

**CITY OF SARATOGA SPRINGS
CITY COUNCIL WORK SESSION
AGENDA**

Tuesday, April 29, 2014

Meeting held at the City of Saratoga Springs City Offices
1307 North Commerce Drive, Suite 200, Saratoga Springs, Utah 84045

One or more Councilmember may participate in this meeting electronically via video or telephonic conferencing

City Council Work Session

5:30 p.m.

1. Agenda Review:
 - a. Discussion of current City Council agenda staff questions.
 - b. Discussion of future City Council policy and work session agenda items.
2. Interview potential candidate for the City's Urban Design Committee.
3. Discussion of possible adoption of new private road standards.
4. Discussion of City Code amendments to Title 18 adding grading permit requirements.
5. Reports:
 - a. Mayor.
 - b. City Council.
 - c. Administration communication with Council.
6. Adjourn to Policy Session.



**Private Road Standards Text Amendment
April 29, 2014
Work Session**

Report Date:	April 23, 2014
Applicant/Owner:	City of Saratoga Springs
Location:	Citywide
Previous Meetings:	October 24, 2013 (Planning Commission)
Land Use Authority:	City Council
Future Routing:	Public Hearing(s) with City Council
Author:	Scott Langford, Senior Planner

A. Executive Summary:

This is a request for a text amendment to Section 19.12.06(d) regulating the design of private roads. The proposed amendment would allow for three different private road designs based on zoning. The Planning Commission held a public hearing to review a similar code amendment on October 24, 2013; however, this current amendment requests two additional private road designs that were not considered with the original proposal in 2013.

As of the completion of this report, the Planning Commission has not had the opportunity to review this request and hold a public hearing. This report will be updated to include the Planning Commission's formal recommendation prior to the City Council's public hearing, which is scheduled for May 6, 2014.

Recommendation:

Staff recommends that the City Council review the proposed amendment and provide informal feedback to staff in preparation for the public hearing which will be held on May 6, 2014.

B. Background:

Upon review of recent developments, staff and the Planning Commission have observed the unintended consequences of requiring public road designs for private streets. Some of these unintended consequences include vertically undulating sidewalks that create usability issues as well as in some cases creating a more urban or suburban environment for more rural large lot developments.

C. Specific Request:

This is a request to amend Section 19.12.06(d) of the Land Development Code in the following manner:

19.12.06. General Subdivision Improvement Requirements.

1. Subdivision Layout. This Section contains general requirements regarding overall subdivision design and layout. The following provisions apply to new subdivisions:

d. Private roads may be constructed if approved as part of the Preliminary Plat approval by the City Council and so long as such roads meet the standards identified in the Saratoga Springs Standard Street Improvement Details. ~~same standards and requirements for public roads in the City except that park strips are not required.~~

These standard details will be added to engineering standards and specifications manual concurrently with this code amendment. There are three proposed private road cross sections that will be added in conjunction with this code amendment. These three proposed cross sections are attached to this report.

The first cross section would be permitted by the City Council in the R-10, R-14, R-18, NC, MU, RC, OW, I, ML, BP, IC, and PC zones.

The second cross section would be permitted by the City Council in the R-5, R-6, R-10, R-14, R-18, NC, MU, RC, OW, I, ML, BP, IC, and PC zones.

The third cross section would be permitted by the City Council in the A, RA-5, and RR zones.

D. Process:

Per Section 19.17.03 of the City Code, all text amendments require City Council approval after receiving a recommendation from the Planning Commission.

E. Community Review:

Notice of the proposed text amendment was posted in the Daily Herald and on the City's website. As of the completion of this report, the City has not received any public comment regarding this application.

F. Review:

The proposed text amendment was reviewed against the requirements of Sections 19.17.03 and 19.17.04 of the City Code. Detailed analysis of these requirements is provided in Section "H" of this report.

G. General Plan:

Section 19.17.03(2) states, *"The Planning Commission shall recommend adoption of proposed amendments only where it finds the proposed amendments furthers the purpose of the Saratoga Springs Land Use Element of the General Plan and that changed conditions make the proposed amendment necessary to fulfill the purposes of this Title."*

The General Plan states, "Attention to design will be essential as site and structural plans are prepared for residential projects."

The primary purpose of the proposed text amendment is to provide appropriate design flexibility to promote safe pedestrian and vehicular movement within developments that choose to build and maintain private roads.

H. Code Criteria:

Section 19.17.04 of the City Code states, *"The Planning Commission and City Council shall consider, but not be bound by, the following criteria when deciding whether to recommend or grant a general plan, ordinance, or zoning map amendment."* Upon review of the City Code, staff believes that the proposed text amendment is consistent with the code criteria.

1. **The proposed change is consistent with the Land Use Element and other provisions of the General Plan.** As stated in Section "G" of this report, the proposed text amendment supports and enhances its provisions because this amendment provides design alternatives which support a variety of potential housing types.
2. **The proposed change will not decrease nor otherwise adversely affect the health, safety, convenience, morals, or general welfare of the public:** The proposed text amendment allows for flexible designs that properly reflect the built residential environment. This design flexibility should promote a positive effect on the health, safety, convenience, morals, and general welfare of the public.
3. **The proposed change will more fully carry out the general purposes and intent of this Title and any other ordinance of the City:** The intent of Section 19.12.06(d) is to provide design flexibility of private roads. The current code language only allows for developers to remove the park strip. Providing multiple private road cross sections will allow developers who chose to build private roads to pick a design that is most appropriate for their type of development, whether it be high density residential or rural residential.
4. **In balancing the interest of the petitioner with the interest of the public, community interests will be better served by making the proposed change:** The City has received multiple applications that could be improved if the code was amended to provide appropriate design alternatives for private roads. Staff believes that by providing private road design standards based on the corresponding zoning districts (and subsequently the built environment) private developments citywide will have greater flexibility to install infrastructure better suited to the character of their particular development.

I. Recommendation and Alternatives:

After evaluating the required standards for text amendments, staff recommends that the City Council conduct a public hearing and make the following motion:

Recommended Motion:

"Based upon the evidence and explanations received today, I move that the Planning Commission forward a positive recommendation to the City Council to approve the text amendment to Section 19.12.06(d), as presented in this report, with the findings below:

Findings:

1. As stated in Section H of this report, the code change is consistent with the General Plan and Land Development Code. All findings in Section H of this report are incorporated into these findings by this reference.

Alternative Motions:

Alternative Motion A

"I move to **continue** the item to another meeting, with direction to the applicant and Staff on information and/or changes needed to render a decision, as follows:

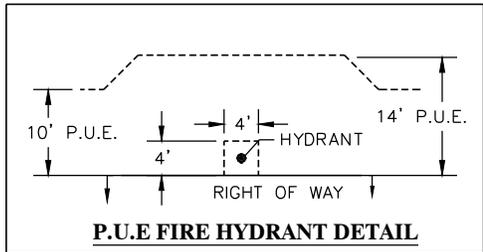
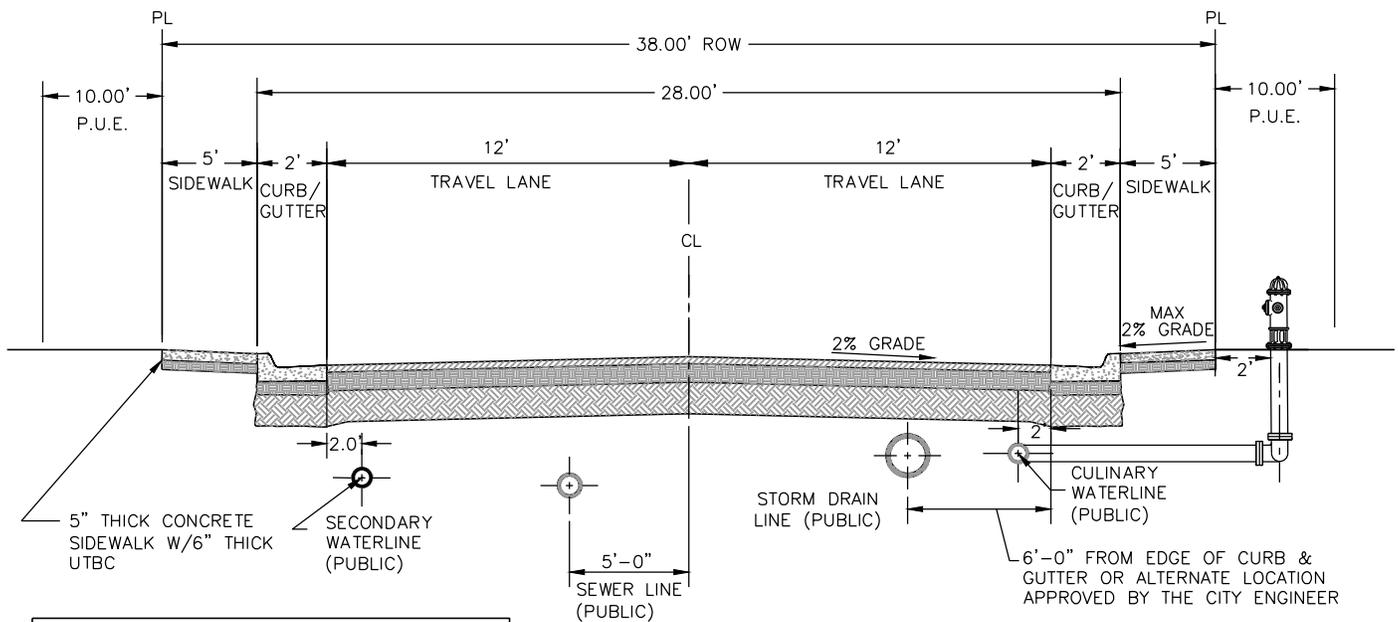
Alternative Motion B

"Based upon the evidence and explanations received today and the following findings, I move that the City Council deny the text amendment to Section 19.12.06(d) as presented in this report. Specifically I find that the following standards and/or code requirements have not been met:"

List Specific Code Standards and Requirements:

J. Exhibits:

1. Private Road Cross Sections
2. Draft Ordinance



NOTES:

1. THIS ROW CROSS SECTION SHALL BE PERMITTED FOR PRIVATE ROAD CROSS SECTIONS IN THE FOLLOWING ZONES: R-10, R-14, R-18, NC, MU, RC, OW, I, ML, BP, PC, AND IC.
2. MAXIMUM DIFFERENCE IN ELEVATION BETWEEN CURB ON OPPOSITE SIDES OF STREET SHALL NOT EXCEED 1'-0"
3. PAVEMENT DESIGN SHALL BE BASED ON BY A SOILS REPORT AS PER CITY STANDARDS.
4. PROVIDE A MINIMUM 6" THICKNESS UTBC UNDER SIDEWALKS, DRIVEWAY APPROACHES, AND CURB & GUTTER.
5. INSTALL TYPE 2 SLURRY SEAL ON ALL HMA UPON COMPLETION OF PAVING AND PRIOR TO ACCEPTANCE OF ROADS.
6. HOUSES MAY FRONT ON THESE STREETS.
7. MODIFIED CURB AND GUTTER MAY BE PERMITTED ONLY WHEN THE SPACING BETWEEN DRIVEWAYS IS LESS THAN 50 FEET AS MEASURED FROM EDGE TO EDGE. IF MODIFIED CURB AND GUTTER IS PERMITTED, THE TRAVEL LANES SHALL BE REDUCED TO 11.5' TO ACCOMMODATE LONGER CURB AND GUTTER CROSS SECTION.
8. P.U.E. SHALL JOG AROUND ALL HYDRANT LOCATIONS.

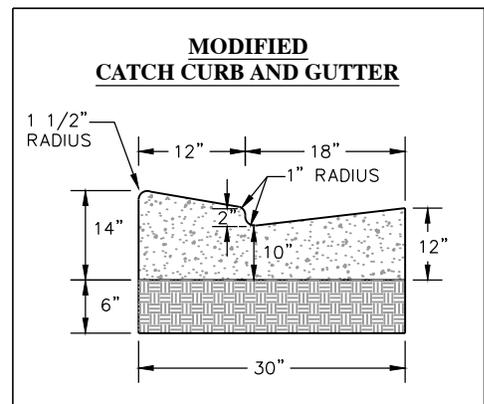
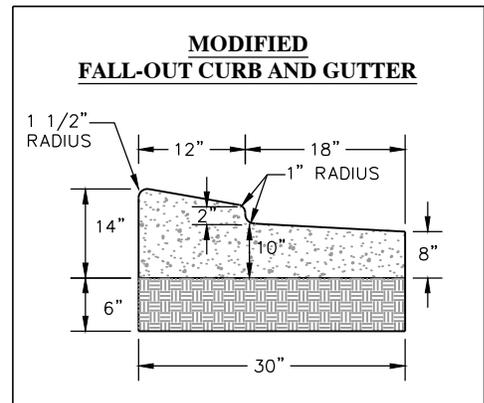
DESIGN CRITERIA

DESIGN SPEED: 25 M.P.H.

MIN CENTERLINE RADIUS: 200' MIN.

VERTICAL CURVE REQUIREMENTS: SAG K VALUE = 37

CREST K VALUE = 20

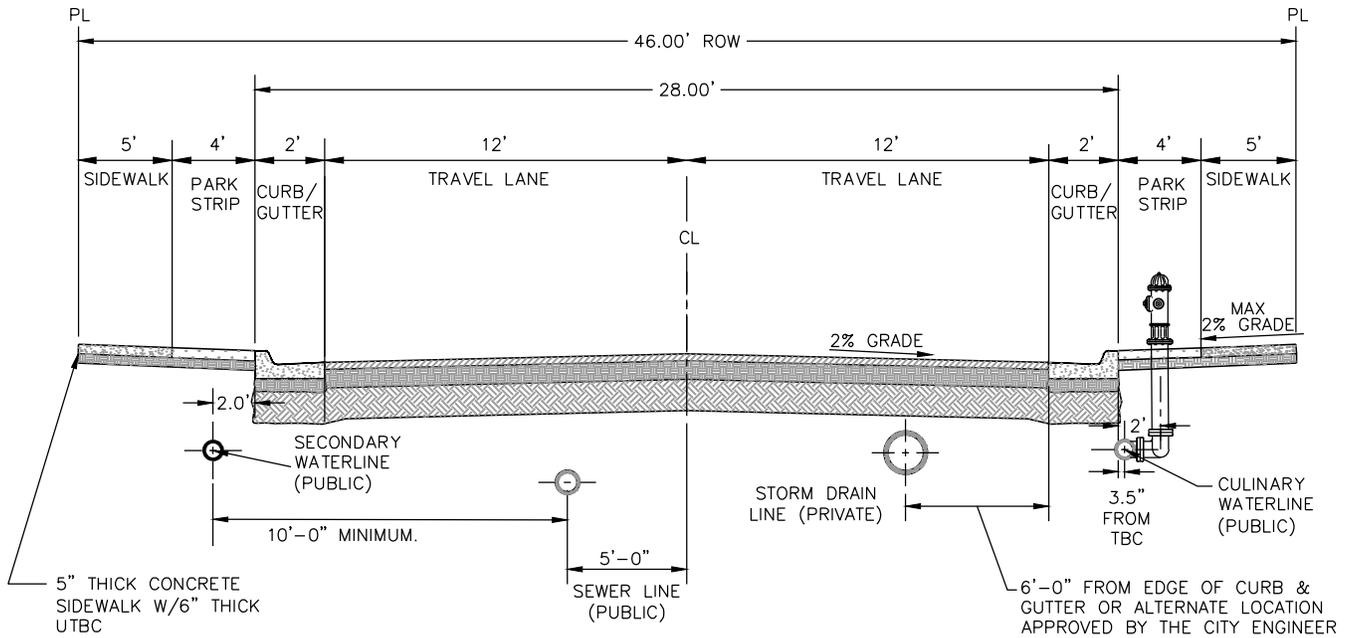


**PRIVATE
ROADWAY
W/O PARK STRIP
38' RIGHT-OF-WAY**

DATE: APRIL 2014	REVISIONS	
DRAWING NAME: ST-?	REV. DATE BY COMMENTS	
DRAWN BY: CJG		
CHECKED: APPROVED:	SARATOGA SPRINGS CITY	
	1307 N. COMMERCE DR. #200, SARATOGA SPRINGS, UT 84045 PHONE: 801-766-9793 FAX: 801-766-9794	



STANDARD DETAILS
STREET STANDARDS
ST-?



NOTES:

1. THIS ROW CROSS SECTION SHALL BE PERMITTED FOR PRIVATE ROAD CROSS SECTIONS IN THE FOLLOWING ZONES: R-5, R-6, R-10, R-14, R-18, NC, MU, RC, OW, I, ML, BP, PC AND IC.
2. MAXIMUM DIFFERENCE IN ELEVATION BETWEEN CURB ON OPPOSITE SIDES OF STREET SHALL NOT EXCEED 1'-0"
3. PAVEMENT DESIGN SHALL BE BASED ON A SOILS REPORT AS PER CITY STANDARDS.
4. PROVIDE A MINIMUM 6" THICKNESS UTBC UNDER SIDEWALKS, DRIVEWAY APPROACHES, AND CURB & GUTTER.
5. INSTALL TYPE 2 SLURRY SEAL ON ALL HMA UPON COMPLETION OF PAVING AND PRIOR TO ACCEPTANCE OF ROADS.
6. HOUSES MAY FRONT ON THESE STREETS.

DESIGN CRITERIA

DESIGN SPEED: 25 M.P.H.

MIN CENTERLINE RADIUS: 200' MIN.

VERTICAL CURVE REQUIREMENTS: SAG K VALUE = 37

CREST K VALUE = 20

**PRIVATE
ROADWAY
W/ PARK STRIP
46' RIGHT-OF-WAY**

DATE: APRIL 2014	
DRAWING NAME: ST-?	
DRAWN BY: CJG	
CHECKED:	APPROVED:

REVISIONS		
REV	DATE	BY

**SARATOGA
SPRINGS CITY**

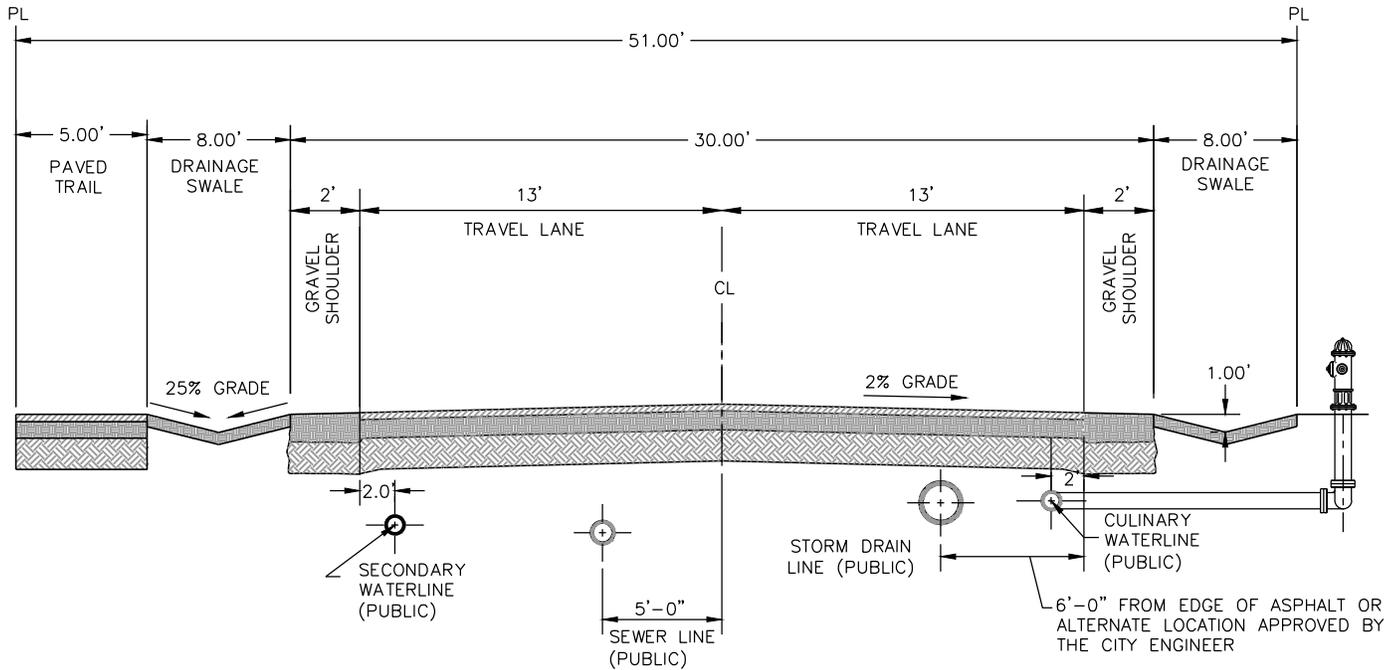
1307 N. COMMERCE DR.
#200, SARATOGA SPRINGS,
UT 84045
PHONE: 801-766-9793
FAX: 801-766-9794



STANDARD DETAILS

STREET STANDARDS

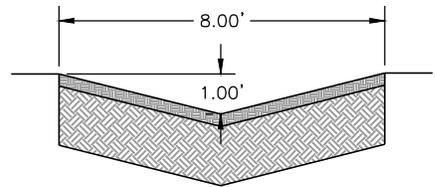
ST-?



NOTES:

1. THIS ROW CROSS SECTION SHALL BE PERMITTED FOR PRIVATE ROAD CROSS SECTIONS IN THE FOLLOWING ZONES: A, RA5, AND RR.
2. MAXIMUM DIFFERENCE IN ELEVATION BETWEEN SWALE ON OPPOSITE SIDES OF STREET SHALL NOT EXCEED 1'-0"
3. PAVEMENT DESIGN SHALL BE BASED ON A SOILS REPORT AND AS PER CITY STANDARDS.
4. INSTALL TYPE 2 SLURRY SEAL ON ALL HMA UPON COMPLETION OF PAVING AND PRIOR TO ACCEPTANCE OF ROADS.
5. HOUSES MAY FRONT ON THESE STREETS.
6. A FIVE FOOT ASPHALT OR CONCRETE TRAIL MUST BE PROVIDED ON ONE SIDE OF THE STREET. TRAIL MUST MEET CITY DESIGN STANDARDS

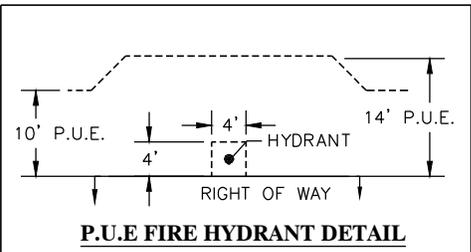
DRIVE APPROACH SWALE CROSS SECTION



DRIVE APPROACHES SHALL HAVE BASE COURSE AND GRANULAR BORROW CONSISTENT WITH PAVEMENT DESIGN

DESIGN CRITERIA

DESIGN SPEED: 25 M.P.H.
 MIN CENTERLINE RADIUS: 200' MIN.
 VERTICAL CURVE REQUIREMENTS: SAG K VALUE = 37
 CREST K VALUE = 20



PRIVATE ROADWAY RURAL 51' RIGHT-OF-WAY

DATE: APRIL 2014	REVISIONS	
DRAWING NAME: ST-?	REV	DATE BY COMMENTS
DRAWN BY: CJG		
CHECKED: APPROVED:	SARATOGA SPRINGS CITY <small>1307 N. COMMERCE DR. #200, SARATOGA SPRINGS, UT 84045 PHONE: 801-766-9793 FAX: 801-766-9794</small>	



STANDARD DETAILS
 STREET STANDARDS
ST-?

ORDINANCE NO. [14]-[Ord. #] (date of Council action)

AN ORDINANCE OF THE CITY OF SARATOGA SPRINGS, UTAH, ADOPTING AMENDMENTS TO THE SARATOGA SPRINGS LAND DEVELOPMENT CODE AND ESTABLISHING AN EFFECTIVE DATE

WHEREAS, Title 19 of the City of Saratoga Springs Code, entitled “Land Development Code” was enacted on November 9, 1999 and has been amended from time to time; and

WHEREAS, the City Council and Planning Commission have reviewed the Land Development Code and find that further amendments to the Code are necessary to better meet the intent and direction of the General Plan; and

WHEREAS, the Saratoga Springs Planning Commission has held a public hearing to receive comment on the proposed modifications and amendments as required by Chapter 9a, Title 10, Utah Code Annotated 1953, as amended; and

WHEREAS, the Planning Commission, after the full and careful consideration of all public comment, has forwarded a recommendation to the Saratoga Springs City Council regarding the modifications and amendments; and

WHEREAS, the City Council has conducted a public hearing to receive comment on the Planning Commission recommendation pursuant to Chapter 9a, Title 10, Utah Code Annotated 1953, as amended; and

WHEREAS, following the public hearing, and after receipt of all comment and input, and after careful consideration, the Saratoga Springs City Council has determined that it is in the best interests of the public health, safety, and welfare of Saratoga Springs citizens that the following modifications and amendments to Title 19 be adopted.

NOW THEREFORE, the City Council of the City of Saratoga Springs, Utah hereby ordains as follows:

SECTION I – ENACTMENT

The amendments attached hereto as Exhibit A, incorporated herein by this reference, are hereby enacted. Such amendments are shown as underlines and strikethroughs. The remainder of Title 19 shall remain the same.

SECTION II – AMENDMENT OF CONFLICTING ORDINANCES

If any ordinances, resolutions, policies, or zoning maps of the City of Saratoga Springs heretofore adopted are inconsistent herewith they are hereby amended to comply with the provisions hereof. If they cannot be amended to comply with the provisions hereof, they are hereby repealed.

SECTION III – EFFECTIVE DATE

This ordinance shall take effect upon its passage by a majority vote of the Saratoga Springs City Council and following notice and publication as required by the Utah Code.

SECTION IV – SEVERABILITY

If any section, subsection, sentence, clause, phrase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such provision shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of this ordinance.

SECTION V – PUBLIC NOTICE

The Saratoga Springs City Recorder is hereby ordered, in accordance with the requirements of Utah Code §§ 10-3-710—711, to do as follows:

- a. deposit a copy of this ordinance in the office of the City Recorder; and
- b. publish notice as follows:
 - i. publish a short summary of this ordinance for at least one publication in a newspaper of general circulation in the City; or
 - ii. post a complete copy of this ordinance in three public places within the City.

ADOPTED AND PASSED by the City Council of the City of Saratoga Springs, Utah, this ___ day of _____, 2014.

Signed: _____
Jim Miller, Mayor

Attest: _____
Lori Yates, City Recorder

Date

VOTE

Shellie Baertsch	_____
Rebecca Call	_____
Michael McOmber	_____
Stephen Willden	_____
Bud Poduska	_____

EXHIBIT A

19.12.06. General Subdivision Improvement Requirements.

1. Subdivision Layout. This Section contains general requirements regarding overall subdivision design and layout. The following provisions apply to new subdivisions:

- d. Private roads may be constructed if approved as part of the Preliminary Plat approval by the City Council and so long as such roads meet the standards identified in the Saratoga Springs Standard Street Improvement Details. ~~same standards and requirements for public roads in the City except that park strips are not required.~~

City Council Staff Report

Author: Jeremy D. Lapin, P.E., City Engineer
Subject: Code Amendment – Chapter 18.05 Grading
Date: April 29, 2014
Type of Item: Work Session Discussion



Description:

A. Topic:

This item is for the discussion of adopting an amendment to the City Code to establish rules and regulations to regulate grading, excavation, and earthwork construction including fills and embankment, establish an administrative procedure for issuance of permits, and to provide for the approval of plans and inspection of grading construction.

B. Background:

City Staff has identified the need for the ability to regulate grading and earthwork activity within the City when that grading activity occurs outside the scope of the City's Land Development Code – Chapter 19.

C. Analysis:

The City has identified two main conditions that have highlighted the need for a section of Code that will establish rules and regulations to regulate grading, excavation, and earthwork construction including fills and embankment, and to establish an administrative procedure for the issuance of permits, and to provide for approval of plans and inspection of grading construction. The first are grading activities that take place on private property that are of a size and scale where there is the potential to impact adjacent property owners and where there is a potential impact to the safety of the general public. Staff has noticed these activities are taking place without any coordination or notification to the City and with what appears to be minimal effort to safeguard the public welfare. The second condition has occurred when the City has received requests from developers and landowners to conduct mass grading operations that are not associated with any specific development. In both of these situations, there is currently nothing in the City Code that would direct staff with specific procedures or regulations on how to proceed with either regulating an ongoing operation or in processing a request.

Recommendation: No action is required at this time. Staff Recommends the City Council discuss the proposed addition to the City Code (Chapter 18.05 – Grading) and provide staff with direction.

Title 18. BUILDING AND CONSTRUCTION.

Chapters:

- 18.01. Adopted Codes.**
- 18.02. Flood Damage Prevention.**
- 18.03. Open Pit Extraction of Earth Products.**
- 18.04. Excavation Permits.**
- 18.05. Grading.**

Chapter 18.05. Grading.

Sections:

- 18.05.01. Purpose.**
- 18.05.02. Scope.**
- 18.05.03. Definitions.**
- 18.05.04. Grading Permit Required.**
- 18.05.05. Grading Permit Requirements.**
- 18.05.06. Grading Fees.**
- 18.05.07. Bonds.**
- 18.05.08. Hazards.**
- 18.05.09. Cuts.**
- 18.05.10. Fills.**
- 18.05.11. Setbacks.**
- 18.05.12. Drainage and Terracing.**
- 18.05.13. Erosion Control.**
- 18.05.14. Grading Inspection.**
- 18.05.15. Completion of Work.**

18.05.01. Purpose.

The purpose of this Chapter is to safeguard life, limb, property, and the public welfare by regulating grading on property within the City of Saratoga Springs.

18.05.02. Scope.

This Chapter establishes rules and regulations to regulate grading, excavation, and earthwork construction including fills and embankment, establishes the administrative procedure for issuance of permits, and provides for approval of plans and inspection of grading construction.

18.05.03. Definitions.

As used in this Chapter:

1. **“Cut”** means the removal of soil, rock, or earth materials from an area of land.
2. **“Cut slope”** means an artificial incline or decline created by a cut.
3. **“Fill”** means a deposit of soil, rock, or earth material placed onto an area of land by artificial means such as the placement of soil for an embankment or fill slope.
4. **“Fill slope”** means an artificial incline or decline created by a fill.

5. “Grade” means the ground surface contour.
6. “Grading” means excavation, filling, in-place ground modification, removal of roots or stumps that includes ground disturbance, stockpiling of earth materials, or any combination thereof, including the establishment of a grade following demolition of a structure.
7. “Slope” means an inclined ground surface.

18.05.04. Grading Permit Required.

1. Except as specified in subsection 2, no person shall perform any grading without first having obtained a grading permit from the City Engineer.
2. A grading permit is not required for the following:
 - a. An excavation below finished grade for basements and footings of a building, retaining wall, or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation or exempt any excavation remaining after the completion of such structure.
 - b. Approved and permitted cemetery graves.
 - c. Approved and permitted refuse disposal sites controlled by other regulations.
 - d. Exploratory excavations under the direction of soil engineers or engineering geologists where no more than 500 square feet of land surface is disturbed or where bore holes are 12” in diameter or less.
 - e. An excavation and/or fill that is no more than two feet in depth and covers an area less than 1000 sq. ft.
 - f. Work covered by a City approved encroachment permit
3. Exemption from the permit requirements of this Chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this Chapter or any other laws or ordinances.

Deleted: 2.,

Deleted: : ¶

Deleted: : or¶

18.05.05. Grading Permit Requirements.

1. **Permit Required.** Except as exempted in this Chapter, no person shall perform any grading without first obtaining a grading permit from the City. A separate permit shall be obtained for each site and may cover both excavations and fills.
2. **Grading Designation.** Grading equal to or greater than 1,000 cubic yards shall be performed in accordance with an approved grading plan prepared by a licensed civil engineer and shall be designated as “engineered grading.” Grading involving less than 1,000 cubic yards shall be designated “regular grading,” unless the permittee chooses to have the grading performed as engineered grading or the City Engineer determines that special conditions or unusual hazards exist, in which case grading shall conform to the requirements for engineered grading.

3. **Engineered Grading Requirements.**

- a. Application for a grading permit shall be accompanied by two sets of construction drawings and details, a Storm Water Pollution Prevention Plan (SWPPP), permanent stabilization plans, and supporting data consisting, at a minimum, of a soils engineering report, geology report, geotechnical report, and revegetation plan as requested by the City.
- b. The plans shall be prepared and signed by an individual licensed by the state to prepare such plans.
- c. Specifications, if requested by the City, shall contain information covering construction and material requirements.
- d. Plans shall be drawn to scale upon substantial paper and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this Chapter and all relevant laws, ordinances, rules, and regulations.
- e. The first sheet of each set of plans shall give the location of the work, the name and address of the owner, and the person by whom they were prepared.
- f. The plans shall include the following information:
 - i. general vicinity of the proposed site;
 - ii. property limits;
 - iii. accurate contours of existing ground;
 - iv. details of terrain and area drainage;
 - v. limiting dimensions, elevations, or finish contours to be achieved by the grading, and proposed drainage channels and related construction;
 - vi. detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams, and other protective devices to be constructed with, or as a part of, the proposed work, together with a map showing the drainage area and the estimated runoff of the area served by any drains;
 - vii. location of any buildings or structures on the property where the work is to be performed and the location of any buildings or structures on land of adjacent owners that are within fifteen feet of the property or that may be affected by the proposed grading operations;
 - viii. recommendations included in the soils engineering report ; when approved by the City Engineer, specific recommendations contained in the soils engineering report that are applicable to grading may be included by reference; and
 - ix. dates of the soils engineering and engineering geology reports together with the names, addresses, and phone numbers of the firms or individuals who prepared the reports.

4. **Specific Requirements.**

- a. **Soils Engineering Report.** The soils engineering report shall include: (a) data regarding the nature, distribution, and strength of existing soils; (b) conclusions and recommendations for grading procedures and design criteria for corrective measures, including buttress fills when necessary; and (c) opinion on adequacy

for the intended use of sites to be developed by the proposed grading as affected by soils engineering factors including the stability of slopes.

- b. **SWPPP.** The SWPPP shall meet all requirements per State requirements, including the following:
 - i. the faces of cut and fill slopes prepared and maintained to control against erosion;
 - 1. This control may consist of effective planting. The protection for the slopes shall be installed as soon as practicable and prior to calling for final approval. This must meet the current City Engineering Standard Technical Specifications and Drawings;
 - ii. Effective planting controls;
 - iii. BMP details;
 - iv. Silt fence locations; and
 - v. Inlet protection.
 - c. **Engineering Geology Report (if requested by the City).** The geology report shall include at a minimum:
 - i. An adequate description of the geology of the site;
 - ii. Conclusions and recommendations regarding the effect of geologic conditions on the proposed development; and
 - iii. Opinion on the adequacy for the intended use of sites to be developed by the proposed grading, as affected by geologic factors;
 - d. **Geotechnical Report – Liquefaction Study (if requested by the City).** The City Engineer may require a geotechnical investigation and report in accordance with this Chapter. The report shall address the potential of liquefaction when, during the course of an investigation, all of the following conditions are discovered:
 - i. Shallow ground water, fifty feet or less;
 - ii. Unconsolidated sandy alluvium; and
 - iii. Seismic Zones 3 and 4.
 - e. **Revegetation Plan (if requested by the City).** The City may require a landscaping and irrigation plans prepared by a qualified professional to ensure adequate revegetation. The revegetation plan shall contain at least the following:
5. **Issuance.** The provisions of this Chapter are applicable to grading permits. The City Engineer may require that grading operations and project designs be modified if delays occur that create issues, such as weather-generated problems, not considered at the time the permit was issued. The City Engineer may require professional inspection and testing by a soils engineer. When the City Engineer has evidence that geologic factors may be involved, the grading will be required to conform to engineered grading.

18.05.06. Grading Fees.

1. **General.** Fees shall be assessed in accordance with the Consolidated Fee Schedule adopted by the City.
2. **Plan Review Fees.** When a plan or other data are required to be submitted, a plan review fee shall be paid at the time of submitting plans and specifications for review. The plan review fee shall be as set forth in the Consolidated Fee Schedule adopted by the City. Separate plan review fees may apply to retaining walls or major drainage structures as required elsewhere in this Code. For excavation and fill on the same site, the fee shall be based on the volume of excavation or fill, whichever is greater.
3. **Inspection Fees.** A fee for each grading permit shall be paid to the City of Saratoga Springs as set forth in the Consolidated Fee Schedule adopted by the City. Separate permits and fees shall apply to retaining walls or major drainage structures as required elsewhere in this Code.

18.05.07. Bonds.

The City Engineer may require bonds in such form and amounts as may be deemed necessary to ensure that the work, if not completed in accordance with the approved plans and/or specifications, will be corrected to eliminate hazardous conditions. Cash, escrow, or letter of credit bonds are acceptable.

18.05.08. Hazards.

Whenever the City Engineer determines that any existing excavation, embankment, or fill on private property has become a hazard to life and limb, endangers property, or adversely affects the safety, use, or stability of public property or drainage channel, the owner of the property upon which the excavation or fill is located, or other person or agent in control of said property, upon receipt of notice in writing from the City Engineer, shall within the period specified therein repair or eliminate such excavation, embankment, or fill to eliminate the hazard and to be in conformance with the requirements of this Code.

18.05.09. Cuts.

1. **General.** Unless otherwise recommended in the approved soils engineering report or engineering geology report and approved by the City, cuts shall conform to the provisions of this Chapter and the most recent City Engineering Technical Specifications and Drawings.
2. **Slope.** The slope of cut surfaces shall be no steeper than is safe for the intended use and shall be no steeper than one unit vertical in four units horizontal unless the permittee furnishes a soils engineering or an engineering geology report, or both, stating that the site has been investigated and giving an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property. Said report must be by a reputable engineer or engineering geologist and be acceptable by the City Engineer.

18.05.10. Fills.

1. **General.** Unless otherwise recommended in the approved soils engineering report and approved by the City, fills shall conform to the provisions of this Chapter and the most recent version of the Engineering Standard Technical Specifications and Drawings.
2. **Slope.** The slope of cut surfaces shall be no steeper than is safe for the intended use and shall be no steeper than one unit vertical in four units horizontal, unless the permittee furnishes a soils engineering or an engineering geology report, or both, stating that the site has been investigated and giving an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property. Said report must be by a reputable and certified engineer or engineering geologist and be acceptable to the City Engineer.

18.05.11. Setbacks.

1. **General.** Cut and fill slopes shall be set back from site boundaries in accordance with this Chapter. Setback dimensions shall be horizontal distances measured perpendicular to the site boundary. Setback dimensions shall be as required by the City.
2. **Top of Cut Slope.** The top of cut slope shall not be made nearer to a site boundary line than one-fifth of the vertical height of cut with a minimum of five feet. The setback may need to be increased for any required interceptor drains, utilities, or utility easements.
3. **Toe of Fill Slope.** The toe of fill slope shall be made not nearer to the site boundary line than one-half the height of the slope with a minimum of five feet. Where a fill slope is to be located near the site boundary and the adjacent offsite property is developed, special precautions shall be incorporated in the work as the City Engineer deems necessary to protect the adjoining property from damage as a result of such grading. These precautions may include but are not limited to:
 - a. Additional setbacks.
 - b. Provision for retaining or slough walls.
 - c. Mechanical or chemical treatment of the fill slope surface to minimize erosion.
 - d. Provisions for the control of surface waters.
4. **Modification of Slope Location.** The City Engineer may approve alternate setbacks. The City Engineer may require an investigation and recommendation by a qualified engineer or engineering geologist to demonstrate that the intent of this Section has been satisfied.

18.05.14. Grading Inspection.

1. **General.** Grading operations for which a permit is required shall be subject to inspection by the City. Professional inspection of grading operations shall be provided by a civil engineer, soils engineer, and/or the engineering geologist retained to provide such

services in accordance with this Chapter for engineered grading and as required by the City Engineer for regular grading.

2. **Civil Engineer.** The civil engineer shall provide professional inspection within such engineer's area of technical specialty, which shall consist of observation and review as to the establishment of line, grade, and surface drainage of the development area. If revised plans are required during the course of the work they shall be prepared by the civil engineer.
3. **Soils Engineer.** The soils engineer shall provide professional inspection within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The soils engineer shall provide sufficient observation during the preparation of the natural ground and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this Chapter. Revised recommendations relating to conditions differing from the approved soils engineering and engineering geology reports shall be submitted to the permittee, the City Engineer, and the civil engineer. Materials testing shall be provided as recommended by the Soils Engineer and as directed by the City Engineer.
4. **Engineering Geologist.** The engineering geologist shall provide professional inspection within such engineer's area of technical specialty, which shall include professional inspection of the bedrock excavation to determine if conditions encountered are in conformance with the approved report. Revised recommendations relating to conditions differing from the approved engineering geology report shall be submitted to the soils engineer.
5. **Permittee.** The permittee shall be responsible for the work to be performed in accordance with the approved plans and specifications and in conformance with the provisions of this Code.
 - a. The permittee shall engage consultants, if required, to provide professional inspections on a timely basis.
 - b. The permittee shall act as a coordinator between the consultants, the contractor, and the City Engineer.
 - c. In the event of changed conditions, the permittee shall be responsible for informing the City Engineer of such change and shall provide revised plans for approval.
 - d. The permittee shall engage and pay for all materials testing.
6. **City Engineer.** The City Engineer may inspect the project at the various stages of work requiring approval to determine that adequate control is being exercised by the professional consultants.
7. **Notification of Noncompliance.** If, in the course of fulfilling their respective duties under this Chapter, the civil engineer, the soils engineer, or the engineering geologist finds that the work is not being done in conformance with this Code or the approved

grading plans, the discrepancies shall be reported immediately in writing to the permittee and to the City Engineer. If the permittee is not responsive to notification and does not bring work into compliance, the permit may be revoked and bond called.

8. **Transfer of Responsibility.** If the civil engineer, the soils engineer, or the engineering geologist of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept their responsibility within the area of technical competence for approval upon completion of the work. It shall be the duty of the permittee to notify the City Engineer in writing of such change prior to the commencement of such grading.

18.05.15. Completion of Work.

1. **Final Reports.** Upon completion of the grading work and at the final completion of all stabilization as per City Standard Technical Specifications and Drawings, the following reports and drawings and supplements thereto are required for engineered grading or when professional inspection is performed for regular grading, as applicable:
 - a. An as-built grading plan prepared by the civil engineer retained to provide such services in accordance with this Chapter showing original ground surface elevations, as-graded ground surface elevations, lot drainage patterns, and the locations and elevations of surface drainage facilities and of the outlets of subsurface drains. As-constructed locations, elevations, and details of subsurface drains shall be shown as reported by the soils engineer. Civil engineers shall state that to the best of their knowledge the work within their area of responsibility was done in accordance with the final approved grading plan.
 - b. A report prepared by the soils engineer retained to provide such services in accordance with this Chapter, including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the approved soils engineering investigation report. Soils engineers shall submit a statement that, to the best of their knowledge, the work within their area of responsibilities is in accordance with the approved soils engineering report and applicable provisions of this Chapter.
 - c. A report prepared by the engineering geologist retained to provide such services in accordance with this Chapter, including a final description of the geology of the site and any new information disclosed during the grading and the effect of the grading on recommendations incorporated in the approved grading plan. Engineering geologists shall submit a statement that, to the best of their knowledge, the work within their area of responsibility is in accordance with the approved engineering geologist report and applicable provisions of this Chapter.
 - d. The grading contractor shall submit in a form prescribed by the City Engineer a statement of conformance to said as-built plan and the specifications.
2. **Notification of Completion.** The permittee shall notify the City Engineer when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all

erosion-control measures have been completed in accordance with the final approved grading plan, nor shall final approval be given until all required reports have been submitted.