

BERNALILLO COUNTY

BOARD OF COUNTY COMMISSIONERS

ORDINANCE NO. _____

1 **AN ORDINANCE AMENDING BERNALILLO COUNTY CODE, CHAPTER 38**
2 **ARTICLE II, FLOOD DAMAGE PREVENTION, SECTION 101**

3
4 **ARTICLE II**

5 **DIVISION 1. - GENERALLY**

6
7 **Sec. 38-31. - Purpose of article.**

8 The regulations and restrictions of this article are designed to promote the public health,
9 safety, and general welfare and/or minimize public and private losses due to flooding in
10 flood hazard areas as shown on the flood insurance rate map.

11 (Ord. No. 04-4, 2-24-04; Ord. No. 2008-10, 8-26-08, eff. 9-25-08)

12 The following words, terms and phrases, when used in this article, shall have the
13 meanings ascribed to them in this section, except where the context clearly indicates a
14 different meaning:

15 *Appeal* means a request for a review of the county floodplain administrator's interpretation
16 of any provision of this article or a request for a variance.

17 *Area of shallow flooding* means a designated AO or AH zone on a community's flood
18 insurance rate map (FIRM) with a one percent or greater annual chance of flooding to an
19 average depth of one to three feet where a clearly defined channel does not exist, where
20 the path of flooding is unpredictable, and where velocity flow may be evident. Such flow
21 is characterized by ponding or sheet flow.

22 *Area of special flood hazard* is the land in the floodplain within a community subject to a
23 one percent or greater chance of flooding in any given year. The area may be designated
24 as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed rate making has
25 been completed in preparation for publication of the FIRM, Zone A usually is refined into
26 Zones A, AO, AH, A1—30, AE, A99, AR, AR/A1—30, AR/AE, AR/AO, AR/AH, AR/A, VO,
27 V1—30, VE or V.

28 *Base flood* means the flood having a one percent chance of being equaled or exceeded
29 in any given year.

30 *Base flood elevation (BFE)* means the elevation shown on the Flood Insurance Rate Map
31 (FIRM) and found in the accompanying Flood Insurance Study (FIS) for Zones A, AE, AH,
32 A1—A30, AR, V1—V30, or VE that indicates the water surface elevation resulting from

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1 the flood that has a 1 percent chance of equaling or exceeding that level in any given year
2 - also called the base flood.

3 *Basement* means any area of the building having its floor sub-grade (below ground level)
4 on all sides.

5 *Critical feature* means an integral and readily identifiable part of a flood protection system,
6 without which the flood protection provided by the entire system would be compromised.

7 *Development* means any manmade change to improved or unimproved land including,
8 but not limited to, buildings or other structures on the land, mining, filling, paving,
9 excavation, or drilling operations or storage of equipment or materials located within the
10 area of special flood hazard.

11 *Elevated building* means a nonbasement building:

12 (1) Built, in the case of a building in zones A1—30, A, AO, AH, B, and C to have
13 the top of the elevated floor elevated above the ground by means of pilings, columns
14 (posts and piers), or shear walls parallel to the flow of the water; and

15 (2) Adequately anchored so as not to impair the structural integrity of the building
16 during a flood of up to the magnitude of the base flood. In the case of zones A1—30,
17 A, A99, AO, AH, B, and C the term "elevated building" also includes a building
18 elevated by means of fill or solid foundation perimeter walls with openings sufficient
19 to facilitate the unimpeded movement of floodwaters.

20 *Existing construction* means, for the purposes of determining rates, structures for which
21 the "start of construction" commenced before the effective date of the FIRM, or before
22 January 1, 1975, for FIRMs effective before that date. The term "existing construction"
23 may also be referred to as "existing structures."

24 *Existing structures.* See "existing construction."

25 *Existing manufactured home park or subdivision* means a manufactured home park or
26 subdivision for which the construction of facilities for servicing the lots on which the
27 manufactured homes are to be affixed (including, at a minimum, the installation of utilities,
28 the construction of streets, and either final site grading or the pouring of concrete pads)
29 is completed before the effective date of the floodplain management regulations adopted
30 by a community.

31 *Expansion to an existing manufactured home park or subdivision* means the preparation
32 of additional sites by the construction of facilities for servicing the lots on which the
33 manufactured homes are to be affixed (including the installation of utilities, the
34 construction of streets, and either final site grading or the pouring of concrete pads).

35 *Flood or flooding* means a general and temporary condition of partial or complete
36 inundation of normally dry land areas from:

37 (1) The overflow of inland waters.

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1 (2) The unusual and rapid accumulation or runoff of surface waters from any
2 source.

3 *Flood elevation study* means an examination, evaluation and determination of flood
4 hazards and, if appropriate, corresponding water surface elevations, or an examination,
5 evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion
6 hazards.

7 *Flood insurance rate map (FIRM)* means the official map of a community, on which the
8 Federal Emergency Management Agency has delineated both the areas of special flood
9 hazards and the risk premium zones applicable to the community.

10 *Flood insurance study.* See "flood elevation study."

11 *Flood protection system* means those physical structural works for which funds have been
12 authorized, appropriated and expended, and which have been constructed specifically to
13 modify flooding in order to reduce the extent of the areas within the community subject to
14 a special flood hazard, and the extent of the depths of associated flooding. Such a system
15 typically includes dams, reservoirs, levees or dikes. These specialized flood modifying
16 works are those constructed in conformance with sound engineering standards.

17 *Floodplain or floodprone area* means any land area susceptible to being inundated by
18 water from any source. See the definition of flooding.

19 *Floodplain administrator* means an assigned public official certified in floodplain
20 administration per NM State statute 3-18-7 NMSA 1978

21 *Flood proofing* means any combination of structural and non-structural additions,
22 changes, or adjustments to structures which reduce or eliminate flood damage to real
23 estate or improved real property, water and sanitary facilities, structures and their
24 contents.

25 *Floodway* means the channel of a river or other watercourse and the adjacent land areas
26 that must be reserved in the order to discharge the base flood without cumulatively
27 increasing the water surface elevation more than a designated height.

28 *Functionally dependent use* means a use which cannot perform its intended purpose
29 unless it is located or carried out in close proximity to water. The term includes only
30 docking facilities, port facilities that are necessary for the loading and unloading of cargo
31 or passengers, and ship building and ship repair facilities, but does not include long-term
32 storage or related manufacturing facilities.

33 *Highest adjacent grade* means the highest natural elevation of the ground surface prior
34 to construction next to the proposed walls of a structure.

35 *Historic structure* means any structure that is:

36 (1) Listed individually in the National Register of Historic Places (a listing
37 maintained by the Department of Interior) or preliminarily determined by the
38 Secretary of the Interior as meeting the requirements for individual listing on the

1 National Register;

2 (2) Certified or preliminarily determined by the Secretary of the Interior as
3 contributing to the historical significance of a registered historic district or a district
4 preliminarily determined by the Secretary to qualify as a registered historic district;

5 (3) Individually listed on a state inventory of historic places in states with historic
6 preservation programs which have been approved by the Secretary of Interior; or

7 (4) Individually listed on a local inventory of historic places in communities with
8 historic preservation programs that have been certified either:

9 a. By an approved state program as determined by the Secretary of the
10 Interior or;

11 b. Directly by the Secretary of the Interior in states without approved
12 programs.

13 *Levee* means a manmade structure, usually an earthen embankment, designed and
14 constructed in accordance with sound engineering practices to contain, control or divert
15 the flow of water so as to provide protection from temporary flooding.

16 *Levee system* means a flood protection system which consists of levees and associated
17 structures, such as closure and drainage devices, which are constructed and operated in
18 accordance with sound engineering practices.

19 *Lowest floor* means the lowest floor of the lowest enclosed area, including the basement.
20 An unfurnished or flood-resistant enclosure, usable solely for parking of vehicles, building
21 access, or storage in an area other than a basement area, is not considered a building's
22 lowest floor, provided that such enclosure is not built so as to render the structure in
23 violation of the applicable nonelevation design requirement of section 60.3 of the National
24 Flood Insurance Program regulations.

25 *Manufactured home* means a structure transportable on one or more sections, which is
26 built on a permanent chassis and is designed for use with or without a permanent
27 foundation when connected to the required utilities. The term "manufactured home" does
28 not include recreational vehicles.

29 *Manufactured home park or subdivision* means a parcel (or contiguous parcels) of land
30 divided into two or more manufactured home lots for rent or sale.

31 *Mean sea level.* Effective November 19, 2003 the mean sea level means for purposes of
32 the National Flood Insurance Program, the National American Vertical Datum of 1988
33 (NAVD '88) to which base flood elevations shown on the community's flood insurance
34 rate map are referenced.

35 *Mobile home.* See "manufactured home."

36 *New construction* means, for the purpose of determining insurance rates, structures for
37 which the "start of construction" commenced on or after the effective date of an initial

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1 FIRM or after December 31, 1974, whichever is later, and includes any subsequent
2 improvements to such structures. For floodplain management purposes, "new
3 construction" means structures for which the "start of construction" commenced on or
4 after the effective date of a floodplain management regulation adopted by a community
5 and includes any subsequent improvements to such structures.

6 *New manufactured home park or subdivision* means a manufactured home park or
7 subdivision for which the construction of facilities for servicing the lots on which the
8 manufactured homes are to be affixed (including at a minimum, the installation of utilities,
9 the construction of streets, and either final site grading or the pouring of concrete pads)
10 is completed on or after the effective date of floodplain management regulations adopted
11 by a community.

12 *Recreation vehicle* means a vehicle which is (i) built on a single chassis; (ii) 400 square
13 feet or less when measured at the largest horizontal projections; (iii) designed to be self-
14 propelled or permanently towable by a light duty truck; and (iv) designed primarily not for
15 use as a permanent dwelling but as temporary living quarters for recreational, camping,
16 travel, or seasonal use.

17 *Special flood hazard area*. See "area of special flood hazard."

18 *Start of construction* means substantial improvement and means the date the building
19 permit was issued, provided the actual start of construction, repair, reconstruction,
20 placement, or other improvement was within 180 days of the permit date. The actual start
21 means either the first placement or permanent construction of a structure on a site, such
22 as the pouring of slab or footings, the installation of piles, the construction of columns, or
23 any work beyond the stage of excavation; or the placement of a manufactured home on
24 a foundation. Permanent construction does not include land preparation, such as clearing,
25 grading and filling; nor does it include the installation of streets and/or walkways; nor does
26 it include excavation for basement, footings, piers or foundations or the erection of
27 temporary forms; nor does it include the installation on the property of accessory
28 buildings, such as garages or sheds not occupied as dwelling units or not part of the main
29 structure.

30 *Structure* means a walled and roofed building, a mobile home, or a gas or liquid storage
31 tank, that is principally located above the ground.

32 *Substantial improvements* means any repair, reconstruction, or improvement of a
33 structure, the cost of which equals or exceeds 50 percent of the market value of the
34 structure either:

35 (1) Before the improvement or repair is started, or

36 (2) If the structure has been damaged and is being restored, before the damage
37 occurred.

38 For the purpose of this article, substantial improvement is considered to occur when the
39 first alteration of any wall, ceiling, floor, or other structural part of a structure commences,
40 whether or not that alteration affects the external dimensions of the structure. Exception:

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1 Any project for improvement of a structure to comply with existing state or local health,
2 sanitary, safety, and building code specifications which are solely necessary to ensure
3 safe living conditions and any alteration of a structure listed in the National Register of
4 Historic Places or in the state inventory of historic places are exempted from the definition
5 of the term "substantial improvement."

6 *Substantial damage* means damage of any origin sustained by a structure whereby the
7 cost of restoring the structure to its before damaged condition would equal or exceed 50
8 percent of the market value of the structure before the damage occurred.

9 *Variance* means a grant of relief from the requirements of this article which permits
10 construction in a manner that would otherwise be prohibited by this article.

11 *Violation* means the failure of a structure or other development to be fully compliant with
12 the community's floodplain management regulations. A structure or other development
13 without the elevation certificate, other certifications, or other evidence of compliance
14 required in sections 38-71(b)(1), 38-72, 38-101, and 38-102 is presumed to be in violation
15 until such time as that documentation is provided.

16 *Water surface elevation.* Effective November 19, 2003 the water surface elevation means
17 the height, in relation to the National American Vertical Datum of 1988 (NAVD '88) for
18 floods of various magnitudes and frequencies in the floodplains of riverine areas.

19 (Ord. No. 04-4, 2-24-04; Ord. No. 2008-10, 8-26-08, eff. 9-25-08)

20 **Cross reference—** Definitions generally, § 1-2.

21 **Sec. 38-33. - Penalty for violation of article.**

22 Except as otherwise provided in this article, violations of this article are punishable as
23 provided in Chapter 1, section 1-6 of the Bernalillo County Code.

24 (Ord. No. 04-4, 2-24-04)

25 **Sec. 38-34. - Interpretation of article and conflicting provisions.**

26 The regulations, restrictions and requirements of this article shall be held to be the
27 minimum standards to carry out the purpose of this article. This article is not intended to
28 interfere with, abrogate, or annul any easement, covenant or other agreement between
29 parties or other valid ordinances. Where this article imposes a greater restriction upon the
30 use of land or building, or upon the height and method of construction of a building than
31 is imposed by other rules, regulations, easements, covenants, agreements or ordinances,
32 the provisions of this article shall control.

33 (Ord. No. 04-4, 2-24-04)

34 **Sec. 38-35. - Methods and provisions for achieving purpose of article.**

35 In order to accomplish its purpose, this article includes methods and provisions for:

36 (1) Restricting or prohibiting uses which are dangerous to health, safety, and

1 property due to water or erosion hazards; or which result in damaging increases in
2 erosion or in flood heights or velocities.

3 (2) Requiring that uses vulnerable to floods, including facilities which serve such
4 uses, be protected against flood damage at the time of initial construction.

5 (3) Controlling the alteration of natural floodplains, stream channels, and natural
6 protective barriers, which help accommodate or channel floodwaters.

7 (4) Controlling, filling, grading, and other development which may increase flood
8 damage.

9 (5) Preventing or regulating the construction of flood barriers which will unnaturally
10 divert floodwaters or which may increase flood hazards in other areas.

11 (Ord. No. 04-4, 2-24-04)

12 **Secs. 38-36—38-70. - Reserved.**

13

14 DIVISION 2. - ADMINISTRATION AND ENFORCEMENT

15

16 **Sec. 38-71. - Floodplain Administrator; creation of position; duties and**
17 **responsibilities.**

18 (a) Pursuant to NM state statute 3-18-7 NMSA 1978

19 There is hereby created by the county the position of county floodplain administrator to
20 administer and implement this article by granting or denying development permit
21 applications in accordance with Bernalillo County and State of New Mexico codes, rules,
22 ordinances and statutes.

23 (b) The floodplain administrator shall enforce this article, and, in addition thereto and in
24 furtherance thereof, shall:

25 (1) Review all applications for development permits to assure sites are reasonably
26 safe from flooding and to determine:

27 a. That the permit requirements of this article have been satisfied.

28 b. That all necessary permits have been obtained from those federal, state or
29 local governmental agencies from which prior approval is required.

30 c. Whether or not the proposed development adversely affects the flood-
31 carrying capacity of the area of special flood hazard. For the purpose of this
32 article the expression "adversely affects" means damage to adjacent properties
33 because of rises in flood stages attributed to physical changes of the channel,
34 arroyo and adjoining areas.

1 1. If it is determined that there is no adverse effect, then the permit shall
2 be granted consistent with the provisions of this article

3 2. If it is determined that there is an adverse effect, then flood damage
4 mitigation measures shall be made a condition of the permit.

5 (2) Obtain, review and reasonably utilize any base flood elevation data and
6 floodway data available from a federal, state or other source until base flood
7 elevation data is made available by the federal insurance administrator, in order to
8 carry out the provisions of this article.

9 (3) Obtain and maintain records of the actual elevation, in relation to mean sea
10 level, of the lowest habitable floor, including the basement, of all new or substantially
11 improved structures.

12 (4) Obtain and maintain records of actual elevations, in relation to mean sea level,
13 to which structures have been floodproofed and keep the floodproofing certifications
14 required by this article.

15 (5) Notify adjacent communities, the state and other affected agencies prior to any
16 alterations or relocations of a watercourse, and submit evidence of such notification
17 to the federal insurance administrator.

18 (6) Require that maintenance is provided within the altered or relocated portion of
19 watercourse so that the flood-carrying capacity is not diminished.

20 (7) Make interpretations and determine, when needed, the exact location of the
21 boundaries of the areas of special flood hazards in case of conflict between a
22 boundary shown on the flood hazard boundary map and actual field conditions.

23 (8) Review all subdivision proposals and other proposed new development,
24 including manufactured home parks and subdivisions for compliance with the
25 provisions of this article and to ensure that the proposals are reasonably safe from
26 flooding.

27 (9) When a regulatory floodway has not been designated, the floodplain
28 administrator must require that no new construction, substantial improvements, or
29 other development (including fill) shall be permitted within Zones A1—30 and AE on
30 the community's FIRM, unless it is demonstrated that the cumulative effect of the
31 proposed development, when combined with all other existing and anticipated
32 development, will not increase the water surface elevation of the base flood more
33 than one foot at any point within the community.

34 (Ord. No. 04-4, 2-24-04; Ord. No. 2008-10, 8-26-08, eff. 9-25-08, Ord. No. 2012-17, 8-
35 14-12)

36 **Sec. 38-72. - Development permits.**

37 (a) A development permit shall be obtained before construction of development begins
38 within any area of special flood hazard as shown on the flood insurance rate map.

1 (b) An application for a development permit (same as building permit) shall be made to
2 the county building section. The applicant shall submit to the county administrator plans
3 drawn to scale showing the nature, location, dimensions and elevations of the area to be
4 developed, existing and/or proposed structures, fill, storage of materials, drainage
5 facilities and the location of the foregoing.

6 (c) The plans mentioned in subsection (b) of this section shall specifically include the
7 following information:

8 (1) Elevation, in relation to mean sea level, of the lowest floor, including the
9 basement, of all structures.

10 (2) Elevation, in relation to mean sea level, to which any structure has been
11 floodproofed.

12 (3) Certification by a registered professional engineer that the floodproofing
13 methods for any nonresidential structure meet the floodproofing criteria set forth in
14 section 38-102(2)c.

15 (4) Description of the extent to which any watercourse will be altered or relocated
16 as a result of proposed development.

17 (d) Fees. An application for a development permit shall be accompanied by a filing fee
18 in accordance with the following schedule:

19 (1) Twenty dollars for new buildings of 1,000 square feet or more, or additions of
20 1,000 square feet or more to existing buildings.

21 (2) Ten dollars for new buildings of less than 1,000 square feet, additions of less
22 than 1,000 square feet to existing buildings, or for the erection of structures other
23 than buildings.

24 (Ord. No. 04-4, 2-24-04)

25 **Sec. 38-73. - Variances and appeals.**

26 (a) In passing upon applications for variances and appeals, the county floodplain
27 administrator shall consider all technical evaluations, all relevant factors, standards
28 specified in other sections of this article and:

29 (1) The danger that materials may be swept onto other lands to the injury of others;

30 (2) The danger of life and property due to flooding or erosion damage;

31 (3) The susceptibility of the proposed facility and its contents to flood damage and
32 the effect of such damage on the individual owner;

33 (4) The importance of the services provided by the proposed facility to the
34 community;

35 (5) The availability of alternative locations for the proposed use which are not

1 subject to flooding or erosion damage;

2 (6) The compatibility of the proposed use with existing and anticipated
3 development;

4 (7) The relationship of the proposed use to the comprehensive and floodplain
5 management program of that area;

6 (8) The safety of access to the property in times of flood for ordinary and emergency
7 vehicles;

8 (9) The expected heights, velocities, duration, rate of rise, and sediment transport
9 of the floodwaters and the effects of wave action, if applicable at the site; and

10 (10) The costs of providing governmental services during and after flood conditions,
11 including maintenance and repair of public facilities such as sewer, gas, electrical,
12 water system, and streets and bridges.

13 (b) The county floodplain administrator shall maintain the records of all appeal actions,
14 including technical information, and report any variances to the Federal Insurance
15 Administration upon request.

16 (c) Conditions for a variance are as follows:

17 (1) Generally, variances may be issued for new construction and substantial
18 improvements to be erected on a lot of one-half acre or less in size, contiguous to,
19 and surrounded by, lots with existing structures constructed below the base flood
20 level, and not in a designated floodway, providing items in subsection (a) of this
21 section have been fully considered. As the lot size increases beyond the one-half
22 acre, the technical justification required for issuing the variances increases.

23 (2) Variances may be issued for the reconstruction, rehabilitation or restoration of
24 structures listed on the state cultural properties register, without regard to the
25 procedures set forth in the remainder of this division.

26 (3) Variances shall not be issued within any designated floodway if any increase in
27 flood levels or adverse realignment during the base flood discharge would occur as
28 a result of allowing such discharge variances.

29 (4) Variances shall only be issued upon a determination that the variance is the
30 minimum penalty, considering the flood hazard, to afford relief.

31 (Ord. No. 04-4, 2-24-04)

32 **Secs. 38-74—38-100. - Reserved.**

33

34 DIVISION 3. - PROVISIONS FOR FLOOD HAZARD REDUCTION

35

1 SEC. 38-101. - GENERAL STANDARDS.

2 For development in all areas of special flood hazards, the following standards must be
3 complied with:

4 (1) *Anchoring*. All new construction or substantial improvements shall be designed
5 or modified and adequately anchored to prevent flotation, collapse or lateral
6 movement of the structure resulting from hydrodynamic and hydrostatic loads,
7 including the effects of buoyancy.

8 (2) *Construction materials and methods*. All new construction and substantial
9 improvements shall be constructed:

10 a. With materials and utility equipment resistant to flood damage; and

11 b. Using methods and practices that minimize flood damage.

12 (3) *Utilities*.

13 a. All new and replacement water supply systems shall be designed to
14 minimize or eliminate infiltration of floodwaters into the system.

15 b. New and replacement sanitary sewerage systems shall be designed to
16 minimize or eliminate infiltration of floodwaters into the systems and discharge
17 from the systems into floodwaters.

18 c. Onsite waste disposal systems shall be located to avoid impairment to
19 them or contamination from them during flooding.

20 All new construction or substantial improvements shall be constructed with
21 electrical, heating, plumbing, ventilation and air conditioning equipment, and
22 other service facilities that are designed and/or located so as to prevent water
23 from entering or accumulating within the components during conditions of
24 flooding.

25 (4) *Subdivision proposals in special flood hazard areas*. Subdivision proposals in
26 special flood hazard areas shall conform to the following:

27 a. All subdivision proposals shall be consistent with the need to minimize flood
28 damage and shall be reasonably safe from flooding.

29 b. All subdivision proposals shall have public utilities and facilities such as
30 sewer, gas, electrical and water systems located and constructed to minimize
31 flood damage.

32 c. All subdivision proposals shall have adequate drainage provided to reduce
33 exposure to flood damage.

34 d. Base flood elevation data shall be provided for subdivision proposals and
35 other proposed development which contain at least 50 lots or five acres,
36 whichever is less.

1 (5) *Floodways*. Located within areas of special flood hazard established by the
2 Federal Emergency Management Agency (FEMA) in the current report entitled "The
3 Flood Insurance Study (FIS), Bernalillo County, New Mexico and Incorporated
4 Areas" dated ~~August 16, 2012~~November 4, 2016 and accompanying Flood
5 Insurance Rate Maps (FIRMs) dated September 23, 2008, ~~and~~ August 16, 2012 ~~and~~
6 November 4, 2016, or any other subsequent study, are areas designated as
7 floodways. Since the floodway is an extremely hazardous area due to the velocity of
8 floodwaters which carry debris, potential projectiles and erosion potential, the
9 following provisions shall apply:

10 a. Encroachments are prohibited, including fill, new construction, substantial
11 improvements and other developments unless certification by a registered
12 professional engineer is provided demonstrating that encroachments shall not
13 result in any increase in flood levels during occurrence of the base flood
14 discharge.

15 b. If subsection (5)a. of this section is satisfied, all new construction and
16 substantial improvements shall comply with all applicable flood hazard reduction
17 provisions of this section.

18 c. Prohibit placement of any mobile homes, except which meet the
19 requirements of section 38-102(4).

20 (6) *Standards of areas of shallow flooding (AO and AH zones)*. Located within the
21 areas of special flood hazard established by "The Flood Insurance Study (FIS)
22 Bernalillo County, New Mexico and Incorporated Area" dated ~~August 16,~~
23 ~~2012~~November 4, 2016 and accompanying Flood Insurance Rate Maps (FIRMs)
24 dated September 23, 2008, ~~and~~ August 16, 2012 ~~and~~ November 4, 2016 or any other
25 subsequent study, are areas designated as shallow flooding. These areas have
26 special flood hazards associated with base flood depths of one to three feet where a
27 clearly defined channel does not exist and where the path of flooding is unpredictable
28 and indeterminate. Therefore, the following provisions apply:

29 a. All new construction and substantial improvements of residential structures
30 must have the lowest floor, including the basement, elevated 1 foot or more
31 above the base flood elevation or the highest adjacent grade at least 1 foot
32 above the depth number specified in feet on the county flood insurance rate
33 map (at least two feet if no depth number is specified).

34 b. All new construction and substantial improvements of nonresidential
35 structures must:

36 1. Have the lowest floor, including the basement, elevated to or above
37 the base flood elevation or the highest adjacent grade at least as high as
38 the depth number specified in feet on the county flood insurance rate map
39 (at least two feet if no depth is specified); or

40 2. Together with attendant utilities and sanitary facilities be designated
41 so that below the base flood level the structure is watertight with walls

1 substantially impermeable to the passage of water and with structure
2 components having the capability of resisting hydrostatic and
3 hydrodynamic loads of effects of buoyancy.

4 c. A registered professional engineer shall submit a certification to the county
5 floodplain administrator that the standards of this section, as proposed in section
6 38-102(1), (2) and (3) are satisfied.

7 d. Require within zones AH and AO, adequate drainage paths around
8 structures on slopes, to guide floodwaters around and away from proposed
9 structures.

10 (Ord. No. 04-4, 2-24-04; Ord. No. 2008-10, 8-26-08, eff. 9-25-08, Ord. No. 2012-17, 8-
11 14-12)

12 **Sec. 38-102. - Specific standards.**

13 In all areas of special flood hazards where base flood elevation data has been provided,
14 the following specific standards apply:

15 (1) *Residential construction.* New construction and substantial improvements of
16 any residential structure shall have the lowest floor, including the basement, elevated
17 to 1 foot or more above the base flood elevation.

18 (2) *Nonresidential construction.* New construction and substantial improvement of
19 any commercial, industrial or other nonresidential structure shall either have the
20 lowest floor, including the basement, elevated to or above the base flood elevations,
21 or it, together with attendant utility and sanitary facilities shall:

22 a. Be floodproofed so that below the base flood level the structure is watertight
23 with walls substantially impermeable to the passage of water;

24 b. Have structural components capable of resisting hydrostatic and
25 hydrodynamic loads and effects of buoyancy; and

26 c. Be certified by a registered professional engineer that the standards of this
27 subsection are satisfied and that the design and methods of construction are in
28 accordance with acceptable standards of practice as outlined in this subsection.

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

35 a. A minimum of two openings on separate walls having a total net area of not
36 less than one square inch for every square foot of enclosed area subject to
37 flooding shall be provided.

1 b. The bottom of all openings shall be no higher than one foot above grade.

2 c. Openings may be equipped with screens, louvers, valves or other
3 coverings or devices, provided that they permit the automatic entry and exit of
4 floodwaters.

5 (4) *Manufactured homes.*

6 a. All manufactured homes to be placed or substantially improved within Zone
7 A shall be installed using methods and practices which minimize flood damage.
8 For the purpose of this subsection, manufactured homes must be elevated and
9 anchored to resist flotation, collapse or lateral movement. Methods of anchoring
10 may include, but are not limited to, use of over-the-top or frame ties to ground
11 anchors. This requirement is in addition to applicable state and local anchoring
12 requirements for resisting wind forces.

13 b. Manufactured homes to be placed or substantially improved within Zones
14 AH and AE on the community's FIRM (i) outside of a manufactured home park
15 or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an
16 expansion to an existing manufactured home park or subdivision, or (iv) in an
17 existing manufactured home park or subdivision on which a manufactured home
18 has incurred "substantial damage" as a result of a flood, shall be elevated on a
19 permanent foundation such that the lowest floor of the manufactured home is
20 elevated to or above the base flood elevation and be securely anchored to an
21 adequately anchored foundation system to resist flotation, collapse, and lateral
22 movement.

23 c. Manufactured homes placed or substantially improved on sites in an
24 existing manufactured home park or subdivision within Zones AH and AE on the
25 community's FIRM that are not subject to the provisions of paragraph (4) of this
26 section shall be elevated so that either:

27 1. The lowest floor of the manufactured home is at or above the base
28 flood elevation, or

29 2. The manufactured home chassis is supported by reinforced piers or
30 other foundation elements of at least equivalent strength that are no less
31 than 36 inches in height above grade and be securely anchored to an
32 adequately anchored foundation system to resist flotation, collapse, and
33 lateral movement.

34 (5) *Recreational vehicles.* Recreational vehicles placed on sites within Zones AH
35 and AE shall either (i) be on the site for fewer than 180 consecutive days, or (ii) be
36 fully licensed and ready for highway use, or (iii) meet the permit requirements of
37 these regulations, and the elevation and anchoring requirements for "manufactured
38 homes" in paragraph (4) of this section. A recreational vehicle is ready for highway
39 use if it is on its wheels or jacking system, is attached to the site only by quick
40 disconnect type utilities and security devices, and has no permanently attached
41 additions.

1 (Ord. No. 04-4, 2-24-04; Ord. No. 2008-10, 8-26-08, eff. 9-25-08, Ord. No. 2012-17, 8-
2 14-12)

3 **Secs. 38-103—38-140. - Reserved.**

4
5 **ARTICLE III**

6
7 **DIVISION 1. - GENERALLY**

8
9 **Sec. 38-141. - Purpose and intent of article.**

10 It is the purpose of this article to promote the public health, safety and general welfare,
11 and to minimize public and private losses due to flooding by provisions designed:

12 (1) To establish policies, procedures, criteria and requirements to complement and
13 to supplement Article II of this chapter for the assistance and guidance of county
14 officials, county staff and all persons and entities within the jurisdiction of the county.

15 (2) As to flood control, to:

16 a. Prevent the loss of or injury to human life.

17 b. Minimize flood damages to public and private property.

18 c. Provide for timely and effective construction and maintenance of flood
19 control facilities.

20 (3) As to storm drainage, to:

21 a. Prevent the creation of public safety hazards and seek to eliminate existing
22 problems.

23 b. Prevent, to the extent feasible, the discharge of storm runoff from public
24 facilities onto private property.

25 c. Prevent the increased risk of damage to private property caused by storm
26 runoff from other private property.

27 d. Coordinate with the MRGCD, AMAFCA and the City of Albuquerque the
28 discharge of storm runoff into MRGCD and AMAFCA facilities and minimize
29 impact on downstream facilities.

30 e. Provide a reasonable level of public health and convenience at reasonable
31 cost.

32 f. Provide for timely and effective construction and maintenance of storm
33 drainage facilities.

1 g. Design storm drainage facilities, which provide effective storm drainage
2 and flood, control protection as well as promote quality of life and further other
3 adopted county policies, including development of multiple use drainage
4 facilities.

5 h. Improve the quality of storm runoff.

6 (4) As to erosion control, to:

7 a. Protect the hydraulic capacity of flood control and storm drainage facilities
8 from losses due to sedimentation and degradation.

9 b. Preserve public health, safety and convenience from jeopardy due to
10 erosion and sedimentation in private and public facilities of all types.

11 c. Preserve the quality of surface runoff.

12 (Ord. No. 04-4, 2-24-04)

13 **Sec. 38-142. - Definitions.**

14 The following words, terms and phrases, when used in this article, shall have the
15 meanings ascribed to them in this section, except where the context clearly indicates a
16 different meaning:

17 *AMAFCA* means the Albuquerque Metropolitan Arroyo Flood Control Authority. *BMP*
18 means best management practice. Best management practices are schedules of
19 activities, prohibitions or practices, maintenance procedures and other management
20 practices to prevent or reduce the pollution of waters of the United States. BMPs also
21 include treatment requirements, operating procedures, and practices to control runoff,
22 spillage or leaks, sludge or waste disposal or drainage from raw material storage. With
23 regard to construction these practices may include structural devices or nonstructural
24 practices that are designed to prevent pollutants from entering water or to direct the flow
25 of water.

26 *Board of adjustment* means board of adjustment as defined in the comprehensive zoning
27 ordinance of the county, as may be amended from time to time.

28 *Channel* means any arroyo, stream, swale, ditch, diversion or watercourse that conveys
29 storm runoff, including manmade facilities.

30 *Channel stability* means a condition in which a channel neither degrades to the degree
31 that structures, utilities or private property are endangered, nor aggrades to the degree
32 that flow capacity is significantly diminished as a result of one or more storm runoff events
33 or moves laterally to the degree that adjacent property is endangered.

34 *Channel treatment measure* means a physical alteration of a channel for any purpose.

35 *City* means the City of Albuquerque.

36 *Comprehensive plan* means the Albuquerque/Bernalillo County Comprehensive Plan and

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1 amendments thereto.

2 *Conceptual grading and drainage plan* means a plan prepared in graphical format
3 showing existing and proposed grading, drainage, control, flood control and erosion
4 control information in sufficient detail to determine project feasibility.

5 *Conservancy district engineer* means the MRGCD's engineer or appointed
6 representative.

7 *County engineer* means the engineering manager of the engineering division of the
8 county public works department or his designee.

9 *County surface water hydrologist* means a staff professional engineer designated by the
10 county engineer to exercise primary responsibility for drainage control, flood control and
11 erosion control matters assigned to the office of the county engineer.

12 *Design storm* means a storm which deposits a stated amount of precipitation within a
13 stated period over a defined area and which is used in calculating storm runoff and in
14 designing drainage control, flood control and erosion control measures.

15 *Developed land* means any lot or parcel of land occupied by any structure intended for
16 human occupation, including structures intended for commercial enterprise.

17 *Developer* means any individual, estate, trust, receiver, cooperative association, club,
18 corporation, company, firm, partnership, joint venture, syndicate or other entity engaging
19 in the platting, subdivision, filling, grading, excavating or construction of structures or
20 facilities.

21 *Downstream capacity* means the ability of downstream major facilities to accept and
22 safely convey runoff generated upstream from the 100-year design storm.

23 *Drainage* means storm drainage.

24 *Drainage covenant* means a legal document executed between a real property owner and
25 the county and, in general, identifies, addresses and defines a drainage facility or
26 facilities, maintenance, county's right of entry, demand for removal or repair, failure to
27 perform by owner and emergency work by county, liability of county, indemnification,
28 cancellation of agreement and release of covenant, assessments, notification, term,
29 binding of property, changes and severability. The drainage covenant shall be in a form
30 provided by the county.

31 *Drainage management or treatment* means the treatment and/or management of surface
32 runoff from all storms up to and including a ten-year design storm.

33 *Drainage management plan* means a plan prepared and adopted by the county, city or
34 AMAFCA which details the drainage controls required within a particular watershed,
35 arroyo corridor or other designated drainage district. The drainage management plan
36 shall comply with an arroyo corridor plan if one has been adopted.

37 *Drainage plan* means a short, detailed plan prepared in graphical format with or on a

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1 detailed grading plan addressing onsite and off-site drainage control, flood control and
2 erosion control issues for lots or parcels of less than five acres.

3 *Drainage report* means a comprehensive analysis of the drainage, flood control and
4 erosion control constraints on and impact resulting from a proposed platting, development
5 or construction project.

6 *Drainage right-of-way* means a public right-of-way acquired whether in fee or in
7 easement, by the city, county, AMAFCA, the MRGCD, or the state for the primary purpose
8 of handling storm drainage.

9 *East Mountain Area* means that portion of the county between the eastern limit of the
10 county and the eastern limit of the city, which is more particularly described as that portion
11 of the county east of the east line of Township 4 East of the New Mexico Principal
12 Meridian and as such line is projected through land grant boundaries (being 24 miles east
13 of the New Mexico Principal Meridian).

14 *EPA* means United States Environmental Protection Agency.

15 *Erosion control* means treatment measures for the prevention of damages due to soil
16 movement and to deposition.

17 *Erosion control plan* means a plan for the mitigation of damages due to soil erosion and
18 to deposition.

19 *Flood control* means the treatment measures necessary to protect life and property from
20 the 100-year design storm runoff.

21 *Flood hazard area* means an area subject to inundation from the 100-year design storm
22 runoff.

23 *Floodway* means the channel of a river, arroyo or other watercourse and adjacent land
24 areas that must be reserved in order to safely discharge the 100-year design storm runoff.

25 *Freeboard* means that part of the drainage channel that is designed to contain the wave
26 action of the 100-year design storm.

27 *Fully developed watershed* means a hydrologic condition in which all areas upstream and
28 downstream of a point in question are assumed completely developed, including any
29 undeveloped areas which are assumed to be developed in accordance with mid-range
30 development densities as established by the comprehensive plan, appropriate area plans
31 or sector plans, adopted facilities master plans and the hydraulic and hydrologic
32 standards established by this article.

33 *Grading plan* means a plan describing the existing topography and proposed grading,
34 including retaining wall locations and details, interfaces with adjacent properties, streets,
35 alleys and channels, referenced to mean sea level (1929 or 1988 datum) such as city
36 benchmark or NMSHTD benchmark, and showing sufficient contours, spot elevations and
37 cross sections to allow a clear understanding by reviewers, contractors and inspectors.

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- 1 *Maintenance* means the cleaning, shaping, grading, repair and minor replacement of
2 drainage, flood control and erosion control facilities, but not including the cost of power
3 consumed in the normal operation of pump stations.
- 4 *Major arroyo* means any channel whose watershed exceeds 320 acres in a 100-year
5 design storm, whether such watershed is in its natural or unaltered state or has been
6 altered by development, runoff diversions or detention facilities.
- 7 *Major facility* means any facility, including a street or alley, which would collect, divert or
8 convey a peak discharge of more than 50 cubic feet per second (50 cfs) or store two acre-
9 feet or more of runoff in the event of a 100-year design storm.
- 10 *Master planned facility* means any drainage control, flood control or erosion control facility
11 recommended in the Albuquerque Master Drainage Plan (1981), amendments thereto, or
12 any voter approved general obligation bond financed drainage control, flood control or
13 erosion control facility.
- 14 *Minor facility* means any facility which would collect, divert or convey a peak discharge of
15 50 cubic feet per second (50 cfs) or less, or store less than two acre-feet of runoff in the
16 event of the 100-year design storm.
- 17 *MRGCD* means the Middle Rio Grande Conservancy District.
- 18 *Multiple use facility* means a drainage control, flood control or erosion control facility in
19 which other secondary uses are planned or allowed including, but not limited to,
20 recreation, open space, transportation and utility location.
- 21 *NOI* means notice of intent.
- 22 *NPDES Phase II* means National Pollution Discharge Elimination System, Phase II.
- 23 *Nuisance waters* means those waters leaving a site and entering a public street, which
24 do not result from precipitation, such as landscape overwatering or car washing.
- 25 *100-year design storm* means that storm whose precipitation within a six-hour period and
26 resulting runoff has a one percent chance of being equaled or exceeded in any given
27 year. A special condition may require/allow use of storms of longer duration.
- 28 *Project design swale (drainage ditch, borrow ditch or bar ditch)* means a swale or ditch
29 parallel to the driving surface to convey stormwater runoff from the street right-of-way.
- 30 *Prudent line (erosion limit line)* means that line which will not be disturbed by erosion,
31 scour or meandering of a natural (unlined) arroyo, channel or watercourse over a period
32 of 30 years and which will not be disturbed by a 100-year storm occurring at any time
33 during the 30-year period. The prudent line shall be so located as to include all freeboard
34 required to contain the wave action of the 100-year design storm.
- 35 *Storm drainage system* means arroyos, storm drains, roadways, culverts, bar ditches,
36 ponds, pump stations, dams, detention ponds, retention ponds, inlets and appurtenant
37 structures and other facilities which convey stormwater.

1 *Stormwater* means stormwater runoff, which is flow on the surface or in the subsurface
2 that percolates from the ground resulting from precipitation.

3 *Stormwater pollution prevention plan* means the information and program required by
4 EPA, NMED and/or the county for construction phase stormwater management.

5 *Stormwater quality control* means the treatment methods necessary to protect and
6 enhance the quality of stormwater.

7 *Temporary drainage facility* means a nonpermanent drainage control, flood control or
8 erosion control facility constructed as part of a phased project or to serve until such time
9 that a permanent facility is in place including, but not limited to, desilting ponds, berms,
10 diversions, channels, detention ponds, retention ponds, bank protection and channel
11 stabilization measures.

12 *Ten-year design storm* means that storm whose precipitation within a six-hour period and
13 resulting runoff has a ten percent chance of being equaled or exceeded in any given year.
14 A special condition may require/allow use of storms of longer duration.

15 *Urbanized area* means that area identified in the most current US Census as having a
16 population in excess of 50,000 persons, or a density of 1,000 persons per acre or greater.

17 *Watercourse* means any river, creek, arroyo, canyon, draw or wash, or any other channel
18 having definite banks and bed with visible evidence of the occasional flow of water.

19 *Zoning administrator* means the official designated to enforce the county comprehensive
20 zoning ordinance, as may be amended from time to time.

21 (Ord. No. 04-4, 2-24-04)

22 **Sec. 38-143. - Violations of article; procedures for remedy; penalty.**

23 (a) *Notice of violation; noncompliance; abatement by county; lien.* Where, after
24 investigation, a notice has been issued by the county engineer to the owner of the
25 property on which a violation has occurred and the order is not complied with, within such
26 reasonable time as may be prescribed by the county engineer, or if the responsible party
27 or violator cannot be found or determined, the county engineer may cause such remedies
28 as are necessary to be made. The reasonable cost of such remedies shall constitute a
29 lien against the property on which the violation occurred and was remedied. The lien shall
30 be imposed and foreclosed in the manner provided in NMSA 1978, Sections 3-36-1—3-
31 36-6.

32 (b) *Notice of violation; noncompliance; abatement by county; other remedies.* Where,
33 after investigation, a notice has been issued by the county engineer to the owner of the
34 property on which a violation has occurred and the order is not complied with, within such
35 reasonable time as may be prescribed by the county engineer, the county may revoke or
36 refuse to renew or issue any permit to the violator and/or the property owner until such
37 remedies as are necessary are made, or if remedy is made by the county, until the cost
38 of such remedies is paid to the county.

1 (c) *Service of notice; publication; right to appeal.* It shall be sufficient notice under the
2 provisions of this section to make delivery of such notices by registered mail. If the name
3 and address of the owner cannot be reasonably ascertained from the current county tax
4 rolls and the premises are unoccupied, it shall be sufficient notice under this section to
5 publish the notice in English in a newspaper of general circulation in the county once a
6 week for four consecutive weeks. The owner of the property shall have the right to appeal
7 pursuant to section 38-172

8 (d) *Penalty.* Except as otherwise provided in this article, violations of this article are
9 punishable as provided in Chapter 1, section 1-6 of the Bernalillo County Code.

10 (Ord. No. 04-4, 2-24-04)

11 **Sec. 38-144. - Interpretation of article.**

12 In the interpretation and application of this article, all provisions shall be:

13 (1) Considered as minimum requirements;

14 (2) Liberally construed in favor of the county;

15 (3) Deemed neither to limit nor repeal any other powers granted under state
16 statutes; and

17 (4) Deemed not to limit any ordinance unless expressly stated herein.

18 (Ord. No. 04-4, 2-24-04)

19 **Sec. 38-145. - Warning and disclaimer of liability.**

20 The degree of flood protection required by this article is considered reasonable for
21 regulatory purposes and is based on scientific and engineering considerations. Larger
22 floods can and will occur on rare occasions. Flood heights may be increased by manmade
23 or natural causes. This article does not imply that land outside flood hazard areas or uses
24 permitted within such areas will be free from flooding or flood damages. This article shall
25 not create liability on the part of the county or on any officer or employee of the county for
26 any flood damages that result from reliance on this article or any administrative decision
27 lawfully made under this article.

28 (Ord. No. 04-4, 2-24-04)

29 **Sec. 38-146. - Jurisdiction of article.**

30 This article shall apply to all unincorporated lands within the county with respect to site
31 development, land use changes, building permits, major or minor subdivisions, or
32 replatting matters.

33 NPDES Phase II requirements for post-construction stormwater quality controls shall
34 apply in the urbanized area of the county.

35 This article shall not apply to federal lands and reservations, and the city. This jurisdiction

1 is not exclusive. In particular AMAFCA and the MRGCD, where applicable, share
2 jurisdiction in matters of flood control and stormwater quality.

3 (Ord. No. 04-4, 2-24-04)

4 **Sec. 38-147. - Stormwater quality protection.**

5 (a) *Construction phase stormwater quality protection.* For all construction, development
6 and redevelopment projects with land disturbances equal to or greater than one acre,
7 including sites which disturb less than one acre but are part of a larger common plan of
8 development, a stormwater pollution prevention plan in accordance with EPA NPDES
9 Phase II regulations for construction site storm water runoff control and certification that
10 a notice of intent has been submitted to the EPA shall be submitted to the county
11 engineer, prior to the issuance of a grading or paving permit. This requirement is in
12 addition to any other provisions of this article that may apply.

13 The stormwater pollution prevention plan shall outline the BMPs to be undertaken by the
14 operator/owner of the project to protect stormwater quality during the construction phase
15 of the project. These BMPs shall be maintained by the owner of the property. Inspection
16 of these BMPs shall be made at a minimum once a week by the owner, and a log of this
17 inspection shall be kept on-site for review by the county engineer. The county shall also
18 inspect these BMPs on a periodic basis. These BMPs shall be subject to the approval of
19 the county engineer.

20 (b) *Post-construction stormwater quality protection.* For all development and
21 redevelopment projects with land disturbances equal to or greater than one acre,
22 including sites which disturb less than one acre but are part of a larger common plan of
23 development, that discharge into the county's storm drainage system, within the
24 urbanized area of the county, post construction water quality BMPs are required. This
25 requirement is in addition to any other requirements that may apply. These BMPs shall
26 be subject to the approval of the county engineer.

27 Maintenance responsibility of stormwater quality control facilities is the responsibility of
28 the property owner up to the point where stormwater enters public facilities.

29 (Ord. No. 04-4, 2-24-04)

30 **DIVISION 2. - ADMINISTRATION AND ENFORCEMENT**

31

32 **Sec. 38-171. - Generally.**

33 (a) The design, construction and maintenance of all drainage control, flood control,
34 erosion control and stormwater quality control facilities within the county shall be
35 performed in accordance with procedures, criteria and standards formulated by the
36 county engineer and in accordance with the policies established in this article or an
37 adopted drainage management plan.

38 (b) All construction activities within the jurisdiction of the county shall conform to the
39 requirements of the county engineer with respect to drainage control, flood control,

1 erosion control and stormwater quality control. Original construction and modifications
2 and/or additions to existing structures are excluded when they constitute less than 500
3 square feet in plan view and the county engineer determines that this change will not
4 adversely affect other properties and/or will not alter, block or divert any arroyos,
5 watercourses, swales, designated 1% annual chance floodplain or easements,

6 (1) Construction, grading or paving on any lot within the jurisdiction of the county
7 shall not increase the damage potential to upstream, downstream or adjacent
8 properties or public facilities. Damages shall be defined as those caused by flooding,
9 erosion and sedimentation from the 100-year design storm and all smaller storms.

10 (2) During the months of July, August or September, any grading within or adjacent
11 to a watercourse defined as a major facility shall provide for erosion control and the
12 safe passage of the ten-year design storm runoff during the construction phase and
13 until the permanent improvements are completed.

14 (3) Grading, cut, fill or importation of material in excess of 500 cubic yards or
15 grading of any area of one acre or more, or any grading which will adversely affect
16 other properties, arroyos, watercourses or easements shall conform to drainage
17 control, flood control, erosion control and stormwater quality control policies and to
18 standards, criteria and procedures established by the county engineer with respect
19 to drainage, flood control, erosion control and stormwater quality control. A grading
20 permit, issued by the county engineer, shall be required for projects involving more
21 than 500 cubic yards of material or one acre or more in area. Applications for
22 development of areas known to have been sanitary landfills shall be accompanied
23 by a report which discusses potential health and soil mechanics problems and their
24 solutions. Such reports shall be prepared by a state professional engineer competent
25 in soil mechanics. The application processing fee and the grading permit fee shall
26 be as shown in the attached fee schedule. Any fees applicable under this article shall
27 be reviewed from time to time by the county manager and any changes to these fees
28 shall be made by resolution of the board of county commissioners. The issuance of
29 a grading permit by the county engineer does not relieve the owner/developer from
30 obtaining any additional grading or fill permits that may be required by other county
31 departments, agencies or governmental bodies. A grading permit may be issued for
32 rough grading of large projects provided the applicant has made a written request
33 and submitted and received approval of a conceptual grading & drainage plan for the
34 project.

35 (4) Paving an area larger than 1,000 square feet shall require a paving permit.
36 Applications for paving permits shall be accompanied by a drainage plan if deemed
37 necessary by the county engineer. Repaving of existing paved areas in which no
38 grading is planned is excluded. The application processing fee and the paving permit
39 fee shall be as shown in the attached fee schedule.

40 **Editor's note**— The attached fee schedules are not set out herein, but are on file and available for inspection in
41 the offices of the County.

42 (5) The county engineer shall not issue a grading or paving permit unless the
43 proposed grading or paving is in compliance with the policies of this article and the

1 standards and criteria of the county engineer, as provided for by section 38-173. All
2 construction activities within MRGCD land or rights-of-way shall conform to the
3 requirements of the conservancy district engineer of the MRGCD.

4 (c) The county may participate with the private sector, other public bodies, and agencies
5 operating within the jurisdiction of this policy in order to accomplish the goals and
6 implement the policies adopted in this article. This includes, but shall not be limited to, the
7 development and adoption of master plans, participation in the construction of projects,
8 and exercising control through the planning, platting, zoning and permitting processes.

9 (d) It shall be the responsibility of the county engineer to produce, approve, make and
10 retain records of all drainage plans, drainage reports, design analyses, design drawings,
11 as-built drawings and maintenance schedules related to all drainage control, flood control,
12 erosion control and stormwater quality control facilities constructed within county rights-
13 of-way or easements.

14 (e) Application for all land use changes shall address drainage control, flood control, and
15 erosion control in terms of the interaction of these parameters with other requirements
16 and needs produced by the proposed land use changes, and shall comply with an
17 adopted drainage management plan.

18 (f) Requests for building permits, site plan approval, or the platting of land for the
19 purpose of major or minor subdivisions, and for replats, shall be accompanied by
20 appropriate grading, drainage control, flood control, erosion control and stormwater
21 quality control information. Drainage information requirements for building permits will be
22 waived where a drainage report meeting the requirements of this article have been
23 previously approved by the county or AMAFCA, and a copy of such report is filed with the
24 county engineer. Drainage information requirements for bulk land plats will be waived,
25 provided that plat language indicates that drainage information, meeting the requirements
26 of this article and AMAFCA, if applicable, will be submitted prior to any subdivision.

27 (g) The county engineer shall not approve any plan or report pertaining to proposed
28 construction, platting or other development where the proposed activity or change in the
29 land affected would result in downstream capacity being exceeded. Downstream capacity
30 is determined based on the assumption of fully developed watersheds. This assumption
31 prevents the first come, first served approach where downstream development unduly
32 constrains upstream development. Parameters used in the determination of downstream
33 capacity include, but are not limited to:

- 34 (1) Channel stability and location of prudent line.
- 35 (2) Crossing structure hydraulic capacity.
- 36 (3) Reservoir capacity.
- 37 (4) Hydraulic capacity of street, storm sewer or channel.
- 38 (5) Public safety.

1 (6) Maintenance constraints.

2 Planned public storm drainage facilities are assumed as in place in determining
3 downstream capacity, provided that construction funds are available and design has
4 progressed to the point where capacity can be ascertained.

5 (h) Temporary facilities are only allowed and/or required on a case-by-case basis as
6 determined by the county engineer. The level of protection to be provided by temporary
7 facilities shall be determined by considering:

8 (1) The likelihood and consequences of a failure.

9 (2) Length of time until permanent facilities will be in place.

10 The acceptance by the developer of maintenance responsibilities and legal liabilities.

11 (i) Requests for approvals of site development plans, building permits, major or minor
12 subdivisions or replatting proposals to the county engineer shall be accompanied by
13 drainage control, flood control and erosion control information and/or commitments. The
14 particular nature, location and scope of the proposed development defines the degree of
15 detail. One or more of the following levels of submittal may be required based on the
16 following:

17 (1) *Conceptual grading and drainage plan.* A graphic representation of existing and
18 proposed grading, drainage, flood control and erosion control information. The
19 information should be of sufficient detail to determine project feasibility. The
20 purposes of this plan are to check the compatibility of the proposed development
21 within grading, drainage, flood hazard and erosion control constraints as dictated by
22 on-site physical features as well as adjacent properties, streets, alleys and channels.
23 Modifications to the comprehensive plan and the development of area plans, sector
24 plans, site development plans and landscaping plans on tracts of five acres or more
25 are appropriate applications of conceptual grading and drainage plans.

26 (2) *Drainage plan.* A short, detailed presentation required for approval of small,
27 simple development approvals. Drainage plans are prepared with or on the detailed
28 grading plan and address both on-site and off-site drainage control, flood control and
29 erosion control issues. Drainage plans are required for building permits, minor
30 subdivision less than six lots, site development plans and landscaping plans for
31 development involving less than five acres.

32 (3) *Drainage report.* A drainage report is a comprehensive analysis of the drainage
33 control, flood control and erosion control constraints on and impacts resulting from a
34 proposed platting, development or construction project. Drainage reports are
35 required for major subdivisions containing more than five lots or constituting five
36 acres or more, platting or construction within a designated flood hazard area and for
37 any platting or development adjacent to a major arroyo.

38 (4) *Erosion control plan.* An erosion control plan is usually incorporated into the
39 drainage plan or drainage report. Erosion control plans address all phases of each

1 project from initial grading through and including final occupancy. The ten-year
2 design storm shall be used to determine the treatment measures necessary for the
3 prevention of damage due to soil movement for the on-site area of development.
4 Where an arroyo or watercourse abuts or traverses the site of development, or a
5 development or subdivision proposes to discharge to any arroyo or watercourse, a
6 more stringent criteria, including determination of the prudent line, may be
7 appropriate and will be determined on a case-by-case basis by the county engineer.
8 Phased projects require special attention. All construction projects, both public and
9 private, within the jurisdiction of this article, unless specifically excluded, require an
10 approved erosion control plan prior to the start of construction. The erosion control
11 plan must address stormwater quality where the land disturbance is one acre or
12 greater, or is part of a larger common plan of development.

13 (5) *Special provisions for East Mountain Area.*

14 a. Drainage reports and/or plans will not be required where the tract, lot or
15 parcel is 40 acres or less and is subdivided into lots, tracts or parcels of five
16 acres or more and is zoned strictly for single-family dwelling (R-1).

17 b. Drainage reports and/or plans will not be required where the tract, lot or
18 parcel is five acres or less, and the total impervious area is 15 percent or less
19 of the area of the tract, lot or parcel. The impervious area shall include all
20 existing improvements, proposed improvements and future improvements if
21 applicable. Impervious areas are defined as that area not covered by grass or
22 natural vegetation. Dirt, gravel and paved roads, streets, drives, walks, trails,
23 play areas and areas of human activity shall be considered impervious. Roofs
24 shall be considered impervious. Landscaping that is underlain by an impervious
25 membrane (plastic) shall be considered impervious.

26 c. Drainage easements and/or dedicated rights-of-way shall be required for
27 any arroyo, watercourse or storm drainage facility flowing through or adjacent
28 to any lot, tract or parcel.

29 1. For an upstream drainage basin of ten acres or more, the minimum
30 width of drainage easement or right-of-way for natural arroyos or
31 watercourses shall include the top of each definable bank of the arroyo or
32 watercourse and be set back from the top of each bank a horizontal
33 distance equal to 1.2 times the difference in elevation between the top of
34 each definable bank and the adjacent flowline of the greater. The minimum
35 width shall be 50 feet. For an upstream drainage basin of ten acres or less
36 the minimum width of drainage easement or right-of-way for natural arroyos
37 or watercourse shall include the top of each definable bank of horizontal
38 distance equal to 1.2 times the difference in elevation between the top of
39 each definable bank and the adjacent flowline of the arroyo or watercourse,
40 or the 100-year floodplain, whichever is greater. The minimum width shall
41 be 25 feet for natural channels, arroyos or watercourses. It shall be ten feet
42 for line channels where adequate maintenance and vehicular access is
43 available.

1 2. The minimum width drainage easement or right-of-way for an
2 improved drainage facility shall be defined as the width necessary to
3 contain a trapezoidal concrete lined channel, having a bottom width of ten
4 feet and two to one side slopes, designed to convey the full 100-year design
5 storm, including necessary freeboard and also the outer limits of a
6 maintenance road 12 feet wide on one side of the channel.

7 3. The centerline of any arroyo, watercourse or storm drainage facility
8 requiring a drainage easement or right-of-way shall be located by field
9 survey prior to platting or development.

10 The special provisions for the East Mountain Area are exclusive of the drainage
11 requirements established in the county street standards (Ordinance No. 88-42).

12 (j) All drainage submittals shall be prepared under the direction of and signed by a
13 registered professional engineer competent in surface hydrology and drainage, and shall
14 include a statement that the engineer has personally inspected the land, and a statement
15 as to whether it appears that grading, filling or excavation has occurred thereon since the
16 existing contour map was prepared.

17 (k) Drainage control considerations specifically address safety, convenience and
18 economics for both private property and public facilities.

19 (l) The county 100-year design storm is the 100-year six-hour storm as defined by the
20 National Oceanic Atmospheric Administration (NOAA) and by the storm distributions for
21 time and areas as developed by the city engineer of the City of Albuquerque, AMAFCA,
22 and the county engineer, as applicable. The 100-year storm has a one percent probability
23 of occurring in any year. Watersheds with times of concentration greater than six hours
24 will require the use of the 100-year, 24-hour storm volumes and distributions. Detention
25 basins with longer than six-hour evacuation times shall use a 24-hour or longer storm
26 volume and distribution. Design circumstances may require larger or smaller storm
27 frequencies or volumes. Examples are emergency spillways for dams and erosion control
28 plans, respectively. The sources for rainfall data are current NOAA publications. When
29 the need for other design storms is apparent, the county engineer will provide
30 requirements concerning appropriate storms, frequencies and durations.

31 (m) The county engineer shall, within 21 calendar days after the submission to him of a
32 request in writing for the approval of a plat, development plan, drainage submittal or
33 exemption, approve or deny the request and mail a copy of his decision to the applicant.
34 If the request is denied, the reasons for such denial shall be stated in writing. Appeal of
35 such decisions is as provided in section 38-172

36 (Ord. No. 04-4, 2-24-04, Ord. No. 2012-17, 8-14-12)

37 **Sec. 38-172. - Appeals from county engineer determinations.**

38 An appeal of a determination of the county engineer may be made in the manner
39 prescribed in this section:

1 (1) An appeal shall be made in writing and shall be filed in duplicate in the office of
2 the county engineer on forms provided by the county engineer. Such appeal must
3 set forth specifically wherein it is claimed there was an error or an abuse of discretion
4 by this action, or where the decision is not supported by evidence in the matter. A
5 filing fee of \$40.00 shall accompany each appeal. When an appeal is withdrawn, the
6 filing fee shall not be refunded.

7 (2) Any appeal not filed within 15 days after the rendition in writing of the decision
8 appealed from shall be dismissed by the board of adjustment.

9 (3) Within ten days after the filing of the appeal, the county engineer shall transmit
10 to the board of adjustment all papers involved in the proceedings, a copy of his
11 findings and determination relative thereto, and one copy of the appeal. In addition,
12 he may make and transmit to the board of adjustment such supplementary report as
13 he may deem necessary to present clearly the facts and circumstances of the case.

14 (4) Upon receipt of the record, the board of adjustment shall set the matter for
15 hearing and give notice by mail of the time, place and purpose thereof to the
16 appellant, to the county engineer, zoning administrator and to any interested party
17 who has requested in writing to be so notified. No other notice need be given.

18 (5) Upon hearing of such appeals, the board of adjustment may affirm the change
19 or modify the ruling, decision or determination appealed from or, in lieu thereof, make
20 such other or additional determination as shall deem proper in the premises.

21 (6) The decision of the board of adjustment upon the appeal shall be in writing,
22 concurred in by a majority of the members present of the board of adjustment, which
23 shall forthwith transmit a copy to the appellant and to the county engineer and zoning
24 administrator. Any decision shall, in all instances, be the final administrative decision
25 and shall be subject to judicial review as may be provided by law.

26 (Ord. No. 04-4, 2-24-04)

27 **Sec. 38-173. - Rule change procedures; criteria and standards.**

28 (a) Rules concerning procedures, criteria and standards shall be adopted, amended or
29 abolished in compliance with the policies of this article and as provided by the procedures
30 of this section.

31 (b) Proposed rule changes relating to procedures, criteria and standards pursuant to this
32 article are initiated by the county engineer, or any person may submit such proposed rule
33 changes to the county engineer. If a person other than an official of the county submits
34 such a proposal, there may be a processing fee of up to \$50.00 set by a rule of the county
35 engineer.

36 (c) Prior to the adoption, amendment or repeal of any rule pursuant to this article
37 (hereafter, rule change), the county engineer shall:

38 (1) Publish summary notice of the proposed rule change and solicit comments in a

1 daily newspaper of general circulation in the county and also where appropriate in
2 trade, industrial or professional publications as will reasonably give public notice to
3 an interested person;

4 (2) Send the proposed rule change to all applicable county departments, AMAFCA,
5 the City of Albuquerque and MRGCD.

6 (3) Send the proposed rule change to any person or group filing written request for
7 notice of all such rule changes. A fee may be charged those requesting notices to
8 cover reasonable county costs.

9 (4) Solicit written comment on any proposed rule change for a period of 30 days
10 from the date of its distribution and consider all comments before ruling on proposed
11 rule changes.

12 (5) Upon adoption of a contested rule change, issue a concise statement of his
13 principal reasons for the rule change and statement of positions rejected in adopting
14 the rule change together with the reasons for the rejection. All persons who submit
15 any writing to be considered in connection with the proposed rule change shall
16 promptly be given a copy of the decision, by mail or otherwise.

17 (d) If a proposed rule change is approved by the county engineer after receiving
18 comments, notice shall be posted in a conspicuous place in the city/county government
19 center, and a reasonable effort shall be made to notify all interested parties. Proposed
20 rule changes shall not take effect sooner than 30 days from posting of notice or sooner
21 than 90 days from the original distribution for comment.

22 (e) In the event of an emergency, the chairman of the board of county commissioners
23 may direct that rules concerning procedures, criteria or standards take effect immediately
24 upon their posting and distribution. The chairman's finding of an emergency and brief
25 statement of the reasons for this finding shall be incorporated in the emergency and brief
26 statement of the reasons for this finding shall be incorporated in the emergency rule
27 change. Upon adoption of an emergency rule change which change shall remain in effect
28 for longer than 60 days, notice to the public shall be given within seven days, and
29 opportunity for public comment shall be given in the manner required in this section for
30 proposed rules.

31 (f) Appeal of the county engineer's rulemaking decisions is as provided in section 38-
32 172. Regular rules, adopted under subsection (d) of this section, do not take effect until
33 an appeal is decided if they are appealed prior to taking effect. Emergency rules adopted
34 under subsection (e) of this section and regular rules which have taken effect prior to
35 appeal are in effect until such time as they may be reversed by appeal action.

36 (g) Recommendations for changes to this section may be prepared by a county technical
37 standards advisory council, as established by the county street standards, Ordinance 88-
38 42 or the most current version of this ordinance, or the county engineer. Proposals for
39 standards changes shall be forwarded to the county engineer for his recommendations
40 when changes are prepared by the county technical standards advisory council. The
41 county engineer shall then forward his recommendations either for or against the

1 proposed change to the board of county commissioners for their approval or disapproval.
2 (Ord. No. 04-4, 2-24-04)

3 **Sec. 38-174. - Inspections.**

4 Whenever necessary to make an inspection to enforce any of the provisions of this article,
5 the county engineer or his authorized representative may enter such premises at any
6 reasonable time to inspect the premises or to perform any duty imposed upon him by this
7 article; provided, however, that if such premises is occupied, he shall first present proper
8 credentials and demand entry. If such premises is unoccupied, he shall first make a
9 reasonable effort to locate the owner or other persons having charge or control of the
10 premises and demand entry. If entry is refused or if the owner or other responsible person
11 is not found, the county engineer or his authorized representative shall proceed to obtain
12 a search warrant by filing a complaint made in the metropolitan court or district court upon
13 oath or affirmation. The complaint shall:

- 14 (1) Set forth the particular premises, or portion thereof sought to be inspected;
- 15 (2) State that the owner or occupant of the premises, or portion thereof, has refused
16 entry;
- 17 (3) State that inspection of the premises, or portion of the premises is necessary to
18 determine whether it complies with the requirements of this article;
- 19 (4) Set forth the particular provisions of this article sought to be enforced;
- 20 (5) Set forth any other reason necessitating the inspection, including knowledge or
21 belief that a particular condition exists in the premises or portion of the premises
22 which constitutes a violation of this article; and
- 23 (6) State that the complainant is authorized by the county to make the inspection.
24 Each inspector shall be furnished with an identification card signed by the county
25 engineer indicating his authority and must present such card to the metropolitan court
26 or district court for the purpose of this section, and to other persons, when requested
27 to do so during the performance of his duty. No owner or occupant or any other
28 person having charge, care or control of any premises shall fail or neglect, after
29 proper demand is made as provided in this section, to promptly permit entry therein
30 by the authorized inspector for the purpose of inspection and examination pursuant
31 to this article.

32 (Ord. No. 04-4, 2-24-04)

33 **Secs. 38-175—38-200. - Reserved.**

34

35 **DIVISION 3. - DESIGN STANDARDS**

36

1 **Sec. 38-201. - General provisions.**

2 (a) The county is and shall remain an active participant in the National Flood Insurance
3 Program. The county endorses the program goal of flood damage reduction through the
4 regulation of development within flood hazard areas and the preservation of floodways.
5 This article is intended to complement and supplement article II of this chapter, and shall
6 be administered in concert therewith.

7 (b) All developed land within the county shall be provided with adequate drainage, flood
8 control and erosion control facilities. The protection of life and property shall be
9 considered the primary function in the planning, design, construction and maintenance of
10 drainage control, flood control and erosion control facilities, but other concerns, not limited
11 to the following, shall be addressed: channel capacity, watershed characteristics, channel
12 stability, maintenance, transitions between treatment types, multiple use goals and
13 appearance. The needs of the community in transportation, utility services, recreation and
14 open space shall be considered in planning, design, construction and maintenance
15 (especially in the selection of channel treatment measures). These needs shall always be
16 considered subsidiary to the primary function of the drainage control, flood control and/or
17 erosion control facility.

18 (c) The design, construction and maintenance of dams, levees and diversions that fall
19 within the jurisdiction of the state engineer shall meet or exceed standards established by
20 the state engineer.

21 (d) The design, construction and maintenance of flood control and stormwater quality
22 control facilities that fall within the jurisdiction of AMAFCA shall be coordinated with
23 AMAFCA. The design, construction and maintenance of flood control and stormwater
24 quality control facilities that fall within the jurisdiction of the city shall be coordinated with
25 the city.

26 (e) The design, construction and maintenance of flood control and stormwater quality
27 control facilities shall not allow any additional flows to be routed into MRGCD facilities
28 unless specific plans are approved by the district. It shall be the responsibility of the
29 developer to obtain all necessary approvals and permits from the MRGCD.

30 (f) All major facilities shall be constructed within dedicated rights-of-way or recorded
31 drainage easements granted to and accepted by the proper public authority or historic
32 channels and watercourse when easements or rights-of-way cannot be obtained.

33 (g) All detention ponds that are also defined as minor facilities shall be constructed on
34 private property, as follows unless otherwise authorized by the county engineer:

35 (1) Except as is necessary for the treatment of nuisance water or to prevent smaller
36 and more frequently occurring storms from damaging downstream property, arroyos
37 and watercourses, ponds shall be designed and constructed to be emptied in 24
38 hours or less. Ponds with evacuation times greater than six hours and less than or
39 equal to 24 hours shall be designed to safely carry a 100-year, 24-hour storm.

40 (2) Ponds may be designed to be emptied for periods longer than 24 hours and up

1 to 96 hours where downstream capacity limits allowable discharge and when such
2 ponds are either:

3 a. Designed to safely carry a 100-year, 96-hour storm; or

4 b. Designed to safely carry a ten-year design storm (six-hour) followed
5 immediately by a 100-year design storm (six-hour).

6 (3) Where the lack of an adequate outfall prevents the discharge of stormwater to
7 a downstream facility of adequate capacity, the design may provide for on-site
8 retention of the storm runoff. The volume of the retention facility shall be equal to the
9 volume of runoff generated from the site for: a 100-year, ten-day storm, or two
10 consecutive 100-year design storms (six-hour). Design of retention facilities may
11 include the influence of long-term soil infiltration rates where substantiated by tests
12 and documentation. In no case shall retention facilities be smaller than the volume
13 required to hold a 100-year, 24-hour storm without infiltration. Retention facilities
14 shall be considered temporary facilities unless demonstrated to be otherwise to the
15 satisfaction of the county engineer.

16 (4) Detention ponds may be designed to include a retention capacity for a portion
17 of the pond volume. Sizing of the pond shall be based on the storm length equivalent
18 to the time to empty the entire pond.

19 (5) Where detention and retention ponds are designed based on impervious areas
20 being less than 40 percent of the total drainage area, or where undeveloped areas
21 contribute flow to the ponds, ponds shall provide for additional volume to
22 accommodate sediment. Detention and retention ponds should, where practical, be
23 located in such a manner as to allow for discharge to future outfall facilities when
24 they become available. In computing runoff, no credit will be given to individual lot
25 ponding in residential zones except when such ponds are protected by a drainage
26 covenant and are accessible to and maintainable by county maintenance equipment.
27 All retention and detention ponds shall be constructed on private property unless
28 otherwise authorized by the county engineer. Any water draining from public right-
29 of-way that is conveyed through or ponded on private property shall require a
30 drainage covenant and/or a drainage easement except in recorded drainage or flood
31 control easements or rights-of-way or historic channels and watercourses where
32 easements or rights-of-way cannot be obtained.

33 (6) All detention and retention ponds with side slopes steeper than 3:1, with a
34 ponding depth greater than 18" deep and will pond water longer than 96 hours shall
35 have safety fencing. Safety fencing shall be a minimum height of 42" and conform to
36 the City of Albuquerque's Standard Specifications for Public Works Construction
37 current edition.

38 (h) All detention and retention facilities shall have a designated overflow spillway. The
39 overflow spillway shall, as a minimum, be capable of safely discharging the runoff entering
40 the facility from a 100-year design storm. Safety shall be considered in the design of
41 detention and retention facilities.

1 (i) Where a site development, building permit, a major or minor subdivision or a replat
2 alters the elevation or location of any designated 100-year floodplain, as shown on current
3 FEMA flood insurance rate maps, the developer shall be required to provide to the county
4 engineer all necessary data needed to effect the flood boundary revision or amendment.
5 Any required fees for processing shall be the responsibility of the developer.

6 (j) Site development and major or minor subdivisions for or replats for industrial
7 activities shall be designed and constructed such that non-stormwater discharges into
8 storm sewers, arroyos or watercourses will not occur.

9 (k) Where flood control, drainage or erosion control improvements are necessary within
10 dedicated or proposed public open space, such improvements shall be designed and
11 constructed in a manner reasonably consistent with the natural surroundings. All
12 construction and maintenance activities in dedicated open space shall be performed so
13 as to minimize the disruption and destruction of vegetation and adjacent land forms.
14 Where such disturbance or destruction is unavoidable, revegetation shall be performed
15 at the earliest practical time by the responsible person responsible for such disturbance
16 and/or destruction.

17 (l) The county engineer is responsible for establishing criteria, procedures and
18 standards for design and construction of flood control, drainage control and erosion
19 control improvements within the county. The county engineer shall be responsible,
20 subject to the direction of and approval by the board of county commissioners, for
21 preparing and adopting a drainage management plan for all watersheds in its jurisdiction
22 unless AMAFCA has assumed responsibility therefor. The county engineer is also the
23 designated flood control official for the county in accordance with the requirements of the
24 Federal Insurance Administration.

25 (Ord. No. 04-4, 2-24-04, Ord. No. 2012-17, 8-14-12)

26 **Sec. 38-202. - Surface use of streets for drainage and flood control purposes.**

27 (a) *Generally.* The surface of streets may be used for drainage and flood control
28 purposes, to the extent such use does not interfere with the safe transportation of people
29 and vehicles.

30 (b) *Urban streets.*

31 (1) The 100-year design storm runoff shall be contained within the street right-of-
32 way and shall not exceed a depth of 87 percent of the difference between the gutter
33 flowline elevation and the adjacent right-of-way elevation, and shall in no event
34 exceed 0.87 feet. Storm runoff from the 100-year storm and smaller storms shall not
35 enter private property from a street, except in recorded drainage or flood control
36 easements or rights-of-way or historic channels and watercourses where easements
37 or rights-of-way cannot be obtained.

38 (2) The ten-year design storm runoff shall not exceed a depth of 50 percent of the
39 difference in elevation between the gutter flowline elevation and the adjacent right-
40 of-way elevation and shall flow such that one 12-foot driving lane in each direction is

1 free of flowing or standing water in any arterial street. Arterial streets that are in the
2 state highway system may require more stringent drainage criteria.

3 (3) The ten-year design storm runoff shall not exceed a depth of 50 percent of the
4 difference in elevation between the gutter flowline elevation and the adjacent right-
5 of-way elevation in any collector street. Collector streets that are in the state highway
6 system may require more stringent drainage criteria.

7 (4) The product of depth times velocity shall not exceed 6.5 at any location in any
8 street in the event of a ten-year design storm (with velocity calculated as the average
9 velocity measured in feet per second and depth measured at the gutter flowline in
10 feet).

11 (5) The discharge of nuisance waters to public streets shall be discouraged. Arterial
12 and collector streets shall be protected from damages to the prevent surface and
13 from the safety hazards created by surface flow of nuisance waters across them.

14 (6) All developed land, with urban street sections, within the county shall be served
15 by an access that shall be an all-weather facility during a 100-year design storm, with
16 all channel crossing structures beneath the roadway being able to pass a 100-year
17 design storm runoff event.

18 (c) *Rural streets.*

19 (1) The design flow depth and velocity in the project design swale (see County
20 Street Standards, Ordinance No. 88-42) shall be such that the integrity of the street
21 surfacing is not endangered.

22 (2) Design and construction of the project design swale shall include provisions for
23 erosion control. Measures to minimize erosion of the project design swale may
24 include, but are not limited to, granular (gravel) filter and riprap lining, soil cement or
25 asphalt lining.

26 (Ord. No. 04-4, 2-24-04)

27 **Sec. 38-203. - Crossings.**

28 (a) Channel crossing structures shall be provided on all arterial and collector streets to
29 safely pass the 100-year design storm runoff from major arroyos assuming a fully
30 developed watershed.

31 (b) Streets other than arterial, collector and sole access streets to major subdivisions
32 may cross major arroyos and other watercourses by means of a dip section or overflow
33 section, provided that depth times velocity (with velocity calculated as the average
34 velocity measured in feet per second and depth measured in feet at the upstream edge
35 of the roadway including sidewalk, if applicable) does not exceed 6.5 for that portion of
36 the ten-year design storm runoff crossing the street. However, the depth of flow shall not
37 be greater than 0.67 feet for urban or rural streets.

38 (c) Where feasible, temporary crossings shall be designed so they may be incorporated

1 into the future permanent crossing structure and so that they meet street design
2 standards established by the county engineer.

3 (d) Crossing of major arroyos by arterials and collectors shall be constructed at public
4 expense, provided that public funds are available. Crossing of arroyo by streets other
5 than arterials and collectors shall be constructed at the developer's expense and shall
6 meet street design standards established by the county engineer.

7 (e) Temporary crossing required for access, including those on arterials and collectors,
8 shall be constructed at the developer's expense.

9 (f) Temporary and permanent crossings of MRGCD and AMAFCA facilities shall be
10 coordinated with the MRGCD and/or AMAFCA, as applicable.

11 (Ord. No. 04-4, 2-24-04)

12 **Sec. 38-204. - Financial responsibility and guarantee.**

13 (a) The county may participate in the construction of permanent flood control facilities to
14 the extent that public benefits are derived from such construction and subject to the
15 availability of public funds.

16 (b) The county may participate in the costs of channel crossing structures on arterial and
17 collector streets which are required for sole access to a development, provided that public
18 funds are available.

19 (c) Except as otherwise provided in this section, all drainage control, flood control
20 facilities and stormwater quality control facilities that directly result from a proposed
21 subdivision or site development are the responsibility of the developer. Developer-
22 financed facilities include all those within the boundaries of the development, those
23 required for development adjacent to a major arroyo or within a flood hazard area and all
24 temporary and permanent off-site drainage facilities. If the construction of such facilities
25 is a condition of plat approval or building permit issuance, then financial guarantees of
26 such construction satisfactory to the county engineer shall also be provided as a
27 prerequisite. The format of such guarantees shall be as set forth in the county street
28 standards improvements agreement. The county engineer shall coordinate the
29 construction and location of temporary facilities with AMAFCA and the city where
30 applicable. If the ultimate on-site drainage control, flood control, and/or erosion control
31 facilities require permanent rights-of-way or easements, such rights-of-way or easements
32 shall be dedicated at the time of platting or building permit issuance, whichever occurs
33 first.

34 (d) Except as allowed by AMAFCA Resolution 81-8 and amendments thereto, the
35 dedication of land for public purposes does not relieve a developer of responsibilities for
36 the construction of drainage control, flood control, erosion control and stormwater quality
37 control facilities that would otherwise be necessary. The dedication of rights-of-way or
38 easements for drainage control, flood control or erosion control facilities does not relieve
39 a developer of responsibilities that would otherwise exist for the construction of other
40 public infrastructure.

1 (Ord. No. 04-4, 2-24-04)

2 **Sec. 38-205. - Multiple use rights-of-way and easements.**

3 Multiple use is encouraged for drainage rights-of-way and drainage easements including,
4 but not limited to, utility corridors and recreation trails. Where multiple use is planned by
5 the county, another public agency or a public utility, the county may require that dedication
6 statements include language which permits such specified multiple uses in addition to the
7 primary drainage function. However, land required to be dedicated for drainage rights-of-
8 way shall be limited to those land areas necessary for drainage control, flood control,
9 erosion control and necessary appurtenances.

10 (Ord. No. 04-4, 2-24-04)

11 **Sec. 38-206. - Maintenance responsibility.**

12 (a) Except as otherwise noted in this section, the county or other public body shall
13 maintain all permanent major facilities that receive drainage from public rights-of-way.
14 The maintenance of multiple use facilities to which the general public is denied access
15 shall be the responsibility of the owners and shall be performed to county engineer
16 standards. The county engineer may allow private maintenance within public rights-of-
17 way or easements, provided that adequate guarantees and indemnifications are supplied.

18 (b) Their owners to county engineer standards shall maintain minor facilities. Based on
19 likelihood and consequence of failure, or failure to maintain, the county engineer may
20 require a drainage covenant.

21 (c) The maintenance of temporary facilities constructed at private expense is the
22 responsibility of the developer until permanent facilities are in place. However, those
23 temporary facilities which, in the event of failure of the facility, or failure to maintain, would
24 endanger existing downstream facilities, other properties or the general public shall
25 require a drainage covenant.

26 (d) The maintenance of major facilities that only serve private property or a development
27 is the responsibility of the developer and/or owner. In each case, a drainage covenant
28 shall be required.

29 (Ord. No. 04-4, 2-24-04)

30

31 **APPROVED AS TO FORM**

BOARD OF COUNTY COMMISSIONERS

32 _____
33 W. Ken Martinez, County Attorney

Art De La Cruz, Chair

34

35

36

Wayne A, Johnson, Vice Chair

CONTINUATION PAGE 37, ORDINANCE 2016- .

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7

Debbie O'Malley, Member

ATTEST:

Maggie Hart Stebbins, Member

Maggie Toulouse Oliver, County Clerk

Lonnie C. Talbert, Member