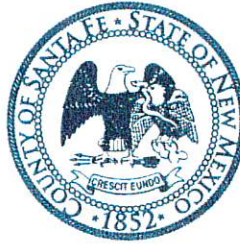


Henry P. Roybal
Commissioner, District 1

Anna Hansen
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3



Anna T. Hamilton
Commissioner, District 4

Ed Moreno
Commissioner, District 5

Katherine Miller
County Manager

Date: November 16, 2017

To: Planning Commission

From: Penny Ellis-Green, Growth Management Director *PEG*

Re: Ordinance No. 2017- An Ordinance Amending And Restating In Its Entirety Section 7.11 (Road Design Standards) Of The Santa Fe County Sustainable Land Development Code (SLDC), Ordinance No. 2016-9

ISSUE

On October 31, 2017, the Board of County Commissioners (BCC) gave approval to publish title and general summary of the Ordinance.

Staff is proposing changes to Chapter Section 7.11 Road Design Standards of the SLDC as numerous variances have been requested recently, especially for residential roads and driveways.

Staff proposes to amend the whole Section 7.11 for ease in future reading, so the complete section can be removed and replaced with the new section.

The proposed Ordinance with Section 7.11 is attached in Exhibit A, the proposed Ordinance with changes shown in redline format is attached as Exhibit B.

The proposed changes are summarized as follows:

General

- Tables 7-12 and 7-13 amended to allow residential driveways to have a 16 ft. easement and a 12% grade.
- 7.11.4 Language change to be consistent with Table 7-13 allowing three inches (3") of basecourse on some roads and reducing compaction of basecourse to 96% which is a DOT standard.
- 7.11.6. Additional language stating that this section applied to non-residential, multi-family and subdivisions.

- 7.11.7. Change to allow the corner setback to be measured from back of curb or driving surface, allows an administrative reduction in high density areas and reduce the distance of a corner setback to 15 ft for driveways.
- 7.11.9 is deleted as it is a duplicate

Access to Subdivisions, Non-residential and Multi-Family Development

- 7.11.11.3 additional language to clarify that existing lots and non-residential units are counted when looking at whether two points of access are required.

Road Standards for Land Divisions and Subdivision Exemptions

- 7.11.11.4.4 Allows a reduced road width and easement of 18ft and an increased grade to 12%.
- 7.11.11.4.5 Allows an additional reduction of 20% to the standards to be approved administratively.
- 7.11.11.4.6. Allows a letter of credit to be submitted in lieu of road construction prior to plat recordation.

Road Standards for Residential Development

- 7.11.11.5.1. Allows a reduced road width and easement of 18ft and an increased grade to 12%.
- 7.11.11.5.2 Allows an additional reduction of 20% to the standards to be approved administratively.
- 7.11.11.4.5 Only requires the road improvements for new homes, therefore does not require road improvements for any addition, remodel, accessory structure etc.

Driveway Standards General

- 7.11.12.2.4. Allows a reduced driveway separation from an intersection in higher density areas to be approved administratively.

Residential Driveway Standards

- 7.11.12.2.5 Allows an additional reduction of 20% to the standards to be approved administratively.
- 7.11.12.2.6. Clarifies language that driveway improvements are only required for new homes.

Driveway Standards for Non-residential and Multi-Family and Mixed-Use Development

- 7.11.12.3.8. Allows a reduction of driveway standards for small scale commercial (up to 10,000 sq ft).

Road and driveways in Steep Terrain

- Allows a grade of 15% in areas of steep terrain.

This Ordinance is scheduled to be heard by the BCC on November 28, 2017 for a public hearing for adoption.

RECOMMENDATION:

Staff recommends approval of the Ordinance.

EXHIBITS:

A – Proposed Ordinance and Section 7.11 Road Design Standards

B - Redlined Section 7.11 Road Design Standards

**THE BOARD OF COUNTY COMMISSIONERS
OF SANTA FE COUNTY**

ORDINANCE NO. 2017-_____

**AN ORDINANCE
AMENDING AND RESTATING IN ITS ENTIRETY SECTION 7.11 (ROAD DESIGN
STANDARDS) OF THE SANTA FE COUNTY SUSTAINABLE LAND DEVELOPMENT
CODE (SLDC), ORDINANCE NO. 2016-9**

**BE IT ENACTED BY THE BOARD OF COUNTY COMMISSIONERS (BOARD)
OF SANTA FE COUNTY:**

1. The Board adopted and restated the Santa Fe County Sustainable Land Development Code (SLDC) on December 13, 2016, via Ordinance No. 2016-9.
2. Section 7.11 (Road Design Standards) of the SLDC is hereby replaced with Exhibit A attached hereto.
3. The effective date of these amendments to the SLDC adopted by this Ordinance shall be 30 days after this Ordinance is recorded with the County Clerk.

PASSED, APPROVED, AND ENACTED this _____ day of _____, 2017.

THE BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY

By: _____
Henry P. Roybal, Chair

ATTEST:

GERALDINE SALAZAR, County Clerk

APPROVED AS TO FORM:

RACHEL BROWN, Interim County Attorney



7.11. ROAD DESIGN STANDARDS.

7.11.1. Purpose and Findings. These regulations are designed to:

7.11.1.1. Ensure that the design of roads conforms to the policies of the SGMP;

7.11.1.2. Provide for the safety for both vehicular and pedestrian traffic;

7.11.1.3. Provide for livable residential, mixed-use and commercial environments;

7.11.1.4. Provide for economy of land use, construction, and maintenance; and

7.11.1.5. Provide safe and efficient access to property.

7.11.2. Applicability. The standards of this Section shall apply to all development except as otherwise specified herein.

7.11.2.1. Tables 7-12 and 7-13 provide road design standards. Urban road standards shall apply to all roads within SDA-1, and to all planned development and mixed-use zoning districts. Rural road standards shall apply to all roads within SDA-2 and SDA-3. Local roads serving a major subdivision, multi-family development or non-residential use over 10,000 sq ft in SDA-2 and SDA-3 may be required to provide paving, sidewalks or bike lanes for continuity if existing roads have this level of improvement.

Table 7-12: Urban Road Classification and Design Standards (SDA-1).

	Avg. daily traffic	# of driving lanes	Lane width (ft)	Sidewalks	Bike lanes	Minimum ROW (ft)	Design Speeds (mph)	Max % Grade	Min. agg. base course	Min. bit. pavement	Max % Super-elev.
Major Arterial or highway	5000 +	2-6	12	Two 5'	Two 5 ft on-road	150	Level: 50+ Rolling: 50+ Mount.: 50+	5%	6"	6"	Refer to AASHTO
Minor arterial	2000 to 4999	2 - 4	12	Two 5'	Two 5 ft on-road	120	Level: 30-60 Rolling: 30-60 Mount.: 30-60	5%	6"	5"	Refer to AASHTO
Collector	601 to 1999	2	11	Two 5'	Two 5 ft on-road	80	Level: 30+ Rolling: 30+ Mount.: 30+	8%	6"	4"	5%
Sub-collector	301 to 600	2	11	Two 5'	Two 5 ft on-road	60	Level: 30+ Rolling: 30+ Mount.: 30+	8%	6"	4"	5%
Local	0 to 400	2	10	One 5'	n/a	50	Level: 20-30 Rolling: 20-30 Mount.: 20-30	7%	6"	3"	5%

Cul-de-Sac	0 to 300	2	10	n/a	n/a	38	Level: 30-50 Rolling: 20-40 Mount.: 20-30	9%	6"	3"	n/a
One Way Alley	n/a	1	12	n/a	n/a	19	n/a	7%	6"	3"	n/a
Residential Driveway	n/a	1	14	n/a	n/a	16	n/a	12%	n/a	n/a	n/a

Table 7-13: Rural Road Classification and Design Standards (SDA-2 and SDA-3).

	Avg. daily traffic	# of driving lanes	Lane width (ft)	Non-vehicular side paths	Bike lanes	Minimum ROW (ft)	Design Speeds (mph)	Max % Grade	Min. agg. base course	Min. bit. pavement	Max % Super-elev.
Major arterial or highway	5000 +	2-4	12	n/a	Two 5 ft on-road	150	Level: 70 Rolling: 70 Mount.: 50-60	5%	6"	6"	8%
Minor arterial	2000 to 4999	2 - 4	12	n/a	Two 5 ft on-road	120	Level: 60-75 Rolling: 50-60 Mount.: 40-50	5%	6"	5"	8%
Collector	401-1999	2	11	n/a	n/a	80	Level: 40-60 Rolling: 20-50 Mount.: 20-40	8%	6"	4"	8%
Local	0-400	2	10	n/a	n/a	50	Level: 30-50 Rolling: 20-40 Mount.: 20-30	9%	3"	n/a	8%
Cul-de-Sac	0 to 300	2	10	n/a	n/a	38	Level: 30-50 Rolling: 20-40 Mount.: 20-30	9%	3"	n/a	n/a
Residential Driveway	n/a	1	14	n/a	n/a	16	n/a	12%	n/a	n/a	n/a

7.11.3. General Requirements. Adequate roads shall be provided such that the arrangement, character, extent, width and grade of each shall conform to this Section.

7.11.3.1. Connectivity. The arrangement of roads in any development shall provide for

the continuation or appropriate projection of existing or proposed highway or arterial roads in surrounding areas according to the Official Map, and shall provide reasonable means of ingress and egress to surrounding property. Roads within subdivisions shall not be gated unless the road is a dead end road serving no more than five (5) lots.

7.11.3.2. Road Names. Road names or numbers shall not duplicate or be similar to the names or numbers of existing roads; if the proposed road is an extension of an existing road, then the proposed road shall have the name of the existing road. All road names and numbers shall be assigned by the Santa Fe County Rural Addressing Division.

7.11.3.3. Service Life. Pavement shall be designed for a 20-year service life, and the design of pavement structures shall conform to the New Mexico Standard Specifications for Road and Bridge Construction. Pavement design documentation shall be prepared and signed by, or shall be under the supervision of, a professional engineer.

7.11.3.4. Rules of Interpretation. If and where Section 7.11 fails to adequately address a road standard or specification, then the Administrator shall refer to the current or currently adopted version of the following manuals or guides, in the following order, until an adequate and appropriate standard or specification is found:

1. *Standard Specifications for Highway and Bridge Construction* of the New Mexico Department of Transportation (NMDOT);
2. *Policy on Geometric Design of Highways and Streets* ('Green Book') by the American Association of State Highway and Transportation Officials (AASHTO);
3. *Manual on Uniform Traffic Control Devices* (MUTCD) by the Federal Highway Administration;
4. *Guidelines for Driveway Location & Design*, by the Institute of Transportation Engineers; and
5. *Roadside Design Guide* by the American Association of State Highway and Transportation Officials (AASHTO);

7.11.3.5. Cuts and Fills.

1. All development, including roads, buildings, parking areas, and driveways shall be located so as to minimize areas of cut and fill. Fill slopes shall not exceed a 3:1 ratio and cut slopes shall not exceed a 2:1 ratio unless designed by a New Mexico Professional Engineer.
2. Cut and fill slopes combined shall not exceed 20 feet.
3. Retaining walls shall not exceed ten feet in height
4. All cut and fill slopes shall not be less than three (3) feet from property lines.

7.11.4. Base Course and Soil Compaction Standards.

7.11.4.1. Soil classification and sub-grade conditions shall determine the base course thickness required. A minimum of three (3) inches for local roads and cul-de-sacs in SDA

2 and 3 and a minimum of six (6) inches of base course on other roads per Tables 7-12 and 7-13 shall be required and more than six (6) inches may be required if soil conditions so indicate. In wet or swampy ground, rock or an acceptable alternative to rock as recommended by a licensed soils engineer shall be placed so as to establish a sub-base for placement of base course. Base course shall be watered and rolled to a compaction of not less than ninety-six (96%) percent of maximum density, according to methods specified by the AASHTO, T-180 modified proctor moisture density test.

7.11.4.2. Base course and sub-base aggregate shall meet the gradation requirements specified in Table 304, Class I, II or III, NMDOT 'Standard Specifications for Road and Bridge Construction' and shall have a plasticity index of eight to twelve percent (8% - 12%), a copy of which is on file for public inspection in the office of the Code Administrator. Plasticity index does not apply to roads to be constructed for a paved surface.

7.11.4.3. There shall be a minimum of three percent (3%) crown in the driving surface for water runoff.

7.11.5. Drainage; Curb and Gutter.

7.11.5.1. Culverts. Culverts, if used, shall be sized to accommodate a one hundred (100) year storm. Culverts shall also be of sufficient size, gauge, and length, and placed appropriately deep to withstand projected traffic loading and storm runoff.

7.11.5.2. Curb and Gutter. Curb and gutter shall be required where deemed necessary for drainage control or protection of pedestrians.

7.11.6. Intersections and roundabouts. This section applies to all new roads and those roads which are part of non-residential development, multi-family and subdivisions and where the Administrator, in consultation with the Fire Marshal and Public Works Department determines that application of this section is necessary.

7.11.6.1. Roads shall be laid out to intersect each other as nearly as possible at ninety (90) degree right angles; under no condition shall intersection angles be less than seventy (70) degrees.

7.11.6.2. Offset intersections less than two hundred (200) feet apart shall not be permitted.

7.11.6.3. Property lines at road intersections shall be rounded with a minimum radius of twenty-eight (28) feet or a greater radius when necessary to permit the construction of a curb and sidewalk or when otherwise needed.

7.11.6.4. A tangent of sufficient distance shall be introduced between reverse curves on all roads according to AASHTO standards.

7.11.6.5. When connecting road centerlines deflect from each other at any point by more than ten degrees, they shall be connected by a curve with a sufficient radius adequate to ensure adequate sight distance according AASHTO standards.

7.11.6.6. Grades at the approach of intersections shall not exceed five percent (5%) for one hundred (100) linear feet prior to the radius return of the intersection, excluding vertical curve distance.

7.11.6.7. Curvature in intersection design alignments shall not be less than stopping distances required for the design speed of the road as per AASHTO Standards. The geometry of intersections shall be consistent with the design speed of the road and AASHTO Standards.

7.11.6.8. Road jogs with centerline offsets of less than two hundred (200) feet shall be prohibited.

7.11.6.9. A capacity analysis of any proposed roundabout shall be conducted in accordance with Highway Capacity Manual methods. The analysis shall include consideration for the largest motorized vehicle likely to use the intersection.

7.11.6.10. Roundabouts shall be designed in conformance with the guidelines set forth in the Federal Highway Administration (FHWA) publication "Roundabouts: An Informational Guide." (Second Edition Report 672, National Cooperative Highway Research Program, 2010), as amended.

7.11.7. Corner setbacks. A corner setback consists of the area formed by the legs of a triangle whose apex is the point of intersection of the back of curb or driving surface of the adjacent roads, as shown in Figure 7.4. Table 7-14 establishes the minimum required corner setbacks. The Administrator may reduce the corner setbacks for driveways in TC, RC, MU, PD Districts or where existing lot boundaries or existing legal structures do not allow this setback, providing that adequate sight distance is maintained.

Figure 7.4: Safe Sight Triangle.

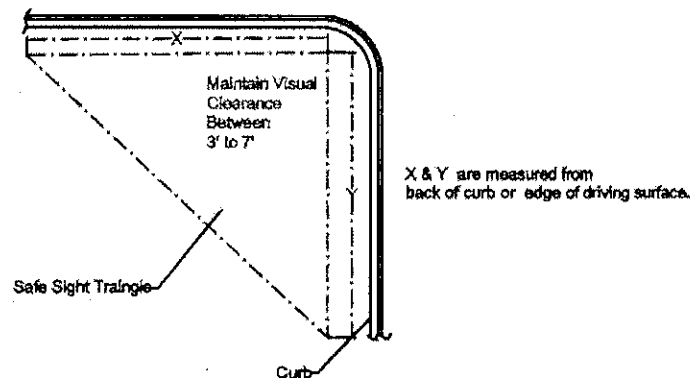
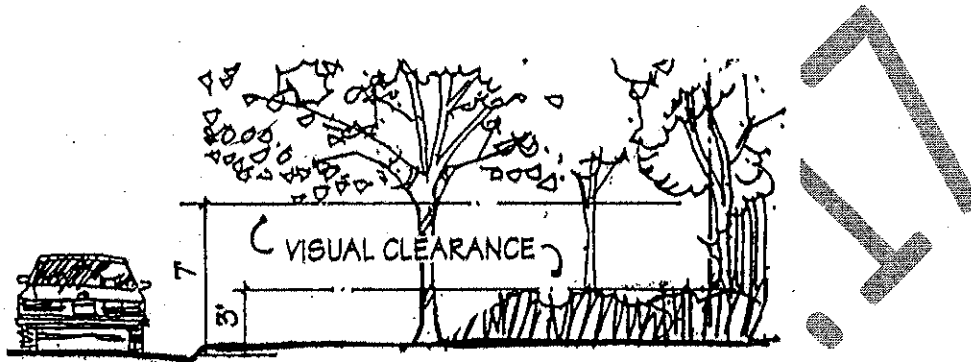


Table 7-14: Minimum Corner Setbacks for Safe Sight Triangle.

Intersection Type (x)	Intersection Type (y)	
	Road	Driveway
Road	40 feet	15 feet
Driveway	15 feet	n/a

7.11.7.1. No structure or planting (at mature growth) that exceeds three feet in height shall be permitted within a corner setback, except for utility poles, lighting standards, mail boxes, county or state traffic signs, and trees so long as the lower canopy of the tree permits a clear line of sight between three and seven feet above the road grade as shown in Figure 7.5.

Figure 7.5: Structures and Plantings within Corner Setback.



7.11.8. Cul-de-sacs (dead end roads).

7.11.8.1. Cul-de-sacs (dead end roads) shall not serve more than thirty (30) lots of thirty (30) dwelling units.

7.11.8.2. At the closed end there shall be a turn-around having a minimum driving surface radius of at least forty-two (42) feet for roads under 250 feet long and at least fifty (50) feet for roads 250 feet and longer. The Administrator, in consultation with the Fire Marshal, may approve a suitable alternative such as a hammerhead or turnaround.

7.11.8.3. All turn around areas shall be designed to protect existing vegetation and steep terrain.

7.11.9. Utilities. All utilities shall be located within prescribed utility easement or right-of-way.

7.11.10. Road and Highway Signage and Striping.

7.11.10.1. All signs, striping, signals and other traffic safety devices shall be installed and maintained according to MUTCD standards.

7.11.10.2. Upon acceptance of a road by the County, road and highway name signs shall be installed at all intersections.

7.11.11. Road Access.

7.11.11.1. Generally.

1. Legal road access shall be provided to each lot. Proof of legal access shall be provided with any application.

2. Each lot shall directly access a road constructed to meet the requirements of this Section or access a public road.

3. Except as provided below in Section 7.11.11.4, all new lots created, shall be provided with adequate access for ingress, egress, utility service, fire protection and emergency services whether by constructing on-site and off-site roads meeting the standards of this Section or by direct access to a public road.

4. When a tract to be developed borders an existing road having a right-of-way insufficient to conform to the minimum standards required by these regulations, which right-of-way will be used by the proposed development, sufficient right-of-way shall be platted, and dedicated or reserved in such a way as would make the resulting right-of-way or road conform with the requirements of this Section.

7.11.11.2. Access to Highways and Arterial Roads.

1. All driveways and roads into developments shall be designed to have the minimum number of intersections with roads, arterials or highways specified in Section 7.11.12.3 below.

2. Where a development accesses a State or federal highway, an access permit is required from NMDOT or the Federal Highway Administration.

7.11.11.3. Access to Subdivisions, Non-Residential Development and Multi-Family Development.

1. Where a subdivision is divided into large tracts and/or phased development is planned to occur, then a coordinated road system shall be designed with reference to all tracts and/or phases.

2. Major subdivisions where a total of thirty-one (31) lots or more access a road, those with 31 or more dwellings or non-residential development units accessing a road, or those non-residential developments consisting of 25,000 square feet or more, shall provide access to an existing County road, highway, state highway or federal highway and shall provide a minimum of two (2) access points to that public road. Existing lots, dwellings or non-residential development units will be counted in addition to the units of the subdivision, multi-family or non-residential development units. Such development shall also provide for connections to roads and highways identified on the Official Map, as applicable.

3. A major subdivision, non-residential development exceeding 10,000 square feet and multi-family development shall provide all-weather access during a 100 year storm event to all lots or development sites.

7.11.11.4. Standards for Land Divisions and Subdivisions Exemptions.

1. Divisions of land for grazing or farming as identified in Section 5.4.3.8, are exempt from on-site and off-site road requirements.

2. Divisions of land that create no parcel smaller than one hundred forty (140) acres as identified in Section 5.4.3.11 are exempt from on-site and off-site road requirements, except when more than one (1) such parcel is created in an area of land, the Administrator may require on and off-site road improvements.

3. Other land divisions and subdivisions exemptions may reduce the road width and easement width for off-site and on-site roads to no less than 18 feet and road grade to twelve percent (12%) if adequate drainage control is provided and may allow the surface to be hardpacked dirt with compaction of 95% of the maximum density.

4. In areas where the standards in Subsection 3 above cannot be met due to existing easement width, existing terrain, location of existing legal structures or where the impact of the proposed development to existing road infrastructure will be minimal (de-minimus) and compliance with the standards is significant in comparison to the scope of the proposed development, the Administrator may decrease these road standards, with approval from the Fire Marshal and subject to the requirements of the Fire Code and additional fire protection measures, up to an additional twenty percent (20%) from the standards in Subsection 4 above, providing, however, that no additional minor deviation under Section 4.9.7.6. shall be allowed.

5. Required off-site and on-site road improvements shall be constructed prior to plat recordation, in lieu of this a letter of credit meeting the requirements of Section 7.22 may be accepted.

6. Plats creating a sending area for TDR purposed shall be exempt from on-site and off-site road improvements.

7.11.11.5. Standards for Residential Development.

1. Residential development may increase the road grade to 12% and reduce the road easement and road width for off-site and on-site roads to no less than 18 feet if adequate drainage control is provided and may allow the surface to be hardpacked dirt with compaction of 95% of the maximum density.

2. In areas where the standards in Subsection 1 above cannot be met due to existing easement width, existing terrain, location of existing legal structures or where the impact of the proposed development to existing road infrastructure will be minimal (de-minimus) and compliance with the standards is significant in comparison to the scope of the proposed development, the Administrator may decrease these road standards, with approval from the Fire Marshal and subject to the requirements of the Fire Code and additional fire protection measures, up to an additional twenty percent (20%) from the standards in Subsection 4 above, providing, however, that no additional minor deviation under Section 4.9.7.6. shall be allowed.

3. Roads accessing existing residential uses that were approved and constructed prior to January 15, 2016, shall be allowed to continue to be used for primary access, however, access to any new dwelling unit shall meet the requirements of 7.11.11.5.1. and 7.11.11.5.2 above.

7.11.12. Driveways. Access to individual lots and parking areas shall be designed in accordance with the requirements of this Section.

7.11.12.1. Driveway Standards.

1. Driveways shall not be located within the functional area of an intersection or located in such a manner as to interfere with the entry into or exit from an adjacent driveway.
2. All driveways shall conform to all minimum sight distances specified per AASHTO. For driveways accessing roads with a posted speed limit of fifteen (15) mph or less, the sight distance shall be a minimum of 80-foot.
3. The entrance of a driveway to a road shall not impede the flow of stormwater along the road or highway. Installation of culverts may be required to ensure compliance with this Section. If installed, a culvert shall be at least eighteen (18) inches diameter. In addition, end sections and/or riprap may be required at driveways along steeper terrain.
4. The entrance to a driveway shall be a minimum of 100 foot from the return radius of an intersection. In TC, RC, MU, PD Districts or where existing lot boundaries or existing legal structures do not allow this separation, the Administrator may reduce this distance.

7.11.12.2. Additional Standards for Residential Driveways.

1. Residential driveways shall serve no more than two (2) lots.
2. Lots within new residential subdivisions shall be limited to a single access point or driveway.
3. Access to a lot shall be from a local or collector road, except where the only possible access is from an arterial road or highway.
4. A twenty-five (25) foot asphalt apron shall be required on a driveway that accesses an arterial or highway. A twelve (12) foot asphalt or concrete apron shall be required on a driveway that accesses a paved collector, subcollector or local road.
5. In areas where the standards in Tables 7-12 and 7-13 cannot be met due to existing easement width, existing terrain, location of existing legal structures or where the impact of the proposed development to existing road infrastructure will be minimal (de-minimus) and compliance with the standards is significant in comparison to the scope of the proposed development, the Administrator may decrease these road standards, with approval from the Fire Marshal and subject to the requirements of the Fire Code and additional fire protection measures, up to an additional twenty percent (20%) from the standards in Tables 7-12 and 7-13, providing, however, that no additional minor deviation under Section 4.9.7.6. shall be allowed.

6. Existing residential driveways that were approved and constructed prior to January 15, 2016, shall be allowed to continue to be used for primary access however access to any new dwelling unit shall meet the requirements of Table 7-12 and 7-13.

7.11.12.3. Additional Standards for Non-Residential, Multi-Family and Mixed-Use Driveways.

1. Driveways shall be aligned with opposing driveway approaches where practicable.
2. No driveway may be located closer than 50 feet from the transition point of a turning lane/deceleration lane.
3. Driveway spacing is subject to the requirements of Table 7-15.

Table 7-15: Separation of driveways for Non-Residential, Multi-Family and Mixed-Use Parcels.

Posted Speed (m.p.h.)	Minimum Distance (feet)
25-30	200
30-35	270
35-40	315
40-45	375
45+ *	400+

* For driveway spacing at speeds greater than 45 miles per hour consult Table 6, Speed Change - Lane Length Requirements for Driveway Spacing; NMDOT, Regulations for Driveways and Median Openings on Non-Access Controlled Highways.

4. Acceleration/deceleration lanes shall be provided as warranted.
5. Driveway profiles, design elements, corner clearance, and performance standards for acceleration or deceleration lanes shall conform to the NMDOT's Regulations for Driveways, and Median Openings on Non-Access Controlled Highways.
6. Driveway design and placement shall coordinate with internal circulation and parking design such that the entrance can absorb the maximum rate of inbound traffic during a normal weekday peak traffic period as determined by a New Mexico Professional Engineer or other qualified professional.
7. A 50 foot asphalt or concrete apron shall be required on driveways accessing a paved road. The Administrator may reduce this requirement and only require paving to the end of a 30 foot return radius or the edge of the right-of-way.
8. Driveway access to non-residential, multi-family and mixed-use developments shall meet local road standards at a minimum. Non-residential development where

structures total up to 10,000 square feet in size, may reduce the road easement width for off-site and on-site roads to no less than 20 feet if adequate drainage control is provided and may allow the surface to be hardpacked dirt with compaction of 95% of the maximum density.

7.11.13. On-road Parking. On-road parking shall be a minimum of seven (7) feet in width. A parking lane of at least seven (7) feet may be provided on a local road or sub-collector.

7.11.13.1. A minimum of 1.5-foot-wide operational offset shall be provided between the face of the curb and the edge of potential obstructions such as trees and poles. This allows for the unobstructed opening of car doors.

7.11.13.2. Parking shall be prohibited within 10 feet of either side of fire hydrants or as per fire code, whichever is more restrictive, at least 20 feet from nearside of mid-block crosswalks without curb extensions, and at least 20 feet from the curb return of intersections (30 feet from signalized intersections).

7.11.14. Roads and Driveways in Steep Terrain.

7.11.14.1. Where a road, highway or driveway are located on a natural slope of fifteen percent (15%) or greater, or where cut or fill slopes would exceed six (6) vertical feet, the developer shall propose alternative terrain management techniques to limit excessive grading and removal of vegetation. Such alternatives may include, but are not limited to, split road beds, steeper cuts and fills where soils are stable enough to sustain higher cut and fill ratios, terracing with reverse grades for revegetation with trees and shrubs, or rock plating or retaining walls.

7.11.14.2. Notwithstanding the provisions of Section 7.11.6.1, roads and highways located on a natural slope of fifteen percent or greater shall intersect at a minimum angle of sixty (60) degrees. Notwithstanding the provisions of Section 7.11.6.6, horizontal and vertical curvature shall not exceed ten (10) percent.

7.11.14.3. Temporary roads or driveways shall not be permitted.

7.11.14.4. Where a road, highway or driveway is located on a natural slope of fifteen percent (15%) or greater, the Administrator, with approval from the Fire Marshal and subject to the requirements of the Fire Code, may approve road and driveway grades of up to 15% where a lesser grade would require cut or fill slopes in excess of six (6) vertical feet.

7.11.15. Sidewalks.

7.11.15.1. Sidewalks are required where required by Tables 7-12 and 7-13, and as indicated in the Official Map.

7.11.15.2. The minimum sidewalk or walking path width shall be five feet.

7.11.15.3. Sidewalks or walking paths shall be constructed of four inch (4") thick concrete or other hard surface materials such as permeable materials, brick, asphalt, or unit-pavers.

7.11.16.4. Sidewalks or walking paths shall not be located on the roadway surface or in

a storm drainage.

7.11.16. Bike Lanes. Bike lanes shall be required along all roadways as required by Tables 7-12 and 7-13, and as indicated on the Official Map. Bike lanes shall be designed as set forth Table 7-16.

Table 7-16: Bike Lane Design Criteria.

	On-road bike lanes
Overhead clearance (min. feet)	7.5
Right-of-way width (min.)	within road right-of-way
Lane width (minimum, feet)	5
Lane width with on-road parking, combined bike lane and parking stall (minimum, feet)	14

7.11.17. Maintenance and Dedication of Subdivision Roads.

7.11.17.1. Any road not accepted for maintenance by the County shall be maintained by the developer or a homeowners' association (HOA) in accordance with Section 7.23.

7.11.17.2. The County will not accept a road for maintenance via dedication unless the requirements of Section 7.23 are met.

7.11. ROAD DESIGN STANDARDS.

7.11.1. Purpose and Findings. These regulations are designed to:

7.11.1.1. Ensure that the design of roads conforms to the policies of the SGMP;

7.11.1.2. Provide for the safety for both vehicular and pedestrian traffic;

7.11.1.3. Provide for livable residential, mixed-use and commercial environments;

7.11.1.4. Provide for economy of land use, construction, and maintenance; and

7.11.1.5. Provide safe and efficient access to property.

7.11.2. Applicability. The standards of this Section shall apply to all development except as otherwise specified herein.

7.11.2.1. Tables 7-12 and 7-13 provide road design standards. Urban road standards shall apply to all roads within SDA-1, and to all planned development and mixed-use zoning districts. Rural road standards shall apply to all roads within SDA-2 and SDA-3. Local roads serving a major subdivision, multi family development or non-residential use over 10,000 sq ft in SDA-2 and SDA-3 may be required to provide paving, sidewalks or bike lanes for continuity if existing roads have this level of improvement.

Table 7-12: Urban Road Classification and Design Standards (SDA-1).

	Avg. daily traffic	# of driving lanes	Lane width (ft)	Sidewalks	Bike lanes	Minimum ROW (ft)	Design Speeds (mph)	Max % Grade	Min. agg. base course	Min. bit. pavement	Max % Super-elev.
Major Arterial or highway	5000 +	2-6	12	Two 5'	Two 5 ft on-road	150	Level: 50+ Rolling: 50+ Mount.: 50+	5%	6"	6"	Refer to AASHTO
Minor arterial	2000 to 4999	2 - 4	12	Two 5'	Two 5 ft on-road	120	Level: 30-60 Rolling: 30-60 Mount.: 30-60	5%	6"	5"	Refer to AASHTO
Collector	601 to 1999	2	11	Two 5'	Two 5 ft on-road	80	Level: 30+ Rolling: 30+ Mount.: 30+	8%	6"	4"	5%
Sub-collector	301 to 600	2	11	Two 5'	Two 5 ft on-road	60	Level: 30+ Rolling: 30+ Mount.: 30+	8%	6"	4"	5%
Local	0 to 400	2	10	One 5'	n/a	50	Level: 20-30 Rolling: 20-30 Mount.: 20-30	7%	6"	3"	5%



Cul-de-Sac	0 to 300	2	10	n/a	n/a	38	Level: 30-50 Rolling: 20-40 Mount.: 20-30	9%	6"	3"	n/a
One Way Alley	n/a	1	12	n/a	n/a	19	n/a	7%	6"	3"	n/a
Residential Driveway	n/a	1	14	n/a	n/a	2016	n/a	101 2%	n/a	n/a	n/a

Table 7-13: Rural Road Classification and Design Standards (SDA-2 and SDA-3).

	Avg. daily traffic	# of driving lanes	Lane width (ft)	Non-vehicular side paths	Bike lanes	Minimum ROW (ft)	Design Speeds (mph)	Max % Grade	Min. agg. base course	Min. bit. pavement	Max % Super-elev.
Major arterial or highway	5000 +	2-4	12	n/a	Two 5 ft on-road	150	Level: 70 Rolling: 70 Mount.: 50-60	5%	6"	6"	8%
Minor arterial	2000 to 4999	2-4	12	n/a	Two 5 ft on-road	120	Level: 60-75 Rolling: 50-60 Mount.: 40-50	5%	6"	5"	8%
Collector	401-1999	2	11	n/a	n/a	80	Level: 40-60 Rolling: 20-50 Mount.: 20-40	8%	6"	4"	8%
Local	0-400	2	10	n/a	n/a	50	Level: 30-50 Rolling: 20-40 Mount.: 20-30	9%	3"	n/a	8%
Cul-de-Sac	0 to 300	2	10	n/a	n/a	38	Level: 30-50 Rolling: 20-40 Mount.: 20-30	9%	63"	n/a	n/a
Residential Driveway	n/a	1	14	n/a	n/a	2016	n/a	101 2%	n/a	n/a	n/a

7.11.3. General Requirements. Adequate roads shall be provided such that the arrangement, character, extent, width and grade of each shall conform to this Section.

7.11.3.1. Connectivity. The arrangement of roads in any development shall provide for

the continuation or appropriate projection of existing or proposed highway or arterial roads in surrounding areas according to the Official Map, and shall provide reasonable means of ingress and egress to surrounding property. Roads within subdivisions shall not be gated unless the road is a dead end road serving no more than five (5) lots.

7.11.3.2. Road Names. Road names or numbers shall not duplicate or be similar to the names or numbers of existing roads; if the proposed road is an extension of an existing road, then the proposed road shall have the name of the existing road. All road names and numbers shall be assigned by the Santa Fe County Rural Addressing Division.

7.11.3.3. Service Life. Pavement shall be designed for a 20-year service life, and the design of pavement structures shall conform to the New Mexico Standard Specifications for Road and Bridge Construction. Pavement design documentation shall be prepared and signed by, or shall be under the supervision of, a professional engineer.

7.11.3.4. Rules of Interpretation. If and where Section 7.11 fails to adequately address a road standard or specification, then the Administrator shall refer to the current or currently adopted version of the following manuals or guides, in the following order, until an adequate and appropriate standard or specification is found:

1. *Standard Specifications for Highway and Bridge Construction* of the New Mexico Department of Transportation (NMDOT);
2. *Policy on Geometric Design of Highways and Streets* ('Green Book') by the American Association of State Highway and Transportation Officials (AASHTO);
3. *Manual on Uniform Traffic Control Devices* (MUTCD) by the Federal Highway Administration;
4. *Guidelines for Driveway Location & Design*, by the Institute of Transportation Engineers; and
5. *Roadside Design Guide* by the American Association of State Highway and Transportation Officials (AASHTO);

7.11.3.5. Cuts and Fills.

1. All development, including roads, buildings, parking areas, and driveways shall be located so as to minimize areas of cut and fill. Fill slopes shall not exceed a 3:1 ratio and cut slopes shall not exceed a 2:1 ratio unless designed by a New Mexico Professional Engineer.
2. Cut and fill slopes combined shall not exceed 20 feet.
3. Retaining walls shall not exceed ten feet in height
4. All cut and fill slopes shall not be less than three (3) feet from property lines.

7.11.4. Base Course and Soil Compaction Standards.

7.11.4.1. Soil classification and sub-grade conditions shall determine the base course thickness required. A minimum of three (3) inches for local roads and cul-de-sacs in SDA

2 and 3 and a minimum of six (6) inches of base course on other roads per Tables 7-12 and 7-13 shall be required ~~in all cases~~ and more than six (6) inches may be required if soil conditions so indicate. In wet or swampy ground, rock or an acceptable alternative to rock as recommended by a licensed soils engineer shall be placed so as to establish a sub-base for placement of base course. Base course shall be watered and rolled to a compaction of not less than ninety-eight six (98.96%) percent of maximum density, according to methods specified by the AASHTO, T-180 modified proctor moisture density test.

7.11.4.2. Base course and sub-base aggregate shall meet the gradation requirements specified in Table 304, Class I, II or III, NMDOT 'Standard Specifications for Road and Bridge Construction' and shall have a plasticity index of eight to twelve percent (8% - 12%), a copy of which is on file for public inspection in the office of the Code Administrator. Plasticity index does not apply to roads to be constructed for a paved surface.

7.11.4.3. There shall be a minimum of three percent (3%) crown in the driving surface for water runoff.

7.11.5. Drainage; Curb and Gutter.

7.11.5.1. Culverts. Culverts, if used, shall be sized to accommodate a one hundred (100) year storm. Culverts shall also be of sufficient size, gauge, and length, and placed appropriately deep to withstand projected traffic loading and storm runoff.

7.11.5.2. Curb and Gutter. Curb and gutter shall be required where deemed necessary for drainage control or protection of pedestrians.

7.11.6. Intersections and roundabouts. This section applies to all new roads and those roads which are part of non-residential development, multi-family and subdivisions and where the Administrator, in consultation with the Fire Marshal and Public Works Department determines that application of this section is necessary.

7.11.6.1. Roads shall be laid out to intersect each other as nearly as possible at ninety (90) degree right angles; under no condition shall intersection angles be less than seventy (70) degrees.

7.11.6.2. Offset intersections less than two hundred (200) feet apart shall not be permitted.

7.11.6.3. Property lines at road intersections shall be rounded with a minimum radius of twenty-eight (28) feet or a greater radius when necessary to permit the construction of a curb and sidewalk or when otherwise needed.

7.11.6.4. A tangent of sufficient distance shall be introduced between reverse curves on all roads according to AASHTO standards.

7.11.6.5. When connecting road centerlines deflect from each other at any point by more than ten degrees, they shall be connected by a curve with a sufficient radius adequate to ensure adequate sight distance according AASHTO standards.

7.11.6.6. Grades at the approach of intersections shall not exceed five percent (5%) for one hundred (100) linear feet prior to the radius return of the intersection, excluding vertical

curve distance.

7.11.6.7. Curvature in intersection design alignments shall not be less than stopping distances required for the design speed of the road as per AASHTO Standards. The geometry of intersections shall be consistent with the design speed of the road and AASHTO Standards.

7.11.6.8. Road jogs with centerline offsets of less than two hundred (200) feet shall be prohibited.

7.11.6.9. A capacity analysis of any proposed roundabout shall be conducted in accordance with Highway Capacity Manual methods. The analysis shall include consideration for the largest motorized vehicle likely to use the intersection.

7.11.6.10. Roundabouts shall be designed in conformance with the guidelines set forth in the Federal Highway Administration (FHWA) publication "Roundabouts: An Informational Guide." (Second Edition Report 672, National Cooperative Highway Research Program, 2010), as amended.

~~7.11.7.7.11.6.11.~~ Corner setbacks. A corner setback consists of the area formed by the legs of a triangle whose apex is the point of intersection of the rights-of-way lines back of curb or driving surface of the adjacent roads, as shown in Figure 7.4. Table 7-14 establishes the minimum required corner setbacks. The Administrator may reduce the corner setbacks for driveways in TC, RC, MU, PD Districts or where existing lot boundaries or existing legal structures do not allow this setback, providing that adequate sight distance is maintained.

Figure 7.4: Safe Sight Triangle.

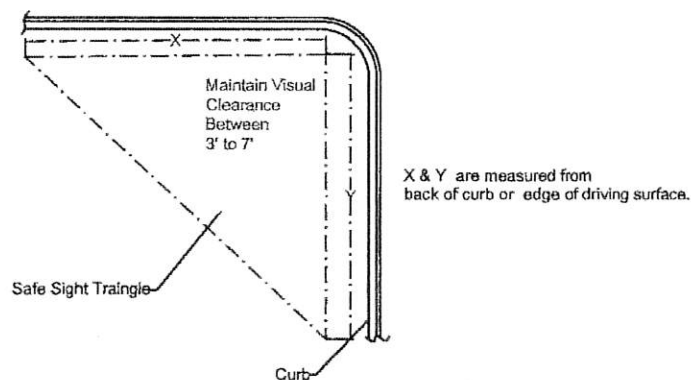
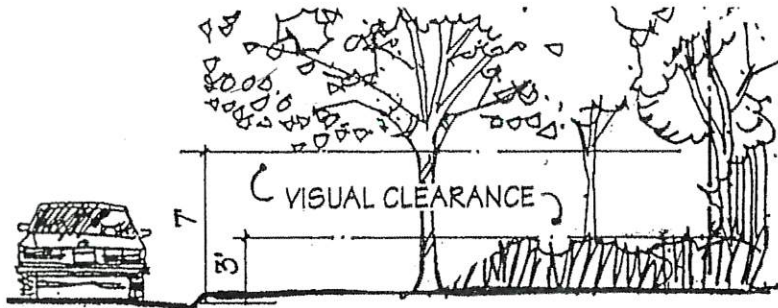


Table 7-14: Minimum Corner Setbacks for Safe Sight Triangle.

Intersection Type (x)	Intersection Type (y)	
	Road	Driveway
Road	40 feet	30-15 feet
Driveway	30-15 feet	n/a

7.11.7.1. No structure or planting (at mature growth) that exceeds three feet in height shall be permitted within a corner setback, except for utility poles, lighting standards, mail boxes, county or state traffic signs, and trees so long as the lower canopy of the tree permits a clear line of sight between three and seven feet above the road grade as shown in Figure 7.5.

Figure 7.5: Structures and Plantings within Corner Setback.



7.11.78. Cul-de-sacs (dead end roads).

7.11.78.1. Cul-de-sacs (dead end roads) shall not serve more than thirty (30) lots of thirty (30) dwelling units.

7.11.78.2. At the closed end there shall be a turn-around having a minimum driving surface radius of at least forty-two (42) feet for roads under 250 feet long and at least fifty (50) feet for roads 250 feet and longer. The Administrator, in consultation with the Fire Marshal, may approve a suitable alternative such as a hammerhead or turnaround.

7.11.78.3. All turn around areas shall be designed to protect existing vegetation and steep terrain.

7.11.89. Utilities. All utilities shall be located within prescribed utility easement or right-of-way.

7.11.9. Cut and Fill. ~~All roads shall be located so as to minimize areas of cut and fill and shall be located to conform to sound terrain management principles. Fill slopes shall not exceed a 3:1 ratio and cut slopes shall not exceed a 2:1 ratio; provided, however higher cut and fill ratios may be allowed if the applicant provides a detailed report and engineered design prepared by an engineer registered in the State of New Mexico that supports a higher cut and fill ratio.~~

7.11.10. Road and Highway Signage and Striping.

7.11.10.1. All signs, striping, signals and other traffic safety devices shall be installed and maintained according to MUTCD standards.

7.11.10.2. ~~Following full~~Upon acceptance of a road by the County, road and highway name signs shall be installed at all intersections.

7.11.11. Road Access.

7.11.11.1. Generally.

1. Legal road access shall be provided to each lot. Proof of legal access shall be provided with any application.
2. Each lot shall directly access a road constructed to meet the requirements of this Section or access a public road.
3. Except as provided below in Section 7.11.11.4, all new lots created, shall be provided with adequate access for ingress, egress, utility service, fire protection and emergency services whether by constructing on-site and off-site roads meeting the standards of this Section or by direct access to a public road.
4. When a tract to be developed borders an existing road having a right-of-way insufficient to conform to the minimum standards required by these regulations, which right-of-way will be used by the proposed development, sufficient right-of-way shall be platted, and dedicated or reserved in such a way as would make the resulting right-of-way or road conform with the requirements of this Section.

7.11.11.2. Access to Highways and Arterial Roads.

1. All driveways and roads into developments shall be designed to have the minimum number of intersections with roads, arterials or highways specified in Section 7.11.12.3 below.
2. Where a development accesses a State or federal highway, an access permit is required from NMDOT or the Federal Highway Administration.

7.11.11.3. Access to Subdivisions, Non-Residential Development and Multi-Family Development.

1. Where a subdivision is divided into large tracts and/or phased development is planned to occur, then a coordinated road system shall be designed with reference to all tracts and/or phases.
2. Major subdivisions where a total of thirty-one (31) lots or more access a road, those with 31 or more dwellings or non-residential development units accessing a road, or those non-residential developments consisting of 25,000 square feet or more, shall provide access to an existing County road, highway, state highway or federal highway and shall provide a minimum of two (2) access points to that public roadthe referenced roadway. Existing lots, dwellings or non-residential development units will be counted in addition to the units of the subdivision, multi-family or non-residential development units. Such development shall also provide for connections to roads and highways identified on the Official Map, as applicable.
3. A major subdivision, non-residential development exceeding 10,000 square feet and multi-family development shall provide all-weather access during a 100 year storm event to all lots or development sites.

7.11.11.4. Standards for Land Divisions and Subdivisions Exemptions.

1. Divisions of land for grazing or farming as identified in Section 5.4.3.8. are exempt from on-site and off-site road requirements.
2. Divisions of land that create no parcel smaller than one hundred forty (140) acres as identified in Section 5.4.3.11 are exempt from on-site and off-site road requirements, except when more than one (1) such parcel is created in an area of land, the Administrator may require on and off-site road improvements.
3. Other land divisions and subdivisions exemptions may reduce the road width and easement width for off-site and on-site roads to no less than 20-18 feet and road grade to twelve percent (12%) if adequate drainage control is provided and may allow the surface to be hardpacked dirt with compaction of 95% of the maximum density.
4. In areas where the standards in Subsection 3 above cannot be met due to existing easement width, existing terrain, location of existing legal structures or where the impact of the proposed development to existing road infrastructure will be minimal (de-minimus) and compliance with the standards is significant in comparison to the scope of the proposed development, the Administrator may decrease these road standards, with approval from the Fire Marshal and subject to the requirements of the Fire Code and additional fire protection measures, up to an additional twenty percent (20%) from the standards in Subsection 4 above, providing, however, that no additional minor deviation under Section 4.9.7.6. shall be allowed.
45. ~~required~~ Required off-site and on-site road improvements shall be constructed prior to plat recordation, in lieu of this a letter of credit meeting the requirements of Section 7.22 may be accepted.
56. Plats creating a sending area for TDR purposed shall be exempt from on-site and off-site road improvements.

7.11.11.5. Standards for Residential Development.

1. Residential development may increase the road grade to 12% and reduce the road easement and road width for off-site and on-site roads to no less than 20-18 feet if adequate drainage control is provided and may allow the surface to be hardpacked dirt with compaction of 95% of the maximum density.
2. In areas where the standards in Subsection 1 above cannot be met due to existing easement width, existing terrain, location of existing legal structures or where the impact of the proposed development to existing road infrastructure will be minimal (de-minimus) and compliance with the standards is significant in comparison to the scope of the proposed development, the Administrator may decrease these road standards, with approval from the Fire Marshal and subject to the requirements of the Fire Code and additional fire protection measures, up to an additional twenty percent (20%) from the standards in Subsection 4 above, providing, however, that no additional minor deviation under Section 4.9.7.6. shall be allowed.

3. Roads accessing existing residential uses that were approved and constructed prior to January 15, 2016, shall be allowed to continue to be used for primary access, however, access to any new dwelling unit shall meet the requirements of 7.11.11.5.1. and 7.11.11.5.2 above.

7.11.12. Driveways. Access to individual lots and parking areas shall be designed in accordance with the requirements of this Section.

7.11.12.1. Driveway Standards.

1. Driveways shall not be located within the functional area of an intersection or located in such a manner as to interfere with the entry into or exit from an adjacent driveway.
2. All driveways shall conform to all minimum sight distances specified per AASHTO. For driveways accessing roads with a posted speed limit of fifteen (15) mph or less, the sight distance shall be a minimum of 80 foot.
3. The entrance of a driveway to a road shall not impede the flow of stormwater along the road or highway. Installation of culverts may be required to ensure compliance with this Section. If installed, a culvert shall be at least eighteen (18) inches diameter. In addition, end sections and/or riprap may be required at driveways along steeper terrain.
4. The entrance to a driveway shall be a minimum of 100 foot from the return radius of an intersection. In TC, RC, MU, PD Districts or where existing lot boundaries or existing legal structures do not allow this separation, the Administrator may reduce this distance.

7.11.12.2. Additional Standards for Residential Driveways.

1. Residential driveways shall serve no more than two (2) lots.
2. Lots within new residential subdivisions shall be limited to a single access point or driveway.
3. Access to a lot shall be from a local or collector road, except where the only possible access is from an arterial road or highway.
4. A twenty-five (25) foot asphalt apron shall be required on a driveway that accesses an arterial or highway. A twelve (12) foot asphalt or concrete apron shall be required on a driveway that accesses a paved collector, subcollector or local road.
5. In areas where the standards in Tables 7-12 and 7-13 cannot be met due to existing easement width, existing terrain, location of existing legal structures or where the impact of the proposed development to existing road infrastructure will be minimal (de-minimus) and compliance with the standards is significant in comparison to the scope of the proposed development, the Administrator may decrease these road standards, with approval from the Fire Marshal and subject to

the requirements of the Fire Code and additional fire protection measures, up to an additional twenty percent (20%) from the standards in Tables 7-12 and 7-13, providing, however, that no additional minor deviation under Section 4.9.7.6. shall be allowed.

56. Existing residential driveways that were approved and constructed prior to January 15, 2016~~the effective date of this SLDC~~, shall be allowed to continue to be used for primary access however providing that access to any new dwelling unit shall meet the requirements of Table 7-12 and 7-13.

7.11.12.3. Additional Standards for Non-Residential, Multi-Family and Mixed-Use Driveways.

1. Driveways shall be aligned with opposing driveway approaches where practicable.
2. No driveway may be located closer than 50 feet from the transition point of a turning lane/deceleration lane.
3. Driveway spacing is subject to the requirements of Table 7-15.

Table 7-15: Separation of driveways for Non-Residential, Multi-Family and Mixed-Use Parcels.

Posted Speed (m.p.h.)	Minimum Distance (feet)
25-30	200
30-35	270
35-40	315
40-45	375
45+ *	400+

* For driveway spacing at speeds greater than 45 miles per hour consult Table 6, Speed Change - Lane Length Requirements for Driveway Spacing; NMDOT, Regulations for Driveways and Median Openings on Non-Access Controlled Highways.

4. Acceleration/deceleration ~~lines~~ lanes shall be provided as warranted.
5. Driveway profiles, design elements, corner clearance, and performance standards for acceleration or deceleration lanes shall conform to the NMDOT's Regulations for Driveways, and Median Openings on Non-Access Controlled Highways.
6. Driveway design and placement shall coordinate with internal circulation and parking design such that the entrance can absorb the maximum rate of inbound traffic during a normal weekday peak traffic period as determined by a New Mexico Professional Engineer or other qualified professional.
7. A 50 foot asphalt or concrete apron shall be required on driveways accessing a

paved road. The Administrator may reduce this requirement and only require paving to the end of a 30 foot return radius or the edge of the right-of-way.

8. Driveway access to non-residential, multi-family and mixed-use developments shall meet local road standards at a minimum. for a Non-residential development where structures total up to under 10,000 square feet in size, may reduce the road easement width for off-site and on-site roads to no less than 20 feet if adequate drainage control is provided and may allow the surface to be hardpacked dirt with compaction of 95% of the maximum density.

7.11.13. On-road Parking. On-road parking shall be a minimum of seven (7) feet in width. A parking lane of at least seven (7) feet may be provided on a local road or sub-collector.

7.11.13.1. A minimum of 1.5-foot-wide operational offset shall be provided between the face of the curb and the edge of potential obstructions such as trees and poles. This allows for the unobstructed opening of car doors.

7.11.13.2. Parking shall be prohibited within 10 feet of either side of fire hydrants or as per fire code, whichever is more restrictive, at least 20 feet from nearside of mid-block crosswalks without curb extensions, and at least 20 feet from the curb return of intersections (30 feet from signalized intersections).

7.11.14. Roads and Driveways in Steep Terrain.

7.11.14.1. Where a road, highway or driveway are located on a natural slope of fifteen percent (15%) or greater, or where cut or fill slopes would exceed six (6) vertical feet, the developer shall propose alternative terrain management techniques to limit excessive grading and removal of vegetation. Such alternatives may include, but are not limited to, split road beds, steeper cuts and fills where soils are stable enough to sustain higher cut and fill ratios, terracing with reverse grades for revegetation with trees and shrubs, or rock plating or retaining walls.

7.11.14.2. Notwithstanding the provisions of Section 7.11.6.1, roads and highways located on a natural slope of fifteen percent or greater shall intersect at a minimum angle of sixty (60) degrees. Notwithstanding the provisions of Section 7.11.6.6, horizontal and vertical curvature shall not exceed ten (10) percent.

7.11.14.3. Temporary roads or driveways shall not be permitted.

7.11.14.4. Where a road, highway or driveway is located on a natural slope of fifteen percent (15%) or greater, the Administrator, with approval from the Fire Marshal and subject to the requirements of the Fire Code, may approve road and driveway grades of up to 15% where a lesser grade would require cut or fill slopes in excess of six (6) vertical feet.

7.11.15. Sidewalks.

7.11.15.1. Sidewalks are required where required by Tables 7-12 and 7-13, and as indicated in the Official Map.

7.11.15.2. The minimum sidewalk or walking path width shall be five feet.

7.11.15.3. Sidewalks or walking paths shall be constructed of four inch (4") thick concrete or other hard surface materials such as permeable materials, brick, asphalt, or unit-pavers. -

7.11.16.4. Sidewalks or walking paths shall not be located on the roadway surface or in a storm drainage.

7.11.16. Bike Lanes. Bike lanes shall be required along all roadways as required by Tables 7-12 and 7-13, and as indicated on the Official Map. Bike lanes shall be designed as set forth Table 7-16.

Table 7-16: Bike Lane Design Criteria.

	On-road bike lanes
Overhead clearance (min. feet)	7.5
Right-of-way width (min.)	within road right-of-way
Lane width (minimum, feet)	5
Lane width with on-road parking, combined bike lane and parking stall (minimum, feet)	14

7.11.17. Maintenance and Dedication of Subdivision Roads.

7.11.17.1. Any road not accepted for maintenance by the County shall be maintained by the developer or a homeowners' association (HOA) in accordance with Section 7.23.

7.11.17.2. The County will not accept a road for maintenance via dedication unless the requirements of Section 7.23 are met.