371403
Page 1 of 111
State of Colorado
Carla Gomez, Saguache County Recorder
04-03-2012 02:51 PM Recording Fee $561.00

SAGUACHE COUNTY, COLORADO
RESOLUTION NO. 2012-LU-6

A RESOLUTION GRANTING A PERMIT TO CONDUCT AN ACTIVITY OF STATE INTEREST IN AN AREA OF STATE INTEREST ("1041 PERMIT"), WITH CONDITIONS, FOR SAGUACHE SOLAR ENERGY LLC.

WHEREAS, the Board of County Commissioners of Saguache County, Colorado, pursuant to C.R.S. §24-65.1-101 et seq., has determined large scale solar projects to be a matter of state interest ; and

WHEREAS, the Board of County Commissioners has adopted guidelines for the administration and regulation of these designated matters of state interest, known as Guidelines and Regulations for Areas and Activities of State Interest ("County 1041 Regulations"); and

WHEREAS, the Board of County Commissioners determined that applications for large scale solar developments will be processed and considered under the County's 1041 Regulations to permit maximum regulation of such projects and to minimize the impact of such projects on the citizens of Saguache County; and

WHEREAS, Saguache Solar Energy LLC has applied for a 1041 Permit for a solar energy facility; and

WHEREAS, the application for the Project ("Application") was deemed complete on December 6, 2011, and amended with additional submittals throughout the course of the permit review; and

WHEREAS, the Permit Authority solicited and received comments from the public and federal, state and local agencies regarding the application; and

WHEREAS, the Permit Authority held a public hearing on February 2, 2012 in Center, Colorado to consider the application, at which time the Permit Authority considered testimony and received evidence; and

WHEREAS, the Permit Authority closed public testimony on February 2, 2012 and began deliberations; and

WHEREAS, the Permit Authority concluded deliberations on March 26, 2012, voted two ayes to 1 nay, to approve the 1041 Permit subject to conditions and terms of the development agreement, and directed staff to prepare a resolution outlining the Permit Authority's findings and conditions; and

WHEREAS, all applicable notice and public hearing requirements have been satisfied.

NOW, THEREFORE, BE IT RESOLVED BY THE PERMIT AUTHORITY:

Section 1. Definitions. The following words and terms shall be defined as follows:

1.1 "Application" means the application for the Project.

1.2 "County staff" means the County land use department and consultants.

1.3 "Development Agreement" means the agreement entered into between the Permittee and Permit Authority which sets forth certain obligations of both parties as related to the Project.

1.4 "Effective Date" means thirty (30) days from the date of adoption of this Resolution by the Permit Authority or after any appeal of the Permit Authority's decision has been finally resolved in the appropriate court of law, whichever is later.

1.5 "Expansion" the use of the term expansion does not imply or confer any additional rights to the Permittee other than those specifically set forth in this Resolution, the Permit and the Development Agreement.

1.6 "Operation of the Project" means operation of the solar generation project.

1.7 "Permit Authority" means the Saguache County Board of County Commissioners.

1.8 "Permittee" means Saguache Solar Energy LLC.

1.9 "Project" means the Saguache Solar Energy LLC electric generating facility using concentrating solar thermal technology.

1.10 "Resolution" means Saguache County, Colorado Resolution No. 2012-LU-6, A Resolution Granting a Permit to Conduct and Activity of State Interest in an Area of State Interest ("1041"), with Conditions and subject to the terms of the Development Agreement, for Saguache Solar Energy, LLC.

Section 2. Findings. The Permit Authority finds as follows:

2.1 The Permittee, subject to the Conditions and terms of the Development Agreement, including all mitigation measures proposed by the Permittee, complies with all the applicable criteria set forth in the County 1041 Regulations. Specifically:

1. **With approval of the Development Agreement and all conditions, the health, welfare and safety of the citizens of this County will be protected and served;**
2. **With approval of the Development Agreement and all conditions, the natural and socioeconomic environment of this County will be protected and enhanced.**

3. All reasonable alternatives to the proposed action, including use of rights-of-way wherever uses are compatible, have been adequately assessed and the proposed action represents the best interests of the people of this County and represents the best interests of the people of this county's resources in the impact area.
4. The nature and location of the facility complies with all applicable provisions of the master plan of this County, and other applicable regional, metropolitan, state, and national plans.
5. The nature and location or expansion of the facility complements the existing and foreseeable needs of the service area and of the area immediately affected by the facility.
6. With approval of the Development Agreement and all conditions, the nature and location or expansion of the facility does not unduly or unreasonably impact existing community services.
7. With approval of the Development Agreement and all conditions, the nature and location or expansion of the facility will not create an expansion of the demand for government services beyond the reasonable capacity of the community or region to provide such services, as determined by the Permit Authority.
8. The facility site or expansion area is not in an area with general meteorological and climatological conditions which would unreasonably interfere with or obstruct normal operations and maintenance. The project will be designed to address all existing and reasonably foreseeable meteorological and climatological conditions.
9. The nature and location of the facility or expansion will not adversely affect the water rights of any upstream, downstream, or adjacent communities or other water users;
10. With approval of the Development Agreement and all conditions, adequate water supplies are available for facility needs.
11. With approval of the Development Agreement and all conditions, the nature and location of the facility or expansion will not unduly interfere with any existing easements for or rights-of-way, for other utilities, canals, mineral claims, or roads.
12. The applicant is able to obtain needed easements for drainage, disposal, utilities, access, etc.
13. Adequate electric, gas, telephone, water, sewage, and other utilities exist or shall be developed to service the site.
14. The nature and location for expansion of the facility will not interfere with any unique natural resource, endangered wildlife species or historic landmark within the impact area. Significant wildlife impact will be mitigated with approval of the Development Agreement and all conditions.
15. The nature and location or expansion of the facility, including expected growth and development related to the operation and provision of service, will not significantly deteriorate air quality in the impact area.
16. With approval of the Development Agreement and all conditions, the geological and topographic features of the site are adequate for all construction, clearing, grading, drainage, vegetation, and other needs of the facility construction or expansion.
17. With approval of the Development Agreement and all conditions, the existing water quality of affected state waters will not be degraded below state and federal standards or established baseline levels.
18. The benefits of the proposed development outweigh the losses of any productivity of agricultural lands as a result of the proposed development.

2.2 All applicable notice and hearing requirements have been satisfied.

Section 3. **1041 Permit.** **This Resolution, the attached permit, and the Development Agreement shall constitute the 1041 Permit ("Permit") for the Project.**

Section 4. **Permit Approval and Conditions. The Permit Authority hereby approves the Permit with the following conditions and terms of the Development Agreement:**

1. **Concurrent with approval of this application, a development agreement between the applicant and the County, which describes and delineates additional requirements and obligations of the Applicant and the County, is required.**

2. **All commitments in the application dated October 28, 2011, together with the those made in the supplemental information submitted by the applicant dated November 22, 2011, the second supplemental submission dated January 14, 2012, and the third supplemental submission dated February 10, 2012, are hereby considered conditions of approval, unless otherwise specifically modified in these conditions or the development agreement.**

3. **The applicant shall comply with all applicable Federal and State regulations and requirements, and shall provide timely evidence to the County documenting such compliance, including but not limited to the following:**

    a. **FAA requirements**
    b. **The Avian and Bat Protection Plan as described in the 1041 Application**
    c. **CDOT requirements, including access permits to CO Hwy 17 and US 285 as applicable**
    d. **A water supply plan as described in the 1041 Application**
    e. **A State Stormwater Discharge Permit**
    f. **US Army Corps of Engineers requirements**
    g. **Water and wastewater treatment requirements or permits**
    h. **Hazardous Materials handling and disposal requirements**
    i. **Colorado Department of Public Health and Environment requirements as related to dust control and air quality, which may include an Air Pollution Emissions Notice**
    j. **FEMA reporting requirements**
    k. **State sound / noise regulations as described in Section 25-12-103 of the Colorado Revised Statutes**

4. **The applicant shall follow all applicable State and Federal regulations in the construction of the facility. No specific requirement imposed by the 1041 Permit shall cause the applicant to violate any requirement of State or Federal regulation. The applicant shall provide the County with the following documents prior to the commencement of related construction, which shall be prepared by an appropriate Licensed Professional Engineer certified in the State of Colorado:**

    a. **A Drainage Report (DR), which shall include the site, applicable portions of CR G, and the off-site route proposed for the waterline extension to the site. Drainage from the storage tank containment areas shall be addressed. Retention/detention requirements**

shall meet the standards set by the "Urban Drainage and Flood Control District Criteria Manual."

b. Designs for road improvements to County Road G as described in the 1041 Application, including a gravel and asphalt cross-section.
c. Documentation that the solar tower and all building foundation designs sufficiently address all relevant geologic / geotechnical hazards including earthquake and high wind conditions.
d. Water and wastewater treatment system designs.

5. Prior to start of construction, the following plans shall be submitted to the County:
   a. A weed control plan and a dust control plan utilizing Best Management Practices (BMPs), consistent with the 1041 Application, which shall also include provisions for adopting alternate BMPs at a later date if they are superior, commercially reasonable, and consistent with standard practices employed in comparable circumstances in the San Luis Valley. These plans must reasonably consider recommendations made by the local chapter of the NRCS and by the Center Conservation District.
   b. A Construction Health and Safety Program prepared by qualified professionals.

6. During construction, compliance reports addressing all conditions of approval shall be submitted on a monthly basis.
   a. The Applicant shall include construction workforce statistics describing the hiring of local people.

7. Prior to start of construction, the Applicant shall submit an Emergency Response Plan as described in the 1041 Application, which shall be produced in consultation with Center Fire Protection District, SLV Hazmat, Northern Saguache Fire District, Northern Saguache Ambulance District, Crestone Volunteer Fire Fighters, Alamosa Fire/Ambulance District, and Rio Grande County Fire/Ambulance District, but only if those entities choose to participate. The Applicant shall, at the Applicant's expense, provide appropriate training for the above emergency responders to respond to reasonably foreseeable emergency service requirements. Furthermore, the Applicant shall either annex into the Center Fire District or enter into an agreement for service with the district that addresses training needs and fees in lieu of taxes.

8. All on-site lighting (except FAA requirements and as reasonably required for maintenance and safety) shall be dark sky compatible, as defined in the Saguache County Draft Solar Facilities Guidelines section 8.3.3.9, and in the Saguache County Land Use Code section IV.4.2.8. Areas not occupied on a regular basis shall be provided with switches or motion detectors to light those areas only when occupied. Non-glare fixtures shall be used, exterior lights shall be shielded, and lights shall be directed onsite and downward.

9. The Applicant shall provide emergency access to the facility at a point along its southern boundary by constructing a locked gate in the fence and an adequate entry and surface for use by emergency vehicles, but shall not be responsible for constructing additional paved roadways

for emergency vehicles. Access to this locked emergency entrance shall be provided to any applicable emergency service providers identified by the County.

10. The Applicant shall make a reasonable effort to inform the County in a timely manner of any significant impending change that may cause a cessation of the facility's operations for 12 months or longer.

4.1 SCOPE OF PERMIT

a. This Permit is limited to the Project as described in the permit application by Permittee, as amended during the public hearing process orally or in writing, and as approved hereunder. Permittee shall notify the County of any proposed changes to the Project as set forth in the terms of the development agreement.

b. If any court of law sets aside or invalidates any condition in the Permit, the project shall cease immediately unless and until a Permit Amendment has been granted by the Permit Authority.

c. If the County determines that any material representation made by Permittee in the permit application or during the public hearing process is false or deliberately misleading, the County may pursue an enforcement action for violation of this Permit.

5.0 DISPUTE RESOLUTION

If a dispute arises pertaining to matters covered by this Permit, other than an alleged violation of this Permit, the Permittee and the County Attorney shall first meet to attempt to resolve the dispute. If the dispute cannot be satisfactorily resolved, the matter shall be submitted to the District Court for Saguache County for resolution.

6.0 PERMIT VIOLATION

Failure to comply with any portion of the Permit is a violation of the County 1041 Regulations and is subject to the enforcement provisions therein and/or any other relief that may be provided in these conditions.

7.0 IMPLEMENTATION OF RESOLUTION

This Resolution shall be in full force and effect immediately upon its approval.

ADOPTED AND APPROVED this 3rd day of April, 2012.

BOARD OF COUNTY COMMISSIONERS

Chairman

STATE OF COLORADO)
)ss.
COUNTY OF SAGUACHE)

ATTEST:

The above is a true and correct record of Resolution 2012-LU-6 duly adopted by the Board of County Commissioners of Saguache County at a regular meeting, properly noticed and held on April 3, 2012.

Saguache County Clerk

PERMIT ISSUED TO CONDUCT DESIGNATED ACTIVITY OF STATE INTEREST
OR
TO ENGAGE IN DEVELOPMENT IN A DESIGNATED AREA OF STATE INTEREST
IN
COUNTY OF SAGUACHE, COLORADO

Pursuant to Administrative and Permit Regulations heretofore adopted by the Board of County Commissioners of the County of Saguache, the County has received an application from Saguache Solar Energy LLC, (hereinafter called "Applicant") for a permit involving the following matter(s) of state interest: Construction and operation of an electric generating facility using concentrating solar thermal technology and has approved that application.

This permit authorizes the Applicant:

1. To: (a). Construct the facility for the project, including two towers, the heliostats and associated buildings and infra-structure, (b). operate the electric generating facility using concentrating solar thermal technology.
2. On the following-described tract of land: Attached hereto as **Exhibit 1**
3. The permit is valid indefinitely for the life of the Saguache Solar Energy Project, provided applicant is in compliance with this permit.
4. In accordance with the plans and/or specifications approved by the Permit Authority on March 26, 2012,including all conditions and the terms of the development agreement, as well as the guidelines for administration adopted by the County for 1041 regulations
5. On the condition that the Applicant proceeds in conformity with all applicable federal and state statutes and regulations as well as all applicable local land use controls including, but not limited to, master plans, subdivision regulations, zoning ordinance and building code.
6. Applicant shall provide the financial security as set forth in the Development Agreement.
7. This permit may be transferred only under the terms and conditions set forth in the Development Agreement.

This permit shall not be effective until:

30 days from the date of adoption of this Resolution by the Permit Authority or after any appeal of the Permit Authority's decision has been finally resolved in the appropriate court of law, whichever is later.

Date: April 3, 2012

Chairman
Board of County Commissioners
Saguache County

Exhibit A: Legal Description

PURSUANT TO REAL ESTATE PURCHASE OPTION AGREEMENT
PROPERTY OF WIJAYA COLORADO, LLC

ALL IN TOWNSHIP 41 NORTH, RANGE 9 EAST, N.M.P.M. COUNTY OF SAGUACHE, STATE OF COLORADO

NW-1/4 and SW-1/4 of Section 16 (~320 acres)

PURSUANT TO REAL ESTATE PURCHASE OPTION AGREEMENT
PROPERTY OF SKYLINE LAND COMPANY, LLC

ALL IN TOWNSHIP 41 NORTH, RANGE 9 EAST, N.M.P.M. COUNTY OF SAGUACHE, STATE OF COLORADO

Section 3: All (~640 acres)

Section 10: N-1/2 (~320 acres)

Section 17: All (~640 acres)

PURSUANT TO REAL ESTATE PURCHASE OPTION AGREEMENT
PROPERTY OF SAM INVESTMENTS, INC.,
ERNEST MYERS AND VIRGINIA MYERS

Ernest M. Myers and Virginia K. Myers

ALL IN TOWNSHIP 41 NORTH, RANGE 9 EAST, N.M.P.M. COUNTY OF SAGUACHE, STATE OF COLORADO

E-1/2 of SE-1/4 of Section 7 (~80 acres)

SW-1/4, S-1/2 of NW-1/4, and S-1/2 of NE-1/4 of Section 8 (~320 acres)

SAM Investment, Inc.

ALL IN TOWNSHIP 41 NORTH, RANGE 9 EAST, N.M.P.M. COUNTY OF SAGUACHE, STATE OF COLORADO

SE-1/4 of Section 8 (~160 acres)

All of Section 4 (~640 acres)

All of Section 9 (~640 acres)

E-1/2 of NE-1/4, and NE-1/4 of SE-1/4 of Section 18 (~120 acres)

REAL ESTATE PURCHASE OPTION AGREEMENT
PROPERTY OF MOUNTAIN COAST ENTERPRISES, LLC

ALL IN TOWNSHIP 41 NORTH, RANGE 9 EAST, N.M.P.M. COUNTY OF SAGUACHE, STATE OF COLORADO

S-1/2 of Section 10 (~320 acres)

DEVELOPMENT AGREEMENT

BY AND BETWEEN

SAGUACHE COUNTY, COLORADO

AND

SAGUACHE SOLAR ENERGY, LLC

April 3, 2012

TABLE OF CONTENTS

Section 1. RECITAL OF PREMISES, PURPOSE AND INTENT 1

Section 2. DEFINITIONS 2

Section 3. GENERAL PURPOSE AND INTENT 5
3.1 County Intent. 5
3.2 Developer Intent 5
3.3 Incorporation of Recitals 5

Section 4. GENERAL PROVISIONS 5
4.1 Binding Agreement. 5
4.2 Conflicting Federal or State Rules. 5
4.3 Change in Law. 6
4.4 Cooperation in Performance. 6
4.5 Assignment. 6
4.6 Amendment of Agreement. 6
4.7 Binding Effect of Agreement. 7
4.8 Relationship of Parties. 7
4.9 No Obligation to Construct. 7
4.10 Entire Agreement. 7
4.11 Waivers. 7
4.12 Headings; Exhibits; Cross References. 7
4.13 Notices. 8
4.14 Applicable Laws. 8

Section 5. PLANNING, DEVELOPMENT AND MAINTENANCE OF THE PROJECT 8
5.1 Processing of Applications for Administrative Permits 8
5.2 Construction Permit or Permits. 8
5.3 County Road Access Permit. 10
5.4 Access to County Rights-of-Way. 10
5.5 County Right-of-Way Vacations. 11
5.6 County Road Overweight Vehicle Permits. 11
5.7 County Conditional Use Approval 11
5.8 Applicability of Other Permits. 12
5.9 Revisions/Amendments to Approved Permit 12
5.10 County Expenses. 13

Section 6. REVIEW 13
6.1 Frequency of Reviews; Annual Review. 13
6.2 Opportunity to be Heard. 14
6.3 Unavoidable Delay, Extension of Time. 14

Section 7. DEFAULT 14
7.1 General Provisions-Default. 14

Section 8. INFRASTRUCTURE OBLIGATIONS AND LAND USE MITIGATION MEASURES 15
8.1 Generally. 15
8.2 Water. 16
8.3 Sanitary Sewer. 16
8.4 Transportation. 16
8.5 Assurance for Completion of Road Improvements. 17
8.6 Decommissioning/Reclamation. 17
8.7 Ecotourism Contribution Requirement. 18
8.8 Limitation on Developer's Obligations. 19

Section 9. EMPLOYMENT 19
9.1 San Luis Valley Workforce and Job Training Requirement. 19

Section 10. NOTICES/RECORDATION 20
10.1 Notice. 20
10.2 Recording. 21

Section 11. SEVERABILITY OF TERMS 21

Section 12. DURATION OF AGREEMENT 21

Section 13. COUNTERPARTS 21

AGREEMENT

THIS DEVELOPMENT AGREEMENT is made and entered into this 3rd day of April, 2012 by and between the County of Saguache, State of Colorado (hereinafter the "County"), a governmental agency, and Saguache Solar Energy, LLC, a Delaware limited liability company (hereinafter "Developer"), as the Developer of the Saguache Solar Energy Project (the "Project").

SECTION 1. RECITAL OF PREMISES, PURPOSE AND INTENT

A. As directed by County, Developer has submitted its 1041 Application (as hereinafter defined) to County for the issuance of a 1041 Permit (as hereinafter defined) authorizing construction of the Project (as hereinafter defined) in accordance with Chapter 13 of County's Guidelines and Regulations for Areas and Activities of State Interest of the County of Saguache, State of Colorado, dated September 28, 1990.

B. Developer or its Affiliate has an option on certain real property located in Saguache County, Colorado, a portion of which Developer intends to use to develop a solar energy project which is more particularly described and shown in the 1041 Application and incorporated herein by reference.

C. Developer acknowledges that the proposed solar energy project is subject to County regulation and permit requirements.

D. All preliminary processing with regard to the 1041 Permit and this Agreement has been duly completed by County in conformance with all applicable laws, rules and regulations. The Saguache County Board of County Commissioners, having given notice as required by applicable law, held a public hearing on February 2, 2012. Following the Public Hearing and consideration of comments from the public, from federal, state and local agencies, and County staff comments and recommendations, the BOCC found that this Agreement and the 1041 Permit, including all conditions of approval are consistent with County's plans, policies and regulations, including the Saguache County Master Plan, that the requirements for approval of the 1041 Application as set forth in Section 13-306 of the 1041 Regulations have been met by Developer, and that the execution of this Agreement on behalf of County is in the public interest and is lawful in all respects.

E. County desires to enter into this Agreement to ensure that the land use impacts on public services in connection with the Project are mitigated, as limited to and further defined by the Agreement, to further the goals and values of the 1041 Regulations and the Saguache County Master Plan, to promote the health, safety and general welfare of County and its inhabitants, to minimize uncertainty in planning for and securing orderly development of the Project Site and surrounding areas, and to insure attainment of the maximum efficient utilization of resources within County in a way that provides the highest economic benefit and least fiscal cost to its citizens. County has determined that the terms of this Agreement will provide for the orderly development of the Project, maximize the benefits that County and its residents will realize from the Project, and reasonably minimize any impacts that the Project will have on the residents and citizens of Saguache County.

F. Developer and County both recognize that additional permits and approvals will be required from County and from state and federal authorities before construction of the Project can commence. Developer and County both wish to identify, to the extent legally possible, what additional permits and approvals will be required to be issued by County before construction of the Project can commence, and to minimize or eliminate any future uncertainty regarding the Project and Developer's ability to proceed with construction and operation of the Project in accordance with the terms and conditions of the 1041 Permit.

G. County finds and determines, and Developer agrees, that the conditions and terms established in this Agreement are unique to the proposed development and were negotiated at the request of Developer and at arm's length between County and Developer, and that the conditions and terms of this Agreement have no binding or precedential effect with regard to future development agreements in the County, and except as specifically set forth in this Agreement with regard to the Project and the Project Site cannot be relied upon by the parties to this Agreement, or future applicants for rezoning, subdivision plat, or other land use approvals in other development agreements.

NOW THEREFORE, for and in consideration of the foregoing recitals and of the mutual covenants and promises set forth herein, the sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

SECTION 2. DEFINITIONS

For all purposes of this Agreement, except as otherwise expressly provided or unless the context otherwise requires, the following terms shall have the following meanings:

"1041 Application" shall mean the final application for a 1041 Permit first submitted to County by Developer on October 28, 2011, together with the supplemental information submitted by Developer dated November 22, 2011, the second supplemental submission dated January 14, 2012, and the third supplemental submission dated February 10, 2012.

"1041 Permit" shall mean a permit issued by County authorizing construction of the Project in accordance with the 1041 Regulations, together with any conditions imposed by the County at the time of permit approval.

"1041 Regulations" shall mean the Guidelines and Regulations for Areas and Activities of State Interest of the County of Saguache, State of Colorado, approved September 28, 1990.

"Administrative Permits" shall mean the permits and approvals for the Project that will be issued by County subsequent to County's approval of the 1041 Permit, as more particularly described in Section 5 of this Agreement.

"Affiliate" means an entity, partnership or corporation which Developer controls, or in which Developer has a controlling interest or which controls Developer.

"Agreement" means this Development Agreement, together with all addenda and exhibits incorporated by reference and all amendments which hereafter are duly entered into in accordance with the terms of this Agreement.

"Application" means any application submitted by Developer seeking the issuance or approval of an Administrative Permit or a Discretionary Approval in accordance with this Agreement, the Code, or the County Road Improvement Design Standards.

"BOCC" means the Saguache County Board of County Commissioners.

"CDOT" means the Colorado Department of Transportation.

"Code" means the Saguache County Land Development Code adopted on April 4, 1988, as amended from time to time.

"Conditional Use Permit" has the meaning assigned to it in Section 5.1 of this Agreement.

"Construction Permit" has the meaning assigned to it in Section 5.1 of this Agreement.

"County" means the County of Saguache, State of Colorado, together with its successors and assigns.

"County Regulations" mean any and all rules, regulations, policies, standards, procedures, criteria, manuals and other references of County which are applicable to the design, construction, operation and maintenance of the Project and the activities of Developer pursuant to the 1041 Permit as they exist as of the Effective Date, including, but not limited to, the Code and the 1041 Regulations.

"County Road Access Permits" has the meaning assigned to it in Section 5.1 of this Agreement.

"County Road Overweight Vehicle Permits" has the meaning assigned to it in Section 5.1 of this Agreement.

"County Road Improvement Design Standards" means those standards for the design of roads, drainage, and other public infrastructure to be constructed by Developer in accordance with this Agreement and which are more particularly described on the attached Exhibit B.

"Decommissioning Plan" has the meaning assigned to it in Section 8.6 of this Agreement.

"Decommissioning Security" has the meaning assigned to it in Section 8.6 of this Agreement.

"Developer" means Saguache Solar Energy, LLC, as the Developer of the Project and Developer's successors and assigns, if any, as permitted under the terms of Section 4.4 of this Agreement.

"Discretionary Approval" means any County approval pertaining to the Project that is or may be required subsequent to the date of this Agreement that involves the exercise of factual or legal judgment by County.

"Effective Date" means the effective date of a resolution or resolutions adopted by the BOCC that approves the 1041 Permit and this Agreement in accordance with the 1041 Application and the County Regulations.

"Emergency Response Plan" has the meaning assigned to it in Section 5.3 of this Agreement.

"Land Use Department" means the Saguache County Land Use Department.

"Land Use Director" means the Director of the Land Use Department, or the Director's designee(s).

"Master Plan" means the Saguache County Master Plan adopted June 24, 2010, as amended from time to time.

"Project" means the Saguache Solar Energy Project, as further described in the 1041 Application.

"Project Configuration Envelope" has the meaning assigned to it in Section 5.9 of this Agreement.

"Project Description" means the detailed description of the facilities and improvements that will comprise the Project, as further described in the 1041 Application.

"Project Site" means that certain real property on which the Project will be located, as further described in the 1041 Application and as generally described on the attached Exhibit A.

"Road Improvements" shall mean the improvements to County Road G, State Highway 17 and Highway 285 identified in the Traffic Study or as required by CDOT, as more particularly described in Section 8.4 of this Agreement.

"Road Supervisor" means the Supervisor of County's Road and Bridge Department.

"Start of Construction" means the initiation of site grading, clearing, grubbing and/or excavation, foundation work or the hauling on site of heavy equipment and materials necessary for construction. Start of Construction specifically excludes limited preparation work such as surveying, soil testing, water testing and other on-site environmental studies or similar work.

"Site Plan" means the conceptual site plan for the Project included in the 1041 Application.

"Traffic Study" means the Saguache County Energy Project Traffic Impact Study dated May 2011, including all figures, attachments and exhibits, prepared by Felsburg, Holt & Ullevig, FHU Reference No. 11-022-010, finally approved by County and attached to the 1041 Application.

"Uniform" means applicable throughout the County.

"VIC" or "Visitor Information Center" has the meaning assigned to it in Section 8.7 of this Agreement.

SECTION 3. GENERAL PURPOSE AND INTENT

This Agreement is predicated upon the following facts and findings:

3.1 County Intent.

County desires to enter into this Agreement as permitted by law in furtherance of the considerations set forth in Recital E to this Agreement.

3.2 Developer Intent.

Developer desires to enter into this Agreement to obtain assurances that Developer may construct and operate the Project as described in this Agreement and in the 1041 Permit, and to identify any and all further Administrative Permits and Discretionary Approvals that will be required from County in order to commence construction of the Project and thereafter commence operations upon completion of construction. Developer is additionally willing to enter into this Agreement in order to identify those certain public services, facilities and infrastructure to be provided by Developer in connection with the development of the Project and to clarify the applicability of certain provisions of the Code to the Project. The Developer's decision to undertake additional expenses to design, engineer, and commence development of the Project is based on the commitment that Developer will have the right to proceed with the Project in accordance with the 1041 Permit as approved by County and this Agreement.

3.3 Incorporation of Recitals.

The foregoing recitals shall be deemed true and correct in all respects with respect to this Agreement and shall serve as the basis for the interpretation of this Agreement.

SECTION 4. GENERAL PROVISIONS

4.1 Binding Agreement.

This Agreement shall be valid and binding on Developer and County as of the Effective Date, and on and after the Effective Date shall be binding on and inure to the benefit of the parties hereto and their successors and assigns, including any future and subsequent owners of the Project Site. In the event that County fails to adopt a resolution approving the 1041 Permit, this Agreement shall be void and of no force and effect.

4.2 Conflicting Federal or State Rules.

In the event that any conflicting federal or state laws or regulations, enacted after the Effective Date, prevent or preclude compliance with one or more provisions of this Agreement or require changes in plans, maps or permits approved by County, this Agreement shall remain in full force and effect as to those provisions not affected.

4.3 Change in Law.

This Agreement and the 1041 Permit will be subject to new or changed county ordinances, regulations, plans, or policies, as specifically mandated and required by changes in State or Federal laws or regulations.

4.4 Cooperation in Performance.

The parties hereto agree to cooperate with each other in good faith and to take such additional actions, including the execution and delivery of documents and instruments or the issuance of Discretionary Approvals, as may be necessary or appropriate to fully effectuate and carry out the terms, provisions, purposes and intent of this Agreement. Without limiting the foregoing, County agrees that it will not object to any applicable federal and state approvals required for the Project without first notifying and consulting with Developer concerning its objection, and that no such objection shall be in contradiction of any prior Discretionary Approvals given by County to Developer, including without limitation the 1041 Permit. Any Discretionary Approval required from County for development of the Project shall not be unreasonably withheld from the Developer. No Discretionary Approval that would be consistent with or entailed by the 1041 Permit as approved by the County will be unreasonably withheld from Developer at any time as long as the Developer is in compliance with all requirements of the 1041 Permit and this Agreement. To the extent required by applicable law, County will approve or sign off on all federal or state permits required to construct or operate the Project, to the extent the issuance of such permits is consistent with the 1041 Permit and this Agreement.

4.5 Assignment.

(a) Following the Effective Date, this Agreement shall run with the Project Site and benefit the Project Site, and any successors in interest to Developer's interest in the Project Site shall be bound by and receive the benefits of this Agreement. Developer shall provide County with written notice of any transfer or assignment of Developer's rights or obligations under this Agreement. Following the delivery of such notice Developer shall be released from any further obligations under this Agreement, provided, however, (1) Developer is current in all financial obligations to the County; (2) that County reasonably determines that the proposed assignee is financially capable of performing the obligations of Developer under this Agreement and (3) that at the time of the assignment, the assignee of Developer's rights and obligations under this Agreement shall not be subject to any active enforcement proceedings that would actually impair its ability to comply with the requirements of the 1041 Permit and this Agreement.

(b) The provisions of paragraph (a) notwithstanding, Developer shall have full discretion to assign, transfer or encumber this Agreement and the rights and obligations of Developer under this Agreement to an Affiliate, and in connection with financing transactions related to the Project, without permission from or notice to County.

4.6 Amendment of Agreement.

This Agreement may only be amended or modified upon the mutual written consent of the parties hereto. Any such amendment to this agreement shall be in writing.

4.7 Binding Effect of Agreement.

The burdens and benefits of this Agreement shall run with the Project Site and shall inure to the parties' respective successors in interest and the Project Site.

4.8 Relationship of Parties.

It is understood that the contractual relationship between County and Developer is such that Developer is not an agent of County for any purpose, and County is not an agent of Developer for any purpose.

4.9 No Obligation to Construct.

County acknowledges that Developer shall have no obligation to construct the Project and shall have no liability to County under this Agreement or to any other party in the event Developer fails to develop the Project. Further, County acknowledges that the project may be developed in phases to account for market conditions, and nothing in this Agreement shall obligate Developer to construct the entire Project as set forth in the 1041 Application. The foregoing notwithstanding, if Developer commences all or any phase of the Project, Developer shall be required to construct the Road Improvements and other public improvements required to serve the Project in accordance with this Agreement.

4.10 Entire Agreement.

This Agreement, together with the 1041 Permit, the 1041 Application and any conditions of approval imposed thereon by the County, constitutes the entire understanding and agreement of the parties. This Agreement integrates all of the terms and conditions mentioned herein or incidental hereto and supersedes all negotiations or previous agreements between the parties with respect to all or any part of the subject matter hereof. In the event of a conflict between any of the developer commitments made in this Agreement, the 1041 Permit, and the 1041 Application, the terms of this Agreement shall control.

4.11 Waivers.

All waivers of the provisions of this Agreement must be in writing and signed by the appropriate officers of County and/or Developer, as the case may be.

4.12 Headings; Exhibits; Cross References.

The recitals, headings and captions used in this Agreement are for convenience and ease of reference only and shall not be used to construe, interpret, expand or limit the terms of this Agreement. All exhibits attached to this Agreement are incorporated herein by the references contained herein. Any term used in an exhibit hereto shall have the same meaning as in this Agreement unless otherwise defined in such exhibit. All references in this Agreement to sections and exhibits shall be to sections and exhibits to this Agreement, unless otherwise specified.

4.13 Notices.

All notices required by this Agreement shall be sent in accordance with Section 10.

4.14 Applicable Laws.

This Agreement shall be construed and enforced in accordance with the laws of the State of Colorado.

SECTION 5. PLANNING, DEVELOPMENT AND MAINTENANCE OF THE PROJECT

5.1 Processing of Applications for Administrative Permits.

County and Developer acknowledge that prior to commencement of construction on the Project, no more than five additional Administrative Permits and/or Discretionary Approvals will be required from County to construct the Project, which are: (i) a Construction Permit or Permits to be issued by County in accordance with Article XIII of the Code ("Construction Permit"); (ii) County Road Access Permits providing access to the Project Site from adjacent County roads to be issued in accordance with County Regulations ("County Road Access Permits"); (iii) access to County roads and rights-of-way for the purpose of installing a pipeline or pipelines for the delivery of water to the Project Site, and for the construction of Road Improvements as more particularly described in Sections 8.2 and 8.4 of this Agreement; (iv) vacation of County rights-of-way within the Project Site; and (v) County Road Overweight Vehicle Permits to be issued in accordance with County Regulations, if necessary ("County Road Overweight Vehicle Permits"). County represents that to the best of its knowledge and belief, and warrants to Developer that no other Administrative Permits or Discretionary Approvals will be required from County for the Developer to commence construction of the Project and thereafter complete and operate the Project. County acknowledges the Developer's desire to have timely review of any and all Applications for the Administrative Permits and Discretionary Approvals, and County shall expeditiously process and issue any such Applications, as applicable. County shall not require a public hearing for any Administrative Permit or Discretionary Approval contemplated herein except as may be specifically required by the Code. The processing of specific Administrative Permits and Discretionary Approvals is described below. To the extent that any of the provisions of this Section 5 conflict with the provisions of the Code or the County Regulations, this Section 5 shall control.

5.2 Construction Permit or Permits.

Prior to commencing construction of the Project, Developer shall obtain a Construction Permit or Permits from County in accordance with Article XIII of the Code. County acknowledges that the Project may be built in one or more phases, and as a result more than one Construction Permit may be requested. The following provisions shall apply to the issuance of all Construction Permits for the Project:

(a) County and Developer both acknowledge and agree that the County fee schedule as set forth in the Code is not intended to apply to a project of this nature and size. As a result, County agrees that in lieu of the methodology set forth in the fee schedule, Developer

shall pay a one-time Construction Permit fee in the amount of $50,000 at the time the first Construction Permit is issued for the Project. The one-time Construction Permit fee shall be in lieu of and in full satisfaction of any and all fees charged by County for the issuance of any Construction Permits required by County including, but not limited to, any application fees, permit fees, review fees, or any other fees, charges or costs charged or assessed by County with respect to the review, approval or issuance of any Construction Permits for the Project. Prior to issuance of the Construction Permit, the developer shall submit construction plans, prepared by a Colorado Licensed Engineer for County Road improvements, drainage plans, erosion control plans, dust mitigation and any other plans required for public improvements or required mitigations. Said plans shall be submitted to County for review by staff prior to issuance of the construction permit provided, however, that Developer shall not be required to submit any confidential or proprietary information with any such submittal. If County determines that it must review any of Developer's confidential or proprietary information in connection with County's plan review, copies of such information will only be available for review at the Project Site, and any County personnel or consultants reviewing such information shall be required to sign confidentiality agreements. During construction the County staff shall make periodic inspections of work performed. Upon completion, the applicants engineer shall submit a letter to County certifying all work has been completed in accordance with approved plans and specifications.

(b) Construction plans for internal improvements shall be prepared by a professional licensed in Colorado. The improvements shall be designed in accordance with the 2012 International Building Code or other applicable standards. The plans shall be designed to consider existing geologic and groundwater conditions, snow loads, wind loads, seismic conditions and all other appropriate local conditions. Upon completion, the applicants design professional shall submit a letter to County certifying all work has been completed in accordance with approved plans and specifications.

(c) County acknowledges that the requirements for submittal of a sketch plan as part of the application for a Construction Permit, as set forth in Section XII.4.1.7 of the Code, has been satisfied by Developer's submittal, and County's approval, of a Site Plan for the Project as set forth in the 1041 Application. Prior to commencement of construction, Developer shall provide County with a copy of its final detailed site plan for the Project which shall, at a minimum, identify the location of all buildings, improvements, access roads and entries to the Project.

(d) Due to the complex nature of the Project, County agrees that all Construction Permits issued for the Project shall have a four year life, such that any work authorized by such Construction Permit must be completed within four years from the date of issue, subject to Developer's right to request an extension in accordance with Section XII.4.1 of the Code.

(e) Developer shall construct the Project in conformance with current State electrical, plumbing, gas, and sewage regulations, as described in Section XIII.2 of the Code.

(f) County agrees that the materials submitted to and approved by County in the 1041 Application are sufficient to satisfy the requirements set forth in Sections XIII.4.1.2

through XIII.4.1.5 of the Code, as well as Sections XIII.4.1.7 through XIII.4.1.10 of the Code and that no additional submittals will be required as a condition to issuance of any Construction Permits for the Project as described herein.

5.3 County Road Access Permit.

Developer acknowledges that the Project shall require the construction of a new access or accesses onto Saguache County Road G and construction of the Road Improvements as further described in Section 8.4. Prior to the construction of such accesses and the Road Improvements, a County Road Access Permit in the form of Exhibit C shall be required. Developer shall follow the applicable County Road Improvement Design Standards set forth in Exhibit B and shall submit plans for the construction of any improvements within the right-of-way for County Road G to County for review in accordance with the requirements of Exhibit B. County agrees that its review of such plans shall be limited to a determination that any improvements that are located within the County right-of-way comply with the County Road Improvement Design Standards, and that Developer shall be entitled to proceed with the construction of any improvements that are consistent with the 1041 Permit. This limitation shall not exclude the requirement for appropriate fire and emergency access routes within the project. The appropriate fire and emergency access routes and design standards shall be as set forth in the Emergency Response Plan to be prepared by Developer in accordance with the conditions of approval to the 1041 Permit (the "Emergency Response Plan"). County acknowledges that the County road acceptance standards contained in Article III of the Code are intended to apply to the dedication and construction of new County roads and shall not be applicable to the Project.

County hereby agrees that the "Construction Season" limitations set forth in Section 18 of Exhibit C shall not apply to the Project.

For the purpose of calculating the County Road Access Permit fee, County further agrees to use the calculations set forth in the Traffic Study for the Project's operational conditions, which determined that the Project will generate approximately 250 vehicle trips per day once the Project is complete. County's methodology for calculating the County Road Access Permit fee as set forth in Exhibit C provides that a project generating 250 trips per day would be charged ((250 / 8) x $100) $3,125. The 1041 Application contemplates a single access point along County Road G. In recognition of these findings, together with consideration of the expected temporary construction workforce impact, County agrees that Five Thousand Dollars ($5,000) shall be the fee for the County Road Access Permit. County shall not require any further County Road Access Permit fees from Developer for the Project.

5.4 Access to County Rights-of-Way.

As described in the 1041 Application, Developer intends to construct a water pipeline within the County right-of-way for County Road 56. Developer shall submit an Application for an access permit in the form of Exhibit C for the water pipeline, and County's review of the Application shall be limited to a determination that installation of the water pipeline complies with the applicable provisions of the County Road Improvement Design Standards. Fees for the water pipeline access permit shall be calculated using the "Road Cut and Right of Way Permits" section found on page 7 of Exhibit C. Insofar as the proposed water line would transverse three

improved roadways and extend a distance of approximately two miles, Developer shall pay a permit fee of One Thousand Dollars ($1,000) at the time the Application is submitted. County shall not require any further fees or permits with respect to the water pipeline described in the 1041 Application.

5.5 County Right-of-Way Vacations.

As more particularly described in the 1041 Application, the Project Site contains several unimproved section line rights-of-way that have been reserved by County. County agrees that it shall vacate these rights-of-way on the Project Site (but not, for avoidance of doubt, adjacent to and/or along the Project Site boundary), and shall within ninety (90) days of the Effective Date or the completion of the surveys described in this section, whichever is later, adopt a resolution to vacate such rights-of-way in accordance with the terms and provisions of Colorado Revised Statutes § 43-2-303. Developer shall provide for and bear the costs of any survey required in connection with the vacation of such County rights-of-way. At such time as the Project's useful life has been exhausted and reclamation has occurred in accordance with the 1041 Permit and this Agreement, and upon the written request of County, Developer shall cooperate with County to re-establish such rights-of-way within the Project Site. County shall not require any further fees or permits with respect to these County right-of-way vacations. Developer's obligations under this section shall terminate if County has not submitted a written request for reconveyance of some or all of the vacated rights-of-way within 90 days after the completion of all reclamation activities.

5.6 County Road Overweight Vehicle Permits.

County agrees that Developer's commitments in Section 8.4 of this Agreement to utilize identified haul routes and to maintain and improve County Road G are in full satisfaction of and in lieu of the County's Overweight Vehicle Permit requirements. County shall not require any further fees or permits to allow vehicles related to the Project to utilize County Road G or any other County roads, as long as Developer has performed in accordance with Section 8.4 of this Agreement.

5.7 County Conditional Use Approval.

County and Developer acknowledge that the Project Site is located within that portion of the County which is zoned Agricultural District (A), and that Section IV.2.1.2 of the Code states that electric generation stations, and any vertical structure exceeding forty feet in height, must be approved as a conditional use. Section 1-106(4) of the 1041 Regulations further provide that the 1041 Regulations are to be applied in addition to, and not in lieu of, the Code. The Board of County Commissioners has made the determination that a Conditional Use Permit is not required for this Project, but the lack of clarity in the County Code makes the proper permitting process for the Project unclear. Due to the size of the Project and financing requirements, County has agreed that within 60 days of the Effective Date, County will adopt an amendment to the County Code stating that in the event a use within the Agricultural (A) zoning district is issued a 1041 permit, a Conditional Use Permit for such use shall not be required. In the event that County fails to adopt such an amendment, County shall thereafter promptly process a Conditional Use

Permit for the Project in accordance with the provisions of Section IV.7 of the Code, provided that the following conditions will pertain to such procedure:

(a) County shall accept Developer's 1041 Application in full satisfaction of the application requirements for a Conditional Use Permit as set forth in Section IV.7.2 of the Code. By its approval of the 1041 Application, and provided that Developer complies with the terms and conditions of the 1041 Permit, County agrees that it has determined that the Project complies with Section IV.8.4.2 of the Code, and with Section IV.5 of the Code relating to Industrial Development. County agrees that in light of the extensive public process that was provided prior to issuance of the 1041 Permit and consistent with the requirements of Section IV.8.3.4 of the Code, no public hearings will be required prior to issuance of the conditional use approval except as specifically required by the Code.

(b) In the event that County fails to amend its Code as set forth above and a Conditional Use Permit for the Project is required by this Section, County shall process Developer's request for a Conditional Use Permit as expeditiously as possible, and no further fees shall be due from Developer in connection with the application, review, or issuance of the Conditional Use Permit.

5.8 Applicability of Other Permits.

County hereby agrees that no other Administrative Permits or Discretionary Approvals will be required for the Project from County, except as set forth in this Agreement. County will not require any other permits or development approvals with respect to zoning, building codes, County's draft Solar Energy Facilities Guidelines, or any other standards, unless those standards are included in this Agreement or the 1041 Permit. This does not release Developer from Developer's obligations to comply with relevant state or federal requirements. The foregoing notwithstanding, this Agreement shall not preclude the application of County ordinances which are general in nature and are applicable to all property subject to land use regulation by the County, except to the extent specifically addressed by this Agreement, the 1041 Permit, or the 1041 Application.

5.9 Revisions/Amendments to Approved Permit.

In the event that Developer wishes to modify the configuration or operation of the Project in excess of the modifications described in the "Project Configuration Envelope" Section of the 1041 Application (the "Project Configuration Envelope"), an amendment to the 1041 Permit may be required if the level of impact will be increased as a result of the modification. A proposed modification which exceeds the Project Configuration Envelope will be granted administrative approval if it complies with the following standards:

(a) The Land Use Department may approve minor amendments to the permit. Authorized minor amendments include those that do not alter the basic intent and character of the approved permit, are consistent with the performance standards herein, are deemed necessary in light of technical and engineering considerations first discovered during actual construction, and could not have been reasonably anticipated during the initial review process.

(b) Modifications to the Project that are consistent with the Project Configuration Envelope shall not require an amendment of the 1041 Permit. Examples of such modifications that do not require an amendment to the 1041 Permit may include, but are not limited to, variations in the location of facility components which do not decrease the approved setback to property lines, any increase in proposed tower height of five percent (5%) or less, any decrease in proposed tower height, changes in the location of access roads which are wholly contained on site and consistent with the approved Emergency Response Plan, modifications to the visual mitigation plan that do not adversely impact adjoining property owners or the general public, combining facilities, changing the steam turbine generator capacity, the addition of symbiotic photovoltaic generation, equipment sizing, and mitigation measures as approved or required by the County or a state or federal agency.

(c) Minor amendments which the applicant determines in good faith are required in order for the Project construction to continue or for the Project to continue operating and which must be done immediately in order to maintain the existing level of construction or production, may be done on an emergency basis, without prior notice to or approval by the Land Use Department, provided that such modifications do not pose any significant risk to the public health, safety and welfare. The applicant may provide the Land Use Department with notification of emergency modifications by filing a written amendment to the application, specifying the modifications made, within five (5) working days of their completion.

5.10 County Expenses.

County acknowledges that the review fees set forth in this Section 5 are intended to cover County's expenses associated with County's review of the Administrative Permits and Discretionary Approvals. In the event that County determines, either in consultation with Developer or at the request of Developer, that the services of an outside consultant are necessary or desirable in connection with County's review of an Administrative Permit or a Discretionary Approval, County and Developer shall reasonably agree upon the scope of such services, including the cost thereof to be paid by Developer. All amounts payable by Developer pursuant to this Section 5.10 shall be deposited by Developer in escrow in accordance with the form of escrow agreement that is attached to this Agreement and incorporated herein as Exhibit D.

SECTION 6. REVIEW

6.1 Frequency of Reviews; Annual Review.

Pursuant to Section 2-404 of the 1041 Regulations, Developer is required to submit annual reports to County detailing any and all activities of Developer pursuant to the 1041 Permit including, but not limited to, a showing that Developer has complied with all conditions of the 1041 Permit. Developer shall not be required to submit an annual report to County until it commences construction on the Project or until February 1, 2013, whichever occurs first, and shall thereafter submit an annual report on the date which is one year after the date on which the prior year's annual report was submitted. The requirement to submit an annual report shall terminate at such time as all reclamation requirements set forth in Section 8.6 herein have been fulfilled under this Agreement. In the event that Developer fails to submit an annual report, Developer shall not be in default of this requirement until County shall provide Developer with a

written request for the annual report and Developer shall have a period of thirty (30) days subsequent to receipt of such notice to prepare and submit an annual report to County. At the time of the first annual report, the County will determine the appropriate time frame for subsequent reports, not to exceed one each year. This annual review does not in any way prevent County from investigating complaints filed relating to the operation of the Project. At a minimum, the report shall include a detailing of any and all activities conducted by the permittee pursuant to the permit including, but not limited to, a satisfactory showing that all conditions of the 1041 Permit and applicable regulations have been complied with. In addition, the report will include details of any and all actions taken to address any issues, changes in practice, or violations that have arisen regarding wildlife mitigation, air quality, dust abatement, weed control and visual mitigation. Without limitation, the report shall include the following: (i) information regarding compliance with the local employment and property value mitigation requirements of this Agreement; and (ii) results from Developer's groundwater monitoring program.

6.2 Opportunity to be Heard.

The report required by this Section shall be considered solely by the BOCC in accordance with Section 2-404(2) of the 1041 Regulations. County and Developer shall each be permitted an opportunity to be heard orally and in writing before the BOCC regarding performance of the parties under this Agreement.

6.3 Unavoidable Delay, Extension of Time.

Neither party hereunder shall be deemed to be in default, and performance shall be excused, where delays or defaults are caused by war, insurrection, strikes, walkouts, riots, floods, earthquakes, fires, casualties, acts of God, restrictions imposed or mandated by governmental entities, failure of governmental agencies (other than County) to perform acts or deeds necessary to the performance of this Agreement, enactment of conflicting state or federal laws or regulations, new or supplementary environmental regulations, litigation, or similar matters beyond the control of the parties ("Force Majeure"). Any party asserting a Force Majeure delay shall provide the other party with a written notice of the Force Majeure, which notice shall include a description of the facts and circumstances causing the Force Majeure. If written notice of a Force Majeure is given to County within sixty (60) days after the commencement of a Force Majeure, an automatic extension of time, unless otherwise objected to by County within thirty (30) days of such written notice, shall be granted coextensive with the period of the Force Majeure, or longer as may be required by circumstances or as may be subsequently agreed to between County and Developer. In addition, nonperformance of a party hereunder shall be excused if the failure of the other party to perform under this Agreement actually causes such nonperformance.

SECTION 7. DEFAULT

7.1 General Provisions-Default.

(a) In the event of any noncompliance with any provision of this Agreement, the party alleging such noncompliance shall deliver to the other party a notice of default which

shall be effective upon receipt as set forth in Section 10 of this Agreement. The notice of default shall specify the nature of the alleged default and the manner and period of time in which the default may be satisfactorily corrected, which, except in the case of an emergency, shall not be less than twenty (20) calendar days, and during which period the party alleged to be in default shall not be considered in default for the purposes of institution of legal proceedings. Such cure period shall not exceed ninety (90) days, provided however, if a longer cure period is required due to the nature of the default, the cure period shall be extended to such longer period of time as may be reasonably required to effectuate a cure, provided that the noncompliant party shall take steps to commence a cure within the ninety (90) day period. If the default is corrected within the cure period, then no default shall exist and the noticing party shall take no further action. If the default is not corrected within the applicable cure period, the party charging noncompliance shall have the right to take whatever actions, at law or equity, that it determines appropriate to enforce performance and observation of any obligation, agreement or covenant of the defaulting party. In any such action, the prevailing party shall be awarded its reasonable attorneys' fees and litigation costs from the other party. The provisions of this Section 7.1(a) shall not apply to any violation of the 1041 Permit, which shall be addressed in accordance with applicable provisions of the 1041 Regulations.

(b) Waiver. Failure or delay in giving notice of default shall not constitute a waiver of any default. Except as otherwise expressly provided in this Agreement, any failure or delay by any party in asserting any of its rights or remedies in respect of any default shall not operate as a waiver of any default or any such rights or remedies, or deprive such party of its right to institute and maintain any actions or proceedings that it may deem necessary to protect, assert, or enforce any of its rights or remedies.

SECTION 8. INFRASTRUCTURE OBLIGATIONS AND LAND USE MITIGATION MEASURES

8.1 Generally.

(a) In furtherance of the conditions and commitments set forth in the 1041 Permit and the 1041 Application, Developer shall provide the infrastructure and land use mitigation measures as described in this Section 8.

(b) County acknowledges that certain rights-of-way and easements outside the boundaries of the Project may be necessary for development and construction of the Project. County shall cooperate (including, if applicable, being the applicant for state and federal approvals) with Developer (at Developer's cost and expense) in obtaining such necessary rights-of-way and easements, so as not to delay development and construction of the Project. In the event the parties are unable to obtain the necessary right-of-way or easement in the time or manner consistent with the Developer's obligation to complete the improvement, County and Developer may agree to adjust the timeline, or the location or design of the improvement. In the alternative, to the extent otherwise consistent with the 1041 Application, the Developer may proceed with the development and use of an alternative right-of-way or easement approved by County.

(c) In consideration of the commitments made by Developer in the 1041 Application, and the substantial property tax revenue that will be generated by the Project once it becomes operational, County has determined that no impact fees will be assessed against the Project pursuant to Article XII of the Code. Provided that the Project complies with the terms and conditions of the 1041 Permit and this Agreement, no variances will be required in accordance with Article VIII of the Code prior to the commencement of construction of the Project.

8.2 Water.

The parties acknowledge that the Developer will develop a water supply that is adequate to serve the Project. County acknowledges that Developer's current water supply plans for the Project include the construction of an approximately 25 mile pipeline bringing a renewable surface water supply to the Project. Approximately 2 miles of this pipeline will be located within the County, the majority of which will be located on County road rights-of-way and installed in accordance with the County Road Improvement Design Standards. County agrees that no additional County approvals or permits will be required for Developer to construct the water pipeline, except for the issuance of a County right-of-way permit in accordance with Section 5.4 of this Agreement.

8.3 Sanitary Sewer.

As further described in the 1041 Application, Developer shall provide sanitary sewer system facilities as needed to provide service to the Project. Developer shall be solely responsible for compliance with all state, federal and local laws and regulations with regard to the provision of sanitary sewer facilities and County shall have no obligations, financial or otherwise, associated with the construction or maintenance of sanitary sewer facilities or the acquisition of rights-of-way, permits, easements, or other interests not owned by Developer necessary to construct any sanitary sewer required to serve the Project.

8.4 Transportation.

(a) Haul Routes. Developer will take commercially reasonable steps to ensure that all heavy construction vehicles accessing the Project by or on behalf of Developer shall only use the following roads for access to the Project site:

(1) County Road G;

(2) State Highway 17; and

(3) Highway 285.

(b) Road Improvements. Developer shall cause the Road Improvements to be constructed in accordance with: (i) plans and specifications that have been prepared in accordance with the County Road Improvement Design Standards; and (ii) plans that have been reviewed by County at the time of issuance of a County Road Access Permit in accordance with Section 5.3. Upon confirmation by County that the Road Improvements have been completed by Developer in accordance with the plans and specifications reviewed by County, the Road

Improvements shall be dedicated to and accepted for maintenance by County. The foregoing notwithstanding, during the period of time that Developer is constructing the Project, Developer shall repair, at no expense to County, any damage to County Road G beyond normal wear and tear, including to any completed Road Improvements, that is caused by Developer and its agents, employees, contractors and subcontractors in connection with construction of the Project. As further described in Section 5.3, County agrees that the requirements set forth in Article III (County Road Acceptance Standards) of the Code shall not apply to the Road Improvements, without limiting the applicability of the County Road Improvement Design Standards.

(1) County Road G. Prior to the Start of Construction, Developer shall take such steps as are required, consistent with the County Road Improvement Design Standards, to ensure that County Road G is capable of handling construction traffic associated with the Project. During construction of the Project, Developer shall also be responsible for regular maintenance and dust control on County Road G, using appropriate methods reasonably acceptable to County or commonplace in the region. Developer shall not use magnesium chloride as a dust palliative, but may use techniques other than paving prior to the completion of Project construction, such as watering, application of palliatives, or application of chip seal, to accomplish maintenance and dust control objectives at a reasonable cost. Prior to completion of the Project, Developer shall complete the required Road Improvements to County Road G which Road Improvements shall be complete prior to the completion of construction of the Project. All improvements to County Road G shall be in accordance with construction plans and specifications that have been reviewed by County in accordance with Section 5.3 and, to the extent required, by CDOT.

(2) County Road G/State Highway 17/US 285 Intersection Improvements. Developer shall install County Road G intersection improvements at State Highway 17 and US Highway 285 as generally described in the Traffic Study or as otherwise required by CDOT.

8.5 Assurance for Completion of Road Improvements.

Developer's failure to construct the Road Improvements in accordance with Section 8.5 shall be deemed a violation of the 1041 Permit and subject the Developer to potential enforcement proceedings in accordance with Section 2-403 of the 1041 Regulations. Except as set forth in this Agreement, Developer shall have no further obligation to County, financial or otherwise, towards the completion of the road improvements or for any other improvements to County roads.

8.6 Decommissioning/Reclamation.

The Developer has made certain commitments contained in Section 13-304(2)(e)(vii) of the 1041 Application under the heading "Minimizing and Mitigating Adverse Impacts" and the subheading "Decommissioning and Reclamation," regarding Decommissioning and Reclamation of the Project at the end of the Project's useful economic life. Prior to the Start of Construction for each tower, Developer shall establish and maintain for the benefit of the County a security fund consistent with this Section 8.6 in the form of a performance bond, letter of credit and/or other collateral (the "Decommissioning Security") which shall be maintained with the County until the Project is decommissioned and the site reclaimed in the manner set forth in the

Decommissioning Plan. The Decommissioning Security shall be obtained from a reputable, financial institution selected by Developer with a minimum credit rating for senior unsecured debt or corporate credit rating of BBB- by Standard & Poor's Ratings Group, a division of McGraw-Hill, Inc. or Baa3 by Moody's Investors Service, Inc. The amount of the Decommissioning Security shall be as follows for each of the two stand-alone receiver tower facilities:

Prior to the Start of Construction, Developer shall post Decommissioning Security in the amount of $1 million.

At year 5 following the Start of Construction, the Decommissioning Security shall be increased to $2 million.

At year 10 following the Start of Construction, the Decommissioning Security shall be increased to $5 million.

At year 20 following the Start of Construction or 5 years prior to the expiration of the long-term agreement to sell the energy, whichever is later, the Decommissioning Security shall be increased to $10 million.

8.7 Ecotourism Contribution Requirements.

(a) Six months prior to completion of construction, Developer will provide the County with a grant of $175,000 (in lieu of the $100,000 grant specified in the 1041 Application in the third supplemental submission dated February 10, 2012) toward the cost of establishing a Visitor Information Center ("VIC") in close proximity to the Project on a paved road, at a site to be mutually agreed upon by Developer and Saguache County. The VIC will offer information regarding solar energy in general, the Project's leading edge technology and the Project's leadership role in producing American energy and reducing the demand for coal-generated electricity. The VIC may also include information on the economic benefit of the project and other nearby attractions, visitor amenities and points of interest. Following completion of the VIC and for a period of 4 years thereafter, Developer shall provide an additional $200,000 ($50,000 annually) to Saguache County, which County shall prioritize to spend as follows:

(1) Staffing and operating of the VIC;

(2) Operation of a shuttle system; and

(3) Promoting tourism in general for Saguache County.

(b) Six months prior to the completion of construction, Developer will establish and maintain informational and interpretive signs regarding the Project, which will be installed at a location within the Town of Center to be designated by an agreement between the Town of Center, County, and any applicable landowner. Developer and County shall mutually agree upon the content of the information to be provided in the signs. Developer shall also coordinate with CDOT to obtain directional signage to the Project and the VIC along Highway 17 and Highway 285 as allowed by CDOT. The signage contemplated by this Section shall be installed at Developer's expense.

8.8 Limitation on Developer's Obligations.

Except for the payment of applicable sales, use and property taxes (less allowable reductions and abatements), Developer shall have no obligation to participate in, pay, contribute or otherwise provide any further exactions, including assessments or fees, or to provide facilities or improvements beyond those specifically identified by this Agreement.

SECTION 9. EMPLOYMENT

The parties agree that the provision of employment opportunities for local and County residents will assist in mitigating the impacts of the Project, and acknowledge that the Developer has an incentive to hire local or County residents. At a minimum, Developer will conduct public meetings in the Town of Center to provide information about employment opportunities relating to the Project: (1) at least twice prior to commencement of construction; and (2) at least twice prior to commencement of operations. Developer further agrees to consult with the Trinidad State Junior College, the Center Joint School District, and the Sangre de Cristo School District to assist with the design of a curriculum to train potential employees for the Project.

9.1 San Luis Valley Workforce and Job Training Requirement.

(a) Developer will make commercially reasonable efforts to hire applicants who reside in Saguache, Rio Grande, Alamosa, Conejos, Mineral and Costilla Counties for the construction and operation of the Project and to request that its contractors and subcontractors for the construction of the Project do the same, provided that such applicants are, in the sole discretion of Developer, its contractors and subcontractors, qualified for such employment. Developer shall demonstrate to County that Developer has notified contractors and required them to notify subcontractors of local hiring priorities and has encouraged that they advertise job openings locally.

(b) Developer shall pay the one-time operational job shortfall penalty as described in the 1041 Application, but the $50,000 fee shall be payable for each 5% shortfall, rather than each 10% shortfall as initially proposed. Such calculation shall be completed three months after the start of regular commercial operations. For the purpose of this calculation, "local" shall refer to Saguache County only.

(c) Developer shall, six months after the Effective Date and again every six months thereafter until the cessation of construction activities, make commercially reasonable efforts to notify Trinidad State Junior College, and any other vocational training programs of County's choosing, of construction workforce needs for the Project, including, by way of example, predicted staffing levels, the predicted timing of different staffing needs, required skill sets, certifications and experience levels typically required to fulfill those needs, and contact information for hiring managers among Developer's contractors. Developer shall include in these notifications information regarding construction workforce composition at all other similar projects in the United States being undertaken by Developer. County acknowledges that Developer does not have direct control over any of the aforementioned construction workforce needs and cannot guarantee staffing choices.

(d) Developer's grant of $200,000 to local workforce training, as contemplated in the third supplemental submission dated February 10, 2012, shall be due upon Start of Construction or six months prior to peak hiring needs, whichever is first.

SECTION 10. NOTICES/RECORDATION

10.1 Notice.

All notices, demands and correspondence required or provided for under this Agreement shall be in writing and delivered in person or mailed by a nationally recognized overnight delivery service or certified mail, postage prepaid, return receipt requested. Notices shall be addressed as follows:

To County:

Saguache County, Colorado
Attn: Wendi Maez
P.O. Box 655
Saguache, CO 81149

with a copy to:

Benjamin F. Gibbons
County Attorney
Benjamin F. Gibbons, P.C.
800 1st Avenue
Monte Vista, CO 81144-1402

To Developer:

Saguache Solar Energy, LLC
Attn: Adam Green
2425 Olympic Blvd., Suite 500E
Santa Monica, CA 90404

with a copy to:

James B. Borgel, Esq.
Holland & Hart LLP
555 17th Street, Suite 3200
Denver, CO 80202

Either party may change its address and/or contact persons by giving notice in writing to the other and thereafter notices, demands and other correspondence shall be addressed and transmitted to the new address. Notices given in the manner described shall be deemed delivered on the day of personal delivery or the date delivery of mail is first attempted.

10.2 Recording.

Promptly after the Effective Date, County shall record an executed original of this Agreement in the office of the Saguache County Clerk and Recorder. Upon completion of the performance of this Agreement, or its earlier expiration, revocation or termination, a statement evidencing said completion, revocation or termination shall be signed by the appropriate officers of County and Developer and shall be recorded in the office of the Saguache County Clerk and Recorder.

SECTION 11. SEVERABILITY OF TERMS

If any term or other provision of this Agreement is held to be invalid, illegal or incapable of being enforced by any rule of law or public policy, all other conditions and provisions of this Agreement shall nevertheless remain in full force and effect, provided that the invalidity, illegality or unenforceability of such terms does not materially impair the parties' ability to consummate the transactions contemplated hereby. If any term or other provision is invalid, illegal or incapable of being enforced, the parties hereto shall, if possible, amend this Agreement so as to achieve the original intention of the parties.

SECTION 12. DURATION OF AGREEMENT

After the Effective Date, this Agreement shall continue in full force and effect until such time as all of the obligations of Developer and County have been fully performed, provided, however, that at any time prior to the commencement of construction of the Project Developer shall have the right to terminate this Agreement upon written notice to County, provided that Developer shall also simultaneously consent to the termination of the 1041 Permit.

SECTION 13. COUNTERPARTS

This Agreement may be executed in counterparts, each of which shall constitute an original and which together shall constitute one and the same document.

Signatures appear on next page.

IN WITNESS WHEREOF, this Agreement has been executed by the parties on the day and year first above written.

DEVELOPER:

SAGUACHE SOLAR ENERGY, LLC, a Delaware limited liability company

By: _____
Name: Kevin B. Smith
Title: Chief Executive Officer of SolarReserve, LLC, Sole Member and Manager of Saguache Solar Energy, LLC

STATE OF California)
) ss.
COUNTY OF Los Angeles)

The foregoing instrument was subscribed and sworn to before me this 28th day of March, 2012, by Kevin B. Smith, as CEO of SolarReserve, LLC, Sole Member and Manager of Saguache Solar Energy, LLC, a Delaware limited liability company.

Witness my hand and official seal.

My commission expires: April 14, 2015.

_____
Notary Public

SUNNY SMITH
COMM. #1932459
Notary Public - California
Los Angeles County
My Comm. Expires Apr. 14, 2015

COUNTY:

SAGUACHE COUNTY, COLORADO

By: _____
Name: Michael Spearman
Title: Chairman

Attest:

County Clerk

By: _____
Name: Carla Gomez

Approved as to form:

_____
Name: Benjamin F. Gibbons
Title: County Attorney

EXHIBIT A

Description of Project Site

PURSUANT TO REAL ESTATE PURCHASE OPTION AGREEMENT
PROPERTY OF WIJAYA COLORADO, LLC

ALL IN TOWNSHIP 41 NORTH, RANGE 9 EAST, N.M.P.M. COUNTY OF SAGUACHE, STATE OF COLORADO

NW-1/4 and SW-1/4 of Section 16 (~320 acres)

PURSUANT TO REAL ESTATE PURCHASE OPTION AGREEMENT
PROPERTY OF SKYLINE LAND COMPANY, LLC

ALL IN TOWNSHIP 41 NORTH, RANGE 9 EAST, N.M.P.M. COUNTY OF SAGUACHE, STATE OF COLORADO

Section 3: All (~640 acres)

Section 10: N-1/2 (~320 acres)

Section 17: All (~640 acres)

PURSUANT TO REAL ESTATE PURCHASE OPTION AGREEMENT
PROPERTY OF SAM INVESTMENTS, INC.,
ERNEST MYERS AND VIRGINIA MYERS

Ernest M. Myers and Virginia K. Myers

ALL IN TOWNSHIP 41 NORTH, RANGE 9 EAST, N.M.P.M. COUNTY OF SAGUACHE, STATE OF COLORADO

E-1/2 of SE-1/4 of Section 7 (~80 acres)

SW-1/4, S-1/2 of NW-1/4, and S-1/2 of NE-1/4 of Section 8 (~320 acres)

SAM Investment, Inc.

ALL IN TOWNSHIP 41 NORTH, RANGE 9 EAST, N.M.P.M. COUNTY OF SAGUACHE, STATE OF COLORADO

SE-1/4 of Section 8 (~160 acres)

All of Section 4 (~640 acres)

All of Section 9 (~640 acres)

E-1/2 of NE-1/4, and NE-1/4 of SE-1/4 of Section 18 (~120 acres)

REAL ESTATE PURCHASE OPTION AGREEMENT
PROPERTY OF MOUNTAIN COAST ENTERPRISES, LLC

ALL IN TOWNSHIP 41 NORTH, RANGE 9 EAST, N.M.P.M. COUNTY OF SAGUACHE, STATE OF COLORADO

S-1/2 of Section 10 (~320 acres)

EXHIBIT B

County Road Improvement Design Standards

Saguache County Standard Specifications for Road and Bridge

Board of County Commissioners
Of Saguache County
Resolution No.

A Resolution Establishing
Standard Specifications For
Road And Bridge Construction

WHEREAS, The Board of County Commissioners of Saguache County, Colorado (hereinafter the "Board") finds that there is a need to provide for the uniform planning, design and construction of new roadways and related facilities and improvements to existing roadways and related facilities; and

WHEREAS, the Board desires to provide for the administration of the Saguache County road system in a manner consistent with applicable federal, state and local statutes, ordinances and regulations; and

It is the intent of the Board to provide road and bridge construction standards for at least a minimum level of performance to achieve functional effectiveness, ease of maintenance, pleasing appearance, and environmental concerns;

NOW, THEREFORE BE IT RESOLVED by the Board that there are hereby established the Saguache County Standard Specifications for Road and Bridge Construction, as set forth in Appendix A which is attached hereto and incorporated herein, effective on even date with the adoption of this Resolution.

INTRODUCED by Commissioner, _____
seconded by Commissioner, _____ and adopted this day of

_____
CHAIRMAN OF THE BOARD

_____
COMMISSIONER

ATTEST:

_____
COMMISSIONER

_____
CLERK OF THE BOARD

_____
COMMISSIONER

TABLE OF CONTENTS

ARTICLE I	**GENERAL PROVISIONS**	
1.1	Title	1
1.2	Purpose and Intent	1
1.3	Level of Performance	1
1.4	Scope and Application	1
1.5	Authority	2
1.6	Amendments	2
1.7	Definitions	2
1.8	Severability	10
1.9	Waiver	10
ARTICLE II	**ADMINISTRATION**	12
2.1	Road Systems	12
2.1.1	The Colorado State Highway System	12
2.1.2	The County Road System	12
2.1.3	City Streets	13
2.1.4	Mixed Jurisdiction	13
2.1.5	Other Public Roads	13
2.1.6	Private Roads	14
2.2	Road System Regulations	14
2.2.1	Traffic Control Devices	14
2.3.1	Cooperation with Other Entities	14
2.3.2	Enforcement	14
2.3.3	Inspection	15
2.4	County Road System Additions and Improvements	15
2.3.4	Planning	16
2.3.5	Design	16
2.3.6	Right-of-Way Dedication/ Acceptance	16
2.3.7	Guarantee of Public Improvements	16
2.3.8	Construction	16
2.3.9	Inspection	17
2.3.10	Acceptance of Roads for Dedication to the County and for County Maintenance	17
2.3.11	Private Road Construction and Inspection	19
2.5	Deletions from the Road System	19
2.5.1	Road and Easement Vacations	19
2.6	Road Name and/ or Number Changes	19
2.7	Snowplowing	20
ARTICLE III	**TRANSPORTATION PLANNING AND DEVELOPMENT POLICIES**	21
3.1	Functional Classification of Roads	21
	Table 3-1	23
3.2	Land Use Changes – Compliance	24
3.3	Planning Principles	24

ARTICLE IV	DESIGN STANDARDS	26
4.1	Application of Design Standards	26
4.1.1	Minimum Standards	26
4.2	Design Factors	26
4.2.1	Road Classification	26
4.2.2	Projected Traffic Volumes	26
4.2.3	Terrain Classification	27
4.2.4	Design Speed	27
4.3	Geometric Standards	27
4.3.1	Horizontal Alignment	27
	Table 4-1	29
	Table 4-2	29
	Table 4-3	29
	Table 4-7	29
4.3.2	Vertical Alignment	31
4.4	Cross Section Standards	32
4.4.1	Typical Sections	32
4.4.2	Right-of-Way Width	32
4.4.3	Crown Slope	33
	Figure 4-1 Stopping Sight Distance on Crest Vertical Curves	
4.4.4	Side Ditches	34
4.4.5	Curbs and Gutters	35
4.4.6	Side Slopes	35
	Table 4-5 Cut and Fill Slopes	35
4.4.7	Ramps for Physically Handicapped	36
4.4.8	Recreation Paths	36
4.4.9	Horizontal and Vertical Clearance	36
4.5	Driveway Access Control Standards	36
4.5.1	Access to Arterial Roads	36
4.5.2	Access to Collector Roads	38
4.5.3	Local Roads/ Lanes	39
4.6	Intersections	41
4.6.1	General Requirements	41
4.6.2	Intersection or Access Approach Radii	41
4.6.3	Sight Distance	41
	Table 4-6 Intersection Sight Distance	42
4.7	Pavement Structure Design	43
4.7.1	General Design Procedure and Requirements	43
4.7.2	Pavement Structure Design Procedure and Requirements	43
4.7.3	Flexible Pavement Design Considerations	43
	Figure 4-2	44
	Figure 4-3	46
	Table 4-7	47
	Table 4-8	48
4.7.4	Minimum Structural Sections	50
4.7.5	Rigid Pavement Design	51
4.8	Drainage	51
4.8.1	Applications	51
4.8.2	Design Criteria	51
4.8.3	Hydrology	52
4.8.4	Drainage and Irrigation Structures within County Road Right-of-Way	53
	Table 4-9	55

4.8.5	Roadside Ditches	56
4.8.6	Bridges and Low Water Crossings	56
4.9	Road Appurtenances	59
4.9.1	Road Signs and Traffic Control Devices	59
4.9.2	Guardrail	59
4.9.3	Cattle Guards	60
4.10	Utilities	60
4.10.1	Underground Utilities	61
ARTICLE V CONSTRUCTION SPECIFICATIONS		66
5.1	General Policies	66
5.1.1	Saguache County Construction Specifications	66
5.1.2	The Project Engineer	66
5.1.3	Inspection and Testing	67
	Table 5-1	68
	Table 5-2	69
5.1.4	The Use of Approved Plans and Specifications	70
5.1.5	Acceptance of Work	71
5.1.6	Cooperation with Utilities	71
ARTICLE VI TRAFFIC STUDIES		72
6.1	Guidelines for Traffic Studies	72
ARTICLE VII PERMITS		74
7.1	Issuance of Permits	74
7.2	Underground Utility Permit	74
7.3	Driveway Permits	74
7.4	Surface Alteration Permits	74
7.5	Oversize/ Overweight Permits	75
7.6	Suspension or Revocation of Permits	75
7.7	Transfer of Permits	76
7.8	Financial Security	76
REFERENCED REPORTS		77
APPENDIX A LEGAL RESPONSIBILITIES		78
APPENDIX B LANE SECTIONS (#1 — #4)		81
APPENDIX C LANE SECTIONS (#5 — #7)		82
APPENDIX D LANE SECTION (#8)		83
APPENDIX E CATTLE GUARD SPECIFICATIONS		84
APPENDIX F MAIBOX SPECIFICATIONS		85

Amendment 1

A. *All references to the "Colorado State Highway Department" shall be considered references to the "COLORADO DEPARTMENT OF TRANSPORTATION or (CDOT)".

SAGUACHE COUNTY
STANDARD SPECIFICATIONS
FOR
ROAD AND BRIDGE CONSTRUCTION

ARTICLE I

GENERAL PROVISIONS

1.1 Title

These regulations may be cited as the Saguache "County Standard Specifications for Road and Bridge Construction."

1.2 Purpose and Intent

The general purpose and intent of these Standards are to provide for the uniform planning, design and construction of new roadways and related facilities and improvements to existing roadways and related facilities, and further, to provide for the administration of the Saguache County Road System in a manner consistent with applicable federal, state and local statutes, ordinances and regulations. The intent of these Standards is to provide for minimum level of performance to achieve functional effectiveness, ease of maintenance, pleasing appearance, and environmental concerns.

1.3 Level of Performance

These Standards provide a uniform minimum acceptable level of planning, design and construction except for driveway permits (reference page 74 Section 7.3). If and only if it can be shown that an alternate plan, material, or procedure, then such alternate may be approved in the sole discretion of the Board of County Commissioners or their designee upon review and approval by the Board of plans submitted and signed by an engineer.

1.4 Scope and Application

These Standards , apply to all roads which are subject to County jurisdiction under the Saguache County Land Use Resolution and apply to construction of new roads and improvements to existing roads. Driveways and agricultural roads outside of the County Right-of-Way are exempt from these Standards except that they require driveway access permits as set forth herein.

1.5 Authority

These regulations are authorized by inter alia, Sections 30-28-101 et. Seq. 30-28-133, 43-2-114, and 43-2-201.

1.6 Amendments

These Standards , may be amended, supplemented, changed, modified or repealed, in whole or in part, by the Board only after a public hearing on the proposed amendment, supplement, change, modification or repeal. Notice of such public hearing, setting forth the date, time, place and purpose of such public hearing, shall be published in a newspaper of general circulation within Saguache County at least once a week for two consecutive weeks immediately before the hearing.

1.7 Definitions

AASHTO: American Association of State Highway and Transportation Officials.

FHWA: Federal Highway Administration.

ITE: Institute of Traffic Engineers.

Agricultural Road: Any road whose primary use is to serve an agricultural operation.

Arterial Road: See Article III section 3.1

Average Daily Traffic: The average 24-hour volume, being the total number during a stated period, divided by the number of days in that period. Unless otherwise stated, the period is a year. The term is commonly abbreviated as ADT.

Axle Load: The total load transmitted by all wheels on a single axle extending across the full width of the vehicle. Tandem axles 40 inches or less apart shall be considered a single axle.

Backfill: Material used to replace, or the act of replacing, material removed during construction; also may denote material, placed or the act of placing, material adjacent to structures.

Base Course: The layers of specified or selected material of designated thickness placed on a subbase or a subgrade to support a surface course.

Board: The Board of County Commissioners of Saguache County.

Bridge: A structure including wall or abutments erected over a depression or an obstruction, as water, highway or railway and having a track or passageway for carrying traffic or other moving loads.

Cement Treated Base: A base consisting of a mixture of mineral aggregate (or soil) and Portland cement, mixed and spread on a prepared surface, to support a surface course.

Channelization: The separation or regulation of conflicting traffic movements into definite paths of travel by use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movement of traffic, both vehicular and pedestrian.

City Street: Roads that are within the boundaries of an incorporated municipality, that are dedicated to the public

and maintained by the city.

Collector Road: See Article III section 3.1

Control of Access: The condition where the right of owners or occupants of abbuting land or other persons to access, light, air, or visual quality in connection with a highway is fully or partially controlled by public authority.

County: Saguache County.

County Primary Road System: County roads selected by the Board on the basis of greatest general importance; the County primary system as selected shall constitute an integrated system within itself or with the state highway system. All primary roads will be maintained but not necessarily plowed by Saguache County.

County Road: Public road accepted by Saguache County as a primary or secondary road.

County Secondary Road System: All roads not on the County primary road system and for which the Board assumes responsibility, but not necessarily maintenance.

Cross Slope Roadway: On divided highways each one-way pavement may be crowned separately as on 2-lane highways, or it may have a nondirectional slope across the entire width of pavement, almost downward to the outer edge.

Cul-De-Sac Road: A local road open at one end only, and with special provisions for turning around.

Curbwalk: Monolithic combination of curb and gutter and sidewalk.

Culvert: A closed conduit, other than a bridge, which conveys water carried by a natural channel or waterway transversally under the roadway.

Delineators: To define the roadbed, and are used as an aid to alert drivers of day and night hazard conditions.

Department: The Saguache County Road and Bridge Department.

Design Load: The loads that must be supported by a structure in terms of live and dead weight loads.

Design Period: Geometric design generally based on estimated traffic requirements 20 years after construction.

Design Speed: A speed determined for design and correlation of the physical features of a highway that influence vehicle operation. It is the maximum safe speed that can be maintained over a specified section of highway when conditions are so favorable that the

design features of the highway govern.

Driveways: Private road that serves two or less dwelling units.

18K EDLA: 18,000 pound single axle Equivalent Daily Load Applications. (See "Axle Load" and "Equivalence Factor").

Engineer: Professional engineer registered in the state of Colorado.

Flared Intersection: An un-channelized intersection, or a divided highway intersection without islands other than medians, where the traveled way of any intersection leg is widened or an auxiliary lane is added.

Flexible Pavement: A pavement structure which maintains intimate contact with and distributes loads to the subgrade and depends upon aggregate interlock, particle friction and cohesion of stability.

Geometric Design: The arrangement of the visible elements of a road, such as alignment, grades, sight distances, widths, slopes, etc.

Grade: The rate expressed in terms of percent, ascent or descent divided by length.

Guardrail: A protective device intended to make highways safer by reducing accident severity.

Saguache County: The Board of County Commissioners or its designee.

Saguache County Road System: All roads in any of the Saguache County primary or secondary systems.

Highway, Street, or Road: These are general terms, denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way. In rural areas, or in urban areas where there is comparatively little access and egress, a way between prominent termini is usually called a highway or road. A way in an urban area, with or without provisions made for curbs, sidewalks, and paved gutters is ordinarily called a road.

Horizontal Alignment: Horizontal geometrics for safe and continuous operation at a uniform design speed for substantial lengths of highway and must afford at least the minimum stopping distance for the design speed at all points on the highway.

Hveem Stabilimeter: A device to measure the lateral pressure transmitted by soil or aggregate being subjected to a vertical load. The pressure obtained is used to compute "R" value. The internal resistance of the friction property of a bituminous pavement or a base course. Data obtained is used to compute the relative stability.

Include: Including without limitation.

Inspector: The Saguache County Road and Bridge Supervisor, or designee.

Intersection: The area embraced within the prolongation or connection of the lateral curb lines, or if none, then the lateral boundary lines of the roadways of two highways, streets, roads or driveways, or any combination of thereof, which join one another at, or approximately at, right angles, or the area within which vehicles traveling on different highways joining at any other angle may come in conflict.

Lane: See Article III section 3.1

Lime Treated Base: A base consisting of a mixture of soil, hydrated lime and Water, usually mixed in place and placed to support a Pavement structure, or the components thereof.

Local: See Article III section 3.1

Low Water Crossing: A structure used to cross a drainage course that provides only for limited conveyance of runoff under the traveled way with higher flows passing both under and over the traveled way.

May: A permissive condition. No requirement for planning, design or construction is intended.

Minimum Cover: The point of minimum cover shall be the edge of the Paved shoulder giving the least cover over the pipe.

Minimum Turning Radius: The radius of a minimum turning path of the outside of the outer front tire.

Non-Motorized Trail: A gravel or paved trail suitable for bicycle or pedestrian travel.

Passing Sight Distance: The minimum sight distance on two or three lane highways that must be available to enable the driver of one vehicle to pass another vehicle safely and comfortably without interfering with the speed of an oncoming vehicle traveling at the designated speed should it come into view after the overtaking maneuver is started.

Pavement: That part of a roadway having a constructed surface for the facilitation of vehicular movement.

Pavement Structure: The combination of subbase, base course and surface course placed on a subgrade to support the traffic load and distribute it to the roadbed.

Person: Any individual, entity, partnership, corporation, association, municipality, or other public or corporate body, including the federal government, or any political subdivision (including any municipality, county, or district), agency, instrumentality, or corporation of the State

of Colorado of the United States of America.

Plant Mixed Bituminous Base: A base consisting of mineral aggregate and bituminous material, mixed in a central plant, laid and compacted while hot, on subbase or a subgrade, to support a surface course.

Prime Coat: The application of a low viscosity liquid bituminous material to an Absorbent surface, preparatory to any subsequent treatment, for The purpose of hardening or toughening the surface and promoting adhesion between it and the superimposed construction.

Private Road: Road that has not been dedicated for public use, and is not maintained by the County.

Portland Cement Concrete Pavement: A pavement composed of portland Cement concrete on a prepared Subgrade or base course in accordance With plans and specifications.

Public Road: Any road dedicated to general use of the public, may or may not be accepted by the County for maintenance.

R Value: The resistance value of the soil while in a state of density and degree Of saturation typical of the most adverse conditions to be expected On the road during the service life.

Regional Factor: A numerical factor expressed as a summation of the values assigned for precipitation, elevation and drainage. This factor is used to adjust the structural number.

Residential Driveway: See **"Driveways"**.

Right-of-way: A general term denoting lane, property, or interest therein, Usually in a strip, acquired for or devoted to transportation Purposes.

Roadbed: The graded portion of a highway, usually considered as the area Between the intersections of top and side-slopes, upon which the Subbase, base course, surface course and shoulders are constructed. Divided highways are generally considered to have two roadbeds.

Roadside: A general term denoting the area adjoining the outer edge of the Roadway. Extensive areas between the roadways of a divided Highway may also be considered roadside.

Road Sign: A traffic control device mounted on a support above the level of the Roadway that conveys a specific message by means of unchanging Words or symbols.

Road Supervisor: The Saguache County Road and Bridge Supervisor, or Designee.

Roadway: The portion of a highway, including shoulders, for vehicular use.

A divided highway has two or more roadways.

Roadway Prism: The area of a road bounded by the traveled surface, the Shoulders and lines projecting downward and away from The outside edge of the shoulder and intersecting the ground Surface at an angle of thirty (30) degrees horizontal.

Serviceability Index: A number which is indicative of the pavement's ability to Serve Traffic at any specific time.

Shall: A mandatory condition.

Should: A recommended but not mandatory condition.

Shoulder: The portion of a roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use and for lateral support of base and surface courses.

Sight Distance: The distance visible to the driver of a passenger vehicle, Measured along normal travel path of a roadway, to the Roadway surface or to a specified height above the Roadway, when the view is unobstructed by traffic.

Single-Unit Truck: A freight vehicle of two or three axles and larger than A pickup.

Slope Easement: An easement for cuts or fills.

Standards: As used in this document refers to the Saguache County Standard Specifications for Road and Bridge Construction as adopted by the Saguache County Board of County Commissioners in October of 1991.

Stabilization: Modification of soils or aggregate by incorporating materials that Will increase load bearing capacity, firmness and resistance to Weathering or displacement.

State Highway: Roads that are within the County that are dedicated to the public, but are maintained by the State of Colorado.

Stopping Sight Distance: The distance required by a driver of a vehicle, Traveling at a given speed, to bring his vehicle to a Stop after an object on the roadway becomes visible. It includes the distance traveled during the perception And reaction times and the vehicle breaking distance.

Subbase: The layer or layers of specified or selected material of a designed Thickness placed on a subgrade to support a base course.

Subgrade: The top surface of a roadbed upon which the pavement structure and Shoulders, including curbs, are constructed.

Superelevation: The vertical distance between the heights of inner and outer Edges of highway pavement used to prevent a vehicle from

Sliding outward, or to counteract all the centrifugal force of a Vehicle traveling at an assumed speed.

Supervisor: The Saguache County Road and Bridge Supervisor, or designee.

Sustained Grade: A continuous highway grade of appreciable length and Consistent or nearly consistent gradient.

Terrain: The topography of the profile of a highway, road, or street. As used In this manual, the term generally has one or two modifiers; rolling, Or mountainous. These two modifiers represent combinations or Geometric features in varying degrees which relate primarily to Gradients and horizontal and vertical alignment. They reflect the Effect on capacity of the operating characteristics of trucks in terms Of their passenger cars are equivalent under the different geometric Conditions.

These Standards: All provisions in the Saguache County Standard Specifications for Road and Bridge Construction.

Topography: The configuration of the earth surface including the shape and Position of it's natural and man made features

Traffic Control Device: Any sign, signal, marking or installation placed or Erected under public authority, for the purpose of Regulating, warning, or guiding.

Traveled Way: The portion of the roadway for the movement of vehicles; Exclusive of shoulders and auxiliary lanes.

Vertical Alignment: Properly designed, should provide adequate sight Distance, safety, comfortable driving, good drainage, Pleasing appearance. Minimum lengths of crest vertical Curves are controlled by stopping sight distance Requirements.

1.8 Severability

If any section, clause, provision, or portion of these Standards should be found To be unconstitutional or otherwise invalid by a court of competent jurisdiction, The remainder of these regulations will not be affected thereby and is hereby Declared to be necessary for the purposes set forth in 1.2 of these Standards. Nor Will such a finding affect the validity of any permit previously issued, financial Security previously taken by the County, except as specifically adjudicated by The court.

1.9 Waiver

The Board may waive the requirements of these Standards as follows:

a. The applicant for a waiver shall present a written petition to the Board Requesting the waiver, and explaining why compliance with these Standards would be unreasonably burdensome and why a waiver will not adversely affect public health, safety or welfare. The applicant will Bear the burden of proof by a preponderance of evidence on these issues.

b. Within fourteen (14) days of receipt of the petition, at the sole Discretion of the Board, they may set and publish notice of a public Hearing on the petitions. At a minimum, this notice shall be published once a week for the two consecutive weeks immediately before the date set for the hearing.

c. Within fourteen (14) days after the hearing, the Board must issue its Decision. The waiver shall be granted only if the Board determines that Compliance with these Standards would be unreasonably burdensome and that a waiver will not adversely affect public health, safety or welfare.

ARTICLE II
ADMINISTRATION

2.1 Road Systems

The road system in Saguache County consists of federal highways, state highways, county roads, city streets and alleys, other public and private roads.

2.1.1 The Colorado State Highway System (CDOT)

The Colorado Division of Highways administers the Colorado State Highway System in Saguache County under the direction of the Executive Director and the State Highway Commission. The Colorado Division of Highways has full responsibility for the construction and maintenance of all Colorado State highways within the unincorporated areas of Saguache County. Within incorporated areas, a municipality may assume maintenance responsibilities under a maintenance agreement. The placement of traffic control signs on all County roads at an intersection with a state highway is under the jurisdiction of the Colorado Division of Highways.

2.1.2 The County Road System

There has been established in Saguache County a primary system and a secondary system of County roads. Such roads are designated and described on the Saguache County Road map.

A. The Saguache County Road Map – There shall be adopted the Saguache County Road Map. This map shall be updated periodically and no less than annually to reflect additions, deletions and alterations to the County Road System. Copies of the County Road Map shall be available from the County Road and Bridge Department for a nominal fee.

B. County Road Administration – The Board shall determine the general policies and priorities of the County as to County road matters. The Board shall develop planning, design and construction standards, and regulate, inspect and enforce activity conducted pursuant to such standards.

The County Road and Bridge Department is responsible for the maintenance, repair and improvement of certain designated County roads and bridges, and the inspection and regulation of utility installation in County rights-of-way.

2.1.3 City Streets

Each city and town in the County should have a street system that consists of all streets open and used. Those streets will be designated as required by the federal aid to urban systems.

2.1.4 Mixed Jurisdiction

Situations arise in which both the County and a municipality or other government agency have ownership and/or jurisdiction over portions of the same road (e.g., a municipality annexes to the centerline of a County road.) The standards applicable in each such situation shall be determined on a case by case basis by the governing authorities and shall be reduced to a binding written intergovernmental agreement.

2.1.5 Other Public Roads

The following are public highways:

A. All roads over private lands dedicated to the public use by deed, filed with the County Clerk and Recorder of the county in which such roads are situated, when such dedication has been accepted by the Board. A certificate of the County Clerk and Recorder with whom such deed is filed, showing the date of the dedication and the lands so dedicated, shall be filed with the County Assessor of the county in which such roads are situated.

B. All roads over private or other lands dedicated to public uses by due process of law and not heretofore vacated by an order of the Board duly entered of record in the proceedings of said Board.

C. All roads over private lands that have been used adversely without interruption or objection on the part of the owners of such lands for twenty (20) consecutive years.

D. All toll roads or portions thereof which may be purchased by the Board of any county from the incorporators or character holders thereof and thrown open to the public;

E. All roads over the public domain, whether agricultural or mineral.

2.1.6 Private Roads

Unless written by contract, Saguache County assumes no maintenance responsibility on private roads, and does not regulate utilities on private roads. The use of the private roads for emergency services, postal delivery, or school pickups must be arranged by the owner with the appropriate agency.

2.2 Road System Regulations

2.2.1 Traffic Control Devices

All traffic control devices installed on County roads shall conform to the latest edition of Manual on Uniform Traffic Control Devices, published by U.S. Department of Transportation, Federal Highway Administration. Said manuals will be available for review at the County Road and Bridge Department. The County Road and Bridge Department may conduct accident studies, traffic analysis, traffic control studies, or any other engineering studies required by state law or by the Manual on Traffic Control Devices which are prerequisite for the installation of traffic control devices on County roads.

2.3.1 Cooperation with Other Entities

Insofar as possible, the County Road and Bridge Department, and other officials at Saguache County, should seek the cooperation of all law enforcement officials in administering the provisions contained herein, and in developing ways and means to improve traffic conditions.

2.3.2 Enforcement

Any person engaging in an activity subject to these Standards who does not comply with these Standards, who does not obtain any permit required by these Standards, who does not comply with any permit requirements on conditions, or who acts outside the authority of the permit shall cease such activity immediately upon written direction from the County Road and Bridge Supervisor; such person may be enjoined by the County from engaging in such an activity, and may subject to such other criminal or civil liability as may be prescribed by law.
These enforcement provisions are in addition to those provided in Article VII.

2.3.3 Inspection

A. The Supervisor is hereby empowered to inspect and examine the use, occupation, or development of, or activity in, each and every area or activity subject to these Standards for the purpose of determining from time to time whether any use, occupation, development or activity is in violation of any of the provisions of these Standards or of any permit issued or required pursuant to these Standards.

B. If a violation is found, the Supervisor will, by written order, direct that such remedial action be taken forthwith as will result in full compliance with the applicable standards; provided that the issuance of such order is not a prerequisite to the initiation of any enforcement process set forth in the standards; and provided further that compliance with such order is not a defense to any alleged violation of these Standards in any hearing or court action instituted seeking permit suspension or revocation, full compliance with these Standards, or any other applicable remedy, sanction or enforcement mechanism.

2.4 County Road System Additions and Improvements

A. By the County – The Board may lay out, alter, or change any County road, and acquire lands for County roads. The County Road and Bridge Department has the primary staff responsibility for the planning, design, right-of-way acquisition, construction and inspection of all additions and improvements to the existing County Road System. Such activities will comply with these Standards.

B. By Others – Any road proposed by other than the County to be added to the existing County Road System will ordinarily pass through five review steps: planning, acceptance of design, acceptance of right-of-way dedication, construction, and inspection. As a final step, the Board may accept maintenance/plowing responsibilities for the road. Such activities will comply with these Standards.

2.4.1 Planning

The planning or layout of any new road subject to these Standards and any improvements to any existing roads subject to these Standards shall be in accordance with Article III as it may be amended.

2.4.2 Design

The design of any new road subject to these Standards and any improvements to any existing roads subject to these Standards shall be in accordance with Article IV as it may be amended. Road and Bridge plans and specifications shall be prepared by a special engineer in accordance with these Standards, and must be approved in writing by the County Road and Bridge Supervisor before any construction activity whatsoever commences. Any such written approval shall expire without further notice one year from the date that it is issued. Any amendment or revision to a plan or specification, and any resubmission of a plan or specification must conform to the Standards as they exist at the time of the amendments, revision or resubmission.

2.4.3 Right-of-Way Dedication/Acceptance

Affirmative written action by the Board is required for County acceptance of any dedication to the public or the County of a road or road right-of-way. The road, however, shall not be maintained or snowplowed by the County until the requirements set forth in 2.4.7 are met.

2.4.4 Guarantee of Public Improvements

When the Supervisor, the Board, or these Standards require a guarantee that public or private improvements will be built or meet certain criteria, such guarantee or financial security shall be as required in the Saguache County Land Use Resolution or as defined in Section 7.8. The purpose of the guarantee or financial security is to assure the following: that the project or activity is completed, that all requirements and conditions are performed, and that costs to the County are offset in the event the project or activity is suspended, curtailed, abandoned or does not meet certain criteria.

2.4.5 Construction

Construction of new County roads and reconstruction of existing County roads shall conform to the provisions of Article V of these Standards. Surface Alteration Permits shall be obtained as per Section 7.4.

2.4.6 Inspection

Inspections and testing shall be performed to ensure compliance with these Standards and any other requirements and conditions before any County Road and Bridge Department recommendation is made to the Board for maintenance acceptance and/or release of a guarantee or financial security. Requirements for inspections and testing are found in Article V – Construction Specifications; compliance is the sole responsibility of the developer or permittee.

2.4.7 Acceptance of Roads for Dedication to the County and for County Maintenance

A. Roads not on State or Federal Lands – A road not on state or federal lands and offered for dedication to the County may be accepted for dedication and maintenance, but not necessarily snowplowing, by the Board by recorded resolution only if all the following requirements are met:

1. The road shall be constructed in accordance with these Standards.

2. The County Road and Bridge Supervisor shall have completed final inspection and shall have approved the roads in accordance with Article V of these Standards and shall have recommended acceptance.

3. The road must connect to another maintained County road, state highway, or city street of the same or higher functional classification.

4. An application for acceptance shall have been submitted to the County Road and Bridge Department for the road. The application shall have been submitted at least two weeks before performance of the final inspection. An application for acceptance will not be accepted by the County Road and Bridge Supervisor, nor will any inspection be performed when, in the sole discretion of the Supervisor, weather conditions prohibit a complete inspection.

5. All required road signs and traffic control devices have been installed in accordance with the Manual of Uniform Traffic Control Devices.

6. A guarantee of financial security has been submitted to the County in an amount determined by the Board to warrant the integrity of the road construction for eighteen (18) months after the date of the acceptance by the County. In the sole discretion of the Board, such a time period may be enlarged. An inspection by the County shall be

conducted at the end of the time period. The obligations of the developer or permitee shall terminate only upon correction or repair by the developer or permitee of all deficiencies identified by such inspection.

7. All required subsurface utilities shall have been installed in the roadway prior to finishing subgrade. All laterals crossing the roadway shall have been installed prior to the road acceptance.

8. All survey monuments that were in a roadway or a road right-of-way shall have been reset by a surveyor licensed in the State of Colorado.

9. Trench compaction tests and results, as required in Article V of these Standards and as required by any permit shall have been submitted to and approved by the County Road and Bridge Department Supervisor for all trenches within the road right-of-way. Such tests and results shall have been submitted and approved prior to placement of any road base material whatsoever.

10. A reproducible copy of as-built drawings shall have been submitted to the County Road and Bridge Supervisor. The drawings shall accurately show all road construction details, utility and lateral locations and depths, property boundaries and corners, and other pertinent information as required. Upon its submission to the Supervisor, the copy shall become and remain the property of the County.

B. Roadways through State and Federally Owned Lands – It may be to the benefit of the general public for the County to accept roads through state and federally-owned land whether or not such roads meet these Standards. Upon the receipt of a petition for acceptance of such roads into the County Road System, roads which fall into these classifications may be accepted into the County Road System, roads which fall into these classifications may be accepted into the County Road System by the Board pursuant to the waiver process set forth in Section 1.9.

2.4.8 Private Road Construction and Inspection

The construction of a new non-County road that is subject to the Saguache County Land Use Resolution shall comply with the process and procedures set forth herein for a County road except that:

A. Section 2.4.7.A.4 shall not apply;

B. The guarantee required by Section 2.4.7.A.6 shall warrant the integrity of the road construction for eighteen (18) months after such construction is completed.

2.5 Deletions from the Road System

2.5.1 Road and Easement Vacations

The Board may vacate any County road or portion thereof subject to the provisions of C.R.S. Sections 43-2-301 et.seq. No road or part thereof shall be vacated so as to leave any parcel adjoining said roadway without an established public road connecting said land with another established public road.

2.6 Road Name and/or Number Changes

Neither the name nor number of any road dedicated to public use or to the County may be changed except upon written application to and written approval by the Supervisor. The name or number of a road within a

recorded subdivision may be changed only after such application and approval by amending the final plat in compliance with the Saguache County Land Use Resolution. No road names or numbers shall be used which will duplicate, or be confused with, the names of existing city streets or county roads.

The County will be responsible for changing the applicable road name or number signs of any road accepted by the County for maintenance. If the road name or number change is for a road that has not been accepted by the County for maintenance, the applicant, homeowner's association, or the developer of the affected subdivision is responsible for changing the road name or number signs.

2.7 Snowplowing

Saguache County shall not snowplow any road unless and until such road has been dedicated to the public use and accepted for County maintenance by the Board; except that it shall be in the sole discretion of the Board to determine from time to time which such roads so dedicated and accepted will be plowed by the Country.

ARTICLE III

TRANSPORTATION PLANNING AND DEVELOPMENT POLICIES

3.1 Functional Classification of Roads

All roads in the Saguache County Road System shall receive a functional classification from the Supervisor. The functional classifications used in Saguache County are: (Also See Table 3-1)

Major Arterial (Paved)
3,000+ ADT Residential, commercial, and recreational traffic – significant economic importance to County (example: Gothic Road)

Commercial/Industrial Collector (Paved or Gravel)
13 to 500 ADT Heavy duty traffic – significant economic importance to County

Suburban Line (Paved or Gravel)
13 to 500 ADT Primarily residential traffic—width needed for parking and other density factors

Rural Arterial (Paved)
1,000 to 2,999 ADT Primarily residential traffic—significant economic importance to County

Rural Collector (Paved)
500 to 999 ADT Primarily residential or recreational traffic, but some commercial

Rural Local (Paved or Gravel)
200 to 499 ADT Primarily residential, recreational, and ranching use (examples: Washington Gulch, Powderhorn, Quartz Creek, Cottonwood Pass, Slate River)

Rural Lane (Gravel Road)
91 to 199 ADT Primarily residential or agricultural uses (examples: Little Cimarron, Pine Creek)

Local Intermittent (Native Surface/Gravel)
13 to 90 ADT Primarily recreational, residential or commercial traffic (logging) may be joint jurisdiction such as forest service and county and maintained by county under agreement. (Examples: Rainbow Lake, Alpine Tunnel, Red Creek, and upper Taylor River above reservoir. Access to national forest and bureau of land management lands.)

Primitive Recreation (Native Surface)
No ADT available Recreational use only.

SUMMARY OF DESIGN ELEMENTS TABLE 3-1

Functional Classification	Average Daily Traffic	Minimum Right of Way Width	Right of Way Width Snow	No. Of Lanes	Lane Width	Shoulder Width Each Side	Curbs & Gutter Pedestrian Path
1. Major Arterial (Paved)	3000 +	100'	100'	2 - 3	12'	4'	2'/5' (Optional)
2. Suburban Com/Ind/Collector (Paved or Gravel)	0 - 500	60'	80'	2	12'	4'	2'/0' (Optional)
3. Suburban Lane (Paved /Gravel)	13 - 500	60'	80'	2	12'	4'	
4. Rural Arterial (Paved)	1000 - 2999	80'	100'	2	12'	4'	2'/0' (Optional)
5. Rural Collector (Paved)	500 - 999	60'	80'	2	12'	4'	
.. Rural Local (Gravel/Paved)	200 - 499	60'	80'	2	12'	3'	
7. Rural Lane (Gravel)	91 - 199	60'	80'	2	11'	0'	
8. Local Intermittent*	13 - 90	60'	80'	1	12'-16'	0'	
9. Primitive Recreational Road**	N/A	10'		1			

* Single lane roads with turnouts used for low volume traffic.
** Single lane roads with turnouts used for 4-wheel or other recreational access to/or through public lands. No Maintenance.

Right-of-way width – Snow requirements based on snow load maps in Saguache County Building Inspector's Office.

3.2 Land Use Changes – Compliance

Land use changes may include subdivisions, building permits, uses by special review, and other developments which change or intensify the use of the land. All such changes must be in compliance with the Saguache County Land Use Resolution and, if applicable, the Saguache County Regulations for Special Development Projects. Right-of-way dedications pursuant to a land use change shall be made in conformity with the functional classification assigned to such road by the County road and Bridge Supervisor and shall align with the centerline of existing rights-of-way.

In the case of proposed new alignments, detailed site planning and alignment studies may be required. The planning principles for roads in Section 3.3 shall be followed for land use change permit applications.

3.3 Planning

Basic factors in the design of a road system include:

Safety – for both vehicular and pedestrian traffic

Efficiency of Service – for all users

Livability – especially as affected by traffic elements in the circulation system

Economy – of both construction and use of land, design should minimize maintenance costs and maximize ease of snow removal.

Each of the following principles is an elaboration on one or more of these four factors. The principles are not intended as absolute criteria, since instances may appear where certain principles conflict. Therefore, the principles should be used as guides to proper system layout.

A. Insure Vehicular and Pedestrian Access – Road widths, placement of sidewalks or pathways, patterns of roads and number of intersections shall be related to safe and efficient use of the road and access to abutting lands.

B. Control Access to Arterials – Local road systems and land development patterns should not detract from the efficiency of peripheral arterial facilities. Ideally, land development should occur so that no parcels require direct access to arterial routes. The number of access points between the local road system and the arterial system should be minimized. Intersections along arterial routes should be properly spaced for efficient and safe traffic flow. The roads that do intersect the arterial system will tend to have high traffic volumes since they are the only access points. The number of residential lots directly accessing collector roads should be minimized.

C. Discourage Speeding – Residential roads should be designed to discourage excessive vehicle speed.

D. Courts and Cul-de-Sacs – A road ending with a cul-de-sac should normally not be longer than six hundred (600) feet. All cul-de-sacs shall have a minimum radius of forty-one and one-half (41.5) feet as measured to the outside edge of the traveled surface.

Roads, which do not connect or intersect, with other roads shall have a cul-de-sac, loop design or a "Y" or a "T" turn around at the end of the road segment. A cul-de-sac which may be vacated in the future shall be improved to the functional classification standard of the road which it serves if access is provided to dwellings or other structures.

ARTICLE IV

DESIGN STANDARDS

4.1 Application of Design Standards

4.1.1 Minimum Standards

The Standards set forth in this article provide uniform minimum acceptable values. If and only if it can be shown that an alternate design standard will provide an outcome equal to or better than the required minimum, then such alternate may be approved in the sole discretion of the Supervisor upon review and approval by the Supervisor of plans submitted and signed by a professional engineer. Life cycle cost shall be considered in meeting minimum acceptable values.

4.2 Design Factors

4.2.1 Road Classification

Each road proposed for construction or improvement shall receive from the Supervisor functional classifications as defined in Section 3.1.1. If such a classification is not specified on the County Road Map, a functional classification shall be assigned and based primarily on volume and traffic per Table 3-1.

4.2.2 Projected Traffic Volumes

A traffic analysis is normally required to project future traffic volumes. A key element in any traffic analysis is trip generation by land use type. The report entitled Trip Generation, published by the Institute of Transportation Engineers, shall be the County guideline where no detailed trip generation data is available. This report is available for review in the Saguache County Planning Department.

A twenty- (20) year design period or full development shall generally be used to project traffic volumes. Factors provided by the Colorado Division of Highways and/or the Saguache County Planning Director shall be used to adjust average daily traffic volumes to design hourly volumes.

The County Road and Bridge Department shall consult with the County Planning Director to determine whether a traffic analysis will be required. The traffic analysis will be done during the initial application phase of the development, and at the sole cost of the road developer.

4.2.3 Terrain Classification

For the purpose of these Standards, the terrain in Saguache County shall be classified in two categories:

Flat or Rolling Terrain – Average cross slope less than fifteen (15) percent and the ridges and draws are not well defined.

Mountainous Terrain – Average cross slope greater than fifteen (15) percent and the ridges and draws are steep and well defined.

4.2.4 Design Speed

The choice of a design speed is influenced primarily by the terrain classification, functional classification of the road, and land use. The design speed is generally slightly higher than the posted speed. Acceptable ranges of minimum design speeds are as follows:

	Flat or Rolling		Mountainous	
Functional Classification	Design Speed	Posted Speed	Design Speed	Posted Speed
Arterial	60	45-55	50	30-40
Collector	45	30-40	40	30
Local Road	25	20-25	25	20
Lane or Place	20	20	15	15

4.3 Geometric Standards

4.3.1 Horizontal Alignment

A. General Considerations – The major considerations in horizontal alignment are topography, road classification, drainage design speed, grade profile, subsurface conditions, safety, and sight distance. All of these must be balanced to produce an alignment that is safe and adequate for the functional classification of the road.

B. Sight Distance – Horizontal alignment must provide at least minimum stopping sight distance for the design speed at all points. This includes visibility at intersections, as well as around curves and roadside obstruction.

The minimum stopping sight distance is the distance required by the driver of a vehicle traveling at a given speed to bring the vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver's eye, which is assumed to be three and one-half (3.5) feet above the roadway surface, to an object 6 inches high on the road.

The required stopping distance for a given design is as follows:

Design Speed (MPH)	Stopping sight Distance (ft.)
15	100
20	150
25	175
30	200
35	250
40	300
50	450
60	650

In some cases, passing sight distance may be required on collectors or arterials. The Colorado Division of Highways' Road Design Manual should be used in determining passing sight distance.

C. Standards for Curvature – Tables 4-1 through 4-4 set the permissible minimum curve radii and the permissible maximum allowable rate of superelevation for the various functional classifications. The tables are based on design speed, friction factors, and superelevation, and do not consider sight distance.

Table 4-1

MINIMUM CURVE RADIUS FOR DESIGN SPEED ON LOCAL ROADS AND LANES
(without super-elevation)

$$e + f = \frac{0.067 \times V^2}{R}$$

e= superelevation
f= side friction factor
V= design speed
R= curve radius

V	e	f	Radius
15	0	.19	80
20	0	.18	150
25	0	.17	250
30	0	.16	375

Table 4-2

MINIMUM CURVE RADIUS FOR DESIGN SPEED ON COLLECTORS AND ARTERIALS

Design V	Speed e	Max f	Min R	e	Max f	Min R	e	Max f	Min R
40	.04	.15	561	.06	.15	508	.08	.15	464
50	.04	.14	926	.06	.14	833	.08	.14	758
60	.04	.13	1412	.06	.13	1623	.08	.13	1143

Table 4-3

MAXIMUM SUPERELEVATION RATES

Road Type	Rural	Urban
Arterials	.08	.06
Collector	.06	.06
Local Roads	.06	.04
Lanes	.04	.04

Table 4-4

SIDE FRICTION FACTORS FOR DESIGN SPEED

V	f
15	.19
20	.18
25	.17
30	.16
40	.15
50	.14
60	.13

Sudden reductions in speed introduce the element of surprise to the driver and should be avoided. Where physical restrictions cannot be overcome and it becomes necessary to design curvature which is lower than the design speed for the project, the design speed between successive curves shall not change by more than ten mile-per-hour increments. Under no conditions shall a curve for a design speed lower than the design speed of the project be introduced at the end of a long tangent or at other locations where high approach speeds may be anticipated. Use of lower standard curve radii is subject to approval by the County.

Angle points less than one degree requires no curve radius. A compound curve is two curves of different radii joining with no tangent between them. A compound curve will not be permitted. A broken-back curve is two curves in the same direction joined by a short tangent. Broken-back curves are not permitted.

D. Superelevation – One of the most important factors to consider in highway safety is the centrifugal force generated when a vehicle traverses a curve. Centrifugal force increases as the velocity of the vehicle and/or degree of curvature increases. The standard superelevation rates shown on Table 4-1 through 4-4 are designed to hold the side friction factor within tolerable limits for those operating speeds expected for the range of curve radii given.

For undivided roads, the axis of rotation of superelevation is usually the centerline. Where curves are preceded by long relatively level tangents, the plane of superelevation may be rotated to about the edges of the pavement to improve the perception of the curve.

A superelevation transition is variable in length depending upon the amount of superelevation. Two-thirds of the transition is in the tangent approach at the beginning and at the end of the curve, and one-third of the full superelevation is at the beginning and at the end of the curve. Where spiral curves are permitted, the transitions are to be designed using the latest edition of the Colorado Division of Highways' Roadway Design Manual.

E. Coordination with Vertical Alignment – To avoid the possibility of introducing serious traffic hazards, coordination is required between horizontal and vertical alignment. Particular care must be exercised to maintain proper sight distance at all times. Sharp horizontal curves introduced at or near the top of a pronounced crest, or at the bottom of sag vertical curves should be avoided.

4.3.2 Vertical Alignment

A. General Considerations – The centerline profile is a reference line by which the elevation or grades of the pavement and other features of the roadway are established. It is controlled mainly by topography, structure clearances, horizontal alignment, safety, sight distance, design speed, and the performance of heavy vehicles on a grade.

B. Minimum and Maximum Grades – To provide for adequate drainage, the minimum sustained grades shall be no less than 0.5 percent on roadway sections with curb and gutter and one (1%) percent on all other roads.

Maximum permissible sustained grades (expressed in percents) for new roads are related to design speed and shall be as followed.

	(Design Speed – MPH)						
Terrain Classification	15	20	25	30	40	50	60

Flat and Rolling	6	6	6	6	6	5	4
Mountainous	12	10	9	9	8	6	NA

The maximum design grade should be used infrequently rather than as a value to be used in most cases. For short grades less than two hundred (200) feet, the maximum gradient may be increased by one percent.

In flat or rolling terrain, all grades shall flatten to four percent for at least one hundred (100) feet approaching intersections, and for at least fifty (50) feet entering and leaving turn-arounds or cul-de-sacs.

C. Vertical Curves – All vertical curves shall be designed to provide adequate stopping and passing sight distance, headlight sight distance, comfortable driving, good drainage, and a pleasing appearance. Vertical curves shall be parabolic.

Vertical curves are not required where the algebraic difference of grades is less than .40%. The preferred minimum length of a vertical curves, both crest and sag, is four hundred (400) feet.

The minimum length of a vertical curve shall be three hundred (300) feet for design speeds above thirty (30) miles per hour, and two hundred (200) feet for design speeds of thirty (30) miles per hour and lower. Unequal tangent vertical curves are permitted only in special circumstances as approved by the County.

Vertical curves that are long and flat may develop poor drainage at the level section. This must be overcome by adjusting the flow line of the ditch section.

D. Sight Distance – Minimum lengths of crest vertical curves are controlled by stopping sight distance requirements as shown in Figure 4-1.

4.4 Cross Section Standards

4.4.1 Typical Sections

Typical sections for each functional classification is given in Appendix B – D. Table 3-1 also provides a summary of design elements. Variations from these sections may be approved by the County when there is sufficient evidence that certain design elements can be reduced or eliminated.

4.4.2 Right-of-way Width

The basic minimum right-of-way width for each typical section is shown in Table 3-1. This width is sufficient only to accommodate the specific geometric cross-sectional elements that are required. Additional right-of-way may be required for snow removal and storage.
Cut and fill slopes beyond the hinge point and right-of-way may require slope easements.

4.4.3 Crown Slope

On roads in tangent alignment, the high point of the crown shall be at the centerline of the pavement and the pavements sloped toward the edges of a uniform grade. In mountainous terrain, local roads may be insloped or outsloped on a constant two percent (2%) slope to alleviate surface erosion due to runoff,

provided safe speed requirements are met. At intersections, or in unusual situations, the crown position may vary depending upon drainage or other factors.

Standard crown slopes to be used on the traveled way for different pavement and surface types are as follows:

Type of Surface	Crown Slope (Percent)
Portland Cement	1.5
Bituminous Mix Pavements	2.0
Penetrated Treated Earth or Gravel	2.0
Unsurfaced Graded Section	2.0

4.4.4 Side Ditches

Side ditches may be required in cut sections without curbs and gutters. The slope from the edge of the shoulder to the bottom of the ditch shall not be steeper than 3:1.

4.4.5 Curbs and Gutters

Curbs and gutters may be required as follows:

A. On urban roads

B. When drainage, traffic, or public safety necessitates

All curbs and gutters are to be constructed with Class B concrete and shall conform to standards detailed in the latest edition of Colorado Division of Highways Standard Specifications for two feet curb and gutter Type 2, unless otherwise approved by the County Road and Bridge Department.

4.4.6 Side Slopes

Cut and fill slopes shall be as shown in Table 4-5. Flatter slopes shall be required in unstable soils. Cut slopes that are steeper than the standard may be considered in special situations, such as in solid material, but require prior approval by the County.

The tops of all cut slopes shall be rounded with a minimum of a four (4) foot radius where the material is other than solid rock, and shall be re-seeded with vegetation native to the area or as recommended by the United States Conservation Service. The back-slopes at the end of all cuts, except rock, shall be flattened. The ditch at the lower end of the cut shall be widened gradually to discharge side ditch drainage away from base of adjacent fill slopes in order to avoid erosion and improve appearance.

Table 4-5 – Cut and Fill Slopes:

Height	Cut Slopes	Fill Slopes
0-5 feet	3:1	2:1
5-10 feet	2:1	1 1/2:1
10-15 feet	1 1/2:1	1 1/2:1
Above 15 feet	1:1	1 1/2:1

4.4.7 Ramps for Physically Handicapped

All newly constructed, repaired or replaced sidewalks and curbs shall provide adequate and reasonable access for the safe and convenient movement of physically handicapped persons, including those in wheelchairs.

4.4.8 Recreation Paths

Saguache County may develop recreation path standard specifications.

4.4.9 Horizontal and Vertical Clearance

The following are minimum clearances for structures or other roadside obstructions, including but not limited to mailboxes, shrubs, trees and fences. Additional clearances may be provided for sight distance and other requirements. (See Appendix F)

When roads or highways under the jurisdiction of other agencies are involved, the clearance as required by said agency, if more restrictive than these Standards, shall apply.

The minimum horizontal clearance shall be four (4') feet from the outside edge of the traveled way. The minimum vertical clearance for all overhead structures including signs, cables, etc. shall be in accordance with those specified in the applicable provisions of the latest edition of Colorado Department of Highways Roadway Design Manual.

4.5 Driveway Access Control Standards

All driveways that access a County road or right-of-way shall have a minimum service width of eighteen (18) feet at the edge of the pavement or road surface, and taper to a minimum service of twelve (12) feet at a distance of six feet from the edge of the road, and maintain this surface width either to the edge of the County road right-of-way or for a distance of thirty (30) feet from the centerline whichever is greater. All such driveways shall be constructed with the following minimum section dimensions.

Driveway Material	Minimum Section Depths
Concrete	6 inches
HBP	2 inches with 6 inches Class 6 aggregate base course;
Gravel	4 inches compacted Class 6 aggregate base course;

and shall be installed in accordance with both an approved driveway permit and all applicable sections of these Standards. Access to a County road or right-of-way must be obtained as described in Section 7.3.

Within the right-of-way, maximum grades for driveways shall be 10%. The grade of entrance and exit shall slope downward and away from the road surface at the same rate as the normal cross slope, and for a distance equal to the width of the shoulder, but in no case less than ten feet from the traveled way.

All driveways and approaches shall be constructed so that they shall not interfere with the drainage system of the roadway. The applicant will be required to pay for and install, at his own expense, drainage structures at entrances and exits which will become an integral part of the existing drainage system. The dimensions of all drainage structures must be approved by the Saguache County Road and Bridge Department representative prior to installation. The minimum size of culvert will be 12" diameter.

The horizontal axis of an approach to the roadway shall normally be at right angle to the centerline of the roadway and extend a minimum of forty (40) feet beyond the traveled way. An angle between 90 and 60 degrees shall be permitted if it can be shown that physical constraints exist that require an approach new angle of less than 90 degrees. An angle less than 60 degrees is not permitted.

No more than one approach shall be allowed on any parcel of property when there is less than one hundred (100) feet of property frontage.

In the case of flared driveways, the flared portion adjacent to the traveled way shall not encroach upon adjoining property.

An access approach that is gated shall be designed so that the longest vehicle using it can completely clear the traveled way when the gate is closed. In no event shall such distance be less than thirty (30) feet.

Intersecting public and private roads shall be located opposite each other where possible or be offset by a minimum of one hundred twenty five (125) feet. Driveways shall comply with all sight distance requirements per Section 4.6.3.

4.5.1 Access to Arterial Roads

A. Private Direct Access – Private direct access to major and rural arterial roads shall be permitted only when the property in question has no other reasonable access to the County road system. When direct access must be provided, the following shall be considered:

1. Access shall continue until such time that some other reasonable access to a lower functional classification road or highway is available and permitted. The access permit shall specify the future reasonable access location and, if known, the date the change will be made. Subdivisions shall be designed, if possible, to provide for alternative access at a future date.

2. No more than one access approach shall be provided to an individual parcel or to contiguous parcels under the same ownership unless it can be shown that additional accesses would be significantly beneficial to the safety and operation of the road or the local circulation system. Subdivision of a parcel shall not result in additional access unless shown as necessary for safety or operational reasons. Agricultural roads shall be exempt from this requirement.

B. Spacing and Signing

1. For rural road sections where significant development is not expected in the foreseeable future, minimum spacing of all intersecting public roads, roads and highways shall be on one-half (1/2) mile intervals for paved arterials and one-quarter (1/4) mile intervals for gravel and arterials, plus or minus approximately 200 feet. Where topography makes such spacing inappropriate, location of public approaches shall be determined by topography, property ownership's, property lines and physical design constraints. The final location should serve as many properties and interests as possible to minimize the need for direct private access to the road system.

2. In areas where development accesses an arterial road, a traffic engineering study shall be completed to properly locate all proposed approaches. These studies shall be submitted to the County Road and Bridge Supervisor for review prior to the issuance of a Driveway Permit.

4.5.2 Access to Collector Roads

A. Private Direct Access – No more than one access approach shall be provided to an individual parcel or to contiguous parcels under the same ownership except adjacent platted subdivision lots unless it can be shown that additional access approaches would not be detrimental to the safety and operation of the road, and are necessary for the safe and efficient use of the property. Driveway designs which only allow for backing off of or onto a County road shall not be allowed in any circumstance.

Subdivision of a parcel shall not result in additional access unless shown to be necessary for safety or operational reasons.

Driveways located near an intersection shall be constructed so that the side nearest the intersection is no less than one hundred (100) feet from the centerline of the intersecting road for commercial driveways and fifty (50) feet from residential driveways.

B. Access onto collector roads shall be spaced at a minimum one-quarter (1/4) mile intervals plus or minus two hundred (200) feet.

A. Private Direct Access – No more than one access approach shall be provided to an individual parcel or to contiguous parcels under the same ownership except adjacent platted subdivision lots unless it can be shown that additional access approaches would not be detrimental to the safety and operation of the road, and are necessary for the safe and efficient use of the property. Driveway designs which only allow for backing off of or onto a County road shall not be allowed in any circumstance.

Driveways located near an intersection shall be constructed so that the side nearest the intersection is no less than one hundred (100) feet from the centerline of the intersecting road for commercial driveways and fifty (50) feet from residential driveways.

4.6 Intersections

4.6.1 General Requirements

To minimize conflicts and to provide for the anticipated crossing and turning movements, geometric design of each intersection must be given careful consideration.

Intersections occurring on horizontal curves or crest vertical curves are undesirable. When latitude exists in the selection of intersection locations, vertical or horizontal curvature should be avoided. A line or grade change may be warranted when major intersections are involved.

4.6.2 Intersection or Access Approach Radii

4.6.2 Intersection or Access Approach Radii

A. Access approaches shall not have an equivalent turning radius less than twenty (20) feet.

B. Access designed for use by single or multi use vehicles exceeding thirty (30) feet shall have a minimum fifty (50) foot turning radii.

C. The access approach equivalent turning radii shall not be less than that necessary to accommodate the turning radius of the largest vehicle for which the access approach is intended for use on a daily basis.

D. Based on the classification of intersecting roadway, adjacent corner property lines are required to have the following property line radius:

Type of Intersection	Class 5 – 7	Class 1 – 4
Local-Local	10'	20'
Local-Collector	20'	25'
Collector-Collector	20'	25'

Intersections involving Collector and Arterial roads are to be designed individually.

4.6.3 Sight Distance

A. The required stopping sight distance necessary, as measured from the TRAVELING VEHICLE to the intersection or access approach, shall be determined according to Section 4.3.1 (B).

B. Table 4 – 6 shall be used to establish the minimum sight distance necessary for the ENTERING VEHICLE, based on the following criteria:

1. Sight distance shall be measured at a height of 3.5 feet between the entering driver and the oncoming vehicle.

2. The entering driver's eyes shall be considered to be fifteen (15) feet back from the edge of the traveled way.

3. The vehicle shall be the largest vehicle normally intended to use the access approach. Normally means in access of an average of one per day.

4. After sight distance requirements are met and an access permit issued, a sign structure or parked vehicle shall not be permitted where it will obstruct the required sight distance.

Table 4 – 6 Intersection Sight Distance

* Vehicle expected to enter or cross highway

Sight Distance is given in feet per 10 mph of posted speed limit.

	2 lane	4 lane
Passenger Car	100	120
Single Unit Truck	130	150
Multi-Unit Trucks	170	200

4.7 Pavement Structure Design

4.7.1 General Design Procedure and Requirements

The requirements for the design of pavement structure sections shall be based on the most applicable section of the current edition of the Colorado Division of Highways Roadway Design Manual.

4.7.2 Pavement Structure Design Pavement

A pavement structure design report shall be prepared by a professional engineer, as a requirement of road plan approval.

The pavement structure design report shall include at minimum the following information:

A. Soil logs along the proposed roadway alignment at a maximum of five hundred (500) intervals.

B. Each log shall have soil profile of at least four feet below proposed subgrade elevation.

C. Representative samples for pavement design from each log shall be within two feet below proposed subgrade elevation.

D. Each representative sample shall be classified according to the AASHTO Unified Soil Classification Table, along with an Atterberg Limits Test and sieve analysis.

E. The pavement design procedure is based on the Hveem Stabilimeter Test or the Expansion Pressure Test which is used to compute a Resistance Value (R) of the subgrade. The California Bearing Ratio Test may also be used to determine design parameters.

F. Proposed average daily traffic volumes (ADT) for each road shall be based on 100% of full development build-out including an adjustment for construction traffic. Traffic analysis for the purpose of pavement design shall be part of submittal requirements as defined in Section 4.2.2.

G. Recommended structural sections, based on the design considerations, proposed typical sections of roadway, which may require additional stabilization or treatment.

4.7.3 Flexible Pavement Design Considerations

The following elements are to be used in the design procedure:

A. The design procedure is based on the number of 18,000 pound single axle equivalent daily load applications (18k EDLA) per traveled lane.

The 18k EDLA shall be equivalent to 100% of fully developed ADT adjusted for construction traffic (110%). In no case will the 18k EDLA be less than 5 on private roads, lane and place roads, and local roads and on 25 on collectors.

B. The serviceability index (SI) for private roads, collector roads, local roads, and lanes will be 2.0, Figure 4 – 2. The SI for arterial will be 2.5, Figure 4 – 3.

C. The regional factor shall be summarized as per Table 4 – 7. In no case will regional factor be less than 2.00.

D. Evaluation of subgrade soils and pavement structure materials shall follow the procedure in the Colorado Department of Highways Roadway Design Manual and Table 4 – 8 of these Standards. Evaluation of subgrade soils shall be revised as per Section 4.7.2 (E).

E. An economic evaluation of alternate structure sections is encouraged. In making adjustments to the various layers of the pavement structure, a more economical design may result. For example, by increasing the asphalt thickness, a decrease in gravel and earthwork may result. By stabilizing a poor subgrade with lime or cement, a thinner structure section may result. Also, the use of asphalt treated base or cement treated subbase or ridged concrete pavement may be a more economical use of materials. Life cycle cost analysis will help determine most economic materials to use.

Table 4 – 7

PAVEMENT DESIGN REGIONAL FACTOR

Annual Precipitation	
Over 34"	1.00
24" - 34"	0.50
18" - 23"	0.00
14" - 17"	-0.25
Less than 14"	-0.50

Elevation	
Over 9500	1.50
8500 – 9500	1.00
7500 – 8500	0.50
Less than 6500	0.25

Drainage	
* Very Poor	1.00
Poor	0.50
Fair	0.25
Good	-0.25

* High groundwater table

Frost	
** Frost boils in area	3.00
** Frost susceptible soil, frost penetration over 28"	1.00
Frost susceptible soil, frost penetration under 28"	0.25

** Moisture available when subject to frost action

Table 4 – 7 (CONTINUED)

The Minimum Regional Factor shall be 2.00.

Other conditions that may influence the choice of regional factors are:

(1) Elevation of the grade line, especially in swampy areas where the roadbed soils may be saturated for long time periods.

(2) Number of freezing and thawing cycles during winter and early spring.

(3) Steep grades with large volumes of heavy trucks.

(4) Areas of concentrated turning and stopping movements, such as bus steps, etc.

Table 4 – 8

PAVEMENT DESIGN
STRENGTH COEFFICIENTS

Component	Limiting Test Criteria	Coefficient
Plant Mix Seal		0.25
Hot Bituminous Pavement	Rt □ 95	0.44
" " "	Rt = 90 – 94	0.40
" " "	Rt = 87 – 89	0.35
" " "	Rt = 84 – 86	0.30
" " "	Rt □ 83	0.25
Road Mix Bit. Pavement		0.20
Existing Bituminous Pavement		0.20 to 0.44
Plant Mix Bit. Base	Rt □ 90	0.34
" " " "	Rt = 85 – 89	0.30
" " " "	Rt = 80 – 84	0.25
" " " "	Rt □ 79	0.22
Aggregate Base Course (A.B.C)	"R" □ 84	0.14
" " " "	"R" = 78 – 83	0.12
" " " "	"R" = 70 – 77	0.11
" " " "	"R" □ 69	0.10
Emulsified Asphalt Treated A.B.C.	Rt □ 95	0.23
" " " "	Rt = 90 – 94	0.20
" " " "	Rt = 84 – 89	0.15
" " " "	Rt □ 83	0.12
Cement Treated A.B.C.	7 – day test □ 650 psi	0.23
" " "	7 – day test = 650 psi	0.20
" " "	7 – day test □ 650 psi	0.15
Hydrated Lime Treated A.B.C.	"R" = 84	0.14
" " " "	"R" = 78 – 83	0.12
Borrow Material		0.10 *

* Used only to determine a value of strength for layers of soil and/or borrow material which are located above the soil layer from which the soil support value of the subgrade is determined.

NOTE: The minimum strength coefficient for the Base Course on highways having a current ADT volume of 750 or greater shall be 0.12.

4.7.4 Minimum Structural Sections

The minimum compacted depths of Hot Bituminous Pavement (HBP) and Aggregate Base Course (ABC) Class 6 (3/4") per road type which will be allowed are as follows:

	HBP	ABC
Gravel Roads	0"	6"
Paved Roads	2"	6"
Collectors	dictated by project design	
Arterial	dictated by project design	

Evaluation of the pavement design as per Section 4.7.3 (e) may result in an increase in HBP or substituting ABC with Plant Mix Bituminous Base (PMBB) or Portland Cement Treated Base. In no case will substitute sections be any less than three inches in depth.

Minimum compacted depths of HBP and ABC shall only be used when all of the design consideration requirements and the pavement structure design report requirements have been fulfilled and show a section less than this minimum needed to support the design loads.

4.7.5 Rigid Pavement Design

The design of Rigid Pavements or Portland cement concrete overlay for roadway surfaces shall conform to the applicable section of the latest edition of the Colorado Division of Highways Roadway Design Manual. Thickness shall be dictated by the project design, and in no case shall the pavement thickness be less then six inches, overlays shall have a thickness of at least 3 ½ inches.

4.8 Drainage

4.8.1 Applications

This section presents minimum required standards for the design of road drainage systems. Design of ditches, storm sewers, drainage courses and drainage crossings shall be performed by an engineer. Proper and adequate accommodation of drainage shall be provided for the protection of the roadway improvements and safety of the public.

4.8.2 Design Criteria

Design Criteria for the collection of and movement of water through public roads are based on the size of the drainage basin.

A. Minor Drainage Basin – A minor drainage basin will consist of a surface area of less than one hundred (100) acres. All watercourses and structures in a minor drainage basin will be designed for ten-year storms.

B. Major Drainage Basin – Drainage basins with surface areas greater than one hundred (100) acres shall be classified major drainage basins, in which one hundred (100) year storms shall be used as design criteria.

4.8.3 Hydrology

One of the following four computational techniques must be used in the planning and engineering of a drainage system. In addition, a written explanation must be given by the applicant why the particular technique was used.

A. Rational Method – The rational method is recommended for storm sewer, culvert design, and overload flow of minor drainage basin. It is simple, and when used with adequate input parameters it provides reasonable results for use in project design. The basic equation is Q=CIA

Where:

Q – Peak discharge in cubic feet per second (cfs)

C – Coefficient of runoff (dimensionless)

I – Average rainfall intensity for duration equal to the time of concentration of the watershed (inches/hour)

A – Drainage area of the watershed (acres)

B. Soil Conservation Service (SCS) Unit Hydrograph Method and SCS Tabular Hydrograph Method – In most drainage basins, rainfall runoff data from which unit hydrographs can be derived is unavailable, thus a synthetic unit hydrograph must be developed. The USDA Soil Conservation Service has developed a method of hydrograph synthesis, which is now being widely used. The Tabular Hydrograph Method provides a tabular approach to estimating peak discharges from urban areas using the time of concentration and travel time. This method can readily predict the increase in peak flow when all or a portion of the watershed is to be developed.

C. Soil Conservation Service (SCS) Method – The SCS method was developed particularly for agricultural watersheds. This widely used method is applicable to the mountainous regions on areas from two hundred (200) acres up to ten square miles, and above 6,000 feet in elevation.

D. Regional Analysis – A statistical or regional approach appears to be most appropriate for those areas in Saguache County where peak flows occur from seasonal snow melt. Also, where large watersheds are expected to undergo significant urbanization, computer simulation techniques should be utilized, such as the HEC I and HEC II programs.

4.8.4 Drainage and Irrigation Structures within County Road Right-of-Way

A. Materials – Culverts shall be constructed from reinforced concrete, corrugated aluminum, corrugated steel, or acceptable polymers. The minimum pipe size shall be a 15-inch diameter round pipe or shall have an equivalent 15-inch diameter round cross sectional area for other shapes.

B. Inlets and Outlets – Culverts may need to be designed either with headwalls and wingwalls, or flared-end sections at the inlet and outlet. Additional protection may also be required at the inlet and outlet due to the potential scoring velocities.

C. Velocity – A minimum culvert velocity of three feet per second is recommended in order to assure a self-cleaning condition.

The maximum culvert velocity is dictated by the channel conditions at the outlet. If the outlet velocity area less than seven fps for grassed channels, then only a minimal amount of protection is

required. Higher outlet velocities will require substantially more protection. The maximum outlet velocity shall be twelve (12) fps along with the proper erosion protection.

D. Structure – All culverts, as a minimum, shall be designed in accordance with the procedures of AASHTO Standard Specifications for Highway Bridges and with the pipe manufacturer's recommendations.

Table 4 – 9

PERMISSIBLE VELOCITIES FOR ROADSIDE DRAINAGE DITCHES

Roadside channels with erodible Linings (earth; no vegetation):

Minor and Major Design Storm

Soil Type or Lining	Permissible velocity (fps)
Fine sand (noncolloidal)	2.5
Sandy loam (noncolloidal)	2.5
Silt loam (noncolloidal)	3.0
Ordinary firm loam	3.5
Fine gravel	5.0
Stiff clay (very colloidal)	5.0
Graded, loam to cobbles (noncolloidal)	5.0
Graded, silt to cobbles (noncolloidal)	5.5
Alluvial silts (noncolloidal)	3.5
Alluvial silts (colloidal)	5.0
Course gravel (noncolloidal)	6.0
Cobbles and shingles	5.5
Shales and hard pans	6.0

Roadside channels, lines with various grass covers (uniform stand; well maintained):

Cover	Slope range (%)	Soils that are Erosion resistant	Easily eroded
Bermuda grass	(		
Crested wheatgrass	(		
Buffalo grass	(0 – 5	6.0	5.0
Kentucky bluegrass	(5 – 10	5.0	4.0
Smooth brome	(over 10	4.0	3.0
Blue grama	(		
	(		
Grass mixture	(0 – 15	4.0	3.0
	(5 – 10	3.0	2.5
Lespedeza sericea	(		
Weeping lovegrass	(		
Yellow bluestem	(		
Alfalfa	(0 – 5	3.0	2.0
Crabgrass	(		
Common lespedeza	(		
Sudan grass	(		

4.8.5 Roadside Ditches

In areas where no curb and gutter is required, the maximum allowable capacity for the roadside ditch shall be no more than that calculated through the use of Manning's formula with an appropriate roughness coefficient. If the natural channel slope would cause erosion velocity, suitable channel protection, as approved by the County Road Supervisor shall be installed.

The most desirable roadside drainage ditches are those lined with grass. The grass will stabilize the body of the ditch, consolidate the soil mass of the bed, and check the erosion on the ditch surface and the movement of soil particles along the ditch bottom. The presence of grass in ditches can result in turbulence, which means loss of energy and increased retardation of flows. Therefore, the design must give full consideration to sediment disposition and to scour, as well as hydraulics.

For velocities in excess of (12) FPS erosion protection shall be provided for the channel. Erosion protection design must be approved by the County Road and Bridge Department.

4.8.6 Bridges and Low Water Crossings

A. Standards for Bridges – The design and supporting calculations for bridges must be prepared and certified by an engineer.

The following minimum standards shall apply to all bridges:

1. A minimum clear roadway width sufficient to provide service for proposed use.

2. Grade Criteria: Minimum of 0.5 percent
   Maximum of 4.0 percent

3. The bridge shall be designed to withstand a minimum HS 10 – 15 loading. An alternative loading may be allowed by the County where it can be demonstrated that anticipated loads will not exceed eight tons. In all cases the bridge load limit and bridge ownership shall be conspicuously posted by the permit applicant. Posting shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices and the signs shall be owned, posted, and maintained by the applicant or property owner.

4. Hydraulic Criteria:

   A single clear span bridge.

   Low steel shall be a minimum of one foot above the one hundred (100) year water surface elevation, concrete wingwalls shall be required at forty (40) degree to sixty (60) degree angles tied to the existing side slopes to prevent erosion behind the abutments.

   At no time shall the waterway section at the bridge cause a significant rise (one foot) in the intermediate regional flood surface elevation or cause flow to accelerate to velocities sufficient to scour and undermine the bridge's abutments and wingwalls.

5. Utilities attached to bridges shall not obstruct flows within the stream channel; or waterway users (i.e. boats, rafts); or sight distance to drivers using the structure. Attached utilities should not interfere or encumber the maintenance of the bridge.

6. All bridges on roads proposed for acceptance into the County Road System shall meet the latest edition of AASHTO Standards for the use being served. Acceptance will be made in accordance with the following policies:

a. New structures shall be designed by a professional engineer in accordance with AASHTO specifications for highway bridges. Designs for said structures shall be reviewed for approval by the Saguache County Road and Bridge Department. Upon approval of the plans, any person, partnership, association, or corporation desiring to have such a bridge constructed shall bear all costs associated with the construction and final inspection. All new bridges shall have a sufficiency rating greater than eighty (80) when evaluated by FHWA/CDOH procedures.

b. Existing Structures – All structures being reviewed for acceptance shall meet current AASHTO specifications. The petitioner shall present plans and specifications for review to Saguache Road and Bridge Department. Upon approval of said plans and specifications, the subject bridge may be considered for acceptance subject to a final field inspection by the County. After it has been determined that the subject structure meets all requirements, the County Road and Bridge Supervisor shall submit the petition to the Board for acceptance into the County Road System.

B. Standards for Low Water Crossings – The design and supporting calculations for all low water crossings must be prepared and signed by an engineer. The following are minimum standards for private low water crossings.

1. A minimum clear roadway with sufficient to provide service for proposed use.

2. Grade Criteria: Minimum of 0.5 percent
Maximum of 10.0 percent

3. Side slopes shall not be steeper than 3:1 and shall be protected by a six-inch concrete facing or by eighteen (18) inch rip-rap.

4. The culverts used must be a minimum of fifteen (15) inches in diameter.

5. Minimum cover over the culverts will be as follows:

Round pipe – fifteen (15) inches or as recommended by the manufacturer

Arch pipe – eighteen (18) inches or as recommended by the manufacturer, or twelve (12) inches if H-10-44 loading is applied.

6. Hydraulic criteria: Culverts shall have the capacity to carry the ten-year peak discharge from that stream, with a HW/D ratio not to exceed 1.5.

At no time shall the waterway section at the crossing cause a significant rise (one foot) in the intermediate regional flood elevation or cause flows to accelerate to velocities greater than those expected during the intermediate regional flood.

4.9 Road Appurtenances

4.9.1 Road Signs and Traffic Control Devices

All road signs, striping, delineators, barricades, signals, and other traffic control devices shall conform to the 1988 edition of the Manual on Uniform Traffic Control Devices (MUTCD) published by U.S. Department of Transportation, Federal Highway Administration, and any applicable Colorado supplement.

The permittee shall bear all expenses for the fabrication and installation of road name signs, permanent barricades, and/or signs for implementing the approved project design (i.e. one way, no parking, dead end, private drive.) Road name signs shall be green in color. These signs shall be lettered and erected in accordance with the latest edition of the Manual on Uniform Traffic Control Devices. The selection of materials shall be consistent with the County Road and Bridge Department's ability to maintain the signs after acceptance. Materials shall require the review and approval of the Saguache County Road and Bridge Department. Signs and barricades shall be in place prior to road acceptance.

4.9.2 Guardrail

Guardrail may be required by the Road and Bridge Department based on the following criteria:

A. To protect a fixed object.

B. At a location with a high accident rate (vehicles accidentally leaving the traveled roadway.)

C. In areas of steep terrain or high embankments

D. On an isolated sharp curve on a road otherwise built to higher standards

E. On curves requiring a reduction in approach speeds where one of the following conditions exist:

1. The height of embankment is more than ten feet
2. The side slope is steeper than 4:1
3. Substandard pavement and shoulder widths
4. Other roadside hazards

F. Bridge approaches when the approach shoulder width is less than ten (10) feet.

When a determination is made that guardrail shall be installed the installation shall conform to current Colorado Department of Highways Standards and be approved by the County Road Department, and the permittee shall bear all expenses.

4.9.3 Cattle Guards

Cattle guards shall be installed where they are necessary for the control of livestock. The clear opening of the cattle guard shall extend from the edge of the shoulder to edge of shoulder for the standard roadway section approved. Each cattle guard location shall also have a gate installed to allow livestock passage. Cattle guard and gate design shall be approved by the County Road and Bridge Supervisor prior to installation.

Appendix E is a drawing of the standard 24-foot cattle guard built and used by the Saguache County Road & Bridge Department.

4.10 Utilities

Any utility within a road right-of-way must be designed and located primarily to maximize public safety and secondarily to minimize road maintenance and snowplowing costs. All utilities requiring above-ground risers or boxes at intersections shall locate them twenty-eight feet (28') from the centerline of all existing roads.

When a utility company must make an emergency repair on a County road to restore service, they may do so. The company should notify the County Road Supervisor within 48 hours, and repair the site as soon as possible.

4.10.1 Underground Utilities

A. Where the installation crosses a paved roadway, it shall be made by boring or jacking beneath the road surface. Open cutting shall be allowed to the edge of the shoulder portion of the road. No water shall be used in boring and no tunneling shall be permitted. In no circumstance shall an existing culvert be used for an installation of a new underground utility. The Road Supervisor may, in his sole discretion, authorize pavement cuts based on the condition of the asphalt and known soil conditions in the area.

B. Pavement cuts are permitted when: an unsuccessful attempt has been made to bore or jack the installation; conflicting utilities place constraints as to elevation or alignment on the proposed installation; connecting to an existing utility located beneath the paved portion of the roadway; approved in advance by the County Road and Bridge Supervisor.

Cutting existing asphalt shall be accomplished so as to provide a neat even line perpendicular to the centerline of the roadway, unless otherwise approved by the County Road Supervisor in advance.

C. When an open cut is allowed, the permittee is responsible for restoring the disturbed portion of the roadway to its original condition. The disturbed area shall be repaired within forty-eight hours from the time of excavation, or twenty-four hours from completion of the project within the roadway. When weather conditions prohibit complete repair the cut must be left in an acceptable condition for public use. The final repair must be done as soon as weather permits. Any repairs not completed within 48 hours must be pre-approved by the Road Supervisor.

Backfilling within the roadway prism shall be made in six-inch lifts and mechanically compacted and densified to 90% density around the utility, and 95% density for the remaining portion of the trench between the base course and the utility. Backfill outside the roadway prism shall be compacted to a density consistent with the adjoining area. Relative densities shall be determined by AASHTO T-99, with the material within one percent of optimum moisture. Backfill material shall be of clean, random (non-granular) material. Bedding material may be granular. Imported backfill meeting standards defined by the Department of Highways, Division of Highways, State for Colorado, Standard Specifications for Road and Bridge Construction, (latest edition) may be used or required when existing material is unsuitable.

Permittee may be required to perform compaction control testing. The compaction-testing schedule is as follows:

1. One test at ½ trench depth from zero to five feet deep and one test at finish grade.

2. Two tests, one at each third point for trenches five to ten feet deep, and one test at finish grade.

3. Three tests, one at each quarter point for trenches ten feet deep and over, and one test at finish grade.

Tests shall be performed at thirty (30) foot intervals for trenches one to one hundred twenty (120) feet in length, fifty (50) foot intervals for trenches one hundred twenty (120) to three hundred (300) feet, and one hundred (100) foot intervals for trenches over three hundred (300) feet in length. Permittee shall bear all expense for testing fees and repair costs. The County reserves the right to conduct in-place density tests to confirm the permittee's density test results, and require retesting of areas where conflicting test results are obtained.

Compaction control testing and documentation of results may be waived by the County Road and Bridge Supervisor upon submittal of an acceptable surety guaranteeing repair or replacement of failures within a one year period after completion of the last repair.

Structural backfill (flow-fill) meeting an approved design containing Portland cement, water, coarse aggregate and fine aggregate, and resulting in a maximum of 60 psi in 28-days may be used at the approval of the Road and Bridge Supervisor. Compaction of this structural backfill will not be required if material meeting the approved design is used.

Hot Bituminous Pavement Mix Grading C, CX, G, or F as defined by the Department of Highways, State of Colorado, Standard Specifications for Road and Bridge Construction, latest edition, shall be used for patching material, except when unavailable, during which time a temporary cold mix patch shall be allowed. Temporary patches shall be replaced with hot mix patches within five working days after material becomes available. All disturbed areas to be patched shall be prime-coated with MC-70, or the equivalent, applied at a rate of 0.15 to 0.30 gallon per square yard. The layer of patching shall be as thick as the original road surface and in no case less than two inches. Asphalt cuts shall be twelve (12) inches wider (six inches per side) than the width of the excavation.

Permittee shall be responsible for patch failure and subsequent surface settlement for a period of twelve months after completion of patching.

Repairs to failed patches may be made by the county and billed directly to the permittee.

D. No underground utility may be installed within a road right-of-way if such installation would interfere in any fashion whatsoever with any existing utility installation or watercourse, including a corral, ditch or culvert, except with the prior written authorization of the owner of the existing utility installation or watercourse.

E. The traveling public must be protected during the repair or installation of utilities with proper warning signs or signals. Warning signs and signals shall be installed and maintained by and at the expense of the permittee, in accordance with the latest edition of The Manual on Uniform Traffic Control Devices. The County Road Department may require a construction-signing plan prior to the granting of this permit. If proper signs are not in place during the work, the County Road and Bridge Supervisor or authorized representative shall immediately stop all work until proper signs are in place.

F. Utility placement by plowing shall be allowed Plowing shall not occur across paved roads. Where plowing operations occur across the roadway prism and result in an open cut, backfilling shall be done in accordance with paragraph 4.10.1.C.

G. When a road closure due to utility installation becomes necessary, the permittee shall notify the Saguache County Sheriff's Office and/or State Patrol, ambulance, fire department, and school district stating duration of all road closures. All road closures must be approved by the County Road and Bridge Supervisor in writing in advance of road closure.

H. No cleated or track equipment shall work on or move over asphalt surfaces without mats.

I. Any materials excavated, as the result of utility installation shall be removed from road surface each day unless material is signed per the MUTCD (Manual Uniform Traffic Code Devices) and is serving as a barrier to an open excavation. The Saguache County Road and Bridge Supervisor may require that road surfaces be washed. (C.R.S. Section 42-4-1207)

J. Requests for utility permits should allow 48 hours for a field review by the County Road and Bridge Department prior to the issuance of any permit.

K. Construction of underground installations will generally require the services of an inspector approved by the County Road Department. All extraordinary costs related to such inspections will be borne by the permittee.

L. A copy of the fee schedule for Underground Utility Permits is available from the County Road and Bridge Department. Failure to obtain a permit when working within the County road right-of-way will result in a fee five (5) times the regularly scheduled fee.

M. Road cuts for utility installation or repair made parallel to the centerline of the road, and which cause damage to, or require the removal of asphalt in any traffic lane, require the replacement of asphalt to the full lane width throughout the disturbed section unless a waiver is obtained from the County Road and Bridge Supervisor.

N. When utilities are to be located behind the curb, the trench or excavation shall be located at a distance away from the back of curb or edge or asphalt equal to the depth of the trench or excavation.

O. No placement of underground utilities will be allowed when there is more than four inches (4") of frost.

ARTICLE V

CONSTRUCTION SPECIFICATIONS

5.1 General Policies

5.1.1 Saguache County Construction Specifications

During the execution of road and bridge construction and related to work, all materials, performance, and quality of work shall conform to the requirements of these Standards, the applicable sections for the most current edition of the Division of Highways, State of Colorado Standard Specifications for Road and Bridge Construction, Colorado Standards Plans, Division of Highways M & S Standards, American Association of State Highway and Transportation Officials, and the Standard Specification for Highway Bridges.

If these Standards or the Division of Highway Standard Specifications do not cover a specific situation during the course of work, applicable specifications must be approved by and obtained from the County. In the event that there is conflict between the various reference specifications, they shall govern in the following order:

A. Saguache County Standard Specifications for Road and Bridge Construction.

B. Division of Highways, State of Colorado, Standard Specifications for Road and Bridge Construction; Standard Plans; M & S Standards.

C. AASHTO Standard Specifications for Highway Bridges

The County shall be the final authority on the meaning or interpretation of all specifications.

5.1.2 The Project Engineer

Each road developer shall designate to the County Road and Bridge Department a person who shall be responsible for general compliance with these Standards, approved permits, and development improvement agreements, and the following:

A. To provide to the County any engineering details, documentation, or any other information regarding the prosecution of the work;

B. To apply to the County for written approval by the County any proposed alternations to the approved plans and specifications prior to construction;

C. To provide reproducible "as-built" plans, and specifications to the County Road and Bridge Department upon completion of all work to be performed on the project as a condition of final approval of the work;

D. To furnish and set construction stakes and marks establishing all lines, grades, and measurements necessary to the proper prosecution of the work in its final location as shown on the approved plans and specifications;

E. To make sure all survey monuments disturbed or removed are replaced in kind at their original locations; and

F. To provide all materials testing necessary to establish parameters required to inspect work for compliance with approved plans and specifications.

G. To stop dirt work when frost levels reach four inches (4").

5.1.3 Inspection and Testing

All work done on County roads and those roads required to be in compliance with approved land use change permits may be inspected by the County Road and Bridge Department to ensure compliance with these Standards, and the applicable provisions of the land use change conditions, approved plans, or subdivision agreement.

The County shall suspend the work wholly, or in part, due to the failure of the contractor to carry out provisions of these Standards, approved permits and development improvement agreements.

To ensure compliance with these Standards and approved plans, adequate in-process inspection and testing may be required. The Project Engineer shall be responsible for certifying all work is completed in accordance with the approved plans and specifications.

The County shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Project Engineer and contractor as required to make a complete and detailed inspection. The County may require that any work done or materials used without inspection must be ordered, removed, or replaced. The County may, at any time before acceptance of the work, direct the Contractor to remove or uncover any such portion of the finished work. After examination, and approval of the work by the County, the Contractor shall restore the disturbed portions of the work to the standard required by the specifications. Inspection by the County shall not relieve the developer and/or contractor, or their designated representatives of the responsibility to control the work and insure compliance with the approved plans and specifications. The County shall not be responsible for insuring project compliance with the approved plans and specifications.

When the Construction Specifications of other jurisdictions are involved in the work, written approval shall be provided by the other jurisdictions and made available to the County prior to final acceptance of the work. Regular in-progress materials testing shall be provided to the County in a timely manner during the course of the work, and should be a requirement of final acceptance.

All materials testing shall be performed by an independent laboratory, under the supervision of a professional engineer. All testing shall be at the expense of the developer, the Project Engineer, or the contractor.

Prior to acceptance by the County, all work not in compliance with these Standards, approved permits, and/or development improvement agreements shall be brought into compliance at the Contractor's or owners sole expense.

For the minimum requirements for compaction of embankments, sub-grades, and utility trenches, see Table 5-1. For required quality tests, see Table 5-2.

Revised 3/93

Roads constructed to a Local Intermittent standard shall be exempt from controlled compaction testing and the following shall apply. Embankment shall be by layer placement. Surfaces steeper than a ratio of 3 horizontal to 1 vertical (3:1) upon which embankment is to be roughened or stepped to provide permanent bonding of new and old materials.

Embankment shall be layer placed, except over rock surfaces, in which case material may be placed by end dumping to the minimum depth needed for operation of spreading equipment. Each embankment layer shall be leveled and smoothed before placement of subsequent layers. Hauling and spreading equipment shall be operated uniformly over the full width of each layer.

Suitable material shall be placed in layers no more than 12 inches thick, except when the material contains rock more than 9 inches in diameter, in which case layers may be of sufficient thickness to accommodate the material involved. No layer shall exceed 24 inches before compaction.

Placing individual rocks or boulders greater than 24 inches will be permitted provided the embankment will accommodate them. Such rocks and boulders shall be at least 6 inches below sub-grade. They shall be carefully distributed and the voids filled with finer material to form a dense and compacted mass.

Material shall be a moisture content suitable to obtain a mass that will not visible deflect under the load of hauling and spreading equipment.

Table 5 – 1

MINIMUM REQUIREMENTS FOR COMPACTION OF EMBANKMENTS AND SUB-GRADES

Density, Percent of AASHTO Standard T – 99

Embankments

Class of Soil (AASHTO M145)	Under 50 ft (a) High	50 ft & Over	Subgrade
A – 1, A – 3	95	95	100
A – 2 – 4, A – 2 – 5	95	95	100
A – 2 – 6, A – 2 – 7	95	(b)	95
A – 4, A – 5, A – 6, A – 7	95	(b)	95

(a) 1 ft = 0.3048 m.

(b) Use of these materials requires special attention to design and construction, and shall be specified by the design engineer and approved by the County Road and Bridge Department.

MINIMUM REQUIREMENTS FOR COMPACTIONS OF UTILITY TRENCHES

Material	Density Percent	AASHTO Std.
Bedding Material	90%	T–99
Backfill	95%	T–99

Table 5 – 2

REQUIRED QUALITY CONTROL TESTS

Item	Type of Test	Minimum Test Frequency
Sub-grade and Embankment	Moisture Density Curve	1 per soil type
Compaction	In-Place Density	1/3, 400 sq.ft./lift*
Aggregate Base Course or Subbase Course	Gradation	1/1,000 ton or fraction thereof on each class
	Moisture-Density Curve	1/source on each class
	In-place Density	1/200 ton*
Hot Bituminous Pavement	Asphalt Content	1/500 tons or 2 per project whichever is the lesser
Sidewalks and Curbing (Concrete)	Compressive Strength	1 set cylinders (4) per 1,00 sq. yds. of sidewalks and/or 2,000 In. ft. of curbing, minimum 1 set per project
	Slump & Air Content	1 per set of cylinders and as often as needed for quality control
Utility Trench Backfill	In-Place Density	1/400 In. ft. of trench; or 1/branch Of section if <400 ft. 1/2 ft. vertical lift or backfill material (First test ≤ 2 ft. above the pipe, last test at pavement subgrade or 6 in. below ground surface on unpaved areas)
Manholes/Structures Compaction	In-Place Density	1/structure per 2 ft. vertical lift

* **Failing areas are to be retested**
All testing shall be done in accordance with the most recent edition of AASHTO Test Standards.

5.1.4 The Use of Approved Plans and Specifications

Any work performed without approved plans and specifications shall be considered unauthorized and may be ordered removed and the pre-existing conditions restored.

Standard drawings for proposed road and bridges submitted to Saguache County for approval shall be drawn on standard plan and profile sheet 23" x 36".

Plan drawing shall be on a scale of not less than one-inch (1") equals one hundred feet (100'). Bearings and distances shall be shown in plain view.

Profile drawing shall be on a scale of not less than one inch (1") equals ten feet (10') vertically and one inch (1") equals one hundred (100') horizontally. Length of vertical curves and percent of grade shall be shown on profile. Size, length and station location of pipe shall be shown on profile.

A typical roadway cross section of a scale not less than one-inch (1") equals ten feet (10') shall be furnished with all road plans. Cross section shall show road width, surfacing type, width and depth, cut and fill slopes and other special treatments such as top soiling or rip rap. A cross section shall be drawn for each culvert installation showing size and length of pipe, height of cover over pipe and grade of pipe.

All standard drawings shall be drawn on reproducible quality paper.

The approved plans, specifications, supplementary specifications, standards, supplementary standards and any special provisions required or approved by the County shall be considered consistent, to describe and provide for the complete work.

The contractor shall not take advantage of any error or omission in the approved plans, standards, and specifications. In the event and apparent error or omission is discovered, The Project Engineer and the County shall be notified. The developer and/or contractor, acting through the Project Engineer, shall make any corrections required, subject to approval by the County.

5.1.5 Acceptance of Work

A. Partial Acceptance – Immediately after a section of the work is completed such as a section of the sub-grade, structures, trench backfill, etc., acceptance of that element is required prior to proceeding with the next element. An example would be acceptance of sub-grade prior to the placement of sub-base. If, after partial acceptance of an element of work, conditions change and the next element is not constructed for a period of time, the County may require a re-inspection and acceptance as per Section 5.1.3.

B. Final Acceptance – Immediately upon completion of the project the road developer shall notify the County Road and Bridge Department and schedule a final inspection.

If the County Road and Bridge Department determines that construction is in compliance with these Standards, approved permits and/or development improvement agreements it shall initiate the procedure for acceptance by the Board for maintenance or release of the performance guarantee securing the completion of the work.

If the County Road and Bridge Department determines that construction is not in compliance with these Standards, the County will provide written notification of the deficient items to the road developer and to the Saguache County Planning Department. In the event the work is not done, the developer or owner is responsible for maintenance of the work until such time as all such items are completed or corrected and a satisfactory re-inspection is made, and the work approved in writing by the Saguache County Road Supervisor.

5.1.6 Cooperation with Utilities

The developer, acting through the Project Engineer, shall be responsible for coordinating the location, relocation, installation or removal of all utilities involved with the construction of the project.

The construction plans for the proposed project shall be submitted to the affected utilities as soon as possible. Adequate notice shall be given to utilities for utility locations required for the work to avoid damage to existing utilities and conflicts in the work.

ARTICLE VI

TRAFFIC STUDIES

6.1 Guidelines for Traffic Studies

Traffic consultants are invited to discuss projects with the Road and Bridge Department and/or Planning Department prior to initiation of the study. This should provide a firm base of cooperation and communication between the County, the Owner/Developer and the consultant in creating traffic characteristics that are in the best interest of the total community.

All traffic studies shall contain, as a minimum, the following information:

A. A summary table listing each type of land use by development within each development, and on surrounding public lands; the number of units involved, generation rates used, and the resultant trip generation. Trip generation should be calculated from the latest data utilized by the Colorado Department of Highways and approved by the Saguache County Planning Department.

B. Site location map(s) showing location of each land use and a network map that shows all existing and proposed road facilities.

C. Proposed improvements (including roadway widenings, channelization, and signalized intersections) should be identified, and preliminary design schematics submitted.

D. Traffic graphics should show:

1. Peak hours site traffic (in and out and on adjacent facilities).

2. Peak hour total traffic (current traffic plus site traffic in and out and on adjacent facilities).

3. Peak hour total traffic (twenty- (20) year projection) in and out and on adjacent facilities.

4. Total daily traffic (with site traffic shown in parenthesis) both existing and twenty- (20) year projected.

5. Turning movements before and after project at major intersections. In the absence of any meaningful peak hour data, peak hour trips shall be assumed to be twenty (20) percent of total daily trips.

ARTICLE VII

PERMITS

7.1 Issuance of Permits

Permit fees and bonds for any permit named in this section shall be set by the Board. No fees or bonds may be imposed on special districts, however such districts shall be required to obtain all necessary permits.

7.2 Underground Utility Permit

No individual, company, corporation, or public agency shall modify, install, or otherwise change any utility located within twenty-eight (28) feet of the centerline of any County road without first obtaining an Underground Utility Permit from the County Road and Bridge Department Supervisor. Bonding shall be required to insure conformance with these Standards. (C.R.S. Section 42-4-1207, and 43-2-111 (6))

7.3 Driveway Permits

No person shall construct any driveway providing vehicular access to or from any County road from or to property adjoining a County road without a County Driveway Permit issued by the County Road and Bridge Department Supervisor. No driveway permit shall be issued without there having been a site inspection by the Road and Bridge Supervisor. The supervisor may, in the Supervisor's sole discretion, modify certain conditions from these set forth in these Standards for issuance of a driveway permit.

7.4 Surface Alteration Permits

No person shall construct or alter any road, drainage, or other improvements within a County right-of-way without a Surface Alteration Permit issued by the County Road and Bridge Department Supervisor. Road construction shall be in accordance with engineering plans prepared by a professional engineer, in conformance with these Standards, with said plans to be approved by Saguache County.

Surface Alteration Permits shall be obtained at least forty-eight (48) hours prior to commencement of construction. A list of required field tests and inspections will be attached to the permit. The applicant shall submit a written schedule of the work, including quantities of materials and length in feet of surface disturbance, and total time area will be disturbed. Approved permits shall not be changed without the written consent of Gunnison County.

7.5 Oversize/Overweight Permits

The County Road and Bridge Department Supervisor may, upon application in writing and good cause being shown, issue an Oversize/Overweight Permit to operate or move a vehicle or combination of vehicles of a size or weight of vehicle or load exceeding the maximum legal load permitted by the State of Colorado. The County Road and Bridge Department may limit the number of trips and/or the hours of operation, or otherwise prescribe conditions of operation of such vehicles to ensure against undue damage to road foundations, surfaces or structures, and to ensure the safety of the motoring public. Further, the County Road and Bridge Department may require such undertaking, bonding, or other security as may be deemed necessary to compensate for any damage to any roadway or structure.

7.6 Suspension or Revocation of Permits

A. When it comes to the attention of the County Road and Bridge Supervisor that the provisions of any permit on the terms of any regulation for the administration of that permit have been violated by the permittee, upon written or oral notice to the permittee or an agent or employee of the permittee, the Supervisor may immediately suspend the permit for a period not to exceed seven (7) days. Such notice must include the particulars of the violation. If such notice was oral, written

notice must be mailed forthwith to permittee by first class mail. There shall be no more than two immediately consecutive suspensions without review or further action by the Board.

If the permittee does not concur that it is in violation, it must, within forty-eight (48) hours of the issuance of the suspension, request in writing a hearing before the Board. A hearing shall be held by the Board within seventy-two (72) hours of receipt of such request. At such hearing, the Supervisor shall have the burden to prove, by a preponderance of the evidence, that the permittee is not in compliance with the applicable requirements, regulations, standards and conditions.

B. The Board may, after such hearing, further suspend or permanently revoke a permit.

7.7 Transfer of Permits

A permit may be transferred only with the written consent of the Supervisor which consent shall be in the Supervisor's sole discretion. The Supervisor, before consenting to any transfer, may condition or restrict transfer to ensure that the health, welfare and safety of the public are protected. Each prospective transferee must ensure, before approval of any transfer that the proposed transferee can and will comply with all of the applicable requirements, regulations, standards, and conditions.

7.8 Financial Security

As a condition of the issuance of any permit, the Supervisor, in the Supervisor's sole discretion, may require the permittee to file a guarantee of financial security in an amount established by the supervisor and payable to the County. The guarantee may be in the form of cash, federally-insured certificates of deposit, irrevocable letters of credit issued by a bank acceptable to the Board, surety bonds issued by a company authorized to do business in Colorado, written guarantees backed by collateral acceptable by the Board, or any other form, or combination of forms, established by the Board.

REFERENCED REPORTS

1. Saguache County Land Use Resolution, Saguache County Planning Department.
2. State Highway Access Code, State of Colorado, Department of Highways.
3. Manual on Uniform Traffic Control Devices, U.S. Department of Transportation, Federal Highway Administration.
4. Colorado Vehicle Code, Colorado State Patrol Troop Office, Grand Junction, Colorado
5. Geometric Design of Highways and Roads, The American Association of State Highway and Transportation Officials.
6. Roadway Design Manual, Colorado Division of Highways.
7. Trip Generation, The Institute of Transportation Engineers, P.O. Box 9234, Arlington, Virginia.
8. Standard Specifications for Road and Bridge Construction, State of Colorado, Division of Highways.
9. Gunnison County Flood Damage Prevention Resolution, Gunnison County, Colorado. Gunnison County Planning Department.
10. Procedures for Determining Peak Flows in Colorado, U.S. Department of Agriculture, Soil Conservation Service, 1980.
11. Concrete Pipe Design Manual, ACPA Arlington, Virginia, February 1974.
12. Handbook of Steel Drainage and Highway Construction Products, A151, Washington, D.C. 1971.
13. Standard Specifications for Highway Bridges, The American Association of State Highway and Transportation Officials.
14. Colorado Standard Plans, Division of Highways M and S Standards.
15. Standard Plans for Highway Bridges, U.S. Department of Transportation, Federal Highway Administration.
16. Uniform Construction Standards for Colorado Public Works, Colorado Contractors Association, Inc.

EXHIBIT C

Road Access Permit Form

PERMIT RELEASE

Once all work authorized by this permit is completed, ***this Permit Release must be signed and returned to the Road Supervisor*** for an inspection to determine if County requirements have been met. No portion of the Permit Fees is refundable.

Further permits will be denied and penalties may be assessed if the release is not returned within thirty (30) days after completion of work.

DATE_____, 20_____

Saguache County accepts road cut rehabilitation in County right of way as satisfactory following work by_____ and/or their contractors on County Road No._____/Project No._____.

_____
Road Supervisor

_____
Owner or Project Foreman/Supervisor

_____
Company Name (if Applicable)

Please retain this until work is complete.

In the space below, please draw a clear, well-labeled map, including the nearest intersection. (Use back of page if more space is required.)

FOR DRIVEWAY PERMIT ONLY: Use this space to sketch a plan of the proposed driveway access, or attach a separate sheet. Indicate the location of your access in relation to nearest intersections, hills, curves, etc. and how you intend to install your access (whether a culvert will be necessary, width of access and culvert, etc.) Use an additional sheet of paper, if necessary. Please refer to the culverts guidelines and driveway specifications attached.

PERMIT TO CONSTRUCT IN A COUNTY RIGHT OF WAY
SAGUACHE COUNTY, COLORADO
Permit #_____

'veway_____ Utility Pole Inst._____ Road Cut-l___U___ ROW_____ Penalty_____ **Access_____

Legal Description: Township_____ Range _____ Section _____ Qrt. Sect. _____

County Road Number and Location_____

_____

Reason for/Description of Work_____

_____

Special Conditions, if any_____

_____

Date Work Will Begin_____ Date Work Will Be Completed_____

FOR ACCESS PERMIT, fill out this section also:
(See Fee Schedule for fees)

Multiple____ or Single____ Access (es)
If Multiple, how many? _____
No. of units proposed _____
Agricultural Use Only _____

If residential, indicate no. of household to be served by a private or public road _____
If commercial, indicate no. of businesses or occupants who will use this access _____

GRICULTURAL ACCESS ONLY – DO NOT ISSUE AN ADDRESS FOR THIS PERMIT _____

***Extension of an existing private or public road shall require a new Access Permit. Increasing the number of units at a business or commercial location shall require a new Access Permit. Any future work beyond work described in this permit shall require a new Access Permit.**

Legal description to be accessed: (Include maps, profiles and plans for approval, indicating exact location of proposed access (es) _____

_____

_____

Name and address of property owner: _____

_____

_____Phone_____

GENERAL PROVISIONS/DEFINITIONS

1. The County must approve plans for ALL projects prior to commencement of work. **The Permittee shall notify the County Road and Bridge Department at least 24 hours prior to commencing work on the project**. The only exception to this provision is in the case of an emergency. **NOTE: Any longitudinal excavation exceeding 300 feet in length within the County Right of Way shall require an on-site pre-construction meeting with the Road Supervisor or his designee before commencement of work.**

2. Any company, person or persons working in a County Right of Way shall be responsible for establishing and maintaining measures sufficient to protect the public from any and all harm during the full period of construction, and are liable for any damage or injuries incurred during the operation.

3. Any Permit issued shall pertain only to work within the County Right of Way and is in no way a Permit to enter any private property, or to alter or disturb any facilities or installation already existing within the Right of Way. Permit Fees are non-refundable.

4. Any cut made across a paved road MUST FIRST BE CUT WITH A PAVING SAW OR SPADE BIT, no wider than necessary to allow the excavation. In no case will it be permissible to use a backhoe, trencher or ripper to dig through the paved portion of the road bed.

5. Any cuts made on a County Right of Way shall be rehabilitated and the work site restored to the same condition that existed before the cutting. Any excavation shall be immediately filled after items are in place. All cuts must be compacted in 4" lifts with a jumping jack or "whacker packer- type tool. Driving over the top of a cut, or bucket tamping will not be accepted. This tool will be accepted for 18" culverts, or utilities. Larger cuts may require larger compaction equipment, as well as imported fill which carries enough moisture to accept compaction. All cuts made deeper than 4' below the surface will require a compaction test and imported fill. The Permittee shall be responsible for the work for a period of one year. Any settling or failure of the work will require repair by the Permittee within 30 days notice by the County. **Cuts requiring asphalt patching MUST be repaired within 10 calendar days. Rock larger than road surface material and excavated waste material must be removed from County Right of Way.**

6. Any wires, cables, water, gas, sewer lines, or any other items must be not less than three (3) feet below the existing surface of the ground when covered. Sewer lines require cleanouts at each side of the County Right of Way. All such buried items must be suitably marked so as to be easily located. Saguache County is in no way to be held liable for any damage to any items buried within County Right of Way during the normal course of maintenance or repair.

7. All **culverts must be 18" or larger in diameter and not less than 18' long**. Culverts must extend 2' beyond driveway edges and shall be designed to minimize trash collection and sedimentation. **SEE CULVERT GUIDELINES**. Once a culvert is installed at a driveway it is thereafter the responsibility of the property owner to clean and maintain the culvert. In crossing any culvert, the items must be not less than twelve (12) inches below the bottom of the culvert. In no case will they be permitted on top of a culvert. Before any item may be attached to any structure on a County Right of Way, the Road and Bridge Department must be contacted for approval. Plans for attaching to any structure must be submitted and approved prior to commencement of work.

8. For the first 12 feet from the road to be accessed, driveways cannot exceed 2% grade. Maximum grade beyond the first 12 feet is 12%.

9. The preferred driveway to road angle of access is 90 degrees. No driveway shall access a road at an angle of less than 80 degrees.

10. All items must be placed parallel or perpendicular to the road. Any exceptions must be approved by the Road and Bridge Department. No diagonal cuts will be allowed.

11. The Permittee acquiring a Permit to perform any work whatsoever on any County property is assumed to be familiar with and at all times shall observe and comply with all Federal, State and Local laws, ordinances and regulations in any manner applicable to the conduct of his work. All work shall be in accordance with accepted good practices. The Permittee shall indemnify and hold harmless the County of Saguache and all its representatives against any claims arising from any violation of such law, ordinance or

regulation. The County of Saguache reserves the right to refuse permits to any person or persons not complying with the above outlined procedures.

12. Penalty Permit: A Penalty Permit shall be issued to any person or persons who commence work prior to obtaining a regular permit. The fee for this Permit shall cover all regular Permit fees plus a penalty of $100.

13. Insurance: As a condition of the Permit, each Applicant/Permittee shall purchase and maintain in full force and effect for the duration of the Permit, such insurance as will protect the County, its officers, employees and representatives from any claim which may arise out of or result from the Applicant's operations. his representatives, contractors, sub-contractors, employees or anyone for whose acts any of them may be liable. At the sole discretion of the County, this requirement may be waived in such cases where a Letter of Responsibility signed by the Permittee is deemed sufficient. Utility companies may elect to file an annual Letter of Responsibility.

14. Hold Harmless: The Applicant and/or Permittee shall agree to indemnify and save the County, its officers, employees and agents harmless from any and all costs, damages and liabilities which may accrue or be claimed to accrue by reason of any work performed under a Permit to Construct in a County Right of Way. The acceptance of any Permit shall constitute such an agreement by the Applicant and/or Permittee whether the same is expressed or not.

15. **Access Permit**
An Access Permit will be required whenever a proposed access will originate from a County Road and will serve one or more households or a business or commercial enterprise. This Permit requires approval of plan view and profile view prior to construction.

16. **Applicant**
Applicant shall mean any person who makes application for a Permit to Construct Within the Public Rights of Way of Saguache County.

17. **Board**
Board shall mean the Board of County Commissioners of Saguache County, Colorado.

18. **Construction Season**
Construction Season shall be March 15 through November 15 of each calendar year. Exceptions must be approved by the County Road and Bridge Department prior to commencement of work.

19. Construction Within the Public Right of Way
Construction Within the Public Right of Way shall mean to perform any work of any kind within the Public Right of Way which will result in the physical alteration thereof.

20. **Driveway (single residential access) Permit**
A Driveway Permit will be required whenever a proposed access will originate from a County Road and will serve only one household. A sketch plan must be submitted and approved prior to commencement of work.

21. **Emergency**
Emergency shall mean any unforeseen circumstance or occurrence requiring immediate or prompt action to alleviate danger to persons or property. A Permit for emergency work must be obtained, but a period of 48 hours after the occurrence is allowed for obtaining said Permit.

22. **Improved Roadway**
Improved roadway shall mean all roadways within the County above the quality of untreated gravel.

23. **Longitudinal Installations**
Longitudinal Installations shall mean those installations which are more or less parallel to the Public Right of Way centerline.

24. **One Location**
One location shall mean one contiguous longitudinal excavation or project associated with one owner. In the case of transverse installations, the installations or construction associated with one lot, one property or one contiguous group of lots or properties under one owner shall be considered one location. Only one location is allowed per Permit.

25. **Permittee**
Permittee shall mean any person who is issued a Permit to Construct within a Public Right of Way of Saguache County.

26. The Permittee shall jointly be the Applicant, the owner of the proposed facility, and the eventual operator/maintainer of the proposed facility in the event another party will operate and maintain the facility upon completion. The Applicant shall assume those obligations associated with the construction; including the collateral, insurance and correction obligations. The owner or, upon transfer, operator/maintainer of the proposed facility shall assume those obligations and maintenance of the facility. All parties may be required to sign the permit, as determined by the Supervisor.

27. **Right of Way Permit**
A Right of Way Permit will be required whenever work will occur within any County Right of Way, but not in the traveled portion of a roadway.

28. **Road Cut Permit**
A Road Cut Permit will be required whenever a cut will be made within the traveled portion of any County roadway, whether the surface is improved or unimproved.

29. **Special Conditions**
Special Conditions are conditions placed on the permit by the supervisor to tailor the permit to the special circumstances of the proposed construction. Special Conditions may waive, change, or add to the Regulations.

30. **Transverse Installations**
Transverse Installations shall mean those installations which cross the Public Right of Way more or less perpendicularly. This shall include excavated cuts and bored cuts.

31. **Unimproved Roadway**
Unimproved Roadway shall mean all roadways within the County which are at or below the quality of untreated gravel.

32. **Work Site Restoration**
Work Site Restoration shall mean the restoring of all areas on or adjacent to the work site disturbed during construction, to at least a condition equal to that which existed before said construction commenced.

PLEASE REFER TO THE LAND USE CODE AND ROAD STANDARDS FOR MORE REQUIREMENTS THAT MAY APPLY.

I the undersigned have read, understood and hereby agree to abide by all provisions and definitions of this Permit.

Fee paid by _____ Amount _____ Date _____

Permit Issued by _____ Name/Address of applicant (please print)

Title _____

_____

_____

_____

_____

Signature

PERMIT FEE SCHEDULE

DRIVEWAY (single residential access) PERMITS

ıless special conditions exist as determined by the Road Superintendent, Driveway Permits will be charges as ɪollows:

Permit Fee: $100.00

UTILITY POLE AND TELEPHONE PEDESTAL INSTALLATION PERMITS

Unless special conditions exist as determined by the Engineer or Road Superintendent, Utility Pole Installation Permits will be charged as follows:

Permit Fee: $35.00 per pole

ROAD CUT AND RIGHT OF WAY PERMITS

Longitudinal street cuts made on road shoulders which do not affect the traveled portion of the roadway will be charged as follows:

Permit Fee:	$150.00 minimum	PLUS
0-60 feet	$ 0.15 per linear foot	
61-300 feet	$ 0.08 per linear foot	
301 feet +	$ 0.02 per linear foot	

ınsverse street cuts, including underground boring, will be charged as follows:

Unimproved Roadway Permit Fee:	$200.00 – one location
Improved Roadway Permit Fee:	$250.00 – one location
	PLUS
0-80 feet	$0.15 per linear foot

Transverse street cuts that include longitudinal work adjoining the cut will be charged as follows:

Unimproved Roadway Permit Fee:	$200.00 – one location
Improved Roadway Permit Fee:	$250.00 – one location
	PLUS
301 feet +	$ 0.02 per linear foot and $150.00 longitudinal permit fee

PENALTY PERMITS

Penalty Permits will be charged as follows:

All Fees applicable to work being done, plus a penalty of $100.

ACCESS PERMITS (group, subdivision, commercial or agricultural)

Access Permits will be charged according to attached Rates for County Road Access Permits.

RATES FOR COUNTY ROAD ACCESS PERMITS

The following is the rate schedule for County Road Access Permits. An access is defined as any location at which improvements are made for the purpose of accessing a county road or access is initiated without improvements.

The Saguache County Road and Bridge Department is responsible for the issuance, inspection and requirements for access permits.

The following is a rate schedule for access permits:

RESIDENTIAL ACCESS PERMITS are defined as any access supporting the traffic of a single lot, a group of lots or a subdivision for residential use. This permit type does not include any commercial, industrial, or mining use.

RESIDENTIAL ACCESS PERMIT FEE STRUCTURE:

This fee structure is based on an average of eight trips per day per household or residential lot. A household is defined as any residential structure capable of obtaining a certificate of occupancy as a single family residence. A residential lot is defined as any lot approved for a single family dwelling.

SINGLE RESIDENCE/HOUSE LOT ACCESS PERMIT - $100.00

GROUP OR SURDIVISION ACCESS PERMIT

1. $100.00 PER HOUSE LOT, TIMES THE TOTAL NUMBER OF HOUSE LOTS IN THE SUBDIVISION.

2. If multiple accesses exist to county roads, the formula shall be $100.00 per house lot times the number of house lots plus $50.00 for each access to a county road above one. (thus a 20 lot subdivision with two accesses to a county road would pay 20 x $100.00 + $50.00=$2,050.00.)

3. If the subdivision has primary accesses to State Highways or City Streets, the formula for access permits shall be determined by: total number of house lots divided by the number of accesses times the number of county road accesses times $100.00 per house lot plus $50.00 per access above one for a total of (100/4x2x$100+$50=$5,050.00 for the two County Road Access Permits)

4. House lots existing prior to the application for additional access will not be included in the formula. (For example: A tract of land contains one farmhouse and is being subdivided to include three more house lots. The new required access permit for the additional home sites would be $100.00 per house lot times 3 house lots = $300.00 for a single access permit.)

5. House lots permitted for multifamily structures will use the number of family units in the formula. (For example: A subdivision with four duplexes and two accesses to a county road would be calculated as four house lots times two households times $100.00 per house lot plus $50.00 for the additional access above one = $850.00.)

COMMERCIAL ACCESS PERMIT STRUCTURE:

Commercial Access Permits will be structured on a scale using trips with a unit being 8 trips per day so that commercial accesses are directly proportional to residential access permits and a fair and proportional fee is applied across uses. Square footage of the commercial structure and type of business will be used to calculate the number of trips and then the trips will be converted to the standard unit of eight trips to calculate the access permit fee.

Types of uses and trips:

Retail - 45 trips per 1000 square feet of retail space

.ofessional Offices - 30 trips per 1000 square feet of office space

Recreational Parks – 4 trips per day per rental space

Industrial – 30 trips per 1000 feet of building or manufacturing space

Other Commercial – 40 trips per 1000 square feet of building space

Storage Units - $100.00 for every 10 units

(For example: (3000sq. ft. retail x 45 trips per 1000 sq. ft) / 8 trips per day) x $100. per access unit = $1687.50)

AGRICULTURAL ACCESS FEES

Access permits for driveways to a home site shall be the same as described for residential access permits.

Access permits to fields, pastures shall be $25.00 per access permit.

Access permits to barns and other agricultural building shall be $25.00 per access permit.

EXHIBIT D

Escrow Agreement

(See Attached)

Consulting Fee Escrow Agreement

This Agreement ("Agreement") is entered into as of the ____ day of _____, 20____ by and between the County of Saguache, Colorado ("County"), a governmental entity, and _____, a _____ ("Developer").

County has issued a permit in accordance with County's Guidelines and Regulations for Areas and Activities of State Interest authorizing Developer to construct a solar energy generation project in accordance with such permit; and

Developer has submitted certain plans for the project to County for review, and County has determined, in consultation with Developer, that the services of an outside consultant are necessary or desirable to assist with County's review; and

Developer has agreed to fund the cost of the consulting services as set forth in the scope of services agreed upon by County and Developer ("Scope") in an amount not to exceed $_____, and Developer and County have agreed that the funds to be paid by Developer will be held and disposed of in accordance with the terms of this Agreement.

The parties, for the mutual promises and covenants contained herein, agree as follows:

1. Within 10 days after the date of this Agreement, Developer will provide the County the sum of _____ dollars ($_____), to be held in escrow, in an interest bearing bank account dedicated solely for this purpose and not commingled with any other funds or accounts of the County, and to be used to pay for reasonable costs associated with the consulting fees.

2. The County will disburse the funds from the escrow account for billed services from the consultant as more particularly set forth in the Scope.

3. The County will provide Developer a monthly accounting for funds disbursed from the escrow account, including copies of all invoices.

5. Unless otherwise expressly agreed to by Developer in writing, Developer shall not be responsible for any consulting fees incurred by County in excess of the funds held in escrow pursuant to this Agreement.

6. Upon completion of the consulting services, any amounts remaining in escrow pursuant to this Agreement, together with any interest accrued thereon, shall be returned to Developer.

Signatures on Following Page

The parties, by signing below, acknowledge that they have the authority to enter into this agreement and be bound by its terms.

Saguache Solar Energy, LLC,
a Delaware corporation

By: _____

Title: _____

Date: _____

County of Saguache, State of Colorado,
a governmental entity

By: _____

Title: _____

Date: _____

5462908_4.DOCX