STANDARD DRAWINGS

TOWN OF YUMCA VALLEY, CALIFORNIA

Introduction

The Street Improvement Standards presented herein have been developed to provide assistance to Engineers, Architects, and Developers when preparing Development plans in conjunction with Development Code and General Plan requirements.

General Street Plan

Street Classifications are shown on the General Plan, a copy of those are provided herein. Streets not indicated by an appropriate symbol are classified as minor streets with a minimum right-of-way width of sixty (60) feet, except rural streets, fifty (50) feet. Where proposed street improvements join existing non-standard improvements, the Community Development Department, Engineering Division, should be contacted for design details and width requirements. Conferences with the Town Planning and Engineering staff are encouraged for all projects prior to preparation of final working drawings.

Town Participation

In the following circumstances, Town participation to defray the cost of required street improvements is authorized subject to prior approval by the Town Council:

1. 100% of the cost of relocating or modifying existing traffic signals unless required as part of the Development Conditions of Approval.
2. For assessment districts with frontage or side frontage on major or secondary thoroughfares, the cost of all asphalt concrete paving in excess of twenty (20) feet in width, measured on one side of street centerline.
3. 100% of the cost of all asphalt concrete paving on the opposite side of street centerline from the project, unless required as part of the Development Conditions of Approval.

Dedication of Right of Way

Street right-of-way dedications required by the Development Code and General Street Plan are measured from the centerline of the street. Unless otherwise approved by Resolution of the Town Council, centerline shall be determined as follows:

1. All section line streets – the section line.
2. All subdivisions – for interior streets the center of the right-of-way dedicated on the subdivision map, for boundary half-streets, the tract boundary.
3. All quarter section line streets – the North-South and East-West midsection lines.
4. All other street in the following order of precedence:
   - As shown on the General Street Plan.
   - Along property lines.
   - By negotiation between Developer and Town.

Plats and deeds for dedication of right-of-way for private projects shall be prepared by the Developer’s Engineer, and for the Town projects by the Engineering Division.

**Replacement of Non-Standard Improvements**

Unless otherwise approved by the Planning Commission and/or Town Council, non-standard existing street improvement shall be removed and replaced with standard improvements. Non-standard improvements are defined as roll curbs; curb and gutter to improper line, grade, or distance from centerline; defective asphalt concrete paving, berm, and Portland cement concrete work of all types; and curb radii less than twenty-five (25) feet.

**Special Sub-Grade Conditions**

Standard Plans which indicate compacted native base under asphalt concrete paving are based on an “R” value of 60 or higher and represent approximately 95% of prevailing native soil in the area. Subgrade over a base with an “R” value below 60 shall be designed by the Engineer after consultation with the Town Engineer regarding the traffic index of the street in question.

**Maintenance of Street Improvements**

Improvements within the dedicated right-of-way shall be maintained by the Town except as follows:

1. Those streets that are not recognized as part of the Maintained Road System.
2. Private streets (easements for emergency services and utilities) shall be maintained by the Owner.

**Placement of Walls or Fences on Front or Side Property Line**

Height and placement of walls and fences shall be in accordance with the Development Code. Landscaping required on the street side of a wall or fence shall be placed outside of the street right-of-way and the wall or fence set back from the property line sufficiently to accommodate the landscaping, the parkway...
area between the back of the sidewalk and the property line shall be landscaped and maintained by the Developer and his or her successors, subject to prior approval of the Planning Division and the issuance of an encroachment permit. Structures in the right-of-way extending above the finished grade line shall not be allowed.

**Utilities**

All utilities shall be installed in the street prior to pavement construction.

**Permits Required**

Prior to commencement of construction work in the street right-of-way, an Encroachment Permit shall be obtained from the Engineering Division, subject to payment of a fee in accordance with the Comprehensive Fee Schedule of the Town of Yucca Valley.

**Future Standard Drawings**

From time to time revisions to the Standard Drawings will be made and new standards added. Each recipient of the Standard Drawings should determine that his booklet is kept current. Notice of revisions or additions to the Standard Drawings will be posted on the Town of Yucca Valley website and made available to all Standard Drawing holders.

**Purchase of Standard Drawings**

Standard Drawings may be purchased from the Engineering Division, at the following prices:

Town of Yucca Valley Standard Drawings for Public Works Construction $30.00 each.
Standard Drawings

Section 1 – Typical Street Sections

<table>
<thead>
<tr>
<th>Drawing No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Local</td>
</tr>
<tr>
<td>102</td>
<td>Collector with Striped Median</td>
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<td>103</td>
<td>Collector with Bike Path</td>
</tr>
<tr>
<td>104</td>
<td>Arterial – 4 Lanes Divided</td>
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<tr>
<td>104A</td>
<td>Arterial – 2 Lanes Divided</td>
</tr>
<tr>
<td>105</td>
<td>Highway – 4 Lanes Divided</td>
</tr>
<tr>
<td>106</td>
<td>Highway – 6 Lanes Divided</td>
</tr>
<tr>
<td>107</td>
<td>Local Hillside Paved Road</td>
</tr>
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<td>108</td>
<td>Graded Road</td>
</tr>
<tr>
<td>109</td>
<td>Rural Local Street</td>
</tr>
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<td>110</td>
<td>Industrial</td>
</tr>
<tr>
<td>111</td>
<td>Local Intersection Design “L” Shape</td>
</tr>
<tr>
<td>112</td>
<td>Local Street Cul-de-sac</td>
</tr>
<tr>
<td>120</td>
<td>Intersection Design Rural Local Road</td>
</tr>
<tr>
<td>121</td>
<td>Driveway Grades</td>
</tr>
</tbody>
</table>

Section 2 – Curb and Gutter, Sidewalk and Asphalt Concrete Details

<table>
<thead>
<tr>
<th>Drawing No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>Curb and Gutter</td>
</tr>
<tr>
<td>201</td>
<td>8” Curb and Gutter</td>
</tr>
<tr>
<td>202</td>
<td>Asphalt Concrete Dike</td>
</tr>
<tr>
<td>203</td>
<td>Traversable Dike</td>
</tr>
<tr>
<td>210</td>
<td>Residential Driveway Approach Without Curb</td>
</tr>
<tr>
<td>211</td>
<td>Residential Driveway Approach With Curb</td>
</tr>
<tr>
<td>212</td>
<td>Commercial Driveway Approach Without Curb</td>
</tr>
<tr>
<td>213</td>
<td>Commercial Driveway Approach With Curb</td>
</tr>
<tr>
<td>214</td>
<td>Driveway Spacing</td>
</tr>
<tr>
<td>220</td>
<td>Sidewalk</td>
</tr>
<tr>
<td>221</td>
<td>Wheelchair Ramp</td>
</tr>
<tr>
<td>222</td>
<td>Sidewalk Ramp</td>
</tr>
<tr>
<td>230</td>
<td>Cross Gutter and Spandrel</td>
</tr>
<tr>
<td>231</td>
<td>Alley</td>
</tr>
<tr>
<td>240</td>
<td>Street Pavement Design</td>
</tr>
<tr>
<td>241</td>
<td>Trench Pavement Replacement Detail</td>
</tr>
<tr>
<td>242</td>
<td>Median Island Treatment</td>
</tr>
<tr>
<td>242A</td>
<td>Median Island Treatment – Planting/Irrigation/Ground Cover</td>
</tr>
<tr>
<td>242B</td>
<td>Median Island Treatment – Alternate Landscaping &amp; Concrete Areas</td>
</tr>
</tbody>
</table>
### Section 3 – Utility, Street Light, and Sign Details

<table>
<thead>
<tr>
<th>Drawing No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>Street Light for Major and Arterial Streets</td>
</tr>
<tr>
<td>301</td>
<td>Street Light for Collector Streets</td>
</tr>
<tr>
<td>302</td>
<td>Street Light for Local Streets</td>
</tr>
<tr>
<td>303</td>
<td>Street Light Concrete Footing Details</td>
</tr>
<tr>
<td>304</td>
<td>Traffic Signal Pull Box Installation</td>
</tr>
<tr>
<td>305</td>
<td>Street Lighting General Notes</td>
</tr>
<tr>
<td>310</td>
<td>Fire Hydrant Location</td>
</tr>
<tr>
<td>311</td>
<td>Utility Valve Cover Installation</td>
</tr>
<tr>
<td>320</td>
<td>Underground Utility Location</td>
</tr>
<tr>
<td>321</td>
<td>Street Marker</td>
</tr>
<tr>
<td>322</td>
<td>Street Name Sign &amp; Post</td>
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</tbody>
</table>

### Section 4 – Storm Drain and Drainage Details

<table>
<thead>
<tr>
<th>Drawing No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>400</td>
<td>Local Depression</td>
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<td>401</td>
<td>Local Depression</td>
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<td>402</td>
<td>Local Depression No. 2</td>
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<tr>
<td>403</td>
<td>Local Depression No. 3</td>
</tr>
<tr>
<td>404</td>
<td>Curb Outlet Structure</td>
</tr>
<tr>
<td>405</td>
<td>Outlet Structure</td>
</tr>
<tr>
<td>406</td>
<td>Parkway Culvert with Steel Pate Cover</td>
</tr>
<tr>
<td>410</td>
<td>Junction Structure No. 1</td>
</tr>
<tr>
<td>411</td>
<td>Junction Structure No. 2</td>
</tr>
<tr>
<td>411A</td>
<td>Junction Structure No. 2</td>
</tr>
<tr>
<td>412</td>
<td>Junction Structure No. 3</td>
</tr>
<tr>
<td>413</td>
<td>Junction Structure No. 4</td>
</tr>
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<td>414</td>
<td>Junction Structure No. 5</td>
</tr>
<tr>
<td>415</td>
<td>Junction Structure No. 6</td>
</tr>
<tr>
<td>416</td>
<td>Junction Structure No. 7</td>
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<tr>
<td>420</td>
<td>Transition Structure No. 1</td>
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<tr>
<td>421</td>
<td>Transition Structure No. 2</td>
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<tr>
<td>422</td>
<td>Transition Structure No. 3</td>
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<tr>
<td>423</td>
<td>Transition Structure No. 4</td>
</tr>
<tr>
<td>430</td>
<td>Connector Pipe Collar</td>
</tr>
<tr>
<td>431</td>
<td>Concrete Collar for Pipe 12 Inches Through 66 Inches</td>
</tr>
<tr>
<td>440</td>
<td>Headwall Wing – Type</td>
</tr>
<tr>
<td>441</td>
<td>Headwall “U” – Type</td>
</tr>
<tr>
<td>450</td>
<td>Cutoff Wall for Drainage Channel</td>
</tr>
<tr>
<td>451</td>
<td>Channel Crossing</td>
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<tr>
<td>460</td>
<td>Inlet Type X (Grate Details)</td>
</tr>
<tr>
<td>Drawing No.</td>
<td>Description</td>
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<tr>
<td>-------------</td>
<td>-------------</td>
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<tr>
<td>461</td>
<td>Inlet Type IX (Checkered Plate)</td>
</tr>
<tr>
<td>462</td>
<td>Storm Drain Cleanout</td>
</tr>
<tr>
<td>463</td>
<td>Standard Dry Well</td>
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<tr>
<td>464</td>
<td>Timber Bulkheads</td>
</tr>
<tr>
<td>465</td>
<td>Timber Bulkheads</td>
</tr>
<tr>
<td>466</td>
<td>Concrete Bulkheads</td>
</tr>
<tr>
<td>467</td>
<td>Pipe Supports Across Trenches</td>
</tr>
<tr>
<td>468</td>
<td>Bedding and Pay Lines</td>
</tr>
<tr>
<td>470</td>
<td>Catch Basin No. 1</td>
</tr>
<tr>
<td>471</td>
<td>Catch Basin No. 4 (Sht. 1 of 2)</td>
</tr>
<tr>
<td>471A</td>
<td>Catch Basin No. 4 (Sht. 2 of 2)</td>
</tr>
<tr>
<td>472</td>
<td>Catch Basin No. 6</td>
</tr>
<tr>
<td>473</td>
<td>Catch Basin Reinforcement</td>
</tr>
<tr>
<td>474</td>
<td>Special Connections to Catch Basin</td>
</tr>
<tr>
<td>475</td>
<td>Type “A” Catch Basin</td>
</tr>
<tr>
<td>476</td>
<td>Catch Basin Mountain Roads</td>
</tr>
<tr>
<td>476A</td>
<td>Catch Basin Mountain Roads</td>
</tr>
<tr>
<td>477</td>
<td>Catch Basin Grate</td>
</tr>
<tr>
<td>480</td>
<td>Catch Basin Opening</td>
</tr>
<tr>
<td>480A</td>
<td>Catch Basin Steel Plate Galvanized Steel Step</td>
</tr>
<tr>
<td>481</td>
<td>Removable Protection Bar for Catch Basins</td>
</tr>
<tr>
<td>481A</td>
<td>Detail of Catch Basin Opening &amp; Installation Details</td>
</tr>
<tr>
<td>482</td>
<td>Standard Drop Step</td>
</tr>
<tr>
<td>483</td>
<td>Manhole Frame &amp; Cover for Catch Basins</td>
</tr>
<tr>
<td>490</td>
<td>Storm Drain Manhole No. 1 (Sht. 1 of 2)</td>
</tr>
<tr>
<td>490A</td>
<td>Storm Drain Manhole No. 1 (Sht. 2 of 2)</td>
</tr>
<tr>
<td>491</td>
<td>Storm Drain Manhole No. 2</td>
</tr>
<tr>
<td>492</td>
<td>Storm Drain Manhole No. 3</td>
</tr>
<tr>
<td>493</td>
<td>Storm Drain Manhole No. 4</td>
</tr>
<tr>
<td>493A</td>
<td>Storm Drain Manhole No. 4</td>
</tr>
<tr>
<td>494</td>
<td>Manhole Shaft for Cast Pipe</td>
</tr>
<tr>
<td>495</td>
<td>Standard Pressure Manhole Shaft</td>
</tr>
<tr>
<td>496</td>
<td>Manhole Frame &amp; Cover – Roadway</td>
</tr>
<tr>
<td>497</td>
<td>Manhole Frame &amp; Cover – Parkway</td>
</tr>
<tr>
<td>498</td>
<td>Manhole Frame &amp; Cover – Non-Rocking</td>
</tr>
<tr>
<td>499</td>
<td>Manhole Frame &amp; Cover – Pressure Type</td>
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<tr>
<td>493A</td>
<td>Storm Drain Manhole No. 4</td>
</tr>
</tbody>
</table>
### Section 5 – Miscellaneous Details

<table>
<thead>
<tr>
<th>Drawing No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>Single Mailbox Installation</td>
</tr>
<tr>
<td>501</td>
<td>Multiple Mailbox Installation for New Sidewalk</td>
</tr>
<tr>
<td>501A</td>
<td>Multiple Mailbox Installation for Existing Sidewalk</td>
</tr>
<tr>
<td>510</td>
<td>Metal Beam Guardrail</td>
</tr>
<tr>
<td>511</td>
<td>Metal Plate Guardrail</td>
</tr>
<tr>
<td>520</td>
<td>Traffic Safety Markers</td>
</tr>
<tr>
<td>521</td>
<td>Post with Reflector</td>
</tr>
<tr>
<td>522</td>
<td>End of Street Temporary Pavement</td>
</tr>
<tr>
<td>522A</td>
<td>Barricade Rural Area</td>
</tr>
<tr>
<td>523</td>
<td>Street Marker Post Installation</td>
</tr>
<tr>
<td>530</td>
<td>Standard Trash Enclosure</td>
</tr>
<tr>
<td>540</td>
<td>Non Retaining Concrete Blockwall</td>
</tr>
<tr>
<td>550</td>
<td>Pipe Swing Gate</td>
</tr>
<tr>
<td>M1</td>
<td>Copperweld Monument</td>
</tr>
<tr>
<td>M2</td>
<td>Sectional Monuments</td>
</tr>
<tr>
<td>M3</td>
<td>Centerline Ties</td>
</tr>
</tbody>
</table>
## Section 1 – Typical Street Sections

<table>
<thead>
<tr>
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<td>Arterial – 4 Lanes Divided</td>
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<td>111</td>
<td>Local Intersection Design “L” Shape</td>
</tr>
<tr>
<td>112</td>
<td>Local Street Cul-de-sac</td>
</tr>
<tr>
<td>120</td>
<td>Intersection Design Rural Local Road</td>
</tr>
<tr>
<td>121</td>
<td>Driveway Grades</td>
</tr>
</tbody>
</table>
TYPICAL SECTION

LEVEL

TYPICAL SECTION

TILT

NOTES:

① CURB AND GUTTER PER STD. DWG. NO. 200
② A.C. DIKE PER STD DWG. NO 202  **
③ SIDEWALK PER STD. DWG. NO. 220
④ PAVEMENT SECTION PER STD. DWG. NO. 240

* SIDEWALK REQUIREMENT PER DEVELOPMENT CODE
** LIMITED USE, SHORT TERM IMPROVEMENT PROJECTS

APPROVED: DIRECTOR OF PUBLIC WORKS

APPROVED: TOWN ENGINEER

REVISED TO REFLECT CURRENT GENERAL PL. — N— 8/24/16

STANDARD DRAWING NO. 101
TYPICAL SECTION

NOTES:
1. CURB AND GUTTER PER STD. DWG. NO. 200
2. A.C. DIKE PER STD DWG. NO 202  **
3. SIDEWALK PER STD. DWG. NO. 220
4. PAVEMENT SECTION PER STD. DWG. NO. 240

* SIDEWALK REQUIREMENT PER DEVELOPMENT CODE
** LIMITED USE, SHORT TERM IMPROVEMENT PROJECTS

APPROVED: DIRECTOR OF PUBLIC WORKS

DATE 11/17/16

APPROVED: TOWN ENGINEER

R.C.E. 39827

REVISED TO REFLECT CURRENT GENERAL PL. --N-- 8/24/16

STANDARD DRAWING NO. 102
NOTES:

1. CURB AND GUTTER PER STD. DWG. NO. 200
2. A.C. DIKE PER STD DWG. NO 202  **
3. SIDEWALK PER STD. DWG. NO. 220
4. PAVEMENT SECTION PER STD. DWG. NO. 240

* SIDEWALK REQUIREMENT PER DEVELOPMENT CODE
** LIMITED USE, SHORT TERM IMPROVEMENT PROJECTS
*** 14' WIDE SIDEWALK SHALL FUNCTION AS BIKE PATH
TYPICAL SECTION

NOTES:

1. CURB AND GUTTER PER STD. DWG. NO. 200
2. A.C. BIKE PER STD. DWG. NO. 200 **
3. SIDEWALK PER STD. DWG. NO. 220
4. PAVEMENT SECTION PER STD. DWG. NO. 240
5. MEDIAN CURB PER STD. DWG. NO. 200A
6. MEDIAN ISLAND LANDSCAPING PER STD. DWG. NO. 242, 242A AND 242B

* SIDEWALK REQUIREMENT PER DEVELOPMENT CODE
** LIMITED USE, SHORT TERM IMPROVEMENT PROJECTS
TYPICAL SECTION

NOTES:

1. CURB AND GUTTER PER STD. DWG. NO. 200
2. A.C. DIKE PER STD. DWG. NO. 202 **
3. SIDEWALK PER STD. DWG. NO. 220
4. PAVEMENT SECTION PER STD. DWG. NO. 240
5. MEDIAN CURB PER STD. DWG. NO. 200A
6. MEDIAN ISLAND LANDSCAPING PER STD. DWG. NO. 242, 242A, AND 242B

* SIDEWALK REQUIREMENT PER DEVELOPMENT CODE
** LIMITED USE, SHORT TERM IMPROVEMENT PROJECTS
TYPICAL SECTION

NOTES:

1. CURB AND GUTTER PER STD. DWG. NO. 200
2. A.C. DIKE PER STD. DWG. NO. 202 **
3. SIDEWALK PER STD. DWG. NO. 220
4. PAVEMENT SECTION PER STD. DWG. NO. 240
5. MEDIAN CURB PER STD. DWG. NO. 200A
6. MEDIAN ISLAND LANDSCAPING PER STD. DWG. NO. 242, 242A, AND 242B

* SIDEWALK REQUIREMENT PER DEVELOPMENT CODE
** LIMITED USE, SHORT TERM IMPROVEMENT PROJECTS

POINTE PROFESSIONAL ENGINEER
No.39827
STATE OF CALIFORNIA

CIVIL

APPROVED: DIRECTOR OF PUBLIC WORKS
Alex Wishla
DATE: 11/7/11

APPROVED: TOWN ENGINEER
Noel Owlesley
R.C.E. 39827

REVISED TO REFLECT CURRENT GENERAL PL. -N- 8/24/16

STANDARD DRAWING NO. 105

Town of
Yucca Valley
HIGHWAY
(4 LANES DIVIDED)
TYPICAL SECTION

NOTES:

1. CURB AND GUTTER PER STD. DWG. NO. 200
2. A.C. DIKE PER STD DWG. NO 202 **
3. SIDEWALK PER STD. DWG. NO. 220
4. PAVEMENT SECTION PER STD. DWG. NO. 240
5. MEDIAN CURB PER STD. DWG. NO. 200A
6. MEDIAN ISLAND LANDSCAPING PER STD. DWG. NO. 242, 242A AND 242B

* SIDEWALK REQUIREMENT PER DEVELOPMENT CODE
** LIMITED USE, SHORT TERM IMPROVEMENT PROJECTS
NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TEST AND SO INDICATED ON CONSTRUCTION PLANS.

2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE EASEMENTS.

3. SLOPE REQUIREMENT MAY BE VARIED BY SUBMISSION OF SOILS REPORT.

4. ENTIRE SECTION MAY BE SLOPED AT 2% (NO CROWN) WITH PRIOR APPROVAL OF THE TOWN ENGINEER.

TYPICAL SECTION
HILLSIDE
TYPICAL SECTION

NOTES:

1. DRAINAGE IMPROVEMENTS TO BE PLACED WHERE REQUIRED.
2. EMBANKMENTS PLACED WITHIN AREA OF THE TRAVELED WAY SHALL PROVIDE A STABLE ROADWAY.
3. INDICATE AREAS WHERE IMPORTED MATERIAL IS REQUIRED TO PROVIDE A STABLE ROADWAY.
4. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE EASEMENTS.
5. ENTIRE SECTION MAY BE SLOPED AT 2% (NO CROWN) WITH PRIOR APPROVAL OF THE TOWN ENGINEER.
TYPICAL SECTION

NOTES:
1. STREET SURFACE (ASPHALT OR DIRT) SHALL BE PER DEVELOPMENT CONDITIONS OF APPROVAL.

* 2. INVERTED CROWN MAY BE USED WITH APPROVAL FROM THE TOWN ENGINEER
TYPICAL SECTION

NOTES:

1. CURB AND GUTTER PER STD. DWG. NO. 200
2. A.C. DIKE PER STD DWG. NO 202 **
3. SIDEWALK PER STD. DWG. NO. 220
4. PAVEMENT SECTION PER STD. DWG. NO. 240

* SIDEWALK REQUIREMENT PER DEVELOPMENT CODE
** LIMITED USE, SHORT TERM IMPROVEMENT PROJECTS
NOTES:
1. MINIMUM 0.40% ON ALL HORIZONTAL CURVE GRADES.
2. SEE STANDARD NO. 101 FOR TYPICAL SECTION.
NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOIL TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE EASEMENTS.
3. 0.4% GRADE MIN. ON GUTTER OF BULB.
4. TILT SECTION SHALL CONFORM TO LOCAL STREET STANDARD NO. 101.
HALF WIDTH CONSTRUCTION

NOTES:

1. SEE STANDARD NO. 101 FOR ROADWAY SECTIONS.
## Section 2 – Curb and Gutter, Sidewalk and Asphalt Concrete Details

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6" AND 8" CURBS

<table>
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</tr>
<tr>
<td>H2</td>
<td>6&quot;</td>
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<tr>
<td>W1</td>
<td>2'-0&quot;</td>
</tr>
<tr>
<td>W2</td>
<td>6&quot;</td>
</tr>
</tbody>
</table>

NOTES:
1. JOINTS SHALL BE INSTALL AT 10 FOOT INTERVALS.
2. CURING COMPOUND SHALL BE APPLIED UNIFORMLY ON EXPOSED SURFACES.
NOTES:
1. CURB AND GUTTER SHALL BE CONSTRUCTED MONOLITHICALLY OF CLASS "B" CONCRETE.
2. WIDTH OF STANDARD STREET SECTIONS SHOWN ON PLANS ARE TO CURB LINES UNLESS OTHERWISE INDICATED.
3. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 10-FOOT INTERVALS, EXCEPT THAT THE INTERVAL SHALL BE VARIED TO ALLOW MATCHING OF JOINTS IN ADJACENT EXISTING IMPROVEMENTS.
4. CURING COMPOUND SHALL BE SPRAYED UNIFORMLY ON EXPOSED SURFACES.
5. WHEN CURB AND GUTTER IS PLACED BY AN EXTRUSION MACHINE MINOR FINISHING SHALL BE DONE TO PROVIDE AN ACCEPTABLE FINISH AND THE WEAKENED PLANE JOINT MAY BE SAW CUT.
6. 0.0535 CUBIC YARDS PER LINEAL FOOT. 18.7 LINEAL FEET PER CUBIC YARD.
NOTES:

1. DIKE SHALL BE CONSTRUCTED OF TYPE "B" ASPHALT CONCRETE ARB000.

2. PAINT BINDER SHALL BE PLACED ON EXISTING ASPHALT CONCRETE PAVEMENT PRIOR TO THE INSTALLATION OF THE DIKE.
NOTES:

1. DIKE SHALL BE CONSTRUCTED OF TYPE "B" ASPHALT CONCRETE AR8000.
2. PASTE BINDER SHALL BE PLACED ON EXISTING ASPHALT CONCRETE PAVEMENT PRIOR TO THE INSTALLATION OF THE DIKE.
NOTES:

1. DRIVEWAY APPROACH LOCATION SHALL BE AS APPROVED BY TOWN AND PER STANDARD NO. 214.

2. SURFACING MATERIAL SHALL BE:
   A. TYPE B ASPHALT CONCRETE GRADE AR-4000, 1/2" MAX. MED., 3" THICK.
   B. PORTLAND-CEMENT CONCRETE CLASS 'B' 4" THICK MAY BE USED.
   C. UNPAVED, IF THE ROADWAY IS UNPAVED.

3. FLOWLINE GRADE SHALL BE MAINTAINED.

4. WHERE EXISTING BERM IS REMOVED, THE APPROACH SHALL BE CONSTRUCTED TO AN ELEVATION EQUAL IN HEIGHT TO CONTROL DRAINAGE.
NOTES:
1. DRIVE APPROACH SHALL BE CONSTRUCTED TO MEET CURRENT A.D.A. STANDARDS.
2. LIP AT BOTTOM OF DRIVEWAY RAMP, \( \frac{1}{2}'' \) ABOVE GUTTER GRADE.
3. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE WITH COMPACTION OF 95% TO A DEPTH OF 12''.
4. ALL CONCRETE SURFACES SHALL BE FINISHED TO GRADE WITH A FLOAT, TROWELED SMOOTH AND FINISHED WITH A BROOM.
5. EXPANSION JOINT(S) SHALL CONSIST OF 0.25'' TO 0.5'' PREMOLDED JOINT MATERIAL APPROVED FOR SUCH USE.
6. DRIVEWAY APPROACH TO CURB AND GUTTER TO BE Poured AS MONOLITHIC OR WITH AN EXPANSION JOINT.
7. APARTMENTS OF 4 UNITS OR LESS SHALL USE THIS DRIVEWAY APPROACH.
8. APARTMENTS OF MORE THAN 4 UNITS SHALL USE THE COMMERCIAL DRIVEWAY APPROACH PLATE.
9. SURFACING SHALL BE PORTLAND CEMENT CONCRETE CLASS "B".

STANDARD DRAWING
RESIDENTIAL DRIVEWAY APPROACH
Yucca Valley
No. 211
NOTES:

1. DRIVEWAY APPROACH LOCATION SHALL BE AS APPROVED BY TOWN AND PER STANDARD NO. 214.
2. SURFACING MATERIAL SHALL BE:
   A. TYPE 'B' ASPHALT CONCRETE GRADE AR-4000, 1/2" MAX. MED., 3" THICK.
   B. PORTLAND CEMENT CONCRETE CLASS 'B' 6" THICK MAY BE USED.
   C. UNPAVED, IF THE ROADWAY IS UNPAVED.
3. FLOWLINE GRADE SHALL BE MAINTAINED.
4. WHERE EXISTING BERM IS REMOVED, THE APPROACH SHALL BE CONSTRUCTED TO AN ELEVATION EQUAL IN HEIGHT TO CONTROL DRAINAGE.
NOTES:
1. DRIVE APPROACH SHALL BE CONSTRUCTED TO MEET CURRENT A.D.A. STANDARDS.
2. SEE STANDARD 221 FOR A.D.A. RAMP REQUIREMENTS.
3. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE WITH COMPACTION OF 95% TO A DEPTH OF 12".
4. ALL CONCRETE SURFACES SHALL BE FINISHED TO GRADE WITH A FLOAT, TROWELED SMOOTH AND FINISHED WITH A BROOM.
5. EXPANSION JOINT(S) SHALL CONSIST OF 0.25" TO 0.5" PREMOLDED JOINT MATERIAL APPROVED FOR SUCH USE.
6. DRIVEWAY APPROACH TO CURB AND GUTTER TO BE Poured AS MONOLITHIC OR WITH AN EXPANSION JOINT.
7. APARTMENTS OF 4 UNITS OR LESS SHALL USE THE RESIDENTIAL DRIVEWAY APPROACH STANDARD.
8. APARTMENTS OF MORE THAN 4 UNITS SHALL USE THE COMMERCIAL DRIVEWAY APPROACH STANDARD.
9. SURFACING SHALL BE PORTLAND CEMENT CONCRETE CLASS "B".

STANDARD DRAWING
COMMERCIAL DRIVEWAY APPROACH
LOCAL STREET – COLLECTOR ROAD

RESIDENTIAL DRIVEWAY

COMMERCIAL DRIVEWAY

NOTES:

1. 75' ON COLLECTOR ROADS, EXCEPT 50' IF ULT. A.D.T. IS LESS THAN 3000.

2. MAY BE INCREASED 75' ON COLLECTOR ROADS AND 50' ON LOCAL STREETS TO PROVIDE ADDITIONAL CLEARANCE FOR LEFT TURN STORAGE.

3. MAY BE DECREASED WITH APPROVAL FROM TOWN PLANNER.
GENERAL NOTES:
1. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION, WITH COMPACTION OF 95% TO A DEPTH OF 1.0 FEET.
2. MINIMUM GRADE FOR CURB AND GUTTER SHALL BE 0.2% EXCEPTIONS TO THE MINIMUM GRADE SHALL BE APPROVED BY THE TOWN ENGINEER.
3. CONCRETE SURFACE SHALL BE FINISHED TO GRADE AND CROSS SECTION WITH A FLOAT, TROWELED SMOOTH, AND FINISHED WITH A BROOM.
4. EXPANSION JOINT FILLER MATERIAL SHALL CONSIST OF PREFORMED STRIPS OF A DURABLE, RESILIENT COMPOUND.
5. SIDEWALK SCORE MARKS MINIMUM DEPTH OF 0.125".
6. ROLL-TOP CURB & GUTTER ONLY ALLOWED IN INDUSTRIAL ZONES WITH APPROVAL OF THE TOWN ENGINEER.
7. SIDEWALK TO CURB AND GUTTER NOT TO BE Poured AS MONOLITHIC.
8. PROPERTY AT INTERSECTIONS SHALL BE A 20 FOOT BY 20 FOOT CUT OFF FOR WHEELCHAIR RAMPS.
9. SIDEWALK SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.

R = 25' FOR RESIDENTIAL CURB RETURNS
R = 35' FOR COMMERCIAL/INDUSTRIAL CURB RETURNS

STANDARD DRAWING
SIDEWALK

YUCCA VALLEY
No. 220
GROOVES 0.75" APART IN BORDER AROUND RAMP

SEE GROOVING DETAIL AND NOTE 6

TRUNCATED DOMES — SEE NOTE 7

5% MAX WITHIN 45" OF CURB RAMP

STREET OR ALLEY

0.25" 0.25"

GROOVING DETAIL

R = 25' FOR RESIDENTIAL CURB RETURNS
R = 35' FOR COMMERCIAL/INDUSTRIAL CURB RETURNS

NOTES:
1. CURB RAMP SHALL BE CONSTRUCTED TO MEET CURRENT A.D.A. STANDARDS.
2. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE WITH COMPACTION OF 95% TO A DEPTH OF 12".
3. ALL CONCRETE SURFACES SHALL BE FINISHED TO GRADE WITH A FLOAT, TROWELED SMOOTH AND FINISHED WITH A BROOM.
4. EXPANSION JOINT(S) SHALL CONSIST OF 0.5" PREMOLDED JOINT MATERIAL APPROVED FOR SUCH USE.
5. THE RAMP SHALL HAVE A 12" WIDE BORDER WITH 0.25" GROOVES, 0.75" APART. SEE GROOVING DETAIL.
6. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3'-0" DEPTH OF THE RAMP. COLOR YELLOW CONFORMING TO FEDERAL COLOR NO. 33538.
7. BECAUSE OF EXISTING CONDITIONS, OTHER CURB RAMP CONFIGURATIONS MAY BE NECESSARY. THESE SHALL MEET THE STATE OF CALIFORNIA ARCHITECTURAL BARRIERS LAWS AND BE APPROVED PRIOR TO INSTALLATION.
NOTES:

1. RAMP SLOPE SHALL BE 8.33% MAXIMUM.
2. THE RAMP SHALL HAVE A 12" WIDE BORDER WITH 1/4" GROOVES APPROXIMATELY 3/4" O.C. SEE GROOVING DETAIL.
3. RAMP SURFACE SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE ROUGHER THAN THE SURROUNDING SIDEWALK.
4. RAMPS SHALL BE BUILT AND FINISHED SO THAT THERE ARE NO ABRUPT CHANGES IN ELEVATION OR ANGLE OF SLOPE.
5. SIDEWALK RAMPS ARE REQUIRED AT ALL CORNERS WHERE CURBS AND/OR SIDEWALKS ARE TO BE CONSTRUCTED OR RECONSTRUCTED AND SHALL BE AS SHOWN ON THE IMPROVEMENT PLANS.
6. MODIFICATIONS TO LOCATION OR DIMENSIONS OF RAMPS SHALL REQUIRE APPROVAL OF TOWN ENGINEER AND BE SHOWN ON APPROVED PLANS.
7. THICKNESS OF CONCRETE: 4 INCH MINIMUM.
CROSS GUTTER AND SPANDREL

NOTES:
1. CROSS GUTTER SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. THE STRAIGHT GRADE BETWEEN B.C.R.'S MAY BE ALTERED WHERE EXCESSIVE GRADES EXIST.
3. SPANDREL SHALL BE 8" THICKNESS CLASS "B" CONCRETE.
4. VARIABLE CURB FACE ALLOWED FOR DRAINAGE PURPOSES.
TYPICAL SECTION

NOTES:
1. CONCRETE RIBBON SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. ASPHALT CONCRETE SHALL HAVE A MINIMUM THICKNESS OF FOUR INCHES.
3. APPROACH SHALL BE CONSTRUCTED AS A COMMERCIAL D/W PER STD. 213.
# Minimum Pavement Structural Sections

<table>
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<th>Min. A.C. Thickness</th>
<th>Placement Lifts</th>
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<td>Alley</td>
<td>N/A</td>
<td>4&quot;</td>
<td>2 – 2&quot; Lifts</td>
</tr>
<tr>
<td>Local Road</td>
<td>5.5</td>
<td>4&quot;</td>
<td>2 – 2&quot; Lifts</td>
</tr>
<tr>
<td>Collector Road</td>
<td>8</td>
<td>4&quot;</td>
<td>2 – 2&quot; Lifts</td>
</tr>
<tr>
<td>Arterial Road</td>
<td>10</td>
<td>6&quot;</td>
<td>2 – 3&quot; Lifts</td>
</tr>
<tr>
<td>Highway</td>
<td>12</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

**Asphalt Requirements**

Asphalt shall be Caltrans Type A, PG 70-10 binder. Base course shall be 3/4", surface course shall be 1/2".

**Compaction Requirements**

95% for top 12" of subgrade, 95% for agg. base.

**Note:** Pavement thickness shown above are minimums. Soils reports may require greater thickness of structural section.

* – Contact Caltrans for thickness requirements on state highways.

---

**Approved: Director of Public Works**

Alex Wisham  Date: 11/7/16

**Approved: Town Engineer**

Noel Gossley  R.C.E.  39827

rev. 9/7/16

STREET PAVEMENT DESIGN

STANDARD DRAWING NO. 240
CONTRACTOR SHALL GRIND TOP 1-1/2 INCHES OF EXISTING PAVING AND PLACE AN OVERLAY CAP.

PAVEMENT ASPHALT SHALL BE 1" THICKER THAN EXISTING ASPHALT PAVEMENT, BUT NOT LESS THAN 4 INCHES. BASE PAVEMENT SHALL BE DONE IN LIFTS OF NO MORE THAN 3 INCHES PER LIFT.

EXISTING LIP OF GUTTER, CURB FACE WITHOUT GUTTER OF EDGE OR PAVEMENT AS OCCURS

IF DISTANCE IS LESS THAN 5', THEN PAVEMENT SHALL BE REMOVED AND REPLACED

WIDTH OF CAP

18" MIN. 12" PATCH/TRENCH 12" WIDTH

SEAL EDGES W/TACK COAT

COMPACT TO 55% RELATIVE COMPACTION

BEDDING ZONE COMPACTED TO 90% RELATIVE COMPACTION

TYPICAL SECTION

NOTES:
1. IN AREAS WITH CLASS 2 AGG. BASE REPLACE WITH CLASS 2 BASE.
2. COMPACTION ANALYSIS REQUIRED FOR TRENCHES 10 S.F. AND LARGER
3. ASPHALT SHALL BE CALTRANS TYPE A 1/2" HMA WITH PG 70-10 PM OIL BINDER

APPROVED: DIRECTOR OF PUBLIC WORKS
Alex Qishta DATE 11/7/16

APPROVED: TOWN ENGINEER
R.C.E. 39827

Town of
Yucca Valley

TRENCH PAVEMENT REPLACEMENT DETAIL
STANDARD DRAWING NO. 241

REVISED DETAIL
N 8/24/16

REVISION BY DATE
PLANTINGS IN LANDSCAPE MEDIANS SHALL BE:

* RUSSIAN SAGE
* TEXAS RANGER
* DESERT SPOON
* FOUNTAIN GRASS (P. setaceum)
* LANTANA (L. montevidensis)
* MEXICAN BIRD OF PARADISE

PLANT SPACING SHALL BE 8’ to 10’. LANTANA AND FOUNTAIN GRASS MAY BE GROUPED.

BOULDERS/ROCKS MAY BE PLACED IN MEDIAN ISLANDS, HOWEVER THEY MAY NOT EXTEND MORE THAN 4” ABOVE CURB GRADE.

IRRIGATION REQUIREMENT SHALL BE:

* MOTOROLA SCORPIO CLOCKS CAPABLE OF COMMUNICATING WITH THE CENTRAL MOTOROLA IRRIGATION SYSTEM.
* BERMAD MASTER VALVES AND FLOW SENSORS (NORMALLY CLOSED VALVE).
* HARD PIPE ALL Drip IRRIGATION USING RAIN BIRD POLYFLEX RISERS
* WITH 1/2” MALE THREADED BASE.
* RAIN BIRD XB-10PC-1032 (BLACK) THREADED INLET DRIP EMITTERS.
* BRASS RAIN BIRD STATION VALVES.
* RAIN BIRD PRSD PRESSURE REGULATORS PREFERRED.
* SCHEDULE 40 PVC ON ALL MAIN LINES AND LATERALS UNDER 3”.

GROUND COVER SHALL BE DECOMPOSED GRANITE OR PALM SPRINGS GOLD.
NOTE: ALTERNATE LANDSCAPING AND CONCRETE AREAS ON 30' TO 40' CENTERS
### Section 3 – Utility, Street Light, and Sign Details

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<td>303</td>
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<td>322</td>
<td>Street Name Sign &amp; Post</td>
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</table>
Maximum light spacing shall be 100'.

Photo cell control

150 watt clear high pressure sodium luminaire with 120 volt built-in ballast and individual photo cell control (16,000 lumens).

Post concrete - Marbelite Ameron series: 1C3 or equivalent

2 #10 THHN copper conductors in new subdivisions, conductors to be of sufficient length to extend 24" out of end of mast arm.

C of street light standard inspection plate with inline fuse. See standard no. 305 & no. 303.

Within sidewalk area: 1' - 6"
Within island median: C of median

Top of sidewalk, median, or planting strip

Face of curb

Top of traveled way

Install concrete pullbox. See std. no. 304.

Concrete base (see std. no. 303)

* Alternates to be specifically approved by the town engineer.

Approved:

Approved: Town Engineer

Town of Yucca Valley

Street light for major and arterial streets

Standard drawing no. 300
Maximum light spacing shall be 200'.

Photo cell control

100 watt clear high pressure sodium luminaire with 120 volt built-in ballast and individual photo cell control (9,500 lumens).

* Post concrete - Marbelite Ameron series 1C3 or equivalent

2 #10 THHN copper conductors in new subdivisions, conductors to be of sufficient length to extend 24" out of end of mast arm.

1/2 of street light standard inspection plate with inline fuse. See standard no. 305 & no. 303.

Within sidewalk area: 1'-6"
Within island median: 1/2 of median

Top of sidewalk, median, or planting strip

Face of curb

Top of traveled way

Install concrete pullbox. See std. no. 304.

Conc. base (see std. no. 303)

* Alternates to be specifically approved by the Town Engineer.

Approved:

Date

Approved: Town Engineer

Town of Yucca Valley

Street light for collector streets

Standard drawing no. 301
70 WATT, CLEAR HIGH PRESSURE SODIUM LUMINAIRE WITH 120 VOLT BUILT-IN BALLAST AND INDIVIDUAL PHOTO CELL CONTROL (5,800 LUMENS).

POST CONCRETE - MARBELITE. AMERON SERIES 1C3 OR EQUIVALENT

2 #10 THHN COPPER CONDUCTORS IN NEW SUBDIVISIONS, CONDUCTORS TO BE OF SUFFICIENT LENGTH TO EXTEND 24" OUT OF END OF MAST ARM.

OF STREET LIGHT STANDARD
INSPECTION PLATE WITH INLINE FUSE
SEE STANDARD NO. 305 & NO. 303.

WITHIN SIDEWALK AREA: 1'-6"
WITHIN ISLAND MEDIATE: ¾ OF MEDIAN

TOP OF SIDEWALK, MEDIAN, OR PLANTING STRIP

FACE OF CURB

TOP OF TRAVELED WAY

INSTALL CONCRETE PULLBOX
SEE STD. NO. 304.

CONC. BASE
(SEE STD. NO. 303)

* ALTERNATES TO BE SPECIFICALLY APPROVED BY THE TOWN ENGINEER.

TOWN OF
YUCCA VALLEY

STREET LIGHT FOR
LOCAL STREETS

STANDARD DRAWING NO. 302
SECTION

FACE OF CURB

1'-6"

ALTERNATES:
QUIKSET MODEL NO. L.F.-54
BROOKS PRODUCTS INC. MODEL
NO. 85C-109

CONNECT GROUND ROD TO ANCHOR BOLTS
AND CONDUIT.

SEE NOTE "A"

INSPECTION
PLATE

FULL POLE
FLANGE COVER

FINISHED SIDEWALK,
MEDIAN OR PLANTING
STRIP

2" SAND CUSHION

P.V.C. OR
METAL CONDUIT

MIN. 12" DIA.
SPIRAL COIL

COUPLING

5'-0"

2'-0" MIN.

1" RIGID METAL CONSUIT IN CONCRETE

NO. 4 COPPER WIRE FOR GROUNDING.
22' TO 25' REQUIRED. BOND TO LIGHT
POLE BASE WITH APPROVED CLAMP.

4" SAND CUSHION

CONCRETE SHALL BE CLASS "A" P.C.C. POUR AGAINST UNDISTURBED SOIL.

PLAN

8 #4 VERTICAL

#3 HOOPS @ 12" C.C.

NOTES:
A. IN UNDEVELOPED AREAS, CONSTRUCT
A 2' x 2'. CONC. PAD (4" THICK).
IF ROUND FOOTING IS POURLED, STOP AT
THE ELEVATION OF BOTTOM OF THE
SIDEWALK.

R1 = ANCHOR BOLT DIA. DIMENSION R AND
BOLT PATTERN TO SUIT POLE BASE
FURNISHED.

APPROVED:

STREET LIGHT
CONCRETE FOOTING DETAILS
STANDARD DRAWING NO. 303
NO. 5 CONCRETE PULLBOX

NOTES:
1. DESIGN SHALL CONFORM TO THESE REQUIREMENTS EXCEPT AS OTHERWISE APPROVED BY THE TOWN ENGINEER.
GENERAL NOTES:

1. ALL WIRING METHODS AND EQUIPMENT CONSTRUCTION SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE.

2. ALL CONDUIT TO BE USED SHALL BE A MINIMUM OF 2" DIAMETER, SCHEDULE 40 P.V.C., EXCEPT FROM EACH STREET LIGHT TO ADJACENT PULL BOX WHICH MAY BE 1" DIAMETER P.V.C. OR METAL, AND SHALL HAVE THE FOLLOWING COVER FROM TOP OF CONDUIT.
   A. WITHIN SIDEWALK OF PARKWAY AREAS: 2'-0" MIN.
   B. WITHIN ROADWAY AREAS: 4'-0" MIN.

3. ALL METAL CONDUIT AND OTHER METAL PARTS SHALL BE CONTINUOUSLY BONDED AND GROUNDED.

4. ALL BENDS AND/OR OFFSETS SHALL BE MADE WITH FACTORY SECTIONS.

5. UNLESS OTHERWISE APPROVED BY THE TOWN ENGINEER, A NO. 5 PULL BOX (STATE STD. ES-8) SHALL BE USED AT ALL STREET LIGHT STANDARDS.

6. ALL PULL BOXES SHALL BE PER STD. J04.

7. JUNCTION BOXES TO BE NOT MORE THAN 250 FEET APART ON LONG RUNS.

8. WHEN PULL BOXES ARE SUBJECT TO VEHICULAR TRAFFIC, THEY SHALL BE SET ON CONCRETE FOOTINGS AND CAST IRON TRAFFIC COVERS SHALL BE INSTALLED.

9. ALL SPLICES TO BE APPROVED SOLDERLESS WATERPROOF CONNECTORS OF PROPER SIZE. (EXAMPLE: WIRENUT OR SPLIT BOLT PLUS TAPE PLUS COATING.)

10. ALL EMPTY CONDUITS SHALL HAVE A 1/4" NYLON PULL ROPE PROVIDED INSIDE.

11. ALL CONDUITS SHALL BE SEALED WITH AN APPROVED DUCT SEAL. CONDUITS STUBBED FOR FUTURE EXTENSION SHALL BE CAPPED.

12. ALL STREET LIGHTING PROJECTS ARE SUBJECT TO APPROVAL BY THE TOWN ENGINEER.

13. ALL PULLBOX COVERS SHALL BE SECURED WITH BRASS HOLD DOWN BOLTS AND INScribed, "STREET LIGHTING".

14. ALL STREET LIGHTS EQUIPPED WITH A PHOTOCELL CONTROL SHALL HAVE THE PHOTOCELL ORIENTED TO THE NORTH.

15. ALL WIRE SHALL BE THIN A.W.G. WITH THE MINIMUM SIZE TO BE #8.

16. LIGHT POLES ON ALL STREETS OTHER THAN MINOR STREETS OR CUL-DE-SACS SHALL BE GALVANIZED STEEL STANDARDS IN ACCORDANCE WITH TOWN STANDARD PLANS.

17. THE DEVELOPER/ENGINEER SHALL MAKE ARRANGEMENTS FOR SERVICE POINTS WITH S.C.E. THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED THEREWITH WHICH SHALL BE PAID DIRECTLY TO S.C.E. THE CONTRACTOR SHALL VERIFY THE STREET LIGHT SERVICE POINT LOCATION(S) WITH S.C.E. PRIOR TO INSTALLATION.

18. DEVELOPER SHALL INSTALL, IN ACCORDANCE WITH TOWN STANDARDS, CONCRETE FOUNDATIONS, GALVANIZED STEEL POLES, APPROPRIATE MAST ARM LENGTHS, AND WIRING, LEAVING 2' OF WIRING EXTENDING FROM THE MAST ARM TO ALLOW CONNECTION TO THE LUMINARIES BY S.C.E. FORCES AT A LATER DATE.

19. NEW DEVELOPMENTS LOCATED WITHIN AN EXISTING DEVELOPED AREA SHALL INSTALL THE ENTIRE LIGHTING SYSTEM, INCLUDING LUMINARIES.

20. ALL STREET LIGHT SYSTEMS SHALL BE DESIGNED FOR 120 VOLT SERVICES UNLESS CONNECTING TO AN EXISTING SYSTEM. IN THE LATTER CASE, THE DESIGN SHALL CONFORM TO THE SYSTEM BEING CONNECTED TO AND MUST BE SPECIFICALLY APPROVED BY THE TOWN ENGINEER.

21. THE CURRENT TO BE USED TO DETERMINE CONDUCTOR SIZE SHALL BE DETERMINED AS FOLLOWS:

\[
\text{TOTAL WATTAGE OF FIXTURES SERVED} \times 3.5 = \text{SERVICE VOLTAGE}
\]
NOTES:

1. LOCATION OF WATER LINES AND VALVES SHALL BE SHOWN ON THE PLAN VIEW FOR
   SUBDIVISION IMPROVEMENT PLANS. SEE HEALTH DEPARTMENT STANDARDS, SECTION
   7, DISTRIBUTION SYSTEMS, FOR MINIMUM DEPTH.

2. HYDRANT TO BE SET PLUMB WITH NOZZLE A MINIMUM OF EIGHTEEN (18") INCHES
   ABOVE GROUND LEVEL. WHEN HYDRANTS ARE PLACED BEFORE GRADING IS COMPLETED,
   THE FINAL GRADE LINE AND ACCESSIBILITY SHOULD BE CONSIDERED.

3. NO OBSTRUCTIONS SUCH AS POLES, GUY LINES, ETC. SHOULD BE PLACED CLOSER
   THAN FIVE (5") FEET TO HYDRANT.
RECOMMENDED UTILITY LOCATION

NOTES:
1. WHERE ULTIMATE STREET IMPROVEMENTS ARE TO BE CONSTRUCTED, MINIMUM COVER OF UTILITY LINES MAY BE VARIED TO FACILITATE INSTALLATION.
2. THE UTILITY COMPANIES SHALL MAKE EVERY EFFORT TO LOCATE THEIR FACILITIES IN THE RECOMMENDED LOCATIONS, PARTICULARLY IN NEW SUBDIVISIONS.
3. EDISON AND TELEPHONE UTILITIES MAY USE A COMMON TRENCH. ALTERNATE LOCATION MAY BE EITHER THE EDISON POSITION OR THE TELEPHONE POSITION.
4. VARIES 3' FROM THE CURB FACE TO 14' FROM C.
5. THE CENTER 24' OF STREET SHALL BE RESERVED FOR SEWER AND STORM DRAIN INSTALLATION.
6. SURFACE OF VAULT OR MANHOLE MUST MATCH PAVEMENT AND PARKWAY GRADES.
7. REPAIR OF TRENCHES AND REPLACEMENT OF PAVED SURFACING IN EXISTING ROADS SHALL BE IN ACCORDANCE WITH CURRENT "SPECIFICATIONS FOR TRENCH REPAIR."
8. WHENEVER POSSIBLE, MANHOLE COVERS SHALL NOT BE PLACED WITHIN THE SIDEWALKS.

Town of Yucca Valley
UNDERGROUND UTILITY LOCATION
STANDARD DRAWING NO. 320

APPROVED:

APPROVED TOWN ENGINEER

R.C.E. 27943
TYPICAL LOCATION

NOTES:
1. MARKER TO BE SET ON TOWN RIGHT OF WAY.
2. LOCATION OF MARKER SHOWN IS APPROXIMATE.
3. MARKERS TO BE VISIBLE FOR A DISTANCE OF 150 FEET.
4. IF EITHER ROAD IS DIVIDED INTO 4 LANES OR MORE (MAJOR ROAD), ADDITIONAL MARKERS WILL BE REQUIRED.
5. STREET MARKERS LOCATED AT MAJOR INTERSECTIONS WILL BE MOUNTED ON 12 FOOT POSTS TO ACCOMMODATE A STOP SIGN.
5" DIA. TOWN LOGO

6" UPPERCASE STANDARD LETTERS, SERIES-B

2" UPPERCASE STANDARD NUMBERS & LETTERS, SERIES=B

A. 8" FLAT BLADE SIGN BLANK
B. ONE PIECE CAST ANODIZED ALUMINUM POST CAP WITH FOUR 3/8" STAINLESS STEEL ALLEN HEAD SET SCREWS.
C. ONE PIECE ANODIZED ALUMINUM CENTER CROSS SADDLE WITH FOUR 3/8" STAINLESS STEEL ALLEN SET SCREWS
D. 2" SQUARE QUICK PUNCH POST (L=10')
E. 2-1/4" SQUARE SOLID GALVINIZED POST BASE
F. ONE CUBIC FOOT MIN. P.C.C. (520-C-2500)
G. DRIVE RIVETS OR BOLT IN CENTER OF POST, APPROX. 1" FROM TOP OF POST BASE

NOTES

ALL LETTERS, NUMBERS AND LOGOS SHALL BE WHITE, ENGINEER GRADE, 3M SCOTCHLITE HEAT-ACTIVATED REFLECTIVE SHEETING (O.A.E.)

THE SIGN BACKING SHALL BE BLUE, ENGINEER GRADE, 3M SCOTCHLITE HEAT-ACTIVATED REFLECTIVE SHEETING. (O.A.E.)

SIGN BLANKS SHALL BE FLAT BLADE CONSTRUCTED OF 1/8" INCH (.125) THICK ANODIZED ALUMINUM.
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<tr>
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<tr>
<td>404</td>
<td>Curb Outlet Structure</td>
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<td>Outlet Structure</td>
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<td>Parkway Culvert with Steel Plate Cover</td>
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<td>Junction Structure No. 1</td>
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<tr>
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<td>Junction Structure No. 2</td>
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<td>Storm Drain Cleanout</td>
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<td>466</td>
<td>Concrete Bulkheads</td>
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<td>467</td>
<td>Pipe Supports Across Trenches</td>
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<td>Bedding and Pay Lines</td>
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<td>Catch Basin No. 1</td>
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<td>Catch Basin No. 4 (Sht. 2 of 2)</td>
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<td>Catch Basin Grate</td>
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<td>Catch Basin Steel Pate Galvanized Steel Step</td>
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<td>Removable Protection Bar for Catch Basins</td>
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<td>Detail of Catch Basin Opening &amp; Installation Details</td>
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<td>482</td>
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<td>Manhole Frame &amp; Cover for Catch Basins</td>
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<td>490</td>
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<td>Standard Pressure Manhole Shaft</td>
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<td>Manhole Frame &amp; Cover – Non-Rocking</td>
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<tr>
<td>499</td>
<td>Manhole Frame &amp; Cover – Pressure Type</td>
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</table>
NOTES:

1. LOCAL DEPRESSION SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE 6" THICK

2. CURB AND GUTTER SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTING TOP OF CATCH BASIN AND CURB TRANSITIONS.
NOTES:

1. LOCAL DEPRESSION SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE 8" THICK.
2. ELEVATIONS SHALL BE SHOWN ON CONSTRUCTION PLANS. THE OUTER EDGE OF THE LOCAL DEPRESSION SHALL CONFORM TO FINISHED STREET GRADE.
3. SPECIAL DETAILS GOVERNING THE CONSTRUCTION ON A VERTICAL CURVE SHALL BE SHOWN ON CONSTRUCTION PLANS.
NOTES:

1. LOCAL DEPRESSION SHALL BE:
   (a) CASE "A" FOR CATCH BASIN NO. 4 (SEE STD.
       DWG. 471) UNLESS OTHERWISE SPECIFIED.
   (b) CASE "B" FOR CATCH BASIN NO. 6 (SEE STD.
       DWG. 472) UNLESS OTHERWISE SPECIFIED.

2. ELEVATIONS AT OUTER CORNERS SHOWN ON PROJECT DRAWINGS.
   IF NO ELEVATIONS ARE SPECIFIED THE OUTER EDGE OF THE
   LOCAL DEPRESSION SHALL CONFORM TO THE FINISHED STREET SURFACE.

3. A=4 FEET UNLESS OTHERWISE SPECIFIED.
   T=SEE STANDARD DRAWING 471 OR 472.
   W=SEE STANDARD DRAWING 471 OR 472.

4. WHERE NO CURB EXISTS, CURB SHALL BE CONSTRUCTED BETWEEN
   ENDS OF LOCAL DEPRESSION. CURB SECTION SHALL CONFORM TO
   TOWN OF YUCCA VALLEY STANDARD DWG.

5. DEPRESSION SHALL BE CLASS "B" CONCRETE.

TOWN OF
YUCCA VALLEY

LOCAL DEPRESSION
NO. 3

STANDARD DRAWING NO. 403
SECTION A-A

SECTION B-B

DETAIL OF ANCHOR
(SEE NOTES 5 & 7)

PLAN

PROFILE

NOTES:
1. FLOOR OF BOX TO BE TROWELED SMOOTH.
2. WHEN TOE OF SLOPE IS WITHIN THE R/W, INLET TYPE I BEGINS AT THE TOE, RATHER THAN AT THE R/W LINE.
3. FOR OPEN DITCH APPROACH (TYPE II) THE 2' OR MORE IS FROM THE R/W LINE.
4. TOP OF INLET STRUCTURE (TYPE I OR II) TO BE FLUSH WITH ADJACENT SIDEWALK WHERE PRACTICAL.
5. A HEADED STEEL STUD 5/8" X 6 3/8" WITH HEAD 0.1" ATTACHED BY 4 FULL PENETRATION BUTT WELD MAY BE USED AS AN ALTERNATE ANCHOR.
6. NORMAL CURB AT POINTS M AND O. B + 5" AT POINTS N AND P.
7. THE 3" LEG OF THE INTERIOR ANCHORS SHALL BE PARALLEL TO THE TOP OF SIDEWALK.

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ROBERT K. HOLT
R. E. 27943

TOWN OF
YUCCA VALLEY

CURB OUTLET
STRUCTURE

STANDARD DRAWING NO. 404
NOTES:
1. CONCRETE SHALL BE CLASS "A"
2. FLOOR OF STRUCTURE SHALL BE GIVEN A STEEL TROWEL FINISH.
3. TOP OF BOX TO HAVE SIDEWALK FINISH.
4. ANCHORS SHALL BE SYMMETRICALLY SPACED AND NOT TO EXCEED 4' BETWEEN CENTERS, AND BE PLACED 4 1/2" FROM EACH END OF THE STEEL ANGLE, A MINIMUM OF 3 ANCHORS IS REQUIRED.
2x2x3/8" WITH 3/16" WELD TO FACE OF ANGLE ONLY

1/4" CHECKERED STEEL PLATE (GALV.)

2x2x3/8" WITH 3/16" WELD TO FACE OF ANGLE ONLY

PLAN

SUPPORT BAR
12" x 1/2" DIA. ROD WELD TO ANGLE

1/2" x 6" ANCHOR BAR 12" O.C.

SECTION A-A

SEE DETAIL C

1.90%

6" 8"

6'-0" (MAX.)

SEE DETAIL 3

SECTION B-B

#4 BARS 18" O.C.

NOTES:
1. ALL CONCRETE TO BE CLASS "A"
2. ALL STEEL EXCEPT REINFORCING BARS SHALL BE GALVANIZED AFTER FABRICATION.

TOWN OF
Yucca Valley

PARKWAY CULVERT
W/STEEL PLATE COVER

STANDARD DRAWING NO. 406
NOTES:
1. VALUES FOR A, B, C, ELEV. R AND ELEV. S ARE SHOWN ON PROJECT DRAWINGS.
   TABLE OF VALUES FOR T SHOWN ON THIS PLAN.
2. STATIONS SPECIFIED ON DRAWINGS APPLY AT THE INTERSECTION OF CENTERLINES AT MAIN LINE AND LATERALS, EXCEPT THAT STATIONS FOR CATCH BASIN CONNECTOR PIPE APPLY AT INSIDE WALL OF STRUCTURE.
3. REINFORCING STEEL SHALL BE STRAIGHT BARS 1 1/2" CLEAR FROM INSIDE FACE OF CONCRETE UNLESS OTHERWISE SHOWN.
   W BARS ARE OF SIZE AND SPACING SPECIFIED FOR WALL STEEL ON PLAN AND SHALL BE CUT IN CENTER OF OPENING AND BENT INTO TOP AND BOTTOM OF JUNCTION STRUCTURE.
   OMIT H BARS WHEN SOFFIT OF SPUR IS 12" OR LESS BELOW SOFFIT OF MAIN LINE AND OMIT D BARS WHEN INVERT OF SPUR IS 12" OR LESS ABOVE FLOOR LINE AT MAIN LINE.
4. JUNCTION STRUCTURE SHALL BE Poured MONOLITHICALLY WITH MAIN LINE STORM DRAIN, MANHOLE OR TRANSITION.
5. FLOOR OF STRUCTURE SHALL BE STEEL-TROWELED TO THE SPRING LINE.
6. STRUCTURAL CONCRETE SHALL BE CLASS "A".
7. EMBEDMENT P SHALL BE 5" FOR B = 95" OR LESS AND 8" FOR B OVER 95".
8. BACKFILL UNDER STRUCTURE WITH 1-3-5 MIX CONCRETE, OR COMPACT SOIL TO RELATIVE DENSITY REQUIRED BY SPECIFICATIONS.
   BACKFILL MAY BE OMITTED IF STRUCTURE IS Laid ON UNDISTURBED EARTH TO STORM DRAIN WALL.
NOTES FOR JUNCTION STRUCTURE NO. 2

1. VALUES FOR A, B, C, D, E, F, G, L, ELEVATION R, AND ELEVATION S SHOWN ON IMPROVEMENT PLAN.

2. PIPE SHALL BE CRADLED IN CLASS A CONCRETE EXTENDING LONGITUDINALLY TO POINTS 1 FT. BEYOND THE LIMITS OF L. H=1/2 OUTSIDE DIAMETER OF PIPE + 4" AS A MINIMUM. CRADLE MAY BE OMITTED ON SIDE OPPOSITE LATERAL INLET WHEN CONSTRUCTED IN CONNECTION WITH EXISTING STORM DRAIN.

3. A AND B BARS SHALL BE CARRIED TO POINT NOT LESS THAN J DISTANCE FROM CENTERLINE, J=7D + 6".

4. RECTANGULAR OPENING IN MAIN LINE PIPE SHALL BE CUT WITHIN THESE LIMITS NORMAL TO PIPE SURFACE WITHOUT DAMAGING STEEL. VALUES FOR F, G, AND L ON IMPROVEMENT PLAN.

5. TRANSVERSE REINFORCEMENT IN PIPE SHALL BE CUT IN CENTER OF OPENING AND BENT TO UNIFORM DISTANCE FROM TOP AND BOTTOM OF JUNCTION STRUCTURE.

6. STRUCTURAL CONCRETE SHALL BE CLASS "A".

7. REINFORCING STEEL SHALL BE ROUND, DEFORMED, STRAIGHT BARS, 1-1/2" CLEAR FROM INSIDE FACE OF CONCRETE UNLESS OTHERWISE SHOWN.

8. STEEL SCHEDULE AS SHOWN.

9. MONOLITHIC ARCH: WHEN JUNCTION STRUCTURE NO. 2 IS SPECIFIED WITH REINFORCED MONOLITHIC ARCH STORM DRAIN, VALUE D SHALL REFER TO THE CLEAR SPAN OF THE ARCH. REINFORCING STEEL SHALL BE CUT AND BENT INTO JUNCTION STRUCTURE THE SAME AS FOR PIPE. CONCRETE CRADLE UNDER REINFORCED MONOLITHIC ARCH IS NOT REQUIRED.

10. FLOOR OF STRUCTURE SHALL BE STEEL-TROWELED TO SPRING LINE.
ELEVATION "S" SEE NOTE BELOW
BACKFILL WITH CONCRETE TO SPRING LINE OF LATERAL OR COMPACT SOIL TO RELATIVE DENSITY REQUIRED BY SPECIFICATIONS.
PIPE BEDDING UNDISTURBED EARTH

SECTION B-B
CASE-1

MINIMUM BEARING SURFACE EQUALS 1/2 O.D.

SECTION C-C
SECTION A-A

CASE-1—SIDE INLET

PIPE 21" OR LESS IN DIAMETER

PLAN
CASE-3—SADDLE CONNECTION

NOTES: CASES 1 & 2
2. C OF INLET SHALL BE ON RADIUS OF MAIN STORM DRAIN EXCEPT WHEN ELEVATION "S" IS SHOWN ON THE PROJECT DRAWING PROFILE.
3. THE MINIMUM OPENING INTO THE EXISTING STORM DRAIN SHALL BE THE OUTSIDE DIAMETER OF THE CONNECTING PIPE + 1 INCH.
4. ALL CORRUGATED METAL PIPE AND FITTINGS SHALL BE GALVANIZED.
5. STA. AT F.L. & CENTER OF PIPE, SHOWN ON PROJECT Dwg. PROFILE.

NOTES: CASE-3—SADDLE CONNECTION
1. CONNECTIONS TO PIPES 21" OR LESS IN DIAMETER WITHOUT JUNCTION STRUCTURES OR PRECAST Y BRANCHES SHALL BE MADE WITH SADDLES.
2. TRIM OR CUT SADDLE TO FIT SNUGLY OVER THE OUTSIDE OF THE MAIN PIPE AND SO ITS AXIS WILL BE ON THE LINE AND GRADE OF THE CONNECTING PIPE.
3. THE OPENING INTO THE PIPE SHALL BE CUT AND TRIMMED TO FIT THE SADDLE SO THAT NO PART WILL PROJECT WITHIN THE BORE OF THE SADDLE PIPE.
4. THE CONNECTION PIPE SHALL BE SUPPORTED AS SHOWN IN CASE 1 AND 2.

Town of Yacca Valley
JUNCTION STRUCTURE
NO. 4

STANDARD DRAWING NO. 413
TABLE FOR DIMENSIONS AND BAR SIZES

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NOTES:
1. VALUES FOR C, D, L, ELEV. S, ELEV. R, O, AND STA. X ARE SHOWN ON PROJECT DRAWINGS.
2. REINFORCING STEEL SHALL BE STRAIGHT BARS 1.5" CLEAR FROM FACE OF CONCRETE.
NOTES:

1. VALUES FOR D, L, C, EL R, EL S, ANGLE A AND STA. "X" ARE TO BE SHOWN ON PROJECT DRAWINGS.

2. REINFORCING BARS SHALL BE PLACED 1 1/2" CLEAR FROM FACE OF CONCRETE.

3. CONCRETE SHALL BE CLASS "B".

4. PLACE #4-12"x18" BARS WITH SHORT LEG HORIZONTAL IN VERTICAL JS. WALL, ROTATE LONGER LEG INTO CENTER OF SLOPE PAVING.

5. REINFORCEMENT SHALL BE PROVIDED IN ALL PORTIONS OF THE JUNCTION STRUCTURE AS INDICATED ON DRAWINGS REGARDLESS OF BAR LENGTH MODIFICATIONS REQUIRED TO ACHIEVE PROPER CLEARANCES.
NOTES:

1. THE HORIZONTAL ANGLE OF DIVERGENCE OR CONVERGENCE, B, SHALL NOT EXCEED 5° 45'.

2. REINFORCING STEEL BAR SIZES, SPACING, PATTERN AND COVER OVER THE STEEL SHALL BE THAT OF THE BOX SECTION. THE BAR LENGTHS SHALL VARY UNIFORMLY THROUGHOUT THE TRANSITION.

3. THE CONCRETE THICKNESS SHALL BE THAT OF THE BOX SECTION UNLESS THE WALL THICKNESS OF THE PIPE PLUS 4 INCHES IS GREATER, IN WHICH CASE THE CONCRETE THICKNESS SHALL VARY UNIFORMLY FROM THAT OF THE BOX SECTION TO THAT OF THE PIPE WALL PLUS 4 INCHES.

4. THE INTERIOR SURFACE SHALL BE SMOOTH AND VARY UNIFORMLY BETWEEN THE TWO ADJOINING SECTIONS.

5. AT THE PIPE JUNCTION, EMBEDMENT P SHALL BE 5 INCHES FOR PIPE SIZES OF 96 INCHES OR LESS, AND 8 INCHES FOR PIPE OVER 96 INCHES.


7. THE TRANSITION STRUCTURE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GENERAL CONSTRUCTION NOTES APPLYING TO BOX AS SHOWN ON THE PROJECT DRAWINGS.

8. STRUCTURAL CONCRETE SHALL BE CLASS "A".

Town of
Yucca Valley

TRANSITION STRUCTURE
NO. 1

STANDARD DRAWING NO. 420

R.C.E. 27943
NOTES:
1. The horizontal angle of divergence or convergence, θ shall not exceed 5°45′.
2. The reinforcing steel bar size, spacing and cover over the steel of straight transverse bars in top or bottom slabs, of L-bars in top or bottom corners, of straight vertical bars in side walls, and of longitudinal distribution and tie bars in top or bottom slabs or side walls shall be those of whichever adjoining box section provides the greater steel area for each type of bar. The bar length shall vary uniformly throughout the transition.
3. The thickness of the walls and slabs shall be those of the adjoining box section at each of the transition and shall vary uniformly between the two ends.
4. Structural concrete shall be class "A".
5. The transition structure shall be constructed in accordance with the general structural notes applying to box structures, shown on the project drawings.
6. Details of construction joints shall be as shown on the project drawings for single barrel box structures.
NOTES:
1. The horizontal angle of divergence or convergence, G, shall not exceed 5°48'.
2. Values for A, B, C, D, E, D, E, F, and E, G are shown on the improvement plan. The length of the structure may be increased to meet pipe ends using D bars in extended portion of same diameter and spacing as specified.
3. Concrete shall be class "A". Floor of the structure shall be steel-troweled to spring line. Structure shall be poured in one continuous operation, except that the contractor shall have the option of placing at the spring line a construction joint with a longitudinal keyway.
4. Reinforcing steel clear cover shall be 1 1/2" on inside. Tie bars shall be No. 4 and spaced 18" o.c.
5. When dimension C is not specified the spur shall not be constructed and A and B bars shall be omitted.
NOTES:

1. The horizontal angle of divergence or convergence, T, shall not exceed 3° 45'.

2. Reinforcing steel bar size, spacing and outside cover shall be that of double box section. For curved transitions, space bars on centerline and place transverse steel radially. The bar lengths and dimensions shall vary uniformly throughout transition. Longitudinal bars shall be continued through joints with the transition structure.

3. The concrete thickness shall be that of the double box section.

4. Plan as shown is for double box section downstream. When double box section is upstream, taper the last 2 ft. of center wall to end in 1 1/2 inch radius.

5. Structural concrete shall be class "A".

6. Transverse joint keyways as detailed for longitudinal joint keyways at base of outer walls on the project drawings, shall be placed in both slabs and walls at the end of each pour.

Town of Yucca Valley

Transition Structure
No. 4

Standard Drawing No. 423
TYPICAL SECTION

SECTION A-A

CONNECTOR PIPE COLLAR

NOTES:

1. CONCRETE SHALL BE CLASS "B" CONCRETE.
2. 1/2" PREFORMED BITUMINOUS JOINT MATERIAL.
3. 2' WITH MIN. 6" BELOW GRADE OR AS DIRECTED BY ENGINEER.
NOTES:

1. A CONCRETE COLLAR IS REQUIRED WHERE THE CHANGE IN GRADE EXCEEDS 0.10 FT. PER FOOT, OR IF CHANGE IN ALIGNMENT EXCEEDS 0.10 FT PER FOOT.

2. WHERE PIPES OF DIFFERENT DIAMETERS ARE JOINED WITH A CONCRETE COLLAR, L AND T SHALL BE THOSE OF THE LARGER PIPE. D = D₁ OR D₂ WHICHEVER IS GREATER.

3. FOR PIPE LARGER THAN 66” A SPECIAL COLLAR DETAIL IS REQUIRED.

4. FOR PIPE SIZE NOT LISTED USE NEXT SIZE LARGER.

5. OMIT REINFORCING ON PIPES 24” AND LESS IN DIAMETER AND ON ALL PIPES WHERE ANGLE “A” IS LESS THAN 10°.

6. WHERE REINFORCING IS REQUIRED, THE DIAMETER OF THE CIRCULAR TIES SHALL BE D + (2x WALL THICKNESS) + 8”.

7. WHEN D₁ IS EQUAL TO OR LESS THAN D₂, JOIN INVERTS AND WHEN D₁ IS GREATER THAN D₂, JOIN SOFFITS.

8. PIPE MAY BE CORRUGATED METAL PIPE, CONCRETE PIPE, OR REINFORCED CONCRETE PIPE.

<table>
<thead>
<tr>
<th>D</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>12”</td>
<td>1.0'</td>
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</tr>
<tr>
<td>18”</td>
<td>1.0'</td>
<td>5”</td>
</tr>
<tr>
<td>24”</td>
<td>1.0'</td>
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<td>1.5'</td>
<td>10”</td>
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<tr>
<td>57”</td>
<td>1.5'</td>
<td>10”</td>
</tr>
<tr>
<td>60”</td>
<td>1.75'</td>
<td>11”</td>
</tr>
<tr>
<td>66”</td>
<td>1.75'</td>
<td>11”</td>
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</tbody>
</table>
HEADWALL SHALL BE MONOLITHIC, LAP ALL BARS AT CORNERS 30 DIAMETERS IF NOT CONTINUOUS.

2-#4 OR #5 SEE NOTE 2

#4 OR #5 2"
O.C. EA. WAY
SEE NOTE 2

REINFORCING DETAIL

GROUND LINE

2-#5 SEE NOTE 2 CONTINUOUS BAR
90° BEND

8"

#4 OR #5 12"
O.C. EA. WAY
SEE NOTE 2

ELEVATION

SECTION A-A

NOTES:

1. HEADWALL SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE.

2. REINFORCING STEEL SHALL BE #4 BARS FOR "W" UP TO 50". ABOVE "W"=60" #5 BARS SHALL BE USED. 2" MINIMUM CLEARANCE, 30 DIAMETER LAP, ALL STEEL.

3. ADJACENT SLOPES SHALL BE 1-1/2 TO 1 OR FLATTER.

4. MULTIPLE PIPES TO BE SET WITH LONGITUDINAL CENTERS 1-2/3 DIAMETERS APART.

5. ALL EXPOSED CORNERS TO BE ROUNDED 3/4" RADIUS.

6. W SHALL BE INCREASED WHEN MULTIPLE PIPES OR PIPES ON SKEW ARE USED.
ELEVATION

NOTES:
1. REINFORCING STEEL IN WALLS AND BASE SHALL BE THE SAME AS STD. NO. 440.
2. NOTES SHALL BE THE SAME AS STD. NO. 440.
NOTE: 12" OF AGGREGATE BASE REQUIRED ON GRADED ROADS.

DIKE DIMENSIONS AND LENGTH SHOWN ON PLANS.

PLAN

VERTICAL CURVE

SECTIONS A-A

SECTION B-B

NOTES:
1. ALL CONCRETE TO BE CLASS "B".
2. L = SHOWN ON PLANS, H = 3' MIN., 6' MAX.
3. DRAINAGE EASEMENT REQUIRED.
4. AREA SHOWN THUS SHALL BE COMPACTED TO 90% RELATIVE DENSITY.
5. REINFORCED BLOCK WALL AND FOOTING PERMITTED.
NOTE:
PAVEMENT SHALL BE CONSTRUCTED OF 3" MIN. THICK AR4000 ASPHALT CONCRETE.
SECTION A-A

NOTES:
1. PLACE GRATE BARS PARALLEL TO FLOW.
2. GRATE AND FRAME SHALL BE GALVANIZED.

INLET TYPE X
(GRATE DETAILS)

STANDARD DRAWING NO. 460
NOTES:

1. 3/8" x 1 1/2" GALVANIZED BOLTS WITH HEX NUTS. FIELD WELD EACH NUT TO ANGLE.

2. DRILL HOLE 7/16" MATCHED 4 PLACES AS SHOWN IN PLAN.

3. PLATE AND ANGLE ASSEMBLY SHALL BE GALVANIZED.

SECTION A-A
NOTES:
1. STORM DRAIN CLEANOUT SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE.
2. CLEARANCE FROM I.D. OF PIPE TO CLEANOUT WALL SHALL BE 4" MIN.
3. APPROVED PRECAST CONCRETE MANHOLE SHAFT RINGS WILL BE ACCEPTED IN LIEU OF CAST-IN-PLACE SHAFT.

STORM DRAIN CLEANOUT
STANDARD DRAWING NO. 462
NOTES:

1. PRECAST REINFORCED CONCRETE MANHOLE PIPE TO MEET REQUIREMENTS OF ASTM C 478 SPECIFICATIONS WITH INCREASES IN REINFORCEMENT AND WALL THICKNESS TO MEET LOCAL REQUIREMENTS. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 4000 P.S.I. AT 28 DAYS.

2. DRYWELL DIMENSIONS AND LOCATION SHALL BE VERIFIED BY A LICENSED SOILS ENGINEER.

3. FINAL DESIGN IS SUBJECT TO APPROVAL BY THE TOWN ENGINEER.
TYPICAL FOR DIAMETERS
GREATER THAN 48"

CUT 3"x12" FOR
TIGHT FIT. 3 REQ'D.

3"x12" x(D+2T)"

TYPICAL FOR DIAMETERS
48" AND LESS

CUT 3"x12"
FOR TIGHT FIT.
ONE REQ'D.

3"x12" x(D+2T)"

NOTES:
1. NAIL 3"x12" TO VERTICAL SUPPORTS
   WITH 40d GALV. NAILS 3" O.C.
2. ALL LUMBER SHALL BE CREOSOTED
   DOUGLAS FIR, 1500 f CONSTRUCTION
   GRADE.

Town of
Yucca Valley

TIMBER BULKHEADS

STANDARD DRAWING NO. 464
NOTES:
1. NAIL 3" x 12" TO VERTICAL SUPPORTS WITH 40d GALV. NAILS 3" C.C.
2. ALL LUMBER SHALL BE CREOSOTED DOUGLAS FIR, 1500 F CONSTRUCTION GRADE.

SECTION A-A
3" x 12" x (W+2T)

6" x 6" VERT. SUPPORT
GALV. -L 3" x 3" x 1 1/4"
GALV. -4" x 3/8" LAG SCREW
GALV. -6" x 3/8" ANCH. BOLT

DRILL 3/4" HOLE FOR EA. #4

KEYED CONST. JOINT
#4 @ 12"-3' LONG WITH EXPOSED ENDS HEAVELY GREASED.

DETAIL A

Town of
Yucca Valley

TIMBER BULKHEADS

STANDARD DRAWING NO. 465
NOTES:
1. CONCRETE SHALL BE CLASS "B".
2. REINFORCING STEEL SHALL BE CENTERED IN BULKHEAD WITH HORIZONTAL "A" BARS TOWARDS OUTSIDE FACE OF BULKHEAD.
3. WHERE CONCRETE BULKHEAD IS USED WITH RCB, T & "A" BARS SHALL BE DETERMINED BY THE HEIGHT OF THE R.C.B.
4. LIFTS SHALL BE WOVEN STEEL CABLE WITH SAME MIN. DIAMETER (d) AS "A" BARS. WEAVE CABLE THROUGH HORIZONTAL "A" BARS. COAT EXPOSED PORTION OF CABLE LiftS WITH AN APPROVED BITUMINOUS PAINT PRIOR TO BACKFILLING TRENCH.
GENERAL NOTES:

1. In the case of sanitary sewer supports per Case 1, 2 or 3 of this standard, the sewer shall be encased for the section E-E, and the support shall be lengthened and widened to fully support such encasement.

2. Any of the cases shown on this standard may be used at the contractor's option unless otherwise shown on the project drawing.

3. The minimum lengths of bearing shown at the ends of R.C. beams, cast iron and steel pipes shall be increased if so directed by the engineer.

4. "S" in all cases equals the span of the pipe support measured along its centerline between the sides of the trench or to centerline of column supports.

**CASE 1 NOTES:**
1. Width of beam shall be outside diameter of pipe plus 2".
2. Reinforcing steel shall be placed 1/2" clear from the sides and bottom of beams.
3. If beams are precast, ends of beams shall be bedded in 1:3:6 mix concrete to edge of trench.
4. 1:2 mix mortar shall be placed between top of beams and bottom of pipe to give bearing.

**CASE 2 NOTES:**
1. Supporting wall shall have a firm bearing on the subgrade and against the sides of the excavation.
2. Wall shall be at least 3' free and clear of gas or water main or other conduit or duct.
3. Either Type A or Type B cross section may be used at contractor's option.
4. Whenever so directed by the engineer, the contractor shall pierce the wall with suitable openings to prevent pressure resulting from flooding the backfill. The volume of the pierced openings shall not exceed 1/2 the volume of the supporting wall.

**CASE 3 NOTES:**
1. Class 2000-D spun reinforced concrete pipe of the same diameter as existing pipe may be used only where width of trench is 5'-0" or less.

**ALLOWABLE SPANS FOR CAST IRON PIPE**

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<th>Class 150 Pipe</th>
<th>Class 200 Pipe</th>
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**DIMENSIONS OF REINFORCED CONCRETE BEAM**

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<tr>
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**MINIMUM LENGTH OF BEARING OF ENDS OF R.C. BEAMS**

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</table>

**APPROVED:**

[Signature]

**R.C.E. 27543**

**PIECE SUPPORT ACROSS TRENCHES**

**STANDARD DRAWING NO. 457**
* R.C.P. BEDDING & PAY LINES
NORMAL CONDITION

NOTE: The normal condition, bedding & pay lines are to be used unless otherwise indicated in the specifications or directed by the engineer.
PERSPECTIVE OF CATCH BASIN NO. 1

SEE STD. DWS 481 & 481A CATCH BASIN INLET FOR DETAILS.

SECTION A-A

1. DIMENSIONS, UNLESS OTHERWISE SPECIFIED:
   - V = 5'0" W = 7'
   - 9" W = 14'
   - 12" W = 21'
   - T = 8" INCHES IF V IS 4 FEET OR LESS.
   - T = 10" INCHES IF V IS LESS THAN 8 FEET.
   - T = 12" INCHES IF V IS 8 FEET OR MORE.
   - D = 18" INCHES UNLESS OTHERWISE SPECIFIED.
   - A = 36" INCHES UNLESS OTHERWISE SPECIFIED.

2. STRUCTURAL CONCRETE SHALL BE CLASS "A" P.C.C. (6 SACK).

3. THE REINFORCING STEEL SHALL BE NUMBER 4 DEFORMED BARS. CLEARANCE SHALL BE 1 1/2 INCH FROM THE BOTTOM OF THE SLAB. SEE NOTE 7.

4. THE SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM TO SLOPE, GRADE, COLOR, FINISH AND SANDING IN THE EXISTING OR PROPOSED CURB AND WALK ADJACENT TO THE BASIN. THE BASIN FLOOR SHALL BE GIVEN A LIGHT WOOD FLOAT FINISH. CURVATURE OF THE LIP AND SIDEWALKS AT THE CURB OPENING SHALL NOT BE MADE BY PLASTERING. THE OUTLET PIPE SHALL BE TRIMMED TO FINAL SHAPE AND LENGTH BEFORE THE CONCRETE IS Poured.

5. STEPS:
   - 3/4 INCH PLAIN ROUND GALVANIZED STEEL STEPS SHALL BE INSTALLED 18 INCHES APART WHEN V EXCEEDS 4 FEET 5 INCHES. THE TOP STEP SHALL BE 6 INCHES BELOW THE TOP SURFACE AND SHALL BE 2 1/2 INCHES CLEAR FROM THE WALL. ALL OTHER STEP SHALL BE 4 INCHES CLEAR FROM THE WALL. ONLY ONE STEP 12 INCHES FROM THE BOTTOM SHALL BE INSTALLED IF V IS 4 FEET 5 INCHES OR LESS. ALL STEPS SHALL BE ANCHORED NOT LESS THAN 4 INCHES INTO THE WALL OF THE BASIN.

6. CURB, GUTTER AND LOCAL DEPRESSIONS SHALL BE CLASS "B" CONCRETE.

7. SEE STANDARD DRAWING 473 FOR WALL & FLOOR STEEL REINFORCING.

ROBERT K. HOLT
REGISTERED PROFESSIONAL ENGINEER
No. 27943
CIVIL
STATE OF CALIFORNIA
EXPIRES 03-31-88

TOWN OF YUCCA VALLEY
CATCH BASIN NO. 1
STANDARD DRAWING NO. 470
### Steel List

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<tr>
<th>No. of Gratings</th>
<th>4&quot; Deformed Bars</th>
<th>1/2&quot;</th>
<th>Face Grade</th>
<th>Dowels</th>
<th>Anchors</th>
<th>W.C. Seal</th>
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</tbody>
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*See Notes*

### Grate Type

- **34"** R.C.F.C. STD. CB104
- **32"** CALTRANS STD. D77-B

---

**SECTION AA**

For frame and grating details and anchorage, see standard drawing No. 477.

**Slope 3/4" to 1'-0"**

**Hike-up 1/4" Rad.**

**3" Rad.**

**Slope to outlet in all directions.**

---

**PLAN**

- **ANCHOR**
- **DEFORMED BARS**
- **ANCHOR**
- **CROWN**
- **CURB FACE**
- **STANDARD DRAWING NO. 403**

See notes for placement of connection pipe.

---

**DETAIL OF Dowel**

- **8"** Bar
- **90°**

---

**DETAIL OF END WALL**

- **ANCHOR**
- **DEFORMED BARS**
- **ANCHOR**
- **4" Radius**

---

**SECTION AA**

- **ANCHOR**
- **DEFORMED BARS**
- **ANCHOR**
- **CROWN**
- **CURB FACE**

---

**Town of Yucca Valley**

**CATCH BASIN**

**NO. 4**

**SHT. 1 OF 2**

**STANDARD DRAWING NO. 471**

---

**APPROVED:**

**DATE:**

**APPROVED: TOWN ENGINEER**

Robert K. Holt

**R.C.E. 27943**

---

**REVISION**

**BY DATE**
NOTES FOR CATCH BASIN NO. 4

1. DIMENSIONS: UNLESS OTHERWISE SPECIFIED.

\[
\begin{align*}
V &= 3.5 \text{ FEET.} \\
T &= 6 \text{ INCHES, IF } V \text{ IS 4 FEET OR LESS.} \\
T &= 8 \text{ INCHES, IF } V \text{ IS BETWEEN 4 FEET AND 8 FEET.} \\
T &= .10 \text{ INCHES, IF } V \text{ IS 8 FEET OR OVER.} \\
W &= 2 \text{ FEET, } 11-3/8 \text{ INCHES FOR ONE GRATING. ADD 3 FEET, } 5-3/8 \text{ INCHES FOR EACH ADDITIONAL GRATING.} \\
S &= 1-1/2 \text{ INCHES.} \\
R &= 3/4 \text{ INCH.}
\end{align*}
\]

HIKE-UP SHALL BE PARALLEL TO PLANE OF GUTTER — SLOPE 3/4 INCH TO 1 FOOT.
SLOPE OF FLOOR PARALLEL WITH CURB SHALL BE 1 IN 12.

2. CONCRETE SHALL BE CLASS "A" PORTLAND CEMENT CONCRETE (6.0 SACK)

3. THE REINFORCING STEEL SHALL BE NUMBER 4 DEFORMED BARS. CLEARANCE SHALL BE 1-1/2 INCHES FROM TOP SLAB. SEE STD. DWG. 473 AND NOTE 3.

4. THE SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM TO SLOPE, GRADE, COLOR, FINISH, AND SCORING IN THE EXISTING OR PROPOSED CURB AND WALK ADJACENT TO THE BASIN. THE BASIN FLOOR SHALL BE GIVEN A TIGHT WOOD FLOAT FINISH. CURVATURE OF THE LIP AND SIDEWALLS AT THE GUTTER OPENING SHALL NOT BE MADE BY PLASTERING. THE OUTLET PIPE SHALL BE TRIMMED TO FINAL SHAPE AND LENGTH BEFORE THE CONCRETE IS Poured.

5. STEPS: 3/4 INCH PLAIN ROUND GALVANIZED STEEL STEPS ARE REQUIRED AS FOLLOWS:

IF V IS 4.5 FEET OR LESS, NO STEPS ARE REQUIRED.
IF V IS MORE THAN 4.5 FEET, AND NOT MORE THAN 5.0 FEET, INSTALL ONE STEP 12 INCHES ABOVE FLOOR OF BASIN.
IF V IS MORE THAN 5.0 FEET, INSTALL STEPS 16 INCHES APART WITH THE TOP STEP 6 INCHES BELOW THE TOP OF GRATING.
ALL STEPS SHALL BE 4 INCHES CLEAR FROM THE WALL AND ANCHORED NOT LESS THAN 4 INCHES INTO THE WALL OF THE BASIN.

Town of Yacca Valley
CATCH BASIN NO. 4
SHT. 2 OF 2
STANDARD DRAWING NO. 471A
THE OUTER EDGES OF THE WALLS SHALL CONFORM TO THE STREET OR LOCAL DEPRESSION SURFACE. THE GRATING SHALL BE LAYED IN THE PLANE OF THIS SURFACE. SEE STANDARD DRAWING NO. 403 NOTE 1(B) FOR APPROPRIATE LOCAL DEPRESSION.

SECTION A-A

NOTES:

1. DIMENSIONS: UNLESS OTHERWISE SPECIFIED, V = 4.5 FEET. W = 7.0 FEET.
   T = 6 INCHES IF V IS 5 FEET OR LESS. T = 8 INCHES IF V IS BETWEEN 5 FT. & 8 FEET.
   T = 10 INCHES IF V IS 8 FEET OR MORE. Y = 2 FEET 3 INCHES.

2. CONCRETE SHALL BE CLASS "A" PORTLAND CEMENT CONCRETE (6.0 SACK).

3. THE REINFORCING STEEL SHALL BE NUMBER 4 DEFORMED BARS. CLEARANCE SHALL BE 1 1/2" FROM THE BOTTOM OF THE SLAB. SEE STANDARD DRAWING 473 - NOTE 3.

4. THE SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM TO THE SLOPE, GRADE, COLOR, FINISH, AND SCORING IN THE EXISTING OR PROPOSED CURB AND WALK ADJACENT TO THE BASIN. THE BASIN FLOOR SHALL BE GIVEN A TIGHT WOOD FLOAT FINISH. CURVATURE OF THE LIP AND SIDE WALLS AT THE GUTTER OPENING SHALL NOT BE MADE BY PLASTERING. THE OUTLET PIPE SHALL BE TRIMMED TO FINAL SHAPE AND LENGTH BEFORE THE CONCRETE IS Poured.


APPROVED:

DATE

APPROVED: TOWN ENGINEER

REVISION

STANDARD DRAWING NO. 472
1. WALL & FLOORING REINFORCING SHOWN HEREON SHALL BE USED WITH CATCH BASIN STANDARD DRAWINGS.

2. REINFORCING STEEL SHOWN HEREON SHALL BE USED IN ALL CATCH BASINS ON STATE HIGHWAYS REGARDLESS OF BASIN LENGTH OR DEPTH.

3. PROVIDE WALL & FLOOR STEEL REINFORCING WHEN THE FOLLOWING "V" DEPTHS ARE EQUALED OR EXCEEDED:

   BASIN LENGTH = W  BASIN DEPTH = V

   TO 7.0'  10'
   7'  TO 14.0'  7'
   14' TO 21.0'  6'
   OVER 21.0'  ALL DEPTHS

---

### WALL AND FLOOR STEEL

#### CATCH BASIN REINFORCEMENT - "W" TO 14' (INCL.)

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<th>V (FT.)</th>
<th>T (IN)</th>
<th>FRONT WALL STEEL</th>
<th>REAR WALL STEEL</th>
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<tr>
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<td>FROM TO (IN.)</td>
<td>BAR A &amp; B</td>
<td>BARS C</td>
<td>BARS D</td>
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**X = (V+T)-(C.F.+H+4 1/2")  Y = (X+3)+(X+3)/24**

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#### CATCH BASIN REINFORCEMENT - "W" GREATER THAN 14'

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<th>V (FT.)</th>
<th>T (IN)</th>
<th>SIDE &amp; END WALL STEEL</th>
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### GRATING BASIN REINFORCEMENT

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**Town of Yucca Valley**

CATCH BASIN REINFORCEMENT

AVAILABLE DRAWING NO. 473

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**Robert K. Holt**

R.C.E. 27943

APPROVED TOWN ENGINEER

---

**NOTES**

REINFORCING STEEL SHOWN HEREON SHALL BE USED IN ALL CATCH BASINS WHEN EXCAVATION OR SOIL CONDITIONS REQUIRE BOTH SIDES OF THE WALLS TO BE FORMED REGARDLESS OF BASIN LENGTH OR DEPTH.

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**FLOOR REINFORCEMENT SECTION 2**

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**SECTION 1**

---

**SECTION 2**

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**GRATING BASIN REINFORCEMENT**

---

**APPROVED:**

**DATE:**

---

**REVISION**

**BY DATE:**
PLAN
CORNER CONNECTION

D BARS — 2 ABOVE & 2 BELOW OPENING

PLAN
SIDE CONNECTION

E BARS — 2 ABOVE & 2 BELOW OPENING

#4 @ 18 OR CLOSER

ANGLE A (SEE NOTE 3)

#4 @ 18 OR CLOSER

C BARS

NOTES:

1. REINFORCING STEEL SHALL BE 1 1/2" CLEAR FROM INSIDE FACE OF CONCRETE UNLESS OTHERWISE SHOWN.

2. REINFORCING STEEL FOR INSIDE FACE OF CATCH Basin WALL SHALL BE CUT AT CENTER OF OPENING AND BENT INTO WALLS OF MONOLITHIC CONNECTION. REINFORCING STEEL FOR OUTSIDE FACE OF CATCH Basin WALL SHALL BE CUT 2" CLEAR OF OPENING.

3. CONNECTION SHALL BE POURED MONOLITHIC WITH CATCH BASON. THE ROUNDED EDGE OF OUTLET SHALL BE CONSTRUCTED BY POURING CONCRETE AGAINST A CURVED FORM WITH A RADIUS OF 3".

4. FLOOR OF STRUCTURE SHALL BE STEEL-TROWELED TO SPRING LINE.

5. CONNECTIONS SHALL BE CONSTRUCTED WHERE (A) PIPES, 12 INCHES THROUGH 72 INCHES IN DIAMETER, INLET OR OUTLET THROUGH CORNER OF CATCH BASON AT AN ANGLE LESS THAN 40° (B) ANGLE A, FOR PIPES 24 INCHES THROUGH 30 INCHES IN DIAMETER, IS LESS THAN 45°.

Town of
Yucca Valley

SPECIAL CONNECTIONS
TO CATCH BASIN

STANDARD DRAWING NO. 474
NOTES:
1. All reinforcing shall be #4 bars at 12" O.C. both ways in top slab and walls.
2. Catch basin shall be constructed of Class "A" concrete.
3. Curb & gutter adjoining catch basin shall be constructed prior to constructing top of catch basin.

SECTION A-A

CURB OPENING DETAIL STD. NO. 480

LOCAL DEPRESSION
STD. NO. 400

PIPE TYPE & SIZE SHALL BE SHOWN ON PLANS
THICKNESS SHALL BE SHOWN ON PLANS FOR METAL PIPE.

ELEV. SHOWN
ON PLANS

DETAIL OF REINFORCEMENT
AROUND PIPE

GALV. STEEL
STEPS BELOW
MANHOLE
SEE STD.
NO. 480A

SLOPE FLOOR 1" PER FOOT MIN. FROM ALL DIRECTIONS
TROWEL SMOOTH
OPTIONAL JOINTS

SLOPE 1/4":1" 4 1/2" 2"

12" O.C.

12" O.C.

Town of
Yucca Valley

TYPE "A"
CATCH BASIN

STANDARD DRAWING NO. 475
CONCRETE CAP ON BOND BEAM WITH #3 BAR CONTINUOUS.

SEE STANDARD NO. 476 FOR COVER DETAILS

#3 BAR CONTINUOUS

REINFORCEMENTS IN BASE SHALL BE #3 BARS 16" O.C. BENT AS VERTICAL DOWELS

SECTION A—A

NOTES:
1. 8"x8"x16" CONC. BLOCK WITH #3 STEEL 16" O.C. VERT. AND 24" O.C. HORIZ.
2. FILL ALL BLOCKS WITH GROUT.
3. BASE OF CATCH BASIN SHALL BE CONSTRUCTED WITH CLASS 'B' CONCRETE.
4. HORIZONTAL STEEL SHALL BE PLACED IN BOND BEAM BLOCKS.
SECTION A-A

NOTES:
1. CENTER SUPPORT ASSEMBLY SHALL BE USED WHEN TWO OR MORE GRATINGS ARE SPECIFIED.
2. ALL BOLTS USED IN CENTER SUPPORT SHALL BE 1/2".
3. FRAME MAY BE RIVETED OR WELDED.
4. BOLTS (NOT RIVETS OR NUTS) SHALL BE USED TO JOIN TWO OR MORE FRAMES TOGETHER AND TO THE 7/8" BEAM.
5. DETAIL OF END SPACERS SHOWS FINISHED DIMENSIONS.
6. ALL PARTS SHALL BE OF STRUCTURAL GRADE STEEL, EXCEPT END SPACERS, WHICH MAY BE OF OTHER CAST IRON OR STEEL.
7. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED PRIOR TO ASSEMBLY, WELDING, MACHINING, AND DRILLING SHALL BE DONE BEFORE GALVANIZING. ALL DIMENSIONS ARE FINISHED DIMENSIONS AND INCLUDE GALVANIZING.
8. TOTAL WEIGHT - 5500 LBS. FOR GRATE SHOWN.

W

GRATE TYPE

25 1/2" AS SHOWN ABOVE
24" CALTRANS STD. D77-B

CENTER SPACER

CENTER SUPPORT ASSEMBLY

PLAN

SECTION C-D

SEE NOTE No. 2

PLAN
NORMAL DIRECTION OF FLOW

ELEVATION

5'-18" BY H-BEAM

44" LONG FOR CATCH BASIN - NO. 4 WITH GRATE SHOWN.
42" LONG FOR CATCH BASIN - NO. 4 WITH CALTRANS GRATE.

APPROVED: TOWN ENGINEER

Town of Yucca Valley

CATCH BASIN GRATE

STANDARD DRAWING NO. 477
STEEL ANGLE & SUPPORT BOLT DETAIL

STEEL ANGLE ANCHOR

NOTES:
1. A plain round galvanized steel protection bar 3/4" in dia. shall be installed and embedded 6" at each end.
2. All exposed metal parts shall be galvanized. (Except frame and cover)
3. Support bolts shall be uniformly spaced but not to exceed 7' on center.
4. Steel angle shall be bent to match curb alignment.
Curb Armor and Support Bolts shall be Alhambra Foundry A-3911 or equal. Length shall be Opening Width plus 12 inches.

Catch Basin Steel Plate
To be used only when shown on Plans

Notes:
1. For notes and other details see Std. No. 480.
2. Steel plate shall not be used on curves.

Catch Basin Wall

Steps shall be Alhambra Foundry A-3320, A3315 or equal.

Galvanized Steel Step

Notes:
1. Steps - none required where "V" is 3'-6" or less. Install one step 16" above floor when "V" is more than 3'-6" and less than 5'-0" where "V" is more than 5'-0" steps shall be evenly spaced @ 12" intervals from 16" above the floor to within 12" from the top of the box. Place steps in wall without pipe openings and under manhole.

Town of Yucca Valley

Catch Basin Steel Plate
Galvanized Steel Step

Standard Drawing No. 480A
NOTES:
1. ALL BARS SHALL BE 3/4" GALV. HOT-ROLLED STEEL PER A.S.T.M. DESIGNATION A-36. BAR LENGTHS SHALL NOT EXCEED 21' AND SHALL BE CUT TO FIT IN THE FIELD. WHEN "W" IS OVER 21', PROTECTION BAR SHALL CONSIST OF TWO OR MORE SECTIONS DEPENDING UPON LENGTH OF BASIN. LOCATION OF SPECIAL SUPPORT BARS AND ADDITIONAL SOCKET SET SCREW TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

2. INSTALL COUPLING AT DOWNSTREAM END OF CATCH BASIN OPENING.
NOTES:
1. SUPPORT BOLT HOLE "a" shall vary to conform with batter of advancing cut.
2. PROTECTION BAR SHALL BE INSTALLED AND SUPPORT BOLTS SPACED ACCORDING TO STANDARD DRAWING NO. EB 836A SHEET 1. 1 OF 2.
3. SUPPORT BOLTS SHALL BE DRILLED 1/2" DEEP AND 2" LONG TO DURE FACE + 1/2" FOR ALL CATCH BASINS.
4. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AFTER FABRICATION.
5. PROTECTION BARS SPACED: PROTECTION BARS SHALL BE INSTALLED WHEN THE MINIMUM CLEAR SPACING OF THE CATCH BASN EXCEEDS 1/8" BARS AND SHALL BE PLACED SUCH THAT NO HARMFUL CLEAR SPACING EXISTS B.
   a. WHEN ONE BAN IS REQUIRED, "a" SHALL BE 8 1/2", HOWEVER, THIS SHALL BE REDUCED 1/2" WHEN CONFORM TO THE CENTER OF THE PROTECTION BAR IS NOT LESS THAN 8 1/2" FROM THE ROLLER PLATE.
   b. WHEN TWO OR MORE BARS ARE REQUIRED, "a" SHALL BE 8 1/2" WITH SPACING BARS SPACED AT 8 1/2" C.C. THE SPACING OF THE TOP BAN SHALL BE REDUCED IF NECESSARY SO THAT THE CENTER OF THE BAN IS NOT LESS THAN 8 1/2" FROM THE ROLLER PLATE.
6. WHERE CATCH BASINS ARE TO BE CONFORMED TO SPACE, THE MEASURED CHORD LENGTH FOR FACE PLATE SHALL BE SUCH THAT THE MINIMUM CHORD LENGTH IS 2" AND THE CENTER OF THE SPACE SHALL BE PLACED BETWEEN THE END ANCHORS.
7. MEASURE LENGTH OF FACE PLATE IS BETWEEN 2" AND 3," TWO BANS MAY BE USED.
8. LEGEND END ANCHORS ARE REFERRED TO AND CLEAR BETWEEN BAN AND SPACE WEDGES SHALL BE PLACED BETWEEN END ANCHORS.
9. LENGTH OF FACE PLATE IS BETWEEN 2" AND 3," SPACE WEDGES MAY BE USED.
10. SPACE WEDGES ARE REFERRED TO AND CLEAR SPACE WEDGES SHALL BE PLACED BETWEEN END ANCHORS.
11. FACE PLATE OPENING IS 6" X 12" FOR ALL CATCH BASINS EXCEPT THE ENCASTRE TYPE.
12. CATCH BASH OPENING IS NORMAL CURVATURE 6" X 12" HOLLOW UNLESS OTHERWISE SPECIFIED.
13. SPACINGS OF ALL ANCHORAGE:
   a. SET END ANCHORS 6" FROM EDGES OF FACE PLATE.
   b. PLACE END "a" ANCHORS AT EACH SIDE OF ANY AND ALL SPACE WEDGES AND WITHIN 2" THEREOF.
NOTE:
△ = WHEN STEEL FORMS ARE USED, ELIMINATE HOOK AND USE UPSET END.

PLAN VIEW

FRONT ELEVATION

VARIES TO SUIT DIMENSION SHOWN ON STRUCTURE

3/4" ROUND STEEL BAR, BEND HOT

SECTION A-A
GALVANIZE AFTER BENDING

NOTE:
THIS DETAIL SHALL BE USED WHEREVER STEPS ARE REQUIRED.

Town of
Yucca Valley

STANDARD DROP STEP

STANDARD DRAWING NO. 482
NOTES:
2. INSTALL TWO 3/4" x 3/4" ALLEN SOCKET SET SCREWS, 90° TO PICK HOLE, IN HOLES DRILLED AND TAPPED 1" IN DEPTH. GALVANIZE PER A.S.T.M. 153.
3. FRAME AND COVER SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS BEFORE DELIVERY. RETAP FRAME AS REQUIRED TO SUIT SET SCREWS.
1. HEIGHT H SHALL BE NOT LESS THAN 4'−0" BUT MAY BE INCREASED AT
OFTION OF CONTRACTOR PROVIDED THAT THE VALUE OF M SHALL
NOT BE LESS THAN THE MINIMUM SPECIFIED AND THAT THE
REDUCER SHALL BE USED. FOR H (IN SEC. C−C) SEE NOTE 4.

2. LENGTH L SHALL BE 4' UNLESS OTHERWISE ShOWN ON IMPROVEMENT PLAN.
L MAY BE INCREASED OR LOCATION OF MANHOLE SHIFTED TO MEET
PIPE ENDS AT THE OPTION OF THE CONTRACTOR, EXCEPT THAT ANY
CHANGE IN LOCATION OF MANHOLE MUST BE APPROVED BY THE
ENGINEER.

3. SHAFT SHALL BE CONSTRUCTED AS PER SEC. C−C AND DETAIL N WHEN
DEPTH M FROM STREET GRADE TO TOP OF BOX IS LESS THAN
2'−10 1/2" FOR PAVED STREETS OR 3'−6" FOR UNPaved STREETS.

4. DEPTH P MAY BE REDUCED TO AN ABSOLUTE LIMIT OF 6 INCHES WHEN
LARGER VALUES OF P WOULD REDUCE H (IN SEC. C−C) TO BE
3'−6" OR LESS.

5. T SHALL BE 8" FOR VALUES OF H UP TO AND INCLUDING 8 FEET.
T SHALL BE 10" FOR VALUES OF H OVER 8 FEET.

6. STEPS SHALL BE 3/4" ROUND, GALVANIZED STEEL AND ANCHORED NOT
LESS THAN 4" IN THE WALLS OF STRUCTURES. UNLESS OTHER−
WISE ShOWN, STEPS SHALL BE SPACED 16" ON CENTER. THE
LOWEST STEP SHALL BE NOT MORE THAN 2 FT. ABOVE THE INVERT.

7. REINFORCING STEEL SHALL BE NO. 4 AND 1−1/2" CLEAR FROM INSIDE FACE
OF CONCRETE.

8. STATIONS REFER TO PLAN AND PROFILE SHEETS. ELEVATIONS AT Q AND
PROLONGED INVERT GRADE LINE. SEE NOTE 2 FOR SHIFTING
LOCATION.

9. RINGS, REDUCER, AND PIPE FOR ACCESS SHAFT SHALL BE SEATED IN
CEMENT MORTAR AND NEATLY POINTED OR WIRED INSIDE SHAFT.

10. FLOOR OF MANHOLE SHALL BE STEEL−TROWELED.

11. CONCRETE SHALL BE CLASS "A".
PLAN
(SHAFT NOT SHOWN)

SIZE AND SPACING OF STEEL AS SHOWN ON IMPROVEMENT PLAN, EXCEPT THAT 5 BARS ON EACH SIDE OF SHAFT SHALL BE NOT SMALLER THAN #5 @ 4" O.C. OR EQUIVALENT.

#5 BARS 5' LONG @ 4" C.C.

SECTION A-A

5 BARS 7' LONG 4" O.C. OF SIZE SHOWN FOR TRANSVERSE STEEL ON IMPROVEMENT PLAN EXCEPT NOT LESS THAN #5. WARP THESE BARS UNDER BARS THAT HAVE BEEN CUT FOR SHAFT OPENING.

SECTION B-B

NOTE:
1- DEPTH P: WHEN DEPTH P FROM STREET GRADE TO TOP OF PIPE SEAT IS LESS THAN 2'-10 1/2" IN PAVED STREETS OR 3'-6" IN UNPAVED STREETS, CONSTRUCT 2 FT. DIAMETER SHAFT USING CONCRETE RINGS AS PER STANDARD PLAN FOR CONCRETE RINGS, OTHERWISE, CONSTRUCT 3 FT. SHAFT AS SHOWN ON THIS PLAN.

2- STATIONS SHOWN ON IMPROVEMENT PLAN REFER TO CENTERLINE OF SHAFT.

3- STEPS SHALL BE 3/4" ROUND GALVANIZED STEEL ANCHORED NOT LESS THAN 4" IN WALLS OF STRUCTURE AND UNLESS OTHERWISE SHOWN, SHALL BE SPACED 16" ON CENTER. THE LOWEST STEP SHALL NOT BE MORE THAN 2 FEET ABOVE THE FLOOR.

REGISTERED PROFESSIONAL ENGINEER

ROBERT K. HOLT No.27943
EXPIRES 03-31-98
STATE OF CALIFORNIA
CIVIL

APPROVED: TOWN ENGINEER
Robert K. Holt
R.C.E. 27943

STORM DRAIN
MANHOLE NO. 3

STANDARD DRAWING NO. 492
NOTES

1- VALUES FOR A, B, C, D, D₂, ELEV. R AND ELEV. S ARE SHOWN ON THE IMPROVEMENT PLANS. TABLE OF VALUES FOR F AND T HEREOF.

2- LATERALS: IF LATERALS ENTER ON BOTH SIDES OF MANHOLE, ACCESS SHAFT SHALL BE LOCATED ON SIDE RECEIVING THE SMALLER LATERAL.

3- CENTER OF MANHOLE SHAFT SHALL BE LOCATED OVER CENTERLINE OF MAIN STORM DRAIN WHEN D₂ IS 48" OR LESS, IN WHICH CASE PLACE B & E BARS SYMMETRICALLY AROUND SHAFT AT 45° WITH CENTERLINE.

4- LENGTH L MAY BE INCREASED AT OPTION OF CONTRACTOR TO MEET PIPE ENDS, BUT ANY CHANGE IN LOCATION OF SPUR MUST BE APPROVED BY THE ENGINEER.

5- DETAIL N: WHEN DEPTH OF MANHOLE FROM STREET GRADE TO TOP OF BOX IS LESS THAN 1' - 10 1/2" FOR PAVED STREETS OR 3' - 6" FOR UNPaved STREETS, CONSTRUCT MONOLITHIC SHAFT PER DETAIL M.

6- REINFORCING STEEL SHALL BE ROUND, DEFORBED, STRAIGHT BARS, 1 1/2" CLEAR FROM INSIDE FACE UNLESS OTHERWISE SHOWN. TIE BARS SHALL BE NO. 4 AND SPACED 18" ON CENTERS OR CLOSER.

7- CONCRETE SHALL BE CLASS "A".

8- STEPS SHALL BE 3/4" GALVANIZED STEEL AND ANCHORED NOT LESS THAN 4" IN WALLS OF STRUCTURE. UNLESS OTHERWISE SHOWN THE SPACING SHALL BE 16" ON CENTER. THE LOWEST STEP SHALL BE NOT MORE THAN 2 FT. ABOVE THE INVERT.

9- RINGS, REDUCERS, AND PIPE FOR ACCESS SHAFT SHALL BE SEATED IN CEMENT MORTAR AND NEATLY POINTED OR WAVED INSIDE SHAFT.

10- FLOOR OF MANHOLE SHALL BE STEEL-TROWELED TO SPRING LINE.

11- BODY OF MANHOLE, INCLUDING SPUR, SHALL BE POURED IN ONE CONTINUOUS OPERATION, EXCEPT THAT THE CONTRACTOR SHALL HAVE THE OPTION OF PLACING AT THE SPRING LINE A CONSTRUCTION JOINT WITH LONGITUDINAL KEWAY.

* USE D₁ OR D₂, WHICHEVER IS GREATER, OR B.

** IF D₂, D₁, OR B FALLS BETWEEN TABULATED VALUES THEN USE THE NEXT HIGHEST VALUE TO DETERMINE F OR T.

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Town of Yucca Valley

STORM DRAIN
MANHOLE NO. 4
STANDARD DRAWING NO. 493A
VERTICAL SECTION OF PLAIN CONCRETE ECCENTRIC MANHOLE SHAFT

NOTES:

1. ALL JOINTS SHALL BE FILLED WITH 1-2 MORTAR AND NEATLY POINTED OR WPED INSIDE OF SHAFT.

2. COLLAR OF 1-2 MORTAR AROUND COVER FRAME SHALL BE OMITTED IN ROCK AND OIL STREETS AND IN PAVED STREETS.

3. STEPS SHALL BE 3/4 INCH ROUND GALVANIZED STEEL. TOP STEP SHALL BE PLACED DIRECTLY BENEATH THE MANHOLE COVER FRAME. WIDTH OF ALL STEPS SHALL BE 14 INCHES BETWEEN LEG CENTERS. EXCEPT WHERE SHOWN OTHERWISE, SPACING OF STEPS IN SHAFT SHALL BE 16 INCHES ON CENTER.

4. ECCENTRIC MANHOLE SHAFT, REDUCER, AND RINGS MAY BE PLAIN CONCRETE. FOR UNREINFORCED SECTIONS, THE MINIMUM THICKNESS SHALL BE 6 INCHES. THE CONCRETE USED SHALL BE CLASS "A".

APPROVED: TOWN ENGINEER

RCE. 27943

REVISED BY DATE

STANDARD DRAWING NO. 494
SECTION A-A

PLAN

NOTES:
1. IF "H" IS LESS THAN 1'-6", W=2'-0"
   IF "H" IS BETWEEN 1'-6" AND 2'-6", W=2'-0"
   IF "H" IS 2'-6" OR MORE, W=3'-0"
   IF "H" IS MORE THAN 4'-0 1/2", BRING WALLS VERTICALLY TO 4'-0 1/2" BELOW SURFACE AND TAPER FROM 3'-0" TO 2'-0" AS SHOWN.

2. THIS STRUCTURE SHALL BE USED WITH STANDARD PRESSURE MANHOLE FRAME AND COVER. SEE STD. DWG. 499. IT MAY BE USED FOR HYDROSTATIC HEADS UP TO 25' ABOVE THE STEEL PLATE.

3. CONCRETE SHALL BE CLASS "A".

Town of
Yucca Valley

STANDARD PRESSURE
MANHOLE SHAFT

STANDARD DRAWING NO. 495
NOTES:
1. SEATS OF FRAME AND COVER SHALL BE MACHINED TO PREVENT NOISE
2. TOTAL WEIGHT OF FRAME AND COVER APPROX. 380 LBS.
3. MINIMUM CLEAR OPENING 22" DIA. ALL OTHER DIMENSIONS ARE NOMINAL.

MATERIAL: CAST IRON (ASPHALT COATED)

ALHAMBRA A-1310 OR EQUIVALENT
MATERIAL: CAST IRON (ASPHALT COATED OR GALVANIZED)

NOTES:
1. SEATS OF FRAME AND COVER SHALL BE MACHINED TO PREVENT NOISE.
2. TOTAL WEIGHT OF FRAME AND COVER APPROX. 130 LBS.
3. MINIMUM CLEAR OPENING 22" DIAMETER. ALL OTHER DIMENSIONS ARE NOMINAL.

ALHAMBRA A-1530 OR EQUIVALENT

MANHOLE FRAME &
COVER - PARKWAY

STANDARD DRAWING NO. 497
NOTES:

1. MANHOLE FRAME AND COVER SHALL BE MADE OF GRAY CAST IRON CONFORMING TO THE LATEST A.S.T.M. STANDARD A-48, CLASS 30 OR BETTER.

2. ALL PARTS OF THE MANHOLE FRAME AND COVER EXCEPT MACHINED SURFACES SHALL BE COATED WITH ASPHALTUM PAINT.

3. MANHOLE FRAME AND COVER SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS BEFORE DELIVERY. THE COVER SHALL FIT THE FRAME SNUGLY BUT NOT TIGHTLY.

4. THE WEIGHTS OF THE FRAME AND COVER SHALL NOT VARY MORE THAN TWO PERCENT FROM THOSE GIVEN HEREOF.

5. COVERS FOR MANHOLES LOCATED IN RIGHT OF WAY, EASEMENTS, ALLEYS, PARKWAYS, AND ALL OTHER PLACES EXCEPT PAVED STREETS SHALL BE PROVIDED WITH ALLEN SOCKET SET SCREW LOCKING DEVICES. THE CONTRACTOR SHALL DRILL AND TAP TWO HOLES TO A DEPTH OF 1" AT 90° TO PICK HOLE AND INSTALL 3/4"x3/4" ALLEN SOCKET SET SCREWS THEREIN.
NOTES:
1. MANHOLE FRAME AND COVER SHALL BE MADE OF GRAY CAST IRON CONFORMING TO THE LATEST A.S.T.M. STANDARD A-216, CLASS 30 OR BETTER. PRESSURE PLATE SHALL BE STEEL.
2. ALL PARTS OF THE MANHOLE FRAME AND COVER EXCEPT MACHINED SURFACES SHALL BE COATED WITH ASPHALTUM PAINT.
3. MANHOLE FRAME AND COVER SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS BEFORE DELIVERY. THE COVER SHALL FIT THE FRAME SNUGLY BUT NOT TIGHTLY.
4. WEIGHTS OF FRAME, COVER, AND PRESSURE PLATE SHALL NOT VARY MORE THAN TWO PERCENT FROM THOSE GIVEN HEREIN.
5. THIS STRUCTURE SHALL BE USED WITH STANDARD PRESSURE MANHOLE SHAFT. SEE STANDARD DRAWING 495. IT MAY BE USED FOR HYDROSTATIC HEADS UP TO 25' ABOVE STEEL PLATE.

TOWN OF
Yucca Valley

MANHOLE FRAME & COVER PRESSURE TYPE

STANDARD DRAWING NO. 499
### Section 5 – Miscellaneous Details

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FRONT OPENING INSTALLATION

2" O.D. IRON PIPE

4" DIAM. OPENING

SEE PIN DETAIL

CONC. C.&G.

NOTE: END OPENING MAILBOX NOT PERMITTED.
FACE OF MAILBOX SHALL NOT EXTEND PAST TOP OF CURB LINE.

TOP OPENING INSTALLATION

2" O.D. IRON PIPE

4" DIAM. OPENING

SEE PIN DETAIL

CONC. C.&G.

PCC ROUND OR SQUARE

1/4" STEEL PIN
PIN DETAIL

1/4" STEEL PIN

FILL OPENING AROUND PIPE WITH CEMENT GROUT.

4" SIDEWALK

TOP OF CURB LINE

VAR.

CONNECTION PIPE FLANGE

FILL OPENING AROUND PIPE WITH CEMENT GROUT.

4" SIDEWALK

TOP OF CURB LINE

VAR.

PETER K. HOLT
REGISTERED PROFESSIONAL ENGINEER
No. 27943
EXPIRES 03-31-98
STATE OF CALIFORNIA

APPROVED: TOWN ENGINEER

ROBERT K. HOLT
R.C.E. 27943

TOWN OF YUCCA VALLEY

SINGLE MAILBOX INSTALLATION

STANDARD DRAWING NO. 500
MULTIPLE MAILBOX TO BE FURNISHED BY U.S. POSTAL SERVICE.

ANCHOR BOLTS FOUNDATION

NOTE: MAILBOX LOCATION, FOUNDATION, ANCHOR BOLTS, AND BOLT HOLES, SHALL CONFORM TO SPECIFICATIONS FURNISHED BY THE POSTMASTER.
MULTIPLE MAILBOX TO BE FURNISHED BY U.S. POSTAL SERVICE.

ANCHOR BOLTS FOUNDATION

EXISTING CURB & GUTTER

EXISTING SIDEWALK

6' TYP.

VARIABLE

3'

VARIABLE

4" THICK CONC. SLAB

EXPANSION JOINT

NOTE: MAILBOX LOCATION, FOUNDATION, ANCHOR BOLTS, AND BOLT HOLES, SHALL CONFORM TO SPECIFICATIONS FURNISHED BY THE POST-MASTER. MAILBOX FOUNDATION AND SLAB TO BE A MONOLITHIC POUR.
NOTES:

1. CENTER TO CENTER OF THE POSTS SHALL BE 6'-3" UNLESS SHOWN OTHERWISE.
2. BACKFILL IN POST HOLES TO BE COMPACTED TO ORIGINAL DENSITY OF SOIL.
3. EQUIVALENT DESIGN MAY BE ACCEPTABLE.
4. MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF CALIFORNIA, STANDARD SPECIFICATION PLAN A77-CW.
NOTES:

1. Posts are to be set in such a position that the top of the guard rail shall be level with the top of the posts.
2. Backfill in post holes to be compacted to original density of soil.
3. Equivalent design may be acceptable.
4. Material and construction shall conform to applicable sections of State of California standard specifications, unless shown otherwise.
SEE NOTES 1 & 2 CENTER MOUNT REFLECTORS

SEE DETAIL A
1/4"x1" GALVANIZED BOLTS WITH LOCK WASHERS AND NUTS.

WHITE ENAMEL 14 GAGE TARGET PLATE

6 - 5/16 FINISHED DIA. PUNCHED HOLES

CHAMFER ALL CORNERS, 1" ±

SECTION A-A

REAR MOUNT BRACKET

NOTES:
1. CLEARANCE MARKER (W-80R) THREE 3-1/4" WHITE CENTER MOUNT REFLECTORS.
2. GUIDE MARKERS ONE 3-1/4" WHITE CENTER MOUNT REFLECTOR.
3. REAR MOUNT REFLECTOR BRACKET SHALL BE USED ON CURVES. BRACKET SHALL BE ATTACHED WITH 3/16" BLIND ALUMINUM RIVETS AND USED TO MOUNT A 3" WHITE REFLECTOR.
4. ALL MATERIALS SHALL CONFORM TO STATE OF CALIFORNIA STANDARD SPECIFICATIONS.
5. HOLE DIAMETERS APPLY TO DIMENSION AFTER ITEM IS PAINTED.
NOTES:

1. POSTS SHALL BE 2" x 2" SQUARE STEEL IN ACCORDANCE WITH STANDARD NO. 523.
2. MATERIALS AND TYPE N REFLECTOR SHALL CONFORM TO STATE OF CALIFORNIA STANDARD SPECIFICATIONS. TYPE N-4 SHALL BE YELLOW FHWA TYPE III REFLECTIVE SHEETING. TYPE N-5 SHALL BE RED FHWA TYPE III REFLECTIVE SHEETING.

ELEVATION

Town of Yucca Valley

POST WITH REFLECTOR

STANDARD DRAWING NO. 521
NOTES:
1. ASPHALT CONCRETE SHALL BE MINIMUM 3 INCH THICKNESS ON CUT OR FILL AREA.
REFLECTIVE TAPE DETAIL

Notes:

1. Post is to be 6" x 6" x varies, timber S.4S.
2. Three (3) cross panels to be 2" x 8" x varies, timber S.4S.
3. Reflective tape consists of reflective diamond grade sheeting with high tack pressure sensitive adhesive, white and red tape with 6" width (see detail above).
4. Object marker red type N2 sign reflector shall conform to state of California standard specification and to FHWA type IIIA or visual impact performance (VIP) reflective sheeting. Use a minimum of two (2) signs (similar to std. no. 521).
5. 2" square steel post and 2 1/2" square anchor sleeve (see std. no. 523).
6. Use 3/8" diameter, 4 1/4" long lag bolts (galvanized) for fastening item 2 to item 1 (minimum 4 bolts per connection).
7. Rails facing traffic to be reflectorized.
8. All timber to be S.4S. Weather resistant.
9. All dimensions are nominal lumber dimensions.
2" SQ. STEEL POST, HOT DIPPED GALVANIZED 1.25 OZ. COATING (ASTM SPEC. A525)

POST SHALL BE PUNCHED WITH 3/8" DIA. HOLES TO ALLOW MOUNTING OF ALL CALIFORNIA STANDARD SIGNS

2 1/2" SQ. STEEL ANCHOR SLEEVE

DRIVE RIVETS OR BOLT IN CENTER OF POST, APPROX. 1" FROM TOP OF ANCHOR SLEEVE

GROUND LINE

NOTES:
1. SEE STANDARD DRAWING NO. 521 FOR MARKER LOCATIONS.
2. POST SHALL BE 2" SQ. STEEL AS SHOWN AND STATED.
3. ANCHOR SLEEVE SHALL BE 2 1/2" SQ. STEEL HOT DIPPED GALVANIZED AFTER FABRICATION (ASTM SPEC. 1-123).
#3 BAR—TOP AND BOTTOM; USE BOND BEAM BLOCKS.

INSTALL (8X8 BARRIER CURB) WITH FOOTING COMPLETLY AROUND INSIDE OF ENCLOSURE TO ACT AS TRASH BIN BUMPER GUARD. POUR MONOLITHICALLY WITH FOOTING.

NOTES:

1. TRASH AREA TO BE LOCATED SO AS TO BE ACCESSIBLE TO BOTH DEPOSIT AND PICKUP. LOCATION TO BE APPROVED BY PLANNING DIVISION.

2. SIX INCH MASONRY BLOCK CONSTRUCTION WITH STANDARD STEEL REINFORCING RODS. FILL ALL CELLS WITH GROUT AND SMOOTH THE TOP WITH STEEL TROWEL FINISH.

3. METAL GATES WITH HEAVY DUTY HARDWARE (TYPICAL). METAL PANEL GATES SHALL TOTALLY OBSCURE THE TRASH BINS AND MUST BE ARCHITECTURALLY COMPATIBLE WITH THE PROJECT.

4. GATE POSTS SHALL BE MINIMUM 2-1/2" DIA. GALVANIZED STEEL SET IN CONCRETE TO STAND FREE OF THE ENCLOSURE STRUCTURE.

5. TOP OF PAD TO BE AT GROUND OR EDGE OF PAVING LEVEL.

6. FILL ALL CELLS WITH P.C.C. PEA GRAVEL GROUT.

连续的8x8障碍路缘，集成在支撑脚上。
1. ALL VERTICAL CELLS CONTAINING REINFORCING STEEL SHALL BE FILLED WITH GROUT. IN ADDITION, WHERE 6" BLOCKS ARE USED ALL CELLS WITHOUT VERTICAL REINFORCING STEEL SHALL BE FILLED WITH GROUT TO TOP OF BOND BEAM AT MIDHEIGHT OF WALL.

2. THE BLOCK WALL COURSES AND FOOTINGS MAY BE BUILT PARALLEL WITH THE STREET GRADE (7% MAX.) OR STEPPED.

3. ALL WALLS SHALL BE PLUMB.

4. BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 90%.

5. FOOTING SHALL BE CLASS 'B' CONCRETE.

6. CONCRETE BLOCK SHALL BE GRADE A UNITS, CONFORMING TO ASTM DESIGNATION NO. C90.

7. REINFORCING STEEL, GROUT MORTAR, AND CLASS 'B' CONCRETE SHALL CONFORM TO THE STANDARD SPECIFICATIONS.

8. ELIMINATE MORTAR IN ALL VERTICAL JOINTS IN FIRST COURSE ABOVE FINISH GRADE.

9. 1/2" OPEN JOINTS EXTENDING THROUGH THE ENTIRE HEIGHT OF THE BLOCK WALL, SHALL BE SPACED AT A MAXIMUM OF 50'.

10. ELIMINATE MID-HEIGHT BOND BEAM IN WALLS WHERE H=4" OR LESS.
PIPE SWING GATE
FRONT VIEW

NOTES:
1. GALVANIZED IRON PIPE 1.50" O.D.
2. GALVANIZED IRON PIPE 2.00" O.D. ON FULL HEIGHT GATE POST AS SPECIFIED ON PROJECT DRAWINGS.
3. GATE REST, ONE-HALF OF GALVANIZED IRON PIPE 2.375" O.D. GRIND TO FIT VERTICAL POST, FIELD WELD.
4. SLAB "C" CONCRETE.
5. POSTS ANCHORED IN CONCRETE SHALL HAVE CAPS.
6. HINGE BOLTS 3/8", WELD THREAD END OF BOLTS AFTER INSTALLATION.
7. STANDARD HINGE CLAMPS. WELD THREAD END OF BOLTS AFTER INSTALLATION.
8. 3/8" GALVANIZED CHAIN. FIELD HOLD ONE LINK TO VERTICAL POST, FIELD OPENING IN LINKS FOR PADLOCK AS SHOWN. CHAIN SHALL BE OF SUITABLE LENGTH TO ENGAGE HORIZONTAL PIPE.
9. ENDS OF PIPES TO BE JOINTED SHALL BE DRIED TO FIT NEATLY BEFORE WELDING.
10. MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE APPLICABLE PORTION OF SECTION 250-A, 250-B AND 254-3 OF "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION: LATEST EDITION."

DETAIL A
SECTION B-B

PIPE SWING GATE
STANDARD DRAWING NO. 550
NOTES:

On curves where the P.O. falls outside of the paved section or curbed section, monuments may be set and tied out on semi-tangents in lieu of B.C., E.C. a mid-point being tied out. These monuments will be set within traveled way.

- Indicates set 1" I.P. with tag or alternate monument (i.e. tag in P.P., tag in wall footing, etc.)
- Indicates set copperweld
- Indicates set lead and tack with tag in curb.

Tags set as reference points shall be labeled "RP" and include the L.S. or RCE number.