FOREWORD

UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION,
OFFSITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA
VOLUME I

The following participating entities of the Clark County, Nevada area have adopted these standard drawings.

CITY OF LAS VEGAS
   Adopted by City Council action .................................................November 4, 1987

CITY OF HENDERSON
   Adopted by City Council action .................................................October 20, 1987

CITY OF NORTH LAS VEGAS
   Adopted by City Council action .................................................November 4, 1987

CITY OF BOULDER CITY
   Adopted by City Council action .................................................January 26, 1988

CITY OF MESQUITE
   Adopted by City Council action .................................................January 26, 1988

CLARK COUNTY
   Adopted by Board action .........................................................April 1998

REGIONAL STREET AND HIGHWAY COMMISSION
   Adopted by Commission Action ...............................................October 8, 1987

The Uniform Standard Drawings for Public Works Construction may be revised by issuance of revisions or supplements to correct errors and omissions found in these drawings and to reflect advanced thinking and the changing technology of the construction industry. Each revision will supersede any previous pertinent drawing. Upon approval by the RTC, revisions will become effective and be posted on the RTC web-site, www.rtcsouthernnevada.com, by the first day of the month of January and July.

To implement this end a Specifications Committee has been established as a permanent organization to continually study and recommend changes to the standard drawings. Interested parties may address suggested changes and questions to the Regional Transportation Commission, 600 South Grand Central Parkway, Suite 350, Las Vegas, Nevada, 89106-4512.
Effective 01/01/09 - 06/30/09

**PLAN ONLY**

**PROPOSED CONSTRUCTION**

**EXISTING**

**CURB AND GUTTER**

**VALLEY GUTTER**

**DRIVEWAY**

**WHEELCHAIR RAMP**

**DROP INLET**

**EDGE OF PAVEMENT**

**ELEVATIONS**

0.00

(0.00)

**CUT OR FILL SLOPES**

**TOP OF SLOPE**

**TOE OF SLOPE**

**NOTE:** FUTURE CONSTRUCTION ITEMS ON PLANS SHALL BE INDICATED BY A DASHED LINE AND APPROPRIATE NOTE.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLARK COUNTY AREA</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SYMBOLS**

DATE: 01/01/09  
DWG. NO.: 102  
PAGE NO.: 2
### PLAN ONLY

- WING TYPE HEADWALL
- VALLEY GUTTER
- UNDERGROUND UTILITY WITH MANHOLE AND CASING

### PROPOSED CONSTRUCTION

- Ownership indicated by line legend

### EXISTING

- Ownership indicated by line legend

### LEGEND

<table>
<thead>
<tr>
<th>TSI</th>
<th>TRAFFIC SIGNAL INTERCONNECT</th>
<th>SS</th>
<th>SANITARY SEWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>ELECTRIC</td>
<td>SD</td>
<td>STORM DRAIN</td>
</tr>
<tr>
<td>FA</td>
<td>FIRE ALARM</td>
<td>W</td>
<td>WATER</td>
</tr>
<tr>
<td>SL</td>
<td>STREET LIGHT</td>
<td>S-G</td>
<td>STEEL GAS</td>
</tr>
<tr>
<td>CATV</td>
<td>CABLE TELEVISION</td>
<td>PL-G</td>
<td>PLASTIC GAS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>T</td>
<td>TELEPHONE</td>
</tr>
</tbody>
</table>

### PROFILE ONLY

- Centerline Grade
- Top of Curb or Flow Line
- Pipe

### SYMBOLS

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>DATE</th>
<th>DWG. NO.</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>103</td>
<td>3</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------</td>
<td></td>
</tr>
<tr>
<td>Aban</td>
<td>Abandon</td>
<td></td>
</tr>
<tr>
<td>AIP</td>
<td>Abandoned in Place</td>
<td></td>
</tr>
<tr>
<td>Agg</td>
<td>Aggregate</td>
<td></td>
</tr>
<tr>
<td>Alt</td>
<td>Alternate</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Anode, Gas</td>
<td></td>
</tr>
<tr>
<td>ACP</td>
<td>Asbestos Cement Pipe</td>
<td></td>
</tr>
<tr>
<td>AC</td>
<td>Asphaltic Concrete</td>
<td></td>
</tr>
<tr>
<td>Ave</td>
<td>Avenue</td>
<td></td>
</tr>
<tr>
<td>BC</td>
<td>Back of Curb</td>
<td></td>
</tr>
<tr>
<td>BCR</td>
<td>Back of Curb Radius</td>
<td></td>
</tr>
<tr>
<td>BVC</td>
<td>Beginning of Vertical Curve</td>
<td></td>
</tr>
<tr>
<td>BM</td>
<td>Bench Mark</td>
<td></td>
</tr>
<tr>
<td>Bdry Line</td>
<td>Boundary Line</td>
<td></td>
</tr>
<tr>
<td>CATV</td>
<td>Cable Television</td>
<td></td>
</tr>
<tr>
<td>C-C</td>
<td>Center to Center</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Centerline</td>
<td></td>
</tr>
<tr>
<td>CBC</td>
<td>City of Boulder City</td>
<td></td>
</tr>
<tr>
<td>CLV</td>
<td>City of Las Vegas</td>
<td></td>
</tr>
<tr>
<td>COH</td>
<td>City of Henderson</td>
<td></td>
</tr>
<tr>
<td>CM</td>
<td>City of Mesquite</td>
<td></td>
</tr>
<tr>
<td>CNLV</td>
<td>City of North Las Vegas</td>
<td></td>
</tr>
<tr>
<td>CC</td>
<td>Clark County</td>
<td></td>
</tr>
<tr>
<td>CCSD</td>
<td>Clark County Sanitation District</td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>Clean Out, Sewer</td>
<td></td>
</tr>
<tr>
<td>Comm</td>
<td>Commercial</td>
<td></td>
</tr>
<tr>
<td>Conc, PCC</td>
<td>Concrete</td>
<td></td>
</tr>
<tr>
<td>Const</td>
<td>Construction or Construct</td>
<td></td>
</tr>
<tr>
<td>Cor</td>
<td>Corner</td>
<td></td>
</tr>
<tr>
<td>CMP</td>
<td>Corrugated Metal Pipe</td>
<td></td>
</tr>
<tr>
<td>CSAP</td>
<td>Corrugated Steel Arch Pipe</td>
<td></td>
</tr>
<tr>
<td>CSP</td>
<td>Corrugated Steel Pipe</td>
<td></td>
</tr>
<tr>
<td>C&amp;G</td>
<td>Curb and Gutter</td>
<td></td>
</tr>
<tr>
<td>CIP</td>
<td>Cast Iron Pipe</td>
<td></td>
</tr>
<tr>
<td>Col</td>
<td>Column</td>
<td></td>
</tr>
<tr>
<td>Cu Yd, CY</td>
<td>Cubic Yard</td>
<td></td>
</tr>
<tr>
<td>Cu Ft, CF</td>
<td>Cubic Feet</td>
<td></td>
</tr>
<tr>
<td>Culv</td>
<td>Culvert</td>
<td></td>
</tr>
<tr>
<td>CF</td>
<td>Curb Face</td>
<td></td>
</tr>
<tr>
<td>Dept</td>
<td>Department</td>
<td></td>
</tr>
<tr>
<td>Dia</td>
<td>Diameter</td>
<td></td>
</tr>
<tr>
<td>Dwy</td>
<td>Driveway</td>
<td></td>
</tr>
<tr>
<td>DI</td>
<td>Drop Inlet</td>
<td></td>
</tr>
<tr>
<td>Esmt</td>
<td>Easement</td>
<td></td>
</tr>
<tr>
<td>Eio</td>
<td>East of</td>
<td></td>
</tr>
<tr>
<td>EP</td>
<td>Edge of Pavement</td>
<td></td>
</tr>
<tr>
<td>EO</td>
<td>Edge of Oil</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Electric</td>
<td></td>
</tr>
<tr>
<td>EM</td>
<td>Electric Meter</td>
<td></td>
</tr>
<tr>
<td>Elev</td>
<td>Elevation</td>
<td></td>
</tr>
<tr>
<td>Embk</td>
<td>Embankment</td>
<td></td>
</tr>
<tr>
<td>ECR</td>
<td>End of Curb Return</td>
<td></td>
</tr>
<tr>
<td>EC</td>
<td>End of Curve</td>
<td></td>
</tr>
<tr>
<td>EBS</td>
<td>Cathode Protection</td>
<td></td>
</tr>
<tr>
<td>EVC</td>
<td>End of Vertical Curve</td>
<td></td>
</tr>
<tr>
<td>Exist</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>Ft</td>
<td>Feet or Foot</td>
<td></td>
</tr>
<tr>
<td>FG</td>
<td>Finish Grade</td>
<td></td>
</tr>
<tr>
<td>FA</td>
<td>Fire Alarm</td>
<td></td>
</tr>
<tr>
<td>FH</td>
<td>Fire Hydrant</td>
<td></td>
</tr>
<tr>
<td>Fl</td>
<td>Flow Line</td>
<td></td>
</tr>
<tr>
<td>Galv</td>
<td>Galvanized</td>
<td></td>
</tr>
<tr>
<td>GM</td>
<td>Gas Meter</td>
<td></td>
</tr>
<tr>
<td>GR</td>
<td>Gas Pressure Regulator</td>
<td></td>
</tr>
<tr>
<td>PL-G</td>
<td>Plastic Gas</td>
<td></td>
</tr>
<tr>
<td>S-G</td>
<td>Steel Gas</td>
<td></td>
</tr>
<tr>
<td>GB</td>
<td>Grade Break</td>
<td></td>
</tr>
<tr>
<td>Gt</td>
<td>Gutter</td>
<td></td>
</tr>
<tr>
<td>Hdwl</td>
<td>Headwall</td>
<td></td>
</tr>
<tr>
<td>In</td>
<td>Inch</td>
<td></td>
</tr>
<tr>
<td>INT</td>
<td>Intersection</td>
<td></td>
</tr>
<tr>
<td>INV</td>
<td>Invert</td>
<td></td>
</tr>
<tr>
<td>ISL</td>
<td>Island</td>
<td></td>
</tr>
<tr>
<td>JB</td>
<td>Junction Box</td>
<td></td>
</tr>
<tr>
<td>LOC</td>
<td>Length of Curb</td>
<td></td>
</tr>
<tr>
<td>Lt</td>
<td>Left</td>
<td></td>
</tr>
<tr>
<td>LF</td>
<td>Linear Feet</td>
<td></td>
</tr>
<tr>
<td>LVVWD</td>
<td>Las Vegas Valley Water District</td>
<td></td>
</tr>
<tr>
<td>MH</td>
<td>Manhole</td>
<td></td>
</tr>
<tr>
<td>Max</td>
<td>Maximum</td>
<td></td>
</tr>
<tr>
<td>Min</td>
<td>Minimum</td>
<td></td>
</tr>
<tr>
<td>Mon</td>
<td>Monolithic</td>
<td></td>
</tr>
<tr>
<td>N/o</td>
<td>North of</td>
<td></td>
</tr>
<tr>
<td>NTS</td>
<td>Not to Scale</td>
<td></td>
</tr>
<tr>
<td>OC</td>
<td>On Center</td>
<td></td>
</tr>
<tr>
<td>OG</td>
<td>Open-Graded Pavement, Original Ground</td>
<td></td>
</tr>
<tr>
<td>Pvmnt</td>
<td>Pavement</td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>Point of Intersection</td>
<td></td>
</tr>
<tr>
<td>PRC</td>
<td>Point of Reverse Curve</td>
<td></td>
</tr>
<tr>
<td>PC</td>
<td>Point of Curve</td>
<td></td>
</tr>
<tr>
<td>PT</td>
<td>Point of Tangency</td>
<td></td>
</tr>
<tr>
<td>PCC</td>
<td>Point of Compound Curve</td>
<td></td>
</tr>
<tr>
<td>PCC, Conc</td>
<td>Portland Cement Concrete</td>
<td></td>
</tr>
</tbody>
</table>
Effective 01/01/09 - 06/30/09

- Power Pole
- Power
- Property Line
- Proposed
- Pull Box
- Radius Point
- Radius
- Railroad
- Reinforced
- Reinforced Concrete
- Reinforced Concrete Box
- Reinforced Concrete Pipe
- Relocate
- Right
- Right-of-way
- Road
- Sanitary Sewer
- Sheet
- South of
- Sidewalk
- Square foot
- Square yard
- Station
- Steel Highpressure Pipe
- Storm Drain
- Standard
- Structural or Structure
- Survey
- Streetlight
- Telephone
- Temporary
- To Be Adjusted
- To Be Removed
- Top of Curb
- Top of Pipe
- Traffic Signal
- Traffic Signal Interconnect
- Transition
- Typical
- Underground
- Variable
- Vertical
- Vertical Curve
- Valley Gutter
- Vitrified Clay Pipe
- Water
- Water Meter
- West of
- Yard

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

ABBREVIATIONS

DATE   DWG. NO.   106   PAGE NO.   6
Effective 01/01/09 - 06/30/09


<table>
<thead>
<tr>
<th>R-Value</th>
<th>SN</th>
<th>AC</th>
<th>T-II</th>
<th>T-I</th>
<th>SN</th>
<th>AC</th>
<th>T-II</th>
<th>T-I</th>
<th>SN</th>
<th>AC</th>
<th>T-II</th>
<th>T-I</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>1.70</td>
<td>2.0</td>
<td>4.0</td>
<td>5.0</td>
<td>2.00</td>
<td>2.5</td>
<td>4.0</td>
<td>6.0</td>
<td>2.25</td>
<td>3.0</td>
<td>4.0</td>
<td>6.5</td>
</tr>
<tr>
<td>18</td>
<td>1.70</td>
<td>2.0</td>
<td>4.0</td>
<td>5.0</td>
<td>1.95</td>
<td>2.5</td>
<td>4.0</td>
<td>5.5</td>
<td>2.15</td>
<td>3.0</td>
<td>4.0</td>
<td>5.5</td>
</tr>
<tr>
<td>20</td>
<td>1.65</td>
<td>2.0</td>
<td>4.0</td>
<td>4.5</td>
<td>1.90</td>
<td>2.5</td>
<td>4.0</td>
<td>5.0</td>
<td>2.25</td>
<td>3.0</td>
<td>4.0</td>
<td>5.5</td>
</tr>
<tr>
<td>22</td>
<td>1.60</td>
<td>2.0</td>
<td>4.0</td>
<td>4.0</td>
<td>1.85</td>
<td>2.5</td>
<td>4.0</td>
<td>4.5</td>
<td>2.05</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
</tr>
<tr>
<td>24</td>
<td>1.55</td>
<td>2.0</td>
<td>7.5</td>
<td>NA</td>
<td>1.80</td>
<td>2.5</td>
<td>4.0</td>
<td>4.0</td>
<td>2.00</td>
<td>3.0</td>
<td>4.0</td>
<td>4.5</td>
</tr>
<tr>
<td>26</td>
<td>1.50</td>
<td>2.0</td>
<td>7.0</td>
<td>NA</td>
<td>1.75</td>
<td>2.5</td>
<td>7.5</td>
<td>NA</td>
<td>2.00</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>28</td>
<td>1.45</td>
<td>2.0</td>
<td>6.5</td>
<td>NA</td>
<td>1.70</td>
<td>2.5</td>
<td>7.0</td>
<td>NA</td>
<td>2.00</td>
<td>3.0</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>30</td>
<td>1.40</td>
<td>2.0</td>
<td>6.0</td>
<td>NA</td>
<td>1.65</td>
<td>2.5</td>
<td>6.5</td>
<td>NA</td>
<td>2.05</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
</tr>
<tr>
<td>32</td>
<td>1.35</td>
<td>2.0</td>
<td>5.5</td>
<td>NA</td>
<td>1.60</td>
<td>2.5</td>
<td>6.0</td>
<td>NA</td>
<td>2.10</td>
<td>3.0</td>
<td>4.5</td>
<td>5.0</td>
</tr>
<tr>
<td>34</td>
<td>1.35</td>
<td>2.0</td>
<td>5.5</td>
<td>NA</td>
<td>1.55</td>
<td>2.5</td>
<td>6.0</td>
<td>NA</td>
<td>2.10</td>
<td>3.0</td>
<td>5.0</td>
<td>5.5</td>
</tr>
<tr>
<td>36</td>
<td>1.30</td>
<td>2.0</td>
<td>5.0</td>
<td>NA</td>
<td>1.50</td>
<td>2.5</td>
<td>5.5</td>
<td>NA</td>
<td>1.75</td>
<td>3.0</td>
<td>6.0</td>
<td>6.0</td>
</tr>
<tr>
<td>38</td>
<td>1.25</td>
<td>2.0</td>
<td>5.0</td>
<td>NA</td>
<td>1.45</td>
<td>2.5</td>
<td>5.0</td>
<td>NA</td>
<td>1.65</td>
<td>3.0</td>
<td>6.0</td>
<td>6.5</td>
</tr>
<tr>
<td>40</td>
<td>1.20</td>
<td>2.0</td>
<td>4.5</td>
<td>NA</td>
<td>1.40</td>
<td>2.5</td>
<td>4.5</td>
<td>NA</td>
<td>1.60</td>
<td>3.0</td>
<td>5.0</td>
<td>5.5</td>
</tr>
<tr>
<td>42</td>
<td>1.15</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.35</td>
<td>2.5</td>
<td>4.0</td>
<td>NA</td>
<td>1.55</td>
<td>3.0</td>
<td>4.5</td>
<td>5.0</td>
</tr>
<tr>
<td>44</td>
<td>1.15</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.35</td>
<td>2.5</td>
<td>4.0</td>
<td>NA</td>
<td>1.55</td>
<td>3.0</td>
<td>4.5</td>
<td>5.0</td>
</tr>
<tr>
<td>46</td>
<td>1.10</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.30</td>
<td>2.0</td>
<td>5.0</td>
<td>NA</td>
<td>1.50</td>
<td>3.0</td>
<td>4.0</td>
<td>4.5</td>
</tr>
<tr>
<td>48</td>
<td>1.05</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.25</td>
<td>2.0</td>
<td>5.0</td>
<td>NA</td>
<td>1.45</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
</tr>
<tr>
<td>50</td>
<td>1.05</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.20</td>
<td>2.0</td>
<td>4.5</td>
<td>NA</td>
<td>1.40</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
</tr>
<tr>
<td>52</td>
<td>1.00</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.20</td>
<td>2.0</td>
<td>4.5</td>
<td>NA</td>
<td>1.60</td>
<td>3.0</td>
<td>5.0</td>
<td>5.5</td>
</tr>
<tr>
<td>54</td>
<td>0.95</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.15</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.35</td>
<td>3.0</td>
<td>4.5</td>
<td>5.0</td>
</tr>
<tr>
<td>56</td>
<td>0.95</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.10</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.30</td>
<td>3.0</td>
<td>4.0</td>
<td>4.5</td>
</tr>
<tr>
<td>58</td>
<td>0.90</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.05</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.25</td>
<td>3.0</td>
<td>4.0</td>
<td>4.5</td>
</tr>
<tr>
<td>60</td>
<td>0.85</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.05</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.20</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>62</td>
<td>0.85</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.00</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.15</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>64</td>
<td>0.80</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>0.95</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.10</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>66</td>
<td>0.75</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>0.95</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.10</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>68</td>
<td>0.75</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>0.90</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.10</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>70</td>
<td>0.70</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>0.85</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.05</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>72</td>
<td>0.70</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>0.80</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>1.00</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>74</td>
<td>0.65</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>0.75</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>0.95</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>76</td>
<td>0.65</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>0.75</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>0.90</td>
<td>3.0</td>
<td>4.0</td>
<td>4.5</td>
</tr>
<tr>
<td>78</td>
<td>0.65</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>0.70</td>
<td>2.0</td>
<td>4.0</td>
<td>NA</td>
<td>0.85</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**NOTES:**

1. **THIS CHART WAS CONSTRUCTED USING THE 1993 AASHTO PAVEMENT DESIGN GUIDE, 1996 NDOT MANUAL AND THE 2000 RTC DESIGN CRITERIA, SECTION 401.01.02 OF THE STANDARD SPECIFICATIONS.**

2. **AN AVERAGE R-VALUE MAY BE USED IF IT IS REPRESENTATIVE OF ALL PROJECT CONDITIONS.**

3. **ADDITIONAL DESIGN COMPENSATION IS REQUIRED IF EXPANSIVE SOILS, HYDRO-COLLAPSIBLE SOILS, OR SOLUBLE MATERIALS ARE PRESENT.**

4. **AC DEPTHS SHOWN ARE MINIMUMS AND 4" MINIMUM TYPE II IS REQUIRED; OTHER COMBINATIONS THAT MEET OR EXCEED THE STRUCTURAL NUMBER REQUIREMENTS ARE ACCEPTABLE.**

---

**SPECIFICATION REFERENCE**

| 401 | PLANTMIX BITUMINOUS PAVEMENTS |

**UNIFORM STANDARD DRAWINGS**

**CLARK COUNTY AREA**

**PAVEMENT STRUCTURE DESIGN GUIDELINE CHART**

**FOR MINOR COLLECTOR AND RESIDENTIAL ROADWAYS**

**DATE** 11-10-04  **DWG. NO.**  200A  **PAGE NO.**  6.1A
NOTES

PROPERTY LINES SHALL BE PARALLEL AND RADIAL TO THE BACK OF CURB AT A DISTANCE CONSISTENT WITH THE STANDARD STREET SECTIONS DRAWING NUMBERS.

* PROPERTY LINE RADIUS SHALL BE A MINIMUM OF 54 FEET.

** PROPERTY LINE RADIUS SHALL BE A MINIMUM OF 40 FEET.

<table>
<thead>
<tr>
<th>&quot;B&quot;</th>
<th>60' OR LESS</th>
<th>80' OR MORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A&quot;</td>
<td>20'</td>
<td>25'</td>
</tr>
<tr>
<td></td>
<td>30'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>80'</th>
<th>25'</th>
<th>**</th>
<th>30'</th>
<th>* 30'</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>100' OR MORE</th>
<th>30'</th>
<th>* 30'</th>
<th>* 30'</th>
</tr>
</thead>
</table>

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

MINIMUM BACK OF CURB RADIUS

DATE 11-10-04  DWG. NO.  201  PAGE NO.  7
NOTE:

SEE STANDARD DRAWING NO. 245.1 (2 SHEETS) FOR TYPICAL LANE CONFIGURATIONS AND DIMENSIONS

* AT THE INTERSECTIONS OF 80 FT. AND 100 FT. STREETS, ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED FOR THE 80 FT. STREET. TYPICALLY, THESE 80 FT. STREETS WILL BE IDENTIFIED AS ARTERIALS IN THE REGIONAL TRANSPORTATION PLAN.

RIGHT-OF-WAY (BEYOND STANDARD 100' ACQUISITION) NECESSARY FOR INTERSECTION

ADDITIONAL RIGHT-OF-WAY NECESSARY FOR EXCLUSIVE RIGHT TURN LANE AT INTERSECTION

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ADDITIONAL RIGHT-OF-WAY REQUIRED AT MAJOR INTERSECTIONS</td>
</tr>
</tbody>
</table>

DATE 7-10-03  DWG. NO. 201.1  PAGE NO. 7.1
**INTERSECTION SIGHT VISIBILITY ZONE**

- **MAJOR STREET (FOR A AND B ONLY)**
- **MINOR STREET (FOR C AND D ONLY)**

**SIGHT VISIBILITY LINE**

- **ROW LINE**
- **P.C.**

**SIGHT VISIBILITY ZONE**
- IF ROW RADIUS IS 20' OR LESS: INTERSECT CHORD OF ROW RADIUS
- IF ROW RADIUS IS GREATER THAN 20': INTERSECT CHORD OF BACK OF CURB RADIUS

**TYPICAL INTERSECTION CORNER**

**NOTE:** FOR SIGHT ZONE DIMENSIONS, SEE SETBACK TABLE ON SHEET 2 OF THIS STANDARD DRAWING.
### GENERAL NOTES

1. EACH CORNER OF EVERY INTERSECTION SHALL HAVE A SIGHT VISIBILITY EASEMENT REGARDLESS OF RIGHT-OF-WAY WIDTH.

2. NO WALLS, FENCES, TREES, SHRUBS, UTILITY APPURTEANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE.


4. CURVING ROADWAYS AND ROADWAYS WITH INTERSECTING ANGLES GREATER THAN 10 DEGREES MUST BE ANALYZED USING D1, D2, THE EYE POSITION, AND THE CAR POSITION AS SHOWN IN THE INFORMATION ABOVE.

5. USE OF A SIGHT VISIBILITY ZONE DIFFERENT THAN THAT SHOWN HEREIN SHALL REQUIRE A SIGHT VISIBILITY ANALYSIS PREPARED AND SUBMITTED FOR APPROVAL TO THE LOCAL ENTITY ENGINEER BY A CIVIL ENGINEER REGISTERED IN THE STATE OF NEVADA.

6. THE AREA WITHIN THE LIMITS OF THE ARC AND THE CHORD AT THE CURB RETURN SHALL BE ADDRESSED TO THE SIGHT VISIBILITY ZONE AT EACH corner of every intersection, except for 100’ x 100’ INTERSECTIONS OR GREATER.

7. ON-STREET PARKING SHALL BE PROHIBITED WITHIN AREAS DESIGNATED BY DIMENSIONS "A" AND "D" ON SHEET 1 OF THIS DRAWING, SUBJECT TO THE APPROVAL OF THE TRAFFIC ENGINEER OR DESIGNATED REPRESENTATIVE OF THE ENTITY HAVING JURISDICTION.

### SETBACK TABLE

<table>
<thead>
<tr>
<th>MINOR ROW</th>
<th>48'</th>
<th>51'</th>
<th>60'</th>
<th>80'</th>
<th>100'</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1=2720(3A)</td>
<td>A = 53'</td>
<td>A = 36'</td>
<td>A = 66'</td>
<td>A = 100'</td>
<td>A = 184'</td>
</tr>
<tr>
<td>D1=300(3C)</td>
<td>B = 6'</td>
<td>B = 5'</td>
<td>B = 6'</td>
<td>B = 6'</td>
<td>B = 6'</td>
</tr>
<tr>
<td>D2=300(3A)</td>
<td>C = 6'</td>
<td>C = 5'</td>
<td>C = 5'</td>
<td>C = 5'</td>
<td>C = 5'</td>
</tr>
<tr>
<td>D2=319(3B)</td>
<td>D = 42'</td>
<td>D = 31'</td>
<td>D = 55'</td>
<td>D = 36'</td>
<td>D = 53'</td>
</tr>
<tr>
<td>D1=320(3A)</td>
<td>A = 51'</td>
<td>A = 37'</td>
<td>A = 64'</td>
<td>A = 98'</td>
<td>A = 182'</td>
</tr>
<tr>
<td>D1=300(3C)</td>
<td>B = 6'</td>
<td>B = 4'</td>
<td>B = 5'</td>
<td>B = 6'</td>
<td>B = 6'</td>
</tr>
<tr>
<td>D2=300(3A)</td>
<td>C = 6'</td>
<td>C = 4'</td>
<td>C = 5'</td>
<td>C = 5'</td>
<td>C = 5'</td>
</tr>
<tr>
<td>D2=319(3B)</td>
<td>D = 40'</td>
<td>D = 29'</td>
<td>D = 53'</td>
<td>D = 34'</td>
<td>D = 51'</td>
</tr>
<tr>
<td>D1=320(3A)</td>
<td>A = 46'</td>
<td>A = 33'</td>
<td>A = 56'</td>
<td>A = 80'</td>
<td>A = 174'</td>
</tr>
<tr>
<td>D1=300(3C)</td>
<td>B = 6'</td>
<td>B = 4'</td>
<td>B = 5'</td>
<td>B = 6'</td>
<td>B = 6'</td>
</tr>
<tr>
<td>D2=300(3A)</td>
<td>C = 6'</td>
<td>C = 4'</td>
<td>C = 5'</td>
<td>C = 5'</td>
<td>C = 5'</td>
</tr>
<tr>
<td>D2=319(3B)</td>
<td>D = 50'</td>
<td>D = 37'</td>
<td>D = 48'</td>
<td>D = 36'</td>
<td>D = 47'</td>
</tr>
<tr>
<td>D1=364(3A)</td>
<td>N/A</td>
<td>N/A</td>
<td>A = 56'</td>
<td>A = 73'</td>
<td>A = 157'</td>
</tr>
<tr>
<td>D1=436(3C)</td>
<td>N/A</td>
<td>N/A</td>
<td>B = 6'</td>
<td>B = 6'</td>
<td>B = 6'</td>
</tr>
<tr>
<td>D2=491(3A)</td>
<td>C = 6'</td>
<td>C = 6'</td>
<td>C = 6'</td>
<td>C = 6'</td>
<td>C = 6'</td>
</tr>
<tr>
<td>D2=510(3B)</td>
<td>D = 50'</td>
<td>D = 58'</td>
<td>D = 35'</td>
<td>D = 58'</td>
<td>D = 58'</td>
</tr>
</tbody>
</table>

### BASIS FOR ANALYSIS

THE FOLLOWING CRITERIA WAS AND SHALL BE USED AS THE BASIS FOR DESIGN OF SIGHT VISIBILITY ZONES:

AASHTO PUBLICATION OF "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS", 1996 EDITION, CHAPTER IX, USING THE MOST RESTRICTIVE SIGHT LINE DERIVED FROM EACH OF THE THREE POSSIBLE CROSSING MANEUVERS (STOPPED CONDITION):

- CASE 3A - CROSSING MANEUVER
- CASE 3B - LEFT TURN MANEUVER
- CASE 3C - RIGHT TURN MANEUVER

THE ANALYSIS SHOULD USE THE GREATER OF THE FOLLOWING:

- DESIGN SPEED = POSTED SPEED LIMIT PLUS FIVE
- DESIGN SPEED = POSTED SPEED LIMIT DIVIDED BY 0.85

CAR AND EYE POSITIONS ARE AS SHOWN ON SHEET 1 OF THIS DRAWING.

### SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

### UNIFORM STANDARD DRAWINGS

<table>
<thead>
<tr>
<th>CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGHT VISIBILITY ZONES AT INTERSECTIONS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DATE</th>
<th>DWG. NO.</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-21-97</td>
<td>201.2 (2 OF 2)</td>
<td>7.2A</td>
</tr>
</tbody>
</table>
NOTES:

1. FINAL A.C. PAVEMENT SURFACE SHALL BE 1/2" MAXIMUM ABOVE LIP OF GUTTER. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.

2. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING 200.

3. A 3/4" OPEN GRADE IS REQUIRED ON CLARK COUNTY ROADWAYS AND MAY BE REQUIRED IN OTHER JURISDICTIONS AS DETERMINED BY THE ENTITY'S ENGINEER.

4. IF OPEN GRADE IS REQUIRED DENSE GRADE SHALL BE FLUSH WITH LIP OF GUTTER AND FINAL A.C. PAVEMENT SURFACE SHALL BE 3/4" MAXIMUM ABOVE LIP OF GUTTER. FINAL A.C. PAVEMENT SURFACE SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.

5. FOG SEAL AND PRIME COAT REQUIRED IN THE CITIES OF LAS VEGAS AND NORTH LAS VEGAS.
NOTES:
1. FINAL A.C. PAVEMENT SURFACE (INCLUDING OPEN GRADE) SHALL BE 3/4" MAXIMUM ABOVE LIP OF GUTTER. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. DENSE GRADE SHALL BE FLUSH WITH LIP OF GUTTER.
3. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NO. 200.
4. THIS STANDARD IS AN ALTERNATE STREET SECTION TO BE USED AT LOCATIONS DETERMINED BY EACH LOCAL JURISDICTION. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE 5 FOOT SIDEWALK.
5. UNDERGROUND DRY UTILITIES SHOULD BE PLACED IN A UTILITY CORRIDOR UNDER THE SIDEWALK.
6. INCREASE PAVEMENT WIDTH BY 11 FEET ON EACH SIDE OF ROADWAY FOR AN 8 LANE CROSS SECTION.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>302 AGGREGATE BASE</td>
<td>ARTERIAL ALTERNATE URBAN AREA STREET SECTIONS WITH OFFSET SIDEWALK</td>
</tr>
<tr>
<td>401 BITUMINOUS PAVEMENT</td>
<td></td>
</tr>
<tr>
<td>403 OPEN GRADE</td>
<td></td>
</tr>
<tr>
<td>501 CONCRETE</td>
<td></td>
</tr>
</tbody>
</table>

DATE 11-10-04  DWG. NO. 202 ALT  PAGE NO. 8.1ALT
NOTES:
1. A.C. PAVEMENT TO BE 1/2" MAXIMUM ABOVE LIP OF GUTTER AFTER COMPACTION. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. THE GRADE BREAK OCCURRING IN THE CROSS SECTION SHALL FALL BETWEEN DRIVING LANES.
3. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NOS. 200 AND 200A.
4. PRIME COAT IS NOT REQUIRED IN HENDERSON, MESQUITE OR BOULDER CITY WHEN A.C. THICKNESS >= 5 IN.
5. 4 INCH MINIMUM THICKNESS REQUIRED IN HENDERSON, MESQUITE AND BOULDER CITY.
6. 3/4" OPEN GRADE REQUIRED IN CLARK COUNTY. OPEN GRADE IN OTHER JURISDICTIONS AS REQUIRED BY THE ENGINEER.

SPECIFICATION REFERENCE
302 AGGREGATE BASE
401 BITUMINOUS PAVEMENT
406 PRIME COAT
407 FOG SEAL
501 CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

COLLECTOR
URBAN AREA STREET SECTIONS
WITH CURBSIDE SIDEWALK

DATE 11-10-04 DWG. NO. 205 PAGE NO. 11
NOTES:
1. A.C. PAVEMENT TO BE 1/2" MAXIMUM ABOVE LIP OF GUTTER AFTER COMPACTION. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. THE GRADE BREAK OCCURRING IN THE CROSS SECTION SHALL FALL BETWEEN DRIVING LANES.
3. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NOS. 200 AND 200A.
4. THIS STANDARD IS AN ALTERNATE STREET SECTION TO BE USED AT LOCATIONS DETERMINED BY EACH LOCAL JURISDICTION. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE 5 FOOT SIDEWALK.
5. UNDERGROUND DRY UTILITIES SHOULD BE PLACED IN A UTILITY CORRIDOR UNDER THE SIDEWALK.
6. 3/4" OPEN GRADE REQUIRED IN CLARK COUNTY. OPEN GRADE IN OTHER JURISDICTIONS AS REQUIRED BY THE ENGINEER.
NOTES:
1. FINAL A.C. PAVEMENT SURFACE SHALL BE 1/4" MAXIMUM ABOVE LIP OF GUTTER.

2. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OF 20. OTHER STRUCTURAL SECTIONS MAY BE APPROVED IF BASED ON ENGINEERING ANALYSIS BASED ON SUBGRADE "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>302</td>
<td>HENDERSON, BOULDER CITY, MESQUITE</td>
</tr>
<tr>
<td>AGGREGATE BASE</td>
<td>LOCAL RESIDENTIAL URBAN AREA STREET SECTION</td>
</tr>
<tr>
<td>401</td>
<td>DATE 11-10-04</td>
</tr>
<tr>
<td>BITUMINOUS PAVEMENT</td>
<td>DWG. NO. 206</td>
</tr>
<tr>
<td>406</td>
<td>PAGE NO. 12</td>
</tr>
<tr>
<td>PRIME COAT</td>
<td></td>
</tr>
<tr>
<td>407</td>
<td></td>
</tr>
<tr>
<td>FOG SEAL</td>
<td></td>
</tr>
<tr>
<td>501</td>
<td></td>
</tr>
<tr>
<td>CONCRETE</td>
<td></td>
</tr>
</tbody>
</table>
RESIDENTIAL TWO-WAY LOCAL OR CUL-DE-SAC (OPTION "A")

SIDEWALK REQUIRED ON BOTH SIDES IN NORTH LAS VEGAS

ROLL TYPE CURB & GUTTER PERMISSIBLE ON SIDE WITHOUT SIDEWALK. SEE STANDARD DRAWING NO. 217

RESIDENTIAL TWO-WAY LOCAL, CUL-DE-SAC (OPTION "B") (NOT ALLOWED IN CLV)

SIDEWALK MANDATORY ON ONE SIDE ONLY.

RESIDENTIAL ONE-WAY (NOT ALLOWED IN CLV)

NOTES:
1. FINAL A.C. PAVEMENT SURFACE SHALL BE 1/4" MAXIMUM ABOVE LIP OF GUTTER. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NO. 200A.
3. RESIDENTIAL ONE-WAY STREET SHALL NOT EXCEED ONE THOUSAND FEET OR TWENTY RESIDENTIAL LOTS IN LENGTH WHICHEVER IS LESS.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>302 AGGREGATE BASE</td>
<td>CLARK COUNTY, LAS VEGAS AND NORTH LAS VEGAS</td>
</tr>
<tr>
<td>401 BITUMINOUS PAVEMENT</td>
<td>LOCAL RESIDENTIAL URBAN AREA STREET SECTIONS</td>
</tr>
<tr>
<td>406 PRIME COAT</td>
<td>DATE 11-10-04 DWG. NO. 207 PAGE NO. 13</td>
</tr>
<tr>
<td>407 FOG SEAL</td>
<td></td>
</tr>
<tr>
<td>501 CONCRETE</td>
<td></td>
</tr>
</tbody>
</table>
NOTES:
1. A.C. PAVEMENT AND BASE THICKNESS SHALL BE IN ACCORDANCE TO STANDARD DRAWINGS NUMBER 202 THROUGH 207, WHICHEVER IS APPLICABLE.

2. GREATER WIDTHS MAY BE REQUIRED IF TRAFFIC WARRANTS, AS DETERMINED BY THE ENGINEER.
ARterial or Major Collector

Commercial/Industrial Local
or Minor Residential Collector
or Local Residential

Notes:
1. A.C. Pavement and base thickness shall be in accordance to Standard Drawings number 202 through 207, whichever is applicable.

2. Greater widths may be required if traffic warrants, as determined by the engineer.
1. INTERSECTIONS SHALL HAVE 34 FOOT MINIMUM EDGE OF A.C. RETURN RADI.

2. COMPACTION OF AGGREGATE BASE AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE UNIFORM STANDARD SPECIFICATIONS.

3. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OF 20. OTHER STRUCTURAL SECTIONS MAY BE APPROVED IF BASED ON ENGINEERING ANALYSIS BASED ON "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING.

4. CULVERTS MAY BE REQUIRED AT DRIVEWAYS.

5. A.C. PAVEMENT SHALL BE IN ACCORDANCE WITH SECTION 401 OF THE UNIFORM STANDARD SPECIFICATIONS. ALTERNATE PAVING MATERIALS MAY BE USED AT THE DISCRETION OF THE ENTITY.

6. PAVEMENT MARKINGS MAY BE REQUIRED AND INCLUDE DOUBLE YELLOW CENTERLINE, RAISED PAVEMENT MARKERS OR YELLOW PAINT, AND 4' OFFSET WHITE PAINTED EDGELINES.

7. PAVEMENT WIDTH AND PAVEMENT THICKNESS MAY BE REDUCED TO 28 FEET (14 FEET EACH DIRECTION) AND 2 INCHES RESPECTIVELY BASED UPON A DETERMINATION BY THE LOCAL ENTITY THAT THE REDUCED WIDTH AND THICKNESS WILL PROVIDE SATISFACTORY LIFE AND A SAFE ROADWAY.
NOTES:

1. INTERSECTIONS SHALL HAVE 25 FOOT MINIMUM EDGE OF OIL RADI

2. COMPACT ON OF AGGREGATE BASE AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS".

3. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OF 20. OTHER STRUCTURAL SECTIONS MAY BE APPROVED IF BASED ON ENGINEERING ANALYSIS BASED ON "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN, NOR SHALL THE BASE BE LESS THAN 4".

4. CULVERTS MAY BE REQUIRED AT DRIVEWAYS.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>302 AGGREGATE BASE</td>
<td>ACCESS ROADS (FOR USE IN PM-10 COMPLIANT AREAS)</td>
</tr>
<tr>
<td>401 BITUMINOUS PAVEMENT</td>
<td>DATE 12-14-00 DWG. NO. 209A PAGE NO. 15A</td>
</tr>
<tr>
<td>406 PRIME COAT</td>
<td></td>
</tr>
<tr>
<td>407 FOG SEAL</td>
<td></td>
</tr>
</tbody>
</table>
GRAVEL

(THESE AREAS NOT FOR USE IN PM-10 NON-ATTAINMENT AREAS)

NOTES:

1. INTERSECTIONS SHALL HAVE 25 FOOT MINIMUM EDGE OF OIL RADIi OR 20 FOOT MINIMUM BACK OF CURB RADIi.

2. COMPACTIVITY OF Aggregate BASE AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATION".

3. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OF 20. OTHER STRUCTURAL SECTIONS MAY BE APPROVED IF BASED ON ENGINEERING ANALYSIS BASED ON "R" OR "CSR" VALUES DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN, NOR SHALL THE BASE BE LESS THAN 4" EXCEPT THAT THE BASE SHALL NOT BE LESS THAN 10" IN NORTH LAS VEGAS.

4. ALLOW IN CITY OF NORTH LAS VEGAS ONLY WITH EXPRESS WRITTEN PERMISSION FROM THE CITY ENGINEER.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>Specification</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGGREGATE BASE</td>
<td>302</td>
</tr>
<tr>
<td>BITUMINOUS PAVEMENT</td>
<td>401</td>
</tr>
<tr>
<td>PRIME COAT</td>
<td>406</td>
</tr>
<tr>
<td>FOG SEAL</td>
<td>407</td>
</tr>
<tr>
<td>CONCRETE</td>
<td>501</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PRIVATE STREET SECTIONS

DATE 12-14-00  DWG. NO. 210  PAGE 16
1. Use normal section from inner curb to center line.
2. From crown line to outer curb, the standard slope is 2%.
3. Super-elevation percentages shown are a straight grade from center line to crown line.
4. Elevations are required where circles ( ) are shown.
5. Knuckles are not allowed on major collector or arterial streets.
1. BCR
   \( \triangle_1 > 75 = 30' \) MINIMUM
   65\( ^\circ \) TO 75\( ^\circ \) = 35' MINIMUM
   45\( ^\circ \) TO 65\( ^\circ \) = 45' MINIMUM
   \( \triangle_1 < 45 = C_L \) RADIUS = 150' MINIMUM
2. BCR = 50' MINIMUM
3. BCR = \( W + 10' \) MINIMUM
   \( \triangle_3 = \triangle_1 + 2 \triangle_2 \)

NOTES:
1. USE 2% SLOPE FROM INNER CURB TO CROWN LINE.
2. FROM CROWN LINE TO OUTER CURB, THE STANDARD SLOPE IS 0.90% (MIN).
3. ELEVATIONS REQUIRED ALONG CURBS (3) AND CROWN EVERY 1/4 (MIN).
4. KNUCKLES ARE ALLOWED ON RESIDENTIAL STREETS ONLY.
5. MINIMUM SLOPE ALONG THE BACK OF CURB OF CURVES (2) AND (3) SHALL BE 0.60% (MIN).
6. SPECIAL KNUCKLE DESIGNS INCLUDING LANDSCAPED MEDIAN ISLAND MAY BE PERMITTED, IF APPROVED BY THE COUNTY ENGINEER.
NOTES:
1. ONLY 51' R/W AND PRIVATE STREET CUL-DE-SACS WILL BE ALLOWED IN THE CITY OF LAS VEGAS.

CITIES OF NORTH LAS VEGAS AND MESQUITE ONLY

<table>
<thead>
<tr>
<th>R/W WIDTH</th>
<th>W</th>
<th>A</th>
<th>R</th>
<th>A</th>
<th>R-1</th>
<th>R-2</th>
<th>R-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>48'</td>
<td>41'</td>
<td>51.23'</td>
<td>49.2'</td>
<td>45.5'</td>
<td>19.5'</td>
<td>16'</td>
<td></td>
</tr>
<tr>
<td>51'</td>
<td>41'</td>
<td>51.23'</td>
<td>50.5'</td>
<td>45.5'</td>
<td>19.5'</td>
<td>14.5'</td>
<td></td>
</tr>
<tr>
<td>60'</td>
<td>50'</td>
<td>47.38'</td>
<td>50.5'</td>
<td>45.5'</td>
<td>19.5'</td>
<td>14.5'</td>
<td></td>
</tr>
<tr>
<td>PRIVATE STREET</td>
<td>40'</td>
<td>51.84'</td>
<td>45.5'</td>
<td>45.5'</td>
<td>19.5'</td>
<td>19.5'</td>
<td></td>
</tr>
</tbody>
</table>

ALL OTHER ENTITIES (CC, CLV, HEN, BC)

<table>
<thead>
<tr>
<th>R/W WIDTH</th>
<th>W</th>
<th>A</th>
<th>R</th>
<th>A</th>
<th>R-1</th>
<th>R-2</th>
<th>R-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>48'</td>
<td>41'</td>
<td>44.72'</td>
<td>44.2'</td>
<td>40.5'</td>
<td>19.5'</td>
<td>16'</td>
<td></td>
</tr>
<tr>
<td>51'</td>
<td>41'</td>
<td>44.72'</td>
<td>45.5'</td>
<td>40.5'</td>
<td>19.5'</td>
<td>14.5'</td>
<td></td>
</tr>
<tr>
<td>60'</td>
<td>50'</td>
<td>40.25'</td>
<td>45.5'</td>
<td>40.5'</td>
<td>19.5'</td>
<td>14.5'</td>
<td></td>
</tr>
<tr>
<td>PRIVATE STREET</td>
<td>40'</td>
<td>45.18'</td>
<td>40.5'</td>
<td>40.5'</td>
<td>19.5'</td>
<td>19.5'</td>
<td></td>
</tr>
</tbody>
</table>

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CUL-DE-SAC

DATE 6-8-00 DWG. NO. 212 PAGE 18
NOTE:
USE OF THE HAMMERHEAD WILL BE ALLOWED IN SINGLE FAMILY RESIDENTIAL DWELLING AREAS ONLY.

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY ONLY

HAMMERHEAD

| DATE 11-10-04 | DWG. NO. 213 | PAGE NO. 19 |
SECTION A-A

SECTION B-B

1/2" PREMOLD EXPANSION JOINT FILLER, JOINTS EVERY 30'

NO. 4 BARS 12" O.C., BOTH WAYS

STANDARD 1/2" GALVANIZED PIPE WITH END PLUG. GREASE REINFORCING STEEL PRIOR TO PIPE INSTALLATION.
Effective 01/01/09 - 06/30/09

SECTION

NO. 4 BARS TO DISCONTINUE WITHIN 2" OF JOINT MATERIAL

WEAKENED PLANE JOINTS 1/4" MAX. WIDTH BY 2" DEPTH SAWCUT

BUILDING OR CURB LINE
1/2" PREMOLD EXPANSION JOINT FILLER

IF NO BUILDING OR CURB EXISTS THICKEN EDGE TO 8" TOTAL DEPTH

SECTION B-B

1/2" PREMOLD EXPANSION JOINT FILLER, JOINTS EVERY 30'

NO. 4 BARS 12" O.C. BOTH WAYS

1/4" R

3" 3" 1/2" 12" MIN 2" CLEAR

STANDARD 1/2" GALVANIZED PIPE WITH END PLUG. GREASE REINFORCING STEEL PRIOR TO PIPE INSTALLATION.

SECTION A-A

SPECIFICATION REFERENCE

302 AGGREGATE BASE
501 CONCRETE
505 REINFORCING STEEL
707 JOINT MATERIAL

UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA

EXCEPT CLARK COUNTY ALLEY, CONCRETE

DATE 12-14-00 DWG. NO. 215 PAGE NO. 21
NOTES:

1. 1" BATTER ON GUTTER FACE OPTIONAL.

2. WHERE LONGITUDINAL SLOPE IS LESS THAN 0.4%, THE FLOW LINE SHALL BE WATER TESTED.
NOTES:

1. USE OF ROLL CURB MAY BE RESTRICTED BY SURFACE DRAINAGE CONSIDERATIONS.

2. SIDEWALK CONSTRUCTED CONTIGUOUS TO ROLL CURB SHALL BE 5 INCHES THICK (MIN).

3. WHERE LONGITUDINAL SLOPE IS LESS THAN 0.4% THE FLOW LINE SHALL BE WATER TESTED.

4. CONSTRUCT 1/2" EXPANSION JOINT AT ALL COLD JOINTS, AT BEGINNING AND END OF CURB RETURNS, AND AT 300 FT. MAX. INTERVALS FOR EXTRUDED CURB AND 30 FT. MAX. INTERVALS FOR FORMED CURB. WEAKENED PLANE JOINTS SHALL BE FORMED AT THE REMAINING 15 FT. INTERVALS. SEE STD. DWG. NO. 234 FOR JOINT DETAILS.

5. ONE INCH BATTER AT CURB FACE IS OPTIONAL.

6. CITY OF LAS VEGAS COUNCIL APPROVAL REQUIRED FOR USE OF 30" ROLL CURB IN THE CITY OF LAS VEGAS.

7. IN NORTH LAS VEGAS, ROLL CURBS ARE PROHIBITED IN AREAS WHERE FLOW LINE GRADIENT IS LESS THAN 0.8% UNLESS OTHERWISE APPROVED BY CITY ENGINEER.

8. ALL UTILITY BOXES AND COVERS ADJACENT TO ROLL CURB SHALL BE HS-20 RATED "TRAFFIC BEARING" TYPE
AC MEDIAN

PCC MEDIAN

NOTES:

1. CONSTRUCT WEAKENED PLANE JOINT IN CURB AND SLAB AT SAME LOCATION EVERY 10'; CONSTRUCT EXPANSION JOINTS EVERY 300' FOR CONCRETE SLAB TO MATCH CURB JOINTS. FOR JOINT DETAILS SEE STANDARD DRAWING NUMBER 234.

2. "A" TYPE CURB AND GUTTER PER STANDARD DRAWING NUMBER 221 IS REQUIRED IN THE CITY OF HENDERSON AND MAY BE REQUIRED FOR DRAINAGE CONSIDERATIONS.

3. WHEN CURB MACHINE IS USED TO PLACE CURB, A 2" MINIMUM LEVELING COURSE OF TYPE II AGGREGATE BASE IS REQUIRED.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>302</th>
<th>AGGREGATE BASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>CONCRETE</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

MEDIAN ISLAND
TYPICAL SECTION

DATE 12-14-00  DWG. NO. 218  PAGE NO. 24
HOLDING GUTTER WHERE REQUIRED FOR DRAINAGE

"L" CURB SECTION

"A" CURB SECTION

WEAKENED PLANE JOINTS
SEE STANDARD DRAWING NUMBER 234

NOTES:
1. CONTINUOUS NO. 4 BAR REQUIRED IN NOSE OF MEDIAN ONLY.
2. 1" BATTER ON GUTTER FACE OPTIONAL.

1/2" EXPANSION JOINT AT ALL OLD JOINTS, AT BEGINNING AND END OF RETURN AND AT 300' MAX. INTERVALS FOR EXTRUDED CURB AND 30' MAX. INTERVALS FOR FORMED CURB. FOR JOINT DETAIL SEE STANDARD DRAWING NUMBER 234

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>302</th>
<th>AGGREGATE BASE COURSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>CONCRETE</td>
</tr>
<tr>
<td>707</td>
<td>JOINT MATERIAL</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

"A" AND "L" TYPE ISLAND CURB

DATE 12-14-00 DWG. NO. 219 PAGE NO. 25
1/2" RADIUS ROUNDED EDGE ON ALL EXPOSED CORNERS

CONCRETE

VARIES

6"

1"

SURFACE TREATMENT VARIES

EXISTING A.C. PAVEMENT

NO. 4 BARS AT 3'-4"
CENTERS 18" LONG

SECTION

EXPANSION JOINT AT ALL COLD JOINTS, AT BEGINNING AND END OF RETURN AND 300' MAX INTERVALS FOR EXTRUDED CURB AND 30' MAX INTERVALS FOR FORMED CURB

WEAKENED PLANE JOINT

10' (TYP)

3'-4" TYP

3"

DIRECTION OF TRAFFIC

NO. 4 BARS AT 3'-4" CENTERS 18" LONG

SIDE VIEW

NO. 4 BAR

NOTES:

1. FOR EXPANSION JOINT AND WEAKENED PLANE JOINT DETAIL, SEE STANDARD DRAWING NO. 234.

2. WEAKENED PLANE JOINTS EVERY 10' STAGGER WITH NO. 4 BARS.

3. ALL REINFORCING STEEL SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN.

4. WHEN APPROVED BY THE ENGINEER/ENTITY, STRUCTURAL EPOXY ADHESIVE MAY BE USED IN LIEU OF NUMBER 4 DOWEL BAR EXCEPT AT CURB NOSE AND WITHIN 2 FEET OF ANY POINT OF CURVATURE.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>501</th>
<th>CONCRETE</th>
</tr>
</thead>
<tbody>
<tr>
<td>505</td>
<td>REINFORCING STEEL</td>
</tr>
<tr>
<td>707</td>
<td>JOINT MATERIAL</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TACK ON ISLAND CURB

DATE 01-13-05  DWG. NO. 220  PAGE NO. 26
NOTES:

1. FOR EXPANSION JOINT AND WEAKENED PLANE JOINT DETAIL, SEE STANDARD DRAWING NO. 234.

2. WHEN APPROVED BY THE ENGINEER/ENTITY, STRUCTURAL EPOXY ADHESIVE MAY BE USED IN LIEU OF NUMBER 4 DOWEL BAR EXCEPT AT CURB NOSE AND WITHIN 2 FEET OF ANY POINT OF CURVATURE.
NOTES:
1. ALL RESIDENTIAL PROPERTIES MAY HAVE ONLY ONE CURB CUT EXCEPT CIRCULAR DRIVEWAYS AS SHOWN.
2. LOCAL ORDINANCES MAY APPLY AND SHALL HAVE PREFERENCE.
3. NO DRIVEWAY SHALL BE LOCATED WHOLLY OR PARTIALLY, ON OR OVER A UTILITY EASEMENT WHICH RUNS PERPENDICULAR TO THE CURB LINE.
4. NO DRIVEWAY SHALL BE LOCATED WITHIN 6 FEET OF A LIGHT POLE (UNLESS ACCEPTED BY THE ENTITY TRAFFIC ENGINEER), FIRE HYDRANT, MAIL BOX, ABOVE-GROUND ELECTRICAL TRANSFER BOX, BLOCK WALL HIGHER THAN 2 FEET, OR THE CURB RETURN AT A STREET INTERSECTION OR ALLEY.
5. COMMON DRIVEWAY CONSTRUCTION MAY BE PERMITTED AT ANY TWO RESIDENTIAL PROPERTIES OF 60 FEET IN WIDTH OR LESS. THE WIDTH OF THE JOINT DRIVEWAY SHALL BE A MAXIMUM OF 24 FEET. A JOINT DRIVEWAY AGREEMENT SHALL BE REQUIRED. (EXCEPT CLARK COUNTY)
6. GEOMETRICS APPLY TO NEW CONSTRUCTION ONLY, AND MAY VARY IN EXISTING SUBDIVISIONS SUBJECT TO APPROVAL OF THE ENGINEER.
7. MULTI-FAMILY RESIDENTIAL AND ALL NON-RESIDENTIAL DRIVEWAYS SHALL CONFORM TO THE COMMERCIAL DRIVEWAY STANDARDS.
8. ALL DRIVEWAY LOCATIONS SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
9. FOR CURB DEPRESSION AND DRIVEWAY APRON DETAIL, SEE STD. DWG. NO. 223.
NOTES:
1. COMMERCIAL AND MULTI-FAMILY DRTIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWING NUMBERS 224, 225, 228, 235 AND 235.1.
2. LOCAL ORDINANCES AND POLICIES MAY APPLY AND SHALL HAVE PRECEDENCE. SEE NDOT ACCESS POLICY FOR STATE ROADWAYS.
3. THE TOTAL WIDTH "W" OF DRIVEWAY CURB OPENINGS SHALL NOT EXCEED 65% OF FRONT FOOTAGE.
4. NO DRIVEWAY SHALL BE LOCATED WITHIN 6 FEET OF A LIGHT POLE (UNLESS APPROVED BY THE ENTITY TRAFFIC ENGINEER), FIRE HYDRANT, MAIL BOX, ABOVE-GROUND ELECTRICAL TRANSFER BOX, OR BLOCK WALL HIGHER THAN 2 FEET.
5. THE CENTERLINES OF THE DRIVEWAYS ON OPPOSITE SIDES OF THE STREET AT A MEDIAN OPENING SHOULD BE WITHIN 10' FROM EACH OTHER AT THE MEDIAN OPENING.
6. GEOMETRICS APPLY TO NEW CONSTRUCTION ONLY, AND EXCEPTIONS MAY BE GRANTED BY THE APPROVAL OF THE AGENCY TRAFFIC ENGINEER BASE ON SITE CONSTRAINTS.
7. HANDICAPPED ACCESSIBLE SIDEWALKS SHALL BE PROVIDED ADJACENT TO DRIVEWAYS TO THE P.C. OF THE ONSITE CURB RETURN, MINIMUM, OR AT AN ALTERNATE LOCATION.
8. WHEN A PROPERTY LINE FALLS IN A MEDIAN OPENING A JOINT DRIVEWAY AGREEMENT SHALL BE REQUIRED OR NO DRIVEWAY WILL BE ALLOWED.
J. THROAT DEPTH FOR SECURITY GATE
50' MINIMUM FOR 1 TO 49 HOMES OR APT. UNITS TO VISITOR CALL BOX.
100' MINIMUM FOR 50 TO 100 HOMES OR APT. UNITS TO VISITOR CALL BOX.
GREATER THAN 100 HOMES OR APT. UNITS REQUIRE TRAFFIC STUDY

DIMENSIONS FOR SECURITY GATE
CONTROLLED DRIVEWAY DETAIL

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>D. ISLAND : LENGTH</td>
<td>20' MINIMUM</td>
</tr>
<tr>
<td></td>
<td>WIDTH</td>
</tr>
<tr>
<td>G.</td>
<td>15' MINIMUM</td>
</tr>
<tr>
<td>E.</td>
<td>48' MINIMUM</td>
</tr>
<tr>
<td>H.</td>
<td>8' MINIMUM &amp; 15' MAXIMUM</td>
</tr>
</tbody>
</table>

DETAIL FOR SECURITY GATE
CONTROLLED DRIVEWAYS

LOOP DETECTOR
CALL BOX
THROAT DEPTH

SPECIFICATION REFERENCE
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

COMMERCIAL AND MULTI-FAMILY
SECURITY GATE GEOMETRICS

DATE 02-09-06   DWG. NO. 222A   SHEET 2 OF 2
NOTES:
1. WHEN CONSTRUCTING DRIVEWAY WHERE CURB AND GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB AND GUTTER. DRIVEWAYS MAY BE MONOLITHIC TO A.C. LINE.
2. WEAKENED PLANE JOINTS SHALL BE UNIFORMLY PLACED BETWEEN 5' AND 7' INTERVALS, SEE STANDARD DRAWING NO. 234.
NOTES:

1. NO. 4 BARS AT 16" O.C. BOTH WAYS EXTENDING INTO GUTTER. NO. 4 BARS SHALL BE PLACED 3" ABOVE BOTTOM OF CONCRETE SUPPORTED BY NON-FERROUS CHAIRS APPROVED BY THE ENGINEER.

2. WHEN CONSTRUCTING DRIVEWAY WHERE CURB AND GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB AND GUTTER. DRIVEWAY SHALL BE MONOLITHIC TO A.C. LINE.

3. DRIVEWAY THICKNESS FOR INDUSTRIAL USE SHALL BE 8" MIN.

4. WEAKENED PLANE JOINTS SHALL BE EQUALLY SPACED AT 15" MAX. INTERVALS, SEE STANDARD DRAWING NO. 234.
NOTES:

1. SEPARATION OF PEDESTRIAN AND VEHICLE TRAFFIC MUST BE MAINTAINED ON SITE.
2. FOR GRADE CHANGES GREATER THAN 3%, VERTICAL CURVES OF AT LEAST 10 FEET MUST BE USED.
3. WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN THE CURB RETURN IN ACCORDANCE WITH STANDARD DRAWING NO. 235.
1. NO. 4 BARS AT 18" O.C. BOTH WAYS EXTENDING INTO GUTTER. NO. 4 BARS SHALL BE PLACED 3" ABOVE BOTTOM OF CONCRETE SUPPORTED BY NON-FERROUS CHAIRS APPROVED BY THE ENGINEER.

2. WHEN CONSTRUCTING DRIVEWAY WHERE CURB AND GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB AND GUTTER. DRIVEWAY SHALL BE MONOLITHIC TO A.C. LINE.

3. DRIVEWAY THICKNESS FOR INDUSTRIAL USE SHALL BE 8" MIN.

4. WEAKENED PLANE JOINTS SHALL BE EQUALLY SPACED AT 15' MAX. INTERVALS.

5. THIS DRIVEWAY DESIGN SHALL ALSO BE USED FOR ALLEY INTERSECTIONS, 8" MIN. THICKNESS.

6. SPECIAL DESIGNS SUBJECT TO APPROVAL OF THE ENGINEER.
Effective 01/01/09 - 06/30/09

1/2" PREMOLDED EXPANSION JOINT FILLER

1/2" PVC PIPE END PLUG, GREASE REINFORCING STEEL
PRIOR TO PIPE INSTALLATION

#4 BARS AT 16" CENTERS, BOTH WAYS SUPPORTED
BY NON-FERROUS CHAIRS
APPROVED BY THE ENGINEER

R = ACCORDING TO UNIFORM STANDARD
DRAWING NO. 222A

JOINT DETAIL

SILICONE SEALANT

PLAN

SEALANT DETAIL

BOND BREAKER OR 5/8" BACKING ROD

SECTION A-A

NOTES:

1. FINISHED ASPHALT CONCRETE SURFACE TO BE FLUSH WITH CROSS GUTTER LIP.
2. ADJACENT SPANDREL SHALL BE 6" THICK P.C.C.

SPECIFICATION REFERENCE

| 302  | AGGREGATE BASE |
| 501  | CONCRETE       |
| 502  | CONCRETE STRUCTURES |
| 505  | REINFORCING STEEL |
| 707  | EXPANSION JOINT MATERIAL |

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA
(HENDERSON ONLY)
LIGHT DUTY COMMERCIAL DRIVeway
(OFFICES, CHURCHES, SCHOOLS, RESTAURANTS, ETC.)

DATE 12-14-00 DWG. NO. 226.1 PAGE 32.1
NOTES:

1. FINISHED ASPHALT CONCRETE SURFACE TO BE FLUSH WITH CROSS GUTTER LIP.
2. ADJACENT SPANDREL SHALL BE 9" THICK P.C.C.
NOTES:

1. NO. 4 BARS AT 16" O.C. BOTH WAYS CONTINUOUS THROUGH GUTTER. NO. 4 BARS SHALL BE PLACED 3" ABOVE BOTTOM OF CONCRETE.

2. WHEN CONSTRUCTING DRIVEWAY WHERE CURB AND GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB AND GUTTER. DRIVEWAY SHALL BE MONOLITHIC TO A.C. LINE.

3. DRIVEWAY THICKNESS SHALL BE 8" MIN.
NOTES:

1. FINISHED ASPHALT CONCRETE SURFACE TO BE FLUSH WITH CROSS GUTTER LIP.
2. CONSTRUCTION OF CROSS GUTTER IS NOT ALLOWED ACROSS MAJOR COLLECTOR OR ARTERIAL STREETS.
3. ADJACENT SPANDREL SHALL BE 9" THICK P.C.C.
FUTURE SPANDREL

FOR DETAIL CONSTRUCTION SEE CROSS GUTTER
STANDARD DRAWING NO. 228

PLAN

TYPE I GRAVEL

TYPE II GRAVEL

A.C. PAVEMENT, TYPE I & TYPE II AGGREGATE BASE TO CONFORM TO HALF STREET CONSTRUCTION

9" CONCRETE

PAVEMENT

LIMIT OF CONSTRUCTION

2'

10'' TYPE I OR II AGGREGATE BASE

SECTION A-A

9" CONCRETE

1/2" EXPANSION JOINT WITH SILICONE SEALANT SEE STANDARD DRAWING NO. 233

10'' TYPE I OR II AGGREGATE BASE

WHEN SECOND HALF OF CROSS GUTTER CONSTRUCTED, DRILL EXISTING CONCRETE AND EPOXY FIVE EQUALLY SPACED 1/2" MIN. DIAMETER CORROSION RESISTANT RODS (EPOXY OR GALVANIZED)

DETAIL FOR FUTURE CONSTRUCTION

| SPECIFICATION REFERENCE | UNIFORM STANDARD DRAWINGS
|------------------------|--------------------------|
| 302 AGGREGATE BASE     | CLARK COUNTY AREA
| 501 CONCRETE          | HALF STREET CROSS GUTTER |
| 502 CONCRETE STRUCTURES |             |
| 505 REINFORCING STEEL |             |
| 707 EXPANSION JOINT MATERIAL |         |
| TT-S-00153A CLASS A SEALANT |         |

DATE  DWG. NO.  PAGE NO.  35

Effective 01/01/09 - 06/30/09
NOTE:

CONCRETE AND BASE THICKNESS TO BE DETERMINED BY ENGINEERING ANALYSIS BASED ON TRAFFIC CONDITIONS, SUBGRADE STRENGTH, QUALITY OF BASE, AND FLEXURAL STRENGTH OF CONCRETE.
"L" TYPE CURB & GUTTER (SEE STANDARD DRAWING NO. 216)

TYPE "B" JOINT (SEE STANDARD DRAWING NO. 233)

BASE

6"

CONCRETE PAVEMENT

SILICONE JOINT SEALANT
SEE CONSTRUCTION JOINT SEAL
(DETAIL ON STANDARD DRAWING
NO. 233)

CONCRETE PAVEMENT

EXISTING CURB & GUTTER

CURB & GUTTER JOINT DETAIL
PROPOSED CURB & GUTTER

CURB & GUTTER JOINT DETAIL
EXISTING CURB & GUTTER

4'-0" FOR TYP. MANHOLE
(2'-0" ON WATER VALVES)

TYPE "A" EXPANSION JOINT
(SEE STANDARD DRAWING
NO. 233)

TYPE "B" OR "C" JOINT
(SEE STANDARD DRAWING
NO. 233)

BOXOUT DETAIL

THICKENED EDGE DETAIL

1/2" RADIUS
(TYPICAL)

VARIES

1" (TYPICAL)

NO. 4 REBAR CONTINUOUS

A.C. PAVEMENT

2"

4"

5/8"

9" MIN.

1-1/2"

9" NO. 4 REBAR @ 36" O.C.

CONCRETE PAVEMENT

NOTE:
TRANSVERSE WEAKENED PLANE JOINTS
TO MATCH JOINTS IN CONCRETE PAVEMENT
(SEE DETAIL STANDARD DRAWING NO. 234)

A.C. PAVEMENT

CONCRETE PAVEMENT

SPECIFICATION REFERENCE

409 CONCRETE PAVEMENT

501 CONCRETE

505 REINFORCING STEEL

TT-S-00153A CLASS A SEALANT

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CONCRETE PAVEMENT
CONSTRUCTION DETAILS

DATE DWG. NO. 232 PAGE NO. 38
TYPE "A" EXPANSION JOINT DETAIL
BOXOUT

1/8" RADIUS

SILICONE JOINT SEALANT
BOND BREAKER MATERIAL (OR)
1" BACKING ROD
EXPANSION JOINT FILLER

SILICONE JOINT SEALANT
(SEE CONSTRUCTION JOINT SEAL DETAIL)

D
1/4" D/2
1/4"

TYPE "B" CONSTRUCTION JOINT DETAIL
KEYWAY

SILICONE JOINT SEALANT
(SEE CONSTRUCTION JOINT SEAL DETAIL)

1/4"

3/8" BACKING ROD

SILICONE JOINT SEALANT
(SEE CONSTRUCTION JOINT SEAL DETAIL)

DEFORMED TIE
BARS NO. 4 x 30" @ 24" O.C.

SEE TYPE "B" CONSTRUCTION JOINT DETAIL FOR KEYWAY DIMENSIONS

TYPE "C" WEAKENED PLANE JOINT DETAIL
SINGLE SAW-CUT

SILICONE JOINT SEALANT
3/8" BACKING ROD

NOTE: "D" IS THE SLAB THICKNESS

D/4
1/4"
1/4"

TYPE "C" WEAKENED PLANE JOINT DETAIL
DOUBLE SAW-CUT

SILICONE JOINT SEALANT
3/8" BACKING ROD

NOTE: "D" IS THE SLAB THICKNESS

D/4
1/4"
1/4"

TYPE "D" TIED CONSTRUCTION JOINT DETAIL

SILICONE JOINT SEALANT
(SEE CONSTRUCTION JOINT SEAL DETAIL)

SEE TYPE "B" CONSTRUCTION JOINT DETAIL FOR KEYWAY DIMENSIONS

15" 15" D/2

SPECIFICATION REFERENCE

409 CONCRETE PAVEMENT
707 JOINT MATERIAL
TT-S-00153A CLASS A SEALANT

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CONCRETE PAVEMENT
JOINT DETAILS

DATE  DWG. NO.  PAGE NO.

01/01/09  233  39
1/2" EXPANSION JOINT AT 30’ INTERVALS, AT COLD JOINTS AND AT BEGINNING AND END OF RETURN. EXPANSION JOINTS TO MATCH LOCATION MATCH LOCATION OF CURB AND GUTTER EXPANSION JOINT.

VARIES

6" MIN. TYPE I OR TYPE II AGGREGATE BASE

4" CONCRETE

SLOPE 1/4" PER FOOT

TYPE II AGGREGATE BASE AT 90% COMPACTION SEE NOTE 2

NOTES:
1. ON ALL CURB RETURNS A 1/2" EXPANSION JOINT SHALL BE CONSTRUCTED BETWEEN THE BACK OF CURB AND THE SIDEWALK FOR THE ENTIRE LENGTH OF THE RETURN.
2. THE TYPE II AGGREGATE BASE THICKNESS IS SHOWN ON THE TYPICAL SECTION DRAWINGS 202 - 207.
3. LONGITUDINAL WEAKENED PLANE JOINT REQUIRED AT MIDPOINT OF SIDEWALK 10’ OR WIDER.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>302</td>
<td>AGGREGATE BASE</td>
</tr>
<tr>
<td>501</td>
<td>CONCRETE</td>
</tr>
<tr>
<td>502</td>
<td>CONCRETE STRUCTURES</td>
</tr>
<tr>
<td>707</td>
<td>JOINT MATERIAL</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIDEWALK

DATE 12-14-00   DWG. NO. 234   PAGE NO. 40
Effective 01/01/09 - 06/30/09

NOTES:

1. CONCRETE BUS PAD SHALL BE MONOLITHIC. TRANSVERSE WEAKENED PLANE JOINTS SHALL BE INSTALLED AT 10' INTERVALS AND AS DETAILED IN STANDARD DRAWING NO. 233, TYPE "C".

2. BUS ROUTE SIGN SHALL BE INSTALLED AT THE DOWNSTREAM END OF BUS STOP LOADING PAD.

3. A MINIMUM OF ONE SET OF PAVEMENT MARKINGS CONTAINING THE "BUSES ONLY" SYMBOL SHALL BE PLACED IN THE TURN-OUT AREA. EXACT LOCATION TO BE DETERMINED BY THE ENGINEER.

4. ADDITIONAL STORAGE AREA WILL BE REQUIRED WHEN MORE THAN ONE BUS IS EXPECTED TO OCCUPY THE TURN-OUT AT THE SAME TIME.

5. ALTERNATE CONCRETE AND BASE THICKNESSES MAY BE SUBSTITUTED, BUT MUST BE SUPPORTED BY ENGINEERING ANALYSIS AND APPROVED BY THE ENGINEER.

6. TURN-OUT SURFACE SHALL BE TEXTURED IN ACCORDANCE WITH UNIFORM STANDARD SPECIFICATION NO. 409.03.08. FLOW LINE SHALL NOT BE TEXTURED, BUT SHALL BE A TROWELED SURFACE.
NOTES:

1. SIDEWALK RAMP MAY BE REQUIRED TO BE CONSTRUCTED IN THOSE LOCATIONS WHERE THE BUS STOP WOULD OTHERWISE BE INACCESSIBLE AS DEFINED BY THE AMERICANS WITH DISABILITIES ACT. SEE DRAWING NO. 235, SHEET 4 OF 4 FOR SIDEWALK RAMP DETAILS.

2. ADDITIONAL RIGHT-OF-WAY OR EASEMENT IS REQUIRED FOR BUS SHELTER PAD AND VARIABLE HEIGHT CURB AT BACK OF SIDEWALK RAMP AND SHALL BE DEDICATED TO THE LOCAL ENTITY.

3. AGGREGATE BASE AND CONCRETE FOR LOADING PAD SHALL BE THE SAME AS REQUIRED FOR SIDEWALK. SEE DRAWING NO. 234.

4. BUS SHELTER PAD CONNECTION TO DETACHED SIDEWALK CONDITION SHALL BE DETERMINED BY THE ENTITIES.

5. "A" = 10', "B" = 15' UNLESS BUS TURNOUT IS CONSTRUCTED PER STANDARD DRAWINGS 234.1 OR 234.3, THEN "A" = 5', "B" = 10'.

**SPECIFICATION REFERENCE**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CLARK COUNTY AREA</td>
</tr>
<tr>
<td>302</td>
<td>AGGREGATE BASE</td>
<td>TYPICAL BUS STOP PASSENGER</td>
</tr>
<tr>
<td>501</td>
<td>CONCRETE</td>
<td>LOADING AND SHELTER PADS</td>
</tr>
<tr>
<td>502</td>
<td>CONCRETE STRUCTURES</td>
<td></td>
</tr>
</tbody>
</table>

**DATE** 11-13-08
**DWG. NO.** 234.2
NOTES:

1. SIDEWALK RAMP MAY BE REQUIRED TO BE CONSTRUCTED IN THOSE LOCATIONS WHERE THE BUS STOP WOULD OTHERWISE BE INACCESSIBLE AS DEFINED BY THE AMERICANS WITH DISABILITIES ACT. SEE DRAWING NO. 235, SHEET 4 OF 4 FOR SIDEWALK RAMP DETAILS.

2. ADDITIONAL RIGHT-OF-WAY OR EASEMENT IS REQUIRED FOR BUS SHELTER PAD AND VARIABLE HEIGHT CURB AT BACK OF SIDEWALK RAMP. AND SHALL BE DEDICATED TO THE LOCAL ENTITY.

3. AGGREGATE BASE AND CONCRETE FOR LOADING PAD SHALL BE THE SAME AS REQUIRED FOR SIDEWALK. SEE DRAWING NO. 234.

4. BUS SHELTER PAD CONNECTION TO DETACHED SIDEWALK CONDITION SHALL BE DETERMINED BY THE ENTITIES.

5. "A" = 10', "B" = 15' UNLESS BUS TURNOUT IS CONSTRUCTED PER STANDARD DRAWINGS 234.1 OR 234.3, THEN "A" = 5', "B" = 10'.

**ADDITIONAL AREA REQUIRED BEHIND TYPICAL 5 FT. SIDEWALK FOR BUS SHELTER PAD**

**ADDITIONAL 25 FEET MAY BE REQUIRED BY RTC.**
NOTES:

1. IF ARTICULATED BUSES ARE EXPECTED TO SERVICE BUS STOP, DISTANCE FROM END OF ENTRY TAPER TO THE END OF THE BUS STOP LOADING PAD SHALL BE INCREASED TO 70 FT. MIN. AND THE RIGHT TURN STORAGE LANE LENGTH SHALL BE INCREASED TO 120 FT. MIN.

2. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL ARROW AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE. SYMBOLS SHALL BE APPROVED TYPE I PAVEMENT MARKING FILM.

3. STORAGE LANE LINE SHALL BE APPROVED TYPE II PAVEMENT MARKING FILM, OR IF APPROVED BY THE ENGINEER, RAISED PAVEMENT MARKERS MAY BE USED.

4. REVERSE CURVE TRANSITION MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER.
**RAMP IN CURB RETURN**

- 30' OR MORE RADIUS
- BACK OF CURB

**RAMP OUTSIDE CURB RETURN**

- 6" CURB FACE
- 5'0" TYP.
- 2% SLOPE
- 3/4" MAX.
- PAVEMENT

**NOTES:**

1. SIDEWALK RAMPS OUTSIDE OF THE CURB RETURN SHALL BE LOCATED ADJACENT TO THE RETURN UNLESS OTHERWISE APPROVED.
2. RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
3. WHEN CONSTRUCTING RAMP WHERE CURB & GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.
4. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF THIS DRAWING NO AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND TO A MINIMUM DEPTH OF 24 INCHES. PAVER BLOCKS PERMITTED ONLY IN THE CITY OF BOULDER CITY FOR DETECTABLE WARNING AREAS.
5. CURB MAY BE PIERCED AND IS PREFERRED BEHIND BACK OF WALK IF SUFFICIENT RIGHT-OF-WAY OR EASEMENTS EXIST AND AS APPROVED BY THE ENGINEER.

**PROFILE**

- FLOWLINE
- EDGE OF GUTTER
- 3/4" MAX.
- GUTTER TRANSITION

**SPECIFICATION REFERENCE**

- 302 AGGREGATE BASE
- 501 CONCRETE
- 502 CONCRETE STRUCTURES

**UNIFORM STANDARD DRAWINGS**

**CLARK COUNTY AREA**

**SIDEWALK RAMP**

**CASE**
RAMP IN CURB RETURN
(NO BACK OF WALK DEPRESSION)

SECTION C-C

CASE II SHALL BE USED WHERE RW AND FIELD CONDITIONS PERMIT.

NOTES:
1. SIDEWALK RAMP WITHIN CURB RETURN SHALL BE LOCATED AT THE MIDPOINT OF CURB RETURN UNLESS OTHERWISE APPROVED.
2. RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
3. WHEN CONSTRUCTING RAMP WHERE CURB & GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.
4. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF THIS DRAWING NO. AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND TO A MINIMUM DEPTH OF 24 INCHES. PAVER BLOCKS PERMITTED ONLY IN THE CITY OF BOULDER CITY FOR DETECTABLE WARNING AREAS.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>302</th>
<th>AGGREGATE BASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>CONCRETE</td>
</tr>
<tr>
<td>502</td>
<td>CONCRETE STRUCTURES</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIDEWALK RAMP
CASE II

DATE 11-10-04  DWG. NO. 235 (2 OF 4)  PAGE 41A
RAMP IN CURB RETURN

RAMP OUTSIDE CURB RETURN

SECTION C-C

NOTES:

1. SIDEWALK RAMP WITHIN CURB RETURN SHALL BE LOCATED AT THE MIDPOINT OF CURB RETURN UNLESS OTHERWISE APPROVED.

2. SIDEWALK RAMPS OUTSIDE OF THE CURB RETURN SHALL BE LOCATED ADJACENT TO THE RETURN UNLESS OTHERWISE APPROVED.

3. RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.

4. WHEN CONSTRUCTING RAMPS WHERE CURB & GUTTER EXISTS, COMpletely REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.

5. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF THIS DRAWING NO. AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND TO A MINIMUM DEPTH OF 24 INCHES PAVER BLOCKS PERMITTED ONLY IN THE CITY OF BOULDER CITY FOR DETECTABLE WARNING AREAS.

PROFILE

CASE III TO BE USED FOR AREAS WHERE OBSTRUCTION (I.E. BLOCK WALL) EXISTS AT BACK OF WALK ONLY WHEN APPROVED BY THE ENGINEER.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>302</td>
<td>AGGREGATE BASE</td>
</tr>
<tr>
<td>501</td>
<td>CONCRETE</td>
</tr>
<tr>
<td>502</td>
<td>CONCRETE STRUCTURES</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIDEWALK RAMP
CASE III

DATE 11-10-04 DWG. NO. 235 (3 OF 4) PAGE 41B
50%-65% OF THE BASE DIAMETER

BASE DIAMETER
0.9"-1.4"

0.2"

0.65° MIN.

DOME SECTION

1.6"-2.4"

0.9"-1.4"

0.2"

DETECTABLE WARNING DETAILS (TRUNCATED DOMES)

<table>
<thead>
<tr>
<th>GRADE (%)</th>
<th>&quot;A&quot; (FT) MIN.</th>
<th>&quot;B&quot; (FT) MIN.</th>
</tr>
</thead>
<tbody>
<tr>
<td>-8 TO -5.01</td>
<td>4.5</td>
<td>21.5</td>
</tr>
<tr>
<td>-5 TO -4.01</td>
<td>4.5</td>
<td>15.0</td>
</tr>
<tr>
<td>-4 TO -3.01</td>
<td>4.5</td>
<td>12.0</td>
</tr>
<tr>
<td>-3 TO -2.01</td>
<td>4.5</td>
<td>9.5</td>
</tr>
<tr>
<td>-2 TO 2</td>
<td>8.0</td>
<td>8.0</td>
</tr>
<tr>
<td>2.01 TO 3</td>
<td>9.5</td>
<td>4.5</td>
</tr>
<tr>
<td>3.01 TO 4</td>
<td>12.0</td>
<td>4.5</td>
</tr>
<tr>
<td>4.01 TO 5</td>
<td>15.0</td>
<td>4.5</td>
</tr>
<tr>
<td>5.01 TO 6</td>
<td>21.5</td>
<td>4.5</td>
</tr>
</tbody>
</table>

TABLE 1. TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

<table>
<thead>
<tr>
<th>GRADE (%)</th>
<th>&quot;A&quot; (FT) MIN.</th>
<th>&quot;B&quot; (FT) MIN.</th>
</tr>
</thead>
<tbody>
<tr>
<td>-6 TO -5.01</td>
<td>4.0</td>
<td>12.5</td>
</tr>
<tr>
<td>-5 TO -4.01</td>
<td>4.0</td>
<td>10.0</td>
</tr>
<tr>
<td>-4 TO -3.01</td>
<td>4.0</td>
<td>8.5</td>
</tr>
<tr>
<td>-3 TO -2.01</td>
<td>4.0</td>
<td>7.5</td>
</tr>
<tr>
<td>-2 TO 2</td>
<td>6.5</td>
<td>6.5</td>
</tr>
<tr>
<td>2.01 TO 3</td>
<td>7.5</td>
<td>4.0</td>
</tr>
<tr>
<td>3.01 TO 4</td>
<td>8.5</td>
<td>4.0</td>
</tr>
<tr>
<td>4.01 TO 5</td>
<td>10.0</td>
<td>4.0</td>
</tr>
<tr>
<td>5.01 TO 6</td>
<td>12.5</td>
<td>4.0</td>
</tr>
</tbody>
</table>

TABLE 2. TRANSITION LENGTHS FOR 1:10 SIDE SLOPES

NOTE:
CHARTS APPLY TO CURB WITH 6" CURB FACE.
IF CURB HAS GREATER THAN A 6" CURB FACE,
A SPECIAL DESIGN IS REQUIRED.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLARK COUNTY AREA</td>
</tr>
</tbody>
</table>

SIDEWALK RAMP DETAILS

DATE 6-8-06   DWG. NO. 235  (4 OF 4)   PAGE 41C
NOTES:

1. THE TYPICAL LOCATIONS OF SIDEWALK RAMPS SHOWN ABOVE ARE INTENDED TO MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA). AT LEAST ONE SIDEWALK RAMP SHALL BE CONSTRUCTED OPPOSITE THE INTERSECTING ROADSIDE. ADDITIONAL SIDEWALK RAMPS MAY BE REQUIRED BY THE ENGINEER TO PROVIDE A CONTINUOUS UNOBSCTURED PEDESTRIAN CIRCULATION PATH AS DEFINED BY THE ADA.

2. SIDEWALK RAMP LOCATIONS SHOWN ARE FOR INTERSECTIONS WITH UNMARKED CROSSWALKS. IF A PEDESTRIAN CROSSING AREA IS MARKED, SIDEWALK RAMPS SHALL BE LOCATED WITHIN THE MARKED CROSSWALKS AS APPROVED BY THE ENGINEER.
NOTES:

1. IF WIDTH OF PLATE IS GREATER THAN 24", A SPECIAL DESIGN IS REQUIRED.

2. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AND ALL GALVANIZING DAMAGED BY FABRICATION OR INSTALLATION SHALL RECEIVE TWO COATS OF ALUMINUM PAINT (GALVONOX OR EQUAL).
NOTES:

1. TRANSVERSE JOINTS WITH 1" PREMOLDED EXPANSION JOINT FILLER OR 1" OPEN TRANSVERSE JOINTS SHALL BE PLACED AT STRUCTURES. JOINTS IN BARRIER RAIL OVER A STRUCTURE SHALL BE AT THE SAME LOCATION AND OF THE SAME DIMENSION AS THOSE IN THE STRUCTURE.

2. BITUMINOUS PAVING REQUIRED: PAVING SHALL BUTT AGAINST THE BARRIER RAIL END ANCHOR SECTION AND SHALL EXTEND FULL WIDTH UNDER THE NORMAL BARRIER RAIL SECTION PLUS 6" MINIMUM 6-INCH DEEP BARRIER, END ANCHORS SHALL BE CONSTRUCTED IN THE FIRST AND LAST 10 LINEAR FEET OF THE FULL HEIGHT BARRIER RAIL RUN. IF TRANSITIONS ARE USED, THE ANCHOR SHALL BE EXTENDED UNDER THE TRANSITION.

<table>
<thead>
<tr>
<th>OPERATING SPEED</th>
<th>FLARE RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>17:1 MAX</td>
</tr>
<tr>
<td>50</td>
<td>14:1</td>
</tr>
<tr>
<td>40</td>
<td>11:1</td>
</tr>
</tbody>
</table>
1. PRECAST BUMPER BLOCK TO BE USED IN PARKING LOTS ONLY.
2. GROUT HOLE BEFORE DRIVING SPIKE. AFTER DRIVING SPIKE, FILL HOLE WITH CONCRETE MORTAR AND FINISH FLUSH WITH TOP.
STANDARD MONUMENT ASSY.
(CHRISTY GS BOX OR APPROVED EQUAL) WITH CAST IRON MONUMENT LID. NO PART OF ASSEMBLY IS TO TOUCH CONCRETE CYLINDER.

NOTE:
TYPE I MONUMENTS TO BE SET AT ALL SECTION CORNERS AND 1/4 SECTION CORNERS WHICH FALL WITHIN IMPROVED STREET SECTIONS, AND MARKED IN ACCORDANCE WITH THE 1973 B.L.M. MANUAL OF SURVEYING INSTRUCTIONS.

6" MIN.

11" DIA. CAST IRON TRAFFIC COVER

CONCRETE

11-1/8" MIN.

6" MIN.

9" MIN.

10-3/8" MIN.

3/4" SIZE DRAIN BACKFILL

NON-FERROUS CAP
(SEE DETAIL STANDARD DRAWING NO. 242)
(NOT TO BE MARKED BY CONTRACTOR)

6" DIA. X 12" MIN. LENGTH
CLASS "D" CONCRETE MONUMENT.
(SEE DETAIL STANDARD DRAWING NO. 240)

5/8" MINIMUM DIA. REBAR SET A MINIMUM OF 4" BELOW TOP OF CONCRETE AT APPROXIMATE CENTER.
NOTES:

1. TYPE II-A MONUMENTS TO BE SET AT ALL SECTION CORNERS, 1/4 SECTION CORNERS AND 1/16 SECTION CORNERS WHICH FALL WITHIN UNIMPROVED STREET SECTIONS.

2. TYPE II-B MONUMENTS TO BE SET AT ALL 1/16 SECTION CORNERS WHICH FALL WITHIN IMPROVED STREET SECTIONS.

3. ALL TYPE II MONUMENTS ARE TO BE MARKED IN ACCORDANCE WITH THE 1973 B.L.M. MANUAL OF SURVEYING INSTRUCTIONS.

4. 6" x 6" SQUARE MONUMENTS ARE ALSO ACCEPTABLE.

5. IF MONUMENTS ARE TO BE "PRECAST" THEY ARE TO BE EMBEDDED IN FRESH CONCRETE TO PREVENT MOVEMENT.

6. THE COUNTY/CITY SURVEYOR MAY REQUIRE TYPE II MONUMENTS IN ADDITIONAL LOCATIONS.

---

**SPECIFICATION REFERENCE**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>CONCRETE</td>
</tr>
<tr>
<td>621</td>
<td>MONUMENTS</td>
</tr>
</tbody>
</table>

---

**UNIFORM STANDARD DRAWINGS**

**CLARK COUNTY AREA**

**TYPE II MONUMENT**

---

**DATE** 12-14-00  **DWG. NO.** 240  **PAGE NO.** 46
NOTES:

1. TYPE III MONUMENTS TO BE SET AT ALL CENTERLINE CONTROL POINTS NOT OTHERWISE IDENTIFIED BY A TYPE I OR TYPE II MONUMENT, INCLUDING STREET INTERSECTIONS, POINTS OF CURVATURE, POINTS OF TANGENCY, POINTS OF INTERSECTION AND CENTERS OF HAMMERHEAD TURNAROUNDS OR CIRCULAR CUL-DE-SACS.

2. THE REGISTERED LAND SURVEYOR’S NUMBER, AND A PUNCH MARK ARE TO APPEAR ON THE SURFACE OF THE CAP.

CAP TO BE SECURED WITH PLASTIC INSERT OR EPOXY CONFORMING TO A.S.T.M. C881-78 SPECIFICATIONS.

5/8" MIN. DIA. REBAR OF SUFFICIENT LENGTH TO RESIST REMOVAL

NOTE:

( MINIMUM 1" DIA. NON-FERROUS CAP TO BE SET BY REGISTERED LAND SURVEYOR )

TYPE III MONUMENT

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>621 MONUMENTS</td>
<td>TYPE III MONUMENT</td>
</tr>
</tbody>
</table>

DATE    DWG. NO. 241 PAGE NO. 47
NOTES:
1. FOUR (4) TYPE IV REFERENCE MONUMENTS TO BE SET WITHIN A RADIUS OF TWENTY (20) TO ONE HUNDRED (100) FEET FROM ALL TYPE I, II, AND III MONUMENTS.
2. THE TIE DISTANCE AND THE INITIALS R.M. ARE TO BE STAMPED ON THE CAP, FOR TYPE IV MONUMENTS.
3. NON-FERROUS CAP TO BE MADE FROM CAST VIRGIN METAL IN ONE PIECE, FREE FROM CASTING IMPERFECTIONS, WITH CORRUGATED SHAFT.
4. TYPE III AND TYPE IV MONUMENT CAP DIAMETER MAY BE REDUCED TO 1".

DETAIL
STANDARD CAP

NON-FERROUS CAP (SEE DETAIL)
INSET IN TOP OF CURB, BONDED SECURELY WITH EPOXY,
(A.S.T.M. C881 - 78 SPECS.)

TYPE IV-A MONUMENT
EXISTING CURB & GUTTER

MINIMUM 5/8" DIA.
REBAR SET A MINIMUM OF 4" BELOW TOP OF CONCRETE AT APPROX. CENTER.

TYPE IV-B MONUMENT
NO CURB & GUTTER

SPECIFICATION REFERENCE

501 CONCRETE
621 MONUMENTS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE IV MONUMENT

DATE 12-14-00 DWG. NO. 242 PAGE NO. 48
TYPE 4 LANE LINE

(DIVIDED, UNDIVIDED OR ONE-WAY ROADWAY)
Effective 01/01/09 - 06/30/09

120 FT. STREET WITH BIKE LANE (WITHOUT PARKING)

120 FT. STREET WITH BIKE LANE (WITHOUT PARKING)

* THE WIDTH OF TRAVEL LAKES ADJACENT TO BIKE LANES MAY VARY FROM 12 FT. TO 16 FT.
WIDTHS OF INTERIOR TRAVEL LAKES MAY VARY FROM 11 FT. TO 13 FT.

NOTES:
1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NOS. 244 & 244A.
2. IN SOME CASES, A MEDIAN WILL EXIST INSTEAD OF TWO-WAY LEFT TURN LANE.
3. BIKE LANES MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE;
HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
4. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR
TRAVEL LANES MAY BE REDUCED TO 11 FT.
5. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT
IF CURB AND GUTTER DO NOT EXIST.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>628 PAINTING TRAFFIC STRIPING</td>
<td>TYPICAL DELINEATION FOR ROADWAYS</td>
</tr>
<tr>
<td>633 PAVEMENT MARKERS</td>
<td>100 FT. OR GREATER RIGHT-OF-WAY WITH CURBSIDE SIDEWALK</td>
</tr>
</tbody>
</table>

DATE 7-10-03  DWG. NO. 244.1  PAGE NO. 50.1
1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NOS. 244 & 244A.
2. IN SOME CASES, A MEDIAN WILL EXIST INSTEAD OF TWO-WAY LEFT TURN LANE.
3. BIKE LANE MUST BE MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
4. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR TRAVEL LANES MAY BE REDUCED TO 11 FT.
5. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

* THE WIDTH OF TRAVEL LANES ADJACENT TO BIKE LANE MAY VARY FROM 12 FT. TO 16 FT. WIDTHS OF INTERIOR TRAVEL LANES MAY VARY FROM 11 FT. TO 13 FT.
NOTES:
1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244A.
2. BIKE LANES TO BE PROVIDED IF SEGMENT CONNECTS TO OTHER BIKE LANES OR IF ROADWAY SEGMENT IS 1 MILE OR GREATER. IF BIKE LANE IS NOT PROVIDED, TRAVEL LANES SHOULD REMAIN AT DIMENSIONS SHOWN SO A BICYCLE LANE COULD BE PROVIDED IN THE FUTURE. SEE DRAWING NUMBER 246.1 FOR BIKE LANE SIGNING AND STRIPING DETAILS.
3. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.
4. CONTACT THE LOCAL JURISDICTIONAL FOR DEVELOPMENT REQUIREMENTS FOR THE AREA BETWEEN THE CURB AND SIDEWALK.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>628 PAINTING TRAFFIC STRIPING</td>
<td>TYPICAL DELINEATION FOR ALTERNATE ROADWAYS WITH OFFSET SIDEWALK</td>
</tr>
<tr>
<td>633 PAVEMENT MARKERS</td>
<td></td>
</tr>
</tbody>
</table>

DATE 7-10-03  DWG. NO. 244.1 ALT  PAGE NO.  50.1ALT
**NOTES:**

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NOS. 244 & 244A.
2. BIKE LANES MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
3. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR TRAVEL LANES MAY BE REDUCED TO 11 FT.
4. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.
80 FT. STREET WITH BIKE LANE
(WITH PARKING ON BOTH SIDES)

80 FT. STREET WITH SHARED BIKE/VEHICLE LANE
(WITHOUT PARKING/EMERGENCY LANE)

NOTES:
1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244A.
2. BIKE LANE MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
3. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR TRAVEL LANES MAY BE REDUCED TO 11 FT.
4. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

SPECIFICATION REFERENCE
628 PAINTING TRAFFIC STRIPING
633 PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL DELINEATION FOR
ROADWAYS 80 FT. RIGHT-OF-WAY
WITH CURBSIDE SIDEWALK

DATE 7-10-03  DWG. NO. 244.2A  PAGE NO. 50.2A
NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244A.
2. BIKE LANE MUST BE AT LEAST 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
3. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

### SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th></th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>628</td>
<td>PAINTING TRAFFIC STRIPING</td>
</tr>
<tr>
<td>633</td>
<td>PAVEMENT MARKERS</td>
</tr>
</tbody>
</table>

**DATE** 6-8-95   **DWG. NO.** 244.3   **PAGE NO.** 50.3
NOTES:
1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244A.
2. BIKE LANE MUST BE A MINIMUM OF 5 FEET WHERE ADJACENT TO A PARKING LANE, 4 FEET MINIMUM IN OTHER CASES AND NO GREATER THAN 8 FEET WIDE.
3. ALL CURB LANES ARE MEASURED TO THE EDGE OF PAVEMENT. THE TOP OF PAVEMENT SHALL BE FLUSH WITH GUTTER.
4. BICYCLE LANE SHALL BE ON RIGHT SIDE OF ONE-WAY ROADWAYS, EXCEPT IN LIMITED SITUATIONS, SUCH AS WHEN THERE ARE SIGNIFICANTLY LESS POTENTIAL CONFLICTS ALONG THE LEFT SIDE OF THE ROADWAY OR WHEN SIGNIFICANT BICYCLE TRIP GENERATION ARE ALONG THE LEFT SIDE OF THE ROADWAY.
5. SEE DRAWING NO. 244.5 FOR BIKE LANE SIGNAGE DETAILS.
BIKE LANE DELINEATION AND LEGEND

NOTES:
1. BIKE LANE LEGENDS SHALL BE APPROVED TYPE I PAVEMENT MARKING FILM AND SHALL BE SLIP RESISTANT.
2. BIKE LANE LINES SHALL BE APPROVED TYPE II PAVEMENT MARKING FILM AND SHALL BE SLIP RESISTANT.
3. BIKE LANE MUST BE A minimum of 5 FEET WHEN ADJACENT TO A PARKING LANE, 4 FEET MINIMUM IN OTHER CASES AND NO GREATER THAN 8 FT WIDE; HOWEVER A WIDTH OF 5 FEET IS PREFERRED.
4. BICYCLE LANE DELINEATION, LEGEND, AND SIGNING SHALL CONFORM TO THE MUTCD LATEST EDITION.
5. PER THE MUTCD LATEST EDITION, BICYCLE LANE SIGNS SHALL BE USED IN ADVANCE OF THE BEGINNING OF A MARKED BICYCLE LANE.
6. THE BIKE LANE SIGNAGE SHALL BE CLASS 6 SHEETING.
NOTE:
SEE SHEET 3 THIS DRAWING NUMBER IF PATTERN IS TO BE USED AT A GORE POINT TO DIVIDE TRAFFIC MOVING IN SAME DIRECTION.

SPECIFICATION REFERENCE

| 628 | PAINTING TRAFFIC STRIPING |
| 633 | PAVEMENT MARKERS |

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL LANE DELINEATION IN TRANSITION SECTIONS

DATE 6-11-93  DWG. NO. 245 (1 OF 3)  PAGE NO. 51
NOTE:
P AINT MAY BE USED IN LIEU OF TAPE AND/OR RAISED PAVEMENT MARKERS AT THE DISCRETION OF THE ENGINEER.
**TYPICAL LANE CONFIGURATION FOR MAJOR STREET INTERSECTIONS AND MEDIAN DETAIL**

**CASE I - WITH CURBSIDE SIDEWALK**

**DATE** 7-10-03  **DWG. NO.** 245.1 (1 OF 2)  **PAGE NO.** 51.1
**NOTES:**

1. SIDEWALK SHOULD BE OFFSET THROUGH THE INTERSECTION WITH A CURB RAMP CONNECTING THE SIDEWALK TO THE CROSSWALK. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE SIDEWALK. CONTACT THE LOCAL JURISDICTION FOR DEVELOPMENT REQUIREMENTS FOR THE AREA BETWEEN THE CURB AND SIDEWALK.
NOTES:

1. SIDEWALK SHOULD BE OFFSET THROUGH THE INTERSECTION WITH A CURB RAMP CONNECTING THE SIDEWALK TO THE CROSSWALK. NO ABOVE-GROUND OBJECTS SHALL BE PLACED WITHIN THE SIDEWALK. CONTACT THE LOCAL JURISDICTION FOR DEVELOPMENT REQUIREMENTS FOR THE AREA BETWEEN THE CURB AND SIDEWALK.
**NOTES:**

1. LENGTH OF STORAGE LINE IS TWO THIRDS OF THE ADDED TURN BAY. (MIN. 100')
2. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL 3-R7R SIGN; ARROW SYMBOL AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE. SYMBOLS SHALL BE APPROVED TYPE I PAVEMENT MARKING FILM.
3. APPROVED TYPE II PAVEMENT MARKING FILM OR RAISED PAVEMENT MARKERS MAY BE USED FOR ADDITIONAL GUIDANCE AT THE DISCRETION OF THE ENGINEER.
4. STORAGE LANE LINE SHALL BE APPROVED TYPE II PAVEMENT MARKING FILM OR IF APPROVED BY THE ENGINEER, RAISED PAVEMENT MARKERS MAY BE USED.
**TYP. DROP LINE LENGTHS**

<table>
<thead>
<tr>
<th>POSTED SPEED (MPH)</th>
<th>LENGTH (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>240</td>
</tr>
<tr>
<td>30</td>
<td>320</td>
</tr>
<tr>
<td>35</td>
<td>400</td>
</tr>
<tr>
<td>40</td>
<td>480</td>
</tr>
<tr>
<td>45</td>
<td>560</td>
</tr>
<tr>
<td>50</td>
<td>640</td>
</tr>
<tr>
<td>55</td>
<td>720</td>
</tr>
</tbody>
</table>

**FORCED LEFT TURN LANE**

**NOTES:**

1. THE MINIMUM LENGTH OF STORAGE LINE IS 250 FT. ON ARTERIALS AND 150 FT. ON ALL OTHERS.
2. A MINIMUM OF 2@ R3-7R OR R3-7L SIGNS SHALL BE INSTALLED IN ADVANCE OF THE INTERSECTION AT DISTANCES APPROVED BY THE ENGINEER. RECOMMENDED LOCATIONS ARE SHOWN ABOVE.
3. ONE SET OF PAVEMENT MARKINGS CONTAINING ONE ARROW SYMBOL AND ONE "ONLY" SYMBOL SHALL BE PLACED AT THE BEGINNING OF THE DROP LANE.
4. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, ADDITIONAL ARROW AND "ONLY" SYMBOL PAVEMENT MARKINGS AND OVERHEAD MOUNTED R3-3 SIGNS MAY BE INSTALLED. SYMBOLS SHALL BE APPROVED TYPE I PAVEMENT MARKING FILM.
5. APPROVED TYPE II PAVEMENT MARKING FILM OR RAISED PAVEMENT MARKERS MAY BE USED FOR ADDITIONAL GUIDANCE AT THE DISCRETION OF THE ENGINEER.
6. STORAGE LANE LINE AND SKIP LINES SHALL BE APPROVED TYPE II PAVEMENT MARKING FILM OR IF APPROVED BY THE ENGINEER, RAISED PAVEMENT MARKERS MAY BE USED.

**SPECIFICATION REFERENCE**

633 PAVEMENT MARKERS

628 PAINTING TRAFFIC STRIPING, PAVEMENT MARKINGS...

**UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA**

**STANDARD PAVEMENT MARKERS FORCED TURN LANE**

**DATE** 4-8-99  **DWG. NO.** 246A  **PAGE NO.** 52A
NOTES:
1. LENGTH OF STORAGE LANE LINE IS TWO THIRDS OF THE TURN LANE STORAGE LENGTH.
2. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL ARROW AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE.
3. PAVEMENT MARKINGS SHALL BE TYPE 2 TAPE OR PAINT AS DIRECTED BY THE ENGINEER.
4. INSTALL "NO PARKING" SIGNS FOR ENTIRE LENGTH OF TURN LANE, WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL R3-7R SIGNS.

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PAVEMENT MARKING AND SIGNAGE
RIGHT TURN LANE AT MINOR INTERSECTIONS
(ARTERIALS WITH EMERGENCY/PARKING LANE)

DATE 7-10-03  DWG. NO. 246B  PAGE NO. 52B
NOTES:

1. STORAGE LENGTH TO BE DETERMINED BY TRAFFIC ENGINEER.
2. SEE DRAWING NO. 244.5 FOR BIKE LANE LEGEND AND SIGNAGE.
3. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE TRAFFIC ENGINEER, INSTALL R3-7R SIGN, ARROW SYMBOL AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE. APPROVED TYPE I PAVEMENT MARKING FILM SHALL BE USED FOR SYMBOL MARKINGS.
4. SEE DRAWING NO. 246 NOTE 1 FOR STANDARD PAVEMENT MARKERS ADDED TURN LANE.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>628</th>
<th>PAINTING TRAFFIC STRIPING</th>
</tr>
</thead>
<tbody>
<tr>
<td>633</td>
<td>PAVEMENT MARKERS</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BICYCLE LANE APPROACH TO INTERSECTION WITH EXCLUSIVE RIGHT TURN LANE

DATE 7-10-03  DWG. NO. 246.1  PAGE NO. 52.1
NOTES:

1. STORAGE LENGTH TO BE DETERMINED BY TRAFFIC ENGINEER.
2. SEE DRAWING NUMBER 244.5 FOR BIKE LANE LEGEND AND SIGNAGE.
3. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL R3-7R SIGN, ARROW SYMBOL AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE. APPROVED TYPE I PAVEMENT MARKING FILM SHALL BE USED FOR SYMBOL MARKINGS.
4. SEE DWG. 246 NOTE 1 FOR STANDARD PAVEMENT MARKERS ADDED TURN LANE.
5. THE ABOVE DETAIL SHOULD BE FOLLOWED IN SITUATIONS WHERE THERE IS NOT ADEQUATE SPACE TO PROVIDE A SEPARATE BIKE LANE.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>628</th>
<th>PAINTING TRAFFIC STRIPING</th>
</tr>
</thead>
<tbody>
<tr>
<td>633</td>
<td>PAVEMENT MARKERS</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BICYCLE LANE TRANSITION TO SHARED LANE AT INTERSECTION

DATE 7-10-03  DWG. NO. 246.2  PAGE NO. 52.2
NOTES:
1. FORCED RIGHT-TURN LANES AND LONG RIGHT TURN POCKETS ARE NOT DESIRABLE FOR BICYCLISTS AND SHOULD BE AVOIDED WHEN POSSIBLE.
2. SEE DRAWING NO. 244.5 FOR BIKE LANE DELINEATION, LEGEND, AND SIGNAGE DETAILS.
3. SEE DRAWING NO. 246A FOR DETAILS ON THE FORCED TURN LANE.
NOTES:
1. A SOLID BICYCLE LANE STRIPE SHOULD CONTINUE ACROSS DRIVEWAY ACCESS POINTS.
2. SEE DRAWING NO. 244.5 FOR BIKE LANE LEGEND AND SIGNAGE DETAILS.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>628 PAINTING TRAFFIC STRIPING</td>
<td></td>
</tr>
<tr>
<td>633 PAVEMENT MARKERS</td>
<td></td>
</tr>
</tbody>
</table>

BICYCLE LANE DELINEATION AT APPROACH TO INTERSECTION WITHOUT EXCLUSIVE RIGHT-TURN LANE

DATE 7-10-03  DWG. NO. 246.4  PAGE NO. 52.4
NOTES:
1. SEE DRAWING NUMBER 244.5 FOR BIKE LANE LEGEND AND SIGNAGE DETAILS.
2. USE 2 FOOT LONG SKIP LINE, 8 FEET ON CENTER, FOR LOCATIONS WITH BUS STOPS. FOR TYPICAL BUS STOP, TRANSITION FROM SOLID LINE TO SKIP LINE FOR 150 FEET CENTERED ON BUS STOP.

SPECIFICATION REFERENCE

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>628</td>
<td>PAINTING TRAFFIC STRIPING</td>
</tr>
<tr>
<td>633</td>
<td>PAVEMENT MARKERS</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BICYCLE LANE DEPARTURE FROM INTERSECTIONS

DATE 7-10-03  DWG. NO. 246.5  PAGE NO. 52.5
# Lane Marker Schedule

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A</td>
<td>Circular white ceramic marker</td>
</tr>
<tr>
<td>Type B</td>
<td>Circular yellow ceramic marker</td>
</tr>
<tr>
<td>Type C</td>
<td>Two way yellow reflector</td>
</tr>
<tr>
<td>Type D</td>
<td>One way yellow reflector, yellow toward oncoming traffic</td>
</tr>
<tr>
<td>Type E</td>
<td>One way white reflector, white toward oncoming traffic</td>
</tr>
<tr>
<td>Type F</td>
<td>Two way white and red reflector, white toward oncoming traffic</td>
</tr>
</tbody>
</table>

---

**Specification Reference**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>633</td>
<td>Pavement Markers</td>
</tr>
</tbody>
</table>

**Uniform Standard Drawings**

**Clark County Area**

**Marker Details and Lane Marker Schedule**

**Date**: 5-13-99  **DWG. No.**: 247  **Page No.**: 53
### Plan

**Reflective Paint (See Note 1)**

**Reflective Markers (See Spacing Table)**

### Section A-A

**Reflective Marker**

**Adhesive**

**Pavement**

**Median Surface**

**Curb (Of Any Type)**

### Spacing Table

<table>
<thead>
<tr>
<th>&quot;W&quot;</th>
<th>Number or Reflectors Per Median Nose *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0' TO 2.0'</td>
<td>3</td>
</tr>
<tr>
<td>2.0' TO 3.0'</td>
<td>4</td>
</tr>
<tr>
<td>3.0' TO 4.0'</td>
<td>5</td>
</tr>
<tr>
<td>4.0' &amp; GREATER</td>
<td>1 EACH FOR EVERY 1.0' OF CURB LENGTH</td>
</tr>
</tbody>
</table>

* 1 Marker each shall be placed on the P.C. and the P.T. of the median nose; all others spaced equally between P.T. & P.C.

### Notes:

1. Entire median shall be painted with reflective paint, of same color as reflective markers, from the median nose back 5 feet or to the P.C., whichever is greater.

2. Reflective pavement markers used on median shall conform to Standard Drawing No. 247.

3. Orientation of the reflective markers faces shall be made in the field to ensure that markers are aimed at approaching vehicles to best advantage, especially in horizontally curved road sections.
ATTACH STREET NAME SIGNS TO POST WITH 3/8" DIA. DRIVE RIVETS

SIGNS ON END: 1-3/4" SQUARE TO SLIP INSIDE 2" POST LENGTH = SIGN HEIGHT + 4"

POP-RIVET ENDS OF SIGN

TOP OF SIGN POST

2" SIGN POST

TOP OF ANCHOR AND SLEEVE

GROUND SURFACE

SEE NOTE 3

NOTES:

1. ALL COMPONENTS SHALL BE SQUARE POST, PERFORATED ON ALL FOUR SIDES.

2. ATTACH ANCHOR AND SLEEVE TOGETHER PRIOR TO DRIVING INTO GROUND. LEAVE AT LEAST ONE HOLE, BUT NO MORE THAN TWO, ABOVE GROUND OR ABOVE SIDEWALK.

3. FOR SIDEWALK INSTALLATION, DRILL SIDEWALK WITH A 3" HOLE, THE CENTER TO BE 6" FROM BACK OF SIDEWALK.

4. ATTACH POST TO ANCHORING SYSTEM BY USING AT LEAST TWO 3/8" DIA. DRIVE RIVETS.

5. PROVIDE 4" MINIMUM LAP BETWEEN POST AND THE ANCHOR/SLEEVE ASSEMBLY.

6. ALL STREET NAME SIGNS SHALL BE 9 INCH STANDARD IN THE CITY OF MESQUITE ONLY.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>631</th>
<th>STREET NAME SIGNS</th>
</tr>
</thead>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STANDARD STREET NAME
SIGN POST INSTALLATION

DATE 5-20-04  DWG. NO. 249  PAGE NO. 55
Effective 01/01/09 - 06/30/09

URBAN INSTALLATIONS

SEE NOTE 9

NOTE:
ATTACH SIGNS TO POST WITH 3/8" DIA. DRIVE RIVETS AND WASHERS.
SEE NOTES 6 & 8.

SIGN POST
(1-3/4" ACCEPTABLE FOR SIGNS SMALLER THAN 30" x 30")

2" SIGN POST
(2-1/4" FOR 1-3/4" POST)

2-1/2"x18" SLEEVE
(2-1/4" FOR 1-3/4" POST)

2-1/2"x30" ANCHOR
(2" FOR 1-3/4" POST)

TOP OF SIDEWALK OR 24"x24"x4" CONCRETE PAD

DO NOT SET SIGN ANCHORS IN CONCRETE - CONCRETE SIDEWALK/PAD IS TO BE DRILLED WITH HOLE REMAINING OPEN AROUND THE ANCHOR

3" MIN
4" MAX

GRADES SURFACE

GROUND SURFACE

TOP OF ANCHOR AND SLEEVE

3" MIN
4" MAX

NOTE:
DO NOT SET ANCHORS IN CONCRETE

RURAL INSTALLATIONS

(NO LANDSCAPING)

NOTES:
1. ALL COMPONENTS SHALL BE MINIMUM 12 GA. SQUARE POST WITH 7/16" PUNCHED THRU HOLES @ 1" ON CENTER, ON ALL FOUR SIDES. ANCHORS SHALL BE TWO PIECE BREAKAWAY ANCHORS.
2. ATTACH ANCHOR AND SLEEVE TOGETHER PRIOR TO DRIVING INTO GROUND. LEAVE AT LEAST TWO HOLES, BUT NO MORE THAN THREE HOLES ABOVE GROUND OR ABOVE SIDEWALK.
3. FOR SIDEWALK INSTALLATION, DRILL SIDEWALK AND CONCRETE PAD INSTALLATION, DRILL A 3" TO 4" DIA. HOLE (DEPENDENT UPON ANCHOR SIZE), THE CENTER TO BE 6" FROM THE BACK OF SIDEWALK.
4. ATTACH POST TO ANCHORING SYSTEM BY USING AT LEAST TWO 3/8" DIA. DRIVE RIVETS.
5. PROVIDE 4" MINIMUM LAP BETWEEN BOTTOM OF POST AND THE BOTTOM OF THE ANCHOR/SLEEVE ASSEMBLY.
6. SIGNS LARGER THAN 24"x30" REQUIRE 3/8" X 1-1/2" FENDER WASHERS UNDER DRIVE RIVETS.
7. "U-CHANNEL" POSTS ARE NOT ACCEPTABLE.
8. BOLTS IN LIEU OF DRIVE RIVETS ARE NOT ACCEPTABLE.
9. ALL URBAN SIGN INSTALLATIONS ARE TO BE INSTALLED IN A CONCRETE SIDEWALK, OR IN A CONCRETE PAD (24"x24"x4") WHEN NO SIDEWALK EXISTS.
10. INSTALLATION OF SIGNS SHALL MEET LATEST ADA REQUIREMENTS.
11. SIGNS SHALL HAVE A STICKER AT THE BACK WITH THE NAME OF THE CONTRACTOR AND THE DATE OF INSTALLATION.

SPECIFICATION REFERENCE

631 STREET NAME SIGNS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIGN INSTALLATION DETAIL

DATE 11-10-04 DWG. NO. 249A PAGE NO. 55A
NOTES:

1. SIGN SHALL BE WHITE LETTERS AND NUMBERS ON GREEN BACKGROUND. (THE CITY OF NORTH LAS VEGAS BACKGROUND IS BLUE.) CUT-OUT LETTERS AND NUMBERS ARE NOT ACCEPTABLE (EXCEPT FOR THE BLOCK NUMBER).

2. REFLECTIVE SHEETING MATERIAL SHALL BE CLASS 6.

3. PRIMARY COPY FOR 9" AND 12" SIGNS SHALL BE 8" SERIES 'C' UPPERCASE WITH 4 1/2" SERIES 'C' LOWERCASE; HOWEVER, WHEN DESCENDERS ARE REQUIRED ON 9" SIGNS, PRIMARY COPY SHALL BE 5 1/2".

4. THE SIGN SHALL HAVE A MINIMUM LENGTH OF 30". WHERE EXTRA LENGTH IS REQUIRED, IT SHALL BE PROVIDED IN 6" INCREMENTS. GROUND MOUNTED SIGNS SHALL HAVE A MAXIMUM LENGTH OF 42".

5. BOTH SIGNS PLACED ON MAJOR STREETS WITH RIGHTS-OF-WAY 80' OR GREATER SHALL HAVE A HEIGHT OF 12"; SIGNS PLACED ON MINOR STREETS WITH RIGHTS-OF-WAY OF LESS THAN 80' SHALL HAVE A HEIGHT OF 9".

6. 12" SIGNS SHALL HAVE A 1/2" WHITE BORDER AT THE EDGE.

7. SIGN BLANKS SHALL HAVE ROUNDED CORNERS.
SPACING OF STREET NAME SIGN LEGENDS

SPACING FOR STREET NAME SIGN LEGENDS SHALL BE OBTAINED BY MODIFICATION TO THE REQUIREMENTS OF THE FHWA STANDARD SPACING CHART FOR 6" UPPERCASE LETTERS. THE FOLLOWING STEPS SHALL BE USED TO DETERMINE REQUIRED SPACING:

1. SIGN LAYOUT COMPUTER SOFTWARE SHALL BE EVALUATED TO DETERMINE THE "CORRECTION FACTOR" NECESSARY FOR LAYOUT SOFTWARE LETTER SPACING TO BE APPROXIMATELY EQUAL TO THE FHWA STANDARD SPACING FOR UPPERCASE LETTERS.
2. CORRECTION FACTOR SHALL BE USED TO ADJUST THE SPACING FOR THE LOWERCASE LETTERS.
3. SPACING FOR STREET NAME SIGN LEGENDS SHALL BE EQUAL TO 110% OF THE "CORRECTED" LAYOUT SOFTWARE LETTER SPACING.

(SAME STEPS ARE TO BE FOLLOWED WHEN FONT SIZE OF LEGEND IS REDUCED IN ORDER NOT TO EXCEED THE MAXIMUM LENGTH LIMITATIONS.)

IF LEGEND SPACED ACCORDING TO RECOMMENDED PROCEDURE ABOVE EXCEEDS THE MAXIMUM ALLOWABLE SIGN LENGTH (42" FOR GROUND-MOUNTED), THE FOLLOWING ACTIONS, LISTED IN PRIORITY ORDER, SHALL BE TAKEN TO REDUCE LENGTH OF THE SIGNBLANK.

A. REDUCE THE FONT TO 5 1/2" SERIES 'C'.
B. REDUCE THE SPACING TO 100% OF THE "FEDERAL STANDARD".
C. REDUCE THE FONT TO 5 1/2" SERIES "B".
D. CONSIDER ABBREVIATING ANY LEGEND WORDS WHICH ARE EXTREMELY COMMON (I.E., "MTN" FOR "MOUNTAIN") SUCH ABBREVIATIONS MUST BE APPROVED BY THE TRAFFIC ENGINEER AND THE FIRE DEPARTMENT.
E. REDUCE THE LEADING AND TRAILING BLANK GREEN SPACE BY 50%.
F. CONSTRUCT THE SIGN ACCORDING TO THE STANDARD SPACING WHICH WILL BE GREATER THAN 42" IN LENGTH, AND MOUNT ON A STREETLIGHT POLE OR OTHER ELEVATED MOUNT AS APPROVED BY THE TRAFFIC ENGINEER WITH APPROPRIATE SIGN BRACING AND MOUNTING HARDWARE.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>SPECIFICATION REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>631 STREET NAME SIGNS</td>
<td>716 SIGN MATERIALS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLARK COUNTY AREA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STREET NAME SIGNS LETTER SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE 6-12-97 DWG. NO. 250 (2 OF 2) PAGE 56A</td>
</tr>
</tbody>
</table>
ALUMINUM BLANK

5052-H38 OR 6061-T6, HEAT-TREATED, HIGH TENSILE, DEGREASED AND ALODINE 1200 FINISH. THICKNESS TO BE 0.080" FOR SIGNS LESS THAN 36" AND 0.100" FOR SIGNS 36" AND LONGER.

NOTE:

1. FOR SIGN FACE SPECIFICATIONS SEE STANDARD DRAWING NO. 250.
NOTES:

1. FENCING SHALL BE CHAIN LINK AND SHALL CONSIST OF GALVANIZED CHAIN LINK FABRIC ON STEEL POSTS.
   
   (A) ALL POSTS TOPS SHALL BE FITTED WITH SUITABLE FINIALS.
   
   (B) BRACES SHALL BE SPACED APPROXIMATELY 12" BELOW TOP OF TERMINAL POSTS AND SHALL EXTEND FROM END, GATE, OR CORNER POSTS TO FIRST ADJACENT LINE POST.
   
   (C) ALL FITTINGS SHALL BE HOT-DIPPED GALVANIZED MALLEABLE, CAST IRON, OR PRESSLESS STEEL.
   
   (D) TOP AND BOTTOM SELVAGES OF THE FENCE SHALL HAVE A TWISTED AND BARBED FINISH.

2. BARBED WIRE, EXTENSION ARMS, AND TOP HORIZONTAL RAILS SHALL BE INSTALLED ONLY WHEN SHOWN ON THE PLANS AND/OR CALLED FOR IN THE SPECIAL PROVISIONS.

### TABLE I

FOR CHAIN LINK FENCE 72" AND LESS

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>MIN. SIZE</th>
<th>MIN. WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>END, CORNER &amp; PULL</td>
<td>2.351 O.D.</td>
<td>3.10</td>
</tr>
<tr>
<td>LINE</td>
<td>2.00 O.D.</td>
<td>2.72</td>
</tr>
<tr>
<td>BRACES</td>
<td>1.630 O.D.</td>
<td>2.27</td>
</tr>
<tr>
<td>TOP RAIL</td>
<td>1.630 O.D.</td>
<td>2.27</td>
</tr>
</tbody>
</table>

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>501</th>
<th>CONCRETE</th>
</tr>
</thead>
<tbody>
<tr>
<td>616</td>
<td>FENCING</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS

CLARK COUNTY AREA

CHAIN LINK FENCE

(72" HIGH OR LESS)

DATE 12-14-00  DWG. NO. 252  PAGE NO. 58
TYPICAL MARKING CURB RAMP IN MIDDLE OF CURB RETURN

48" MIN.

3" MIN.

CURB LINE PROJECTED (TYP.)

OPTIONAL DETAIL

NOTE:
USE MARKING PER OPTIONAL DETAIL IF NECESSARY TO OBTAIN 3' MINIMUM CLEARANCE BETWEEN CROSSWALK AND CURB LINE PROJECTED.

TYPICAL MARKING CURB RAMP ADJOINING CURB RETURN

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CROSSWALK MARKINGS
(EXCEPT CLARK COUNTY)

DATE 8-12-99  DWG. NO. 254  PAGE 59.1
TYPICAL CROSSWALK

STRIPING DETAIL
NOTES:
1. 12 FOOT WIDTH IS RECOMMENDED. 10 FOOT WIDTH IS ALLOWABLE ALONG A PATH PARALLEL TO A ROADWAY OR WHERE SPACE IS LIMITED. PAVEMENT AND BASE DEPTH WILL VARY BASED ON SOIL CONDITIONS. PORTLAND CEMENT CONCRETE MAY BE USED INSTEAD OF ASPHALT.
2. SEE DRAWING NUMBER 255.1 FOR SHARED USE PATH ALONG A ROADWAY.
3. SEE THE GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, AASHTO 1999, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR ADDITIONAL GUIDELINES AND STANDARDS.
4. SEE LOCAL JURISDICTIONS FOR LANDSCAPING REQUIREMENTS.

SPECIFICATION REFERENCE

| 628 | PAINTING TRAFFIC STRIPING |
| 633 | PAVEMENT MARKERS |

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SHARED USE PATH

DATE 7-10-03  DWG. NO. 255  PAGE NO. 59.2
NOTES:
1. 12 FOOT WIDTH IS RECOMMENDED. 10 FOOT WIDTH IS ALLOWABLE ALONG A PATH PARALLEL TO A ROADWAY OR WHERE SPACE IS LIMITED. PAVEMENT AND BASE DEPTH WILL VARY BASED ON SOIL CONDITIONS. PORTLAND CEMENT CONCRETE (PCC) MAY BE USED INSTEAD OF ASPHALT AND PCC MAY BE REQUIRED BY THE LOCAL JURISDICTION.
2. SEE DRAWING NUMBER 255 FOR SHARED USE PATH NOT ALONG A ROADWAY.
3. SEE THE GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, ASHHTO 1999, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR ADDITIONAL GUIDELINES AND STANDARDS.
4. SEE LOCAL JURISDICTIONS FOR LANDSCAPING REQUIREMENTS.
5. 3 FOOT LATERAL CLEARANCE RECOMMENDED BETWEEN EDGE OF PATH AND A FIXED OBJECT, 2 FOOT MINIMUM.
6. IF 16 FEET IS NOT AVAILABLE FROM THE BACK OF CURB TO THE RIGHT-OF-WAY LINE, A BICYCLE LANE/ROUTE AND THE SIDEWALK WILL SUBSTITUTE FOR THE PATH. PLACE A PATH ENDS SIGN (W9) 25 FEET IN ADVANCE OF THE PATH ENDING.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>628</td>
<td>PAVING TRAFFIC STRIPING</td>
</tr>
<tr>
<td>633</td>
<td>PAVEMENT MARKERS</td>
</tr>
</tbody>
</table>

DATE 7-10-03  DWG. NO.  255.1  PAGE NO.  59.3
NOTES:
1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMP DETAILS.
## SIGN SIZES FOR SHARED-USE PATHS

<table>
<thead>
<tr>
<th>MUTCD CODE</th>
<th>SIGN</th>
<th>MINIMUM SIGN SIZE (IN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1-1</td>
<td>STOP</td>
<td>18 X 18</td>
</tr>
<tr>
<td>R1-2</td>
<td>YIELD</td>
<td>24 X 24 24 X 24</td>
</tr>
<tr>
<td>R3-16, 16A, 17, 17A</td>
<td>BICYCLE LANE</td>
<td>24 X 30</td>
</tr>
<tr>
<td>R4-1, 2, 3, 7</td>
<td>MOVEMENT RESTRICTION</td>
<td>12 X 18</td>
</tr>
<tr>
<td>R4-4</td>
<td>BEGIN RIGHT TURN LANE YIELD TO BIKES</td>
<td>36 X 30</td>
</tr>
<tr>
<td>R5-3</td>
<td>NO MOTOR VEHICLES</td>
<td>24 X 24</td>
</tr>
<tr>
<td>R5-6</td>
<td>BICYCLE PROHIBITION</td>
<td>24 X 24</td>
</tr>
<tr>
<td>R7-9, 9A</td>
<td>NO PARKING BIKE LANE</td>
<td>12 X 18</td>
</tr>
<tr>
<td>R9-3A</td>
<td>PEDESTRIANS PROHIBITED</td>
<td>18 X 18</td>
</tr>
<tr>
<td>R9-5, 6</td>
<td>BICYCLE REGULATORY</td>
<td>12 X 18</td>
</tr>
<tr>
<td>R9-7</td>
<td>SHARED-USE PATH RESTRICTION</td>
<td>12 X 18</td>
</tr>
<tr>
<td>R15-1</td>
<td>RAILROAD CROSSBUCK</td>
<td>24 X 4.5</td>
</tr>
<tr>
<td>W1-1, 2, 3, 4, 5</td>
<td>TURN AND CURVE WARNING</td>
<td>18 X 18</td>
</tr>
<tr>
<td>W1-6, 7</td>
<td>ARROW WARNING</td>
<td>24 X 12</td>
</tr>
<tr>
<td>W2-1, 2, 3, 4, 5</td>
<td>INTERSECTION WARNING</td>
<td>18 X 18</td>
</tr>
<tr>
<td>W3-1A, 2A, 3</td>
<td>STOP, YIELD, SIGNAL AHEAD</td>
<td>18 X 18</td>
</tr>
<tr>
<td>W5-2A</td>
<td>ROAD NARROWS</td>
<td>18 X 18</td>
</tr>
<tr>
<td>W5-4</td>
<td>BIKEWAY NARROWS</td>
<td>18 X 18</td>
</tr>
<tr>
<td>W7-5</td>
<td>HILL SIGN</td>
<td>18 X 18</td>
</tr>
<tr>
<td>W8-1, 2</td>
<td>BUMP OR DIP</td>
<td>18 X 18</td>
</tr>
<tr>
<td>W8-10</td>
<td>BICYCLE SURFACE CONDITION</td>
<td>18 X 18</td>
</tr>
<tr>
<td>W10-1</td>
<td>ADVANCE GRADE CROSSING</td>
<td>18 DIA.</td>
</tr>
<tr>
<td>W11-1</td>
<td>BICYCLE CROSSING</td>
<td>18 X 18</td>
</tr>
<tr>
<td>W12-2</td>
<td>LOW CLEARANCE</td>
<td>18 X 18</td>
</tr>
<tr>
<td>W16-1</td>
<td>SHARE THE ROAD PLAQUE</td>
<td>24 X 30</td>
</tr>
<tr>
<td>D1-1</td>
<td>SUPPLEMENTAL BIKE ROUTE PLAQUE</td>
<td>24 X 6</td>
</tr>
<tr>
<td>D4-3</td>
<td>BICYCLE PARKING</td>
<td>12 X 18</td>
</tr>
<tr>
<td>D11-1</td>
<td>BIKE ROUTE</td>
<td>24 X 18</td>
</tr>
<tr>
<td>M1-8</td>
<td>BIKE ROUTE MARKER</td>
<td>12 X 18</td>
</tr>
<tr>
<td>M1-9</td>
<td>BIKE ROUTE MARKER</td>
<td>18 X 24</td>
</tr>
<tr>
<td>M4-11, 12, 13</td>
<td>SUPPLEMENTAL BICYCLE ROUTE GUIDE</td>
<td>12 X 4</td>
</tr>
<tr>
<td>M7-1, 2, 3, 4, 5, 6, 7</td>
<td>ROUTE MARKER SUPPLEMENTAL PLAQUES</td>
<td>12 X 9</td>
</tr>
</tbody>
</table>

### NOTES:
1. SIGN TABLE INSERTED FROM MUTCD FOR REFERENCE. SEE CURRENT MUTCD FOR UPDATED INFORMATION.
2. SIGNS R3-16(A), R3-17(A), R4-4, W5-2A, AND W16-1 NOT USED FOR SHARED USE PATHS.
**NOTES:**

1. USE BOLLARDS ONLY AT LOCATIONS WHERE UNAUTHORIZED ACCESS IS ANTICIPATED. INSTALL EITHER 1 OR 3 (5 FOOT SPACING DESIRABLE) SIX-INCH DIAMETER BY 3 FT. TALL REFLECTORIZED BOLLARDS WHEN NECESSARY. CENTERLINE DELINEATION SHOULD BE PROVIDED AT APPROACH TO INTERSECTION EVEN WHEN BOLLARD IS NOT PROVIDED.

2. ANY OBSTRUCTION IN PATH SHOULDN'T BE REMOVED. IF OBSTRUCTION CANNOT BE REMOVED, OBSTRUCTION MUST BE REFLECTORIZED.

3. USE CENTERLINE DELINEATION AT APPROACHES TO INTERSECTIONS AND AROUND OBSTRUCTIONS IN ALL CASES. ONLY USE CENTERLINE DELINEATION IN OTHER CASES WHERE CONFLICTS BETWEEN USERS TRAVELING IN OPPOSITE DIRECTIONS ARE ANTICIPATED.

**SPECIFICATION REFERENCE**

| 628 | PAINTING TRAFFIC STRIPING |
| 633 | PAVEMENT MARKERS |

**UNIFORM STANDARD DRAWINGS**

| CLARK COUNTY AREA |

**DELINEATION AND BOLLARED USAGE**

ON

SHARED USE PATH

| DATE | 7-10-03 |
| DWG. NO. | 255.4 |
| PAGE NO. | 59.6 |
NOTES:
1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERENCES TO USE A "W11-1 (BICYCLE)" SIGN IN PLACE OF THE "W11-2" SIGN.
Effective 01/01/09 - 06/30/09

NOTES:
1. USE ENGINEERING JUDGMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE MUTCD TABLE 2C-4 FOR ADVANCED WARNING PLACEMENT.
3. INSTALL BOLLARDS ONLY AT LOCATIONS WHERE UNAUTHORIZED ACCESS IS ANTICIPATED. INSTALL EITHER 1 OR 3 SIX INCH DIAMETER BY 3 FEET TALL BOLLARDS WHEN REQUIRED.
4. SEE DRAWING NO. 201.2 FOR SIGHT VISIBILITY ZONES AT INTERSECTIONS.
5. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERENCES TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-2 SIGN.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>628 PAINTING TRAFFIC STRIPING</td>
<td>CLARK COUNTY AREA</td>
</tr>
<tr>
<td>633 PAVEMENT MARKERS</td>
<td>TYPICAL SIGNAGE</td>
</tr>
</tbody>
</table>

FOR SHARED USE PATH
AT INTERSECTION

<table>
<thead>
<tr>
<th>DATE</th>
<th>DWG. NO.</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-10-03</td>
<td>256.1</td>
<td>59.8</td>
</tr>
</tbody>
</table>
Effective 01/01/09 - 06/30/09

L = \sqrt{V/60}, WHERE V < 45 MPH

L = V, WHERE V >= 45 MPH

W (OFFSET) = Y/2

X = LENGTH OF ISLAND SHOULD BE 6 FT OR GREATER

Y = WIDTH OF REFUGE:

6 FT = POOR

8 FT = SATISFACTORY

10 FT = GOOD

S = SPEED LIMIT

IF SPEED LIMIT = 25 MPH, S = 25 FEET

NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.

2. SEE DRAWING NO. 218, 248 FOR MEDIAN ISLAND. A 15 DEGREE SKEW ANGLING IN DIRECTION OF ONCOMING TRAFFIC IS DESIRABLE.

3. SEE DRAWING NO. 255.4 FOR BOLLARDS AND CENTERLINE DELINEATION.

4. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMPS (USE PATH WIDTH FEET INSTEAD OF 5 FEET).

5. SEE DRAWING NO. 254 AND 254A FOR CROSSWALKS.

6. SEE DRAWING NO. 255.3 FOR SIGN SIZES FOR SHARED USE PATHS.

7. SEE DRAWING NO. 345 (2 OF 3) FOR DELINEATION IN TRANSITION SECTIONS.

8. SEE TABLE 2C-4 IN MUTCD 2000 FOR ADVANCE PLACEMENT OF WARNING SIGNS.

9. SEE PAGE 654 TO 680 IN AASHTO HIGHWAYS AND STREETS 2001 FOR SIGHT VISIBILITY ZONES (SIGHT TRIANGLES).

10. SEE STREET LIGHTING SECTION.

11. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERENCES TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-2 SIGN.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>628</td>
<td>CLARK COUNTY AREA</td>
</tr>
<tr>
<td>633</td>
<td>SHARED USE PATH CROSSING</td>
</tr>
<tr>
<td></td>
<td>TWO LANE ROADWAY</td>
</tr>
</tbody>
</table>

DATE 7-10-03  DWG. NO. 256.2  PAGE NO. 59.9
NOTES:
1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 218, 248, AND 256 2 FOR MEDIAN ISLAND.
3. SEE DRAWING NO. 255.4 FOR BOLLARDS AND CENTERLINE STRIPING.
4. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMPS (USE 12 FEET INSTEAD 5 FEET).
5. SEE DRAWING NO. 254 AND 254A FOR CROSSWALKS.
6. SEE DRAWING NO. 255.3 FOR SIGN SIZES FOR SHARED USE PATHS.
7. SEE DRAWING NO. 345 (2 OF 3) FOR DELINEATION IN TRANSITION SECTIONS.
8. SEE TABLE 2C-4 IN MUTCD 2000 FOR ADVANCE PLACEMENT OF WARNING SIGNS.
9. SEE PAGE 654 TO 680 IN AASHTO HIGHWAYS AND STREETS 2001 FOR SIGHT VISIBILITY ZONES (SIGHT TRIANGLES).
10. SEE STREET LIGHTING SECTION.
11. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERENCES TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-1 SIGN.

SPECIFICATION REFERENCE

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>628</td>
<td>PAINTING TRAFFIC STRIPING</td>
</tr>
<tr>
<td>633</td>
<td>PAVEMENT MARKERS</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SHARED USE PATH CROSSING
4 LANE ROADWAY

DATE 7-10-03  DWG. NO. 256.3  PAGE NO. 59.15
NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENAROS.
2. SEE DRAWING NO. 218, 248, AND 256.2 FOR MEDIAN ISLAND.
3. SEE DRAWING NO. 255.4 FOR BOLLARDS AND CENTERLINE STRIPING.
4. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMPS (USE 12 FEET INSTEAD 5 FEET).
5. SEE DRAWING NO. 254 AND 254A FOR CROSSWALKS.
6. SEE DRAWING NO. 255.3 FOR SIGN SIZES FOR SHARED USE PATHS.
7. SEE DRAWING NO. 345 (2 OF 3) FOR DELINEATION IN TRANSITION SECTIONS.
8. SEE TABLE 2C-4 IN MUTCD 2000 FOR ADVANCE PLACEMENT OF WARNING SIGNS.
9. SEE PAGE 654 TO 680 IN AASHTO HIGHWAYS AND STREETS 2001 FOR SIGHT VISIBILITY ZONES (SIGHT TRIANGLES).
10. SEE STREET LIGHTING SECTION.
11. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERS TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-1 SIGN.
NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 255.4 FOR BOLLARDS AND CENTERLINE STRIPING.
3. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMP (USE 12 FEET INSTEAD 5 FEET OF CENTER SECTION OF SIDEWALK).
4. SEE DRAWING NO. 255.3 FOR SIGN SIZES FOR SHARED USE PATHS.
5. SEE TABLE 2C-4 IN MUTCD FOR ADVANCE PLACEMENT OF WARNING SIGNS.
6. SEE DRAWING NO. 256.4 FOR THE AN MID-BLOCK AT-GRADE CROSSING DESIGN.
7. A MINIMUM 8 FOOT CLEARANCE IS REQUIRED FOR THE UNDER CROSSING. GRADES GREATER THAN 5 PERCENT ARE UNDESIRABLE. SEE THE 1999, OR CURRENT EDITION, AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES FOR GRADE RESTRICTIONS IF A 5 PERCENT GRADE IS EXCEEDED.
NOTES:
1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE MUTCD 2000 FOR GUIDELINES REFERENCED IN FIGURE.
NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 1-5 FOR CROSSWALK STRIPE GUIDELINES.
3. SEE MUTCD 2000 FOR ADVANCED PLACEMENT OF WARNING SIGNS IN TABLE 2C-4.
4. SEE DRAWING NO. 255.5 FOR BOLLARDS AND CENTERLINE STRIPE.
5. SEE DRAWING NO. 256.2 - 256.4 FOR ADDITIONAL CROSSING DETAILS.
1. INSTALL STREETLIGHT STANDARDS AT INTERSECTIONS INCLUDING "L" AND "T" TYPES, PER STANDARD DRAWINGS 301 THROUGH 310 IN ACCORDANCE WITH THE APPROPRIATE RIGHT-OF-WAY.

2. STREET CLASSIFICATION AND STREETLIGHT STANDARD APPLICATION SHALL BE AS LISTED IN TABLE 1 BELOW. ACTUAL LUMINAIRE WATTAGE AND/OR STREETLIGHT STANDARD SPACING MAY BE VARIED BY THE ENGINEER, WHEN SUPPORTED BY AN APPROVED LIGHTING STUDY IN ACCORDANCE WITH THE IES RECOMMENDED PRACTICE FOR ROADWAY LIGHTING IN ORDER TO MEET CURRENT AND FUTURE TRAFFIC CONTROL NEEDS AND APPROVED BY THE RESPECTIVE AGENCY. AVERAGE LEVELS ARE MAINTAINED LEVELS AT A 0.8 MAINTENANCE FACTOR (0.82 FOR CLARK COUNTY) IN FOOTCANDLES MEASURED HORIZONTALLY AT THE SURFACE.

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>R/W</th>
<th>DWG</th>
<th>LUMINAIRE</th>
<th>LEVEL</th>
<th>AVERAGE IES LIGHTING</th>
<th>IES UNIFORMITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR ARTERIAL</td>
<td>100' OR MORE</td>
<td>250W HPS</td>
<td>1.58 FC</td>
<td>3:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTERMEDIATE COLLECTOR</td>
<td>80'</td>
<td>150W HPS</td>
<td>0.84 FC</td>
<td>4:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCAL</td>
<td>60'</td>
<td>150W HPS</td>
<td>0.38 FC</td>
<td>6:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESIDENTIAL</td>
<td>51' OR LESS</td>
<td>100W HPS</td>
<td>0.38 FC</td>
<td>6:1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. NEW STREETLIGHT STANDARDS INSTALLED ADJACENT TO OR OPPOSITE FROM EXISTING STREETLIGHTS SHALL MATCH THE EXISTING LOCATION, SPACING, POLE AND LUMINAIRE TYPES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

4. STREETLIGHT STANDARDS INSTALLED ON 60' OR LESS RIGHT-OF-WAYS MAY BE INSTALLED ON EITHER SIDE OF ROADWAY AS DIRECTED BY THE ENGINEER.

5. TRAFFIC SIGNAL FOUNDATIONS AND ADAPTOR PLATES MAY BE REQUIRED AT INTERSECTIONS AS DIRECTED BY THE ENGINEER.

6. AT LEAST ONE STREETLIGHT SHALL BE REQUIRED IN THE BULB SECTION OF A CUL-DE-SAC OR HAMMERHEAD. LOCATION SHALL BE AS REQUIRED BY THE ENGINEER.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.
**NOTES:**

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.

3. CITY OF HENDERSON AND BOULDER CITY REQUIRE STREETLIGHTING IN THE MEDIAN FOR RIGHTS-OF-WAY 100 FEET OR GREATER. SEE STANDARD DRAWING NO. 312. IN THE ABSENCE OF A MEDIAN, STREETLIGHT LOCATION SHALL BE THE SAME AS THE OTHER ENTITIES.

<table>
<thead>
<tr>
<th>POLE LOCATION TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KEYED NOTE</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

**SPECIFICATION REFERENCE**

623  TRAFFIC SIGNALS & STREETLIGHTING

**UNIFORM STANDARD DRAWINGS**

CLARK COUNTY AREA

**STREETLIGHT LOCATIONS AT INTERSECTIONS 100' OR GREATER/100' OR GREATER RIGHT-OF-WAY**

(EXCEPT CLARK COUNTY)

**DATE** 8-12-99  **DWG. NO.** 301  **PAGE NO.** 61
NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.

3. WITH THE ENGINEER'S APPROVAL, A SECOND LUMINAIRE MOUNTING PLATE MAY BE FIELD WELDED BY A CERTIFIED WELDER.

4. ALL LUMINAIRE MAST ARMS FOR 400W FIXTURES SHALL BE 15 FT. LONG AND INSTALLED PER STANDARD DRAWING NO. 404.406 UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

<table>
<thead>
<tr>
<th>POLE LOCATION TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEYED NOTE</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE
NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.

3. CITY OF HENDERSON AND BOULDER CITY REQUIRE STREETLIGHTING IN THE MEDIAN FOR RIGHTS-OF-WAY 100 FEET OR GREATER. SEE STANDARD DRAWING NO. 312. IN THE ABSENCE OF A MEDIAN, STREETLIGHT LOCATION SHALL BE THE SAME AS THE OTHER ENTITIES.

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
<th>CLV</th>
<th>NLV</th>
<th>MES</th>
<th>HND</th>
<th>BC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>160'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(SEE NOTE 3)</td>
</tr>
<tr>
<td>2</td>
<td>80'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(SEE NOTE 3)</td>
</tr>
<tr>
<td>3</td>
<td>(SEE DRAWING NO. 320)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>170'</td>
<td>170'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>85'</td>
<td>85'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.

3. ALL LUMINAIRE MAST ARMS FOR 400W FIXTURES SHALL BE 15 FT. LONG AND INSTALLED PER STANDARD DRAWING NO. 404.406 UNLESS OTHERWISE APPROVED BY THE ENGINEER.

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>120'</td>
</tr>
<tr>
<td>2</td>
<td>60'</td>
</tr>
<tr>
<td>3</td>
<td>(SEE DRAWING NO. 320)</td>
</tr>
<tr>
<td>4</td>
<td>170'</td>
</tr>
<tr>
<td>5</td>
<td>85'</td>
</tr>
</tbody>
</table>
NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2,
   STANDARD DRAWING NO. 300 IS REQUIRED
   FOR RIGHT-OF-WAY GREATER THAN 100 FEET.
3. CITY OF HENDERSON AND BOULDER CITY REQUIRE
   STREETLIGHTING IN THE MEDIAN FOR RIGHTS-OF-WAY
   100 FEET OR GREATER. SEE STANDARD DRAWING NO. 312.
   IN THE ABSENCE OF A MEDIAN, STREETLIGHT LOCATION
   SHALL BE THE SAME AS THE OTHER ENTITIES.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.
NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300 IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.

3. IF INTERSECTION IS SIGNALIZED, 400 WATT LUMINAIRES SHALL BE INSTALLED ON ALL CORNERS AND DUAL ARM CONFIGURATION SHALL BE USED FOR 100 FT. RIGHT-OF-WAY SIMILAR TO STANDARD DRAWING NO. 302.1 IN CLARK COUNTY. USE SIGLE ARM CONFIGURATION PER DRAWING 302 IN HENDERSON.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

| SPECIFICATION REFERENCE | UNIFORM STANDARD DRAWINGS  
|-------------------------|-------------------------------
| 623 TRAFFIC SIGNALS & STREETLIGHTING | CLARK COUNTY & HENDERSON ONLY 
|                         | STREETLIGHT LOCATIONS AT INTERSECTIONS 
|                         | 100' OR GREATER/60' RIGHT-OF-WAY 

| DATE 2-08-07 | DWG. NO. 303.1 |
NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300 IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET. ADEQUATE INTERSECTION LIGHTING SHALL ALSO BE ADDRESSED IN THE LIGHTING STUDY.

3. CITY OF HENDERSON AND BOULDER CITY REQUIRE STREETLIGHTING IN THE MEDIAN FOR RIGHTS-OF-WAY 100 FEET OR GREATER. SEE STANDARD DRAWING NO. 312. IN THE ABSENCE OF A MEDIAN, STREETLIGHT LOCATION SHALL BE THE SAME AS THE OTHER ENTITIES.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
<th>CLV</th>
<th>NLV</th>
<th>MES</th>
<th>HND</th>
<th>BC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>160'</td>
<td>(SEE NOTE 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>80'</td>
<td>(SEE NOTE 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>12&quot;</td>
<td>(SEE NOTE 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>(SEE DRAWING NO. 320)</td>
<td>180'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>170'</td>
<td>170'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>85'</td>
<td>85'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SPECIFICATION REFERENCE

623 TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS
100' OR GREATER/51' OR LESS
RIGHT-OF-WAY
(EXCEPT CLARK COUNTY & HENDERSON)

DATE 2-08-07 DWG. NO. 304
NOTES:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300 IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET. ADEQUATE INTERSECTION LIGHTING SHALL ALSO BE ADDRESSED IN THE LIGHTING STUDY.

3. IF INTERSECTION IS SIGNALIZED, 400 WATT LUMINAIRES SHALL BE INSTALLED ON ALL CORNERS AND DUAL ARM CONFIGURATION SHALL BE USED FOR 100 FT. RIGHT-OF-WAY SIMILAR TO STANDARD DRAWING NO. 302.1 IN CLARK COUNTY. USE SINGLE ARM CONFIGURATION PER DRAWING 302 IN HENDERSON.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.
NOTE:
SEE GENERAL NOTES STANDARD DRAWING NO. 300.

<table>
<thead>
<tr>
<th>POLE LOCATION TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEYED NOTE</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

SPECIFICATION REFERENCE

| 623 | TRAFFIC SIGNALS & STREETLIGHTING |

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS
80'/80' RIGHT-OF-WAY
(EXCEPT CLARK COUNTY)

DATE 8-12-99  DWG. NO. 305  PAGE NO. 65
Effective 01/01/09 - 06/30/09

NOTE:
SEE GENERAL NOTES STANDARD DRAWING NO. 300.

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
<th>CLARK COUNTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>170'</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>85'</td>
</tr>
<tr>
<td>3</td>
<td>(SEE DRAWING NO. 320)</td>
<td></td>
</tr>
</tbody>
</table>

SPECIFICATION REFERENCE

| 623 | TRAFFIC SIGNALS & STREETLIGHTING |

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY ONLY

STREETLIGHT LOCATIONS AT INTERSECTIONS
80'/80' RIGHT-OF-WAY

DATE 8-12-99  DWG. NO. 305.1  PAGE NO. 65.1
Effective 01/01/09 - 06/30/09

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
<th>ALL ENTITIES (EXCEPT CC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>170'</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>85'</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>12'</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>(SEE DRAWING NO. 320)</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>180'</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>90'</td>
</tr>
</tbody>
</table>

NOTE:
SEE GENERAL NOTES STANDARD DRAWING NO. 300.

*PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE

| 623 | TRAFFIC SIGNALS & STREETLIGHTING |

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS
80'/60' RIGHT-OF-WAY
(EXCEPT CLARK COUNTY & HENDERSON)

DATE 2-08-07  DWG. NO. 306
NOTE:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. IF THE INTERSECTION IS SIGNALIZED, 400 WATT LUMINAIRES SHALL BE INSTALLED ON ALL CORNERS.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

<table>
<thead>
<tr>
<th>POLE LOCATION TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEYED NOTE</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>
**POLE LOCATION TABLE**

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
<th>ALL ENTRIES (EXCEPT CC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>170&quot;</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>85&quot;</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>12&quot;</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>(SEE DRAWING NO. 320)</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>170&quot;</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>85&quot;</td>
</tr>
</tbody>
</table>

**NOTE:**
SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

**SPECIFICATION REFERENCE**

| 623 | TRAFFIC SIGNALS & STREETLIGHTING |

**UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA**

**STREETLIGHT LOCATIONS AT INTERSECTIONS 80’/51’ OR LESS RIGHT-OF-WAY**

(EXCEPT CLARK COUNTY & HENDERSON)

**DATE** 2-08-07  **DWG. NO.** 307
NOTE:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. IF INTERSECTION IS SIGNALIZED, 400 WATT LUMINAIRES SHALL BE INSTALLED ON ALL CORNERS.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

---

**POLE LOCATION TABLE**

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
<th>CLARK COUNTY AND HENDERSON</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>170'</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>85'</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>12&quot;</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>(SEE DRAWING NO. 320)</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>170'</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>85'</td>
</tr>
</tbody>
</table>

---

**SPECIFICATION REFERENCE**

| 623 | TRAFFIC SIGNALS & STREETLIGHTING |

**UNIFORM STANDARD DRAWINGS**

**CLARK COUNTY AREA**

**CLARK COUNTY & HENDERSON ONLY**

**STREETLIGHT LOCATIONS AT INTERSECTIONS**

**80'51' OR LESS RIGHT-OF-WAY**

**DATE** 2-08-07    **DWG. NO.** 307.1
NOTE:
SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.
NOTE:
SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
<th>CLARK COUNTY AND HENDERSON</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>170'</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>85'</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>12&quot;</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>(SEE DRAWING NO. 320)</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>85'</td>
</tr>
</tbody>
</table>
Effective 01/01/09 - 06/30/09

NOTE: SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
<th>ALL ENTITIES (EXCEPT CC &amp; COH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>180'</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>90'</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>12&quot;</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>(SEE DRAWING NO. 320)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>85'</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>170'</td>
<td></td>
</tr>
</tbody>
</table>

SPECIFICATION REFERENCE

623 TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS
60'/51' OR LESS RIGHT-OF-WAY
(EXCEPT CLARK COUNTY & HENDERSON)

DATE 2-08-07 DWG. NO. 309
Effective 01/01/09 - 06/30/09

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>170'</td>
</tr>
<tr>
<td>2</td>
<td>85</td>
</tr>
<tr>
<td>3</td>
<td>12&quot;</td>
</tr>
<tr>
<td>4</td>
<td>(SEE DRAWING NO. 320)</td>
</tr>
<tr>
<td>5</td>
<td>85'</td>
</tr>
<tr>
<td>6</td>
<td>170'</td>
</tr>
</tbody>
</table>

NOTE:
SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.
NOTE:
SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.
NOTES:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
<th>ALL ENTITIES (EXCEPT CC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>160'</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>80'</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>170'</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>85'</td>
</tr>
</tbody>
</table>

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>623</th>
<th>TRAFFIC SIGNALS &amp; STREETLIGHTING</th>
</tr>
</thead>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT STANDARDS
MAXIMUM SPACING
(80 FT. OR GREATER RIGHT-OF-WAY)
(EXCEPT CLARK COUNTY)

DATE 8-12-99  DWG. NO. 311  PAGE NO. 71
NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>120'</td>
</tr>
<tr>
<td>2</td>
<td>60'</td>
</tr>
<tr>
<td>3</td>
<td>170'</td>
</tr>
<tr>
<td>4</td>
<td>85'</td>
</tr>
</tbody>
</table>

SPECIFICATION REFERENCE

623  TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS

CLARK COUNTY AREA

CLARK COUNTY ONLY

STREETLIGHT STANDARDS

MAXIMUM SPACING

(80 FT. OR GREATER RIGHT-OF-WAY)

DATE 8-12-99  DWG. NO. 311.1  PAGE NO. 71.1
NOTES:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
<th>ALL ENTITIES (EXCEPT CC &amp; COH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>180'</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>170'</td>
<td></td>
</tr>
</tbody>
</table>

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>623</td>
<td>STREETLIGHT STANDARDS MAXIMUM SPACING</td>
</tr>
<tr>
<td></td>
<td>(60 FT. OR LESS RIGHT-OF-WAY)</td>
</tr>
<tr>
<td></td>
<td>(EXCEPT CLARK COUNTY &amp; HENDERSON)</td>
</tr>
<tr>
<td></td>
<td>DATE 2-08-07  DWG. NO. 311A</td>
</tr>
</tbody>
</table>
NOTES:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>170°</td>
</tr>
<tr>
<td>2</td>
<td>170°</td>
</tr>
</tbody>
</table>

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE

| 623 | TRAFFIC SIGNALS & STREETLIGHTING |

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY & HENDERSON ONLY

STREETLIGHT STANDARDS
MAXIMUM SPACING
(60 FT. OR LESS RIGHT-OF-WAY)

DATE 2-08-07  DWG. NO. 311.1A
NOTES:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.

POLE LOCATION TABLE

<table>
<thead>
<tr>
<th>KEYED NOTE</th>
<th>ENTITY</th>
<th>ALL ENTITIES (EXCEPT CC)</th>
<th>CLARK COUNTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>1</td>
<td>160'</td>
<td>120'</td>
</tr>
<tr>
<td>2</td>
<td>10'</td>
<td>10' (MIN.)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>80'</td>
<td>120'</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>12&quot;</td>
<td>12&quot;</td>
<td></td>
</tr>
</tbody>
</table>

* DISTANCE LISTED INDICATES MAXIMUM SPACING. LIGHTING STANDARDS SHALL BE EQUIDISTANT AFTER LOCATING THE END OF ISLAND POLES.
1. ALL STREETLIGHT STANDARDS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF THE STANDARD SPECIFICATIONS AND AS INDICATED ON THESE DRAWINGS.

2. ALL COMPONENTS OF THE STREETLIGHT STANDARD INCLUDING THE POLE, ARM, HANDHOLE COVER, BASE COVER AND THE POLE CAP SHALL BE FERROUS METAL AND HOT-DIP GALVANIZED AFTER CONSTRUCTION IN ACCORDANCE WITH ASTM A123; ALUMINUM OR ALUMINUM ALLOY IS NOT ACCEPTABLE. FLAWS IN THE APPEARANCE OF THESE GALVANIZED COMPONENTS (i.e. "TIGER-STRIPED," "ZEBRA-STRIPED"), SHALL BE CAUSE FOR REJECTION. NON-METALLIC TYPE BASE COVERS MAY BE ACCEPTABLE AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. CONCRETE POLES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

3. ALL FASTENING HARDWARE SHALL BE NON-CORROSIVE, CADMIUM-PLATED, OR EQUAL, APPROVED BY THE ENGINEER. FASTENERS SHALL BE OF THE SIZE AND CONFIGURATION NOTED ON THE DRAWINGS.

4. CONCRETE POLE FOUNDATIONS SHOULD BE POURED AGAINST UNDISTURBED, NATURAL SOIL OR IF FORMING MATERIAL IS USED IT SHALL BE STRIPPED AWAY FROM THE FOUNDATION AT LEAST ONE (1) FOOT BELOW FINISHED GRADE.

5. POLES SHALL BE INSTALLED ON CONCRETE FOUNDATIONS WITH ANCHOR BOLTS. EACH BOLT SHALL BE INSTALLED WITH TWO (2) HEX NUTS AND TWO (2) FLAT WASHERS. EXCEPT FOR "H" AND "L" FOUNDATIONS, THE ANCHOR BOLTS SHALL BE 1" X 36" X 4" FOR ELEVEN (11) GAGE POLES AND 1 1/8" X 40" X 4" FOR SEVEN (7) GAGE POLES. THE ANCHOR BOLTS, NUTS AND WASHERS SHALL BE HOT-DIP GALVANIZED. THE POLE SHALL BE PLUMBED PRIOR TO PLACING THE GROUT OR CONCRETE CAP. USE OF GROUT OR CONCRETE FOR CAP SHALL BE DESIGNATED BY ENTITY ENGINEER. SHIMS OR WEDGES OF ANY KIND ARE NOT ACCEPTABLE TO PLUMB THE POLE AFTER THE CAP HAS BEEN PLACED.

6. ALL UNDERGROUND CONDUIT INSTALLED SHALL HAVE RED, CONTINUOUS MARKING TAPE INSTALLED IN THE TRENCH AT 12" BELOW FINISHED GRADE.

7. WHERE SIGNALS AND STANDARDS ARE INSTALLED UNDER OVERHEAD POWER LINES, CLEARANCES SHALL BE PER NATIONAL ELECTRICAL SAFETY CODE SECTION 234 REQUIREMENTS. INSTALL STRAIGHT ARM STREETLIGHT ASSEMBLIES WHERE ADDITIONAL CLEARANCE IS REQUIRED.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>623</td>
<td>CLARK COUNTY AREA</td>
</tr>
</tbody>
</table>

STREETLIGHT STANDARD
GENERAL NOTES

DATE  7-8-04  DWG. NO.  313  PAGE NO.  73
NOTES:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 313.
2. SEE STANDARD DRAWING NO. 319 FOR DETAIL OF POLE BASE.
3. SEE STANDARD DRAWING NO. 318 FOR DETAIL OF POLE CAP.
NOTES:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 313.
2. SEE STANDARD DRAWING NO. 319 FOR DETAIL OF POLE BASE.
3. SEE STANDARD DRAWING NO. 318 FOR DETAIL OF POLE CAP.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>REFERENCE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEEL STRUCTURES</td>
<td>506</td>
</tr>
<tr>
<td>TRAFFIC SIGNALS &amp; STREETLIGHTING</td>
<td>623</td>
</tr>
<tr>
<td>GALVANIZING</td>
<td>715</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT STANDARD
WITH DOUBLE 2" PIPE ARM

DATE 12-12-96  DWG. NO. 315  PAGE NO. 75
NOTES:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 313.
2. SEE STANDARD DRAWING NO. 319 FOR DETAIL OF POLE BASE.
3. SEE STANDARD DRAWING NO. 318 FOR DETAIL OF POLE CAP.
NOTES:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 313.
2. SEE STANDARD DRAWING NO. 319 FOR DETAIL OF POLE BASE.
3. SEE STANDARD DRAWING NO. 318 FOR DETAIL OF POLE CAP.
NOTES:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 313
2. HANDBOLE SHALL FACE AWAY FROM ONCOMING TRAFFIC.
**BEHIND CURBSIDE SIDEWALK**

**BACK PORTION OF CURBSIDE SIDEWALK (NOT FOR NEW CONSTRUCTION)**

**OPEN AREA OR BETWEEN CURB AND SIDEWALK**

---

**SPECIFICATION REFERENCE**

<table>
<thead>
<tr>
<th>501</th>
<th>PORTLAND CEMENT CONCRETE</th>
</tr>
</thead>
<tbody>
<tr>
<td>623</td>
<td>TRAFFIC SIGNALS &amp; STREETLIGHTING</td>
</tr>
</tbody>
</table>

**UNIFORM STANDARD DRAWINGS**

**CLARK COUNTY AREA**

**LIGHTING STANDARD SETBACK**

**DATE** 7-8-04  **DWG. NO.** 320  **PAGE NO.** 80
Effective 01/01/09 - 06/30/09

NOTE:
POLE BASE COVERS SHALL BE FURNISHED AND INSTALLED FOR ALL POLES PER THE STANDARD SPECIFICATIONS AND DRAWINGS.

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

LIGHTING STANDARD SETBACK FROM BLOCK WALL

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>623 TRAFFIC SIGNALS &amp; STREETLIGHTING</td>
<td>LIGHTING STANDARD SETBACK FROM BLOCK WALL</td>
</tr>
</tbody>
</table>

DATE 5-13-99   DWG. NO. 320A   PAGE NO. 80A
NOTES:
1. SEE GENERAL NOTES STANDARD DRAWING NO. 313
2. CONTINUOUS BARE COPPER GROUNDING CONDUCTOR SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE POLE GROUNDING PLATE.
3. FOUNDATION CAP SHALL BE CONCRETE OR GROUT AS DESIGNATED BY THE ENTITY ENGINEER.
1 3/16" HOLE, 4 REQD.

4.506" ± 0.003" HOLE DIA.

4" 

1 3/16" HOT-DIP GALV. ANCHOR BOLTS WITH TWO HOT-DIP GALV. HEX. HD. NUTS & WASHERS PER BOLT (4 REQD.).

1/4" X 4" GUSSETS - 4 REQUIRED

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BASE ADAPTOR PLATE
FOR 16-1/2" BOLT CIRCLE FOUNDATION

DATE 12-12-96  DWG. NO. 322  PAGE NO. 82
2" HOT-DIP GALV. ANCHOR BOLTS WITH TWO HOT-DIP GALV. HEX. HD. NUTS & WASHERS PER BOLT (4 REQD.).

1/4" X 4" GUSSETS - 4 REQUIRED

4.496 + .003 PIPE O.D.

1-3/16" HOLE, 4 REQD.
NOTES:
1. PULL BOX LID SHOULD BE TAPPED WITH A 3/8" X 16 COURSE THREAD TAP.
2. FOR TYPICAL NO. 7 PULL BOX COVER GROUNDING, SEE STANDARD DRAWING NO. 327.
SINGLE POLE, SINGLE THROW ON-OFF, 10 AMP, 125 VAC SWITCH, SEALED, WITH 5 IN. WIRE LEADS

KEYED NOTE:

SWITCH BRACKET

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BYPASS SWITCH BRACKET
FOR POLE MOUNTED
STREETLIGHTING SERVICE
(CITY OF MESQUITE ONLY)

DATE 4-13-00  DWG. NO. 324  PAGE NO. 84

623 TRAFFIC SIGNALS & STREETLIGHTING

DEAD FRONT MOUNTING TAB
CHASE NIPPLE, LOCKRINGS AND BUSHING, TYP.

POLE
NIPPLE
S.S. BANDING
HUB

FRONT

SIDE

1/2"
2"
3"

1

DEAD FRONT DRILL HOLE TO CLEAR SWITCH
BLIND RIVET, TYP.

SIZE OPENING FOR SWITCH
2"
1/2"
3"

SWITCH BRACKET, 14 GA.
SIDE TAB
MOUNTING HOLE, TYP.

BOTTOM TAB
1. WHEN NO GROUNDING ELECTRODE EXISTS, 5/8 IN. DIA. SOLID COPPER GROUNDING ROD, 8 FT. IN LENGTH, SHALL BE INSTALLED.
2. ANCHOR BOLTS SHALL BE CONTINUOUS AND HAVE A MINIMUM 1 IN. FREE THREAD.
3. FOUNDATION CAP SHALL BE CONCRETE OR GROUT AS DESIGNATED BY ENTITY ENGINEER.
CAST IRON OR NON-CONDUCTIVE COVER FOR PEDESTRIAN AREAS

BRASS "L" BOLT AND NUT

COVER

BODY

EXTENSION
AS SPECIFIED BY THE ENGINEER

<table>
<thead>
<tr>
<th>SIZE (COMMERCIAL DESIGNATION)</th>
<th>3-1/2</th>
<th>5</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>15</td>
<td>21-3/4</td>
<td>30-5/8</td>
</tr>
<tr>
<td>B</td>
<td>10</td>
<td>11-3/4</td>
<td>17-5/8</td>
</tr>
<tr>
<td>C</td>
<td>3/4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>19-3/8</td>
<td>25</td>
<td>34-3/4</td>
</tr>
<tr>
<td>E</td>
<td>14-3/8</td>
<td>15</td>
<td>21-3/4</td>
</tr>
<tr>
<td>F</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>G</td>
<td>N/A</td>
<td>10-1/4</td>
<td>11-1/2</td>
</tr>
</tbody>
</table>

**NOTES:**
1. COVERS INSTALLED IN TRAFFIC AND OPEN AREAS ACCESSIBLE TO TRAFFIC SHALL BE PER STANDARD DRAWING NO. 327.
2. SEE STANDARD DRAWING NO. 323 FOR COVER GROUNDING.

**SPECIFICATION REFERENCE**

| 503 PRECAST Prestressed Concrete Members |
| 623 Traffic Signals & Streetlighting |

**UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA**

**PRECAST REINFORCED CONCRETE PULL BOX**

DATE 12-12-96  DWG. NO. 326  PAGE NO. 86
Effective 01/01/09 - 06/30/09

---

ACCESS HOLE TO PULL BOX "L" BOLTS

BEAD WELD INSCRIPTION

STEEL FLOOR PLATE, 3/8" THICK, ROUND CORNERS TO MATCH EDGES OF PULL BOX

COVER

FINISHED GRADE

SIDE

MOUNTING BRACKET, WELDED TO COVER, TYP. LOCATE TO MATCH PULL BOX "L" BOLTS

1/4" TYP.

15-1/4"

3/8" x 16 COARSE THREAD TAP, CENTERED BETWEEN RIBS. FOR COVER GROUND CONNECTION SEE STANDARD DRAWING NO. 323

BOTTOM

17-1/4"

8-5/8"

2-1/2"

1/4"

30-1/2"

2-1/4" TYP.

2-1/4" TYP.

NOTES:

1. COVER USED IN TRAFFIC AND OPEN AREAS ACCESSIBLE TO TRAFFIC ONLY.
2. TYPICAL NO. 7 PULL BOX COVER SHOWN. SUBMIT OTHERS TO THE ENGINEER FOR APPROVAL.
3. ALL TRAFFIC AND OPEN AREA COVERS SHALL BE H 20 RATED.

---

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>506</th>
<th>STEEL STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>623</td>
<td>TRAFFIC SIGNALS &amp; STREETLIGHTING</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA

PULL BOX STREET COVER

DATE 12-12-96 DWG. NO. 327 PAGE NO. 87
NOTE:

1. PROVIDE A MINIMUM OF 8" AROUND ALL BOXES. ANY BOX SHALL NOT BE PLACED WITHIN 3'-3" OF FIRE HYDRANTS IN DRIVEWAYS OR DRIVEWAY APRONS. THIS DRAWINGS IS NOT INTENDED TO LIMIT THE NUMBER OF BOXES BETWEEN DRIVEWAYS TO TWO.

2. FOR WATER SERVICE BOXES, REFER TO UDACS PLATE 1A-1D.
SERVICE PEDESTAL ENCLOSURE, 12 GA. SHEET METAL BODY AND EQUIPMENT MOUNTING PANEL, 14 GA. FRONT COVER(S) AND 16 GA. MIN. FOR ALL OTHER PANELS. ALL SHEET METAL SHALL BE FINISHED WITH ZINC CHROMATE PRIMER AND GREEN BAKED ENAMEL OR POWDER COAT FINISH. METERING SECTION PER P.U.E.S.R.E R. STANDARDS.

UTILITY METER SECTION, 125 OR 200 AMP AS NEEDED, 120/240 VOLT. 1 PHASE, 3 WIRE. THE SECTION SHALL HAVE A HINGED COVER WITH PADLOCK TAB.

CIRCUIT BREAKER DISTRIBUTION SECTION, 125 OR 200 AMP AS NEEDED, 120/240 VOLT. 1 PHASE, 3 WIRE. THE SECTION SHALL BE COMPLETE WITH SEPARATE DEAD FRONT, COPPER BUSING, SPACE FOR A MINIMUM OF TEN FULL SIZE (") GE TYPE PLUG-IN CIRCUIT BREAKERS (EXCLUDING MAIN BREAKER), COPPER NEUTRAL/GROUNDING BUS AND MAIN BREAKER AS SPECIFIED BY THE ENGINEER. THE SECTION SHALL BE FACTORY WIRED TO THE METER SECTION WITH THE APPROPRIATE SIZE COPPER CONDUCTORS.

EQUIPMENT MOUNTING PANEL, 10" H X 12" W MIN., OPEN OR ENCLOSED, FOR LIGHTING CONTACTORS AS NEEDED.

DISTRIBUTION AND EQUIPMENT SECTION COVER WITH PADLOCK TAB.

BASE AND ENCLOSURE WIDTH (16" TYP.)

BASE DEPTH (16" TYP.)

ENCLOSURE DEPTH (17" TYP.)

TYPICAL MOUNTING BASE DETAIL
(DIMENSIONS MAY VARY DEPENDING ON MANUFACTURER)

SEPARATE PEDESTAL ENCLOSURE MOUNTING BASE (OPTIONAL)

---

SPECIFICATION REFERENCE

506 STEEL STRUCTURES
623 TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SINGLE METER
SERVICE PEDESTAL

DATE 8-12-99 DWG. NO. 330 PAGE NO. 90
### Effective 01/01/09 - 06/30/09

**BEHIND SIDEWALK (FOR WIDTHS LESS THAN 5 FT.)**

**BACK PORTION OF SIDEWALK (FOR WIDTHS OF 5 FT. OR GREATER)**

**OPEN AREA**

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>501 PORTLAND CEMENT CONCRETE</td>
<td>CLARK COUNTY AREA</td>
</tr>
<tr>
<td>623 TRAFFIC SIGNALS &amp; STREETLIGHTING</td>
<td></td>
</tr>
</tbody>
</table>

**SERVICE PEDESTAL SETBACK**

DATE 12-12-96  DWG. NO.  331  PAGE NO.  91
NOTES:

1. BARE COPPER GROUNDING CONDUCTOR SHALL BE LOOped AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.

2. CABINET COVERS SHALL BE PARALLEL WITH CURB.

3. IN AREAS WHERE R/W PERMITS, THE CONCRETE BASE SHALL BE PLACED AT AT THE BACK EDGE OF THE SIDEWALK.

4. CABINET COVERS SHALL OPEN TOWARDS THE STREET WHEN CABINETS ARE LOCATED AT BACK OF WALK. CABINET COVERS SHALL OPEN PARALLEL TO THE SIDEWALK FACING THE DIRECTION OF TRAFFIC WHEN LOCATED WITHIN THE SIDEWALK.

5. WIRE SIZES ARE BASED ON UNDERGROUND FEED.

6. WIRE SIZES SHALL BE INCREASED FOR VOLTAGE DROP LIMITATION WHEN RUN IS LONG.
1. BARE COPPER GROUNDING CONDUCTOR SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.

2. CABINET COVERS SHALL BE PARALLEL WITH CURB.

3. IN AREAS WHERE R/W PERMITS, THE CONCRETE BASE SHALL BE PLACED AT AT THE BACK EDGE OF THE SIDEWALK.

4. CABINET COVERS SHALL OPEN TOWARDS THE STREET WHEN CABINETS ARE LOCATED AT SACK OF WALK. CABINET COVERS SHALL OPEN PARALLEL TO THE SIDEWALK FACING THE DIRECTION OF TRAFFIC WHEN LOCATED WITHIN THE SIDEWALK.

5. WIRE SIZES ARE BASED ON UNDERGROUND FEED.

6. WIRE SIZES SHALL BE INCREASED FOR VOLTAGE DROP LIMITATION WHEN RUN IS LONG.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>PORTLAND CEMENT CONCRETE</td>
</tr>
<tr>
<td>623</td>
<td>TRAFFIC SIGNALS &amp; STREETLIGHTING</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS

CLARK COUNTY AREA

CLARK COUNTY AND CITY OF LAS VEGAS

SERVICE PEDESTAL

FOUNDATION

DATE 2-10-00     DWG. NO. 332.1     PAGE NO. 92.1
SERVICE ENTRANCE WEATHERHEAD

2" RIGID GALVANIZED STEEL CONDUIT

2-HOLE PIPE STRAPS
SPACED 5 FEET APART

METER SOCKET (PER UTILITY'S REQUIREMENTS)
FACE METER AWAY FROM TRAFFIC.

SINGLE PHASE, 3 WIRE, 120/240 VAC CIRCUIT BREAKER
LOAD CENTER, MAIN LUGS ONLY. NEMA 3R (RAIN-TIGHT)
ENCLOSURE WITH PADLOCKING PROVISIONS, AND A
MINIMUM OF EIGHT (8) SINGLE SPACES.
BUSING SHALL BE COPPER.
FOR LOAD MAINS AMPERE RATING AND/OR CIRCUIT BREAKER
RATING, NUMBER OF POLES AND QUANTITY, SEE PLANS.

RIGID GALVANIZED STEEL CONDUIT

NO. 4 AWG GROUNDING CONDUCTOR ENCASED IN 1/2" E.M.T.

FINISHED GRADE

EQUIPMENT GROUNDING:
MINIMUM OF 20 FEET OF SOLID NO. 4 AWG
BARE COPPER WIRE, SPIRAL WRAPPED AROUND
POLE WITH A 1/2 INCH PITCH. SEE NOTE 2.

24" MIN.
PVC TO STEEL CONDUIT ADAPTOR

PVC COATED OR WRAPPED WITH
10 MIL CORROSION PROTECTIVE
TAPE, 1/2 LAPED, RIGID GALVANIZED
STEEL 90° ELBOW, 24" MIN. RADIUS

PVC CONDUIT TO FIRST STREETLIGHT
SEE NOTE 1

125 AMP SERVICE: 2" CONDUIT, 2 #1/0 THW AND 1 #4 WHITE THW
200 AMP SERVICE: 2" CONDUIT, 2 250 KCMIL THW AND 1 #1/0 WHITE THW
(0.82 DERATE HAS BEEN APPLIED FOR AMBIENT TEMPERATURE)

NOTES:

1. ALL WIRES TO BE COPPER; SEE PLANS FOR QUANTITY AND GAGES.
2. WITH ENGINEER'S APPROVAL, AN 8 FT. BY 5/8 IN. COPPER-CLAD
GROUNDING ROD MAY BE USED.
3. ALL CONDUIT FITTINGS TO BE WATER-TIGHT.

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TEMPORARY APPLICATION
120/240 VAC SERVICE
ON WOOD POLE
OVERHEAD SERVICE

DATE 8-12-99   DWG. NO. 334   PAGE 94
NOTICE:
SERVICE PEDESTAL ASSEMBLY SHALL BE FACTORY ASSEMBLED OR BUILT BY UL LISTED VENDOR.

FOR CONDUIT SIZE AND WIRING REQUIREMENTS FOR STREETLIGHT SERVICE, SEE STANDARD DRAWING NO. 332.1.

GROUNDING AND BONDING CONDUCTORS OMITTED FOR CLARITY, SEE STANDARD DRAWING NOS. 336 AND 337.

SINGLE POLE, SINGLE THROW, ON-OFF, 15 AMP, 125 VAC SWITCH, SEALED, WITH 5 IN. LEADS
FOR CONDUIT SIZE AND WIRING REQUIREMENTS FOR STREET LIGHT SERVICE, SEE STANDARD DRAWING NO. 332.1 FOR LAS VEGAS AND CLARK COUNTY ONLY AND 332 FOR ALL OTHER ENTITIES.
MANHOLE NOTES:

1. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 609, "CATCH BASINS, MANHOLES AND INLETS" OF THE "STANDARD SPECIFICATIONS".

2. REINFORCING STEEL SHALL BE AS SHOWN, WIRED TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED AT LEAST ONE (1) INCH CLEAR UNLESS OTHERWISE NOTED.

3. EXCAVATION SHALL BE AS NEARLY VERTICAL AS POSSIBLE (SHEET AND SHORE, IF SOIL CONDITIONS REQUIRE), IN EXISTING STREET SECTIONS, ALLEY SECTIONS AND CONFINED AREAS SUCH AS LIMITED EASEMENTS OR ADJACENT TO STRUCTURES. NATURAL ANGLE OF REPPOSE WILL ALLOW IN ALL OTHER AREAS.

4. MANHOLE DESIGN FOR PIPE LARGER THAN SIXTY (60) INCHES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

5. MANHOLE DESIGN FOR DEPTHS EXCEEDING EIGHTEEN (18) FEET SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

6. TYPE AND SIZE OF MANHOLE TO BE CONSTRUCTED IN A PARTICULAR LOCATION SHALL BE DETERMINED BY THE PIPE SIZE, ALIGNMENT AND GRADE AS FOLLOWS:

TYPE I

FORTY-EIGHT (48) INCH SIZE
A. ALL CASES FOR PIPE EIGHTEEN (18) INCHES AND SMALLER.
B. TWENTY-FOUR (24) INCHES AND SMALLER PIPE ON TANGENT LINE AND GRADE.

SIXTY (60) INCH SIZE
A. TWENTY-SEVEN (27) INCH THROUGH THIRTY-SIX (36) INCH PIPE ON TANGENT LINE AND GRADE.
B. TWENTY-ONE (21) INCH THROUGH TWENTY-SEVEN (27) INCH PIPE AT ANGLE POINTS AND CHANGES IN GRADE OR PIPE SIZE.

TYPE I-A

USED IN PLACE OF TYPE I WHEN COVER ABOVE CONDUIT IS LIMITED, AND WHEN APPROVED BY THE ENGINEER.

TYPE II

FORTY-EIGHT (48) INCH SIZE
A. THIRTY (30) INCH THROUGH SIXTY (60) INCH PIPE ON TANGENT LINE WITH A CHANGE IN GRADE OR PIPE SIZE.
MANHOLE NOTES (CONTINUED):

TYPE III

TANGENT
SIXTY (60) INCH SIZE
A. THIRTY-NINE (39) INCH THROUGH SIXTY (60) INCH PIPE ON TANGENT LINE AND GRADE WITH NO CHANGE IN PIPE SIZE.

ANGLE POINT
SIXTY (60) INCH SIZE
A. THIRTY (30) INCH THROUGH SIXTY (60) INCH PIPE AT THE ANGLE POINT IN LINE.

7. PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.

8. DISTANCE BETWEEN THE TOP OF MANHOLE AND FIRST STEP SHALL BE A MAXIMUM OF SIXTEEN (16) INCHES. MANHOLE STEPS SHALL BE GROUTED IN PLACE.

9. (CLARK COUNTY ONLY) DISTANCE BETWEEN MANHOLES SHALL BE A MAXIMUM OF FOUR HUNDRED (400) FEET.

10. MANHOLE SPACING SHALL BE REFERRED TO THE WASTE WATER COLLECTION STANDARDS.
DROP INLET NOTES:

1. ALL DROP INLETS, REGARDLESS OF TYPE, SHALL BE LOCATED SUCH THAT THE CURB OPENING (OR GRATE) IS A MINIMUM OF TEN (10) FEET FROM THE NEAREST P.C. OR P.T. OF THE CURRENT OR FUTURE CURB RETURN.


3. IF DRIVEWAYS OR UTILITIES EXIST, THE ENTITY ENGINEER SHALL APPROVE THE LOCATION OF THE DROP INLET.
NOTES:

1. IN UNIMPROVED NON-TRAFFIC AREAS, TOP OF MANHOLE SHALL BE 6” TO 9” ABOVE GRADE.

2. PIPES SHALL NOT PROTRUDE MORE THAN 3” INSIDE OF MANHOLE SECTION. CONSTRUCT WATER TIGHT CONNECTION TO MANHOLE.

3. PIPE SECTION LENGTHS ARRANGED TO FIT DEPTH.

4. AN OPTIONAL TWO PIECE 24” TO 48” AND 48” TO 60” CONE MAY BE USED.
NOTES:

1. IN UNIMPROVED NON-TRAFFIC AREAS, TOP OF MANHOLE SHALL BE 6" TO 9" ABOVE GRADE.

2. PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE OF MANHOLE SECTION. CONSTRUCT WATER TIGHT CONNECTION TO MANHOLE.

3. PIPE SECTION LENGTHS ARRANGED TO FIT DEPTH.

4. AN OPTIONAL TWO PIECE 30" TO 48" AND 48" TO 60" CONE MAY BE USED.

5. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

---

**SPECIFICATION REFERENCE**

<table>
<thead>
<tr>
<th>501</th>
<th>CONCRETE &amp; MORTAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>609</td>
<td>CATCH BASINS, MANHOLES &amp; INLETS</td>
</tr>
</tbody>
</table>

**UNIFORM STANDARD DRAWINGS**

**CLARK COUNTY AREA**

**TYPE I MANHOLE**

30" RING AND COVER

**DATE** 11-10-05  **DWG. NO.** 403A  **PAGE NO.** 103A
8" FLAT SLAB

CONCRETE COLLAR
SEE STANDARD DWG.
NO. 408

TONGUE AND GROOVE
JOINTS

FULL MORTARED JOINTS
(CLASS "B" MORTAR)

STREET ELEV.

24"

48" or 60"

6"

NOTE:
1. PIPE SECTION LENGTHS ARRANGED TO FIT DEPTH.

<table>
<thead>
<tr>
<th>SYM.</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>RING &amp; COVER</td>
</tr>
<tr>
<td>B</td>
<td>GRADE ADJUSTING RING</td>
</tr>
<tr>
<td>C</td>
<td>1' SECTION REIN. CONC. PIPE</td>
</tr>
<tr>
<td>D</td>
<td>2' SECTION REIN. CONC. PIPE</td>
</tr>
<tr>
<td>E</td>
<td>3' SECTION REIN. CONC. PIPE</td>
</tr>
<tr>
<td>F</td>
<td>BASE</td>
</tr>
</tbody>
</table>

SPECIFICATION REFERENCE

| 501  | CONCRETE & MORTAR                        |
| 609  | CATCH BASINS, MANHOLES & INLETS          |

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE IA MANHOLE

DATE 11-10-05  DWG. NO. 404 PAGE NO. 104
NOTE:

1. PIPE SECTION LENGTHS ARRANGED TO FIT DEPTH.
2. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.
NOTES:

1. STEPS SHALL BE INSTALLED ON THE UPSTREAM WALL OF THE MANHOLE.
2. W = I.D. + 12-INCHES MIN. BUT IN NO CASE SHALL W BE LESS THAN 60-INCHES.
NOTES:

1. STEPS SHALL BE INSTALLED ON THE SIDE WALL OF THE MANHOLE.
2. W = I.D. + 12-INCHES MIN. BUT IN NO CASE SHALL W BE LESS THAN 60-INCHES.
3. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

SPECIFICATION REFERENCE

| 501       | CONCRETE AND MORTAR |
| 505       | REINFORCING STEEL   |
| 609       | CATCH BASINS, MANHOLES & INLETS |

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE II MANHOLE
30" RING AND COVER

DATE 11/10/05   DWG. NO. 405A    PAGE NO. 105A
NOTE:

1. STEPS SHALL BE INSTALLED ON THE UPSTREAM WALL OF THE MANHOLE.
Note:
1. Steps shall be installed on the upstream wall of the manhole.
2. The use of a 30" ring and cover shall be approved by the entity engineer.

**Specification Reference**

- **501** CONCRETE
- **505** REINFORCING STEEL
- **609** CATCH BASINS, MANHOLES & INLETS

**Uniform Standard Drawings**

**Clark County Area**

**Type III Manhole**

30" Ring and Cover

**Date** 11-10-05  **Dwg. No.** 406A  **Page No.** 106A
NOTE:

1. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.
NOTES:

1. CONCRETE COLLAR TO BE CONSTRUCTED 1/8" BELOW SURFACE OF DENSE GRADE WHERE OPEN GRADE IS NOT USED.

2. CONCRETE COLLAR NOT REQUIRED IN UNINCORPORATED CLARK COUNTY RESIDENTIAL STREETS LESS THAN 80' R/W WIDTH.
NOTES:
1. CONCRETE COLLAR TO BE CONSTRUCTED 1/8" BELOW SURFACE OF DENSE GRADE WHERE OPEN GRADE IS NOT USED.
2. CONCRETE COLLAR NOT REQUIRED IN UNINCORPORATED CLARK COUNTY RESIDENTIAL STREETS LESS THAN 80' R/W WIDTH.
3. THE USE OF 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.
NOTES:
1. FRAME AND COVER TO BE ALHAMBRA FOUNDRY COMPANY TYPE A1310 IN ACCORDANCE WITH ASTM A-48, CLASS 30, OR APPROVED EQUAL.
2. CAST IRON SHALL HAVE MINIMUM TENSILE STRENGTH OF 30,000 P.S.I.
3. FRAME AND COVER MACHINED TO FIT.
4. WEIGHT OF FRAME AND COVER 330 LBS. MINIMUM.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>712</th>
<th>MISCELLANEOUS METALS</th>
</tr>
</thead>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STANDARD MANHOLE
COVER AND RING

DATE | DWG. NO. | PAGE NO.
-----|----------|--------
     | 409      | 109    
NOTES:

1. FRAME AND COVER TO BE ALHAMBRA FOUNDRY COMPANY TYPE A1310 IN ACCORDANCE WITH ASTM A-48, CLASS 30, OR APPROVED EQUAL.

2. CAST IRON SHALL HAVE MINIMUM TENSILE STRENGTH OF 30,000 P.S.I.

3. FRAME AND COVER MACHINED TO FIT.

4. WEIGHT OF FRAME AND COVER 330 LBS. MINIMUM.

5. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>712</td>
<td>CLARK COUNTY AREA</td>
</tr>
<tr>
<td></td>
<td>STANDARD MANHOLE</td>
</tr>
<tr>
<td></td>
<td>30&quot; COVER AND RING</td>
</tr>
</tbody>
</table>

DATE 11/10/05   DWG. NO. 409A   PAGE NO. 109A
NOTES:

1. MANHOLE STEP SHALL CONFORM TO A.S.T.M. C-478 AND C-497.

2. ALUMINUM STEPS SHALL BE SOLID, MADE FROM MATERIAL IN CONFORMANCE WITH A.S.T.M. B221 (ALLOY 6065-T6).

3. REINFORCED PLASTIC STEPS SHALL BE POLYPROPYLENE PLASTIC, WITH NO. 3 (MIN.) DEFORMED STEEL ROD (GRADE 80/A.S.T.M. A-615).

4. STEPS SHALL BE EVENLY SPACED FROM 12" TO 16".

5. ALL STEPS MUST BE EPOXIED IN PLACE DURING THE INSTALLATION PROCESS.

MANHOLE STEPS
### Specification Reference

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>Concrete</td>
</tr>
<tr>
<td>502</td>
<td>Concrete Structures</td>
</tr>
<tr>
<td>505</td>
<td>Reinforcing Steel</td>
</tr>
<tr>
<td>713</td>
<td>Steel</td>
</tr>
</tbody>
</table>

**Uniform Standard Drawings**

**Clark County Area**

**Modified Type "A" Drop Inlet**

---

**Effective 01/01/09 - 06/30/09**

---

**Notes:**

1. All concrete shall be C30/37 and ASTM C94.
2. All structural steel shall be Grade A572.
3. See plan for size and location of base plate.
4. All exposed steel shall be hot dipped galvanized.
5. All reinforcing steel shall be ASTM A615.
6. All concrete slab shall be compacted to 80% maximum density.
7. All rebar shall be Grade A615.
8. All concrete shall be C30/37 and ASTM C94.
9. All structural steel shall be Grade A572.
10. All reinforcing steel shall be ASTM A615.

---

**Date:** 09/14/06

**DWG. NO.:** 411A

**Page No.:** 1
ALL VERTICAL REINFORCEMENT #4 BARS AT 12" O.C. MAX.

ALL HORIZONTAL REINFORCEMENT #4 BARS AT 12" O.C. MAXIMUM

ALHAMBRA FOUNDRY TYPE A1530 FRAME & COVER (WITH 22" DIAMETER CLEAR OPENING) IN ACCORDANCE WITH ASTM A-48, CLASS 30, OR APPROVED EQUAL. COVER TO BE SECURED WITH 2 5/8" DIAMETER STAINLESS STEEL BOLTS.

<table>
<thead>
<tr>
<th>T</th>
<th>TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;D&quot;</td>
<td>&quot;T&quot;</td>
</tr>
<tr>
<td>2'0&quot; TO 8'-0&quot;</td>
<td>6&quot;</td>
</tr>
<tr>
<td>8'-1&quot; TO 20'-0&quot;</td>
<td>8&quot;</td>
</tr>
</tbody>
</table>

NOTES:

1. DEPTH "D" TO BE SHOWN ON PLANS.
2. OUTLET PIPE SIZE TO BE SHOWN ON PLANS.
3. CONCRETE SHALL BE CLASS "D" OR "DA".
4. OUTLET PIPE SHALL BE TRIMMED FLUSH WITH INSIDE FACE OF INLET.
5. FOR GRATE DETAIL SEE STANDARD DRAWING NO. 417

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>501</th>
<th>CONCRETE</th>
</tr>
</thead>
<tbody>
<tr>
<td>502</td>
<td>CONCRETE STRUCTURES</td>
</tr>
<tr>
<td>505</td>
<td>REINFORCING STEEL</td>
</tr>
<tr>
<td>713</td>
<td>STEEL</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DROP INLET
TYPE "B"

DATE 4-11-02  DWG. NO. 412  PAGE 112
NOTES:
1. DEPTH "D" TO BE SHOWN ON PLANS.
2. OUTLET PIPE SIZE TO BE SHOWN ON PLANS.
3. WHEN LENGTH "L" EXCEEDS 4'-0" SUPPORT BOLTS REQUIRED, SEE STANDARD DRAWING NO. 418.
4. FOR GRATE DETAIL SEE STANDARD DRAWING NO. 417.
5. SECTION B-B IS OPTIONAL FOR INLETS WHERE L > 7'-0" AND D > 5'-0", SEE STANDARD DRAWING NO. 415.
NOTES:
1. DROP INLET TYPE "D" TO BE USED WHEN CONFLICTING UTILITIES ARE LOCATED IN THE SIDEWALK AREA.
2. DEPTH "D" AND DISTANCE "Y" TO BE SHOWN ON PLANS.
3. OUTLET PIPE SIZE TO BE SHOWN ON PLANS.
4. WHEN LENGTH "L" EXCEEDS 4'-0" SUPPORT BOLTS REQUIRED, SEE STANDARD DRAWING NO. 418.
5. FOR GRATE DETAIL SEE STANDARD DRAWING NO. 417.
6. SECTION B-B IS OPTIONAL FOR INLETS WHERE L > 7'-0" AND D > 5'-0", SEE STANDARD DRAWING NO. 415.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>CONCRETE</td>
</tr>
<tr>
<td>502</td>
<td>CONCRETE STRUCTURES</td>
</tr>
<tr>
<td>505</td>
<td>REINFORCING STEEL</td>
</tr>
<tr>
<td>713</td>
<td>STEEL</td>
</tr>
</tbody>
</table>

DATE 4-11-02   DWG. NO. 414   PAGE NO. 114

DROP INLET TYPE "D"
SECTION B-B

<table>
<thead>
<tr>
<th>T TABLE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;D&quot;</td>
<td>&quot;T&quot;</td>
</tr>
<tr>
<td>2'-0&quot; TO 8'-0&quot;</td>
<td>6&quot;</td>
</tr>
<tr>
<td>8'-1&quot; TO 20'-0&quot;</td>
<td>8&quot;</td>
</tr>
</tbody>
</table>

NOTES:

1. DEPTH "D" TO BE SHOWN ON PLANS.
2. OUTLET PIPE SIZE TO BE SHOWN ON PLANS.

SPECIFICATION REFERENCE

| 501 CONCRETE |
| 502 CONCRETE STRUCTURES |

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DROP INLET TYPES "A" AND "B"
SPECIAL DESIGN

DATE DWG. NO. PAGE NO.
415 115
Effective 01/01/09 - 06/30/09

NOTE:
BEEHIVE DROP INLETS SHALL BE USED AT LOCATIONS APPROVED BY THE ENGINEER.
Effective 01/01/09 - 06/30/09

PLAN

SECTION D-D

SECTION E-E

FRAME & GRATE INSTALLATION

NOTE:
ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AND ALL GALVANIZING DAMAGED BY FABRICATION OR INSTALLATION SHALL RECEIVE TWO COATS OF ALUMINUM PAINT (GALVONOX OR EQUAL).

SPECIFICATION REFERENCE

712 MISCELLANEOUS METAL
714 PAINT
715 GALVANIZING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DROP INLET FRAME AND GRATE

DATE 10-14-99 DWG. NO. 417 PAGE 117
NOTE:

FOR STEEL PLATE AND PROTECTION BAR DETAILS, SEE
STANDARD DRAWING NO. 419.
ADJUSTING NUTS TO BE TIGHTENED & SECURED IN PLACE WHEN PLATE IS IN PROPER POSITION.

1" Ø PROTECTION BAR SHALL BE EMBEDDED 5" AT EACH END. (SEE NOTE 1)

1" x (CURB FACE + 6") SUPPORT BOLT.

NOTES:
1. PROTECTION BAR SHALL BE REQUIRED ON ALL INLETS AND SHALL BE PLACED PARALLEL TO THE STEEL FACE PLATE.
2. SUPPORT BOLTS SHALL BE EQUALLY SPACED AT NOT MORE THAN 2'-0" O.C. AND NOT LESS THAN 1'-6" O.C.
3. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AND GALVANIZING DAMAGED BY FABRICATION OR INSTALLATION SHALL RECEIVE TWO COATS OF ALUMINUM PAINT (GALVONOX OR EQUAL).
4. FOR STEEL PLATE ANCHORAGE, SEE STANDARD DRAWING NO. 418.
5. #4 BARS x (L+6") SHALL BE IN ADDITION TO REINFORCING STEEL PER APPLICABLE DROP INLET STANDARD PLAN.
NOTES:

1. CONSTRUCT 14-FOOT WIDE CHAIN LINK GATE AT ALL STREET ACCESS POINTS, FOR ACCESS ONTO 12-FOOT ACCESS ROADS.

2. CONSTRUCT 3-FOOT WIDE CHAIN LINK GATE AT ALL STREET ACCESS POINTS FOR ACCESS ON THE 5-FOOT WIDTH ACCESS SIDE.

3. CONSTRUCT SECOND ACCESS ROAD (12-FOOT MINIMUM WIDTH WITH 6-INCH MIN. TYPE II AGGREGATE BASE) IF B EXCEEDS 30'.

4. FOR UNLINED CHANNELS H ≥ 2.

5. "V" DITCH SHALL BE CONSTRUCTED TO PREVENT OVERLAND RUNOFF FROM ERODING SIDES OF BANK. AN ADEQUATE NUMBER OF INLETS ALONG THE "V" DITCH SHALL BE DESIGNED WITH A MINIMUM 12-INCH CMP LATERAL DISCHARGING INTO THE CHANNEL. APPROPRIATE BANK PROTECTION FOR LATERAL PIPE DISCHARGE SHALL BE PROVIDED. OTHER METHODS OF OVERLAND RUNOFF CONTROL MAY BE ACCEPTABLE IF APPROVED BY THE ENGINEER.
MILL AND OVERLAY 1" UTACS UNLESS OTHERWISE REQUIRED BY THE ENTITY. REMOVE AND REPLACE ASPHALT PAVEMENT IF EXISTING ASPHALT PAVEMENT IS 2" THICK OR LESS.

ASPHALT PATCH TO MATCH CONTIGUOUS SECTION AND SHALL BE NO LESS THAN 2".

LONGITUDINAL CUT RESTORATION

MIN. RESTORATION LIMITS UNLESS OTHERWISE DETERMINED BY ENTITY PLAN CHECK, WITH FINAL LIMITS SET BY FIELD INSPECTOR.

TRENCH LIMITS

NOTES:

SEE DWG. 500AL SHEET 2 OF 2

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>302 AGGREGATE BASE</td>
<td>CLARK COUNTY AREA</td>
</tr>
<tr>
<td>401 BITUMINOUS PAVEMENT</td>
<td></td>
</tr>
<tr>
<td>406 PRIME COAT</td>
<td>0 TO 5 YEARS</td>
</tr>
<tr>
<td>407 FOG SEAL</td>
<td>PAVEMENT RESTORATION</td>
</tr>
<tr>
<td>501 CONCRETE</td>
<td>LONGITUDINAL CUT</td>
</tr>
</tbody>
</table>

DATE 6-12-08  DWG. NO. 500AL  SHEET 1 OF 2
NOTES:

1. IF THERE IS A MEDIAN, RESTORATION MAY BE LIMITED TO THE AREA BETWEEN C & G AND THE MEDIAN CURB.
2. WHEN EXISTING PAVEMENT IS 2" THICK OR LESS, PAVEMENT WITHIN THE RESTORATION AREA SHALL BE REMOVED AND REPLACED IN KIND AS REQUIRED BY THE ENTITY.
3. IF SAWCUT LINE IS WITHIN FIVE FEET OF EDGE OF EXISTING ASPHALT CONCRETE SURFACE OR EXISTING SAWCUT LINE, MILL AND OVERLAY OR REPLACE TO THAT EDGE.
4. PAVEMENT RESTORATION AREA SAWCUT LINES SHALL NOT FALL WITHIN STREET INTERSECTION.
5. IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
6. THE ENTITY’S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.
NOTES:

1. IF THERE IS MEDIAN, RESTORATION MAY BE LIMITED TO THE AREA BETWEEN C&G TO CURB OF MEDIAN.
2. IF SAWCUT LINE IS WITHIN FIVE FEET OF EDGE OF EXISTING ASPHALT CONCRETE SURFACE OR EXISTING SAWCUT LINE, MILL AND OVERLAY OR REPLACE TO THAT EDGE.
3. WHEN EXISTING PAVEMENT IS LESS 2" THICK OR LESS, PAVEMENT WITHIN THE RESTORATION AREA SHALL BE REMOVED AND REPLACED IN KIND AS REQUIRED BY THE ENTITY.
4. PAVEMENT RESTORATION AREA SAWCUT LINES SHALL NOT FALL WITHIN STREET INTERSECTION.
5. IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
6. THE ENTITY’S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.
NOTES:

1. IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.

2. THE ENTITY'S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>302 AGGREGATE BASE</td>
<td></td>
</tr>
<tr>
<td>401 BITUMINOUS PAVEMENT</td>
<td></td>
</tr>
<tr>
<td>406 PRIME COAT</td>
<td></td>
</tr>
<tr>
<td>407 FOG SEAL</td>
<td></td>
</tr>
<tr>
<td>501 CONCRETE</td>
<td></td>
</tr>
</tbody>
</table>

OVER 5 YEARS
PAVEMENT RESTORATION - LONGITUDINAL CUT - GREATER THAN 60' R/W

DATE 6-12-08    DWG. NO. 500BL1
LONGITUDINAL CUT RESTORATION

NOTES:

1. IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
2. THE ENTITY’S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS ShOWN HEREON.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLARK COUNTY AREA</td>
</tr>
<tr>
<td>302 AGGREGATE BASE</td>
<td>OVER 5 YEARS</td>
</tr>
<tr>
<td>401 BITUMINOUS PAVEMENT</td>
<td>PAVEMENT RESTORATION</td>
</tr>
<tr>
<td>406 PRIME COAT</td>
<td>LONGITUDINAL CUT - 60’ R/W</td>
</tr>
<tr>
<td>407 FOG SEAL</td>
<td>OR LESS</td>
</tr>
<tr>
<td>501 CONCRETE</td>
<td></td>
</tr>
</tbody>
</table>

DATE 6-12-08    DWG. NO. 500BL2
TRANSVERSE CUT RESTORATION

NOTES:

1. IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
2. THE ENTITY'S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>302 AGGREGATE BASE</td>
<td>CLARK COUNTY AREA</td>
</tr>
<tr>
<td>401 BITUMINOUS PAVEMENT</td>
<td>OVER 5 YEARS</td>
</tr>
<tr>
<td>406 PRIME COAT</td>
<td>PAVEMENT RESTORATION</td>
</tr>
<tr>
<td>407 FOG SEAL</td>
<td>TRANSVERSE CUT</td>
</tr>
<tr>
<td>501 CONCRETE</td>
<td>ALL R/W WIDTHS</td>
</tr>
</tbody>
</table>

DATE 6-12-08 DWG. NO. 500BT
Effective 01/01/09 - 06/30/09

NOTES:

1. SEWER MAY BE LOCATED ON OTHER SIDE OF CENTERLINE AS TERRAIN DICTATES.
2. STREETLIGHT FOUNDATIONS SHALL BE LOCATED BEHIND SIDEWALK FOR SIDEWALK WIDTHS LESS THAN 5 FEET PER STANDARD DRAWING NO. 320.
3. SEPARATION DISTANCE SHALL CONFORM TO UTILITY STANDARDS ADOPTED BY THE GOVERNING AGENCY FOR SEWER AND WATER FACILITIES.
4. STREET CONSTRUCTION SHALL CONFORM TO THE DESIGNED PLANS.
5. UTILITY CONSTRUCTION BACKFILL SHALL CONFORM TO SECTION 208.
6. UTILITY LINES SHALL BE RE-ROUTED IF DROP INLET IS IN CONFLICT.
7. WATER TRANSMISSION MAIN SEPARATION SHALL BE REFERRED TO WATER PURVEYOR GUIDELINES.
Effective 01/01/09 - 06/30/09

FINISHED GRADE

42" MIN. COVER FOR PIPE 8" DIA. AND SMALLER
48" MIN. COVER FOR PIPE GREATER THAN 8" DIA.,
LESS THAN 24" DIA.
60" MIN. COVER FOR PIPE 24" AND GREATER.

STREETLIGHT
FOUNDATION

12"

18"

30"

32"

34"

2'6" MIN.

3'0" MIN. CLR.

10'-0" MIN. CLR.

GAS

WATER

SEWER

OR AS APPROVED
BY THE ENGINEER

NOTE:

SEWER MAY BE OTHER SIDE OF CENTERLINE AS TERRAIN
DICTATES.
1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE ENTITY REQUIREMENTS.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.
5. A ONE INCH MAXIMUM LEVELING COURSE IS PERMITTED WHEN APPROVED BY THE ENGINEER.
6. CONTROLLED LOW STRENGTH MATERIALS (CLSM) SHALL BE USED IN THE UPPER 24" WITH RIGHT-OF-WAYS 80 FEET OR GREATER. TRENCH WIDTHS 24" OR LESS SHALL BE BACKFILLED WITH CLSM IN THE TRENCH ZONE.
RESTORATION LIMITS TO BE DETERMINED BY ENTITY PLAN CHECK, WITH FINAL LIMITS SET BY FIELD INSPECTOR.

EXISTING BASE

95% MIN. COMPACTION
TYPE II AGGREGATE BASE

MINIMUM TRENCH WIDTH IS RELATED TO DESIGN REQUIREMENTS AND SHALL BE INDICATED ON THE PLAN DRAWINGS. SEE SECTION 208 TRENCH EXCAVATION AND BACKFILL

DEPTH OF COVER IS RELATED TO DESIGN REQUIREMENTS AND SHALL BE INDICATED ON THE PLAN DRAWINGS. SEE SECTION 208 TRENCH EXCAVATION AND BACKFILL

PIPE ZONE

O.D. PIPE

PIPE BEDDING SEE NOTE 3

NOTES:
1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE ENTITY REQUIREMENTS.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.
5. A ONE INCH MAXIMUM LEVELING COURSE IS PERMITTED WHEN APPROVED BY THE ENGINEER.
6. CONTROLLED LOW STRENGTH MATERIALS (CLS) SHALL BE USED IN THE UPPER 12" WITH RIGHT-OF-WAYS 50' FEET OR GREATER.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>208</th>
<th>TRENCH EXCAVATION &amp; BACKFILL</th>
</tr>
</thead>
<tbody>
<tr>
<td>302</td>
<td>AGGREGATE BASE COURSES</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

METHOD A/B FOR RIGID PIPE TRENCH BACKFILL – PAVED AREAS

DATE 6-12-08 DWG. NO. 503AB
Effective 01/01/09 - 06/30/09

RESTORATION LIMITS TO BE DETERMINED BY ENTITY PLAN CHECK, WITH FINAL LIMITS SET BY FIELD INSPECTOR.

EXISTING BASE

95% MIN. COMPACTION TYPE II AGGREGATE BASE

MINIMUM TRENCH WIDTH IS RELATED TO DESIGN REQUIREMENTS AND SHALL BE INDICATED ON THE PLAN DRAWINGS. SEE SECTION 208- TRENCH EXCAVATION AND BACKFILL

2' MIN.

PRIME COAT PER SECTION 408-PRIME COAT

VARIES

INSTALLATION REQUIREMENTS INCLUDING CONTRACTOR TESTING AND FILL LIFTS SEE SECTION 208- TRENCH EXCAVATION AND BACKFILL

GRANULAR BACKFILL OR SELECT BACKFILL OR BACKFILL WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) SEE NOTE 1

COMPACtion PERCENTAGE PER GEOTECH ENG REQUIREMENts OR MINIMUM OF 90%

REFER TO SECTION 208 REQUIREMENTS

90% MIN. COMPACTION IN PIPE ZONE. TYPE II OR TYPE III AGGREGATE BASE. SAND BACKFILL SEE NOTE 2

PIPE OR BOX CULVERT

PIPE BEDDING SEE NOTE 3

NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE ENTITY REQUIREMENTS.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.
5. A ONE INCH MAXIMUM LEVELING COURSE IS PERMITTED WHEN APPROVED BY THE ENGINEER.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>208</th>
<th>TRENCH EXCAVATION &amp; BACKFILL</th>
</tr>
</thead>
<tbody>
<tr>
<td>302</td>
<td>AGGREGATE BASE COURSES</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

METHOD B FOR RIGID AND FLEXIBLE PIPE TRENCH BACKFILL - PAVED AREAS

DATE 6-12-08 DWG. NO. 503B
NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2" OR LESS IN WIDTH.
2. IF SAWCUT IS WITHIN THREE FEET OF EDGE OF EXISTING ASPHALT CONCRETE SURFACE OR OTHER PATCH, REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING ENTITY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>208</th>
<th>TRENCH EXCAVATION &amp; BACKFILL</th>
</tr>
</thead>
<tbody>
<tr>
<td>302</td>
<td>AGGREGATE BASE COURSES</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TRENCH BACKFILL WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) ABOVE PIPE ZONE IN PAVED AREAS (STREETS GREATER THAN 60' R/W)

DATE 6-12-08 DWG. NO. 504
CONCRETE BEDDING

<table>
<thead>
<tr>
<th>TABLE 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIPE SIZE</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>6&quot;</td>
</tr>
<tr>
<td>8&quot;</td>
</tr>
<tr>
<td>10&quot;</td>
</tr>
<tr>
<td>12&quot;</td>
</tr>
<tr>
<td>15&quot;</td>
</tr>
<tr>
<td>18&quot;</td>
</tr>
<tr>
<td>21&quot;</td>
</tr>
</tbody>
</table>

D = OUTSIDE DIAMETER OF PIPE
W = OUTSIDE DIAMETER OF PIPE + 24" MAXIMUM

NOTES:
1. PIPE BEDDING TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY. SUBGRADE SHALL CONFORM TO RESPECTIVE ENTITY REQUIREMENTS.
2. INDICATED THICKNESS OF BEDDING MATERIAL TO BE CONSTRUCTED UNDER THE BARREL. SUBGRADE TO BE EXCAVATED TO PROVIDE 2" CLEARANCE UNDER THE BELL.
3. OTHER BEDDING METHODS MAY BE SPECIFIED OR APPROVED.
4. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY.
LEGEND

1. THREADED COLLAR OR DOUBLE STRAP BRONZE SERVICE SADDLE
2. CORPORATION STOP
3. POLYETHYLENE OR COPPER SERVICE LATERAL (SEE NOTE 4)
4. ANGLE METER STOP (NOTE 1)
5. IDLER
6. 90°TAIL PIECE COUPLING
7. METER BOX
8. CONCRETE SIDEWALK

<table>
<thead>
<tr>
<th>METER SIZE</th>
<th>IDLER LENGTH</th>
<th>MINIMUM SERVICE LATERAL SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/8&quot;</td>
<td>7-1/2&quot;</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>7-1/2&quot;</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>1&quot;</td>
<td>10-3/4&quot;</td>
<td>1&quot;</td>
</tr>
</tbody>
</table>

NOTES:
1. 5/8", 3/4" & 1" REQUIRE BALL ANGLE METER STOP.
2. LOCATOR TAPE REQUIRED ABOVE SERVICE LINE IF OTHER THAN 90°OFF WATER MAIN (HENDERSON AND NORTH LAS VEGAS ONLY).
3. SEE DWG. NO. 336 FOR REINFORCEMENT DETAIL AROUND METER BOX.
4. WHEN COPPER SERVICE LATERALS ARE USED, FLARED COPPER FITTINGS AND CONNECTIONS ARE REQUIRED.
LEGEND

1. THREADED COLLAR OR DOUBLE STRAP BRONZE SERVICE SADDLE
2. CORPORATION STOP
3. CTS YOKE WITH IPS ADAPTER
4. POLYETHYLENE OR COPPER SERVICE LATERAL (SEE NOTE 5)
5. ANGLE METER STOP (NOTE 1)
6. IDLER
7. 90° TAIL PIECE COUPLING
8. METER BOX
9. CONCRETE COLLAR, 2500 PSI COMPRESSIVE STRENGTH

NOTES:

1. 5/8", 3/4" & 1" REQUIRES BALL ANGLE METER STOP.
2. LOCATOR TAPE REQUIRED ABOVE SERVICE LINE IF OTHER THAN 90° OFF WATER MAIN (HENDERSON AND NORTH LAS VEGAS ONLY).
3. TOP OF METER BOX TO BE INSTALLED AS NEAR TO FUTURE FINAL GRADE AS POSSIBLE.
4. SEE DWG. 336 FOR REINFORCEMENT DETAIL AROUND METER BOX.
5. WHEN COPPER SERVICE LATERALS ARE USED, FLARED COPPER FITTINGS AND CONNECTIONS ARE REQUIRED.

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SERVICE INSTALLATION, DUAL 5/8", 3/4"
& 1" METER SIZES-UNIMPROVED AREA

DATE  DWG. NO. 509  PAGE NO. 129
### LEGEND

1. **DOUBLE STRAP BRONZE SERVICE SADDLE**
2. **CORPORATION STOP**
3. **POLYETHYLENE OR COPPER SERVICE LATERAL (I.P. SIZE) (SEE NOTE 5)**
4. **ANGLE METER STOP, P.E. PIPE PACK JOINT (I.P. SIZE)**
5. **NO. 4 REBAR (2 REQUIRED) 2" CONCRETE COVER**
6. **CONCRETE COLLAR, 2500 PSI COMPRESSIVE STRENGTH**
7. **METER BOX**
8. **IDLER LENGTH**
9. **IDLER (FLANGE x FLANGE)**

### NOTES:

1. 1-1/2" & 2" REQUIRES 2 BALL ANGLE METER STOPS (EXCEPT LWD).
2. LOCATOR TAPE REQUIRED ABOVE SERVICE LINE IF OTHER THAN 90° OFF WATER MAIN (HENDERSON AND NORTH LAS VEGAS ONLY).
3. TOP OF METER BOX TO BE INSTALLED AS NEAR TO FUTURE FINAL GRADE AS POSSIBLE.
4. SEE DWG. NO. 338 FOR REINFORCEMENT DETAIL AROUND METER BOX.
5. WHEN COPPER SERVICE LATERALS ARE USED, FLARED COPPER FITTINGS AND CONNECTIONS ARE REQUIRED.

### UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

<table>
<thead>
<tr>
<th>SPECIFICATION REFERENCE</th>
<th>UNIFORM STANDARD DRAWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLARK COUNTY AREA</td>
</tr>
</tbody>
</table>

**SERVICE INSTALLATION, 1-1/2" & 2" METER SIZES-UNIMPROVED AREA**

<table>
<thead>
<tr>
<th>DATE</th>
<th>DWG. NO.</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>511</td>
<td>131</td>
</tr>
</tbody>
</table>
NOTES:

1. ALL FITTINGS AND EXPOSED REBAR TO BE COATED WITH EC 244 AND WRAPPED WITH TWO LAYERS OF 6 MIL. POLYETHYLENE.

2. TABLE BELOW DENOTES MINIMUM BEARING AREA OR VOLUME OF THRUST BLOCK. SPECIAL DESIGN FOR EACH INSTALLATION IS REQUIRED IF ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 3000 P.S.F.

3. PLACE CONCRETE AGAINST UNDISTURBED EARTH.

4. VERTICAL SURFACES NOT BEARING AGAINST UNDISTURBED EARTH SHALL BE FORMED.

<table>
<thead>
<tr>
<th>SIZE OF PIPE</th>
<th>MINIMUM BEARING AREA IN SQUARE FEET</th>
<th>CUBIC YARDS OF CONCRETE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FIG. 1</td>
<td>FIG. 2</td>
</tr>
<tr>
<td></td>
<td>90°</td>
<td>45°</td>
</tr>
<tr>
<td>4&quot;</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>6&quot;</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8&quot;</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>10&quot;</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>12&quot;</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>14&quot;</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>16&quot;</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>18&quot;</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>20&quot;</td>
<td>5</td>
<td>28</td>
</tr>
</tbody>
</table>

SPECIAL DESIGN
1. ALL VALVES TO BE PAINTED WITH E.C. 244 AND WRAPPED WITH TWO LAYERS OF 6 MIL POLYETHYLENE.
NOTE:
CONCRETE COLLAR NOT REQUIRED IN UNINCORPORATED CLARK COUNTY RESIDENTIAL STEETS LESS THAN 80' R/W.
METHOD "A"

RING-TITLE CAP TAPPED OUTLET
A.F.C.
CORP STOP J-41
CONCRETE THRUST BLOCK

#5 REBAR STRAP TO REMOVE THRUST BLOCK

#4 BAR ALL AROUND
8" VALVE BOX
JONES J-1909 OR FORD CO 677 COUPLING
2" P.E. OR COPPER PIPE
PAVED AREA

CAST IRON PLUG
HEAVY TAPPED COUPLING (2" TAP) OR DOUBLE STRAP BRONZE SERVICE SADDLE
CORP STOP - J-41
1/4 BEND - J-1536
COUPLING - FORD CO 677

PLUG & COUPLING TO BE PROTECTED FROM DIRECT CONTACT WITH CONCRETE
#5 REBAR STRAP TO REMOVE THRUST BLOCK
CONCRETE THRUST BLOCK (2000 PSI)
(SEE NOTE BELOW)

METHOD "B"

NOTES:
1. FOR CLARITY THE ELBOW AND P.E. PIPE ARE SHOWN ROTATED 90°.
   ALL FITTINGS SHALL BE 2".
2. CONCRETE COLLAR NOT REQUIRED IN UNINCORPORATED CLARK COUNTY RESIDENTIAL STREETS LESS THAN 80' R/W.

SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BLOW-OFF ASSEMBLY
4", 6", 8", & 10" MAINS

DATE DWG. NO. 515 PAGE NO. 135
NOTES:

1. NO HYDRANT SHALL BE LOCATED WITHIN 6' OF ANY DRIVEWAY, POWER POLE, LIGHT STANDARD, OR ANY OTHER OBSTRUCTION.

2. IF HYDRANT IS TO BE INSTALLED IN AN EXISTING SIDEWALK, A FULL PANEL OF THE SIDEWALK SHALL BE REMOVED AND REPLACED AFTER INSTALLATION OF THE HYDRANT.

3. WHEN R/W AND FIELD CONDITIONS PERMIT, THE FIRE HYDRANT SHALL BE PLACED BEHIND THE SIDEWALK.

SPECIFICATION REFERENCE

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>CONCRETE</td>
</tr>
<tr>
<td>629</td>
<td>WATER DISTRIBUTION FACILITIES</td>
</tr>
<tr>
<td>704</td>
<td>BASE AGGREGATES</td>
</tr>
<tr>
<td>707</td>
<td>JOINT MATERIAL</td>
</tr>
</tbody>
</table>

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

FIRE HYDRANT INSTALLATION

DATE 12-14-00  DWG. NO. 516  PAGE 136
PAVED STREET INSTALLATION

12" RADIUS

1/8" TO 1/4"

CONCRETE COLLAR

#4 BAR ALL AROUND

3/4" OPEN GRADE OR SEAL COAT OVER SLAB

VALVE BOX SEE SPECS.

UNPAVED STREET INSTALLATION

EXISTING GRADE

6"

ADJUSTMENT

RAISE TOP SECTION AND/OR INSTALL RISERS AS NECESSARY. TYLER OR APPROVED EQUAL.

RISER

NOTE:
CONCRETE COLLAR NOT REQUIRED IN UNINCORPORATED CLARK COUNTY RESIDENTIAL STREETS LESS THAN 80' R/W.
# Ounces of Chlorine Compounds Required for Disinfection of 100 Feet of Pipe

<table>
<thead>
<tr>
<th>I.D of Pipe</th>
<th>Volume of Water Gallons per 100 Feet</th>
<th>Quantity Calcium Hypochlorite 70% Available Chlorine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>25 P.P.M.</td>
</tr>
<tr>
<td>4&quot;</td>
<td>65.3</td>
<td>0.31 oz.</td>
</tr>
<tr>
<td>6&quot;</td>
<td>146.5</td>
<td>0.69 oz.</td>
</tr>
<tr>
<td>8&quot;</td>
<td>261.0</td>
<td>1.25 oz.</td>
</tr>
<tr>
<td>10&quot;</td>
<td>408.0</td>
<td>1.95 oz.</td>
</tr>
<tr>
<td>12&quot;</td>
<td>558.7</td>
<td>2.80 oz.</td>
</tr>
<tr>
<td>14&quot;</td>
<td>800.0</td>
<td>3.82 oz.</td>
</tr>
<tr>
<td>16&quot;</td>
<td>1047.0</td>
<td>5.00 oz.</td>
</tr>
<tr>
<td>18&quot;</td>
<td>1300.0</td>
<td>6.40 oz.</td>
</tr>
<tr>
<td>20&quot;</td>
<td>1635.7</td>
<td>7.75 oz.</td>
</tr>
<tr>
<td>24&quot;</td>
<td>2234.8</td>
<td>11.20 oz.</td>
</tr>
</tbody>
</table>

### Specification Reference

**Uniform Standard Drawings**

**Clark County Area**

**Chlorination Requirements**

**Date**

**DWG. No.**

**Page No.**
GENERAL NOTES

1. CONSTRUCTION OPERATIONS SHALL BE CONFINED TO ONE TRAFFIC LANE, LEAVING THE OPPOSITE LANE OPEN TO TRAFFIC. AT LEAST ONE TRAFFIC CONTROL DEVICES MUST BE PLACED AT THE POINT OF WORK AND ONE AT THE END OF THE WORK AREA. THESE DEVICES SHALL BE APPROVED BY THE TRAFFIC ENGINEER. DETAILS FOR TRAFFIC CONTROL DEVICES MUST BE APPROVED BY ANY PROJECT EXPECTED TO EXCEED 1,000 FT. LENGTH.

2. THE FLAGGERS SHALL BE IN VIGILANT AND IN DIRECT COMMUNICATION AT ALL TIMES.

3. MAXIMUM DISTANCES TO BE 200 FT. DIFFERENTIATED BY THE TRAFFIC ENGINEER BUT SHOULD NOT EXCEED 1/4 THE LENGTH OF THE WORK ZONE. ALL TRAFFIC CONTROLS SHALL BE IN CONFORMITY WITH STANDARD DRAWINGS 603, 608, 609, 610, 614, 616, 618, 643, AND OTHER APPROPRIATE DRAWINGS.

4. IF THE WORK ZONE DOES NOT EXCEED 800 FT IN LENGTH, TRAFFIC CONTROL WILL BE IN CONFORMANCE WITH STANDARD DRAWINGS NO. 603, 608, 609, 610, 614, 616, 618, 643, AND OTHER APPROPRIATE DRAWINGS.

5. ALL SIGNS ARE TO BE REMOVED AT THE END OF THE WORK ZONE.

6. FOR DIVIDED ROADS THE REQUIRED ADVANCE WARNING SIGNS SHALL BE POSTED ON BOTH THE RIGHT AND LEFT END OF THE WORK ZONE.

7. FOR MULTILANE ROADS, THE FLAGGER AND THE ADVANCE WARNING SIGNS SHALL BE REQUIRED FOR TRAFFIC APPROACHES FROM THE OPPOSITE DIRECTION. "LEFT LANE CLOSED AHEAD" SIGNS SHALL BE SUBSTITUTED FOR THE "ONE LANE AHEAD" SIGNS.

8. THE CASE ALSO APPLIES WHEN WORK IS BEING PERFORMED IN LANES ADJACENT TO THE CENTER OF AN UNDIVIDED MULTILANE HIGHWAY OR ADJACENT TO THE MEDIAN ON A DIVIDED HIGHWAY. UNDER THESE CONDITIONS, "LEFT LANE CLOSED AHEAD" SIGNS SHALL BE SUBSTITUTED FOR "ONE LANE AHEAD" SIGNS.

9. THE CASE DOES NOT APPLY WHEN WORK IS BEING PERFORMED IN THE MEDIAN OF A SPANNING THE MEDIAN OR ON A HIGHWAY, SIMILAR TRAFFIC CONTROL DETAILS APPROVED BY THE TRAFFIC ENGINEER WILL BE REQUIRED.

10. "ONE LANE ROAD AHEAD" AND FLAGGER SIGNS SHALL BE REMOVED OR COVERED WHEN NO WORK IS BEING PERFORMED.

11. CONSTRUCTION OPERATIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER. THE LATERAL PLACEMENT OF THE FLOODGRENDS MAY BE VARIED FROM THAT SHOWN.

12. IF A CLOSED SECTION OF ROADWAY IS INJECTED IN THE ROADWAY OF THE ROADWAY IS ENCROACHED UPON, THE TRAFFIC ENGINEER'S AUTHORIZATION IS REQUIRED.

13. ALL WORK ZONES SHALL BE MARKED WITH A LINE OF ORANGE CONSTRUCTION, ALL SIGNS MARKING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 118.32.1.1 OF THE UNIFORM CONSTRUCTION CODES AND STANDARDS SPECIFICATIONS.

14. IN MULTILEVEL CONDITIONS, THE FLAGGER AND FLAGGER WARNING SIGNS MARKING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 118.32.1.1 OF THE UNIFORM CONSTRUCTION CODES AND STANDARDS SPECIFICATIONS.

15. TABLE OF SPACING OF ADVANCE WARNING SIGNS

16. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT UA AT 222-0001 AND LOCAL ENTRANCE AT APPROPRIATE NUMBERS LISTED BELOW AT EACH WORK ZONE.

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH TRAFFIC CONTROL SIGN
- TRAFFIC ZONE
- TRAFFIC DIRECTION

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE

SPECIFICATION REFERENCE

RURAL MOVING DAY OPERATIONS WHERE ACTIVITIES ENCROACH ON THE PAVEMENT

TYPICAL APPLICATION FOR

UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA

CLARK COUNTY AREA

DATE 1-3-97

DWG NO. 565 (1 OF 1) PAGE 144
1. NO SPECIAL SIGNING IS REQUIRED.

2. IF THE WORK OPERATION REQUIRE ANY WORK VEHICLES TO CROSS THE 15 FT. CLEAR ZONE, TRAFFIC CONTROLS SHALL CONFORM TO STANDARD DRAWING NO. 307.

3. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACS AT 726-4515 AND LOCAL ENTRY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST 2 WORKING DAYS PRIOR TO BEGINNING WORK.

4. TYPE "F" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.

<table>
<thead>
<tr>
<th>ROAD TYPE</th>
<th>DISTANCE BETWEEN SIGNS (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>URBAN LESS THAN 35 MPH</td>
<td>250</td>
</tr>
<tr>
<td>URBAN 35 MPH OR OVER</td>
<td>350</td>
</tr>
<tr>
<td>RURAL</td>
<td>500</td>
</tr>
<tr>
<td>RURAL/COMMERCIAL</td>
<td>800</td>
</tr>
</tbody>
</table>
GENERAL NOTES

1. IF THE WORK OPERATION DOES NOT EXCEED 24 HOURS, TRAFFIC CONTROL MAY BE IN CONFORMANCE WITH STANDARD DRAWING NO. 833.

2. WORKER SIGNS ARE TO BE REMOVED WHEN NO WORK IS BEING PERFORMED, ANY SATURATED OBJECT OR ELEVATION IN THE WORK AREA WHICH IN THE OPINION OF THE TRAFFIC ENGINEER CONSTITUTES A HAZARD SHALL BE PROTECTED BY BARRIERS WITH FLASHING LIGHTS AT NIGHT AT THE POINT OF HAZARD, STEADY BURNING LIGHTS SHALL BE USED FOR DAYTIME AND A TEMPORARY GUIDANCE, BARRIERS SHALL BE PLACED ACCORDING TO MAXIMUM SPACING VALUES LISTED IN THE TABLE BELOW.

3. TYPE OF HAZARD INFLUENCES WARNING LIGHTS MAY BE INSTALLED AROUND EACH WORK ZONE CONSTRUCTION AREA FOR DURATIONS OF CARRIAGE.

4. IF THE WORK OPERATIONS REQUIRE ANY WORK VEHICLES TO PASS OR LEAVE THROUGH TRAFFIC, A FLASHER SHALL BE PROVIDED AND A FLAGGER SIGN SHALL BE SUBSTITUTED FOR THE WORKER SIGN. A 100 FT. ZONE STAGES SHALL BE PROVIDED PRIOR TO STAGE TO PROTECT THE DRIVER. FLAGGER SIGN IS REQUIRED FOR 5 MPH OR LESS REGARDING. IT EXISTS.

5. LONDDITIONAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER.

6. ALL VEHICLES, EQUIPMENT, WORKERS, AND THEIR ACTIVITIES ARE RESTRICED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.

7. ALL WORKING SIGNS SHALL HAVE BLACK LETTERING AND BORDER GAUZE ORANGE BACKGROUND, ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS COMPLIING WITH SECTION 4.10.1150 OF THE UNIFORM STANDARD SPECIFICATIONS.

8. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

<table>
<thead>
<tr>
<th>ROAD TYPE</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORKERLESS VEHICLES</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>ZONES OF EXHIBIT</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>RURAL</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>EXPRESSWAY</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>

5. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LINCOLN AT 225-8511 AND LOCAL DEPT AT APPROXIMATE NUMBER LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

<table>
<thead>
<tr>
<th>CITY</th>
<th>NEGA</th>
<th>LINCOLN</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELLEVUE</td>
<td>209-6020</td>
<td>225-8511</td>
</tr>
<tr>
<td>CLARK COUNTY</td>
<td>349-9200</td>
<td>349-9200</td>
</tr>
<tr>
<td>HENDERSON</td>
<td>662-6900</td>
<td>662-6902</td>
</tr>
<tr>
<td>NORTH LAS VEGAS</td>
<td>662-6900</td>
<td>662-6902</td>
</tr>
</tbody>
</table>

10. LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NECESSARY.

11. IF WORKSPACE IS IN THE MEDIAN OF A DIVIDED HIGHWAY, AN ADVANCE WARNING SIGN SHOULD ALSO BE PLACED ON THE LEFT SIDE OF THE DIRECTED TRAFFIC.

12. ACCESS FOR CAT TRANSFER DRIVES, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. IF RADIATION OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE NECESSARY WORK ZONE CONSTRUCTION AND BARRIERS. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSIT AUTHORITY CONSTRUCTED AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.
Effective 01/01/09 - 06/30/09

**TABLE FOR SPACING OF ADVANCE WARNING SIGNS**

<table>
<thead>
<tr>
<th>ROAD TYPE</th>
<th>DISTANCE BETWEEN SIGNS (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>300</td>
</tr>
<tr>
<td>Average</td>
<td>600</td>
</tr>
<tr>
<td>Maximum</td>
<td>1000</td>
</tr>
</tbody>
</table>

1. Where the distance between paving and excavating operations is less than 2,000 ft, the above operation(s) may be considered as one work area for warning purposes. When the distance between operations exceeds 2,000 ft, additional warning devices shall be placed as shown, i.e., restricted sight distance conditions. Such additional devices may also be required for distances less than 2,000 ft, at the discretion of the Traffic Engineer.

2. One flagger shall be required for each separate construction operation. For residential streets to 25 mph or less, fladers may be replaced by a monitoring device as directed by the Traffic Engineer.

3. The flagger(s) shall be in sight of each other or in direct communication at all times.

4. No paving or excavating operations shall be performed at night unless authorized by the Traffic Engineer.

5. Maximum distance to be determined by the Traffic Engineer but not to exceed the length of 100 days normal operation.

6. All signs shall be grounded if the working time exceeds four days and as required by Section 225 of the Uniform Standard Specifications.

**GENERAL NOTES**

7. Type E2 high-intensity flashing warning lights may be installed above each horizontal construction zone for use during hours of darkness.

8. Construction dimensions may be adjusted to fit field conditions by the Traffic Engineer. The lateral placement of the flagger may be varied from that shown.

9. All traffic control equipment, workmen, flaggers, and their activities are restricted at all times to one side of the roadway unless otherwise authorized by the Traffic Engineer.

10. All warning signs shall have black legend and background on an orange background. All signs having an orange color shall be made of materials conforming to Section 225 of the Uniform Standard Specifications.

11. All deviates shown in a taper or tangent line shall be of one type. Deviates shall not be used by type.

12. If working at or near a traffic signal, contact city of Las Vegas (702) 228-9111 and local entity at appropriate number listed below at least two working days prior to beginning work.

**SYMBOLS**

- Work Area
- Flagger with traffic control sign
- Flagger with steady burning light
- Traffic zone
- Traffic direction

13. Flashing lights should be provided to mark flagger stations at night as needed.

14. Access for maintenance service, pedestrians and bicyclists shall be maintained throughout. Variances of construction, if required, and access is necessary, the contractor shall provide the traffic control engineer with a plan showing the proposed modifications for approval. If construction operations affect any bus stop or facility the contractor shall notify the municipal transportation division a minimum of 30 normal working days prior to beginning such operations.

**TYPICAL APPLICATION FOR**

2-LANE, 2-WAY, RURAL OR SUBURBAN, DAY OR NIGHT PAVEMENT WIDENING

**UNIFORM STANDARD DRAWINGS**

CLARK COUNTY AREA

**DATE** 1-3-97

**SPECIFICATION REFERENCE**

Boulder City 39345000
Las Vegas 39345010
Henderson 53524100

**DWG NO. 611 (1 OF 1) PAGE 150**
TYPICAL APPLICATIONS
LANDSCAPING WORK
UTILITY WORK
FENCING CONTRACTS AND MAINTENANCE
CASHING CUSTOMER

GENERAL NOTES
1. NO SPECIAL SIGNING IS REQUIRED.
2. IF THE WORK OPERATION REQUIRE TWO OR MORE WORK VEHICLES CROSS THE 15 FT CLEAR ZONE IN ANY ONE HOUR TRAFFIC CONTROL
   WILL BE IN CONFORMANCE WITH Vehicular Signalling No. 355.
3. THIS CASE ALSO APPLIES TO WORK PERFORMED IN THE MEDIAN MORE
   THAN 15 FT FROM EITHER PAVEMENT.
4. IF WORKER OR VEHICLE TRAFFIC TURNS CONTACT CLARK COUNTY
   AND LOCATE AN APPROPRIATE NUMBER OF SIGNS AT LEAST TWO
   WORKING DAYS PRIOR TO WORKING YEARS.
   BULLENDER CITY 3854405 MESQUITE 385-3295
   CLARK COUNTY 4564020 NORTH LAS VEGAS 456-2420
   HENDERSON 685-2420 LAS VEGAS 2254001
5. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE
   EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.

SYMBOLS
\[\text{SKIN ON PORTABLE OR PERMANENT SUPPORT}\]
\[\text{TRAFFIC DIRECTION}\]

TRAFFIC CONTROL PLAN
FOR
HIGHWAY WORK ZONE

SPECIFICATION REFERENCE

TYPICAL APPLICATION FOR
MULTILINE, DIVIDED OR UNDIVIDED, RURAL OR SUBURBAN, DAY OR NIGHT
OPERATIONS WHERE ACTIVITIES ARE MORE THAN 15 FT FROM EDGE OF PAVEMENT

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DATE 1-8-97
DWG NO. 014 (1 OF 1) PAGE 153

Effective 01/01/09 - 06/30/09
SLOW VEHICLE AHEAD
USE LEFT LANE
GENERAL NOTES

1. TAPER FORMULA:

\[ L = \frac{B \times N}{100} \]  
\[ W = \frac{L \times N}{100} \]

WHERE:

- \( L \) = Minimum Length of Taper
- \( W \) = Ported Speed, in Percentile Speed Prior to Work Area on an Unliｍited Access Highway
- \( N \) = Width of Offset

2. The Maximum Spacing Between Obstacles or Devices in a Taper shall be as specified in Table 1 in note 1.

3. Type I - High Intensity Flashing Warning Lights May Be Installed Above Each Work Zone Construction Sign For Use During Hours of Darkness.

4. All Warnings Signs Shall Have Black Letters and Border on an Orange Background. All Signs Having an Orange Color Shall Be Made of Material Complying With Section 715.232.1 of the Uniform Standard Specifications.

5. A Buffer Space Should Be Required As Follows:

<table>
<thead>
<tr>
<th>Buffer Space (ft)</th>
<th>Buffer Width (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>150</td>
</tr>
<tr>
<td>30</td>
<td>165</td>
</tr>
<tr>
<td>35</td>
<td>180</td>
</tr>
<tr>
<td>40</td>
<td>200</td>
</tr>
<tr>
<td>45</td>
<td>220</td>
</tr>
<tr>
<td>50</td>
<td>240</td>
</tr>
<tr>
<td>55</td>
<td>260</td>
</tr>
<tr>
<td>60</td>
<td>280</td>
</tr>
<tr>
<td>70</td>
<td>300</td>
</tr>
<tr>
<td>80</td>
<td>320</td>
</tr>
<tr>
<td>90</td>
<td>340</td>
</tr>
<tr>
<td>100</td>
<td>360</td>
</tr>
<tr>
<td>110</td>
<td>380</td>
</tr>
<tr>
<td>120</td>
<td>400</td>
</tr>
<tr>
<td>130</td>
<td>420</td>
</tr>
<tr>
<td>140</td>
<td>440</td>
</tr>
<tr>
<td>150</td>
<td>460</td>
</tr>
<tr>
<td>160</td>
<td>480</td>
</tr>
<tr>
<td>170</td>
<td>500</td>
</tr>
<tr>
<td>180</td>
<td>520</td>
</tr>
<tr>
<td>190</td>
<td>540</td>
</tr>
<tr>
<td>200</td>
<td>560</td>
</tr>
<tr>
<td>210</td>
<td>580</td>
</tr>
<tr>
<td>220</td>
<td>600</td>
</tr>
<tr>
<td>230</td>
<td>620</td>
</tr>
<tr>
<td>240</td>
<td>640</td>
</tr>
<tr>
<td>250</td>
<td>660</td>
</tr>
<tr>
<td>260</td>
<td>680</td>
</tr>
<tr>
<td>270</td>
<td>700</td>
</tr>
<tr>
<td>280</td>
<td>720</td>
</tr>
<tr>
<td>290</td>
<td>740</td>
</tr>
<tr>
<td>300</td>
<td>760</td>
</tr>
<tr>
<td>310</td>
<td>780</td>
</tr>
<tr>
<td>320</td>
<td>800</td>
</tr>
<tr>
<td>330</td>
<td>820</td>
</tr>
<tr>
<td>340</td>
<td>840</td>
</tr>
<tr>
<td>350</td>
<td>860</td>
</tr>
<tr>
<td>360</td>
<td>880</td>
</tr>
<tr>
<td>370</td>
<td>900</td>
</tr>
<tr>
<td>380</td>
<td>920</td>
</tr>
<tr>
<td>390</td>
<td>940</td>
</tr>
<tr>
<td>400</td>
<td>960</td>
</tr>
</tbody>
</table>

6. All Signs Establishing a Taper or Tangent Line Shall Be of One Type; Devices Shall Not Be Used By Type.


8. PAVEMENT MARKINGS THAT SHALL BE PROVIDED FOR A LIMITED ACCESS HIGHWAY.


10. During Hours of Darkness, Steady Warning Warning Lights Shall Be Used on All Channelizing Devices.

SYMBOLS

- Arrow Panel
- Flashing Vehicle Light
- Pave Marking That Shall Be Provides for a Limited Access Highway
- Sunlight Reflectors and Traffic Control Signs Shall Be Used as Required
- Work Area

TRAFFIC CONTROL PLAN

FOR

HIGHWAY WORK ZONE

SPECIFICATION REFERENCE

TYPICAL APPLICATION FOR

MULTILANE, UNDIVIDED, RURAL OR SUBURBAN, DAYTIME OPERATIONS WITH A WORK AREA IN THE LEFT LANE, ALLOWING WORK ACCESS FROM ADJACENT LANE

UNIFORM STANDARD DRAWINGS

CLARK COUNTY AREA

DATE

1-3-97

DWG NO.

619

(1 of 1)

PAGE

156
A. TYPICAL APPLICATION: ROADWAY CLOSED BEYOND DETOUR POINT.

GENERAL NOTES

1. ANY ROAD CLOSURE MUSr BE EXPRESSLY PERMITTED BY THE ADMINISTRATIVE TRAFFIC MANAGEMENT SUPERVISOR OR THE SUPERVISOR OF THE PUBLIC WORKS DEPARTMENT.

2. ALL CONSTRUCTION WORK ZONES SHALL HAVE BLACK LEGENDS AND BORDERS ON ALL SIGNAGE IMPLANTING THE DETAILS OF THE ROAD WORK ZONE. THE LEGEND AND BORDERS SHALL BE IN COMPLIANCE WITH SECTION 1202.21 OF THE UNIFORM STANDARD SPECIFICATIONS.

3. REGULATORY TRAFFIC CONTROL DEVICES TO BE PLACED AS NEEDED FOR THE SAFETY OF THE WORK ZONE.

4. WORK AREA LIGHTS MAY BE USED AT NIGHT AS NECESSARY.

5. STREET SIGNS MAY BE USED WHEN DESIRABLE FOR DIRECTING TRAFFIC. TRAFFIC CONTROL LIGHTS USED FOR STREET NAME SHALL BE IN COMPLIANCE WITH SECTION 1202.21 OF THE UNIFORM STANDARD SPECIFICATIONS.

6. IF WORK IS AT OR NEAR A TRAFFIC SIGNAL, CONTACT YOUR CITY AT 324-4690 AND LOCAL, AND THE DISTRICT NO. LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

B. TYPICAL APPLICATION: DETOUR SIGNING FOR ROAD CONSTRUCTION PROJECT IN A STREET GRID.

8. ACCESS TO CIVIC TECHNOLOGY CENTER, RESIDENTIAL AND MEDICAL BUILDINGS SHALL BE AVAILABLE THROUGHOUT THE DURATION OF CONSTRUCTION. IF ACCESS TO CIVIC TECHNOLOGY CENTER IS NECESSARY, THE CONTRACTOR SHALL PROVIDE A MAP SHOWING THE PROPOSED DETOUR ROUTE. THE CONTRACTOR SHALL POST A SIGN FROM 6 AM TO 10 PM AT 4354-4501 AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING SUCH OPERATION.

9. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

<table>
<thead>
<tr>
<th>ROAD TYPE</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>STREET</td>
<td>0.5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>HIGHWAY</td>
<td>0.5</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

TRAFFIC CONTROL PLAN

FOR

HIGHWAY WORK ZONE

SPECIFICATION REFERENCE

TYPICAL APPLICATION FOR

2-LANE, 2-WAY, RURAL OR SUBURBAN, DAY OR NIGHT ROAD CLOSURE

UNIFORM STANDARD DRAWINGS

CLARK COUNTY AREA

DATE 1-9-97

DWG NO. 523 (1 OF 1) PAGE 152
**STANDARD PROCEDURE & CONDITIONS WHICH, WHEN MET, ELIMINATE THE NEED FOR INDIVIDUAL TRAFFIC CONTROL PLAN AND/OR PERMIT**

<table>
<thead>
<tr>
<th>DEVICE OR PARAMETER</th>
<th>SITUATION/CASE #</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. MINIMUM 60 IN. WIDE FLASHER BAR AT TOP VEHICLE, WITH GREATER THAN 4 LIGHT ELEMENTS VISIBLE TO APPROACHING TRAFFIC</strong></td>
<td>1 2 3 4</td>
</tr>
<tr>
<td><strong>B. CONES SET OUT BEHIND VEHICLE</strong></td>
<td>3, ACROSS BLOCKED LANE</td>
</tr>
<tr>
<td><strong>C. TURN ON VEHICLE'S EMERGENCY HAZARD FLASHERS</strong></td>
<td>1 2 3 4</td>
</tr>
<tr>
<td><strong>D. ALL PERSONNEL WEAR ORANGE VESTS OR SHIRTS WHEN OUTSIDE OF VEHICLE</strong></td>
<td>ALWAYS ALWAYS ALWAYS ALWAYS</td>
</tr>
<tr>
<td><strong>E. O.K. FOR NIGHTTIME DEPLOYMENT?</strong></td>
<td>NO</td>
</tr>
<tr>
<td><strong>F. WATER-FILLED CRASH CUSHION, OR EQUIVALENT; TRUNK OR TRAILER-MOUNTED IMPACT ATTENUATORS</strong></td>
<td>RECOMMENDED, BUT MANDATORY WHEN SPEED LIMIT EXCEEDS 45 MPH</td>
</tr>
<tr>
<td><strong>G. NO STOPPING UNLESS STOPPED VEHICLE IS VISIBLE TO APPROACHING TRAFFIC GREATER THAN 10 SECONDS AT SPEED LIMIT</strong></td>
<td>YES, APPLY THIS RULE</td>
</tr>
<tr>
<td><strong>H. O.K. TO SET UP DURING PEAK TRAVEL HOURS: 7-9 AM, 4-6 PM</strong></td>
<td>YES, BUT ONLY FOR EMERGENCY-TYPE REPAIR ACTIVITIES</td>
</tr>
</tbody>
</table>

**NOTE:** TYPICAL APPLICATION IS FOR LANDSCAPE OR UTILITY ACTIVITIES.
**GENERAL NOTES:**

1. SPECIAL "NO PARKING" SIGNS SHALL BE PLACED ON FIRST BARRIERS AND ON EVERY OTHER BARRIERS SIMILARLY.

2. BARRIERS SHALL NOT BLOCK DRIVING LANE OR ACCESSIBLE PAVING PRIOR TO MAINTENANCE WORK.

3. SPECIAL "NO PARKING" SIGNS SHALL BE PLACED ON FIRST BARRIERS FOLLOWING SPACE PROVIDED FOR STOPLINES.

4. BARRIERS MAY BE PLACED ON PAVEMENT OR ON SIDEWALK AT THE DISCRETION OF THE DEPARTMENT. NO PARKING SIGNS PLACED ON SIDEWALK SHALL NOT BE SET AT AN ANGLE NO GREATER THAN 30 DEGREES WITH THE LINE OF TRAFFIC TO BE VISIBLE TO APPROACHING TRAFFIC A MINIMUM OF 3 FT CLEAR SPACE ON SIDEWALK SHALL BE PROVIDED ON EITHER SIDE OF SIGNS. THE AMERICANS WITH DISABILITIES ACT WHEN BARRIERS ARE PLACED ON SIDEWALKS.

5. "NO PARKING" SIGNS AND BARRIERS SHOULD BE PLACED IN AREA OF PRIMARY FAINT AT LEAST 24 HOURLS IN ADVANCE OF WORK BEGINNING. NOTIFICATION OF PERSONS AFFECTED BY STREET WORK SHALL BE PERFORMED AS REQUIRED BY RESPECTIVE SAFETY AND HANDLING REGULATIONS.

6. ALL BARRIERS AND "NO PARKING" SIGNS SHALL BE REMOVED AS SOON AS IMPROVED SURFACE IS READY FOR TRAFFIC AS DETERMINED BY THE ENGINEER.
BEGIN WORK ZONE

SPEEDING PENALTIES DOUBLED

END WORK ZONE

SIGN AND LETTERING SIZE TABLE

<table>
<thead>
<tr>
<th>SPEED LIMIT</th>
<th>&quot;N&quot; (IN.)</th>
<th>&quot;N&quot; (IN.)</th>
<th>LETTERING &quot;SPEED LIMIT&quot; SIGN</th>
<th>LETTERING &quot;BEGIN WORK ZONE&quot; SIGN</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 MPH OR LESS</td>
<td>16</td>
<td>24</td>
<td>4 INCH SERIES 1&quot;</td>
<td>4 INCH SERIES 1&quot;</td>
</tr>
<tr>
<td>GREATEDER THAN 35 MPH</td>
<td>20</td>
<td>24</td>
<td>4 INCH SERIES 1&quot;</td>
<td>4 INCH SERIES 1&quot;</td>
</tr>
</tbody>
</table>

GENERAL NOTES:

1. REFLECTIVE HIGH SHIELDING SHALL COMPLY TO SUBSECTION 6F.770.3.01.1, LATEST REVISION, OF THE UNIFORM STANDARD SPECIFICATIONS.

2. SIGN LEGENDS AND BORDERS SHALL COMPLY WITH THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

3. SIGNS SHALL BE MOUNTED IN SAME MANNER AS OTHER CONSTRUCTION SIGNS IN THIS WORK ZONE.

4. "BEGIN WORK ZONE" AND "SPEEDING PENALTIES DOUBLED" SIGNS SHALL BE MOUNTED TOGETHER ON SAME DEVICE OR POST AND SHALL BE LOCATED AFTER THE FIRST SIGN IN THE CONSTRUCTION SIGN SERIES, TYPICALLY THE "ROAD WORK AHEAD" SIGN, OR AS DIRECTED BY THE TRAFFIC ENGINEER.

5. "END WORK ZONE" SIGN SHALL BE MOUNTED AT THE END OF THE WORK ZONE WITH THE "END ROAD WORK" SIGN, IF APPLICABLE, ON THE SAME DEVICE OR POST, OR AS DIRECTED BY THE TRAFFIC ENGINEER.