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#### ENGINEERING DESIGN STANDARDS

Resolution 2020-031

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END
NOTES:

1. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH CITY STANDARDS.

2. DEPENDING UPON THE LENGTH OF STREET, PERIMETER ACCESS AND TYPE OF STRUCTURE TO BE PROTECTED, THE FIRE DEPARTMENT MAY REQUIRE A GREATER ROAD WIDTH THAN WHAT IS SPECIFIED HEREIN.

3. WIDTHS MAY VERY PER INDIVIDUAL SPECIFIC PLANS.

4. THIS STANDARD SHALL BE USED TO MATCH EXISTING CONDITIONS AT THE DIRECTION OF THE CITY ENGINEER.
RESIDENTIAL STREET

For streets which serve less than fifty fronting houses or carrying less than an average of 500 vehicles per day.

MINOR RESIDENTIAL COLLECTOR

For streets which serve more than fifty but less than 200 fronting houses or carrying an average of between 500 and 2,000 cars per day.

NOTES:

1. RIGHT-OF-WAY WIDTH MAY BE REDUCED UNDER SPECIAL CONDITIONS UPON APPROVAL OF CITY ENGINEER.

2. STREET SLOPES MAY BE INCREASED TO A MAXIMUM OF 4% IF REQUIRED DUE TO SPECIAL CIRCUMSTANCES.

3. PEDESTRIAN WALK CROSS SLOPE NOT TO EXCEED 2%. THE CLEAR WIDTH FOR SIDEWALKS SHALL BE 48" MINIMUM. WHEN BECAUSE OF RIGHT-OF-WAY RESTRICTIONS, NATURAL BARRIERS OF OTHER EXISTING CONDITIONS, THE ENFORCING AGENCY DETERMINES THAT COMPLIANCE WITH THE 48" CLEAR SIDEWALK WIDTH WOULD CREATE AN UNREASONABLE HARDSHIP, THE CLEAR WIDTH MAY BE REDUCED TO 36".

4. THE CLEAR WIDTH OF SIDEWALKS SHALL BE ALLOWED TO BE 48" MINIMUM GIVEN THAT IF THE ACCESSIBLE ROUTE IS LESS THAN 60" WIDE, PASSING SPACES WILL BE PROVIDED TO MEET REQUIREMENTS OF APPLICABLE CURRENT CALIFORNIA BUILDING CODE.
SPECIFIC PLAN COLLECTOR

For streets which serve more than fifty but less than 200 fronting houses or carrying an average of between 500 and 2,000 cars per day.

MAJOR RESIDENTIAL COLLECTOR

For streets with no fronting houses serving 200 to 500 houses or carrying an average of between 2,000 and 5,000 vehicles per day.

NOTES:

1. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% LONGITUDINAL SLOPE.

2. THE CLEAR WIDTH OF SIDEWALKS SHALL BE ALLOWED TO BE 48" MINIMUM GIVEN THAT IF THE ACCESSIBLE ROUTE IS LESS 60" WIDE, PASSING SPACES OF 60" X 60" WILL BE PROVIDED EVERY 400 FEET TO MEET REQUIREMENTS OF APPLICABLE CURRENT CA BUILDING CODE.
NEIGHBORHOOD ENTRY

N.T.S.

NOTES:

1. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% LONGITUDINAL SLOPE.

2. THE CLEAR WIDTH OF SIDEWALKS SHALL BE ALLOWED TO BE 48" MINIMUM GIVEN THAT IF THE ACCESSIBLE ROUTE IS LESS THAN 60" WIDE, PASSING SPACES OF 60" X 60" WILL BE PROVIDED EVERY 400' FEET TO MEET REQUIREMENTS OF APPLICABLE CURRENT CALIFORNIA BUILDING CODE.
Sound walls shall be used when passing through residential areas for streets which serve 500 to 1,000 homes or carry an average of between 5,000 and 12,000 vehicles per day.

Sound walls shall be used when passing through residential areas for streets which carry in excess of 10,000 cars per day.

NOTES:
1. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% LONGITUDINAL SLOPE.
2. SPECIFIC PLAN MAY REQUIRE ADDITIONAL RIGHT OF WAY.
NOTES:

1. SOUND WALLS SHALL BE USED ADJACENT TO RESIDENTIAL AREAS WHEN THE EXPRESSWAY CARRIES MORE THAN 10,000 CARS PER DAY.

2. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% LONGITUDINAL SLOPE.

3. SPECIFIC PLAN MAY REQUIRE ADDITIONAL RIGHT OF WAY.
HIGH VOLUME-1500 TO 2500 VEHICLES PER DAY

TWO LANE PARKING BOTH SIDES

ONE WAY STREET PARKING BOTH SIDES

MEDIUM VOLUME-500 TO 1000 VEHICLES PER DAY

LOW VOLUME-UP TO 500 VEHICLES PER DAY

MAXIMUM BLOCK LENGTH 500 FEET

ONE WAY ALLEY

SIDEWALK

PUE (10' PUE MAY BE REQUIRED ON EITHER SIDE OF STREET)

2020-031
February 18, 2020

Robert Armijo

107

2012 MASTER PLAN
RESIDENTIAL STREET ROADWAYS CROSS SECTION
TWO LANE MAJOR COLLECTOR
2000 TO 5000 VEHICLES PER DAY

TWO LANE COLLECTOR
<2000 VEHICLES PER DAY
FOUR LANE MAJOR ARTERIAL WITH MEDIAN

SIX LANE MAJOR ARTERIAL WITH INTERMITTENT 8 FOOT PULLOUTS

CITY OF TRACY

REVIEWED BY: Robert Armijo
CITY ENGINEER RCE 63173

Res No. 2020-031 DATE: February 18, 2020
Prepared By: Leisser M. Checked By: Thomas W.

2012 Master Plan

MASTER PLAN
4-LANE MAJOR ARTERIAL
6-LANE MAJOR ARTERIAL
EIGHT LANE PARKWAY

SIX LANE PARKWAY

FOUR LANE PARKWAY

CITY OF TRACY

REVIEWED BY: [Signature]

STANDARD PLAN No. 112

MASTER PLAN
FOUR LANE, SIX LANE &
EIGHT LANE PARKWAY

CITY ENGINEER
RCE 63173

Res No. 2020-031
DATE: February 18, 2020

Prepared By: Leisser M.
Checked By: Thomas W.

2012 MASTER PLAN
INDICATE ELEVATION OF PAVEMENT AT CENTERLINE AT MIDPOINT OF CURVE R2

DATA

<table>
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<tr>
<th></th>
<th>W</th>
<th>56'</th>
<th>60'</th>
<th>64'</th>
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<tr>
<td>R1</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
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<tr>
<td>R2</td>
<td>70'</td>
<td>70'</td>
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<tr>
<td>R3</td>
<td>50'</td>
<td>50'</td>
<td>50'</td>
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<tr>
<td>R4</td>
<td>38 - 0&quot; MIN. W/ STREET PARKING</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>R5</td>
<td>47&quot; - 7&quot; MIN. W/ STREET PARKING</td>
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1. MAXIMUM LENGTH OF A CUL-DE-SAC STREET FROM CENTER OF INTERSECTING STREET TO CENTER OF TURN-AROUND SHALL BE 500 FEET.

2. BULB OFF-SET MAY BE ON EITHER SIDE.

---

**FACE OF CURB**

<table>
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<tr>
<th>RADIUS</th>
<th>RESIDEN.</th>
<th>INDUST.</th>
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<tr>
<td>R1</td>
<td>50'</td>
<td>60'</td>
</tr>
<tr>
<td>R2</td>
<td>48' W/NO PARKING</td>
<td>50' W/NO PARKING</td>
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<tr>
<td></td>
<td>56' WITH PARKING</td>
<td>58' WITH PARKING</td>
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**NOTES:**

1. MAXIMUM LENGTH OF A CUL-DE-SAC STREET FROM CENTER OF INTERSECTING STREET TO CENTER OF TURN-AROUND SHALL BE 500 FEET.

2. BULB OFF-SET MAY BE ON EITHER SIDE.
NOTES:

1. OFFSETS ARE MEASURED FROM A BASE LINE, ESTABLISHED BY EXTENDING THE CURB LINE.

2. DISTANCE ALONG THE BASE LINE IS MEASURED FROM THE POINT OF TANGENCY OF THE BEGINNING OF TAPER.

3. TAPER LENGTH SHALL BE 120' AND LANE WIDTH OFFSET SHALL BE 12' UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR SHOWN ON THE PLANS.

4. MEDIAN NOSE SHOULD BE PAINTED YELLOW WITH REFLECTIVE GLASS BEADS.
LEFT-IN ONLY MEDIAN DESIGN

MEDIAN DESIGN TO RESTRICT EXITING LEFT TURNS

CITY OF TRACY

REVIEWS: CITY ENGINEER

CITY ENGINEER

Res No. 2020-031

Prepared By: Leisser M.

Rev: Rev:

DATE: February 18, 2020

Checked By: Thomas W.
AB THICKNESS TO MATCH ROADWAY STRUCTURAL SECTION

VALLEY GUTTER DEPTH = 1 1/4”

3” CLEAR TYP.

8” PCC CONCRETE 2% MAX

VALLEY GUTTER

8” PCC CONCRETE 2% MAX

AB THICKNESS TO MATCH ROADWAY STRUCTURAL SECTION

SECTION "A-A"

EXPANSION JOINT, TYP.

POINT A

AC

SCORE LINE, TYP.

8’

CONSTRUCTION JOINTS

EXPANSION JOINT, TYP.

POINT A

AC

SCORE LINE, TYP.

8’

SECTION "A-A"

EXPANSION JOINT, TYP.

POINT A

AC

SCORE LINE, TYP.

8’

THROUGH STREET

CONSTRUCTION JOINTS

THROUGH STREET

CONSTRUCTION JOINTS

BEGINNING OF CURB RETURN

END OF CURB RETURN

#4 REBAR @ 12” O.C. EACH WAY

REINFORCEMENT DETAIL

(TYP.) 48 INCH MINIMUM CLEAR SPACE WITHIN PATH OF TRAVEL.

MAXIMUM CROSS SLOPE 2% IN ALL DIRECTIONS

NOTES:

1. SEE STANDARDS PLAN 120 FOR CURB AND GUTTER

2. POINTS A & B SHALL BE AT THE SAME ELEVATION

3. THIS STANDARD PLAN SHALL BE USED ONLY WITH PERMISSION OF CITY ENGINEER

CITY OF TRACY

REVISED BY: Robert Armijo

CITY ENGINEER

Res No. 2020-031

Prepared By: Leisser M.

Checked By: Thomas W.

CITY ENGINEER

RCE 63173

DATE: February 18, 2020

REV.

REV.

117

VALLEY GUTTER
NOTES:

1. THIS DETAIL SHALL BE USED WHERE FRAMES AND COVERS ARE BEING ADJUSTED TO GRADE.

2. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS; 4" MAX. SLUMP; 3/4" MAXIMUM AGGREGATE SIZE.

3. ALL CONCRETE SHALL BE POURED AGAINST NEAT EXCAVATION. DISTURBED SOIL OR A.B. SHALL BE COMPACTED TO 95%, COMPACT AT 3"-4" LIFTS

4. ASPHALT SHALL MATCH FINISH GRADE OF ADJACENT PAVEMENT

5. ALL IRON MUST BE LOWERED PRIOR TO GRIND

6. ALL IRON MUST BE RAISED AFTER FINAL LIFT OF ASPHALT HAS BEEN PLACED

POTABLE WATER
TRAFFIC BOX G04BOX
CAST IRON LID G4C
STAMPED WATER

RECLAIMED WATER (PURPLE PIPE)
TRAFFIC BOX G04BOX
CAST IRON LID G4C (PURPLE)
STAMPED RECLAIMED WATER

CITY OF TRACY

REVIEWED BY: Robert Armijo
CITY ENGINEER RCE 63173

Res No. 2020-031 DATE: February 18, 2020
Prepared By: Leisser M. Checked By: Thomas W.
Rev: Rev:
NOTES:

1. CONCRETE SHALL BE FIVE SACK CLASS "B" 2500 PSI AT 28 DAYS; 4" MAXIMUM SLUMP; 3/4" MAXIMUM AGGREGATE SIZE.


3. MONUMENT BOX SHALL BE CHRISTY G-5 OR APPROVED EQUAL WITH MARKING "MONUMENT" IN RAISED LETTERS ON COVER. BRASS PLATE SHALL BE LEITZ 8134-16 DOMED SURVEY MARKERS.

4. THE ENGINEER OR SURVEYOR SHALL NOTIFY THE CITY ENGINEER IN WRITING THAT FINAL MONUMENTS HAVE BEEN PLACED AS REQUIRED BY THE SUBDIVISION MAP ACT AND PAYMENTS HAVE BEEN RECEIVED FROM THE DEVELOPER IN CONFORMANCE WITH SECTION 66497 OF THE SUBDIVISION MAP ACT.
NOTES:
1. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 8 FOOT INTERVALS. JOINTS TO BE MINIMUM 1 1/2 INCH DEPTH.
2. EXPANSION JOINTS TO BE INSTALLED AT MAX. 200 FOOT INTERVALS, AT EACH SIDE OF STRUCTURES AND AT ENDS OF CURB RETURNS. EXPANSION JOINTS SHALL NOT BE CONSTRUCTED WITHIN 20 FEET OF AN ISLAND NOSE. THE JOINTS SHALL BE FILLED WITH 1/4" PRE MOLDED FILLER CONFORMING TO CALTRANS SPECIFICATIONS 51-1.1 2C (ASTM 1751)
3. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ. FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
4. IMPRESS 2" HIGH LETTERS "S" (SEWER), "W" (WATER) OR I (IRR. SLEVE), 1/4" DEEP INTO THE FACE OF CURB TO IDENTIFY SERVICE LOCATIONS.
5. CONCRETE SHALL BE 5 SACK CLASS "B", 2500 PSI @ 28 DAYS; 3/4" MAX. AGGREGATE SIZE, 4" MAX. SLUMP AT TIME OF PLACEMENT, 1/2 LB LAMP BLACK PER CUBIC YARD.
6. ASPHALT PAVING SHALL BE PLACED 1/4" ABOVE LIP OF GUTTER.
7. WHEN ATTACHING SIDEWALK TO CURBS, INSTALL 12" LONG #4 DOWELS 18" O.C.
8. FOR ROLLED TYPE CURB & GUTTER, CITY ENGINEER'S APPROVAL IS REQUIRED.
1. TOP 6" OF NATIVE MATERIAL SHALL BE COMPACTED TO 90% OR MOISTENED IF UNDISTURBED.
2. ALL EXPOSED CORNERS SHALL HAVE A 3/4" RADIUS.
3. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS; 3/4 MAXIMUM AGGREGATE SIZE 4" MAXIMUM SLUMP AT TIME OF PLACEMENT. 1/2 LB. LAMPBLACK PER YARD.
4. TOP SURFACE AND FACE OF CONCRETE IMPROVEMENTS SHALL BE TRUE, STRAIGHT AND FREE OF BLEMISHES OR IRREGULARITIES. SURFACE MUST NOT VARY MORE THAN 1/4" FROM A 10' STRAIGHT EDGE PLACED ON ITS SURFACE. THE WIDTH MUST BE UNIFORM.
5. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL/ 150 SQ. FT, CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
WEAKENED PLANE JOINT

PLAN

1/8''

#4 DOWEL 12" O.C. IF SIDEWALK IS POURED SEPARATE FROM CURB

10'

#3 REBARS @ 10" O.C.-E.W.

GRADE 60

1/2'' DEEP

TREE WELL

DIRECTION OF BROOM FINISH

WEAKENED PLANE JOINT

1 1/2'' DEEP

SCORE LINE

6'' CLASS 2 AGGREGATE BASE COMPACTED TO 95%

6'' OF 90% COMPACTED NATIVE

NOTES:

1. TOP 6" OF NATIVE MATERIAL SHALL BE SCAIFED, MOISTURE CONDITIONED, AND COMPACTED TO 90% OR MOISTENED IF UNDISTURBED. SUBGRADE COMPACATION SHALL BE APPROVED BY THE CITY ENGINEER.

2. ALL EXPOSED CORNERS SHALL HAVE A 1/2" RADIUS.

3. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS; 3/4" MAXIMUM AGGREGATE SIZE 4" MAXIMUM SLUMP AT TIME OF PLACEMENT. 1/2 IB. LAMPBLACK PER YARD.

4. EXPANSION JOINTS SHALL BE SHAPED TO FIT CONCRETE AND PLACED AT ALL RETURNS; AROUND FIXED OBJECTS SUCH AS HYDRANTS, POLES AND DROP INLETS; AND MAX. 200' INTERVALS. THE JOINTS SHALL BE FILLED WITH 1/4" PRE MOLDED FILLER CONFORMING TO CALTRANS SPECIFICATIONS 51-2.

5. THE TOP SURFACE AND FACE OF CONCRETE IMPROVEMENTS SHALL BE TRUE, STRAIGHT AND FREE OF BLEMISHES OR IRREGULARITIES. THE SURFACE MUST NOT VARY MORE THAN 1/4" FROM A 10' STRAIGHT EDGE PLACED ON ITS SURFACE. THE WIDTH MUST BE UNIFORM.

6. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ.FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.

7. ELEVATION DIFFERENTIAL BETWEEN SIDEWALK & TREE WELL FINISHED GRADE SHALL NOT EXCEED 4 INCHES.

8. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% MAXIMUM LONGITUDINAL SLOPE.

CITY OF TRACY

REVIEWED BY: Robert Armijo

CITY ENGINEER RCE 63173

Res No. 2020-031 DATE: February 18, 2020

Prepared By: Leisser M. Checked By: Thomas W.

Rev: Rev:
NOTES:

1. TOP 6" OF NATIVE SUBGRADE SHALL BE COMPACTED TO 90% OR MOISTENED IF UNDISTURBED. SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER.
2. ALL EXPOSED CORNERS SHALL HAVE A 1/8" RADIUS.
3. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS; 3/4" MAXIMUM AGGREGATE SIZE, 4" MAXIMUM SLUMP AT TIME OF PLACEMENT WITH 1/2 POUND LAMPBLACK PER YARD.
4. EXPANSION JOINTS SHALL BE SHAPED TO FIT CONCRETE AND PLACED AT ALL RETURNS; AROUND FIXED OBJECTS SUCH AS HYDRANTS, POLES AND DROP INLETS; AND MAX. 200' INTERVALS. THE JOINTS SHALL BE FILLED WITH 1/4" PRE MOLDED FILLER CONFORMING TO CALTRANS SPECIFICATIONS 51-1.12C (ASTM 1751). REFER TO STD. 128 FOR EXPANSION JOINTS DETAIL.
5. THE TOP SURFACE AND FACE OF CONCRETE IMPROVEMENTS SHALL BE TRUE, STRAIGHT AND FREE OF BLEMISHES OR IRREGULARITIES. THE SURFACE MUST NOT VARY MORE THAN 1/4" FROM A 10' STRAIGHT EDGE PLACED ON ITS SURFACE. THE WIDTH MUST BE UNIFORM.
6. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ.FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
7. ANY RESIDENTIAL SIDEWALK WIDER THAN 5' REQUIRES A SCORE PATTERN DESIGN THAT MUST BE ACCEPTABLE TO THE CITY ENGINEER.
8. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% MAXIMUM LONGITUDINAL SLOPE.
NOTES:

1. TOP 6" OF NATIVE MATERIAL SHALL BE (SEE SP-122) SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER
2. ALL EXPOSED CORNERS SHALL HAVE A 1/2" RADIUS.
3. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS: 3/4" MAXIMUM AGGREGATE SIZE, 4" MAXIMUM SLUMP AT TIME OF PLACEMENT WITH 1/2 LB. LAMPBLACK PER YARD.
4. EXPANSION JOINTS SHALL BE SHAPED TO FIT CONCRETE AND PLACED AT ALL RETURNS, AROUND FIXED OBJECTS SUCH AS HYDRANTS, POLES, AND DROP INLETS, AT MAXIMUM 200' INTERVALS. THE JOINTS SHALL BE FILLED WITH 1/4" PRE-MOLDED FILLER CONFORMING TO CALTRANS SPECIFICATIONS 51-1.12C (ASTM 1751). REFER TO STANDARD #128 FOR EXPANSION JOINTS DETAIL.
5. THE TOP SURFACE AND FACE OF CONCRETE IMPROVEMENTS SHALL BE TRUE, STRAIGHT AND FREE OF BLEMISHES OR IRREGULARITIES. THE SURFACE MUST NOT VARY MORE THAN 1/4" FROM A 10' STRAIGHT EDGE PLACED ON ITS SURFACE. THE WIDTH MUST BE UNIFORM.
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8. ELEVATION DIFFERENTIAL BETWEEN SIDEWALK AND TREE WELL FINISHED GRADE SHALL NOT EXCEED 4 INCHES.
9. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% MAXIMUM LONGITUDINAL SLOPE.
10. BACKFILL FLUSH BEHIND SIDEWALKS
11. #3 REBAR @ 10" O.C.E.W
1. SIDEWALKS GREATER THAN 5 FEET SHALL REQUIRE PRIOR APPROVAL OF A SCORE PATTERN DESIGN.
2. EXPANSION JOINTS SHALL BE SHAPED TO FIT CONCRETE AND PLACED AT ALL RETURNS, AROUND FIXED OBJECTS SUCH AS HYDRANTS, POLES AND DROP INLETS, AND AT MAXIMUM 200’ INTERVALS. THE JOINTS SHALL BE FILLED WITH 1/4" PRE MOLDED FILLER CONFORMING TO CALTRANS SPECIFICATIONS 51-1.2C (ASTM D-1751).
CITY OF TRACY

CURB RAMPS

SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D

SECTION E-E

SECTION F-F

SECTION G-G

Think Inside the Triangle™

CITY ENGINEER

Res No. 2020-031

Prepared By: Leisser M.

Checked By: Thomas W.

Rev:

Rev:

Date: February 18, 2020

Exhibits and comparison diagrams are also included for each case. The diagrams illustrate the design requirements, including the slopes, maximum and minimum dimensions, and the placement of curbs and planting areas. Each section highlights specific details such as the top of the ramp, edge of sidewalk, and gutter flowline, ensuring proper drainage and accessibility.

The designs emphasize the importance of retaining curbs if necessary at the edge of the sidewalk, especially where topography or slope changes are significant. The specifications also include guidelines for planting areas, ensuring they are appropriately sized and placed to accommodate both aesthetic and functional needs.

Overall, the document provides comprehensive guidance for implementing curbs and ramps in urban settings, ensuring they meet safety, accessibility, and aesthetic standards. The diagrams and detailed instructions are valuable tools for city planners, engineers, and contractors, facilitating the design and implementation of sustainable and user-friendly curbside infrastructure.
NOTES:

1. As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate.

2. If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-0" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B, or C or may be widened as in Case D.

3. When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.

4. As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.

5. If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4'-0".

6. Side slope of ramp flares vary uniformly from a maximum of 10% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.

7. Transitions from ramps and landing to walks, gutters or streets shall be flush and free of abrupt changes.

8. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp or accessible route shall not exceed 5 percent within 4'-0" of the bottom of the curb ramp.

9. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable Warning Surfaces shall conform to the details on this plan and the requirements in the Special Provisions.

10. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.

11. Sidewalk and ramp thickness, "T", shall be 6" minimum.

12. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.

13. For retrofit conditions, removal and replacement of curb apron will be at the Contractor’s option, unless otherwise shown on project plans.

14. Finished Planter area surface shall be not extend any lower than 4" from the top of the retaining curb.

15. All ramps require #5 rebar @ 10" o.c. each way.

16. Landing area shall not exceed 2% in any given direction.

CITY OF TRACY

REVIEWED BY: Robert Arminio
CITY ENGINEER  RCE 63173

STANDARD PLAN No. 127

CURB RAMP NOTES & DETAILS

Res No. 2020-031
DATE: February 18, 2020
Prepared By: Leisser M.
Checked By: Thomas W.

Think Inside the Triangle®
NOTES:

1. Sidewalk, ramp and passageway thickness, "T", shall be 3\(\text{½}\)" minimum.

2. For details of grooving used with Case CM curb ramp, see Standard Plan 130–2 of 3.

3. For details of detectable warning surfaces, see Standard Plan 130–2 of 3.

4. Detectable warnings at pedestrian islands or cut–through medians shall be 36" minimum in depth extending the full width of the pedestrian path or cut–through less 2 inches maximum on each side, placed at the edges of the pedestrian island or cut–through median, and shall be separated by 24" minimum of walking surface without detectable warnings. Exception: Detectable warnings shall be 24" inches minimum in depth at pedestrian islands or cut–through medians that are less than 96" inches in length in the direction of travel.

5. For Case CM curb ramp, the edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.

6. Transitions from ramps to walks, gutters or streets shall be flush and free of abrupt changes.

7. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp or accessible route shall not exceed 5 percent within 4"-0" of the top and bottom of the curb ramp.

8. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.

9. For additional curb ramp details, see City Standard Plan 130, Sheets 1 and 2.

10. #3 Rebars at 10" OCEW
1. Ramps shall have a medium broom finish transverse to their slope.
2. No pull box, utility vault, utility pole, manhole or similar appurtenance shall be located within the ramp area without prior or written approval by the City Engineer.
3. The landing area slope shall not exceed 2% in any direction.
4. Transitions to sidewalk, gutter and streets shall be flush and free of abrupt change.
5. Ramp shall be designed and constructed such that water does not accumulate on ramp.
6. Detectable warning surfaces shall extend the full width of the ramp.
7. The leading edge of the detectable warning surface shall be located 6" to 8" from the gutter flow-line. Detectable warning surfaces shall be installed parallel to the path of travel, and shall extend the full width of the landing area, and a minimum depth of 3' from the leading edge towards the back of the landing area.

**NOTES**

1. DETECTABLE WARNING SURFACE
2. DEEP TOOL JOINT - 1 1/2" MIN DEPTH
3. 6" 2500 PSI CONCRETE
4. 6" CLASS 2 AB (2.5" MAX.) PROCESSED TO 95% RELATIVE COMPACTION
5. 6" SUBGRADE OR CLASS 2 ASB PROCESSED TO 95% RELATIVE COMPACTION
6. 5" WIDE RETAINING CURB WITH VARIABLE HEIGHT ALONG RUNNING SLOPE
7. SAW CUT, REMOVE AND REPLACE AC / MATCH EXISTING A.C. PLUS 1"
8. INSTALL 12" LENGTHS OF #4 REBAR SPACED AT 12" ON CENTER WITH 4" MIN. DOWELED AND EPOXY INTO EXISTING SIDEWALK, CURB AND GUTTER (TYP.)
REPLACEMENT OF ONE SQUARE

#4 REBAR x 12" REINF. STEEL BAR GRADE 60. EPOXY INTO 3/4"Ø HOLE DRILLED INTO EXISTING SIDEWALK. (TYP.)

LOCATION FOR REPLACEMENT SIDEWALK

#4 REBAR x 12" REINFORCED STEEL BAR, EPOXY INTO 3/4"Ø DRILLED HOLE SPACING @ 12" O.C.

REPLACEMENT OF TWO OR MORE SQUares

#4 REBAR x 12" REINF. STEEL BAR EPOXY INTO 3/4"Ø HOLE DRILLED INTO EXISTING SIDEWALK. (3 MINIMUM - MORE AS NEEDED)

NOTES:

1. MATCH WIDTH AND SCORING PATTERN WITH ADJACENT EXISTING SIDEWALK.
2. TOP 6" OF NATIVE SUBGRADE SHALL BE COMPACTED TO 90% OR MOISTENED IF UNDISTURBED. SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER.
3. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS: 3/4" MAXIMUM AGGREGATE SIZE, 4" MAXIMUM SLUMP AT TIME OF PLACEMENT WITH 1/2 LB. LAMPBLACK PER YARD.
4. THE SURFACE SHALL BE FREE OF BLEMISHES OR IRREGULARITIES AND NOT VARY MORE THAN 1/4" FROM A 10' STRAIGHT EDGE.
5. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ.FT. CURING COMPOUND SHALL BE CLEAR, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
6. ALL EXPOSED CORNERS SHALL HAVE 1/2" RADIUS.
7. CONFORM OF REPLACEMENT SIDEWALK SHALL BE SAW CUT AT A SCORE LINE OR WEAKENED PLAN JOINT.
8. TWO #4 REBARS ONE-FOOT LONG SHALL BE DRILLED INTO EACH JOINT WITHIN EXISTING SIDEWALK.
NOTES:

1. COMMERCIAL DRIVEWAY APPROACH SHALL NOT EXCEED 34’.
2. TOP 6” OF NATIVE SUBGRADE SHALL BE COMPACTED TO 90% OR MOISTENED IF UNDISTURBED. SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER.
3. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS: 3/4" MAXIMUM AGGREGATE SIZE, 4” MAXIMUM SLUMP AT TIME OF PLACEMENT WITH 1/2 LB LAMPBLACK PER YARD.
4. SIDEWALK, GUTTERS, ISLANDS AND DRIVEWAY SHALL HAVE SURFACE FREE OF BLEMISHES OR IRREGULARITIES. THE SURFACE SHALL NOT VARY MORE THAN 1/4” (S.P.126) FROM A 10’ STRAIGHT EDGE EXCEPT AT GRADE CHANGES.
5. ALL EXPOSED CORNERS SHALL HAVE A 1/2” RADIUS.
6. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ.FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
7. WEAKENED PLANE JOINT SPACING NOT TO EXCEED 8’.
8. IN EXISTING STREETS, ASPHALT SHALL BE SAW CUT ALONG LIMITS APPROVED BY THE INSPECTOR, 12” MINIMUM FROM LIP OF GUTTER. MATCH AC WITH EXISTING PLUS 1” AC OVER 12” AB.
**NOTES:**

1. TOP 6" OF NATIVE SUBGRADE SHALL BE COMPACTED TO 90% OR MOISTENED IF UNDISTURBED. SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER.

2. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS: 3/4" MAXIMUM AGGREGATE SIZE, 4" MAXIMUM SLUMP AT TIME OF PLACEMENT WITH 1/2 LB LAMPBLACK PER YARD.

3. SIDEWALK, GUTTERS, ISLANDS AND DRIVEWAYS SHALL HAVE SURFACE FREE OF BLEMISHES OR IRREGULARITIES. THE SURFACE SHALL NOT VARY MORE THAN 1/4" (S.P. 126) FROM A 10' STRAIGHT EDGE EXCEPT AT GRADE CHANGE.

4. ALL EXPOSED CORNERS SHALL HAVE A 1/2" RADIUS.

5. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ. FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.

6. IN EXISTING STREETS, ASPHALT SHALL BE SAW CUT ALONG LIMITS APPROVED BY THE INSPECTOR, 12" MINIMUM FROM LIP OF GUTTER. REPLACE A.C. WITH 3" AC OVER 12" AB.

7. A MINIMUM 3' WIDE SIDEWALK AREA WITH A MAXIMUM CROSS SLOPE OF 1/4" IN ONE FOOT SHALL BE INSTALLED AS A TRANSITION ADJACENT TO AND BEHIND RESIDENTIAL DRIVEWAY TO COMPLY WITH TITLE 24 ACCESSIBILITY STANDARDS OF THE CALIFORNIA CODE OF REGULATIONS.
NOTES:

1. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS; 3/4'' MAXIMUM AGGREGATE SIZE, 4'' MAXIMUM SLUMP AT TIME OF PLACEMENT WITH 1/2 LB. LAMPSHADOW PER YARD.

2. TOP 6'' OF NATIVE SUBGRADE SHALL BE COMPACTED TO 90% OR MOISTENED IF UNDISTURBED. SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER.

3. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GALLON/150 SQUARE FEET. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.

4. ALL SCORE LINES AND GRADE SHALL BE REVIEWED AND APPROVED BY THE CITY ENGINEER.

5. RADIUS EQUALS DISTANCE FROM FACE OF CURB TO BACK OF SIDEWALK OR FROM FACE OF CURB TO PROPERTY LINE IF NO SIDEWALK EXISTS.
NOTES:

1. PAVEMENT MARKING SHALL CONFORM TO THE CURRENT STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION SPECIFICATION.

2. STOP LEGEND, LIMIT LINE, CROSSWALK, AND CENTERLINE SHALL BE PLACED WITH THERMOPLASTIC.

3. AT INTERSECTIONS OF TWO MAJOR STREETS, DOUBLE YELLOW CENTERLINE SHALL EXTEND 100 FEET.

4. "NEIGHBORHOOD WATCH" SIGN SHALL BE INSTALLED ON THE RIGHT SIDE OF ROADWAY NEAR ENTRANCE TO NEIGHBORHOOD WATCH AREA ON STREETLIGHT OR ON 2" DIAMETER STEEL POST IF STREETLIGHT IS NOT AVAILABLE.

5. WHEN CONCRETE IS USED AS A DECORATIVE CROSSWALK, THERMOPLASTIC STRIPING SHALL BE PLACED ON THE ASPHALT CONCRETE IMMEDIATELY ADJACENT TO THE CONCRETE CROSSWALK, NOT ON THE CONCRETE SURFACE.
NOTES:

1. CONCRETE SHALL BE CLASS B (2500 PSI), 3/4" MAX. AGGREGATE SIZE WITH 1/2 LB. LAMPBLACK PER YARD.

2. POST SHALL BE 2" STD. GALVANIZED STEEL PIPE AND SHALL BE SET PLUMB.

3. REGULATORY SIGNS SHALL BE ATTACHED TO POST WITH SINGLE BRACKET. CLAMP ON "U" BRACKET WITH HAWKINS M2G-VPB VANDAL PROOF SCREW.

4. SIGNS SHALL BE INSTALLED, AS SHOWN ON THE PLANS.

5. DRILL 3" DIA. HOLE IN CONCRETE IF SIGN INSTALLED AFTER SIDEWALK HAS BEEN CONSTRUCTED.

6. AT T-INTERSECTIONS, SIGNS SHALL BE PLACED AT THE CENTER POINT.

7. ON ALL SIGNS PROVIDE PROTECTIVE OVERLAY FILM 3M SERIES 1160.
NOTES:

1. STREET NAME SIGNS SHALL BE INSTALLED AT ALL INTERSECTIONS, AND AS SHOWN ON THE PLANS. INSTALL ON ELECTROLIER WHERE AVAILABLE.

2. SIGN LOCATION SHALL BE AS FOLLOWS:
   ON RESIDENTIAL STREETS: N.E. OR S.E. CORNER.
   ON ARTERIALS: ON BOTH SIDES OF THE STREET.

3. SIGN SHALL HAVE REFLECTIVE GREEN BACKGROUND

4. FOR ROADS WITH SPEED LIMITS WITH 25 MPH OR LESS, STREET NAME SIGNS SHALL BE COMPOSED OF INITIAL UPPER CASE LETTERS 4" AND LOWER CASE LETTERS 3".

5. BLOCK LETTERS OR NUMBERS SHALL BE 2", IN HIGHWAY "C" FONT. SPACE BETWEEN LETTERS SHALL NOT EXCEED 1/2 IN.

6. 3-M GREEN EC FILM SERIES 1177 OR EQUAL LAID OVER 3-M HIGH INTENSITY PRISMATIC WHITE SHEETING SERIES 3930 OR EQUAL, ON 0.125" THICKNESS ALUMINUM SIGN BLANK, FLAT BLADE (NOT EXTRUDED).

7. STREET NAME SHALL BE ON BOTH SIDES OF THE SIGN. REVERSE ARROW AS NEEDED.

8. POST MOUNTING HARDWARE: CROSSTIE AND CAP SHALL BE HAWKINS 809F BOLT THRU.
NOTES:

1. STREET NAME SIGNS SHALL BE INSTALLED AT ALL INTERSECTIONS, AND AS SHOWN ON THE PLANS. INSTALL ON ELECTROLIER WHERE AVAILABLE.

2. SIGN LOCATION SHALL BE AS FOLLOWS:
   - ON RESIDENTIAL STREETS: N.E. OR S.E. CORNER.
   - ON ARTERIALS: ON BOTH SIDES OF THE STREET.

3. SIGN SHALL HAVE REFLECTIVE GREEN BACKGROUND

4. FOR ROADS WITH SPEED LIMITS WITH 25 MPH OR GREATER, STREET NAME SIGNS SHALL BE COMPOSED OF INITIAL UPPER CASE LETTERS 6" AND LOWER CASE LETTERS 4 1/2".

5. BLOCK LETTERS OR NUMBERS SHALL BE 2 1/4", IN HIGHWAY "C" FONT. SPACE BETWEEN LETTERS SHALL NOT EXCEED 1/2 IN.

6. 3-M GREEN EC FILM SERIES 1177 OR EQUAL LAID OVER 3-M HIGH INTENSITY PRISMATIC WHITE SHEETING SERIES 3930 OR EQUAL, ON 0.125" THICKNESS ALUMINUM SIGN BLANK, FLAT BLADE (NOT EXTRUDED).

7. STREET NAME SHALL BE ON BOTH SIDES OF THE SIGN. REVERSE ARROW AS NEEDED.

8. POST MOUNTING HARDWARE: CROSSPIECE AND CAP SHALL BE HAWKINS 809F BOLT THRU.
NOTES:
1. SEE NOTES, SHEET 137 SHEET 2 OF 2
NOTES FOR TRAFFIC-SIGNAL-ARM SIGN MOUNTING:

1. ALL MATERIAL FURNISHED SHALL BE RUST RESISTANT. ALL SIGN HARDWARE SHALL BE ALUMINUM AND ANY MOVING PARTS MUST BE MADE OF STAINLESS STEEL TO PREVENT RUSTING.

2. THE SIGN MOUNTING EXTRUDED ALUMINUM MOUNTING BRACKETS SHALL BE EITHER MEDIUM ALUMINUM EXTRUSIONS (SIGNFIX PART NO. HPN-053) OR LARGER ALUMINUM EXTRUSIONS (SIGNFIX PART NO. HPN-055). EXTRUDED ALUMINUM MOUNTING BRACKETS MUST BE BY SIGNFIX OR MUST BE DIRECTLY ADAPTABLE TO UNIVERSAL SIGNFIX CHANNEL CLAMPS E.P. (PART NO. HPN-034EP) OR EQUAL. FLARED LEG MOUNTING BRACKET FOR MOUNTING TO POLE OR MAST ARM SHALL BE HAWKINS PART NO. M2G-FUB OR APPROVED EQUAL. THREADED PORTION OF BRACKET SHALL ACCEPT COURSE THREAD 5/16 INCH ALL-THREAD BOLT.

3. SINGLE STREET NAME SIGN SHALL HAVE NAME AND SUFFIX CENTERED IN SIGN. SIGNS SHALL BE SINGLE FACE AND FABRICATED ON ALUMINUM BLANKS 0.063-INCH THICKNESS. BLANK SHALL BE 18-INCHES IN WIDTH AND VARY IN LENGTH DEPENDING ON THE NUMBER OF LETTERS OF THE STREET (MIN. OF 6- FEET IN LENGTH). SIGN BLANK SHALL HAVE BLUE BACKGROUND USING 3M DIAMOND (CUBE) GRADE REFLECTIVE VINYL SHEETING. UPPER CASE LETTERS SHALL BE 12" AND LOWER CASE LETTERS SHALL BE 9". ALL LETTERS SHALL BE HIGHWAY FONT "D". SIGN SHALL HAVE 1" WHITE BORDER COVERING THE ENTIRE EDGE OF SIGN BLANK. CORNERS SHALL BE NEATLY ROUNDED TO A 2.25" RADIUS. WORDS SHALL BE SPACED MINIMUM OF 6" AND NOT TO EXCEED 10" APART AND THERE SHALL BE 3" OF SPACING BETWEEN BORDER AND SIDES OF STREET NAME. LETTERS SHALL BE SPACED TO MAXIMUM OF 1.5".

4. ALL SIGNS SHALL BE APPROVED FOR CONFORMANCE BY THE CITY TRAFFIC ENGINEERING STAFF PRIOR TO INSTALLATION.
NOTES:

1. STREET NAME PLATE SHALL BE IN ALUMINUM SIGN MATERIAL - 0.08 THICK.
2. BACKGROUND SHALL BE BLUE.
3. OUTSIDE BORDER SHALL BE YELLOW WITH 1/4" WIDTH.
4. ALL LETTERING, SERVICE BRANCH SEAL, BACKGROUND AND YELLOW STARS SHALL BE MADE OF REFLECTIVE ENGINEER GRADE MATERIAL.
5. STREET NAME - HIGHWAY "B" FONT - WHITE. SPACE BETWEEN LETTERS SHALL NOT EXCEED 1/2".
6. FONT ABOVE STREET NAME - WHITE " BASKERVILLE OLD" OR SIMILAR.
7. BRANCH SEAL (ARMY, NAVY, AIR FORCE, MARINE ) SHALL BE 4" DIAMETER.
8. YELLOW STARS AT BOTH ENDS - 1" DIAMETER.
9. STREET NAME SIGN SHALL BE INSTALLED AT ALL INTERSECTIONS AND AS SHOWN ON THE PLANS. INSTALL ON ELECTROLIER WHERE AVAILABLE.
10. SIGN LOCATION SHALL BE AS FOLLOWS;
    ON RESIDENTIAL STREETS: N.E. OR S.E. CORNER
    ON ARTERIALS: ON BOTH SIDES OF THE STREET
11. POST MOUNTING HARDWARE; CROSSPIECE AND CAP SHALL BE HAWKINS 809F BOLT THRU.

CITY ENGINEER

Res No. 2020-031
Prepared By: Leisser M.
Rev:

DATE: February 18, 2020
Checked By: Thomas W.
Rev:

VETERANS STREET NAME SIGN
NOTES:

1. SIGNS SHALL BE MADE ON FLAT ALUMINUM PLATE WITH A MINIMUM THICKNESS OF 0.080", WITH BLACK LETTERS ON A WHITE BACKGROUND.

2. 3" HIGH LETTERS MESSAGE SHALL INDICATE LIMITS OF ENFORCEMENT SUCH AS "NO PARKING" "NO TRESPASSING OR LOITERING", "TENANT PARKING ONLY", ETC.

3. SIGNS SHALL BE INSTALLED BY PROPERTY OWNER, AT EACH PARKING LOT ENTRANCE.

4. PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SIGN.

5. SIGN SHALL BE LOCATED AND ORIENTED SO AS NOT TO CONFLICT WITH PEDESTRIAN TRAFFIC.
CURB PAINTING STANDARD

NOTES:

1. BUILDING NUMBERS MAY BE PAINTED ON CURB SURFACES IN ACCORDANCE WITH CITY COUNCIL POLICY AND THIS STANDARD DRAWING.

2. NUMBERS SHALL BE PAINTED WITH BLACK 4" BLOCK LETTERS HAVING 1/2" STROKE ON A WHITE REFLECTORIZED BACKGROUND.

3. NUMBERS SHALL BE PAINTED WITHIN 2 FT. OF THE DRIVEWAY TO THE PROPERTY.

4. AN APPROVED ENCROACHMENT PERMIT FROM THE OFFICE OF THE CITY ENGINEER SHALL BE OBTAINED BEFORE CURBS MAY BE PAINTED.

5. PAINT MUST BE APPROVED BY THE CITY ENGINEER.

6. PAINTING CONTRACTOR MUST HAVE A VALID BUSINESS LICENSE IN THE CITY OF TRACY.

7. A SPECIFIED FEE SHALL BE CHARGED FOR WORK PERFORMED ( NO DONATIONS ).

8. APPROVAL IN WRITING OF THE PROPERTY OWNER PRIOR TO PAINTING SHALL BE SUBMITTED TO THE CITY ENGINEER.

9. NUMBER SHALL BE CENTERED WITHIN WHITE BACKGROUND.
SEE PARKING CROSS DETAIL BELOW

SEE PARKING TEE BELOW

INTERIOR & END

PAIRED PARKING

N.T.S.

N.T.S.

N.T.S.

PAIRED PARKING

PARKING CROSS

PARKING TEE

CURB STOP

N.T.S.

N.T.S.

N.T.S.

DOUBLE 4" WHITE STRIPE (TYP.)

CURVED END MARKING (TYP.)

CURB STOP IF REQUIRED (TYP.)

SEE DETAIL

DETAIL " A "

N.T.S.

DETAIL " B "

N.T.S.

CITY OF TRACY

REVIEWED BY:  

CITY ENGINEER  

RCE 63178

STANDARD PLAN No.

141 SHEET 1 OF 4

PAIRED PARKING

RCE 63178

PARKING SPACES

Res No.  2020-031

DATE: February 18, 2020

Prepared By: Leisser M.

Checked By: Thomas W.

Rev:

Rev:
NOTES:

1. PARKING ANGLE $\Theta$ IS THE ACUTE ANGLE FORMED AT THE INTERSECTION OF THE PARKING SPACE AND THE DRIVE AISLE.

2. SEE ADDITIONAL NOTES ON SHEET 3.
NOTES:

1. ACCESSIBLE PARKING SPACES SHALL COMPLY WITH TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS AND CITY STANDARDS PLANS.

2. IMPROVEMENTS REQUIRED:

   A) THE SURFACE SHALL BE PAVED WITH ASPHALTIC CONCRETE OR PORTLAND CEMENT CONCRETE DESIGN WITH A MINIMUM T.I. OF 4 AND AN R-VALUE OF 5. THE STRUCTURAL SECTION SHALL BE DESIGNED BASED ON ACTUAL T.I. AND R-VALUE.

   B) STRIPING OF PARKING SPACES, AISLES OR DRIVEWAYS AND THE DESIGN AND PLACEMENT OF DIRECTIONAL SIGNS SHALL BE PROVIDED AS NECESSARY TO ENSURE SAFE AND EFFICIENT OPERATION AND SHALL COMPLY WITH APPLICABLE CITY STANDARDS.

   C) PARKING FACILITIES INCLUDING DRIVE ISLES, PARKING STALLS, AND WALKWAYS THAT ARE REQUIRED FOR USE DURING THE HOURS OF DARKNESS, SHALL BE ILLUMINATED TO PROVIDE A MINIMUM OF 1 FT. CANDLE.

   D) PERMEABLE PAVEMENT MAY BE REQUIRED BY STORM WATER QUALITY REGULATIONS.

3. A PARKING SPACE LOCATED IN A GARAGE OR CARPORT SHALL NOT BE LESS THAN 10' WIDE BY 20' LONG; HOWEVER, WHERE GARAGES OR CARPORTS CONTAIN 3 OR MORE SPACES IN A ROW (NON-TANDEM), THE WIDTH REQUIREMENT FOR EACH SPACE MAY BE REDUCED TO 9'.

4. STALL WIDTHS SHALL BE MEASURED FROM C/L OF DOUBLE STRIPE.

5. SINGLE STALL STRIPING SHALL ONLY BE USED TO MATCH EXISTING CONDITIONS. NEW CONSTRUCTION SHALL REQUIRE DOUBLE 4" STRIPE.

6. PRE-CAST CURB STOPS MAY BE CONSIDERED FOR USE WITH THE APPROVAL OF THE CITY ENGINEER.

7. FOR LANDSCAPE AND OTHER AMENITIES REFER TO THE MOST CURRENT EDITION OF THE CITY OF TRACY MUNICIPAL CODE.
NOTES:

1. REBAR AMERICAN GRADE 60 SIZE #4 MINIMUM LENGTH 18" LONG.

2. 4000 PSI CONCRETE 28 DAYS.

3. WEIGHT 200 POUNDS.
**SINGLE PARKING STALL**

- **Regular non-accessible parking stall:**
  - 2'-0" Min unobstructed area
  - ISA Parking Sign, See Note 9

- **Regular accessible parking stall:**
  - 5'-0" Min for regular accessible parking stall
  - 8'-0" Min for van accessible parking stall, See Notes 2, 11 and 12

- **ISA Marking at rear limit of stall, See Detail A on sheet 2**

**DOUBLE PARKING STALL**

- **Regular non-accessible parking stall:**
  - 2'-0" Min unobstructed area
  - ISA Parking Sign, See Note 9

- **Regular accessible parking stall:**
  - 5'-0" Min for regular accessible parking stall
  - 8'-0" Min for van accessible parking stall, See Notes 2, 11 and 12

- **ISA Marking at rear limit of stall, See Detail A on sheet 2**

**DIAGONAL DOUBLE PARKING STALL**

- ** ISA Parking Sign, See Notes 2, 10 and 13**

- ** ISA Marking at rear limit of stall, See Detail A on sheet 2**

**ACCESSIBLE PARKING OFF-STREET STALLS**

- **ISA Marking at rear limit of stall, See Detail A on sheet 2**

- ** ISA Parking Sign, See Notes 2, 10 and 13**

- ** ISA Marking at rear limit of stall, See Detail A on sheet 2**

- ** ISA Parking Sign, See Notes 2, 10 and 13**

- ** ISA Parking Sign, See Notes 2, 10 and 13**
**PARKING STALL LEGENDS**

- **SIGN R99 (CA)**
- **SIGN R99C (CA)**
- **SIGN R99B (CA)**
- **SIGN R100B (CA)**
- **PLAQUE R99B (CA)**

**PARKING SIGNS**

- **NO PARKING**
  - **SIGN R99 (CA)**
  - **PLAQUE R99B (CA)**
  - **SIGN R99C (CA)**

- **ISA MARKING**
  - White ISA
  - Blue Background
  - White border

**PARKING LEGENDS**

**CITY OF TRACY**

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<td>TRACY RCE 63173</td>
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<td>CITY ENGINEER</td>
<td>Res No. 2020-031</td>
<td><strong>ACCESSIBLE PARKING SIGNS &amp; LEGENDS</strong></td>
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<td>Checked By: Thomas W.</td>
<td>Rev:</td>
<td></td>
</tr>
<tr>
<td>Rev:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NOTES:

1. Accessible parking spaces serving a particular building shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance. In parking facilities that do not serve a particular building, accessible parking shall be dispersed on the shortest accessible route of travel to an accessible pedestrian entrance of the parking facility. Parking spaces shall be so located that persons with disabilities are not compelled to wheel or walk behind parked cars other than their own.

2. One in every eight accessible off-street parking stalls, but not less than one, shall be served by an accessible aisle of 8'-0" minimum width and shall be signed van accessible. The R7-8b sign shall be mounted below the R99B (CA) plaque or the R99C (CA) sign. See sheet 2.

3. In each parking stall, a curb or bumper shall be provided and located to prevent encroachment of vehicles over the required width of walkways. Parking stalls shall be so located that persons with disabilities are not compelled to wheel or walk behind parked cars other than their own.

4. Surface slopes of accessible off-street parking stalls and accessibility aisles shall be the minimum possible and shall not exceed 2% in any direction.

5. Table A shall be used to determine the required number of accessible parking stalls in each parking lot or garage.

<table>
<thead>
<tr>
<th>Total Number of Parking Spaces or Stalls</th>
<th>Minimum Number of Accessible Parking Spaces or Stalls</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-25</td>
<td>1</td>
</tr>
<tr>
<td>26-50</td>
<td>2</td>
</tr>
<tr>
<td>51-75</td>
<td>3</td>
</tr>
<tr>
<td>76-100</td>
<td>4</td>
</tr>
<tr>
<td>101-150</td>
<td>5</td>
</tr>
<tr>
<td>151-200</td>
<td>6</td>
</tr>
<tr>
<td>251-300</td>
<td>7</td>
</tr>
<tr>
<td>301-400</td>
<td>8</td>
</tr>
<tr>
<td>401-500</td>
<td>9</td>
</tr>
<tr>
<td>501-1000</td>
<td>2 percent of total</td>
</tr>
<tr>
<td>Greater than 1000</td>
<td>20 plus 1 for each 100 or fraction thereof over 1001</td>
</tr>
</tbody>
</table>

6. Where Plaque R99B (CA), Sign R99C (CA) or Sign R7-8b are installed, the bottom of the sign or plaque panel shall be a minimum of 7'-0" above the surrounding surface.

7. Curb ramps shall conform to the details shown on City Standard Plan 130.

8. Blue paint, instead of white shall be used for marking accessibility aisle diagonals in areas such as concrete where white markings are not as visible.

9. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high and located so that it is visible to traffic enforcement officials at rear of aisle.

10. A R100B (CA) sign with 1" lettering shall be posted in a conspicuous place at each entrance to off-street parking facilities or immediately adjacent to and visible from each stall. The sign shall include the telephone number of the local traffic law enforcement agency.

11. Where a single (non-van) accessible parking space is provided, the loading and unloading access aisle shall be on the passenger side of the vehicle as the vehicle is going forward into the parking space.

12. Where a van accessible parking space is provided, the loading and unloading access aisle shall be 8'-0" wide minimum, and shall be on the passenger side of the vehicle as the vehicle is going forward into the parking space.

13. Accessible Parking Only Sign shall be Sign R99C (CA) or Sign R99 (CA) with Plaque R99B (CA).

14. Accessible on-street parking spaces shall not be smaller in length or width than that specified for other parking spaces, but not less than 20'-0" in length and not less than 8'-0" in width.

15. There shall be no obstructions on the sidewalk adjacent to and for the full length of the parking space, except for the ISA parking sign shown.

ISA = International Symbol of Accessibility
NOTES:


2. POSTS SHALL BE 8" x 6" x 6' DOUGLAS FIR PRESSURE TREATED IN CONFORMANCE WITH THE ABOVE SPECIFICATION.

3. THE SPACE AROUND POSTS SHALL BE BACKFILLED WITH NATIVE MATERIAL PLACED IN 4" LAYERS AND THOROUGHLY COMPACTED.

4. FOR DEAD-END BARRICADE INSTALL ONE TYPE "N-2" (CALTRANS, CURRENT EDITION) MARKERS IN CENTER OF RIGHT OF WAY.

5. FOR GUARD RAIL INSTALL ONE TYPE "N-1" (CALTRANS, CURRENT EDITION) SIGN ON FIRST POST NEAREST TRAVELED WAY

6. INSTALL ONE TYPE "P" (CALTRANS, CURRENT EDITION) OBJECT MARKERS FACING ON COMING TRAFFIC AT EACH POST PER CALTRANS STANDARD PLAN A-73B.
NOTES:

1. SIDEWALK BARRICADE TO BE ERECTED AT EACH LOCATION WHERE SATISFACTORY PROVISION CANNOT BE MADE FOR PEDESTRIANS TO CONTINUE BEYOND THE TERMINUS OF THE SIDEWALK.

2. ALL EXPOSED SURFACES TO BE PAINTED WITH TWO (2) COATS OF WHITE PAINT. ALL PAINT TO CONFORM TO SEC. 91-3.02 OF CALTRANS STANDARD SPECIFICATIONS.

3. ALL MATERIAL USED IN THE CONSTRUCTION OF BARRICADE SHALL BE TREATED DOUGLAS FIR IN CONFORMANCE WITH SEC.56-2.02 OF CALTRANS STANDARD SPECIFICATIONS.
NOTES:

1. VISION CLEARANCE AREA is the area in which no structure or vegetation is to be higher than 18" above top of curb except trees having no limb or vegetation less than 8' above the top of curb as required by ordinance code, sections 10.08.3230 and 10.08.3250(4)(C).

2. No fence shall be constructed within the public right-of-way.
LED LUMINAIRE AS NOTED ON PLANS. LUMINARIES SHALL BE PROVIDED WITH A PHOTOELECTRIC UNIT AND SHALL CONFORM TO THE STANDARD SPECIFICATIONS. STREET LIGHT MAY BE GROUPED WITH ONE PHOTOELECTRIC UNIT AT THE SIGNAL CONTROLLER AS DIRECTED BY CITY ENGINEER.

NOTES:
1. FOR COMPLETE INSTALLATION SEE STANDARD PLANS 146 SHEETS 1 THROUGH 6.
2. FULL BASE COVER SHALL BE PROVIDED AND SHALL COVER BASE OF POLE COMPLETELY AND REST FIRMLY ON CONCRETE PAD.
3. 1" ANCHOR COLTS - 36" LONG WITH 6" OF THREAD. PROVIDE WITH 2 HEX. NUTS AND 2 FLAT WASHERS. BOLTS, WASHERS AND NUTS SHALL BE GALVANIZED MILD STEEL.
NOTES:
1. SOMETIMES PAD IS TURNED
2. PLANTER AREA CONFLICT WITH STORM DRAINS
NOTES:

1. PULL BOX SHALL HAVE A LOCKING LID MARKED "STREET LIGHT".
NOTES:

1. THE MAXIMUM DISTANCE BETWEEN STREET LIGHT STANDARDS SHALL BE: 200 FEET ON RESIDENTIAL STREETS, 150 FEET ON COLLECTORS AND INDUSTRIAL STREETS, 120 FEET ON MINOR ARTERIAL STREETS, 70 FEET ON MAJOR ARTERIAL STREETS WITHOUT A MEDIAN, AND 120 FEET ON MAJOR ARTERIAL STREETS WITH A MEDIAN. STREET LIGHT STANDARDS SHALL BE INSTALLED ON ALTERNATING SIDES EXCEPT WHEN MEDIANS ARE TO BE CONSTRUCTED. STREETLIGHTS IN MEDIANS ARE TO BE INSTALLED USING DOUBLE, 15' MAST ARMS ON 30-FOOT HIGH POLES MAXIMUM 120 FEET APART AND AT LEAST 20' FROM THE MEDIAN ISLAND NOSE. LIGHTS SHALL BE EVENLY SPACED AS MUCH AS POSSIBLE.

2. WIRING SHALL BE UNDERGROUND IN 1 1/2" MIN. UL APPROVED SCHEDULE 40, HEAVY WALL RIGID PVC CONDUIT. (SPECIAL CONDITIONS MAY REQUIRE INCREASE OF CONDUIT SIZE AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.) ALL CONDUCTORS SHALL BE COPPER.

3. CONDUIT SYSTEM SHALL BE COMPLETE FROM THE STREET LIGHT TO THE PG&E SOURCE.

4. INSTALL A CONCRETE PULL BOX AT EACH ELECTROLIER PER CITY OF TRACY STANDARDS. MINIMUM SIZE NO. 3-1/2, LID MARKING - "STREET LIGHT" (LOCKING LID).

5. SEE CITY OF TRACY STANDARD DRAWINGS 146 SHEETS 1-5 FOR ADDITIONAL DETAILS.

6. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH SECTIONS 86 AND 87 OF THE LATEST STATE OF CALIFORNIA STANDARD SPECIFICATIONS.

7. WATERPROOF FUSED SPLICE CONNECTORS WITH PROPER 10 AMP FUSE SHALL BE INSTALLED IN EACH PULL BOX ADJACENT TO A LIGHT STANDARD.

8. WIRE SIZE IN POLE FROM LUMINARIE TO PULL BOX @ BASE OF POLE AND IN UNDERGROUND CONDUITS SHALL BE SIZED ACCORDING TO CONDUCTOR CHARTS 1-3 PROVIDED ON STANDARD PLAN 146 SHEETS 6-8.

9. THE OWNER OR CONTRACTOR OF ANY LIGHTING PROJECT IS REQUIRED TO PAY PG&E COMPANY THE CONNECTION FEE BEFORE ACCEPTANCE BY THE CITY.

10. ALL ELECTROLIERS SHALL HAVE EQUIPMENT GROUNDING CONDUCTORS INSTALLED PER CITY STANDARD PLANS.

11. ALL CONDUIT ENDS IN PULL BOXES OR STANDARDS SHALL BE SECURELY PACKED WITH AN APPROVED SEALANT AFTER WIRE IS PULLED.

12. ALL SPLICES IN CONDUCTORS SHALL BE MADE WITH APPROVED WIRE CONNECTOR AND MADE WATER PROOF BY APPROVED METHOD. SEE CALTRANS STANDARD PLAN ES-13A.

13. ALL CONDUIT SHALL BE A MINIMUM OF 3' BELOW THE FLOWLINE OF GUTTER EXCEPT WHEN UNDER THE SIDEWALK. CONDUIT SHALL BE A MINIMUM OF 18" DEEP.

14. THE DEVELOPER OF SUBDIVISIONS SHALL BE REQUIRED TO PROVIDE THE CITY WITH ONE ELECTROLIER FOR EACH TWENTY (20) ELECTROLIERS (OR FRACTION THEREOF) OF EACH SIZE INVOLVED IN THE TRACT LIGHTING. THE ELECTROLIERS SHALL BE IDENTICAL TO THOSE INSTALLED IN THE SUBDIVISION. THIS REQUIREMENT WILL BE WAIVED IF THE TOTAL NUMBER OF ELECTROLIERS INSTALLED IN THE TRACT IS LESS THAN FIVE (5). THE ELECTROLIERS FURNISHED TO THE CITY SHALL BE COMPLETE, INCLUDING POLE, MAST ARM, LUMINAIRE AND ADEQUATE WIRE TO COMPLETE THE SPLICE IN THE PULL BOX ADJACENT TO THE POLE BASE AND SHALL BE DELIVERED TO THE CITY AT BOYD SERVICE CENTER.

15. THE SERVICE POINT AND ALL CONDUIT SHALL BE INSTALLED WITHIN CITY RIGHT-OF-WAY.

16. ANY DEVIATIONS OR SPECIAL PROVISIONS OF THESE STANDARDS WILL REQUIRE PRIOR APPROVAL BY CITY ENGINEER.
NOTES: (CONT.)

18. ALL LUMINAIRES SHALL BE LED AND SHALL CONFORM TO THE STANDARD SPECIFICATIONS

19. GENERAL NOTE OF LUMINAIRES:

<table>
<thead>
<tr>
<th>STREET TYPE</th>
<th>VOLTAGE</th>
<th>MASTER ARM LENGTH</th>
<th>POLE HEIGHT</th>
<th>ARM RISE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTERIAL</td>
<td>120/240</td>
<td>15'</td>
<td>30'</td>
<td>+4' 9''</td>
</tr>
<tr>
<td>COLLECTOR AND INDUSTRIAL</td>
<td>120/240</td>
<td>12'</td>
<td>28'-6''</td>
<td>+4' 3''</td>
</tr>
<tr>
<td>RESIDENTIAL</td>
<td>120</td>
<td>12'</td>
<td>28'-6''</td>
<td>+4' 3''</td>
</tr>
</tbody>
</table>

20. LAMP BULBS SHALL HAVE OPERATING LIFE OF 3 YEARS OR A MINIMUM OF 13,140 HOURS.

22. ALL WORK SHALL COMPLY WITH LATEST REVISION OF NATIONAL ELECTRIC CODE STANDARDS.

23. INTERSECTION AND ROADWAY LIGHTING PHOTOMETRIC DESIGN SHALL MEET THE FOLLOWING:

**INTERSECTION LIGHTING DESIGN REQUIREMENTS**

<table>
<thead>
<tr>
<th>FUNCTIONAL CLASSIFICATION</th>
<th>MINIMUM AVG. ILLUMINATION AT PAVEMENT Eavg (Fc)</th>
<th>MINIMUM AVG. UNIFORMITY RATIO (avg/min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTERIAL/ARTERIAL</td>
<td>2.6</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTERIAL/COLLECTOR</td>
<td>2.2</td>
<td>3.0</td>
</tr>
<tr>
<td>COLLECTOR/RESIDENTIAL</td>
<td>1.6</td>
<td>4.0</td>
</tr>
<tr>
<td>RESIDENTIAL/RESIDENTIAL</td>
<td>1.4</td>
<td>6.0</td>
</tr>
</tbody>
</table>

**ROADWAY LIGHTING DESIGN REQUIREMENTS**

<table>
<thead>
<tr>
<th>STREET CLASSIFICATION</th>
<th>MINIMUM AVG. LUMINANCE Lavg (cd/m²)</th>
<th>MINIMUM AVG. UNIFORMITY RATIO (avg/min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTERIAL</td>
<td>0.9</td>
<td>3.0</td>
</tr>
<tr>
<td>COLLECTOR</td>
<td>0.6</td>
<td>3.5</td>
</tr>
<tr>
<td>RESIDENTIAL</td>
<td>0.5</td>
<td>6.0</td>
</tr>
</tbody>
</table>
CONDUCTOR SIZE CHART 1

120 VOLT VOLTAGE DROP CALC. @ 2 PERCENT..

<table>
<thead>
<tr>
<th>DISTANCE FROM ELECTRICAL SERVICE</th>
<th>NO. POLES ON CIRCUIT</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 100 ft.</td>
<td>#12 CU</td>
<td>#10</td>
<td>#8</td>
<td>#6</td>
<td>#</td>
</tr>
<tr>
<td>101 to 200 ft.</td>
<td>#10 CU</td>
<td>#6</td>
<td>#6</td>
<td>#4</td>
<td>#</td>
</tr>
<tr>
<td>201 to 400 ft.</td>
<td>#6 CU</td>
<td>#4</td>
<td>#3</td>
<td>#3</td>
<td>#</td>
</tr>
<tr>
<td>401 to 600 ft.</td>
<td>#6 CU</td>
<td>#3</td>
<td>#1</td>
<td>#1</td>
<td>#</td>
</tr>
<tr>
<td>601 to 800 ft.</td>
<td>#4 CU</td>
<td>#2</td>
<td>#1/0</td>
<td>#1/0</td>
<td>#</td>
</tr>
<tr>
<td>1000 ft.</td>
<td>#3 CU</td>
<td>#1</td>
<td>#2/0</td>
<td>#2/0</td>
<td>#</td>
</tr>
</tbody>
</table>

THIS TABLE BASED ON THE FOLLOWING:

EACH FIXTURE LOAD IS 4 AMPS AT 120 VOLT, TWO FIXTURES PER POLE (DOUBLE ARM)

ALL CONDUCTORS ARE THE SAME SIZE; THE UNDER-GROUNDED (BLACK AND RED), THE GROUNDED (WHITE) AND THE EQUIPMENT GROUNDING (GREEN).

ALL CONDUCTORS ARE COPPER, TYPE THW, THWN, THWN-2 OR XHHW.

VOLTAGE DROP IS CALCULATED AT 2%.
# CONDUCTOR SIZE CHART 2

120 VOLT VOLTAGE DROP CALC.

<table>
<thead>
<tr>
<th>DISTANCE FROM ELECTRICAL SERVICE</th>
<th>NO. POLES ON CIRCUIT</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 100 ft.</td>
<td># 12 CU</td>
<td># 12</td>
<td># 12</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>101 to 200 ft.</td>
<td># 12 CU</td>
<td># 12</td>
<td># 10</td>
<td># 8</td>
<td>#</td>
</tr>
<tr>
<td>201 to 400 ft.</td>
<td># 12 CU</td>
<td># 8</td>
<td># 6</td>
<td># 6</td>
<td>#</td>
</tr>
<tr>
<td>401 to 600 ft.</td>
<td># 10 CU</td>
<td># 6</td>
<td># 4</td>
<td># 4</td>
<td>#</td>
</tr>
<tr>
<td>601 to 800 ft.</td>
<td># 8 CU</td>
<td># 6</td>
<td># 4</td>
<td># 3</td>
<td>#</td>
</tr>
<tr>
<td>1000 ft.</td>
<td># 8 CU</td>
<td># 4</td>
<td># 3</td>
<td># 2</td>
<td>#</td>
</tr>
</tbody>
</table>

THIS TABLE BASED ON THE FOLLOWING:

1. EACH FIXTURE LOAD IS 120 VOLT @ 4 AMP (DOUBLE ARM FIXTURE)
2. ALL CONDUCTORS ARE THE SAME SIZE; UNGROUNDED (BLACK AND RED), GROUNDED NEUTRAL (WHITE) EQUIPMENT GROUND (GREEN OR BARE).
3. ALL CONDUCTORS ARE COPPER, TYPE THW, THWN, THWN-2 OR XHHW.
4. VOLTAGE DROP IS CALCULATED AT 5%.
CONDUCTOR SIZE CHART 3

230 VOLT VOLTAGE DROP CALC.

<table>
<thead>
<tr>
<th>DISTANCE FROM ELECTRICAL SERVICE</th>
<th>NO. POLES ON CIRCUIT</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 100 ft.</td>
<td># 12 CU</td>
<td># 12</td>
<td># 12</td>
<td># 12</td>
<td>#</td>
</tr>
<tr>
<td>101 to 200 ft.</td>
<td># 12 CU</td>
<td># 12</td>
<td># 12</td>
<td># 12</td>
<td>#</td>
</tr>
<tr>
<td>201 to 400 ft.</td>
<td># 12 CU</td>
<td># 12</td>
<td># 10</td>
<td># 8</td>
<td>#</td>
</tr>
<tr>
<td>401 to 600 ft.</td>
<td># 12 CU</td>
<td># 12</td>
<td># 8</td>
<td># 6</td>
<td>#</td>
</tr>
<tr>
<td>601 to 800 ft.</td>
<td># 12 CU</td>
<td># 8</td>
<td># 8</td>
<td># 6</td>
<td>#</td>
</tr>
<tr>
<td>1000 ft.</td>
<td># 10 CU</td>
<td># 8</td>
<td># 6</td>
<td># 4</td>
<td>#</td>
</tr>
</tbody>
</table>

THIS TABLE BASED ON THE FOLLOWING:

EACH FIXTURE LOAD IS RATED AT 4 AMPS @ 240 VOLT (A DOUBLE ARM FIXTURE)

ALL CONDUCTORS ARE THE SAME SIZE; UNGROUNDED (BLACK AND RED), GROUNDED (WHITE) AND THE EQUIPMENT GROUNDING (GREEN).

ALL CONDUCTORS ARE COPPER, TYPE THW, THWN, THWN-2 OR XHHW.

VOLTAGE DROP IS CALCULATED AT 5%.
DOWNTOWN STREETSCAPE LIGHTS

TYPE F1
150W LED 16 FT ANTIQUE STREETLIGHT (ACORN STYLE) UNION METAL CORPORATION
13'-2" POLE WITHOUT RECEPTACLE DESIGN #P874-730-B151-Y3F OR EQ WITH LUMINAIRE
HADCO #R53-B-N-N-2J-T-N-G-150S-F, WITH MULTI-TAP BALLAST, WITH ACRYLIC LENS.

TYPE F2
150W 30 FT ANTIQUE STREETLIGHT (TEARDROP STYLE) UNION METAL CORPORATION
28'-0" POLE WITHOUT RECEPTACLE DESIGN #B99-B258-Y2 OR EQ WITH LUMINAIRE
LUMEC #RN20-150HPS-THA3-ACDR-QTA/-SMA-BKTX FIXTURE, WITH MULTI-TAP BALLAST,
WITH ACRYLIC LENS.

TYPE F3
70W 3.5 FT ANTIQUE LIGHTED BOLLARD WITH BALL TOP 3'-6" HIGH LIGHTED BALLTOP
CAST ALUMINUM BOLLARD, ANTIQUE STREET LAMPS "WASHINGTON SERIES" BLCA BW
148TL 70S AWS - ANDG.

TYPE F4
100W MH (METAL HALIDE) TREE UPLIGHT RECESSED, GRADE MOUNTED TREE UPLIGHT
WITH 100 W METAL HALIDE LAMP, REMOTE BALLAST BOX. CONCRETE BASE. BRANCH
CIRCUIT CONDUITS AND CONDUCTORS; HYDREL 9350 ED B 100M 208 SP DL 34B DEL
CFD673 LP.

TYPE F5
175W 240V 17.5 FT ANTIQUE STREETLIGHT FOR PARKING LOTS (ACORN STYLE
NARROW) UNION METAL CORPORATION 14'-6" POLE DESIGN #P874-730-B137-Y-1F OR
EQ. WITH HADCO #R51-B-B-N-N-1J-NBG-175H-G FIXTURE WITH MULTI-TAP BALLAST,
WITH ACRYLIC LENS.
NOTES:

1. Main breakers shall be 1, 2 or 3 pole
2. May be rated 120 volt up to 480 volt
3. Single or three phase
4. Continuous welded seams
5. Fully framed side hinged outer door for flush fit with top drip lip & closed cell neoprene flange compressed gaskets
6. Separate pull section
7. Service enclosure stainless steel pedestal
8. Full length deadfront with stainless steel hinge from 1/4 turn latch & knurled knobs
9. Deadfront hinged same side as the front door and opens up to 120 degrees
10. Completely prewired in the factory
11. Wiring will be to NEWA IIB standards showing external connections & external equipment
12. 24"X20"X8" thick conc. base slab
GREEN COLORED PAVEMENT PAINT

BIKE LANE SYMBOL & ARROW (REFER TO CALTRANS STD. PLAN A24A & A24C, LATEST EDITION)

CROSSWALK STRIPE

FIRST MARKING ON BLOCK SHALL BE 42" DOWNSTREAM OF THE CURB RETURN, CROSSWALK, OR TRANSITION MARKINGS AND SHALL BE CENTERED IN BIKE LANE

6" STRIPE PER CALTRANS DETAIL 39, IF PARKING EXISTS OR EDGE OF PAVEMENT

NOTES

1. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
2. LONGITUDINAL SPACING MEASURED FROM THE BASE OF EACH MARKING.
3. LOCATE MARKINGS AT 250' MAXIMUM SPACINGS IN EACH BLOCK.
4. ALL GREEN PAVEMENT PAINT TO BE CYCLE GRIP MMAX GREEN MMA OR APPROVED EQUAL.

CITY OF TRACY

REVIEWED BY: Robert Armijo
CITY ENGINEER RCE 63173

STANDARD PLAN NO. 147

RES No. 2020–031 DATE: February 18, 2020
Prepared By: Leisser M. Checked By: Thomas W.
Rev. Edgar T. Rev:
NOTES

1. LEAVE AT LEAST 10' SPACING FROM WORD LEGENDS, LANE ASSIGNMENT ARROWS, OTHER MARKINGS, AND SPEED HUMPS IN THE SAME LANE OF TRAVEL.

2. DISTANCE BETWEEN SHARROWS IS MEASURED FROM BASE OF MARKING TO BASE OF MARKING.

3. PLACE A MINIMUM OF TWO SHARROW MARKINGS ON EACH BLOCK.

4. SHARED LANE MARKINGS USED TO BRIDGE DISCONTINUOUS BICYCLE FACILITIES OR ALONG BUSIER STREETS SHOULD BE PLACED MORE FREQUENTLY (50' TO 100' SPACINGS) THAN ALONG LOW TRAFFIC BICYCLE ROUTES (UP TO 250' SPACINGS).

5. ALL GREEN PAVEMENT PAINT TO BE CYCLE GRIP MMAX GREEN MMA OR APPROVED EQUAL.
NOTES

1. THE BICYCLE DETECTOR PAVEMENT MARKING (SYMBOL) SHALL BE USED AT ALL ACTUATED TRAFFIC SIGNAL APPROACHES THAT ARE CAPABLE OF DETECTING BICYCLES.
2. A SYMBOL SHALL BE INSTALLED IN THE RIGHT-MOST LANE SERVING THE BICYCLIST'S DESTINATION, INCLUDING LEFT TURN LANES, THROUGH LANES, AND BIKE LANES.
4. CENTER THE SYMBOL IN LANE (ALIGNED WITH THE LANE ASSIGNMENT ARROW).
NOTES

1. SPACES BETWEEN MARKINGS SHALL BE PLACED IN WHEEL TRACKS OF EACH LANE.

2. ALL CROSSWALK MARKINGS SHALL BE WHITE EXCEPT THOSE NEAR SCHOOLS MAY BE YELLOW, REFER TO THE CA MUTCD.

3. TWO RAISED PAVEMENT MARKERS (RPM) SHOULD BE PLACED NEXT TO EACH STRIPE ON THE APPROACH SIDE OF THE CROSSWALK.

4. TRIPLE FOUR CROSSWALK TO BE INSTALLED AS SPECIFIED BY THE ENGINEER.
NOTES

1. "NO RIGHT–TURN ON RED" RESTRICTION SHALL BE IMPLEMENTED WITH THE APPLICATION OF THROUGH MOVEMENT QUEUE BOX WHEN THERE IS NO DEDICATED RIGHT–TURN LANE ADJACENT TO THE CURRENT LANE.

2. FOR BIKE LEGEND AND TURN ARROW, REFER TO CALTRANS STD. PLANS A24B AND A24C, LATEST EDITION.

3. TWO–STAGE LEFT–TURN QUEUE BOX PAVEMENT MARKINGS SHALL BE PLACED CENTERED VERTICALLY AND EVENLY SPACED HORIZONTALLY WITHIN THE BOX.

4. THROUGH MOVEMENT QUEUE BOX PAVEMENT MARKINGS SHALL BE CENTERED VERTICALLY BETWEEN THE TWO LIMIT LINES AND CENTERED HORIZONTALLY ON THE LANE CENTERLINE.

5. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20A AND A20D, LATEST EDITION.

6. MUTCD R10–6A AND R10–11 SIGNS SHALL BE POSITIONED PER CA MUTCD GUIDELINES.

7. ALL GREEN PAVEMENT PAINT TO BE CYCLE GRIP MAXX OR APPROVED EQUAL.

8. BIKE BOX DETAIL SHALL NOT BE IMPLEMENTED WITHOUT PRIOR APPROVAL FROM THE CITY ENGINEER.
### TABLE 1

<table>
<thead>
<tr>
<th>CLASS</th>
<th>MINIMUM WIDTH</th>
<th>RECOMMENDED WIDTH</th>
<th>MINIMUM BUFFER WIDTH</th>
<th>RECOMMENDED BUFFER WIDTH</th>
<th>MINIMUM BUFFER WIDTH</th>
<th>RECOMMENDED BUFFER WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>8’</td>
<td>10’</td>
<td>2’</td>
<td>5’</td>
<td>2’</td>
<td>5’</td>
</tr>
<tr>
<td>II</td>
<td>5’</td>
<td>7’</td>
<td>NONE</td>
<td>3’</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>III</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>IV</td>
<td>5’</td>
<td>7’</td>
<td>2’</td>
<td>3’</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### NOTES

1. SEE TABLE 1 FOR DIMENSIONS.
2. DIAGONAL CROSSHATCH MARKINGS SHALL BE USED IN BUFFERS 2–4 FEET WIDE.
3. NO MARKINGS SHALL BE USED IN BUFFERS LESS THAN 2 FEET.
4. CHEVRONS SHALL BE USED IN BUFFERS GREATER THAN 4 FEET.
5. FOR BIKE LANE SYMBOL AND ARROW SPACING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
6. CLASS II MINIMUM WIDTH MAY BE REDUCED TO 4 FEET IF NOT ADJACENT TO CURB OR OTHER VERTICAL APPURTEANCES.
7. FOR CLASS IV BIKE LANES ADJACENT TO PARKING A MINIMUM BUFFER WIDTH OF 3 FEET SHALL BE USED.
NOTES

1. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.

2. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.

3. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.
NOTES

1. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.

2. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.

3. FOR CLASS II AND IV BIKE LANE DETAILS, SEE CITY OF TRACY STD PLAN NO. 147 SHEET 6 OF 14.
NOTES

1. THIS TREATMENT USES GREEN BACKED SHARROWS AND RIGHT–TURN ARROWS TO MARK THE MIXING ZONE. THE MARKINGS SHALL BE CENTERED IN THE CHANNELIZED LANE. THE SHARROWS ARE TO BE SPACED EVENLY BETWEEN EACH RIGHT–TURN ARROW. SHARROW SHALL BE PLACED AT BEGINNING OF RIGHT TURN LANE.

2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.

3. FOR SHARED ROADWAY BICYCLE MARKING DETAIL, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 2 OF 14.

4. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.

BEGIN RIGHT TURN LANE
YIELD TO BIKES

MUTCD R4–4 SIGN
NOTES

1. TRANSITION LENGTH IS DETERMINED BY ROADWAY GEOMETRY.

2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.

4. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.

5. FOR BICYCLE DETECTOR PAVEMENT MARKING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 3 OF 14.

6. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.
NOTES
1. TRANSITION LENGTH IS DETERMINED BY ROADWAY GEOMETRY.
2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
3. FOR BIKE SYMBOL AND ARROW DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
4. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.
GREEN COLORED PAVEMENT PAINT

BIKE LANE SYMBOL AND ARROW

R4–4

CURB (TYP)

39

59A

58A

4’ (TYP)

8’ (TYP)

TRANSITION LENGTH

(SEE NOTE 1)

VARIIES

NOTES

1. TRANSITION LENGTH TO MATCH BAY TAPER LENGTH (60 FEET MINIMUM).

2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.

3. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.

4. FOR BICYCLE DETECTOR PAVEMENT MARKING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 3 OF 14.

5. FOR CLASS II AND IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.

BEGIN RIGHT TURN LANE
YIELD TO BIKES

MUTCD R4–4 SIGN
NOTES

1. THIS TREATMENT USES GREEN BACKED SHARROWS TO MARK THE MIXING ZONE. THE FIRST SHARROW SHOULD BE CENTERED ON THE RIGHT EDGE OF THE UPSTREAM TRAVEL LANE. THE LAST SHOULD BE CENTERED ON THE LEFT EDGE OF THE RIGHT TURN LANE. THE SHARROWS IN BETWEEN SHOULD SHIFT EVENLY TO THE LEFT. THE TYPICAL TRANSITION LENGTH IS 12 X A (70' AS SHOWN).

2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.

4. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.

5. FOR SHARED ROADWAY BICYCLE MARKING SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 2 OF 14.

6. FOR BICYCLE DETECTOR PAVEMENT MARKING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 3 OF 14.

7. FOR CLASS II AND IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.
<table>
<thead>
<tr>
<th>MINIMUM SETBACK DISTANCE</th>
<th>OBSTRUCTION TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>24&quot; (PARALLEL), 42&quot; (PERPENDICULAR)</td>
<td>CURB FACE, BUILDING FACE (IF RACK IS SITED ADJACENT)</td>
</tr>
<tr>
<td>30&quot;</td>
<td>LIGHT POLE, NEWSPAPER RACK, SIGN POLE, USPS MAILBOX, TREE WELL, STREET FURNITURE, TRASH CAN, SURFACE HARDWARE (PG&amp;E, CABLE GRATES, ETC.)</td>
</tr>
<tr>
<td>48&quot;</td>
<td>CURB RAMP, CROSSWALK, WHITE/YELLOW LOADING ZONE, STORM DRAIN INLET, BLUE ZONE (DISABLED PARKING), DRIVEWAY</td>
</tr>
<tr>
<td>60&quot;</td>
<td>FIRE HYDRANT</td>
</tr>
</tbody>
</table>

NOTES

1. ALL DIMENSIONS ARE MINIMUMS AND SHOULD BE EXCEEDED WHERE POSSIBLE, DEPENDING ON SITE-SPECIFIC CONDITIONS.

2. ALL SETBACK DISTANCES ARE MEASURED FROM THE CENTER OF THE RACK FLANGE, TO THE LEADING EDGE OF OBSTRUCTION.

3. FOR CLASS II RACKS, SEE CITY OF TRACY PARKS AND STREETSCAPE STD. D4.5.1.
Poured concrete base

Prepared By: Leisser M.

Rev:

Reviewed By: City Engineer

Res No.

DATE: February 18, 2020

Prepared By: Leisser M.

Checked By: Thomas W.

Rev:

Sanitary sewer manholes shall be T-lock lined or epoxy coated.

Cast iron ring and cover (see SP 309)

(adjust to grade after paving per standard plan #114)

Precast reinforced concrete manhole cone conforming to pipe section specification

Use grout to channelize flow

Trowel smooth curve to fit

Remove top of pipe; 3 ft min opening

48” inside diameter or see note 6

18” min. 24” max

6” min

6”

8”

6”

8” per foot

6” min.

24” max

5’-10”

8”

GROUT (TYP.)

Sanitary sewer manholes shall be T-lock lined or epoxy coated.

Concrete collar poured in place

Sanitized sewer manhole

24”

A

A

See note 5 (typ.)

Notes:

1. All joints shall be sealed Ram-nek or Kent-seal #2.
2. Backfill minimum 5’ around manhole shall have 95% compaction required.
3. Concrete shall be five sack class “B” 2500 PSI at 28 days; 4” max. slump; 3/4” max. aggregate.
4. No joints in the pipe will be permitted within the manhole.
5. Pipes shall have at least one joint within 3 feet from manhole.
6. For pipe size greater than 36” or depth greater than 10 feet, inside diameter shall be 60”.
7. Eccentric is optional when needed with approval from city engineer.
8. Raised conc. collar & bollards if installed outside paved/concrete area.
9. Bolt down lid required outside paved area.

CITY OF TRACY

Think Inside the Triangle™

Res No. 2020-031

DATE: February 18, 2020

Prepared By: Leisser M.

Checked By: Thomas W.

Rev:

Sanitary sewer manhole

Standard Plan No. 200
NOTES:

1. NO CLEANOUTS SHALL BE LOCATED IN DRIVEWAYS, UNLESS APPROVED BY THE CITY ENGINEER.
2. HOUSE CONNECTION SHALL BE MADE UNDER THE SUPERVISION OF THE BUILDING INSPECTOR.
3. SEWER LATERAL SHALL BE CONSTRUCTED WITH A PERPENDICULAR ALIGNMENT FROM THE MAIN TO THE PROPERTY LINE, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
4. CLEANOUT BOX SHALL BE CHRISTY F8, OR APPROVED EQUAL, WITH CAST IRON COVER MARKED "C.O."
5. PIPE SLOPE MAY BE INCREASED TO ACCOMMODATE DEEP SEWERS AND PROVIDE MAXIMUM 60" COVER AT RIGHT OF WAY.
6. SEWER LATERAL PIPE AND FITTINGS SHALL BE SDR26 AND SHALL BE 4" MINIMUM.
7. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR OF THE LATERAL CLEANOUT IN GOOD CONDITION TO ALLOW ACCESS BY CITY PUBLIC WORKS MAINTENANCE.
8. MINIMUM DISTANCE (8 FT) FROM TREE TO SEWER LATERAL.
9. LATERAL SHALL HAVE TRACER WIRE AND MARKER TAPE FROM MAIN TO CLEANOUT.

PROFILE
N.T.S.

THE USE OF THIS STD MUST HAVE APPROVAL FROM THE CITY ENGINEER, AND WILL BE ONLY CONSIDERED ON A CASE BY CASE BASIS.

1. NO CLEANOUTS SHALL BE LOCATED IN DRIVEWAYS, UNLESS APPROVED BY THE CITY ENGINEER.
2. HOUSE CONNECTION SHALL BE MADE UNDER THE SUPERVISION OF THE BUILDING INSPECTOR.
3. SEWER LATERAL SHALL BE CONSTRUCTED WITH A PERPENDICULAR ALIGNMENT FROM THE MAIN TO THE PROPERTY LINE, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
4. CLEANOUT BOX SHALL BE CHRISTY F8, OR APPROVED EQUAL, WITH CAST IRON COVER MARKED "C.O."
5. PIPE SLOPE MAY BE INCREASED TO ACCOMMODATE DEEP SEWERS AND PROVIDE MAXIMUM 60" COVER AT RIGHT OF WAY.
6. SEWER LATERAL PIPE AND FITTINGS SHALL BE SDR26 AND SHALL BE 4" MINIMUM.
7. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR OF THE LATERAL CLEANOUT IN GOOD CONDITION TO ALLOW ACCESS BY CITY PUBLIC WORKS MAINTENANCE.
8. MINIMUM DISTANCE (8 FT) FROM TREE TO SEWER LATERAL.
9. LATERAL SHALL HAVE TRACER WIRE AND MARKER TAPE FROM MAIN TO CLEANOUT.
1. No cleanouts shall be located in driveways, unless approved by the city engineer.
2. If the sidewalk is separate from the curb, cleanout riser shall be installed in the approximate center of the planting strip.
3. House connection shall be made under the supervision of the building inspector.
4. Sewer lateral shall be constructed with a perpendicular alignment from the main to the property line unless otherwise approved by the city engineer.
5. Cleanout box shall be Christy F8, or approved equal, with cast iron cover marked "C.O."
6. Pipe slope may be increased to accommodate deep sewers and provide maximum 60" cover at right of way.
7. Sewer lateral pipe and fittings shall be SDR 26 and shall be 4 inch minimum.
8. Property owner shall be responsible for repair and maintenance of the lateral cleanout in good condition to allow access by city public works maintenance.
9. No repair couplings shall be used within R/W during new construction, unless approved by the city engineer.
10. On site plumber shall not excavate around the cleanout.
11. Used existing services shall be abandoned at the right of way by potholing and installing a watertight plug or cap at the end of the lateral and surrounding the seal with a 50 # bag of concrete mix.
12. Lateral shall be installed above joint trench.
13. Tracer wire and marker tape from main to cleanout box.
14. Min. distance (8FT) from tree to sewer lateral.
1/4" CHECKERED PLATE COVER

3/8" DIA. x 4" ANCHOR

USE ABS SS PIPE AND FITTINGS - 4" MIN. DIA.

#4 REBARS 12" O.C. EACH WAY

NOTES:
1. ALTERNATE TRAPS MAY BE SUBMITTED FOR APPROVAL BY THE CITY ENGINEER.
NOTES:

1. THIS TYPE OF MANHOLE SHALL BE USED WHEN THE INCOMING PIPE IS 10" OR GREATER AND THE DIFFERENCES IN INVERT ELEVATIONS EXCEEDS 24". FOR FEEDER PIPES 8" OR LESS, SEE SD 206A.

2. PIPE SHALL HAVE AT LEAST ONE JOINT WITHIN 3 FEET FROM MANHOLE.

3. DROP PIPE TO BE ONE SIZE LARGER THAN THE INCOMING PIPE.

4. ENCASING CONCRETE SHALL BE CLASS "B", 2500 PSI AT 28 DAYS; 3/4 MAXIMUM AGGREGATE SIZE.

5. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH SD 301.
SEWER REPAIR - NO CONFLICT IN GRADE

NEW UTILITY PIPE OVER SEWER

COMPACTED BACKFILL MATERIAL

18" MIN (TYP.)

1/4" MAX. (TYP.)

6" TYP.

12" MIN. SEPARATION REQUIRED FROM ALL UTILITIES.

MR01-44 ADJ REPAIR COUPLING WITH SHEAR RING, MISSION RUBBER CO. CORONA, CA OR APPROVED EQUAL

NEW UTILITY PIPE UNDER SEWER

COMPACTED BACKFILL MATERIAL

VCP / SDR 26 / EPOXY LINED D.I.P. POLYWRAPPED

12" MIN. SEPARATION REQUIRED FROM ALL UTILITIES.

CLASS "C" CONCRETE SUPPORT (BOTH SIDES)

SEWER REPAIR - NO CONFLICT IN GRADE
N.T.S.

CITY OF TRACY

REVIEWED BY: Leisser M.

Prepared By: Leisser M.

CHECKED BY: Thomas W.

REV:

Rev:

CITY ENGINEER

RCE 63173

Res No. 2020-031

DATE: February 18, 2020

205

SEWER LATERAL REPAIR
CAST IRON RING AND COVER (SEE SP 309) (ADJUST TO GRADE AFTER PAVING PER STANDARD PLAN #114)

PRECAST REINFORCED CONCRETE MANHOLE CONE CONFORMING TO PIPE SECTION SPECIFICATION

SEE NOTE 5 (TYP.)

POURED CONCRETE BASE

REMOVE TOP OF PIPE; 3 FT MIN OPENING

USE GROUT TO CHANNELIZE FLOW

TROWEL SMOOTH CURVE TO FIT

SECTION A-A

NOTES:
1. ALL JOINTS SHALL BE SEALED RAM-NEK OR KENT-SEAL #2.
2. BACKFILL AROUND MANHOLE SHALL HAVE 95% COMPACTION.
3. CONCRETE SHALL BE FIVE SACK CLASS "B" 2500 PSI AT 28 DAYS; 4" MAX. SLUMP; 3/4" MAX. AGGREGATE. VIBRATE, CONCRETE TO CONSOLIDATE.
4. NO JOINTS IN THE PIPE WILL BE PERMITTED WITHIN THE MANHOLE.
5. PIPES SHALL HAVE AT LEAST ONE JOINT WITHIN 3 FEET FROM MANHOLE.
6. FOR PIPE SIZE GREATER THAN 36" OR DEPTH GREATER THAN 10 FT., INSIDE DIAMETER SHALL BE 60".
7. ECCENTRIC IS OPTIONAL WHEN NEEDED WITH APPROVAL FROM CITY ENGINEER.
8. 95% COMPACTION REQUIRED.
9. RAISED CONC. COLLAR & BOLLARDS IF INSTALLED OUTSIDE PAVED CONCRETE AREA.
10. BOLT DOWN LID REQUIRED OUTSIDE PAVED AREA.

CITY OF TRACY

CITY ENGINEER

Res No. 2020-031
Prepared By: Leisser M.

STORM DRAIN MANHOLE

STANDARD PLAN No. 300
STORM DRAIN MARKER
MARKER TO BE ALMETEK STAINLESS STEEL PAINTED DISK, BLUE WITH FISH LOGO AND LETTERING STATING "NO DUMPING, DRAINS TO RIVER." APPLY PER MANUFACTURERS RECOMMENDATION.

DIMENSIONS

<table>
<thead>
<tr>
<th>'A'</th>
<th>'B'</th>
</tr>
</thead>
<tbody>
<tr>
<td>30&quot;</td>
<td>33&quot;</td>
</tr>
<tr>
<td>48&quot;</td>
<td>24&quot;</td>
</tr>
</tbody>
</table>

DEPRESSSED GUTTER DETAIL
N.T.S.

CITY OF TRACY

REVIEWED BY: Robert Armijo
CITY ENGINEER RCE 63173

STANDARD PLAN No. 301

Res No. 2020-031 DATE: February 18, 2020
Prepared By: Leisser M. Checked By: Thomas W.
Rev: Rev:
NOTES:

1. LATERAL CROWN TO MATCH TRUNK CROWN, OR LATERAL FLOWLINE TO BE A MINIMUM OF 0.2' HIGHER THAN TRUNK FLOWLINE, WHICHEVER GOVERNS.

2. WHERE TRUNK LINE IS LARGER THAN 18" DIA., USE MANHOLE BASE OR SPECIAL DESIGN BOX. DESIGN TO BE REVIEWED BY CITY ENGINEER.

3. PRECAST INLETS TO BE SANTA ROSA 4A, OR EQUAL. PREFAB INLETS TO BE SANTA ROSA PELICAN 4A OR EQUAL.

4. PRECAST BOX TO BE CHRISTY U36, SANTA ROSA 1K, 3K OR EQUAL.

5. HOLD BOTTOM OF KEY TO THE BOX 16.5" BELOW TOP OF CURB.

6. SLOPE TO DRAIN WITH GROUT IF BOX HAS NO INLET PIPE.
NOTES:

1. FOR USE WITH 24" & LARGER TRUNK LINES.
2. LATERAL CROWN TO MATCH TRUNK CROWN ELEVATION OR FLOW LINE TO BE A MINIMUM OF 0.2' HIGHER THAN TRUNK FLOW LINE, WHICHEVER GOVERNS.
3. FOR DEPRESSED GUTTER, SEE DROP INLET DETAIL 302.
STORM DRAIN MARKER


4" DIA DISK

STORM DRAIN MARKER

MARKER TO BE ALMETEK STAINLESS STEEL PAINTED DISK, BLUE WITH FISH LOGO AND LETTERING STATING "NO DUMPING, DRAINS TO RIVER." APPLY PER MANUFACTURERS RECOMMENDATION.

TOP OF ASPHALT CONCRETE

NOTES:

SEE PARKS AND STREETSCAPE DETAIL D1.12, "AREA DRAIN" FOR NON STRUCTURAL INLET APPLICATIONS.
STORM DRAIN MARKER
MARKER TO BE ALMETEK STAINLESS STEEL PAINTED DISK, BLUE WITH FISH LOGO AND LETTERING STATING "NO DUMPING, DRAINS TO RIVER." APPLY PER MANUFACTURERS RECOMMENDATION.

SECTION A-A
N.T.S.
STORM DRAIN MARKER

MARKER TO BE ALMETEK STAINLESS STEEL PAINTED DISK, BLUE WITH FISH LOGO AND LETTERING STATEING "NO DUMPING, DRAINS TO RIVER." APPLY PER MANUFACTURERS RECOMMENDATION.

### DIMENSION "A" (in)

<table>
<thead>
<tr>
<th>UPSTREAM CURB GRADE</th>
<th>&quot;A&quot; UPSTREAM</th>
<th>&quot;A&quot; DOWNSTREAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2% AND LESS</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>3%</td>
<td>36</td>
<td>24</td>
</tr>
<tr>
<td>4%</td>
<td>48</td>
<td>24</td>
</tr>
<tr>
<td>5%</td>
<td>60</td>
<td>24</td>
</tr>
<tr>
<td>6%</td>
<td>72</td>
<td>24</td>
</tr>
<tr>
<td>7%</td>
<td>84</td>
<td>12</td>
</tr>
<tr>
<td>8%</td>
<td>96</td>
<td>12</td>
</tr>
<tr>
<td>9%</td>
<td>108</td>
<td>12</td>
</tr>
<tr>
<td>10% AND GREATER</td>
<td>120</td>
<td>12</td>
</tr>
</tbody>
</table>
COVER 21" DIA. 3/16" STEEL CHECKER PLATE WELD 4 - 2" SECTIONS OF 1-1/4" x 1-1/4" x 3/16" ANGLED ON BOTTOM OF COVER 2-1/2" FROM EDGE

WELD "U" BRACKET TO 18" C.S.P WALL AND SLOT LID SO BRACKET WILL POKE THROUGH FOR LID LOCK DOWN

1/4" x 18" STEEL CHAIN. WELD TO COVER. ANGLE ANCHOR TO 18" C.S.P. 6" BELOW TOP

6" x 12" OPENING

SEAL JOINT WITH CONCRETE

PROPOSED STORM DRAIN PIPE

CONCRETE BASE

NOTE:
ALL SHARP CORNERS AND EDGES THAT ARE MARRED, CUT OR ROUGHENED SHALL BE ROUNDED BY GRINDING AND PAINTED WITH 2 APPLICATIONS OF UNTINNED COMMERCIAL QUALITY ZINC-RICH PRIMER CONFORMING TO THE REQUIREMENTS OF SECTION 91.2.01 OF THE STATE STANDARD SPECIFICATIONS.
NOTES:

1. INSIDE DIAMETER OF LATERAL SHALL NOT BE LARGER THAN 1/2 OF INSIDE DIAMETER FOR MAIN PIPE.
2. USE SHORT STUB WHEN PIPE IS TOO SMALL TO FINISH FROM INSIDE.
3. LATERAL MUST INTERSECT MAIN LINE RADIALY. HOLE SHALL BE CUT TO MINIMUM DIAMETER.
4. INSTALLATION SUBJECT TO CITY ENGINEER'S APPROVAL.
NOTES:

1. FRAME AND COVER SHALL BE PHOENIX IRON WORK P-1090, TEICHERT NO. 6622, PINKERTON A - 193, OR SOUTH BAY FOUNDRY SBF 1900 OR APPROVED EQUAL.

2. MANHOLE COVER SHALL INCLUDE LETTERING FOR DESIGNATION OF "SANITARY SEWER" OR "STORM DRAIN" - AS APPLICABLE.
NOTES:

1. CURB DRAIN SHALL GRATUITOUS FLOW FROM PRIVATE CATCH BASIN OR ROOF DRAIN. ROOF DRAINS SHALL HAVE 1" OF SEPARATION BETWEEN DOWNSPOUT AND UNDERGROUND SYSTEM.

2. EXISTING CONCRETE SHALL BE REMOVED TO NEAREST SCORELINE. INSTALL 6" X #4 REBAR DOWELS IN THE EXISTING CONCRETE 1' O.C.

3. MODIFICATION TO THE NUMBER OF OUTLET PIPE IS SUBJECT TO REVIEW BY THE CITY ENGINEER.

SECTION B-B
CITY OF TRACY

SECTION B-B

4" X 3" X 2" STEEL TUBE
\( \frac{3}{8} \) CHAMFER BOTH ENDS
3" DUCTILE PIPE
6X6 WWM, W1.6XW1.6 CENTERED

SECTION C-C

2"1

SECTION A-A

\( \frac{\pi}{2} \) X 2" WELDED STEEL STUD
2 REQUIRED EACH SIDE

CURB, GUTTER, AND SIDEWALK

NOTES:
GALVANIZE AFTER FABRICATION AND ASSEMBLY

CONNECT TO ROUND ROOF DRAIN
BACK OF SIDEWALK
6X6 WWM, W1.6XW1.6 CENTERED
WELDED STEEL STUD (TYP.)
WEAKENED PLANE JOINT (TYP.)
3" DUCTILE PIPE
FACE OF CURB
BACK OF CURB
GUTTER FLOWLINE
CURB AND GUTTER TYPE 2

PLAN

CITY ENGINEER
RCE 63173

REV.

REVIEWED BY:

STANDARD PLAN No.

308
SHEET 2 OF 3

CURB DRAIN INSTALLATION

Res No. 2020-031
Prepared By: Leisser M.
Rev:

DATE: February 18, 2020
Checked By: Thomas W.
Rev:
WEAKENED PLANE JOINT (TYP.)

SIDEWALK

18"
9"

BACK OF SIDEWALK

WELDED STEEL STUD (TYPICAL)

BACK OF CURB

FACE OF CURB

CURB AND GUTTER TYPE 1

PLAN

CURB END OF DRAIN

\( \frac{\sqrt{3}}{2} \times 5' \) NON-SLIPPERY CHECKER PLATE

4" X 3" X \( \frac{3}{16} \) STEEL TUBE
\( \frac{3}{8} \) CHAMFER BOTH ENDS

SECTION A-A

\( \frac{3}{4} \) X 2" WELDED STEEL STUD. MIN. REQUIRED EACH SIDE

SECTION B-B

NOTE:
GALVANIZE AFTER FABRICATION AND ASSEMBLY

CITY OF TRACY

REVIEWED BY:  

CITY ENGINEER RCE 63173

Res No. 2020-031 DATE: February 18, 2020

Prepared By: Leisser M.  
Checked By: Thomas W.

Rev:

308
SHEET 3 OF 3

CURB DRAIN INSTALLATION
1/2" X 3/8" BALL VALVE
KARALEEN SAMPLE STATION
MODEL #LT 0001-3
6" C.I., D.I., OR SCH 40
PVC PIPE RISER

FILL HOUSING WITH PEA GRAVEL, SAND,
CONCRETE, OR OTHER MATERIALS

FL-30 METER BOX & COVER
CURB STOP VALVE
MODEL #BA63-444WNL
1" PACK
JOINT TEE
MODEL #T441-33

1" X 12" LONG
BRASS NIPPLE
WATER SERVICE

4" WATER SERVICE
BALL VALVE MODEL
#B11-444NL

1/2" PVC WATER SUPPLY
LINE WITH PIPE WRAP

6" WATER SERVICE
4" THICK CLASS "B"
CONCRETE COLLAR

ALUMINUM LID
FLUSH MOUNTED
LOCK
ALUMINUM LID

METER BOX
1) CHRISTY B12 FLEX NET
RECESSED WITH PROBE HOLE
2) 3/4"x3/4" SHORT (7.5LL)
METER

CITY OF TRACY

REVIEWED BY: Robert Armijo
CITY ENGINEER RCE 63173
Res No. 2020-031 DATE: February 18, 2020
Prepared By: Leisser M. Checked By: Thomas W.
Rev: Rev:

WATER QUALITY
SAMPLING STATION
NOTES:

1. Meter shall be sensus touch read (TR/PL) with touch read pad installed with flex net transceiver unit (M X U model 520M). One transceiver unit shall be with each meter and read in 100 cubic feet. Meter shall be minimum size as specified by the City Engineer and shall be set with rubber gaskets. Meter shall be furnished and set by contractor with the M X U model 520M read unit to be given to the City to be installed by the City at a later date.

2. Meter box shall be designed and set to accommodate sensus flex net recessed box with probe hole lid in addition to sensus radio read meter reading system.

3. No galvanized pipe shall be used.

4. Compact around the meter to 95%. Onsite plumber shall not remove meter box to connect the pipe.

5. All underground copper water lines within the city right-of-way shall be a single continuous piece polywrapped to City of Tracy Standards.

6. Unused existing services shall be abandoned by potholing, cutting out and removing the corporation stop and saddle at the main and installing a full circle 316 stainless steel repair clamp with 316 accessories over the hole.

7. FZ sensus meters should be used in locations where domestic and fire services share one service line.

8. Polyethylene type encasement wrap or 10MIL pipe wrap $\frac{1}{2}$ lapped from main to Christy Box.

9. Tracer wire and marker tape from main to Christy Box.

10. Polywrap from main to box polyethylene sleeve or 10 MIL tape - $\frac{1}{2}$ tapped from main to Christy box
NOTES:

1. HYDRANT SHALL HAVE 1, 4 1/2" OUTLET AND 1, 2 1/2" HOSE OUTLET, JONES 4040/CLOW 850 OR APPROVED EQUAL. HYDRANTS AND ALL EXPOSED PARTS SHALL BE PAINTED ONE COAT PRIMER AND TWO FINISHING COATS OF BENJAMIN MOORE SAFETY YELLOW OR EQUAL. ALL HYDRANTS FROM ONSITE FIRE SYSTEMS TO BE PAINTED RED.

2. BREAK OFF SPOOL 6" MIN. IN LENGTH SHALL BE INSTALLED 2" ABOVE CONCRETE SLAB. THE BOLTS ATTACHING HYDRANT TO SPOOL AND SPOOL TO BURY SHALL BE BREAK-OFF TYPE, HEX HEAD, STAINLESS STEEL, NUTS SHALL BE DOWN. PAINT SPOOL.

3. VALVE SHALL BE PLACED ADJACENT TO THE MAIN AS A RESILIENT WEDGE GATE VALVE, TOTALLY ENCAPSULATED, FACTORY EPOXY LINED & COATED.

4. THRUST BLOCK SHALL BE INSPECTED AND APPROVED AT THE TIME OF CONSTRUCTION PER CITY STANDARD PLAN 423.

5. CONCRETE PAD SHALL BE 4'-6" X 5'-0". SLOPE SHALL BE 1/4" IN 1' TO CURB. CONCRETE SHALL BE CLASS "B" 2500 PSI; 4" MAXIMUM SLUMP; 3/4" MAXIMUM AGGREGATE WITH 1/2 LB. LAMPSHACK PER CUBIC YARD. PAD SHALL BE FINISHED TO THE SPECIFICATIONS OF THE SIDEWALK.

6. 10 AWG LOCATE WIRE 1'-0" ABOVE PIPE (COLOR BLUE)

7. BLUE 6" WIDE WARNING TAPE. "CAUTION POTABLE WATER LINE BURIED BELOW (CHRISTYS DETECTABLE MARKING TAPE)

8. HYDRANTS SHALL BE PLACED AT PROPERTY LINE EXTENSION, 3 FT., FROM DRIVEWAYS, AND NEAR STREET LIGHTS, OR AS SHOWN ON PLANS. APPROVED BY CITY ENGINEER. 4" MIN CLEARANCE FROM ALL ABOVE GROUND OBSTRUCTIONS. CENTERLINE OF HYDRANT 2'-6" BEHIND FACE OF CURB.

9. HYDRANT BODIES ARE TO BE LINED WITH FACTORY TWO PART EPOXY.

10. TRENCH BACKFILL AS PER STD PLAN #500.

11. SITE/Private PROPERTY HYDRANTS SHALL BE PAINTED RED.

12. CENTERLINE OF HYDRANT IS 2'-6" BEHIND FACE OF CURB WHEN LOCATED IN PLANTER.

CENTERLINE OF HYDRANT IS 2'-6" BEHIND FACE OF CURB WHEN IN 10' ATTACHED WALK.

CENTERLINE OF HYDRANT IS 7'-6" BEHIND FACE OF CURB WHEN IN 5' WALK.

CENTERLINE OF HYDRANT IS 2'-6" BEHIND FACE OF CURB WHEN IN 7'-6" WALK

---

CITY OF TRACY

STANDARD PLAN No. 401

FIRE HYDRANT

Reviewed by: Robert Armijo
CITY ENGINEER
Res No. 2020-031
DATE: February 18, 2020
Prepared By: Leisser M.
Checked By: Thomas W.
NOTES:

1. VALVES SHALL BE ONE OF THE FOLLOWING:
   A) BUTTERFLY VALVES: 12" AND LARGER AS SHOWN ON APPROVED MATERIALS LIST SHALL BE USED.
   APPROVED LIST INCLUDE: ("GROUNDHOG"), ("AMERICAN"), MUELLER, B.I.F., KENNEDY, DRESSER.
   B) GATE VALVES: 10" AND SMALLER AS SHOWN ON LIST OF APPROVED MATERIALS. APPROVED LIST
   INCLUDES; MUELLER RESILIENT SEAT, CLOW R/W, KENNEDY, AMERICAN-80 "CRS".

2. IF OPERATING NUT EXCEEDS 7" DEEP FROM FINISH GRADE EXTENSIONS SHALL BE REQUIRED.

3. DOUBLE POLYWRAP ALL PIPING, VALVES AND FITTINGS.

4. VALVE BOX: BROOKS 3-RT OR CHRISTY G4 WITH G4C LID. RECYCLED WATER LID NEEDS TO BE PURPLE.

5. WARNING TAPE 12" ABOVE PIPE.
NOTES:

1. Meter shall be sensus touch read (TR/PL) with touch read pad installed with flex net transceiver unit (M X U model 520M). One transceiver unit shall be with each meter and read in 100 cubic feet. Meter shall be minimum size as specified by the City Engineer and shall be set with rubber gaskets. Meter shall be furnished and set by contractor with the M X U model 520M read unit to be given to the City to be installed by the City at a later date.

2. Meter box shall be designed and set to accommodate sensus flex net recessed box with probe hole lid in addition to sensus radio read meter reading system.

3. No galvanized pipe shall be used.

4. Compact around the meter to 95%. Onsite plumber shall not remove meter box to connect the pipe.

5. All underground copper water lines within the city right-of-way shall be a single continuous piece polywrapped to City of Tracy Standards.

6. No landscape irrigation lines shall be allowed between the meter box & the sidewalk.

7. Unused existing services shall be abandoned by potholing, cutting out and removing the corporation stop and saddle at the main and installing a full circle 316 stainless steel repair clamp with 316 accessories over the hole.

8. FZ sensus meters should be used in locations where domestic and fire services share one service line.

9. Polyethylene type encasement wrap or 10ML pipe wrap \( \frac{3}{4} \) lapped from main to Christy Box

10. Tracer wire and marker tape from main to Christy Box.
METER BOX
1 1/2" - CHRISTY B 36 (P)
2" - CHRISTY B 36 (P)

FORD ANGLE METER VALVE
1 - 1/2" - FV43-666-MSB-NL
2" - FV43 - 777W-MSB-NL

36" MIN. COVER
WARNING TAPE
BRICKS AROUND FULL PERIMETER OF BOX
CONTINUOUS TYPE K COPPER

FULL PORT CORP.
STOP SONES-J-3403,
MUELLER BR2B/B250028,
OR EQUAL

BRONZE DOUBLE STRAP SERVICE
SADDLE. 1"-JONES-J-979 OR
APPROVED EQUAL WITH I.P. THREAD.
SADDLE INSTALLED UNDER POLYWRAP

B-36 UTILITY BOX 17 1/4" X 30"
LOCKABLE ANGLE CURB
STOP FV43-666W-MSB-NL

LID SHALL BE STAMPED WATER
ON SITE SERVICE
4" MIN. STUB
SCH 80 PVC
WATER METER:
OMNI COMPOUND (C2) WATER METER
6" MIN CRUSHED ROCK

2" LOCKABLE VALVE
DOMESTIC

ALL PIPING COPPER OR BRASS

NOTES:
1. Meter shall be sensus touch read (TR/PL) with touch read pad installed with flex net transceiver unit (M X U model 520M). One transceiver unit shall be with each meter and read in 100 cubic feet. Meter shall be minimum size as specified by the City Engineer and shall be set with rubber gaskets. Meter shall be furnished and set by contractor with the M X U model 520M read unit to be given to the City to be installed by the City at a later date.
2. Meter box shall be designed and set to accommodate sensus flex net recessed box with probe hole lid in addition to sensus radio read meter reading system.
3. No galvanized pipe shall be used.
4. Compact around the meter to 90%. Onsite plumber shall not remove meter box to connect the pipe.
5. All underground copper water lines within the city right-of-way shall be a single continuous piece polywrapped to City of Tracy Standards.
6. No landscape irrigation lines shall be allowed between the meter box & the sidewalk.
7. Unused existing services shall be abandoned by potholing, cutting out and removing the corporation stop and saddle at the main and installing a full circle 316 stainless steel repair clamp with 316 accessories over the hole.
8. F2 sensus meters should be used in locations where domestic and fire services share one service line.
9. Polyethylene Encasement Wrap or 10MIL Pipe Wrap Tape - ½ lapped from main to Christy Box.
10. Tracer wire and marker tape from main to Christy Box.

CITY OF TRACY

REVIEWED BY: Robert Armijo

CITY ENGINEER RCE 63173
Res No. 2020-031 DATE: February 18, 2020
Prepared By: Leisser M. Checked By: Thomas W.
Rev: Rev:

1 1/2" & 2" SERVICE
1. METER TYPE T2 TURBO FOR IRRIGATION/C2 COMPOUND FOR DOMESTIC FLEX NET TRANSCEIVER.
2. INSTALL LOCKABLE STEEL VAULT LID WITH METER REGISTER IN LID. LID STAMPED RECLAIMED WATER.
3. FOR WATER METERS LARGER THAN 6", DESIGNER SHALL SUBMIT A SEPARATE DESIGN FOR APPROVAL BY CITY ENGINEER.
4. ALL PIPE AND FITTINGS WITHIN VAULT SHALL BE FLANGED DUCTILE IRON PIPE.
5. THE MINIMUM SIZE SERVICE FOR A STREETSCAPE APPLICATION AND NEIGHBORHOOD PARK IS 4 INCH.
6. NO LANDSCAPE IRRIGATION LINES SHALL BE ALLOWED BETWEEN THE METER BOX AND THE SIDEWALK.
7. WATER METER SHALL BE LOCATED WITHIN THE CITY R.O.W.

SECTION A-A

<table>
<thead>
<tr>
<th>No.</th>
<th>NAME</th>
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<tbody>
<tr>
<td>1</td>
<td>FLEX NET METER</td>
</tr>
<tr>
<td>2</td>
<td>COUPLING</td>
</tr>
<tr>
<td>3</td>
<td>ADAPTER</td>
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<tr>
<td>4</td>
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<td>5</td>
<td>TEE</td>
</tr>
<tr>
<td>6</td>
<td>90° ELBOW</td>
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<td>7</td>
<td>BYPASS PIPE DIP SAME SIZE</td>
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<td>8</td>
<td>BYPASS GATE VALVE W/ NUT</td>
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DIMENSIONS

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CITY OF TRACY

REVIEWED BY: Robert Armijo
CITY ENGINEER RCE. 63173
Res No. 2020-031 DATE: February 18, 2020
Prepared By: Leisser M. Checked By: Thomas W.
Rev. Rev.

STANDARD PLAN No.
406
3", 4" & 6"
DOMESTIC/IRRIGATION METER
NOTES:

1. FOR THRUST BLOCK DIMENSIONS, SEE STANDARD PLAN NO. 423

2. THE FUTURE EXTENSION STUB SHALL BE TESTED AND CHLORINATED WITH THE REST OF THE MAIN AND BLOWN OFF THROUGH THE PIPE.

3. BLOW OFF SHALL BE 4" MINIMUM FOR BACTERIOLOGICAL TESTING FOR DUCTILE IRON FLANGED PIPE.

4. USE CURB STOP ON 2" SVC OR BLOW OFF ONLY.

5. TRAFFIC BOX SHALL BE CHRISTY G05T WITH G5 LID OR APPROVED EQUAL.

6. VALVE AND BLOW OFF BOXES SHALL BE INSTALLED IN PAVED AREA ONLY UNLESS APPROVED BY THE CITY ENGINEER.
NOTES:

1. VENT TUBE SHALL BE LABELED "POTABLE WATER" USING 2" LETTERS.
2. ALL PIPING SHALL BE BRASS OR COPPER BETWEEN THE MAIN AND ARV.
3. TRACER WIRE AND MARKER TAPE FROM MAIN TO CHRISTY BOX.
4. COPPER TYPE K POLYWRAP FROM MAIN WITH POLYETHYLENE SLEEVE OR 10MIL TAPE \( \frac{1}{2} \) LAPPED FROM MAIN TO CRISPY BOX.

CITY OF TRACY

REVIEWS BY: Robert Armijo

CITY ENGINEER RCE 63173

STANDARD PLAN No. 408

COMBINATION AIR & VACUUM RELEASE VALVE WITH AIR VENT TUBE
NOTES:
1. ASSEMBLIES INSTALLED AT EASEMENTS, ROADS AND STREETS WITHOUT CURBS SHALL BE PROTECTED WITH GUARD POST.
2. POST CONSISTS OF 6' LENGTH OF 4" PIPE FILLED WITH GROUT AND SET 3' BE GRADE IN 16" O.D. CONC. BASE POSITION POSTS 2' IN FRONT OF AND 2.5' EACH SIDE OF ASSEMBLIES. CROWN CONC. BASE AT TOP TO SHED WATER.
3. NO GALVANIZED STEEL PIPE SHALL BE USED.
4. POLYWRAP ALL PIPE IN FITTINGS.

CITY OF TRACY

REVIEWED BY: Robert Armijo
CITY ENGINEER RCE 63173
Res No. 2020-031 DATE: February 18, 2020
Prepared By: Leisser M. Checked By: Thomas W.

REV: REV:

STANDARD PLAN No. 409

COMBINATION AIR & VACUUM RELEASE VALVE ASSEMBLY & BLOWOFF
## BILL OF MATERIAL

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<th>QTY.</th>
<th>DESCRIPTION</th>
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<tr>
<td>A</td>
<td>2</td>
<td>BUSHING (SIZE AS REQUIRED)</td>
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<tr>
<td>B</td>
<td>2</td>
<td>3/4&quot; CORP. STOP, I.P. x K</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>3/4&quot; CPLG. K x I.P. FE. - SI</td>
</tr>
<tr>
<td>D</td>
<td>2</td>
<td>3/4&quot; COPPER TUBING</td>
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<tr>
<td>E</td>
<td>2</td>
<td>3/4&quot; ELL 90° K x K - SI</td>
</tr>
<tr>
<td>F</td>
<td>1</td>
<td>3/4&quot; ANGLE STOP I.P.</td>
</tr>
<tr>
<td>G</td>
<td>1</td>
<td>3/4&quot; x 3/4&quot; (SHORT 7.5) SENSUS METER (FLEXNET 520R)</td>
</tr>
<tr>
<td>H</td>
<td>1</td>
<td>3/4&quot; METER SPUD</td>
</tr>
<tr>
<td>J</td>
<td>1</td>
<td>DOUBLE CHECK VALVE ASSEMBLY</td>
</tr>
<tr>
<td>K</td>
<td>2</td>
<td>3/4&quot; x CLOSE NIPPLE</td>
</tr>
<tr>
<td>L</td>
<td>1</td>
<td>3/4&quot; TEE SS BRASS</td>
</tr>
<tr>
<td>M</td>
<td>1</td>
<td>SELF CLOSING READ LID</td>
</tr>
<tr>
<td>N</td>
<td>1</td>
<td>3/4&quot; x 1/4&quot; TEE SS BRASS</td>
</tr>
<tr>
<td>O</td>
<td>1</td>
<td>BOLT DOWN COVER</td>
</tr>
</tbody>
</table>

### NOTES:

1. DETECTOR CHECK VALVE TYPE SHALL BE APPROVED BY UNDERWRITERS LABORATORIES, INC.
2. POST INDICATOR VALVE AND FIRE DEPARTMENT CONNECTION REQUIRED ON ALL FIRE SERVICE LINES.
NOTES:

1. A LISTED BACKFLOW PREVENTION DEVICE IS REQUIRED TO BE INSTALLED ON ALL FIRE SPRINKLER SUPPLY LINES.

2. A POST INDICATOR VALVE MAY NOT BE REQUIRED IF THE PROXIMITY OF THE BACKFLOW PREVENTOR TO BUILDING IS ACCEPTABLE TO FIRE DEPARTMENT.

3. BACKFLOW PREVENTION DEVICE SHALL BE LOCATED IN THE PRIVATE PROPERTY.

4. DESIGN ENGINEER SHALL CALCULATE AND DETERMINE THE SIZE OF THE IRON PIPE. MINIMUM 6" DIAMETER PIPE IS REQUIRED.

5. FDC SHALL BE LOCATED AT BUILDING.
NOTES:

1. A LISTED BACKFLOW PREVENTION DEVICE IS REQUIRED TO BE INSTALLED ON ALL FIRE SPRINKLER SUPPLY LINES.

2. BACKFLOW PREVENTION DEVICE SHALL BE LOCATED IN THE PRIVATE PROPERTY.

3. DESIGN ENGINEER SHALL CALCULATE AND DETERMINE THE SIZE OF THE IRON PIPE. MINIMUM 6" DIAMETER PIPE IS REQUIRED.

4. A POST INDICATOR VALVE MAY NOT BE REQUIRED IF THE PROXIMITY OF THE BACK FLOW PREVENTOR TO THE BUILDING IS ACCEPTABLE TO THE FIRE DEPARTMENT.

5. FOR LARGE SYSTEM DEMANDS FDC'S WITH A MINIMUM OF 3-4 HOSE CONNECTIONS SHALL BE REQUIRED.
NOTES:

1. BACKFLOW PREVENTION DEVICE SHALL BE LOCATED ON PRIVATE PROPERTY IN A LOCATION APPROVED BY THE CITY PRIOR TO INSTALLATION.

2. BACKFLOW PREVENTION DEVICE SHALL CONSIST OF REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE AS REQUIRED BY TITLE 17 OF FOUNDATION FOR CROSS CONNECTION U.S.C. AND AS SHOWN ON APPROVED LIST ON FILE WITH PUBLIC WORKS. SIZE AND MODEL OF BACKFLOW DEVICE TO BE DETERMINED FOR EACH INSTALLATION DEPENDING UPON ALLOWABLE HEAD LOSS. WHERE BACKFLOW PREVENTION DEVICE IS INSTALLED IN COMBINATION WITH FIRE AND DOMESTIC SERVICE IT SHALL BE APPROVED BY FIRE MARSHALL.

3. BARRIER POST SHALL BE LOCATED TO PROTECT PIPING AND VAULTS. CURB AND PARKING BARRIERS CAN BE CONSIDERED AS PROTECTION IF EFFECTIVELY LOCATED. MINIMUM DISTANCE 4' FROM FACE OF CURB.

4. BACKFLOW PREVENTION DEVICE 3" OR LARGER SHALL BE SUPPORTED. USE GRINNELL FIG. 264, WITH 4" THICK, 12" SQUARE CONCRETE FOOTING.

5. WATER SUPPLY - NO CONNECTIONS OR TEES WILL BE ALLOWED BETWEEN METER AND DEVICE.

6. TEST COCKS SHALL BE MUELLER H-11007 OR AS FURNISHED WITH THE BACKFLOW PREVENTION DEVICE. ALL TEST COCKS SHALL HAVE PLUGS.

7. DEVICE SHALL BE ACCESSIBLE FOR TESTING AND MAINTENANCE.

8. CERTIFICATION REQUIRED PRIOR TO ACCEPTANCE.

9. NO GALVANIZED PIPE.
## THRUST BLOCK AREA REQUIRED

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<tr>
<th>FITTINGS</th>
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<th>8&quot; LINE</th>
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<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
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<tr>
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<td>TEE</td>
<td>1'</td>
<td>2'-6&quot;</td>
<td>2'</td>
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### NOTES:

1. CONCRETE SHALL BE CLASS B, 2500 PSI MINIMUM AT 28 DAYS.
2. THRUST BLOCKS SHALL BE PLACED AGAINST UNDISTURBED SOIL.
3. MINIMUM BEARING AREAS ARE SHOWN IN THE ABOVE TABLE.
4. THRUST BLOCKS WILL BE WEDGE-SHAPED AND SHALL NOT OVERLAP BELL ON FITTINGS OR INTERFERE WITH BOLTS ON FLANGE.
NOTES:
1. GEOTEXTILE FABRIC FOR FOUNDATION ROCK SHALL BE PROVIDED BENEATH SANITARY SEWERS, MANHOLES AND STRUCTURES WHERE WATER OR SOFT GROUND IS PRESENT, THE GEOTEXTILE FABRIC SHALL BE WRAPPED ENTIRELY AROUND THE ROCK WITH A MINIMUM TWELVE (12) INCHES OVERLAP, PUNCTURES IN THE GEOTEXTILE FABRIC SHALL BE COVERED WITH TWELVE (12) INCH SQUARE MINIMUM PATCH.
2. THESE ARE MINIMUM REQUIREMENTS, IF OTHER JURISDICTIONAL AGENCY REQUIREMENTS EXCEED THOSE SHOWN, THE GREATER REQUIREMENT SHALL BE MET.
3. ALL FLEXIBLE PIPE SHALL HAVE LOCATING WIRE ATTACHED EVERY 5FT TO PIPE.
EXISTING STREET AREAS
TRENCH BACKFILL AND RESURFACING DETAIL

NOTE:
1. SEE NOTES ON SHEET 3
SIDEWALK AREA ← UNIMPROVED AREA

DRIVEWAY / SIDEWALK CONSTRUCTION AS APPLICABLE PER CITY STANDARDS

TOP OF GRADE

6" NATIVE FOR DIRT AREA

6" CLASS 2 AGGREGATE BASE ON AREAS WITH SIDEWALK / DRIVEWAY 95% RELATIVE COMPACTION.

SELECT NATIVE BACKFILL OR APPROVED AGGREGATE BASE (90% RELATIVE COMPACTION)

WARNING TAPE AND LOCATING WIRE

HAND TAMPER TO 95% RELATIVE COMPACTION IN 4" LIFTS

DIMENSION "W"

W = 6" FOR 18" DIAMETER OR LESS
W = 10" FOR 21" TO 36" DIAMETER
W = 12" FOR 39" DIAMETER OR LARGER

BEDDING "B" (SAND)

BEDDING "A" (SAND OR CLASS 2 AB FOR VCP & PCC PIPE)

ADDITIONAL DEPTH AS REQUIRED FOR REMOVAL OF UNSUITABLE MATERIAL AND REPLACEMENT WITH SUITABLE MATERIAL

TYPE 2

N.T.S.

SIDEWALK OR UNIMPROVED AREAS

TRENCH BACKFILL DETAIL

NOTES:

1. SEE NOTES ON SHEET 3

CITY OF TRACY

REVIEWED BY: Robert Armijo

CITY ENGINEER RCE 63173

STANDARD PLAN No. 501

Res No. 2020-031 DATE: February 18, 2020

Prepared By: Leisser M. Checked By: Thomas W.
Rev: Rev:
1. UNSUITABLE SUB GRADE MATERIAL SHALL BE EXCAVATED AND STABILIZED WITH #3 ROCK (PER ASTM C-33 OR APPROVED EQUAL) OR ONE SACK CEMENT SLURRY AS APPROVED BY THE CITY ENGINEER.

2. BEDDING "A" SHALL BE COMPOSED OF SAND (SAND EQUIVALENT NOT LESS THAN 30). FOR CLAY AND CONCRETE PIPE, CLASS 2 AGGREGATE BASE PER CITY STANDARD SPECIFICATIONS MAY BE USED.

3. BEDDING "B" SHALL BE COMPOSED OF SAND (SAND EQUIVALENT NOT LESS THAN 30).

4. SELECT NATIVE BACKFILL MATERIAL - MATERIAL FROM EXCAVATION, FREE FROM STONES, LUMPS EXCEEDING 3" IN GREATEST DIMENSION, VEGETABLE MATTER, CLAY, OR UNSATISFACTORY MATERIAL.

5. ALL TRENCHES SHALL BE SHORED OR PROTECTED IN ACCORDANCE WITH "OSHA" AND OTHER STATE AND FEDERAL SAFETY CODES, REGULATIONS AND ORDINANCES.

6. PLACEMENT OF BACKFILL SHALL BE IN 12" LIFTS EVENLY PLACED AND MECHANICALLY COMPACTED TO THE RELATIVE DENSITY SPECIFIED. COMPACTION TESTS SHALL BE REQUIRED AT THE DISCRETION OF THE CITY ENGINEER. ALL COST RELATED TO THESE TESTS SHALL BE BORNE BY OWNER/CONTRACTOR/UTILITY COMPANY WHEN SUCH TESTS ARE REQUIRED. IF RESULTS OF THESE TESTS DO NOT MEET THE SPECIFIED REQUIREMENTS, BACKFILL SHALL BE EXCAVATED, REPLACED, COMPACTED AND RETESTED. IN CASE OF ONE SACK SLURRY MIX, NO COMPACTION TEST WILL BE REQUIRED. COMPACTION BY JETTING WITHIN THE PIPE BEDDING ZONE MAY BE ALLOWED BY SPECIAL PERMISSION OF THE CITY ENGINEER.

7. INITIAL CUT IN STREET PAVEMENT SHALL BE EQUAL TO THE WIDTH OF THE TRENCH WITH THE OPTION OF BEING JACK HAMMERED OR SAW CUT.

8. FINAL CUT IN STREET PAVEMENT SHALL BE 18" WIDER THAN THE TRENCH WIDTH (9" ON EACH SIDE) AS SHOWN IN THE DETAIL AND SHALL BE MADE BY AN ASPHALT GRINDER OR SAW CUTTING ONLY.

9. ALL TRENCHES SHALL BE BACKFILLED AND TEMPORARILY PAVED OR STEEL PLATED AT THE END OF EACH WORKING DAY.

10. TEMPORARY BITUMINOUS SURFACING (CUTBACK) SHALL BE PLACED AND COMPACTED IMMEDIATELY ABOVE THE TRENCH FOLLOWING BACKFILL COMPACTION AND APPROVAL OF THE CITY ENGINEER. MINIMUM DEPTH OF CUTBACK SHALL BE 2" OR AS SPECIFIED BY THE CITY ENGINEER. CUTBACKS SHALL BE MAINTAINED IN A CONDITION SATISFACTORY TO THE CITY ENGINEER UP UNTIL THE TIME OF FINAL PAVING.

11. FINAL PAVING ABOVE TRENCH SECTION SHALL BE PLACED WITHIN 14 DAYS OF ITS BACKFILL AND COMPACTION. EXTENSION MAY BE GRANTED BY THE CITY ENGINEER DUE TO WEATHER CONDITIONS. DEPTH OF FINAL PAVING SHALL BE 1" GREATER THAN EXISTING PERMANENT PAVING. IN THE EVENT PERMANENT PAVING IS NOT COMPLETED WITHIN 14 DAYS, THE CITY WILL CONSIDER THIS AS INCOMPLETE WORK AND WILL TAKE THE ACTION NECESSARY, IN ACCORDANCE WITH PREVAILING CITY ORDINANCES AND POLICIES.

12. TEMPORARY CUTBACK SHALL BE REMOVED PRIOR TO THE PLACEMENT OF FINAL PAVING. FINAL PAVING SHALL BE PLACED ON UNDISTURBED, PREVIOUSLY INSPECTED AND COMPACTED AGGREGATE BASE OR ONE SACK SLURRY MIX. RECOMPACTATION SHALL BE REQUIRED FOR ANY DISTURBED BASE OR SURFACE.

13. ASPHALT CONCRETE SHALL BE IN ACCORDANCE WITH CITY OF TRACY STANDARD SPECIFICATIONS.

14. FOR A PARALLEL TRENCH LONGER THAN ONE HALF THE LENGTH OF A BLOCK, A 2" GRIND AND OVERLAY FROM THE LIP OF GUTTER TO CENTERLINE OF ROADWAY IS REQUIRED.

15. PROPER TRAFFIC CONTROL AND COVERING OF TRENCHES SHALL BE MAINTAINED IN ACCORDANCE WITH PREVAILING SAFETY AND TRAFFIC CONTROL STANDARDS FOR WORK IN CONSTRUCTION AREAS.

16. NO TRENCH SHALL BE OPENED IN ANY STREET FOR THE PURPOSE OF LAYING PIPES OR CONDUITS MORE THAN TWO HUNDRED (200) FEET AT A TIME.

17. TRENCHING SHALL NOT BE ALLOWED ON ANY STREET WHICH AS BEEN RECONSTRUCTED OR PAVED WITH THE PAST THREE YEARS OR ANY SLURRY SEALED STREET FOR A PERIOD OF EIGHTEEN (18) MONTHS.

18. 48 HOURS ADVANCE NOTICE SHALL BE REQUIRED FOR ALL CITY INSPECTIONS. CALL THE CITY OF TRACY CONSTRUCTION MANAGEMENT DIVISION AT (209) 831-4600.

19. REMOVE AND REPLACE THE REMAINING SECTION OF PAVEMENT IF DISTANCE BETWEEN T-CUT EDGE AND LIP OF GUTTER IS LESS THAN 36".

20. FILTER FABRIC BETWEEN DRAIN ROCK AND BEDDING REQUIRED
NOTES:

1. BEDDING "A" SHALL BE COMPOSED OF SAND (SAND EQUIVALENT NOT LESS THAN 30%), FOR CLAY AND CONCRETE PIPE, CLASS 2 AGGREGATE BASE PER CITY STANDARD SPECIFICATIONS MAY BE USED. BEDDING "B" SHALL BE COMPOSED OF SAND (SAND EQUIVALENT NOT LESS THAN 30%).

2. SELECT NATIVE BACKFILL MATERIAL - MATERIAL FROM EXCAVATION, FREE FROM STONES, LUMPS EXCEEDING 3" IN GREATEST DIMENSION, VEGETABLE MATTER, CLAY, OR UNSATISFACTORY MATERIAL.

3. UNSATURABLE SUBGRADE MATERIAL SHALL BE EXCAVATED AND STABILIZED WITH #3 ROCK (PER ASTM C-33 OR APPROVED EQUAL) OR WITH CEMENT SLURRY / CONCRETE AS APPROVED BY THE CITY ENGINEER.

4. ALL TRENCHES SHALL BE SHORED OR PROTECTED IN ACCORDANCE WITH "OSHA" AND OTHER STATE AND FEDERAL SAFETY CODES, REGULATIONS AND ORDINANCES.

5. THE FINAL 2 FEET OF BACKFILLED MATERIAL SHALL BE EITHER AGGREGATE BASE (95% RELATIVE COMPACATION) OR ONE (1) SACK SLURRY MIX.

6. PLACEMENT OF BACKFILL SHALL BE IN 12" LIFTS EVENLY PLACED AND MECHANICALLY COMPACTED TO THE RELATIVE DENSITY SPECIFIED. COMPACTION TESTS SHALL BE REQUIRED AT THE DISCRETION OF THE CITY ENGINEER. ALL COST RELATED TO THESE TESTS SHALL BE BORNE BY OWNER/CONTRACTOR/UTILITY COMPANY WHEN SUCH TESTS ARE REQUIRED. IF RESULTS OF THESE TESTS DO NOT MEET THE SPECIFIED REQUIREMENTS, BACKFILL SHALL BE EXCAVATED, REPLACED, COMPACTED AND RETESTED. IN CASE OF ONE SACK SLURRY MIX, NO COMPACTION TEST WILL BE REQUIRED. COMPACTION BY JETTING WITHIN THE PIPE BEDDING ZONE MAY BE ALLOWED BY SPECIAL PERMISSION OF THE CITY ENGINEER.

7. 48 HOURS ADVANCE NOTICE SHALL BE REQUIRED FOR ALL CITY INSPECTIONS. CALL THE CITY OF TRACY CONSTRUCTION MANAGEMENT DIVISION AT (209) 831-4600.

8. PROPER TRAFFIC CONTROL AND COVERING OF TRENCHES SHALL BE MAINTAINED IN ACCORDANCE WITH PREVAILING SAFETY AND TRAFFIC CONTROL STANDARDS FOR WORK IN CONSTRUCTION AREAS.

9. ASPHALT CONCRETE SHALL BE IN ACCORDANCE WITH CITY OF TRACY STANDARD SPECIFICATIONS.
TYPICAL SECTION

NOTES:

1. SEE CITY STANDARD PLAN SP 503, SHEET 2 OF 2 FOR "UTILITY CROSSING TRENCH SECTION"
NOTES:

1. WHEN MULTIPLE DUCTS ARE IN A COMMON TRENCH, BACK FILL MATERIAL SHALL CONFORM TO CITY OF TRACY STD. PLAN #501.

2. PAVEMENT REPLACEMENT AND TRENCH BACKFILL SHALL CONFORM TO STANDARD PLANS FOR "TRENCHING AND RESURFACING". (STANDARD PLAN NO. 501)

3. A SINGLEUTILITY MAY BE PLACED IN 6" MIN. WIDE ROCKWHEEL TRENCH IN EXISTING STREETS. BACKFILL FOR 6" WIDE TRENCH SHALL CONSIST OR ONE SACK SLURRY MIX. SURFACE RESTORATION WITHIN PAVED AREAS SHALL STILL REQUIRE 9" TEE CUT ON EACH SIDE OF TRENCH.

4. TEMPORARY PAVEMENT SHALL BE PLACED AND MAINTAINED AT THE LEVEL OF THE ADJACENT ROADWAY AT ALL TIMES UNTIL FINAL PAVEMENT REPLACEMENT IS COMPLETED.

5. 48 HOURS WRITTEN NOTICE IS REQUIRED PRIOR TO COMMENCEMENT OF WORK. CALL CITY OF TRACY CONSTRUCTION MANAGEMENT DIVISION AT (209) 831-4600
NOTE:
1. WHEN USING STD PLAN #304, TYPE "A" INLET OF A STORM DRAIN PIPE SHALL BE 10 INCHES INSIDE FACE OF CURB.
NOTES:

1. Meter shall be sensus touch read (TR/PL) with touch read pad installed with flex net transceiver unit (M X U model 520M). One transceiver unit shall be with each meter and read in 100 cubic feet. Meter shall be minimum size as specified by the City Engineer and shall be set with rubber gaskets. Meter shall be furnished and set by contractor with the M X U model 520M read unit to be given to the City to be installed by the City at a later date.

2. Meter box shall be designed and set to accommodate sensus flex net recessed box with probe hole lid in addition to sensus radio read meter reading system.

3. No galvanized pipe shall be used.

4. Compact around the meter to 95%. Onsite plumber shall not remove meter box to connect the pipe.

5. All underground copper water lines within the city right-of-way shall be a single continuous piece polywrapped to City of Tracy Standards.

6. No landscape irrigation lines shall be allowed between the meter box & the sidewalk.

7. Unused existing services shall be abandoned by potholing, cutting out and removing the corporation stop and saddle at the main and installing a full circle 316 stainless steel repair clamp with 316 accessories over the hole.

8. FZ sensus meters should be used in locations where domestic and fire services share one service line.

9. Purple Christy Polyethylene Pipe encasement wrap or 10ML pipe wrap tape from main to Christy Box.

10. Tracer wire and marker tape from main to Christy box.
NOTES:

1. METER TYPE T2 TURBO WITH FLEX NET FOR IRRIGATION SERVICE.

2. INSTALL LOCKABLE STEEL VAULT LID WITH METER REGISTER IN LID. LID STAMPED RECLAIMED WATER.

3. FOR WATER METERS LARGER THAN 6", DESIGNER SHALL SUBMIT A SEPARATE DESIGN FOR APPROVAL BY CITY ENGINEER.

4. ALL PIPE AND FITTINGS WITHIN VAULT SHALL BE FLANGED DUCTILE IRON PIPE.

5. THE MINIMUM SIZE SERVICE FOR A STREETSCEAP APPLICATION AND NEIGHBORHOOD PARK IS 4 INCH.

6. NO LANDSCAPE IRRIGATION LINES SHALL BE ALLOWED BETWEEN THE METER BOX AND THE SIDEWALK.

7. WATER METER SHALL BE LOCATED WITHIN THE CITY R.O.W

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<tr>
<th>No.</th>
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<tr>
<td>1</td>
<td>FLEX NET METER</td>
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<td>2</td>
<td>COUPLING</td>
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<td>3</td>
<td>ADAPTER</td>
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<td>GATE VALVE W/ NUT</td>
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<td>5</td>
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<td>6</td>
<td>90° ELBOW</td>
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<td>7</td>
<td>BYPASS PIPE DIP SAME SIZE</td>
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<td>8</td>
<td>BYPASS GATE VALVE W/ NUT</td>
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DIMENSIONS

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<th>3&quot;</th>
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<tr>
<td>A  OVER ALL LENGTH</td>
<td>63</td>
<td>73</td>
<td>86</td>
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<tr>
<td>B  WIDTH PIPE Ø TO BYPASS</td>
<td>19</td>
<td>21</td>
<td>26</td>
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<tr>
<td>C  PIPE Ø TO MAXIMUM HEIGHT</td>
<td>16</td>
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MAIN LINE WIDTH

WEIGHT

BY PASS SIZE

3" 3" 4"
NOTES:

1. FOR THRUST BLOCK DIMENSIONS, SEE STANDARD PLAN NO. 423

2. THE FUTURE EXTENSION STUB SHALL BE TESTED AND CHLORINATED WITH THE REST OF THE MAIN AND BLOWN OFF THROUGH THE PIPE.

3. BLOW OFF SHALL BE 4" MINIMUM FOR BAC-TEE OR 4" DUCTILE IRON FLANGED PIPE.

4. USE BALL VALVE ON 2" SVC OR BLOW OFF ONLY

5. TRAFFIC BOX SHALL BE CHRISTY G04 WITH G4C LID OR APPROVED EQUAL.

6. VALVE AND BLOW OFF BOXES SHALL BE INSTALLED IN PAVED AREA ONLY UNLESS APPROVED BY THE CITY ENGINEER.
NOTE:
1. Polywrap from main to box with polyethylene sleeve or 10MIL tape - lapped from main to Christy box.
2. Tracer wire required from main to meter box.
1. VENT TUBE SHALL BE POWDER COATED - TAGGED RECYCLED WATER.
2. ALL PIPING SHALL BE BRASS OR COPPER BETWEEN THE MAIN AND ARV.
3. TRACER WIRE AND MARKER TAPE FROM MAIN TO CHRISTY BOX.
4. PURPLE POLYWRAP FROM MAIN TO BOX WITH POLYETHYLENE SLEEVE OR PURPLE 10MIL TAPE-1/2 LAPED FROM MAIN TO CHRISTY BOX.