min. required in the zone for buffering.
17.12.080	- Addresses road, curb, gutter and sidewalk improvements in CE-1 zone. - Eliminates outdated cul-de-sac requirement. - Addresses fill, storm water and fire flow requirements.
17.16.010	- Requires a fee for excavation permits. - Includes other clarifying language regarding street cross sections.
17.16.025	Requires a minimum of ½ + 7’ road width or at least 20’ of width, whichever is greater.
17.16.030	Includes clarifying language related to culinary water lines.
17.16.035	Includes clarifying language related to pressurized irrigation lines.
17.16.040	Requires fire hydrants to be installed with a 6” gate valve.
17.16.050	Includes clarifying language related to sewage disposal.
17.16.075	Outlines fiber conduit requirements (previously adopted by Council).
17.16.080	Requires developer to install street signs.
17.16.085.C-D	Added section to require decorative street lights in commercial corridor areas.
17.16.090.B(3)	Includes clarifying language related to storm water inlets.
17.16.100.D	Removes requirement to bond with the city for irrigation improvements. Developers bond directly with irrigation companies.

17.16.110	• Allows waiver of cluster mailbox if postal service approves • Requires cluster boxes on the lowest class street of the subdivision (avoid on collectors).
17.18.110.E	Trails to be built to FHWA guidelines.
17.18.030-100	Eliminates outdated trail standards and guidelines.
17.20.020.E	Requires 10% of performance bond to be retained until improvements are complete.
17.20.050	Added that a durability bond could be cash or letter of credit.
17.24.060	Eliminates requirement for as-built drawings (city shoots all utility information).
17.24.090	Amended noticing requirements for ordinance amendments to match state code.
17.24.100.A(5)	Added street signs to requirements prior to issuance of building permits.

ORDINANCE NO. 2021-

**AN ORDINANCE ADOPTING AMENDMENTS TO MAPLETON CITY CODE TITLE 17
REGARDING SUBDIVISION REQUIREMENTS.**

WHEREAS, MCC Title 17 contains the City’s subdivision ordinance; and

WHEREAS, the proposed amendments are intended to bring the subdivision ordinance more in line with current practice and to more fully implement the intent of the subdivision ordinance and the General Plan; and

WHEREAS, the Planning Commission recommended approval of the proposed amendments on May 27, 2021.

NOW THEREFORE, BE IT RESOLVED by the City Council of Mapleton, Utah, to amend Mapleton City Code Title 17 as described in Exhibit “A”.

PASSED AND ORDERED PUBLISHED BY THE CITY COUNCIL OF MAPLETON, UTAH,

This 7th Day of July, 2021.

Dallas Hakes
Mayor

ATTEST:

Camille Brown
City Recorder
Publication Date:
Effective Date:

Exhibit "A"
Changes shown in strikeout and underline. Only those sections that are being amended are included

TITLE 17
DEVELOPMENT CODE, PART II; SUBDIVISIONS

17.04.020: PREPARE AND SUBMIT PLANS TO CITY:

3. No phasing scheme shall have the effect of leaving a residual lot, non-conforming parcel or previously divided land for which the required subdivision improvements have not been previously constructed ~~or for the proposed subdivision~~. For purposes of this code a "residual lot" shall be defined as a zoning lot, created by the proposed subdivision, but which is not shown as a lot on the final plat of the subdivision project or as future development. A future development parcel must be developable into multiple lots meeting the area standards for the applicable zone. (Ord. 2016-01, 5-18-2016, eff. 6-16-2016)

17.04.040: PLANNING COMMISSION REVIEW OF PRELIMINARY PLAT:

E. All preliminary plat approvals shall be valid for two (2) years unless otherwise specified by the final decision making body. If an applicant fails to receive Final Plat approval in accordance with section 17.04.060 of this title within the time frame specified, the preliminary plat approval shall become null and void.

17.04.060: PREPARE AND SUBMIT FINAL PLAT, ENGINEERING DRAWINGS, AND DOCUMENTS TO THE DEVELOPMENT REVIEW COMMITTEE (DRC):

F. The following actions must be taken within one (1) year of final plat approval or the applicant must reapply for preliminary plat approval:

1. The subdivision plat shall be recorded in the office of the Utah County Recorder;
or
2. A Site Restoration/Durability Bond shall be posted with the City and a preconstruction meeting has been held with the DRC.

G. The DRC may grant a one (1) year extension provided the final plans have been updated to address any changes to City ordinances and standards that may have been updated or changed since the time of the Final Plat Approval.

17.04.100: NUISANCE STRIPS AND REMNANT PARCELS:

No subdivision or platting of a lot shall create a nuisance strip, residual lot or remnant parcel of property less than the minimum lot size for the zone in which it is located. If a remnant parcel is proposed, a phasing plan must be submitted demonstrating how the remnant parcel can be developed in the future. Remnant land not included in the proposed subdivision or platting of a lot can be deeded to adjacent property by "quitclaim", recorded at the same time as the subdivision or recording of a plat. (Ord. 2016-01, 5-18-2016, eff. 6-16-2016)

17.04.130: AVAILABILITY OF ADEQUATE PUBLIC FACILITIES:

A. Approval of all development that requires development review approval shall be governed by this chapter.

B. The public facilities to which this section applies shall include the following:

1. The city culinary water system, including quantity, quality, treatment, storage capacity, transmission capacity, ~~and~~ distribution capacity, and related facilities;

2. The city sanitary sewer system, including treatment, overall capacity, outfall lines, laterals, ~~and~~ collector lines, and related facilities;

3. The stormwater system, including drainage and flood control facilities, and related facilities;

4. Streets and roads, including arterial and collector roads, sidewalks, curb and gutter, planter strip, streetlights, signs and related ~~transportation~~ facilities;

5. City pressurized irrigation system, including quantity, quality, treatment, storage capacity, transmission capacity ~~transmission~~ and distribution capacity.

6. City fiber optic network (future), including conduit, fiber optic cables, aggregation facilities and related power facilities;

C. Approval shall not be granted until such time as the applicant has provided information, to the satisfaction of the city engineer, that adequate public facilities exist in the areas affected by the development to accommodate the development.

D. The adequacy of public facilities shall be determined as of the date of application. Upon application for a development which requires development review, the city engineer, or his designee, shall calculate the public facilities existing as of the date of the application based on adopted utility master plans. Additional evaluation may be required for areas not covered in the master plans. Any costs required for review by a third-party engineer, including but not limited to the water analysis report, shall be paid by the developer. (Ord. 2016-01, 5-18-2016, eff. 6-16-2016)

E. In accordance with approved city master plans and at the discretion of the city engineer, the applicant may be required to increase the size of public utilities to accommodate future growth or address existing deficiencies in the public utilities. If such requirement is NOT related to the needs of the proposed development, the applicant may be compensated for the cost difference between the cost of the utility installation required for the individual development and the cost to install the increased size. Compensation may come in the form of impact fee credits, development fee credits, direct reimbursement, or future reimbursement as determined by agreement.

17.12.020: STREETS AND ROADS; GENERAL CRITERIA:

A. Subdivision Plans To Be Consistent With Transportation And Circulation Element Of The General Plan: Subdivision plans shall be consistent with the transportation and circulation element of the general plan as adopted by the city, as follows:

1. Arterial And Collector Streets (~~Feeder~~): Where the area of a proposed subdivision includes any arterial or collector class streets, as shown on the transportation and circulation element of the general plan, the subdivision plan shall incorporate such streets in the location shown on the transportation and circulation element of the general plan and

the approval of the final plat shall include the dedication of the right of way and its improvement in accordance with the applicable city standards.

2. ~~Minor Streets (Local Service)~~ Major Local, Minor Local and Country Lane: Where the area of a proposed subdivision includes any minor class streets, as shown on the transportation and circulation element of the general plan, the subdivision plan shall provide for such streets in the approximate location shown and the approval of the final plat shall include the dedication of the right of way and its improvement in accordance with the applicable city standards.

17.12.040: STREETS AND ROADS; WIDTH OF PAVEMENT; OTHER IMPROVEMENTS:

A. All streets within and adjacent to the subdivision shall be paved with hot mix asphalt concrete (HMA) ~~hard surfaced~~. The width of the hard surfacing and the location and type of other required street improvements shall be as set forth on the applicable street cross section standard adopted by the city council.

17.12.050: STREETS AND ROADS; DESIGN STANDARDS:

A. Reverse Curves: Reverse curves shall have a tangent of at least one hundred feet (100'), unless in the opinion of the planning commission such is not necessary.

B. Street Intersection: Streets shall intersect each other as nearly as possible at right angles. Minor streets shall approach the major or collector streets at an angle of not less than eighty degrees (80°). Offsets in street alignment of more than fifteen feet (15') or less than one hundred ~~fifty twenty~~ feet (1250') shall be prohibited.

C. Street Grades: The maximum grade of any street in the subdivision shall be eight percent (8%) unless the street design has been approved by the city engineer. In no case shall the city engineer approve a street grade in excess of twelve (12%).

D. Street Curves: Where the street lines within a block deflect from each other at any one point more than ten degrees (10°), there should be a connecting curve. The radius of the curve for the ~~inner~~ street centerline should be not less than three hundred fifty feet (350') for arterial and collector class streets, two hundred fifty feet (250') for a major local ~~an important minor class street~~, and one hundred feet (100') for minor local and country lane streets.

E. Curbs: Where curbs are required said curbs at intersections shall be rounded with curves having a minimum radius of twenty feet (20') for minor streets, and twenty five feet (25') for collector and ~~major~~ arterial streets. Property lines at street intersections shall be parallel to the curve where necessary to fit the curb radius.

F. Street Names: New street names should not duplicate those already existing. A street obviously a continuation of another already in existence should bear the same name. Before the street is named, the proposed name must be submitted to and approved by the city.

G. Cul-De-Sacs: Cul-de-sacs shall be discouraged. Cul-de-sacs may be appropriate in cases where the possibility of future adjacent development does not exist due to topography or existing development, where an additional through street would be unnecessary, or other special circumstances as determined appropriate by the final decision making body. When permitted, permanent cul-de-sacs shall be designed in accordance with adopted standard

drawings, each cul-de-sac stem shall meet the standard street requirement including right of way, pavement width, gutter, curb, and sidewalk within residential subdivisions. The minimum back of curb diameter in a cul-de-sac shall be ninety-eight feet (98'). Cul-de-sac returns shall have a minimum back of curb radius of twenty six feet (26'). The maximum length of a cul-de-sac street shall be four hundred feet (400') from the center of the cul-de-sac to the centerline of the intersecting street. The planning commission may allow a five hundred foot (500') maximum cul-de-sac length if the applicant of such can demonstrate one or both of the following requirements:

1. That a road cannot be extended through the property to connect to another street elsewhere.

2. That development has occurred on at least three (3) sides of the surrounding property.

H. Easements: Public utility easement shall be required along all sides of each lot ~~Easements of not less than ten feet (10') on each side of all rear lot lines and side lines will be required~~ where necessary for poles, wire, conduits, storm or sanitary sewers, gas and water mains, and other public utilities. They typical width of public utility easements shall be ten feet (10'), however these may be adjusted by the city engineer based on need. ~~Easements of greater width may be required along property lines where necessary for surface overflow or for the extension of main sewers or similar utilities.~~

I. Road Edge Curbing: All Mapleton City streets shall be curbed unless specified by the city engineer. Consideration shall be given to the transportation master plan, nature of the zone and adjacent properties when determining whether high back (Type E), low back (Type H) or no curbing will be required. ~~In zones which do not require high back curbs, the pavement shall be curbed with a two foot (2') wide concrete roll curb.~~

J. Street Thickness: All Mapleton City streets shall be hard surfaced (asphalt) with a minimum of three ~~and one-half~~ inch (3 $\frac{1}{2}$ ") bituminous coat even with the lip of the curb applied over eight inches (8") of untreated road base consistent with the Mapleton City addendum to APWA standard drawings and specifications. In addition, the developer shall be required to pay a fee to be determined by the City Engineer, for a ~~slurry seal~~ coat to be applied one to three years after development. The City will then be responsible for the application of the ~~slurry seal~~ coat.

K. Vehicle Access: Subdivision projects of thirty (30) lots or more shall provide at least two (2) points of vehicular access. (Ord. 2016-01, 5-18-2016, eff. 6-16-2016)

L. A traffic impact study shall be required for all residential subdivisions of thirty (30) lots or more. A traffic impact study shall be required for all non-residential or mixed uses subdivisions or projects that require fifty (50) parking spaces or more.

17.12.070: LOTS; DESIGN STANDARDS:

B. Size of Lots: All lots shown on the subdivision plat must conform to the minimum requirements of the zone in which the subdivision is located. The final decision-making body may require lots to be larger than the minimum size established in the zone if it makes the following findings:

1. Larger lots are necessary when abutting existing lots or parcels on adjacent properties to achieve a mutually compatible relationship between the proposed lots and adjoining land uses; and
2. Requiring larger lots will implement the goals and policies set forth in the Land Use Element of the General Plan regarding land use compatibility and buffers.

17.12.080: SPECIAL DESIGN STANDARDS FOR SUBDIVISIONS IN THE CE-1 ZONE:

The following design standards shall apply to subdivisions within the CE-1 zone. Provided that where the provisions of this section conflict with other provisions of this chapter these provisions shall prevail:

A. General Design Criteria:

3. No street shall have a grade of more than eight percent (8%), unless the street design has been approved by the city engineer. In no case shall the city engineer approve a street grade in excess of twelve percent (12%).

4. Pavement widths shall be established based on the adopted street cross sections for the type of road being proposed unless otherwise approved through the preliminary plat approval process. All minor streets shall have a minimum pavement width of thirty four feet (34') and collector streets shall have a minimum pavement width of forty four feet (44'). All streets shall be bordered by curbs and gutters or other suitable edging.

5. Sidewalks of not less than five four feet (54') in width shall be constructed adjacent to all streets unless otherwise specified by the adopted street cross sections for the type of road being proposed or by the preliminary plat approval process. ~~Provided, that on minor streets which provide access to lots on one side only the city may waive the requirement for the construction of a sidewalk on the nonaccess side.~~

6. Where the road is located in a cut or fill area the graded roadbed shall extend not less than three feet (3') beyond the curb face or edge of sidewalk, as applicable, on the fill side and two feet (2') on the cut side.

~~7. Cul-de-sac shall have a maximum length of one thousand feet (1,000') and shall be terminated with a suitable turnaround having a diameter of not less than one hundred sixty eight feet (168') in accordance with standard drawing S-04.~~

C. Grading:

1. All land surface having a slope of thirty percent (30%) or greater shall remain in its natural state and shall not be graded or otherwise disturbed except for the planting of additional vegetation, the addition of sprinkler irrigation systems, the establishment of required fire breaks or access easements, or when such disturbance is specifically provided for under the approved plan.

2. No grading, filling or excavation of any kind shall be commenced without first having obtained a land disturbance grading permit from the public works director or his/her assignee who shall not issue such permit until the final grading and drainage plan is endorsed by a licensed civil engineer, and approved by the city engineer.

3. Fill areas shall be prepared by removing organic material such as vegetation, rubbish and other material which is determined by the city engineer to be detrimental to proper compaction or otherwise not conducive to stability. ~~No rock or similar irreducible material with a maximum diameter greater than twelve inches (12") shall be used as a fill material~~

in fills that are intended to provide structural strength. Structural engineered fill shall be used for all areas of fill intended to provide structural strength. Fill material must conform to APWA standards and geotechnical report recommendations.

D. Drainage:

~~1. Required storm water run off collection facilities shall be designed so as to retain on site the storm water runoff resulting from a 25 and 100 year frequency storm for a sufficient length of time so as to prevent flooding and erosion. All new development or redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, must collect and retain storm water runoff from the 90th percentile storm onsite.~~

2. Required storm water run off collection facilities shall be so designed as to divert surface water away from cut faces or sloping surfaces of a fill. French drains are not acceptable.

3. Curb, gutter and pavement designs shall be such that water on roadways is prevented from flowing off the roadways.

4. Natural drainage shall be riprapped or otherwise stabilized to the satisfaction of the city engineer below drainage and culvert discharge points for a distance sufficient to convey the discharge without channel erosion.

5. Waste material from construction, including soil and other solid waste materials, shall not be deposited within a natural or manmade drainage course nor within irrigation channels.

~~6. Sediment catchment ponds shall be constructed downstream from each development, unless sediment retention facilities are otherwise provided.~~

E. Vegetation And Revegetation:

3. The inability to provide fire line water pressure and fire flows consistent with the standards set by the Insurance Service Organization shall be justification for denial of a subdivision request. However, there shall be a minimum fire flow requirement of at least two thousand five hundred (~~5~~2000) gpm with a twenty five (~~20~~5) psi residual pressure during conditions of fire flow experienced during peak day demand.

G. Access Easements:

1. The city may require the dedication of easements adjacent to the borders of lots adjoining public lands for the purpose of providing public access to said public lands. Said easements may be combined with those required for fire safety purposes as set forth under subsection F2 of this section. (Ord. 2002-04, 3-20-2002)

b. Buildings that are located within thirty feet (30') of a side property line facing a street shall have at least twenty five percent (25%) of the wall in window or door areas.

c. Parking areas shall not be located between buildings and the street. Parking lots may be located on one side and behind the buildings.

d. Buildings shall be directly accessed from the street and the sidewalk.

e. Ground floor pedestrian entrances must be oriented toward the street and an open space accessible from a street.

4. Setback requirements:

- a. Porches may project up to six feet (6') into required setbacks. Bay windows, fireboxes and balconies may extend up to three feet (3') into required setbacks.
- b. Every primary entry shall be accompanied by a porch or covered area. (Ord. 2003-02, 1-15-2003, eff. 1-29-2003)

17.16.010: IMPROVEMENTS REQUIRED:

B. The following two (2) options are available to an applicant regarding the installation of the improvements required by this chapter:

1. The improvements shall be completed prior to the plat being recorded in the office of the county recorder. The following requirements apply to this option:

a. No construction activity shall begin until:

(1) Final construction drawings have been approved by the city engineer that address any and all outstanding issues as identified by the development review committee and any and all conditions of approval as adopted by the land use authority;

(2) A preconstruction meeting to include the city engineer and the applicant has been held. During the preconstruction meeting the city engineer shall outline the city standards that will be used during the inspection of the improvements;

(3) The applicant has submitted the following bonds:

(A) A site restoration bond shall be in cash equal to the amount of the durability bond. This bond shall be released upon plat recording.

(B) A right of way (ROW) excavation permit and associated fee bond for any work that may be required in an existing city ROW. The amount shall be based on the city engineer's estimate for the work to be done in the ROW. ~~This bond shall be released upon acceptance of the work by the city;~~

C. Exemption to the requirement for improvements:

1. Upon application by the landowner, the City Engineer may waive the requirement for curb, gutter, sidewalks when required by the approved street cross sections and/or pressurized irrigation lines as a one-time exception provided the following findings can be made:

- a. The subdivision would create no more than one additional lot; and
- b. There are no more opportunities to create additional lots in the future based on the current zoning.

17.16.025: STREETS TO BE DEDICATED; PARTIAL WIDTH STREETS; RETAINER STRIPS NOT PERMITTED:

All streets within and adjacent to the subdivision shall have been previously conveyed to the City by deed or dedication or shall be shown on the final plat for dedication to the City for street purposes. All streets shown on the final plat for dedication to the City shall conform to the minimum standards for both street right-of-way width and street improvements for the entire width of street, except that the City Council, subject to the prior recommendation of the Planning Commission, may accept the dedication and/or improvement of a partial width street provided:

- A. That the proposed partial width street is located at the border of the subdivision and the land abutting the uncompleted side is not owned by the subdivider;
- B. That the width of right-of-way of the proposed partial street shall be not less than one-half (1/2) of the total width for the class of road, plus an additional seven feet (7') of width or twenty feet (20'), whichever is greater;
- C. That the improvements constructed on the partial width street shall include:
 - 1. The curb, gutter and sidewalk improvements on the side abutting lots in the subdivision, where applicable;
 - 2. All required utilities, and
 - 3. A hard surfaced travelway portion having a width not less than one-half (1/2) that required for the specific road classification plus an additional seven feet (7') or twenty feet (20'), whichever is greater;

17.16.030: CULINARY WATER:

- A. The subdivider shall be responsible for installing all off site and on site water mains necessary for the proposed subdivision. All on site mains shall be installed in such a way that each lot may be served therefrom. All mains shall extend to the boundaries of the subdivision. Dead end lines may not be approved unless in the exception of a cul-de-sac or stub to adjacent development for future connection.
- B. All water mains shall be sufficient in size to provide a volume of flow and level of pressure adequate for culinary use (in accordance with State and City standards) and fire protection purposes, provided, that no water main shall be less than eight inches (8") in diameter.
- C. Water service laterals shall be installed to each lot from the main line to the outer edge of any road proposed to be dedicated to the city. The service laterals shall be not less than one inch (1") diameter and shall consist of: 1) the corporation stop adjacent to the main line, 2) the lateral pipe running from the main to the edge of the adjacent lot, and 3) the stop and waste valve, meter box and meter setter located adjacent to the public right of way immediately adjacent to the property line in the park strip where applicable or other location specified by the city engineer.

17.16.035: PRESSURIZED IRRIGATION:

- A. The subdivider shall be responsible for installing all on site pressurized irrigation mains. If an existing pressurized irrigation main lies within six hundred and sixty three hundred (3600) linear feet of the subdivided property, following the course of any city street the subdivider shall also be responsible to install off site mains and to connect them with the existing pressurized irrigation main.
- B. All pressurized irrigation systems shall conform to the pressurized irrigation engineering master plan of the city, provided that no main shall be less than eight inches (8") in diameter.
- C. Pressurized water service laterals shall be installed from the main irrigation line to the lot line proposed. The service laterals shall be not less than one inch (1") in diameter and shall consist of: 1) the stop and waste corporation stop valve adjacent to the main line, 2) the lateral pipe running from the main to the edge of the adjacent lot, 3) the stop and

waste corporation valve, meter box and meter setter located on the public right of way immediately in the park strip where applicable or other location specified by the city engineer, adjacent to the property line. The corporation stop and waste valve adjacent to the main line is part of the city's pressurized irrigation system, and may not be accessed, or used by the property owner without prior approval of the city.

17.16.040: FIRE HYDRANTS:

All subdivisions shall have fire hydrants installed at locations approved by the city after being reviewed by the fire chief and city engineer. No hydrant shall be placed more distant than five hundred feet (500') from the next closest hydrant. Also, a fire hydrant shall be placed within two hundred fifty feet (250') of each building lot, as measured within the public right of way. (Ord. 2016-01, 5-18-2016, eff. 6-16-2016) Fire hydrants shall be installed with a 6" gate valve at a tee with the main line in the road right of way.

17.16.050: SEWAGE DISPOSAL:

A. The subdivider shall be responsible for installing all off site and on site sewer mains necessary for the proposed subdivision. All on site mains shall be installed in such a way that each lot may be served therefrom. All mains shall extend to the boundaries of the subdivision and should terminate in a manhole.

17.16.075: Fiber Conduit

A. The subdivider shall be responsible for the installation of a two inch (2") conduit across the frontage of each lot for future City use. The requirements for installation, trenching, backfill, and materials shall be identified in the Mapleton City Construction Standards and Specifications as maintained by the City Engineer.

17.16.080: STREET SIGNS:

Street signs shall be installed at all locations indicated on the preliminary plat. All required signs shall conform to city standards and be installed by the developer, provided and installed by the city, at the expense of the subdivider in accordance with the current fee schedule. (Ord. 2016-01, 5-18-2016, eff. 6-16-2016)

17.16.085: STREET LIGHTING:

C. For subdivisions that abut a major collector road or greater, and/or are designated as "Flex Use" in the Land Use Element of the General Plan, the City may require the developer to install additional street lights in accordance with section 18.92.050.B of this code.

D. Trail lighting, separate from street lighting, may be required along trail corridors.

17.16.090: ENVIRONMENTAL HAZARDS:

If any of the following conditions exist, technical reports in accordance with section 17.08.020 of this title will be required. Adverse environmental conditions must be eliminated or accommodated as follows:

A. Soils:

1. The placement of streets, buildings and the designation of building sites on areas of unstable soil shall be prohibited.

2. Soils with a significant erosion hazard shall be protected. Revegetation or other erosion control measures may be imposed as a condition of subdivision approval.

B. Stormwater Disposal:

1. To the maximum extent possible stormwater produced from the subdivision development shall be properly disposed of within the limits of the subdivision.

2. Pipes, sumps and other facilities for the collection and disposal of stormwater shall be installed where required by the city. The location, size, and design of said facilities shall be in accordance with the city's stormwater disposal plans and standards or as directed by the city engineer.

3. Stormwater inlets within defined Zone 2 drinking water source protection zones must be installed with pre-treatment as determined by the City Engineer.

17.16.100: IRRIGATION WATER SYSTEM:

A. All subdivision plans shall recognize and accommodate the irrigation system within the city, including, as necessary, the installation of culverts and pipes, the rerouting of ditches and the reconstruction of headgates. All canals, ditches and other watercourses which lie within or are contiguous to a proposed subdivision shall not be interfered with by the subdivider without complying with the requirements of section 73-1-15, Utah Code Annotated (1953, as amended), and the applicable provisions of this code.

B. Whenever any canal, ditch or similar watercourse, which is owned and/or maintained by an established irrigation water company or receives water therefrom, lies within or is contiguous to a proposed subdivision, the subdivider shall, prior to submission for preliminary approval, consult with irrigation company officials and shall obtain from them recommendations regarding the appropriate means of reducing safety hazards associated with the watercourse, maintaining flows, reducing damage to private property, and otherwise complying with the requirements of Utah Code Annotated 73-1-15.

C. The city may, as a condition of subdivision approval, require the fencing or piping of the watercourse and the installation of appurtenant entrance works and grating or other improvements. The final plat of any subdivision containing elements of the irrigation system shall designate appropriate easements.

~~D. Performance bonds required pursuant to section 17.16.010 of this chapter shall include the cost of required irrigation improvements to irrigation system owned and operated by Mapleton City, and release of said guarantee shall, in addition to the requirements set forth under chapter 17.20 of this title, require written notification of acceptance of the improvements by the owner or owners. (Ord. 2016-01, 5-18-2016, eff. 6-16-2016)~~

17.16.110: MAIL DELIVERY BOXES:

~~In subdivisions where a monolithic curb, gutter and sidewalk (no planter strip) is to be installed, p~~Provision for the permanent placement of mail delivery boxes shall be made as follows:

A. For subdivisions containing eight (8) or more lots cluster mailboxes shall be installed at designated locations within the subdivision as shown on the ~~preliminary~~ final plat and in accordance with the standards and specifications of the U.S. Postal Service. The requirement for cluster mailboxes may be waived if the developer presents the City with a letter from the U.S. Postal Service authorizing individual mailboxes.

B. Where the final plat of the subdivision contains seven (7) lots or less the subdivider may, in lieu of cluster boxes, install connecting brackets or sleeves on the top of the curb for the placement of individual mailbox stands. Placement of mailboxes within the gutter is prohibited. (Ord. 2016-01, 5-18-2016, eff. 6-16-2016)

C. Cluster mailboxes shall not be located on collector roads unless a pullout has been included in accordance with the city's Addendum to APWA Standard Specifications and Plans maintained by the public works department.

CHAPTER 17.18

TRAIL LOCATION AND CONSTRUCTION STANDARDS

17.18.010: GENERAL GUIDELINES:

The following guidelines provide specific recommendations for how trails should be routed and/or constructed to reduce maintenance and environmental impacts and should be followed in the construction of trails:

A. Trails should be located and constructed in such a manner as to minimize maintenance and maximize access.

B. Trails should follow natural contours where possible and respect surrounding landforms. For example, trails crossing steep sites should flow with the landform.

C. Drainage features, such as water bars, should be constructed where appropriate to reduce erosion.

D. Trail slopes should match expected user volumes and types. Refer to AASHTO "Guide For The Development Of Bicycle Facilities" for further guidance. (Ord. 2002-04, 3-20-2002)

E. Design of trails should follow FHWA guidelines.

17.18.020: LOCATION, BONDING, PHASING, AND LIABILITY FOR TRAILS:

A. Location: Where feasible, trails should be separated from vehicle traffic.

B. Bonding For Trail Improvements: Where trails are required as part of a development project, a security or bond will be posted for the full cost of the trail improvements prior to plat recording, or the trail shall be installed prior to the recording of the plat in accordance with section 17.16.010 of this title.

C. Phasing Of Trail Improvements: When trails are part of a phased project, the phasing of various trail segments will follow a logical sequence for trail users. Some trail construction may be required through an entire project to provide completed trail connections at an early phase in the project.

D. Trail Rights Of Way And Easements: All trails that are open to the public should be located on publicly dedicated property, or dedicated easements for such purposes. There are a variety of mechanisms for this to occur. Public street rights of way and dedicated

easements are the most common and acceptable forms of access rights. The trails map provides recommended right of way widths for the various trail types.

E. Trail Easement Liability: In cases where public easements are dedicated, or lease agreements are negotiated for public use with private landowners, the jurisdiction should assume general liability responsibility in the same manner as assumed for streets and other public areas. (Ord. 2014-04, 3-19-2014, eff. 4-13-2014)

~~17.18.030: RECOMMENDATIONS FOR ENVIRONMENTALLY SENSITIVE SITES:~~

~~—A. Special location or construction methods may be necessary to reduce impacts and minimize disturbance in environmentally sensitive areas. Examples of visually or environmentally sensitive sites include: flood zones, highly visible hillsides, significant vegetation areas, highly erodible soils, unstable slopes, and ridgelines.~~

~~—B. Techniques, such as site specific trail routing, erosion control measures, site specific adjustment of construction standards, and site specific construction practices should be implemented to minimize environmental, visual or construction impacts. Construction methods that should reduce impacts include installing retaining walls to reduce cut and fill slopes on a visually prominent hillside, hand construction of the trail, stabilizing a mine hazard that is located within or adjacent to a trail corridor or installing a tree well around a significant tree to be preserved.~~

~~—C. Each environmentally sensitive site is unique, specific trail proposals through such locations need to be considered on a case by case basis. (Ord. 2002-04, 3-20-2002)~~

~~17.18.040: GUIDELINES FOR SENSITIVE SITES:~~

~~—A. Construction Practices For Sensitive Sites: Disturbance fencing limits should be implemented to minimize construction impacts. Construction limits should be as small as practical to construct the trail. Significant vegetation root zones should be considered when locating the trail and establishing construction limits.~~

~~—B. Erosion Control: Methods should be employed to protect areas adjacent to the trail from impacts both during and after construction. (See Drainage Planning and Slope Management Guidelines sections.)~~

~~—C. Indigenous Materials: Indigenous construction materials should be used for retaining walls, bridges, and barriers wherever possible.~~

~~—D. Existing Vegetation: Existing significant vegetation should be preserved wherever possible. Trees, riparian vegetation, scrub oak, and rare plants are considered significant. Root zones, as well as aboveground vegetation require protection when preserving plants. In general, the area within the drip line of trees, especially on the down slope side of the vegetation, is sensitive to disturbance. If root zones are impacted or grades are changed significantly, temporary irrigation may be necessary.~~

~~—E. Revegetation: Native and/or self-sustaining plant materials should be used for revegetation of all disturbed areas where trails pass through native or nonirrigated sites. Revegetation can be used to provide screening. Construction techniques to preserve vegetation and trail routing techniques should be used to minimize visual intrusion.~~

~~—F. Natural Considerations: Where significant wildlife or other natural features exist, special trail routing, construction methods and trail use should be considered.~~

~~—G. Visually Sensitive Areas: Locations that are visually sensitive, such as tallus slopes, may require reduced cut and fill slopes, hand construction, and low retaining walls to minimize site disturbance and visual intrusion.~~

~~—H. Environmentally Hazardous Areas: Where environmental hazards are present, special trail construction techniques or locations should be used to mitigate the hazard. Hazardous areas can be abandoned mine sites, where mine tailings should be stabilized, top soiled and revegetated. Other hazardous locations, such as lightning prone areas, rockslide and avalanche areas should either be avoided or be closed seasonally when hazardous conditions are a problem.~~

~~—I. Microclimatic Trail Use Opportunities: Locate the trails for both summer and winter activities, where possible, given the terrain and climatic considerations. Identify snow retention areas for possible cross country ski trails. In open areas, place trail alignment to take advantage of wind protection and shaded canyon areas. (Ord. 2002-04, 3-20-2002)~~

17.18.050: UTILITIES:

The routing of utilities within trail corridors is generally encouraged. Many trail managers have allowed colocation of utilities in consideration for appropriate fee payments by the utility company. Locations that are visually or environmentally sensitive may restrict or preclude sharing utilities with trails. The following guidelines for placement, site disturbance and access should be followed:

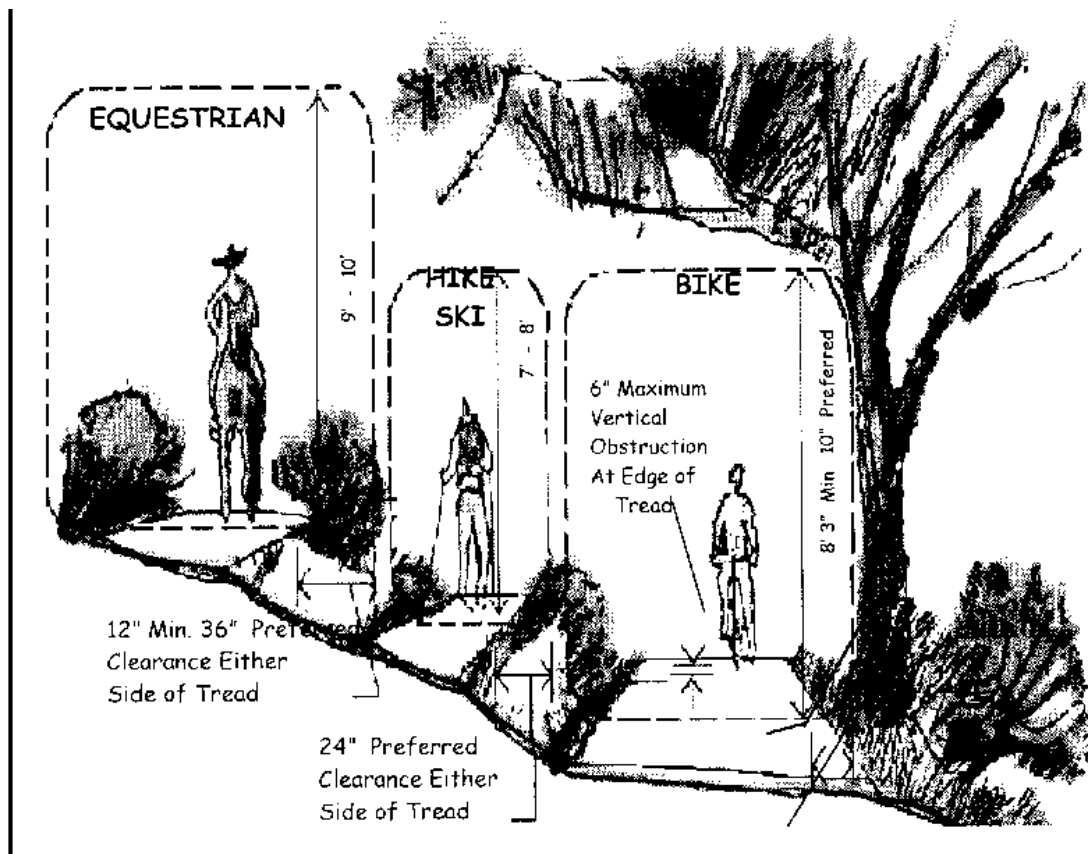
~~—A. Placement: Utility lines that run parallel to the trail should be placed under the trail bed where possible to minimize site disturbance. Utility lines that are perpendicular to the trail and lateral lines should be located to minimize site disturbance and removal of significant vegetation. Physical obstructions, such as utility pedestals, transformers and the like should be located out of the clear zone so they are not hazards to trail users. Access points which are not a physical obstruction, such as manhole covers should be located flush with the trail surface and where they do not pose a hazard to trail users.~~

~~—B. Site Disturbance: Construction of utility lines within naturally vegetated areas should minimize site disturbance wherever possible. All disturbances should be revegetated according to the requirements for trail construction. Bonding for this work should be required.~~

~~—C. Utility Access: Access for utility maintenance vehicles will be evaluated on a case by case basis and provided for as part of the trail construction. Visually or environmentally sensitive sites may preclude full access to trail/utility corridors. (Ord. 2002-04, 3-20-2002)~~

17.18.060: VERTICAL CLEARANCE GUIDELINES:

A ten foot (10') vertical clearance from the trail surface is recommended. The vertical clearance to obstructions will be a minimum of eight feet (8') across the clear width of the path.



(Ord. 2002-04, 3-20-2002)

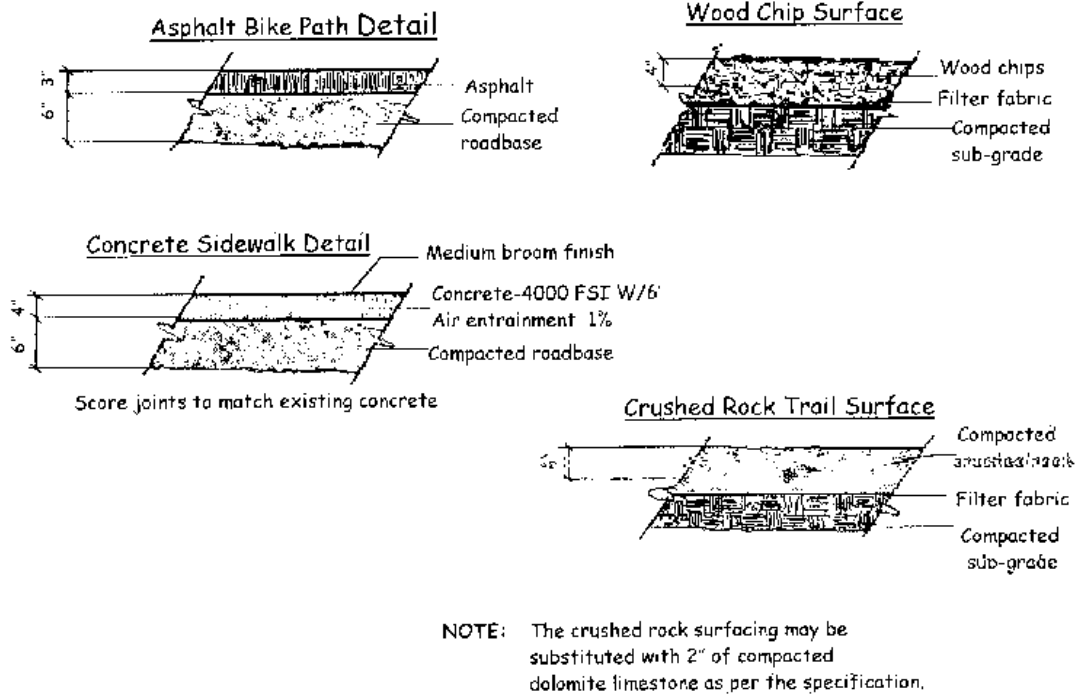
17.18.070: TRAIL SURFACING GUIDELINES:

Asphalt, concrete and base specifications will meet those set forth in this document. The six foot (6') crushed rock trail surfaces may be substituted with a compacted two inch (2") dolomite limestone material meeting the following specifications:

- Passing 1/2" screen — 100%
- Passing 3/8" screen — 97-99%
- Passing #4 screen — 75-80%
- Passing #8 screen — 50-55%
- Passing #16 screen — 30-35%
- Passing #30 screen — 20-25%
- Passing #50 screen — 17-20%
- Passing #100 screen — 13-17%
- Passing #200 screen — 12-15%
- Maximum water absorption — less than 3%

A six inch (6") compacted road base subgrade should be placed under the dirt surface in areas with a high water table or with poor drainage conditions. If a wood or other edging material is used along any of the trail surfaces, care will be taken to assure trail surface drainage. Edging is not recommended along soft surface trails because the soft surface

changes over time causing the hard edge to impede drainage. Weed or root barriers also may be necessary.



(Ord. 2002-04, 3-20-2002)

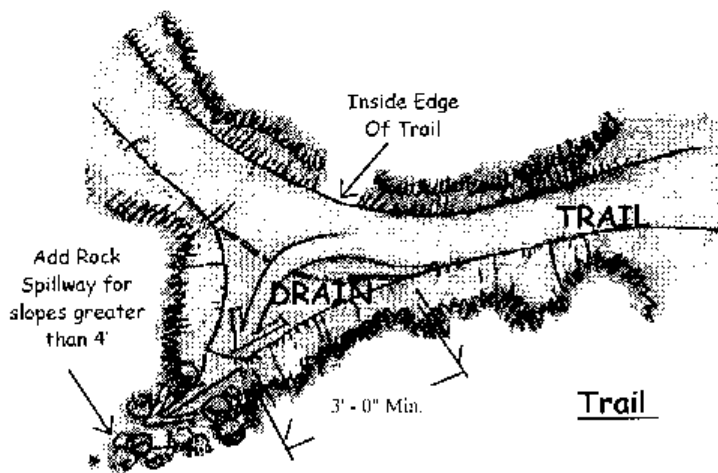
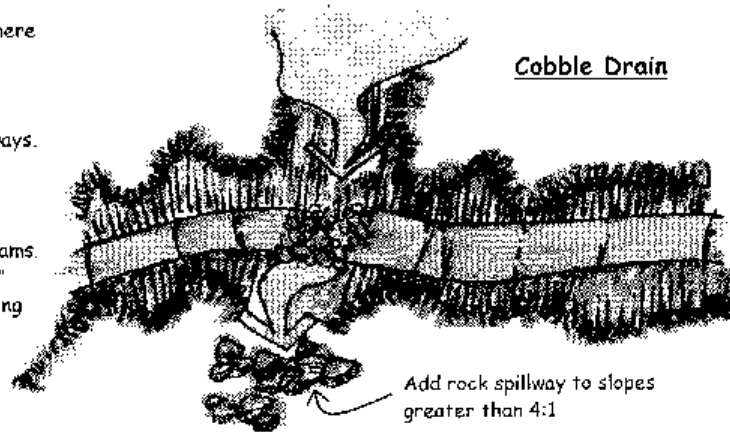
17.18.080: DRAINAGE PLANNING:

Careful study of topography adjacent to the trail may yield insight to maximize protection of the trail, while minimizing trail structures. General drainage should be studied at fifty (50) stations with provisions made to protect the trail.

—A. Swells And Culverts: Drainage swells or culverts should be installed on trails at locations where the normal cross slope will not allow for adequate drainage. Drainage swells are not allowed on paved trails. Drains are best located at low points or bends in the trail along existing natural drainageways.

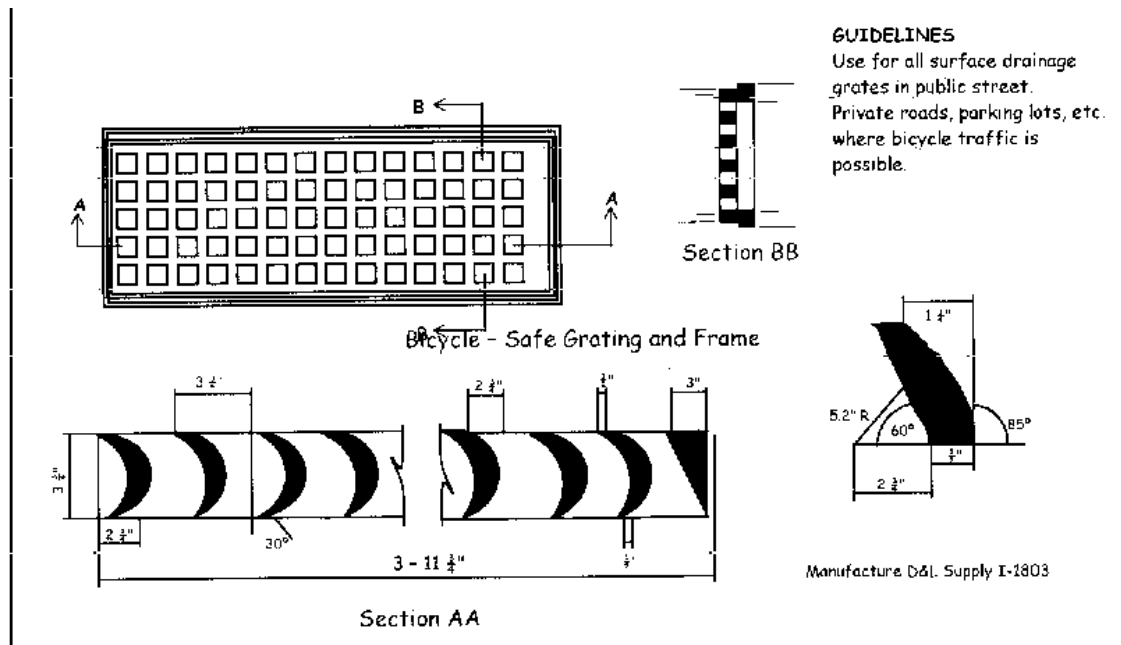
Wherever water is concentrated into new locations or in heavier concentrations, erosion protection needs to be evaluated and installed if necessary. Native stone is the preferred material.

Cobble Drain: Use where intermittent flow is expected, such as in pronounced gullies or established drainageways. Do not use where continuous flow is expected, such as at seeps, springs or streams. Cobbles shall be 2"-3" stones stockpiled during trail construction.

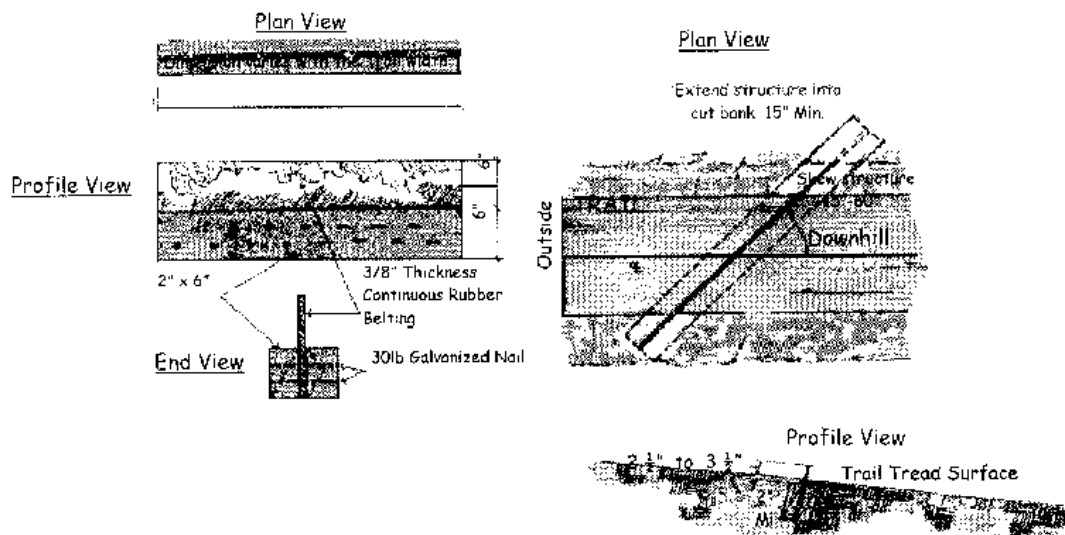


Trail Drain: Use where trail construction requires drainage such as along long and/or steep vertical ascents. Do not use where established drainageways exist. They are best if located at loss points or bends in trail. Transition from Trail to drain may require 6' at low points. 6' transition will be required up to normal trail.

- B. **Drainage Grates:** Drainage inlet grates on bikeways will have openings narrow enough and short enough to assure bicycle tires will not drop into the grates (e.g., reticular type), regardless of the direction of bicycle travel.
- C. **Bicycle Safe Drainage Grates:** Drainage grates should be installed where necessary to allow drainage and safe passage for bicycles.



—D. Water Bar: Water bars will likely need to be installed at regular intervals on soft surface trails that are steeper than a five percent (5%) gradient for more than five (5) vertical feet. Rubber water bars should be used since they are the safest for multiple use trails, also construction is more economical, faster and easier than other construction methods.



(Ord. 2002-04, 3-20-2002)

17.18.090: SLOPE MANAGEMENT GUIDELINES:

When sloped areas are disturbed, the area needs to be stabilized and revegetated as part of the trail construction process to prevent subsequent soil erosion and frequent maintenance problems. (Ord. 2002-04, 3-20-2002)

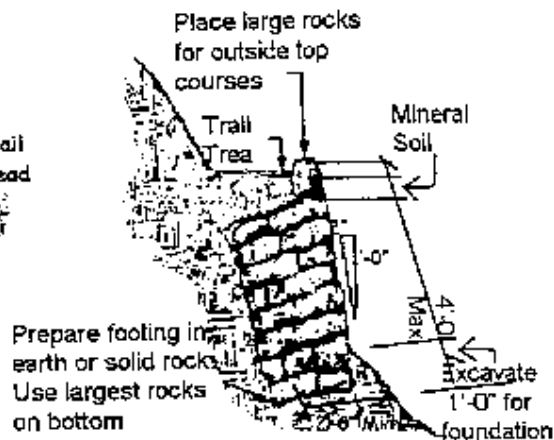
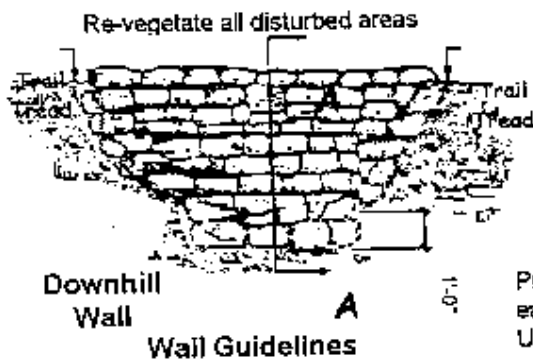
—A. Permanent Slope Stabilization:

—1. Retaining Walls: Permanent slope stabilization includes native stacked rock or wood retaining walls, rock filled gabions, wire baskets, wattling, planting or placing plant materials, and slope serration.

Where necessary for safety, retaining walls should be installed to prevent erosion of cut or fill slopes, to reduce cut and fill slopes or to minimize disturbance on environmentally or aesthetically sensitive sites. Retaining walls should be constructed of indigenous or natural materials. Walls located on visually sensitive sites should be designed to blend with the natural surroundings. Materials, texture, color, and height all affect the visual prominence of a retaining wall. Walls exceeding a height of four feet (4') must conform to the requirements set forth in the international building code. (Ord. 2013-05, 6-18-2013, eff. 7-12-2013)

Following are some guidelines for various techniques. All uninterrupted cut or fill slopes will not exceed six (6) vertical feet unless a site specific analysis is performed to justify otherwise. Some method of permanent slope stabilization should be required for all slopes in excess of two to one (2:1) vertical unless a site specific soils analysis is performed to justify otherwise.

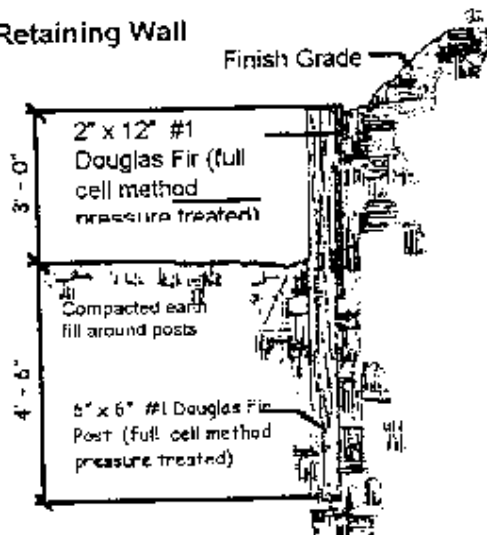
NOTES: Wall shall be 2' wide or 1/2 the wall height, whichever is greater



- Use stone which is native to the site wherever possible.
- To stabilize the trail in less than adequate situations.
- To widen a trail that otherwise would be too narrow.
- To taper up or down in areas where typical tread construction will not work.
- Walls should be built in areas where adequate footings can be dug.
- All stones should be angular free, free from defects, projections and impressions.
- Approximately 25-33% of wall should be tie stones.
- Maximum height of wall should be 4'-0"

- Use wherever natural trees or otherwise significant vegetation can be saved with the use of walls.
- Uniformly distribute sizes and shapes over the entire face of the wall.
- Shape stones for best fit. Use a 4" hammer if available.
- All walls must be battered: 3 in 12 through 12 in 12 are acceptable.
- Trench should slope inward as shown and drain to daylight. The stones shall completely penetrate wall. Miscellaneous backfill must be free from organic matter. Select backfill less than 1/2" maximum dimension, 4" depth optimum.
- Walls which are greater than 4'-0" in heights shall be engineered.
- Use where either cut or fill slopes for trail construction exceeds 4 vertical feet.

Retaining Wall



- Cut and fill slopes should be a maximum of 2:1 unless site specific soil analysis is performed to justify stability of steeper slopes.
- A maximum of 4 vertical feet of cut or fill is allowed environmentally or visually sensitive areas may be less.
- Areas which require steeper cut or fill slopes than the allowable shall use retaining walls as shown in these details.
- All disturbed areas shall be re-vegetated. Species for re-vegetation shall be appropriate and wherever possible shall match the surrounding species.

— 2. **Cut And Fill Slopes:** Combined cut and fill slopes should not exceed twelve (12) vertical feet and individual cut or fill slopes should not exceed six (6) vertical feet (less in environmentally and visually sensitive areas). Slopes that exceed these parameters should consider low retaining walls or alternate routing of the trail to a more acceptable location. Cut or fill finish grades should not exceed a two to one (2:1) vertical unless a site specific soil analysis is performed to justify the stability of steeper slopes. All cut and fill slopes will be stabilized and revegetated as per the revegetation and slope stabilization guidelines.

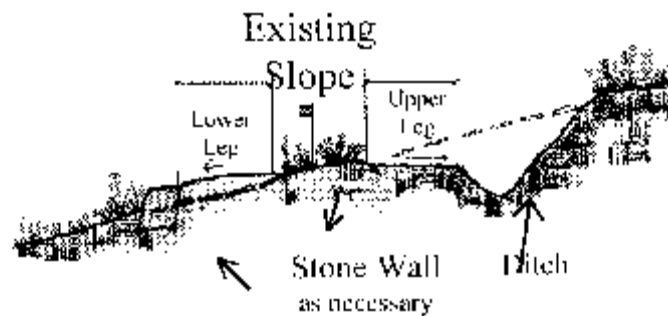
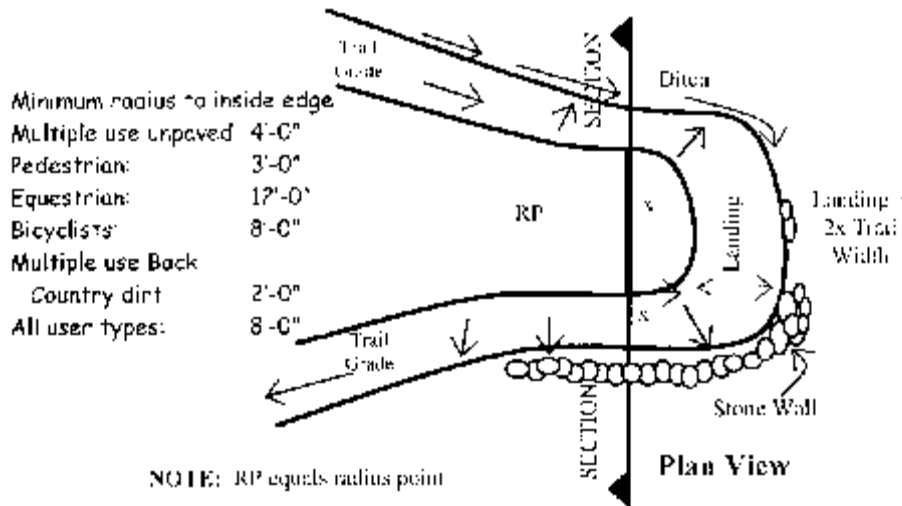
— 3. **Existing Vegetation Protection:** Existing significant vegetation that is to be saved will be protected with temporary fencing along the limits of disturbance. Trees that are to be saved should not be disturbed within the drip line of the tree, if possible, and the protective limits of disturbance fencing should extend to the drip line. Where this is not possible, all work within the drip line should be done by hand and mechanical equipment should not be allowed within the drip line. If filling is necessary above the root zone, perforated pipe along the drip line and vertical air wells should be installed. If cutting of roots or interception of natural drainage to the root zone is necessary, temporary irrigation may be required to compensate for the disturbance.

— 4. **Temporary Runoff Management:** During construction and establishment of revegetation, techniques, such as temporary erosion control, runoff measures, and slope stabilization may be necessary. Techniques, such as hydro mulching, straw mulch, jute matting, wood excelsior matting, tackifiers, straw bales, siltation fences, matting in drainage channels and stone mulching are examples of temporary runoff management. The following treatment guidelines provide some direction for the use of these measures. All are temporary measures and are intended to last from one to two (2) years until permanent stabilization techniques are effective.

— 5. **Wattling:** Bundles of branches are used to both stabilize and revegetate slopes that are nearly stable but continue to erode. Wattling is only recommended after initial methods have failed and where the unstable areas are minor.

— 6. **Slope Serration:** Small steps or indentations are cut in the slope face and are useful for providing small favorable sites for vegetation establishment. This technique should be used only on soils that are fairly cohesive. Sites that have severe exposure to heat, sun or wind and have slopes that are excessively steep benefit most from this method.

— 7. **Switchbacks:** Switchbacks are expensive to construct but are necessary when steep slopes are encountered. When switchbacks are required, they should be designed to discourage crosscutting and subsequent erosion. Locate switchbacks where natural barriers exist: installing physical or visual barriers or providing sufficient separation between the switchbacks all help to discourage crosscutting. If crosscutting cannot be discouraged through design or construction then the installation of stairs or relocation of the trail should be considered.



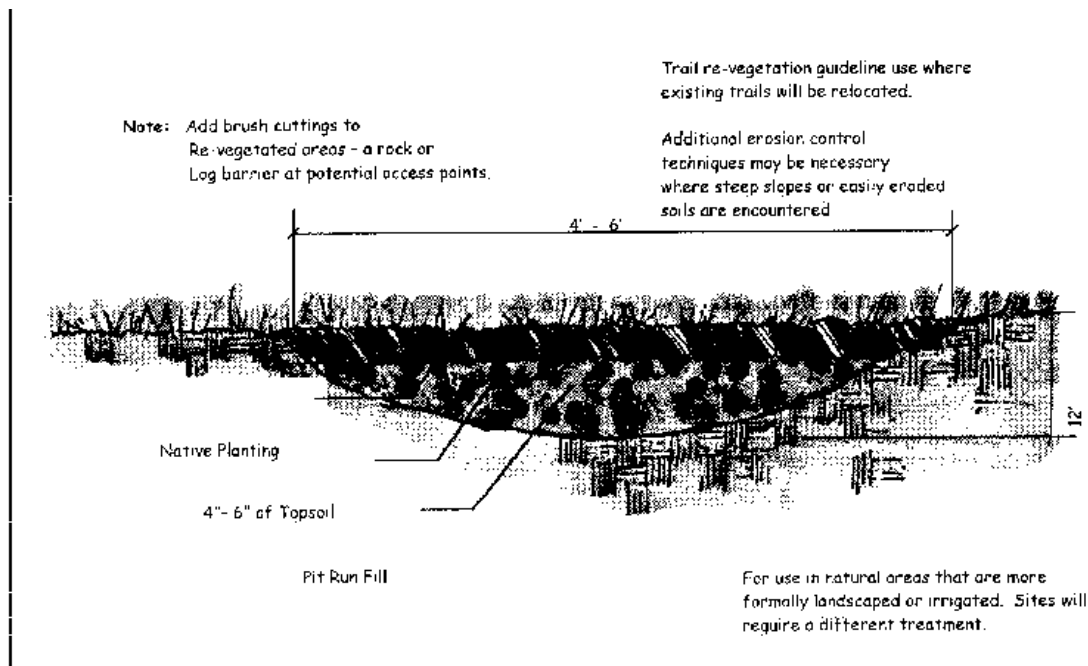
—8. Revegetation: Revegetation consists of seeding and planting operations. Seed and plant species and application rates will be submitted and approved with the construction plans. In general the revegetation of natural sites will match that of the undisturbed areas in species, density and vegetation patterns. Revegetation will be accomplished as soon as grading work is completed and weather permits. Unless the site is irrigated, native plant species indigenous to the site should be used. All revegetation work on nonirrigated sites will be done between October 15 and April 15 unless approval is granted otherwise. Sites that are revegetated between June 1 and September 1 will require temporary irrigation.

—a. Seedbed Preparation: Subgrade soils should be scarified to a depth of three to four inches (3-4") and topsoil placed to a minimum depth of four inches (4").

—b. Seeding: Seeds will be broadcast or hydro-seeded and raked into topsoil before the application of mulch, matting or other surface stabilization materials. Seeding can be used for grasses and forbs, but container stock should be used for all trees and shrubs.

—c. Planting: Planting of container grown materials on nonirrigated sites will be confined to tubing stock unless there is sufficient natural moisture present to sustain larger plants.

—d. Maintenance: Revegetated sites will be maintained until sufficient establishment has occurred to reasonably stabilize the site. Security bond will be posted for all revegetation work for a minimum of one year at which time it will be reviewed and released if it meets the above requirements.



—B. Temporary Slope Stabilization:

—1. Hydro Mulching: Hydro mulching is a mechanized, rapid method for mulching large areas and is generally used with seeding to revegetate disturbed areas. Use may be limited on sites where equipment access is limited. Only one hundred percent (100%) wood fiber mulch will be used and applied at a rate of three thousand (3,000) pounds per acre.

—2. Straw Mulching: Straw mulching can be used over small areas where it is applied by hand or on large sites where it is installed mechanically. Straw mulching is generally used in combination with seeding to revegetate disturbed sites. Straw must be held in place by matting, crimping or other method. Apply at a rate of two (2) tons per acre or a uniform depth of two to three inches (2-3").

—3. Jute Matting: Jute matting can be used alone or in combination with hydro mulching or straw mulching for erosion control and slope stabilization. It is generally used in combination with seeding to revegetate disturbed areas. Apply up and down the slope, never along the slope. Overlap edges a minimum of four inches (4") and use wire staples that are a minimum of six inches (6") long and spaced approximately five feet (5') apart down the sides and middle of the role. Extend the mat a minimum of three feet (3') beyond the top and bottom of the slope and bury the mat end in an eight inch (8") deep trench at the top of the slope. Uniform contact of the mat to the slope underneath is critical.

—4. Wood Excelsior Matting: Wood excelsior matting is used for erosion control generally in combination with revegetation. Care must be taken during installation to prevent concentrated flows under the mat. Apply up and down the slope, never along the slope. Edges should butt snugly together and held down with wire staples, a minimum of eight inches (8") long spaced approximately two feet (2') along the edges and four (4) down the center. Extend the mat a minimum of three feet (3') beyond the top and bottom of the slope and bury the mat end in an eight inch (8") deep trench at the top of the slope.

—5. Tackifiers: Generally, tackifiers are mixed with mulches to provide better adhesion to steep and/or windy slopes. Tackifiers should be applied at a rate of eighty (80) pounds dry ingredients per acre or two hundred (200) gallons wet ingredients per acre.

—6. Straw Bales: Straw bales can be used in a variety of ways to protect areas from impact, straw bales reduce uninterrupted flow in low and intermittent flow channels. Straw bales also provide a siltation device for slopes or gullies until revegetation can be established. When installing, anchor bales in place with steel rebar stakes, driven a minimum of twelve inches (12") into the subgrade, in a six inch (6") deep trench which has soil tamped firmly along the uphill side.

—7. Siltation Fences: Siltation fences are used to protect undisturbed down slope areas from up slope erosion.

—8. Matting In Drainage Channels: Jute matting or fiberglass roving are typically installed in open drainage channels for temporary erosion control. Use this technique only where flow velocities do not exceed two feet (2') per second. Apply from the top and overlap edged a minimum of four inches (4"). Secure the top and bottom ends in an eight inch (8") deep trench secured with steel staples every twelve inches (12"). Edges should be stapled every two inches (2").

—9. Stone Mulching: Stone mulching may be used during construction to control erosion, mud or dust.

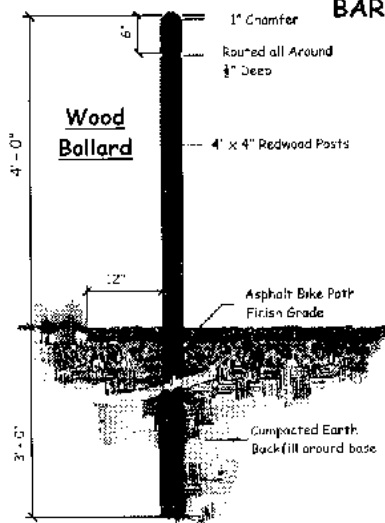
—10. Gabions: Gabions are rock filled wire baskets used to retain steep slopes or stabilize drainageways and may be preferable to stacked rock walls where the native rock is too small or too rounded for effective stacking. They are particularly effective when seepage is anticipated. Empty gabions are placed in position, wired together and filled with rock that is a minimum of four to six inches (4-6") in diameter. When used as a retaining wall the bottom basket should be buried a minimum of six inches (6") at the toe. Gabions should be keyed into the slope and laid back at a maximum of six inches (6") vertical to one inch (1") horizontal.

—11. Bollards And Barriers: Barriers should be installed at trailheads to control access of motor vehicle traffic and to direct and/or protect trail users from steep or hazardous areas along the trail.

Technical drawing of a **Wood Ballard**. The drawing shows a vertical post with a 1" chamfer at the top and a 1/4" deep rounded top. The post is made of 4" x 4" Redwood. The base is set in a hole 12" wide, surrounded by compacted earth backfill. The post is 4' - 0" high. The drawing also shows the asphalt bike path finish grade and the surrounding landscape.

Labels and dimensions:

- 1" Chamfer
- Rounded all Around 1/4" Deep
- 4" x 4" Redwood Posts
- 12"
- Asphalt Bike Path Finish Grade
- Compacted Earth Backfill around base
- 4' - 0"



Use where motorized access could be a problem, such as at trailheads, where trails intersect or cross streets and where trails parallel roads at points where access is likely.

Bollards are used within the trail surface to prohibit or limit access.

Use along trail where downslope grades are steep and hazardous.

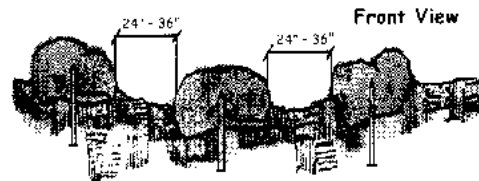
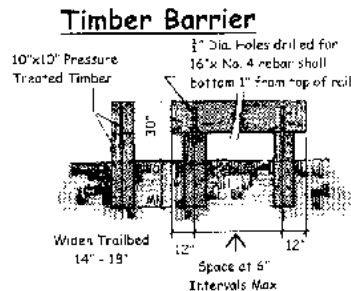
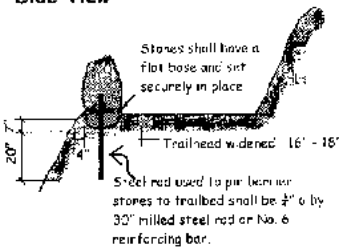
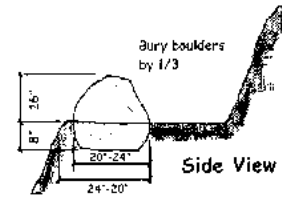
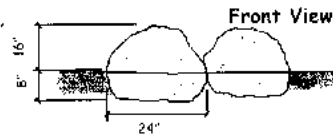
Use along outside edge of trail curves where slopes are steep and exposed.

Use where switchback cutting could be a problem.

Use at trailheads or road crossings
to discourage or prohibit
motorized access.

Use to direct trail users to stay on the trail.

Rock Barriers



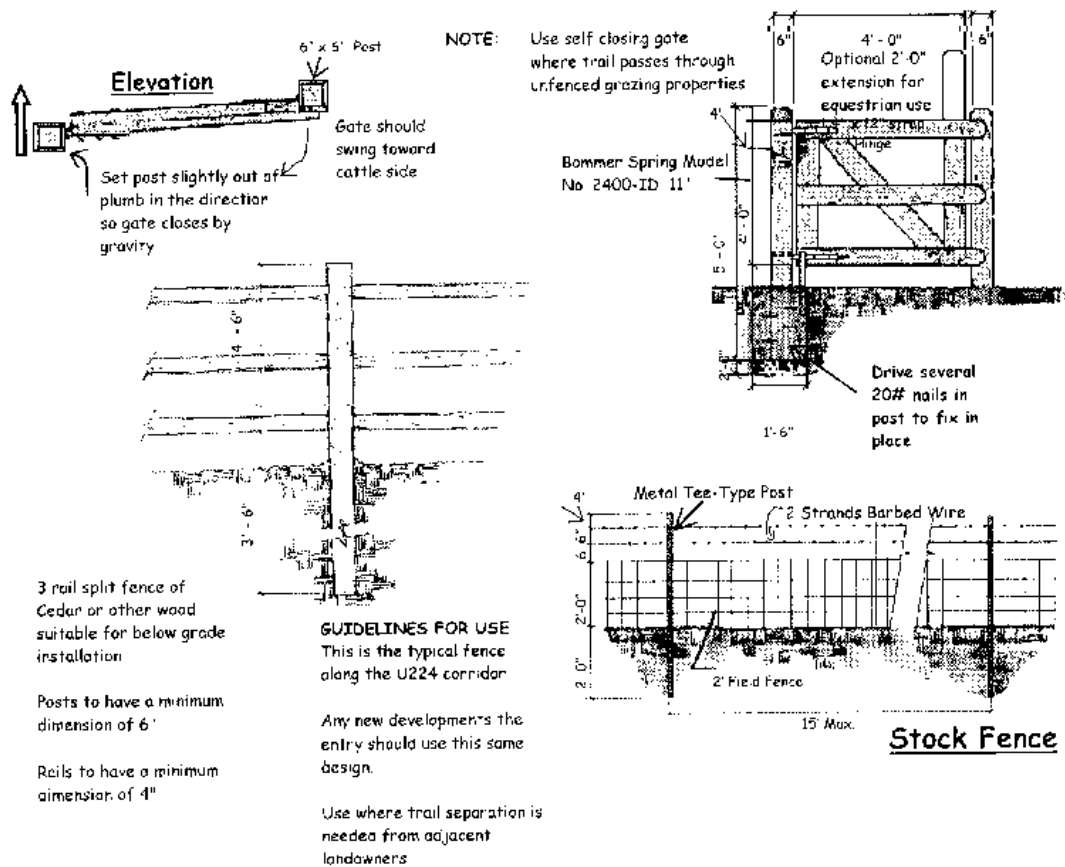
Note: Size of barrier stones shall be approximately 14'-24" in height, width and length. Minimum dimensions shall not be less than 12" for height and width and 18" for length.

Three (3) types of barriers are generally used: large boulders, timber barriers and wood bollards. All three (3) types of barriers are effective in stopping motorized access when placed at the trailhead. The location of such barriers is usually where trails intersect or cross streets and where trails parallel roads at points where access is likely. Rock barriers can also be used along portions of a trail where the downslope grades are hazardous, where switchback cutting can be a problem and along outside edges are exposed to steep slopes. The placement and spacing of barriers are dependent upon unique trail site characteristics and use requirements.

~~—12. Fencing: Fencing should be installed only where physical separation is necessary for safety and/or to preserve adjacent landowner privacy. Fences should not create a narrow corridor effect for long stretches along the trail. Where possible fencing should be located only on one side of the trail at a time.~~

Fences should be no closer than five feet (5') from the trail edge. Where fences are necessary along both sides of a trail, the minimum width should be twenty feet (20').

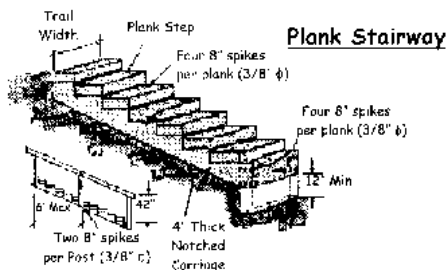
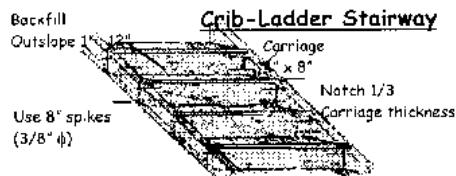
~~Gates are required for trails that cross stock grazing area. They will be a self-closing lever latch type gate, such as those manufactured by Powder River or another manufacturer with similar design characteristics.~~



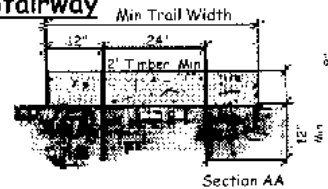
(Ord. 2002-04, 3-20-2002)

— 13. ~~Stairways:~~ Trails in excess of the slopes indicated on the trails matrix should consider stairways. ~~Stairways may be required to conform to the requirements set forth in the international building code. Stairs should not be used on trails that are used by horses, road bikes or the disabled.~~ (Ord. 2013-05, 6-18-2013, eff. 7-12-2013)

— a. ~~Wooden Stairs:~~ Will be constructed of pressure treated or approved rot resistant timber.



Pinned Stairway

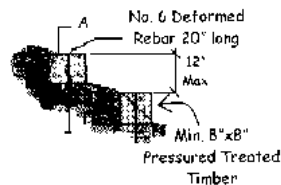


NOTE: Where stairs are located in developed areas of the community, compliance with the uniform building code is required

Treads to be dug into the slope and set into place.

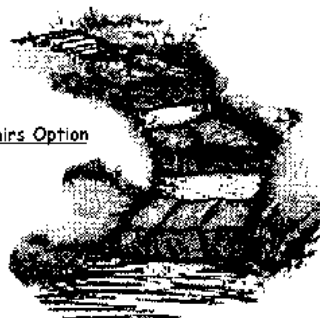
Drill holes through each tread for each rebar stake.

Drive rebar stakes through treads and into ground below.



— b. Stone Stairs: Can be used where trail grades exceed the maximum allowable slopes and where the grade must be gained quickly. Stone stairs should be built with the intent that intensive use should not impact the stairs in the slightest.

Stairs Option



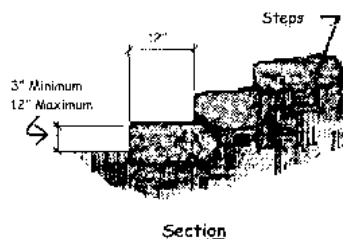
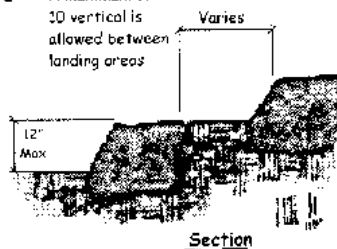
Stone Stairs:

Details are included for reference only. Choose stones with a good shape for stairs. Minimum sizes are shown, start at the bottom and work up. Use the biggest stones possible to span the trail. One stone would be the best, two are fine and three is maximum

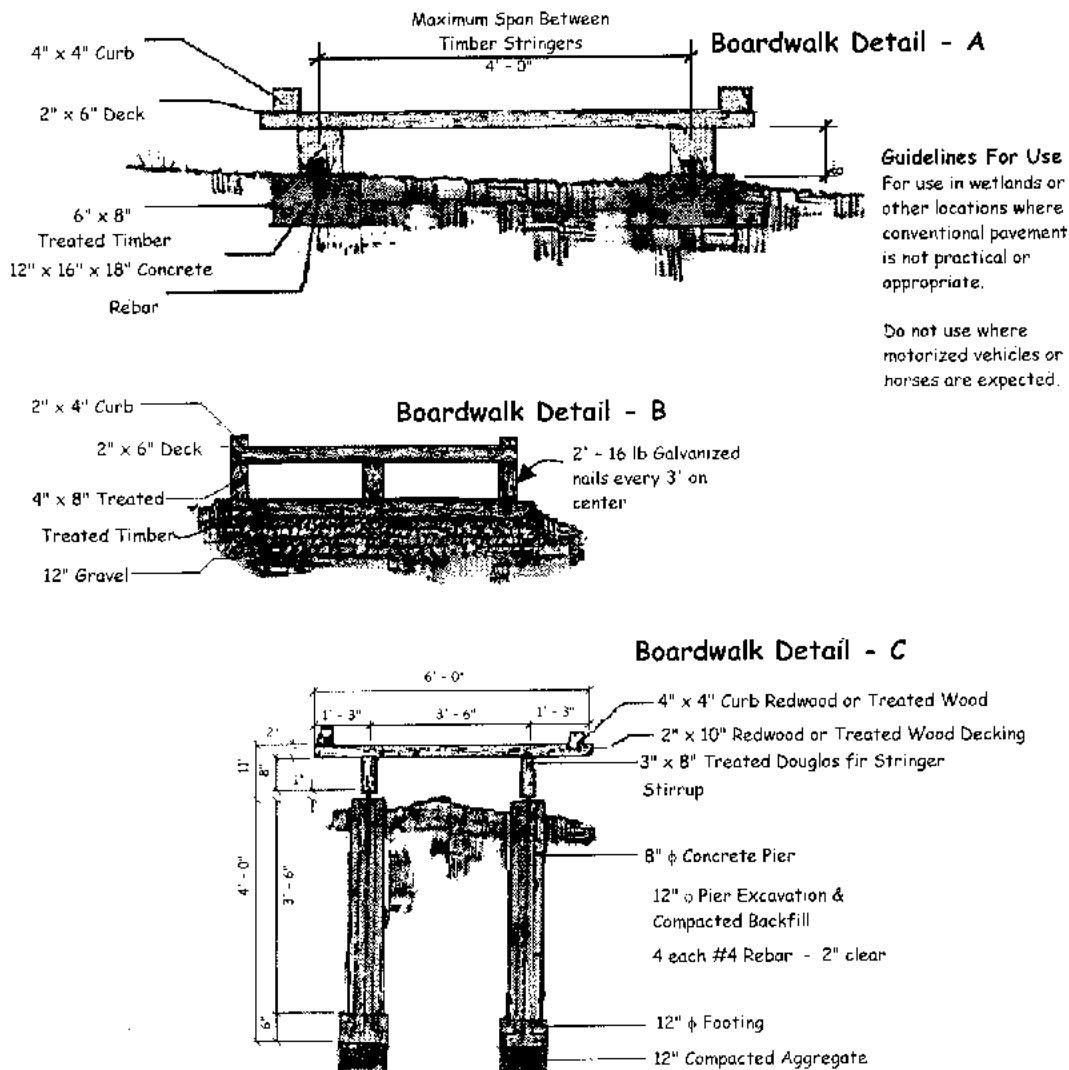
Completely cross the trail
Route the trail so people will stay on the trail and stairs.
Build to the dimensions shown and make each set of stairs are uniform. Keep the height of each step and the distance between steps as uniform as possible within each set of stairs. Maximum grade at top and bottom of stairs as well as between stairs should be 8%. Walk your staircase to ensure it is smooth and uniform.

Stone Stairs for Back Country

NOTE: A maximum of 10 vertical is allowed between landing areas



— 14. Boardwalks: All wood used in boardwalk construction will be pressure treated or approved rot resistant timber.



— 15. **Root Barriers:** Root barriers should be installed along the edges of trails where riparian or vegetation that aggressively seeks out water is present. Willows, Gamble's oak, aspens and cottonwoods are examples of aggressively spreading plants. In situations where irrigated land is on one side of the trail and nonirrigated land is on the other, water seeking vegetation in the nonirrigated side may send roots to the irrigated side, a root barrier should be installed. (Ord. 2002-04, 3-20-2002)

17.18.100: AMERICANS WITH DISABILITIES ACT INFORMATION AND STANDARDS:

In 1990, congress passed the Americans with disabilities act. Among other provisions, the act prohibits state and local governments from discriminating on the basis of disability and requires government services, programs, and activities to be accessible to people with disabilities. Technical assistance concerning the law's application is available by calling 1-800-USA-ABLE. Where potential use and/or ADA access needs warrant, provide trail access through, around, over or under major barriers. For pedestrians, add or improve sidewalks,

create safe crossings, add ADA compliant ramps, and modify signalization and intersections where needed.

Almost fifteen (15) years ago, William Whyte wrote, "If circulation and amenities are planned with (the disabled) in mind, the place is apt to function more easily for everyone".

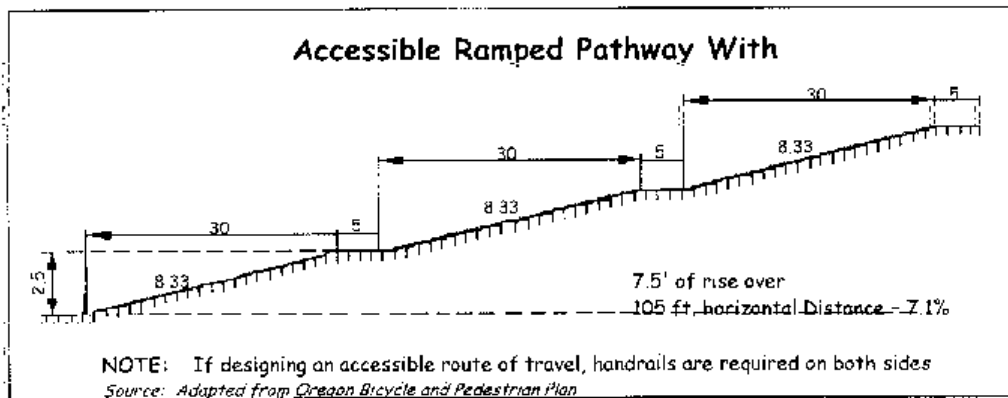
ADA guidelines recommend that to accommodate people in wheelchairs and with other disabilities, each street corner should include two (2) curb ramps. Midblock crossings should have curb ramps at each end. The city of Seattle now installs about four hundred (400) wheelchair ramps at pedestrian crossings per year.

Alternatively, the crosswalk area can be raised to the level of the sidewalk. Such a raised crosswalk will have additional traffic calming benefits, serving as "speed tables" that will slow traffic speed at intersections.

—A. Access For The Disabled: While it is clearly not practical for all types of trails in a mountainous environment to be fully accessible to the disabled, where reasonably appropriate, the trail system should comply with the standards set forth in this law. Until such time as more definitive standards are set forth, this section of the master plan will provide a policy as to what trails are required to comply with this law and how Mapleton City will approach the improvement of trails. All new trails that provide access between new parking lots and new public facilities, such as recreation or institutional facilities, clubhouses, resort facilities, and commercial or business facilities are required to comply with ADA. All new trails providing access to new public, private and institutional transportation facilities also need to comply with ADA requirements. Trail renovation or new trails located in existing developed areas of the community should comply with the ADA standards.

A trail is considered ADA accessible if it meets the following criteria:

- 1. Five foot (5') minimum width.
- 2. Hard surfaces: Asphalt and concrete are the most accessible. Compacted crushed stone also works well, provided that the stones' diameter is less than three-eighths inches (3/8"). Loose gravel is not recommended.
- 3. Trail gradient should be no greater than five percent (5%).
- 4. Ramps, not stairs, should be provided for grades exceeding the five percent (5%) maximum.
- 5. Ramp grades should not exceed eight percent (8%) and have a level landing for every thirty inches (30") of vertical rise and have a slip resistant surface.
- 6. Thirty two inch (32") high handrails should be installed on all ramps and bridges.
- 7. Fully accessible trails should have a rest area every three hundred feet (300'), preferably cleared with a bench outside of the trail path with the distance between rest areas posted at the trailhead.
- 8. One or more accessible parking space should be provided at trail parking lots.
- 9. If gate or bollards are planned to prevent motorized vehicle access to the trail, maintain thirty two inch (32") clearance to ensure or provide wheelchair access.



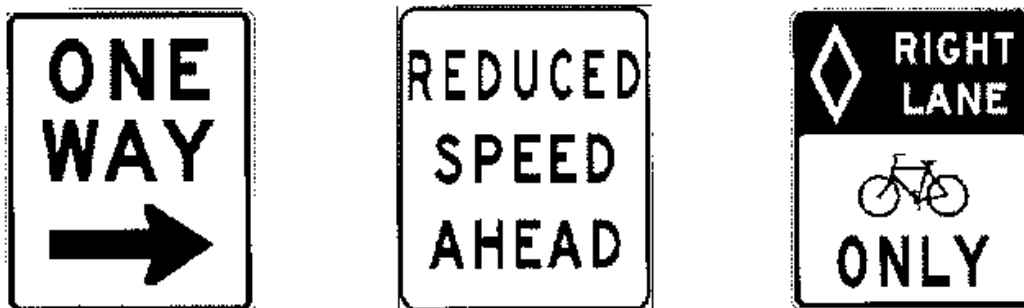
{Ord. 2002-04, 3-20-2002}

17.18.110: SIGNS AND PUBLIC MAPS:

Locations for signs need to be evaluated on a case by case basis and signs should only be posted where necessary to avoid visual pollution. These guidelines provide general direction for signs and their placement.

Signage on privately constructed trails will be purchased by local cities, Mapleton City or UDOT, and given to the contractor constructing the trail for installation. The building department should maintain a stock of commonly used signs. Contractors should notify the building department a minimum of thirty (30) days prior to trail completion to assure the signs they need are available.

—A. Regulatory Signs: Requirements for the use and placement of signs, including regulatory signs at intersections, will follow the standards set forth in the "Manual On Uniform Traffic Control Devices" (MUTCD) section on "Traffic Control Devices For Bicycle Facilities" and will apply to all multiuse paved trails. Bicycle crossing signs near a road approaching a crossing will conform to MUTCD standards. The following information lists the types of regulatory signs and describes where they should be located:



Examples of other signs available. Copy and graphics can be altered to fit your needs and size.



— 1. Stop Signs: Stop signs will be installed wherever paved multiple use trails cross public streets, unless traffic is required to stop at trail intersections or at other potentially hazardous locations.

— 2. Speed Limit, Steep Grade, Danger Warning, And Slow Signs: These signs should be installed where trails approach maximum slopes, areas with limited sight distance and areas with dangerous conditions ahead, such as "Moose Crossings".

— 3. Curve Signs: Trail users should be cautioned by signs when a curve has a smaller than recommended travel radius and/or limited sight distance. Curve signs should be posted at points along the trail where travel at a moderate rate would cause a trail user to leave their lane.

— 4. Dismount Signs: Such signs should be posted in areas where slope exceeds recommended standard and where trail width or vertical clearance is less than the recommended standard.

— 5. School Zone Signs: For the safety of school children and trail users, school signs should be posted near schools.

— 6. Private Property Signs: Signs identifying private property should be located on an "as needed" basis.

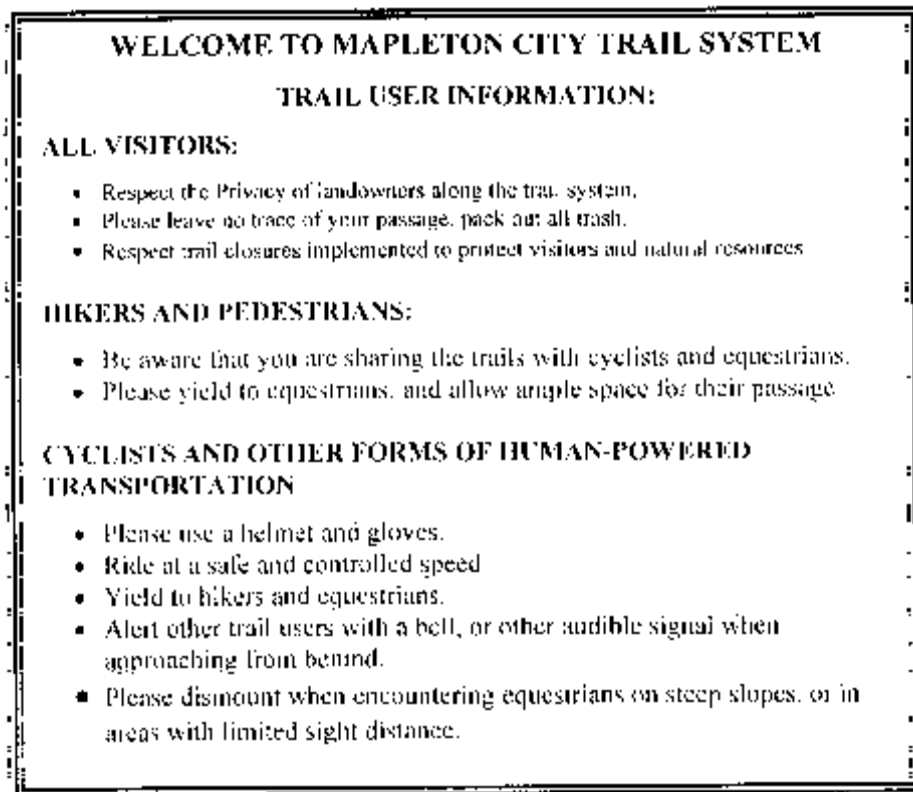
All regulatory signs should have engineer grade reflective coating and be graffiti proof. Sign size and letter height should conform to the speed of traffic along the trail.

— B. Informational Signs:

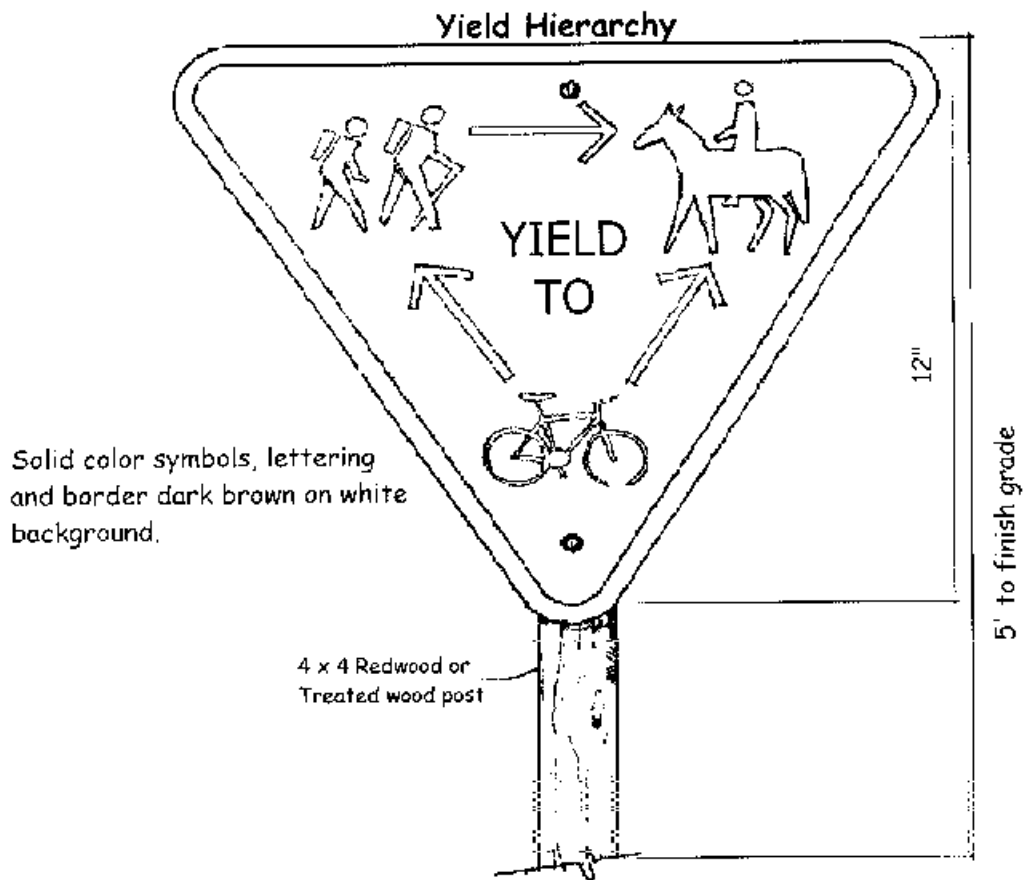
- Signs indicating allowed uses should be posted at trailheads.

- At high volume multiple use trailheads, informational signs indicating user etiquette should be posted.

— 1. Trail User Information Sign: This sign should be placed at all major trailhead facilities and city parks where trails are accessed. It should be located where it is clearly visible and where it does not impede trail use or present a hazard to trail users.



—2. Yield Hierarchy Sign: This sign should be placed at all major access points of multiple use trails. It should be located where it is clearly visible and where it does not impede trail use or present a hazard to trail users.



- 3. Trail Courtesy Sign: Trail courtesy signs should be posted at all trailheads. A shortened user courtesy sign should be installed at trail access points. This sign can be placed on the same post as the "Yield Hierarchy Sign", wherever the trail user information sign is not located. The trail courtesy sign should also be located on "Stop" and "Private Property Signs".

REMEMBER TRAIL COURTESY

1. IF IN DOUBT YIELD
2. RESPECT HORSES
3. RIDE SAFELY AND AWARE
4. ALERT OTHERS WHEN
APPROACHING
5. LEAVE NO TRACE

20

~~{Ord. 2002-04, 3-20-2002}~~

17.20.020: TYPE AND AMOUNT OF GUARANTEE:

E. A performance bond may be partially released if the performance to which it relates has been satisfactorily completed, except that not less than ~~ten~~ twenty percent (~~21~~20%) of the performance bond shall be retained to ensure completion of the entire performance. ~~Beginning with the third partial release of a performance bond, a service charge of one hundred dollars (\$100.00) shall be charged in addition to the actual cost of processing the partial release.~~

17.20.050: DURABILITY BOND:

A. The city shall retain a durability bond in the amount of not less than ten percent (10%) of the initial amount of the performance bond in the form of cash or letter of credit. The durability bond shall be for the purpose of warranting the improvements and shall be for a period of:

1. One year after final acceptance of the improvement or warranty work; or
2. Two (2) years after final acceptance of the improvement or warranty work, if the city:

- a. Determines for good cause that a lesser period would be inadequate to protect the public health, safety, and welfare; and
- b. Has substantial evidence of:
 - (1) Prior poor performance of the applicant;
 - (2) Unstable soil conditions within the subdivision or development area; or
 - (3) Extreme fluctuations in climatic conditions that would render impracticable the discovery of substandard or defective performance within a one year period.

~~17.24.060: AS BUILT DRAWINGS OF RECORD REQUIRED:~~

~~Plans showing the location and size of all sewer and water lines, valves and other subsurface utility and service lines and facilities shall be required prior to plat recording or the release of performance guarantees. (Ord. 2014-04, 3-19-2014, eff. 4-13-2014)~~

17.24.090: AMENDMENTS TO SUBDIVISION ORDINANCE:

B. Amendments shall be adopted by ordinance duly passed by the council. Before adopting any proposed amendment the council shall hold a public hearing in relation thereto, at which parties in interest and citizens shall have an opportunity to be heard. Notice for the public hearing shall follow the public noticing requires of the Utah State Code. ~~of the time and place and subject matter of the hearing shall be published in a newspaper of general circulation within the city at least fifteen (15) days prior to the date of the hearing. No material change in or departure from the proposed amendment as recommended by the planning commission shall be made after the hearing unless such change or departure be first resubmitted to the planning commission for its consideration and recommendation.~~

17.24.100: LEVEL OF IMPROVEMENTS TO BE INSTALLED BEFORE BUILDING PERMITS MAY BE ISSUED:

A. No building permit for the construction of a dwelling or other structure intended for human occupancy may be issued for any lot in a subdivision unless and until said lot is served by the following minimum level of subdivision improvements:

1. The required culinary water main and lateral connection, extending from its point of connection to the existing city supply main, to the lot and fire hydrants where applicable.
2. The permanent water service line including the service tap, pipe and meter housing and assembly.
3. The required basic road improvements (required subbase and untreated road base) extending from the existing city street system to and across the lot.
4. The required sewer main and lateral connection extending from its point of connection to the existing city supply main, to the lot.
5. Street guide and traffic control signs have been installed.



PLANNING COMMISSION MINUTES

May 27, 2021

PRESIDING AND CONDUCTING: Chairman Jesse McLean

Commissioners in Attendance: Rich Lewis
Christy Nemelka
TJ Uriona

Staff in Attendance: Sean Conroy, Community Development Director
Brian Tucker, Planner

Minutes Transcribed by: April Houser, Executive Secretary

Chairman Jesse McLean called the meeting to order at 6:00pm. Alternate Commissioner TJ Uriona was seated as voting member this evening.

Item 1. Planning Commission Meeting Minutes – May 13, 2021.

Motion: Commissioner Lewis moved to approve the May 13, 2021, Planning Commission Meeting Minutes.

Second: Commissioner Nemelka

Vote: Unanimous

Item 2. Consideration of a request for Preliminary Plat approval for the Hardman Subdivision, Plat A, a 2-lot subdivision located at 1127 North Main Street in the RA-2 Zone.

Brian Tucker, Planner, went over the Staff Report for those in attendance. The parcel is a little over 1-acre in size. There is currently one home on the property. The improvements are installed on Main Street.

Motion: Commissioner McLean moved to approve the Preliminary Plat approval for the Hardman Subdivision, Plat A, a 2-lot subdivision located at 1127 North Main Street in the RA-2 Zone with the condition that any outstanding issues raised in the Development Review Committee (DRC) minutes shall be addressed prior to plat recording.

Second: Commissioner Uriona

Vote: Unanimous

Item 3. Consideration of a request to rezone 2.0123 acres located at 1155 West 800 South from A-2 to RA-1 with the TDR-Receiving Overlay and the approval of the 2-lot Emerald Corner Subdivision.

Brian Tucker, Planner, went over the Staff Report for those in attendance. There is currently one home on the property. The applicant will install the improvements along 800 South. The RA-1 Zone surrounds this property, and Transferable Development Rights (TDR)'s is allowed in this area. Staff recommends approval of this item. There are some trees located on the property, so Commissioner Uriona asked if they would need to be removed to install the rest of the street improvements? Brian stated that they would likely have to remove them due to lack of additional space.

Stephen Scutt, the applicant, stated that he felt the City should help pay some of the costs of improvements since he will be dedicating some of his property for the street right-of-way (ROW). Brian stated that it is the developer's responsibility for improvements when they subdivide their property. The Commission stated that the request would be something to discuss with the City Council. **Chairman McLean** mentioned that he felt if the City were requiring the applicant to deed the property over to the City so they could finish the street in this area, they would pay for it. Where the proposal is coming from the applicant to develop currently, without the recommendation coming from the city, it is their responsibility to cover the costs of development. **Commissioner Lewis** mentioned if the applicant had questions about the street right-of-way and installation costs, they could take it to the Utah State Ombudsman for further insight.

Motion: Commissioner Lewis moved to approve the rezone 2.0123 acres located at 1155 West 800 South from A-2 to RA-1 with the TDR-Receiving Overlay and the approval of the 2-lot Emerald Corner Subdivision with the condition that any outstanding issues raised in the Development Review Committee (DRC) minutes shall be address prior to plat recording.

Second: Commissioner Nemelka

Vote: Unanimous

Item 4. Consideration of amendment to Mapleton City Code Title 17 regarding subdivision requirements.

Sean Conroy, Community Development Director, went over the Staff Report for those in attendance. This Title of the Mapleton City Code covers the subdivision requirements. This item is mainly to clean up discrepancies or confusion. There is an addition to the ordinance that would give the Planning Commission and City Council the right to require buffering in areas that are adjacent to developed lots. **Commissioner Uriona** asked why some of the trail portions were being removed, or why it was in the ordinance to begin with. Sean stated that they took it out because developers are already required to meet ADA standards, which covers this topic.

Motion: Commissioner McLean moved to recommend approval to the City Council of an amendment to Mapleton City Code Title 17 regarding subdivision requirements as proposed.

Second: Commissioner Uriona

Vote: Unanimous

Item 5. Consideration of amendments to the City's Transportation Master Plan Map.

Item continued to a future Planning Commission Meeting.

Item 6. Adjourn.

April Houser, Executive Secretary

Date