CITY OF REDWOOD CITY
ENGINEERING AND TRANSPORTATION

(BAY MUD) POISSON FORCE
RESTRAINT ANCHOR WALL FOR
HDPE POTABLE WATER MAIN

DATE: 11/25/19

DESIGN PARAMETERS:
1. SOIL BEARING VALUE OF 600 LBS. PER SQ. FT
2. DR 11 HDPE PIPE (L.P.S.) PE 4710, CONFORMING TO AWWA C906-07.
3. DESIGN SYSTEM PRESSURE = 100 PSI
4. RECURRING SURGE PRESSURE = 100 PSI
5. FLOW VELOCITY = 7 FPS
6. FLEX RESTRANT CAPACITY OF 7000 LBS. EACH.
7. PAVEMENT SURFACE MAX. 8".
8. SAFETY FACTOR = 1.5
9. IN CASES NOT CONFORMING TO DESIGN PARAMETERS RECALCULATE WALL DIMENSIONS, PER AWWA MANUAL M55

CONNECT AND RESTRAIN EXISTING PIPE FLANGE TO HDPE FLANGE ADAPTER. INSTALL RESTRAIN FLANGE COUPLING ADAPTER, AS NEEDED.

HDPE BUTT FUSION FLANGE ADAPTER.

FLEX RESTRAINT DEVICE ELECTROFUSION FITTING BY GEORGF FISCHER CENTRAL PLASTICS OR APPROVED EQUAL

MIN. 4,000 PSI STRENGTH CONCRETE

#4 REBAR w/ 3" COVER MIN. (TYP.)

KEEP BOLTS AND NUTS CLEAR OF CONCRETE 6" MAX. CLEARANCE

PUMP CONCRETE WALL TO UNDESTOLED SOIL AT BASE

NOMINAL WALL DIMENSIONS (FT) # OF BARS RE-BAR SPACING (IN.) # OF FLEX RESTRAINTS

<table>
<thead>
<tr>
<th>NOMINAL pipe size</th>
<th>&quot;W&quot;</th>
<th>&quot;H&quot;</th>
<th>&quot;D&quot;</th>
<th>&quot;C&quot;</th>
<th>&quot;T&quot;</th>
<th>FOOTING DIM. (FT)</th>
<th># OF BARS</th>
<th>RE-BAR SPACING</th>
<th># OF FLEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot;</td>
<td>4.5</td>
<td>3.0</td>
<td>0.75</td>
<td>3.5</td>
<td>1.5</td>
<td>0.5 x 3.5</td>
<td>4</td>
<td>12&quot;</td>
<td>3</td>
</tr>
<tr>
<td>8&quot;</td>
<td>5.0</td>
<td>4.0</td>
<td>0.75</td>
<td>3.5</td>
<td>2.0</td>
<td>1.0 x 4.5</td>
<td>4</td>
<td>12&quot;</td>
<td>4</td>
</tr>
<tr>
<td>10&quot;</td>
<td>7.5</td>
<td>5.0</td>
<td>0.75</td>
<td>3.5</td>
<td>2.5</td>
<td>1.0 x 5.0</td>
<td>6</td>
<td>12&quot;</td>
<td>5</td>
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<tr>
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<td>2.75</td>
<td>1.0 x 7.0</td>
<td>6</td>
<td>12&quot;</td>
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<tr>
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<td>3.0</td>
<td>1.0 x 7.5</td>
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<td>1.0 x 11.5</td>
<td>8</td>
<td>12&quot;</td>
<td>9</td>
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</tbody>
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STANDARD DETAIL
W - 18
HDPE

Redwood City, California

DATE: 11/25/19