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Comments: Green is explanatory, Blue is for discussion, Red is for issues remaining to be addressed

Article 14-8: DEVELOPMENT AND DESIGN STANDARDS

14-8.1 GENERAL PROVISIONS

(A) ~~___~~ **Purpose**

~~___~~ The purposes of this article include:

~~___~~ (1) ~~___~~ ~~To provid~~inge proper standards that ensure a high quality appearance ~~of~~er the Santa Fe area and ~~promot~~inge good design while also allowing individuality, creativity, and artistic expression;

(2) ~~___~~ ~~To encourag~~inge the proper use of the land by promoting an appropriate balance between the built environment and the preservation of *open space* and natural environmental resources;

(3) ~~___~~ ~~To protect~~ing private and public investment through preservation of *open space*, protection of natural resources, including the existing tree canopy; providing buffers between incompatible uses and along roadways; and encouraging the planting of appropriate~~new~~ vegetation ~~as deemed appropriate~~;

(4) ~~___~~ ~~To preserv~~inge and ~~protect~~ing the identity and character of Santa Fe, and ~~to enhanc~~inge the business economy; and

(5) ~~___~~ ~~To promot~~inge water conservation and efficiency through preserving natural areas, encouraging good soil management, and encouraging the use of native ~~and/or~~ drought tolerant plant materials.

(6) ensuring compliance with the City of Santa Fe's obligations to the US Environmental Protection Agency (EPA) as a National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Phase II permittee.

Comment [CLG1]: "promoting" changed to "ensuring" 10 08 2010 per PC Sub
Comment [CLG2]: added per staff request (stormwater manager)

(B) ~~___~~ **Applicability**

Unless otherwise noted, the requirements of this article shall apply to all land development activity covered under this ~~C~~hapter 14.

14-8.2 TERRAIN AND STORM WATER MANAGEMENT.

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 (A) **Purpose**

The purpose of these regulations is to protect, maintain and enhance the health, safety, and general welfare of the citizens and natural environment of the City. The following considerations shall be used during the design and planning process for all proposed developments subject to these regulations:

(1) ~~—e~~ Ensure sound and orderly development of the natural terrain;

(2) ~~—p~~ Protect life and property from the dangers of flooding and the hazard of improper cuts and fills;

(3) ~~—m~~ Minimize erosion and sedimentation;

(4) ~~—m~~ Minimize destruction of the natural landscape;

(5) ~~—p~~ Protect the scenic character of Santa Fe from the visual blight of indiscriminate cuts and fills and vegetation removal resulting from extensive grading, and utility scars;

(6) ~~—t~~ Treat storm water runoff as a valuable natural resource in Santa Fe, a community that is prone to drought, by encouraging water collection and infiltration on site;

(7) ~~—c~~ Control the adverse impacts associated with accelerated storm water runoff on natural drainage ways and all *structures* due to increased development and impervious surfaces;

(8) ~~—m~~ Minimize erosion and degradation of arroyo channels and improve the condition of the channels ~~s~~ where possible;

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(9) ~~___~~ ~~r~~ Respect, protect, maintain, and restore natural *drainage-ways*, wetlands, bosques, flood plains, steep *slopes*, riparian vegetation, and wildlife habitat areas;

(10) ~~___~~ ~~p~~ Prevent storm water runoff from entering or damaging acequias or other irrigation facilities;

Comment [CLG3]: per PC subcommittee 07/15/10 at request of Acequia Madre

(11) ~~___~~ ~~i~~ Integrate storm water management measures into the landscape and site planning process as set forth in §14-8.4; and

(12) ~~___~~ ~~p~~ Provide aesthetically pleasing solutions to storm water management and erosion control measures by integrating measures into the overall landscape and site design.

(13) promoting improved water quality through compliance with the USEPA NPDES MS4 permit and Construction General Permit (CGP).

(14) improving storm water quality and reducing storm water runoff and its harmful effects through the use of green infrastructure and low impact development storm water management techniques.

Comment [CLG4]: added per staff request (stormwater manager)

~~(B)~~ ~~___~~ ~~—~~ **Applicability**

(1) Minimum standards and submittal requirements for terrain and ~~stormwater~~ **storm water** management are based on the type of project, as follows:

(a) ~~Grading~~ construction permit applications, when required by §14-3.10(E), shall meet the minimum standards and submittal requirements in §14-8.2(D);

(b) ~~b~~ ~~—~~ *Building permit applications* shall meet the minimum standards and submittal requirements in:

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(i) Section §14-8.2(E);

(ii) —Section §14-8.2(F); or

Comment [CLG5]: changed from 'and' per WB 12 08 2010

(iii) —If all terrain and storm water management requirements have been met at the final development plan or subdivision plat stage, the approved final terrain and storm water plans shall be submitted with the *application* for a building permit and no further submittals shall be required;

Comment [CLG6]: both individual terms are defined, but 'building permit' is not.

(c) —m Master plan, preliminary development plan and preliminary subdivision plat *applications* shall meet the minimum standards and submittal requirements in §14-8.2(G);

(d) —F final development plan and subdivision plat A applications shall meet the requirements in §14-8.2(H); and

(e) —A all City departments that which implement construction projects shall comply with the objectives, intent, and minimum standards of this section.

(2) —Exemptions

New construction, remodeling, additions, or other alterations to existing structures are Development is exempt from the requirements of this section if provided that they it meets the following conditions:

Comment [CLG7]: Staff request for broader applicability

(a) —L less than ~~1000~~ 250 square feet of total land area is disturbed;

Comment [CLG8]: threshold changed per PC subcommittee 07/15/10

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(b) ~~___~~ ~~—~~ ~~n~~ No slopes greater than **ten percent** 10% are disturbed; and

(c) ~~___~~ ~~—~~ ~~e~~ Existing drainage patterns on the property are not changed in a way that would increase the amount of storm water runoff leaving the property or cause significant change to on site drainage patterns, and;

Comment [CLG9]: Staff suggestion for increased oversight

~~(d) A Storm Water Pollution Prevention Plan (SWPPP) and Notice of Intent (NOI) may be required by the EPA even though the project may fall under these exemptions~~ Adequate erosion control is provided.

Comment [CLG10]: Storm Water Manager suggested language replaced per staff 12/08/2010

Comment [CLG11]: added per staff request (stormwater manager)

~~(3) ___~~ ~~—~~ ~~Variances.~~

Variances to these regulations shall be pursuant to §14 3.7(F).

Comment [CLG12]: unnecessary

~~(34) ___~~ ~~—~~ ~~Alternative~~ Means of Compliance.

Applicants may propose alternatives to standard storm water management techniques, so long as these alternatives allow the project to meet the minimum standards and general requirements of this section. Alternative techniques may be proposed that achieve improved environmental performance, including reduced storm water runoff, increased infiltration, reduced sedimentation and erosion, and for aesthetic purposes. Proposals for alternative compliance to standard storm water management techniques shall be subject to review and approval of the City Engineer in writing, stating the basis for such a waiver. Such alternatives shall comply with EPA NPDES guidelines.

Comment [CLG13]: added per staff request (stormwater manager)

~~___~~ ~~(C) ___~~ ~~—~~ **Procedures and General Requirements**

~~(1) ___~~ ~~—~~ ~~All proposed development shall meet the purpose listed in §14 8.2(A).~~

Comment [CLG14]: cannot "meet" purpose, and unnecessary

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(2) ~~___~~ The City Engineer ~~shall be~~ is authorized to determine the following:

Comment [CLG15]: this is a purpose not a standard

(a) ~~___~~ ~~The completeness of all required terrain and stormwater~~ storm water management submittals;

(b) ~~___~~ c Compliance with all minimum standards;

(c) ~~___~~ ~~The acceptability of all proposed erosion control and storm~~ water management methods; and

(d) ~~___~~ ~~The need for additional information or written approval in order to determine compliance with the purposes, intent, and minimum standards of this section.~~

(23) ~~___~~ ___ The preparation of submittals shall be as follows:

(a) ~~___~~ ___ Building Permits for Minor Development.

Submittals may be prepared by any ~~person~~ individual, including the homeowner; however, the City Engineer may require that submittals be prepared and signed by a ~~New Mexico professional engineer, or an architect,~~ or landscape architect registered in New Mexico if ~~it is deemed~~ necessary ~~in order~~ to fulfill the requirements of this section;

Comment [CLG16]: unnecessary because part of definition

(b) ~~___~~ ___ Grading Permits

Comment [CLG17]: revisit term

Submittals shall be prepared and certified by a ~~New Mexico professional engineer~~ or an architect or landscape architect ~~or architect~~ registered in New Mexico; and

Comment [CLG18]: "Architect" is a defined term but "landscape architect" is not

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(c) —Building Permits for All Other Development

(i) —Topographic Plans-

Submittals shall be prepared and certified by a ~~New Mexico~~ *professional engineer* or professional ~~a land surveyor licensed in New Mexico.~~

Comment [CLG19]: in definition so not necessary here

(ii) —Storm water Management

Submittals for master plans, subdivisions and development plans shall be prepared and certified by a ~~New Mexico~~ *professional engineer*. Submittals for all other building permits shall be prepared by a ~~New Mexico~~ *professional engineer* or an *architect* or landscape architect registered in New Mexico;

(iii) —Site Restoration-

Submittals shall be prepared and certified by a professional engineer or an architect or landscape architect or architect registered in New Mexico ~~or a New Mexico professional engineer.~~ and shall meet NPDES guidelines.

Comment [CLG20]: added per staff request (stormwater manager)

(34) - —No certificate of occupancy or any type of final construction approval shall be issued by the City unless a *parcel* is in full compliance with the requirements of this section and all inspections have been conducted as described in §14-8.2(4).

(45) — Activities permitted by this section may also require notification or permitting by other agencies, including ~~but not limited to~~ written approval from the Acequia Madre de Santa Fe Community Acequia Association or other official watercourse-related entity organization, the ~~Federal~~ United States Environmental Protection Agency, the United States Army Corps of

Comment [CLG21]: per PC Subcommittee 07/15/10 at request for Acequia Madre

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Engineers, the ~~F~~ederal Emergency Management Agency (FEMA) and the New Mexico Department of Environment-Department. It is the responsibility of each applicant to determine whether additional notification or permitting is required.

(5) The applicant shall perform regular inspections of all grading, erosion control, and storm water management measures and shall maintain them to effectively control storm water flows and soil erosion. All inspections shall be documented in written form, shall be made available to the City Engineer or code enforcement officer upon request.

Comment [CLG22]: Moved from (I) and maintenance requirement added in

(D) —Grading Permits Standards for All Grading; Submittal Requirements

(1) —Minimum Standards

When a grading permit is required by ~~§14-8.2 Grading Permits Required~~this section, applications for the permit shall show compliance with the following minimum standards:

(a) —Cut and Fill Slopes

(i) —Cut slopes on a site shall not exceed ten feet in height, except as otherwise permitted by this section. In no case shall the height of a cut exceed the height of any the building constructed in the excavated area;

Comment [CLG23]: addresses 15' allowance for roads, below

(ii) —Fill slopes on a site shall not exceed fifteen15 feet in height. Retaining walls for fill slopes shall be no greater than ten feet in height; h. However, in the escarpment overlay district retaining walls shall be no greater than five feet in height, except as otherwise provided in §14-5.6(F)(2), and in the case of cementconcrete or masonry, shall be a matching earth tone color. Unstabilized Fill slopes shall be no steeper than 3:1, unless a structural alternative such as a retaining wall or some other measure acceptable to the City Engineer is provided;

Comment [CLG24]: reference to 5' wall incorrect, cured by reference escarpment regulations

Comment [CLG25]: Changed from 5.6(G)(8), per WB 12 08 2010

Comment [CLG26]: per staff

Comment [CLG27]: using defined term

Comment [CLG28]: "unstabilized" unnecessary because of second clause in sentence

(iii) —Cut or fill slopes for roads shall not exceed fifteen15 feet in height; and

Comment [CLG29]: Added "expressed in terms of measures of horizontal distance to measures of vertical distance." to definition of slope.

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(iv) ~~___~~ ~~a~~ All cut *slopes* that are not stabilized by a retaining *wall* or some other measure acceptable to the City Engineer, shall be no steeper than 2:1 (~~two 2 horizontal to one 1 vertical~~), unless a structural alternative is provided or unless it can be demonstrated by the geotechnical study that existing soils will naturally accommodate a steeper ~~slope~~ **Slope** and acceptable revegetation; or other erosion control can be achieved;

(b) ~~___~~ Grading

(i) ~~___~~ Grading on **building sites** is limited to ~~fifteen~~ **15** feet beyond the outer edge of the *building* foundation, patio, *wall*, driveway, road, parking area, or other constructed facility except **as necessary**:

Comment [CLG30]: building is defined term, but building site is not

A. ~~___~~ As **necessary** for the construction of storm water runoff management measures in compliance with this section; or

B. ~~___~~ As **necessary** to accommodate required horizontal to vertical measurements for cut and fill *slopes*.

(ii) ~~___~~ Private driveways shall not exceed a grade of ~~fifteen~~ **15** percent nor shall the inside-turning radius of any private driveway be less than ~~fifteen~~ **15** feet.

(iii) ~~___~~ Natural *slopes* ~~greater than thirty~~ **30** percent ~~or greater~~ shall remain undisturbed, except for **arroyo crossings and for no more than three** isolated occurrences ~~such as arroyo crossings and other~~ of sloped areas where **each individual** the disturbance shall not exceed ~~one thousand~~ **1,000** square feet ~~in total~~, as approved by ~~the~~ **a** City Engineer. The **City Engineer** may waive this provision, in writing, stating the reasons and basis for such approval, if evidence is provided by the *applicant* showing that strict enforcement of this provision would prohibit access to the lot or placement of utilities. This provision shall apply solely to the construction of roads, driveways; and utility placement and is not intended to permit **development** on natural *slopes*

Comment [CLG31]: changes per 07/15/10 PC Subcommittee meeting

Comment [CLG32]: revise 14-12 to comply with use of "natural slope" vs "natural grade"

Comment [CLG33]: change per WB 12 08 2010

Comment [CLG34]: change to Land Use Director reversed per WB 12 08 2010

Comment [CLG35]: change to 'structures' reversed per PC Subcomm 08/10/2010

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exceeding ~~thirty~~³⁰ percent. The other provisions of the escarpment overlay district ordinance and the terrain and storm water management regulations shall remain in effect.;

~~(iv) — Where the volume of earth to be moved on a site exceeds one thousand 1,000 cubic yards, a soil engineering report prepared by a New Mexico *professional engineer* shall be submitted and approved. A soil engineering report shall include the soil type, classification, permeability, erosion potential, and any other pertinent soil information requested by the City Engineer.;~~

Comment [CLG36]: never used, not necessary

(v) — Phasing for grading and clearing may be required by the City Engineer on all sites where construction will not begin immediately after clearing and grading;

(vi) A ~~No~~ grading permit for driveway construction shall **not** be issued unless the City Engineer has first determined that a buildable area as defined in §14-8.2(F)(2)(b) exists on the lot, and that the permit complies with the requirements of §14-5.6. ~~In the escarpment overlay district, a grading permit for driveway construction shall be issued only for access to the buildable area farthest from the view line; and~~

Comment [CLG37]: This is no longer a correct statement, thus it is replaced with the reference, although the reference is probably not necessary anyway.

(vii) — All grading completed on the site shall be in conformance to the approved grading plan.

~~(e) — Site Restoration~~

~~All development subject to a grading permit shall be required to meet the requirements of §14-8.2(F)(2)(d) as appropriate for the project;~~

Comment [CLG38]: unnecessary

~~(c) — Best Management Practices~~

The following best management practices shall be used before and during the construction process:

Comment [CLG39]: “Best management practice erosion and sediment control devices and techniques shall be in accordance with EPA guidelines.” suggested by storm water manager removed per WB 12 08 2010

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(i) —Disturbed areas shall be protected from erosion during construction by diverting ~~stormwater~~**storm water** around the disturbed area, energy dissipation of ~~stormwater~~**storm water** adequate to prevent erosion, retention of sediment on the disturbed area, and/or other means adequate to retain soil on site;

(ii) —Except as necessary to install temporary erosion and sediment control devices, land shall not be graded or cleared of vegetation until all such temporary devices have been properly installed and inspected. Temporary erosion and sediment control devices may include silt fencing, *swales*, straw bales, berms, geotextiles sediment basins or traps, and fencing. Control devices shall be kept in place and used until the disturbed area is permanently stabilized;

(iii) —*Significant trees*, areas with substantial grass coverage, and *drainage-ways* that are to remain undisturbed shall be fenced off prior to the use of any heavy machinery on-site and shall remain fenced during the entire construction process. Fencing material may include snow fencing, plastic mesh or other similar fencing material. To protect the root zone of *significant trees*, fencing shall be placed 5 feet to the outside of their dripline ~~of significant trees~~;

(iv) —To prevent soil from leaving a site, soil stockpiles shall be protected from wind and water erosion throughout the construction process by using appropriate erosion control techniques. Staging and soil stockpile areas shall be clearly designated on the site. All topsoil shall be kept on site, within the disturbance zone of a construction site, and then reintroduced into planting areas to the extent possible. Stockpiled soil shall not be allowed to enter arroyos or other *drainage-ways*;

(v) —Techniques to prevent the blowing of dust or sediment from the site, such as watering down exposed areas, are required for projects which disturb greater than 5,000 square feet; and

(vi) —Protection for storm drain inlets, drainageways and any storm water conveyance shall be provided, ~~if needed~~, to prevent the entry of sediment and pollutants from the site while still allowing the entry of ~~stormwater~~**storm water**.

Comment [CLG40]: per stormwater manager request

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(2) —Submittals

Applications for grading *permits* shall include the following, unless the requirement is waived by the Land Use Director:

Comment [CLG41]: per 06/08/2010 PC Subcomm meeting

(a) ~~a~~ A topographic survey and grading plan with elevation contours shown at not more than two foot intervals on *slopes* less than up to 30 thirty percent and five foot intervals on *slopes* ~~greater than~~ of thirty percent 30% or greater which shows:

(i) ~~All~~ All areas with *slopes* ~~0-~~ less than 20 percent; greater than or equal to twenty percent and less than thirty 21-30 percent; and thirty 31 percent ~~or~~ and greater, differentiated through shading, tone, color, or line weight;

Comment [CLG42]: changed from 20 percent or less per WB 12 08 2010

Comment [CLG43]: per WB 12 08 2010

Comment [CLG44]: This language is more precise, as it addresses slopes between 20 and 21 percent and between 30 and 31 percent.

(ii) ~~All~~ All areas to be graded on the site and the final contours to be achieved by the grading;

(iii) ~~All~~ All finished floor or grade elevations;

(iv) ~~S~~ S spot elevations, as needed;

(v) ~~A~~ A areas of soils with severe limitations for the intended use;

(vi) ~~t~~ t The location of temporary erosion control *structures* and methods used, including staging and stockpile areas;

(vii) ~~A~~ A *significant trees* and areas with substantial grass coverage to be removed;

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(viii) ~~A~~a construction schedule when the project will be developed in phases;

(ix) ~~T~~the location of fencing around the areas to be protected;

(x) ~~T~~the ratio of horizontal to vertical measurement for cut and fill *slopes*;

(xi) ~~T~~the total volume, in cubic yards, of earth to be moved; all existing disturbed areas; and

(xii) FEMA flood hazard areas; ~~and~~.

(xiii) any other information reasonably required by the Land Use Director to ensure compliance with this section.

~~(b) For all roads or other excavations where the volume of earth to be moved exceeds 1,000 cubic yards, cross sections or contour maps showing the height of cuts and fills at a maximum of 100 foot intervals and at any major breaks in the terrain may be required by the City Engineer.~~

~~(E) —~~**Building Permits Standards for Minor Development; Submittal Requirements**

(1) ~~—~~Minor Development

A minor development includes the construction of any structure including but not limited to single family residences, additions, sheds, garages, driveways, or pavement that meets all of the following criteria:

Comment [CLG45]: "(c) An NPDES post-development storm water runoff control pre-treatment plan that demonstrates how post-development runoff will be treated for pollutant removal prior to discharge to the MS4. (d) When needed, EPA acknowledgement that an acceptable NPDES NOI has been filed. suggested by stormwater manager removed 12 08 2010 per WB

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(b) a—All water containment *structures* ~~that, which~~ have water open to the air, shall empty within ~~24~~twenty four hours either through percolation into the soil or through outlet *structures* that are designed to ensure a controlled release of water that will not cause flooding or erosion;

Comment [CLG50]: stormwater manager suggested “and that discharge offsite shall not exceed pre-development conditions”; rejected by staff review

(c) t—To protect against erosion, all land disturbed during construction shall be revegetated with drought tolerant vegetation. Trees and shrubs shall be irrigated until established. The use of naturally degrading erosion control blankets or other erosion control materials is encouraged to ensure that grasses become established. Stones or treated landscape timber may be used to stabilize disturbed areas in lieu of revegetation. Creosote treated materials are not permitted.

Comment [CLG51]: added per stormwater manager request

(3) Submittals

Building permit applications for minor development shall include the following, unless the requirement is waived by the Land Use Director:

Comment [CLG52]: per 06/08/2010 PC Subcomm meeting

(a) ~~A~~a brief narrative description of the proposed project;

(b) a—A topographic map of the property to scale, including United States geological survey quadrangle maps or maps generated by the City of Santa Fe, adequate to show elevation contours, natural drainage ways, existing and proposed improvements;

(c) ~~A~~a brief verbal description and/or representative photographs of the type (such as, pinon and juniper trees, annual weeds, grass cover, bare ground, and so on) and approximate coverage of existing vegetation at the site, and a plan for vegetation removal at the site;

(d) ~~A~~a description of all proposed grading or ground disturbance;

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(e) ~~_____~~ c—Calculations and a plan drawing showing:

(i) ~~The~~ The size and location of all proposed runoff containment *structures* or methods and how water will be directed to the *structures* or methods; and

(ii) p—Percolation test results or other means of demonstrating that containment *structures* will empty within 24 hours.

(f) ~~A~~ a roof run-off drainage plan; and

_____ (g) a—A planting plan for revegetation showing proposed plant materials and a description of the proposed irrigation method or other methods used to establish vegetation and prevent erosion until vegetation becomes established.

~~_____~~ (F) ~~Permits~~ Standards For All Other Development; Submittal Requirements

~~(1) All Other Development~~

Comment [CLG53]: deletion per 07/15/10 PC subcommittee meeting

All other *development* that requires a *building permit* and does not meet the requirements of §14-8.2(E) shall meet the following minimum standards and submittal requirements:

~~(2) Minimum Standards~~

~~(1a) All projects shall meet the minimum standards for grading in §14-8.2(D).~~

Comment [CLG54]: change per 07/15/10 PC subcommittee meeting

~~(b) Topography~~

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(a) e—Each *lot* shall have an area designated as suitable for a structure ~~building~~ of not less than 2,000 square feet, which can be developed in accordance with the terrain and ~~stormwater~~ storm water management standards and with other applicable development standards including required setbacks and access requirements ~~minimum performance standards~~;

(b) ii —At least one half of the area designated as suitable for building, and at least one-half of any ~~designated for the~~ building footprint shall have a natural *slope* of less than 20 ~~twenty~~ percent or less. ~~The other one-half~~ remainder of the area or building footprint may have a natural *slope* of twenty ~~between 20~~ percent or more, but and less than thirty ~~30~~ percent;

(c) iii —~~For a structure built on a natural slope over 20 percent,~~ the finished floor elevation at any point of any portion of a building built on a natural slope of twenty percent or greater shall not exceed five vertical feet above the natural ~~grade~~ slope at that point; and

(d) iv —No structure shall be ~~may be~~ built on a natural *slope* of over thirty ~~30~~ percent or greater ~~unless as specified in Section~~ § 14-9.4 (A).

(2) e —~~Stormwater~~ Storm water Management

(a) i —General Standards

A. i —~~Stormwater~~ storm water management measures shall be selected to best accommodate the specific geologic, hydrologic, and topographic features of the land to be developed;

B. ii —~~Stormwater~~ storm water management measures shall be designed as both a comprehensive and integral part of the development;

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~~iii~~C. - ~~s~~—~~Stormwater~~~~orm water~~ management measures shall be designed to directly address additional flows from the proposed development. Compliance with these standards shall not be achieved solely by alterations to flows upstream of a proposed development; and

~~iv~~D. ~~s~~—~~Stormwater~~~~orm water~~ management plans may be designed to incorporate measures that are shared by two or more developments provided that the measures comply with the minimum standard of this section.

~~(bii)~~—Discharge Standards

i.A. ~~___~~—~~Except as~~ otherwise required by this section ~~for certain development in §14-8.2(G)(1)(e)~~, the ~~stormwater~~~~storm water~~ runoff peak flow rate discharged from a site shall not exceed pre-development conditions for any frequency storm event up to the 100-year, 24-hour storm event at each discharge point. Calculation of the runoff peak flow rate may approximate the event from available data;

Comment [CLG55]: corrects incorrect reference

~~ii~~B. ~~___~~—~~R~~unoff control measures may include, but are not limited to, the use of *detention* or *retention* basins and *active water harvesting* and *passive water harvesting* techniques including *swales*, berms, ~~cisterns~~, check dams, vegetative ground cover, permeable pavements, tree wells, dry wells and other techniques appropriate for retaining and infiltrating water on-site. Cisterns may be used provided that the cistern is connected to an irrigation system or other water use. A cistern may be used for up to fifty percent of the required detention volume;

Comment [CLG56]: removed per staff

Comment [CLG57]: added per stormwater manager

Comment [CLG58]: per staff

Comment [CLG59]: added oer staff

~~iii~~C. ~~___~~—~~No stormwater~~~~storm water~~ shall **not** be discharged into any watercourse or drainage channel without adequate reduction of flow velocity. This shall be accomplished by erosion control techniques that may include the routing or energy dissipation of ~~stormwater~~~~storm water~~ runoff to a vegetated *swale*, vegetated basin, or stone-protected area. The techniques used shall be sufficient to diminish runoff velocity and spread runoff flow adequately to avoid erosion upon entering the watercourse;

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iv.D. ~~No stormwater~~**storm water** runoff shall **not** be routed into irrigation ditches, canals, acequias or watercourses related to an acequia system unless specific plans have been approved in writing by the person or entity legally responsible for the operation and maintenance of the facility and the City Engineer. It shall be the responsibility of the developer to obtain all such approvals before submittal of any *application*;

vi.E. an ~~No existing acequia, watercourse or other natural drainage system not related to an existing or historic acequia system,~~ whether on-site or off-site, shall **not** be disturbed by any ~~on-site-building~~ development or construction activity unless the City Engineer approves the change to the watercourse or other natural drainage system; and

Comment [CLG60]: confusing; removed per comment of acequia madre commissioner

vi.F. an ~~No active, historic acequia, whether on-site or off-site, shall not~~ be disturbed in any way by ~~on-site-building~~ development or construction activity unless specific plans have been approved in writing by the person or entity legally responsible for the operation and maintenance of the acequias. It shall be the responsibility of the developer to obtain all such approvals before submittal of any *application*.

(c)ii Detention Basin Standards

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Comment [CLG61]: per staff
Comment [CLG62]: several storm water manager suggestions removed by subsequent review

i.A. ~~Stormwater~~**storm water** detention basins and overflow *structures* shall be sized and designed to adequately accommodate flows from 100-year, ~~twenty-four~~**24**-hour storm events. However, such basins shall also be equipped with outflow *structures* that limit flow-through from lesser magnitude storms to runoff rates equal to or less than pre-development runoff rates; ~~Calculations may be approximated from available data;~~

Comment [CLG63]: per staff

ii.B. ~~I~~nfiltration, *detention*, and *retention* basins shall provide a means of controlling and removing sediment. Methods may include sedimentation settling ponds, sediment traps, filters on drop inlets, or other methods. All basins shall be designed to empty within no more than ~~twenty-four~~**24** hours;

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~~C. — French drains, infiltration basins or other similar structures used for the percolation of water into the soil, shall not be constructed so that their depth is greater than its widest horizontal dimension unless a notice of intent for the construction is filed with the New Mexico Environment Department; and~~

Comment [CLG64]: removed per staff

~~iii.D. — Landscape treatment of infiltration, retention, and detention basins is may be required and shall be in accordance with the §§ 14-8.4(F) and 14-8.4(E).~~

Comment [CLG65]: per staff

Comment [CLG66]: Specific reference incorrect, and unnecessary

(E) A maximum of fifty percent of required storm water detention volume may be stored in cisterns. Cisterns shall be installed and operated in compliance with applicable provisions of other regulations, including §14-8.4 Landscaping and Site Design, and Chapter 7 Building and Housing.

Comment [CLG67]: added per PC Subcommittee 07/15/10

~~(div) — Arroyo, Stream and Watercourse Standards~~

~~i.A. — For arroyos, streams, or watercourses that carry one hundred 100 cubic feet per second or more of stormwater storm water flow in a 100-year, twenty-four 24 hour storm event, all structures, paved roads, driveways, and parking lots shall be set back a minimum of twenty-five 25 feet from the top shoulder of an arroyo plus the depth of the arroyo channel. This setback provision does not apply to stormwater storm water management structures or public access trails. The Land Use Director may waive this provision, in writing, stating the reasons and basis for such approval, if evidence is provided by a professional engineer demonstrating arroyo bank stability;~~

Comment [CLG68]: added per staff; adapted from 14-8.2(D)(1)(b)(iii)

~~ii.B. — Except for erosion control measures, stormwater storm water management measures, public access trails, or the placement of underground utilities required for development, no grading shall occur within the setback area;~~

~~iii.C. — Where practical, erosion control and channel stability in arroyos, streams, or watercourses shall be achieved using techniques that reduce stormwater storm water velocity and pollution, preserve active floodplains, provide adequate room for floodwaters to spread safely, and utilize native vegetation. Arroyo and watercourse banks shall not be armored with concrete,~~

Comment [CLG69]: per stormwater manager

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gabion baskets, sheet piling, rip-rap, or similar hardened material unless no reasonable alternative exists to protect public infrastructure or pre-existing *structures*; and

iv~~D~~. f~~f~~ — Fences, *walls*, and similar *structures* may not be constructed in or across any arroyo, stream, or watercourse.

(3)~~d~~ Site Restoration

(a)~~i~~ ii — ~~S~~soil stabilization and erosion control measures for all land disturbed by construction shall be completed within twenty-one~~21~~ calendar~~calendar~~ days after completion of construction or other activities on site that would interfere with such soil stabilization measures. If the time of year is not conducive to planting, then planting may be delayed until the next appropriate planting season provided that all appropriate temporary erosion control measures are maintained until permanent erosion control measures are implemented;

Comment [CLG70]: addressed in 14-1.9

(b)~~ii~~ ii — ~~O~~One or more of the following stabilization and erosion control measures shall be used:

i~~A~~. ii — ~~R~~revegetation with appropriate drought-tolerant plant materials, including grasses or other ground cover;

ii~~B~~. ii — ~~R~~estoration with bioengineering techniques such as *live staking*, *brush layering*, *brush mattress*, *live crib walls*; or

iii~~C~~. ii — ~~S~~tabilization with stones, terracing, or similar techniques.

(c)~~iii~~ ii — ~~A~~ all trees and shrubs shall be *mulched* and irrigated until established. It is recommended that grass seed either be ~~1~~) hydroseeded; or ~~2~~) covered with biodegradable

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material or synthetic soil erosion control blankets or matting and irrigated until established.

Irrigation shall be pursuant to the irrigation requirements in §14-8.4(E).

Comment [CLG71]: "Site restoration shall be in accordance with EPA guidelines." suggested by stormwater manager removed at staff review

~~(4e)~~ —Increase in Minimum Standards

~~(i)~~ —The City Engineer may require implementation of more than the minimum ~~stormwater~~ storm water standards if arroyos on site or immediately downstream of a site show evidence of increased flooding, channel erosion or sedimentation, as a direct result of conditions on the site. Increased requirements shall be limited to the following on-site measures:

~~_____~~ _____ (a)

~~A. _____~~ _____—~~Erosion and sediment~~ control measures extended to a broader area of the site than the *development* area;

~~_____~~ _____ (b)

~~B. _____~~ _____—~~Revegetation and/or stabilization~~ of highly eroded areas;

Comment [CLG72]: per stormwater manager

~~_____~~ _____ (c)

~~C. _____~~ _____—~~A~~ arroyo restoration or other erosion control measures within highly eroded channels; or

~~_____~~ _____ ~~_____~~ _____ (d)

~~D. a~~—A combination of the above measures.

~~(34)~~ Submittals

Submittals for building permit *applications* for all other development shall include:

(a) —~~T~~he submittals for grading listed in §14-8.2(D).

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(b) a topography plan which includes:

(i) All sloped areas of 0 - 20 percent, 21 - 30 percent, and greater than 30 percent shall be clearly marked and differentiated by shade, tone, or color at the same scale required for preliminary subdivision plat;

(ii) Ground elevations which conform to either the United States geological survey sea level datum, as modified, or to the City of Santa Fe's monument system, showing elevation contours at not more than two foot intervals on ~~slopes up to~~ less than 30 percent and not more than five foot intervals on ~~slopes greater than~~ or equal to 30 percent;

Comment [CLG73]: changes per WB
12 08 2010

(iii) The designated building lot area(s); and

(iv) Date, method of survey, and certification from a New Mexico *professional engineer* or *professional land surveyor* that the plan is in compliance with national map accuracy standards.

(c) a storm water management plan which includes:

(i) A vicinity map;

(ii) Existing and proposed contours, all watercourses, arroyos, drainage ways, impoundments, and wetlands on or adjacent to the site or into which storm water from the site flows;

(iii) Location of all existing and proposed improvements including *buildings, structures*, impervious surface, stormw ater management measures, roads, and utilities;

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_____ (iv) Location of all easements and rights-of-way;

_____ (v) The delineation, if applicable, of the *100-year floodplain*, including the *flood fringe* and *floodway*, if available, and any on-site or adjacent wetlands;

_____ (vi) Description of all soils, including general soil characteristics and areas of solid rock;

_____ (vii) Percolation test results for all areas with retention ponds or other facilities designed for infiltration and a description of techniques to be used to prevent the clogging of soil pores by fine sediment;

_____ (viii) A description of the approximate area of the watershed above the site, including the vegetative coverage and impervious surfaces;

_____ (ix) The total peak flow rate of storm_water that would be discharged from the site for pre-development and post development runoff conditions in the two, ten, 50, and 100-year, 24-hour storm event and type of calculation method used;

_____ (x) Sizing, volume, and peak flow rate calculations in cubic feet per second for storm_water management facilities;

_____ (xi) Structural and construction details for all components of the proposed drainage system;

_____ (xii) Data for total site area, disturbed area, new impervious area, and total impervious area; and

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Comments: **Green** is explanatory, **Blue** is for discussion, **Red** is for issues remaining to be addressed

_____ (xiii) A plant schedule of materials to be used as landscape treatment for storm water management measures; _____

Comment [CLG74]: "(xiv) An NPDES Post-Development stormwater runoff control pre-treatment plan that demonstrates how post development runoff will be treated for pollutant removal prior to discharge to the MS4. (xv) When needed, EPA acknowledgement that an acceptable NPDES NOI has been filed." suggested by stormwater manager removed at staff review

(d) as—Site restoration plan ~~that~~**which** includes the location of all permanent erosion control methods, including location, type and amount of plant and seed material to be used, proposed irrigation, any soil stabilization needed prior to plant establishment, time schedule for installation, and maintenance schedule for one year beyond the planting date.

_____ (G) —Standards for Master Plans, Preliminary Development Plans and Preliminary Subdivision Plats; Submittal Requirements

(1) _____—Minimum standards

(a) Projects shall meet the minimum standards of §§14-8.2(D) and 14-8.2(F);

(b) _____ All land below the base flood elevation for a 100-year, ~~twenty-four~~ **24**-hour storm event shall be dedicated as a drainage easement and as public or private open space or public right of way.

~~public open space, drainage easement and public right of way depending on the nature of the development and the hydrology of the area to prevent infringement to the hydrologic floodplain. Under no circumstances shall pedestrian or other public easements or open space dedications be precluded for purely non hydrologic reasons; and~~

Comment [CLG75]: per staff

(c) _____ For all development where one-half or more of the land within the subdivision exceeds ~~20~~ **twenty** percent *slope*, the quantity and peak flow rate of post-development ~~stormwater~~ **storm water** runoff on all developed or disturbed land shall not exceed ~~seventy-five~~ **75** percent of the quantity and peak flow rate of the pre-development runoff.

(2) _____—Submittals. Submittals for master plans, preliminary development plans and subdivision plats shall include:

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Comments: Green is explanatory, Blue is for discussion, Red is for issues remaining to be addressed

_____ (a) A conceptual plan and report that shows the general approach proposed for terrain and storm water management, and how the proposed *development* will meet all of the minimum standards described in §§14-8.2(D) and 14-8.2(F);

_____ (b) A topography plan as outlined in §14-8.2(F)(3); and

_____ (c) A brief description of the watershed directly upstream and downstream of the parcel, including the size, terrain, type and extent of vegetation cover, and degree of *development* for all areas draining to the project site; and

~~(d) — A water availability and conservation plan shall be submitted for all new subdivisions of 15 or more *dwelling units* which are sited, in whole or in part, on natural *sloped areas* greater than 20 percent.~~

Comment [CLG76]: Should be moved to water reg's

_____ **(H) —Final Development Plans and Subdivision Plats**

_____ (1) Minimum standards. Final development plans and subdivision plats shall meet the minimum standards described in §§14-8.2(D), 14-8.2(F), and 14-8.2(G).

~~(2) — Submittals.~~ Submittals for final development plans and subdivision plats shall include:

_____ (a1) a — All submittals required in §§14-8.2(D) and 14-8.2(F);

_____ (2b) a — A long-term maintenance schedule for the life of the ~~stormwater~~storm water management measures, including the time frame for completion and the responsible party who shall perform the maintenance; and

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Comments: Green is explanatory, Blue is for discussion, Red is for issues remaining to be addressed

(3e) ~~a~~ — An as-built certification signature block to be executed by a ~~New Mexico~~ professional engineer after the project completion to ensure that the constructed ~~stormwater~~ storm water management systems comply with the approved ~~storm~~ water plans.

(I) — **Inspections and Violations During Construction Process**

(1) Inspections

(a) — For all non-residential projects and all residential projects that do not qualify as minor development, an applicant shall notify the City to set up a City inspection at the following times:

(a) w — When the construction erosion and sediment control devices and measures are in place, ~~temporary best management practices are completed~~;

Comment [CLG77]: per stormwater manager

(b) w — When final ~~stormwater~~ storm water management measures are completed; and

(c) w — When the final site restoration measures are completed; however, if final site restoration measures are being delayed due to the season, the applicant shall notify the ~~City~~ City when temporary erosion control measures, for use until site restoration is complete, in place and ready for inspection; and

(d) f — Further construction or issuance of any *permits* shall not occur until written approval has been granted by the inspector after each inspection that the best management practices and ~~stormwater~~ storm water management control methods have been completed in accordance with approved plans;

(2) b — ~~The City Engineer or code enforcement officer~~ Land Use Director may enter upon any property subject to this section at reasonable times to conduct inspections of grading, erosion and ~~stormwater~~ storm water management measures to determine compliance with *City* policies and procedures and to carry out duties in the enforcement of this section; and

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~~(c) The applicant shall perform regular inspections of all grading, erosion control, and stormwater management measures. All inspections shall be documented in written form and shall be made available to the City Engineer or code enforcement officer upon request.~~

Comment [CLG78]: Moved to (C)(5)

(3) The Land Use Director may waive or consolidate any inspections required under this Paragraph.

Comment [CLG79]: "Maintenance of control measures and devices as well as SWPPP inspections, reports and modifications shall be in accordance with EPA NPDES CGP guidelines " added per stormwater manager remover 12 08 2010 per WB

Comment [CLG80]: reflects current practice

~~(2) Violations~~

~~Any violation of this section shall be subject to the provisions of §§14-11.5(A) and 14-11.5(B).~~

Comment [CLG81]: **unnneeded**

(J) —Dedications, Easements and Right-of-Ways

(1) All land below the base flood elevation for a 100-year, 24-hour storm event shall be dedicated to the City as public open space, drainage easement and public right of way depending on the nature of the development and the hydrology of the area. Under no circumstances shall pedestrian or other public easements or open space be precluded for purely non hydrologic reasons as a drainage easement and as public or private open space or public right of way.

Comment [CLG82]: per staff

(2) ~~Irrevocable~~ dedications to the City may be required by the City Engineer for the components of the ~~stormwater~~ storm water drainage system including access for maintenance. The types of all easements and open space dedications shall be determined by the City Engineer. If a dedication is required, it shall be designated on the plan or plat and in effect prior to building permit approval.

Comment [CLG83]: Not used anywhere else. Confusing.

(3) —An applicant may make requests for acceptance of dedications of a ~~stormwater~~ storm water drainage system to the City, however, the City is not obligated to accept a dedication offer. Only the ~~Planning Commission or the~~ Governing Body, whichever is the appropriate body hearing the matter, may accept dedications to the City. If a dedication is offered to and accepted

Comment [CLG84]: PC cannot accept dedications

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by the City, it shall be designated on the plan or plat and in effect prior to building permit approval.

 (K) — **Long Term Maintenance Responsibilities and Inspections**

(1) — **Responsibilities**

All ~~stormwater~~storm water management measures and facilities shall be maintained by the fee simple owner of the property or a ~~homeowners~~property owners association, unless a dedication of the ~~stormwater~~storm water management system ~~was~~has been required and was accepted by the City, in which case, the City shall be responsible for maintenance. For developments of 15 or more dwelling units, developers shall provide liability and property damage insurance, in a form approved in writing by the City Attorney, in order to protect adjacent property owners from failure of drainage or erosion control structures which were required for the development. For new developments of fifteen or more dwelling units, performance bonds or their equivalent shall be posted by the developer for 10 years and thereafter, shall be renewed by the neighborhood or responsible association for maintaining all common drainage structures. Failure to renew the bond in a timely manner on an annual basis shall be grounds for the City Attorney's office to call the bond. The bond must be in an amount sufficient to defray maintenance costs for 10 years. The storm water management system shall be maintained in good condition and promptly repaired. Maintenance shall include the repair and restoration of all grade surfaces, *walls, swales*, drains, dams, ponds, basins, site restoration measures, associated vegetation, and any other storm water measure constructed on site. Such maintenance shall be in accordance with approved storm water management plans.

Comment [CLG85]: This is not done in current practice

(2) — **City Inspections**

The City or its authorized agent may enter upon a property, ~~that~~which is subject to this section, at reasonable times to access the ~~stormwater~~storm water management system to ensure that the system is maintained in proper working condition to meet the approved ~~stormwater~~storm water management plans and the objectives and minimum standards of this section.

(3) — **Maintenance Violations**

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If after notice by the City to correct a violation requiring maintenance work, satisfactory corrections are not made by the owner(s) or responsible party within a reasonable period of time, the City may perform all necessary work to place the facility in proper working condition. The owner(s) or responsible party of the facility shall be assessed the associated costs of the work.

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14-8.3 FLOOD REGULATIONS

Comment [CLG86]: These were recently revised, and no substantive changes were made, although the section is not standardized with the rest of the project

(A) —Adoption of Special Flood Hazard Areas

 (1) —The City adopts the *special flood hazard areas* identified by ~~the Federal Emergency Management Agency (FEMA)~~ in the current scientific and engineering report entitled, "The Flood Insurance Study (FIS) for Santa Fe County, New Mexico and Incorporated Areas," effective date June 17, 2008, with accompanying Flood Insurance Rate Maps (FIRM) effective date June 17, 2008 and subsequent Letters of Map Amendment and Letters of Map Revision as approved by FEMA.

 (2) —The City adopts and establishes other *flood hazard areas* or elevations as identified in:

 (a) —~~S~~ubsequent drainage studies prepared for and accepted by the City;

 (b) ~~s~~—Subsequent Letters of Map Amendment and Letters of Map Revision, as prepared for and accepted by FEMA; and

 (c) ~~o~~—Other known *flood hazard areas* identified by the Floodplain Administrator and adopted by the Governing Body.

(B) —Applicability

 Except as stated herein, this section shall not apply to an application if either of the following criteria are met:

Comment [CLG87]: three tiered approach proposed by staff –

 (1) the project is limited to work that does not change the footprint, size or enclosed area of and existing *structure*, such as re-roofing, re-stuccoing or interior remodeling;
or

 (2) the project will not result in an increased flood risk to persons, *structures* or their contents as determined by the Flood Plain Administrator, who may require certification by a *professional engineer*. However, any project exempt under this sub-paragraph shall be required to comply with the additional regulations of §14-8.3(E).

Comment [CLG88]: changed from land use Director 12 08 2010

(C) —Engineering Criteria

 (1) —When the analysis and determination of *base flood elevation*, *special flood hazard area*, *floodway* or *flood fringe* are required by the Floodplain Administrator, these

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designations shall adhere to professional hydrologic and hydraulic engineering techniques. In this regard, engineering practice manuals of the American Society of Civil Engineers and similar competent manuals of professional hydrologic and hydraulic engineering techniques may be used in accordance with FEMA requirements. In all cases, the *base flood elevation* or the boundary of the *special flood hazard area* or *flood fringe*, or the *floodway* shall be delineated by a given area's topographic land features and its physical characteristics. Professional hydrologic and hydraulic techniques, supplemented with data obtained by field examination and surveys as necessary, will initially be used to delineate *special flood hazard areas* or *base flood elevations* on topographic maps.

 (2) —The following objectives shall be evaluated by the Floodplain Administrator wherever a *floodway* is defined through hydrological methods. The Floodplain Administrator may, as becomes necessary, draft more detailed rules and regulations, pursuant to §14-3.9(B)(2):

 (a) —~~a~~**A** *floodway* shall be designed to minimize erosion. Preferably a *floodway* shall be designed with a pervious bottom to allow infiltration to the subsurface;

 (b) **i**—Initial construction costs and estimated maintenance and repair costs evaluated over the project life shall be considered;

 (c) —City plans, ordinances and policies adopted by the Governing Body shall be considered;

 (d) —~~T~~**T**he effect of storm runoff shall be analyzed by hydrologic methods to ensure that any change in the *special flood hazard area* will not unreasonably or adversely affect the *special flood hazard area* or cause its capacity to be exceeded;

 (e) —~~S~~**S**tanding wave action and superelevation at horizontal curve shall be determined and adequate freeboard heights established; and

 (f) —~~C~~**C**hannel *slope* and alignment shall be established by analysis of engineering data and hydraulic calculations.

 (DC) —Use Regulations

 (1) ~~The requirements of this section are in addition to and not in lieu of other provisions of this chapter.~~

Comment [CLG89]: unnecessary

 ~~(12)~~ No *new development* or substantial improvements shall be undertaken on lands within a *special flood hazard area* unless such erection or alteration shall be in compliance with the

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provisions of this section, provided that a *legal nonconforming structure* in existence on June 17, 2008 located within a *special flood hazard area* that is substantially damaged by flood, fire, or other casualty may be replaced subject to the following:

(a) If there is a site on the property outside the *special flood hazard area* that will accommodate a *structure* of the same *gross floor area* as the *legal nonconforming structure*, the *structure* shall be built on such site and not replaced within the *special flood hazard area*.

(b) If the *legal nonconforming structure* was located within the *flood fringe*, and there is no other site on the property that will accommodate a *structure* of the same *gross floor area*, a new *structure* may be constructed on such site in the *flood fringe* provided that the new *structure* does not exceed the *gross floor area* nor the footprint of the *legal nonconforming structure* and the footprint is sized to minimize flood hazard.

(c) If the *legal nonconforming structure* was located in the *floodway* but there is a site on the property within the *flood fringe* that will accommodate a *structure* of the *same gross floor area* as the *legal nonconforming structure*, any new *structure* shall be constructed on such site within the *flood fringe* and not replaced within the *floodway*. The footprint of the new *structure* shall be sized to minimize flood hazard and shall in no case exceed the footprint of the *legal nonconforming structure*.

(d) If the *legal nonconforming structure* was located within the *floodway*, and there is no other site on the property that will accommodate a *structure* of the same *gross floor area*, a new *structure* may be constructed on such site in the *floodway* provided that the new *structure* does not exceed the *gross floor area* nor the footprint of the *legal nonconforming structure* and the footprint is sized to minimize flood hazard

(e) Any new *structure* constructed within the *special flood hazard area* in accordance with this paragraph (2) shall comply with all applicable FEMA requirements and all provisions of §14-8.3 that are more stringent than the FEMA requirements.

(f) A new *structure* built in accordance with this paragraph (2) shall not require a variance or waiver to be constructed in a *special flood hazard area*; provided that, if the new *structure's* location requires variances to other requirements of this Chapter, the Board of Adjustment, Planning Commission or other review body, as applicable, grants a variance from such other requirements including, but not limited to, setbacks and terrain management.

(g) As a condition of building permit issuance for a new *structure*, any remaining *legal nonconforming structure* in the *flood hazard area* shall be demolished or removed.

Text: Underline = New Material; ~~Black Strikethrough~~ = Removed Material (color depends on drafter)

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 (32) No uses shall be permitted within the *floodway*, except those set out in this paragraph provided that such uses do not constrict the flow or create a rise in the *base flood elevation* during the *one percent change event*, as follows:

 (a) c ~~c~~Cultivating and harvesting of crops according to recognized soil conservation practices;

 (b) p ~~p~~Pasture, grazing land and outdoor plant nursery, if these uses are in compliance with state and federal regulations;

Comment [CLG90]: per stormwater manager

 (c) w ~~w~~Wildlife sanctuary, woodland preserve, arboretum;

 (d) o ~~o~~Outlet installations for sewage treatment plants and; sealed public water supply wells, if these uses are in compliance with state and federal regulations;

 (e) p ~~p~~Passive recreational uses such as parks, picnic areas or trails;

 (f) o ~~o~~Open area residential uses, such as lawns, gardens and play areas; and

 (g) s ~~s~~Stormwater storm water management and arroyo or watercourse stabilization *structures*, such as check dams and gabions, if these *structures* are in compliance with all applicable state and federal regulations.

 (h) l ~~l~~Legal nonconforming uses occupying *structures* in existence on June 17, 2008 provided that such uses may not be intensified and that the *structures* which such uses occupy comply will all applicable FEMA requirements and all provisions of §14-8.3 that are more stringent than the FEMA requirements.

 (i) active recreational uses that do not include permanent structures.

 (j) Parking and access facilities so long as such facilities cannot reasonably be accommodated outside the floodway, in the determination of the Flood Plain Administrator.

Comment [CLG91]: added 12 08 2010 per MSO

(E) Additional Regulations

 (1) The requirements of this section are in addition to and not in lieu of other provisions of this chapter.

 (2) No new development or substantial improvements shall be undertaken on lands within a special flood hazard area unless such erection or alteration shall be in compliance with the provisions of this paragraph, except as exempted by this section.

Comment [CLG92]: staff requests a definition – new language in section should address the need

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Comments: Green is explanatory, Blue is for discussion, Red is for issues remaining to be addressed

 (34) —The provisions applying to the *flood fringe* are that:

 (a) —~~All~~ *permits* for construction within a *flood fringe* shall be reviewed by the Floodplain Administrator;

 (b) s—Storage, processing or disposal of materials that in time of flooding are buoyant, flammable, explosive, toxic or could be injurious to human, animal or plant life, are prohibited within the *special flood hazard area*;

 (c) r—Railroads, *streets*, bridges, private and public utility lines and facilities, structural works for the control and handling of *floodflows*, such as dams, embankments, *flood walls*, velocity control *structures* or required storm drainage control and handling works, may be allowed within the *special flood hazard area* if properly *floodproofed* and approved by the Floodplain Administrator;

 (d) a—All newly created lots shall contain a buildable area that is entirely outside of a *special flood hazard area*;

 (e) —~~E~~except as permitted in ~~P~~paragraph (45) of this subsection, if an existing lot contains land both within and outside of the *special flood hazard area*, any *new construction*, including roads and driveways, shall only occur on the portion outside of the *special flood hazard area*. If an existing lot contains no land outside of the *special flood hazard area*, any *new construction*, including roads and driveways shall only occur in the *flood fringe* upon approval of a variance waiver from the ~~Planning Commission~~ as set forth in §14-3.9(E) and shall conform to the provisions set forth in ~~P~~paragraph (45); of this sub-section. This sub paragraph (e) shall not apply to legal nonconforming structures described in paragraph (2) of this section;

Comment [CLG93]: terminology changed to make usage consistent and distinguish approval from a land use variance under 14-3.16.

 (f) —On any *application* for subdivision plat or development plan approval, where the tract of land or portions thereof are located within a *special flood hazard area*, the Floodplain Administrator shall require the submittal of detailed hydrologic data indicating the water surface elevations for a one percent chance event, to be shown for sections of the drainage channel at intervals of no greater than 100 feet. The *special flood hazard area* shall be further defined as *floodway* and *flood fringe*. Upon on-site investigation, the Floodplain Administrator may waive the requirement for the submittal of detailed hydrologic data. A professional surveyor licensed in the State of New Mexico shall certify on the subdivision plat the FIRM zones, FIRM panel number and date. The *special flood hazard area* shown on the plat shall be accurately depicted by an *architect*, professional surveyor or professional engineer licensed in the State of New Mexico. If a development plan is required, the *special flood hazard area* shall be accurately depicted by an *architect*, professional surveyor or professional engineer

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~~licensed in the State of New Mexico.~~ If both a plat and development plan are required, only the plat is required to be signed by the *architect*, professional surveyor or professional engineer;

~~_____~~ (g) a—All development, including excavation and fill operations, within *special flood hazard areas* shall receive approval from the Floodplain Administrator prior to beginning any work. Permits may be required from other state and federal agencies as well prior to beginning any work;

Comment [CLG94]: per stormwater manager

~~_____~~ (h) i—In *drainageways* where there is evidence of undercutting and bank erosion, the Floodplain Administrator may require an additional set-back. The additional setback distance shall be determined by the Floodplain Administrator based on soils and hydrologic information supplied by the applicant;

~~_____~~ (i) f—For purposes of this section, the *special flood hazard area* shall be as shown on the appropriate FIRM. *Flood fringe*, *floodway* and base flood elevation shall be shown as required by the Floodplain Administrator;

~~_____~~ (j) — ~~No~~ a fence, *wall*, or similar *structure* shall not be erected in or across any arroyo, stream, or watercourse; and

~~_____~~ (k) i—In A and AE Zones, recreational vehicles shall be:

~~_____~~ (i) — ~~E~~levated and anchored; or

~~_____~~ (ii) — ~~O~~on the site for less than 180 consecutive days; or

~~_____~~ (iii) — ~~F~~ully licensed and highway ready.

~~_____~~ (45)— — Structures or uses within the *flood fringe* portion of the *special flood hazard area* upon the approval of a variance-waiver by the Planning Commission, to the extent that they are not prohibited by any other City ordinances, plans and policies, shall meet the following requirements. except as exempted by this section;

Comment [CLG95]: added to be consistent with three tier approach

~~_____~~ (a) — ~~R~~esidential or nonresidential *structures*, to be constructed or substantially improved in the *flood fringe*, shall have the elevation of the lowest floor not less than one foot above the level of the base flood elevation. Where existing *streets* or utilities are at elevations which make compliance with this provision infeasible, or in other special circumstances, the Floodplain Administrator may authorize other techniques for protection of the *structures*;

~~_____~~ (b) — Structures shall be designed and constructed to withstand flood conditions at the proposed construction site;

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_____ (c) New construction and substantial improvements, with fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement shall either be certified by a New Mexico registered professional engineer or architect or meet or exceed the following minimum criteria:

_____ (i) a—A minimum of two openings on different walls having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;

_____ (ii) t—The bottom of all openings shall be no higher than one foot above finished grade; and

_____ (iii) o—Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters;

_____ (d) a—All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

_____ (e) s—Sanitary and storm sewer drains shall be equipped with valves capable of being closed, manually or automatically, to prevent backup of sewage and storm waters into the building or structure;

_____ (f) t—The base flood elevation shall be certified by a professional surveyor licensed in the State of New Mexico a and superimposed on the site plan. The base flood elevation shall be accurately depicted by an architect licensed in the State of New Mexico on the elevation drawings for all sides of the building. The site plan and elevation drawings shall be submitted to the Land Use Director department for issuance of a building permit. The elevation drawings shall also indicate the Lowest Floor elevation and location of all windows, doors or other openings. The Floodplain Administrator may request additional data for the building permit if deemed necessary;

_____ (g) b—Before issuance of a building permit for the construction of a structure in the flood fringe, a professional engineer licensed in the state of New Mexico shall certify that the structure has been designed to conform with the provisions of Paragraphs (5)(c)(i) through (5)(c)(iii) of this subsection, and that the bottom of all openings in the enclosure are no more than one foot above the base flood elevation. The same professional engineer that

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certifies that the *structure* is designed to conform with the provisions of Paragraphs (5)(c)(i) through (5)(c)(iii) of this subsection shall also certify, upon completion of the *structure*, that construction complies with the submitted plans;

_____ (h) a—A *manufactured home* or *mobile home* shall be elevated on compacted fill or pilings. The lowest floor of the *manufactured home* or *mobile home* shall be no less than one foot above the level of the *base flood elevation*;

_____ (i) m—*Manufactured homes* or *mobile homes* shall be anchored to resist flotation, collapse or lateral movement by providing:

_____ (i) o—Over-the-top ties at each of the four corners, with two additional ties per side at intermediate locations, and for *manufactured* or *mobile homes* less than 50 feet long, one over-the-top tie at each of the four corners is required;

_____ (ii) f—Frame ties at each corner of the *manufactured* or *mobile home* with 5 additional ties per side at intermediate points and for *manufactured* or *mobile homes* less than fifty feet long, four ties are required per side;

_____ (iii) a—All components of the anchor system shall be capable of carrying a force of 4,800 pounds; and

_____ (iv) a—Additions to the *manufactured home* or *mobile home* shall be similarly anchored.

_____ (j) f—For existing *manufactured home* or *mobile home* parks located in the *special flood hazard area*, a vehicular circulation plan indicating alternative vehicular access and escape routes during the *one percent chance event* shall be submitted as part of any improvement, construction or development project;

_____ (k) n—No new *manufactured homes*, *mobile homes* or foundations for either type of *structure*, shall be permitted in the *special flood hazard area*.

(DE) —Amendment to Flood Insurance Rate Map (FIRM)

_____ (1) _____—Amendments to the established base flood elevations and ~~special flood hazard areas~~ may be initiated either by the Floodplain Administrator or by any other person through application to FEMA. Such *application* shall be accompanied by sufficient copies of supporting plans and reports as may be required by FEMA meeting the minimum requirements of the National Flood Insurance Program (NFIP). If the *application* is not made by the Floodplain Administrator, a copy of the submittal to FEMA shall be forwarded to the Floodplain Administrator. Submission of inaccurate information with an *application* is grounds for denial

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from FEMA. The Floodplain Administrator may provide comments to FEMA on any submittal for a map change,

(2) —In addition to the change described in ~~Paragraph (1) of this subsection above~~ and on the basis of hydrologic data, the Governing Body may change the established flood hazard areas by adoption of an ordinance. Such amendment may be for non-FEMA approved changes but shall not be less restrictive than FEMA requirements. Where the change affects land owned by persons other than the applicant, all affected property owners shall be notified of the change by certified mail, return receipt requested. The signed receipts shall be submitted to the Floodplain Administrator.

 (a) —The Governing Body's decision to add or amend a flood hazard area shall be based on any appropriate information, including detailed engineering analysis and recommendations in reports and plans done by or for the City or other governing agencies, including those prepared for building permits and subdivisions.

 (b) —If the Governing Body denies a change to the flood hazard area, the reasons for denial shall be stated in a written report.

 (c) —Prior to approval by the Governing Body, the Floodplain Administrator shall notify the State Coordinator for the NFIP at the New Mexico ~~Department of~~ Homeland Security and Emergency Management Department.

(3) —If major alterations to a watercourse are proposed adjacent to the corporate limits of the City of Santa Fe, the Floodplain Administrator shall notify the Santa Fe County Manager and Santa Fe County Floodplain Administrator of such proposal.

(FE) —**Warning and Disclaimer of Liability**

 The degree of flood protection intended to be provided by this section is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on occasions or the flood height may be increased by natural or manmade causes. This section does not imply that areas outside the *special flood hazard area*, flood hazard area or land uses permitted within such area will always be totally free from flooding or flood damages. This section shall not create liability on the part of the Governing Body or any official, employee or agent of the Governing Body ~~thereof~~ for any flood damages that result from reliance on this section or any administrative decision lawfully made pursuant to this section ~~hereunder~~.

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