CITY OF BEVERLY HILLS
CALIFORNIA

STANDARD DETAIL DRAWINGS

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
CIVIL ENGINEERING DIVISION

345 Foothill Road
Beverly Hills, CA 90210
Tel: 310-285-2452
Fax: 310-278-1838
https://www.beverlyhills.org/departments/publicworks/civilengineering/

March 2023
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**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS

ENGINEERING DIVISION

RECOMMENDED_________________________________________ DATE__________________

APPROVED_____________________________________________ DATE__________________

STANDARD DRAWING

BH 000

PROJECT MANAGER

CITY ENGINEER

SHEET 1 OF 3
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CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED __________________________ DATE __________________

WATER RESOURCES MANAGER

APPROVED __________________________ DATE __________________

CITY ENGINEER

STANDARD DRAWING
BH-000

SHEET 2 OF 3
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Section I

Street Improvements
NOTES:
1. DRIVEWAY APPROACH, INCLUDING SIDEWALK SHALL BE CLASS 560-C-3250 PCC MONOLITHIC POUR.
2. ANY EXISTING TRAFFIC OR ELECTRICAL BOXES SHALL BE RELOCATED OUTSIDE OF DRIVEWAY APPROACH.
3. NO PORTION OF A PROPOSED DRIVEWAY APPROACH SHALL BE CONSTRUCTED CLOSER THAN TEN (10) FEET FROM THE CENTER OF ANY CITY TREE WITHOUT A WRITTEN APPROVAL OF THE CITY ARBORIST.
4. DOWELS SHALL BE USED AT EXISTING CURB AND GUTTER. DOWEL HOLE SHALL BE WIRE BRUSHED AND BLOWN FREE OF DEBRIS. EPOXY WILL BE INSERTED, AND DOWEL WILL BE SEATED TO FULL DEPTH OF HOLE. DOWEL SHALL BE 12" IN LENGTH, WITH A 6" EMBEMENTMENT, OR AS DIRECTED BY INSPECTORS.
5. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR "C8" CALIFORNIA CONTRACTOR'S LICENSE.

RESIDENTIAL DRIVEWAY APPROACH
CITY OF BEVERLY HILLS
RESIDENTIAL DRIVEWAY APPROACH SPECIFICATIONS AND GENERAL REQUIREMENTS
IN REFERENCE TO BEVERLY HILLS MUNICIPAL CODE SEC. 8.4-4

Definition: An approach is located between the edge of the gutter and property line. It is composed of sidewalk, an apron, and flairs (see sheet 1 of 2).

1. Any variation from this Driveway Approach Standard must be approved in writing by the City Director of Public Works or their designee. Permits are required for all activities in the public right-of-way.

2. Proposal Plan: A drawing shall be provided by the applicant to include: Width of proposed apron(s), width of proposed transitional flair areas at side of apron(s), measurement to nearest trees, street lights, other curb cuts, location of property line extension at each side of the site, location of any adjacent neighbor or driveway, height of the street curb in front of the property, width of the sidewalk, width of the roadway (landscaped area) and any other useful information.

Note: If the project is part of a work to be performed on a private property, the drawing submitted must be stamped with the approval of the Building and Safety Department prior to issuance of an Engineering Driveway Approach permit.

3. Location: No portion of a driveway approach shall be closer than three feet (3') from any lighting standard, public utility, another driveway, or other device erected in the parkway. Except in single family residential zones, driveway approaches are restricted to access which lead directly to a carport, garage, or parking area located beyond the setback area. Two (2) driveway approaches authorized for any lot or parcel shall not be less than twenty eight feet (28') apart, and each such driveway approach shall be a minimum of two feet (2') from the side property line as measured at the beginning of the full height curb. Any circular driveway shall have a minimum outer radius of twenty six (26') feet. The transportation/engineering official may approve a driveway approach closer to the side property line, or closer to any tree, lighting standard, public utility, another driveway or a device erected in the parkway where necessary to accommodate existing topography or nonremovable objects, such as buildings, walls, trees, or natural rock outcroppings. No portion of a proposed driveway approach shall be constructed closer than ten (10) feet from the center of any city tree without written approval of the City Arborist.

4. Concrete Finish: Approaches shall have a wood float, rotor finish. Sidewalk and curb face shall be troweled and light broom finished. Broken or defective public sidewalk, curb, and gutter adjacent to approaches shall be replaced if found necessary during the inspection of the work by Public Works inspectors.

5. Adjacent Approach: No raised curb will be permitted between two approaches which are adjacent to a common property line and less than 4 feet apart. The approaches shall be continuous. A written consent of adjacent property owner is required to construct a joint approach. Construction of a joint approach includes the removal of the existing adjacent approach and reconstruction of the entire shared approach.

6. Width: The maximum overall width of any residential driveway approach shall not exceed twenty feet (20'), and the maximum width of two (2) adjacent residential driveway approaches which are combined shall not exceed twenty six feet (26'). The minimum overall width of any driveway approach shall be sixteen feet (16'). The transportation/engineering official may approve driveway approaches which vary from the widths designated herein to accommodate existing topography, or nonremovable objects, such as buildings, walls, trees, or natural rock outcroppings. Driveway approach widths shall be the transition distance, measured along the curb, from the full height curb on one side to the opposite side.

Number: Only one driveway approach shall be permitted in any residential zone on any lot or parcel with less than seventy five feet (75') of frontage, or with a front setback of less than twenty five feet (25'); with the exception that a circular driveway requiring two (2) driveway approaches shall be permitted where the parcel frontage is within four percent (4%) of the seventy five feet (75') minimum required for two (2) driveway approaches, and further, that no other deviation from the provisions of this code or discretionary action is required for such circular driveway.

NOTES:
1. DRIVEWAY APPROACH, INCLUDING SIDEWALK SHALL BE CLASS 560-C-3250 PCC MONOLITHIC POUR.
2. ANY EXISTING TRAFFIC OR ELECTRICAL BOXES SHALL BE RELOCATED OUTSIDE OF DRIVEWAY APPROACH.
3. NO PORTION OF A PROPOSED DRIVEWAY APPROACH SHALL BE CONSTRUCTED CLOSER THAN TEN (10) FEET FROM THE CENTER OF ANY CITY TREE WITHOUT A WRITTEN APPROVAL OF THE CITY ARBORIST.
4. DOWELS SHALL BE USED AT CURB AND GUTTER. DOWEL HOLE SHALL BE WIRE BRUSHED AND BLOWN FREE OF DEBRIS. EPOXY WILL BE INSERTED, AND DOWEL WILL BE SEATED TO FULL DEPTH OF HOLE. DOWEL SHALL BE 12" IN LENGTH, WITH A 6" EMBEDMENT, OR AS DIRECTED BY INSPECTORS.
5. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR "C8" CALIFORNIA CONTRACTOR'S LICENSE.

NON-RESIDENTIAL DRIVEWAY APPROACH

REVISIONS

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED DATE 10-21-22
APPROVED DATE 02-22-23

STANDARD DRAWING BH 102 SHEET 1 OF 2
CITY OF BEVERLY HILLS
NON-RESIDENTIAL DRIVEWAY APPROACH SPECIFICATIONS AND GENERAL REQUIREMENTS
IN REFERENCE TO BEVERLY HILLS MUNICIPAL CODE SEC. 8-4-4

Definition: An approach is located between the edge of the gutter and property line. It is composed of sidewalk, apron and flairs (see sheet 1 of 2).

1. Any variation from this Driveway Approach Standard must be approved in writing by the City Director of Public Works or their designee. Permits are required for all activities in the public right-of-way.

2. Proposal Plan: A drawing shall be provided by the applicant to include: Width of proposed apron(s), width of proposed transitional flair areas at side of apron(s), measurement to nearest trees, street lights, other curb cuts, location of property line extension at each side of the site, location of any adjacent neighboring approach, height of the street curb in front of the property, width of the sidewalk, width of the roadway (landscaped area) and any other useful information.
   Note: If the project is part of a work to be performed on a private property, the drawing submitted must be stamped with the approval of the Building and Safety Department prior to issuance of an Driveway Approach permit.

3. Location: No portion of a driveway approach shall be closer than three feet (3’) from any lighting standard, public utility, another driveway, or other device erected in the roadway. Except in single family residential zones, driveway approaches are restricted to access which lead directly to a carport, garage, or parking area located beyond the setback area. Two (2) driveway approaches authorized for any lot or parcel shall not be less than twenty eight feet (28’) apart, and each such driveway approach shall be a minimum of two feet (2’) from the side property line as measured at the beginning of the full height curb. Any circular driveway shall have a minimum outer radius of twenty six (26’) feet. The transportation/engineering official may approve a driveway approach closer to the side property line, or closer to any tree, lighting standard, public utility, another driveway or a device erected in the roadway where necessary to accommodate existing topography or nonremovable objects, such as buildings, walls, trees, or natural rock outcroppings. No portion of a proposed driveway approach shall be constructed closer than ten (10) feet from the center of any city tree without written approval of the City Arborist.

4. Concrete Finish: Approaches shall have a wood float, rotor finish. Sidewalk and curb face shall be troweled and light broom finished. Broken or defective public sidewalk, curb, and gutter adjacent to approaches shall be replaced if found necessary during the inspection of the work by Public Works inspectors.

5. Adjacent Approach: No raised curb will be permitted between two approaches which are adjacent to a common property line and less than 4 feet apart. The approaches shall be continuous. A written consent of adjacent property owner is required to construct a joint approach. Construction of a joint approach includes the removal of the existing adjacent approach and reconstruction of the entire shared approach.

6. Width: The maximum overall width of any non-residential driveway approach shall not exceed forty feet (40’). The minimum overall width of any driveway approach shall be sixteen feet (16’). The transportation/engineering official may approve driveway approaches which vary from the widths designated herein to accommodate existing topography, or nonremovable objects, such as buildings, walls, trees, or natural rock outcroppings. Driveway approach widths shall be the transition distance, measured along the curb, from the full height curb on one side to on the opposite side.


NON-RESIDENTIAL DRIVEWAY APPROACH

| REVISIONS |
| MARK | DATE | DESCRIPTION |

RECOMMENDED: [Signature] DATE: 10-21-22
APPROVED: [Signature] DATE: 02-22-23
CASE 5

Curb Ramps

City of Beverly Hills, California
Department of Public Works
Engineering Division

Recommended Date: 9-22-20

Approved Date: 9-22-20

 STANDARD DRAWING BH 103 SHEET 3 OF 4
1. CONCRETE SHALL BE CLASS 560-C-3250 AND SHALL BE 4" THICK OVER 4" CRUSHED MISCELLANEOUS BASE AT 90% RELATIVE COMPACTION.

2. CURB RAMPS SHALL HAVE A RECESSED CAST IN PLACE YELLOW DETECTABLE WARNING SURFACE (PLATE) THAT EXTENDS THE FULL WIDTH AND 3' DEPTH OF THE RAMP. EDGES SHALL BE FLUSH WITH THE SURFACE OF THE RAMP. SEE DETECTABLE WARNING DETAIL FOR SIZE AND PATTERN. THE EDGE OF THE DETECTABLE WARNING NEAREST TO THE STREET SHALL BE BETWEEN 6" AND 8" FROM THE GUTTER FL.

3. UTILITY PULL BOXES, MANHOLES, VAULTS AND OTHER UTILITY FACILITIES WITHIN THE BOUNDARIES OF THE CURB RAMP SHALL BE RELOCATED BY THE OWNER PRIOR TO, OR IN CONJUNCTION WITH, THE CONSTRUCTION OF THE RAMP.

4. TRANSITIONS FROM RAMPS AND LANDINGS TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.

5. MAXIMUM SLOPES OF ADJOINING GUTTERS, THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP OR ACCESSIBLE ROUTE SHALL NOT EXCEED 5 PERCENT WITHIN 48" OF THE TOP AND BOTTOM OF CURB RAMP.

6. IF DISTANCE FROM CURB TO BACK OF SIDEWALK IS TOO SHORT TO ACCOMMODATE RAMP AND 4' - 0" LANDING AS SHOWN IN CASE 1 AND CASE 2, THE SIDEWALK MAY BE DEPRESSED LONGITUDINALLY AS IN CASE 5.

7. AS SITE CONDITIONS DICTATE, THE RETAINING CURB SIDE AND THE FLARED SIDE OF CASE 4 RAMP MAY BE CONSTRUCTED IN REVERSE POSITION.

8. IF LOCATED ON A CURVE, THE SIDES OF THE RAMP NEED NOT BE PARALLEL, BUT THE MINIMUM WIDTH OF THE RAMP AT ANY POINT SHALL BE 4' - 0".

9. DOWEL SHALL BE USED AT EXISTING CURB AND GUTTER. DOWEL HOLE SHALL BE WIRE BRUSHED AND BLOWN FREE OF DEBRIS. EPOXY WILL BE INSTALLED, AND DOWEL WILL BE SEATED TO FULL DEPTH OF HOLE. DOWEL SHALL BE 12" IN LENGTH, WITH A 6" EMBEDMENT, OR AS DIRECTED BY INSPECTORS.

10. CURB RAMPS SHALL BE A MONOLITHIC POUR.

11. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR "C8" CALIFORNIA CONTRACTOR'S LICENSE.

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### CURB RAMPS

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CITY OF BEVERLY HILLS, CALIFORNIA  
DEPARTMENT OF PUBLIC WORKS  
ENGINEERING DIVISION  

RECOMMENDED DATE 9-22-20  
APPROVED DATE 9-22-20  

STANDARD DRAWING BH 103  
SHEET 4 OF 4
NOTES:

1. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE DETAIL AND/OR PLANS AND SHALL BE FORMED BY CUTTING A GROOVE IN THE PAVEMENT WITH A POWER DRIVEN SAW. THE GROOVE FOR A TRANSVERSE JOINT SHALL BE CUT TO A MINIMUM DEPTH OF 1-1/2" OR ONE-SIXTH OF THE PAVEMENT THICKNESS, WHICHEVER IS GREATER; THE GROOVE FOR A LONGITUDINAL JOINT SHALL BE CUT TO A MINIMUM DEPTH OF 1-1/2" OR ONE-FOURTH OF THE PAVEMENT THICKNESS, WHICHEVER IS GREATER, AND THE WIDTH SHALL BE THE MINIMUM WIDTH POSSIBLE WITH THE SAW BEING USED, BUT SHALL NOT EXCEED 1/4".

2. COLD JOINT SHALL BE CONSTRUCTED PER THE KEY DETAIL ON BH-105 AT LOCATIONS SHOWN ON THIS DRAWING AND/OR ON THE PLANS.

3. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT REGULAR INTERVALS NOT EXCEEDING 2.5' IN WALKS AND 20' IN GUTTERS. JOINTS IN CURB, GUTTER, AND WALK SHALL BE ALIGNED.

4. CURB AND GUTTER SHALL BE CONSTRUCTED SEPARATELY FROM SIDEWALK.

5. SIDEWALK AND CURBFACE SHALL BE TROWELED AND LIGHT BROOM FINISHED.

6. SIDEWALK, CURB AND GUTTER SHALL BE CONSTRUCTED OF CLASS 560-C-3250 PCC.

7. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK").

8. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR "C8" CALIFORNIA CONTRACTOR'S LICENSE.

9. EXPANSION JOINTS ARE REQUIRED IN SOME AREAS, AND AROUND SOME UTILITY POLES OR HYDRANTS.
EXISTING CONCRETE
SLOPE TO BE ONE TO ONE
NEW CONCRETE
4"

COMPACTED SUBGRADE. MINIMUM 90% RELATIVE COMPACTION.
CRUSHED MISCELLANEOUS BASE. MINIMUM 90% RELATIVE COMPACTION.
8"

KEY DETAIL
(NEW TO EXISTING)

W (4' MIN.)
(WIDTH TO MATCH ADJOINING WALK)

LONGITUDINAL WPJ PER STANDARD DRAWING BH 104
2.00% (MAX.) CROSS SLOPE - TO STREET

CRUSHED MISCELLANEOUS BASE. MINIMUM 90% RELATIVE COMPACTION.
COMPACTED SUBGRADE. MINIMUM 90% RELATIVE COMPACTION.
4"

STANDARD SIDEWALK SECTION

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED DATE 8/3/21
APPROVED DATE 3/30/22

STANDARD DRAWING BH 105
SHEET 1 OF 2
NOTES:

1. SIDEWALK SHALL BE CONSTRUED OF CLASS 560-C-3250 PCC.
2. SEE BH 104 FOR JOINT LOCATION PLACEMENT.
3. CRUSHED MISCELLANEOUS BASE TO BE APPROVED BY THE CITY ENGINEER.
4. SIDEWALK SHALL BE TROWLED AND LIGHT BROOM FINISHED.
5. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK").
6. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR "C8" CALIFORNIA CONTRACTOR'S LICENSE.
RESIDENTIAL INTEGRAL CURB AND GUTTER SECTION

NOT TO SCALE

NOTES:
1. CURB AND GUTTER SHALL BE CONSTRUCTED OF CLASS 560-C-3250 PCC.

2. CURB FACE SHALL BE AS DESIGNED OR MATCH EXISTING.

3. GUTTER WIDTH, W, SHALL MATCH EXISTING OR 24" MINIMUM, UNLESS OTHERWISE SPECIFIED.

4. AFTER THE CONCRETE HAS BEEN THOROUGHLY TAMPELED TO FORCE THE LARGER AGGREGATE INTO THE CONCRETE AND BRING TO THE TOP SUFFICIENT FREE MORTAR FOR FINISHING, THE SURFACE SHALL BE WORKED TO A TRUE AND EVEN GRADE BY MEANS OF A FLOAT, TROWELED WITH A LONG HANDLED TROWEL OR "FRESNO", AND WOOD-FLOAT FINISHED. THE FLOWLINE OF THE GUTTER SHALL BE TROWELED SMOOTH FOR A WIDTH OF 4 INCHES ("SHINER").

5. DOWELS SHALL BE USED AT EXISTING CURBS AND GUTTER. DOWEL HOLE SHALL BE WIRE BRUSHED AND BLOWN FREE OF DEBRIS. EPOXY WILL BE INSERTED, AND DOWEL WILL BE SEATED TO FULL DEPTH OF HOLE. DOWEL SHALL BE 12" IN LENGTH, WITH A 6" EMBEDMENT, OR AS DIRECTED BY INSPECTORS.

6. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK").

7. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR "C8" CALIFORNIA CONTRACTOR'S LICENSE.

RESIDENTIAL INTEGRAL CURB AND GUTTER DETAIL

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED

APPROVED

STANDARD DRAWING
BH 106

MARK DATE DESCRIPTION

RECOMMENDED DATE 9/7/21
APPROVED DATE 3/30/22

SHEET 1 OF 1
NOTES:
1. CURB AND GUTTER SHALL BE CONSTRUCTED OF CLASS 560-C-3250 PCC.
2. CURB FACE SHALL BE AS DESIGNED OR MATCH EXISTING.
3. GUTTER WIDTH, W, SHALL MATCH EXISTING OR 24" MINIMUM, UNLESS OTHERWISE SPECIFIED.
4. AFTER THE CONCRETE HAS BEEN THOROUGHLY TAMPED TO FORCE THE LARGER AGGREGATE INTO THE CONCRETE AND BRING TO THE TOP SUFFICIENT FREE MORTAR FOR FINISHING, THE SURFACE SHALL BE WORKED TO A TRUE AND EVEN GRADE BY MEANS OF A FLOAT, TROWELED WITH A LONG HANDLED TROWEL OR "FRESNO", AND WOOD-FLOAT FINISHED. THE FLOWLINE OF THE GUTTER SHALL BE TROWELED SMOOTH FOR A WIDTH OF 4 INCHES ("SHINNER").
5. DOWELS SHALL BE USED AT EXISTING CURBS AND GUTTER. DOWEL HOLE SHALL BE WIRE BRUSHED AND BLOWN FREE OF DEBRIS. EPOXY WILL BE INSERTED, AND DOWEL WILL BE SEATED TO FULL DEPTH OF HOLE. DOWEL SHALL BE 12" IN LENGTH, WITH A 6" EMBEDMENT, OR AS DIRECTED BY INSPECTORS.
6. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK").
7. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR "C8" CALIFORNIA CONTRACTOR'S LICENSE.
ALLEY APPROACH DETAIL

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED  DATE 10/21/21
APPROVED  DATE 3/30/22

NOTES:
1. CURB RETURN RADIUS, R, SHALL BE 5' TYPICAL, UNLESS OTHERWISE SPECIFIED.
2. TOP OF CURB ELEVATIONS SHALL MATCH EXISTING SIDEWALK ELEVATIONS.
3. ALLEY APPROACH WITH A SLOPE EXCEEDING 16.66% SLOPE SHALL REQUIRE A SPECIAL PERMIT FROM THE TRANSPORTATION/ENGINEERING OFFICIAL.
4. ACTUAL SHAPE AND LOCATION OF ALLEY APPROACH SHALL BE DETERMINED IN THE FIELD BY THE PUBLIC WORKS INSPECTOR.
5. ALLEY APPROACH AND NEW SIDEWALK WITHIN ALLEY APPROACH SHALL BE A CLASS 560-C-3250 8" THICK MONOLITHIC POUR OVER 6" CRUSHED MISCELLANEOUS BASE AT 95% RELATIVE COMPACTION.
6. DOWELS SHALL BE USED AT EXISTING CURBS AND GUTTER. DOWEL HOLE SHALL BE WIRE BRUSHED AND BLOWN FREE OF DEBRIS. EPOXY WILL BE INSERTED, AND DOWEL WILL BE SEATED TO FULL DEPTH OF HOLE. DOWEL SHALL BE 12" IN LENGTH, WITH A 6" EMBEDMENT, OR AS DIRECTED BY INSPECTORS.
7. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR "C8" CALIFORNIA CONTRACTOR'S LICENSE.
<table>
<thead>
<tr>
<th>W</th>
<th>8'</th>
<th>10'</th>
<th>15'</th>
<th>20'</th>
<th>25'</th>
<th>30'</th>
</tr>
</thead>
<tbody>
<tr>
<td>d1, MAX</td>
<td>4&quot;</td>
<td>5&quot;</td>
<td>7.5&quot;</td>
<td>10&quot;</td>
<td>12.5&quot;</td>
<td>15&quot;</td>
</tr>
<tr>
<td>d2, MIN</td>
<td>2&quot;</td>
<td>3&quot;</td>
<td>3&quot;</td>
<td>3&quot;</td>
<td>3&quot;</td>
<td>3&quot;</td>
</tr>
</tbody>
</table>

SECTION A-A
NOT TO SCALE

SECTION B-B
NOT TO SCALE

6" CRUSHED MISCELLANEOUS BASE, 95% RELATIVE COMPACTION (THROUGHOUT)

FLOW LINE

ALLEY APPROACH DETAIL
Curb & Gutter Section

NOT TO SCALE

Cut existing curb on vertical line to entire depth, reconstruct to scoreline if nearest scoreline is less than 4' (typ.)

18" min. (typ.)

C.I. Pipe
(4" max. o.d.)

1/2" min. clearance

2-#3 bar - 18" long centered over drain

6"

R=1/4"

C.I. Pipe
(4" max. o.d.)

1/2" min. clearance

Elevation "A-A"

NOT TO SCALE

Remove & reconstruct curb & gutter

36" min.

1/4"

Hike up 1" per 1' of gutter width

Batter 1:12

Flowline

6"

6"

R=3/4"

Notes:
1. Minimum curb break and reconstruction is 3'0" in length.
2. Curb & gutter shall be class 560-C-3250 PCC monolithic pour.
3. For multiple curb drains, spacing between C.I. pipes shall be a minimum of 6" O.C.
4. 3" pipe in 6" curb is allowed by coring.
5. Dowels shall be used at existing curbs and gutter. Dowel hole shall be wire brushed and blown free of debris. Epoxy will be inserted, and dowel will be seated to full depth of hole. Dowel shall be 12" in length, with a 6" embedment, or as directed by inspectors.
6. All work shall be constructed in accordance with the current standard specifications for public works construction ("greenbook").
7. Contractor shall have a valid class "A" or "C8" California contractor's license.

4" Curb Drain in 6" Curb

City of Beverly Hills, California
Department of Public Works
Engineering Division

Recommended by: [Signature]
Date: 9/7/21

Approved by: [Signature]
Date: 3/30/22

Standard Drawing BH 109
Sheet 1 of 1
NOTES:
1. LONGITUDINAL GUTTER SHALL BE CLASS 560-C-3250 PCC.

2. LITE BROOM FINISH WITH 8" SHINER ALONG FLOWLINE, FIELD VERIFY SIZE WITH INSPECTION.

3. DOWELS SHALL BE USED AT EXISTING GUTTERS, DOWEL HOLE SHALL BE WIRE BRUSHED AND BLOWN FREE OF DEBRIS. EPOXY WILL BE INSERTED, AND DOWEL WILL BE SEATED TO FULL DEPTH OF HOLE. DOWEL SHALL BE 12" IN LENGTH, WITH A 6" EMBEDMENT, OR AS DIRECTED BY INSPECTORS.

4. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK").

5. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR "C8" CALIFORNIA CONTRACTOR'S LICENSE.

6. CONTROL JOINTS SHALL BE PLACED AT 10 FOOT INTERVALS FOR FULL LENGTH OF LONGITUDINAL GUTTER.
# Flowline Layout Table Dimensions

<table>
<thead>
<tr>
<th>Dimension Variable</th>
<th>27' Manhole/Ring</th>
<th>28' Manhole/Ring</th>
<th>29' Manhole/Ring</th>
<th>37' Manhole/Ring</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - Offset</td>
<td>4'-3(\frac{1}{2})'</td>
<td>4'-3(\frac{1}{2})'</td>
<td>4'-4(\frac{1}{2})'</td>
<td>5'-0(\frac{1}{2})'</td>
</tr>
<tr>
<td>B - Ref. Angle</td>
<td>30°</td>
<td>30°</td>
<td>30°</td>
<td>30°</td>
</tr>
<tr>
<td>D - Outer Edge of Ring</td>
<td>2'-3&quot;</td>
<td>2'-4&quot;</td>
<td>2'-5&quot;</td>
<td>3'-1&quot;</td>
</tr>
<tr>
<td>E - From Point 'X' To Point 'Y'</td>
<td>1'-8(\frac{1}{2})'</td>
<td>1'-8(\frac{1}{2})'</td>
<td>1'-8(\frac{1}{2})'</td>
<td>1'-8(\frac{1}{2})'</td>
</tr>
<tr>
<td>F</td>
<td>20(\frac{1}{4})'</td>
<td>20(\frac{1}{4})'</td>
<td>20(\frac{1}{4})'</td>
<td>22(\frac{1}{2})'</td>
</tr>
<tr>
<td>G - Offset</td>
<td>4'-6(\frac{1}{2})'</td>
<td>4'-7(\frac{1}{2})'</td>
<td>4'-8(\frac{1}{2})'</td>
<td>5'-4(\frac{1}{2})'</td>
</tr>
<tr>
<td>H</td>
<td>7'</td>
<td>7'</td>
<td>7'</td>
<td>9(\frac{1}{2})'</td>
</tr>
<tr>
<td>J</td>
<td>13(\frac{3}{4})'</td>
<td>14'</td>
<td>14(\frac{1}{4})'</td>
<td>16(\frac{1}{4})'</td>
</tr>
</tbody>
</table>

**Case 1 (2'-0" Longitudinal Gutter)**

For layout line intersection use "A" offset to construct the flowline intersection typical both sides of manhole.

**Notes:**
1. All concrete is to be Class 560-C-3250 PCC.
2. All work shall be constructed in accordance with the current standard specifications for Public Works Construction ("Greenbook").
3. Contractor shall have a valid Class "A" or "C8" California Contractor’s License.
4. Dimensions "F", "H", and "J" are symmetrical about centerline of manhole.

**SECTION A-A**

**Longitudinal Alcay Gutter at Manhole**

**Revisions**

<table>
<thead>
<tr>
<th>Mark</th>
<th>Date</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>!</td>
<td>9/14/2021</td>
<td>REV. DIMS</td>
</tr>
</tbody>
</table>

**CITY OF BEVERLY HILLS, CALIFORNIA**

**Department of Public Works**

**Engineering Division**

**Recommended**

**Approved**

**Standard Drawing**

**BH 112**

**Sheet 1 of 2**
# Flowline Layout Table Dimensions

<table>
<thead>
<tr>
<th>Dimension Variable</th>
<th>27' Manhole/Ring</th>
<th>28' Manhole/Ring</th>
<th>29' Manhole/Ring</th>
<th>37' Manhole/Ring</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - Offset</td>
<td>4'-3&quot;</td>
<td>4'-4&quot;</td>
<td>4'-5&quot;</td>
<td>5'-1&quot;</td>
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<tr>
<td>B - Ref. Angle</td>
<td>30°</td>
<td>30°</td>
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<td>2'-3&quot;</td>
<td>2'-4&quot;</td>
<td>2'-5&quot;</td>
<td>3'-1&quot;</td>
</tr>
<tr>
<td>E - From Center Of Manhole To Point &quot;Y&quot;</td>
<td>4'-6(\frac{1}{2})&quot;</td>
<td>4'-7(\frac{1}{2})&quot;</td>
<td>4'-8(\frac{1}{2})&quot;</td>
<td>5'-4(\frac{1}{2})&quot;</td>
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<tr>
<td>F</td>
<td>20(\frac{1}{2})&quot;</td>
<td>20(\frac{1}{2})&quot;</td>
<td>20(\frac{1}{2})&quot;</td>
<td>22(\frac{1}{2})&quot;</td>
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<tr>
<td>G</td>
<td>7&quot;</td>
<td>7(\frac{1}{2})&quot;</td>
<td>7(\frac{1}{2})&quot;</td>
<td>9(\frac{1}{2})&quot;</td>
</tr>
</tbody>
</table>

**Notes:**

1. All concrete is to be Class 550-C-3250 PCC.
2. All work shall be constructed in accordance with the current standard specifications for public works construction ("Greenbook").
3. Contractor shall have a valid Class "A" or "C8" California contractor's license.
4. Dimensions "F" and "G" are symmetrical about centerline of manhole.

---

**Longitudinal Alley Gutter at Manhole**

**Case 2 (2'-0" Longitudinal Gutter)**

- **Direction of Flow**
- **Score Lines TYP.**
- **Point X**
- **Point Y**

**Revisions**

<table>
<thead>
<tr>
<th>Mark</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>!</td>
<td>9/14/2021</td>
<td>REV. DIMS</td>
</tr>
</tbody>
</table>

**City of Beverly Hills, California**

Department of Public Works

Engineering Division

Recommended: [Signature] Date: 10/20/21

Approved: [Signature] Date: 3/30/22

Standard Drawing: BH 112

Sheet 2 of 2
STEEL PLATE FOR OPEN TRENCH DETAIL

NOTES:

1. ALL STEEL TRENCH PLATES SHALL BE FULLY SUPPORTED AROUND THE PERIMETER TO PREVENT TIPPING.
2. TRENCHES AND EXCAVATIONS SHALL BE ADEQUATELY SHORED OR BRACED TO WITHSTAND HIGHWAY TRAFFIC LOADS.
3. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PREVENT NOISY PLATES. THE CONTRACTOR SHALL PROVIDE MATERIAL (IE - NEOPRENE BEARING PADS, NYLON ROPE, OR RUBBER STRIPS) TO DAMPEN VIBRATION.
4. WHEN TWO OR MORE PLATES ARE USED, THE PLATES SHALL BE TACK WELDED AT EACH CORNER OR AS REQUIRED BY THE CITY ENGINEER. PARTIAL OR COMPLETE JOINT PENETRATION WELDING MAY BE NECESSARY.
5. ALL TRENCH PLATES SHALL BE PINNED IN EACH CORNER WITH PINS MADE OF #4 REBAR, OR EQUIVALENT DIAMETER STEEL ROD, WITH A MINIMUM LENGTH OF 12".
6. ALL TRENCH PLATING SHALL BE DESIGNED FOR HS20-44 TRUCK LOADING.
7. FOR TRENCHES AND EXCAVATIONS WITH SPANS GREATER THAN FOUR FEET (4'), A STRUCTURAL DESIGN SHALL BE PREPARED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER AND REVIEWED BY THE CITY.
8. TRENCH PLATES SHALL BE USED WHEN TRENCH WORK CAN NOT BE COMPLETED WITHIN THE SAME WORKING DAY TO MAINTAIN ALL VEHICULAR, BICYCLE AND PEDESTRIAN TRAFFIC FLOW.
9. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR "C8" CALIFORNIA CONTRACTOR'S LICENSE.
CASE I - PLAN

EXISTING ASPHALT CONCRETE AND BASE

CASE I - EXISTING SECTION: ASPHALT CONCRETE

1. CONSTRUCT NEW ASPHALT CONCRETE BASE COURSE, TYPE B, PG 64-10, 1" THICKER THAN THE EXISTING SECTION.

2. CONSTRUCT NEW ASPHALT CONCRETE WEARING COURSE:

<table>
<thead>
<tr>
<th>TYPES OF STREETS</th>
<th>DEPTH</th>
<th>ASPHALT CONCRETE</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESIDENTIAL STREETS/ALLEYS</td>
<td>2&quot;</td>
<td>TYPE D2, PG-64-10 (HMA)</td>
</tr>
<tr>
<td>MAJOR STREETS/ALLEYS</td>
<td>2&quot;</td>
<td>TYPE C2, OR 3C3, PG-64-10 (HMA)</td>
</tr>
<tr>
<td>STREET WITH ASPHALT RUBBER HOT MIX (A.R.H.M.)</td>
<td>2&quot;</td>
<td>TYPE C2, PG-64-10</td>
</tr>
</tbody>
</table>

1. AND 2.: THE TOTAL THICKNESS OF 1 + 2 SHALL BE 6" MINIMUM FOR ALL STREETS AND ALLEYS

PAVEMENT REPLACEMENT SECTION - CASE I

REVISIONS

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED DATE 7/13/21
APPROVED DATE 3/30/22

STANDARD DRAWING BH 114

SHEET 1 OF 6
△ 3. TRENCH BACKFILL SHALL BE EITHER:

   A. ONE SACK CEMENT SAND SLURRY OR EQUIVALENT (IE-100-E-100 OR CLSM)
   B. CRUSHED AGGREGATE BASE
   C. NATIVE MATERIAL

THE CONTRACTOR IS TO SUPPLY COMPACTION TEST RESULTS AT NO COST TO THE CITY (PER ASTM METHOD 1557) UNLESS SLURRY OR CLSM IS USED.

4. CONSTRUCT NEW CRUSHED AGGREGATE BASE TO MATCH EXISTING THICKNESS OR 4" THICKNESS, WHICHEVER IS GREATER. COMPACT TO 95% OF RELATIVE DENSITY.

5. SAWCUTTING WILL BE REQUIRED AROUND THE PERIMETER OF THE T-CUT TO PROVIDE CLEAN, STRAIGHT, VERTICAL SIDES.


IF THE REMOVALS ARE LESS THAN 5' APART OR LESS THAN 2' FROM A CONCRETE CURB, GUTTER, CROSS GUTTER, OR PROPERTY LINE THE T-CAP SHALL BE CONTINUOUS BETWEEN EXCAVATIONS AND/OR THE EDGE OF THE CONCRETE.

8. FINAL T-CUT AND T-CAP MAY BE ALTERED AT THE CITY ENGINEER'S DISCRETION BASED ON THE EXISTING STREET OR ALLEY CONDITION.

9. ALL TRAFFIC STRIPING AND/OR MARKINGS DAMAGED DURING RESTORATION WORK SHALL BE REPLACED.

10. WHEN WORK REQUIRES REMOVAL OF EXISTING CONCRETE STREET FEATURES, SUCH AS DRIVEWAY APPROACH, ALLEY APPROACH, DRIVEWAYS, CURB Ramps, OR PORTION(S) THEREOF, RESTORATION OF CONCRETE STREET FEATURES SHALL CONFORM TO THE LATEST CITY STANDARDS. CONCRETE POUR SHALL BE MONOLITHIC AND CONCRETE SHALL BE REMOVED AND REPLACED IN ITS ENTIRETY UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

11. WHEN ROADWAY WORK REQUIRES REMOVAL OF EXISTING CONCRETE BUS PAD OR PORTION(S) THEREOF, CONTRACTOR SHALL RESTORE CONCRETE BUS PAD IN KIND MATCHING EXISTING PCG THICKNESS OR 8-IN MINIMUM WHICHEVER IS GREATER. CONCRETE POURS SHALL BE MONOLITHIC AND RESTORATION OF BUS PAD SHALL CONFORM TO THE LATEST STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION. CONCRETE BUS PAD SHALL BE REMOVED AND REPLACED IN ITS ENTIRETY OR OTHERWISE APPROVED BY THE CITY ENGINEER.

12. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS ("GREENBOOK").

13. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR APPROVED CALIFORNIA SPECIALTY CONTRACTOR'S LICENSE.

PAVEMENT REPLACEMENT SECTION - CASE I

| REVISIONS | CITY OF BEVERLY HILLS, CALIFORNIA |
| MARK | DATE | DESCRIPTION |
|——|——|——|
| △ 6/16/2021 | BACKFILL |

| RECOMMENDED | DATE 7/13/21 |
|——|——|
| APPROVED | DATE 3/30/22 |

STANDARD DRAWING BH 114 SHEET 2 OF 6
CASE II - EXISTING SECTION: PORTLAND CONCRETE CEMENT

1. CONSTRUCT NEW PCC PAVEMENT 1" THICKER THAN THE EXISTING CONCRETE, 6" MINIMUM USING 560-C-3250.

2. THE EXACT LIMITS FOR REMOVAL SHALL BE DETERMINED BY THE CITY ENGINEER SUCH THAT JOIN LINES ARE NOT WITHIN 2-6" OF EXISTING PAVEMENT JOINTS OR SIGNIFICANT CRACKS. IF THE EXCAVATIONS ARE LESS THAN 5' APART OR LESS THAN 2-6" FROM A CONCRETE CURB, GUTTER OR EXPANSION JOINT, THE RESTORATION SHALL BE CONTINUOUS BETWEEN EXCAVATIONS AND/OR THE EDGE OF CONCRETE.

3. FOR PCC STREETS OR INTERSECTIONS THE LIMITS OF THE RESTORATION SHALL BE A RECTANGULAR AREA EXTENDING TO THE NEAREST CONSTRUCTION JOINT. THE STRUCTURAL SECTION OUTSIDE THE UTILITY TRENCH AREA SHALL BE EQUAL TO 1 + 5.

△ 4. TRENCH BACKFILL SHALL BE EITHER:

   A. ONE SACK CEMENT SAND SLURRY OR EQUIVALENT (IE-100-E-100 OR CSLM)
   B. CRUSHED AGGREGATE BASE
   C. NATIVE MATERIAL

THE CONTRACTOR IS TO SUPPLY COMPACTION TEST RESULTS AT NO COST TO THE CITY (PER ASTM TEST METHOD 1557), UNLESS SLURRY OR CSLM IS USED.

5. CONSTRUCT NEW CRUSHED AGGREGATE BASE TO MATCH EXISTING THICKNESS OR 4" THICKNESS, WHICHEVER IS GREATER. COMPACT TO 95% OF RELATIVE DENSITY.
6. SAWCUTTING WILL BE REQUIRED AROUND THE PERIMETER OF THE T-CUT TO PROVIDE CLEAN, STRAIGHT, VERTICAL SIDES.

7. DOWEL SIZE, SPACING, AND EMBEDMENT SHOULD BE AS FOLLOWS:

<table>
<thead>
<tr>
<th>CONCRETE THICKNESS</th>
<th>SIZE AND SPACING</th>
<th>EMBEDMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5&quot;</td>
<td>SEE KEY DETAIL CBH 105</td>
<td>NONE</td>
</tr>
<tr>
<td>5&quot; TO 7&quot;</td>
<td>#4 @ 16&quot; O.C.</td>
<td>4&quot;</td>
</tr>
<tr>
<td>7.1 TO 9&quot;</td>
<td>#5 @ 16&quot; O.C.</td>
<td>6&quot;</td>
</tr>
<tr>
<td>&gt; 9&quot;</td>
<td>#6 @ 16&quot; O.C.</td>
<td>8&quot;</td>
</tr>
</tbody>
</table>

DOWEL HOLE SHALL BE WIRE BRUSHED AND BLOWN FREE OF DEBRIS. EPOXY WILL BE INSERTED, AND DOWEL WILL BE SEATED TO FULL DEPTH OF HOLE. DOWEL SHALL BE 12" IN LENGTH, WITH A 6" EMBEDMENT, OR AS DIRECTED BY INSPECTORS.

8. ALL TRAFFIC STRIPING AND/OR MARKINGS DAMAGED DURING RESTORATION WORK SHALL BE REPLACED.

9. WHEN WORK REQUIRES REMOVAL OF EXISTING CONCRETE STREET FEATURES, SUCH AS DRIVEWAY APPROACH, ALLEY APPROACH, DRIVEWAYS, CURB RAMPS, OR PORTION(S) THEREOF, RESTORATION OF CONCRETE STREET FEATURES SHALL CONFORM TO THE LATEST CITY STANDARDS. CONCRETE POUR SHALL BE MONOLITHIC AND CONCRETE SHALL BE REMOVED AND REPLACED IN ITS ENTIRETY UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

10. WHEN ROADWAY WORK REQUIRES REMOVAL OF EXISTING CONCRETE BUS PAD OR PORTION(S) THEREOF, CONTRACTOR SHALL RESTORE CONCRETE BUS PAD IN KIND MATCHING EXISTING PCC THICKNESS OR 8-IN MINIMUM WHICHEVER IS GREATER. CONCRETE POUR SHALL BE MONOLITHIC AND RESTORATION OF BUS PAD SHALL CONFORM TO THE LATEST STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION. CONCRETE BUS PAD SHALL BE REMOVED AND REPLACED IN ITS ENTIRETY OR OTHERWISE APPROVED BY THE CITY ENGINEER.

11. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS ("GREENBOOK").

12. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR APPROVED CALIFORNIA SPECIALTY CONTRACTOR'S LICENSE.
CASE III - EXISTING SECTION: ASPHALT OVER CONCRETE

① CONSTRUCT NEW PCC PAVEMENT 1" THICKER THAN THE EXISTING CONCRETE, 6" MINIMUM USING CLASS 560-C-3250.

② CONSTRUCT NEW ASPHALT CONCRETE BASE COURSE, TYPE B, PG 64-10.

③ CONSTRUCT 2" NEW ASPHALT CONCRETE WEARING COURSE PER TABLE - 1.

④ THE EXACT LIMITS FOR REMOVAL SHALL BE DETERMINED BY THE CITY ENGINEER SUCH THAT JOIN LINES ARE NOT WITHIN 2'-6" OF EXISTING PAVEMENT JOINTS OR SIGNIFICANT CRACKS. IF THE EXCAVATIONS ARE LESS THAN 5' APART OR LESS THAN 2'-6" FROM A CONCRETE CURB, GUTTER OR EXPANSION JOINT, THE RESTORATION SHALL BE CONTINUOUS BETWEEN EXCAVATIONS AND/OR THE EDGE OF CONCRETE.

⚠️ ⑤ TRENCH BACKFILL SHALL BE EITHER:

A. ONE SACK CEMENT SAND SLURRY OR EQUIVALENT (IE-100-E-100 OR CLSM)
B. CRUSHED AGGREGATE BASE
C. NATIVE MATERIAL

THE CONTRACTOR IS TO SUPPLY COMPACTION TEST RESULTS AT NO COST TO THE CITY (PER ASTM TEST METHOD 1557), UNLESS SLURRY OR CLSM IS USED.
6. SAWCUTTING WILL BE REQUIRED AROUND THE PERIMETER OF THE T-CUT TO PROVIDE CLEAN, STRAIGHT, VERTICAL SIDES.

7. DOWEL SIZE, SPACING, AND EMBEDMENT SHOULD BE AS FOLLOWS:

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<th>SIZE AND SPACING</th>
<th>EMBEDMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5&quot;</td>
<td>SEE KEY DETAIL CBH 105</td>
<td>NONE</td>
</tr>
<tr>
<td>5&quot; TO 7&quot;</td>
<td>#4 @ 16&quot; O.C.</td>
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</tr>
<tr>
<td>&gt; 9&quot;</td>
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</table>

Dowel hole shall be wire brushed and blown free of debris. Epoxy will be inserted, and dowel will be seated to full depth of hole. Dowel shall be 12" in length, with a 6" embedment, or as directed by inspectors.

8. ALL TRAFFIC STRIPING AND/OR MARKINGS REMOVED BY RESTORATION WORK SHALL BE REPLACED.

9. WHEN WORK REQUIRES REMOVAL OF EXISTING CONCRETE STREET FEATURES, SUCH AS DRIVEWAY APPROACH, ALLEY APPROACH, DRIVEWAYS, CURB RAMPS, OR PORTION(S) THEREOF, RESTORATION OF CONCRETE STREET FEATURES SHALL CONFORM TO THE LATEST CITY STANDARDS. CONCRETE POUR SHALL BE MONOLITHIC AND CONCRETE SHALL BE REMOVED AND REPLACED IN ITS ENTIRETY UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

10. WHEN ROADWAY WORK REQUIRES REMOVAL OF EXISTING CONCRETE BUS PAD OR PORTION(S) THEREOF, CONTRACTOR SHALL RESTORE CONCRETE BUS PAD IN KIND MATCHING EXISTING PCC THICKNESS OR 8-IN MINIMUM WHICHEVER IS GREATER. CONCRETE POUR SHALL BE MONOLITHIC AND RESTORATION OF BUS PAD SHALL CONFORM TO THE LATEST STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION. CONCRETE BUS PAD SHALL BE REMOVED AND REPLACED IN ITS ENTIRETY OR OTHERWISE APPROVED BY THE CITY ENGINEER.

11. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS ("GREENBOOK").

12. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR APPROVED CALIFORNIA SPECIALTY CONTRACTOR'S LICENSE.

PAVEMENT REPLACEMENT SECTION - CASE III

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RECOMMENDED DATE 7/13/21
APPROVED DATE 3/30/22

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

STANDARD DRAWING BH 114
SHEET 6 OF 6
STANDARD NOTES

1. ALL ARTERIAL AND COLLECTOR STREETS WITHIN CITY OF BEVERLY HILLS RIGHT-OF-WAY SHALL REQUIRE ASPHALT RUBBER PAVEMENT OVERLAY INSTALLATION. THE CITY ENGINEER MAY REQUIRE OTHER LOCATIONS TO CONFORM TO THIS STANDARD.

2. UNLESS OTHERWISE DETERMINED BY THE CITY ENGINEER, THE ARHM SHALL BE CLASS ARHM-GG-C.

3. ROADWAYS TO RECEIVE FULL-WIDTH COLDMILLING SHALL BE RESURFACED WITHIN 24 HOURS OF COLDMILLING ANY PORTION OF THE WORK.

4. THE ROADWAY CROSS SLOPE SHALL BE A MINIMUM OF 2 PERCENT OR MATCH THE EXISTING CROSS SLOPE IF HIGHER THAN 2 PERCENT.

5. THE NEW PAVEMENT SHALL BE FLUSH WITH THE LIP OF GUTTER ON EACH SIDE OF STREET.

6. THE COLDMILL, AND ARHM APPLICATION SHALL FULLY COMPLY WITH THE “STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, (GREENBOOK), LATEST EDITION.

7. THE LIMITS OF COLDMILL AND ASPHALT PAVEMENT SHALL BE THE FULL WIDTH OF THE STREET PAVEMENT.

8. ALL TRAFFIC STRIPING AND/OR MARKINGS REMOVED BY THE COLDMILL AND OVERLAY WORK SHALL BE REPLACED TO CURRENT STANDARD.

9. ANY IMPACTS TO EXISTING UTILITIES, STRUCTURES, AND SURVEY MONUMENTS DUE TO THE COLDMILL AND OVERLAY WORK SHALL BE RESTORED IN ACCORDANCE WITH THE CITY OF BEVERLY HILLS STANDARDS AND THE (GREENBOOK), LATEST ADDITION.

10. AFTER ANY GRINDING OR MICRO-MILLING OF ANY STREET OR ALLEY, CRACKS MUST BE CLEANED AND SEALED.

11. CONTRACTOR SHALL HAVE A VALID CLASS "A" OR "C8" CALIFORNIA CONTRACTOR’S LICENSE.

12. ANY DEVIATION OF THIS STANDARD PLAN, SHALL REQUIRE APPROVAL AND DIRECTION BY THE CITY ENGINEER OR THEIR DESIGNEE(S).

ASPHALT RUBBER COLDMILL AND OVERLAY

REVISIONS

MARK | DATE | DESCRIPTION

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED DATE 03/05/2020
APPROVED DATE 05/04/2020

STANDARD DRAWING BH 115

SHEET 1 OF 1
NOTES:

1. DEPENDING ON THE CONDITION OF THE ALLEY, THE INSPECTOR MAY ADJUST THE SCOPE OF RESTORATION.
2. NEW PAVING MUST MATCH EXISTING ALLEY CROSSFALL.
3. REFER TO BH 114 FOR ASPHALT CONCRETE MIX DESIGNS AND OTHER PAVEMENT REQUIREMENTS.
SECTION ACROSS ALLEY AT WALL
NOT TO SCALE

WIDTH OF WORK VARIES

NOTES:
1. REFER TO BH 114 FOR ASPHALT CONCRETE MIX DESIGNS AND OTHER PAVEMENT REQUIREMENTS.
NOTES:

1. MICRO-TRENCHING SHALL ONLY BE USED TO INSTALL TELECOMMUNICATION CONDUITS IN ASPHALT STREETS ONLY. MICRO-TRENCHING SHALL NOT BE ALLOWED IN CONCRETE STREETS, SIDEWALKS, PARKWAYS, CURBS AND GUTTERS, SWALES, SPANDELS, APPROACHES, BUS PADS, AND ETC.

2. THE CONTRACTOR SHALL IDENTIFY AND MAP ALL EXISTING UTILITIES, INCLUDING SERVICES, IN THE STREET AND/OR ALLEY. THIS INFORMATION WILL BE PRESENTED TO CITY STAFF IN ORDER TO CONFIRM AN APPROVED MICROTRENCH ALIGNMENT. PROPOSED ALIGNMENTS MUST BE A MINIMUM 2' CLEAR TO THE OUTSIDE EDGE OF ANY CITY UTILITY PIPELINE OR CONDUIT (SEWER, WATER, STORM DRAIN, STREET LIGHTING, TRAFFIC SIGNAL, FIBER OPTIC, ETC.).

3. THE CONTRACTOR SHALL IDENTIFY ALL EXISTING UTILITIES, INCLUDING SERVICE CONNECTIONS IN THE FIELD. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (U.S.A.) AT LEAST 48 HOURS PRIOR TO START OF WORK AT 8-1-1, OR TOLL-FREE AT 1-800-422-4133. THE CONTRACTOR SHALL FURTHER SUPPLEMENT THE FINDINGS OF U.S.A. TO DETERMINE THE EXACT LOCATIONS AND DEPTHS OF ALL UTILITIES BY USING A MOBILE GROUND PENETRATING RADAR SYSTEM. THE CONTRACTOR SHALL POTHOLE ALL CROSSING UTILITIES AND PARALLEL UTILITIES WITHIN 18-INCHES OF THE PROPOSED ALIGNMENT TO A DEPTH OF 6-INCHES BELOW THE BOTTOM OF THE MICRO-TRENCH, TO DETERMINE THE EXISTING UTILITY ALIGNMENT AND ELEVATION. POTHOLES SHALL BE IMMEDIATELY BACKFILLED AND COMPACTED PER BH 114 OR AS DIRECTED BY THE PW INSPECTOR.

4. IF EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE INSPECTOR, ENGINEER AND UTILITY OWNER TO PERFORM THE REPAIRS PROMPTLY ACCORDING TO THEIR REQUIREMENTS AND PER ASSOCIATED CITY PERMITS.
5. THE FOLLOWING ITEMS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR APPROVAL:

A. PROVIDE A DETAILED SITE PLAN WHICH SHALL INCLUDE THE DISTANCES OF MICRO-TRENCH AND EDGES OF GRIND AND CAP TO EDGE OF GUTTER, CURBFACE, CONCRETE PAVEMENT OR STRUCTURE AS APPLICABLE.

B. A TYPICAL MICRO-TRENCH DETAIL THAT INCLUDES THE FOLLOWING INFORMATION:

   (1) THE MAXIMUM ASPHALT CONCRETE (AC) ROADWAY THICKNESS, BASE, DEPTH AND WIDTH OF MICRO-TRENCH, DEPTH OF TOPMOST CONDUIT, AND BACKFILL MATERIAL.

   (2) AC REINSTATEMENT INCLUDING WIDTH AND DEPTH OF GRIND AND CAP.

C. DETAIL SHOWING CONDUIT FROM MAIN MICRO-TRENCH ALIGNMENT TO LATERAL SURFACE CONNECTIONS INCLUDING TO ANY JUNCTION/PULL BOX. INCLUDE SPECIFIC INFORMATION OF DEPTH, SIZE, AND METHOD OF EXCAVATION BELOW EXISTING CURB AND GUTTER.

D. CUT SHEETS OF THE PROPOSED EQUIPMENT PARTICULARLY SUITABLE FOR MICRO-TRENCHING, INCLUDING:

   (1) MICRO-TRENCHER CAPABLE OF MEETING TARGET DEPTH AND WIDTH IN A SINGLE PASS WITH AN INTEGRAL HOOD AND ASSOCIATED VACUUM SYSTEM. SELECTION OF CUTTING WHEEL SHALL BE SUCH THAT IT MINIMIZES DAMAGE TO THE ADJACENT AC SURFACE.

   (2) MOBILE CONCRETE/SLURRY PLACEMENT WITH AN ON-BOARD VIBRATOR AND NARROW TROUGH TO MATCH MICRO-TRENCH WIDTH.

   (3) MOBILE GROUND PENETRATING RADAR SYSTEM THAT IS CAPABLE OF LOCATING BOTH METALLIC AND NON-METALLIC PIPES AND CABLES TO A DEPTH OF 24-INCHES.

E. OTHER SITE SPECIFIC ITEMS AS REQUIRED BY THE ENGINEER.

LIMITS OF REMOVALS, TRENCH WIDTH, AND LOCATION

6. THE MICRO-TRENCH SHALL BE CONSTRUCTED WITH CONTINUOUS UNIFORM STRAIGHT AND NEAT EDGES.

7. MICRO-TRENCH ALIGNMENTS SHALL CONSIST OF RUNS PARALLEL TO THE CENTERLINE OF THE STREET. STREET CROSSING MAY BE DONE PROVIDED THE ALIGNMENT IS PERPENDICULAR TO THE STREET CENTERLINE.

8. THE EDGE OF THE MICRO-TRENCH SHALL BE A MINIMUM OF 24-INCHES FROM THE EXISTING FACE OF THE GUTTER, EXISTING CONCRETE STRUCTURE, OR CURB IF GUTTER IS NOT PRESENT.

9. THE MICRO-TRENCH WIDTH SHALL BE A MINIMUM OF 1-INCH AND A MAXIMUM OF 2-INCHES.


MICRO-TRENCHING

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CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED  

DATE 3/31/22

APPROVED  

DATE 4/25/22

STANDARD DRAWING

BH 118

SHEET 2 OF 3
BACKFILL

12. ALL MICRO-TRENCHES SHALL BE COMPLETELY BACKFILLED WITH A CEMENT SAND SLURRY 2500 PSI TO FINISH GRADE BY THE END OF THE WORK DAY.

GRIND AND RESURFACE SECTION

13. COMMENCEMENT OF SURFACE PREPARATION SUCH AS GRINDING/CHIPPING FOR ASPHALT CONCRETE PAVING REPLACEMENT WILL OCCUR NO SOONER THAN 48 HOURS AFTER SLURRY BACKFILL OF TRENCH. FIELD CONDITIONS OR MATERIAL USED MAY NECESSITATE A LONGER WAIT AS DETERMINED BY THE INSPECTOR.

14. AS SOON AS BACKFILL HAS CURED, NOT TO EXCEED 30 CALENDAR DAYS, ASPHALT CONCRETE SHALL BE GROUND AND CAPPED AS FOLLOWS:

   A. EXISTING AC AND SLURRY BACKFILL SHALL BE GROUND DOWN 4-INCHES, FOR A WIDTH OF 18-INCHES BUT NO LESS THAN 6-INCHES FROM BOTH EDGES OF THE MICRO-TRENCH. WHEN THE CAP LIMIT IS WITHIN 2- FEET OR LESS FROM THE GUTTER FACE, CURB, SLAB OR STRUCTURE, THE CAP LIMIT SHALL EXTEND TO THAT ITEM.

   B. TACK COAT ALL EDGES WITH SS-1H EMULSIFIED ASPHALT IMMEDIATELY BEFORE PAVING ASPHALT CONCRETE TYPE 3C3, PG 64-10 (HMA).

   C. WHERE ANGULAR CROSSING OR ANY LENGTH-WISE CUTS OF A BIKE LANE OCCUR BY MICRO-TRENCHING, THE CAPPING LIMITS SHALL EXTEND THE FULL WIDTH OF THE BIKE LANE. PERPENDICULAR CROSSINGS MAY RECEIVE TYPICAL CAPPING WIDTH PER NOTE 14A. ABOVE. PAVEMENT MARKINGS SHALL BE RESTORED IN KIND.

VAULTS AND SERVICE CONNECTIONS

15. CONNECTION TO SERVICE LATERALS, JUNCTION BOXES, ETC., SHALL BE DONE SUCH THAT CURB AND GUTTER ARE NOT DISTURBED, SETTLED OR DAMAGED. REMOVAL LIMITS OF SIDEWALK SHALL FOLLOW APPLICABLE STANDARDS AND REQUIREMENTS AS APPROVED BY THE ENGINEER.

16. THE USE OF HYDRO-JETTING IS NOT PERMITTED. TRENCHLESS METHODS SHALL NOT CREATE A VOID TWO TIMES GREATER THAN CONDUIT, VOID SHALL BE COMPACTED AND BACKFILLED WITH APPROVED CONTROLLED LOW-STRENGTH MATERIAL (CLSM).

IDENTIFICATION

17. EACH MICRO-TRENCH SHALL BE IDENTIFIED WITH TRACERWIRE INSTALLED.

ALTERNATE MICROTRENCH DESIGN

18. THE CONTRACTOR MAY PROPOSE TO BACKFILL THE MICROTRENCH WITH FASTPATCH 8400, DEPENDING ON THE FINAL CONDITION AND APPEARANCE OF THE ROADWAY, THE GRIND AND OVERLAY RESTORATION MAY BE WAIVED.

MICRO-TRENCHING

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CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED: [Signature] DATE: 3/31/22
APPROVED: [Signature] DATE: 4/25/22

STANDARD DRAWING
BH 118
SHEET 3 OF 3
Section II

Sewer and Sanitation
SANITARY SEWER  STORM DRAIN

DETAIL OF LETTERS

CITY OF BEVERLY HILLS

MANHOLE COVER AND FRAME PER ALHAMBRA FOUNDRY CO. LTD.
PART NO. A-1495

PLAN COVER TOP

1-1/2"

27-1/8" DIA.

6"

24" DIA. CLEAR OPENING

32" DIA.

INSTALLATION NOTES:
2. ALL PARTS OF THE MANHOLE FRAME AND COVER EXCEPT MACHINED SURFACES SHALL BE COATED WITH ASPHALTUM PAINT.
3. THE MANHOLE FRAME AND COVER SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS BEFORE DELIVERY. THE COVER SHALL FIT THE FRAME SNUGLY BUT NOT TIGHTLY.
4. RAISED SURFACES OF LETTERS SHALL BE FLUSH WITH SURFACES OF THE RAISED BLOCK TREAD.
5. ALL RADIUS 1/8" UNLESS OTHERWISE SPECIFIED.
6. DRAFT TO BE 1-1/2" UNLESS OTHERWISE SPECIFIED.

NON-ROCKING MANHOLE FRAME AND COVER

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
CIVIL ENGINEERING DIVISION

RECOMMENDED CITY ENGINEER
APPROVED PUBLIC WORKS DIRECTOR

STANDARD DRAWING

BH 208

SHEET 1 OF 1
**LARGE MANHOLE FRAME AND COVER**

**INSTALLATION NOTES:**

2. ALL PARTS OF THE MANHOLE FRAME AND COVER EXCEPT MACHINED SURFACES SHALL BE COATED WITH ASPHALTUM PAINT.
3. THE MANHOLE FRAME AND COVER SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS BEFORE DELIVERY. THE COVER SHALL FIT THE FRAME SNUGLY BUT NOT TIGHTLY.
4. RAISED SURFACES OF LETTERS SHALL BE FLUSH WITH SURFACES OF THE RAISED BLOCK TREAD.
5. ALL RADI 1/8" UNLESS OTHERWISE SPECIFIED.
6. DRAFT TO BE 1-1/2" UNLESS OTHERWISE SPECIFIED.

**CITY OF BEVERLY HILLS, CALIFORNIA**

**DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION**

**CIVIL ENGINEERING DIVISION**

**STD. DRAWING**

**RECOMMENDED**  

**APPROVED**

**DATE**  

**DATE**

**SIGNATURE**

**SIGNATURE**  

**PUBLIC WORKS DIRECTOR**

**SIGNATURE**

**SIGNATURE**

**DATE**

**DATE**

**NO.**
1. IN NO CASE SHALL CONNECTION BE MADE DIRECTLY ON TOP OF SEWER MAIN.
2. NO MORE THAN ONE CUT-IN LATERAL CONNECTION WILL BE ALLOWED FOR EACH LENGTH OF VCP SEWER MAIN.
3. LINING SHALL BE CORED THE EXACT DIAMETER OF THE LATERAL. PUBLIC WORKS INSPECTOR SHALL BE ONSITE FOR CORING.
4. LATERAL SHALL BE FLUSH WITH THE LINING MATERIAL AND SHALL NOT PROTRUDE INTO THE MAIN.
5. ADD EPOXY TO UNDERSIDE OF SADDLE CONNECTION, PRIOR TO TIGHTENING BOLTS. MAKE SURE EPOXY IS EVENLY SPREAD AROUND SADDLE MOUNTING FLANGE. FINALLY, APPLY EPOXY INSIDE PVC SADDLE.
6. CITY WILL REQUIRE A CCTV INSPECTION PRIOR TO APPROVAL.

LATERAL CONNECT TO LINED SEWER MAIN
MODIFIED SDR 35 PIPE SECTION
⚠️ WITH SIKA DUR 31 EPOXY OR EQUIV

4" (TYP.)
2" MIN. OVERLAP
6"

EXISTING SEWER PIPE LINING

3" (TYP.)

EXISTING CONCRETE / VCP SEWER PIPE

STAINLESS STEEL BAND CLAMPS (2 REQ'D)

REMOVE INTERFERING PORTION OF HOST VCP/CONCRETE PIPE

CONCRETE ENCASEMENT

6" TOP AND BOTTOM

SEE NOTE 1

EXISTING SEWER PIPE LINING

⚠️ CONCRETE ENCASEMENT MIX WITH MIN. 3250

ELEVATION

SECTION A-A

NOTES:

1. ADD EPOXY TO UNDERSIDE OF SADDLE CONNECTION, PRIOR TO TIGHTENING BOLTS. MAKE SURE EPOXY IS EVENLY SPREAD AROUND SADDLE MOUNTING FLANGE TO PREVENT EPOXY FROM PROTRUDING INTO SEWER MAIN.
2. CITY WILL REQUIRE A CCTV INSPECTION PRIOR TO BACKFILL APPROVAL.
3. POUR CONCRETE ENCASEMENT AFTER INSPECTOR APPROVES ABANDONMENT.

CASE 1 - LINED SEWER MAIN

LATERAL ABANDONMENT

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED ________ DATE 10/26/21
APPROVED ________ DATE 3/30/22

STANDARD DRAWING
BH 215

REVISIONS

MARK DATE DESCRIPTION
⚠️ 9/30/2021 REVISED NOTES
CASE 2 - UNLINED VCP/CONCRETE SEWER PIPE

ELEVATION

NOTES:
1. LATERAL MUST BE APPROVED BY INSPECTOR AS TO CONDITION PRIOR TO PLUGGING.
2. EXISTING LATERAL OPENING SHALL BE FLUSH WITH THE GRIPPER PLUG OR APPROVED EQUAL.
3. POUR ENCASEMENT AFTER INSPECTION OF GRIPPER PLUG IS APPROVED.
4. DEPTH OF ENCASEMENT IS TO BE MINIMUM 6" ABOVE HIGH POINT OF LATERAL.
5. PLUGGED LATERAL WILL REQUIRE CCTV INSPECTION AFTER INSTALLATION.
6. PLUG MUST BE VISIBLE FROM INSIDE OF PIPE DURING CCTV INSPECTION.
7. TRENCH RESTORATION PER BH 114.

LATERAL ABANDONMENT

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED DATE 10/26/21
APPROVED DATE 3/30/22

HEALTH 
STANDARD DRAWING
BH 215

-sheet 2 of 2-
NOTES:

1. EXISTING WYE MUST BE APPROVED BY INSPECTOR PRIOR TO BACKFILL, OR ENCASEMENT.
2. DAMAGED WYE/SADDLE MUST BE REPLACED. CONTACT PUBLIC WORKS INSPECTOR FOR DIRECTION.
3. LATERAL MATERIAL MAY BE VCP. SDR 35, OR ABS.
4. WHEN JOINING VCP OR ABS, USE STAINLESS STEEL ADJUSTABLE REPAIR COUPLINGS. THEN FIRMLY TIGHTEN BOLTS TO ENSURE NO LEAKAGE.
5. USE NO. 4 OR SMALLER CRUSHED ROCK, OR SAND FOR BEDDING. REFER TO BH 211 FOR OTHER REQUIREMENTS.
6. TRENCH RESTORATION PER BH 114.

SEWER LATERAL CONNECTION TO EXISTING WYE

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CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED: [Signature] DATE 10/26/21
APPROVED: [Signature] DATE 3/30/22

STANDARD DRAWING
BH 216
SHEET 1 OF 1
Section III

Street Lighting and
Traffic Signals
NOTES:
1. THREE TURNS OF DETECTA-DUCT OR TYPE 2 LOOP WIRE STACKED ONE WIRE ON TOP OF ANOTHER, A
PRE-WOUND LOOP WIRE SHALL BE USED IN SLOTS GREATER THAN 1/4" IN WIDTH.
2. LOOP DETECTOR LEAD-IN CABLE EXTENDING FROM THE PULL BOX ADJACENT TO THE LOOP TO THE
FIELD TERMINAL IN THE CONTROLLER CABINET SHALL BE TWO, THREE, OR FOUR PAIR #18 AWG
INDIVIDUALLY TWISTED, INDIVIDUALLY SHIELDED, FILLED (WATER BLOCKED) CABLE. EACH CABLE SHALL
BE IDENTIFIED BY THE INSTALLATION OF A RIGID PLASTIC TAG HELD IN PLACE WITH TWO NYLON TIES.
3. STUB OUT SHALL BE LOCATED AT THE EDGE OF GUTTER IN PAVEMENT, 4" BELOW FINISHED SURFACE
OR INSTALL DETECTOR HANDHOLE (CITY OF BH, STANDARD DRAWING BH 402) AS DIRECTED BY CITY
ENGINEER.
4. IF THE "STUB OUT" EXCAVATION AREA FOR LOOP HOMERUNS IS GREATER THAN 6" IN DIAMETER,
BACKFILL WITH ASPHALT CONCRETE. IF EXCAVATION AREA IS LESS THAN OR EQUAL TO 6" IN
DIAMETER, SEAL AREA WITH HOT RUBBERIZED ASPHALT SEALANT.
5. FILL SLOT WITH HOT MELT RUBBERIZED ASPHALT SEALANT IN ACCORDANCE WITH SECTION 88-5.01A OF
THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS. FOUR POTS ARE NOT ACCEPTABLE TO APPLY
SEALANT.
6. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF STANDARD
SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

ROUND INDUCTIVE LOOP DETECTOR INSTALLATION

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
CIVIL ENGINEERING DIVISION

RECOMMENDED DATE 11/18/11
APPROVED DATE 11-18-11

STANDARD DRAWING
BH 401

SHEET 1 OF 1
1. THREE TURNS OF DETECTA-DUCT OR TYPE 2 LOOP WIRE STACKED ONE WIRE ON TOP OF ANOTHER. A PRE-WOUND LOOP WIRE SHALL BE USED IN SLOTS GREATER THAN 1/4" IN WIDTH.

2. LOOP DETECTOR LEAD-IN CABLE EXTENDING FROM THE PULL BOX ADJACENT TO THE LOOP TO THE FIELD TERMINAL IN THE CONTROLLER CABINET SHALL BE TWO, THREE, OR FOUR PAIR #18 AWG INDIVIDUALLY TWISTED, INDIVIDUALLY SHIELDED, FILLED (WATER BLOCKED) CABLE. EACH CABLE SHALL BE IDENTIFIED BY THE INSTALLATION OF A RIGID PLASTIC TAG HELD IN PLACE WITH TWO NYLON TIES.

3. STUB OUT SHALL BE LOCATED AT THE EDGE OF GUTTER IN PAVEMENT, 4" BELOW FINISHED SURFACE OR INSTALL DETECTOR HANDHOLE (CITY OF BH, STANDARD DRAWING BH 402) AS DIRECTED BY CITY ENGINEER.

4. IF THE "STUB OUT" EXCAVATION AREA FOR LOOP HOMERUNS IS GREATER THAN 6" IN DIAMETER, BACKFILL WITH ASPHALT CONCRETE. IF EXCAVATION AREA IS LESS THAN OR EQUAL TO 6" IN DIAMETER, SEAL AREA WITH HOT RUBBERIZED ASPHALT SEALANT.

5. FILL SLOT WITH HOT MELT RUBBERIZED ASPHALT SEALANT IN ACCORDANCE WITH SECTION 86-5.01A OF THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS. POT HOLE ARE NOT ACCEPTABLE TO APPLY SEALANT.

6. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

7. FRONT LOOP (LOOP 1) SHALL EXTEND INTO CROSSWALK 12" WHERE APPLICABLE.

8. ROUND CORNERS OF ACUTE ANGLE SAWCUTS TO PREVENT DAMAGE TO CONDUCTORS.
NOTES:
1. NON-METALLIC BUSHING SHALL BE USED AT ROADWAY END OF CONDUIT.
2. TAPE WIRE 3" EACH SIDE OF ROADWAY BUSHING.
3. INSTALL DUCT SEAL COMPOUND TO EACH END OF ROADWAY CONDUIT BEFORE INSTALLING EPOXY OR OTHER APPROVED MATERIALS.
4. ROUND ALL SHARP EDGES WHERE WIRE HAS TO PASS.
5. SPLICE DETECTOR CONDUCTORS OR CABLE TO LEAD-IN CABLE FOR RUN TO CONTROLLER CABINET.
6. 2" PVC CONDUIT ENDS SEALED WITH APPROVED COMPOUND AFTER CONDUCTOR INSTALLATION.
7. EXACT LOCATION OF THE DETECTOR HANDBOLES WILL BE DETERMINED BY THE CITY ENGINEER IN THE FIELD.
8. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

TRAFFIC SIGNAL DETECTOR HANDBOLE

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
CIVIL ENGINEERING DIVISION

RECOMMENDED

APPROVED

STANDARD DRAWING
BH 403

REVISIONS
MARK DATE DESCRIPTION

CITY ENGINEER

PUBLIC WORKS DIRECTOR

DATE 11/18/19

DATE 11/18/19

SHEET 1 OF 1
LID
- FIBRELYTE LID, NON-CONCRETE
- ETCHED POLYETHYLENE FACE
- FACE ANCHORED IN CONCRETE
- ULTRA-VIOLET INHIBITOR

BOX
- CHRISTY OR EQUAL

TRAFFIC SIGNAL PULL BOX & LID
Section IV

General Facilities
NOTES:
1. ALL MARKED CROSSWALKS SHALL HAVE CONTINENTAL MARKINGS UNLESS APPROVED OTHERWISE.
2. MARKED CROSSWALK LOCATIONS CONSISTING OF BRICK PAVERS OR OTHER DECORATIVE PAVING SHALL BE PROVIDED WITH A LIMIT LINE ONLY.
3. SIGNALIZED INTERSECTIONS SHALL BE PROVIDED WITH A MARKED CROSSWALK ACROSS EACH LEG WHERE PEDESTRIANS ARE PERMITTED TO CROSS.
4. CONTINENTAL CROSSWALK MARKINGS SHALL BE ALIGNED PARALLEL TO THE DIRECTION OF VEHICULAR TRAVEL.
5. LIMIT LINES SHALL BE INSTALLED A MINIMUM OF 4 FEET IN ADVANCE OF MARKED CROSSWALKS FOR THE APPROACH LANES AT ALL CONTROLLED CROSSINGS.
6. MARKED CROSSWALKS SHOULD BE A MINIMUM OF 10 FEET IN WIDTH. PLACEMENT OF CONTINENTAL CROSSWALKS SHALL COMPLY WITH ACCESSIBILITY REGULATIONS PER THE MOST RECENT VERSION OF AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS.
7. THE CROSSWALK BETWEEN A DUAL RAMP CORNER AND A SINGLE RAMP CORNER SHALL BE AT LEAST 10 FEET WIDE AND SATISFY THE MINIMUM OF 2 FEET BEYOND THE FLARE REQUIREMENT FOR THE SINGLE RAMP.
8. CONTINENTAL CROSSWALK BARS SHALL BE UNIFORM WITHIN THE SAME CROSSING. NO PARTIAL BARS SHALL BE INSTALLED.
9. A CROSSWALK BAR SHALL BE CENTERED IN THE MIDDLE OF THE CROSSING.
10. CROSSWALK MARKINGS SHALL BE RETROREFLECTIVITY COMPLIANT AND SKID RESISTANT PER CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA-MUTCD).
11. FOR SCHOOL CROSSING LEGENDS, "SLOW SCHOOL XING" MARKING SHALL BE IN ACCORDANCE WITH CVC21368 AND CA-MUTCD 7C.03.

TYPICAL CONTINENTAL CROSSWALK DETAILS

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STANDARD DRAWING
BH 602
SHEET 1 OF 1
SPEED HUMP DETAIL

SECTION A-A

INSTALLATION NOTES:

1. SPEED HUMPS SHALL NOT BE PLACED OVER UTILITY COVERS.
2. EDGE OF SPEED HUMP SHALL BE 5 FEET MINIMUM FROM EDGE OF DRIVEWAY.
3. ADVANCE PAVEMENT MARKINGS AND/OR SIGNS AS DIRECTED BY CITY ENGINEER

SECTION B-B

EXISTING CURB

18" TAPER

TYPE D1, PG 70-10

TACK COAT

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED

DATE 4/6/22

APPROVED

DATE 4/25/22

STANDARD DRAWING

BH 603

SHEET 1 OF 1
CITY OF BEVERLY HILLS
SURVEY MONUMENT

SPECIFICATIONS:
ALL MONUMENT COVERS SHALL BE MADE OF CAST IRON IN ACCORDANCE WITH A.S.T.M STANDARD SPECIFICATIONS A48M-03, CLASS 30, EXCEPT THAT NO TRANSVERSE TEST WILL BE REQUIRED.

ALL MONUMENT COVERS SHALL BE MADE TO THE DIMENSIONS AS SHOWN HEREON, SHALL BE OF UNIFORM THICKNESS AND FREE FROM FLAWS OR DEFECTS. ALL LETTERING SHALL BE RADially PLACED, UNIFORM IN SIZE AND SHALL CONFORM TO THE DIMENSIONS AS SHOWN HEREON WITHOUT FLAWS OR IRREGULAR LETTERING.

NOTES:
1. ALL RADII TO BE 1/16" UNLESS OTHERWISE SPECIFIED.
2. ALL DRAFT TO BE 1-1/2° UNLESS OTHERWISE SPECIFIED.

SURVEY MONUMENT COVER

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CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
CIVIL ENGINEERING DIVISION

RECOMMENDED BY: [Signature] DATE: 7-30-09
APPROVED BY: [Signature] DATE: 7-9-09

STANDARD DRAWING BH 605

SHEET 1 OF 1
REAMED INSIDE OF TOP

DRILL Ø 1/4" HOLE (ONE SIDE ONLY)

WOODEN WEDGES 1"x3/4"x2" ± LONG TO HOLD POST UPRIGHT

POST FLANGE SET IN CEMENT GROUT

FINISHED SURFACE

CURB AND GUTTER

CLEAN OUT DIRT UNDER SIDEWALK APPROX. AS SHOWN

CONCRETE SIDEWALK

CEMENT GROUT

CUT Ø 3-1/4" HOLE IN SIDEWALK 1"

3-1/4"

32"

38"

48"

20"

12"

SPECIFICATIONS FOR POST:

STEEL PIPE, STANDARD WEIGHT, 2" X 48" LONG, ASTM-A120-63T, NEW AND UNUSED, HOT DIPPED GALVANIZED, TOP REAMED

ADDITIONAL NOTES:

1. POST TO BE LEVEL AND STRAIGHT
2. AREA TO BE LEFT CLEAN
3. CEMENT GROUT - 1 CEMENT : 2-1/2 SAND
4. TOP OF INSTALLED METER COIN/CARD SLOT SHALL NOT EXCEED 48" ABOVE FINISHED GRADE.

PARKING METER POST INSTALLATION - CONCRETE SETTING

CITY OF BEVERLY HILLS, CALIFORNIA

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

CIVIL ENGINEERING DIVISION

RECOMMENDED

APPROVED

PUBLIC WORKS DIRECTOR

STANDARD DRAWING

BH 606

SHEET OF
Section V

Water Pipe Line Installations
WATER NOTES

GENERAL:
1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, FIRE AND POLICE DEPARTMENT AT LEAST 72 HOURS PRIOR TO SHUTTING DOWN ANY WATER MAINS, FIRE HYDRANTS OR BLOCKING ACCESS TO ANY AREA. FIRE HYDRANTS SHALL NOT BE OUT OF SERVICE FOR MORE THAN FOUR HOURS AND NONE SHALL BE OUT OF SERVICE OVERNIGHT OR DURING WEEKENDS.

2. THE CONTRACTOR SHALL FIELD VERIFY AND PROTECT ALL EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL DETERMINE THE DEPTH OF GAS, ELECTRICAL, TELEPHONE, TELEVISION, STORM DRAIN, SEWER AND WATER AT ALL INTERSECTIONS PRIOR TO CONSTRUCTION AND AS NOTED ON THE PLANS. DAMAGED UTILITIES SHALL BE REPLACED IN KIND UNDER THE SUPERVISION OF THE OWNER AT CONTRACTORS EXPENSE.

3. DUE TO INDIVIDUAL LOT IMPROVEMENTS, THE EXISTING SEWER, GAS LATERALS AND/OR ELECTRICAL UNDERGROUNDING MAY NOT BE AT LOCATIONS SHOWN OR SHOWN IN THEIR ENTIRETY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING.

4. PRIOR TO SHUT DOWN AND CUTTING OF ANY EXISTING WATER MAIN, ALL EXISTING VALVES SHALL BE EXERCISED BY CITY PERSONNEL. THE CONTRACTOR SHALL NOTIFY THE CITY’S DEPARTMENT OF PUBLIC WORKS, WATER DIVISION SUPERVISOR AT 310-286-2493 A MINIMUM OF FOUR DAYS PRIOR TO COORDINATE THE SHUT DOWN OF ANY WATER MAIN.

5. FOR ALL WATER SYSTEM CONSTRUCTION, CONTRACTOR SHALL CONTACT SUPERVISING PUBLIC WORKS INSPECTOR AT 310-286-2518.

6. CONTRACTOR SHALL PROTECT IN PLACE THE EXISTING SURVEY MONUMENTS DURING WATER MAIN CONSTRUCTION, IF MONUMENTS ARE DESTROYED, THE CONTRACTOR SHALL SURVEY AND RESET RECORD MONUMENTS.

DUCTILE IRON PIPE:
6. ALL D.I.P. WATER LINES AND FITTINGS SHALL BE CEMENT LINED, DOUBLE THICKNESS, CLASS 350 (CL 52) PRESSURE CLASS WITH POLYETHYLENE ENCASEMENT AND COMPLY WITH ANSI A21.51(AWWA C 151).

7. STATIC WATER PRESSURE IN VICINITY IS SHOWN FOR LOW AND HIGH ELEVATIONS ON THE PLANS, REFER TO TOP OR BOTTOM OF SHEETS.

8. PIPE MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND THE MANUFACTURER’S RECOMMENDATIONS.

9. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES, EXCEPT AT POINTS OF CONNECTION TO EXISTING WATER MAINS. REFER TO STD. DWG BH-709.

10. THE CONTRACTOR MAY VARY THE GRADE IN THE ALIGNMENT OF THE WATERLINE IF FIELD CONDITIONS WARRANT WITH THE APPROVAL OF THE ENGINEER.

11. PIPE DEFLECTIONS SHALL NOT EXCEED 80% OF THE MANUFACTURE’S RECOMMENDED ALLOWABLE DEFLECTIONS FOR DUCTILE IRON PIPE AND FITTINGS INSTALLATION.


13. THE OPEN ENDS OF ALL ABANDONED WATER LINES SHALL BE PLUGGED WITH CONCRETE PER STD DWG BH 707. THE LOCATION OF THE CONCRETE PLUGS SHALL BE APPROVED BY THE CITY ENGINEER IN THE FIELD.

14. ALL EXCAVATIONS FOR THE INSTALLATION OF THE MAIN LINE PIPE AND SERVICES, INSTALLATION OF COMBINATION AIR VACUUM AND AIR RELEASE VALVES, INSTALLATION OF END OF LINE FLUSH-OUTS, AND ABANDONMENT OF EXISTING WATER MAINS SHALL BE BACKFILLED WITH A 2-SACK CEMENT SAND SLURRY MIX, SLURRY SHALL BE USED WITHIN THE PARKWAY UP TO 4 INCHES OVER THE FINISHED SURFACE.

15. ALL BACKFILL FOR THE ENTIRE PROJECT SHALL BE A 2 SACK CEMENT SLURRY MIX.

FITTINGS:
16. ALL FITTINGS AND MECHANICAL JOINTS SHALL BE DUCTILE IRON UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER. ALL RESTRAINED JOINTS AS SHOWN SHALL BE CONSTRUCTED WITH RESTRAINTS (MEGA-LUG OR FIELD-LOCK GASKETS).

17. ALL DUCTILE IRON TEES AND CROSSES SHALL BE CLASS 350 FLANGE FITTINGS UNLESS OTHERWISE NOTED ON THE PLANS. ALL OTHER DUCTILE IRON FITTINGS SHALL BE CLASS 350 WITH PUSH-ON JOINTS UNLESS OTHERWISE NOTED ON THE PLANS. PROVIDE FITTINGS WITH ENDS THAT ARE COMPATIBLE WITH MECHANICAL RESTRAINTS WHERE RESTRAINED JOINTS ARE REQUIRED.

18. ALL "STANDARD TEE" INSTALLATIONS SHALL BE PER TYPICAL STD DWG BH-704. UNLESS SHOWN OTHERWISE ON CONSTRUCTION PLANS.

19. THE CONTRACTOR SHALL FURNISH ALL FITTINGS NECESSARY FOR DEVIATION OF PIPE ALIGNMENT NOT SHOWN ON CONSTRUCTION PLANS.

VALVES:
20. ALL VALVES SHALL BE BUTTERFLY OR GATE VALVES, VALVE ASSEMBLIES SHALL BE PER TYPICAL STD DWG BH-704 & BH-706.

21. BUTTERFLY VALVES SHALL BE PLACED WITH OPERATING NUT EITHER NORTH OR WEST OF THE WATER MAIN.

22. ALL VALVES CONNECTING TO TEES, CROSSES, AND REDUCERS SHALL HAVE FLANGED OR FLANGED X PUSH-ON ENDS.

23. NO VALVE SHALL BE LOCATED WITHIN A GUTTER OR OTHER CONCRETE DRAINAGE DEVICE, ALLEY GUTTERS, DRIVEWAY AND ALLEY APPROACHES OR SIDEWALKS, UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE CITY ENGINEER.

24. THE CONTRACTOR SHALL ADJUST ALL VALVE SLEEVES TO FINISH GRADE UPON COMPLETION OF REPAVEMENT.

25. EXISTING PIPE, TEES, CROSSES AND OTHER FITTINGS WHICH INTERFERE WITH THE PROPOSED WATER SYSTEM IMPROVEMENTS SHALL BE REMOVED AND DISPOSED OF PROPERLY OR SALVAGED AS DIRECTED BY THE ENGINEER.

26. EXISTING VALVES SHALL BE SALVAGED UNDER THE DIRECTION OF THE ENGINEER. VALVE CANS SHALL BE REMOVED, BACKFILLED AND PAVED OVER.

GENERAL NOTES

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RECOMMENDED Dated 8/21/20
APPROVED         Dated 12/04/2020

STANDARD DRAWING

BH-700

SHEET 1 OF 3
WATER NOTES

AIR VALVES AND PUMP WELLS:

27. THE CONTRACTOR SHALL CONSTRUCT A COMBINATION AIR/VAC AIR RELEASE VALVE ASSEMBLY PER STANDARD DRAWING BH-717 AT ALL HIGH POINTS IN THE ALIGNMENT, WHETHER OR NOT IT IS SHOWN ON THE DRAWINGS.

28. CONTRACTOR SHALL CONSTRUCT A BLOW-OFF ASSEMBLY PER STANDARD DRAWING BH-718 AT ALL LOW POINTS IN THE ALIGNMENT, WHETHER OR NOT IT IS SHOWN ON THE DRAWINGS.

FIRE HYDRANTS:

29. ALL FIRE HYDRANTS, VALVES AND OTHER ASSOCIATED FACILITIES SHALL BE LOCATED IN THE FIELD AS DIRECTED BY THE CITY REPRESENTATIVE. THE LOCATION SHOWN ON THE PLANS ARE APPROXIMATE.

30. REMOVAL OF THE EXISTING FIRE HYDRANTS WILL INCLUDE CUTTING THE FIRE HYDRANT BURY TWO FEET (2'-0") BELOW EXISTING GRADE AND BACKFILLING WITH CONCRETE. SALVAGED FIRE HYDRANTS SHALL BE DELIVERED TO THE CITY OF BEVERLY HILLS WATER DIVISION YARD.

31. FIRE HYDRANT INSTALLATIONS SHALL INCLUDE NEW 6-INCH LATERALS, 6" VALVES WITH 6" x 6" OR 8" x 8" TEE PER CITY STANDARD DWG. BH-720 AND BH-711.

WATER SERVICES AND METERS:

32. ALL WATER SERVICES AND FIRE LINES SHALL BE REPLACED FROM THE NEW WATER LINE UP TO THE METER PER STANDARD DRAWINGS BH-713-716, AND BH-720.

33. THE CONTRACTOR SHALL LOCATE AND FIELD VERIFY ALL WATER SERVICE CONNECTIONS AND FIRE LINE SERVICES SIZES AND LOCATIONS PRIOR TO COMMENCING WORK ON THE PROJECT.

34. THE CONTRACTOR SHALL REPLACE ALL WATER METER BOXES ALONG THE NEW WATER MAIN DURING CONSTRUCTION WITH BOXES AND COVERS AS DEFINED IN THE CONTRACT SPECIFICATIONS, AND AS APPROVED BY THE CITY ENGINEER.

POTHOLDING/UTILITIES:

35. THE CONTRACTOR SHALL POTHOLE ALL TIE-IN CONNECTION LOCATIONS, PRIOR TO CONSTRUCTION TO FIELD VERIFY THE ACTUAL SIZE, DEPTH, AND ROUNDEDNESS OF THE EXISTING WATER SYSTEM. THE TIE-IN WILL BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.

36. EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS.

37. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS A MINIMUM DISTANCE OF 200 FEET IN ADVANCE OF WATER MAIN TENCING TO DETERMINE THE EXACT LOCATION AND VERIFY THE MATERIAL, SIZE, DEPTH, AND ROUNDEDNESS OF ALL PARALLEL AND CROSSING UTILITIES WITHIN THE ALIGNMENTS OF THE NEW WATER MAIN. PIPE JOINTS SHALL BE DEFLECTED AT A MAXIMUM OF 80% OF THE MANUFACTURER'S RECOMMENDATION TO CLEAR INTERFERENCES WITH KNOWN OBSTRUCTIONS OR OTHER UTILITIES WHICH ARE SHOWN OR NOT SHOWN ON THE PLANS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY INFORMATION GATHERED DEViating FROM THE PLANS SHALL BE CONVEYED TO THE CITY ENGINEER IN WRITING.

38. FAILURE TO COMPLY WITH ANY OF THE ABOVE ITEMS SHALL BE SUFFICIENT CAUSE FOR THE AGENCY TO ARRANGE FOR THE NECESSARY WORK TO BE PERFORMED BY OTHERS. ANY COSTS INCURRED TO COMPLETE THE NECESSARY WORK WILL BE CHARGED TO THE CONTRACTOR.

CONNECTIONS:

39. THE CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES INCLUDING, WATER SERVICE AND FIRE PROTECTION SERVICE CONNECTIONS FROM THE ABANDONED OR REPLACED WATER MAIN TO THE NEW WATER MAIN. THE CONTRACTOR SHALL ALSO PROVIDE ALL REQUIRED TEES, BLIND FLANGES, CAPS, FITTINGS, PIPES, AND RESTRAINED JOINT CONNECTIONS REQUIRED TO RECONNECT ALL SERVICES CONNECTIONS TO THE NEW WATER MAIN PER THE CITY OF BEVERLY HILLS STANDARDS. WATER AND FIRE SERVICE CONNECTIONS HAVE NOT BEEN SHOWN IN DETAIL FOR PLAN CLARITY.

40. AT CONNECTION POINTS, THE CONTRACTOR SHALL CUT THE EXISTING PIPE AND INSTALL FITTINGS, VALVES AND MAKE UP SPOOL PIECES AND JOIN PIPE ENDS WITH TRANSITION COUPLINGS.

41. IF ASBESTOS CEMENT PIPE (ACP) IS LOCATED, DO NOT CUT TO CONNECT. IF ACP IS INTERFERING WITH NEW WORK IDENTIFIED, NOTIFY THE CITY ENGINEER FOR MITIGATION MEASURES, BEFORE NEW WORK BEGINS.

42. CONNECTIONS OR INSTALLATION TO EXISTING WATER MAIN SHALL BE ACCORDING TO TYPICAL STANDARD DRAWINGS BH-719 - BH-722.

43. REFER TO TYPICAL INSTALLATION PIPELINE REPLACEMENT PER STANDARD DRAWING BH-722.

RESTRAINTS/THRUST BLOCKS:

44. RESTRAINING DEVICES SHALL BE INSTALLED ON BOTH SIDES OF ALL FITTINGS, VALVES, PLUGS, DEAD ENDS, AND ON ALL DIRECTION CHANGES. THE REQUIRED RESTRAINED FITTINGS SHALL BE PER STD. DWG. BH-708, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

45. THRUST BLOCKS SHALL ONLY BE INSTALLED AT LOCATIONS SPECIFICALLY APPROVED BY THE CITY ENGINEER/CITY DESIGNATED REPRESENTATIVE. WHEN APPROVED BY THE CITY ENGINEER, CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED PER THE CITY OF BEVERLY HILLS STANDARD DRAWING BH-708.

46. ALL NEW AND EXISTING WATER MAINS SHALL BE PROPERLY RESTRAINED BY THE CONTRACTOR DURING CONSTRUCTION AND HYDROSTATIC TESTING.

47. ALL FIRE SERVICE CONNECTIONS SHALL BE RESTRAINED.

GENERAL NOTES

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CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED BY DATE 8/21/2020
APPROVED BY DATE 12/04/2020

STANDARD DRAWING
BH-700
SHEET 2 OF 3
(CONTINUED) WATER NOTES

WATER SAMPLING STATIONS:

48. WATER SAMPLING STATIONS SHALL BE PROVIDED BY THE CITY. ALL APPURTENANCES, INCLUDING CONCRETE PAD AND SERVICE LINE TO THE STATION, SHALL BE PROVIDED BY THE CONTRACTOR. FINAL LOCATION OF THE WATER SAMPLING STATION SHALL BE FIELD APPROVED BY THE ENGINEER AND COORDINATED WITH THE CITY OF BEVERLY HILLS.

TESTING/DISINFECTION:

49. THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER THAT ALL WATER MAINS HAVE BEEN RELIEVED OF ENTRAPPED AIR BY HOLDING HYDROSTATIC PRESSURE IN PIPELINES BEING TESTED AT A MINIMUM OF 4 HOURS PER AWWA C600 OR C605.

50. ALL WATER LINE INSTALLATIONS SHALL BE FREE OF DEBRIS AND ORGANIC MATERIALS. THE PIPE SHALL BE PRESSURE AND LEAKAGE TESTED, FLUSHED AND CHLORINATED. CHLORINATING SHALL BE IN ACCORDANCE WITH THE STATE OF CALIFORNIA HEALTH DEPARTMENT, CONSISTING OF NOT LESS THAN 50 PPM INITIAL DOSAGE AND NOT LESS THAN 25 PPM RESIDUAL DOSAGE AFTER 24 HOURS. INSTALLATIONS SHALL BE FLUSHED AND A 48-HOUR BACTI TEST SHALL BE REQUIRED PRIOR TO PRESSURE TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BACTERIOLOGICAL TESTING BY A CERTIFIED LABORATORY. THE CONTRACTOR SHALL NOT HAVE CUSTODY OF THE WATER SAMPLES AT ANY TIME. ALL TESTING METHODS AND RESULTS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER PRIOR TO CONNECTING THE NEW WATER MAIN TO THE CITY’S WATER SYSTEM.

51. ALL BACTI AND PRESSURE TESTS SHALL BE APPROVED BY THE CITY REPRESENTATIVE PRIOR TO PLACEMENT OF PERMANENT RESURFACING.

HIGH LINING (BY-PASS):

52. NOT USED.

53. BY-PASS WATER PLANS SHALL BE PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER FOR ALL WATER MAINS TO BE REMOVED AND REPLACED PER PLAN. ALL BYPASS PLANS SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND COORDINATED AND APPROVED WITH THE CITY FIRE MARSHALL.

ABANDONMENT:

54. WHERE THE NEW WATER MAIN REPLACES AN EXISTING MAIN, THE EXISTING MAIN SHALL BE ABANDONED IN PLACE (UNLESS NOTED OTHERWISE), AND THE ENDS SHALL BE FILLED WITH 2 FEET MINIMUM OF SLURRY, CAPPED OR PLUGGED PROPERLY AND SECURED WITH CONCRETE PRIOR TO BACKFILLING.


56. REPLACE METER BOXES AS SHOWN PER PLAN OR DIRECTED BY THE CITY OF BEVERLY HILLS PER STANDARD DRAWINGS BH-714 THROUGH BH-716.

SEPARATIONS:

57. ALL WATER MAIN SEPARATIONS SHALL COMPLY WITH THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH GUIDANCE CRITERIA FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES (LATEST EDITION) AND STANDARD DRAWING BH-212.

58. WHEREVER A WATER LINE CROSSES A SEWER LINE, SEPARATION SHALL NOT BE LESS THAN 4 INCHES. WHERE THE SEPARATION IS BETWEEN 4 INCHES AND ONE FOOT, THE CONTRACTOR SHALL INSTALL THE WATER MAIN SO THAT A 20 FOOT SECTION OF PIPE IS CENTERED AT THE SEWER LINE, AND THERE SHALL NOT BE A PIPE JOINT WITHIN 8 FEET, PER STANDARD DRAWING BH-212.


60. WHERE THE NEW WATER MAIN ENCLOSES WITHIN 4 FEET OF AN EXISTING SEWER OUTER DIAMETER, SPECIAL CONSTRUCTION WILL BE REQUIRED BY CONSTRUCTING A CASING PIPE FOR THE NEW WATER MAIN PER BH-212 AND BH-735.

TRENCHING AND BACKFILLING:

61. NO MECHANICAL EQUIPMENT IS PERMITTED TO OPERATE WITHIN THREE FEET OF A GAS LINE AND ANY CLOSER WORK MUST BE DONE BY HAND.

GENERAL NOTES

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CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED: [Signature] DATE: 8/21/2020
APPROVED: [Signature] DATE: 12/04/2020

STANDARD DRAWING:
BH-700
SHEET 3 OF 3
NOTES:
1. HYDRANT OUTLETs SHALL FACE THE STREET AT 45° OR AS DIRECTED BY THE CITY ENGINEER.
2. FINAL HYDRANT LOCATION TO BE DETERMINED BY THE CITY ENGINEER.
3. CONNECTION OF THE FIRE HYDRANT TO THE WATER MAIN MAY REQUIRE FITTING AND COUPLINGS NOT SHOWN HEREON. THE CONTRACTOR SHALL PROVIDE AND INSTALL AT NO EXTRA COST.
4. BREAKAWAY BOLTS SHALL BE USED TO INSTALL THE HYDRANT HEAD ON THE BURY.
5. THRUST BLOCKs SHALL BE PLACED PER STANDARD DRAWING BH 708 OR AS DIRECTED BY THE CITY ENGINEER.
6. FIRE HYDRANTS SHALL BE PAINTED IN ACCORDANCE WITH THE SPECIFICATIONS.
7. ALL HYDRANTS WATER OUTLET CAP MATERIAL SHALL BE BRONZE.
8. ALL FITTINGS USED TO CONNECT THE FIRE HYDRANT TO THE WATER MAIN SHALL BE PROPERLY RESTRAINED WITH APPROVED STANDARD METHODS OR AS DIRECTED BY THE CITY ENGINEER.
9. TRENCHES WITHIN THE ROADWAY FOR LATERAL INSTALLATIONS OR REMOVALS SHALL BE BACKFILLED WITH TWO SACK SLURRY MIX AS DIRECTED BY THE CITY ENGINEER.
10. EXPOSED BOLT AND NUT ASSEMBLIES ON FLEXIBLE COUPLINGS AND/OR MECHANICAL JOINT FITTINGS SHALL BE COATED WITH TAR BITUMASTIC ENAMEL PRIOR TO BACKFILL.
11. SURFACE CONDITIONS SHALL BE RESTORED TO THE SATISFACTION OF THE CITY ENGINEER.

FIRE HYDRANT ASSEMBLY (TYPICAL)
EXISTING WATER MAIN TO REMAIN IN SERVICE

REMOVE INTERFERING PORTIONS OF EXISTING PIPE, VALVES, FITTINGS, ETC. AS REQUIRED

UNDISTURBED SOIL

THRUST BLOCK

FLEXIBLE COUPLING

TEE MJ x FLG OUTLET

FLEXIBLE COUPLING

6" BUTTERFLY VALVE
MJ x FLG OR 6" GATE VALVE PER STANDARD DRAWING BH 706

PROPOSED FIRE HYDRANT OR SERVICE LATERAL.
SEE SHEET 1 OF 2 FOR FIRE HYDRANT ASSEMBLY.

NOTES:

1. THRUST BLOCKS SHALL BE PLACED PER STANDARD DRAWING BH 708 OR AS DIRECTED BY THE CITY ENGINEER.

2. EXPOSED BOLT AND NUT ASSEMBLIES ON FLEXIBLE COUPLINGS AND/OR MECHANICAL JOINT FITTINGS SHALL BE COATED WITH TAR BITUMASTIC ENAMEL PRIOR TO BACKFILL.

3. TRENCHES WITHIN THE ROADWAY FOR LATERAL INSTALLATIONS OR REMOVALS SHALL BE BACKFILLED WITH TWO SACK SLURRY MIX AS DIRECTED BY THE CITY ENGINEER.

4. SURFACE CONDITIONS SHALL BE RESTORED TO THE SATISFACTION OF THE CITY ENGINEER.

FIRE HYDRANT LATERAL INSTALLATION
FIRE HYDRANT INSTALLATION
WITH WATER MAIN BEHIND CURB

NOTES:
1. THRUST BLOCKS SHALL BE PLACED PER STANDARD DRAWING BH-708 OR AS DIRECTED BY THE CITY ENGINEER.
2. EXPOSED BOLT AND NUT ASSEMBLIES ON FLEXIBLE COUPLINGS AND/OR MECHANICAL JOINT FITTINGS SHALL BE COATED WITH BITUMASTIC ENAMEL PRIOR TO BACKFILL.
3. SURFACE CONDITIONS SHALL BE RESTORED TO THE SATISFACTION OF THE CITY ENGINEER.

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED DATE 8/21/2020
APPROVED DATE 12/04/2020

STANDARD DRAWING BH-702

REVISIONS
MARK DATE DESCRIPTION
NOTES:
1. HYDRANT OUTLETS SHALL FACE THE STREET AT 45-DEGREE OR AS DIRECTED BY THE CITY ENGINEER.
2. FINAL HYDRANT LOCATION TO BE DETERMINED BY THE CITY ENGINEER.
3. CONNECTION OF THE FIRE HYDRANT TO THE WATER MAIN MAY REQUIRE FITTINGS AND COUPLINGS NOT SHOWN HEREOF. THE CONTRACTOR SHALL PROVIDE AND INSTALL AT NO EXTRA COST.
4. BREAKAWAY BOLTS SHALL BE USED TO INSTALL THE HYDRANT HEAD ON THE BURY.
5. THRUST BLOCKS SHALL BE PLACED PER STANDARD DRAWING BH-706 OR AS DIRECTED BY THE CITY REPRESENTATIVE.
6. FIRE HYDRANTS SHALL BE PAINTED SILVER FOR BEVERLY HILLS OR SAFETY YELLOW FOR WEST HOLLYWOOD.
7. ALL HYDRANTS WATER OUTLET CAP MATERIAL SHALL BE BRONZE.
8. ALL FITTINGS USED TO CONNECT THE FIRE HYDRANT TO THE WATER MAIN SHALL BE PROPERLY RESTRAINED WITH APPROVED STANDARD METHODS OR AS DIRECTED BY THE CITY ENGINEER.
9. TRENCHES WITHIN THE ROADWAY FOR LATERAL INSTALLATIONS OR REMOVALS SHALL BE BACKFILLED WITH TWO SACK SLURRY MIX AS DIRECTED BY THE CITY ENGINEER.
10. EXPOSED BOLT AND NUT ASSEMBLIES ON FLEXIBLE COUPLINGS AND/OR MECHANICAL JOINT FITTINGS SHALL BE COATED WITH BITUMASTIC ENAMEL PRIOR TO BACKFILL.
11. SURFACE CONDITIONS SHALL BE RESTORED TO THE SATISFACTION OF THE CITY ENGINEER.
12. ALL PIPES AND FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE SLEEVE.
13. ALL NUTS SHALL BE ZINC COATED.

FIRE HYDRANT INSTALLATION - HOT TAP
NOTES:

1. THRUST BLOCKS SHALL BE PLACED PER STANDARD DRAWING BH-708 OR AS DIRECTED BY THE CITY ENGINEER.

2. EXPOSED BOLT AND NUT ASSEMBLIES ON FLEXIBLE COUPLINGS AND/OR MECHANICAL JOINT FITTINGS SHALL BE COATED WITH TAR BITUMASTIC ENAMEL PRIOR TO BACKFILL.

3. TRENCHES WITHIN THE ROADWAY FOR LATERAL INSTALLATIONS OR REMOVALS SHALL BE BACKFILLED WITH ONE SACK SAND SLURRY MIX AS DIRECTED BY THE CITY ENGINEER.

4. SURFACE CONDITIONS SHALL BE RESTORED TO THE SATISFACTION OF THE CITY ENGINEER.

5. ALL PIPES AND FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE SLEEVE.
NOTES:
1. THRUST BLOCKS PER STANDARD DRAWING NUMBER BH-708 ARE REQUIRED AT ALL PLUGS, TEES, AND ENDS, OR AS DIRECTED BY THE CITY ENGINEER.
2. EXPOSED BOLT AND NUT ASSEMBLIES ON FLEXIBLE COUPLINGS AND/OR MECHANICAL JOINT FITTINGS SHALL BE COATED WITH BITUMASTIC ENAMEL PRIOR TO BACKFILL.
3. ALL PERMANENT PLUGS OR CAPS, PER STANDARD DRAWING NO. BH-707, SHALL BE CAPABLE OF WITHSTANDING A 200 PSI TEST PRESSURE.
4. FINAL FIRE HYDRANT LOCATION TO BE DETERMINED BY THE CITY ENGINEER.
5. REMOVE EXISTING TEE, VALVE, LATERAL, AND FIRE HYDRANT ASSEMBLY IF LOCATION REMAINS THE SAME.
6. TRENCHES WITHIN THE ROADWAY FOR LATERAL INSTALLATIONS OR REMOVALS SHALL BE BACKFILLED WITH TWO SACK SAND SLURRY MIX AS DIRECTED BY THE CITY ENGINEER.
7. SURFACE CONDITIONS SHALL BE RESTORED TO THE SATISFACTION OF THE CITY ENGINEER.
8. WHEN USING STANDARD PUSH-ON TEES, REGARDLESS OF SIZE, USE FIELD LOCK GASKETS PER CONTRACT SPECIFICATIONS. FOR ALL STANDARD FLANGE TEES, USE ONLY MEGALUG MECHANICAL JOINT RESTRAINTS APPROVED BY THE CITY REPRESENTATIVE.

UPGRADED HYDRANT LATERAL & STANDARD TEE

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED: WATER RESOURCES MANAGER DATE 8/20/2020
APPROVED: CITY ENGINEER DATE 12/04/2020

STANDARD DRAWING
BH-704

REVISIONS
MARK DATE DESCRIPTION
3" & LARGER WATER SERVICE WITH 4" BY-PASS

NOTE:
FOR WATER VAULT BOX AND LID, SEE STD. DWG. BH-710.
CONSTRUCTION NOTES:

1. D.I. PIPE TO MATCH METER SIZE (4” MIN.)
2. 4” X 3” D.I. REDUCER (FOR 3” SERVICE ONLY).
3. METER SIZE D.I. FLANGED TEE 4” MIN.
4. 4” D.I. FLANGED GATE VALVE WITH HAND WHEEL.
5. METER (GALLONS). METER TYPE AND BRAND TO BE DETERMINED BY THE CITY ENGINEER.
6. METER SIZE D.I. SPOOL PIPE, PE X PE 3” MIN.
7. 4” FLG x MJ ADAPTOR.
8. 4” DIP FLANGED 90-DEGREE BEND.
9. STAINLESS STEEL TAPPING SLEEVE AND VALVE PER BH-703, MAIN SIZE 4” MIN.
10. MEGALUG RETAINER GLAND 4” MIN.
11. METER SIZE MEGALUG RETAINER GLAND.
12. METER SIZE D.I. FLANGED COUPLING ADAPTER.
13. 2” MUELLER MODEL CORPORATION STOP (MODEL NO. B-20046, MIP X FIP).

3" & LARGER WATER SERVICE WITH 4" BY-PASS

REVISIONS

<table>
<thead>
<tr>
<th>MARK</th>
<th>DATE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED

APPROVED

WATER RESOURCES MANAGER
CITY ENGINEER

DATE 8/21/2020
DATE 12/04/2020

STANDARD DRAWING BH-705

SHEET 2 OF 2
VALVE TYPE: | PAINT COLOR: (VALVE LOCATED IN IN BEVERLY HILLS) | PAINT COLOR: (VALVE LOCATED IN IN W. HOLLYWOOD)
---|---|---
WATER MAIN ISOLATION VALVE | YELLOW | YELLOW
FIRE HYDRANT BRANCH VALVE | SILVER | YELLOW
ZONE VALVE | RED | YELLOW

NOTES:

1. VALVE OPERATORS SHALL BE A NON-TRAVELING NUT TYPE AND HAVE 2-INCH OPERATING NUTS.

2. SURFACE CONDITIONS SHALL BE RESTORED TO THE SATISFACTION OF THE CITY ENGINEER.

FOR FIRE HYDRANT USE 6" BUTTERFLY VALVE OR GATE VALVE MJ x FLG

TOP OF PAVEMENT

12" MIN.

8" MIN.

8" SCH 80 PVC STANDPIPE LOWER SLEEVE 1/8" MINIMUM THICKNESS, ASPHALT COATED TO PROVIDE 4" TO 6" OVERLAP (SLIP FIT)

16 GAGE SPLIT GALVANIZED STEEL EXTENSION SLEEVE

5" 9-1/2" 11"

3-3/4"

6-3/4"

3-3/4"

6-5/8"

1-1/16"

1-1/16"

1-1/16"

3-5/8"

7-1/2"

TOP OF PAVEMENT

5-5/8"

" 1-11/16"
NOTES:
1. CONCRETE SHALL BE 3000 P.S.I.
2. POUR CONCRETE THRUST BLOCKS AGAINST UNDISTURBED SOIL.
3. REMOVE INTERFERING PORTIONS OF MAIN TO BE ABANDONED.
4. USE STEEL ANCHOR RODS OR STRAPS ONLY WHERE PERMITTED BY THE ENGINEER.
5. USE BRACE PIPE CLAMP ONLY WHERE PERMITTED BY THE ENGINEER.
6. SEE BH-708 FOR THRUST BLOCK DIMENSIONS.

TYPICAL CAPS AND PLUGS

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED
DATE 8/21/2020

APPROVED
DATE 12/04/2020

STANDARD DRAWING
BH-707

SHEET 1 OF 1
### HORIZONTAL BENDS

<table>
<thead>
<tr>
<th>NOMINAL PIPE SIZE (INCHES)</th>
<th>TEST PRESSURE (P.S.I.)</th>
<th>DEAD ENDS AND TEES</th>
<th>BENDS LESS THAN OR EQUAL TO ANGLE:</th>
<th>ALL BENDS</th>
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<tr>
<td></td>
<td></td>
<td>A  B  C</td>
<td>11 - 1/4°  22 - 1/2°  45°  90°</td>
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<td>10°  15°  20°  25°  30°  35°</td>
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</tr>
<tr>
<td>6</td>
<td>200</td>
<td>2'-6&quot;  1'-6&quot;  6&quot;</td>
<td>1'-0&quot;  1'-0&quot;  2'-0&quot;  3'-0&quot;  4'-0&quot;  5'-0&quot;  6'-0&quot;  7'-0&quot;  8'-0&quot;</td>
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<td>200</td>
<td>5'-6&quot;  2'-0&quot;  10&quot;</td>
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<td>2'-0&quot;  1'-0&quot;  3'-0&quot;  4'-0&quot;  5'-0&quot;  6'-0&quot;  7'-0&quot;  8'-0&quot;</td>
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### VERTICAL BENDS

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<th>BENDS LESS THAN OR EQUAL TO ANGLE:</th>
<th>ALL BENDS</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>11 - 1/4°  22 - 1/2°  45°  90°</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>D  E  F</td>
<td>10°  15°  20°  25°  30°  35°</td>
</tr>
<tr>
<td>6</td>
<td>200</td>
<td>1'-6&quot;  3'-0&quot;  1'-0&quot;</td>
<td>2'-0&quot;  4'-0&quot;  1'-0&quot;</td>
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<tr>
<td>8</td>
<td>200</td>
<td>2'-0&quot;  4'-0&quot;  1'-0&quot;</td>
<td>2'-0&quot;  5'-0&quot;  1'-0&quot;</td>
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<tr>
<td>10</td>
<td>200</td>
<td>2'-0&quot;  4'-6&quot;  1'-0&quot;</td>
<td>3'-0&quot;  6'-0&quot;  1'-6&quot;</td>
</tr>
<tr>
<td>12</td>
<td>200</td>
<td>2'-6&quot;  5'-0&quot;  1'-0&quot;</td>
<td>3'-6&quot;  7'-0&quot;  2'-0&quot;</td>
</tr>
</tbody>
</table>

### CONCRETE THRUST BLOCK SCHEDULE

**NOTES:**

1. THRUST BLOCK SIZES ARE BASED ON A BEARING CAPACITY OF 1500 P.S.F., WITH A MINIMUM SOIL COVER OF 3'-0". IF SOIL COVER IS LESS THAN 3'-0", MULTIPLY BEARING AREA BY A FACTOR OF 1.5 FOR SOIL COVER OF 2'-0" TO 3'-0", OR BY A FACTOR OF 3 FOR SOIL COVER OF 1'-0" TO 2'-0".

2. DIMENSIONS SHOWN REFER TO THRUST BLOCK TYPES SHOWN IN DETAIL AND ARE MINIMUM VALUES ONLY.

3. CONCRETE MIX SHALL BE IN ACCORDANCE WITH SPECIFICATIONS FOR 3000 LBS. STRENGTH AT 28 DAYS WHEN TESTED IS ACCORDANCE WITH ASTM 039.

4. ALL THRUST BLOCKS SHALL BE POURED SOLIDLY AGAINST FIRM, UNDISTURBED SOIL.

5. IF SOILS HAVE BEEN PREVIOUSLY EXCAVATED AND BACKFILLED, CONTRACTOR SHALL NOTIFY THE CITY ENGINEER, WHO MAY DIRECT THAT THE DIMENSIONS SHOWN SHALL BE INCREASED BY A FACTOR OF 1.5.

6. CONCRETE POURED AGAINST PIPE FITTINGS SHALL NOT EXTEND BEYOND THE FITTING JOINTS WITHOUT THE APPROVAL OF THE CITY ENGINEER.

7. THRUST REACTION BACKING TYPE (SEE DRAWING) SHALL BE AS DIRECTED BY THE CITY ENGINEER.
NOTES:

1. CONCRETE FOR THRUST BLOCK TO BE 3000 P.S.I.
2. MINIMUM RESTRAINED JOINT LENGTH OF 40 FEET EACH WAY WITH FIELD LOCK GASKET AND RODS.
CONCRETE THRUST BLOCKS

NOTES:

1. SEE STANDARD DRAWING NO. BH-708, SHT. 1 FOR THRUST BLOCK SCHEDULE AND NOTES.
2. MINIMUM RESTRAINED JOINT LENGTH OF 40 FEET. EACH WAY WITH FIELD LOCK GASKET AND RODS.
MAKE BLOCK FULL WIDTH OF TRENCH

TYPE V

SECTION P

WRAP WITH PLASTIC LINER TO PREVENT CORROSION

W 14 x 13

#6 @ 12" O.C. MAX. MIN. 2 REQUIRED, TOP AND BOTTOM EACH SIDE

NOTES:
1. SEE STANDARD DRAWING NO. BH-708, SHT. 1 FOR THRUST BLOCK SCHEDULE AND NOTES.
2. MINIMUM RESTRAINED JOINT LENGTH OF 40 FEET. EACH WAY WITH FIELD LOCK GASKET AND RODS.

CONCRETE THRUST BLOCKS

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED
WATER RESOURCES MANAGER
DATE 8/21/2020

APPROVED
CITY ENGINEER
DATE 12/04/2020

STANDARD DRAWING
BH-708

SHEET 4 OF 4
NOTES:

1. WHEN TRENCH WORK CANNOT BE COMPLETED WITHIN THE SAME WORKING DAY, SEE BEVERLY HILLS STANDARD DRAWING BH-113 FOR STEEL PLATE PLACEMENT.

2. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK").
No. 100-T TOP SECTION
WT. 325 LBS.

6" 39 5/8" 27 5/8"

No. 100 EXTENSION SECTION
WT. 325 LBS.

6" 36" 24"

No. 100 LOWER SECTION
WT. 1200 LBS.

44" 32" 24"

END WALL KNOCKOUTS
(FOR PIPE)

27" 10" 10"

W-100 SERIES
2'-0" x 3'-0" UTILITY BOX WITH 4" WALLS

MINIMUM EXCAVATION SIZE:
3'-2" x 4'-2" x DEPTH REQUIRED.

100 SERIES METER BOX - 4" & 6" FIRE SERVICE
BILL OF MATERIALS

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>QTY.</th>
<th>DESCRIPTION</th>
<th>WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>3/16&quot; x 27 1/2&quot; DWARF PLATE x 39 1/2&quot; @ 13.8 lb/ft² (SEE BELOW)</td>
<td>103 lbs</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>1 1/2&quot; x 1 1/2&quot; x 1/4&quot; BEND PLATE x 36 1/2&quot; @ 4.9 lb/ft² (SEE DETAIL &quot;B&quot;)</td>
<td>15 lbs</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>1 1/2&quot; x 1 1/2&quot; x 1/4&quot; BEND PLATE x 23 3/8&quot; @ 2.4 lb/ft² (SEE DETAIL &quot;C&quot;)</td>
<td>9 lbs</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>2 1/2&quot; x 2&quot; x 1/4&quot; ANGLE x 33 3/8&quot; @ 3.8 lb/ft²</td>
<td>28 lbs</td>
</tr>
<tr>
<td>E</td>
<td>4</td>
<td>1/4&quot; x 1 1/4&quot; FLAT BAR x 3&quot; @ 1.44 lb/ft²</td>
<td>1 lbs</td>
</tr>
<tr>
<td>F</td>
<td>4</td>
<td>1&quot; x 1&quot; x 3 1/4&quot; ANGLE x 13 1/2&quot; @ 1.16 lb/ft² (SEE DETAIL)</td>
<td>8 lbs</td>
</tr>
<tr>
<td>G</td>
<td>4</td>
<td>1/4&quot; x 1 1/2&quot; x 6-3/8&quot; 3/8 @ 1.28 lb/ft²</td>
<td>20 lbs</td>
</tr>
<tr>
<td>H</td>
<td>2</td>
<td>1/4&quot; x 1 1/2&quot; FLAT BAR X 35 5/8&quot; @ 1.38 lb/ft² (SEE DETAIL)</td>
<td>10 lbs</td>
</tr>
<tr>
<td>J</td>
<td>2</td>
<td>2 1/2&quot; x 1 1/2&quot; x 1/4&quot; BEND PLATE x 5&quot; @ 2.44 lb/ft²</td>
<td>2 lbs</td>
</tr>
<tr>
<td>K</td>
<td>4</td>
<td>3/8-16 NUTS WELDED IN PLACE</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>2</td>
<td>READING LID (PROVIDED BY CUSTOMER)</td>
<td></td>
</tr>
</tbody>
</table>

NOTES:
1. TOTAL WEIGHT OF COVER IS 159 lbs.
2. REFERENCE DRAWING FHCA-409-F ZAMFOR FOR FRAME.
3. COVER MARKING PER CUSTOMERS SPEC.
4. COVER DESIGNED PER CALCULATION NO. 502095.
5. STRUCTURAL ANGLE CAN BE USED IN LIEU OF BENT PLATES OR BENT PLATES IN LIEU OF ANGLES.

TOLERANCES:
1. ALL LINEAR DIMENSIONS ARE ± 1/8".
2. ITEM "A" WILL BE SQUARE TO WITHIN 1/8" DIFFERENCE IN DIAGONAL MEASURE.

100 SERIES 4" & 6" FIRE SERVICE LID

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED: date 8/21/2020
APPROVED: date 12/04/2020

STANDARD DRAWING BH-710 SHEET 2 OF 16
No. 200-T TOP SECTION
WT. 300 LBS.

No. 200 EXTENSION SECTION
WT. 330 LBS.

No. 200 LOWER SECTION
WT. 1674 LBS.

END WALL
KNOCKOUTS
(FOR PIPE)

W-200 SERIES
2'-6" x 4'-0" UTILITY BOX WITH 4" WALLS

MINIMUM EXCAVATION SIZE:
3'-8" x 5'-2" x DEPTH REQUIRED.

200 SERIES METER BOX - 4" & 6" DOMESTIC SERVICE
200 SERIES - 4" & 6" DOMESTIC SERVICE LID

BILL OF MATERIALS

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>QTY.</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>5/16&quot; x 1/2&quot; x 3&quot; 1/2&quot; x 5&quot; 1/2&quot; @ 13.6 in/in</td>
<td></td>
</tr>
</tbody>
</table>

CUTOUT TYP 2 PLACES

1" DIA. LIFT HOLE-2-REGG.

PLAN VIEW

SECTION B-B

DETAIL ITEM "H"

DETAIL "G"

DETAIL "D"

DETAIL - SLOT

REVISIONS

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

STANDARD DRAWING

BH-710

RECOMMENDED DATE 8/21/2020
WATER RESOURCES MANAGER

APPROVED DATE 12/04/2020
CITY ENGINEER

SHEET 6 OF 16
No. 38 MB - BODY
WT. 128 lbs.

No. 38 MB - EXTENSION
WT. 128 lbs.

*NON-TRAFFIC RATED

WATER METER BOX FOR 1" AND 1 1/2" SERVICE

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED
DATE 8/21/2020
WATER RESOURCES MANAGER

APPROVED
DATE 12/04/2020
CITY ENGINEER

STANDARD DRAWING
BH-710

SHEET 7 OF 16
WATER METER BOX LID 1" AND 1 1/2" SERVICE

NON SKID SURFACE
ARMORCAST LOGO
POLYMER CONCRETE COVER
LIFT PIN
STD. MARKING

CUSTOMER LOGO

WATER

ALCLARA STAR UNIT LOCATION (UNIT NOT SUPPLIED)

13 3/4"
2"
6 13/16"
23 1/4"

*NON-TRAFFIC RATED

APPROX. WT. = 33 LBS.
No. 65 MB - BODY
WT. 159 lbs.

No. 65 MB - EXTENSION
WT. 159 lbs.

*NON-TRAFFIC RATED

WATER METER BOX - 1 1/2" & 2" SERVICE

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED: 
APPROVED: 

STANDARD DRAWING 
BH-710

SHEET 9 OF 16
WATER METER LID - 1 1/2" & 2" SERVICE

POLYMER CONCRETE COVER

NON SKID SURFACE

ARMORCAST LOGO

LIFT PIN

CUSTOMER LOGO

ALCLARA STAR UNIT LOCATION (UNIT NOT SUPPLIED)

WATER

15 1/8" x 1 3/4"

6 13/16"

26 3/4"
TRAFFIC BOX
REINFORCED CONCRETE
H-20 LOADING
166 lbs.

EXTENSION
REINFORCED CONCRETE
H-20 LOADING
163 lbs.
(AS REQUIRED IN FIELD)

NOTES:

1. FOLLOW CALTRANS No. 5T STATE SPECIFICATIONS.
   *TRAFFIC RATED

13" x 24" WATER METER BOX - H/20 LOADING
13" x 24" METER BOX LID - H/20 LOADING

MATERIALS

1. 1/2" DIAMOND CHECKER PLATE
2. 1/4" x 1-1/2" STEEL FLAT STOCK
3. 3/4" x 1/2" STEEL FLAT STOCK
4. 3/8" - 16 STEEL NUT
5. 3/16" THICK WASHER TO BE WELDED PER ASTM A-706
6. SURFACE AROUND WELD TO BE FLAT
7. USE BH-710 SHT 15 OR 16 FOR INSTALLATION
BOX
REINFORCED CONCRETE
H-20 LOADING
268 lbs.

EXTENSION
REINFORCED CONCRETE
H-20 LOADING
250 lbs.
(AS REQUIRED IN FIELD)

NOTES:

1. FOLLOW CALTRANS No. 6T STATE SPECIFICATIONS.
   *TRAFFIC RATED

17" x 30" WATER METER BOX - H/20 LOADING
17" x 30" METER BOX LID - H/20 LOADING

MATERIALS
1 - 1/2" DIAMOND CHECKER PLATE
2 - 1/4" x 1-1/2" STEEL FLAT STOCK
3 - 3/4" x 1/2" STEEL FLAT STOCK
4 - 3/8" - 16 STEEL NUT
5 - 3/16"THICK WASHER TO BE WELDED PER ASTM A-706
6 - SURFACE AROUND WELD TO BE FLAT
7 - USE BH 710 SHT. 15 OR 16 FOR INSTALLATION

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED DATE 8/21/2020
APPROVED CITY ENGINEER DATE 12/04/2020

STANDARD DRAWING BH 710
SHEET 14 OF 16
7 X 13 X 1 POLYMER CONCRETE LID
ADJUSTABLE PIPE SUPPORT

**Approximate Dimensions in Inches**

<table>
<thead>
<tr>
<th>PIPE SIZE</th>
<th>‘A’</th>
<th>‘B’</th>
<th>‘C’</th>
<th>‘D’ MINIMUM</th>
<th>‘D’ MAXIMUM</th>
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<tr>
<td>2-1/2</td>
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<td>8-1/2</td>
<td>11-3/4</td>
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<td>6</td>
<td>3-1/2</td>
<td>10</td>
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<td>30</td>
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</tbody>
</table>

* Denotes Reference to Manufacturer
SINGLE SERVICE PLAN

TRAFFIC RATED
(H20-44 LOADING)
STEEL COVER USE
BH-710 SHT. 12
WITH SHT. 15

SAWCUT AC
PAVEMENT

BOLT DOWN HOLE

1 TO 3' AND VAR.
(SEE PLANS)

1" ANGLE METER STOP WITH LOCK
WING MUELLER

EXISTING PAVEMENT

SAWCUT AND REPLACE FULL
DEPTH AC PAVEMENT FOR METER
BOX REPLACEMENT

EXISTING CONCRETE COLLAR TO
BE PROTECTED IN PLACE OR
REPLACED IN KIND
SEE DETAIL "A"

45°

5' 10'

4' 2'

1" CORPORATION STOP, MUELLER

1" DOUBLE STRAP BRONZE SADDLE
MUELLER BR2B SERIES

*METER TRANSMITTING UNIT

EXISTING METER BOX TO BE
PROTECTED IN PLACE OR
REPLACED IN KIND USE
BH-710 SHT 11. (TYPICAL
FOR ALL SERVICES)

POINTE OF CONNECTION. 
JOIN CUSTOMER SERVICE
AS REQUIRED

GRAVEL BOTTOM
REMOVE EXISTING WATER METER AND
INSTALL NEW NEPTUNE T-10 METER

INSTALL 1" MUELLER COPPER
FITTING

RISE TO BE 1" COPPER
TUBING TYPE K

NEW DIP WATERLINE
PER PLAN

DETAIL "A"

ELEVATION

SHORT SERVICE
TRAFFIC RATED

1" AND 1 1/2" WATER SERVICE CONNECTION SHORT TR

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

STANDARD DRAWING
BH-713

RECOMMENDED
DATE 8/21/2020
WATER RESOURCES MANAGER

APPROVED
DATE 12/04/2020
CITY ENGINEER
NOTES: FOR SHORT/LONG SERVICES
1. MATERIALS AND INSTALLATION SHALL CONFORM WITH THE APPLICABLE SECTIONS OF THE CITY OF BEVERLY HILLS, SPECIFICATIONS FOR DOMESTIC WATER SYSTEMS.
2. NEW SERVICES WILL NOT BE SPLICED WHEN DAMAGED. SERVICES WILL BE RENEWED.
3. EXISTING OR DAMAGED METER BOXES SHALL BE REPLACED PER CITY STANDARD DRAWING NO. BH-710 SHEET 11 AS DIRECTED BY CITY'S FIELD REPRESENTATIVE. INSTALLATION OF NEW METER BOX SHALL INCLUDE A 6" WIDE CONCRETE COLLAR AROUND THE METER BOX (SEE DETAIL "A"). ALL ASPHALT REPLACEMENT SHALL BE NEATLY SAWCUT.

1" AND 1 1/2" WATER SERVICE CONNECTION LONG TR
NOTES: FOR SHORT/LONG SERVICE

1. MATERIALS AND INSTALLATION SHALL CONFORM WITH THE APPLICABLE SECTIONS OF THE CITY OF BEVERLY HILLS, SPECIFICATIONS FOR DOMESTIC WATER SYSTEMS.
2. NEW SERVICES WILL NOT BE SPILED WHEN DAMAGED, SERVICE WILL BE RENEWED.
3. EXISTING OR DAMAGED METER BOXES SHALL BE REPLACED PER CITY STANDARD DRAWING NO. BH-710 SHEET 7 AS DIRECTED BY THE CITY’S FIELD REPRESENTATIVE. ALL ASPHALT REPLACEMENT SHALL BE NEATLY SAWCUT.
### 2" WATER SERVICE CONNECTION SHORT TR

**CITY OF BEVERLY HILLS, CALIFORNIA**

**DEPARTMENT OF PUBLIC WORKS**

**ENGINEERING DIVISION**

**STANDARD DRAWING BH-715**

**RECOMMENDED**

**DATE 8/21/2020**

**APPROVED**

**DATE 12/04/2020**

<table>
<thead>
<tr>
<th>MARK</th>
<th>DATE</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
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<td></td>
</tr>
</tbody>
</table>

**SHORT SERVICE**

TRAFFIC RATED

**SINGLE SERVICE PLAN**

TRAFFIC RATED

(P=20-44 LOADING)

STEEL COVER

USE BH-710 SHT. 14 WITH SHT. 15

SAWCUT AC

PAVEMENT

BOLT DOWN HOLE

1" TO 3" AND VAR.

(SEE PLANS)

2" ANGLE METER STOP

WITH ANGEL METER STOP

EXISTING PAVEMENT

SAWCUT AND REPLACE FULL

DEPTH AC PAVEMENT FOR METER

BOX REPLACEMENT

EXISTING CONCRETE COLLAR TO

BE PROTECTED IN PLACE OR

REPLACED IN KIND

SEE DETAIL "A"

2" COPPER TUBING,

TYPE K

2" CORPORATION STOP,

MUeller B-25028

DOUBLE STRAP BRONZE SADDLE,

MUeller BR28 SERIES

NEW DIP WATERLINE

PER PLAN

EXISTING METER BOX TO BE

PROTECTED IN PLACE OR

REPLACED IN KIND

USE BH-710 SHT 13. (TYPICAL FOR ALL SERVICES)

POINTER OF CONNECTION,

JOIN CUSTOMER SERVICE

AS REQUIRED

GRAVEL BOTTOM

REMOVE EXISTING WATER METER AND INSTALL

NEW NEPTUNE T-10 METER

2"x3" LONG BRASS NIPPLE INSTALL

2"x1-1/2" REDUCER FOR 1-1/2" METER

DETAIL "A"
NOTES: FOR SHORT/LONG SERVICE

1. MATERIALS AND INSTALLATION SHALL CONFORM WITH THE APPLICABLE SECTIONS OF THE CITY OF BEVERLY HILLS SPECIFICATIONS FOR DOMESTIC WATER SYSTEMS.

2. NEW SERVICES WILL NOT BE SPLICED WHEN DAMAGED, SERVICE WILL BE RENEWED.

3. EXISTING OR DAMAGED METER BOXES SHALL BE REPLACED PER CITY STANDARD DRAWING BH-710 SHEET 13, AS DIRECTED BY THE CITY’S FIELD REPRESENTATIVE. INSTALLATION OF NEW METER BOX SHALL INCLUDE A 6" WIDE BY 6" DEEP CONCRETE COLLAR AROUND METER BOX (SEE DETAIL "A"), ALL ASPHALT REPLACEMENT SHALL BE NEATLY SAWCUT.

4. IF REQUIRED, THE CITY WILL SUPPLY A 1-1/2-INCH SERVICE METER.

2" WATER SERVICE CONNECTION LONG TR

REVISIONS

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

STANDARD DRAWING BH-715

RECOMMENDED DATE 8/21/2020
APPROVED DATE 12/04/2020
USE BH-710 SHT. 10

LIFT HOLE

SINGLE SERVICE PLAN
NTS

EXISTING METER BOX TO BE PROTECTED IN PLACE OR REPLACED IN KIND USE BH-710 SHT 9. (TYPICAL FOR ALL SERVICES)

1' TO 3' AND VAR. (SEE PLANS)

4" CONCRETE SIDEWALK OR GRASS PARKWAY

2" ANGLE METER STOP WITH LOCK WING MUELLER

POINT OF CONNECTION, JOIN CUSTOMER SERVICE AS REQUIRED

GRAVEL BOTTOM

REMOVE EXISTING WATER METER AND INSTALL NEW NEPTUNE T-10 METER

2"x3" LONG BRASS NIPPLE INSTALL 2"x1-1/2" REDUCER FOR 1-1/2" METERS

ELEVATION
NTS

SHORT SERVICE
NON-TRAFFIC RATED

NEW DIP WATERLINE PER PLAN

2" COPPER TUBING, TYPE K

2" CORPORATION STOP, MUELLER B-25028

2" DOUBLE STRAP BRONZE SADDLE, MUELLER BR22 SERIES

2" WATER SERVICE CONNECTION SHORT

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED DATE 8/21/2020
WATER RESOURCES MANAGER

APPROVED DATE 12/04/2020
CITY ENGINEER

STANDARD DRAWING BH-716

SHEET 1 OF 2
NOTES: FOR SHORT/LONG SERVICE

1. MATERIALS AND INSTALLATION SHALL CONFORM WITH THE APPLICABLE SECTIONS OF THE CITY OF BEVERLY HILLS SPECIFICATIONS FOR DOMESTIC WATER SYSTEMS.

2. NEW SERVICES WILL NOT BE SPliced WHEN DAMAGED, SERVICE WILL BE RENEWED.

3. EXISTING OR DAMAGED METER BOXES SHALL BE REPLACED PER CITY STANDARD DRAWING BH-710 SHEET 9, AS DIRECTED BY THE CITY’S FIELD REPRESENTATIVE. ALL ASPHALT REPLACEMENT SHALL BE NEATLY SAWCUT.

2" WATER SERVICE CONNECTION LONG
CONSTRUCTION NOTES:

1. 1" AIR-VAC COMBO
2. 1"x1"x1" BRASS TEE
3. 1" x 3/4" BRASS BUSHING
4. 3/4" BRASS BALL VALVE
5. 3/4" x BRASS CLOSED NIPPLE
6. 3/4"-90° ELBOW
7. 1" BRASS BALL VALVE
8. 1" x DESIRED HEIGHT BRASS NIPPLE
9. REMOVABLE PLUG

1" COPPER TUBING, TYPE K

SLOPE=3/8

1" CORR. STOP, MUELLER

NEW DIP WATER MAIN

1" DOUBLE STRAP BRONZE SADDLE, MUELLER BR2B SERIES

SCREEN END OF 1/2" NIPPLE WITH SS INSECT SCREEN & SS BAND, McMaster-Carr #9877K514
12" CEDE CO #12 12-3/4" X 18" (RED PRIMER) COVER
1" STRAIGHT COUPLING, MUELLER H15428

1" AIR-VAC WITH TESTING ASSEMBLY
SCREEN END OF 1/2" NIPPLE WITH SS INSECT SCREEN & SS SAND, 
MCMaster-Carr #9877X514

STANDARD HOLE
3/16" STEEL PLATE CAP

18"
CURB FACE

CONTINUOUS SLOPE
1/4" PER FOOT MIN.

1/4" FELT

LIST OF FITTINGS

A  1" AIR RELEASE VALVE, APCO NO. 140C.
B  PIPELINE PRODUCT 6" O.D. x 24" HEIGHT WITH DOOR PART #RMCH0636 STEEL PIPE.
C  1" CORPORATION STOP, MUELLER.
D  1" EXTRA STRONG COPPER NIPPLE, 2" LONG.
E  1" COUPLING COMP xFIP.
F  1"-90° ELBOW SLIP x SLIP.
G  3-2" x 2" x 1/4" x 1/2" ANGLE WITH 3/8" BOLTS, GALVANIZED.
H  1" TYPE "K" COPPER TUBING
I  1" BRONZE SADDLE, DOUBLE STRAP.
J  1" BRONZE BALL VALVE.

1" AIR-VAC FOR MAIN
CONSTRUCTION NOTES:

1. 2" AIR-VAC COMBO WHARF HEAD.
2. 2" BRASS PPE.
3. 2"-30° STANDARD BRASS ELBOW SLIP x I.P.T.
4. 2" COPPER SLIP x I.P.T. ADAPTOR.
5. 2" COPPER TUBING (TYPE K-HARD).
6. 2" STAINLESS STEEL BALL VALVE.
7. 2" BRASS NIPPLE.
8. CONCRETE VAULT & COVER PER BH-710.

2" BLOW-OFF ASSEMBLY (WHARF HEAD TYPE)
REPLACE EXISTING TEE WITH CROSS

CASE "A"

NEW CONNECTION / CUT IN TEE

CASE "B"

CONNECTIONS TO EXISTING AND PROPOSED WATERLINE
FIRE SERVICE TEE
CASE "C"

NTS

EXISTING 8-INCH CAST IRON PIPE OR DUCTILE IRON PIPE

INSTALL COMPRESSION COUPLING W/ RESTRAINED JOINTS DRESSER, ROMAC, OR EQUIVALENT

REstrained MJ joint EBAA iron or equivalent (typical)

INSTALL NEW 8" x 8" x 8" or 8" x 8" x 6" or 8" x 6" x 4" MJ x MJ x FLG DIP TEE, SIZE TO MATCH EXISTING FIRE SERVICE LINE

NEW 8-INCH DIP PE x PE 4' LONG MIN.

EXISTING 8-INCH CAST IRON PIPE OR DUCTILE IRON PIPE

INSTALL 4", 6" OR 8" MJ x FLG BUTTERFLY VALVE WITH RESTRAINTS

NEW 4", 6" OR 8" DIP TO MATCH FIRE SERVICE LINE, SEE PLAN

FIRE SERVICE TEE: CASE "C" TYP. INSTALLATION
NOTES:

1. THE NEW LOCATION OF BAC-T SYSTEM AND BOLLARDS SHALL BE DETERMINED BY THE CITY REPRESENTATIVE.
NOTES:

1. ALL FITTINGS SHALL BE RESTRAINLED WITH MEGALUGS.
2. LENGTH SHALL BE DETERMINED BY NEXT EXISTING JOINT.
3. LENGTH, DEPTH, AND HEIGHT SHALL BE FIELD DETERMINED.
4. APPLY BITUMASTIC ENAMEL COATING TO ALL NUTS AND BOLTS.
5. BACKFILL SHALL BE 90% RELATIVE COMPACTION AND CONFORM TO SPECIFICATIONS.
6. AIR RELEASE VALVES ON OVERCROSSES ARE REQUIRED, AND SHALL CONFORM TO DETAIL BH-717, SHEET 2 OF 2, UNLESS OTHERWISE INDICATED.
NOTES:
1. INSTALL ONE BOND ON TOP OF EACH PIPE FOR EACH JOINT.
2. PIPE JOINT CONFIGURATION IS SCHEMATIC ONLY.

PUSH-ON OR MECHANICAL JOINT DIP
NOTES:

1. ALL FITTINGS SHALL BE RESTRAINED WITH MEGALUGS.

2. OVERALL LENGTH SHALL BE DETERMINED BY NEXT EXISTING JOINT.

3. LENGTH, DEPTH, AND HEIGHT SHALL BE FIELD DETERMINED.

4. APPLY BITUMASTIC ENAMEL COATING TO ALL NUTS AND BOLTS.

5. BACKFILL SHALL BE 90% RELATIVE COMPACTION AND CONFORM TO SPECIFICATIONS.

6. BLOW OFF VALVES ON UNDERCROSSEINGS ARE REQUIRED, SEE BH-718.

UNDERCROSSING
FLANGED COUPLING
ADAPTER BONDING DETAIL
N.T.S.

FLANGED JOINT BONDING DETAIL
N.T.S.

JOINT BONDING FOR DUCTILE IRON PIPE: FLANGED JOINT

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED:  DATE: 8/21/2020
APPROVED:  DATE: 12/04/2020

STANDARD DRAWING
BH-728

SHEET 1 OF 1
NOTE:
ALL ABOVE GROUND PIPING & VALVES SHALL
RECEIVE ONE COAT RUSTOLIUM PRIMER AND
TWO FINISHING COATS OF ENAMEL PAINT
(COLOR SHALL BE DETERMINED BY THE CITY
OF BEVERLY HILLS.

BACKFLOW PREVENTION OR FIRE SPRINKLER SERVICE

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>D.A. LENGTH (A)</th>
<th>MIN. / MAX. FLOW</th>
<th>WILKINS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1/2&quot;</td>
<td>20-1/8&quot;</td>
<td>75 - 224 GPM</td>
<td>MODEL 375ADA</td>
</tr>
<tr>
<td>3&quot;</td>
<td>20-1/8&quot;</td>
<td>115 - 346 GPM</td>
<td>MODEL 375ADA</td>
</tr>
<tr>
<td>4&quot;</td>
<td>19-7/8&quot;</td>
<td>196 - 595 GPM</td>
<td>MODEL 375ADA</td>
</tr>
<tr>
<td>6&quot;</td>
<td>25-7/8&quot;</td>
<td>450 - 1351 GPM</td>
<td>MODEL 375ADA</td>
</tr>
<tr>
<td>8&quot;</td>
<td>38-1/2&quot;</td>
<td>760 - 2339 GPM</td>
<td>MODEL 375ADA</td>
</tr>
<tr>
<td>10&quot;</td>
<td>38-1/2&quot;</td>
<td>1229 - 3667 GPM</td>
<td>MODEL 375ADA</td>
</tr>
</tbody>
</table>

OR USC BACKFLOW FOUNDATION
APPROVED DEVICES
SENSOR IMPLEMENTATION SCENARIO

**WILKINS RP BACKFLOW PREVENTER**
"USC" APPROVED LEAD FREE

**RW GATE VALVE WITH**
HAND WHEEL, FLG x FLG

**PIPE SUPPORT**
PER BH-711

**CONCRETE SLAB**

**FINISHED**
GRADE

**1" MIN.**

**18" TYP.**

**3 MIN. COVER**

FROM CITY OF BEVERLY HILLS
IRRIGATION SERVICE

**90° BEND**
FLG x FLG

**90° BEND**
FLG x FLG

**DI PIPE, CLASS 350**
FLANGE FITTINGS

**#4 BAR @ 6"**
O.C.E.W.

IRRIGATION SERVICE LINE
TO CUSTOMER

**SECTIONAL VIEW**

**PLAN VIEW**

**NOTE:**
ALL ABOVE GROUND PIPING & VALVES SHALL RECEIVE
ONE COAT RUSTOLIUM PRIMER AND TWO FINISHING
COATS OF ENAMEL PAINT (COLOR SHALL BE
DETERMINED BY THE CITY OF BEVERLY HILLS).

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>LENGTH (A)</th>
<th>MIN. / MAX. FLOW</th>
<th>WILKINS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1/12&quot;</td>
<td>15-7/8&quot;</td>
<td>75 - 224 GPM</td>
<td>MODEL 375</td>
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<tr>
<td>3&quot;</td>
<td>15-7/6&quot;</td>
<td>115 - 346 GPM</td>
<td>MODEL 375</td>
</tr>
<tr>
<td>4&quot;</td>
<td>19-7/6&quot;</td>
<td>198 - 595 GPM</td>
<td>MODEL 375</td>
</tr>
</tbody>
</table>

**LARGE IRRIGATION SERVICE BACKFLOW PREVENTER**

**CITY OF BEVERLY HILLS, CALIFORNIA**

**DEPARTMENT OF PUBLIC WORKS**

**ENGINEERING DIVISION**

**RECOMMENDED**

**APPROVED**

**STANDARD DRAWING**

**BH-733**

**DATE 8/21/2020**

**DATE 12/04/2020**

**SHEET 1 OF 1**
NOTE:
1. CONTRACTOR SHALL CLEARLY AND PERMANENTLY LABEL THE PRESSURE ZONES ON THE INLET AND OUTLET PIPES. METHOD TO BE APPROVED BY THE INSPECTOR. USE 2" MINIMUM HIGH NUMERALS AND LETTERS.

2. MATERIALS SHALL BE SELECTED FROM THE APPROVED MATERIALS LIST.

3. FINISH SURFACE (FS) ELEVATIONS SHALL BE SHOWN ON THE PLANS.

4. PIPING SHALL BE PAINTED "SAFETY BLUE" FOR POTABLE WATER AND PANTONE PURPLE FOR RECYCLED WATER.

5. (D1) = LARGE DIAMETER (D2) = MEDIUM DIAMETER (D3) SMALL DIAMETER

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>ITEM</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>(D1) PRESSURE REDUCER CLA-VALVE, FLG</td>
<td>15</td>
<td>(D2) VICTAULIC COUPLING, GROOVED</td>
</tr>
<tr>
<td>2</td>
<td>(D2) PRESSURE REDUCER CLA-VALVE, FLG</td>
<td>16</td>
<td>(D3) THREADED BRONZE UNION</td>
</tr>
<tr>
<td>3</td>
<td>(D3) PRESSURE REDUCER VALVE, FLG OR THREADED</td>
<td>17</td>
<td>(D1) 90 DEGREES ELBOW</td>
</tr>
<tr>
<td>4</td>
<td>3-1/2&quot; LIQUID FILLED PRESSURE GAUGE (0-160 PSI) ASSEMBLY</td>
<td>18</td>
<td>(D1) x (D2) FL D.I. TEE</td>
</tr>
<tr>
<td>5</td>
<td>(D1) GATE VALVE RESILIENT WEDGE TYPE 3.V. MUeller</td>
<td>19</td>
<td>(D2) FL D.I. TEE</td>
</tr>
<tr>
<td>6</td>
<td>(D2) GATE VALVE RESILIENT WEDGE TYPE 3.V. MUeller</td>
<td>20</td>
<td>(D2) D.I. BLIND FLANGE WITH THREADED OUTLET</td>
</tr>
<tr>
<td>7</td>
<td>(D3) BRONZE BALL VALVE</td>
<td>21</td>
<td>(D3) 90 DEGREES BRONZE ELBOW</td>
</tr>
<tr>
<td>8</td>
<td>(D1) FL x GROOVED D.I. SPOOL, (LENGTH AS REQ'D)</td>
<td>22</td>
<td>PRESSURE ZONE LABEL</td>
</tr>
<tr>
<td>9</td>
<td>(D1) FL x FL D.I. SPOOL</td>
<td>23</td>
<td>4&quot; CONCRETE PAD OVER 12&quot; AGGREGATE BASE</td>
</tr>
<tr>
<td>10</td>
<td>(D2) FL x GROOVED D.I. SPOOL, (LENGTH AS REQ'D)</td>
<td>24</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>(D2) FL x FL D.I. SPOOL</td>
<td>25</td>
<td>INSULATING BUSHING</td>
</tr>
<tr>
<td>12</td>
<td>(D3) BRONZE PIPE WITH THREADED ENDS</td>
<td>26</td>
<td>FOR FLANGED PRV, (D3) BRONZE FLANGE</td>
</tr>
<tr>
<td>13</td>
<td>-</td>
<td>27</td>
<td>AUTOMATIC COMBO, AIR RELEASE &amp; VACUUM RELIEF VALVE</td>
</tr>
<tr>
<td>14</td>
<td>(D1) VICTAULIC COUPLING, GROOVED</td>
<td>28</td>
<td>SEE PIPE SUPPORT DETAIL BH-711</td>
</tr>
</tbody>
</table>

PRESSURE REDUCING VALVE STATION DETAIL

REVISIONS

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED BY: [Signature] DATE 8/21/2020
APPROVED BY: [Signature] DATE 12/04/2020

STANDARD DRAWING BH-734
SHEET 1 OF 2
SECTION A-A

1. CONTRACTOR SHALL CLEARLY AND PERMANENTLY LABEL THE PRESSURE ZONES ON THE INLET AND OUTLET PIPES. METHOD TO BE APPROVED BY THE INSPECTOR. USE 2" MINIMUM HIGH NUMERALS AND LETTERS.

2. MATERIALS SHALL BE SELECTED FROM THE APPROVED MATERIALS LIST.

3. FOR LIST OF MATERIALS, SEE STD. DWG. BH-734 SHEET 1 OF 2.

4. CONSTRUCTION PLANS SHALL CALL OUT ELEVATIONS.

5. FOR PIPE SUPPORT LOCATIONS, REFER TO SECTION A-A OF THIS SHEET. FOR MOUNTING, SEE CONSTRUCTION DETAIL BH-711.

6. P.R.V. STATION SHALL HAVE AN EXPANDED METAL ENCLOSURE SURROUNDING THE INSTALLATION HINGED SO IT CAN BE OPENED FOR MAINTENANCE ACCESS.

PRESSURE REDUCING VALVE STATION DETAIL

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED ___________________________ DATE 8/21/2020

APPROVED ___________________________ DATE 12/04/2020

STANDARD DRAWING
BH-734
SHEET 2 OF 2
FILL TOP 270° AREA WITH GROUT OR PIT SAND AFTER PIPE HAS BEEN PLACED

15" I.D. FABRICATED STEEL CASING, 1/8" THICK

WATER MAIN

 Strap

CONTINUOUS GREASED SKIDS, NOTCH AND STRAP TO WATER MAIN

FILL TOP 90° AREA WITH GROUT AFTER PIPE HAS BEEN PLACED

NOTE:
GROUT HOLES SHALL BE PROVIDED AT LOCATIONS ACCEPTABLE TO THE ENGINEER. FILL VOIDS OUTSIDE CASING PIPE WITH GROUT.

JACKED CASING WITH WATER MAIN
NOT TO SCALE

JACKED CASING WITH WATER MAIN DETAIL
CONCRETE ENCASEMENT OVER STORM DRAIN

NOTES:

1. WHEN TRENCH WORK CAN NOT BE COMPLETED WITHIN THE SAME WORKING DAY, SEE BEVERLY HILLS STANDARD DRAWING BH-113 FOR STEEL PLATE PLACEMENT.

2. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF BEVERLY HILLS STANDARD SPECIFICATIONS.
CONCRETE ENCASEMENT CASE NO. 1

CONCRETE ENCASEMENT CASE NO. 2

CONCRETE ENCASEMENT DETAIL

NOTES:

1. WHEN TRENCH WORK CANNOT BE COMPLETED WITHIN THE SAME WORKING DAY, SEE BEVERLY HILLS STANDARD DRAWING BH-113 FOR STEEL PLATE PLACEMENT.

2. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF BEVERLY HILLS STANDARD SPECIFICATIONS.

PIPE | DIMENSIONS
--- | ---
10" | 4" 4"
12" | 4" 4"
15" | 4" 4"
18" | 5" 5"
21" | 5" 5"
24" | 6" 6"
27" | 6" 7"
30" | 6" 8"

SCALE: NONE

CITY OF BEVERLY HILLS, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

RECOMMENDED: Vincenzo Caramori DATE 8/21/2020
APPROVED: James Caramori DATE 12/04/2020

STANDARD DRAWING BH-737

SHEET 1 OF 1