



CITY OF GLENDORA
Public Works Department

STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

The "Standard Specifications for Public Works Construction", latest edition, are hereby made a part of these Standard Designs & Specifications.

SECTION INDEX

STREET	1.00
WATER	2.00
SEWER	3.00
LIGHTING	4.00
Section Pending	5.00
PLANS	6.00

NOTICE

The Standard Designs & Specifications herein are subject to change by the City of Glendora without notice. Holders of these Standard Designs & Specifications are required to contact the City of Glendora, Public Works Department at (626) 914-8246 for current revisions before starting any construction, cost estimates, tentative maps or improvement plans. Standard Designs & Specifications are subject to use as appropriate for specific design conditions.

\$25.00 / per set

Approved by: *A. Cantrell*
City Engineer R.C.E. 29011
Date: *3/29/04*

Drawn by: JSWilliams Date: February 20, 1998
Revised by: JSWilliams Date: March 17, 2004
Effective Date: April 13, 2004

STANDARD CONSTRUCTION NOTES FOR STREET IMPROVEMENTS

Standard Notes for Street Construction

1. All applicable "CITY OF GLENDORA STANDARD DESIGNS & SPECIFICATIONS", latest revisions, are hereby made a part of this plan and all Street improvements shall be in accordance with same.
2. The "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", latest edition, is hereby made a part of this plan.
3. Pavement shall consist of ___ inches Asphalt Concrete on ___ inches Aggregate Base using Type C2-AR-4000 paving grade asphalt.
4. Asphalt Concrete paving shall be laid in courses not to exceed 4 inches in thickness, the base course using 3/4 inch maximum size aggregate and the surface course using 1/2 inch maximum size aggregate, unless noted.
5. The Contractor shall locate all utilities and monuments of every nature, whether shown hereon or not, and protect them from damage. The Contractor shall bear the total expense of repair or replacement of utilities and monuments damaged or destroyed.
6. All Concrete shall be Class 520-C-2500 (5-1/2 sack mix) and shall be cured with Type 1 (clear) Curing Compound immediately after finishing.
7. All Asphalt Concrete street surfaces shown hereon shall be seal-coated, when directed by the City Engineer, full width using an approved Type SS-1H Emulsion with no more than 50% water added. A truck mounted spray bar shall be utilized for spreading.
8. The Contractor shall coordinate all sign installations with the City Engineer prior to sidewalk installation.
9. An approved soil sterilant shall be uniformly applied in all areas to be paved under the direction of the City Engineer.
10. The Contractor shall be responsible for coordinating mailbox block-out locations with the U.S. Postal Service prior to sidewalk installation.
11. The Contractor shall warranty all work for a period of one (1) year from the date of final acceptance by the City and shall be responsible for the repair and or replacement of all failures determined by the City Engineer to be caused by workmanship or substandard materials.
12. The Contractor shall at all times maintain proper barricading, dust control, traffic control, shoring and safety measures of every nature.
13. The Contractor shall make application to the City of Glendora and obtain a hydrant meter prior to commencement of construction.
14. The Contractor shall obtain all required permits from the City of Glendora Public Works Department and affected agencies prior to commencement of construction.
15. The Contractor shall be responsible for coordinating the installation of water pipelines and appurtenances with the Water Manager.
16. 24 hour notification is required for all Public Works Inspections. Contact the CITY OF GLENDORA PUBLIC WORKS DEPARTMENT, Monday through Thursday (excluding holidays), 8:00 a.m. to 5:00 p.m., at (626) 914-8246.
17. The Contractor Shall submit a Traffic Control Plan conforming to the City of Glendora Traffic Control Requirements, S.D. & S. No. 1.17.
18. Any changes from the Plan, Standard Notes, Standard Designs or Specifications shall be considered non-conforming unless approved in writing by the City Engineer prior to installation.
19. Installations not conforming to the "CITY OF GLENDORA STANDARD DESIGNS & SPECIFICATIONS" shall be removed, replaced and or corrected at the Contractor's expense, as directed by the City Engineer.

Approved by: *R. Cantrell*
 Date: *3/20/04*
 City Engineer R.C.E. 29011

Drawn by: JWilliams
 Date: February 20, 1998
 Revised by: CAG
 Date: March 11, 2004
 Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

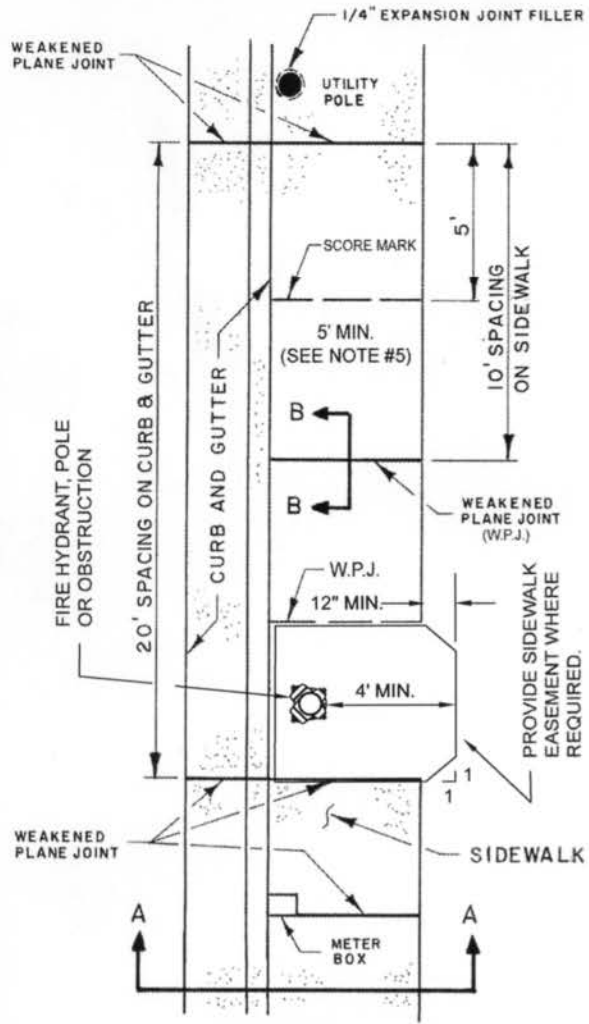
1.00

Page 1 of 1

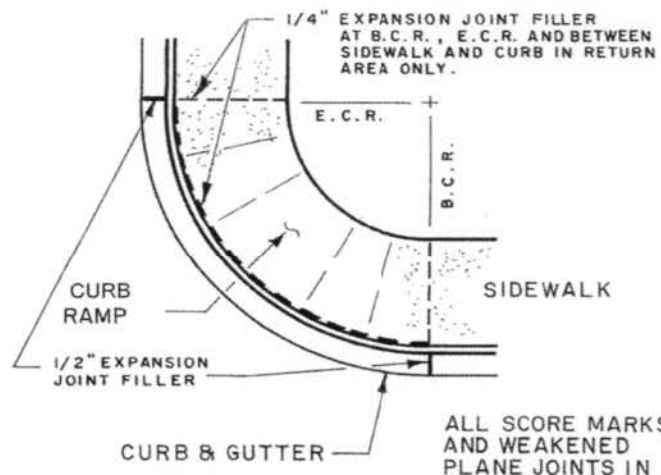
CURB & GUTTER and SIDEWALK

Approved by: *AS [Signature]* 1-2-07
 Date
 City Engineer R.C.E. 14527

Drawn by: Staff Date: February 20, 1998
 Revised by: CAG Date: September 29, 2006
 Effective Date: January 9, 2007



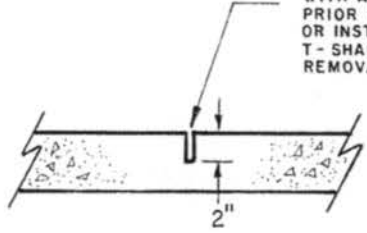
PLAN



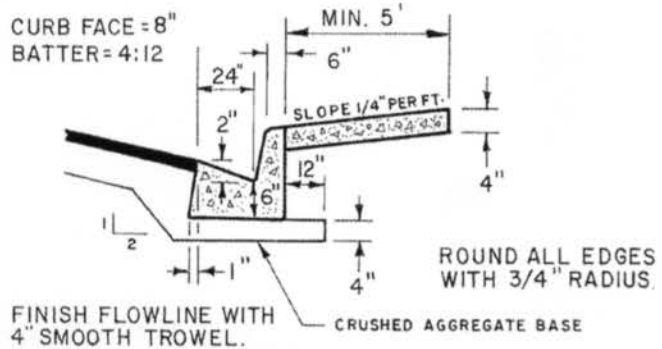
STANDARD RETURN

ALL SCORE MARKS AND WEAKENED PLANE JOINTS IN CURB RETURN AREA TO BE RADIAL.

AGGREGATE TO BE PARTED TO A DEPTH OF 2 INCHES WITH A STRAIGHTEDGE PRIOR TO JOINT-FINISHING OR INSTALLATION OF 1 INCH T-SHAPED STRIP WITH REMOVABLE STIFFENER.



SECTION B-B



SECTION A-A

NOTES:

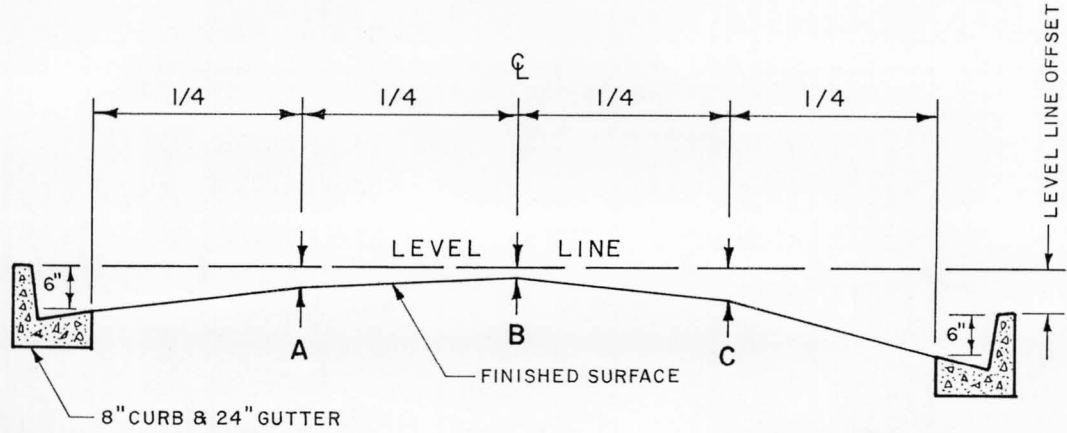
1. NO PORTION OF DRIVEWAY APPROACH SHALL FALL WITHIN RETURN AREA.
2. CLASS 520-C-2500 (5-1/2 SACK) PC.C. SHALL BE USED.
3. TYPE I (CLEAR) CURING COMPOUND SHALL BE USED.
4. FINISH SIDEWALK WITH FINE BROOM AT RIGHT ANGLE TO CURB. COARSE BROOM ON CURB RAMP.
5. SIDEWALK SHALL BE MINIMUM 8 FT. WIDTH WHERE TREE WELLS ARE REQUIRED.
6. FOR SIDEWALK REPLACEMENT, FULL PANEL REMOVAL AND REPLACEMENT REQUIRED.



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS
 Adopted for use on Public and Private Improvements

S.D. & S. NO.
1.02
 Page 1 of 1

STREET LEVEL-LINE OFFSETS



LEVEL LINE OFFSET	A	B	C
0 FT.	0.26'	0.16'	0.26'
0.1 FT.	0.30'	0.20'	0.38'
0.2 FT.	0.30'	0.20'	0.42'
0.3 FT.	0.32'	0.22'	0.50'
0.4 FT.	0.32'	0.25'	0.58'
0.5 FT.	0.32'	0.44'	0.65'
0.6 FT.	0.32'	0.48'	0.72'
0.7 FT.	0.34'	0.52'	0.80'
0.8 FT.	0.34'	0.56'	0.88'
0.9 FT.	0.36'	0.60'	0.97'
1.0 FT.	0.36'	0.64'	1.02'

Approved by: *R. Cantrell*
 City Engineer R.C.E. 29011
 Date: *3/30/04*

Drawn by: Staff
 Date: February 20, 1998
 Revised by: CAG
 Date: March 11, 2004
 Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

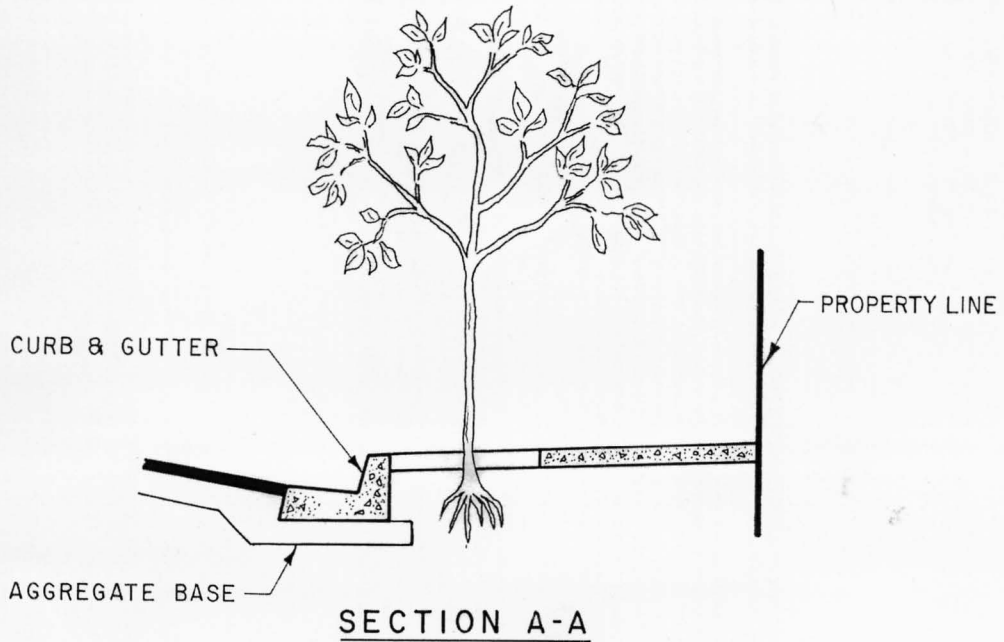
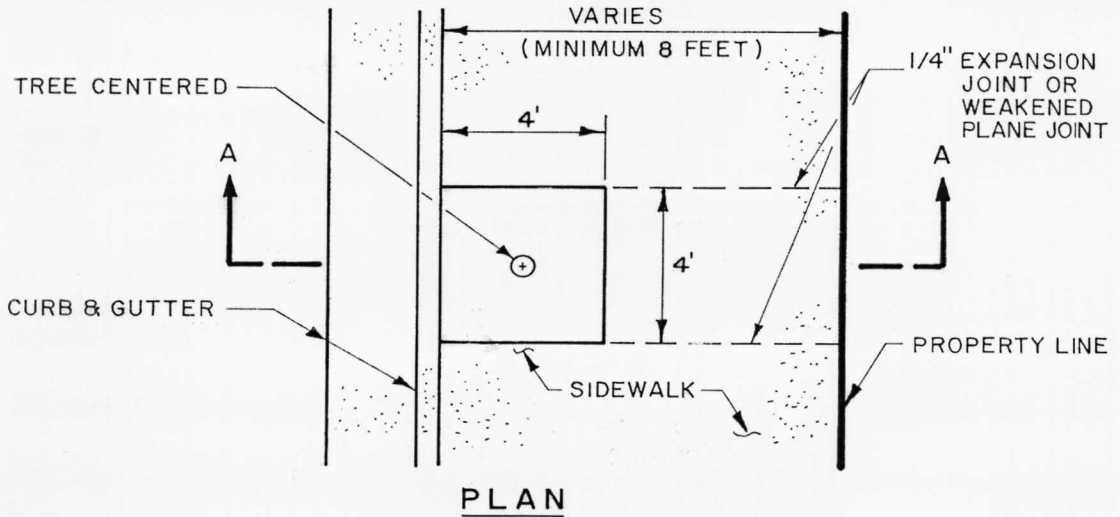
Adopted for use on Public and Private Improvements

S.D. & S. NO.

1.04

Page 1 of 1

SIDEWALK TREE WELL



Approved by: *A. Cantrell*
 City Engineer R.C.E. 29011
 Date: *3/20/04*

Drawn by: Staff
 Date: February 20, 1998
 Revised by: CAG
 Date: March 11, 2004
 Effective Date: April 13, 2004



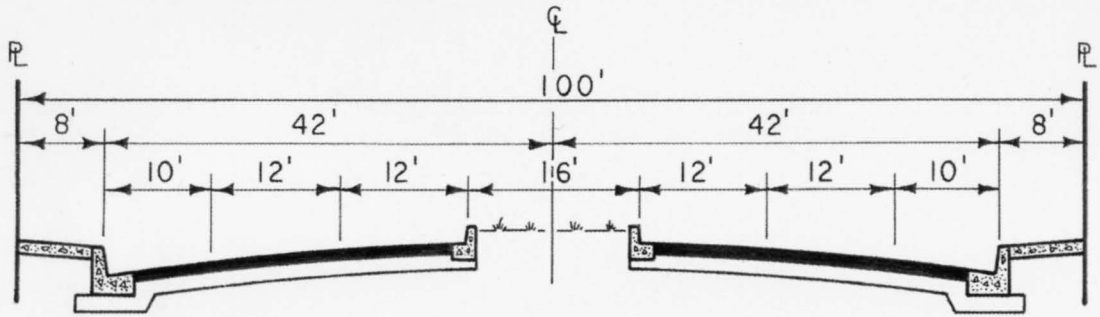
City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

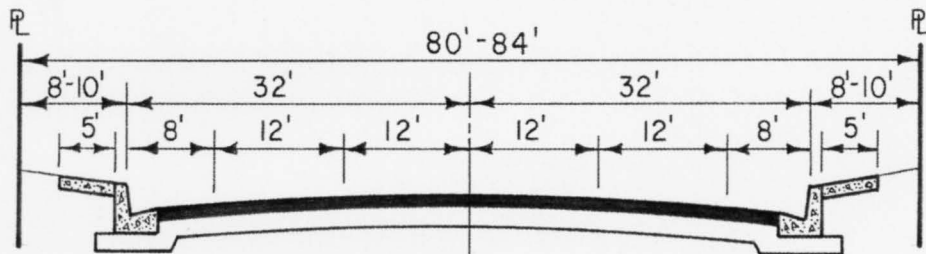
S.D. & S. NO.
1.05
 Page 1 of 1

STANDARD STREET SECTIONS

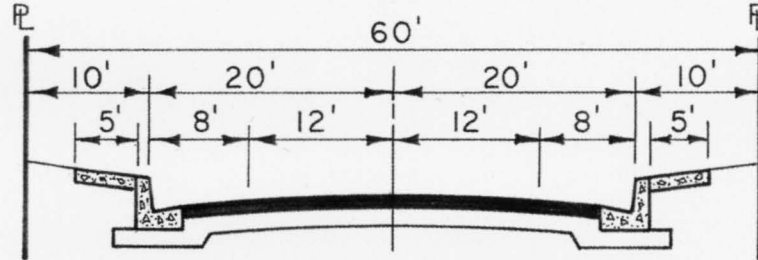
FOR PUBLIC AND PRIVATE STREETS



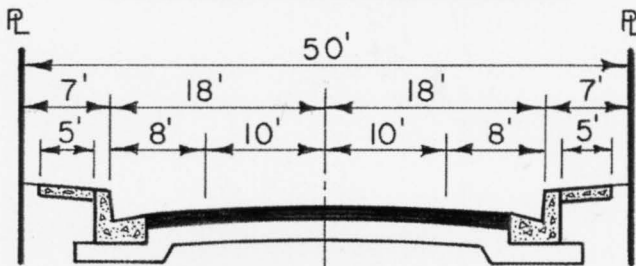
MAJOR - 100' R/W



SECONDARY - 80'-84' R/W



**COLLECTOR - 60' R/W
(LOCAL - RESIDENTIAL)**



**LOCAL - RESIDENTIAL - 50' R/W
(24 LOTS OR LESS)**

Approved by: *[Signature]* Date: 1-2-07
 City Engineer R.C.E. 14327

Drawn by: JWilliams Date: February 20, 1998
 Revised by: CAG Date: September 29, 2006
 Effective Date: January 9, 2007



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

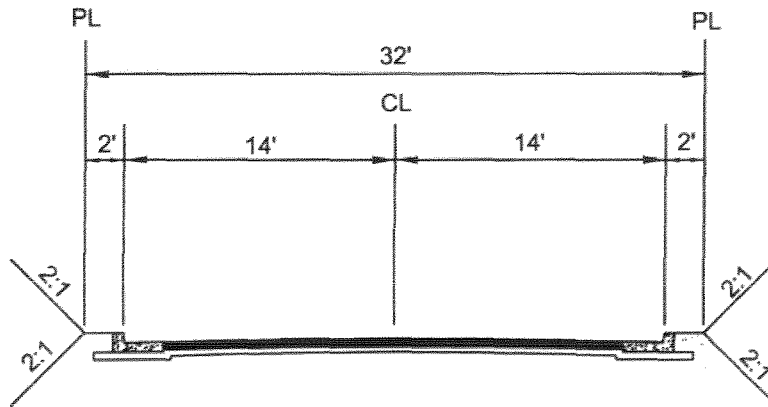
Adopted for use on Public and Private Improvements

S.D. & S. NO.

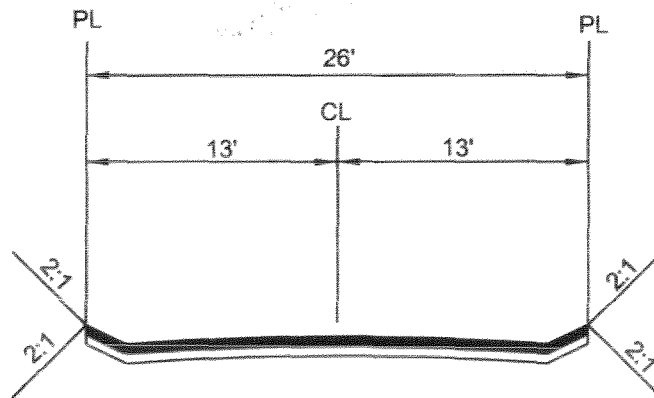
1.07

Page 1 of 1

STANDARD STREET SECTIONS FOR PRIVATE HILLSIDE STREETS (24 LOTS OR LESS)



**HILLSIDE - RESIDENTIAL - 32' R/W
PARKING PROHIBITED**



**PRIVATE - RESIDENTIAL - 26' R/W
EXISTING - PARKING PROHIBITED**

Note: Street sections scale 1"=10'

Approved by:  Date: 1/26/2010
Civil Engineer R.C.E. 52114

Drawn by: J. Williams Date: April 24, 2009
Revised by: A. Bustamante Date: December 6, 2009
Effective Date: January 26, 2010



**City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS**

Adopted for use on Public and Private Improvements

S.D. & S. NO.

1.08


Page 1 of 2

STANDARD STREET SECTIONS FOR PRIVATE HILLSIDE STREETS

1. Additional Parkway width and or easements required for Public Improvements, including but not limited to Fire Hydrants, Meter Boxes, Signs, Poles and Parkway Trees may be required as directed by the City Engineer.
2. Additional shoulder width (Parkway) maybe required for slopes exceeding 2:1 as directed by the City Engineer.
3. Shoulder width (Parkway) and sidewalk may be modified subject to field conditions as approved by the City Engineer.
4. Retaining walls may be required or approved by the Director of Public Works or City Engineer.
5. Rolled curbs may be used if approved by the Director of Public Works or City Engineer.
6. P.C.C. pavement required for grades of 10% or more. P.C.C. pavement design to be approved by the City Engineer.
7. Maximum slope of street = 15%. Limited distances of 20% require approval by the City Engineer and Los Angeles County Fire Department.
8. Base under curb and gutter shall extend to same depth as street base (6" min.)
9. Where street slope is greater than 6%, erosion control devices shall be incorporated into the curb and gutter design.
10. Roadway landscaping designed to reduce erosion shall be provided.
11. Std. 1.08 is applicable for Private Streets in hillside development where average slope of developed lot is 10% or greater.
12. The City Engineer may recommend variations and deviations from the standard as determined are necessary by the conditions of the terrain and the existing improvements contiguous to the property involved.
13. Where joining an existing private street with a width less than 26', transition to join at 10:1.
14. Retaining walls or crib walls may be approved by the City Engineer. When visible from public right of way, maximum height for crib walls is 15' and maximum height for retaining walls is 6',
15. A minimum of 1.5' shall be provided between the curb face and obstructions such as utility poles, lighting poles, and fire hydrants.

TABLE FOR A.B./A.S.B.

BASEMENT SOIL 'R' VALUE	>42	37-42	32-36	27-31	22-26	17-21	12-16	7-16	<7
A.S.B. Thickness When Used With 6" A.B.	_____	_____	_____	4"	5"	6"	7"	8"	9"

Approved by:  Date: 1/26/2010
 City Engineer R.C.E. 52114

Drawn by: J. Williams
 Date: April 24, 2009
 Revised by: A. Bustamante
 Date: December 8, 2009
 Effective Date: January 26, 2010



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

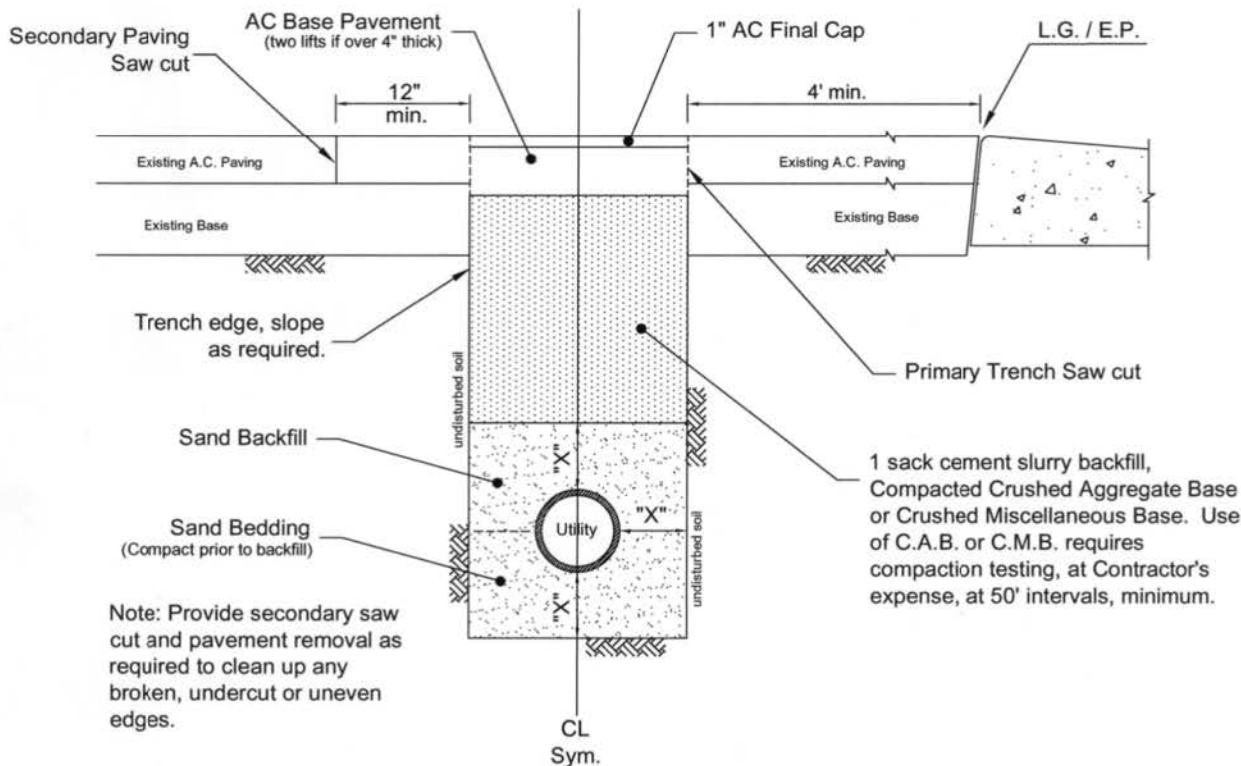
1.08

Page 2 of 2

TRENCHING DETAIL - Case III

FOR EXISTING ASPHALT SURFACES

Note: Trenching Detail, Case III shall be used on "Local" streets (as designated per General Plan, latest revision), unless specified per plan or as directed by City Engineer.



1. Base pavement shall be C2-AR-4000 (3/4" aggregate) A.C., and shall be constructed at 1" greater depth than existing paving, but no less than 4" thick.
2. Final Cap shall be Type C2-AR-4000 (3/8" aggregate) A.C.
3. Apply #30 silica sand evenly to finished pavement and any exposed tack coat.
4. AC pavement shall be saw cut or cold milled, no pavement breakers allowed.
5. All liquids generated by saw cutting shall be collected and disposed of in accordance with N.P.D.E.S. requirements.
6. Edges of sawcut and surface, shall be tack coated with an approved Type SS-1H emulsion with no more than 50% water added. Edges shall be clean and dry before Tack coat application.
7. Saw cutting must be completed in advance of paving with sufficient time to allow moisture to evaporate before applying SS1H to edges.
8. Excavated material shall be removed from the Public R/W each work day and delivered to an approved landfill or alternate site with City Engineer's approval.
9. The Contractor shall file with the City Engineer a Recycled Materials Certificate to comply with AB939 as required.

Approved by: *[Signature]* Date: *1-3-07*
 City Engineer R.C.E. *14527*

Drawn by: JSWilliams Date: October 02, 2006
 Revised by: CAG Date:
 Effective Date: January 9, 2007



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS
 Adopted for use on Public and Private Improvements

S.D. & S. NO.
1.09
 Page 1 of 2

Approved by: *[Signature]* Date: *1-2 2007 -07*
 City Engineer R.C.E. *14527*

10. Compaction test shall be performed to the satisfaction of the City Engineer.
11. If soft, spongy or unstable material is encountered at trench bottom, the material shall be removed and replaced with base material to a depth ordered by the City Engineer.
12. Distance "X" shall be 6" minimum or as specified on Plan, Standard Drawing or by Utility.
13. Unless prior approval is given by the City, provide a traffic control plan per Standard 1.17.
14. An Inspection request must be made 24 hours prior to work.
15. Contractor shall set up traffic control in compliance with Standard 1.17.
16. All finished repairs shall be within 0.125" of existing AC surface.
17. Secondary saw cut (if required) shall be clean, straight, vertical edges a minimum of 12" beyond the primary trench cut. Saw cut as required to achieve a continuous straight edge incorporating any areas of paving broken out or undermined during construction.
18. Sub-grade shall be compacted to a minimum of 95% relative density.
19. Finished pavement surface shall exhibit a smooth, uniform appearance free of voids and segregation.
20. Traffic control measures are to remain in place until the new pavement is allowed to cool and will accept traffic without scuffing or rutting.

Basic Trench Repair Procedures

- A. Verify compliance with all permit, inspection and traffic control requirements.
- B. Perform primary trench saw cut and complete utility installation and backfill.
- C. Verify traffic control and inspection requirements are in compliance.
- D. Perform Secondary Base Paving Saw Cut and construct Base Course and final cap per requirements.
- E. Allow AC to cool (see note 20), clean up and restore traffic access.

NOTE: The Director of Public Works or City Engineer may permit franchised utilities to use A.P.W.A. Standard Plan 133-1.

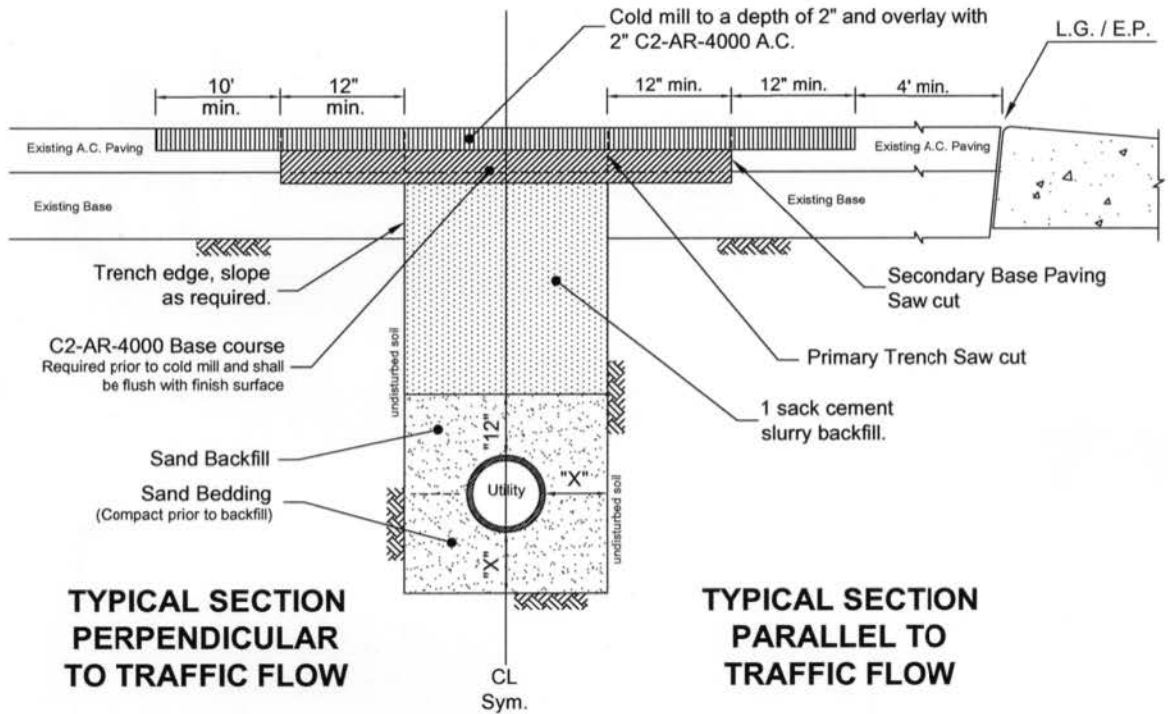
Drawn by: JSWilliams Date: October 02, 2006
 Revised by: CAG Date:
 Effective Date: January 9, 2007

TRENCHING DETAIL - Case I

FOR EXISTING ASPHALT SURFACES

Note: Trenching Detail, Case I shall be used on "Arterial" streets (as designated per General Plan, latest revision), unless specified per plan or as directed by City Engineer.

Approved by: *[Signature]*
 City Engineer R.C.E. 14527
 Date: 1-2 2007-07



**TYPICAL SECTION
PERPENDICULAR
TO TRAFFIC FLOW**

**TYPICAL SECTION
PARALLEL TO
TRAFFIC FLOW**

1. Base Course shall be Type C2-AR-4000 (3/4" aggregate) A.C. and shall be constructed 1" greater depth than existing paving, but no less that 4" thick.
2. Permanent Cap shall be Type C2-AR-4000 (1/2" aggregate) A.C. compacted to maximum density.
3. Cold mill (2" min.) shall be completed a minimum of 10 days and a maximum of 60 days after completion of base course.
4. **Cold mill shall extend 10' outside of excavation limits perpendicular to traffic flow and 12" outside of excavation parallel to traffic flow.**
5. AC pavement shall be saw cut or cold milled, no pavement breakers allowed.
6. Edges of sawcut and surface of cold mill area, shall be tack coated with an approved Type SS-1H emulsion with no more than 50% water added. Edges shall be clean and dry before tack coat application.
7. Excavated material shall be removed from the Public R/W each work day and delivered to an approved landfill or alternate site with City Engineer's approval.
8. The Contractor shall file with the City Engineer a Recycled Materials Certificate to comply with AB939 as required.

Drawn by: JSWilliams
 Revised by: J.S.Williams
 Date: April 9, 2003
 Date: December 22, 2006
 Effective Date: January 9, 2007



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

1.10

Page 1 of 2

Approved by:

AS. DUNN
City Engineer R.C.E. 1-2-07
Date

9. Compaction test shall be performed to the satisfaction of the City Engineer.
10. If soft, spongy or unstable material is encountered at trench bottom, the material shall be removed and replaced with base material to a depth ordered by the City Engineer.
11. Distance "X" shall be 6" unless specified on Plan, Standard Drawing or by Utility.
12. Unless prior approval is given by the City, provide a traffic control plan per Standard 1.17.
13. An Inspection request must be made 24 hours prior to work.
14. Contractor shall set up traffic control in compliance with Standard 1.17.
15. Secondary saw cut shall be clean, straight, vertical edges a minimum of 12" beyond the primary trench cut. Saw cut as required to achieve a continuous straight edge incorporating any areas of paving broken out or undermined during construction.
16. All liquids generated by the sawcutting shall be collected and disposed of in compliance with N.P.D.E.S. requirements.
17. Saw cutting must be completed in advance of paving with sufficient time to allow moisture to evaporate before applying SS1H to edges.
18. Sub-grade shall be compacted to a minimum of 95% relative density.
19. Apply #30 silica sand evenly to edges of finished pavement and any exposed tack coat.
20. Finished pavement surface shall exhibit a smooth, uniform appearance free of voids and segregation.
21. Traffic control measures are to remain in place until the new pavement is allowed to cool and will accept traffic without scuffing or rutting.
22. All finished repairs shall be within 0.125" of existing AC surface.

Basic Trench Repair Procedures

- A. Verify compliance with all permit, inspection and traffic control requirements.
- B. Perform primary trench saw cut and complete utility installation and backfill.
- C. Verify traffic control and inspection requirements are in compliance.
- D. Perform Secondary Base Paving Saw Cut and construct Base Course and final cap per requirements.
- E. Allow AC to cool (see note 21), clean up and restore traffic access.
- F. Obtain approval from City Engineer to perform cold mill and final paving.
- G. Verify traffic control and inspection requirements are in compliance.
- H. Perform any repair necessary to trench paving as directed by City Engineer.
- I. Complete cold mill and final paving operation.
- J. Allow AC to cool (see note 21), clean up and restore traffic access.

NOTE: The Director of Public Works or City Engineer may permit franchised utilities to use A.P.W.A. Standard Plan 133-1.

Drawn by: JSWilliams
Date: April 9, 2003

Revised by: J.S.Williams
Date: December 22, 2006

Effective Date: January 9, 2007



City of Glendora Public Works Department STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

1.10

Page 2 of 2

Approved by: *BE Williams* 12-29-06
 City Engineer R.C.E. 14527 Date

10. Compaction test shall be performed to the satisfaction of the City Engineer.
11. If soft, spongy or unstable material is encountered at trench bottom, the material shall be removed and replaced with base material to a depth ordered by the City Engineer.
12. Distance "X" shall be 6" minimum or as specified on Plan, Standard Drawing or by Utility.
13. Unless prior approval is given by the City, provide a traffic control plan per Standard 1.17.
14. An Inspection request must be made 24 hours prior to work.
15. Contractor shall set up traffic control in compliance with Standard 1.17.
16. All finished repairs shall be within 0.125" of existing AC surface.
17. Secondary saw cut shall be clean, straight, vertical edges a minimum of 12" beyond the primary trench cut. Saw cut as required to achieve a continuous straight edge incorporating any areas of paving broken out or undermined during construction.
18. Sub-grade shall be compacted to a minimum of 95% relative density.
19. Finished pavement surface shall exhibit a smooth, uniform appearance free of voids and segregation.
20. Traffic control measures are to remain in place until the new pavement is allowed to cool and will accept traffic without scuffing or rutting.

Basic Trench Repair Procedures

- A. Verify compliance with all permit, inspection and traffic control requirements.
- B. Perform primary trench saw cut and complete utility installation and backfill.
- C. Verify traffic control and inspection requirements are in compliance.
- D. Perform Secondary Base Paving Saw Cut and construct Base Course and final cap per requirements.
- E. Allow AC to cool (see note 20), clean up and restore traffic access.

NOTE. The Director of Public Works or City Engineer may permit franchised utilities to use A.P.W.A. Standard Plan 133-1..

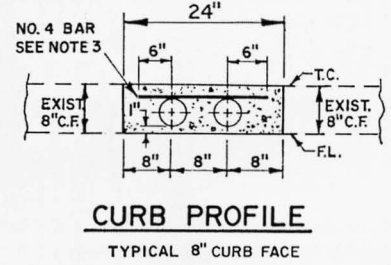
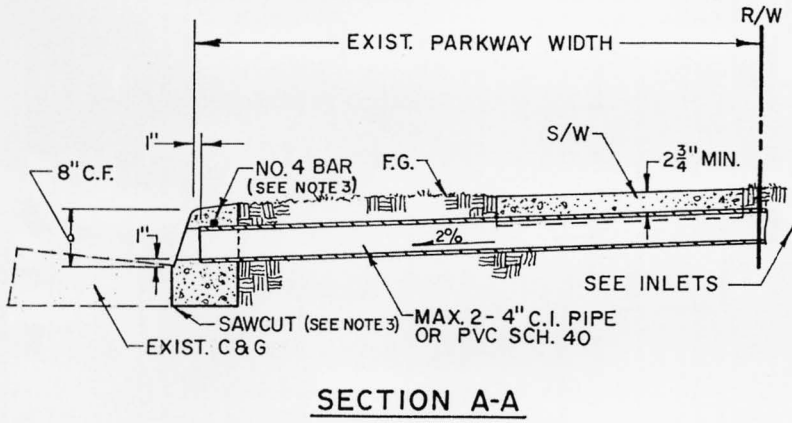
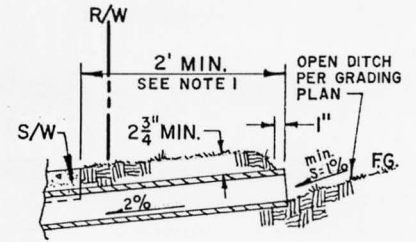
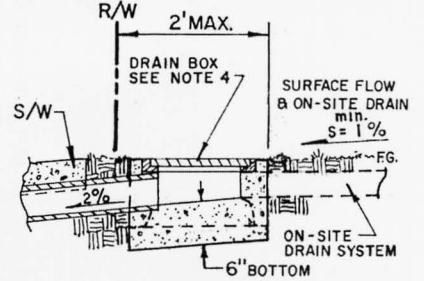
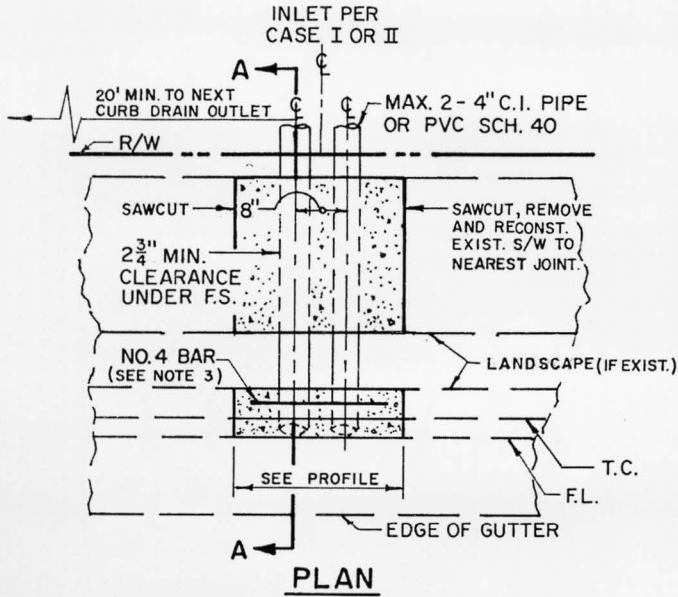
Drawn by: JSWilliams Date: September 29, 2006
 Revised by: J.S.Williams Date: December 22, 2006
 Effective Date: January 9, 2007



PARKWAY DRAIN - RESIDENTIAL

SINGLE / DOUBLE PIPE ALTERNATIVE

Approved by: *R. Cantrell*
 City Engineer R.C.E. 29011
 Date: *3/30/04*



Drawn by: Staff
 Revised by: CAG
 Effective Date: April 13, 2004
 Date: February 20, 1998
 Date: March 11, 2004

1. For open ditch inlet (CASE II), the extension beyond the R/W line is not required if back of S/W is more than 2 feet from R/W line.
2. Top of inlet structure (CASE I) to be flush with adjacent finish surface where practical. Connect on-site drain system as shown.
3. Core drill existing P.C.C. curb, or sawcut existing gutter at flowline and construct new P.C.C. curb per City S.D. & S. No. 1.02, using No. 4 re-bar as shown. Trim end of pipe 1 inch back of curb face.
4. Unless otherwise specified, drain box for inlet CASE I shall be BROOKS PRODUCTS, DRAIN BOX No. 36 with cast iron grate, or equal.

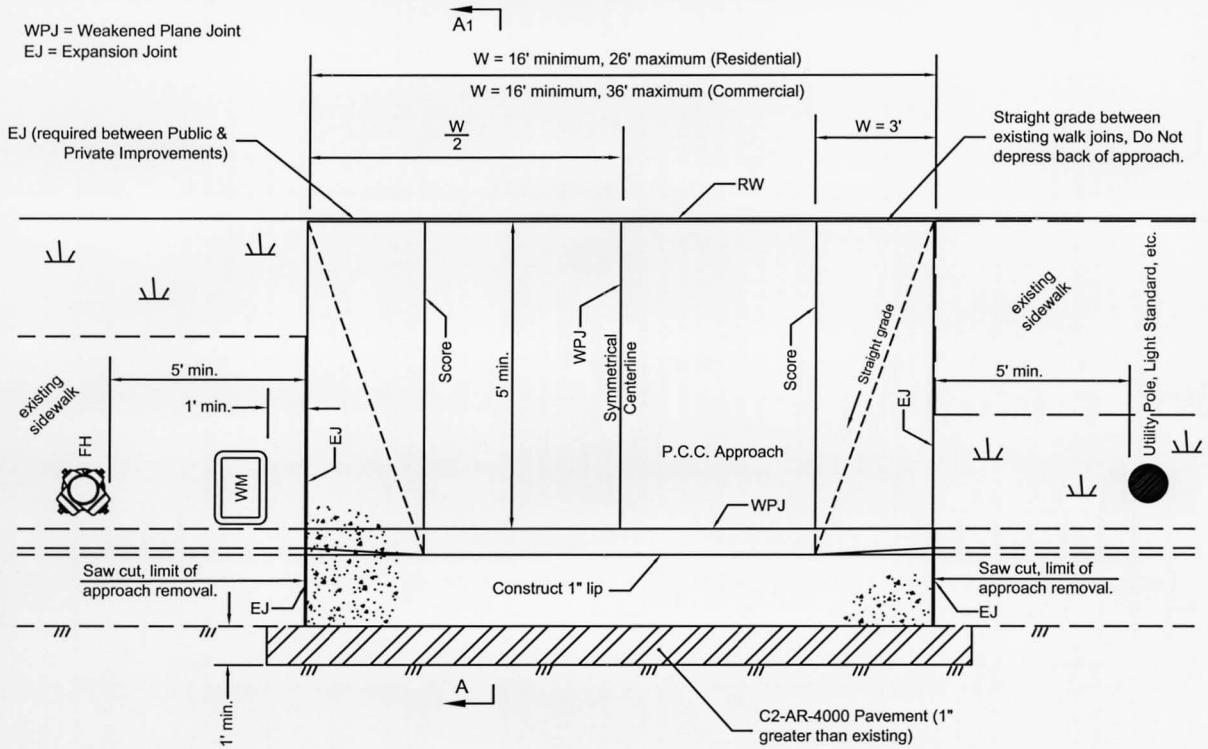


City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

S.D. & S. NO.
1.12
 Page 1 of 1

P.C.C. DRIVE APPROACH - Type I

FOR RESIDENTIAL / COMMERCIAL USE



Approved by: *A. Cantrell*
 City Engineer R.C.E. 29011
 Date: *3/22/04*

Drawn by: JSWilliams
 Date: August 22, 2003
 Revised by: CAG
 Date: March 11, 2004
 Effective Date: April 13, 2004

1. Class 520-C-2500 (5-1/2 sack) P.C.C. with Type I (clear) curing compound shall be used.
2. Round all edges with 3/4" radius.
3. Saw cutting required on all removals.
4. Finish sidewalk with fine broom drawn perpendicular to curb.
5. Finish approach with fine broom drawn parallel to curb.
6. Weakened Plane Joints (WPJ) shall have aggregate parted to a depth of 2" with a straight edge prior to installation of 1" "T" shaped strip with removable stiffener and or joint finishing.
7. No portion of driveway approach shall fall within a curb return area.
8. Finish gutter adjacent to curb face with 3" wide smooth flowline (shiner).
9. Top of "X" shall be a minimum of 18" from prolongation of side property line.
10. Minimum distance between drive approaches on same property shall be 18'. Common approaches are not permitted.



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

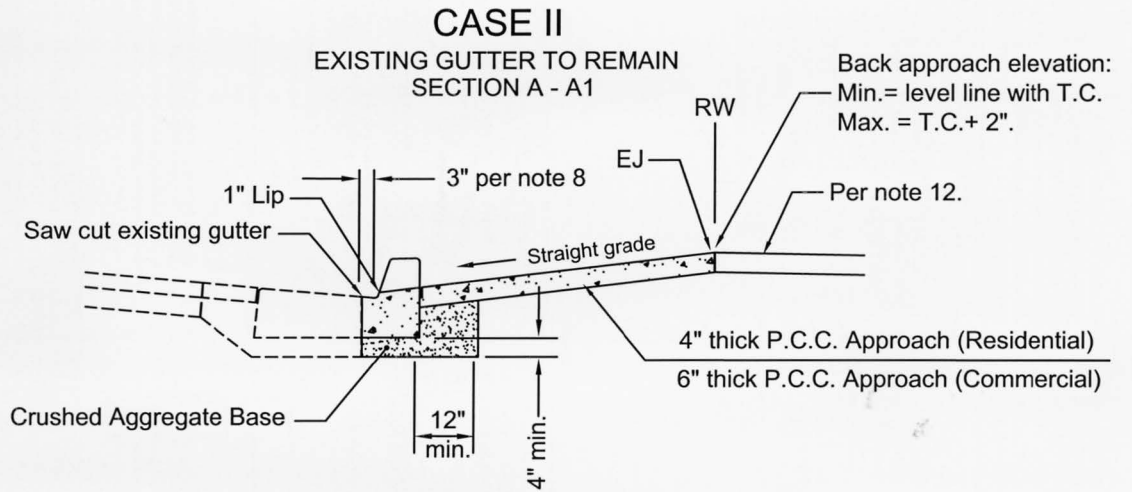
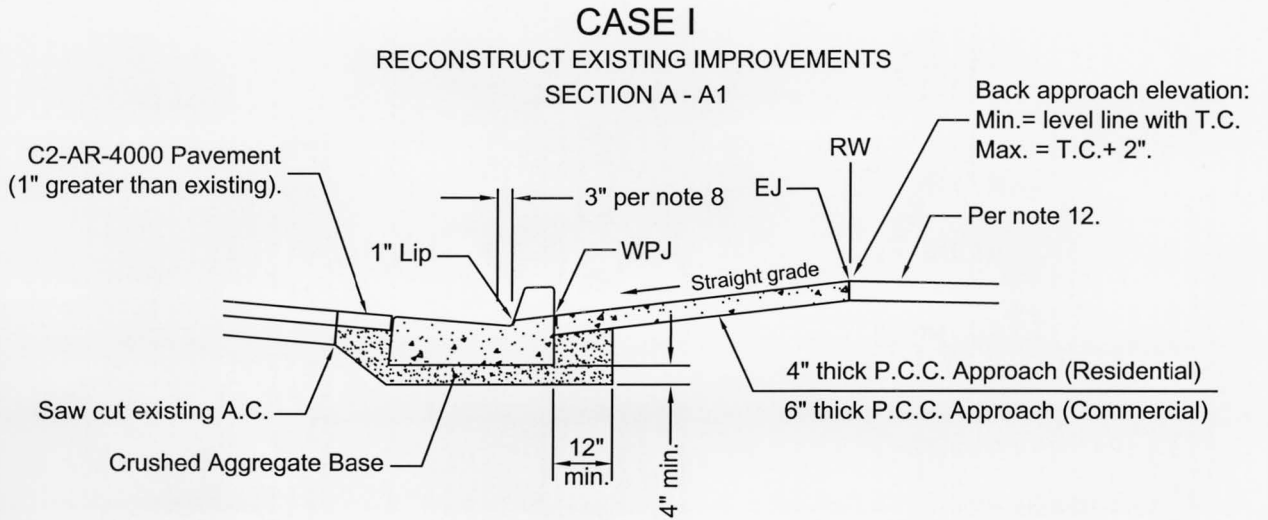
S.D. & S. NO.
1.13
 Page 1 of 2

P.C.C. DRIVE APPROACH - Type I FOR RESIDENTIAL / COMMERCIAL USE

Note: Use of Case I or Case II shall be as directed by the City Engineer.

Approved by: *A. Cantwell*
City Engineer R.C.E. 29011
Date: *3/30/04*

Drawn by: JSWilliams
Revised by: CAG
Effective Date: April 13, 2004
Date: August 22, 2003
Date: March 11, 2004



11. Water meter boxes are not allowed in the approach. Where an existing water meter falls within the proposed drive approach, removal of the existing service and installation of a new service (per City standards) outside of the approach area will be required.
12. Drive area 5' behind back of approach shall be provided with maximum slope of 2%.



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

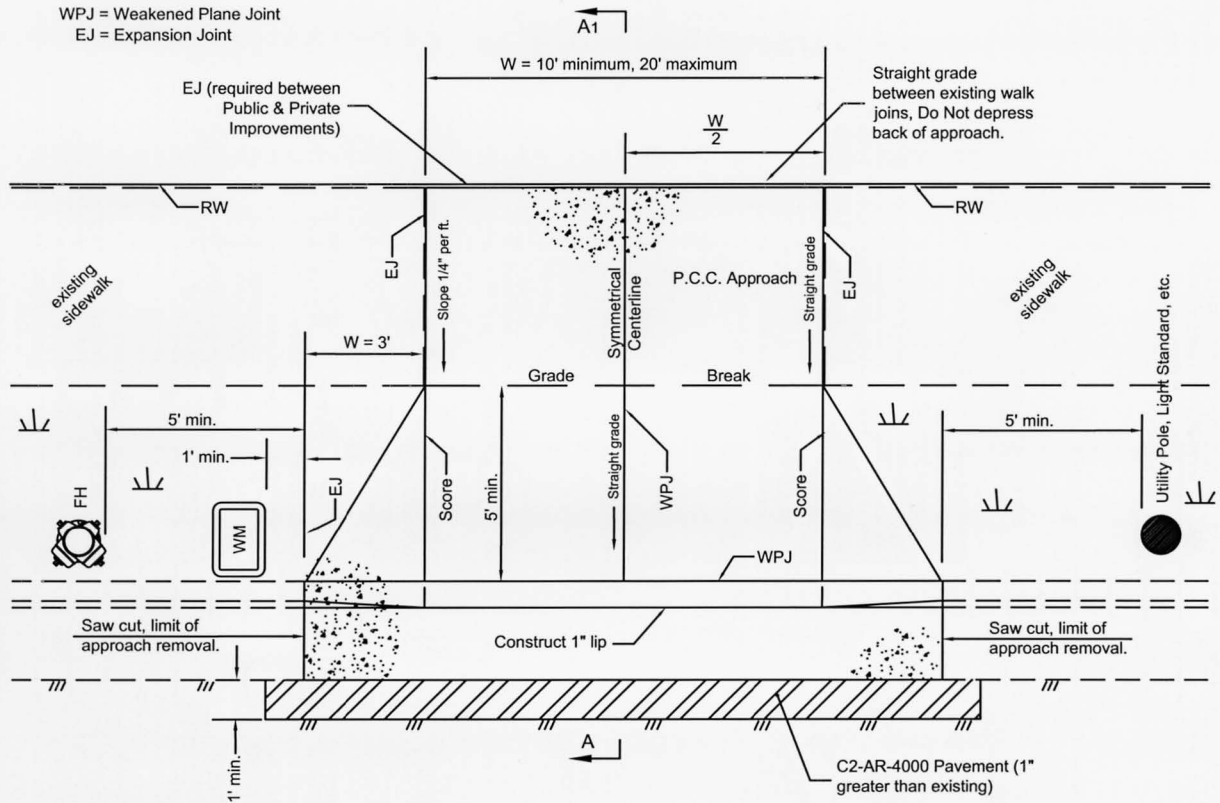
S.D. & S. NO.

1.13

Page 2 of 2

P.C.C. DRIVE APPROACH - Type II FOR RESIDENTIAL USE

WPJ = Weakened Plane Joint
EJ = Expansion Joint



1. Class 520-C-2500 (5-1/2 sack) P.C.C. with Type I (clear) curing compound shall be used.
2. Round all edges with 3/4" radius.
3. Saw cutting required on all removals.
4. Finish sidewalk with fine broom drawn perpendicular to curb.
5. Finish approach with fine broom drawn parallel to curb.
6. Weakened Plane Joints (WPJ) shall have aggregate parted to a depth of 2" with a straight edge prior to installation of 1" "T" shaped strip with removable stiffener and or joint finishing.
7. No portion of driveway approach shall fall within a curb return area.
8. Finish gutter adjacent to curb face with 3" wide smooth flowline (shiner).
9. Top of "X" shall be a minimum of 18" from prolongation of side property line.
10. Minimum distance between drive approaches on same property shall be 18'. Common approaches are not permitted.

Note: Use of this Standard requires recommendation by City of Glendora staff and shall be used as approved by the City Engineer.

Approved by: *A. Cantwell*
City Engineer R.C.E. 29011
Date: *3/20/04*

Drawn by: JSWilliams
Revised by: CAG
Effective Date: April 13, 2004
Date: August 22, 2003
Date: March 11, 2004



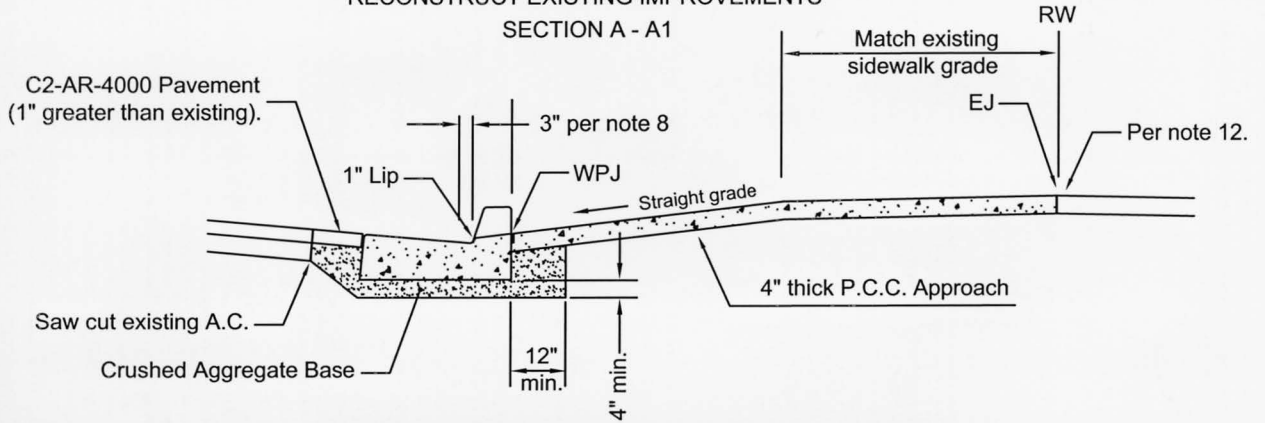
City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS
Adopted for use on Public and Private Improvements

S.D. & S. NO.
1.14
Page 1 of 2

P.C.C. DRIVE APPROACH - Type II FOR RESIDENTIAL USE

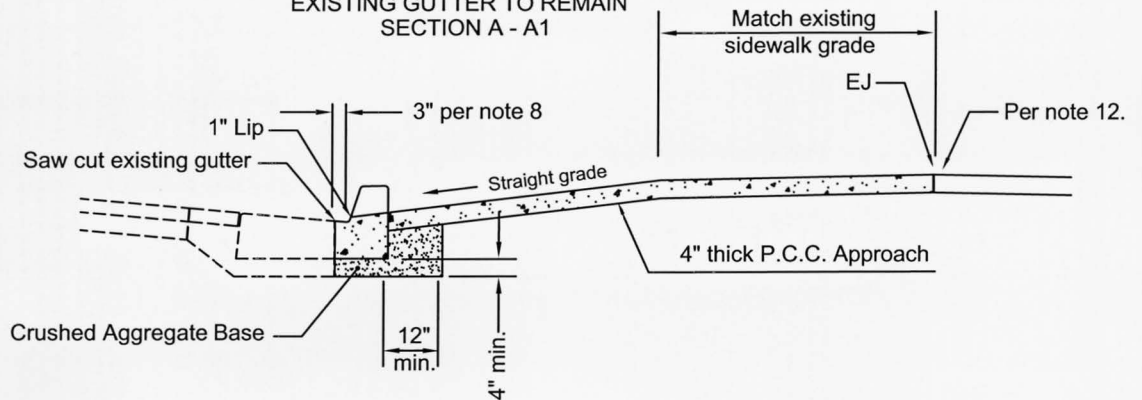
CASE I

RECONSTRUCT EXISTING IMPROVEMENTS
SECTION A - A1



CASE II

EXISTING GUTTER TO REMAIN
SECTION A - A1



11. Water meter boxes are not allowed in the approach. Where an existing water meter falls within the proposed drive approach, removal of the existing service and installation of a new service (per City standards) outside of the approach area will be required.
12. Drive area 5' behind back of approach shall be provided with maximum slope of 2%.

Approved by: *R. Cantrell*
City Engineer R.C.E. 29011

Date: *3/20/04*

Drawn by: JSWilliams
Revised by: CAG

Date: August 22, 2003
Date: March 11, 2004

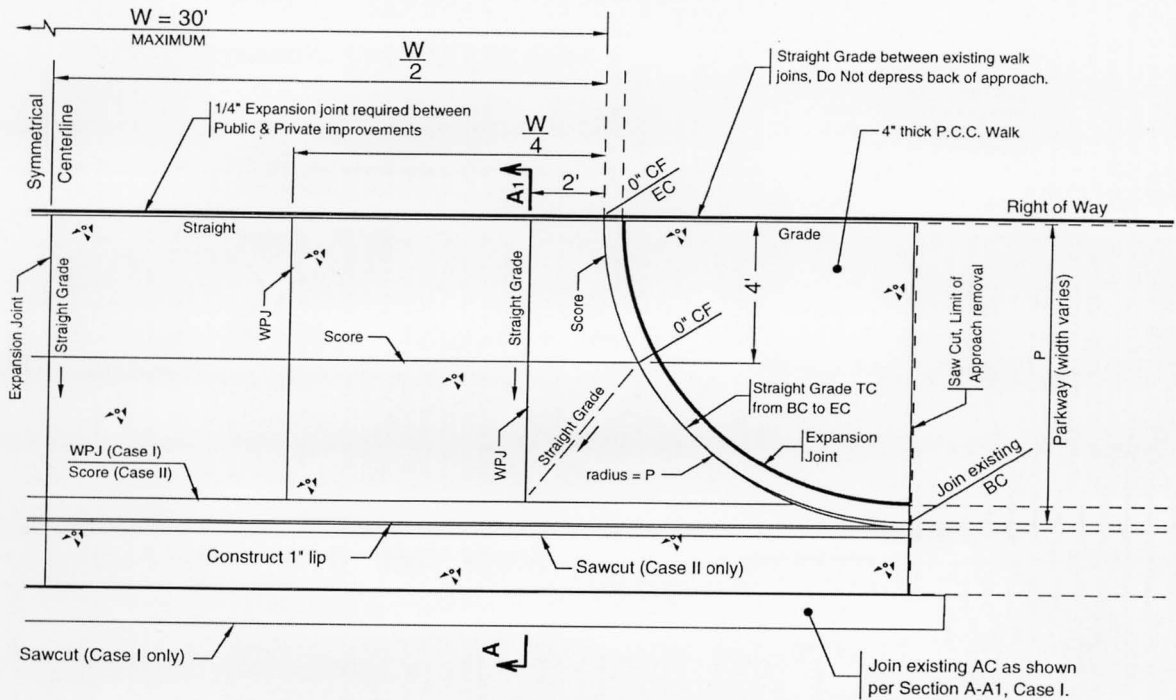
Effective Date: April 13, 2004



P.C.C. DRIVE APPROACH

Type III

FOR MEDIUM VOLUME COMMERCIAL USE



Approved by: *A. Cantwell*
 City Engineer R.C.E. 28011
 Date: *3/30/04*

Drawn by: JSWilliams
 Date: February 20, 1998
 Revised by: CAG
 Date: March 11, 2004
 Effective Date: April 13, 2004

1. Class 520-C-2500 (5-1/2 sack) P.C.C. with Type I (clear) curing compound shall be used.
2. Round all edges with 3/4" radius.
3. Saw cutting required on all removals.
4. Finish sidewalk with fine broom drawn perpendicular to curb.
5. Finish approach with coarse broom drawn parallel to curb.
6. Weakened Plane Joints (WPJ) shall have aggregate parted to a depth of 2" with a straight edge prior to installation of 1" "T" shaped strip with removable stiffener and or joint finishing.
7. Finish gutter adjacent to curb face with 3" wide smooth flowline (shiner).

Note: Use of this Standard requires recommendation by City of Glendora staff and shall be used as approved by the City Engineer.



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

1.15

Page 1 of 2

P.C.C. DRIVE APPROACH Type III

FOR MEDIUM VOLUME COMMERCIAL USE

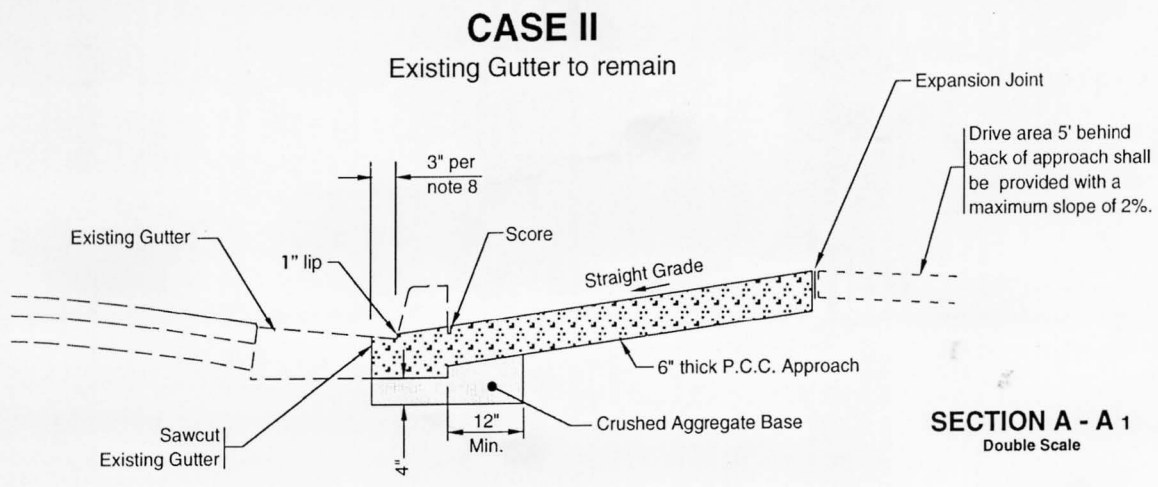
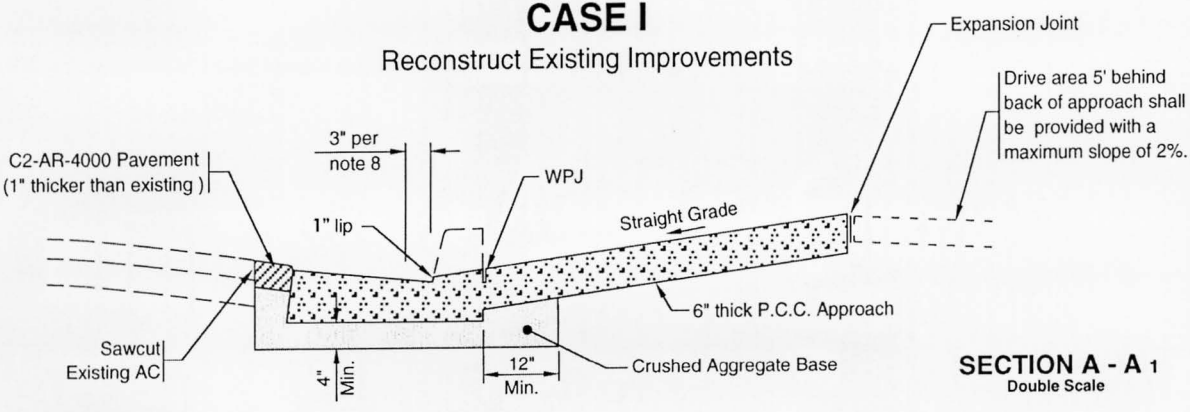
Approved by: *R. Cantwell*
 City Engineer R.C.E. 29011

Date: *3/30/04*

Drawn by: JSWilliams
 Date: February 20, 1998

Revised by: CAG
 Date: March 11, 2004

Effective Date: April 13, 2004



Note: Use of Case I or Case II shall be as directed by the City Engineer.



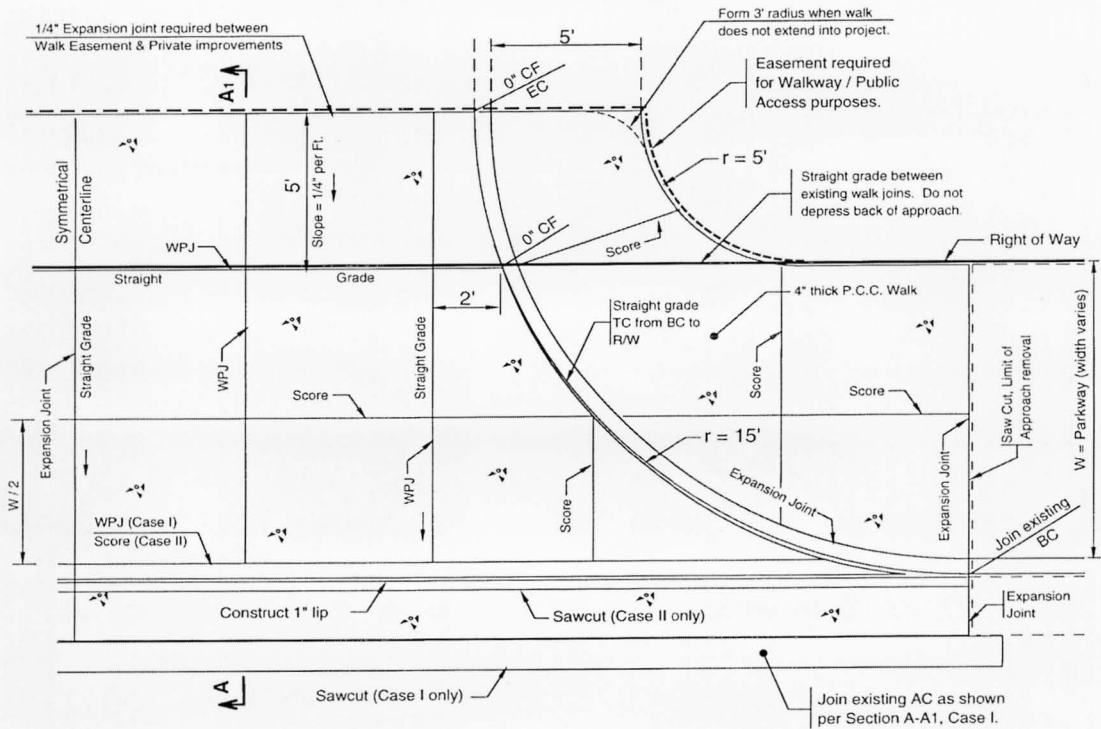
City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.
1.15
 Page 2 of 2

P.C.C. DRIVE APPROACH Type IV

FOR HIGH VOLUME COMMERCIAL USE



Approved by: *A. Cantrell*
City Engineer R.C.E. 29011
Date: *3/29/04*

Drawn by: JWilliams
Date: February 20, 1998
Revised by: CAG
Date: March 11, 2004
Effective Date: April 13, 2004

1. Class 520-C-2500 (5-1/2 sack) P.C.C. with Type I (clear) curing compound shall be used.
2. Round all edges with 3/4" radius.
3. Saw cutting required on all removals.
4. Finish sidewalk with fine broom drawn perpendicular to curb.
5. Finish approach with coarse broom drawn parallel to curb.
6. Weakened Plane Joints (WPJ) shall have aggregate parted to a depth of 2" with a straight edge prior to installation of 1" "T" shaped strip with removable stiffener and or joint finishing.
7. Finish gutter adjacent to curb face with 3" wide smooth flowline (shiner).

Note: Use of this Standard requires recommendation by City of Glendora staff and shall be used as approved by the City Engineer.

P.C.C. DRIVE APPROACH Type IV

FOR HIGH VOLUME COMMERCIAL USE

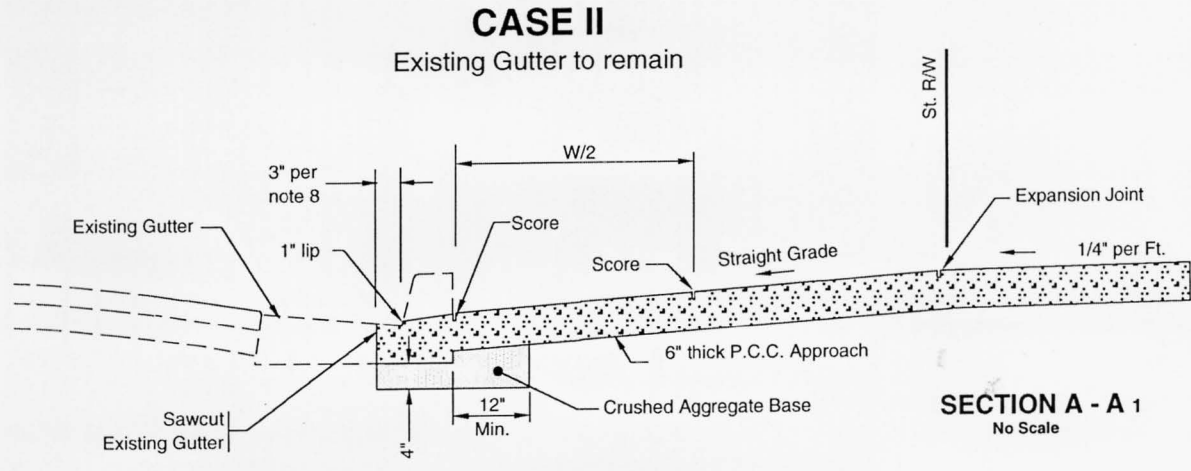
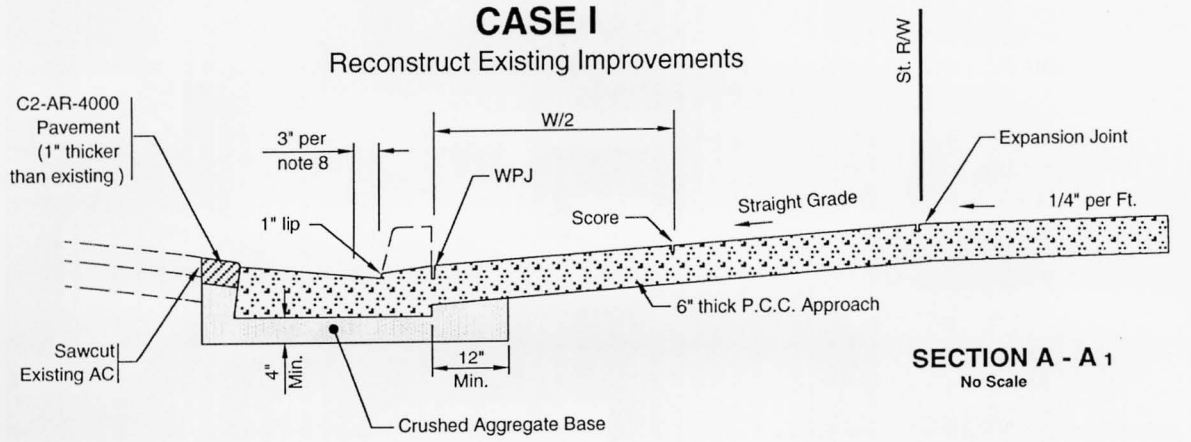
Approved by: *R. Cantrell*
City Engineer R.C.E. 29011

Date: *3/30/04*

Drawn by: JSWilliams
Revised by: CAG

Date: February 20, 1998
Date: March 11, 2004

Effective Date: April 13, 2004



Note: Use of Case I or Case II shall be as directed by the City Engineer.



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

1.16

Page 2 of 2

TRAFFIC CONTROL REQUIREMENTS FOR TRAFFIC CONTROL & LANE CLOSURES

Description - This work shall include, but not be limited to providing delineation, light-flashing barricades, flashing arrow boards, signing for detours, traffic channelization, temporary "NO PARKING" signs and public safety.

Construction - Traffic control shall conform to applicable provisions of the Standard Specifications and these Special Provisions.

The Contractor shall provide safe and continuous passage for pedestrian and vehicular traffic at all times.

All warning lights, signs, flares, barricades, delineators, detours, and other facilities for the sole convenience and direction of public traffic shall be furnished and maintained by the Contractor. All traffic control shall conform to, and be placed in accordance with, current Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones. Flashing arrow signs shall be furnished and maintained as directed by the Project Engineer.

When required by the City Engineer, the Contractor shall submit a traffic control plan prepared, stamped and signed by a qualified California Registered Traffic Engineer to the City of Glendora for review and approval at least fourteen (14) days prior to commencing any work. Said plan shall indicate the locations of all signs, barricades, flashing arrow signs, delineators, lane closures, temporary lane lines, etc., required to control traffic and detours during construction. All such devices shall be removed from the view of traffic when not required.

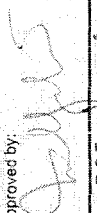
The Contractor is hereby notified that the use of black paint to cover the existing traffic striping during any traffic detour shall not be allowed. The existing traffic striping shall be obliterated by wet-sand blasting (with immediate clean up of sand blasted areas) or by other methods approved by the City Engineer. At the end of construction all traffic striping shall be repaired and restored to the satisfaction of the City Engineer.

The Contractor shall provide and install temporary pavement tabs, to delineate any striping or markings removed, by the end of each work day (or phase) unless permanent striping or markings are installed at that time.

During working hours, a minimum of one 12-foot wide travel lane(s) in each direction shall be maintained. Under special circumstances the Contractor may be allowed, at the Engineer's discretion, to maintain a minimum of 10-foot wide traffic lanes in each direction or provide two-way traffic with flagmen. On any working day, no lane closures on arterial highways will be permitted between 7:00 am and 9:00am or between 3:00pm and 6:00 pm. Separation between travel lanes, channelization and delineation of the work area shall be accomplished by the use of delineators placed at a maximum of 15' on center or as specified on the traffic control plan. No lane closure or construction will be permitted on any street on Saturdays, Sundays or legal holidays unless authorized by the City Engineer. Emergency vehicles shall be permitted to pass through the work area without delay at all times.

During the course of the work, the Contractor shall make minor changes and add or delete signing, as may be requested by the City Engineer, to correct problem traffic situations which are a result of the Contractor's operations. In special cases, the Contractor shall be required to furnish flagmen as requested.

Each vehicle used to place and remove components of a traffic control system on multi-lane highways shall be equipped with a Type II flashing arrow sign which shall be in operation when the vehicle is being used for placing, maintaining, or removing said components. The sign shall be controllable by the operator of the vehicle while the vehicle is in motion. The flashing arrow sign shown on the plans shall be in place before lane closure is completed.

Approved by: 	Date 8/28/09
R.C.E.	

Drawn by: Staff	Date: August 26, 2002	
Revised by: JSW	Date: March 28, 2009	
Effective Date: June 9, 2009		



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

1.17

Page 1 of 2

TRAFFIC CONTROL REQUIREMENTS FOR TRAFFIC CONTROL & LANE CLOSURES

The Contractor shall be responsible for furnishing, posting, and removing temporary "NO PARKING" signs, where applicable, along all routes. Signs shall be posted at least 48 hours in advance of work, at all intersections, and on each side of the street a maximum 75 feet between signs. Signs may be attached to delineators or barricades placed in the public right-of-way. When necessary, the Contractor shall furnish posts. Format of temporary "NO PARKING" signs shall be reviewed and approved by the City Engineer prior to posting.

The Contractor shall pass out notices, which have been reviewed and approved by the City Engineer, to all adjacent residences and business establishments a minimum of 48 hours prior to beginning of work. Said notices shall explain the work and give the date that the work will begin.

When the construction schedule necessitates any closure of driveways, the Contractor shall notify affected residents and businesses at least 48 hours in advance.

The Contractor shall perform periodic patrols of the construction area during both working and non-working hours to replace and/or set up any signs, barricades, etc., which may have been knocked down. The Contractor shall furnish to the City of Glendora Police Department the telephone numbers of the employees to be "on-call" during non-working hours to correct any sign, barricade or delineator problem. In the event City forces are required to correct any signing problem, due to the City of Glendora Police Department not being able to contact the Contractor's "on-call" employee, the cost of said work shall be deducted from the final payment due to the Contractor or shall be charged to the permit holder. All flasher type barricades shall be maintained in operating conditions. When the project is complete, all traffic control signs, barricades, and delineators shall be removed from the site and shall remain the property of the Contractor.

The following entities shall be notified at least 72 hours in advance of any street closure or restriction to access by the Contractor.

Notify always:

1. City Engineer, Glendora
2. Fire Department
3. Police Department, Glendora

Notify if applicable:

4. Disposal Company
5. Post Office
6. School District
7. Foothill Transit Authority

The Engineer may add additional entities to this list at his discretion.

Note to City Contractors - Payment for providing traffic control shall be at the contract lump sum price and shall be considered full compensation for furnishing all labor, signing, delineators, barricades, equipment and incidentals for accomplishing the work as specified herein and no additional compensation will be allowed therefor.

Approved by:	Date 5/28/09
R.C.E.I. 70324	

Drawn by: Staff	Date: August 26, 2002	
Revised by: JSW	Date: March 28, 2009	
Effective Date: June 9, 2009		

TRAFFIC CONTROL NOTES FOR TRAFFIC CONTROL PLAN

1. ALL WORK AND MATERIALS SHALL COMPLY WITH THE CALTRANS MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES, LATEST EDITION AND WITH ALL CITY OF GLENDORA "TRAFFIC CONTROL REQUIREMENTS", STANDARD 1.17.
2. ALL STRIPING AND MARKINGS SHALL CONFORM TO THE STATE OF CALIFORNIA, STANDARD PLANS AND SPECIFICATIONS (LATEST EDITION) INCLUDING STANDARD PLAN A-20 DETAILS.
3. CONTRACTOR SHALL PROVIDE ACCESS TO ALL ADJACENT PROPERTIES.
4. FLASHING YELLOW BEACONS, TYPE B, SHALL BE USED ON ALL C23 SIGNS AND ON ALL TYPE III BARRICADES GUARDING THE WORK AREA OVERNIGHT.
5. ALL SIGNS SHALL BE REFLECTORIZED AND STANDARD SIZE.
6. ALL TUBULAR DELINEATORS SHALL BE 36" MINIMUM HEIGHT AND CONES SHALL BE 28" MINIMUM HEIGHT, REFLECTORIZED, AND MAINTAINED ERECT IN THE INDICATED POSITION AT ALL TIMES, AND SHALL BE REPAIRED, REPLACED, OR CLEANED AS NECESSARY TO PRESERVE THEIR APPEARANCE AND CONTINUITY, AND SHALL INCLUDE A 12" HIGH-INTENSITY REFLECTORIZED SLEEVE, IF USED DURING NIGHT TIME HOURS.
7. THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ALL SIGNS, DELINEATORS, BARRICADES, ETC., TO INSURE PROPER FLOW AND SAFETY OF TRAFFIC DURING CONSTRUCTION.
8. THE CONTRACTOR SHALL HAVE ALL SIGNS, DELINEATORS, BARRICADES, ETC., PROPERLY INSTALLED PRIOR TO COMMENCING CONSTRUCTION.
9. CONSTRUCTION OPERATIONS SHALL BE CONDUCTED IN SUCH A MANNER AS TO CAUSE MINIMAL INCONVENIENCE TO ABUTTING PROPERTY OWNERS.
10. ADDITIONAL TRAFFIC CONTROLS, TRAFFIC SIGNS OR BARRICADING MAY BE REQUIRED IN THE FIELD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT OF ANY ADDITIONAL DEVICES NECESSARY TO ASSURE SAFETY TO THE PUBLIC AT ALL TIMES DURING CONSTRUCTION.
11. EXACT LOCATION AND TYPE OF CONSTRUCTION SIGNS SHALL BE DIRECTED BY THE PROJECT ENGINEER BASED UPON CONSTRUCTION CONDITIONS.
12. CONTRACTOR SHALL MOVE DELINEATORS, SIGNS, AND CONES TO THE CURB/EDGE LINE STRIPE DURING NON-WORKING HOURS AND REMOVE BARRICADES, ETC., FROM TRAVEL LANES. CONTRACTOR SHALL REMOVE/TURN SIGNS DURING NON-WORKING HOURS.
13. ALL CONFLICTING LINES, EXISTING CURB PAINT AND MARKINGS SHALL BE REMOVED BY WET SANDBLASTING OR OTHER APPROVED METHOD PRIOR TO INSTALLATION OF NEW/TEMPORARY STRIPING. ALL CONFLICTING RAISED PAVEMENT MARKERS SHALL BE REMOVED. PAVEMENT THAT IS DAMAGED DUE TO REMOVAL OF MARKERS SHALL BE REPAIRED TO THE SATISFACTION OF THE CITY ENGINEER.
14. A MINIMUM OF 5 FEET CLEARANCE SHALL BE MAINTAINED BETWEEN ANY OPEN EXCAVATION AND ADJACENT TRAVEL LANES OPEN TO TRAFFIC.
15. THE CONTRACTOR SHALL REPLACE ANY AND ALL STRIPING AND PAVEMENT MARKINGS DISRUPTED OR REMOVED DURING THIS CONSTRUCTION TO THE SATISFACTION OF THE CITY ENGINEER.
16. THE CONTRACTOR SHALL PROVIDE AND INSTALL TEMPORARY PAVEMENT TABS, TO DELINEATE ANY STRIPING OR MARKINGS REMOVED, BY THE END OF EACH WORK DAY (OR PHASE) UNLESS PERMANENT STRIPING OR MARKINGS ARE INSTALLED AT THAT TIME.

Approved by: *A. Cantrell*
 Date: *3/30/04*
 City Engineer R.C.E. 29011


Drawn by: Staff
 Date: August 26, 2002
 Revised by: CAG
 Date: March 11, 2004
 Effective Date: April 13, 2004



STANDARD CONSTRUCTION NOTES FOR WATER IMPROVEMENTS

Standard Notes for Water Construction

1. All applicable "CITY OF GLENDORA STANDARD DESIGNS & SPECIFICATIONS", latest revisions, are hereby made a part of this plan and all water mains, appurtenances and installations shall be in accordance with same.
2. The "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", latest edition, is hereby made a part of this plan.
3. The Contractor shall locate all utilities and monuments of every nature, whether shown hereon or not, and protect them from damage. The Contractor shall bear the total expense of repair or replacement of utilities and monuments damaged or destroyed.
4. The Contractor shall warranty all work for a period of one (1) year from the date of final acceptance by the City and shall be responsible for the repair and or replacement of all failures determined by the City Engineer to be caused by workmanship or substandard materials.
5. 24 hour notification is required for all Public Works Inspections. Contact the CITY OF GLENDORA PUBLIC WORKS DEPARTMENT, Monday through Thursday (excluding holidays), 8:00 a.m. to 5:00 p.m., at (626) 914-8246.
6. The Contractor shall obtain all required permits from the City of Glendora Public Works Department and affected agencies prior to commencement of construction.
7. The Contractor shall make application to the City of Glendora and obtain a hydrant meter prior to commencement of construction.
8. The Contractor shall be responsible for coordinating with the Water Manager, the installation of all water mains, appurtenances, tie-ins, shut downs, testing and work required.
9. The Contractor shall at all times maintain proper barricading, dust control, traffic control, shoring and safety measures of every nature.
10. All required testing (chlorination, bacteriological, hydrostatic pressure and leakage) shall be completed prior to placing any water main or appurtenance in service and shall be performed under the supervision of the City Engineer.
11. Any changes from the Plan, Standard Notes, Standard Designs or Specifications shall be considered non-conforming unless approved in writing by the City Engineer prior to installation.
12. All water mains and appurtenances shall be installed after completion of curb, gutter and rough street grade, unless specified on Plan.
13. It shall be the responsibility of the Contractor to obtain and have available all materials and equipment required for the installation of water mains and appurtenances required to complete work shown hereon prior to commencement of construction.
14. Water mains, services and appurtenances shall not be back filled prior to inspection, field measurements and testing by the City Engineer. Center loading prior to hydrostatic testing is allowable after inspection and field measurements are completed.
15. Installations not conforming to the "CITY OF GLENDORA STANDARD DESIGNS & SPECIFICATIONS" shall be removed, replaced and or corrected at the Contractor's expense, as directed by the City Engineer.
16. Pipeline disinfecting shall be in accordance with the "City of Glendora Standard Designs & Specifications" and meet or exceed the "American Water Works Association Standard for Disinfecting Water Mains (ANSI / AWWA C651-92)".

Approved by:  R. Cantwell
 City Engineer R.C.E. 29011
 Date: 3/30/04

Drawn by: JSW
 Date: April 11, 2003
 Revised by: JSW
 Date: February 25, 2004
 Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS
Adopted for use on Public and Private Improvements

S.D. & S. NO.
2.00
 Page 1 of 1

FLUSHING / DISINFECTING PROCEDURES FOR NEW WATER MAIN INSTALLATION

1. Pipeline disinfecting shall meet or exceed the "American Water Works Association Standard for Disinfecting Water Mains (ANSI / AWWA C651-99)".

2. All flushing and disinfecting shall be as directed by the City Engineer as represented by the Public Works Construction Inspector, Project Coordinator and / or Water Division Representative hereinafter collectively referred to as "City".

3. The contractor shall be responsible to maintain all mains, services and laterals free of objectionable materials at all times. The City will periodically inspect pipe installation, should dirt or debris be found in pipe or appurtenances, the Contractor shall remove dirt or debris and swab interior with a minimum 1% disinfecting solution.

4. When directed by the City, the Contractor shall fill the new main from an approved source. The City will confirm uniform chlorine residual (50 ppm minimum) within the pipeline. The disinfecting retention period will be no less than 24 hours. The City may require an extended retention period at the City's discretion.

5. Following the required retention period, the City will confirm that the free chlorine residual is at least 50% of the initial dosage. If the free chlorine residual is less than 50%, the Contractor shall repeat the flushing and disinfecting procedures.

6. The City will determine the location and number of sampling points that will reflect appropriate water quality representation. The Contractor shall supply and have in place a combination blow off and sampling tap per City Standards (2.21).

7. The Contractor will demonstrate to the City that a minimum flow of 2.5 ft/sec flow is achieved when flushing mains.

8. The City will notify the Contractor to begin chlorine neutralization and flushing. Contractor will comply with all applicable NPDES and AWWA requirements for the disposing of heavily chlorinated water during flushing and testing procedures.

9. Following flushing and disinfecting procedures and a 24-hour retention period, the City will collect consecutive samples to determine free chlorine residual, turbidity, bacteriological presence and heterotrophic plate counts (HPC).

A State Certified laboratory selected by the City will conduct bacteriological and HPC analysis. The City will arrange for sample pickup but is not responsible for laboratory errors or other situations beyond the City's control. The laboratory will produce bacteriological analysis in 24 hours and HPC results in 48 hours.

The Contractor shall allow for all testing procedures in his work schedule. The City will pay for the first set of consecutive tests. The Contractor will pay for any additional test and water usage that will be required to achieve an acceptable result.

Approved by: *R. Cantrell*
City Engineer R.C.E. 29011

Date: *3/20/04*

Drawn by: JSW
Revised by: JSW
Effective Date: April 13, 2004

Date: April 11, 2003
February 27, 2004



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.01

Page 1 of 2

Approved by: *A. Cantwell*
 Date: *3/30/04*
 City Engineer R.C.E. 28011

Drawn by: JSW
 Date: April 11, 2003
 Revised by: JSW
 Date: February 27, 2004
 Effective Date: April 13, 2004

10. The City will collect and analyze mainline turbidity. The results of the turbidity analysis must be less than the EPA's maximum contaminant level (MCL) of 5 NTUs. If analysis indicates turbidity levels greater than 5 NTUs, the bacteriological samples will not be sent to the laboratory and the contractor will be required to repeat flushing procedures.

11. If the analysis indicates turbidity levels greater than 5 NTUs for two consecutive tests, the Contractor shall pay for any additional testing required (including bacteriological) and all water usage required to achieve an acceptable result.

12. If the laboratory indicates the presence of coliform bacteria, the Contractor will be required to repeat the flushing and or disinfecting process followed by the requirement of consecutive coliform absent samples.

13. No permanent connection to the public water supply will be made until all pressure and water quality tests have been completed to the satisfaction of the City. Connections per Standard 2.23 and 2.32 where indicated on plan are acceptable.

14. During all phases of flushing and disinfecting procedures, the Contractor shall provide an approved back flow devise and provide to the City valid certification that devise is in compliance with the California Administrative Code and the Los Angeles County Public Health Code.. The Contractor shall maintain all back flow devises or protection requirements for the duration of the project or as directed by City.

15. Unless provided herein or specifically noted in the bid documents, all costs, including but not limited to all labor, equipment and materials required to achieve acceptable results in accordance with these flushing and disinfecting procedures shall be included in the total bid and shall be paid for by the Contractor. The City is not responsible for expenses incurred by the Contractor resulting from water quality test failures and or remedial measures required to provide acceptable results in accordance with flushing and disinfecting procedures.

16. Flushing and disinfecting shall be performed after hydrostatic test unless prior approval obtained from the City.



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.01

Page 2 of 2

HYDROSTATIC TESTING PROCEDURES FOR NEW WATER MAIN INSTALLATIONS

Hydrostatic and Leakage Testing

Hydrostatic and leakage testing shall minimally conform to applicable sections of American Water Works Association (AWWA) Standard C600-99, latest revision.

The pipe shall be tested for leakage after the trench has been partially backfilled (center loaded). The pipe shall be filled slowly with water from a source approved by the City Engineer. If an air release point has not been specified on the plan, the Contractor shall provide an approved air release point for use during the filling process.

After the pipe is full of water, it shall be allowed to sit idle for up to 24 hours or as directed by the City Engineer. The Contractor shall then provide an approved apparatus to confirm all air is expelled and increase the water pressure in the pipe to 1.5 times the normal system operating pressure or 150 psi, whichever is greater, for 1 to 2 hours or as directed by the City Engineer. Test pressure shall not vary by more than 5 psig for the duration of the test.

Observations will be made to determine any leakage by sight or by the use of an approved water meter to detect flow into the pipe. No pipe installation will be accepted if the amount of makeup water is greater than that determined by the following formula:

$$L = \frac{SD\sqrt{P}}{133,200}$$

- Where L = allowable makeup water in gallons per hour
- S = length of pipe tested
- D = nominal pipe diameter in inches
- P = average test pressure in pounds per square inch

Unless prior approval is given by the City, hydrostatic and leakage testing procedures shall be performed prior to completing the Flushing / Disinfection procedures. Test plates per Standard 2.23 or 2.32 are required.

All hydrostatic and leakage tests shall be performed by the Contractor under the supervision of the City Engineer. All work required to correct a failing hydrostatic or leakage test shall be the responsibility of and at the expense of the Contractor.

Approved by: 
 City Engineer R.C.E. 29011
 Date: 3/20/04

Drawn by: JSWilliams
 Date: April 11, 2003
 Revised by: JSWilliams
 Date: March 5, 2004
 Effective Date: April 13, 2004



APPROVED MATERIALS

FOR FIRE SERVICE CONNECTIONS, 4" - 10"

NOTE: Substitutions from "Approved Service Materials" list are prohibited without prior written approval from City Engineer.

Description	Manufacturer	Model / Part No.
DOUBLE CHECK VALVE		
4" - 10" DDC	Febco	850, 870
4" - 10" DDC	Ames	3000ss

NOTE: Double Check shall be on USC Foundation for Cross-Control and Hydraulic Research "List of Approved Backflow Prevention Assemblies", latest edition. For assemblies other than listed, submit "cut sheets" to Water Superintendent for approval.

METERS

3/4" (direct read in cu.ft.)	Sensus Technology	SR
------------------------------	-------------------	----

CURB STOPS

3/4" Female I.P. x Female I.P.	Ford Meter Box Co.	B11-333
3/4" Female I.P. x Female I.P.	James Jones Co.	J-180
3/4" Female I.P. x Female I.P.	Mueller	B-20283

STRAIGHT METER COUPLINGS

3/4" Meter Nut x Male I.P.	Ford Meter Box Co.	C38-23-2
3/4" Meter Nut x Female I.P.	James Jones Co.	J-130
3/4" Meter Nut x Female I.P.	Ford Meter Box Co.	C31-23

METER VALVES

3/4" Meter Nut x Female I.P.	James Jones Co.	J-1903
3/4" Meter Nut x Female I.P.	Ford Meter Box Co.	B13-332

Approved by:  R. Cantrell
 City Engineer R.C.E. 29011
 Date:  3/29/04

Drawn by: JSWilliams
 Date: April 22, 2003
 Revised by: JSWilliams
 Date: March 8, 2004
 Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.04

Page 1 of 1

APPROVED MATERIALS

FOR 1", 1½", 2" SERVICES

NOTE:

Substitutions from "Approved Service Materials" list are prohibited without prior written approval from City Engineer. For accepted model and or part numbers see Water Division "Specific Materials List", latest revision.

Approved by: *R. Cantwell*
 City Engineer R.C.E. 29011
 Date: *10/26/05*

Drawn by: JSW
 Revised by: JSW
 Effective Date: November 8, 2005
 Date: November 9, 1992
 Date: October 21, 2005

Description	Manufacturer
ANGLE METER VALVES	
1" Pack Joint x 1" Meter	Ford Meter Box Co.
1" Compression x 1" Meter	James Jones Co.
1" Mueller 110 Conductive Compression x 1" Meter	Mueller Co.
1½" Pack Joint x 1½" Meter Flange	Ford Meter Box Co.
1½" Pack Joint x 1½" Meter Flange	Ford Meter Box Co.
2" Pack Joint x 1½" / 2" Meter Flange	Ford Meter Box Co.
2" Compression x 1½" / 2" Meter Flange	James Jones Co.
CORPORATION STOPS	
1" I.P. x 1" Grip Joint	Ford Meter Box Co.
1" I.P. x 1" Compression	Mueller Co.
1" I.P. x 1" Compression (or Super Grip)	James Jones Co.
BALL VALVES	
2" I.P. x 2" Compression w/ 2" Oper.Nut	James Jones Co.
2" I.P. x 2" Compression w/ 2" Oper.Nut	Mueller Co.
STRAIGHT METER COUPLINGS	
1" Meter Nut x Fe I.P. Spud (1" x 2-1/2")	James Jones Co.
3/4" Meter Nut x Fe I.P. Spud (3/4" x 2-1/2")	James Jones Co.
PIPE	
1", 1-1/2", 2" Type K Copper Water Service tubing, manufactured to meet or exceed A.S.T.M. B88 (Alloy 122), Federal Specification WW799.	



NOTE:

Substitutions from "Approved Service Materials" list are prohibited without prior written approval from City Engineer. For accepted model and or part numbers see Water Division "Specific Materials List", latest revision.

Approved by: *A. Cantrell*
 Date: *10/26/05*
 City Engineer R.C.E. 29011

Drawn by: JSW
 Date: November 9, 1992
 Revised by: JSW
 Date: October 21, 2005
 Effective Date: November 8, 2005

Description	Manufacturer
SADDLES	
Main size x Corp. Stop size outlet	Ford Meter Box Co.
Main size x Corp. Stop size outlet	Smith-Blair
METER BOXES	
Polymer box for 3/4" meter with 1 piece reading lid or 2 piece reading lid per plan.	Amour Cast Products Co.
Polymer box for 1" meter with 1 piece reading lid or 2 piece reading lid per plan.	Amour Cast Products Co.
Polymer box for 1-1/2" & 2" meters with 2 piece reading lid.	Amour Cast Products Co.

NOTE: Meter boxes shall be installed with size and type as indicated on plan. Where meter box is not specified on plan, obtain written direction from the Water Manager and verify if box is to be supplied by City or Contractor prior to obtaining materials.

GATE VALVES	
1" Gate Valve (Fe I.P. x Fe I.P.)	Watts
1-1/2", 2" Gate Valve (Fe I.P. x Fe I.P.)	Watts
1-1/2", 2" Gate Valve (Fe I.P. x Fe I.P.)	James Jones Co.

NOTE: Watts Gate Valve approved for use in meter box only..

BALL VALVES (for use in meter box only)	
1" Ball Valve (Fe I.P. x Fe I.P.) w/ handle	James Jones Co.
1" Ball Valve (Fe I.P. x Fe I.P.) w/ handle	Ford Meter Box Co.
1" Ball Valve (Fe I.P. x Fe I.P.) w/ handle	Mueller Co.



NOTICE OF CHANGE APPROVAL

Project location / description: _____

We, the undersigned, request the following change(s) to the Plan(s), Standard Notes, and or Standard Designs & Specifications for the above noted project.

Description of requested change : _____

Reason for change : _____

Change requested by : _____

Company / Title

Signature

Date

Change approved by : _____

Title

Signature

Date

The change(s) to the Plan(s), Standard Notes, and or Standard Designs & Specifications, for the referenced project only as noted above, have been approved by the City Engineer.

Approved by: R. Cantrell
 City Engineer R.C.E. 29011
 Date: 3/20/04

Drawn by: JSWilliams	Date: November 13, 1980
Revised by: JSWilliams	Date: March 8, 2004
Effective Date: April 13, 2004	



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

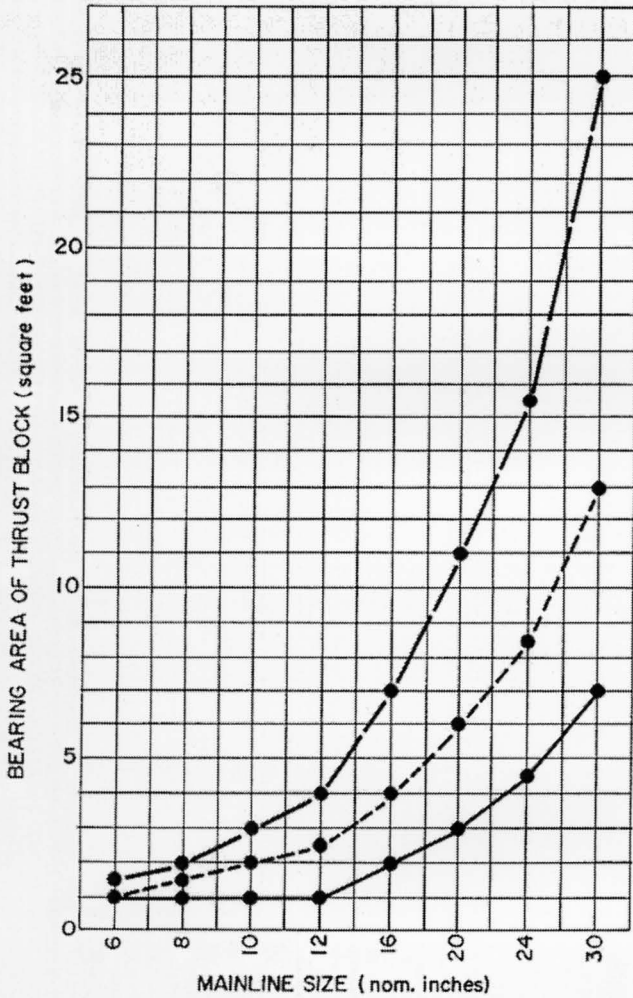
2.07

Page 1 of 1

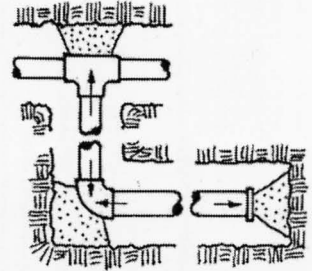
THRUST BLOCK REQUIREMENTS FOR DUCTILE IRON MAINLINE

Approved by: *R. Cantwell*
 City Engineer R.C.E.: 29011
 Date: *3/30/04*

Drawn by: JSWilliams
 Date: February 20, 1998
 Revised by: JSWilliams
 Date: March 17, 2004
 Effective Date: April 13, 2004

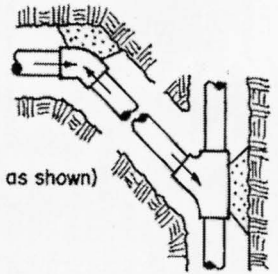


90° TEE, DEAD END



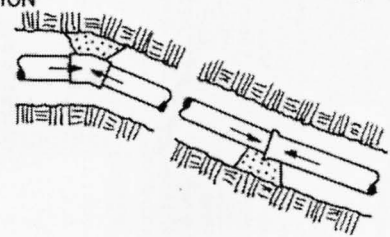
(arrows indicate direction of anticipated thrust.)

45° WYE



(locate thrust blocks as shown)

22 1/2° DEFLECTION



1. "Thrust block requirements" are for average City of Glendora soil conditions. If other than average soil conditions are encountered (i.e. soft clay, wet sand, etc.) thrust block requirements must be adjusted to meet field conditions by City Engineer prior to installation of mainline.
2. Thrust blocks shall have the required bearing area as shown above poured against undisturbed soil or 90% compacted soil.
3. Thrust block shall be 520-C-2500 P.C.C.



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

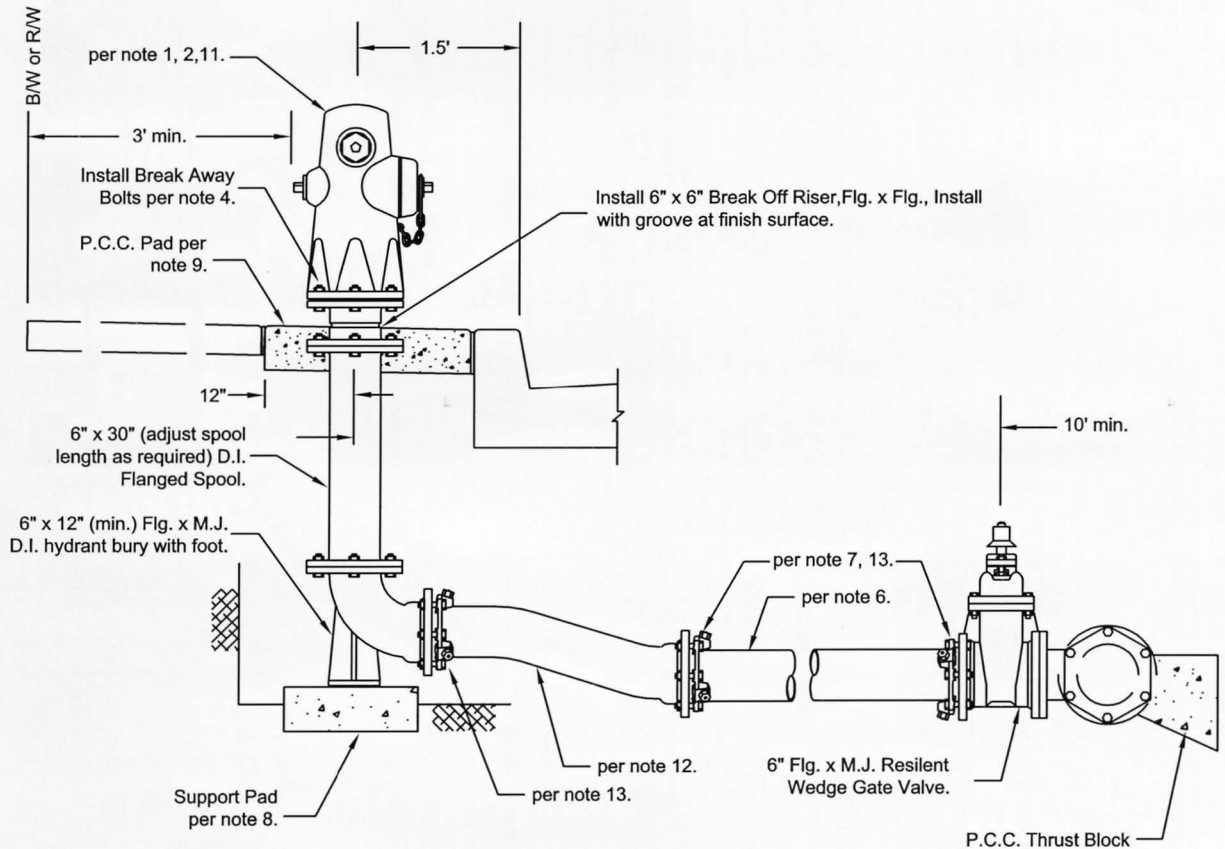
S.D. & S. NO.

2.08

Page 1 of 1

FIRE HYDRANT ASSEMBLY - Type I

Note: Type I Fire Hydrant Assembly shall be used unless noted on plan.



1. The standard Hydrant assembly shall have one 2-1/2" and one 4" outlet. The Hydrant head shall be a Rich Ranger model 950 or Rich East Bay model No.5 as manufactured by Clow Corporation, Corona, California.
2. Hydrant head shall be newly painted with one coat of "gray" primer (V2182) and one coat of "Equipment Yellow" (V2148) Industrial Coating, as manufactured by Rust-Oleum Corporation, excepting Brass threads and stem assemblies.
3. A minimum clearance of 5' shall be maintained from all driveways (measured from top of "X") and parkway trees. A minimum clearance of 3' shall be maintained between hydrant and back of sidewalk, utility pole, standard, building, wall, fence, utility cabinet or other obstruction.
4. Install hollow core galvanized steel break away bolts at head flange only. Install with nuts on top of hydrant flange and seal bolt opening with silicone sealant. All other bolts and nuts shall be Type 316 stainless steel conforming to ASTM A193, Grade B8M, for bolts and ASTM A194, Grade 8M for nuts.

Approved by: *R. Cantrell*
 Date: *3/20/04*
 City Engineer R.C.E. 29011

Drawn by: JSWilliams
 Date: March 5, 2003
 Revised by: JSWilliams
 Date: March 8, 2004
 Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.09

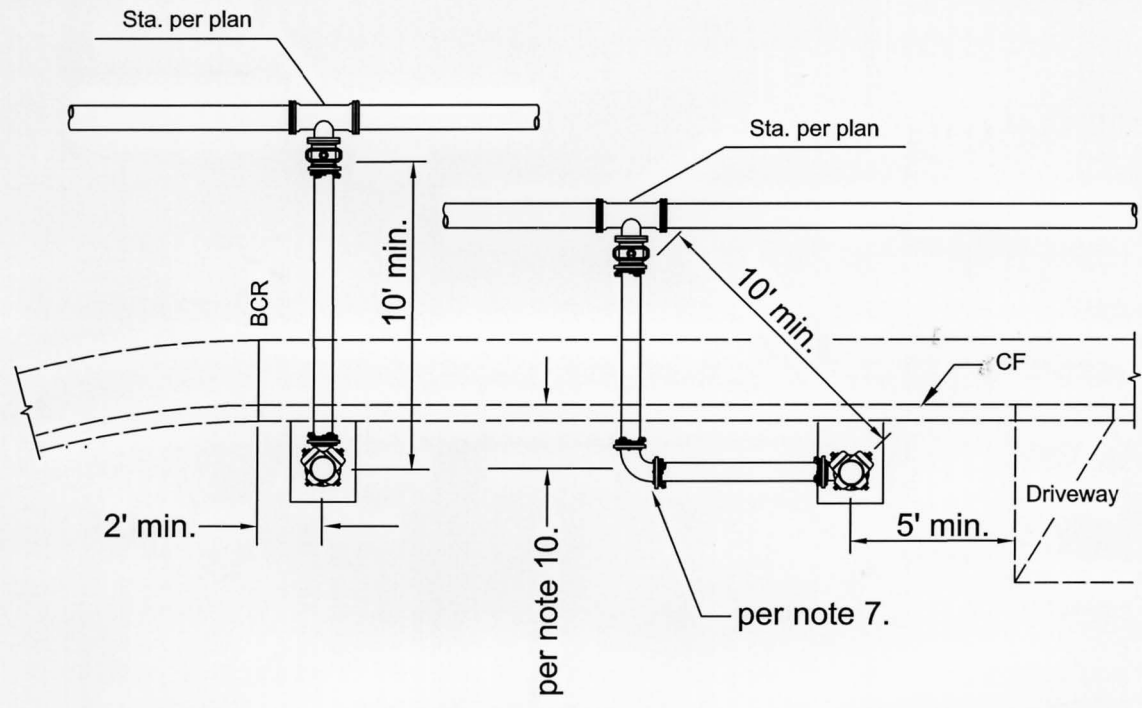
Page 1 of 2

5. Hydrant bury and spool shall be installed vertically plumb.
6. Install 6" Tyton Joint pressure class 350 Ductile Iron water main.
7. Maintain 10' minimum distance between hydrant gate valve and hydrant. If required, install lateral to behind curb face, install a 6" M.J. x M.J. 90° bend and continue hydrant lateral parallel to curb face to provide the 10' minimum distance from Gate Valve. Location of hydrant shall be located per plan.
8. Construct 18" x 18" x 6" thick P.C.C. (520-C02500) hydrant support pad on undisturbed soil or compacted base. Maintain 3" minimum clearance from all bolts or nuts.
9. Construct 24" x 24" x 6" thick P.C.C. (520-C02500) pad. Pad shall be constructed with 1/4" per foot slope to top of curb. Pad shall have a light broom finish and 1/2" radius troweled edges.
10. Install centerline of Hydrant 18" from face of curb. In areas where sidewalks exceed 6 foot in width, or in areas with no sidewalks, install centerline of Hydrant 24" from face of curb.
11. Orientation of outlets shall be at 45° to curb face.
12. Install 6" x 6" (or 6" x 12") P.E. x M.J. Offset as shown for grade adjustment. Rotate offset to set center of Break Off Spool at finish surface of pad.
13. All M.J. fittings & pipe joints shall be restrained using U.S. Pipe "Field Lok" gaskets or E.B.A.A. Iron Sales, Inc. "Meg-A-Lug" restraining gland as required.

Approved by: *R. Cantrell*
 City Engineer R.C.E. 28011

Date: *3/30/04*

Drawn by: JSWilliams Date: March 5, 2003
 Revised by: JSWilliams Date: March 8, 2004
 Effective Date: April 13, 2004



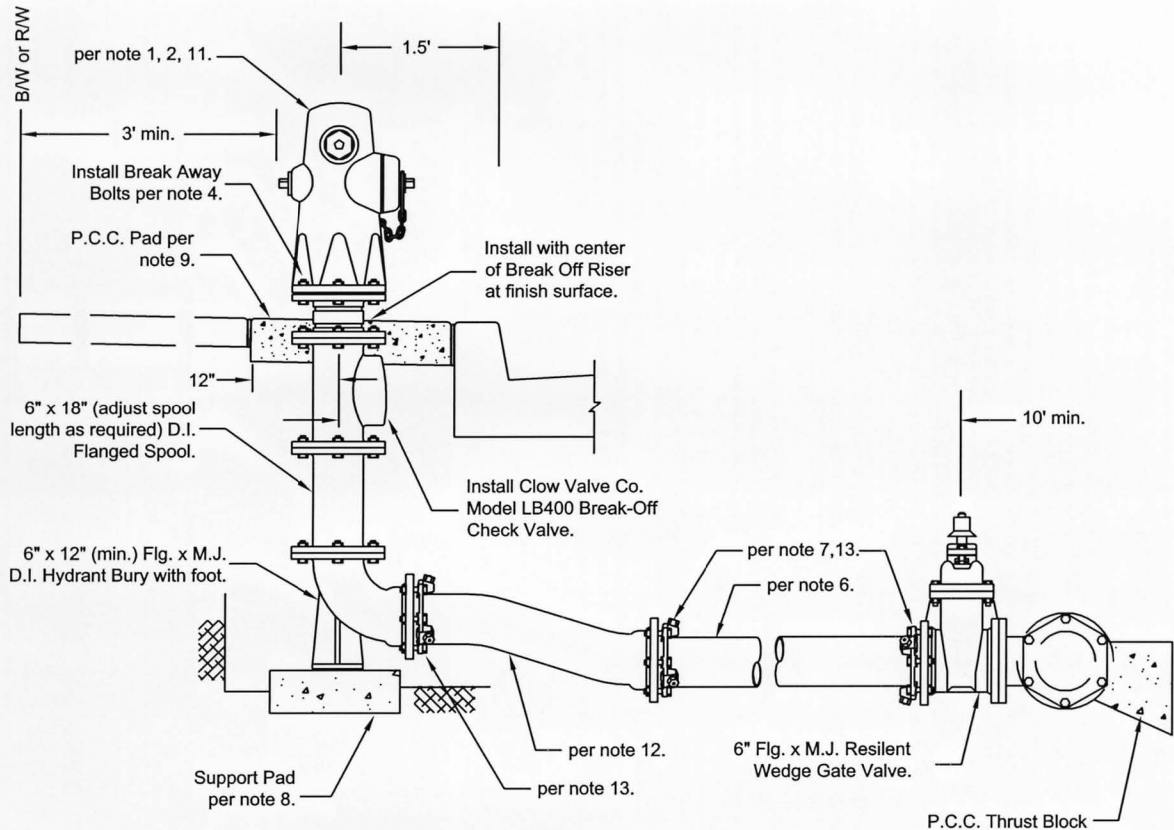
City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.
2.09
 Page 2 of 2

FIRE HYDRANT ASSEMBLY - Type II

Note: Type I Fire Hydrant Assembly shall be used unless noted on plan.



1. The standard Hydrant assembly shall have one 2-1/2" and one 4" outlet. The Hydrant head shall be a Rich Ranger model 950 or Rich East Bay model No.5 as manufactured by Clow Corporation, Corona, California.
2. Hydrant head shall be newly painted with one coat of "gray" primer (V2182) and one coat of "Equipment Yellow" (V2148) Industrial Coating, as manufactured by Rust-Oleum Corporation, excepting Brass threads and stem assemblies.
3. A minimum clearance of 5' shall be maintained from all driveways (measured from top of "X") and parkway trees. A minimum clearance of 3' shall be maintained between hydrant and back of sidewalk, utility pole, standard, building, wall, fence, utility cabinet or other obstruction.
4. Install hollow core galvanized steel break away bolts at head flange only. Install with nuts on top of hydrant flange and seal bolt opening with silicone sealant. All other bolts and nuts shall be Type 316 stainless steel conforming to ASTM A193, Grade B8M, for bolts and ASTM A194, Grade 8M for nuts.

Approved by: *R. Cantwell*
 City Engineer R.C.E.: 29011
 Date: 3/30/04

Drawn by: JSWilliams
 Date: March 5, 2003
 Revised by: JSWilliams
 Date: March 8, 2004
 Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.
2.10
 Page 1 of 2

5. Hydrant bury and spool shall be installed vertically plumb.
6. Install 6" Tyton Joint pressure class 350 Ductile Iron water main.
7. Maintain 10' minimum distance between hydrant gate valve and hydrant. If required, install lateral to behind curb face, install a 6" M.J. x M.J. 90° bend and continue hydrant lateral parallel to curb face to provide the 10' minimum distance from Gate Valve. Location of hydrant shall be located per plan.
8. Construct 18" x 18" x 6" thick P.C.C. (520-C02500) hydrant support pad on undisturbed soil or compacted base. Maintain 3" minimum clearance from all bolts or nuts.
9. Construct 24" x 24" x 6" thick P.C.C. (520-C02500) pad. Pad shall be constructed with 1/4" per foot slope to top of curb. Pad shall have a light broom finish and 1/2" radius troweled edges.
10. Install centerline of Hydrant 18" from face of curb. In areas where sidewalks exceed 6 foot in width, or in areas with no sidewalks, install centerline of Hydrant 24" from face of curb.
11. Orientation of outlets shall be at 45° to curb face.
12. Install 6" x 6" (or 6" x 12") P.E. x M.J. Offset as shown for grade adjustment. Rotate offset to set center of Break Off spool at finish surface of pad.
13. All M.J. fittings & pipe joints shall be restrained using U.S. Pipe "Field Lok" gaskets or E.B.A.A. Iron Sales, Inc. "Meg-A-Lug" restraining gland as required.

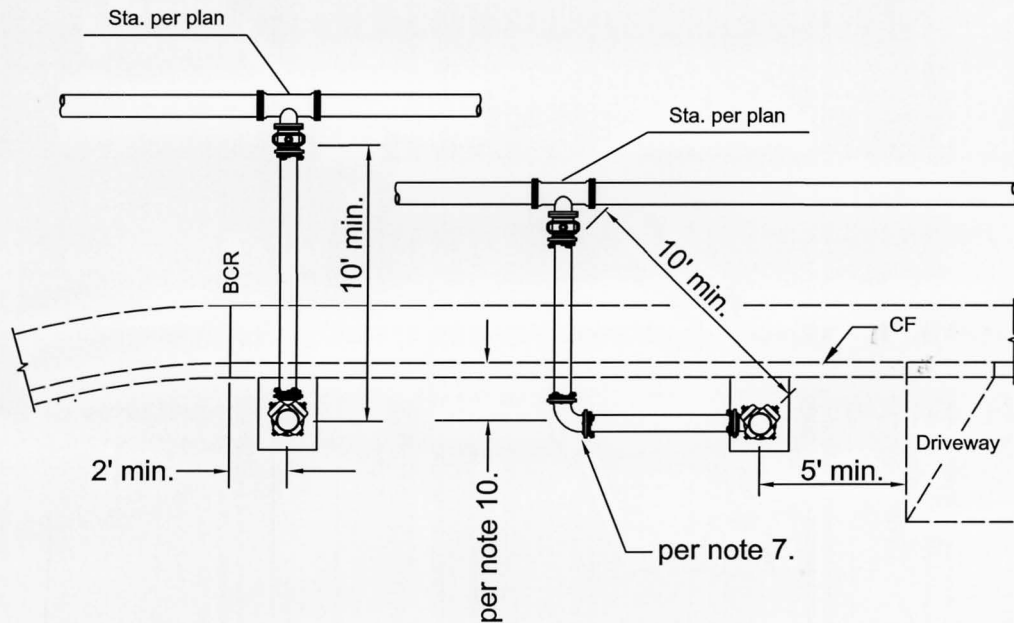
Approved by: *R. Cantrell*
 City Engineer R.C.E. 29011

Date: *3/20/04*

Drawn by: JSWilliams Date: March 5, 2003

Revised by: JSWilliams Date: March 8, 2004

Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

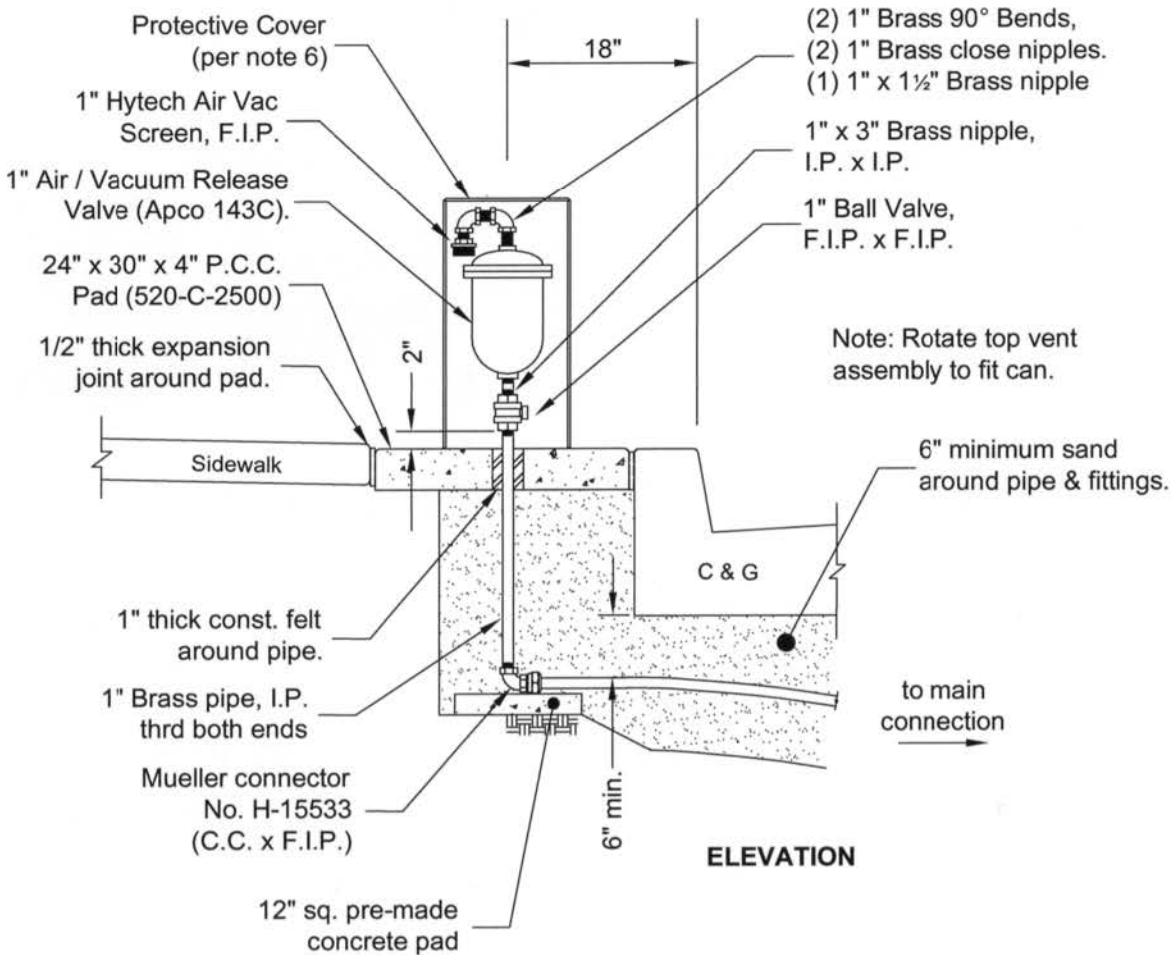
Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.10

Page 2 of 2

AIR / VACUUM RELEASE VALVE ASSEMBLY, 1" FOR DUCTILE IRON MAINLINE



1. Sand backfill (12" minimum) required around all underground pipe and fittings.
2. Minimum clearance of 5' required from driveways & structures.
3. Pipe shall maintain an ascending slope from ball valve to air / vacuum release.
4. Pad shall be level and finished smooth.
5. 1" Brass pipe shall be installed vertically plumb.
6. Protective Cover shall be per S.D.&S. 2.12 (Type I) or Armorcast Products Company 12" x 36" Part No. P6002003 (Sandstone).
7. P.C.C. Pad for Armorcast cover shall be 24" x 24" x 4".
8. Where hot tap is required, use Case II connection at main.

Approved by: *J. Williams* 12-29-06
City Engineer R.C.E. 14527 Date

Drawn by: J.S. Williams Date: June 25, 1979
Revised by: J.S. Williams Date: December 27, 2006
Effective Date: January 9, 2007

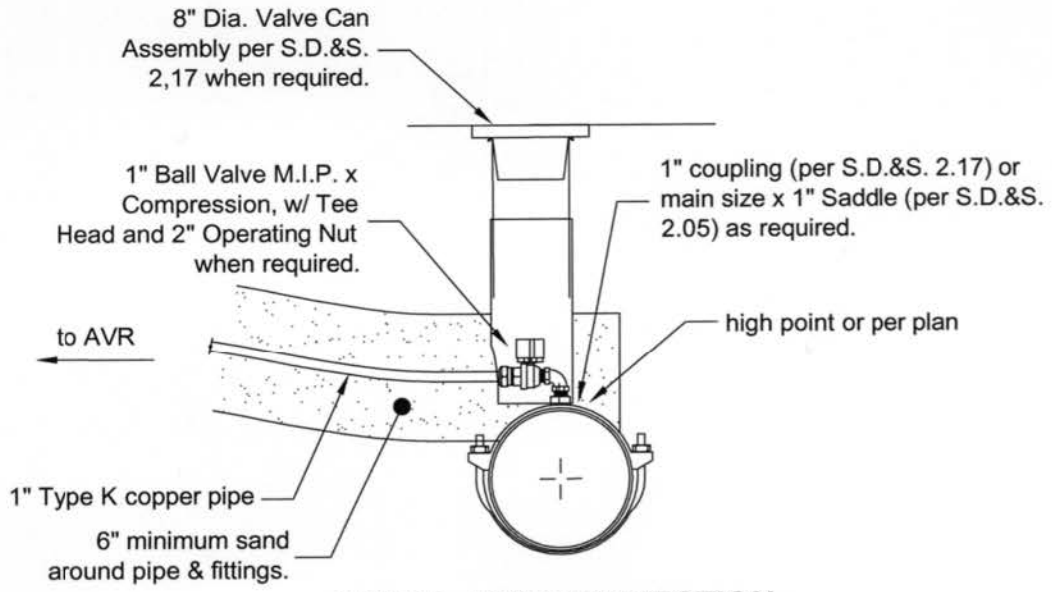


City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS
Adopted for use on Public and Private Improvements

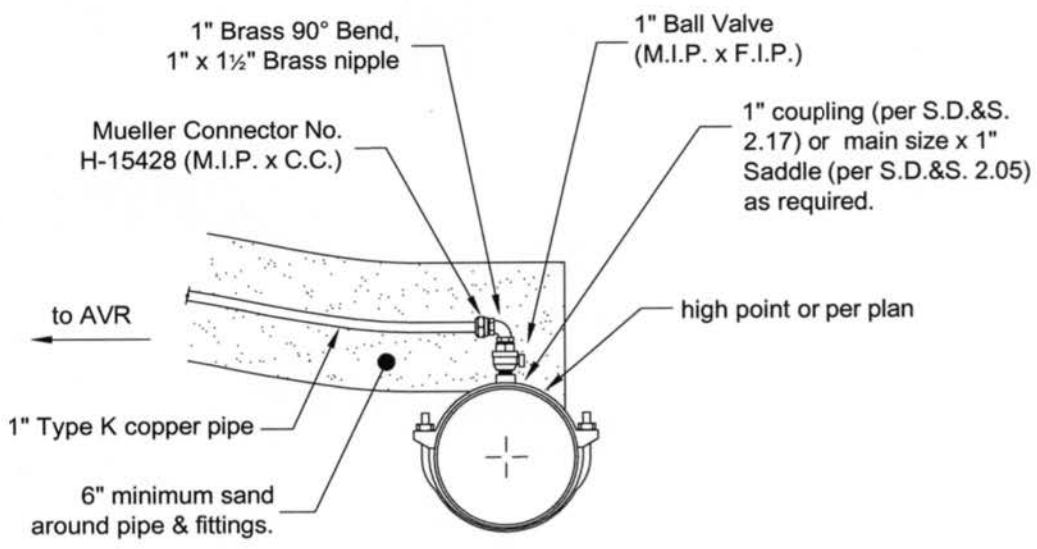
S.D. & S. NO.
2.11
Page 1 of 2

Approved by: *BS Ashwell* 12-29-06
 City Engineer R.C.E. 14527
 Date

Drawn by: JSWilliams Date: June 25, 1979
 Revised by: JSWilliams Date: December 27, 2006
 Effective Date: January 9, 2007



CASE I - DRY CONNECTION ELEVATION



CASE II - PRESSURE CONNECTION ELEVATION



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

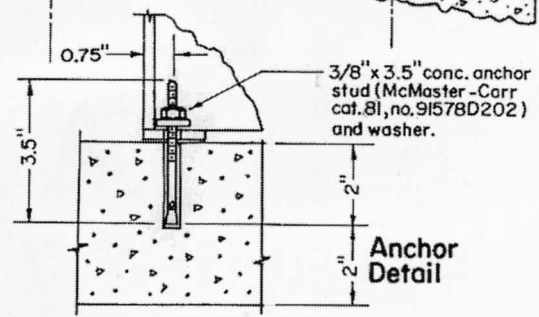
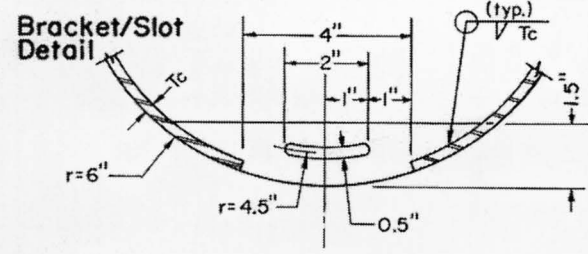
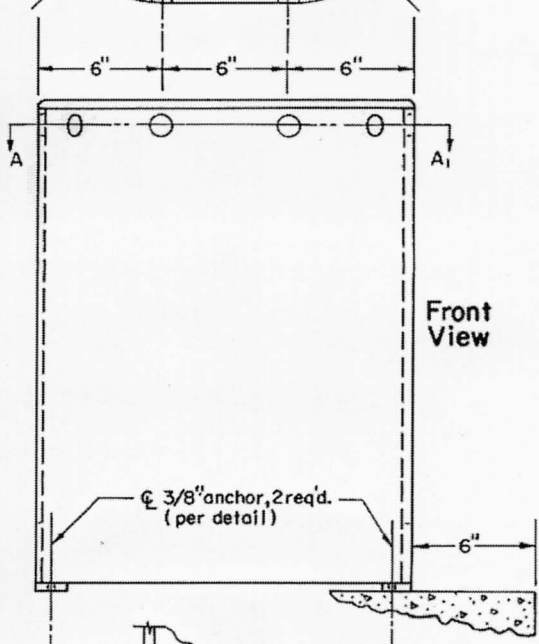
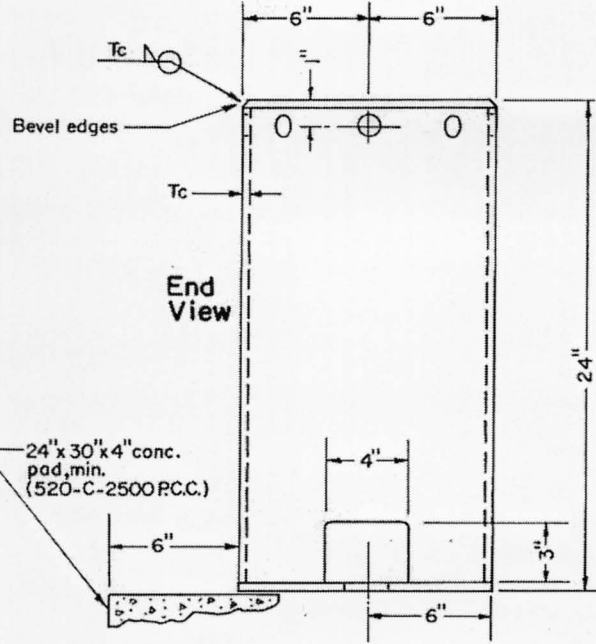
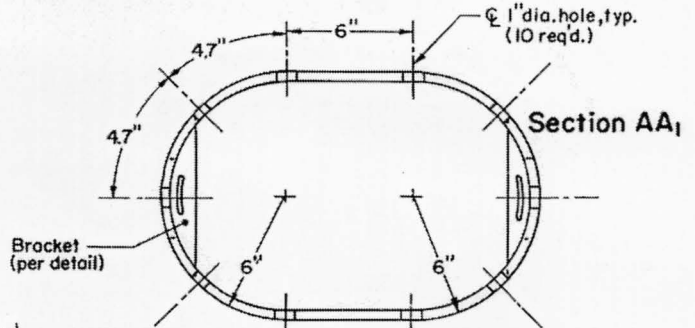
Adopted for use on Public and Private Improvements

S.D. & S. NO.
2.11
 Page 2 of 2

PROTECTIVE COVER - Type I

FOR 1" & 1-1/2" AIR / VACUUM RELEASE VALVE ASSEMBLY

1. All material used for const. of P.C. shall be 12 ga. galv. steel. (Bracket = 10ga.)
2. Exterior surfaces shall be painted with one coat of red lead primer and one coat of Forest Green gloss epoxy paint.



1. Type I Protective Cover shall be used for 5' sidewalks or areas where 4 foot minimum clearance can not be provided.

Approved by: *A. Cantrell* Date: 3/30/04
City Engineer R.C.E. 29011

Drawn by: JSWilliams Date: October 3, 1979
Revised by: JSWilliams Date: March 16, 2004
Effective Date: April 13, 2004



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.
2.12
Page 1 of 1

WATER METER INSTALLATION POLICY

INSTALLATION AND SCHEDULING REQUIREMENTS

Approved by: *R. Cantwell*
 City Engineer R.C.E. 29011

Date: *7/20/04*

Drawn by: JSWilliams
 Date: July 19, 2001

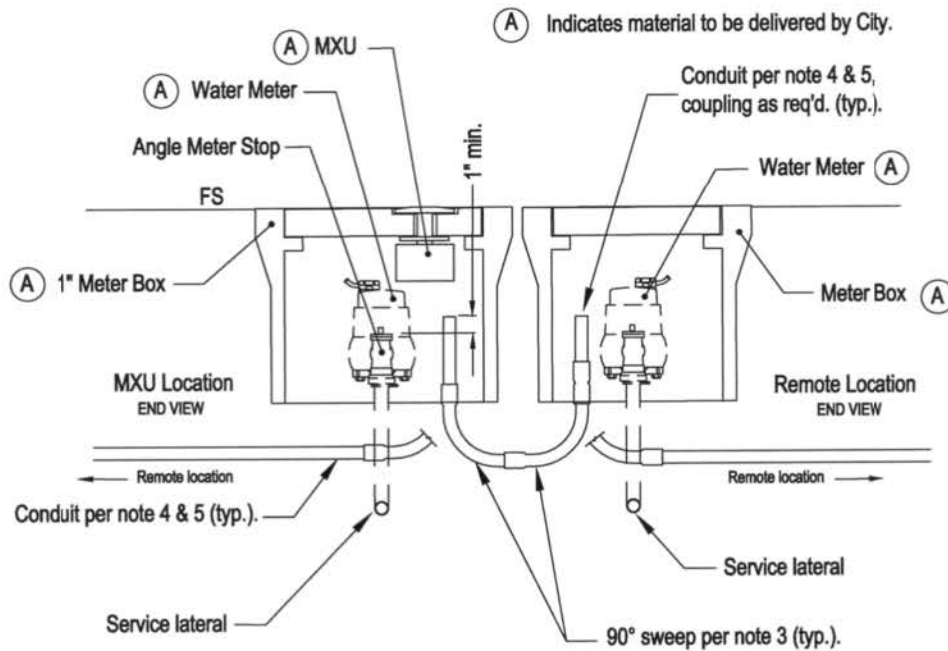
Revised by: JSWilliams
 Date: March 8, 2004

Effective Date: April 13, 2004

1. Water meters must be installed prior to Building Division's issuance of utility clearance and final occupancy permit.
2. Meters and meter boxes must be paid for at the Public Works counter a minimum of two weeks prior to a request for installation. A minimum Forty-eight (48) hour prior notice is required to install water meters and boxes. All bacteriological and pressure test must be completed and connections approved for service prior to meter and box installation.
3. Installation of water meters and boxes will be scheduled on a "first come, first serve" basis.
4. Water meters and water meter boxes must be installed at the same time, boxes will not be set separately.
5. Consumer water billing will commence with the first reading after the meter has been installed. The City will not collect prepayment of construction water fee.
6. Water meter and boxes will not be installed until the new curb has been constructed, unless special approval is granted by the Water Superintendent. In such instances, the Developer is required to provide staking for curb alignment and elevation each side of meter box location. The Contractor is responsible to assure service, meter & box are set to correct grade and alignment. Any service not set per specifications will be removed and re-installed to correct grade and alignment at the Contractor's expense.
7. The Developer is responsible to protect water meters and boxes during construction. Cost for any damage, repair, or replacement will be charged to the Developer.
8. Material and installation shall be per Standard 2.28 (Meter Installation, 3/4" - 1"). For meters larger than 1", material and installation shall be adjusted conforming to appropriate Standard Designs and Specifications.
9. If meter installation is requested on a specific date and the site or service is not acceptable for meter installation, the work will be rescheduled at Departmental discretion.



METER CONDUIT REQUIREMENTS FOR AMR INSTALLATIONS



TYPICAL CONDUIT SETTING
END VIEW

1. Refer to Standard 2.13 for water meter installation policy.
2. Conduit runs in excess of 10 feet shall have Winmore Brand 6500 Pull Line (or approved equal) with a 210 lb. breaking strength installed with a minimum of 12 inches of pull line duct taped to the outside of the conduit.
3. Install 1" dia. (multi wire) or 1/2" dia. (single wire) sch. 40 (grey) electrical PVC 90° sweep. Solvent weld joint per manufacturer specifications.
4. Install 1" dia. (multi wire) or 1/2" dia. (single wire) sch. 40 (grey) electrical PVC. Solvent weld joint per manufacturer specifications. Conduit shall maintain a consistent cover over length of run.
5. The conduits shall be blown free of all foreign material and the terminal ends of the conduit installation shall be sealed with duct tape or PVC electrical tape.
6. Conduits shall be installed where specified on plans, specifications or as directed by City.
7. A conduit run shall not exceed 360° of total bends and shall minimally meet all applicable sections of the National Electrical Code, latest edition.
8. Maximum distance from MXU to furthest remote meter shall be 20'.

Approved by:

D. E. Suddell 12-29-06 Date
City Engineer R.C.E. 14527

Drawn by: J.S. Williams Date: June 9, 2006

Revised by: J.S. Williams Date:

Effective Date: January 9, 2007



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

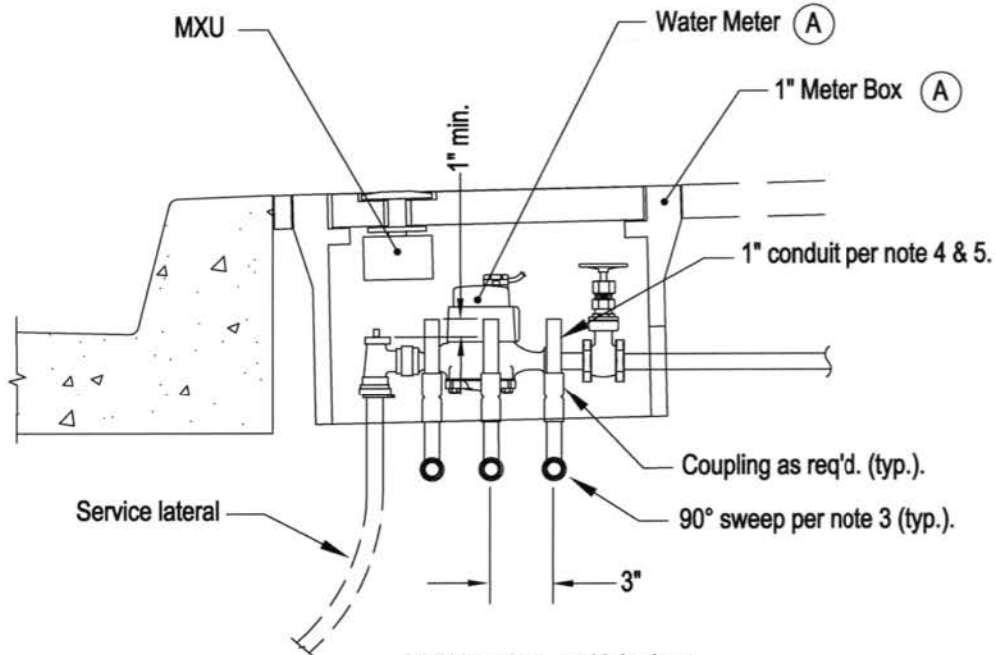
Adopted for use on Public and Private Improvements

S.D. & S. NO.

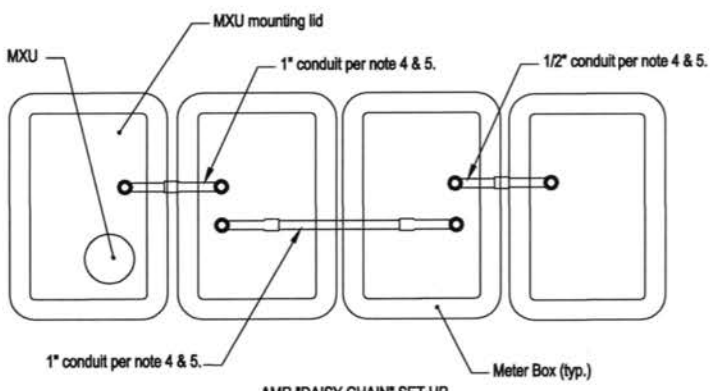
2.14

Page 1 of 2

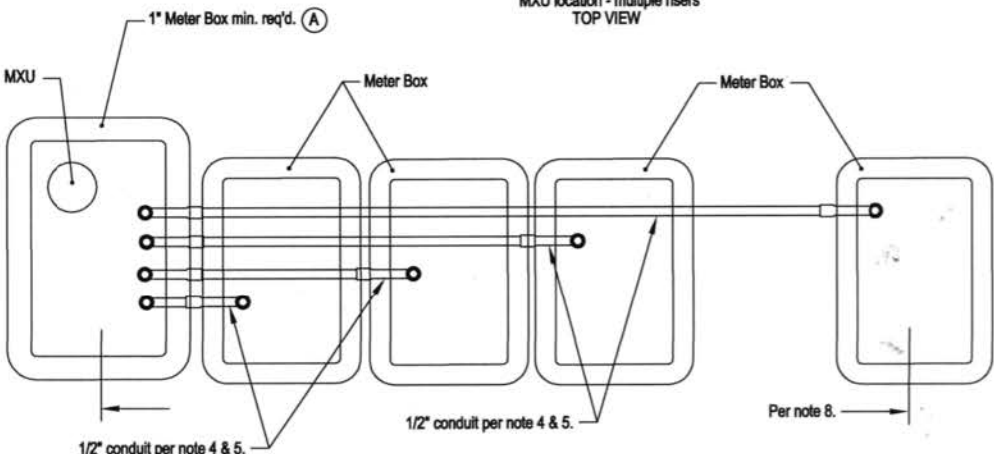
Approved by: *REAR* Date: 12-29-06
 City Engineer R.C.E. 54527



MXU location - multiple risers
SIDE VIEW



AMR "DAISY CHAIN" SET UP
MXU location - multiple risers
TOP VIEW



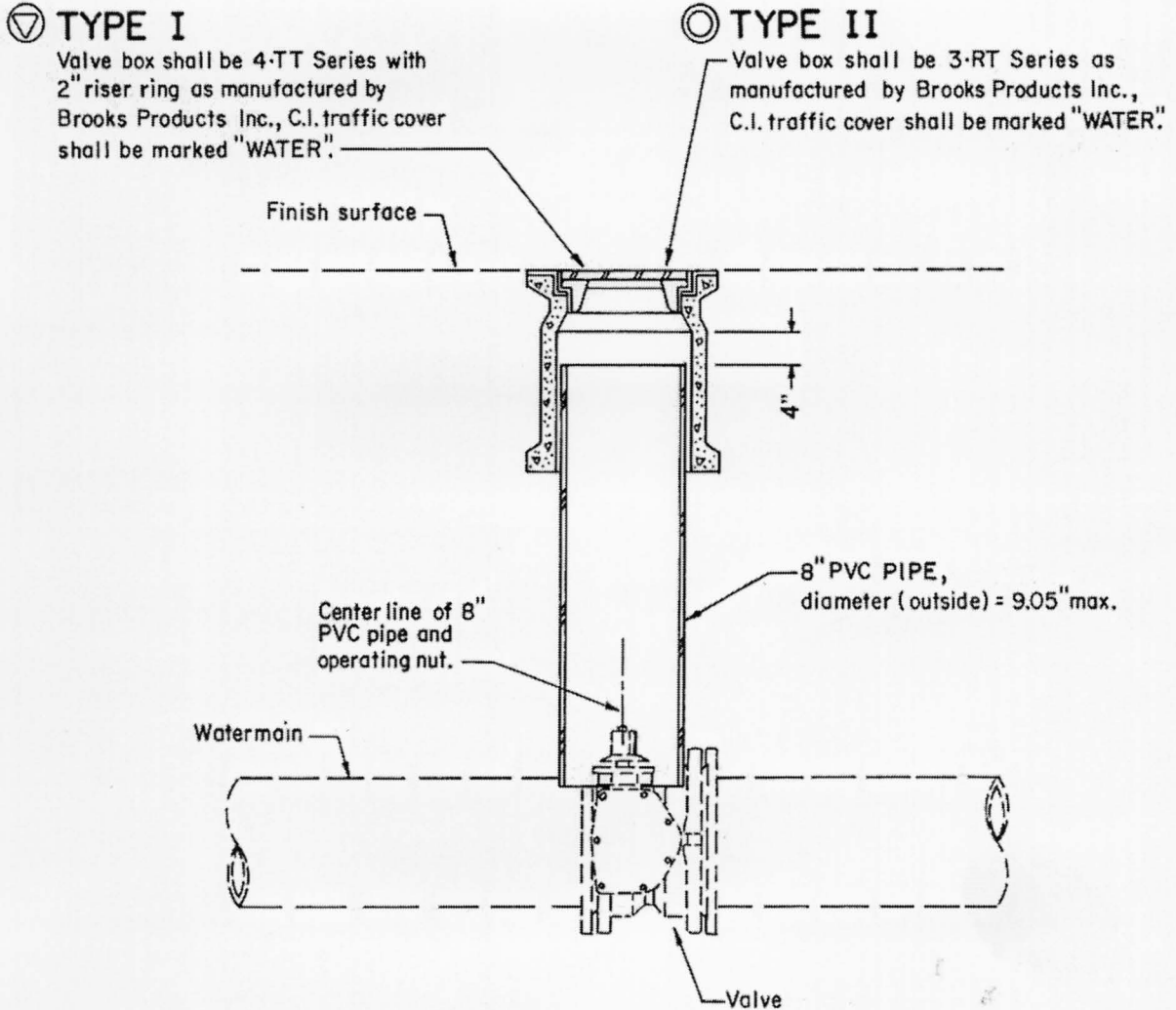
MXU location - multiple risers
TOP VIEW

Drawn by: JSWilliams Date: June 9, 2006
 Revised by: JSWilliams Date:
 Effective Date: January 9, 2007



VALVE BOX ASSEMBLY - Type I, Type II

FOR USE IN CONCRETE SURFACED AREAS
(Low speed vehicular traffic only)



NOTE: For typical installation with one pressure zone in vicinity, use Type II valve box assembly. When separate pressure zones are located in the same vicinity, valves on the mainline of the zone with the higher static pressure shall have Type I valve box assembly installed.

Approved by: *R. Cantwell*
City Engineer R.C.E. 29011
Date: *3/29/04*

Drawn by: JSWilliams
Revised by: JSWilliams
Effective Date: April 13, 2004
Date: January 28, 1985
Date: March 16, 2004



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.16

Page 1 of 1

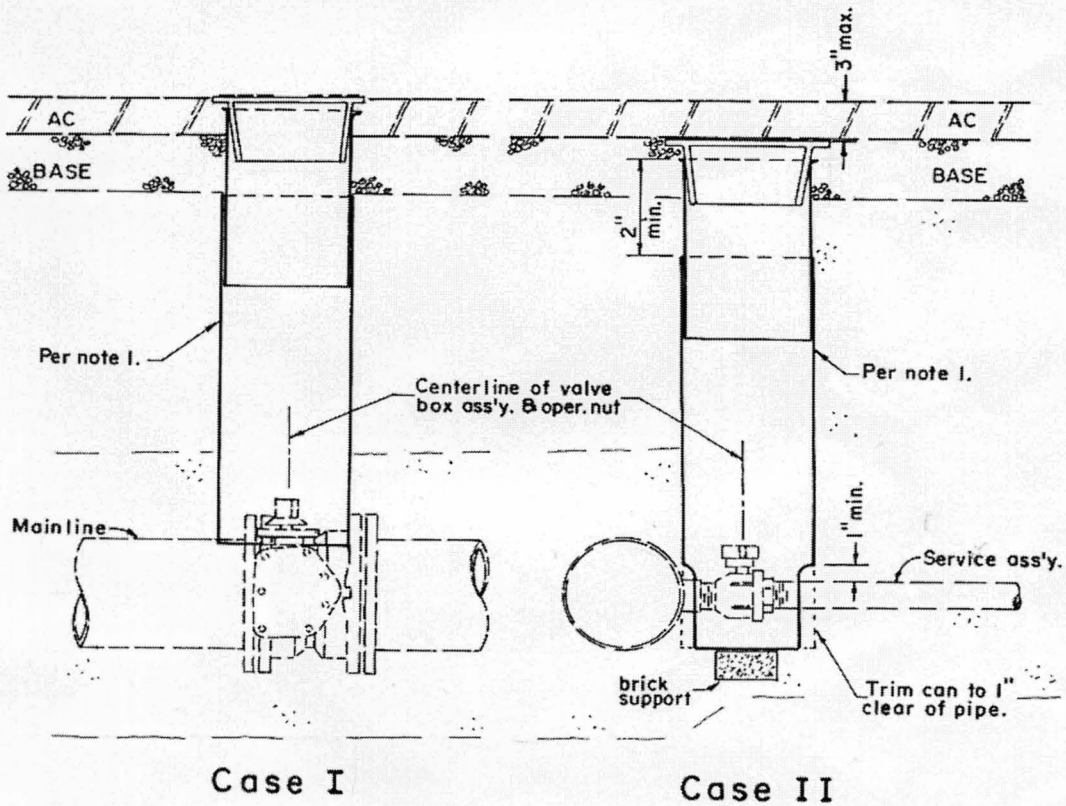
VALVE BOX ASSEMBLY - Type III

FOR USE IN ASPHALT SURFACED AREAS

1. Valve box assembly shall be 8" nominal diameter and consist of a 10 gauge galvanized steel 8" x (length as required) valve box bottom, 10 gauge galvanized steel 8" x 12" valve box top and a 8.75" OD cast iron lid with raised lettering marked "WATER" within a raised diamond tread pattern on top and tapered bottom 4" in length.
2. All valve box assembly installations shall be per Case I, unless specified on improvement plan. Case II installations shall be used only for residential subdivisions where specified on improvement plans.
3. For Case II installations valve can assembly shall be raised to base grade and inspected by City prior to placement of AC paving. Installations not inspected prior to AC paving shall be exposed, inspected and repaved prior to final acceptance.

Approved by: *R. Cantrell* Date: *3/20/04*
 City Engineer R.C.E. 29011

Drawn by: JSWilliams Date: November 5, 1992
 Revised by: JSWilliams Date: March 16, 2004
 Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.17

Page 1 of 1

STANDARD 2.17 - ADVISORY NOTE
CASE II ADVISORY NOTE FOR USE ON
IMPROVEMENT PLANS

Approved by: R. Cantwell Date: 2/20/04
City Engineer R.C.E. 29011

ADVISORY NOTE
VALVE BOX ASSEMBLY PER S.D.&S. 2.17 - TYPE III, CASE II
SPECIFIED HEREON.
**INSPECTION BY THE CITY ENGINEER IS REQUIRED
PRIOR TO A.C. PLACEMENT.**
REFER TO WATER IMPROVEMENT PLAN FOR VALVE LOCATIONS.

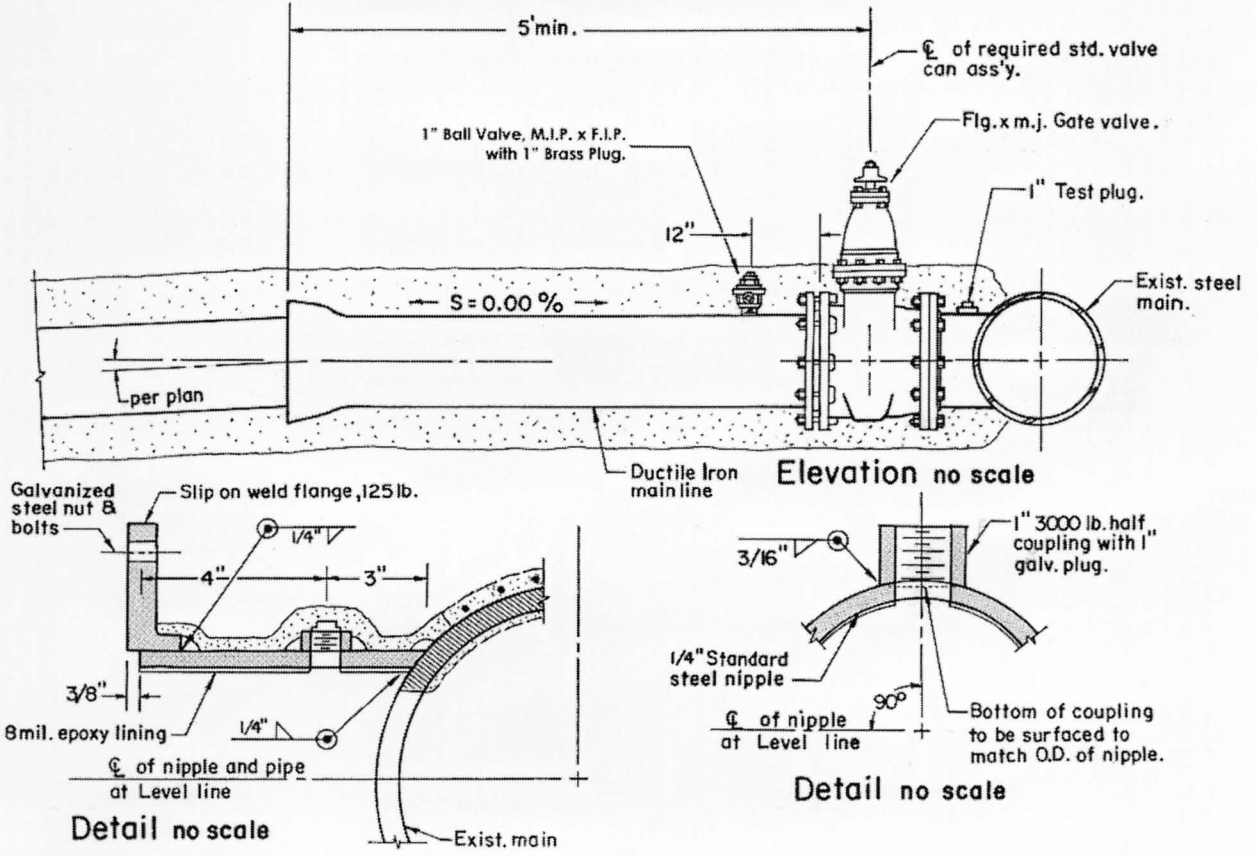
Drawn by: JSWilliams Date: December 1, 1992
Revised by: JSWilliams Date: March 16, 2004
Effective Date: April 13, 2004

PRESSURE CONNECTION, 4" - 10"

FROM STEEL TO DUCTILE IRON MAINLINE

1. Gate valve and nipple assembly shall be tested at normal operating pressure times 1.5 and approved by City Engineer prior to tapping existing mainline.
2. Tap shall be made with an approved tapping machine.
3. Coupon (plug) from tap shall be retained and submitted to City Engineer.
4. Repair or replacement of cement mortar coating shall be preceded with an application of Cement Bondor, Elmer's no. E-862 as manufactured by Borden, Inc. Dept. CP, Columbus, Ohio or approved equal. Cement mortar coating shall be 1/2" thickness minimum.
5. Flange/nipple assembly shall be installed with flange face vertically plumb and parallel to existing main. Rotate flange such that valve is vertically plumb.
6. An extension rod assembly is required on all valves with the operating nut over 3' in depth from finish surface.
7. Tap diameter shall not exceed existing main inside diameter less 3/4".
8. 4" mains require 4" x 1" double strap saddle for C.S. installation.

Approved by: *R. Cantrell*
 City Engineer R.C.E. 28011
 Date: *3/20/04*



9. 8 mil. Epoxy lining may be field applied. All materials must be NSF 64 approved.

Drawn by: JWilliams
 Date: October 8, 1986
 Revised by: JWilliams
 Date: March 16, 2004
 Effective Date: April 13, 2004

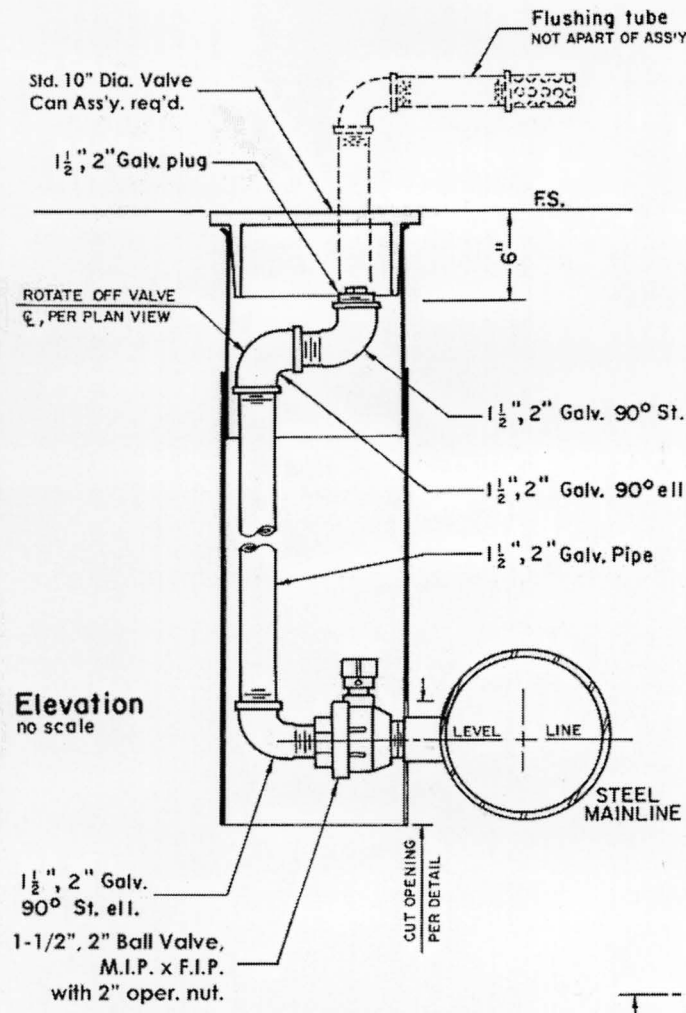


BLOW OFF ASSEMBLY, 1-1/2", 2" FOR STEEL / DUCTILE IRON MAINLINE

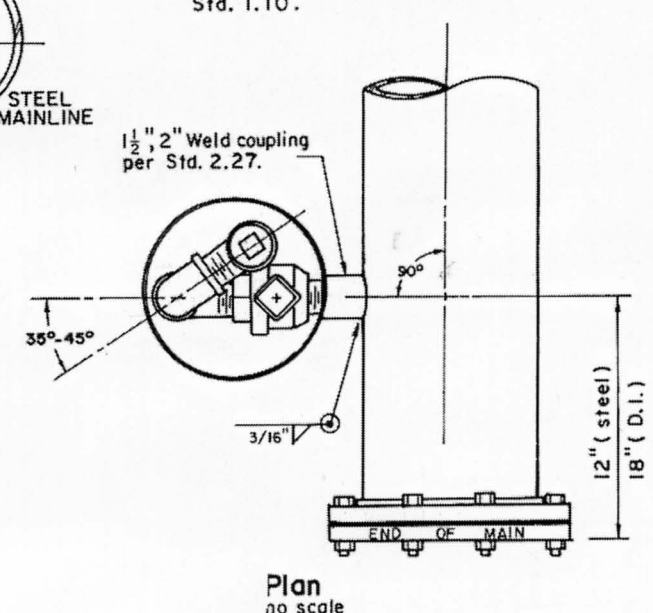
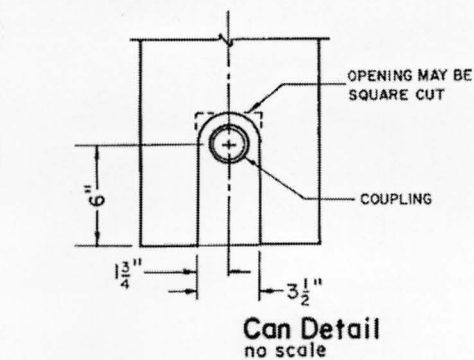
Approved by: *R. Cantrell*
City Engineer R.C.E. 28011

Date: *3/30/04*

Drawn by: JSWilliams
Revised by: JSWilliams
Effective Date: April 13, 2004



Elevation
no scale



1. All galvanized pipe and fittings shall be new, clean material & shall be wrapped with a pipe protection tape (J.M. or Scotchwrap) with 1/3 tape width overlap. Tape shall cover all exposed surfaces of galvanized pipe & fittings.
2. For installations on Ductile Iron main, use a main size x 1 1/2", 2" double strap saddle.
3. Assembly hereon is approved for main with 5' cover or less.
4. Pipe shall be Sch. 40 galvanized steel, NPT both ends, length as required.
5. Assembly hereon is approved for dead end runs of less than 600'. For mains 4" to 6" use 1 1/2" B.O. assembly, for mains 8" to 10" use 2" B.O. assembly.
6. Sand bedding/backfill required, install per Std. 1.10.



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

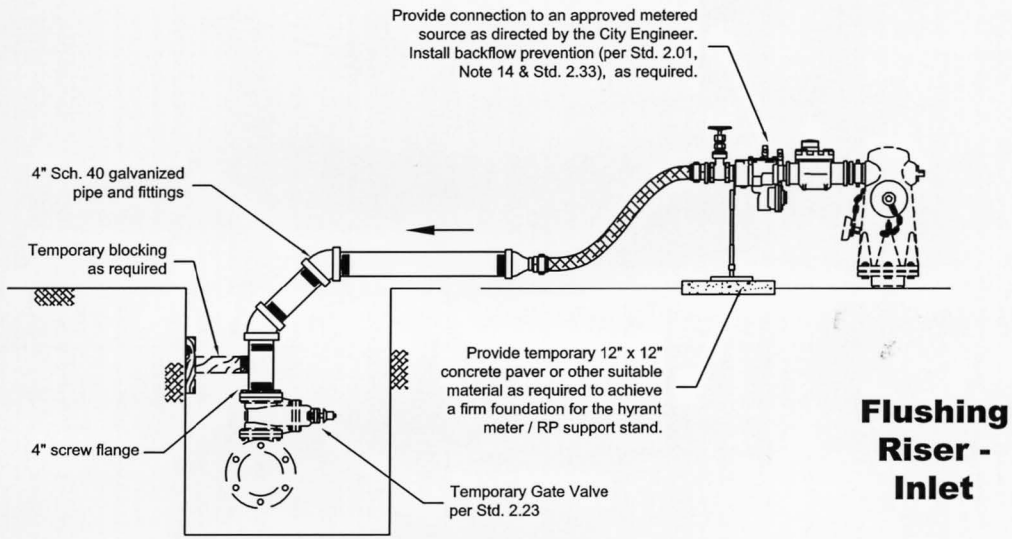
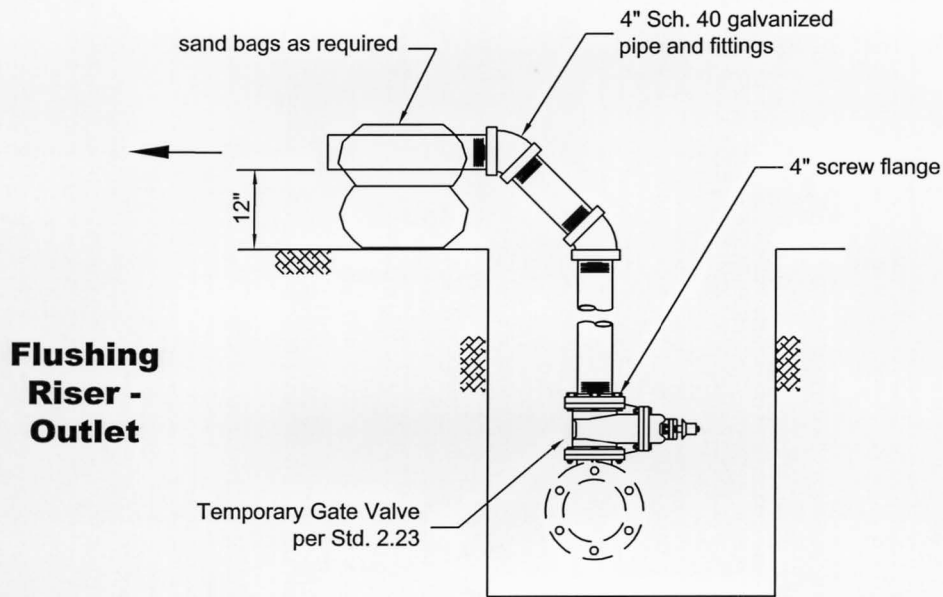
Adopted for use on Public and Private Improvements

S.D. & S. NO.
2.20
Page 1 of 1

FLUSHING / SAMPLING CONNECTION FOR NEW MAIN CONSTRUCTION

Approved by: *R. Cantwell*
 City Engineer R.C.E. 28011
 Date: 3/20/04

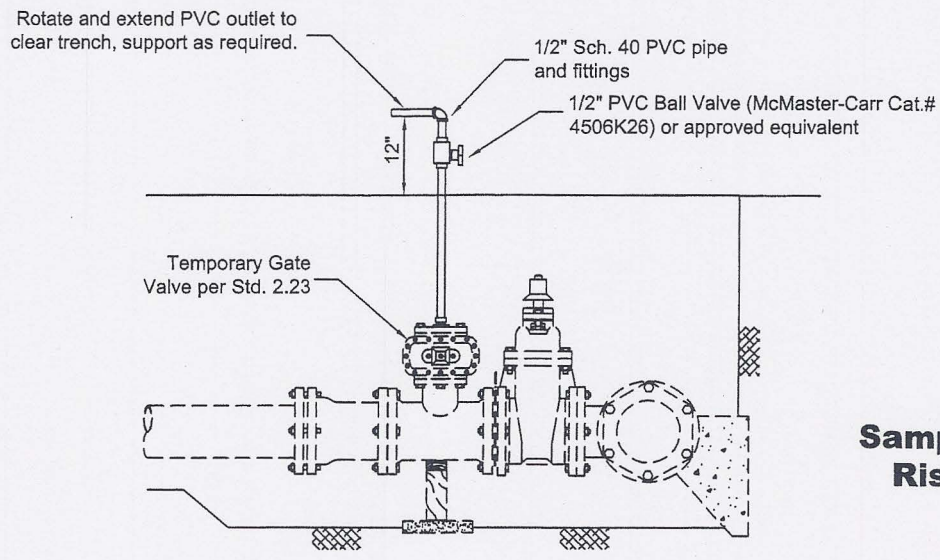
Drawn by: JSWilliams
 Date: November 20, 2000
 Revised by: JSWilliams
 Date: March 8, 2004
 Effective Date: April 13, 2004



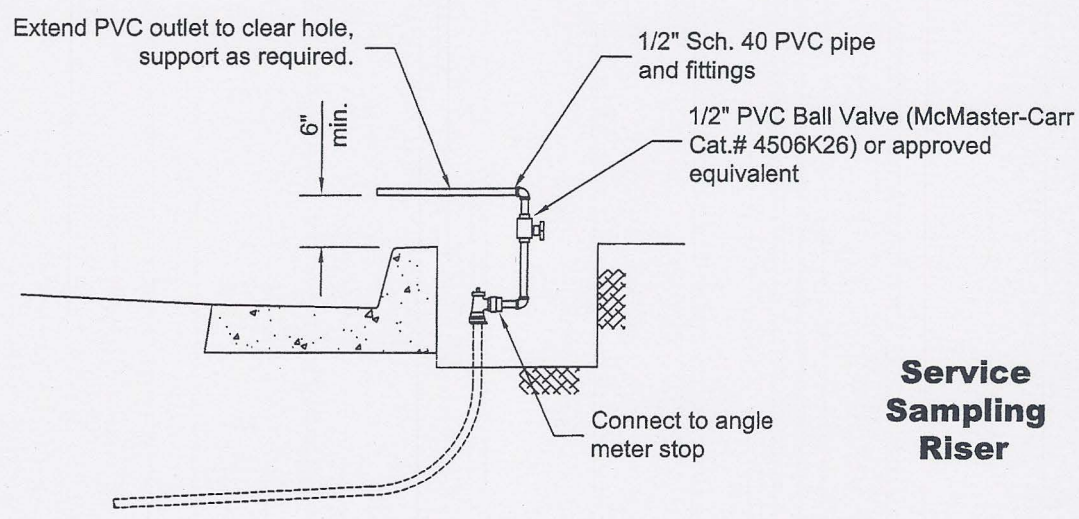
1. The Contractor shall provide all labor, material and equipment required to install and remove flushing and testing risers as required.
2. All pipe and fittings shall be new clean material and disinfected with a minimum 100 ppm solution Sodium Hypochlorite by the Contractor.

Approved by: *R. Cantrell*
 City Engineer R.C.E. 29011
 Date: *3/30/04*

Drawn by: JSWilliams
 Date: November 20, 2000
 Revised by: JSWilliams
 Date: March 8, 2004
 Effective Date: April 13, 2004



Sampling Riser



Service Sampling Riser

3. Sample points shall be installed at all connections to existing mainlines. The Contractor shall install sample points as directed by the City Engineer and shall not exceed 300 feet between sample points.



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

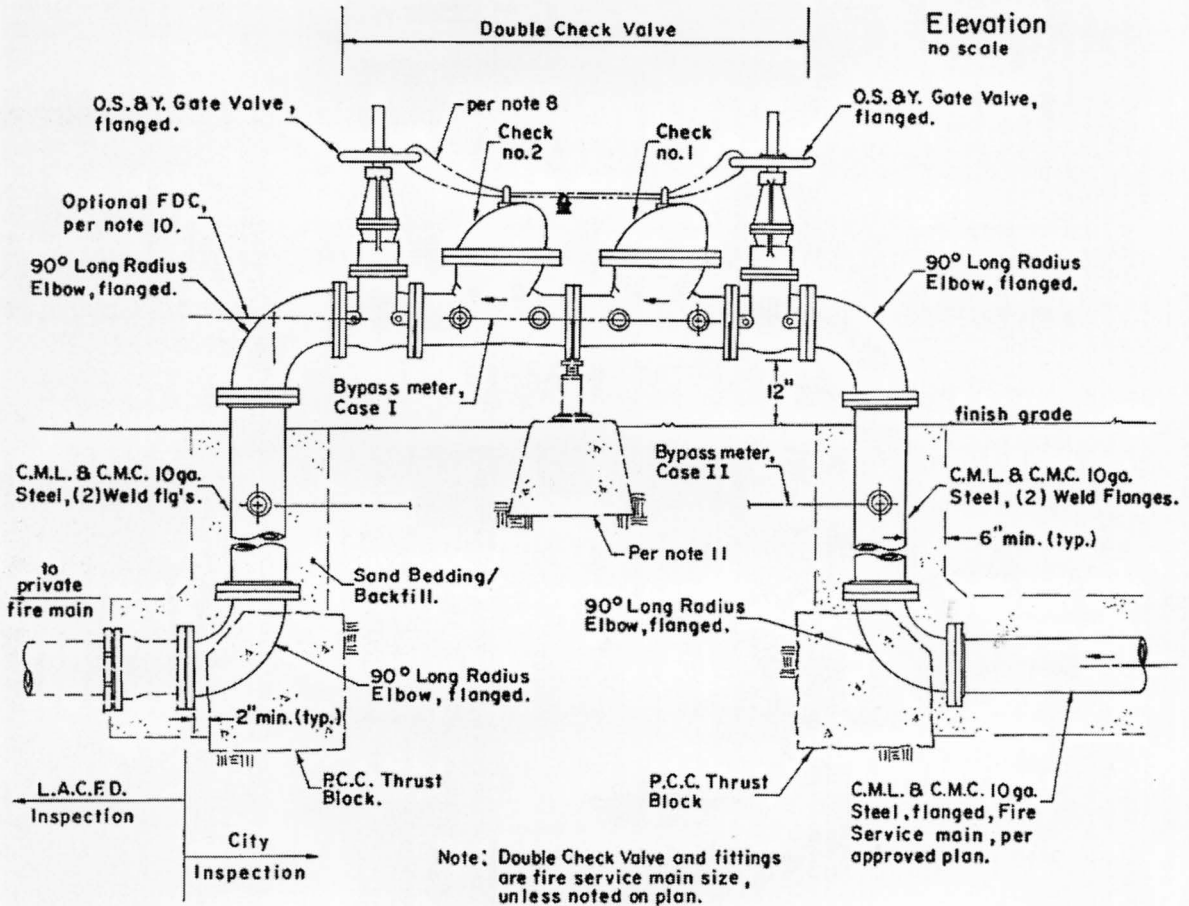
2.21

Page 2 of 2

DOUBLE CHECK VALVE ASSEMBLY - Type I


FOR FIRE SERVICE CONNECTIONS, 4" - 10"

1. Double Check Valve shall be per Approved Materials list (Std. 2.04) and the University of Southern California Foundation for Cross Connection and Hydraulic Research, most current revised listing.
2. Double Check Valve Assembly shall be located per plan as approved by the City Engineer. When located outside the street R/W, Fire Service Main and Double Check Valve assembly shall be centered within a 10' wide easement to the City of Glendora. Easement shall be accepted and recorded prior to plan approval.
3. Owner shall submit verification that all portions of the private fire sprinkler system shall be "clean water" type with no additives. Statement shall be on file with the City Engineer prior to plan approval.
4. The size of the Double Check Valve Assembly and Fire Service Main shall be determined by the project engineer. "Wet stamped" calculations confirming size will meet L.A. County Fire Department requirements shall be submitted to the City Engineer prior to plan approval and installation.



Approved by: *R. Cantwell*
 City Engineer R.C.E. 29011
 Date: *3/30/04*

Drawn by: JSWilliams
 Date: January 28, 1993
 Revised by: JSWilliams
 Date: March 17, 2004
 Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

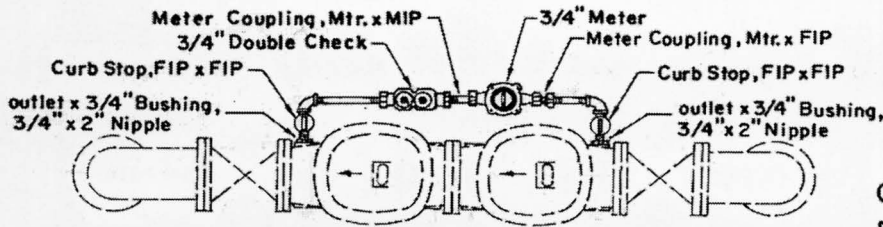
Adopted for use on Public and Private Improvements

S.D. & S. NO.
2.22
 Page 1 of 2

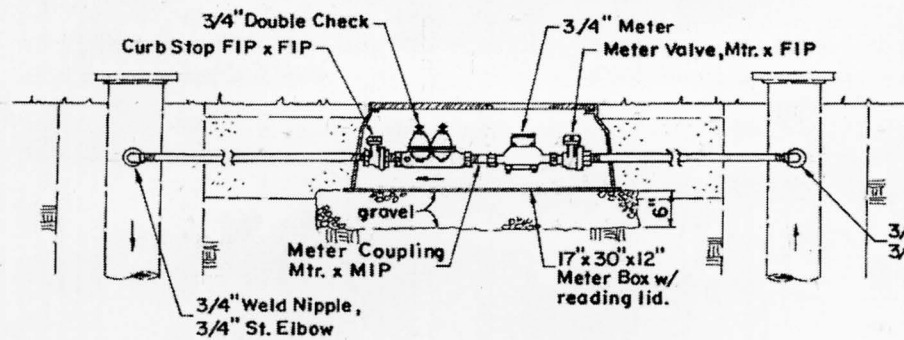
Approved by: *A. Cantrell* Date: *3/30/04*
 City Engineer R.C.E. 29011

Drawn by: JSWilliams Date: January 28, 1993
 Revised by: JSWilliams Date: March 17, 2004
 Effective Date: April 13, 2004

5. The Double Check Valve shall consist of (2) Detector Check Valves and (2) O.S.&Y. flanged Gate Valves connected in series as shown. All internal ferrous surfaces shall be protected with a fusion bonded epoxy coating. 4 Test Cocks shall be installed as required for testing procedure.
6. Double Check Valve Assembly shall be installed horizontally level and vertically plumb.
7. Double Check Valve Assembly shall incorporate a 3/4" Bypass Meter Assembly per Approved Materials list (Standard 2.04) Case I, unless noted on plan. For Case I and Case II all pipe and fittings shall be Red Brass per ASTM B-43.
8. Install a solid link heavy duty galvanized chain with Public Works lock (City supplied) as shown.
9. Vertical risers shall be Cast Iron flanged spools when specified on plan. When Case II Bypass assembly specified with Cast Iron risers, use pipe size x 1" double strap bronze saddles.
10. When a Fire Department Connection (FDC) is required by the L.A. County Fire Department, install a flanged Tee and locate FDC as shown. The FDC assembly consisting of a 6" x 4" Blind Flange, 4" Galvanized Sch.40 Nipples, 4" Wafer Check Valve and a 2.5" x 2.5" Siamese Pumper Connection, shall be maintained by the property owner.
11. For 6"-10" assemblies, install adjustable pipe support and 12" x 12" P.C.C. block as shown.



CASE I
Plan no scale



CASE II
Elevation no scale



City of Glendora
 Public Works Department
 STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

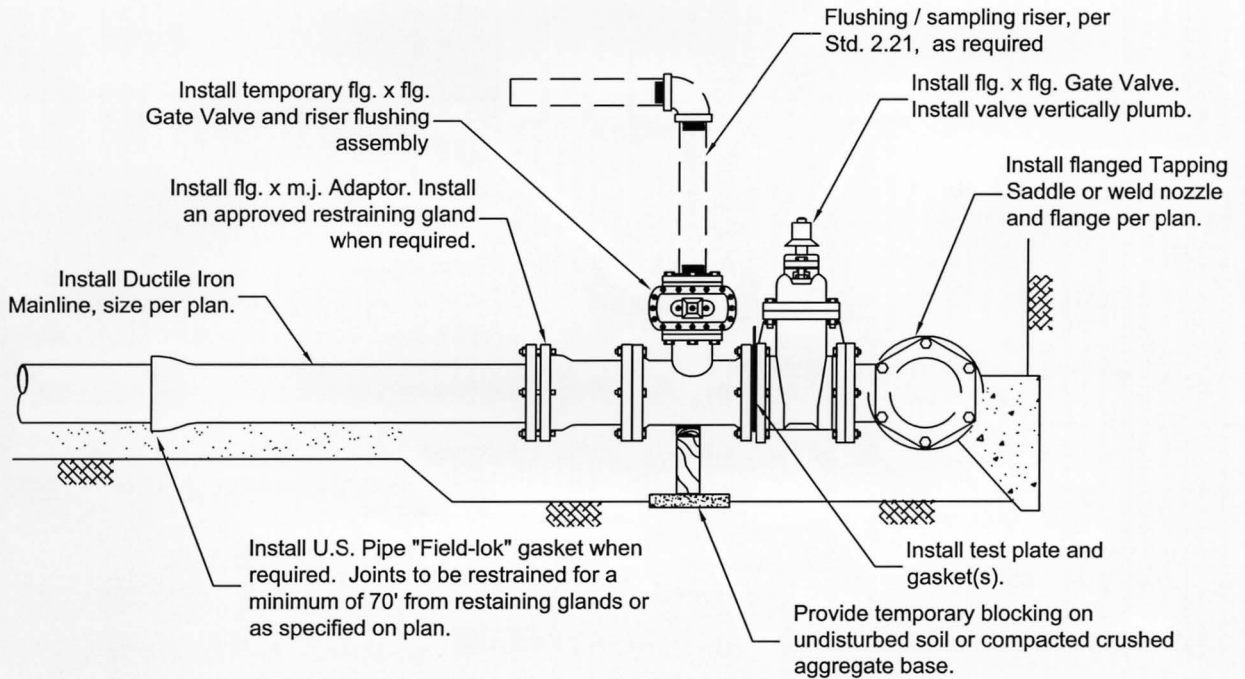
S.D. & S. NO.

2.22

Page 2 of 2

TEST PLATE INSTALLATION - Type I

FOR NEW MAIN CONSTRUCTION



1. The Contractor shall disinfect and install the test plate at time of connection. No connections shall be made to the existing system without a test plate installed.
2. Test plates shall not be removed without authorization and under direction of the the City Engineer.
3. When directed by the City Engineer, the Contractor shall remove the temporary Gate Valve and shall disinfect and install a 4" x 2" blind flange and 2" galvanized plug.
4. Any lubricants use on the test plate to assist in removal shall be NSF approved.
5. Weld nozzle and flange shall be installed per Std. 2.19.
6. An extention rod assembly (with rock guards) is required on all valves with the operating nut over 3' in depth from finish surface.
7. Gate valve and nipple assembly shall be tested at 1-1/2 times the normal operating pressure and approved by the City Engineer prior to tapping the existing mainline.

Approved by: *R. Cantwell*
 City Engineer R.C.E. 29011

Date: *3/30/04*

Drawn by: JSWilliams
 Revised by: JSWilliams
 Effective Date: April 13, 2004

Date: November 5, 2000
 Date: March 8, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.23

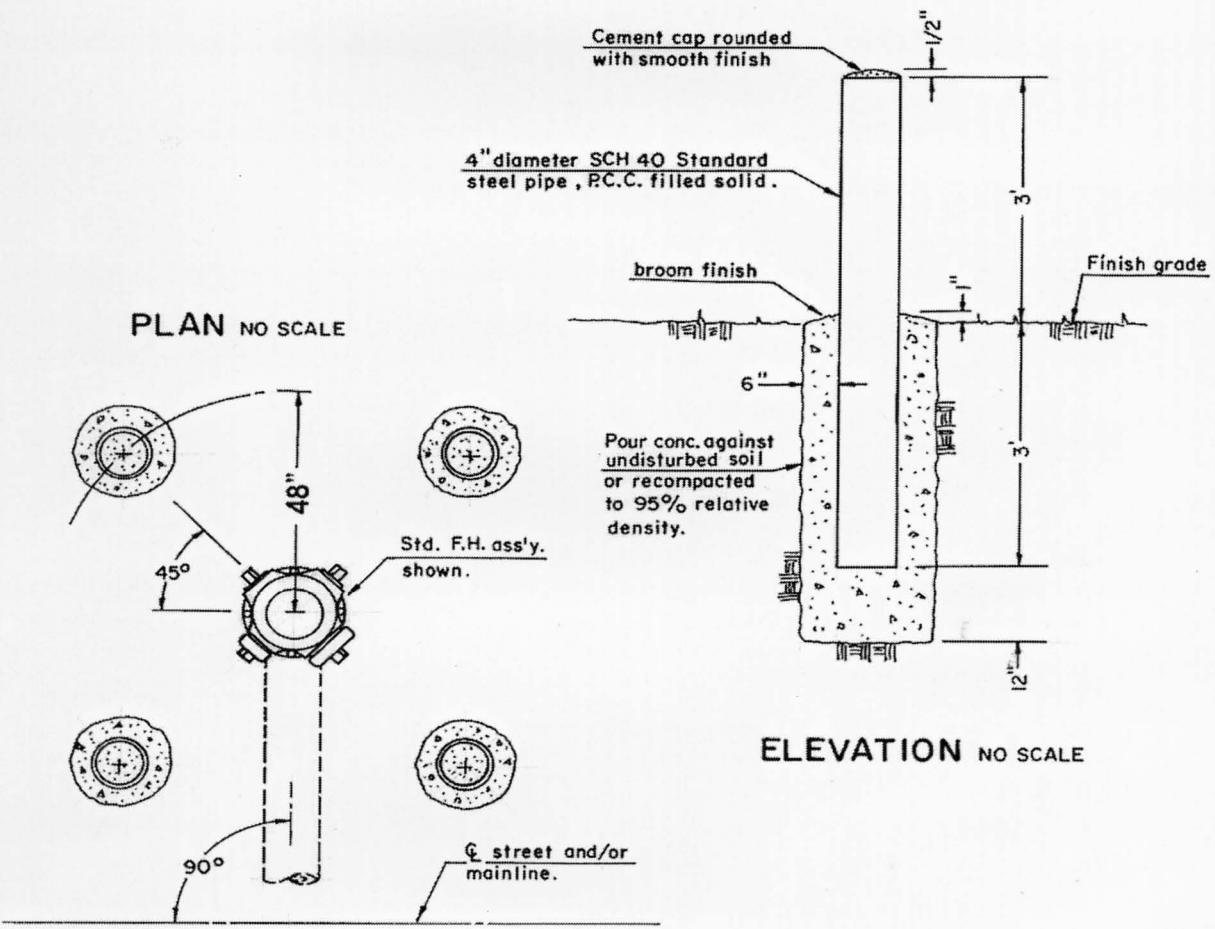
Page 1 of 1

PROTECTIVE POST - Type I

1. Unless noted on plan, quantity and location of Protective Post shall be as shown.
2. Pipe shall be painted with two coats of red lead primer or zinc chromate primer.
3. Protective Post used at fire hydrant shall have a finish coat of Standard Chrome Yellow.
4. Protective Post used at vaults, blow offs, air release valves, etc. shall have a finish coat of forest Green.
5. All P.C.C. shall be 520-C-2500.
6. Install Protective Post vertically plumb, file all exposed metal edges smooth.

Approved by: *R. Cantrell*
 City Engineer R.C.E. 29011
 Date: *2/20/04*

Drawn by: JSWilliams
 Date: April 7, 1986
 Revised by: JSWilliams
 Date: March 17, 2004
 Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.
2.24
 Page 1 of 1

SERVICE ASSEMBLY, 1" COPPER

FOR STEEL / DUCTILE IRON MAINLINE

1. Service pipe shall be 1" Type K copper tubing, manufactured to meet or exceed A.S.T.M. B88 (Alloy 122), Federal Specification WWT799.
2. All fittings shall be compression type, 1" Copper tube size, per Approved Service Materials List, Std. 2.05.
3. Service pipe shall be one piece, continuous, no splices allowed.
4. Service pipe shall not be bent in excess or have flattened section during installation. Use of an approved tubing bender is required.
5. Service tap shall be made with an approved tapping machine.
6. 12" minimum compacted sand bedding required around service pipe. For new construction, full depth sand backfill required. Trenching and backfill (in existing A.C. areas) shall be per Std. 1.10.
7. For connection to steel main, install weld coupling per Std. 2.27.
8. For installation schedule meter and box, refer to Std. 2.13.
9. For pressure connection to Ductile Iron mainline and / or connection to 4" Ductile Iron mainline, install Double Strap Saddle, per Std. 2.05.
10. A minimum of 24" cover over service lateral is required.
11. Tap must be a minimum of 24" from end of pipe and a minimum of 12" laterally from another tap (either side of pipe).

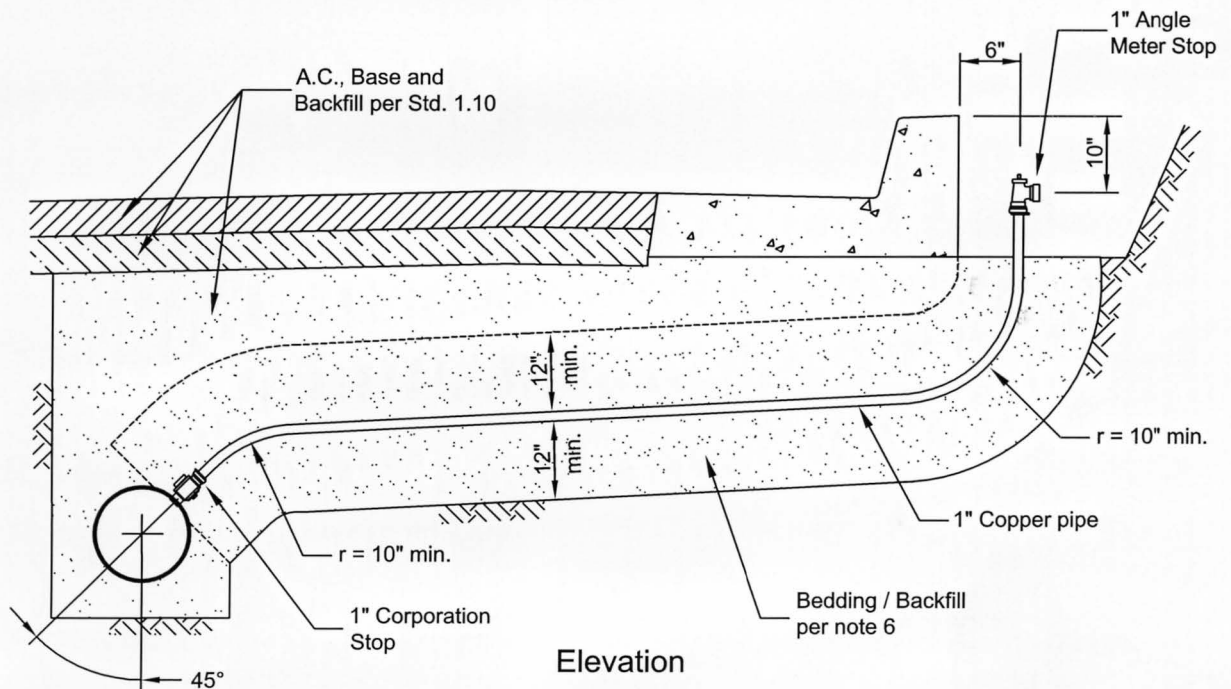
Approved by: *A. Cantrell*
 City Engineer R.C.E.: 29011

Date: *3/20/04*

Drawn by: JSWilliams
 Date: July 19, 2001

Revised by: JSWilliams
 Date: March 8, 2004

Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

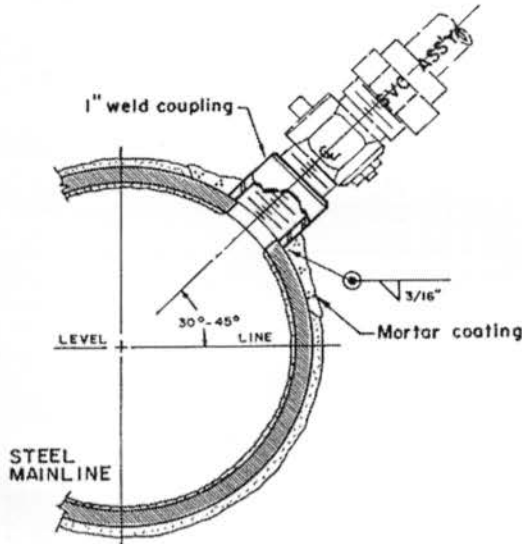
S.D. & S. NO.

2.25

Page 1 of 1

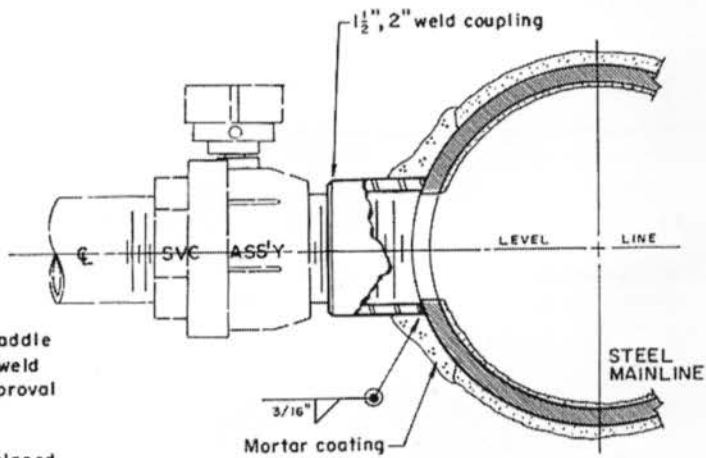
SERVICE CONNECTOR, 1", 1-1/2", 2" FOR STEEL MAINLINE

1. Repair or replacement of cement mortar coating shall be preceded with an application of Cement Bonder, Elmer's no. E-862 as manufactured by Borden, Inc., Dept. CP, Columbus, Ohio or approved equal. Cement mortar coating shall be 1/2" thickness minimum.
2. Tap shall be made with an approved tapping machine.



Case I - 1" service
ELEVATION no scale

3. Centerline of coupling shall be perpendicular to centerline of main.
4. Coupling shall be 3000 lb. steel with iron pipe threads conforming to ANSI Standard Taper Pipe Thread B2.1.
5. For wrapped steel main, wrap shall be repaired using an application of "Protecto Wrap" cold applied tape and "no. 1170 Primer" as manufactured by Protecto Wrap, Denver, Colorado. Installation per manufacturer instructions.
6. All exposed surfaces of coupling shall be coated with (2) coats of Protecto Wrap no. 1170 primer.



Case II - 1 1/2", 2" service
ELEVATION no scale

7. A double strap bronze saddle may be substituted for weld connection with prior approval only.
8. Sand backfill shall be placed in a manner such that mortar and primer coatings are not disturbed.

Approved by: *S. Cantrell* Date: *3/29/04*
City Engineer R.C.E. 28011

Drawn by: JSWilliams Date: October 6, 1986
Revised by: JSWilliams Date: March 17, 2004
Effective Date: April 13, 2004



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

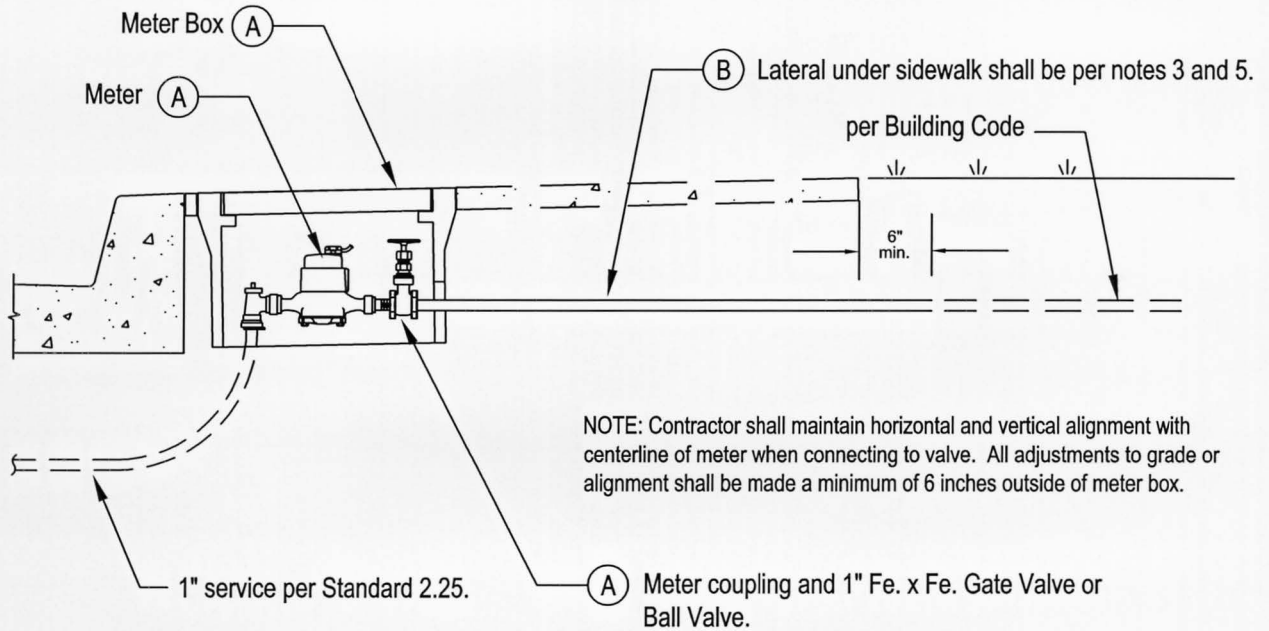
Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.27

Page 1 of 1

METER INSTALLATION, 3/4", 1" FOR NEW CONSTRUCTION



NOTE: Contractor shall maintain horizontal and vertical alignment with centerline of meter when connecting to valve. All adjustments to grade or alignment shall be made a minimum of 6 inches outside of meter box.

(A) Indicates material to be delivered by City. (B) Indicates material to be supplied & installed by Contractor.

1. Refer to Standard 2.13 for water meter installation policy.
2. Refer to Standard 2.05 for approved materials.
3. Customer lateral under sidewalk area shall be Type K or L copper tubing, or galvanized Sch.40 Iron Pipe wrapped with PVC tape (Tape shall have 1/3 overlap and shall cover all exposed surfaces of pipe & fittings).
4. In areas where sidewalk is not adjacent to curb, customer lateral installed per note 3 shall extend to 6 inches behind sidewalk.
5. Maintain accending grade on customer side. If the site does not permit installation of customer lateral with accending grade, maintain accending grade to property and install an air release valve at the high point of the lateral. Maintenance of the air release valve shall be the responsibility of the property owner.
6. The Developer shall be responsible to have the meter box adjusted to finish grade prior to sidewalk installation.
7. For installations where the meter & box fee is paid and the owner "signature card" has not been completed, a "spacer" may be installed in lieu of the meter by the City to allow alignment of customer plumbing, upon request. The "spacer" may only be removed by authorized City personnel.

Approved by: *A. Cantwell* Date: 3/30/04
City Engineer R.C.E. 29011

Drawn by: JSWilliams Date: June 13, 2002
Revised by: JSWilliams Date: March 9, 2004
Effective Date: April 13, 2004



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.28

Page 1 of 1

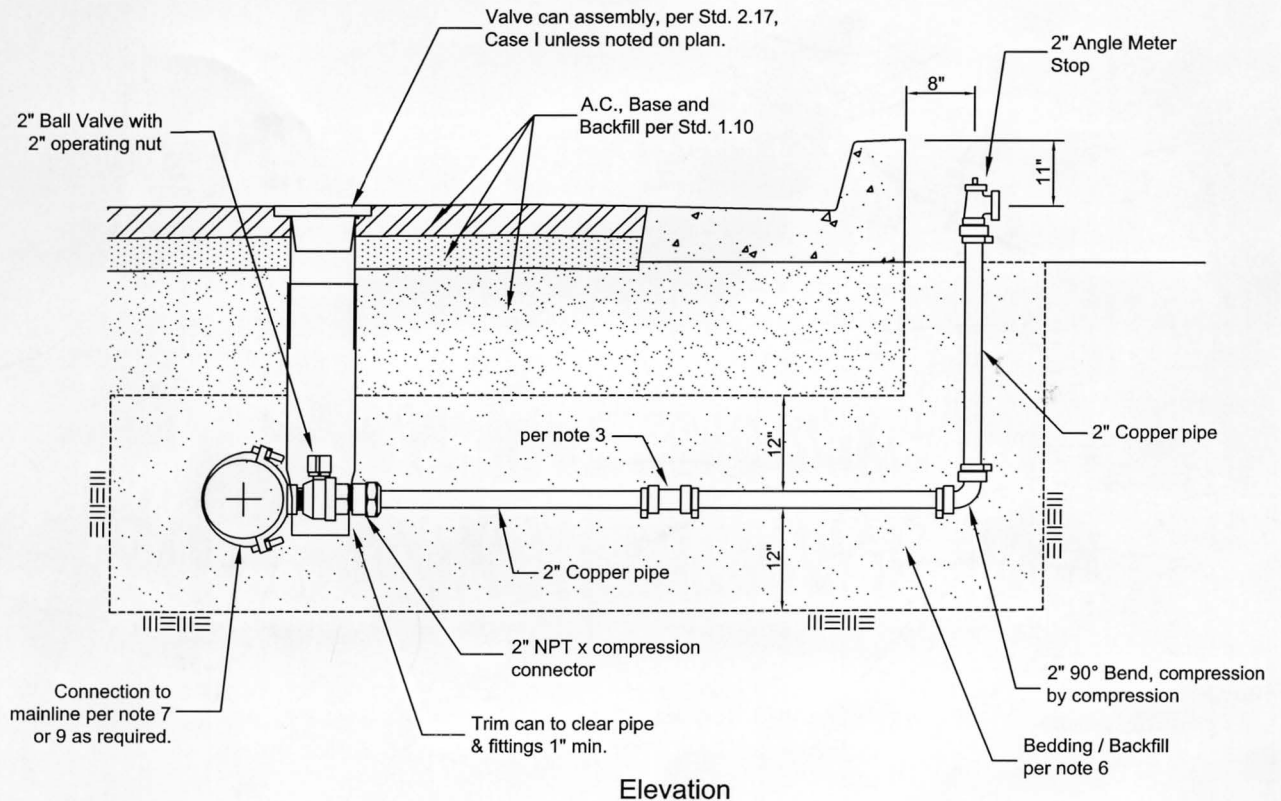
SERVICE ASSEMBLY, 1-1/2", 2" COPPER FOR STEEL / DUCTILE IRON WATERMAIN

Note: For 1-1/2" Service assembly, all references to size shall be adjusted to 1-1/2".

1. Service pipe shall be 2" Type K copper tubing, manufactured to meet or exceed A.S.T.M. B88 (Alloy 122), Federal Specification WWT799.
2. All fittings shall be compression type, 2" Copper tube size, per Approved Service Materials List, Std. 2.05.
3. One Splice allowed on Service pipe when lateral exceeds 20 feet. "As Built" location of splice is required.
4. Service pipe shall not be bent in excess or have flattened section during installation. Refer to Std. 2.14, note 15.
5. Service tap shall be made with an approved tapping machine.
6. 12" minimum compacted sand bedding required around service pipe. Full depth sand backfill required. Trenching and backfill (in existing A.C. areas) shall be per Std. 1.10.
7. For connection to steel main, install weld coupling per Std. 2.27.
8. For installation schedule meter and box, refer to Std. 2.13.
9. For pressure connection to Ductile Iron mainline install Double Strap Saddle, per Std. 2.05.
10. A minimum of 24" cover over service lateral is required.
11. Tap must be a minimum of 24" from end of pipe and a minimum of 12" laterally from another tap (either side of pipe).

Approved by: *A. Cantrell*
City Engineer R.C.E. 29011
Date: 3/30/04

Drawn by: JSWilliams Date: August 26, 1998
Revised by: JSWilliams Date: March 9, 2004
Effective Date: April 13, 2004



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.29

Page 1 of 1

MINIMUM INSTALLATION REQUIREMENTS FOR BACKFLOW PREVENTION DEVICES

Minimum installation requirements for Reduced Pressure Principle, Pressure Type Vacuum Breaker and Atmospheric Type Vacuum Breaker backflow prevention devices.

1. Backflow device installation and testing shall be in conformance to:
 - Los Angeles County Health Code 7583.
 - Title 17 of the California Administrative Code.
 - Uniform Plumbing Code.
2. Backflow device installation and testing shall be in conformance to:
 - a. The device shall be installed in an accessible location to facilitate inspection and servicing.
 - b. Pipelines shall be thoroughly flushed prior to installing the device.
 - c. The device shall be protected by a strainer, located on the inlet side of the device.
 - d. The device shall not be installed in vaults, pits or where any part of the device could become submerged.
 - e. The device shall be installed a minimum of 12 inches above grade and 12 inches above the elevation of the highest discharge outlet for P.T.V.B. (6 inches for A.T.V.B.).
3. Testing shall be done by a currently certified backflow device prevention tester certified by the Los Angeles County Department of Health Services.
4. Testing shall be completed and certified within five (5) working days of device installation (A.T.V.B. excluded).
5. Certification and registration shall be filed with the Los Angeles County Department of Health Services by the device tester within five (5) working days of the test. A copy of certification and registration shall be delivered to the City of Glendora Water Division within five (5) working days of test (A.T.V.B. excluded).
6. Contractor / Developer shall obtain a plumbing permit from the City of Glendora Building Division prior to any work.
7. Where used as meter protection, no connection of any type is permitted between the meter and the backflow prevention device.
8. Where used as meter protection, the device shall be as close as possible but no more than 10 feet from the meter.

Approved by:  R. Cantor
City Engineer R.C.E. 29011
Date: 3/29/04

Drawn by: JSWilliams	Date: February 20, 1998
Revised by: JSWilliams	Date: March 10, 2004
Effective Date: April 13, 2004	



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.30

Page 1 of 1

SERVICE LATERAL GRADE ADJUSTMENT

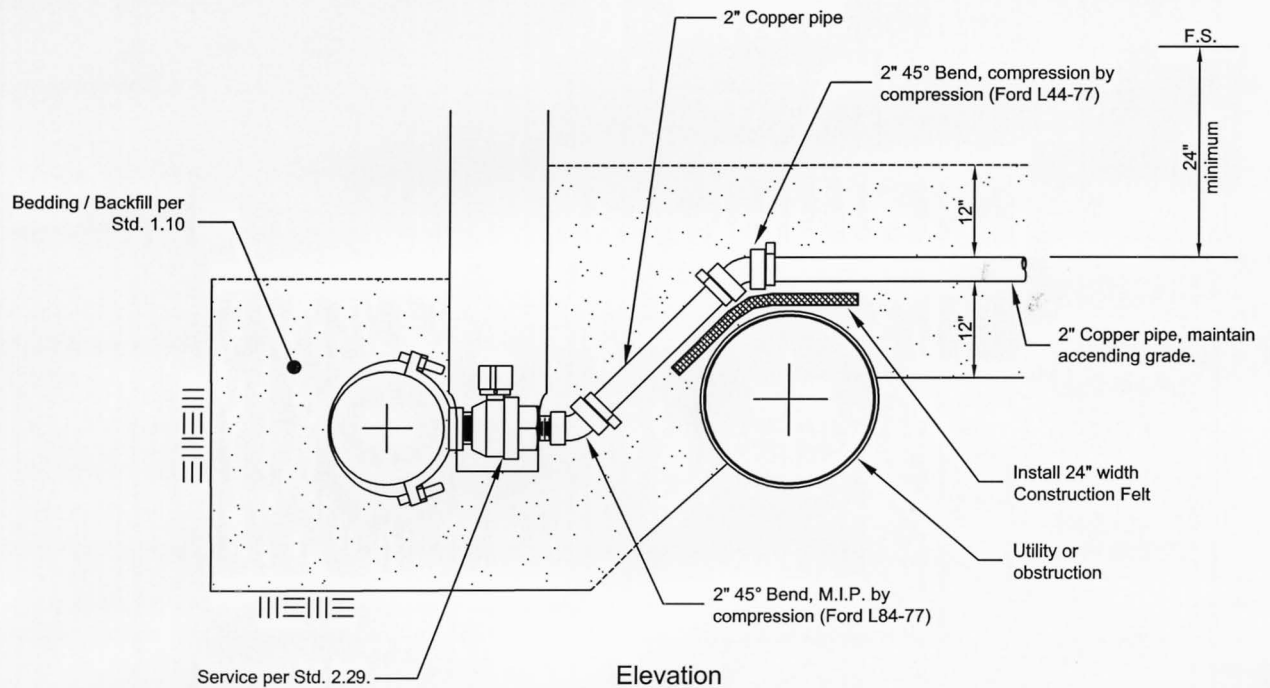
FOR 1-1/2", 2" COPPER SERVICE ASSEMBLY

Note: For 1-1/2" Service assembly, all references to size shall be adjusted to 1-1/2".

1. Service assembly shall be installed per Standard 2.29.
2. Service pipe shall be 2" Type K copper tubing, manufactured to meet or exceed A.S.T.M. B88 (Alloy 122), Federal Specification WWT799.
3. All fittings shall be compression type, 2" Copper tube size, per Approved Service Materials List, Std. 2.05.
4. One Splice allowed on Service pipe when lateral exceeds 20 feet. "As Built" location of splice is required.
5. Service pipe shall not be bent in excess or have flattened section during installation. Refer to Std. 2.14, note 15.
6. 12" minimum compacted sand bedding required around service pipe. Full depth sand backfill required. Trenching and backfill (in existing A.C. areas) shall be per Std. 1.10.
7. 24" minimum cover required on service pipe. Install pipe below utility or obstruction if required to maintain 24" minimum cover or ascending grade.

Approved by: *A. Cantrell*
 City Engineer R.C.E. 28011
 Date: *3/20/04*

Drawn by: JSWilliams
 Date: October 23, 1998
 Revised by: JSWilliams
 Date: March 11, 2004
 Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

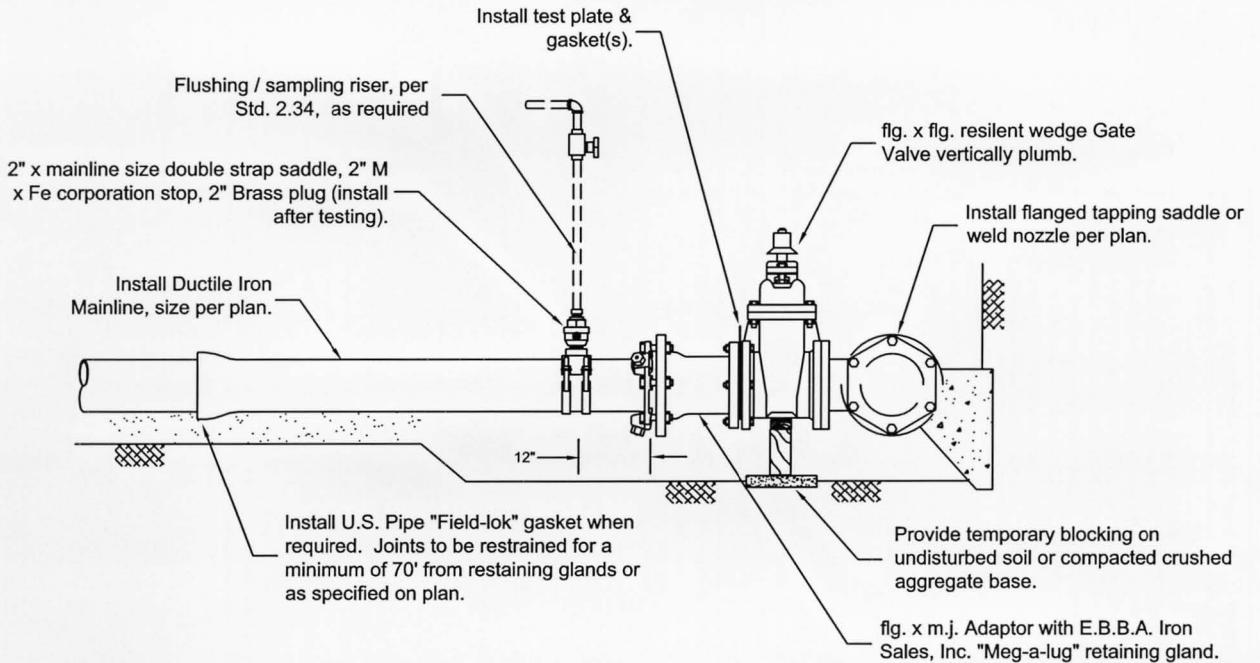
S.D. & S. NO.

2.31

Page 1 of 1

TEST PLATE INSTALLATION - TYPE II

FOR NEW MAIN CONSTRUCTION < 100 FEET



1. The Contractor shall disinfect and install the test plate at time of connection. No connections shall be made to the existing system without a test plate installed.
2. Test plates shall not be removed without authorization and under direction of the the City Engineer.
3. When directed by the City Engineer, the Contractor shall remove flushing riser or sample riser and shall disinfect and install a 2" Brass plug.
4. Any lubricants used on the test plate to assist in removal shall be NSF approved.
5. Weld nozzle and flange shall be installed per Std. 2.19.
6. An extension rod assembly (with rock guards) is required on all valves with the operating nut over 3' in depth from finish surface.
7. Gate valve and nipple assembly shall be tested at 1-1/2 times the normal operating pressure and approved by the City Engineer prior to tapping the existing mainline.

Note: This Standard shall be used where shown on plan or directed by City Engineer.

Approved by: *R. Cantrell*
 Date: *3/20/04*
 City Engineer R.C.E. 29011

Drawn by: JSWilliams
 Date: April 11, 2003
 Revised by: JSWilliams
 Date: March 12, 2004
 Effective Date: April 13, 2004



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

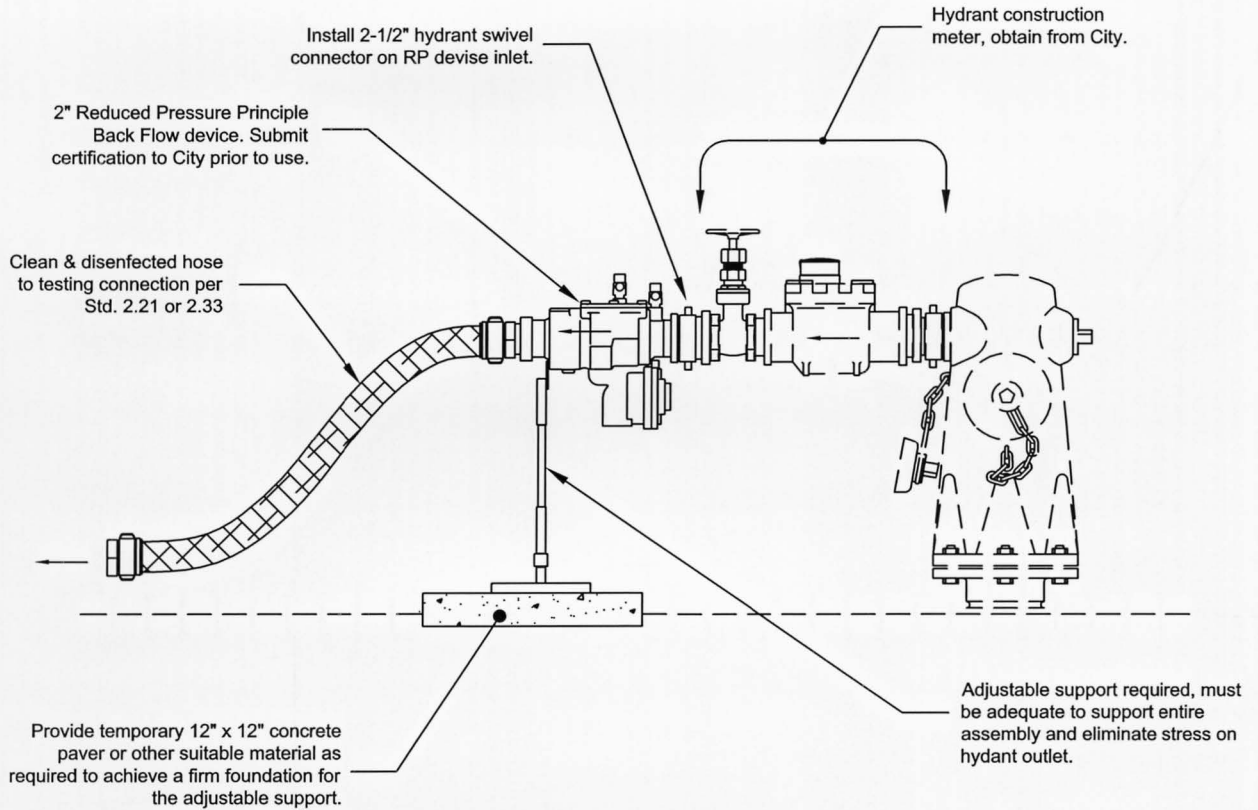
Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.32

Page 1 of 1

FLUSHING / TESTING PROTECTION FOR NEW MAIN CONSTRUCTION



1. The Contractor shall provide all labor, material and equipment required to provide, install and remove the RP assembly from the hydrant meter as directed by the City Engineer.
2. The Reduced Pressure Principle device shall be an approved device as specified by the U.S.C. Foundation for Cross-Connection Control and Hydraulic Research "List of Approved Backflow Prevention Assemblies, latest listing.
3. The Contractor shall provide to the City Engineer documentation as required showing the device is functioning and in compliance with current testing requirements as certified by an approved tester.
4. The Contractor shall provide adequate barricading and traffic control to protect the assembly from damage and provide for vehicular and pedestrian safety.

Approved by: *R. Cantrell* Date: *3/20/04*
City Engineer R.C.E. 29011

Drawn by: JSWilliams Date: April 17, 2003
Revised by: JSWilliams Date: March 12, 2004
Effective Date: April 13, 2004



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

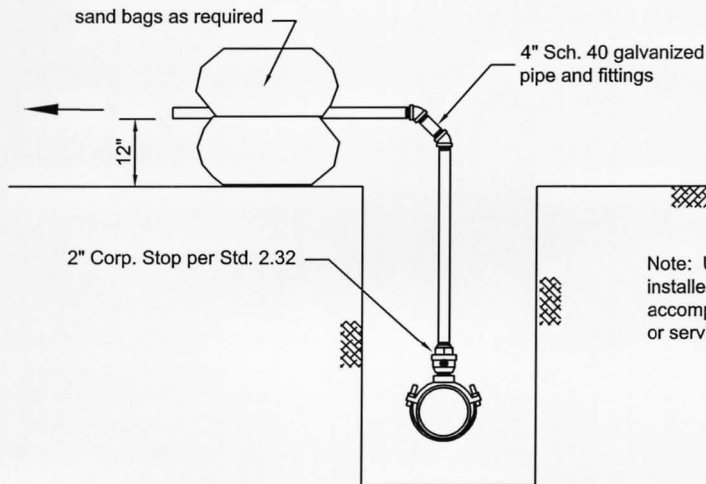
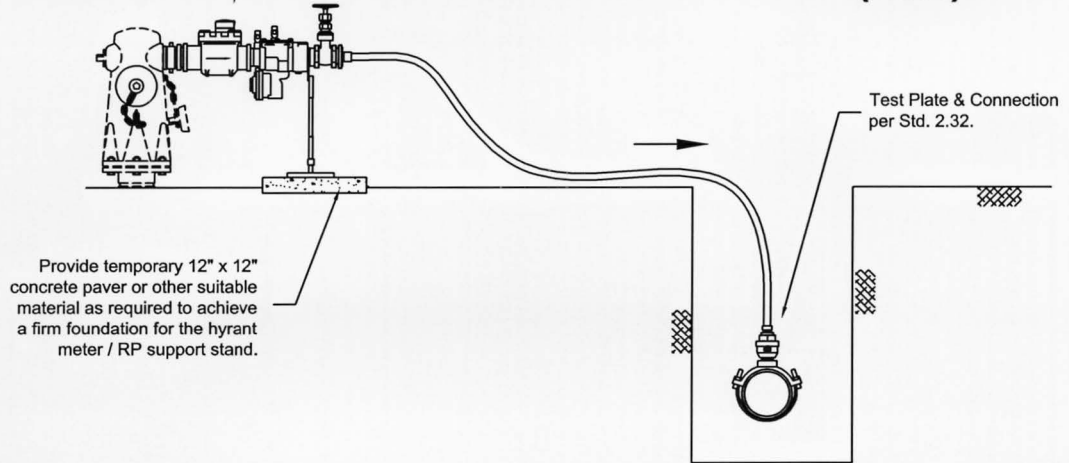
2.33

Page 1 of 1

FLUSHING / SAMPLING CONNECTION FOR NEW MAIN CONSTRUCTION < 100 FEET

Provide connection to an approved metered source as directed by the City Engineer. Install backflow prevention (per Std. 2.01, Note 14 & Std. 2.33), as required.

Flushing Riser (Inlet)



Note: Use where separate flushing outlet installed and or when flushing can not be accomplished through fire hydrant(s) and or service(s).

Flushing Riser (Outlet)

1. The Contractor shall provide all labor, material and equipment required to install and remove flushing and testing risers as required.
2. All pipe and fittings shall be new clean material and disinfected with a minimum 100 ppm solution Sodium Hypochlorite by the Contractor.
3. Sample points shall be installed at all connections to existing mainlines. The Contractor shall install sample points as directed by the City Engineer.

Approved by: *R. Cantrell*
City Engineer R.C.E. 29011

Date: *7/20/04*

Drawn by: JSWilliams Date: April 17, 2003

Revised by: JSWilliams Date: March 12, 2004

Effective Date: April 13, 2004



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

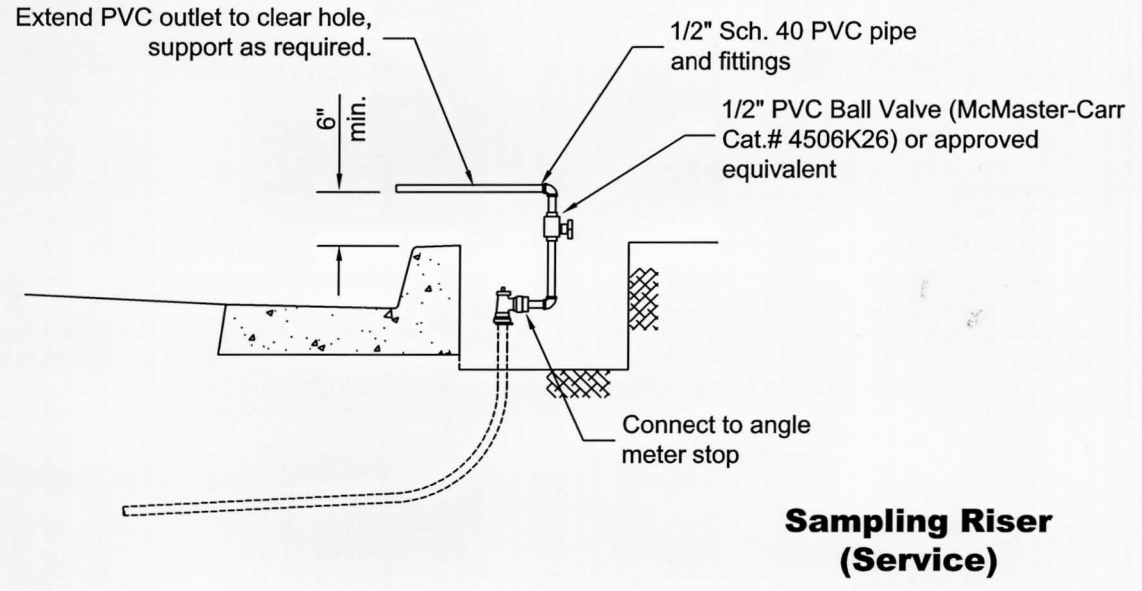
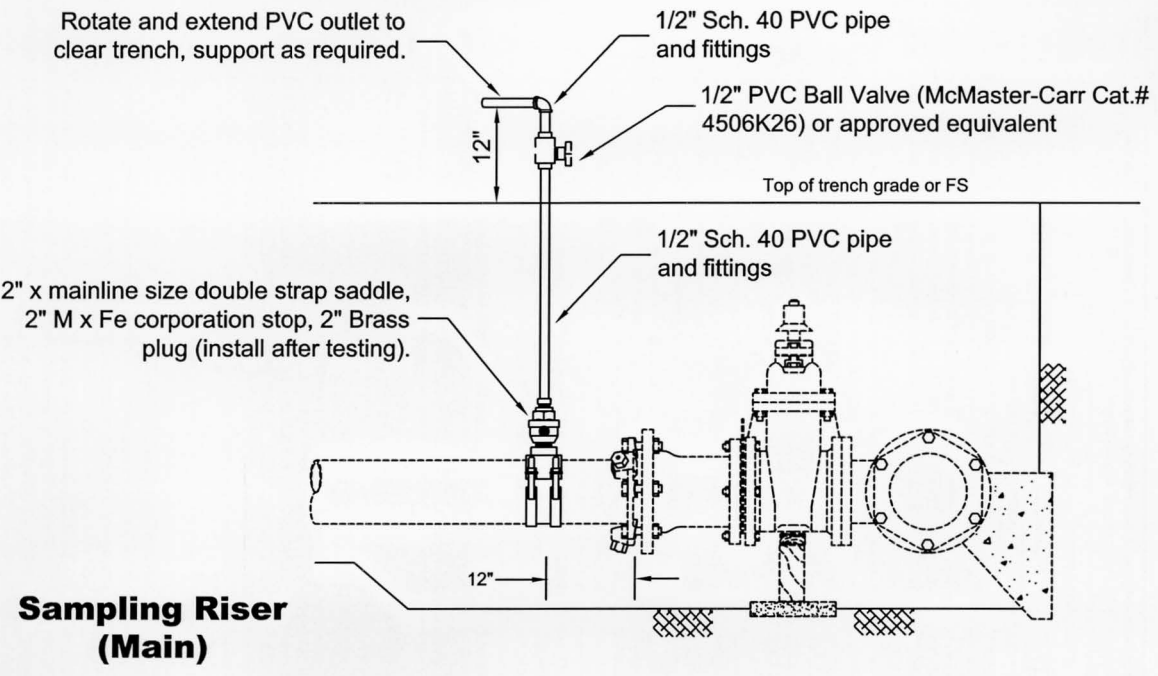
S.D. & S. NO.

2.34

Page 1 of 2

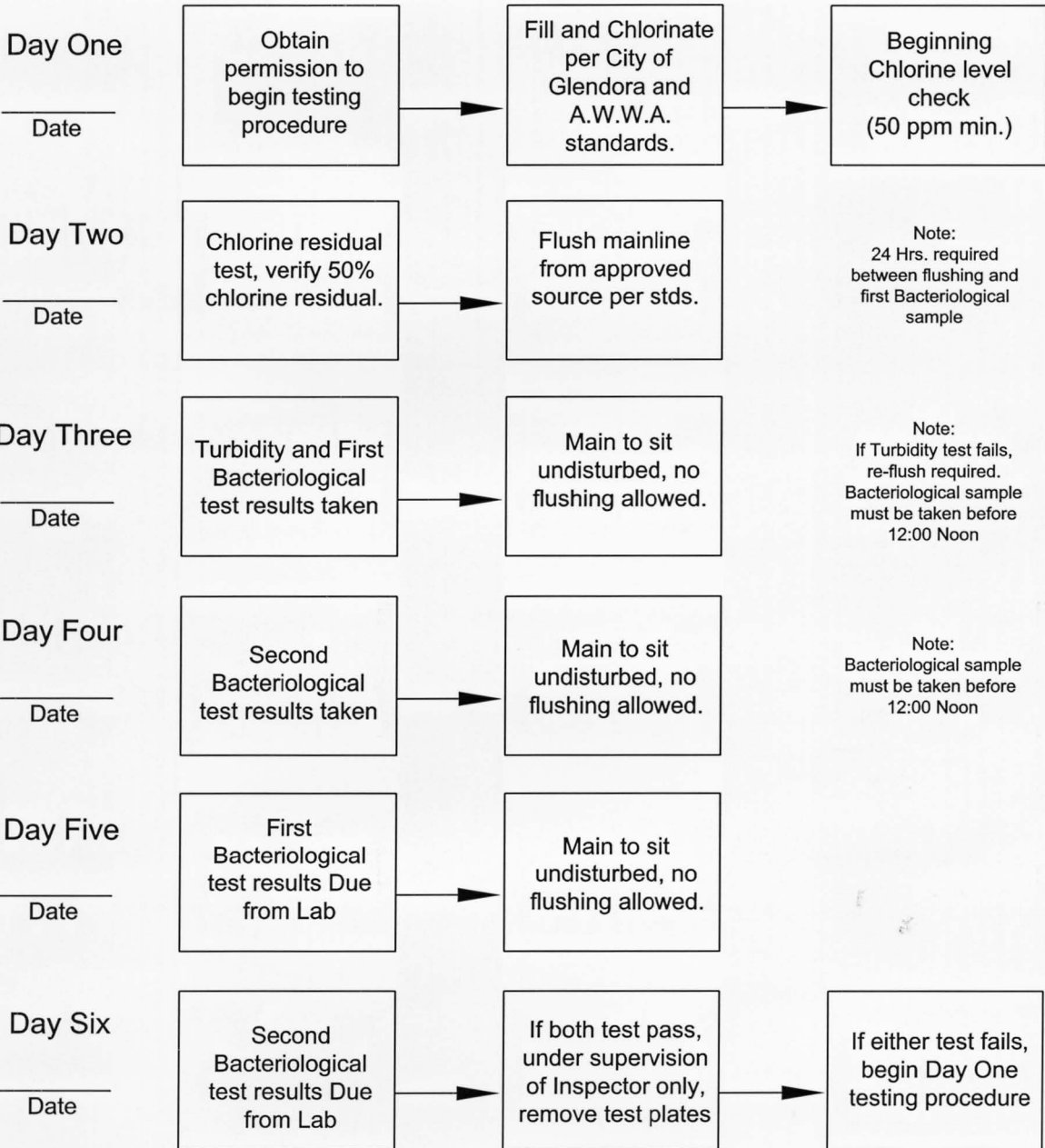
Approved by: *R. Cantrell*
 City Engineer R.C.E. 29011
 Date: *3/29/04*

Drawn by: JSWilliams
 Date: April 17, 2003
 Revised by: JSWilliams
 Date: March 12, 2004
 Effective Date: April 13, 2004



WATER QUALITY TESTING SEQUENCES FOR NEW MAIN CONSTRUCTION

Note: Complete all main & service installations including all connections and test plates as required by Plans, Specifications or City Engineer prior to beginning disinfection and testing procedures.



Note: Test beginning Wednesday, Thursday or Friday require 2-3 day separation between Chlorine residual check and flushing. Also see Water Quality Testing Sequences "Supplemental Chart", S.D.&S. 2.36.

Approved by: *R. Cantwell*
 City Engineer R.C.E. 29011
 Date: *3/30/04*

Drawn by: JSWilliams
 Date: July 24, 2003
 Revised by: JSWilliams
 Date: March 16, 2004
 Effective Date: April 13, 2004



WATER QUALITY TESTING SEQUENCES

SUPPLEMENTAL CHART

MON	TUES	WED	THURS	FRI	SAT
<p>Obtain permission to begin testing procedure</p> <p>Fill and Chlorinate per City of Glendora and A.W.W.A. standards.</p> <p>Beginning Chlorine level check by City</p>	<p>Chlorine residual test, verify 50% chlorine residual.</p> <p>Flush mainline from approved source per stds.</p> <p>24 Hrs. required between flushing and 1st Bacteriological Test</p>	<p>First Bacteriological test results taken</p> <p>Test must be taken before 12:00 Noon</p> <p>Main to sit undisturbed, no flushing allowed.</p>	<p>Second Bacteriological test results taken</p> <p>Test must be taken before 12:00 Noon</p> <p>Main to sit undisturbed, no flushing allowed.</p>	<p>First Bacteriological test results Due from Lab</p> <p>Main to sit undisturbed, no flushing allowed.</p>	<p>Second Bacteriological test results Due from Lab</p> <p>Main to sit undisturbed, no flushing allowed.</p>
	<p>Obtain permission to begin testing procedure</p> <p>Fill and Chlorinate per City of Glendora and A.W.W.A. standards.</p> <p>Beginning Chlorine level check by City</p>	<p>Chlorine residual test, verify 50% chlorine residual.</p> <p>Flush mainline from approved source per stds.</p> <p>24 Hrs. required between flushing and 1st Bacteriological Test</p>	<p>First Bacteriological test results taken</p> <p>Test must be taken before 12:00 Noon</p> <p>Main to sit undisturbed, no flushing allowed.</p>	<p>Second Bacteriological test results taken</p> <p>Test must be taken before 12:00 Noon</p> <p>Main to sit undisturbed, no flushing allowed.</p>	<p>First Bacteriological test results Due from Lab</p> <p>Main to sit undisturbed, no flushing allowed.</p>
		<p>Obtain permission to begin testing procedure</p> <p>Fill and Chlorinate per City of Glendora and A.W.W.A. standards.</p> <p>Beginning Chlorine level check by City</p>	<p>Chlorine residual test, verify 50% chlorine residual.</p>	<p>Main to sit undisturbed, no flushing allowed.</p>	<p>Main to sit undisturbed, no flushing allowed.</p>
			<p>Obtain permission to begin testing procedure</p> <p>Fill and Chlorinate per City of Glendora and A.W.W.A. standards.</p> <p>Beginning Chlorine level check by City</p>	<p>Chlorine residual test, verify 50% chlorine residual.</p>	<p>Main to sit undisturbed, no flushing allowed.</p>
				<p>Obtain permission to begin testing procedure</p> <p>Fill and Chlorinate per City of Glendora and A.W.W.A. standards.</p> <p>Beginning Chlorine level check by City</p>	<p>Chlorine residual test, verify 50% chlorine residual.</p> <p>Advance payment for City Personnel OT required (when available)</p>

Approved by: *R. Cantrell*
 City Engineer R.C.E. 29011

Date: *3/30/04*

Drawn by: JSWilliams
 Revised by: JSWilliams
 Effective Date: April 13, 2004

Date: July 24, 2003
 Date: March 16, 2004

CONTINUED ON PAGE 2 OF 2

City of Glendora

Public Works Department

STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.36

Page 1 of 2

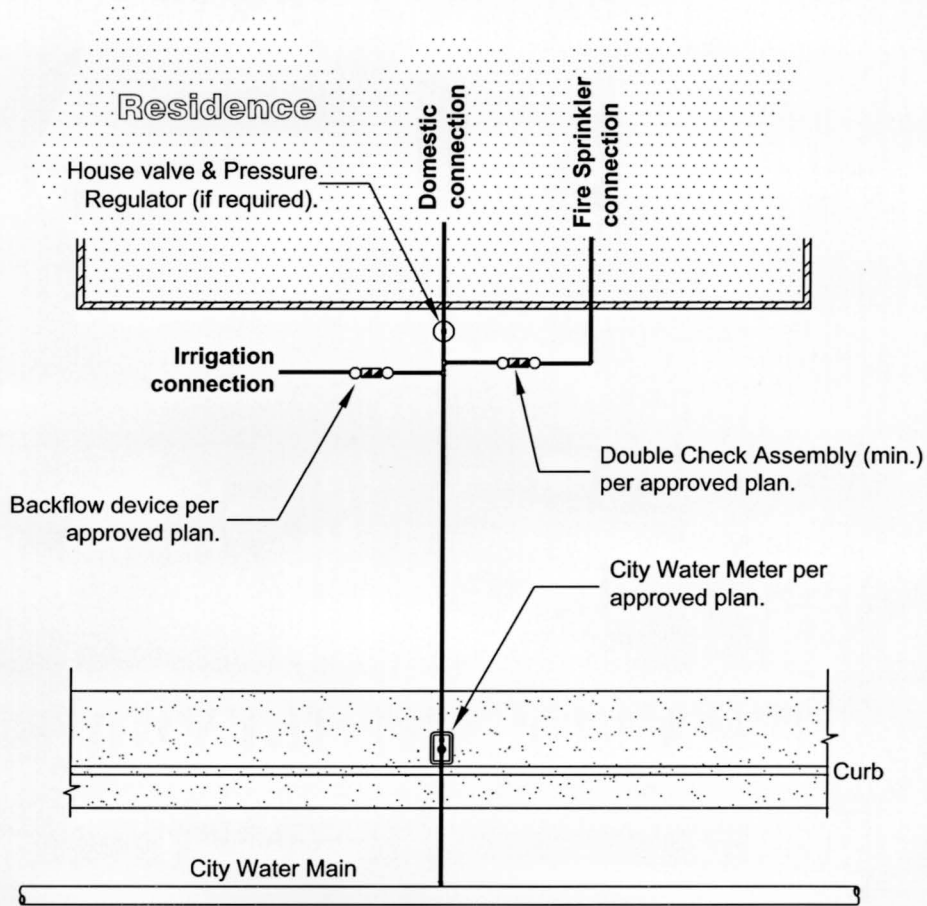
Approved by: *R. Cantrell*
 City Engineer, R.C.E. 29011
 Date: *2/20/04*

Drawn by: JSWilliams
 Date: July 24, 2003
 Revised by: JSWilliams
 Date: March 16, 2004
 Effective Date: April 13, 2004

CONTINUED FROM PAGE 1 OF 2

SUN	MON	TUES	WED	THURS	FRI
Main to sit undisturbed, no flushing allowed.	Second test results available If both test pass, under supervision of Inspector only, remove test plates If either test fails, begin Day One testing procedure				
Second Bacteriological test results Due from Lab Main to sit undisturbed, no flushing allowed.	First and Second test results available If both test pass, under supervision of Inspector only, remove test plates If either test fails, begin Day One testing procedure				
Main to sit undisturbed, no flushing allowed.	Flush mainline from approved source per stds. 24 Hrs. required between flushing and 1st Bacteriological Test	First Bacteriological test results taken Test must be taken before 12:00 Noon Main to sit undisturbed, no flushing allowed.	Second Bacteriological test results taken Test must be taken before 12:00 Noon Main to sit undisturbed, no flushing allowed.	First Bacteriological test results Due from Lab Main to sit undisturbed, no flushing allowed.	Second Bacteriological test results Due from Lab If both test pass, under supervision of Inspector only, remove test plates If either test fails, begin Day One testing procedure
Main to sit undisturbed, no flushing allowed.	Flush mainline from approved source per stds. 24 Hrs. required between flushing and 1st Bacteriological Test	First Bacteriological test results taken Test must be taken before 12:00 Noon Main to sit undisturbed, no flushing allowed.	Second Bacteriological test results taken Test must be taken before 12:00 Noon Main to sit undisturbed, no flushing allowed.	First Bacteriological test results Due from Lab Main to sit undisturbed, no flushing allowed.	Second Bacteriological test results Due from Lab If both test pass, under supervision of Inspector only, remove test plates If either test fails, begin Day One testing procedure
Main to sit undisturbed, no flushing allowed.	Flush mainline from approved source per stds. 24 Hrs. required between flushing and 1st Bacteriological Test	First Bacteriological test results taken Test must be taken before 12:00 Noon Main to sit undisturbed, no flushing allowed.	Second Bacteriological test results taken Test must be taken before 12:00 Noon Main to sit undisturbed, no flushing allowed.	First Bacteriological test results Due from Lab Main to sit undisturbed, no flushing allowed.	Second Bacteriological test results Due from Lab If both test pass, under supervision of Inspector only, remove test plates If either test fails, begin Day One testing procedure

APPROVED SERVICE CONNECTION FOR RESIDENTIAL SERVICE



1. All devices shall be per the University of Southern California Foundation for Cross Connection and Hydraulic Research, most current listing.
2. Approved plan designated hereon shall be defined as reviewed and approved by the City of Glendora Water Division / City Engineer.
3. The property and or building owner shall submit verification that all portions of the private fire sprinkler system, including building sprinklers and connections shall be a "Clean Potable Water" system with no additives or interconnections. The statement shall be on file with the City Engineer prior to plan approval.
4. The approved service connection shown is diagrammatic. All installations shall be installed per applicable standards and specifications and per plan approved by the Water Division.

Approved by: *R. Antel* Date: *10/19/05*
 City Engineer R.C.E. 29011

Drawn by: JSW Date: October 19, 2005
 Revised by: JSW
 Effective Date:



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

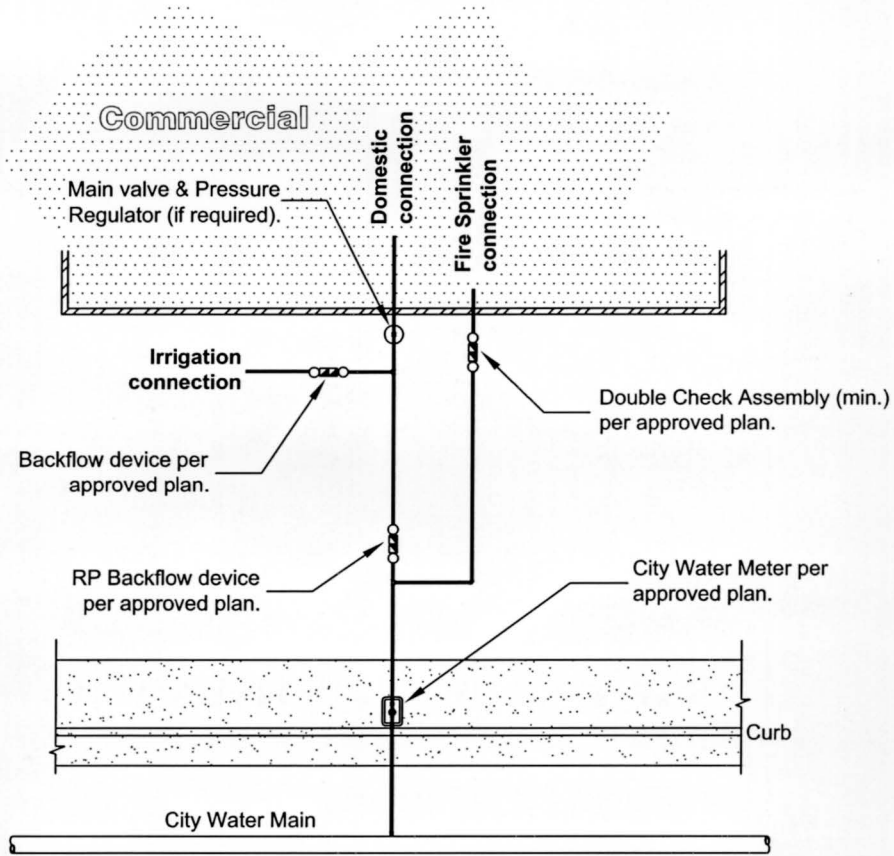
Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.37

Page 1 of 1

APPROVED SERVICE CONNECTION FOR COMMERCIAL SERVICE



CASE I

1. All devices shall be per the University of Southern California Foundation for Cross Connection and Hydraulic Research, most current listing.
2. Approved plan designated hereon shall be defined as reviewed and approved by the City of Glendora Water Division / City Engineer.
3. The property and or building owner shall submit verification that all portions of the private fire sprinkler system, including building sprinklers and connections shall be a "Clean Potable Water" system with no additives or interconnections. The statement shall be on file with the City Engineer prior to plan approval.

Approved by: *A. Cantarel* Date: *10/26/05*
 City Engineer R.C.E. 29011

Drawn by: JSW
 Date: June 2, 2005
 Revised by: JSW
 Effective Date:



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.38

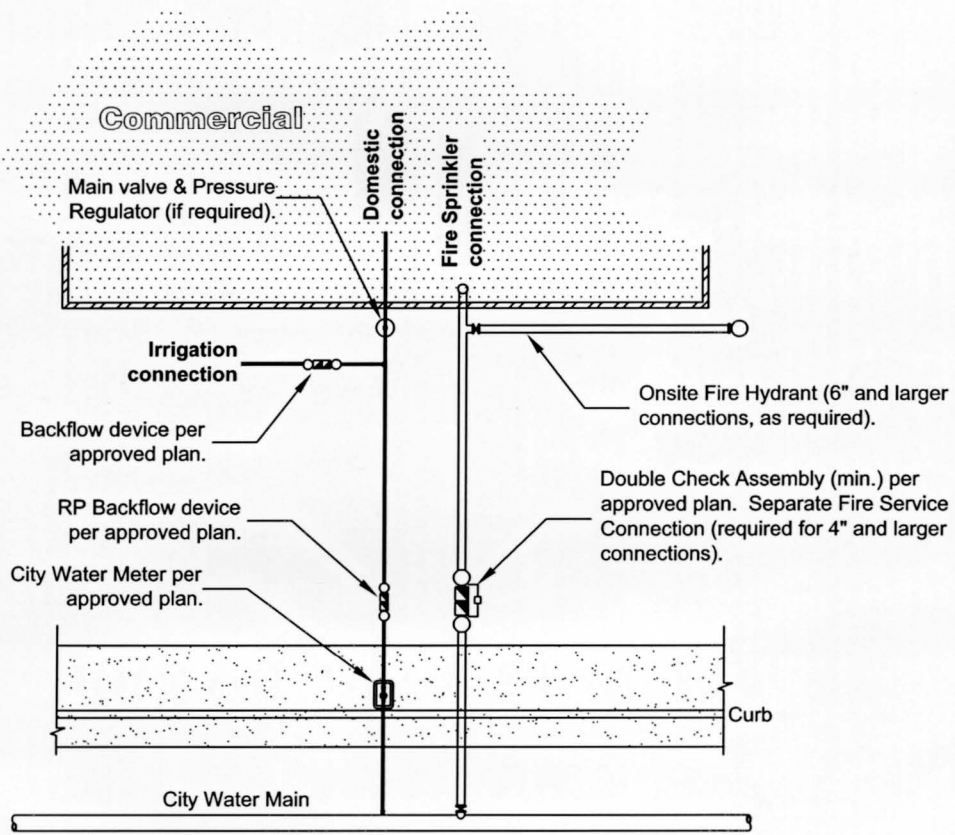
Page 1 of 2

4. The approved service connection shown is diagrammatic. All installations shall be installed per applicable standards and specifications and per plan approved by the Water Division.

5. Fire Services 4" and larger shall be per Case II.

Approved by: *R. Cantrell*
 City Engineer R.C.E. 29011
 Date: *10/20/05*

Drawn by: JSW
 Date: June 2, 2005
 Revised by: JSW
 Effective Date:



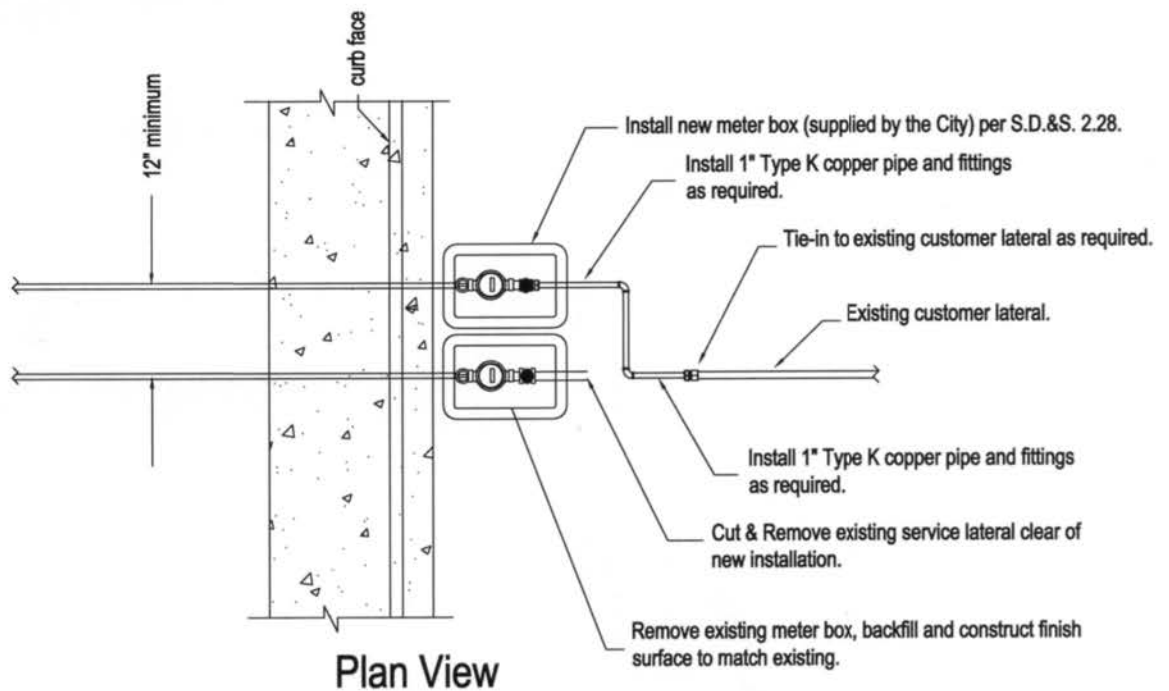
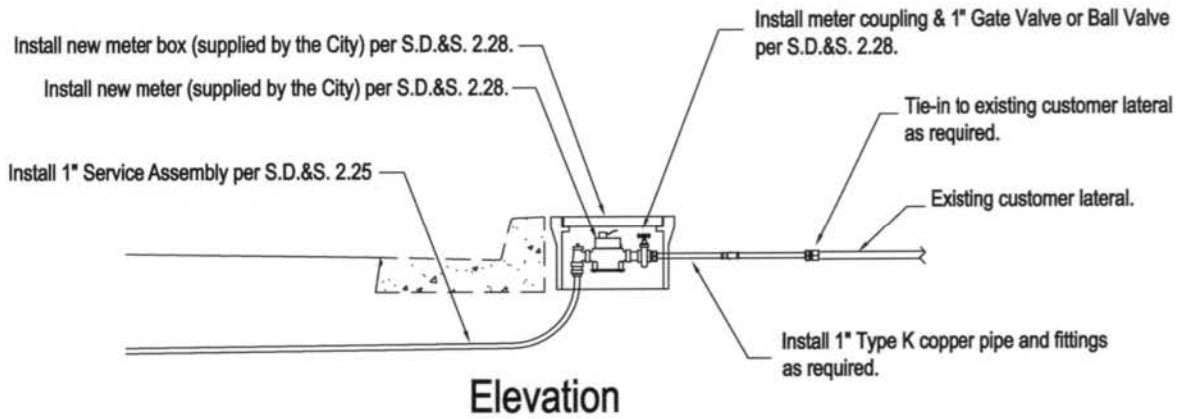
CASE II



1" SERVICE INSTALLATION / TIE IN FOR SINGLE SERVICE REPLACEMENT

Approved by: *JS Williams* Date: *12-29-06*
 City Engineer R.C.E. *14529*

Drawn by: JSWilliams Date: December 22, 2006
 Revised by: JSWilliams Date:
 Effective Date: January 9, 2007



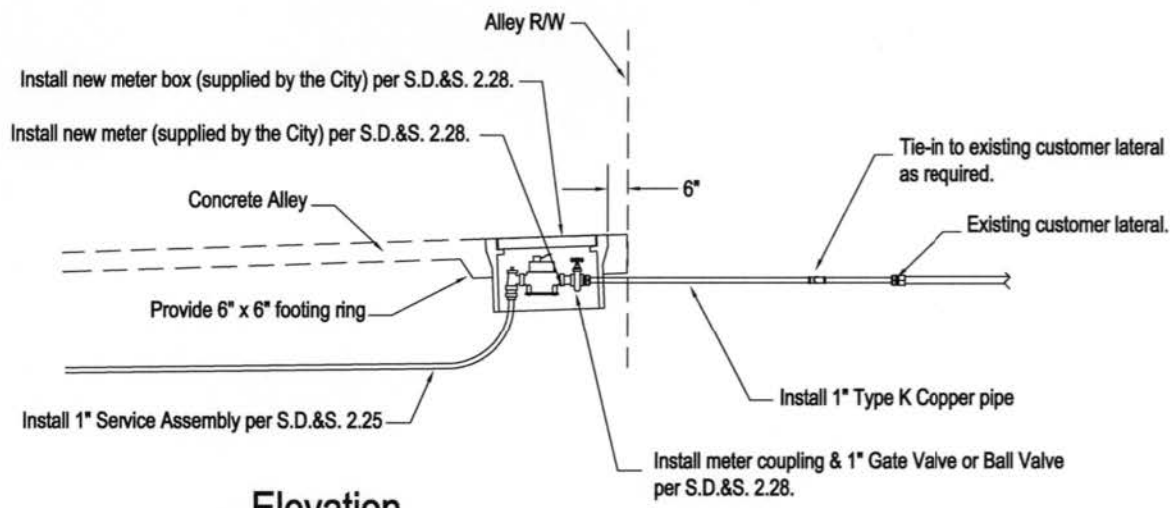
Case I - Curb Setting

1. Service / meter replacement shall be as shown on plan / per City direction.

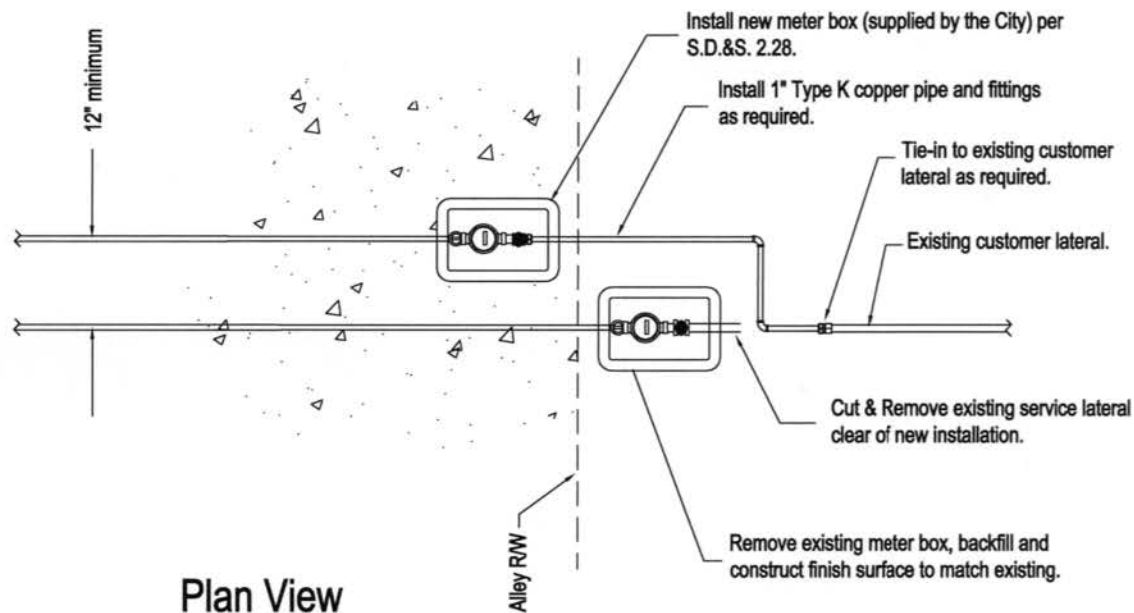


Approved by: *J.S. Williams* 12-29-06
 City Engineer, R.C.E. 14527
 Date

Drawn by: JSWilliams Date: December 22, 2006
 Revised by: JSWilliams Date:
 Effective Date: January 9, 2007



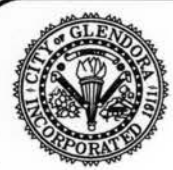
Elevation



Plan View

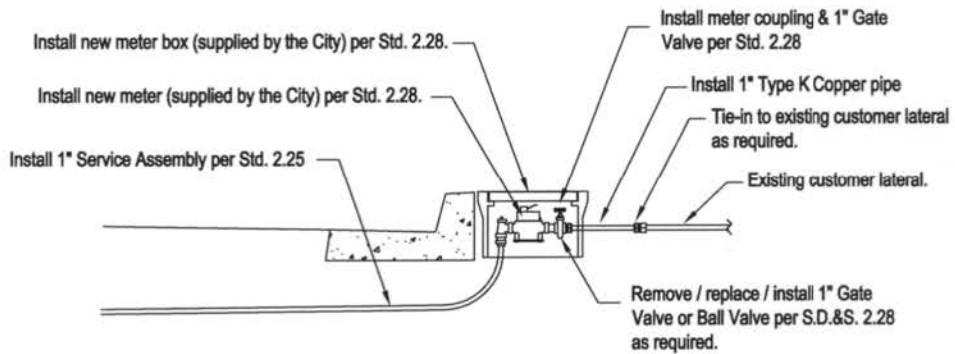
Case II - Alley Setting

1. Service / meter replacement shall be as shown on plan / per City direction.
2. Meter box shall be set flush with Alley finish surface.

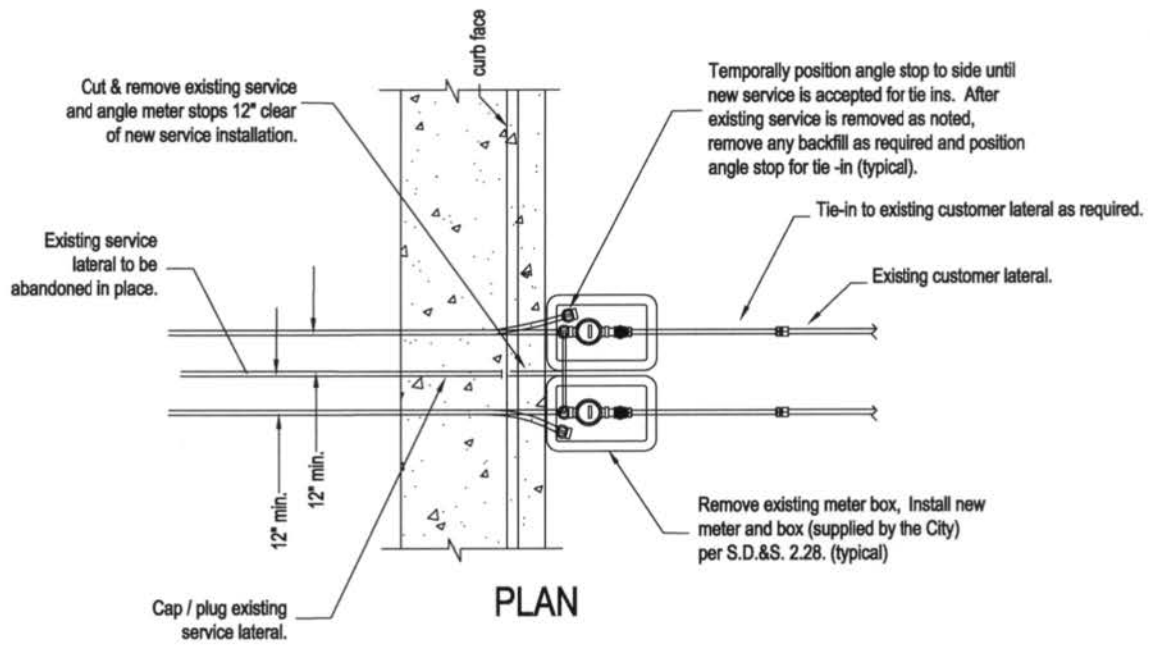


1" SERVICE INSTALLATION / TIE IN FOR DUAL SERVICE REPLACEMENT

Approved by: *J.E. Labell* 12-29-06
Date
City Engineer R.C.E. 14527



ELEVATION



PLAN

Case I - Curb Setting

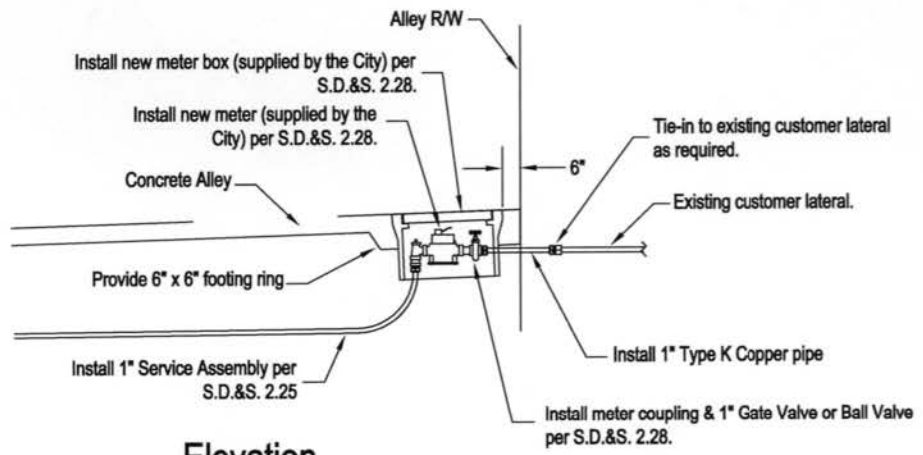
1. Service / meter replacement shall be as shown on plan / per City direction.

Drawn by: JSWilliams Date: December 22, 2006
Revised by: JSWilliams Date:
Effective Date: January 9, 2007

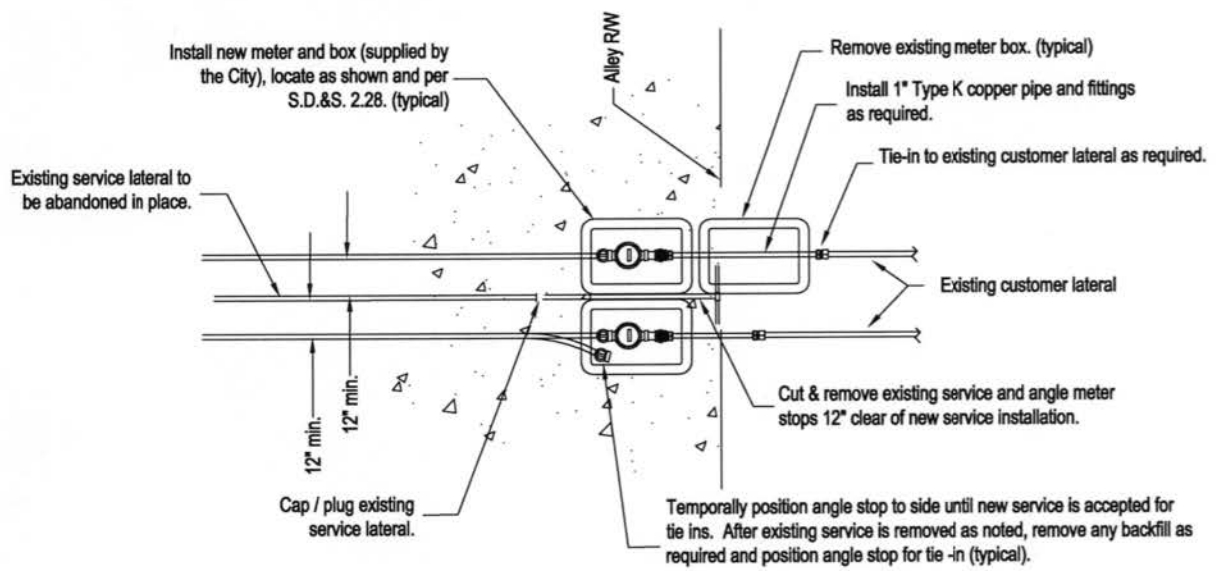


Approved by: *[Signature]* 12-29-06 Date
 City Engineer R.C.E. 14921

Drawn by: JSWilliams Date: December 22, 2006
 Revised by: JSWilliams Date:
 Effective Date: January 9, 2007



Elevation



Plan

1. Service / meter replacement shall be as shown on plan / per City direction.



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS
 Adopted for use on Public and Private Improvements

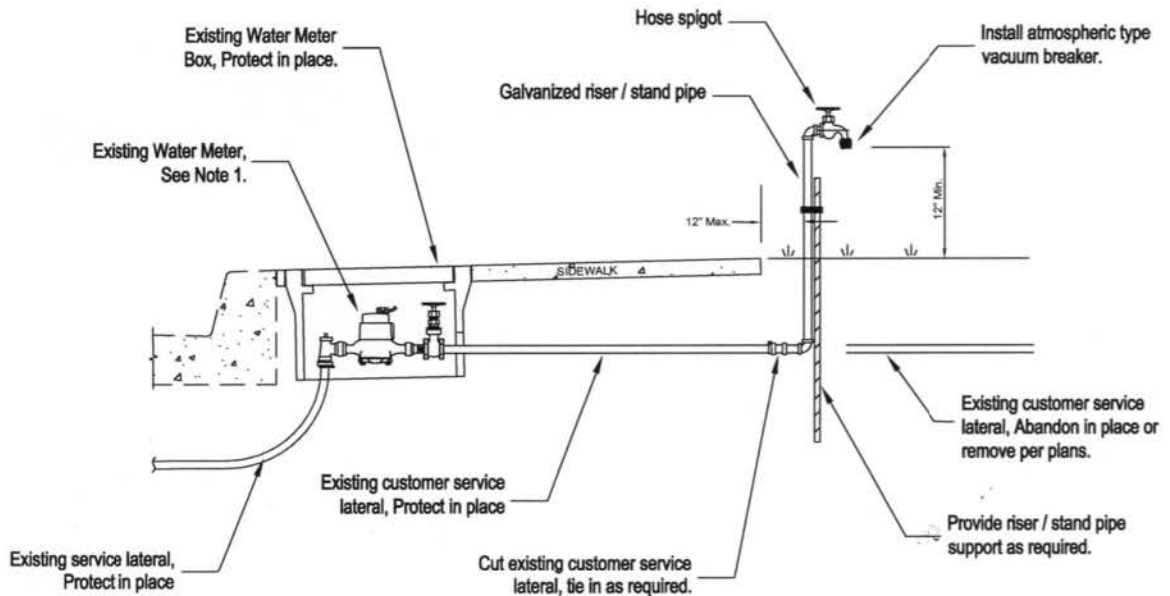
S.D. & S. NO.
2.40
 Page 2 of 2

SERVICE PROTECTION FOR SITE DEMOLITION

1. Prior to any demolition work the Owner / Contractor shall complete one of the following:
 - a) Submit a request to the Public Works Department to have any existing water meters pulled. Water Meters may only be removed by the Water Division.
 - b) Owner's contractor shall install a riser / stand pipe per detail hereon.
2. A minimum of 24 hours prior to any demolition work the Owner or Contractor shall request an inspection from the Water Division to verify water meter was pulled per request or a riser / stand pipe was installed and meets minimum requirements. No demolition work is allowed until compliance with these requirements are verified by the Water Division Inspector.
3. Hoses connected to the riser / stand pipe may not be connected to storage tanks, be submerged or used in any manner inappropriate for use with the atmospheric vacuum breaker.
4. For areas with no sidewalk, riser / stand pipe shall be placed a maximum of 12" behind water meter box.
5. Contractor shall provide barricades or other suitable protection for riser / stand pipe.

Approved by: *[Signature]* 12-29-06 Date
 City Engineer R.C.E. 18527

Drawn by: JSWilliams Date: December 19, 2006
 Revised by: Date:
 Effective Date: January 9, 2007



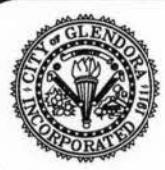
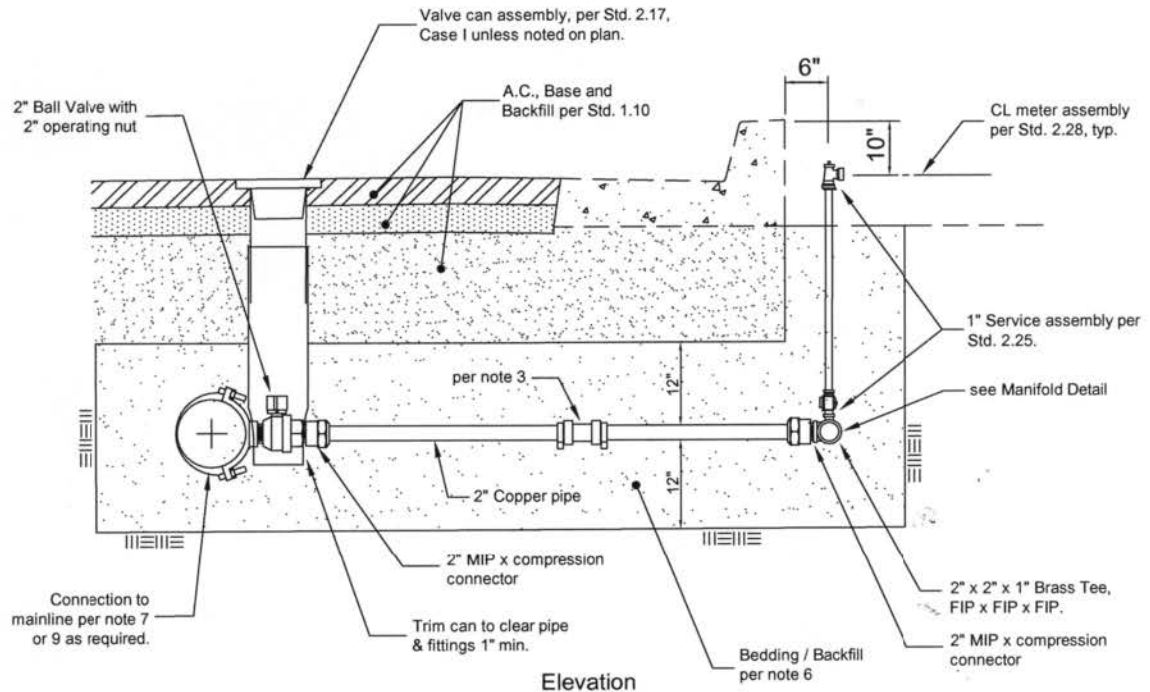
SERVICE MANIFOLD ASSEMBLY FOR MULTIPLE 1" SERVICE ASSEMBLIES

NOTE: This Standard may be used for multiple services requiring two to four meters with meter boxes set adjacent. For box settings non-adjacent, install individual laterals per Std. 2.25.

1. Service pipe shall be Type K copper tubing, manufactured to meet or exceed A.S.T.M. B88 (Alloy 122), Federal Specification WWT799.
2. All fittings shall be per Approved Service Materials List, Std. 2.05 and as noted.
3. Service pipe shall be one piece, continuous, no splices allowed except as noted..
4. Service pipe shall not be bent in excess or have flattened section during installation. Use of an approved tubing bender is required.
5. Service tap shall be made with an approved tapping machine.
6. 12" minimum compacted sand bedding required around service pipe. For new construction, full depth sand backfill required. Trenching and backfill (in existing A.C. areas) shall be per Std. 1.10.
7. For connection to steel main, install weld coupling per Std. 2.27.

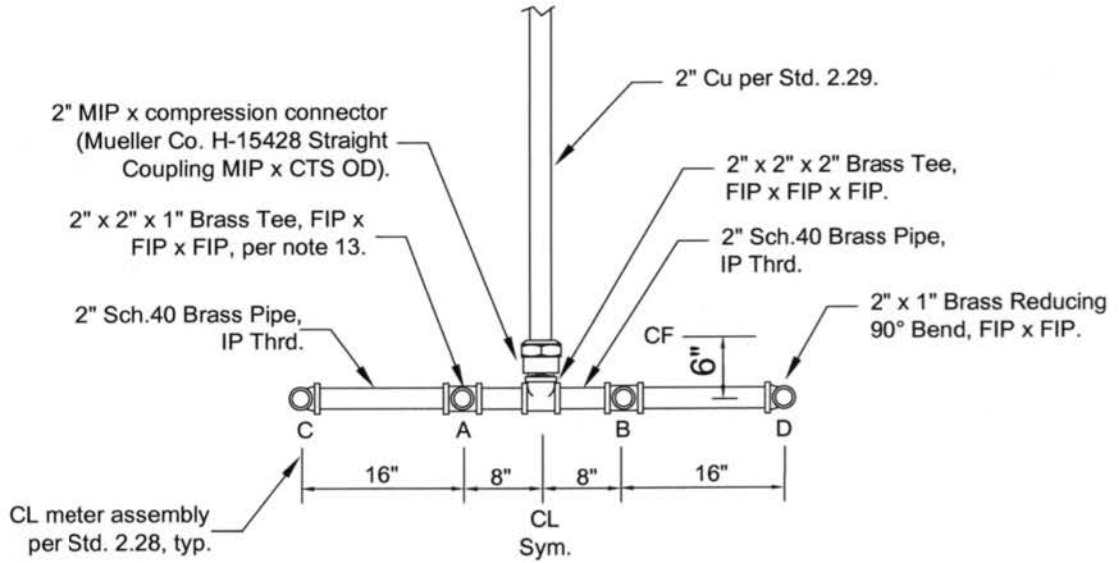
Approved by: *B.S. Schell* 12-29-06 Date
 City Engineer R.C.E. 14527

Drawn by: JSWilliams Date: December 21, 2006
 Revised by: JSWilliams Date:
 Effective Date: January 9, 2007



8. For installation schedule meter and box, refer to Std. 2.13.
9. For pressure connection to Ductile Iron mainline and / or connection to 4" Ductile Iron mainline, install Double Strap Saddle, per Std. 2.05.
10. A minimum of 24" cover over service lateral is required.
11. Tap must be a minimum of 24" from end of pipe and a minimum of 12" laterally from another tap (either side of pipe).

Approved by: *12-23-06*
 City Engineer R.C.E. *14527*
 Date



MANIFOLD DETAIL
Plan

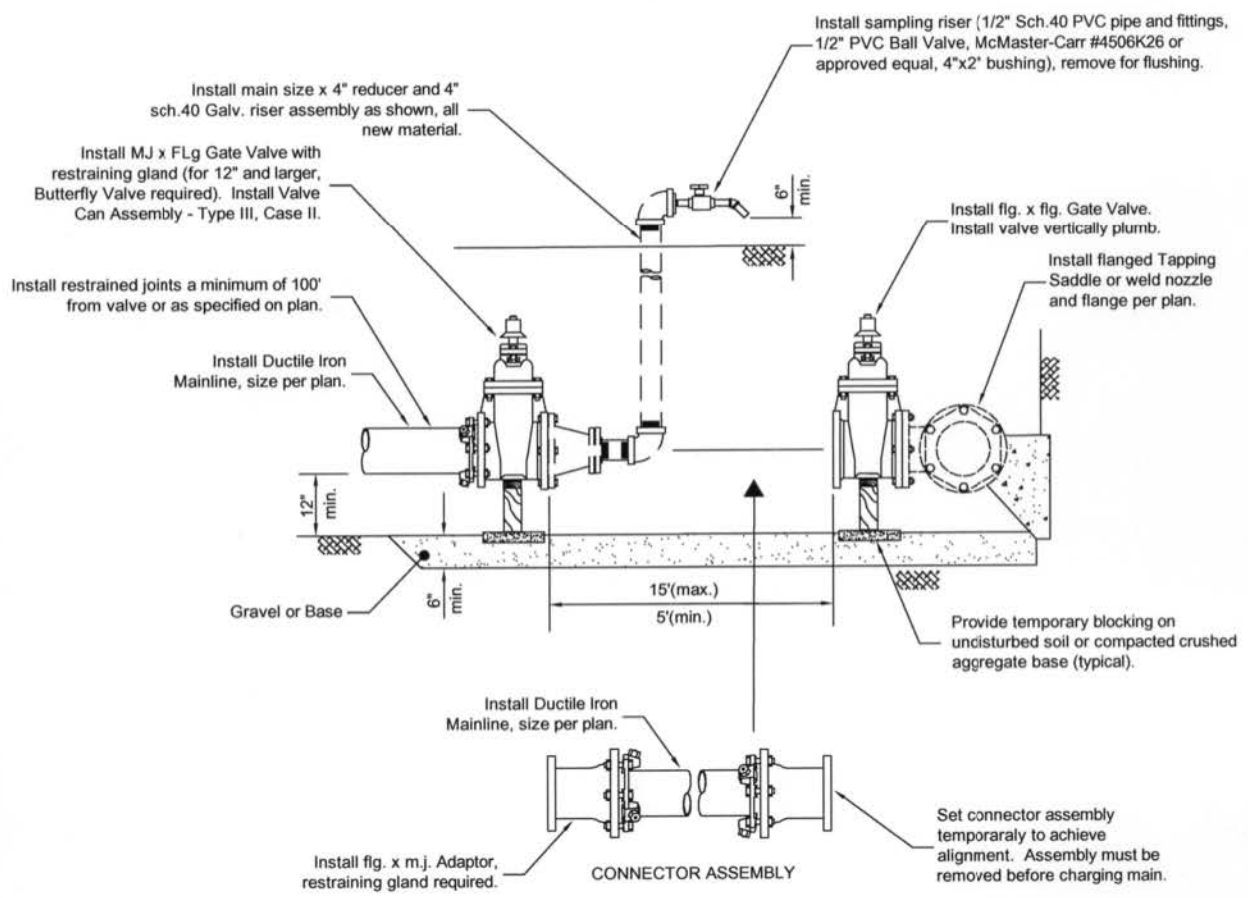
12. Irrigation meters shall not be connected to manifold. Provide separate service lateral.
13. For two and three meter settings, use 2" x 1" Reducing 90° Bend at locations A and / or B..
14. For Dual Service to separate properties (meters set adjacent), manifold shall be centered on property line extension.

Drawn by: JSWilliams
 Revised by: JSWilliams
 Effective Date: January 9, 2007
 Date: December 21, 2006
 Date:



TIE IN / TEST INSTALLATION FOR DUCTILE IRON MAIN CONSTRUCTION

Approved by: *A.S. Williams* 12-29-06
 Date: 12-29-06
 City Engineer R.C.E. 14527



Drawn by: JSWilliams Date: November 27, 2006
 Revised by: JSWilliams Date:
 Effective Date: January 9, 2007

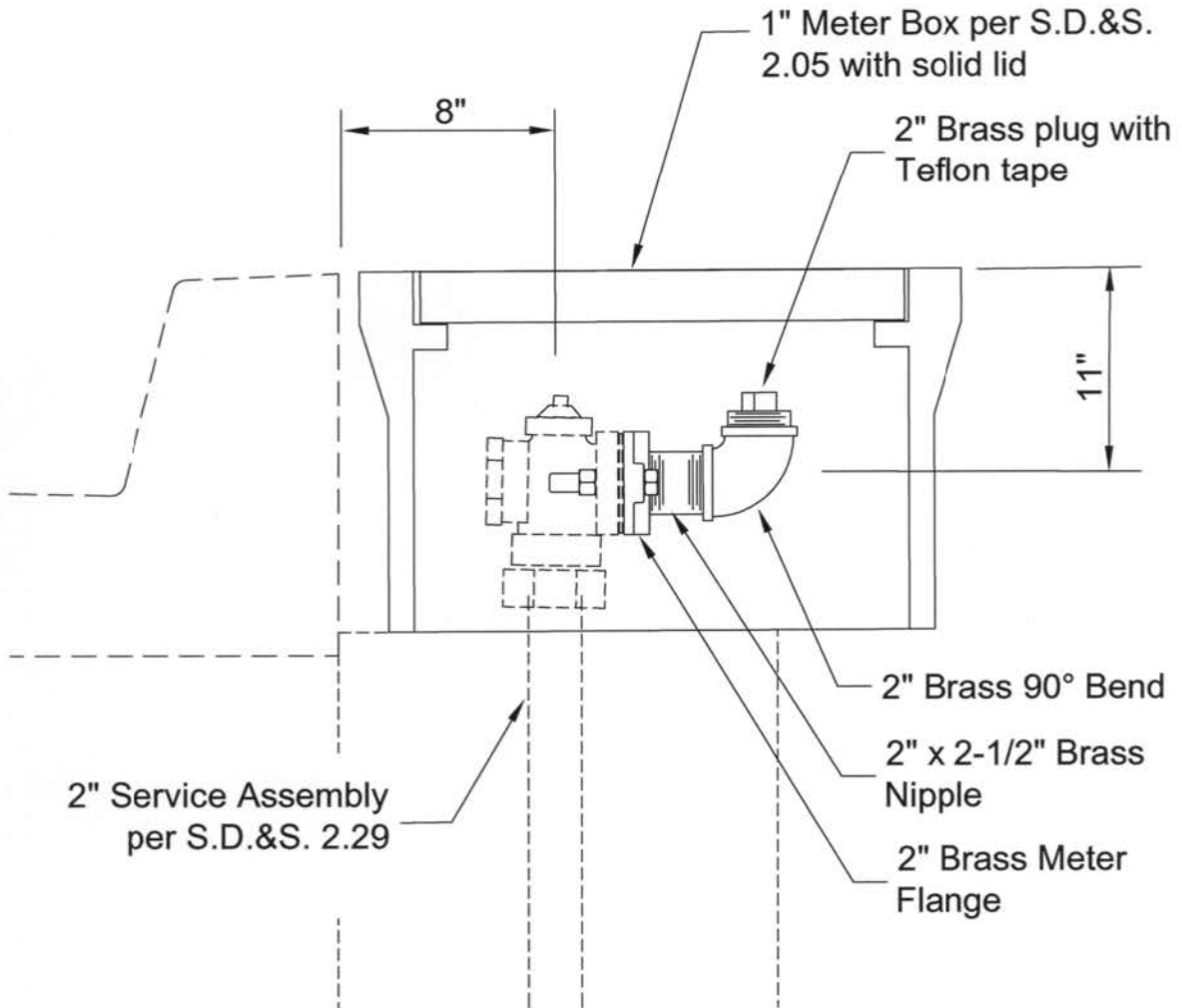
1. The Contractor shall disinfect and install the "Connector Assembly" after completion of testing. Connector Assembly shall not be installed during testing.
2. "Connector Assembly" shall only be installed under supervision of the City Engineer.
3. Weld nozzle and flange shall be installed per Std. 2.19.
4. An extension rod assembly (with rock guards) is required on all valves with the operating nut over 3' in depth from finish surface.
5. Gate valve and nipple assembly shall be tested at 1-1/2 times the normal operating pressure and approved by the City Engineer prior to tapping the existing mainline.

BLOW OFF / FLUSHING ASSEMBLY

FOR USE WITH 2" SERVICE ASSEMBLY

Approved by: *JS Williams* 12-29-06
 Date
 City Engineer R.C.E. 14527

Drawn by: JSWilliams Date: December 14, 2006
 Revised by: JSWilliams Date:
 Effective Date: January 9, 2007



1. Blow Off / Flushing Attachment shall be installed where specified on plan or as directed by City Engineer. 2" Service Assembly per S.D.&S. 2.29 shall be considered as a part of Blow Off / Flushing Assembly unless specifically noted.
2. Install a 1" Meter Box with solid lid per S.D.&S. 2.05, set level or flush with sidewalk and centered on assembly.



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

2.44

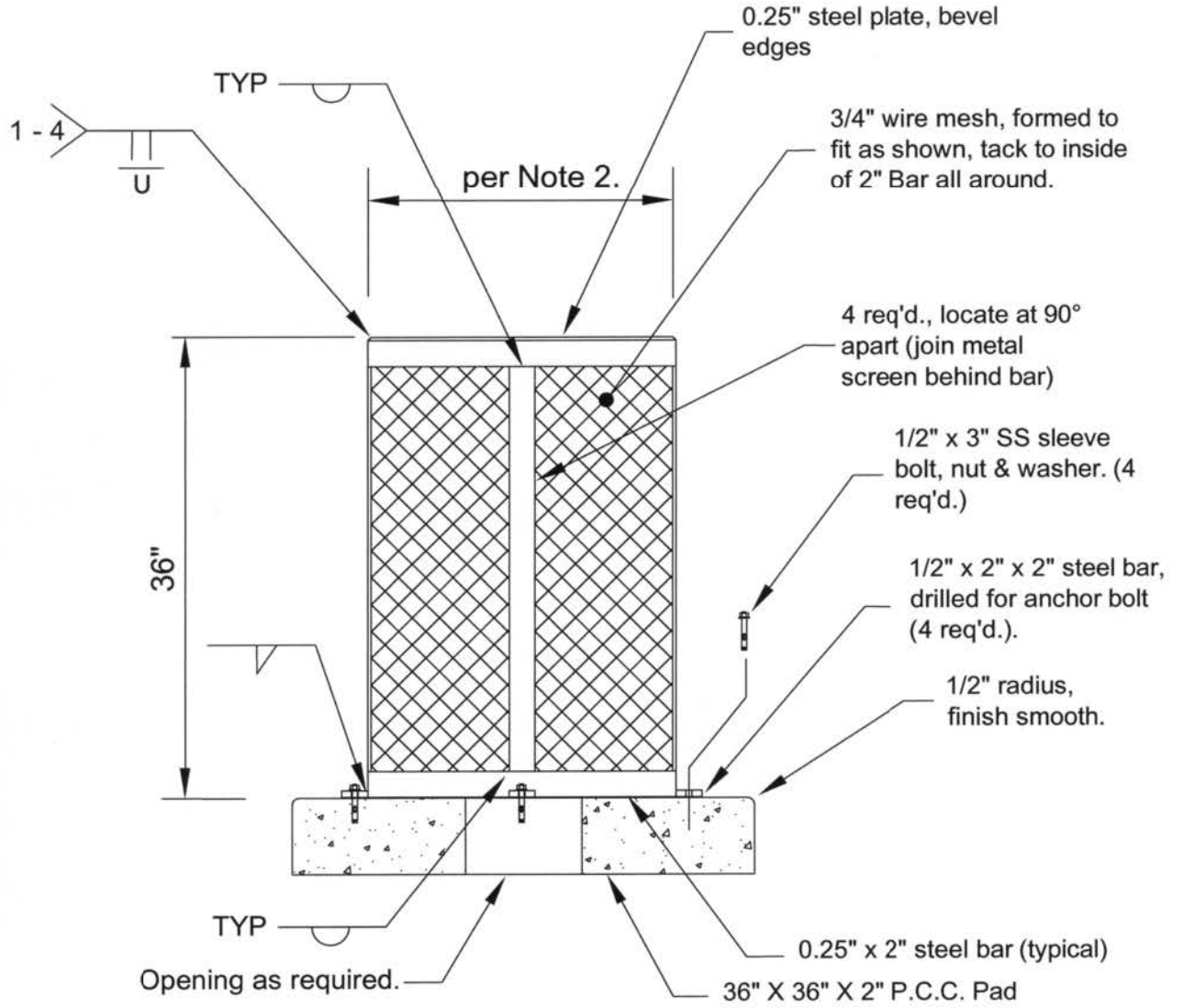
Page 1 of 1

PROTECTIVE COVER - Type II

FOR 2"- 6" AIR VACUUM RELEASE ASSEMBLY

Approved by: *BS Schmidt* 12-28-06
 City Engineer R.C.E. 14524 Date

Drawn by: JWilliams Date: May 2, 2006
 Revised by: JWilliams Date:
 Effective Date: January 9, 2007



ELEVATION

1. Paint all metal surfaces (except bolts) with Forest Green epoxy paint.
2. Use 20" diameter for 1-1/2" to 2" AVR assembly and 24" diameter for 4" to 6" AVR assembly.



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

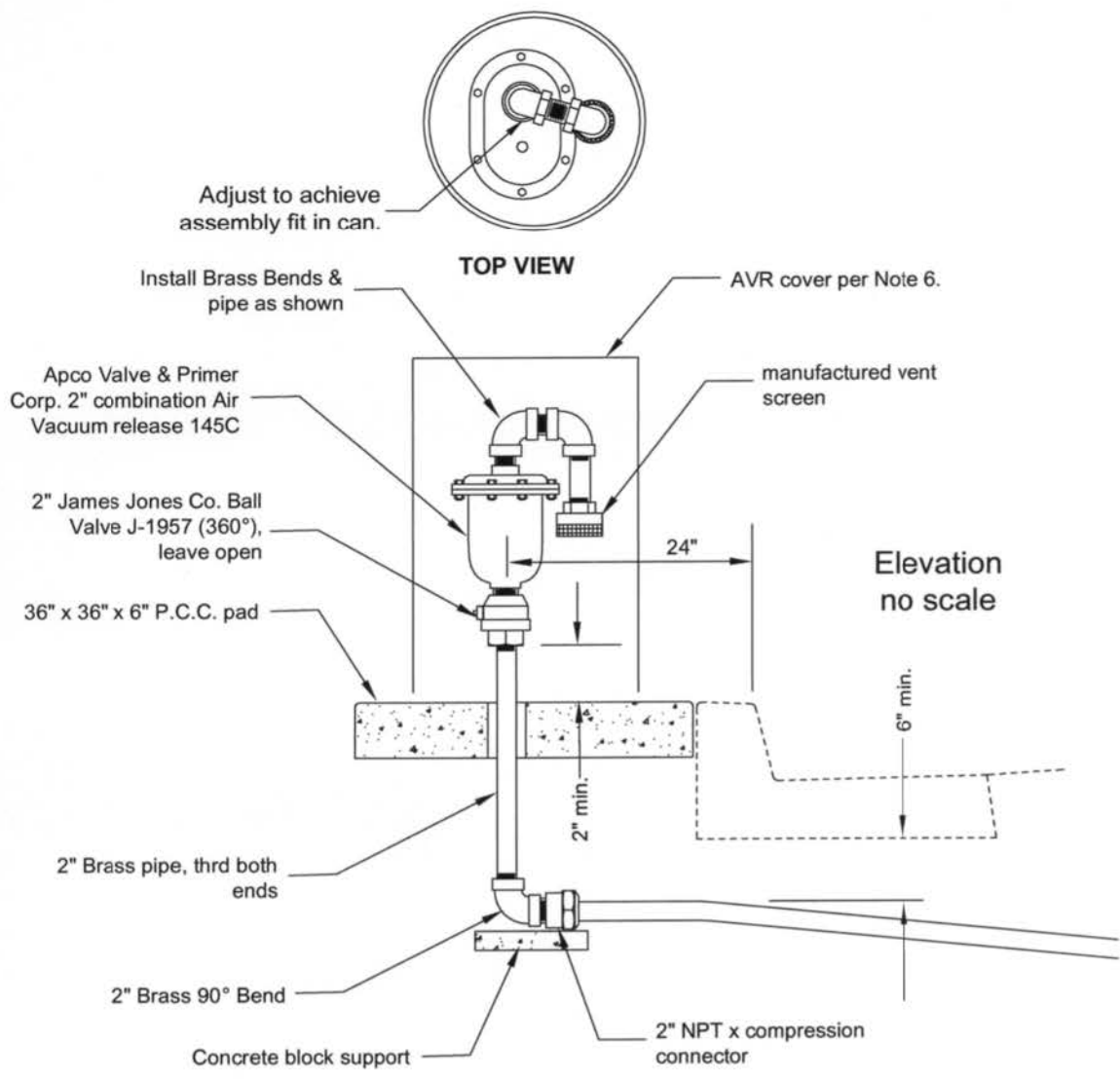
2.45

Page 1 of 1

AIR VACUUM RELEASE ASSEMBLY, 2" FOR DUCTILE IRON / STEEL MAINLINE

Approved by: *D. Williams* Date: *12-29-06*
 City Engineer R.C.E. *14927*

Drawn by: JSWilliams Date: December 18, 2006
 Revised by: Date:
 Effective Date: January 9, 2007



1. Sand backfill (12" minimum) required around all underground pipe and fittings.
2. Minimum clearance of 5' required from driveways & structures.
3. Pipe shall maintain an ascending slope from ball valve to air / vacuum release.
4. Pad shall be level and finished smooth.
5. 2" Brass pipe shall be installed vertically plumb.
6. Protective Cover shall be per S.D.&S. 2.45 (Type II) or Armorcast Products Company 20" x 36" Part No. P6002002 (Sandstone), per plan or as directed.

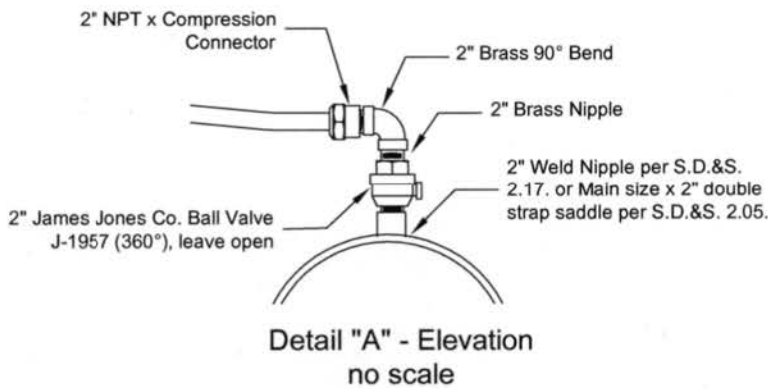
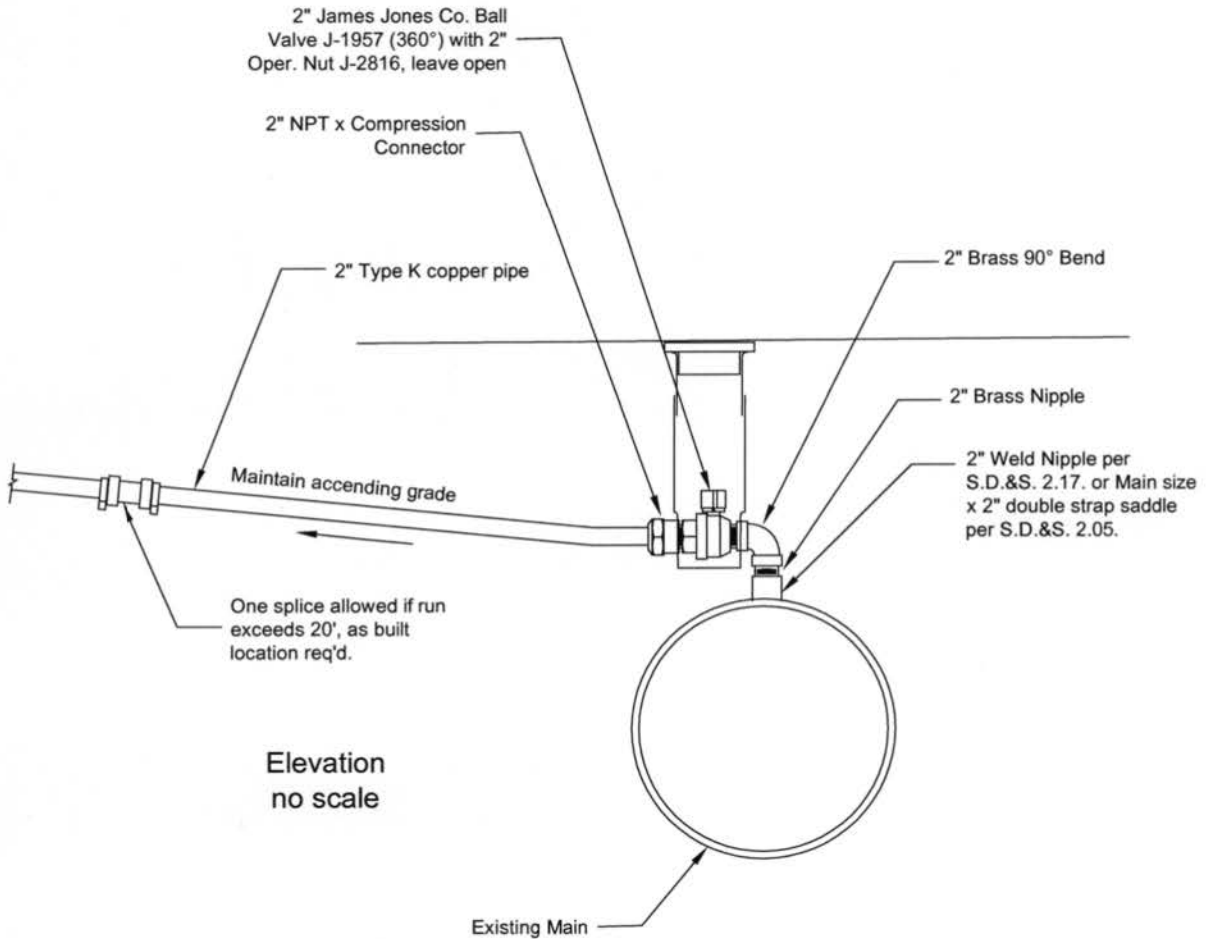


City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS
Adopted for use on Public and Private Improvements

S.P. & S. NO.
2.46
 Page 1 of 2

- 7. P.C.C. Pad for Armorcast cover shall be 24" x 24" x 4".
- 8. Where hot tap is required, install assembly per Detail "A".

Approved by: *De Schell* 12-29-06
 City Engineer R.C.E. 14507 Date



Drawn by: J.S. Williams Date: December 18, 2006
 Revised by: Date:
 Effective Date: January 9, 2007



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

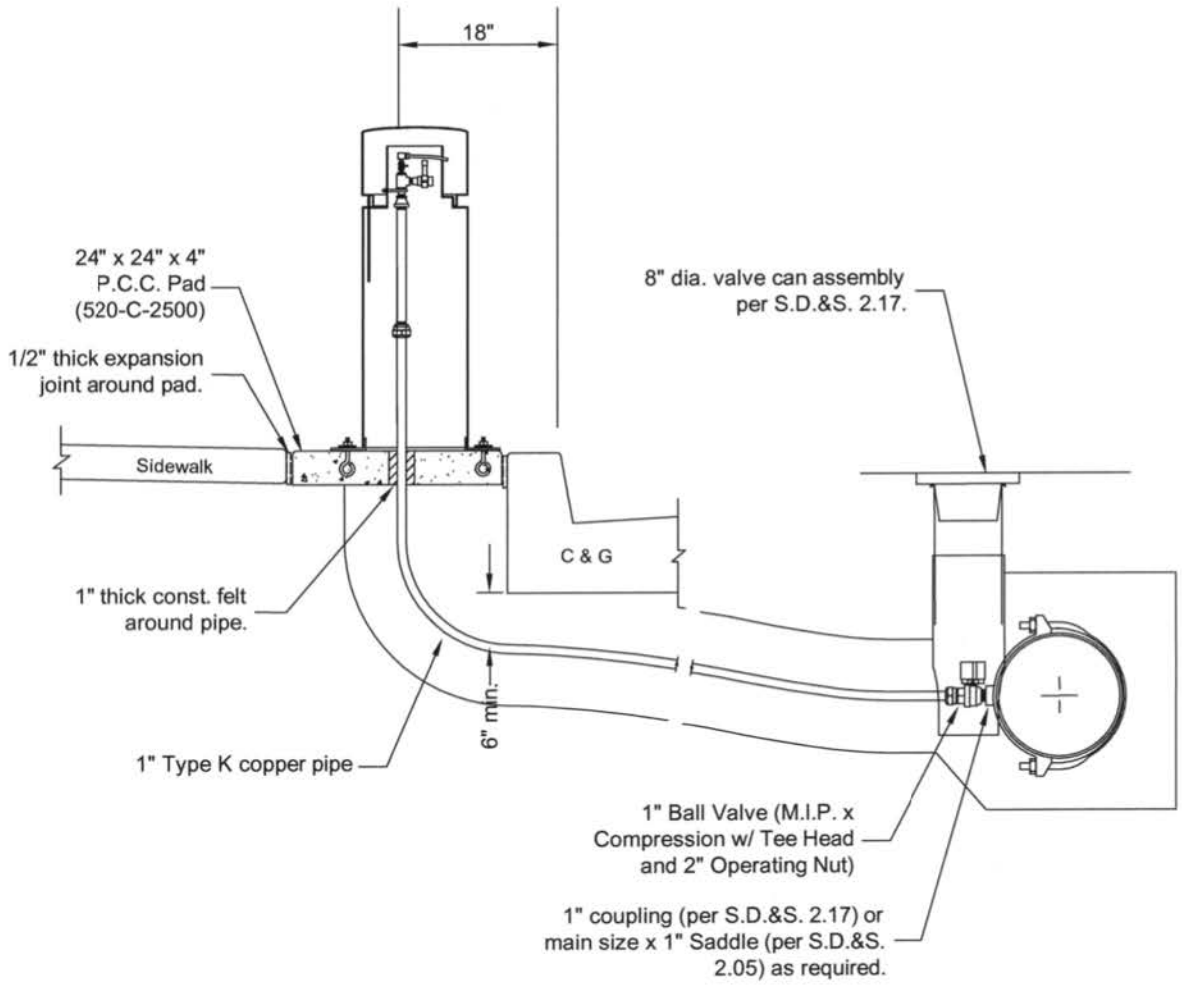
S.P.& S. NO.

2.46

Page 2 of 2

SAMPLE STATION ASSEMBLY, 1"

FOR BACTERIOLOGICAL SAMPLING



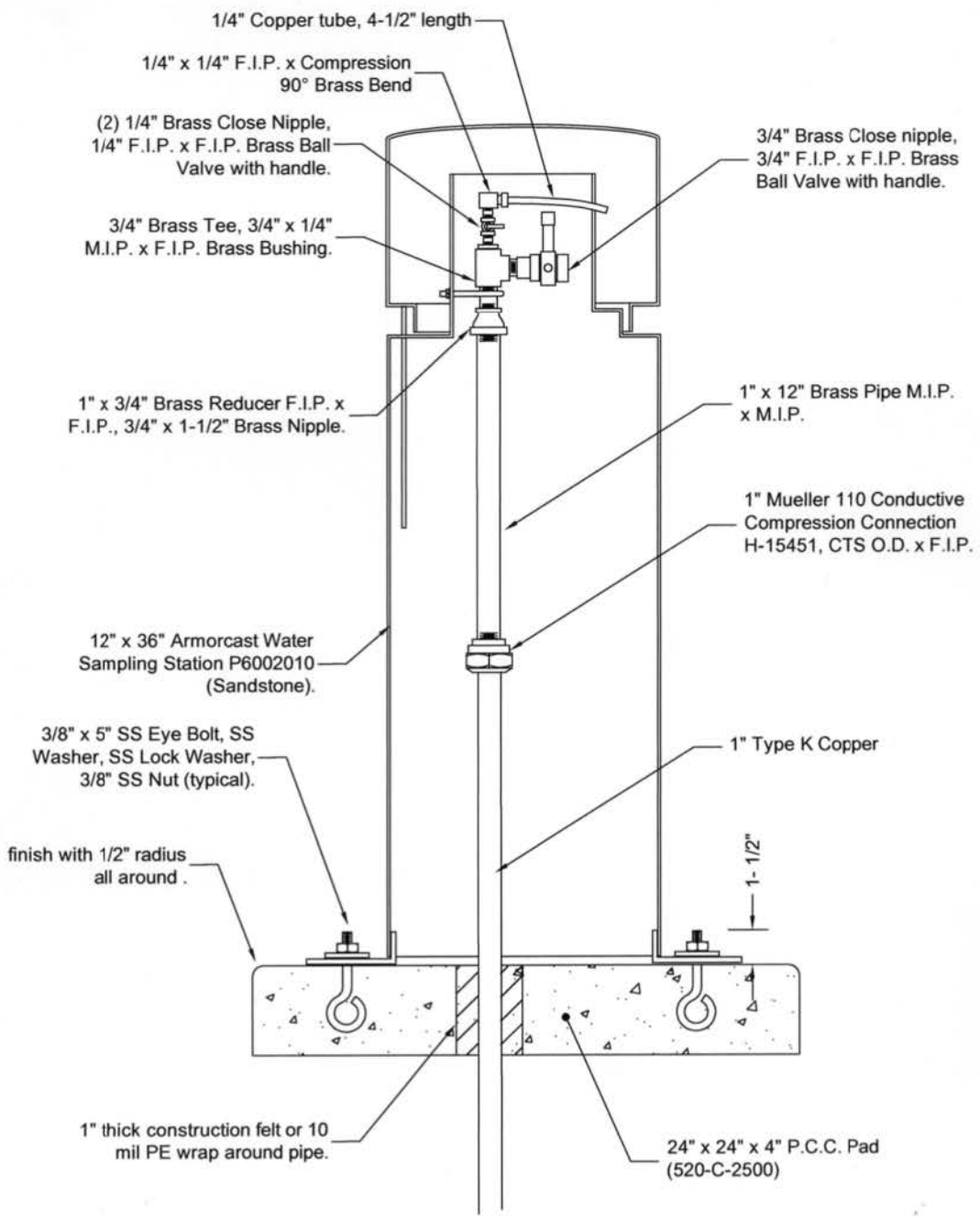
1. Sand backfill (12" minimum) required around all underground pipe and fittings.
2. Minimum clearance of 5' required from driveways & structures.
3. Pipe shall maintain an ascending slope from ball valve to riser.
4. Pad shall be level and finished smooth.
5. Sample station shall be installed vertically plumb.
6. P.C.C. Pad for Sample Station shall be 24" x 24" x 4".

Approved by: *DL Byrd* 12-29-06 Date
 City Engineer R.C.E. 14527

Drawn by: JSWilliams Date: December 22, 2006
 Revised by: Date:
 Effective Date: January 9, 2007

Approved by: *[Signature]* 12-29-06
 Date
 City Engineer R.C.E. 1/5/07

Drawn by: JSWilliams Date: December 22, 2006
 Revised by: Date:
 Effective Date: January 9, 2007



Sample Station Detail Elevation

STANDARD CONSTRUCTION NOTES FOR SEWER CONSTRUCTION

Standard Notes for Sewer Construction

1. All applicable "CITY OF GLENDORA STANDARD DESIGNS & SPECIFICATIONS", latest revisions, are hereby made a part of this plan and all Street improvements shall be in accordance with same.
2. The "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", latest edition, is hereby made a part of this plan.
3. The Contractor shall locate all utilities and monuments of every nature, whether shown hereon or not, and protect them from damage. The Contractor shall bear the total expense of repair or replacement of utilities and monuments damaged or destroyed.
4. The Contractor shall warranty all work for a period of one (1) year from the date of final acceptance by the City and shall be responsible for the repair and or replacement of all failures determined by the City Engineer to be caused by workmanship or substandard materials.
5. Proper shoring barricading, dust control, traffic control per S.D. & S. No. 1.17, and safety measures of every nature shall be maintained at all times.
6. The Contractor shall make application to the City of Glendora and obtain a hydrant meter prior to commencement of construction.
7. The Contractor shall obtain all required permits from the City of Glendora Public Works Department and affected agencies prior to commencement of construction.
8. All laterals (to property line) and wye branches shall be six inches (6") in diameter.
9. Trench backfilling below a plane twelve inches (12") under pavement subgrade shall be compacted to not less than 90% of maximum density. Backfill above said plane shall be compacted to not less than 95% of maximum density. The Contractor shall provide all testing necessary to determine density of trench soils.
10. All backfill shall be clean soil, free from organic material, debris, broken P.C.C., bituminous material or other objectionable substances. An approved bedding material (sand, gravel, crushed aggregate base) shall surround, support and extend to one foot (1') above the top of pipe. Rocks greater than six inches (6") in diameter will not be permitted in backfill between bedding material and one foot (1') below pavement subgrade. Rocks greater than 2-1/2 inch diameter will not be permitted in backfill within one foot of subgrade.
11. The Contractor shall backfill or adequately cover (steel plates and temp. A.C. pavement) all open trenches at the end of each working day.
12. All P.C.C. encasements shall be Class 420-C-2000 (4-1/2 sack mix) concrete.
13. Permanent resurfacing of trenches shall be one inch (1") greater in thickness than existing pavement and one foot (1') wider than the trench on both sides per S.D. & S. No. 1.10.
14. All vitrified clay pipe shall be of mechanical joint "Wedgelock" type design or equal.
15. 24 hour notification is required for all Public Works Inspections. Contact the CITY OF GLENDORA PUBLIC WORKS DEPARTMENT, Monday through Thursday (excluding holidays), 8:00 a.m. to 5:00 p.m., at (626) 914-8246.
16. Prior to breaking into existing structures and before final acceptance of work, the Los Angeles County Sanitation District shall be notified.
17. No connection for the disposal of industrial wastes shall be made to sewers shown hereon unless a PERMIT FOR INDUSTRIAL WASTE WATER DISCHARGE has been issued by the Los Angeles County Sanitation District for said connection.

Approved by: 
City Engineer R.C.E. 29011
Date: 3/20/04

Drawn by: Staff
Revised by: CAG
Effective Date: April 13, 2004
Date: February 20, 1998
Date: March 11, 2004



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

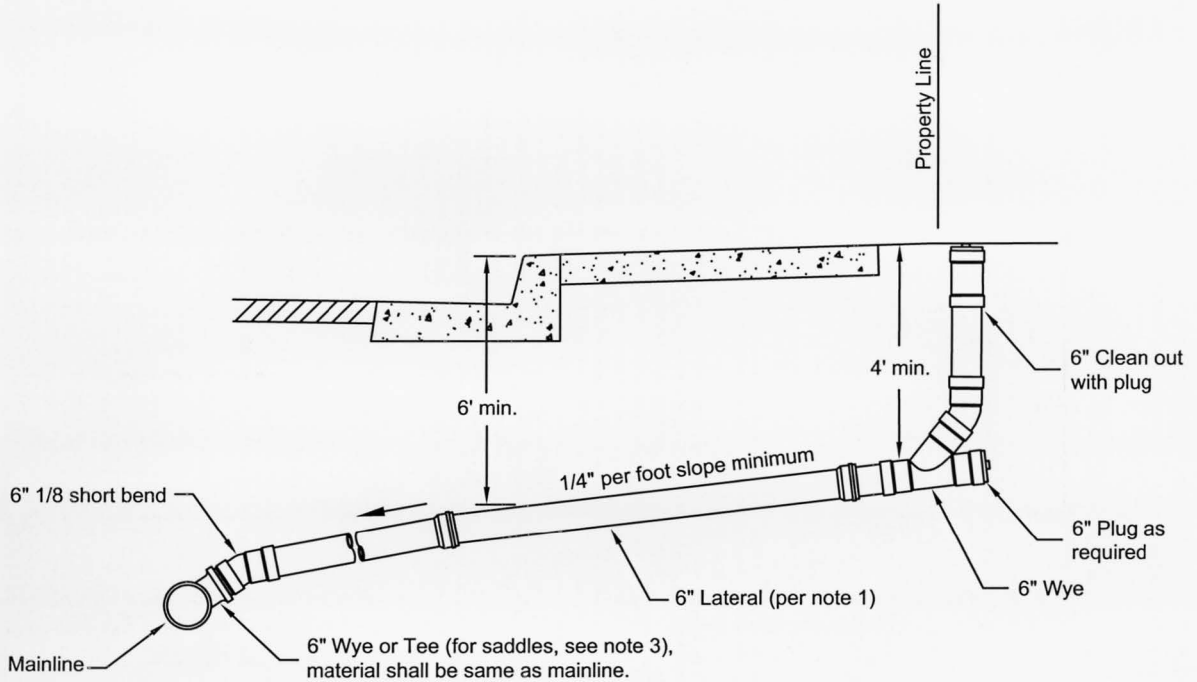
Adopted for use on Public and Private Improvements

S.D. & S. NO.

3.00

Page 1 of 1

SEWER LATERAL



Approved by: *R. Cantrell*
 City Engineer R.C.E.: 29011
 Date: *3/20/04*

Drawn by: Staff
 Date: March 1, 2004
 Revised by: CAG
 Date: March 11, 2004
 Effective Date: April 13, 2004

1. Lateral shall be 6" Sch. 40 PVC or ABS, Ductile Iron Sewer Pipe or Double Strength VCP from mainline to clean out.
2. 6" Wye shall be installed at property line. Cleanout shall be raised to grade and plugged.
3. The Los Angeles County Code, Title 20, Utilities, requires that all saddle connections to the mainline sewer shall be installed by the County Department of Public Works. A copy of the L.A. Co. Department of Public Works "Instructions to sewer contractors for obtaining sewer saddle installation permits" is available at the Public Works counter for review.
4. State of California, Occupational Safety and Health Administration (OSHA) permit must be available at all excavation sites where trench is 5 feet or more in depth.
5. The property owner served by the lateral shall be responsible for all repairs to the lateral and all damages caused by root intrusion into the lateral, including but not limited to damage to public and private property.



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

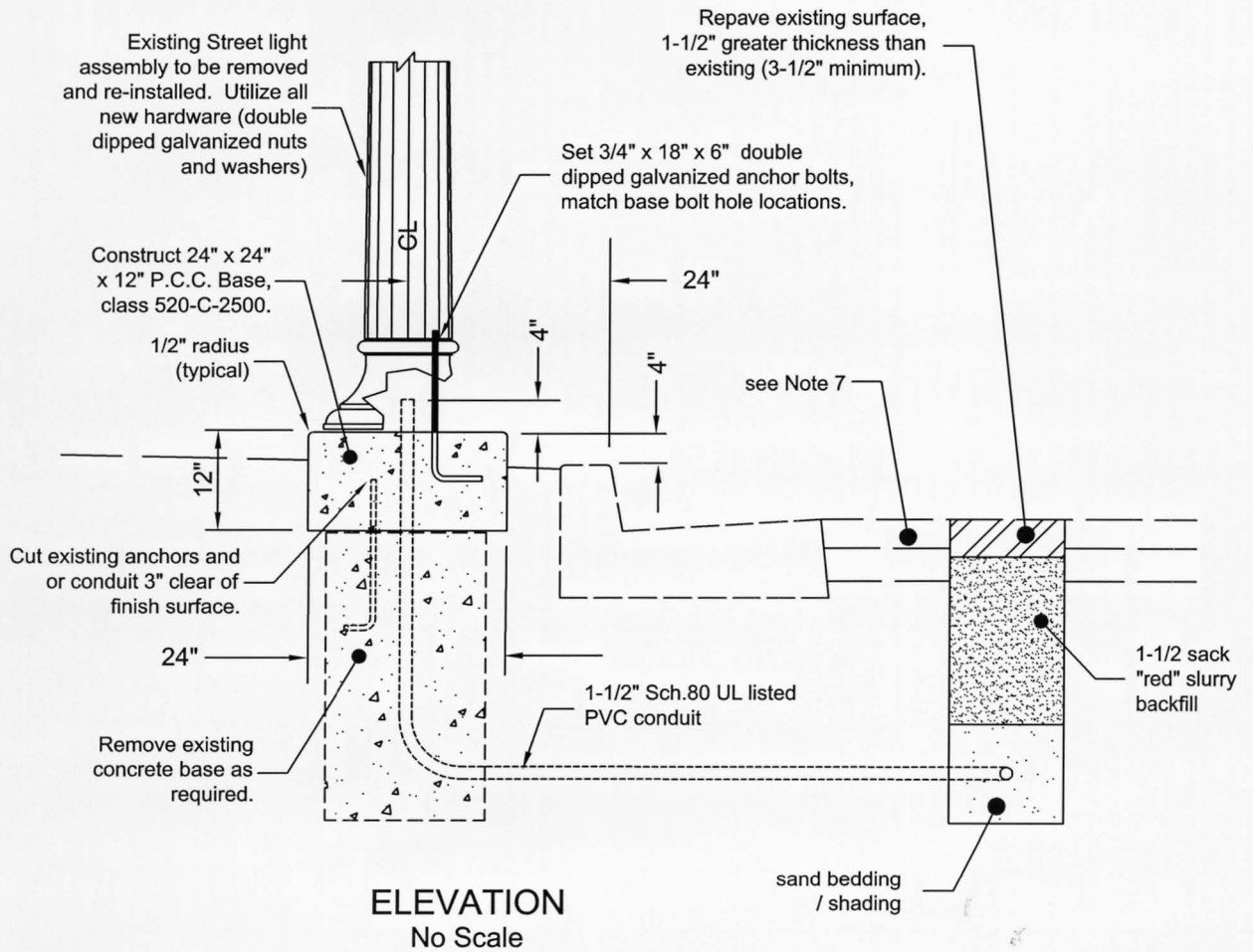
3.01

Page 1 of 1

ORNAMENTAL STREET LIGHT CONDUIT / BASE REPLACEMENT

Approved by: *R. Cantrell* Date: *3/30/04*
 City Engineer R.C.E. 29011

Drawn by: JSWilliams Date: November 28, 2000
 Revised by: JSWilliams Date: March 18, 2004
 Effective Date: April 13, 2004



1. All work shall be in conformance with City of Glendora Water Division requirements and the National Electrical Code (N.E.C.), latest edition.
2. After tightening hold down bolts, install 1/4" bead of silicone exterior grade sealant continuous around base of street light.
3. Provide all required grounding per Article 250 of the National Electrical Code (N.E.C.), latest edition.
4. All exposed P.C.C. shall be finished smooth.



City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

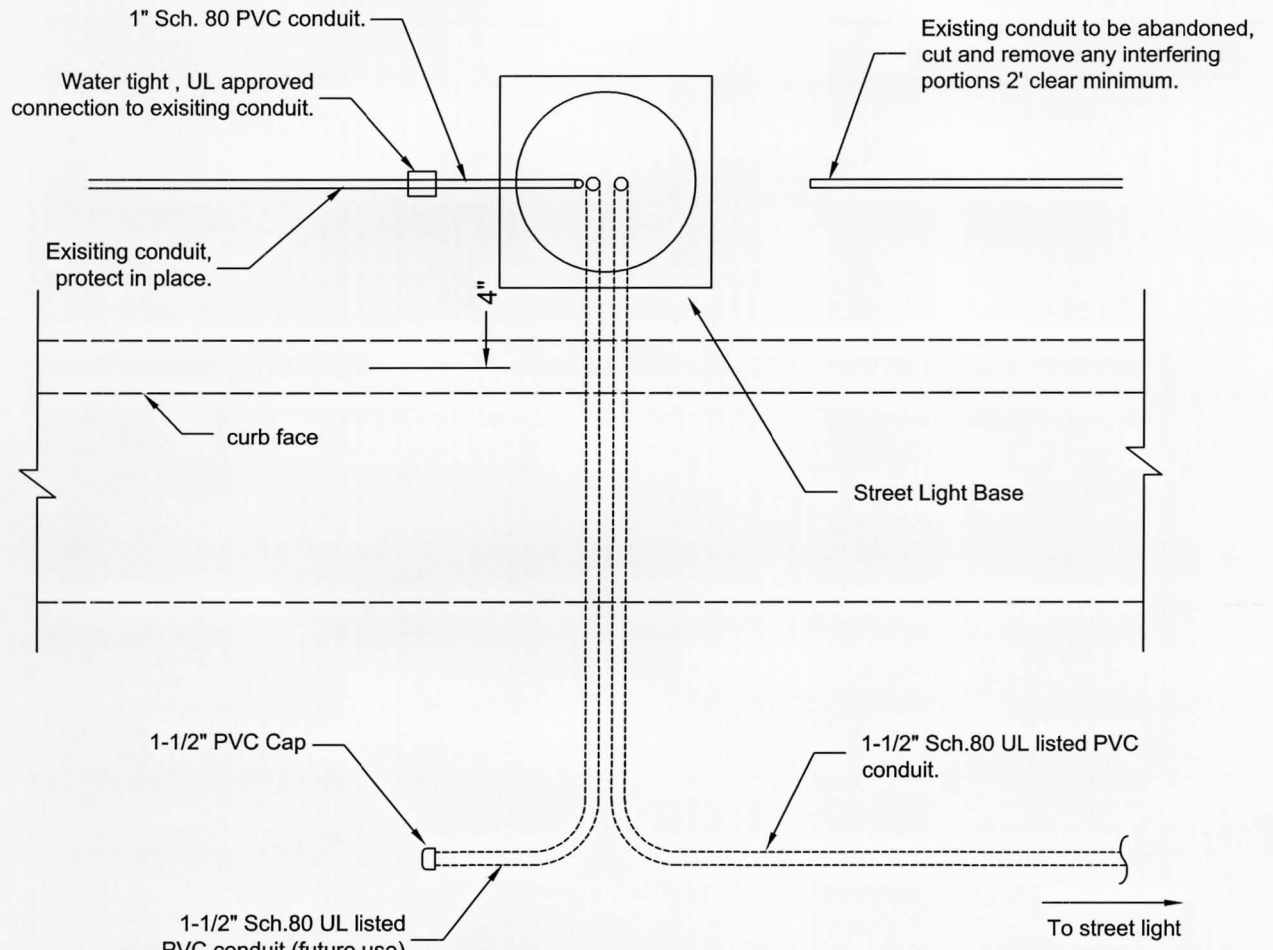
S.D. & S. NO.

4.01

Page 1 of 2

Approved by: *R. Cantwell*
 City Engineer R.C.E. 28011
 Date: *3/30/04*

Drawn by: JSWilliams
 Revised by: JSWilliams
 Effective Date: April 13, 2004
 Date: November 28, 2000
 Date: March 18, 2004



PLAN
 No Scale

- 5. All existing surfaces shall be sawcut.
- 6. Locate centerline of street light base as marked on plan or in field by City. Base shall be a minimum of 5' from driveway (top of "X"), fire hydrants, catch basins and utility poles.
- 7. Locate conduit runs adjacent to gutter where feasible. Trenches within 3' of gutter requires pavement replacement to gutter.

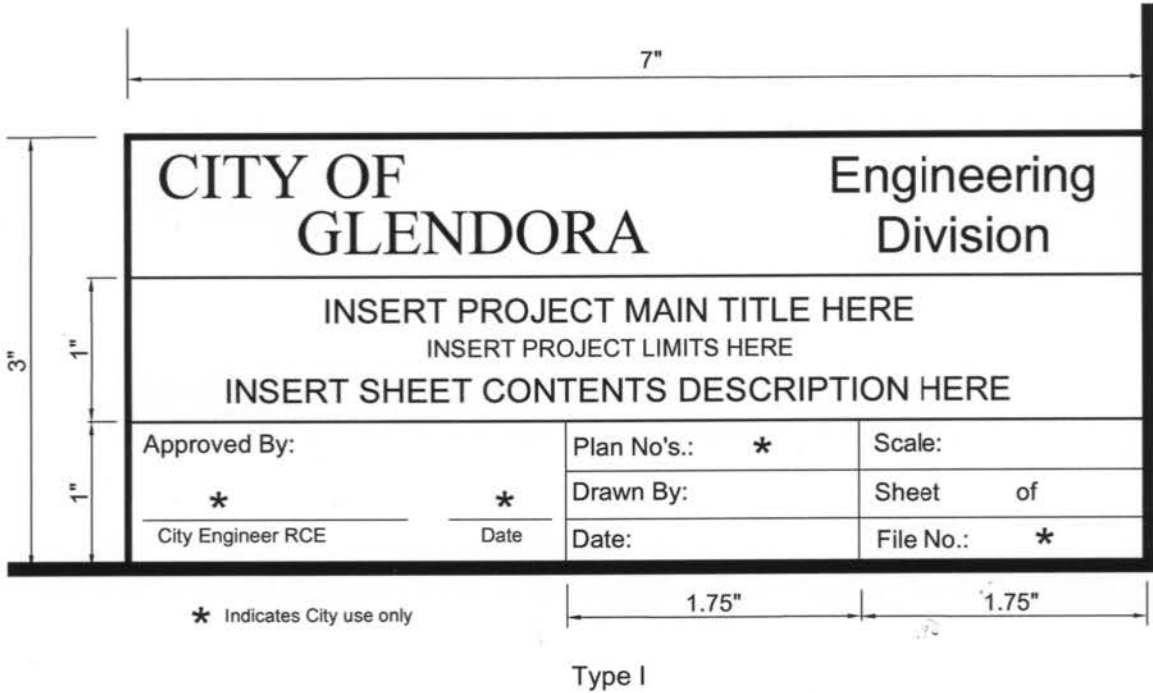


TITLE BLOCK FOR IMPROVEMENT PLANS

1. Place Title block in lower right hand corner of drawing 1/2" from sheet edge. Extend border around at 1/2" from sheet edge (excepting binding edge which may be 1-1/2" max.).
2. For Grading Plans use Type III Title Block. Please note: the City Engineer's signature block reads "Reviewed by", other plans read "Approved by".
3. For Street, Sewer and Storm Drain Improvements, use "Type I" Title Block. For Water Improvements, use "Type II" Title Block. For Grading and Drainage Plans, use "Type III" Title Block.
4. No modifications from the Title Block is allowed without prior approval from the City Engineer.
5. An AutoCAD file of the Title Blocks may be obtained from the Public Works Department.

Approved by:  12-29-06
Date
City Engineer R.C.E. 14523

Drawn by: JSWilliams Date: December 12, 2006
Revised by: JSWilliams Date:
Effective Date: January 9, 2007



Note: Title blocks shown at 3/4 scale.



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

6.01

Page 1 of 2

ENGINEER / CONTRACTOR NOTICE FOR IMPROVEMENT PLANS

Notices hereon shall be shown on all improvement plans.

ENGINEER NOTICE: NO PLAN REVISIONS

ALLOWED WITHOUT PRIOR APPROVAL OF THE CITY ENGINEER.

After signature by the City Engineer, any changes, design revisions or "As-built" revisions to this plan must be submitted and approved by City Engineer prior to any modifications of original(s).

CONTRACTOR NOTICE: NO FIELD CHANGES

ALLOWED WITHOUT PRIOR APPROVAL OF THE CITY ENGINEER.

Where field conditions necessitate a deviation from or modification to the approved plan, the contractor shall stop all work related to or affected by said field conditions. The Project Engineer shall submit design revisions to the City Engineer for review and obtain approval prior to resumption of construction.

Approved by:

R. Cantrell
City Engineer R.C.E. 29011

Date

3/30/04

Drawn by: JSWilliams
Date: February 20, 1998

Revised by: JSWilliams
Date: March 18, 2004

Effective Date: April 13, 2004



City of Glendora
Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.P. & S. NO.

6.02

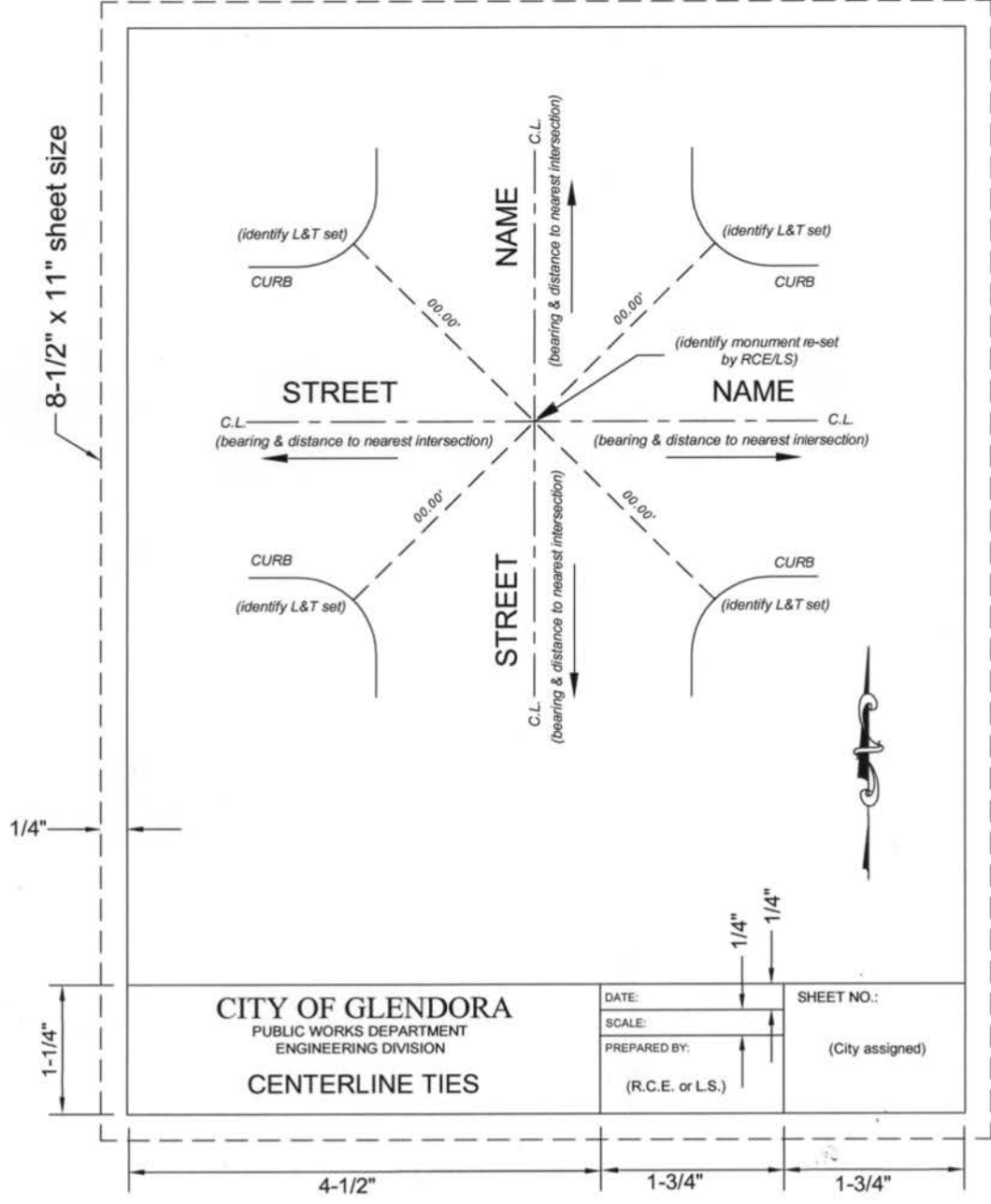
Page 1 of 1

STREET CENTER LINE TIE SHEET

STANDARD LAYOUT

Approved by: *[Signature]* Date: 12-29-06
 City Engineer R.C.E. 14527

Drawn by: JSWilliams Date: September 29, 2006
 Revised by: Date:
 Effective Date: January 9, 2007



1. Adjust street layout for offset intersections, curves, T intersections, etc.
2. In addition to City Centerline Tie, a Corner Record shall be prepared and recorded with the Los Angeles County Recorder (L.A.Co. Recorder format required). Submit recorded copy to City Engineer.

City of Glendora
 Public Works Department
STANDARD DESIGNS & SPECIFICATIONS

Adopted for use on Public and Private Improvements

S.D. & S. NO.

6.03

Page 1 of 1