<table>
<thead>
<tr>
<th>PLAN NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>101A</td>
<td>GENERAL LEGEND AND NOTES</td>
</tr>
<tr>
<td>101B</td>
<td>COMMERCIAL AND INDUSTRIAL ROADWAYS</td>
</tr>
<tr>
<td>101C</td>
<td>CLASS I SUBDIVISIONS and PARCEL MAP (LESS THAN 2 ACRES IN URBAN AREA) ROADWAY</td>
</tr>
<tr>
<td>103A-1</td>
<td>RURAL SUBDIVISION AND PARCEL MAP ROADS</td>
</tr>
<tr>
<td>103A-2</td>
<td>DRIVEWAY CONNECTION— SINGLE UNIT, CLASS I SUBDIVISION WITH ROLLED CURB &amp; GUTTER</td>
</tr>
<tr>
<td>103B-1</td>
<td>DRIVEWAY CONNECTION— SINGLE UNIT RESIDENCE, CLASS I SUBDIVISION WITHOUT CURB &amp; GUTTER</td>
</tr>
<tr>
<td>103B-2</td>
<td>DRIVEWAY CONNECTION— SINGLE UNIT TO LOCAL ROAD OR MINOR COLLECTOR</td>
</tr>
<tr>
<td>103C</td>
<td>DRIVEWAY CONNECTION— SINGLE UNIT, CLASS I SUBDIVISION ONLY WHERE A.C. DIKE EXISTS</td>
</tr>
<tr>
<td>103D</td>
<td>LOCAL ACCESS ROAD TO COLLECTOR &amp; MAJOR COMMERCIAL CONNECTION</td>
</tr>
<tr>
<td>103E</td>
<td>MINOR COLLECTOR TO COLLECTOR/ARTERIAL</td>
</tr>
<tr>
<td>103F</td>
<td>MAJOR COLLECTOR TO COLLECTOR/ARTERIAL</td>
</tr>
<tr>
<td>103G</td>
<td>COMMERCIAL DRIVEWAY FOR VERTICAL CURB Locations</td>
</tr>
<tr>
<td>104</td>
<td>CONCRETE CURB AND GUTTERS, A.C. DIKE</td>
</tr>
<tr>
<td>105A</td>
<td>STOP SIGN</td>
</tr>
<tr>
<td>105B</td>
<td>STREET SIGN</td>
</tr>
<tr>
<td>105C</td>
<td>BARRICADES/ROAD ENDS SIGN DETAIL</td>
</tr>
<tr>
<td>106</td>
<td>FIRE HYDRANT LOCATION DETAIL</td>
</tr>
<tr>
<td>109</td>
<td>COMMERCIAL DRIVEWAY REGULATIONS</td>
</tr>
<tr>
<td>110</td>
<td>SPECIAL COMMERCIAL FRONTAGE ENTRANCE</td>
</tr>
<tr>
<td>114</td>
<td>CUL-DE-SAC</td>
</tr>
<tr>
<td>115A</td>
<td>GRATED INLET TYPE B</td>
</tr>
<tr>
<td>115B</td>
<td>DROP INLET/CALTRANS TYPE B</td>
</tr>
<tr>
<td>115C</td>
<td>PELICAN GALLERY SANTA ROSA MODEL 6Y/MODEL 4AC CURB INLET</td>
</tr>
<tr>
<td>118</td>
<td>ROCK LINED DITCH</td>
</tr>
<tr>
<td>119</td>
<td>UNDERGROUND TRENCH DETAIL</td>
</tr>
<tr>
<td>120</td>
<td>UTILITY POLE LOCATIONS</td>
</tr>
<tr>
<td>T-501</td>
<td>ROCK LINED CHANNELS</td>
</tr>
<tr>
<td>T-502</td>
<td>GATE DETAIL</td>
</tr>
<tr>
<td>T-503</td>
<td>VEHICLE BARRIER</td>
</tr>
<tr>
<td>T-504</td>
<td>ROCK INLET/OUTLET PROTECTION</td>
</tr>
<tr>
<td>T-505</td>
<td>PAVED SWALE</td>
</tr>
<tr>
<td>T-506</td>
<td>ROCK BREAST WALL</td>
</tr>
<tr>
<td>T-507</td>
<td>ROCK SLOPE PROTECTION</td>
</tr>
<tr>
<td>T-508</td>
<td>3’ AND 4’ TIMBER RETAINING WALL</td>
</tr>
</tbody>
</table>

**STATEMENT OF DISCLOSURE**

These standards are in conformance with generally accepted engineering practices. The intent of these standards is to establish guidelines for public works applications. It is understood that these standards will not be applicable to every situation. The County Engineer has the authority to make exceptions to these standards.
SYMBOLS

- CENTERLINE
- PROPERTY LINE
- FENCE LINE
- RIGHT OF WAY
- OVERHEAD ELECTRICAL
- UNDERGROUND ELECTRICAL
- SEWER LINE
- WATER LINE
- GAS LINE
- FLOWLINE
- GUARDRAIL
- AC DIKE
- EXISTING EMBANKMENT SLOPE
- NEW EMBANKMENT SLOPE
- EXISTING PIPE IN SECTION
- NEW PIPE IN SECTION

DEFINITIONS

AB — AGGREGATE BASE
A.C. — ASPHALT CONCRETE
ADT — AVERAGE DAILY TRAFFIC COUNT
ASTM — AMERICAN SOCIETY FOR TESTING AND MATERIALS
BC — BEGIN CURVE
C & G — CURB AND GUTTER
CIP — CAPPED IRON PIPE
C — CENTERLINE
CMP — CORRUGATED METAL PIPE
C.O.S. — CLEANOUT STRUCTURE
CSP — CORRUGATED STEEL PIPE
EC — END CURVE
EP — EDGE OF PAVEMENT
F — FLOWLINE
FC — FACE OF CURB
F.E.S. — FLARED END SECTION
I.F. — INSIDE DIAMETER
O.C. — ON CENTER
O.D. — OUTSIDE DIAMETER
P.C.C. — PORTLAND CEMENT CONCRETE
P — PROPERTY LINE
PVC — POLY-VINYL-CHLORIDE
RCP — REINFORCED CONCRETE PIPE
R/W — RIGHT OF WAY
S.B. — SUBBASE
S.G. — SUBGRADE
T.B.C. — TOP BACK OF CURB
T.W. — TOP OF WALL

GENERAL NOTES

1. ALL A.C. TO BE 1/2” MAXIMUM, MEDIUM TYPE B WITH AR 4000 FOR A.C. SECTIONS OF 2 1/2”. FOR GRADES EXCEEDING 7% OR ELEVATIONS OVER 3000’, 3/4” MIX REQUIRED. FOR A.C. SECTIONS OF 3”, 2” WILL BE 3/4” MAXIMUM, MEDIUM TYPE B (LOWER LIFT) AND 1” OF 1/2” ON TOP.

2. INTERSECTION SIGHT DISTANCE WILL BE MEASURED FROM A HEIGHT OF 3’-6” TO A HEIGHT OF 3’-6” (AASHTO).

3. FIVE SACK CEMENT CONCRETE FOR DRIVEWAYS, SIDEWALKS, AND SIX FOR DRAINAGE STRUCTURES.

4. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL, UNLESS A CIVIL ENGINEER DETERMINES THAT A STEEPER SLOPE WILL BE SAFE FOR THE INTENDED USE, WILL NOT BE SUSCEPTIBLE TO EROSION, AND WILL NOT CAUSE ADDITIONAL MAINTENANCE.

5. TWENTY FEET MINIMUM ROADWAY WIDTH REQUIRED FOR CDF AND FIRE PROTECTION VEHICLE ACCESS. (STANDARD RIG SIZE = 96" WIDE, PLUS 10" FOR EACH SIDE MIRROR AND 13’-6” HIGH CLEARANCE.)

6. A STORM DRAIN MANHOLE OR CLEANOUT WILL BE PLACED EVERY 300’ OR AT ANY JUNCTION. THESE STORM DRAIN MANHOLES/C.O.S. WILL BE INSTALLED WITH 24" OPENINGS FOR 3’ DEEP, 36” FOR UP TO 5’, AND 48” OVER 5’ DEEP. NUMBER 4 REBAR REQUIRED 12” O.C. ON ALL D.I.’s OVER 5’ IN DEPTH, AND ON STORM DRAIN MANHOLES OVER 8’ IN DEPTH.

7. GRADES MAY REACH 15% FOR NO MORE THAN 600’. IN ELEVATIONS ABOVE 3000’. GRADES SHALL NOT EXCEED 10% (15% IF SURFACED)

EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS

GENERAL LEGEND & NOTES
1. TYPE 2 CURB AND GUTTER AS ShOWN ON STANDARD PLAN 101. 8' MINIMUM SIDEWALKS ARE REQUIRED ON INDUSTRIAL AND COMMERCIAL STREETS.

2. TOP 6" OF SOIL BELOW SUBGRADE SHALL BE COMPACTED TO 95% RELATIVE COMPACTION (C.T.M. 231F OR ASTM 1557).

3. CLASS 2 AGGREGATE BASE, COMPACTED TO 95% RELATIVE COMPACTION (C.T.M. 231F OR ASTM 1557) INCLUDING SIDEWALKS AND CURB & GUTTERS. ALL AGGREGATE BASE WILL MEET CALTRANS REQUIREMENTS FOR GRADATIONS AND S.E.

4. OVER ALL AGGREGATE BASE, ASPHALT CONCRETE SHALL BE TYPE B PER CALTRANS STANDARD SPECIFICATION 39. 1" OF 1/2 MAX. MED. OVER 2" OF 3/4" A.C. ASPHALT GRADE A-R400.
   FOR GRADES EXCEEDING 7%, OR ELEVATIONS OVER 3000 FT., A.C. SECTION WILL BE ONLY 3/4" MAX. MED. TYPE B TACK COAT TO BE USED BETWEEN A.C. LIFTS.

5. FOS SEAL SS-1 OVER ALL A.C. PRIME COAT WILL BE SC70.

6. WHEN THE GRADING FOR CUT AND FILL SLOPES EXTENDS OUTSIDE OF THE BASIC RIGHT OF WAY WIDTH, A SLOPE EASEMENT WILL BE PROVIDED 2' BEYOND ALL TOE OF FILLS, HINGE OF CUTS, OR DRAINAGE STRUCTURES.

7. ADT's SHALT BE THOSE SHOWN IN THE LAND CAPABILITY REPORT UNLESS DETERMINED OTHERWIE BY THE COUNTY ENGINEER.

8. BELOW THE 3000 FT. ELEVATION, ROLLED CURB TYPE 1 ONLY REQUIRED FOR SNOW REMOVAL.

9. IN EXISTING CUT SECTIONS, THE TOP 6" OF SUBGRADE WILL BE SCARIFIED AND RECOMPACTED TO 95% RELATIVE COMPACTION.
NOTES:

1. In existing cut sections, scarify and recompact subgrade to 95% rel. compaction. Key in slopes over 10:1.

2. Top 6" of native subgrade shall be compacted to 95% (C.T.M. 231F or A.S.T.M. 1577).

3. Class 2 aggregate base compacted to 95%, per Caltrans Standard Specifications Section 26. (C.T.M. 231F or A.S.T.M. 1577) including the 4" under curb & gutter, and sidewalks.

4. Over all aggregate base, asphalt concrete shall be type B per Caltrans Standard Specifications Section 39. Aggregate 1/2" max. medium type B asphalt grade AR-1000. For grades exceeding 7%, and elevations over 3000 ft., A.C. to be only 3/4" max. medium. Tack coat to be used between A.C. lifts.

5. Fos seal SS-1 overall A.C. Prime coat to be SS70.

6. When the grading for cut and fill slopes extends outside of the basic right of way width, slope easement will extend 2' beyond grading, toes and drainage structures.

7. Adjacent to schools, sidewalks shall be 8 feet wide, and extend between school property lines.

8. ADT's shall be those shown in the land capability report unless determined to be otherwise by the county engineer.

9. Pavement, base, and subgrade compaction thickness may be changed if designed by a registered civil or geotechnical engineer. R-value test results must be submitted.

10. Upon special approval curb, gutter and sidewalk may be changed to A.C. dike and overside drains when connecting onto existing A.C. facilities.

---

EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS

CLASS I
SUBDIVISION
and PARCEL MAP
DESIGN STANDARDS

ROADWAYS

STD. PLAN
101B
GREATER THAN 2,000 ADT USE STANDARD PLAN 101A OR 101B

NOT TO SCALE

<table>
<thead>
<tr>
<th>ADT</th>
<th>RW</th>
<th>ROADWAY WIDTH</th>
<th>SHOULDER WIDTH</th>
<th>DESIGN SPEED</th>
<th>MAX GRADE</th>
<th>STRUCTURAL SECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-150</td>
<td>50'</td>
<td>18'</td>
<td>1' (EACH SIDE)</td>
<td>20 MPH</td>
<td>15% PAVED</td>
<td>6&quot; CLASS 2 AB</td>
</tr>
<tr>
<td>151-600</td>
<td>50'</td>
<td>18'</td>
<td>2' (EACH SIDE)</td>
<td>25 MPH</td>
<td>12% UNPAVED</td>
<td>(SEE NOTE 4)</td>
</tr>
<tr>
<td>601-1500</td>
<td>60'</td>
<td>20'</td>
<td>5' (EACH SIDE)</td>
<td>40 MPH</td>
<td>13% *</td>
<td>4&quot; AC ON 7&quot; AB</td>
</tr>
<tr>
<td>1501-2000</td>
<td>60'</td>
<td>22'</td>
<td>6' (EACH SIDE)</td>
<td>40 MPH</td>
<td>13% *</td>
<td>4&quot; AC ON 8&quot; AB</td>
</tr>
</tbody>
</table>

* 15% WITH COUNTY ENGINEER'S APPROVAL (NOT TO EXCEED 600 LF.)

NOTES:
1. STANDARD PLAN 101A OR 101B SHALL BE USED FOR ALL COUNTY MAINTAINED ROADS AND ALL NON-COUNTY MAINTAINED ROADS WITHIN COMMUNITY REGIONS.
2. ADT DATA SHOWN IN THE TABLE ARE THE FORECASTED FOR 20-YEAR CUTOFF DAILY VOLUMES.
3. ROADS ABOVE 3,000 FT ELEVATION SHALL BE AC PAVED. THE MINIMUM STRUCTURAL SECTION SHALL BE 2.5" AC ON 6" AB FOR ROADS WITH ADTS LESS THAN 601.
4. ROADS WITH ADT LESS THAN 601 MAY EXCEED THE 12% MAXIMUM GRADE, UP TO A MAXIMUM OF 15% FOR MORE THAN 600 LF. IF THEY ARE PAVED WITH A MINIMUM OF 2.5" AC ON 6" AB.
5. WIDENING OF EXISTING ON-SITE ROADS SHALL COMPLY WITH MINIMUM STRUCTURAL SECTION REQUIRED AND HAVE AS GOOD OR BETTER SURFACING THAN EXISTING ROAD.
6. ANY MODIFICATION TO STRUCTURAL SECTION SHOWN SHALL BE BASED ON "A" VALUE AND "T", DESIGN TO BE SUBMITTED TO DOT FOR REVIEW AND APPROVAL.
7. AC SHALL BE TYPE B.
8. THE TOP 6" OF SUBGRADE AND ALL CLASS 2 AB SHALL BE COMPACTED TO 95% RELATIVE COMPACTION.
9. FABRIC REINFORCEMENT IS REQUIRED ON ALL YIELDING SUBGRADES UNLESS AN ALTERNATIVE DESIGN IS PREPARED BY THE ENGINEER AND APPROVED BY THE COUNTY.
10. DOUBLE-CHIP SEAL MAY BE SUBSTITUTED FOR 2" OF AB FOR ROADS WITH ADT BELOW 601.
11. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL, UNLESS A CIVIL ENGINEER DETERMINES THAT A STEEPER SLOPE WILL BE SAFE FOR THE INTENDED USE AND WILL NOT BE SUSCEPTIBLE TO EROSION. SLOPES OVER 10% (HORIZONTAL TO 1 (ONE) VERTICAL ARE TO BE KEYED WHEN PLACING EMBANKMENT FIL.
12. CONSTRUCTION/SLOPE EASEMENTS SHALL EXTEND 5' BEYOND HINGE POINTS, SLOPE TOES, AND DRAINAGE STRUCTURES.
COUNTY ROAD

DRIVEWAY WIDTH + 4 FT. (39’ MAX)

E (SIGHT LINE)

PROPERTY LINE

PAVING LIMITS VARY: 10’ OR W

WHICHEVER IS GREATER

16’ MIN. 35’ MAX.

10’ MIN.

(to R if greater)

Curb & Gutter

EXISTING PAVEMENT

HEADER BOARD JOINT (SEE DETAIL)

5'

STRUCTURAL SECTION (SEE NOTE 1)

10% MAX. (UP-SLOPE)

5%

10% MAX. DOWNSLOPE GRADE

NOT TO SCALE

NOTES:

E = 200’ MINIMUM SIGHT DISTANCE FOR LOCAL ST., 100’ FOR A CUL-DE-SAC.

A = ANGLE OF DRIVEWAY CENTERLINE IN RELATION TO ROAD CENTERLINE, THE ANGLE WILL BE BETWEEN 70°-90°

1. THE DRIVEWAY STRUCTURAL SECTION IS 4” OF PORTLAND CEMENT CONCRETE OR 2 1/2” ASPHALT CONCRETE OVER 4” OF AGGREGATE BASE.

2. THOSE DRIVEWAYS EXCEEDING 20% EITHER UP OR DOWN IN GRADE, WILL REQUIRE A GRADING PERMIT.

3. NO PORTION OF A DRIVEWAY WILL BE WITHIN 25’ FROM A RADIUS RETURN, NOR 10’ FROM A FIRE HYDRANT.

103A-1
NOTES:

E = 200' minimum sight distance for local st., 100' for a cul-de-sac.

A = Angle of driveway centerline in relation to road centerline, the angle will be between 70°-90°

1. The driveway structural section is 2 1/2" asphalt concrete over 4" of aggregate base.

2. Those driveways exceeding 20% either up or down in grade, will require a grading permit.

3. No portion of a driveway will be within 25' from a radius return, nor 10' from a fire hydrant.
COUNTY ROAD SPEED

<table>
<thead>
<tr>
<th>SPEED</th>
<th>25</th>
<th>30</th>
<th>35</th>
<th>40</th>
<th>45</th>
<th>50</th>
<th>55</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>70°</td>
<td>10°</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>250</td>
<td>300</td>
<td>350</td>
<td>400</td>
<td>450</td>
<td>500</td>
<td>550</td>
</tr>
</tbody>
</table>

E = 200’ minimum sight distance for local st., 100’ for a cul-de-sac.
A = angle of driveway centerline in relation to road centerline, the angle will be between 70° – 100°.

1. Driveway structural section is 2 1/2” asphalt concrete and 4” of aggregate base.
2. Those driveways exceeding 20%, either up or down in grade, will require a grading permit.
3. No portion of a driveway will be within 25’ from a radius return, nor 10’ from a fire hydrant.
4. Minor collectors will require maximum width dimension on driveway.

NOT TO SCALE

EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS

DRIVEWAY CONNECTION SINGLE UNIT RESIDENCE TO LOCAL ROAD OR MINOR COLLECTOR

103B-1
NOTES:

COUNTY ROAD SPEED

<table>
<thead>
<tr>
<th></th>
<th>25</th>
<th>30</th>
<th>35</th>
<th>40</th>
<th>45</th>
<th>50</th>
<th>55</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>70° - 110°</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>250 300 350 400 450 500 550</td>
<td></td>
<td></td>
<td></td>
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</table>

E = 200' MINIMUM SIGHT DISTANCE FOR LOCAL ST, 100' FOR A CUL-DE-SAC.

A = ANGLE OF DRIVEWAY CENTERLINE IN RELATION TO ROAD CENTERLINE, THE ANGLE WILL BE BETWEEN 70° - 110°

1. DRIVEWAY STRUCTURAL SECTION IS 2 1/2" ASPHALT CONCRETE AND 4" OF AGGREGATE BASE.

2. THOSE DRIVEWAYS EXCEEDING 20% EITHER UP OR DOWN IN GRADE, WILL REQUIRE A GRADING PERMIT.

3. NO PORTION OF A DRIVEWAY WILL BE WITHIN 25' FROM A RADIUS RETURN, NOR 10' FROM A FIRE HYDRANT.

NOT TO SCALE

SINGLE UNIT RESIDENCE
CLASS 1 SUBDIVISION
ONLY WHERE AC DIKE EXISTS

EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS

DRIVEWAY CONNECTION

STD. PLAN
1038-2
### Driveway Classifications

**Minor Commercial/Industrial**

<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90°</td>
</tr>
<tr>
<td>E</td>
<td>10 times the operational speed of traffic</td>
</tr>
<tr>
<td>G1</td>
<td>3(^\circ) down from E.P.</td>
</tr>
<tr>
<td>G2</td>
<td>5(^\circ) maximum</td>
</tr>
<tr>
<td>W</td>
<td>35 feet</td>
</tr>
<tr>
<td>X1</td>
<td>20 ft. (25(^\circ) Collector)</td>
</tr>
<tr>
<td>X2</td>
<td>35 ft. (50(^\circ) Collector)</td>
</tr>
</tbody>
</table>

**Multi-Unit Residential**

**Local Rd.**

<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90°</td>
</tr>
<tr>
<td>E</td>
<td>10 times the operational speed on the highway</td>
</tr>
<tr>
<td>G1</td>
<td>3(^\circ) down from E.P.</td>
</tr>
<tr>
<td>G2</td>
<td>5(^\circ) maximum</td>
</tr>
<tr>
<td>W</td>
<td>24 feet</td>
</tr>
<tr>
<td>X1</td>
<td>20 ft. (25(^\circ) Collector)</td>
</tr>
<tr>
<td>X2</td>
<td>35 ft. (50(^\circ) Collector)</td>
</tr>
</tbody>
</table>

**Single Unit Residential**

**(Arterials and Major Collectors)**

<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90°</td>
</tr>
<tr>
<td>E</td>
<td>300 ft. minimum</td>
</tr>
<tr>
<td>G1</td>
<td>3(^\circ) down from E.P.</td>
</tr>
<tr>
<td>G2</td>
<td>5(^\circ) maximum</td>
</tr>
<tr>
<td>W</td>
<td>24 feet</td>
</tr>
<tr>
<td>X1</td>
<td>20 ft. (25(^\circ) Collector)</td>
</tr>
<tr>
<td>X2</td>
<td>35 ft. (50(^\circ) Collector)</td>
</tr>
</tbody>
</table>

**Structural Sections**

- 2 1/2\(^\prime\) asphalt concrete per Caltrans Spec. Sec. 39
- 4\(^\prime\) class II aggregate base per Caltrans Spec. Sec. 78

### Not to Scale

**El Dorado County Department of Transportation Design Standards**

- **Driveway Connections**
  - Minor Commercial/Industrial (without concrete curb and gutter)
  - Multi-Unit Residential
  - Single Unit Residential (Arterials & Major Collectors)

**Std. Plan**

103C
NOTES:

<table>
<thead>
<tr>
<th>ENCROACHMENT CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>W</td>
</tr>
</tbody>
</table>

1. THE STRUCTURAL SECTION IS 2 1/2" OF ASPHALT CONCRETE PER CALTRANS SPEC. SECTION 39, OVER 6" OF CLASS II AGGREGATE BASE PER CALTRANS SPEC.

2. ADDITIONAL DRAINAGE STRUCTURES NEEDED IF HYDRAULIC STUDIES WARRANT.
NOTES:

A 70' - 110'

E 10 TIMES THE OPERATIONAL SPEED OF TRAFFIC

1. THE STRUCTURAL SECTION IS 2 1/2" OF ASPHALT CONCRETE PER CALTRANS SPEC. SECTION 39. OVER 6" OF CLASS II AGGREGATE BASE PER CALTRANS SPECS.

2. ADDITIONAL DRAINAGE STRUCTURES NEEDED IF HYDRAULIC STUDIES WARRANT.
NOTES:

A 70' - 110'

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2. ADDITIONAL DRAINAGE STRUCTURES NEEDED IF HYDRAULIC STUDIES WARRANT.

EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS

MAJOR COLLECTOR TO
COLLECTOR/ARTERIAL

STD. PLAN 103F
NOTES:

1. WHERE A COMMERCIAL DRIVE IS TO BE PLACED IN EXISTING ROLLED CURB, TWO FEET OF STANDARD (TYPE 2) CURB AND GUTTER WITH 6 FOOT TRANSITIONS SHALL BE PLACED ON BOTH SIDES OF THE DRIVEWAY.

2. NO VERTICAL CURB AND GUTTER ABOVE 3000 FT. ELEVATION.

3. 2500 P.S.I. (POUNDS PER SQUARE INCH) STRENGTH REQUIRED ON CONCRETE AT 28 DAYS.

4. MINIMUM SIGHT DISTANCE ALLOWABLE IS 200' OR 10% OF THE COUNTY ROAD SPEED.

EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS

NOT TO SCALE

COMMERCIAL DRIVEWAY FOR VERTICAL CURB LOCATIONS

STD. PLAN
103G

SCOTT CLAAS
DIRECTOR OF TRANSPORTATION

ALAN K. WYLLIE
SENIOR CIVIL ENGINEER
P.E. NO. C53437
1. ALL PORTLAND CEMENT CONCRETE SHALL BE PER CALTRANS SPECIFICATIONS, SECTION 78.

2. 3/8" x 18" LONG DOWEL, MINIMUM 4 FT. CENTER TO CENTER SPACING, OR APPOX.

3. PLACE 3/8" TRANSVERSE EXPANSION JOINTS OF ASPHALT IMPREGNATED CELOTEX IN SIDEWALK, CURB & GUTTER AT 20" INTERVALS. ALL CONCRETE TO BE CLASS "B" AND SCORED EVERY 10".

4. FOR TYPE 4 & 5 BARRIER CURBS LOCATE WEAKENED PLANE JOINTS AT 10" INTERVALS. USE 5" INTERVALS FOR RADIUS LESS THAN 25'

5. ASPHALT CONCRETE SHALL BE CLASS B PER CALTRANS SPECIFICATIONS SECTION 35.-- SEE GENERAL NOTE PAGE.

6. AC DIKE TO BE USED WHERE EXISTING CONDITIONS WARRANT. TO BE USED WITH COUNTY ENGINEER'S APPROVAL.
NOTES:
1. 4" STRIPE TO BE YELLOW REFLECTORIZED TRAFFIC PAINT. TWO 4" STRIPES WILL BE USED IF ADT'S WARRANT.

2. 12" STOP BAR TO BE WHITE REFLECTORIZED TRAFFIC PAINT AND LOCATED TO PROVIDE MAXIMUM VISIBILITY ALONG THROUGH STREET.

3. ALL SIGNS SHALL BE FABRICATED OF HIGH INTENSITY REFLECTIVE SHEETING ON AN ALUMINUM BLANK PER EL DORADO COUNTY SPECIFICATIONS.
NOTES:

1. STREET NAME PANELS FOR COUNTY ROADS SHALL BE FLAT ALUMINUM PLATES, 0.08" THICK. PANELS SHALL BE 6" x 24" OR 6" x 30", DEPENDING ON STREET NAME LENGTH. LETTERING TO BE 1" AND 4" SERIES "B", SILVER REFLECTIVE SHEETING ON GREEN SCOT-LITE BACKING.

2. STREET NAME PANELS FOR PRIVATE ROADS SHALL BE FLAT ALUMINUM PLATES, 0.08" THICK. PANELS SHALL BE 8" x 30" OR 8" x 24", DEPENDING ON STREET NAME LENGTH. LETTERING TO BE 1" AND 4" SERIES "B", SILVER REFLECTIVE SHEETING ON GREEN SCOT-LITE BACKING.
NOTES:
1. RED AND WHITE BARRICADES ARE TO WARN AND ALERT DRIVERS OF THE TERMINUS OF A ROAD, STREET OR HIGHWAY IN OTHER THAN CONSTRUCTION OR MAINTENANCE AREAS. THE BARRICADES ARE TO MEET THE DESIGN CRITERIA OF SECTION 6C-8 FOR A TYPE III BARRICADE, EXCEPT THAT THE COLORS OF THE STRIPES SHALL BE REFLECTORIZED WHITE AND RED.
FIRE HYDRANT BEHIND VERTICAL CURB & GUTTER

FIRE HYDRANT BEHIND ROLLED CURB & GUTTER

FIRE HYDRANT WITHOUT CURB & GUTTER

NOTES:
1. THE FIRE HYDRANT IS TO BE PLACED BEHIND THE DRAINAGE DITCH AND NO FURTHER THAN 8 FEET FROM DRIVEABLE SHOULDER SURFACE OR BACK OF CURB.
2. ALL VALVE BOXES SET IN THE A.C. OR CONCRETE TO BE F.G. MINUS 1/4".
3. CONTACT LOCAL WATER AGENCY FOR FIRE HYDRANT AND VALVE ASSEMBLY REQUIREMENTS.
NOTES:

1. FRONTAGE MEASURED ALONG R/W LINE AND FROM THE INTERSECTION OF PROJECTED R/W TANGENTS ON LOT CORNERS.

2. DRAINAGE DRAWS NOT PERMITTED WITHIN 10’ OF PROPERTY LINES. SEE CHART A FOR LOCATION OF DRAINAGE DRAWS IN RELATIONSHIP TO INTERSECTING TANGENTS.

3. 22’ MINIMUM ALLOWABLE DISTANCE BETWEEN DRAINAGE DRAWS FOR LESS THAN 200’ FRONTAGE AND 45’ MINIMUM ALLOWABLE DISTANCE FOR FRONTAGE GREATER THAN 200’. 20’ MINIMUM AND 35’ MAXIMUM DRAINAGE DRAINAGE DRAWS MEASURED AT R/W LINE. SPECIFIC CASES TO BE SUBMITTED FOR APPROVAL.

4. NO PART OF A DRAINAGE DRAINAGE DRAWS MAY FALL WITHIN A CURB RETURN OR WITHIN THE LIMITS SHOWN IN CHART A.

5. HANDICAPPED RAMPS @ SIDEWALK INTERSECTIONS PER CALTRANS STANDARD PLAN NS-B, CASE E.

6. SEE GENERAL NOTE PAGE REGARDING DRAINAGE DRAINAGE CEMENT.

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RADIUS CHART

<table>
<thead>
<tr>
<th>RADIUS</th>
<th>TYPE</th>
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<tbody>
<tr>
<td>40’</td>
<td>ARTERIAL</td>
<td>250’ *</td>
</tr>
<tr>
<td>35’</td>
<td>MAJOR COLLECTOR</td>
<td>150’ *</td>
</tr>
<tr>
<td>25’</td>
<td>MINOR COLLECTOR</td>
<td>100’ *</td>
</tr>
<tr>
<td>25’</td>
<td>ACCESS ROAD</td>
<td>25’</td>
</tr>
</tbody>
</table>

* LESS WITH COUNTY ENGINEER’S APPROVAL.
NOTES:

1. WHEEL CHAIR ACCESS PER CALTRANS STANDARD PLAN N8-B, CASE E.

2. PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH CALTRANS STANDARD SPECIFICATIONS 78.

3. CURBS SHALL BE IN ACCORDANCE WITH STANDARD PLAN 104.
NOTES:

1. CUL-DE-SACS MAY BE ASYMMETRICAL TO THE LEFT OR RIGHT OF CENTERLINE.

2. IF FIRE HAZARDS EXIST, 70' MIN. RADIUS REQUIRED.

3. CALTRANS HS-20 CULDESAC DETAIL MAY BE USED WITH COUNTY ENGINEER'S APPROVAL.
1. IN RURAL CONDITIONS A CALTRANS OMP OR OCP WITH 1/4" STEEL CHECKERED PLATE COVER AND A SINGLE HORIZONTAL GRATE AT 4" O.C. MAY BE USED WITH COUNTY ENGINEER'S APPROVAL.
NOTES:

1. DEPRESS GRATE 3 7/8" BELOW GUTTER FLOWLINE, ON ROLLED CURB AND GUTTER, AND 1 1/2" ON VERTICAL CURB.

2. FLOOR OF INLET SHALL BE PLACED PRIOR TO OR AT THE SAME TIME AS SIDE WALLS, OR TIED WITH REBAR.

3. FRAME AND GRATE SHALL CONFORM TO STANDARD PLAN 115B PINKERTON FOUNDRY #A–601 OR EQUAL.

4. OPEN–BACK HOOD SHALL BE CAST IRON.

5. THE OUTLET PIPE INVERT SHALL BE AT LEAST ONE INCH BELOW THE LOWEST INLET PIPE INVERT.

6. FOR ROLLED CURB AND GUTTER, 6" TRANSITIONS TO VERTICAL CURB ARE REQUIRED ON BOTH SIDES OF INLET.

7. CONCRETE TO BE SIX SACK MIX FOR ALL DRAINAGE STRUCTURES.

8. 5' MAX. DEPTH FROM FLOWLINE, WITHOUT REINFORCEMENT ADDED.
NOTES:

1. PORTLAND CEMENT CONCRETE SHALL BE 3000 P.S.I. AT 28 DAYS.

2. PELICAN GALLERY TO BE SANTA ROSA'S 6Y GALLERY ASSEMBLY WITH THE MODEL 4AC PRE-CAST CURB INLET OR EQUIVALENT.

3. INLET SHOULD BE BROUGHT TO LINE AND GRADE BY ALIGNING NOSING WITH CURB FACE BOARD.

4. FOR ROLLED CURB AND GUTTER, 6" TRANSITIONS TO VERTICAL CURBS ARE REQUIRED ON BOTH SIDES OF INLET.

5. STRINGLINE TOP OF ROLLED CURB AND GUTTER 6" BEYOND ALL OPENINGS AND HOLD THAT ELEVATION FOR TOP FRONT OF CURB, DEPRESSING FLOWLINE CORRESPONDINGLY.

PELICAN PICTORIAL VIEW AND CURB TRANSITIONS

4A CURB INLET DRAINAGE CAPACITY WITH 6Y PELICAN GALLERY

NOT TO SCALE
ROADWAY ROCK LINED DITCH DETAIL

1. ROCK LINED DITCHES ARE USED AS SPECIFIED IN EL DORADO COUNTY GRADING ORDINANCES.

2. ROCK LINING SHALL NOT BE HIGHER THAN ROADWAY OR ELEVATION OF SHOULDER.

3. WHERE A 6:1 SLOPE EXISTS, USE A MINIMUM OF 6' OR A MAXIMUM OF 18' SIZED ROCKS.

4. GROUT WILL BE USED WHEN ROCK RIP-RAP IS PLACED ON FILL SLOPES, IF SLOPES ARE EXCEEDING 2:1, WITHIN 10 FEET OF A CULVERT WITHOUT A FLARED END SECTION, OR WHEN VELOCITIES EXCEED 15 FT. PER SECOND.

5. THE ENDS OF BOTH THE ROCK LINED AND GROUTED ROCK LINED DITCHES TO BE KEYED IN A MINIMUM OF ONE FOOT.

NOT TO SCALE
1. Structural section shall be 3" A.C. and 8" AB minimum, or match existing thickness.

2. Ponding or jetting not permitted under or within 2' of existing roadway.

3. The trench will be paved with asphalt when entering roadside ditches and gutters with a grade of 3% or better. At Tahoe, pave all trenches entering ditches.

4. In roadway fill steeper than 4:1, the outer edge of trench shall be at least 18" from hinge point. For cable plowing operations, it shall be 30".

5. Longitudinal pavement replacement will be from the inner cut line to the edge of the existing pavement. When the remaining pavement width would be less than 3 feet, on collector roads, pavement shall be replaced from centerline.

6. Replace all obliterated pavement markings.

7. On collector roads, intermediate backfill will be 3/4" AB compacted to 95% a concrete/sand slurry (2 sack) may be used in place of 3/4" AB.

8. Final pavement replacement will have a uniform width and will be approved by an inspector before saw cutting.

9. See further conditions attached to permit.

NOTES:
NOTES:

1. POLES MAY BE LOCATED AT THE TDE OF FILLS WHICH ARE MORE THAN 4 FEET IN HEIGHT. POLES SHOULD EXTEND TO NATIVE GROUND WHERE PRACTICAL.

2. POLES MAY BE LOCATED ON CUT OR FILL SLOPES WHEN THE ELEVATION OF THEIR BASE IS 4 FEET ABOVE OR BELOW THE EDGE OF ROADWAY.

3. POLES SHOULD BE LOCATED AS FAR AS PRACTICAL FROM THE ROADWAY AND BEYOND THE SHOULDER & DITCH AREA, BUT MUST BE AT LEAST 6 FEET FROM THE EDGE OF ROADWAY AND 10 FEET PREFERRED.

4. POLES MAY BE LOCATED CLOSER TO THE ROADWAY IF MOTORISTS ARE PROTECTED FROM POLES BY METAL BEAM GUARD RAILING.

5. POLES AND GUYS MAY NOT BE LOCATED ON THE ROADWAY OR IN THE ROADSIDE DITCH OR DRIVEABLE SHOULDER.

6. NO POLES WILL BE LOCATED WITHIN ANY RADIUS PORTION OF A DRIVEWAY CONNECTION OR ROADWAY.
1. ROCK LINED CHANNELS SHALL NOT BE USED UNLESS WARRANTED BY HYDRAULIC CALCULATIONS.

2. ALL ROCK SHALL BE ANGULAR WITH A MINIMUM OF 2 FACES.

3. GRouting will be Used WHEN ROCK RIP RAP IS PLACED ON FILL SLOPES, IF SLOPES EXCEED 2:1, IF WITHIN 10 FEET OF A CULVERT WITHOUT A PLADED END SECTION, OR WHEN ROCK IS PLACED ON ANY FILL.

4. A 24" KEY WILL BE PLACED AT THE END OF THE SWALE AREA.

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<table>
<thead>
<tr>
<th>CHANNEL TYPE</th>
<th>WIDTH, X</th>
<th>DEPTH, Y</th>
<th>ROCK CLASS</th>
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<tbody>
<tr>
<td>A</td>
<td>1'</td>
<td>1'</td>
<td>NO. 1 BACKING</td>
</tr>
<tr>
<td>B</td>
<td>2'</td>
<td>1 1/2'</td>
<td>NO. 1 BACKING</td>
</tr>
<tr>
<td>C</td>
<td>2'</td>
<td>2'</td>
<td>NO. 1 BACKING</td>
</tr>
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</table>

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NOT TO SCALE
NOTES:

1. CONCRETE ENCASEMENTS SHALL HAVE A 1" CROWN ABOVE GROUND LEVEL.

2. 12' WIDE GATE OF 16 GAGE, 2" DIAMETER TUBE CONSTRUCTION WITH MOUNTING HARDWARE AND SINGLE, LOCKABLE PISTON LEVER LATCH BY WESTGUARD INDUSTRIES OR EQUIVALENT.

3. GATE POSTS 4" DIAMETER SCHEDULE 40 GALVANIZED STEEL.
1. Where used on dead end roads, a red warning sign shall be installed per standard plan 1050.
CULVERT

FES

INLET PLAN

2"

X

Z

Y

3.5 x DIA.

4' IF DITCH

CULVERT

FES

OUTLET PLAN

0.5 DIA.

4 x DIA.

12" X 24" KEY TO BE PlACED FOR BOTH INLET AND OUTLET APPLICATIONS.

5. ON OUTLET APPLICATIONS, 50% OF THE ROCK SHALL BE LARGER THAN HALF THE DIAMETER OF THE PIPE.

NOTES:

1. HAND PLACE ROCK.

2. ALL ROCK SHALL BE ANGULAR AND HAVE TWO FACES.

3. WHERE SLOPES OF OUTLET EXCEEDS 5%, A SEDIMENT BOWL, OR ENERGY DISSIPATOR SHALL BE REQUIRED.

4. FLARED END SECTION AND ROCK SLOPE PROTECTION WILL SLOPE AT A MINIMUM OF 1% INTO OR OUT OF THE CULVERT.

5. 12" X 24" KEY TO BE PLACED FOR BOTH INLET AND OUTLET APPLICATIONS.

6. ON OUTLET APPLICATIONS, 50% OF THE ROCK SHALL BE LARGER THAN HALF THE DIAMETER OF THE PIPE.

<table>
<thead>
<tr>
<th>ROCK CLASS</th>
<th>PIPE Ø IN.</th>
<th>(3 x PIPE ø)</th>
<th>(4x)</th>
<th>(5x)</th>
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<tbody>
<tr>
<td>NO. 1 BACKING</td>
<td>12</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
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<td>36</td>
<td>9</td>
<td>12</td>
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</table>

NOT TO SCALE
NOTES:

1. ABOVE 4000 FT. ELEVATION AC SHALL BE REPLACED WITH CLASS B CONCRETE PER CALTRANS SPECIFICATIONS.

2. KEY IN END 1 FT. MIN. OR EQUAL TO DEPTH OF DITCH.

3. PLACE FULL WIDTH KEY EVERY 50' FOR LONG RUNS WITH STEEPER DITCH SLOPES.
NOTES:
1. TAHOE BASIN ONLY, AND ONLY WHERE REPAIRING EXISTING.
IF ROCK SITS ABOVE EXISTING ROCK WALL

STATE STANDARD 1/2 TON ROCK - METHOD A

KEY IN ROCK AND FILTER FABRIC TO 1' x 1'

EXIST ROCK BREAST WALL

FILTER FABRIC TO 1/3 OF SLOPE LENGTH, MIN. 10'

STATE STANDARD 1/2 TON METHOD A PLACEMENT

KEY IN ROCK AND FILTER FABRIC TO 1' x 1'

ONE ROW STATE STANDARD ONE TON ROCK

FILTER FABRIC TO 1/3 OF SLOPE LENGTH, MIN. 10'

2" OF AC PAVING OVER 6" NATIVE MATERIAL AT 90% RELATIVE COMPACTION

NEW PAVED SWALE OR EXIST ROAD IMPROVEMENTS

NOTES:

1. TAHOE BASIN ONLY, WHEN REPAIRING EXISTING CONDITIONS.
NOTES:

1. DEPTH OF FOOTING MAY BE REDUCED TO 2 FEET AS DIRECTED BY ENGINEER.
2. USE 12' LENGTHS FOR STRINGERS. 6' STRINGERS ALLOWABLE FOR RADIUS AND TRANSITIONS WHERE NECESSARY.
3. PLACE 20 SQ. FT. OF NO. 2 BACKING AS SLOPE PROTECTION AT THE END OF EACH WALL.
4. DIMENSIONS IN PARENTHESES FOR 4' RETAINING WALL APPLICATIONS.