CITY OF
WALNUT
CREEK

STANDARD PLANS

PUBLIC WORKS DEPARTMENT

1666 NORTH MAIN STREET
WALNUT CREEK, CA 94596

NOVEMBER 2018

STANDARD PLANS

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Traffic Details

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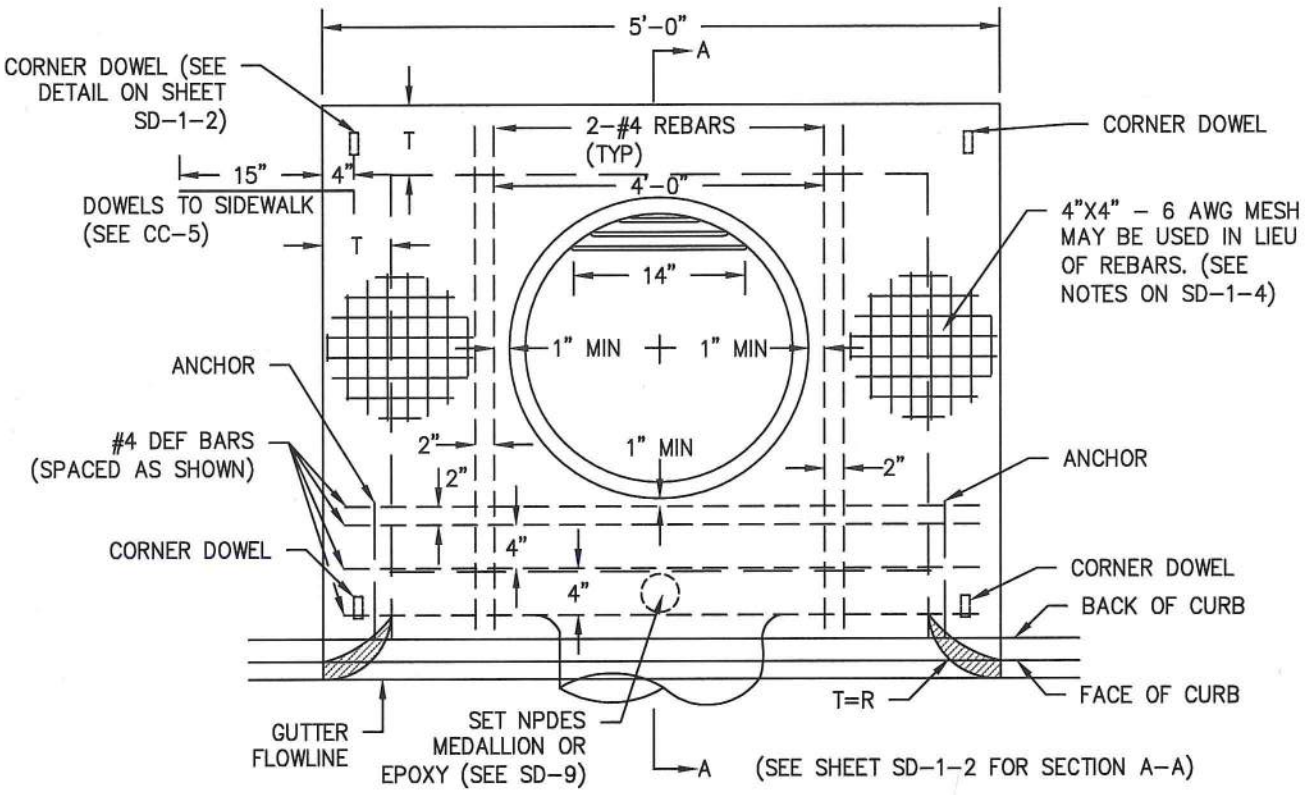
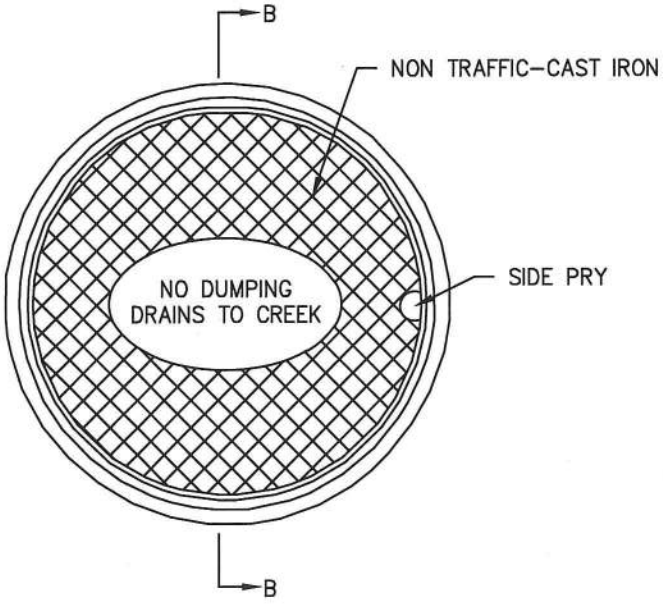
Miscellaneous

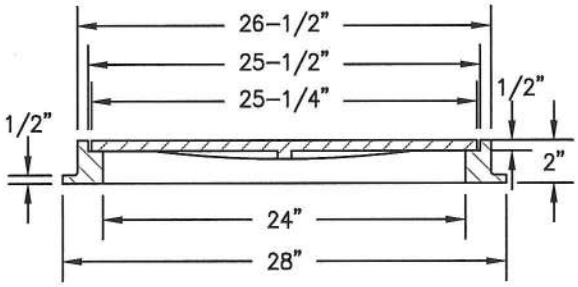
Attachment



PLAN VIEW



CATCH BASIN COVER



SECTION B-B

CITY OF WALNUT CREEK

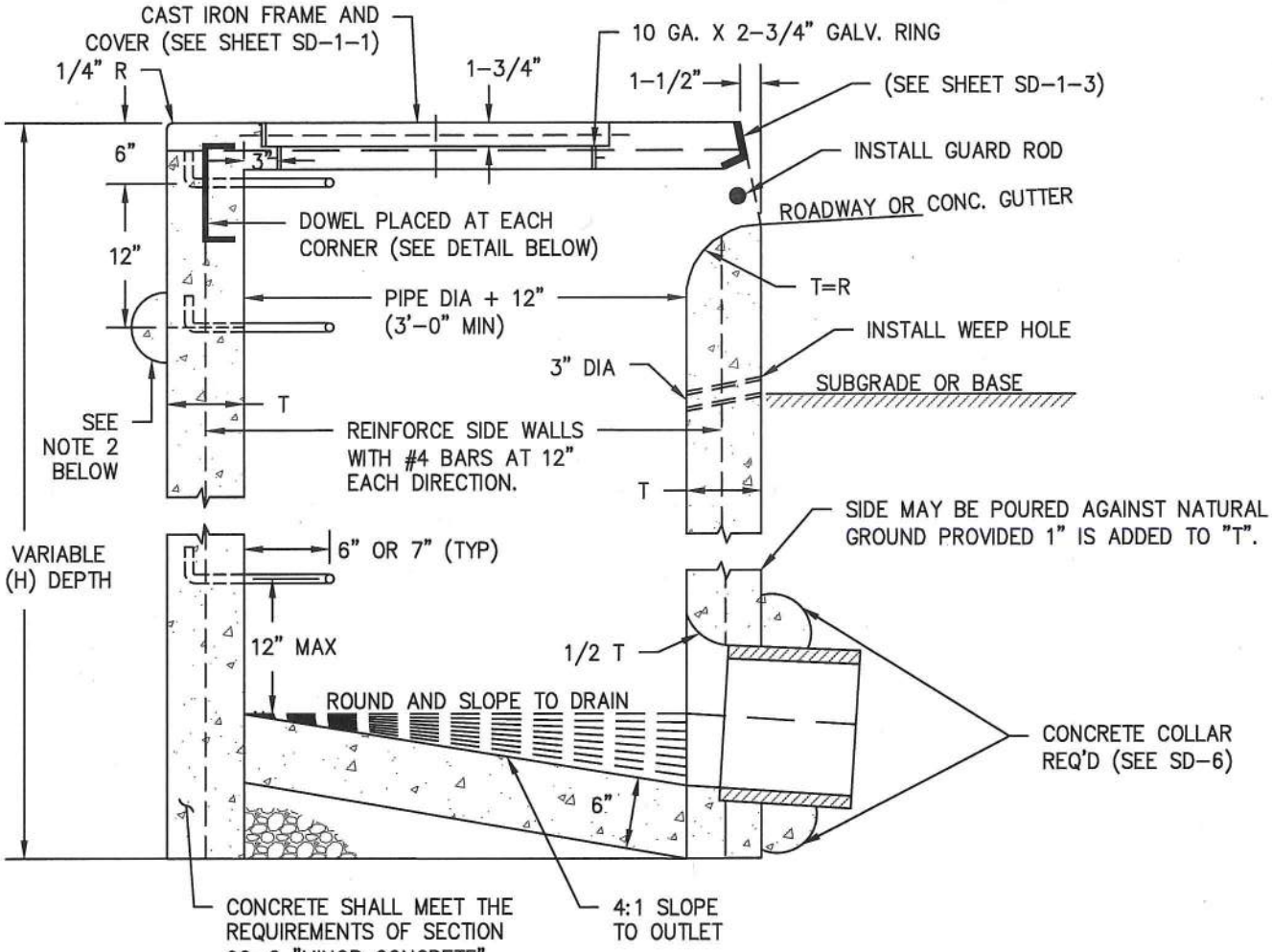
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

TYPE I CATCH BASIN

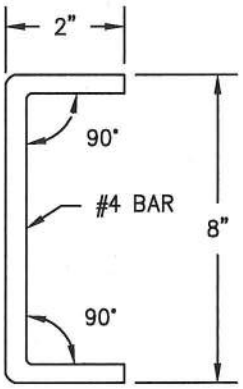
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-1-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-1-1.dwg



SECTION A-A
(FROM SD-1-1)



CORNER DOWEL DETAIL

NOTES:

1. FLOOR SHALL BE POURED AND APPROVED PRIOR TO POURING OF THE TOP.
2. A CONCRETE COLLAR IS REQUIRED WHEN A PRE-CAST LID IS PLACED ON A CAST-IN-PLACE BOX. (SEE SD-6)
3. SEE SHEET SD-1-4 FOR ADDITIONAL NOTES.

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CITY OF WALNUT CREEK

TYPE I CATCH BASIN

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-1-2

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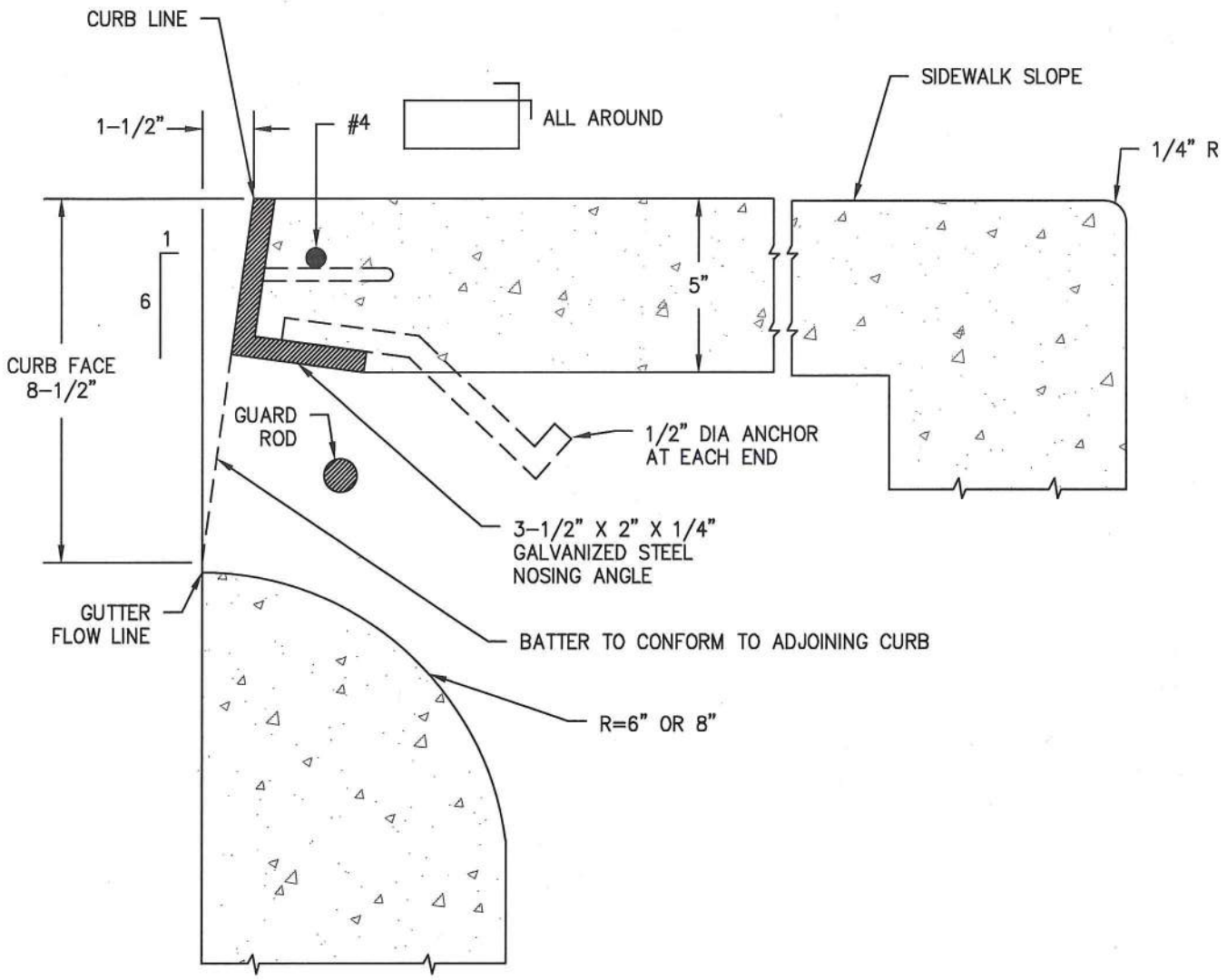

THROAT OPENING DETAIL

NOTES:

1. ALL METAL PARTS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
2. ALL GALVANIZING DAMAGED BY WELDING SHALL RECEIVE TWO COATS OF ALUMINUM PAINT.

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CITY OF WALNUT CREEK

TYPE I CATCH BASIN

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STANDARD DETAIL
SD-1-3

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-1-3.dwg

NOTES:

- CONNECTION PIPES MAY BE PLACED IN ANY POSITION AROUND THE WALLS PROVIDED THEY POINT IN THE PROPER DIRECTION AND THE POSITION IS OTHERWISE CONSISTENT WITH THE IMPROVEMENT PLAN.
- CURVATURE OF THE LIP AND SIDEWALLS AT GUTTER OPENING SHALL BE FORMED BY CURVED FORMS AND SHALL NOT BE MADE BY PLASTERING.
- WALL THICKNESS (T)
  T = 6 INCHES IF H IS 8 FEET OR LESS
  T = 8 INCHES IF H EXCEEDS 8 FEET.
- DEPTH (H) SHALL BE A MAXIMUM OF 6 FEET. FOR DEPTHS BETWEEN 6 FEET TO 12 FEET, CATCH BASIN SHALL BE ON A MANHOLE BASE, SEE SD-2. FOR DEPTHS GREATER THAN 12 FEET DEEP REQUIRE A SPECIAL DESIGN BY A REGISTERED CIVIL ENGINEER.
- FLOOR OF BASIN SHALL BE TROWELED AND RETROWELED TO PRODUCE A HARD, POLISHED SURFACE OF MAXIMUM DENSITY AND SMOOTHNESS. SLOPE OF FLOOR PARALLEL WITH CURB SHALL BE 1 TO 12 UNLESS OTHERWISE SPECIFIED.
- MANHOLE SHALL BE PLACED AS SHOWN ON IMPROVEMENT PLANS.
- OUTLET PIPE SHALL BE TRIMMED TO THE FINAL SHAPE AND LENGTH BEFORE CONCRETE IS POURED.
- REINFORCING STEEL SHALL BE #4 ROUND DEFORMED BARS, OR WIRE MESH AS INDICATED. IF WIRE MESH IS USED, ADDITIONAL 4"X4" 6 AWG MESH SHALL BE PLACED AROUND THE INLET OPENING @ 45° TO MAIN MESH REINFORCING.
- CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE STANDARD SPECIFICATION.
- STEPS: STEPS ARE REQUIRED AS FOLLOWS:
  1. IF H IS 3.5 FEET OR LESS, NO STEPS ARE REQUIRED.
  2. IF H IS MORE THAN 3.5 FEET, BUT NOT MORE THAN 4 FEET, INSTALL 1 STEP 12 INCHES ABOVE FLOOR OF BASIN.
  3. IF H IS MORE THAN 4 FEET, INSTALL STEPS 12 INCHES APART, WITH THE TOP STEP 6 INCHES BELOW THE SURFACE OF THE BASIN AND 12 INCHES ABOVE THE FLOOR.
  4. ALL STEPS SHALL BE 6 TO 7 INCHES FROM THE WALL.
  5. 3/4 INCH GALVANIZED STEEL OR POLYPROPYLENE PLASTIC (CALTRANS D72).
- SURFACE OF ALL EXPOSED CONCRETE IN BASIN SHALL CONFORM IN SLOPE, GRADE, COLOR, FINISH, AND SCORING TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO THE BASIN.
- EXCEPTION: WHEN THE BASIN IS TO BE CONSTRUCTED WITHIN THE LIMITS OF A PROPOSED SIDEWALK OR IS CONTIGUOUS TO SUCH A SIDEWALK, THE TOP OF THE BASIN SHALL BE POURED MONOLITHIC WITH THE SIDEWALK, USING THE SAME CLASS OF CONCRETE AS IN THE SIDEWALK. IN THIS CASE THE DOWELS BETWEEN WALL AND TOP OF SLAB SHALL BE OMITTED AND THE TOP OF THE CATCH BASIN WALL FINISHED SMOOTH.
- GENERAL NOTES:
  1. TYPE 1 CATCH BASIN IS TO BE USED ONLY WHEN THE STREET GRADIENT IS 6% OR LESS. FOR STREET GRADIENTS GREATER THAN 6%, CONTRA COSTA COUNTY TYPE "A" OR "B" INLET SHALL BE USED.
  2. CATCH BASIN DETAILS SHOWN ARE FOR CAST-IN-PLACE. PRECAST OR PREFORMED ALTERNATES MAY BE APPROVED AT THE DISCRETION OF THE CITY ENGINEER.

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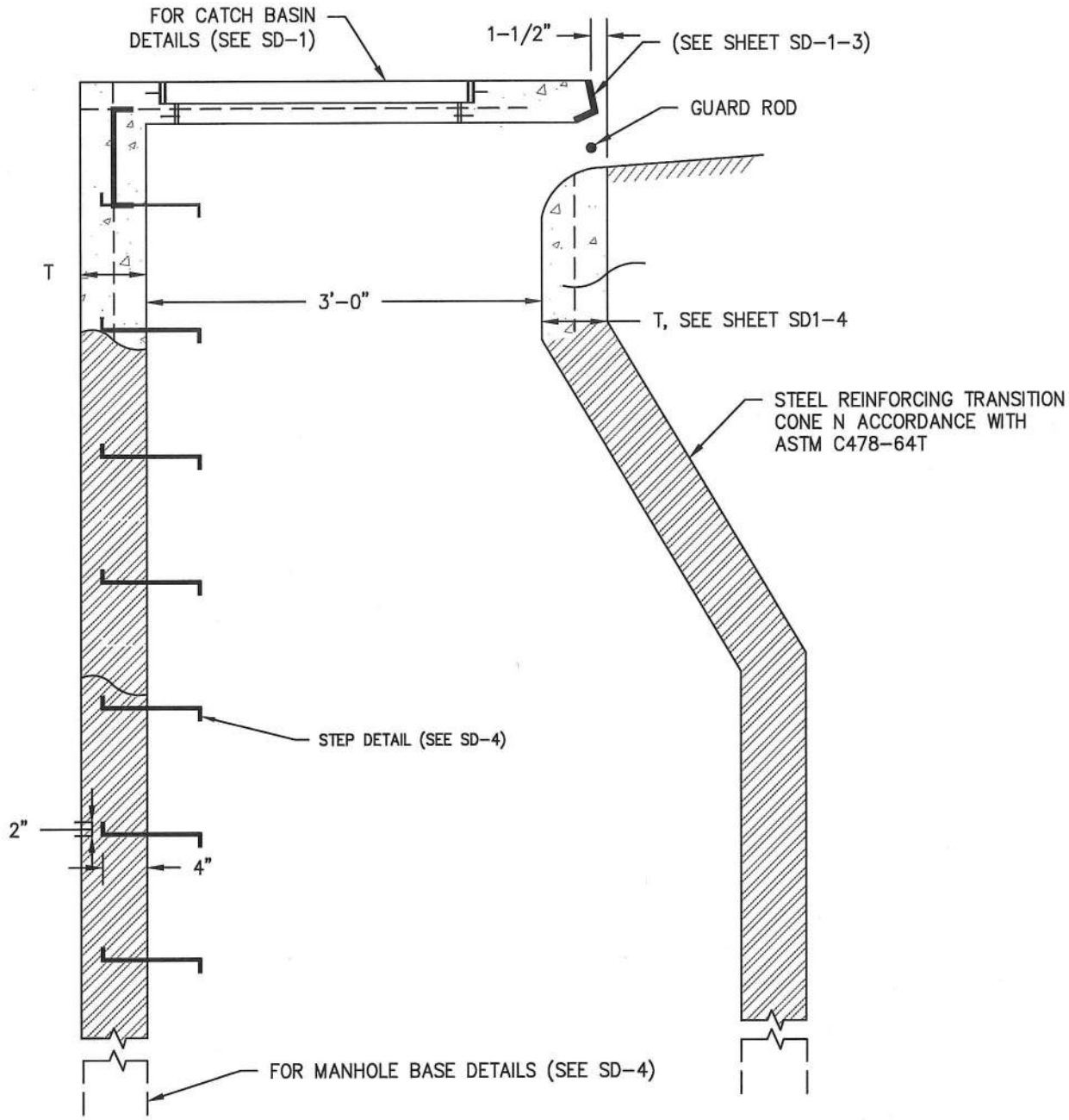
TYPE I CATCH BASIN

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-1-4

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-1-4.dwg



SECTION VIEW

APP CITY ENGINEER	CT CHECKED BY	RC DRAWN BY	NOVEMBER 2018 DATE

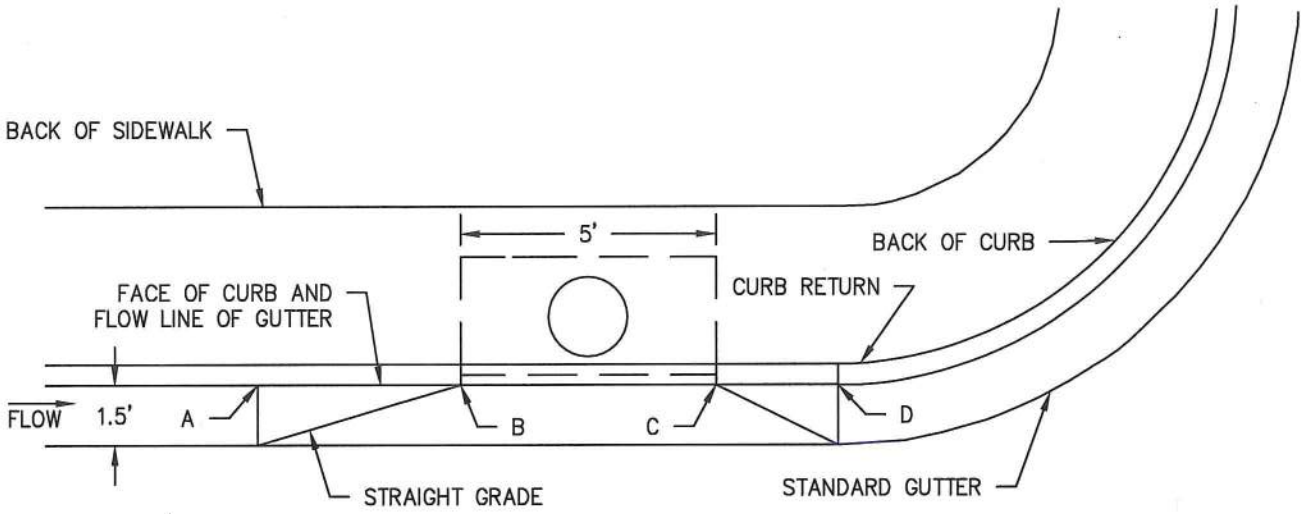
CATCH BASIN ON MANHOLE BASE

CITY OF WALNUT CREEK

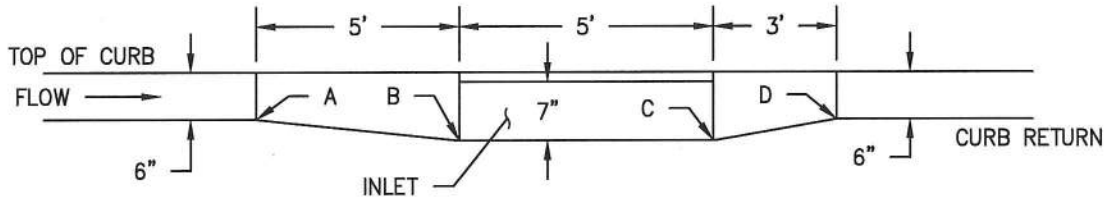
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-2.dwg



PLAN VIEW



FLOW LINE PROFILE

NOTES:

1. CONSTRUCT THE BEGINNING OF THE WARPED GUTTER AT THE END OF THE CURB RETURN POINT.
2. DO NOT CONSTRUCT CATCH BASIN WITHIN THE CURB RETURN AREA.
3. IN A SUMP CONDITION WHERE FLOW IS APPROACHING THE CATCH BASIN FROM BOTH SIDES, THE DISTANCE FROM "C" TO "D" SHALL BE 5'.

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CATCH BASIN GUTTER WARPING DETAILS

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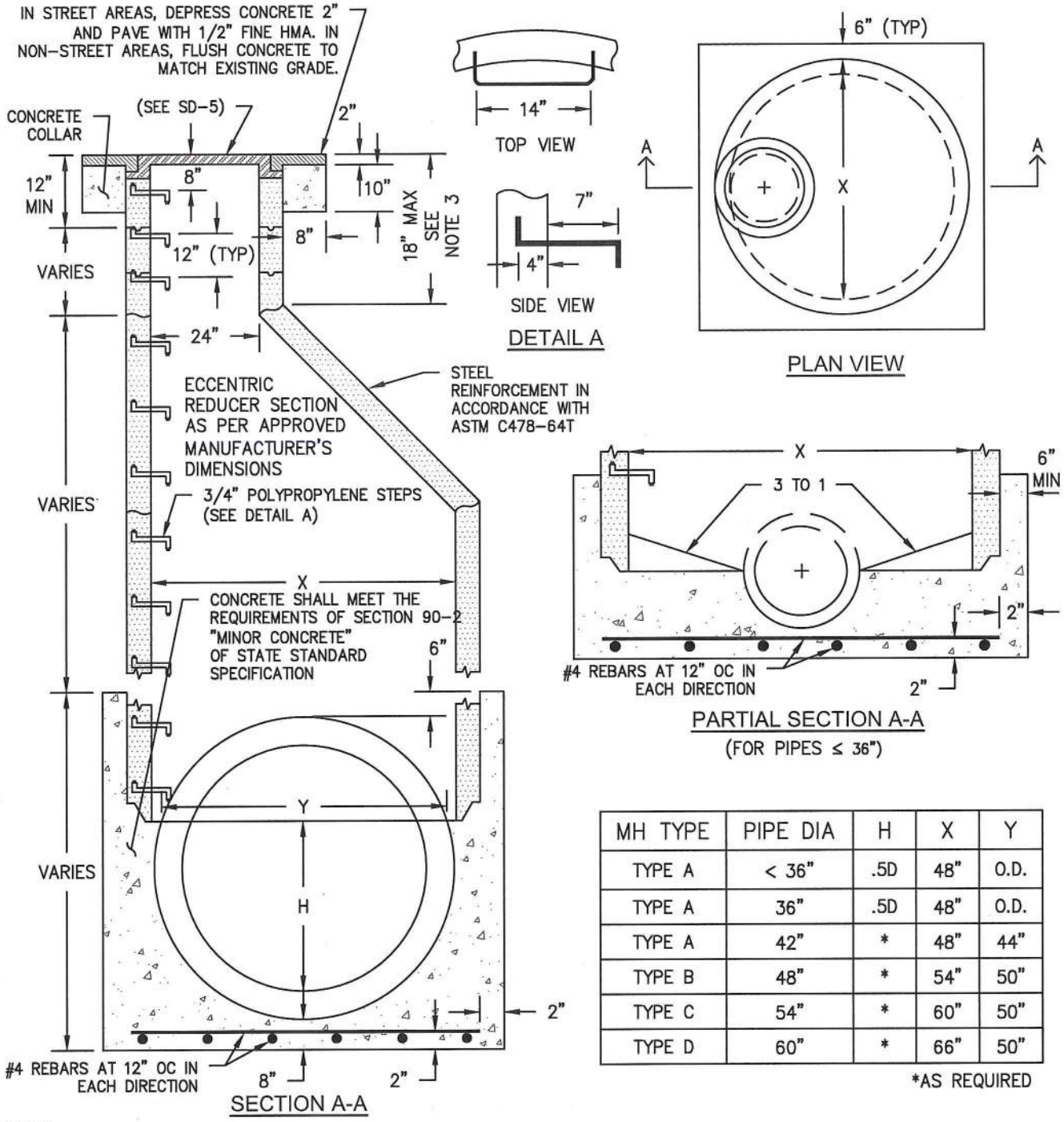
STANDARD DETAIL
SD-3

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-3.dwg



MH TYPE	PIPE DIA	H	X	Y
TYPE A	< 36"	.5D	48"	O.D.
TYPE A	36"	.5D	48"	O.D.
TYPE A	42"	*	48"	44"
TYPE B	48"	*	54"	50"
TYPE C	54"	*	60"	50"
TYPE D	60"	*	66"	50"

*AS REQUIRED

NOTES:
1. PRECAST PIPE, ADJUSTMENT RINGS AND REDUCER SECTIONS SHALL BE CLASS II RCP IN ACCORDANCE WITH ASTM C478-64T.
2. JOINT SEAL BETWEEN PRE-CAST SECTIONS & COLLAR.
3. USE OF PRECAST GRADE RINGS ARE LIMITED BY 18" MAXIMUM MANHOLE THROAT LENGTH. CAST IRON EXTENSION RINGS ARE ALLOWED FOR CONFORMS TO PAVEMENT OVERLAYS ONLY.
4. SEE CONTRA COSTA COUNTY STANDARD PLANS FOR ADDITIONAL DETAILING NOT SHOWN. TYPE III MH IS REQ. FOR CONFIGURATIONS OF 3 OR MORE PIPES.

CITY OF WALNUT CREEK

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STORM DRAIN MANHOLES (TYPE A, B, C & D)

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STANDARD DETAIL
SD-4

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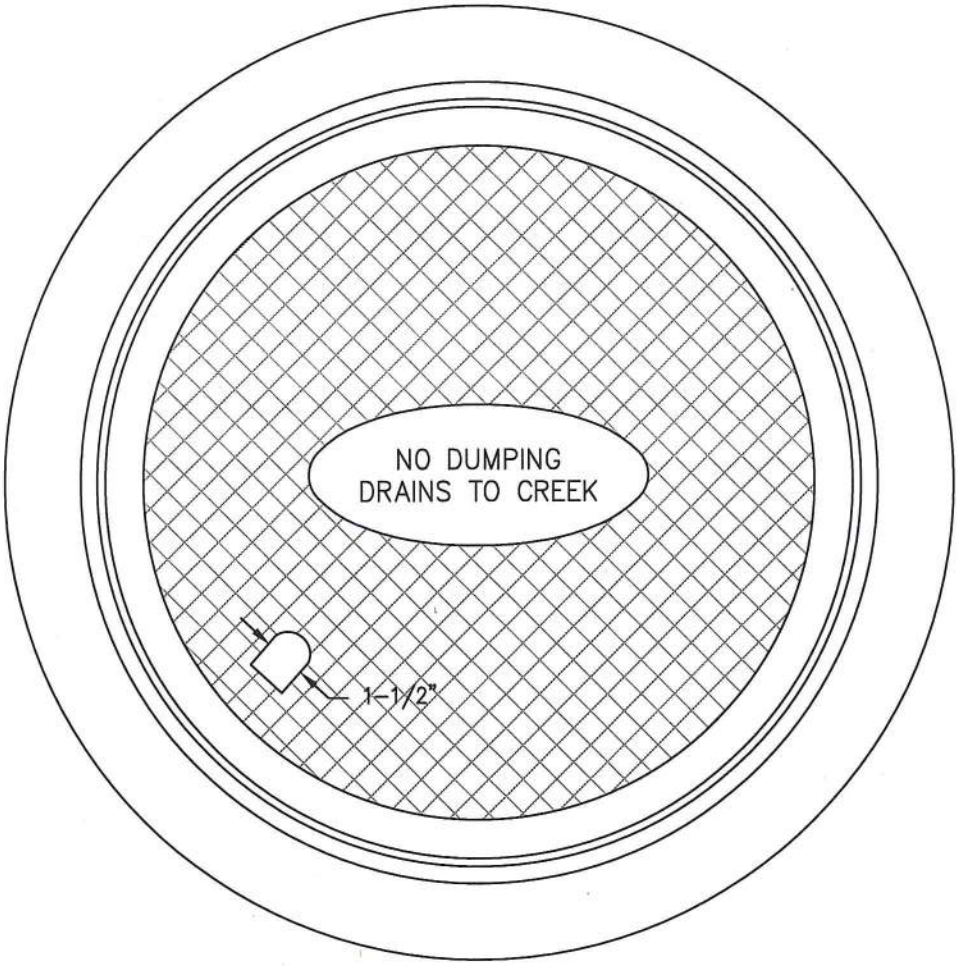

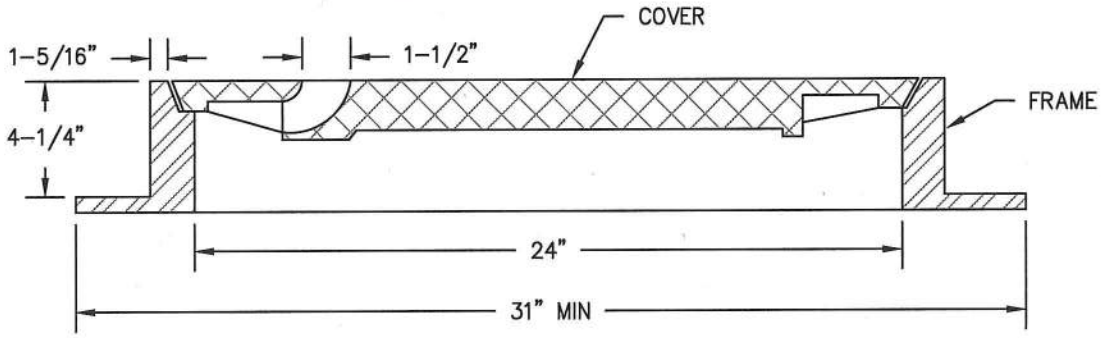

NOTES:

1. ALL MANHOLE COVER CONTACT AND BEARING SURFACES SHALL BE MACHINED TO FIT ACCURATELY SO THAT COVERS WILL NOT ROCK.

2. COVER AND FRAME SHALL BE CAST IRON HEAVY DUTY TRAFFIC TYPE. WEIGHT = 210 POUNDS MINIMUM.

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MANHOLE FRAME AND COVER

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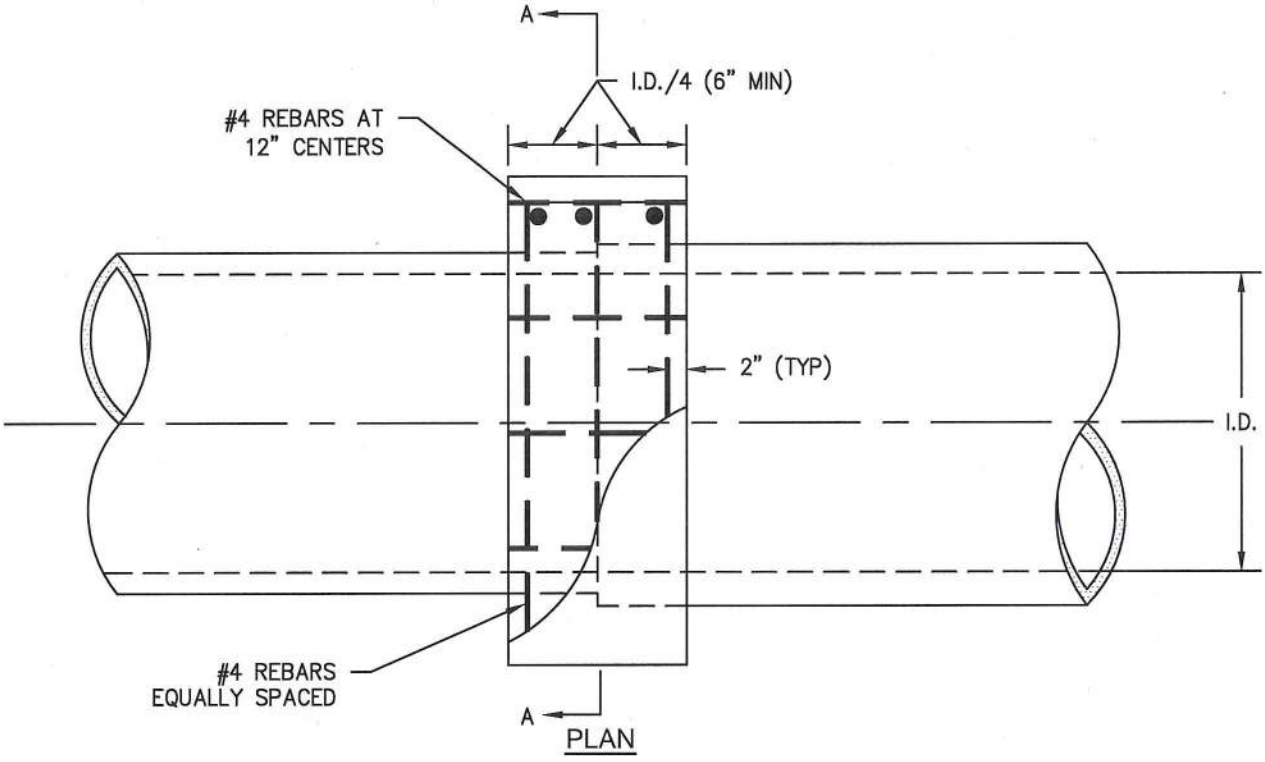
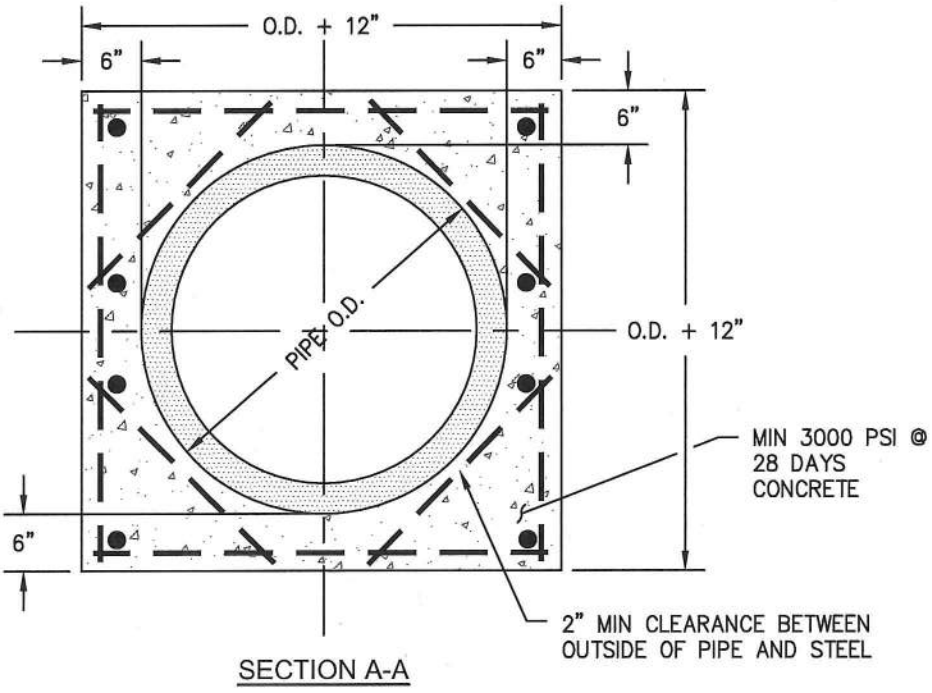
STANDARD DETAIL
SD-5

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-5.dwg



PLAN



SECTION A-A

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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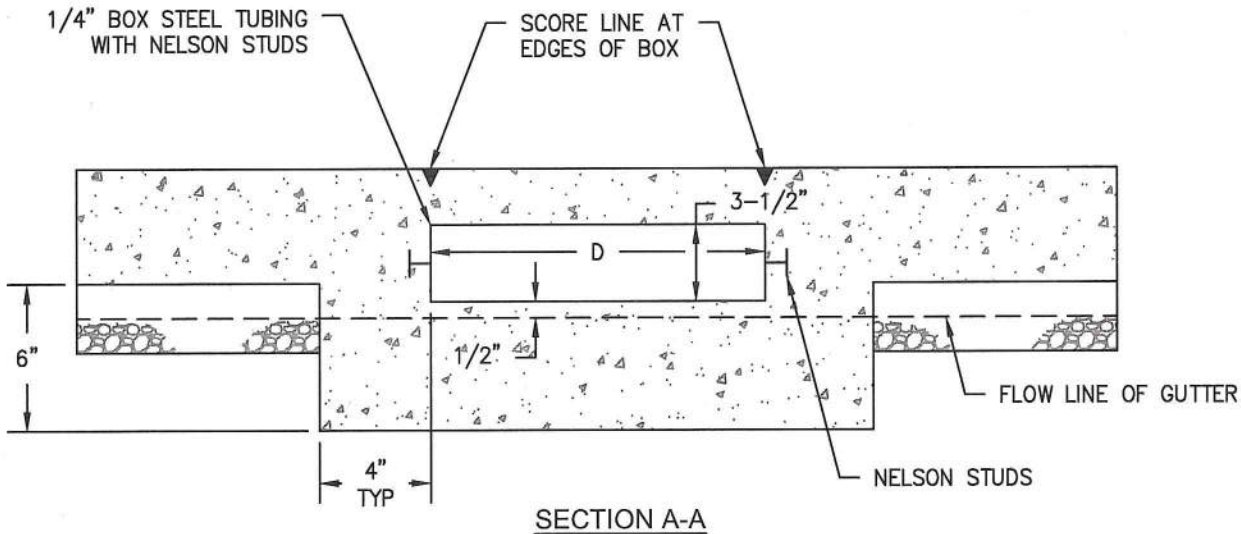
REINFORCED CONCRETE PIPE COLLAR

NO.	DATE	APP	REVISION DESCRIPTION

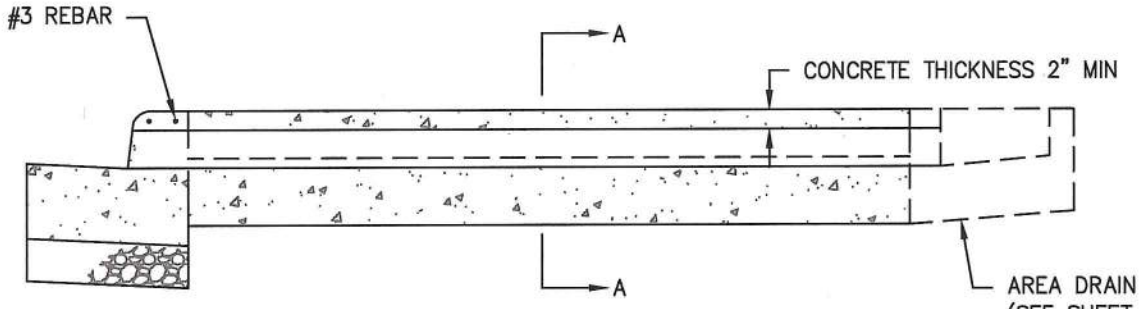
STANDARD DETAIL
SD-6

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-6.dwg

SHT 1 OF 1



SECTION A-A



LONGITUDINAL SECTION

DIMENSION (D)	MAXIMUM CAPACITY
6"	0.57 CUBIC FEET PER SEC.
9"	0.94 CUBIC FEET PER SEC.
12" MAX	1.29 CUBIC FEET PER SEC.

NOTE:
CAPACITIES ARE BASED ON S=1/4" PER 1' OR 2%.

RECTANGULAR DRAIN

CITY OF WALNUT CREEK

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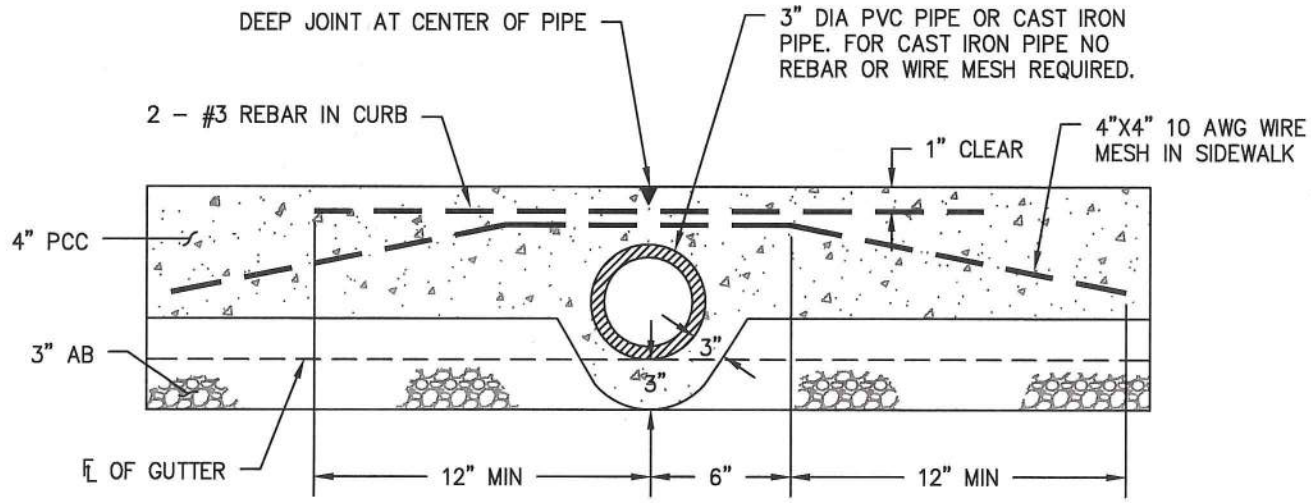
SIDEWALK CROSS DRAIN
(RECTANGULAR)

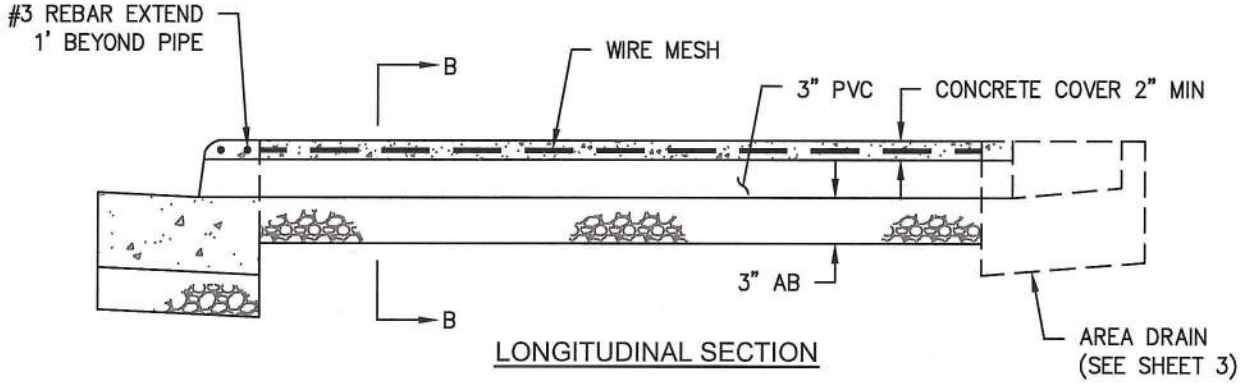
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-7-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-7-1.dwg



SECTION B-B



LONGITUDINAL SECTION

NOTES:

1. MAXIMUM CAPACITY = 0.15 CUBIC FEET PER SECOND AT S=1/4" PER 1' OR 2%.
2. NO PIPE JOINTS SHALL BE MADE WITHIN SIDEWALK OR CURB.
3. PVC SHALL CONFORM TO ASTM D3034 SDR 35.

ROUND PIPE DRAIN

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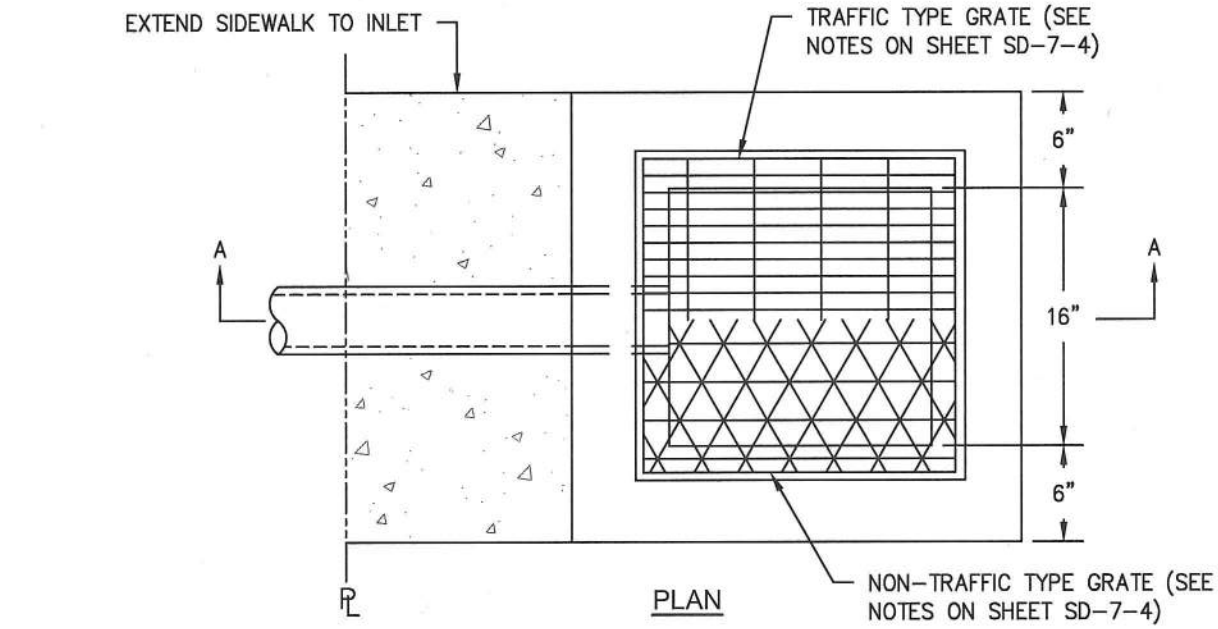
CITY OF WALNUT CREEK

SIDEWALK CROSS DRAIN (ROUND)

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-7-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-7-2.dwg



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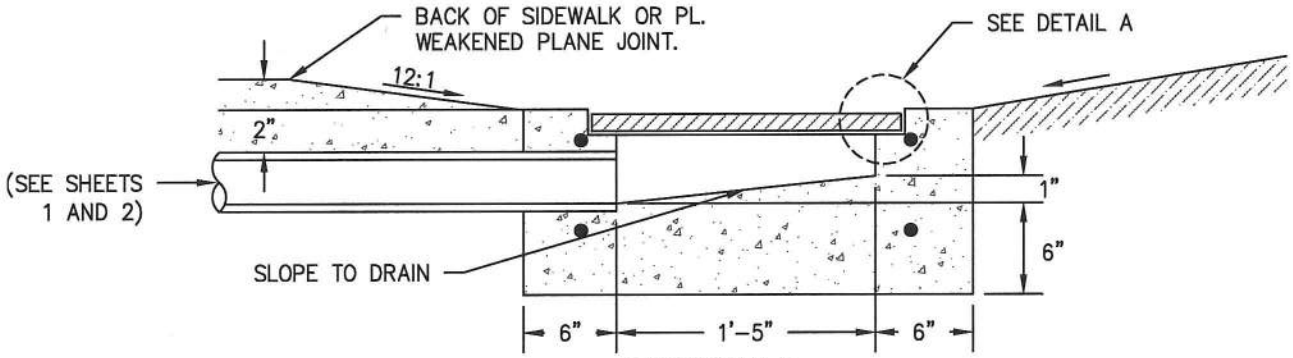
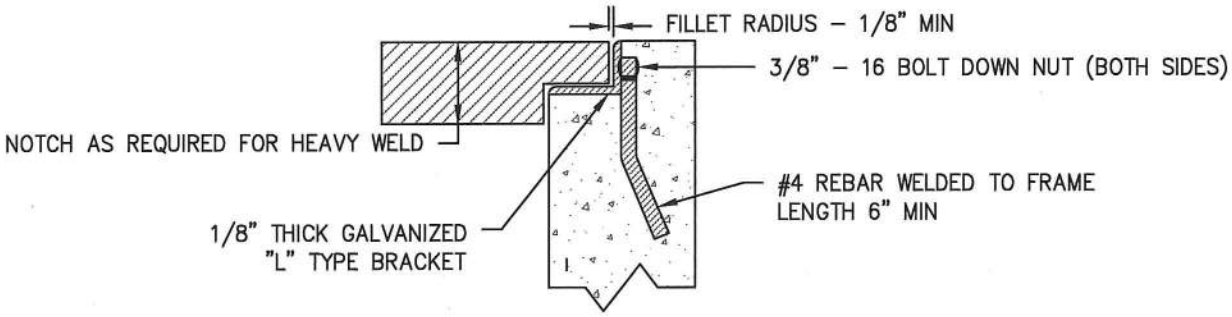


SECTION A-A



DETAIL A

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CITY OF WALNUT CREEK

SIDEWALK CROSS DRAIN

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-7-3

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-7-3.dwg

GENERAL NOTES:

1. FOR ADDITIONAL CAPACITY, ADJACENT DRAINS MAY BE INSTALLED AND THE WIDTH OF INLET SHALL BE INCREASED AS REQUIRED. MINIMUM CLEAR DISTANCE BETWEEN DRAINS AT CURB FACE SHALL BE 6 INCHES.

2. ADJACENT DRAINS SHALL BE SAME TYPE.

3. IN TRAFFIC AREAS, THE GRATE SHALL BE US CONCRETE PRECAST GROUP (CENTRAL PRECAST) HEAVY GRATE, OR APPROVED EQUAL.

4. IN NON-TRAFFIC AREAS, THE GRATE SHALL BE US CONCRETE PRECAST GROUP (CENTRAL PRECAST) STANDARD GRATE, OR APPROVED EQUAL.

5. EACH GRATE SHALL BE PROVIDED WITH A MINIMUM OF TWO (2) LOCKING DEVICES.

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CITY OF WALNUT CREEK

SIDEWALK CROSS DRAIN (NOTES)

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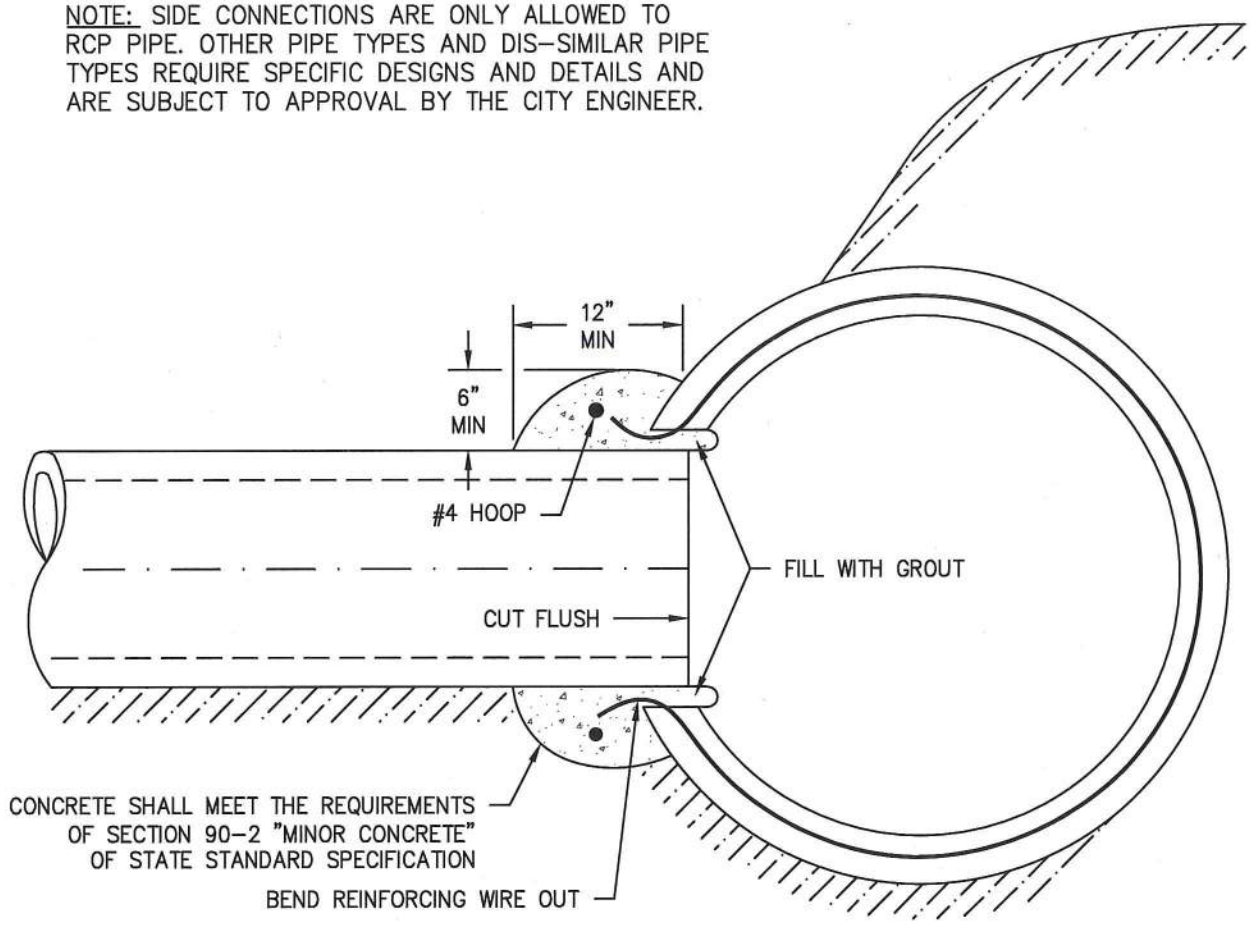
STANDARD DETAIL
SD-7-4

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-7-4.dwg

NOTE: SIDE CONNECTIONS ARE ONLY ALLOWED TO RCP PIPE. OTHER PIPE TYPES AND DIS-SIMILAR PIPE TYPES REQUIRE SPECIFIC DESIGNS AND DETAILS AND ARE SUBJECT TO APPROVAL BY THE CITY ENGINEER.



NOTE: ALIGN PIPES ON CENTER

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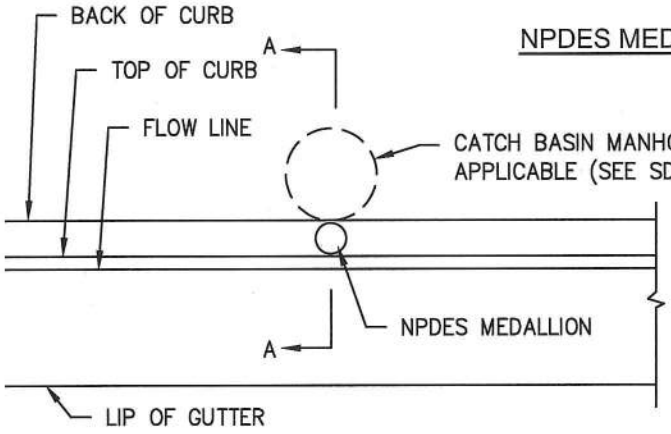
SIDE CONNECTION

NO.	DATE	APP	REVISION DESCRIPTION

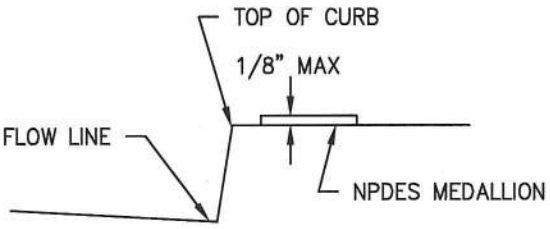
STANDARD DETAIL
SD-8

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-8.dwg

NPDES MEDALLION



PLAN



SECTION A-A

PLAN:

1. ORIENT MEDALLION TEXT TO BE READ FROM SIDEWALK. EPOXY MEDALLION WITH PREMIUM POLYURETHANE CONSTRUCTION ADHESIVE. ADHESIVE MUST DEVELOP FULL STRENGTH IN 24 HOURS OR LESS AND MEET ASTM C-557, DS498.

2. MEDALLION SHALL BE LOCATED BEHIND THE BACK OF CURB IN LOCATIONS WITH EXISTING OR PLANNED RED CURBS.

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NPDES MEDALLION

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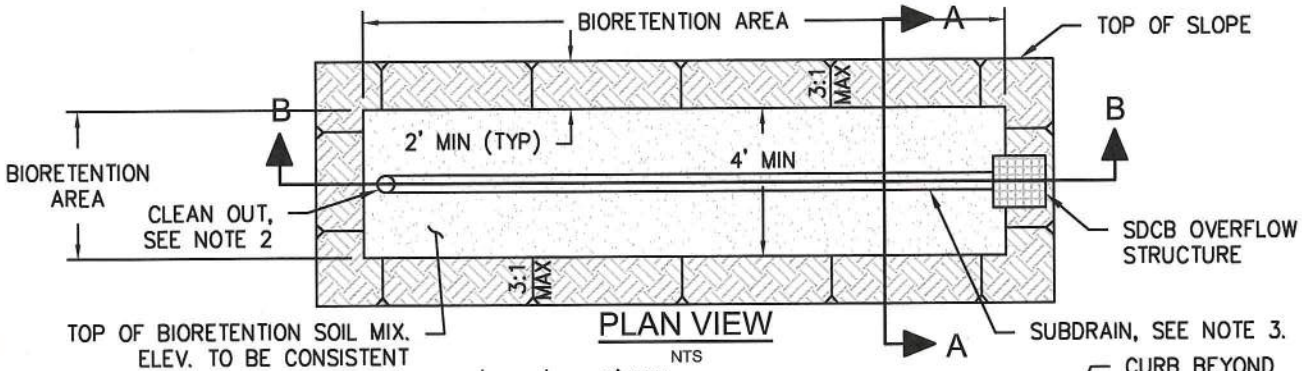
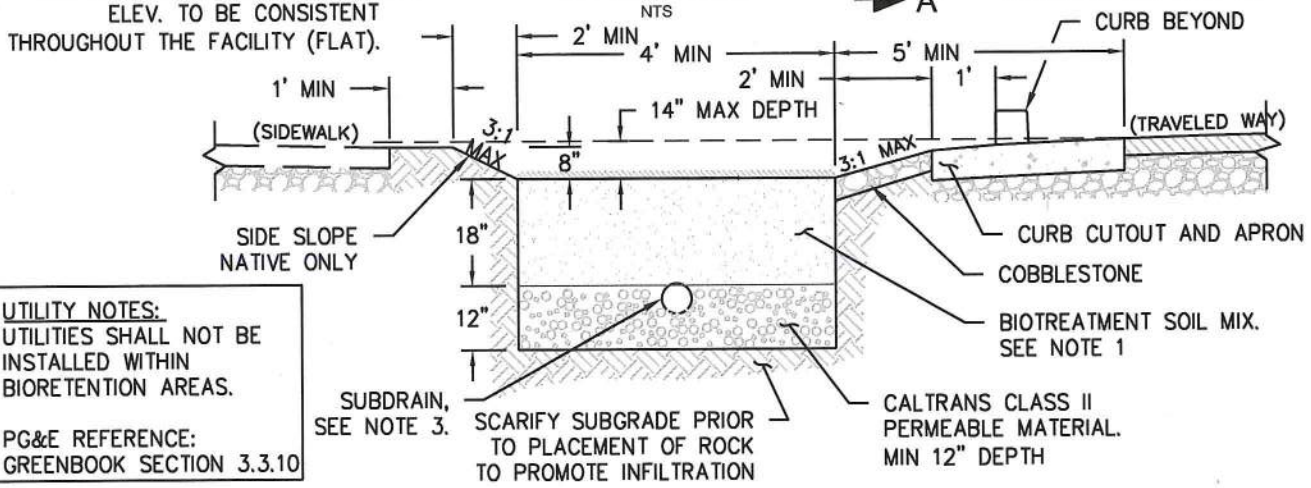
SD-9

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\SD-9.dwg



PLAN VIEW

NTS

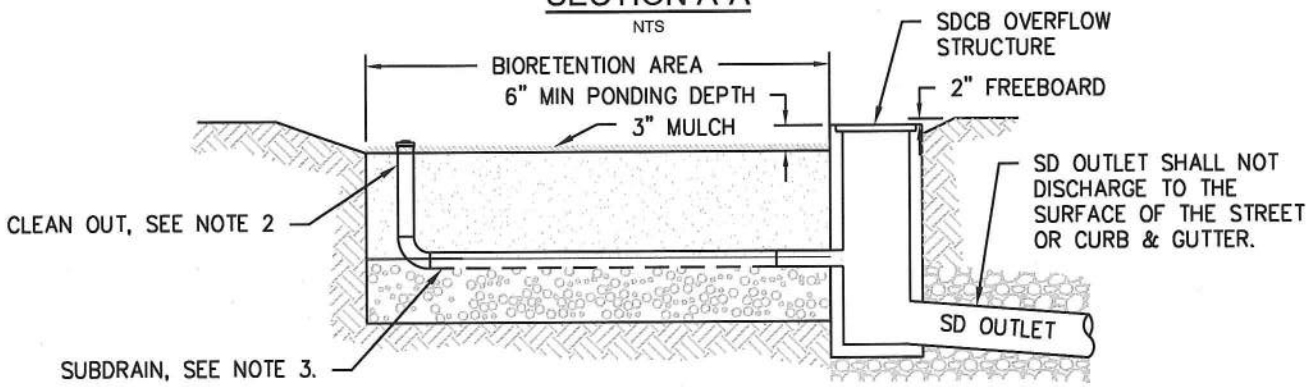


UTILITY NOTES:
UTILITIES SHALL NOT BE INSTALLED WITHIN BIORETENTION AREAS.

PG&E REFERENCE:
GREENBOOK SECTION 3.3.10

SECTION A-A

NTS



SECTION B-B

NTS

NOTES:

1. BIORETENTION SOIL MIX SHALL MEET THE REQUIREMENTS OF APPENDIX B OF THE LATEST EDITION OF THE CONTRA COSTA CLEAN WATER PROGRAM STORMWATER C.3 GUIDEBOOK.
2. CLEAN OUTS TO BE PVC WITH SCREW ON CAP PLACED AT FINISH GRADE.
3. SUBDRAIN TO BE PERFORATED PVC WITH THE HOLES FACING DOWN, LOCATED AT THE TOP OF THE CLASS II PERMEABLE LAYER. SUBDRAIN TO HAVE A 4" MINIMUM PIPE DIAMETER AND SLOPE IS FLAT (S=0.00)
4. DIMENSIONS SHOWN FOR DEPTHS ARE INTENDED FOR PROJECTS SUBJECT TO TREATMENT ONLY. DEPTHS FOR PROJECTS SUBJECT TO HYDROMODIFICATION MAY VARY. MAX DEPTH INCLUDING FREEBOARD IS 14"
5. DRAINAGE INPUTS MUST DISCHARGE TO THE SURFACE. BUBBLE UPS ARE NOT TO BE USED INSIDE BASIN BIORETENTION AREAS.
6. DRAINAGE INPUTS SHALL BE A MINIMUM OF 5' SEPARATION FROM THE OVERFLOW STRUCTURE.

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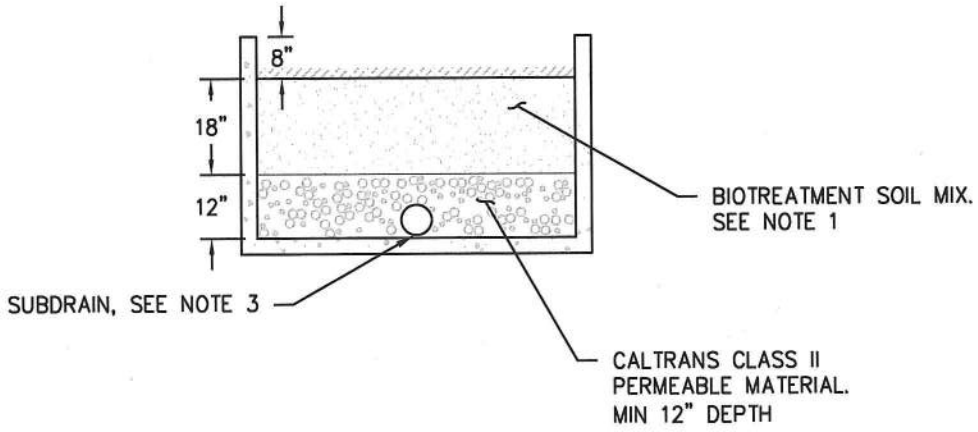
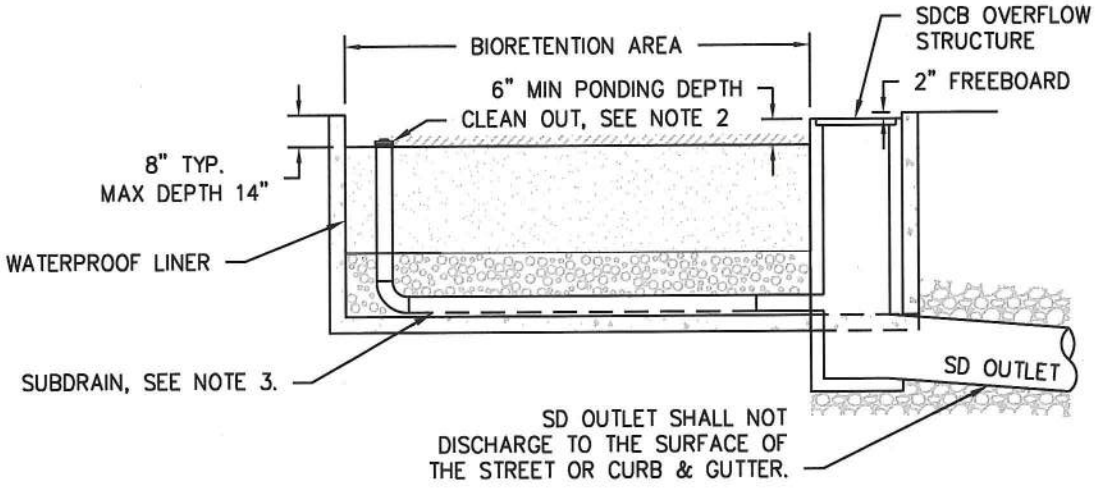
BIORETENTION FACILITY
(INFILTRATION PLANTER)

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-10-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\Bioswale.dwg





NOTES:

1. BIORETENTION SOIL MIX SHALL MEET THE REQUIREMENTS OF APPENDIX B OF THE LATEST EDITION OF THE CONTRA COSTA CLEAN WATER PROGRAM STORMWATER C.3 GUIDEBOOK.
2. CLEAN OUTS TO BE PVC WITH SCREW ON CAP PLACED AT FINISH GRADE.
3. SUBDRAIN TO BE PERFORATED PVC WITH THE HOLES FACING DOWN AND TO BE LOCATED NEAR THE BOTTOM OF THE FLOW THROUGH PLANTER. 4" MINIMUM PIPE DIAMETER AND SLOPE OF SUBDRAIN IS FLAT TO MATCH THE BOTTOM OF THE PLANTER (S=0.00).
4. DIMENSIONS SHOWN FOR DEPTHS ARE INTENDED FOR PROJECTS SUBJECT TO TREATMENT ONLY. DEPTHS FOR PROJECTS SUBJECT TO HYDROMODIFICATION MAY VARY. MAX DEPTH INCLUDING FREEBOARD IS 14"
5. DRAINAGE INPUTS MUST DISCHARGE TO THE SURFACE. BUBBLE UPS ARE NOT TO BE USED INSIDE BASIN BIORETENTION AREAS UNLESS APPROVED BY THE CITY ENGINEER.
6. DRAINAGE INPUTS SHALL BE A MINIMUM OF 5' SEPARATION FROM THE OVERFLOW STRUCTURE.

	CT	RC	NOVEMBER 2018
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE

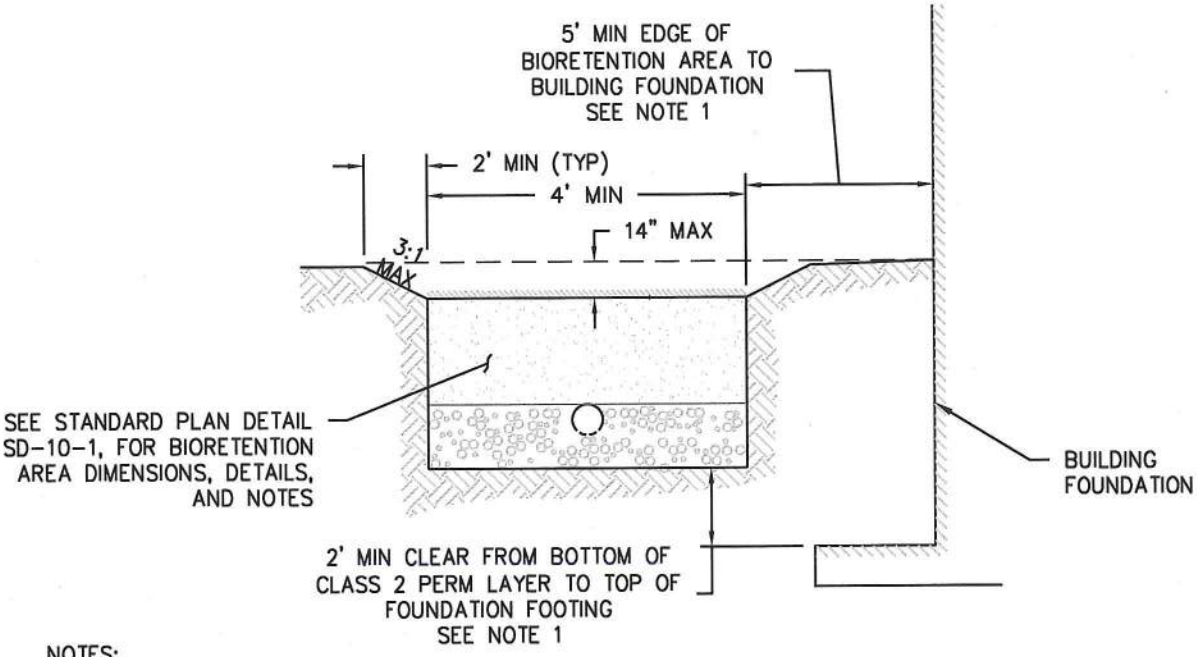
CITY OF WALNUT CREEK

BIORETENTION FACILITY
(FLOW THROUGH PLANTER)

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-10-2

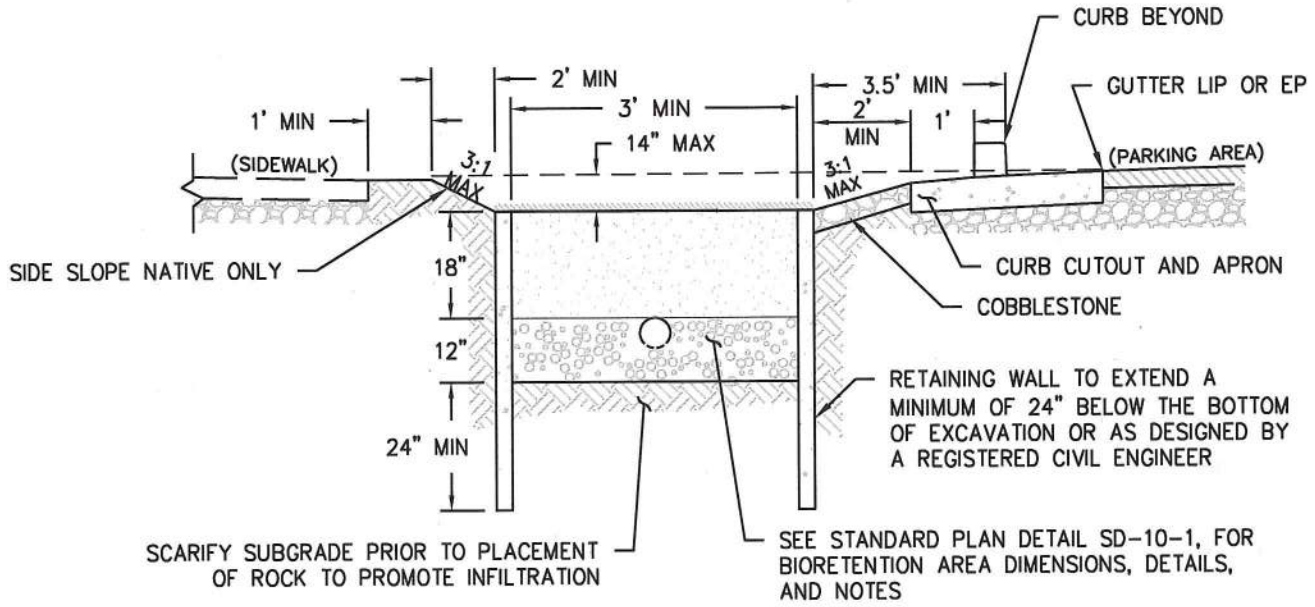
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\Bioswale.dwg



NOTES:

1. IF CLEARANCE FROM FACE OF BUILDING FOUNDATION IS LESS THAN 5' OR LESS THAN 2' FROM FOOTING, WATERPROOFING IS REQUIRED ON BUILDING FOUNDATION AND FOOTING. REQUIRED NOTES ON BUILDING STRUCTURAL PLANS AND DETAILS FOR WATERPROOFING WILL BE REVIEWED AND COORDINATED PRIOR TO CONSTRUCTION OF FOOTINGS.

INFILTRATION PLANTER NEAR BUILDING STRUCTURE



INFILTRATION PLANTER W/ RETAINING WALL

	CT	RC	NOVEMBER 2018
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE

CITY OF WALNUT CREEK

BIORETENTION FACILITY
(SPECIAL CONSIDERATIONS)

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-10-3

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\Bioswale.dwg

ITEMS TO BE INSPECTED

Layout (Surveyor Certification may be required)

- Square footage of the facility meets or exceeds minimum shown in Stormwater Control Plan.
- Site grading and grade breaks are consistent with the boundaries of the tributary Drainage Management Area(s) shown in the Stormwater Control Plan.
- Preliminary inlet elevation of the facility is low enough to receive drainage from the entire tributary Drainage Management Area(s).
- Locations and elevations of overland flow or piping, including roof leaders, from impervious areas to the facility have been laid out and any conflicts resolved.
- Rim elevation of the facility is laid out to be level all the way around, or elevations are consistent with a detailed cross-section showing location and height of interior dams.
- Locations for vaults, utility boxes, and light standards have been planned so that they will not conflict with the facility.
- Facility protected as needed from construction-phase runoff and sediment.

Excavation (Surveyor Certification may be required)

- Excavation conducted with materials and techniques to minimize compaction of soils within the facility area.
- Excavation is to proper area and depth.
- Slopes or side walls protect from sloughing of native soils into the facility.
- Moisture barrier, if needed, added to protect adjacent pavement or structures.
- Native soils at bottom of excavation are ripped or loosened to promote infiltration.

Overflow Structure/Surface Connection to Storm Drainage

- Overflow structure is at specified elevation (typically no lower than two inches below facility rim).
- No knockouts or side inlets are in overflow riser.
- Overflow structure location at least 5 feet away from facility drainage input locations.
- Grating selected to exclude mulch and litter (beehive or atrium-style grates with ¼" openings recommended).
- Structure is connected to storm drain via appropriately sized piping (Hydrology calculations).
- Facility emergency overflow path designed to avoid flood damage.

Underground Connection to Storm Drain/Outlet Orifice

- Perforated pipe underdrain (PVC SDR 35 or approved equivalent) is installed with holes facing down.
- No filter fabric is installed around the underdrain.
- Perforated pipe is connected to storm drain (treatment-only) or orifice (treatment-plus-flow-control) per plans.
- Underdrain pipe is at elevation shown in plans. In facilities allowing infiltration, preferred elevation is the top of the pipe at the top of the Class 2 perm layer. In sealed planter boxes or bioretention facilities with liners, preferred elevation is as near bottom as possible.
- Cleanouts are in accessible location(s) from outside the facility and connected via sweeps.
- Structures (arches or large diameter pipes) for additional subsurface storage are installed as shown in plans and specifications and have the specified volume.

Drain Rock/Subdrain

- Rock is installed as specified. Class 2 permeable material per Caltrans specification 68-2.02F(3) recommended, or 4"-6" pea gravel is installed at the top of the crushed rock layer (Source tag and certification required).
- Rock is smoothed to a consistent top elevation. Depth and top elevation are as shown in plans, accounting for depth of soil mix and mulch to follow and required top reservoir depth.
- No filter fabric is placed between the subdrain and soil mix layers.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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BIORETENTION FACILITY
INSPECTION REQUIREMENTS

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-10-4A

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\Bioswale.dwg

ITEMS TO BE INSPECTED (CONT.)

Soil Media Mix (Supplier Certification required)

- Soil media mix is as specified. Quality of mix is confirmed by delivery ticket. On-site testing will be performed as appropriate to the size and complexity of the job. Call City Project Engineer to schedule testing and frequency.
- Mix is installed in lifts not exceeding 12".
- Mix is not compacted during installation but may be wetted thoroughly to encourage consolidation. Material may be belted in with coordination with City Project Engineer.
- Mix is smoothed to a consistent top elevation. Depth of mix (18" minimum) and top elevation are as shown in plans, accounting for depth of mulch to follow and required top reservoir depth.

Irrigation

- Irrigation system is installed so it can be controlled separately from other landscaped areas. Smart irrigation controllers and drip emitters are recommended.
- Spray heads, if any, are positioned to avoid direct spray into outlet structures.

Planting

- Plants are installed consistent with the approved planting plan.
- Any trees and large shrubs are staked securely.
- No fertilizer is added. Compost tea may be used.
- No native soil or clayey material are imported into the facility with plantings.
- 1" to 2" mulch may be applied following planting. Mulch selected to avoid floating.
- Maintain final design elevation of soil mix following planting.
- Curb openings are free of obstructions.

Final Engineering Inspection

- Drainage Management Area(s) are free of construction sediment; landscaped areas are stabilized.
- Inlets are installed to provide smooth entry of runoff from adjoining pavement, have sufficient reveal (drop) from the adjoining pavement to the top of the mulch or soil mix, and are not blocked.
- Inflows from roof leaders and pipes are connected and operable.
- Temporary flow diversions are removed.
- Rock or other energy dissipation at piped or surface inlets is adequate.
- Overflow outlets are configured to allow the facility to flood and fill to near rim before overflow.
- Plantings are healthy and becoming established.
- Irrigation is operable.
- Facility drains rapidly; no surface ponding is evident.
- Any accumulated construction debris, trash, or sediment is removed from facility.

INSPECTION SEQUENCE REQUIREMENTS

1. LAYOUT inspection is required prior to beginning the excavation.
2. EXCAVATION inspection is required prior to backfilling any materials or pipe installation.
3. OVERFLOW INLET or SURFACE CONNECTION TO STORM DRAIN inspection is required prior to backfill of any materials.
4. CONNECTION TO STORM DRAIN or OUTLET ORIFICE inspection is required prior to backfilling IMP with any materials.
5. DRAIN ROCK/SUB-DRAIN inspection is required prior to soil media mix (test) and installation.
6. SOIL MEDIA MIX inspection (test) is required prior to soil media installation.
7. SOIL MEDIA INSTALLATION inspection is required prior to irrigation installation.
8. IRRIGATION inspection is required prior to plant materials installation.
9. PLANTING inspection is required prior to FINAL INSPECTION.

CITY OF WALNUT CREEK

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BIORETENTION FACILITY
INSPECTION REQUIREMENTS

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
SD-10-4B

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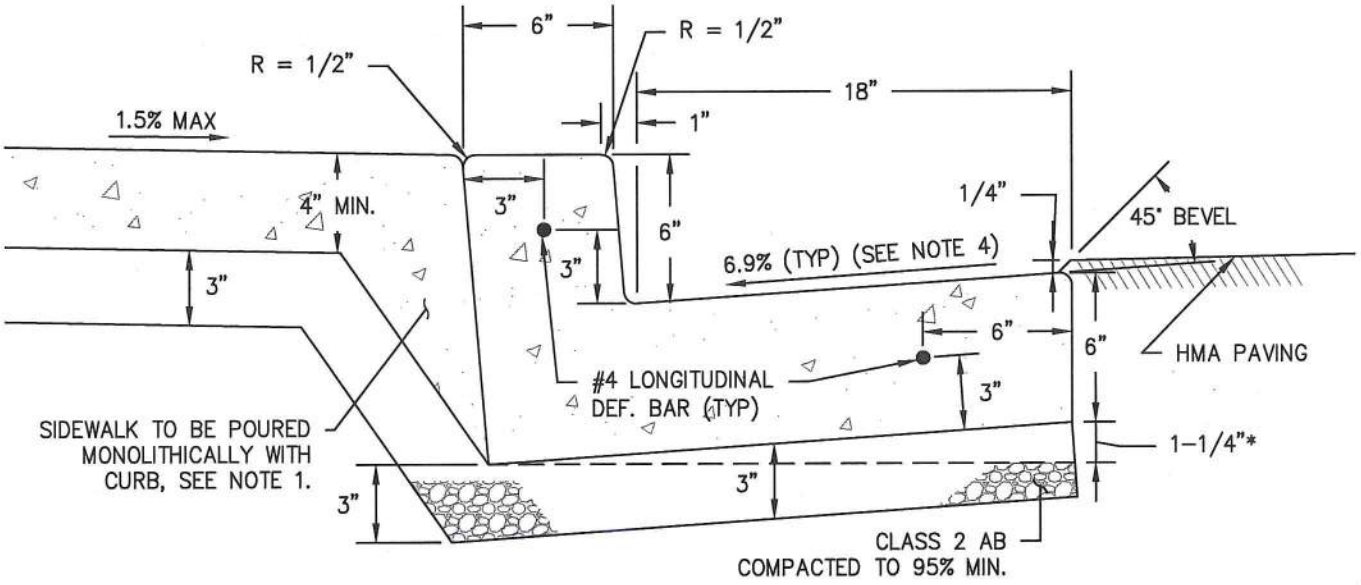
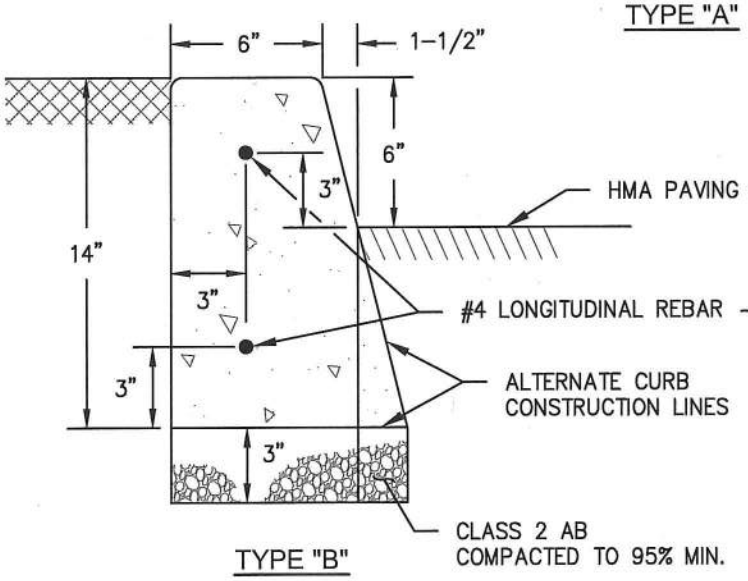
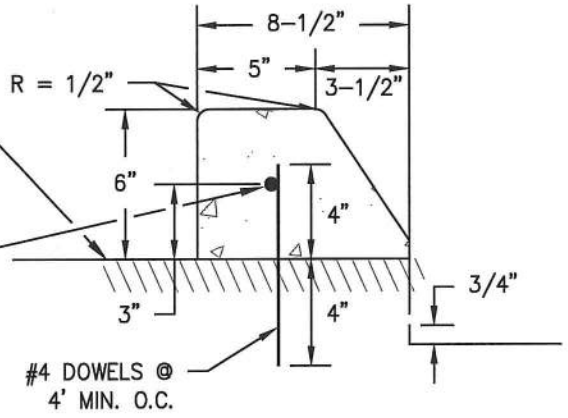


TYPE "A"

* SPILL GUTTER 1-1/4" MAX
BELOW FLAT GUTTER PAN



TYPE "B"



TYPE "C"

NOTES:

1. TYPE "A" CURB SHALL BE CONSTRUCTED MONOLITHICALLY WITH THE SIDEWALK UNLESS APPROVED BY THE CITY ENGINEER. IF NOT POURED MONOLITHICALLY, DOWEL WITH #4 REBAR PER CC-5 @ 2' O.C
2. CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE STANDARD SPECIFICATION, 3/4" AGGREGATE WITH 1 LB. OF LAMP BLACK PER CY.
3. CURBS SHALL BE BACKFILLED (COMPACTED) PRIOR TO FINISH SUBGRADE.
4. FLATTEN TO 5% OR LESS @ CURB RAMP.
5. NO PAVING AGAINST NEW CURB OR GUTTER FOR 7 DAYS.
6. WEAKENED PLANE JOINTS AT 10' O.C.
7. LONGITUDINAL GUTTER FLOW LINE SHALL HAVE A MINIMUM SLOPE OF 0.6% (S=0.006).

CITY OF WALNUT CREEK

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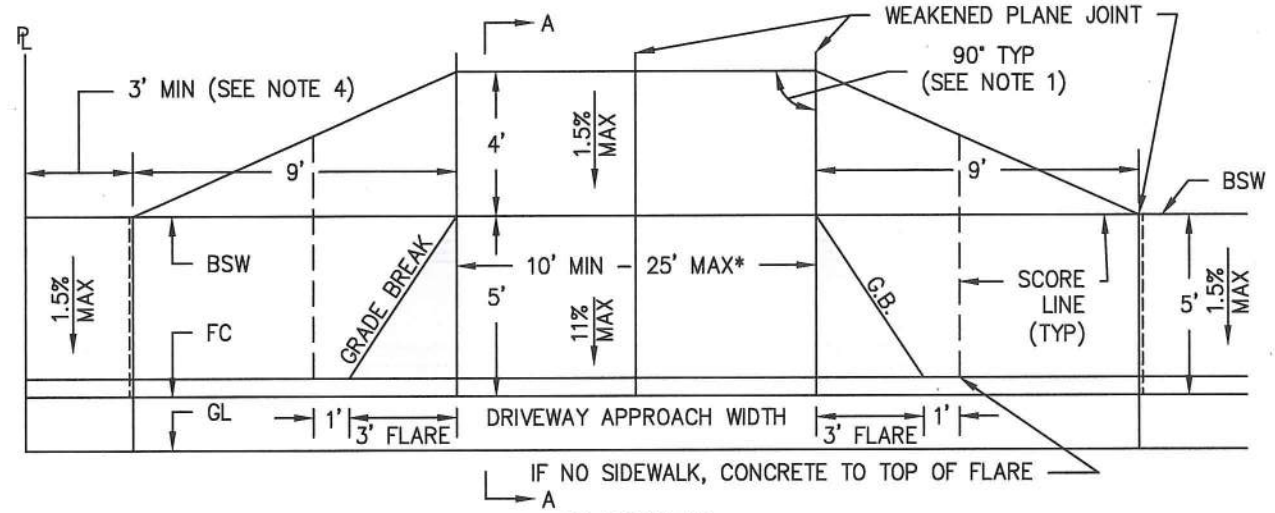
STANDARD CURB, GUTTER, AND SIDEWALK

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
CC-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\CC-1.dwg

SHT 1 OF 1

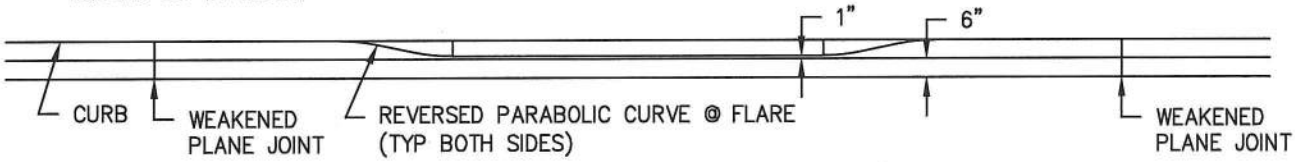


PLAN VIEW

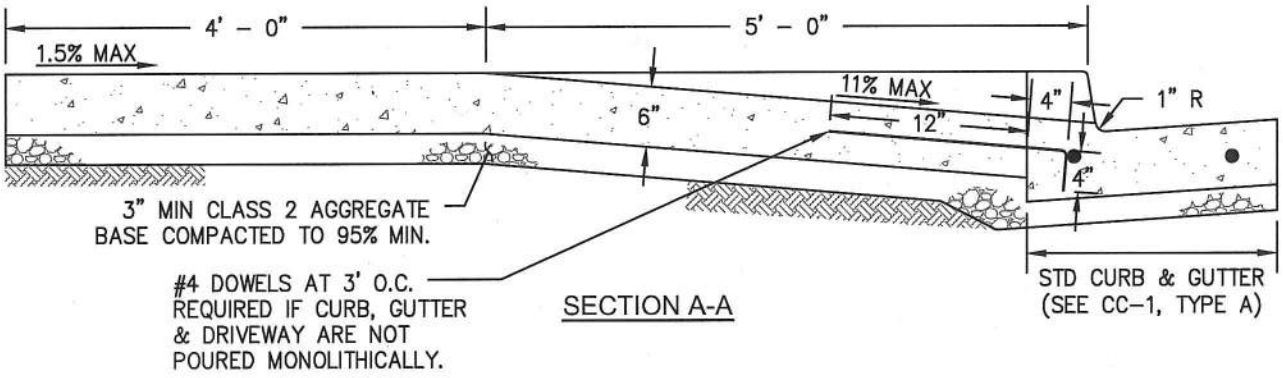
NOTES:

1. ADJUST IN FIELD TO MATCH SKEW OF DRIVEWAY.
2. WHEN DISTANCE BETWEEN DRIVEWAY FLARES IS LESS THAN 5', ELIMINATE ADJACENT FLARES AND CONSTRUCT AS COMMON DRIVEWAY.
3. CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE STANDARD SPECIFICATION, 3/4" AGGREGATE WITH 1 LB F LAMP BLACK PER CY.
4. LOCATION OF DRIVEWAY APPROACHES IN CUL-DE-SACS SHALL BE APPROVED BY CITY ENGINEER.
5. NO MORE THAN 50% OF THE FRONTAGE OF A PROPERTY SHALL BE DRIVEWAY UNLESS APPROVED BY THE CITY ENGINEER.
6. DRIVEWAY PROFILE GRADES SHALL MEET THE REQUIREMENTS OF CONTRA COSTA COUNTY STANDARD PLAN CA20.

* LARGER WIDTH DRIVEWAYS MAY BE CONSIDERED FOR APPROVAL BY CITY ENGINEER BUT AT NO POINT TO EXCEED 35' IN WIDTH.



ELEVATION VIEW



SECTION A-A

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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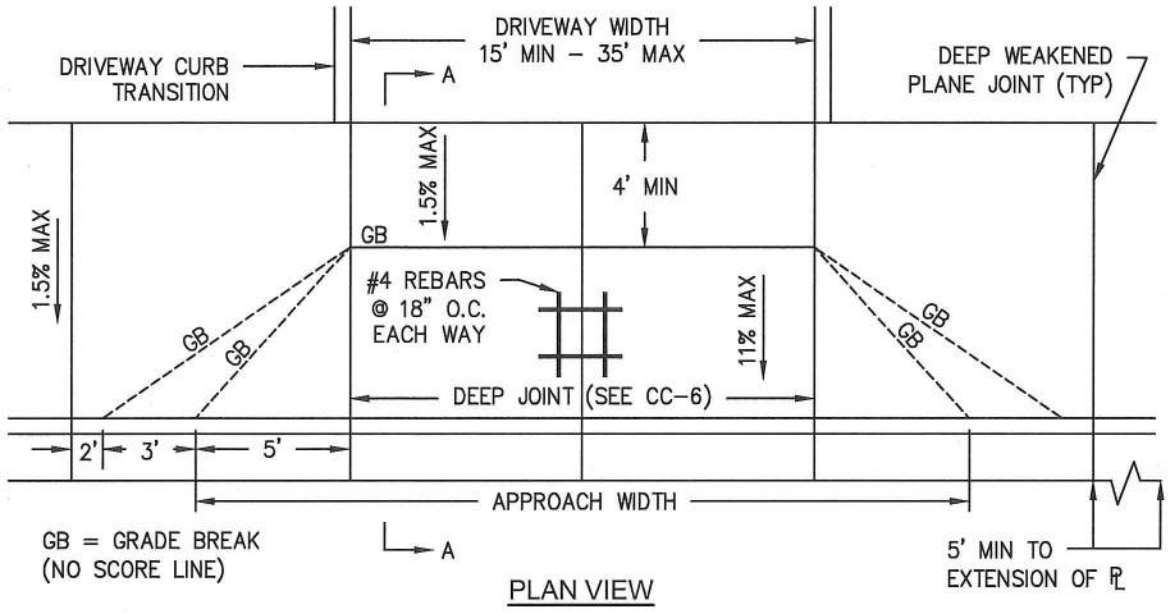
RESIDENTIAL DRIVEWAY APPROACH

NO.	DATE	APP	REVISION DESCRIPTION

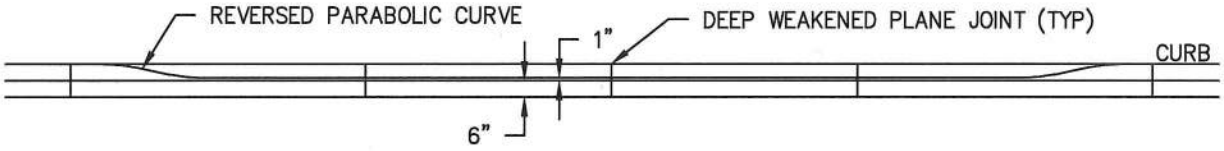
CITY OF WALNUT CREEK

STANDARD DETAIL
CC-2

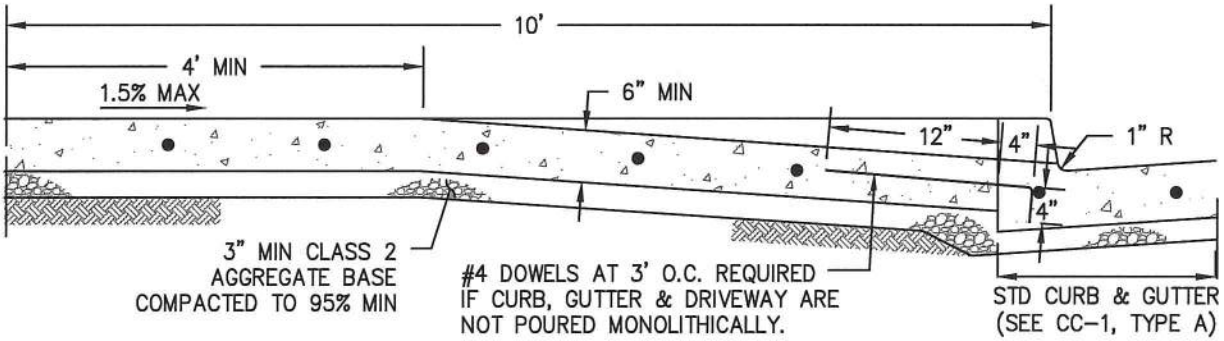
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\CC-2.dwg



PLAN VIEW



ELEVATION VIEW



SECTION A-A

NOTES:

1. WHEN DISTANCE BETWEEN DRIVEWAY FLARES IS LESS THAN 5', ELIMINATE ADJACENT FLARES AND CONSTRUCT AS A COMMON DRIVEWAY.
2. STEEL WITHIN DRIVEWAY EXTENDS TO WEAKENED PLANE JOINTS
3. CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90–2 "MINOR CONCRETE" OF STATE STANDARD SPECIFICATION, 3/4" AGGREGATE WITH 1 LB LAMP BLACK PER CY.

CITY OF WALNUT CREEK

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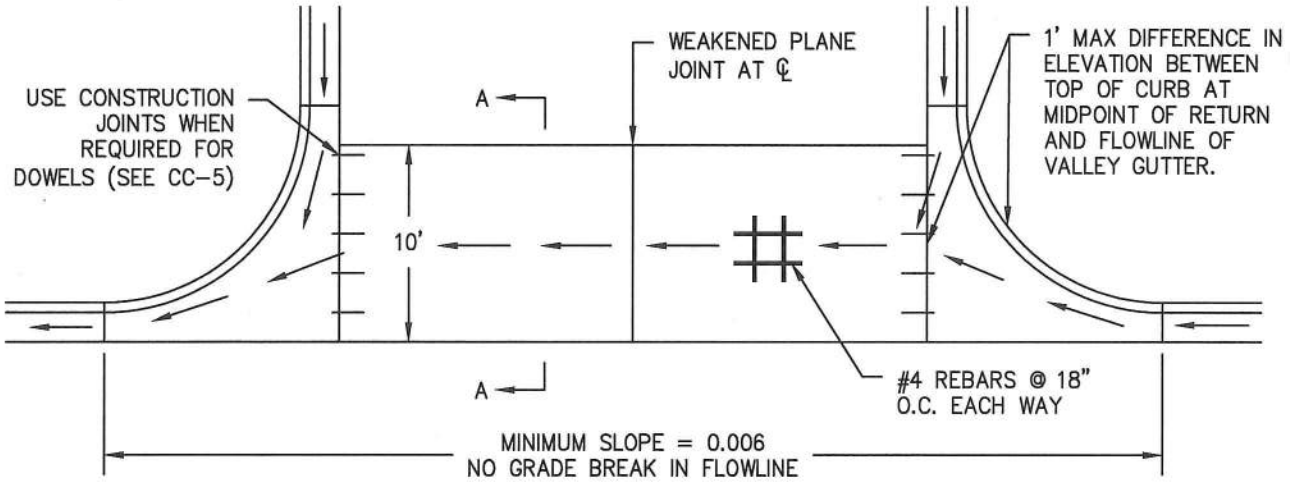
COMMERCIAL DRIVEWAY APPROACH

NO.	DATE	APP	REVISION DESCRIPTION

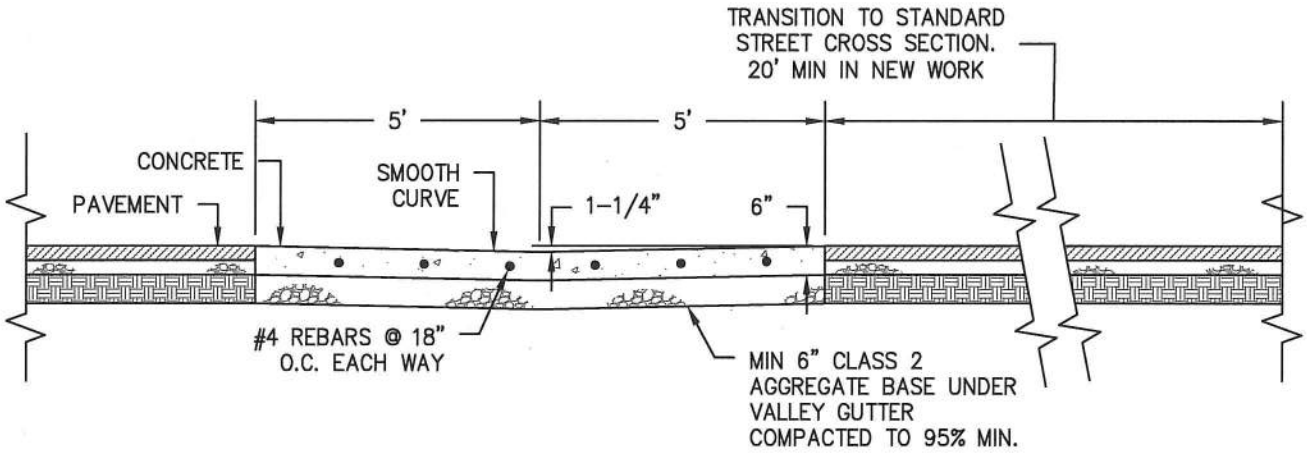
STANDARD DETAIL
CC-3

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\CC-3.dwg

SHT 1 OF 1



PLAN VIEW



SECTION A-A

NOTES:

1. CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE STANDARD SPECIFICATION, 3/4" AGGREGATE WITH 1 LB OF LAMP BLACK PER CY.

2. VALLEY GUTTERS SHOULD BE USED ONLY ACROSS CUL-DE-SAC STREETS UNLESS OTHERWISE PERMITTED BY THE PUBLIC WORKS DIRECTOR (OR THEIR DESIGNEE).

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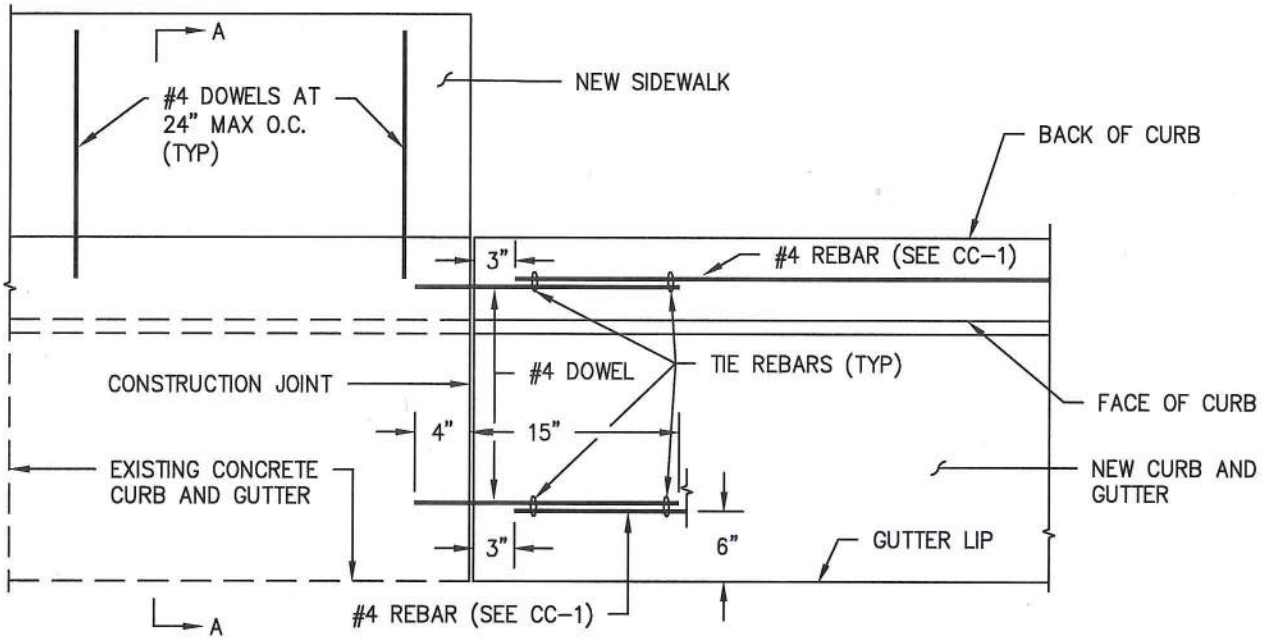
CITY OF WALNUT CREEK

CONCRETE VALLEY GUTTER

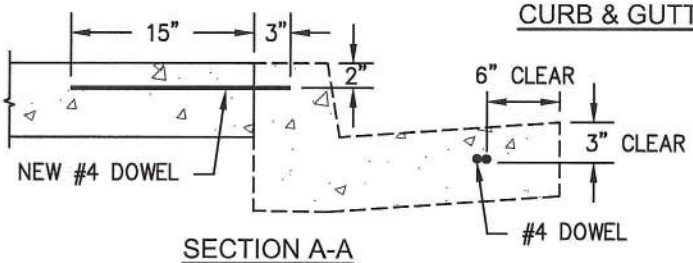
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
CC-4

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\CC-4.dwg



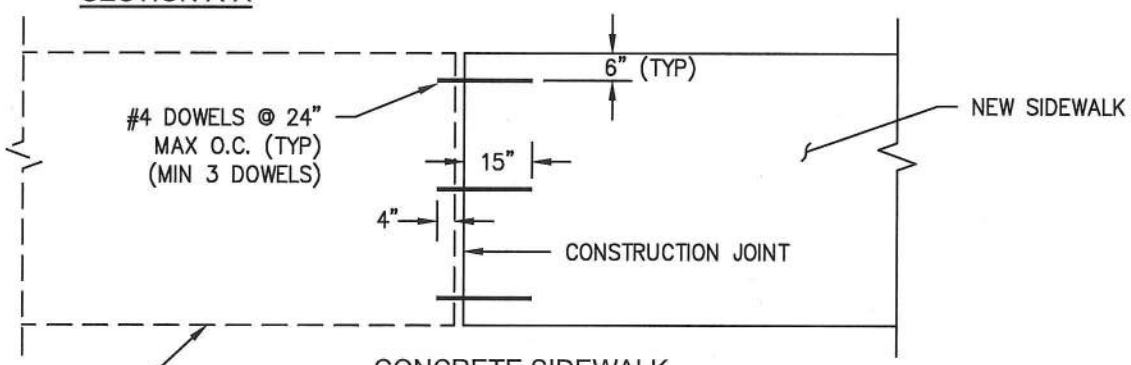
CURB & GUTTER



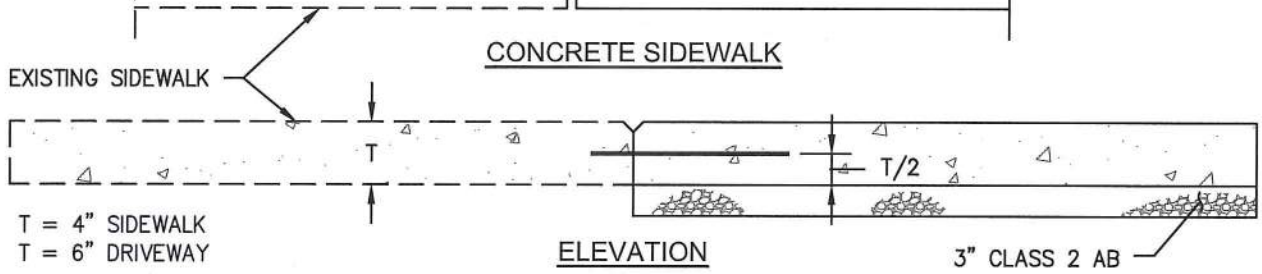
SECTION A-A

NOTES:

1. CONSTRUCTION JOINTS SHALL BE REQUIRED IN CURB, GUTTER, SIDEWALKS, DRIVEWAYS AND VALLEY GUTTER WORK WHENEVER NEW CONCRETE IS TO BE POURED AGAINST EXISTING CONCRETE.
2. DOWELS INTO EXISTING MUST BE TIGHT.



CONCRETE SIDEWALK



ELEVATION

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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CONSTRUCTION JOINTS

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
CC-5

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\CC-5.dwg

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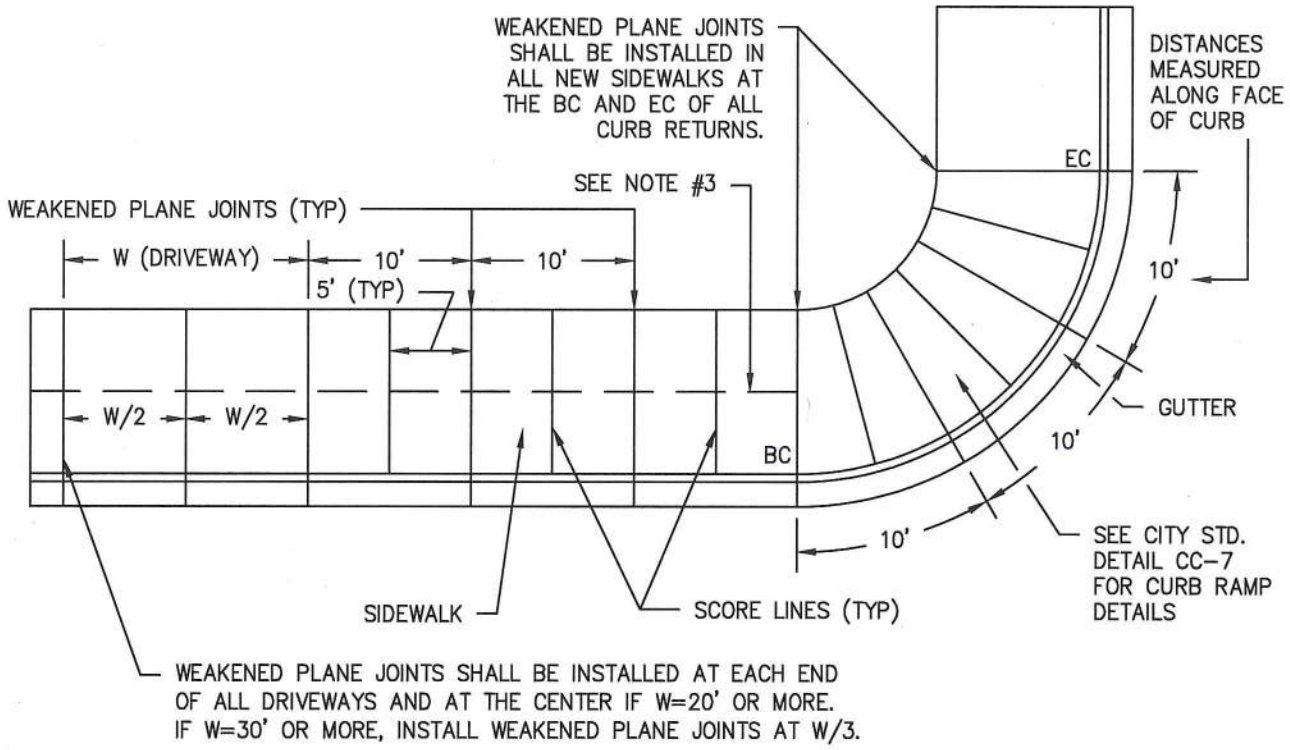

NOTES:

1. WEAKENED PLANE JOINTS SHALL BE EVERY 10 FEET AND SHALL EXTEND THROUGH THE SIDEWALK, CURB AND GUTTER. WIDTH SHALL BE 1/4" AND DEPTH SHALL BE 1" MINIMUM.

2. TOOL SCORE LINES 1/4" DEEP SHALL BE EVERY 5' EXTENDING ACROSS SIDEWALK ONLY, EXCEPT WHEN ADJACENT TO AN EXISTING DRIVEWAY OR SIDEWALK, IN WHICH CASE THEY SHALL CORRESPOND TO EXISTING LINES.

3. LONGITUDINAL SCORE LINES WILL BE REQUIRED IN SIDEWALKS 9' OR MORE IN WIDTH, EITHER AT THE CENTER OF THE SIDEWALK OR TO MATCH EXISTING LONGITUDINAL SCORE LINES.

4. TYPICAL SIDEWALK WIDTH:
RESIDENTIAL–5' TO FACE OF CURB, COMMERCIAL–10' TO FACE OF CURB.

5. SIDEWALK SHALL BE REMOVED TO THE NEAREST SCORE JOINT.

6. CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST WEAKENED PLANE JOINT.

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CITY OF WALNUT CREEK

WEAKENED PLANE JOINTS AND SCORE LINES

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STANDARD DETAIL
CC-6

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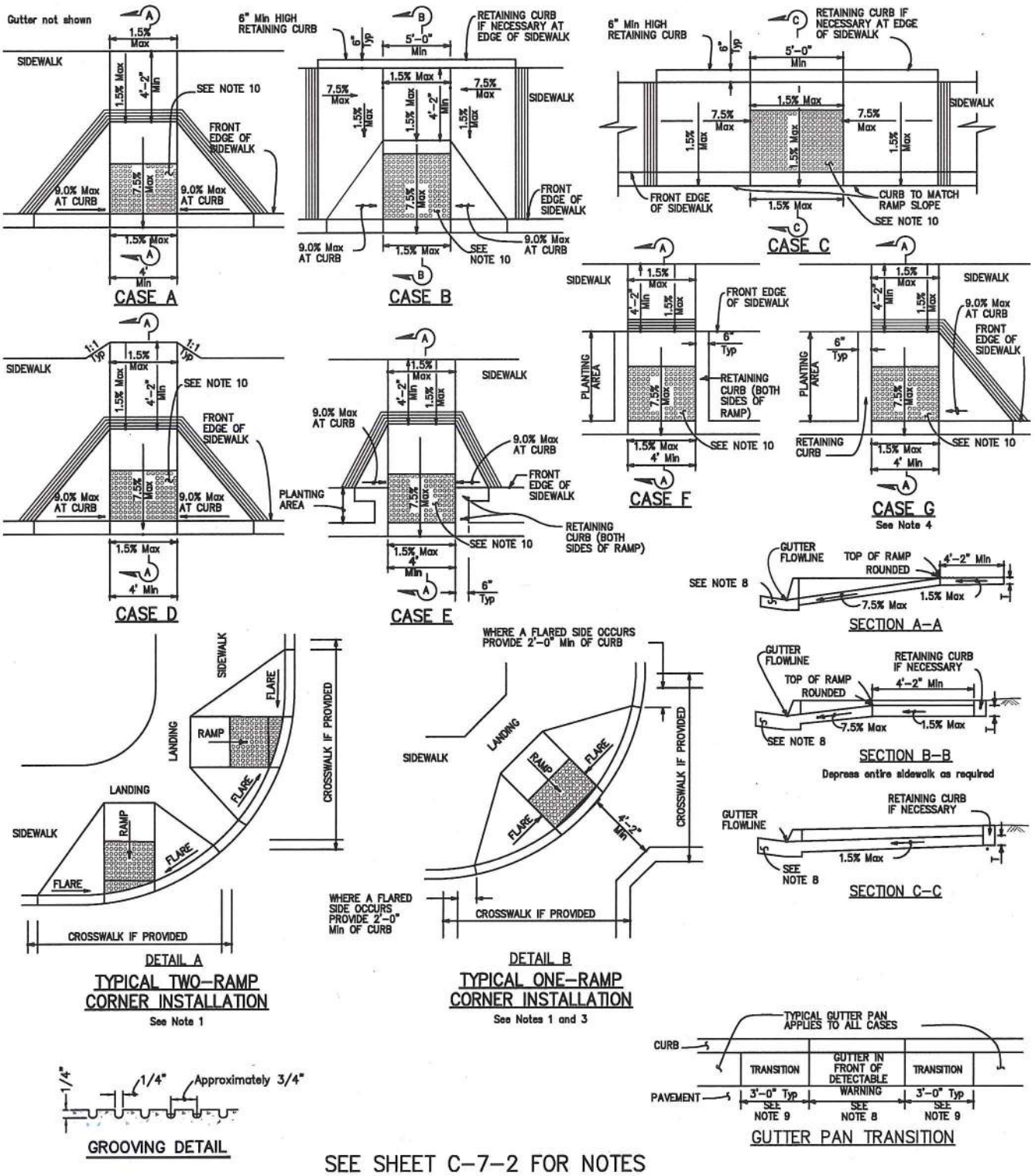

SEE SHEET C–7–2 FOR NOTES

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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CURB RAMP DETAILS

CITY OF WALNUT CREEK

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
CC-7-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\CC-7-1.dwg

GENERAL 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. FOR SPECIFIC SITE CONDITION CONFIGURATION, INCLUDING THE CONFORM TO EXISTING SIDEWALK, SEE PROJECT PLANS.

2. IF DISTANCE FROM CURB TO BACK OF SIDEWALK IS TOO SHORT TO ACCOMMODATE RAMP AND 4'-2" 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 TO 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 9.0% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP, EXCEPT IN CASE C AND CASE F.

7. THE RAMP SHALL HAVE A 12" WIDE BOARDER WITH 1/4" GROOVES APPROXIMATELY 3/4" ON CENTER. SEE GROOVING DETAIL.

8. TRANSITIONS FROM RAMPS AND LANDING TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH (NO LIP) AND FREE OF ABRUPT CHANGES.

9. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO AND WITHIN 24 INCHES OF THE CURB RAMP SHALL NOT BE STEEPER THAN 1V:20H (5.0%). GUTTER PAN SLOPE SHALL NOT EXCEED 1" OF DEPTH FOR EACH 2'-0" OF WIDTH

10. CURB RAMP SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3'-0" DEPTH OF THE RAMP. A 4'-0" WIDE DETECTABLE WARNING SURFACE MAY BE USED ON A 4'-2" WIDE CURB RAMP. DETECTABLE WARNING SURFACES SHALL CONFORM TO THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS.

11. SIDEWALK AND RAMP THICKNESS, "T", SHALL BE 4" 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. DETECTABLE WARNING SURFACE MAY HAVE TO BE CUT TO ALLOW REMOVAL OF UTILITY COVERS WHILE MAINTAINING FULL DETECTABLE WARNING WIDTH AND DEPTH.

CITY OF WALNUT CREEK

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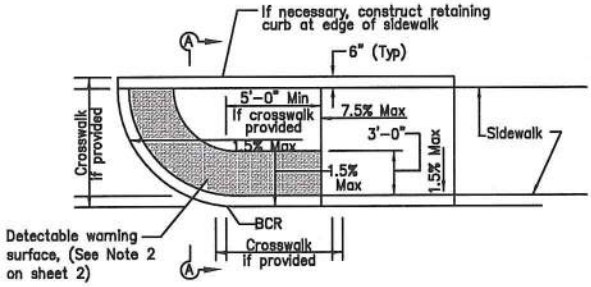
CURB RAMP NOTES

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
CC-7-2

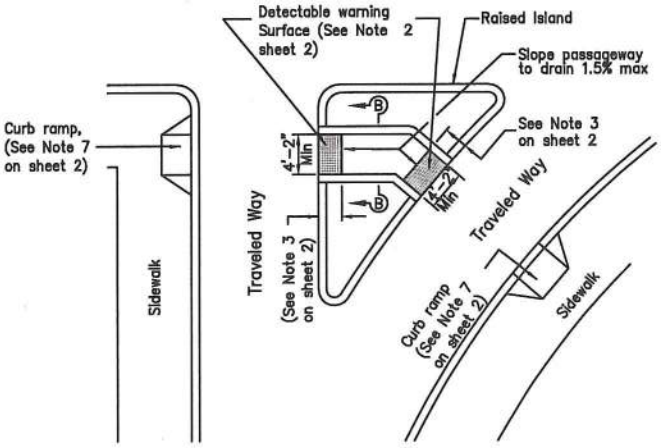
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\CC-7-2.dwg

SEE GENERAL NOTES ON SHEET CC-8-2

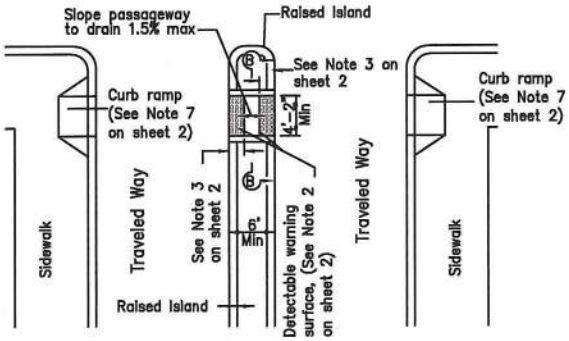


CASE CM CURB RAMP

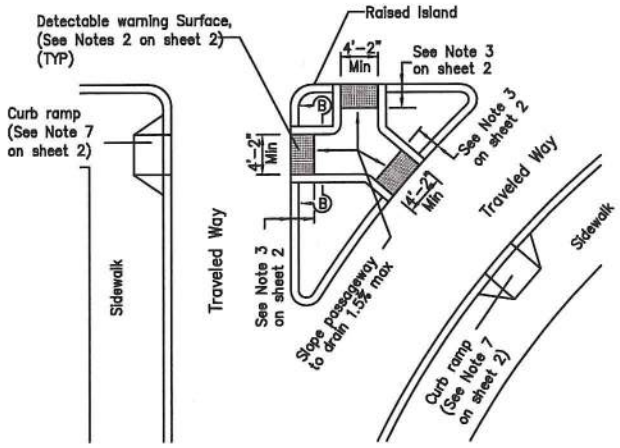
*BCR: Beginning of curb return



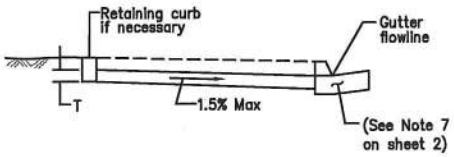
TYPE B PASSAGEWAY



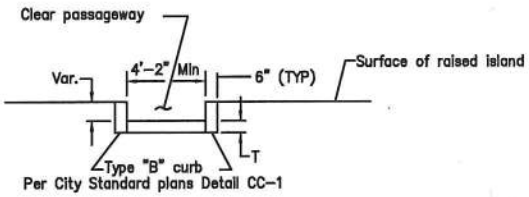
TYPE A PASSAGEWAY



TYPE C PASSAGEWAY



SECTION A-A



SECTION B-B

NOT TO SCALE

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

CURB RAMP & ISLAND PASSAGEWAY DETAILS

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
CC-8-1

CITY OF WALNUT CREEK

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\CC-8-1.dwg

GENERAL NOTES:

1. SIDEWALK, RAMP AND PASSAGEWAY THICKNESS, "T" SHALL BE 4" MINIMUM.

2. FOR DETAILS OF DETECTABLE WARNING SURFACES, CITY STANDARD PLAN CC-9.

3. WHERE AN ISLAND PASSAGEWAY LENGTH IS GREATER THAN OR EQUAL TO 6'-0", BUT LESS THAN 8'-0", EACH DETECTABLE WARNING SURFACE SHALL EXTEND TO THE FULL WIDTH AND 2' 0" DEPTH OF THE PASSAGEWAY LENGTH. WHERE AN ISLAND PASSAGEWAY LENGTH IS GREATER THAN OR EQUAL TO 8'-0", DETECTABLE WARNING SURFACE SHALL EXTEND THE FULL WIDTH AND 3'-0" DEPTH OF THE PASSAGEWAY LENGTH. A 4'-0" WIDE DETECTABLE WARNING SURFACE MAY BE USED ON A 4'-2" WIDE ISLAND PASSAGEWAY.

4. TRANSITIONS FROM RAMPS TO WALKS, GUTTER OR STREETS SHALL BE FLUSH (NO LIP) AND FREE OF ABRUPT CHANGES.

5. 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.

6. DETECTABLE WARNING SURFACE MAY HAVE TO BE CUT TO ALLOW REMOVAL OF UTILITY COVERS WHILE MAINTAINING FULL DETECTABLE WARNING WIDTH AND DEPTH.

7. FOR ADDITIONAL CURB RAMP DETAILS, SEE STANDARD PLAN CC-7-1.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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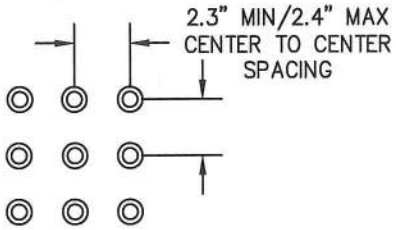
CURB RAMP & ISLAND PASSAGEWAY NOTES

NO.	DATE	APP	REVISION DESCRIPTION

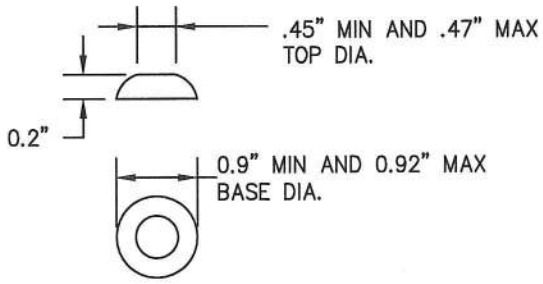
STANDARD DETAIL
CC-8-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\CC-8-2.dwg

LAYOUT AND DIMENSION OF DETECTABLE WARNING SURFACE:



RAISED TRUNCATED
DOME PATTERN (IN-LINE)



RAISED TRUNCATED DOME

SELECTION OF DETECTABLE WARNING SURFACE:

1. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3'–0" DEPTH OF THE CURB RAMP.

2. ALL DETECTABLE WARNING SURFACES WITHIN THE PUBLIC RIGHT–OF–WAY SHALL BE DARK GRAY IN COLOR, EXCEPT AT SCHOOL CROSSINGS THE DETECTABLE WARNING SHALL BE YELLOW IN COLOR.

3. THE COLOR AND MATERIAL OF THE DETECTABLE WARNING MUST BE APPROVED BY THE CITY ENGINEER. DETECTABLE WARNING SURFACES SHALL BE OF VITRIFIED POLYMER COMPOSITE CONSTRUCTION, EMBEDDED TYPE FOR NEW RAMPS, RETROFITTED FOR EXISTING RAMPS, AND MANUFACTURED BY "ARMOR TILE SYSTEMS", BUFFALO, NEW YORK, OR ADA SOLUTIONS, NORTH BILLERICA, MASSACHUSETTS OR APPROVED EQUAL. PRIVATE DEVELOPMENT PROJECTS MAY USE ANY DSA* APPROVED DETECTABLE WARNING PRODUCT PROVIDED THE DETECTABLE WARNING SURFACE SHALL NOT BE OF ANY CONCRETE, RUBBER AND/OR ROCK MATERIAL.

* ONLY APPROVED DSA/AB (DIVISION OF STATE ARCHITECT/ACCESS BOARD) DETECTABLE WARNING PRODUCTS AND DIRECTIONAL SURFACES SHALL BE INSTALLED AS PROVIDED IN THE CCR (CALIFORNIA CODE OF REGULATIONS), TITLE 24, PART 1, ARTICLES 2, 3, AND 4. REFER TO CCR TITLE 24, CHAPTER 12–11A AND B, FOR BUILDING AND FACILITY ACCESS SPECIFICATIONS FOR PRODUCT APPROVAL FOR DETECTABLE WARNING PRODUCTS AND DIRECTIONAL SURFACES.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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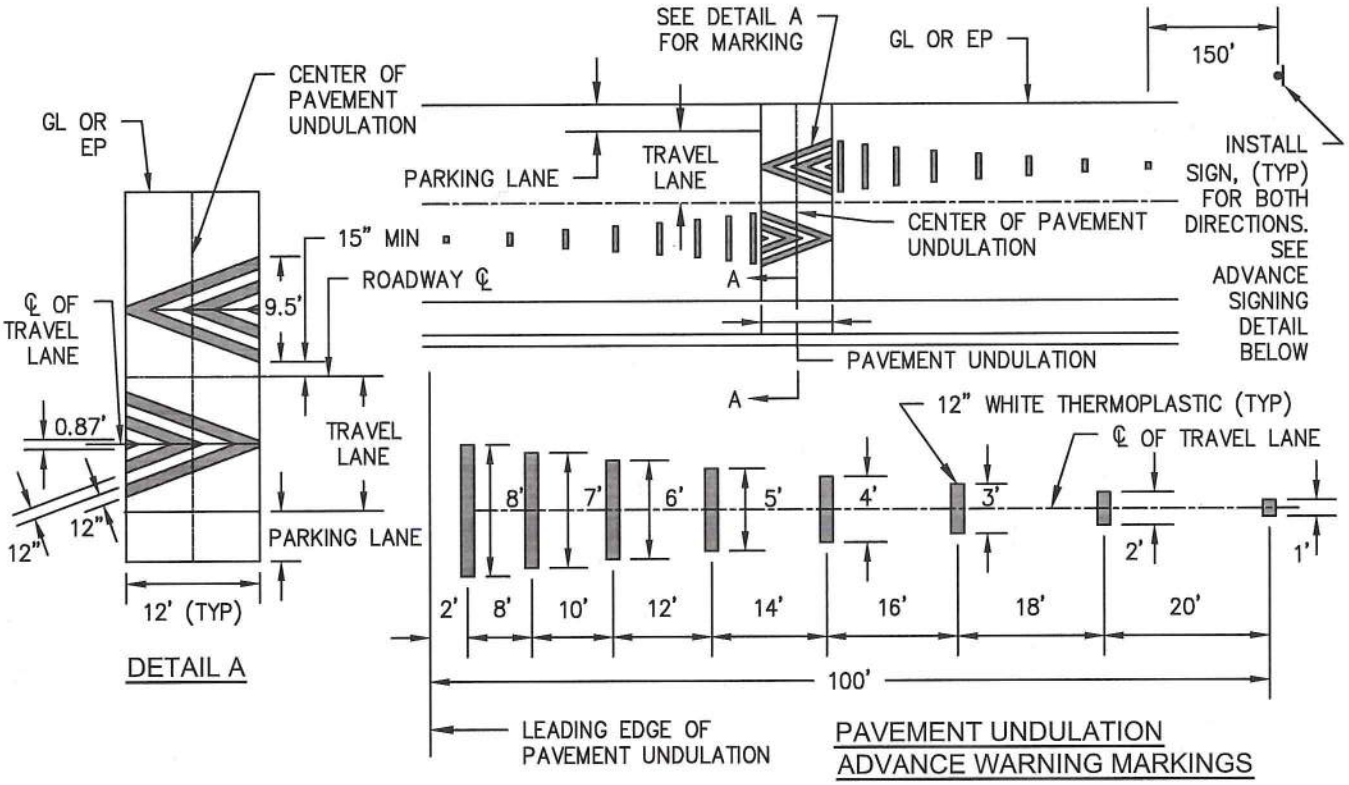
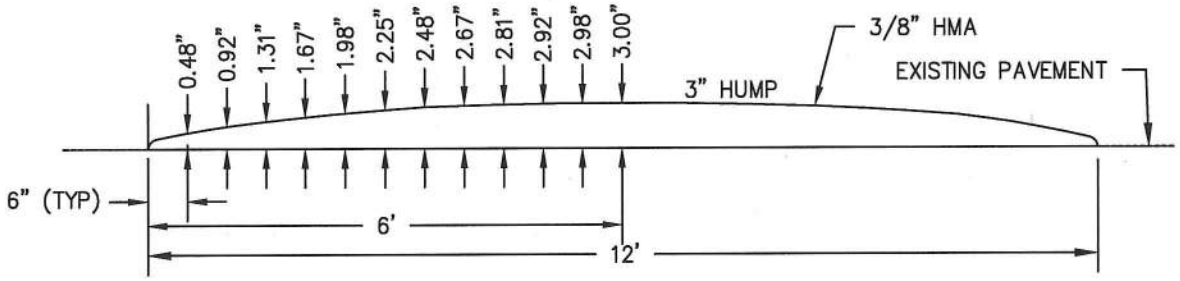
DETECTABLE WARNING SURFACE

NO.	DATE	APP	REVISION DESCRIPTION

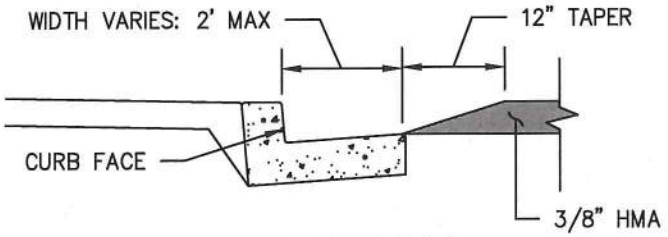
STANDARD DETAIL
CC-9

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\CC-9.dwg





ELEVATION



SECTION A-A

30" X 30" W17-1 (CAMUTCD) WARNING SIGN BLACK ON YELLOW 6" SERIES "E" LETTERS
W13-1 SIGN IF DETERMINED BY ENGINEER
SIGN LOCATIONS AS DIRECTED BY CITY ENGINEER
SEE CITY STANDARD DETAIL TS-5 FOR SIGN MOUNTING AND INSTALLATION.

ADVANCE SIGNING DETAIL

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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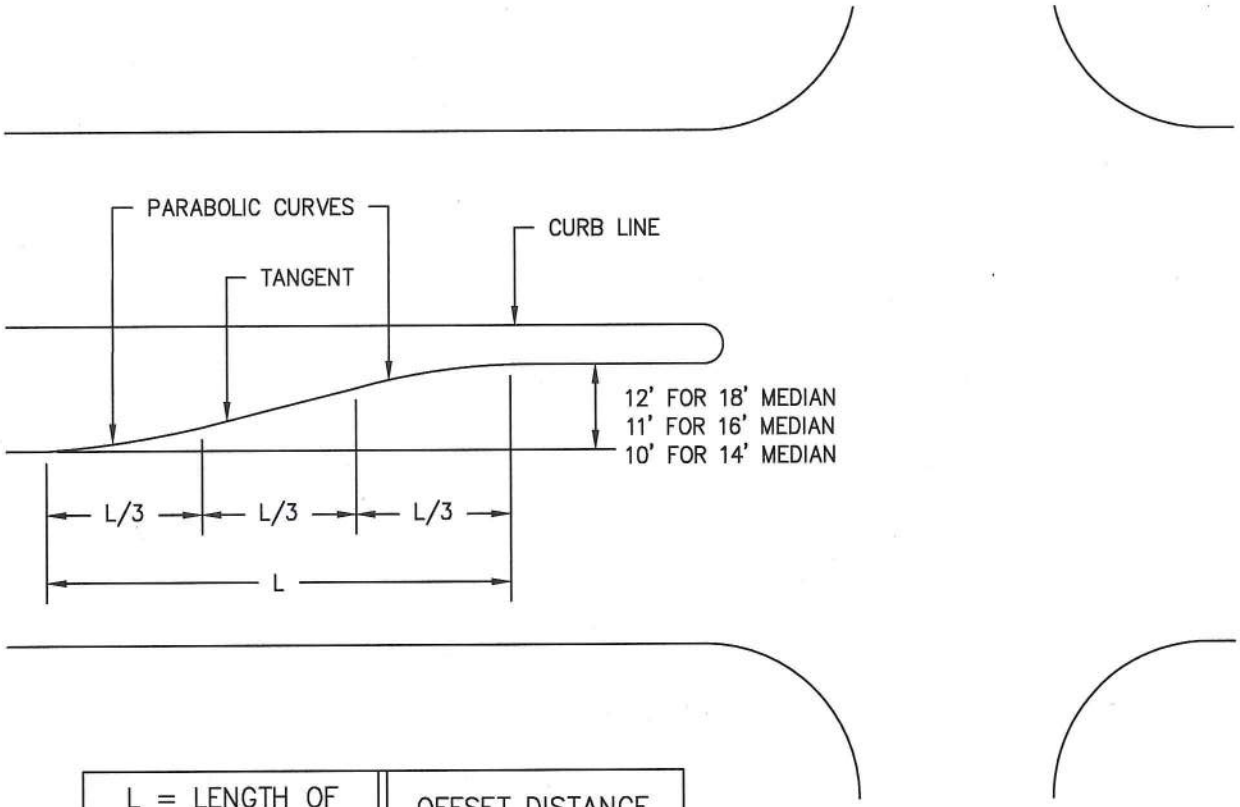
PAVEMENT UNDULATION STANDARDS

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-1.dwg



L = LENGTH OF TAPER			OFFSET DISTANCE FROM BASELINE FOR LANE WIDTH OF		
60'	90'	120'			
DISTANCE FROM BEGINNING OF TAPER			10'	11'	12'
5	7.5	10	.16	.17	.19
10	15.0	20	.62	.69	.75
15	22.5	30	1.14	1.55	1.69
20	30.0	40	2.50	2.75	3.00
30	45.0	60	5.00	5.50	6.00
40	60.0	80	7.50	8.25	9.00
45	67.5	90	8.59	9.45	10.31
50	75.0	100	9.38	10.31	11.25
55	82.5	110	9.84	10.83	11.81
60	90.0	120	10.00	11.00	12.00

NOTES:

1. OFFSETS ARE MEASURED FROM A BASELINE WHICH IS THE CURB LINE EXTENDED.
2. DISTANCE ALONG THE BASELINE IS MEASURED FROM THE POINT OF TANGENCY AT THE BEGINNING OF TAPER.
3. TAPER LENGTH SHALL BE 120' UNLESS OTHERWISE DIRECTED BY THE PUBLIC SERVICES DIRECTOR (OR THEIR DESIGNEE) OR AS SHOWN ON THE PLANS.

REF: HIGHWAY DESIGN MANUAL TABLE 405.2A

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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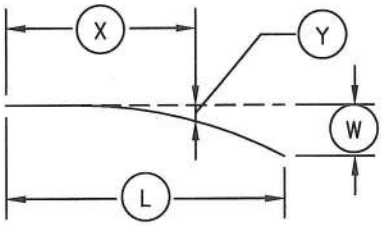
STANDARD MEDIAN TAPERS

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-2.dwg

PARABOLIC CURB FLARE



$$Y = \frac{WX^2}{L^2}$$

(L) = LENGTH OF FLARE IN FEET

(W) = MAXIMUM OFFSET IN FEET

(X) = DISTANCE ALONG BASE LINE IN FEET

(Y) = OFFSET FROM BASE LINE IN FEET

(W) IS SHOWN IN TABLE THUS

OFFSET IN FEET FOR GIVEN "X" DISTANCE																
DISTANCE (X) / LENGTH OF FLARE (L)	10	15	20	25	30	40	45	50	60	70	75	80	90	100	110	120
1:5 FLARES																
25	0.80	1.80	3.20	5.00												
50	0.40		1.60		3.60	6.40		10.0								
1:10 FLARES																
50	0.20		0.80		1.80	3.20		5.00								
100	0.10		0.40		0.90	1.60		2.50	3.60	4.90		6.40	8.10	10.0		
1:15 FLARES																
45	0.15		0.59		1.33	2.37	3.00									
75	0.09		0.36		0.80	1.42		2.22	3.20	4.36	5.00					
90	0.07		0.30		0.67	1.19		1.85	2.67	3.63		4.74	6.00			
120	0.06		0.22		0.50	0.89		1.39	2.00	2.72		3.56	4.50	5.56	6.72	8.00

REF: HIGHWAY DESIGN MANUAL TABLE 405.4

CITY OF WALNUT CREEK

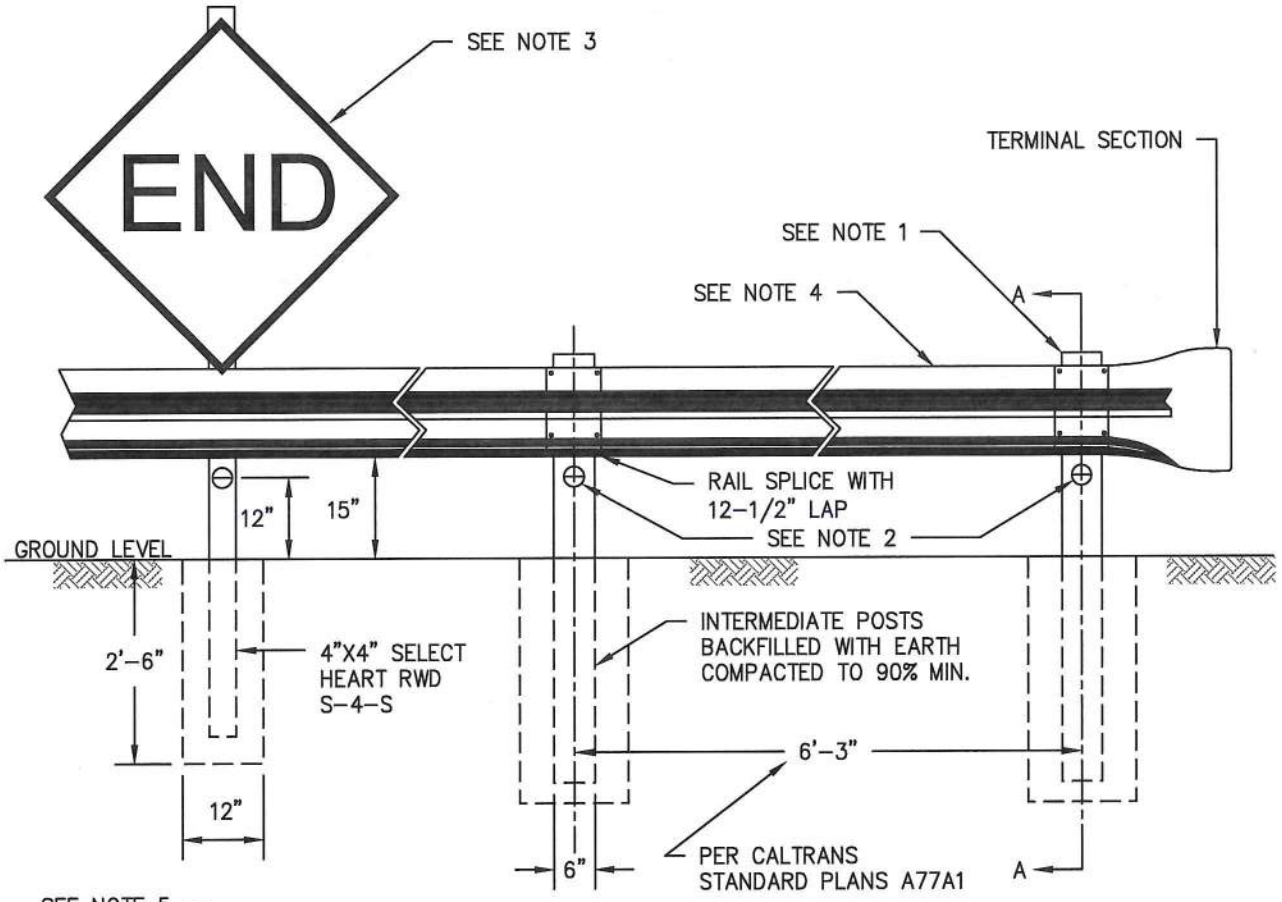
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	LP	NOVEMBER 2018

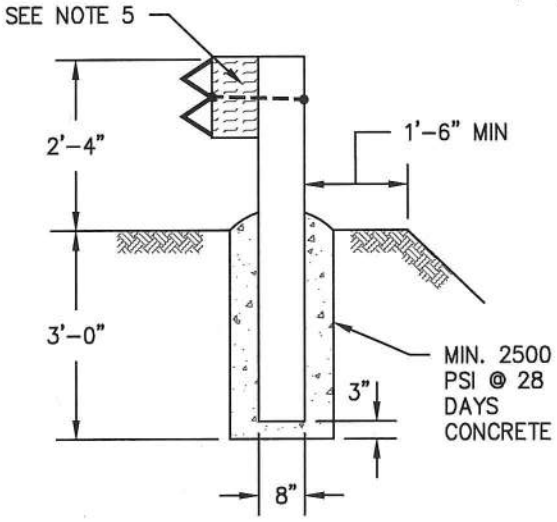
STANDARD MEDIAN FLARE

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-3

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-3.dwg





SECTION A-A

NOTES:

1. BARRICADE POSTS SHALL BE 6"X8" S–4–S DENSE STRUCTURAL REDWOOD OR CONSTRUCTION GRADE PRESSURE TREATED LUMBER. LUMBER SHALL BE TREATED WITH APPROVED SALTS SO THAT POST MAY BE PAINTED.
2. A 3" CENTER MOUNT AMBER ACRYLIC PLASTIC REFLECTOR IN AN ALUMINUM BEZEL HOUSING SHALL BE INSTALLED ON EACH POST AS SHOWN OR APPROVED EQUAL.
3. A .08" THICK 36"X36" W31* YELLOW DIAMOND "END" SIGN USING HIGH INTENSITY REFLECTING SHEETING SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGN AT THE LEVEL OF GUARD RAIL AND LOCATED AS PER PLAN.
4. METAL GUARD, AASHTO DESIG. M180, 12 GA. GALVANIZED STEEL.
5. 8" X 8" X 1'–2" REDWOOD BLOCK BETWEEN RAIL AND POST PER CALTRANS STANDARD PLANS A77C3.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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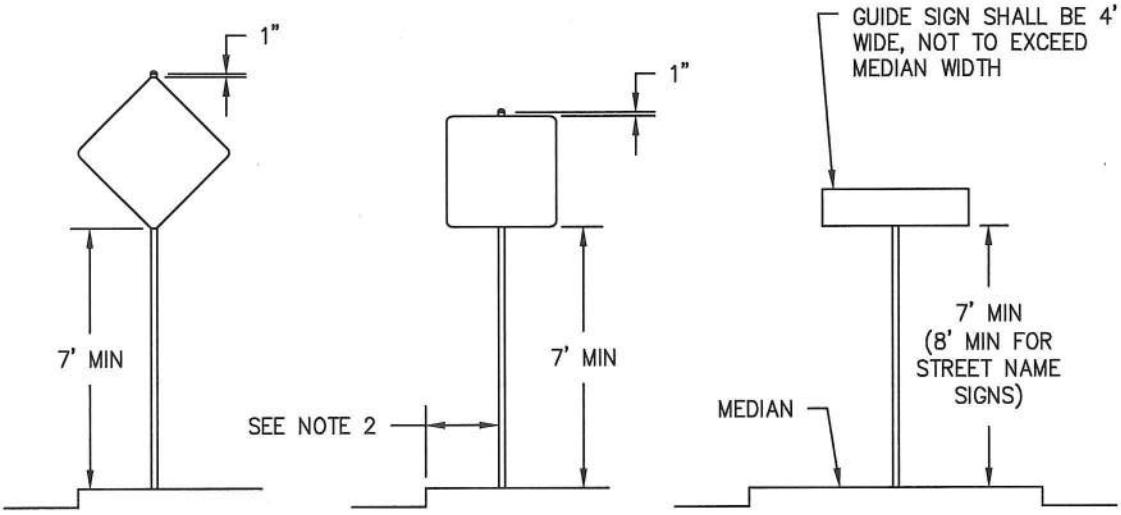
STANDARD STEEL BEAM BARRICADE

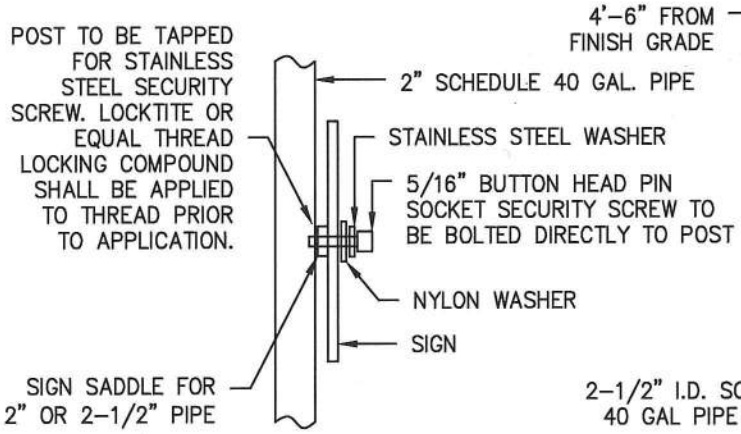
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-4

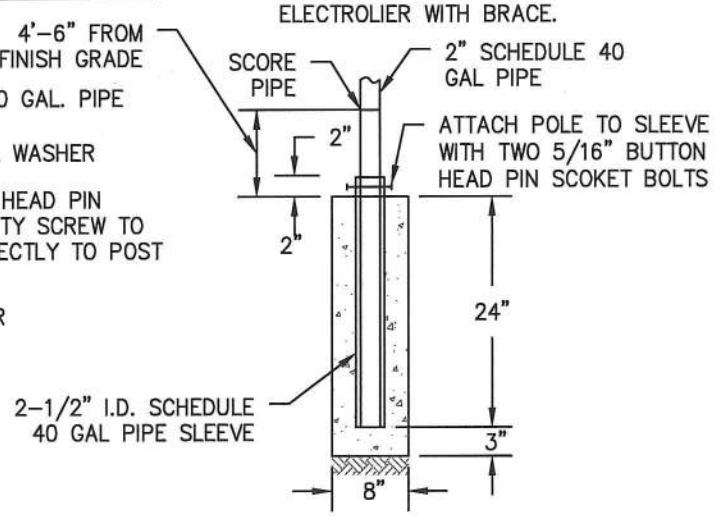
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-4.dwg

SHT 1 OF 1





SIGN MOUNTING



BASE DETAIL

NOTES:

1. ALL SIGN LOCATIONS TO BE APPROVED BY CITY ENGINEER.
2. SIGN POSTS SHALL BE PLACED BEHIND 5' OR SMALLER SIDEWALKS. FOR SIDEWALKS MORE THAN 5' THE EDGE OF SIGN POST SHALL BE APPROXIMATELY 2 FEET FROM FACE OF CURB.
3. THE EDGE OF SIGNS SHALL BE 2' OR MORE FROM THE EDGE OF THE PAVEMENT ON AN UNCURBED ROADWAY.
4. SIGN SADDLES AND 5/16" STAINLESS STEEL BUTTON HEAD PIN SOCKET SCREWS AND WASHERS SHALL BE USED.
5. PIPE SHALL EXTEND 1" ABOVE TOP OF SIGN AND SHALL BE CAPPED.
6. NO BANDING WILL BE ALLOWED ON 2" PIPE.
7. WHEN SUPPLEMENTAL SIGNS ARE USED, THESE SHALL BE MOUNTED AT 7' MIN HEIGHT WITH PRIMARY SIGNS MOUNTED ABOVE.
8. SIGN PANELS GREATER THAN 34" IN WIDTH SHALL BE INSTALLED WITH A BACK BRACE MOUNTED WITH SECURITY SCREWS AND VANDEL NUTS.

REF: CAMUTCD/SIGNS/FIGURE 2A

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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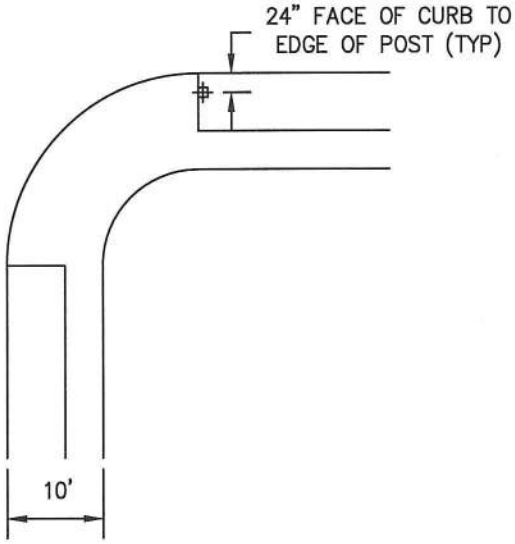
TRAFFIC SIGN MOUNTING

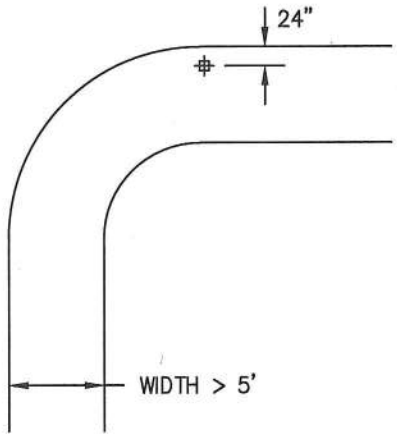
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-5

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-5.dwg



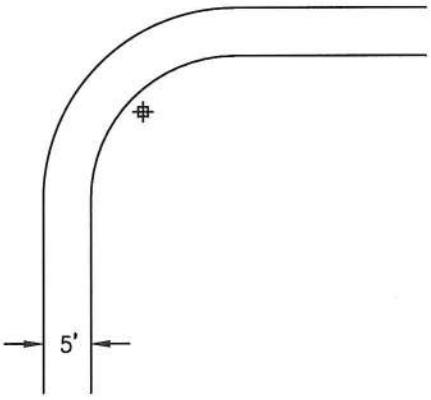
LOCATION IN PLANTER STRIP



LOCATION IN MONOLITHIC SIDEWALK > 5' IN WIDTH

NOTES:

1. EDGE OF SIGN POST TO BE LOCATED 24" FROM CURB FACE OF PRINCIPAL STREET.
2. SIGN TO BE LOCATED 8' MIN ABOVE GROUND. INSTALLED ACCORDING TO TS-5.
3. SIGN TO BE ACCORDING TO TS-8. CORNER LOCATION TO BE DESIGNATED ON CONSTRUCTION PLANS.
4. SIGN SHALL BE MOUNTED ON TRAFFIC SIGNAL STANDARD OR ELECTROLLIER IF AVAILABLE.



LOCATION AT 5' MONOLITHIC SIDEWALK

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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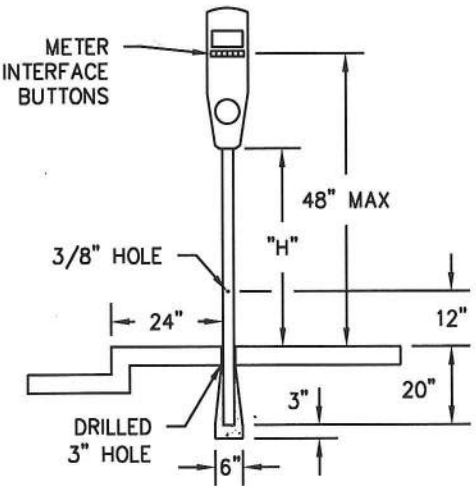
STREET NAME SIGN LOCATION

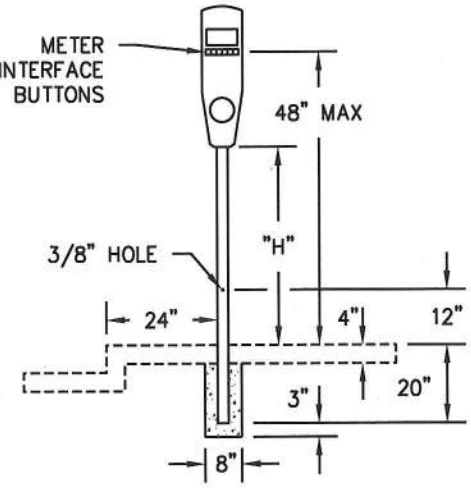
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-6

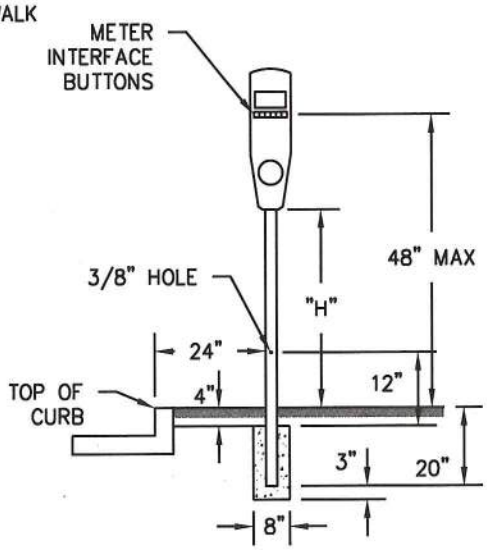
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-6.dwg



METHOD "A"
EXISTING SIDEWALK



METHOD "B"
PRIOR TO SIDEWALK
CONSTRUCTION



METHOD "C"
NO SIDEWALK

NOTES:
1. ALL METER POLE LOCATIONS SHALL BE APPROVED BY CITY ENGINEER.
2. METER POLES SHALL BE 2-3/8" O.D. AND 2-1/16" I.D. PIPE.
3. A 3" HOLE SHALL BE DRILLED IN EXISTING SIDEWALKS.
4. NO HAMMERING WILL BE ALLOWED ON UPPER END OF PIPE.
5. PIPE SHALL BE SCHEDULE 40 GALV. PIPE UNLESS OTHERWISE SPECIFIED.
6. CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF THE STATE STANDARD SPECIFICATION, 3/4" AGGREGATE MIX CONCRETE.
7. CONTACT THE PUBLIC WORKS ENGINEERING DEPARTMENT FOR DIMENSION "H". LENGTH OF METER POLE SHALL BE APPROVED BY CITY ENGINEER.

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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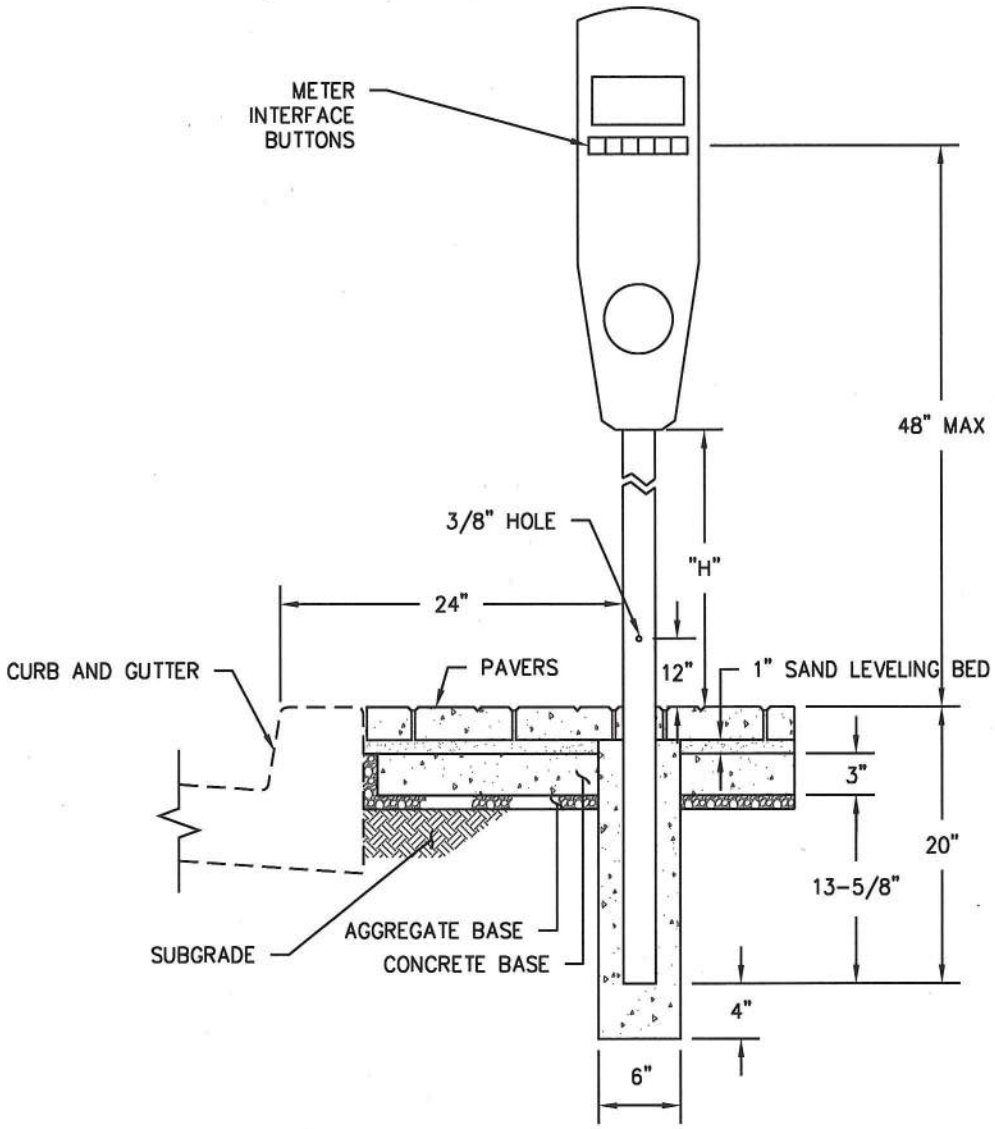
CITY OF WALNUT CREEK

PARKING METER POLE INSTALLATION

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-7-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-7.dwg



METHOD "D"
SIDEWALK WITH PAVERS
(SEE MS-8 FOR PAVER SECTION, SEE TS-7-1 FOR NOTES)

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

CITY OF WALNUT CREEK

PARKING METER POLE INSTALLATION

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-7-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-7.dwg

GREEN BACKGROUND WITH
0.25–INCH WHITE BORDER

WHITE LETTERING
HIGH INTENSITY
REFLECTIVE SHEETING

ATTACH WITH 5/16"
BUTTON PIN HEAD SOCKET
BOLTS INTO VANDAL CONE
NUT

REF: LATEST CA MUTCD/SIGNS/SECTION 2D.43

NOTES:

1. SIGNS SHALL BE FLAT TEMPERED 0.080" ALUMINUM ALLOY PLATES WITH 3M DIAMOND GRADE VIP SHEETING OR APPROVED EQUAL.
2. SIGN MOUNT SHALL BE SUPPLIED BY THE CITY OF WALNUT CREEK.
3. ALL CORNERS SHALL BE 1.5" RADIUS.
4. LETTERING SHALL BE AS FOLLOWS:
   5" CHESTERFIELD FONT – UPPER/LOWERC CASE (FOR RESIDENTIAL AREAS LESS THAN 35 MPH).
   HIGHWAY GOTHIC FONT (ALL OTHER AREAS 35 MPH AND GREATER)
5. SIGN TO BE LOCATED 8' MIN ABOVE GROUND. BASE TO BE INSTALLED ACCORDING TO TS–5.
6. SEE SHEET TS–6 FOR SIGN POST LOCATIONS.
7. SIGN SHALL BE MOUNTED ON TRAFFIC SIGNAL POLE OR ELECTROLIER IF AVAILABLE.
8. FOR ALL EXISTING SIGNS TO BE REMOVED, MOUNTING HARDWARE TO BE SALVAGED AND RETURNED TO THE CITY TRAFFIC MAINTENANCE DEPARTMENT.

CITY OF WALNUT CREEK

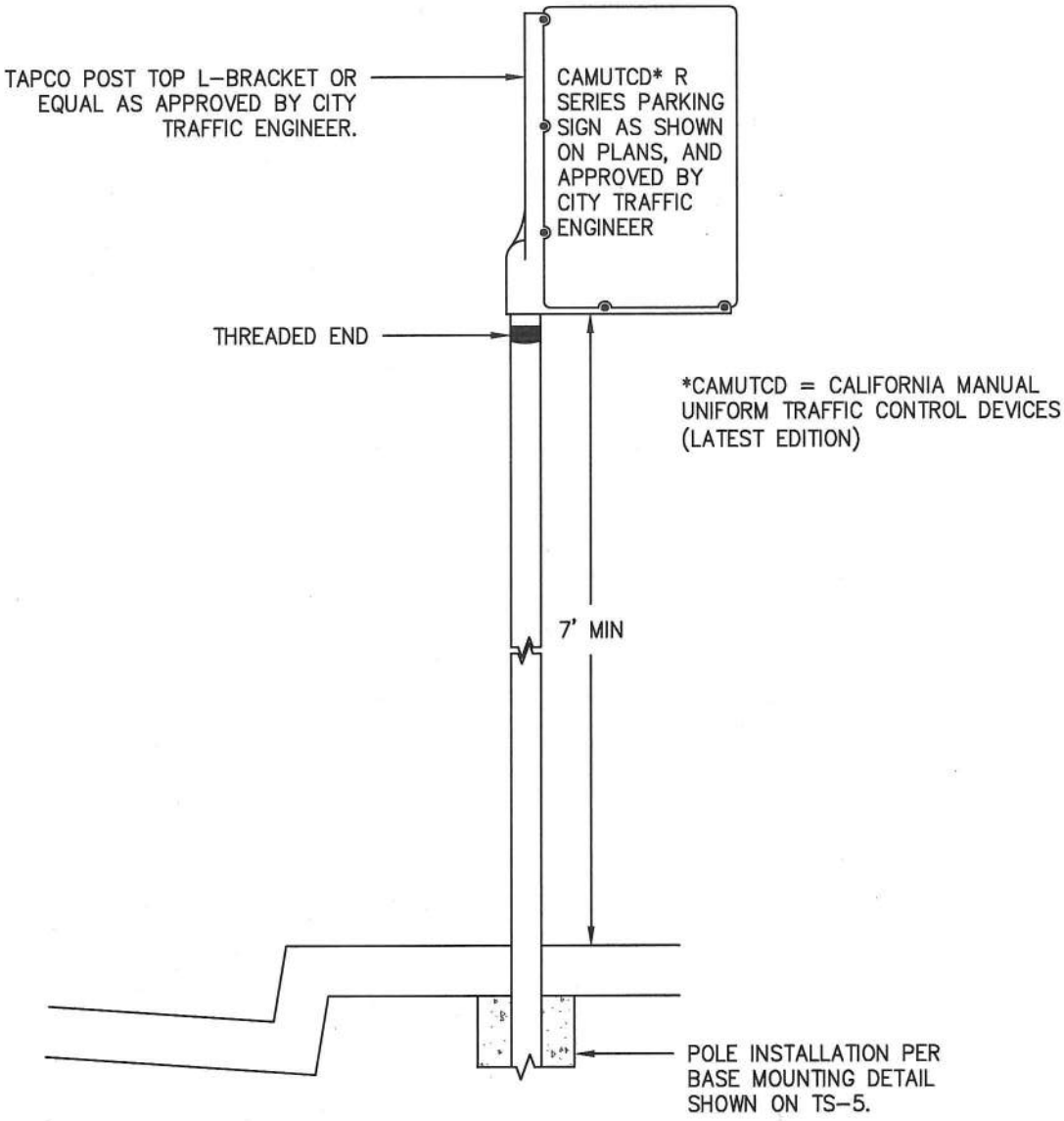
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

STREET NAME SIGN

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-8

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS–8.dwg



NOTES:

1. PIPE SHALL BE 9' LONG WITH ONE THREADED END.
2. THE L BRACKET USED SHALL BE THE THREADED TYPE.
3. ALL FIVE HOLES SHALL HAVE STAINLESS STEEL 5/16 BUTTON PIN SOCKET BOLTS WITH VANDAL CONE NUTS.
4. HIGH INTENSITY REFLECTIVE SHEETING.
5. INSTALLATION PER TS-5.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

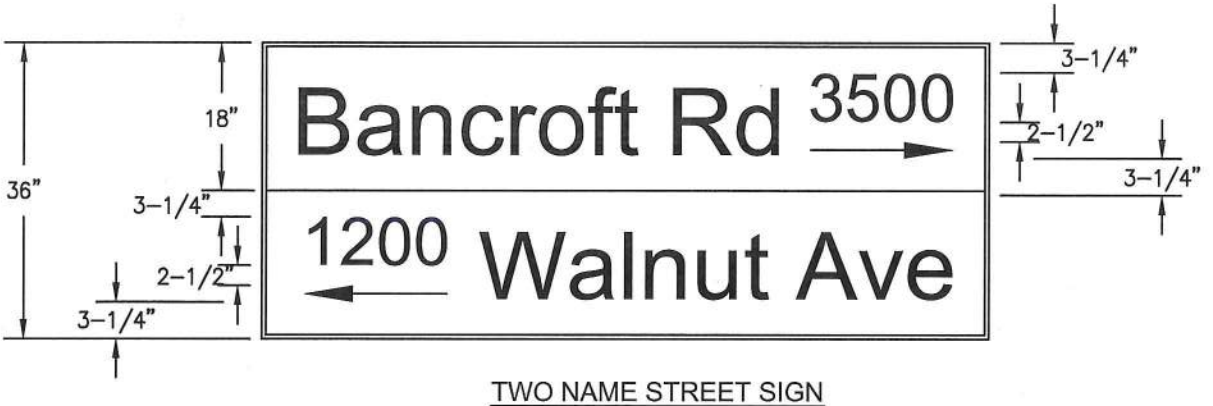
PARKING SIGN INSTALLATION

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-9

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-9.dwg

ONE NAME STREET SIGN



TWO NAME STREET SIGN

ENTIRE STREET NAME SIGN FACE SHALL BE SCOTCHLITE BRAND, OR EQUAL, DIAMOND GRADE VIP REFLECTIVE SHEETING, SILVER LEGEND ON GREEN BACKGROUND, ADHERED TO A 0.080 GAUGE ANODIZED ALUMINUM BLANK.

STREET NAME: 8" UPPER CASE 6" LOWER CASE SERIES D
BLOCK NUMBERS: 5" SERIES C
ARROW: 4"X6"
BORDER WIDTH: 1-1/4"

LENGTH OF SIGN BLANKS: 5' FOR 8 LETTERS, NUMBERS AND SPACES
6' FOR 10 LETTERS, NUMBERS AND SPACES
7' FOR 13 LETTERS, NUMBERS AND SPACES
8' FOR 15 LETTERS, NUMBERS AND SPACES

FOR 16 OR MORE LETTERS, NUMBERS AND SPACES, USE SMALLER SERIES SIZE ON A 8' LONG BLANK.

TYPE S MOUNTING: STRAP – MOUNTED SIGNAL POLE OR ELECTROLIER SIGNS SHALL BE SINGLE-FACED WITH BRACE OR CHANNEL SUPPORT BACKING.

MANUFACTURER'S IDENTIFICATION: THE YEAR OF MANUFACTURE AND MANUFACTURER'S INITIALS SHALL BE PERMANENTLY MARKED OR ETCHED ON THE BACK OF THE SIGNS. ALL IDENTIFICATION LETTERS AND NUMERALS SHALL BE PLACED SO AS NOT TO FALL BEHIND ANY POST OR FRAME MEMBER.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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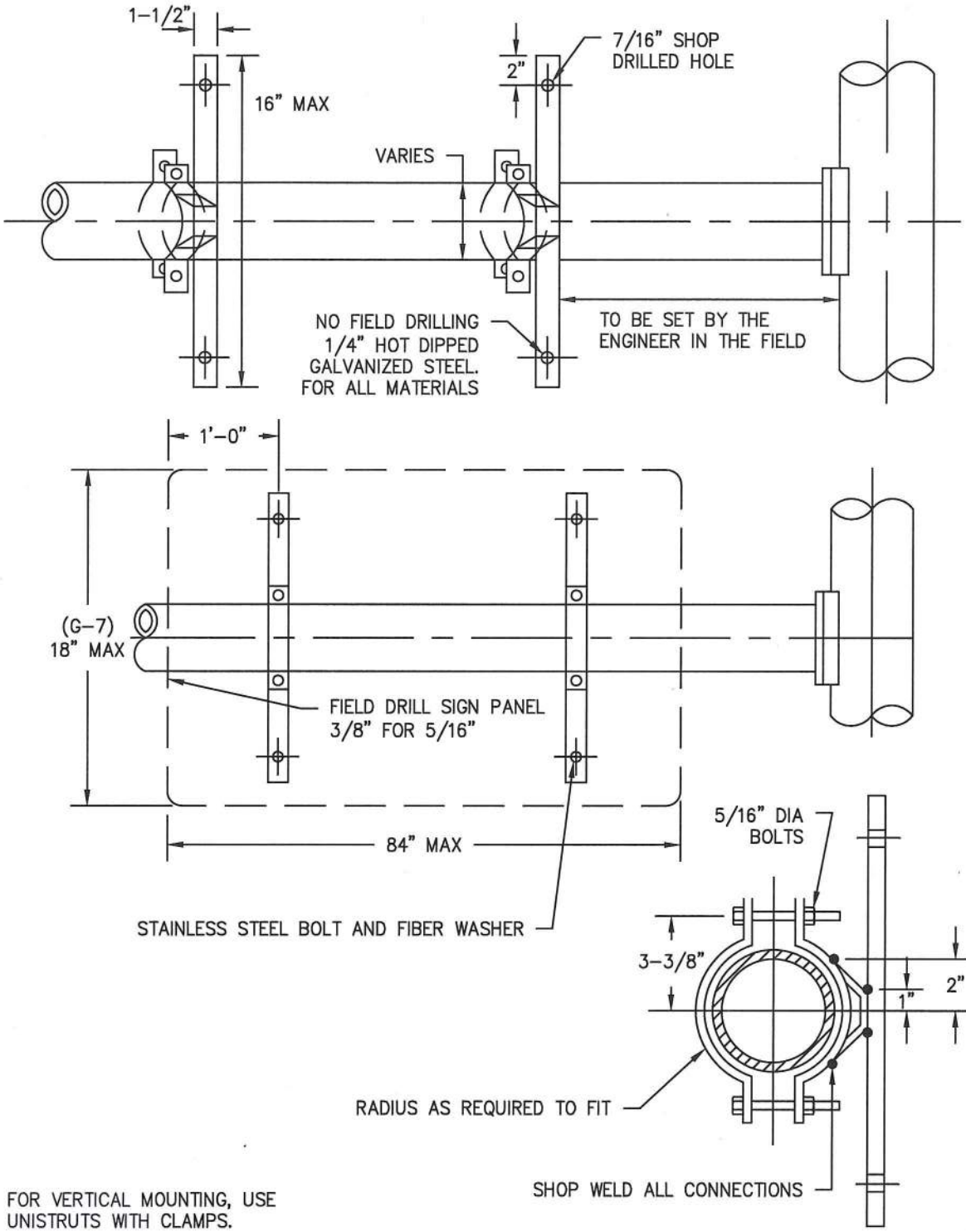
LARGE STREET NAME SIGNS

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-10

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-10.dwg



FOR VERTICAL MOUNTING, USE UNISTRUTS WITH CLAMPS.

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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CITY OF WALNUT CREEK

MAST ARM SIGN MOUNTING BRACKET

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-11

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-11.dwg

SHT 1 OF 1

WARNING SIGNS

CODE NO.	SIZE
W1	30"X30"
W2	30"X30"
W3	30"X30"
W4	30"X30"
W5	30"X30"
W6	24"X24"
W7	30"X30"
W8	30"X30"
W9	30"X30"
W11	30"X30"
W14	30"X30"
W3-2	30"X30"
W1-7	36"X18"
W1-6	36"X18"
S1-1	30"X30"
W74 (CA)	36"X36"

REGULATORY SIGNS

CODE NO.	SIZE
R2-1 (<30 MPH)	24"X30"
R2-1 (>30 MPH)	36"X45"
R3 (CA)	24"X30"
R5-1	30"X30"
R48 (CA)	30"X30"
R81 (CA)	24"X18"

TRAFFIC SIGNS SHALL BE THE "STANDARD" SIZE AS SHOWN IN THE LATEST STATE OF CALIFORNIA MUTCD AND SHALL BE USED WITH THE ABOVE EXCEPTIONS.

NOTE:
IF THERE IS A SIZE DISCREPANCY OR ANY OTHER QUESTION, PLEASE CONTACT THE PUBLIC WORKS DEPARTMENT, TRAFFIC ENGINEERING DIVISION

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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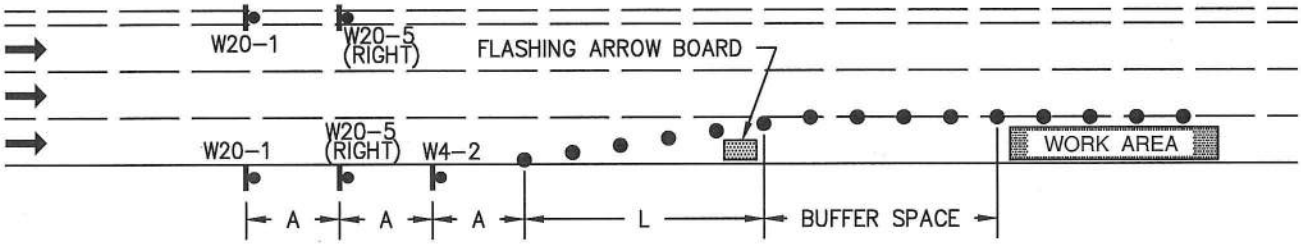
WARNING SIGN SIZE CHART

NO.	DATE	APP	REVISION DESCRIPTION

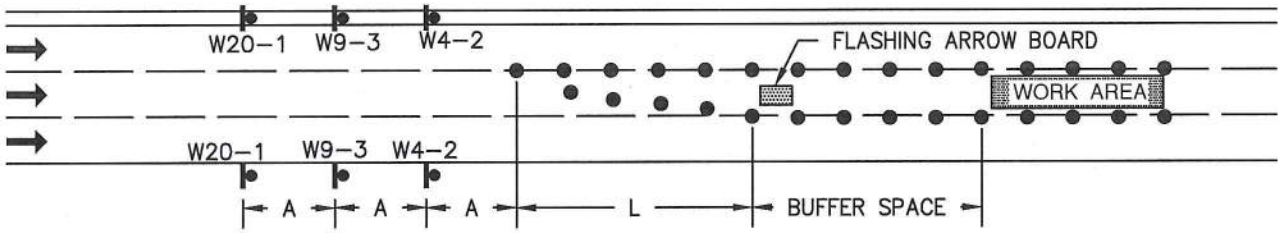
STANDARD DETAIL
TS-12

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-12.dwg



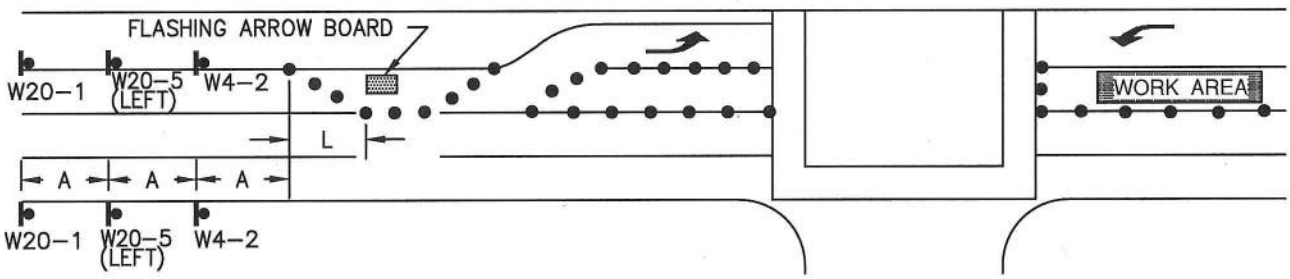
RIGHT LANE CLOSURE BEFORE INTERSECTION

ALSO APPLIES TO RIGHT LANE ON 4-LANE ROAD WITHOUT THE SIGNS ON THE MEDIAN



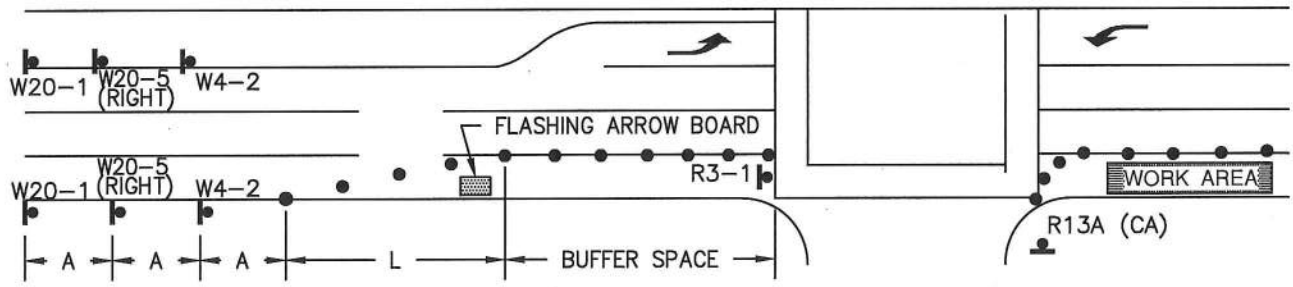
CENTER LANE CLOSURE BEFORE INTERSECTION

ALSO APPLIES TO CENTER LANE ON 4-LANE ROAD WITHOUT THE SIGNS ON THE MEDIAN



LEFT LANE CLOSURE BEYOND INTERSECTION

ALSO APPLIES TO NUMBER 2 LANE ON 4-LANE ROADS



RIGHT LANE CLOSURE BEYOND INTERSECTION

ALSO APPLIES TO NUMBER 2 LANE ON 4-LANE ROADS

SEE TS-13-4 & 13-5 FOR NOTES.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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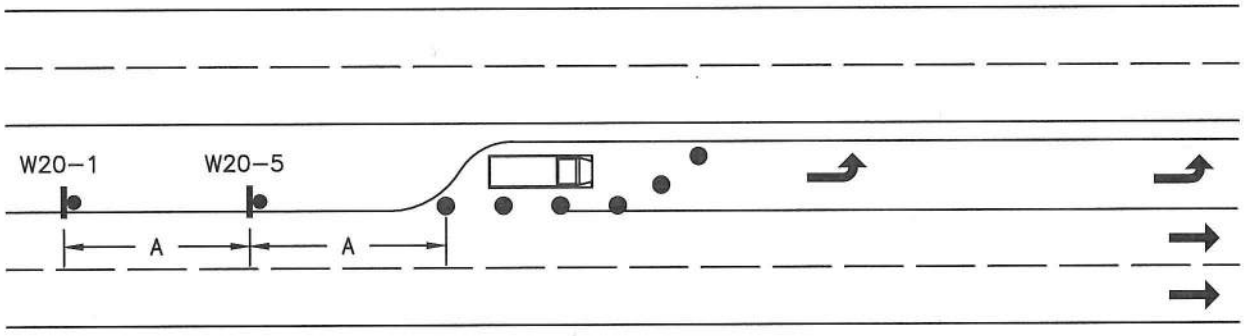
TYPICAL LANE CLOSURE

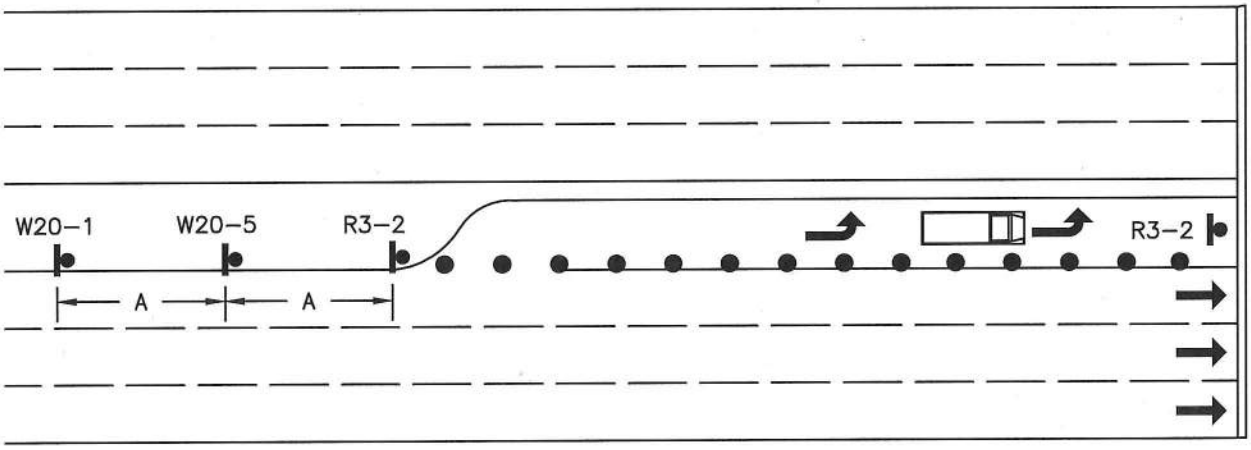
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-13-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-13-1.dwg



MEDIAN ISLAND MAINTENANCE



LEFT TURN POCKET LANE CLOSURE

SEE TS-13-5 FOR NOTES.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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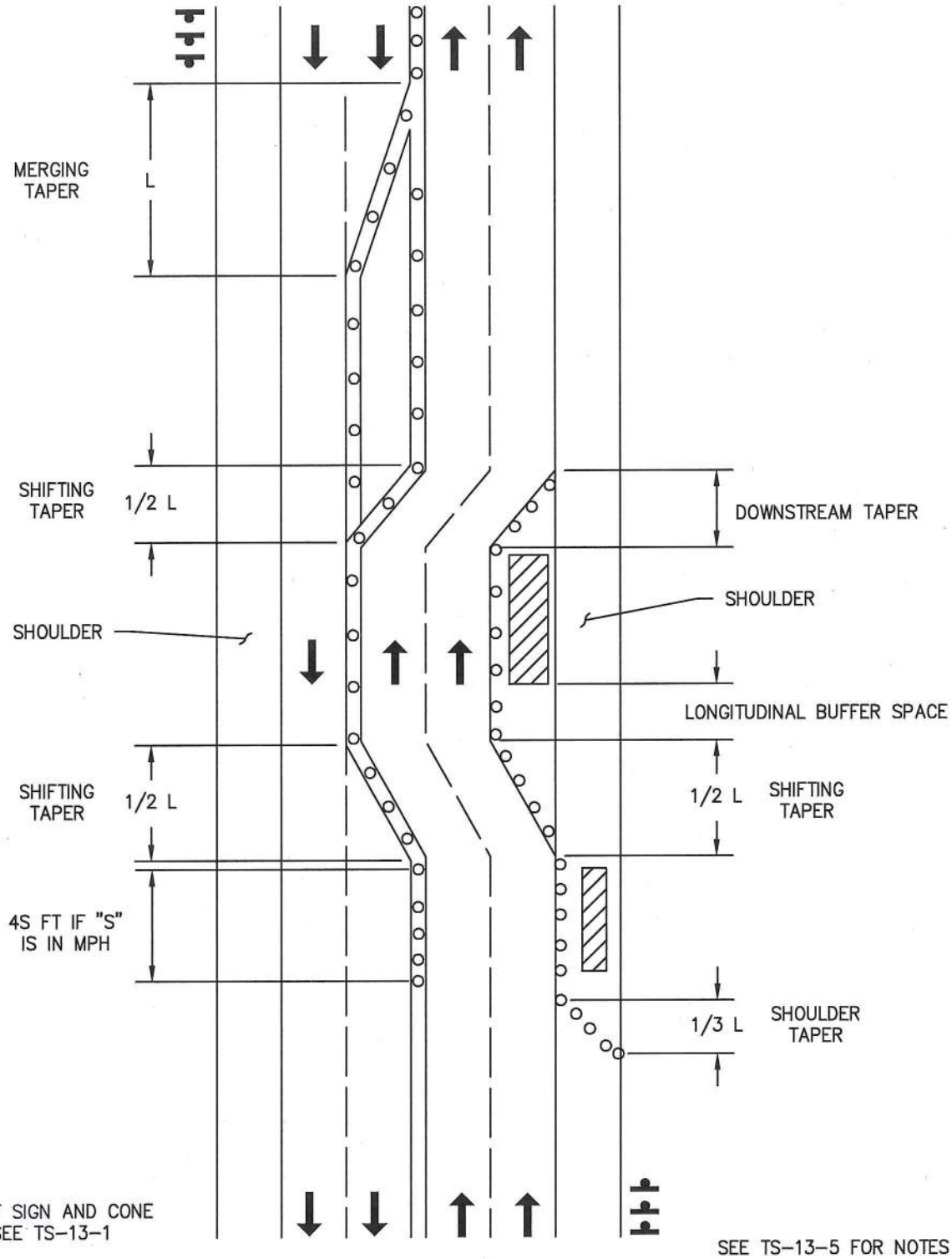
TYPICAL LANE CLOSURE (LEFT TURN LANES)

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-13-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-13-2.dwg



NOTE:
EXAMPLES OF SIGN AND CONE PLACEMENT SEE TS-13-1

SEE TS-13-5 FOR NOTES

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

CITY OF WALNUT CREEK

TYPES OF TAPERS AND BUFFER SPACES

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-13-3

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-13-3.dwg

APPROACH SPEED (MPH)	MAXIMUM CHANNELIZER SPACING		
	TAPER (FT)	TANGENT (FT)	CONFLICT (FT)
20	20	40	10
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	90	22
50	50	100	25
55	55	110	27

TABLE 1

FORMULA FOR L

SPEED	FORMULA
40 MPH OR LESS	$L = WS^2/60$
45 MPH OR GREATER	$L = WS$

L = TAPER LENGTH IN FEET
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED, OFF PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED ALL EXPRESSED IN MPH.

NOTES:
1. REFER TO CAMUTCD CHAPTER 6 FOR TYPICAL APPLICATION LAYOUTS FOR TRAFFIC CONTROL.
2. TABLE 3 MAY BE USED FOR CLOSING LANE OF 12' WIDE OR LESS. OTHERWISE REFER TO FORMULA FOR TAPER LENGTH.

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED) – 25 MPH OR LESS	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED) – 25 MPH TO 40 MPH	250 FEET	250 FEET	250 FEET
URBAN (HIGH SPEED) – MORE THAN 40 MPH	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY / FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

TABLE 2

MINIMUM TAPER LENGTH				
APPROACH SPEED (MPH)	MERGING L (FT)	SHIFTING L/2 (FT)	SHOULDER L/3 (FT)	DOWN STREAM (FT)
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50

TABLE 3

REF: LATEST EDITION OF CAMUTCD

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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TYPICAL LANE CLOSURE (NOTES)

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-13-4

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-13-4.dwg

SYMBOL	DESCRIPTION	SIGN LEGEND	DESCRIPTION
●	CONE OR PORTABLE DELINEATOR	W20-1 MIN SIZE 30" X 30"	ROAD WORK AHEAD
A	DISTANCE BETWEEN SIGNS	W9-3 W20-5 MIN SIZE 36" X 36"	CENTER LANE CLOSED AHEAD RIGHT OR LEFT LANE CLOSED AHEAD
L	LENGTH OF TAPER	W4-2	(SYMBOL) LANE SHIFT
		W3-2	(SYMBOL) NO LEFT TURN
		R3-1	(SYMBOL) NO RIGHT TURN

LEGENDS:

NOTES:
1. ALL SIGNS SHALL BE MOUNTED UPRIGHT. SIGNS LEANING AGAINST TYPE II BARRICADES ARE NOT ALLOWED.
2. THIS PLAN DOES NOT APPLY WHERE THERE ARE EMERGENCY CONDITIONS. UNDER EMERGENCY CONDITIONS, EQUIPMENT AND PERSONNEL WHICH ARE AVAILABLE SHOULD BE UTILIZED TO IMPLEMENT A CLOSURE EVEN THOUGH SUCH CLOSURES DO NOT MEET THE STANDARDS OF THIS PLAN. AS EQUIPMENT AND PERSONNEL BECOME AVAILABLE, AN IMMEDIATE EFFORT SHOULD BE MADE TO IMPLEMENT THE STANDARDS SHOWN ON THIS PLAN.
3. ALL ADVANCE WARNING SIGNS SHALL BE EQUIPPED WITH A MINIMUM OF TWO (2) FLAGS FOR DAYTIME CLOSURES. ALL ADVANCE WARNING SIGNS FOR NIGHT CLOSURES SHALL BE ILLUMINATED OR REFLECTORIZED.
4. ALL CONES SHALL BE 28" MINIMUM HEIGHT. THEY SHALL BE INTERNALLY ILLUMINATED OR REFLECTORIZED PER STATE SPECIFICATIONS FOR NIGHT CLOSURES.

LANE CLOSURE TIMES:

1. ONLY ONE LANE, PER DIRECTION, IS PERMITTED TO BE CLOSED ON AN ARTERIAL STREET BETWEEN THE HOURS OF 9:00 AM – 3:30 PM, MONDAY – FRIDAY. ONLY ONE LANE, PER DIRECTION, IS PERMITTED TO BE CLOSED ON YGNACIO VALLEY ROAD BETWEEN THE HOURS OF 9:00 AM – 3:00 PM, MONDAY – FRIDAY.
2. ONLY ONE LANE, PER DIRECTION, IS PERMITTED TO BE CLOSED ON ALL ARTERIAL STREETS BETWEEN THE HOURS OF 8:00 AM – 5:00 PM SATURDAY AND SUNDAY. (REQUIRES AN AFTER HOURS PERMIT)
3. LANE CLOSURES OF TWO OR MORE LANES PER DIRECTION SHALL ONLY OCCUR, EXCEPT FOR EMERGENCIES, BETWEEN 10:00 PM – 6:00 AM SUNDAY – THURSDAY. (REQUIRES AN AFTER HOURS PERMIT)

NOTES:
1. ALL CLOSURES ON AN ARTERIAL STREET MUST HAVE A SITE-SPECIFIC TRAFFIC CONTROL PLAN APPROVED BY THE CITY OF WALNUT CREEK'S TRAFFIC ENGINEERING DIVISION. SITE-SPECIFIC TRAFFIC CONTROL PLANS FOR ALL OTHER STREETS ARE AT THE TRAFFIC ENGINEER'S DISCRETION. PLAN MUST INCLUDE PEDESTRIAN AND BICYCLE ACCESS, CONTROLS AND PATHWAY.
2. LANE CLOSURES ARE NOT PERMITTED WITHIN THE CORE AREA OR ON YGNACIO VALLEY ROAD BETWEEN THANKSGIVING AND JANUARY 1, EXCEPT FOR EMERGENCY WORK.
3. THESE LANE CLOSURE TIMES SHALL BE ADHERED TO OR AS OTHERWISE DICTATED BY THE CITY APPROVED TRAFFIC CONTROL PLAN(S).

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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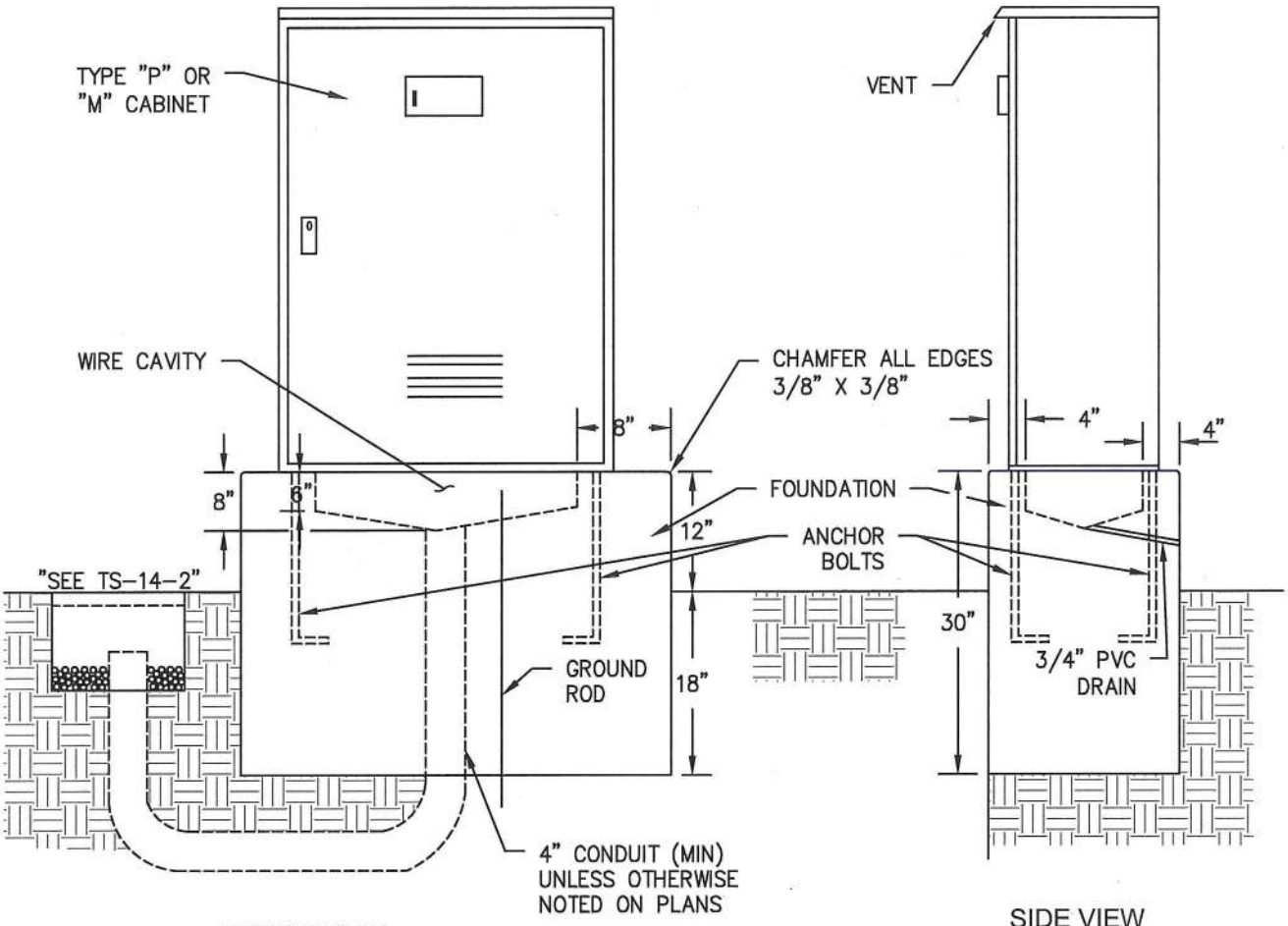
TYPICAL LANE CLOSURE (NOTES)

NO.	DATE	APP	REVISION DESCRIPTION

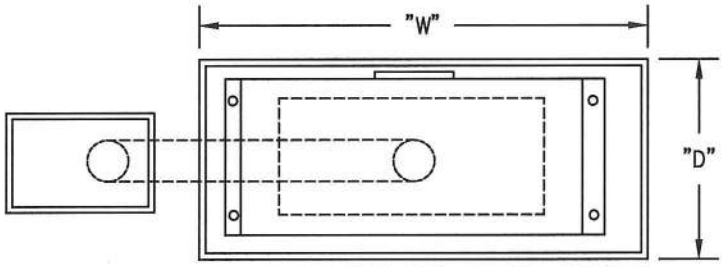
STANDARD DETAIL
TS-13-5

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-13-5.dwg



FRONT VIEW

SIDE VIEW



SERVICE AND PULL BOX MAY BE LOCATED AT EITHER SIDE OF CABINET

TOP VIEW

CABINET	"W"	"D"
TYPE M	38"	20"
TYPE P	52.5"	30"

NOTES:

1. EXACT LOCATION OF TRAFFIC CONTROLLER SERVICE AND PULL BOX WILL BE DETERMINED IN FIELD BY CITY ENGINEER.
2. PAINT: POLYESTER COAT GREEN COLOR NO. RAL6005.
3. ANCHOR BOLTS SHALL BE ¾"ø x 18" WITH A 2" 90° BEND

CITY OF WALNUT CREEK

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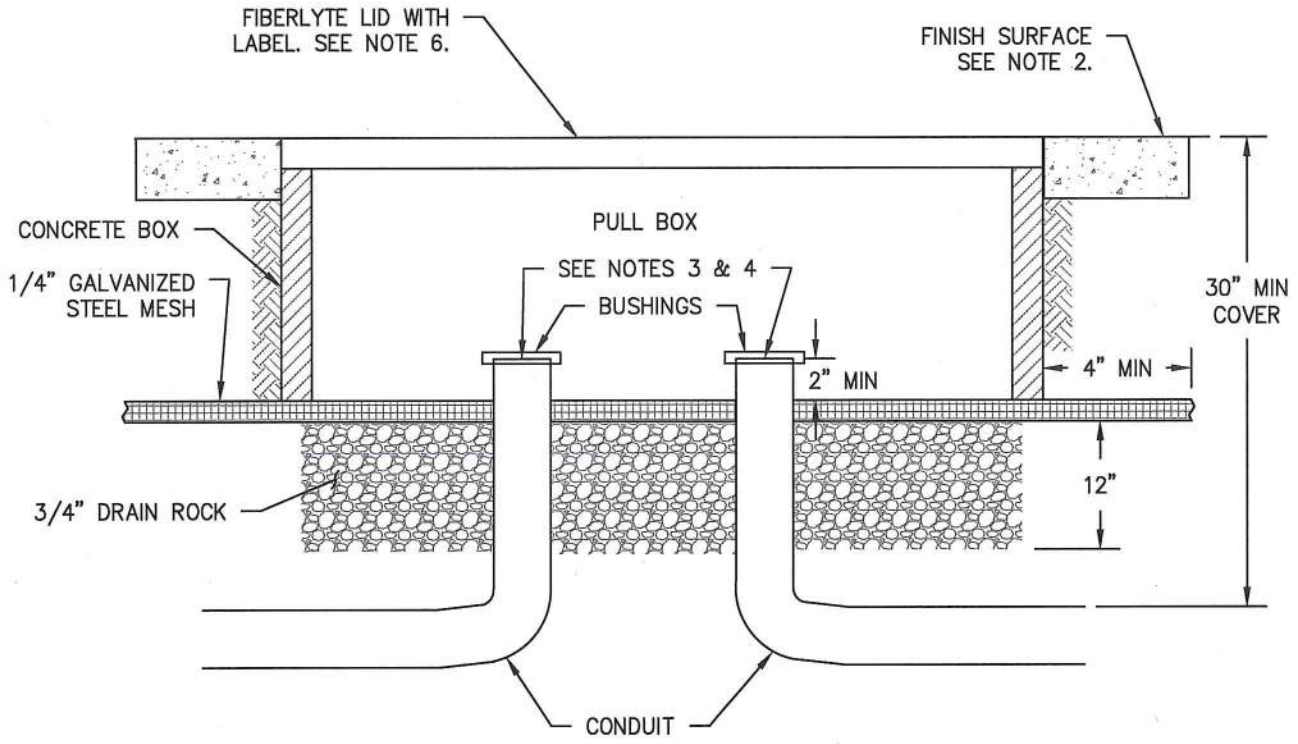
TYPE P AND TYPE M TRAFFIC SIGNAL CONTROLLER CABINET

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-14-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-14-1.dwg



NOTES:

1. GALVANIZED STEEL MESH NEEDS TO BE AT LEAST 1/8" THICK. THE "OPENINGS" IN THE GALVANIZED STEEL MESH SHOULD BE A MAX OF 1/2" WIDE.
2. WHEN THE PULL BOX IS NOT LOCATED IN A CONCRETE SIDEWALK AREA, A 6" CONCRETE BAND SHALL BE POURED AROUND THE BOX (MINIMUM 4" THICKNESS)
3. PLACE DUCT SEAL AFTER CONDUCTORS ARE PULLED INTO BOX.
4. PLACE PLASTIC BUSHING.
5. BOX SHALL BE CONCRETE WITH FIBRELYTE LID.
6. LID SHALL BE APPROPRIATELY LABELED. (e.g. "STREET LIGHTS", "TRAFFIC SIGNAL", "INTERCONNECT", etc.)

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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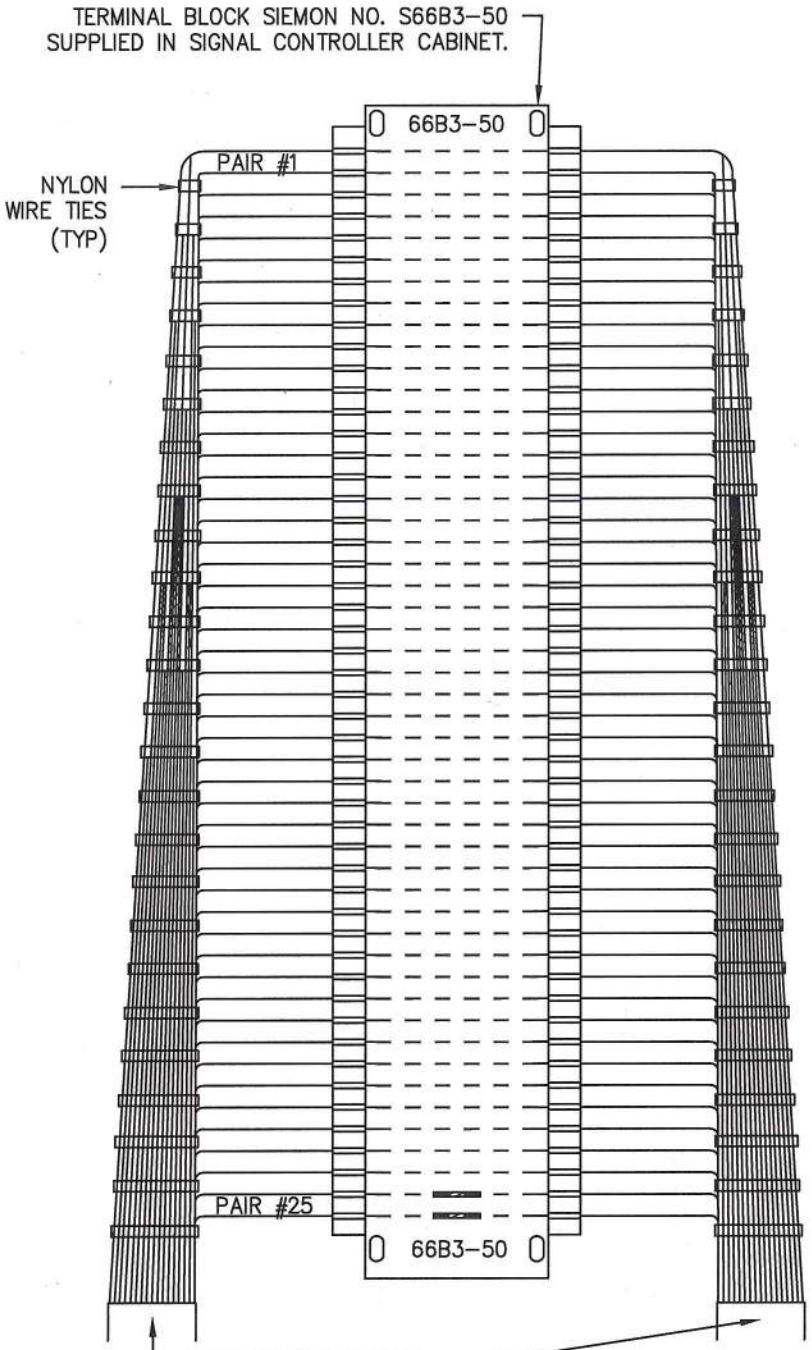
PULL BOX

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-14-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-14-2.dwg



PAIR #	COLOR CODE
1.	WHITE/BLUE
2.	WHITE/ORANGE
3.	WHITE/GREEN
4.	WHITE/BROWN
5.	WHITE/SLATE
6.	RED/BLUE
7.	RED/ORANGE
8.	RED/GREEN
9.	RED/BROWN
10.	RED/SLATE
11.	BLACK/BLUE
12.	BLACK/ORANGE
13.	BLACK/GREEN
14.	BLACK/BROWN
15.	BLACK/SLATE
16.	YELLOW/BLUE
17.	YELLOW/ORANGE
18.	YELLOW/GREEN
19.	YELLOW/BROWN
20.	YELLOW/SLATE
21.	VIOLET/BLUE
22.	VIOLET/ORANGE
23.	VIOLET/GREEN
24.	VIOLET/BROWN
25.	VIOLET/SLATE

50 JUMPERS TO BE SUPPLIED FOR EACH BLOCK

NOTES:
CABLE RUNNING FROM THE NORTH OR WEST SHOULD BE TERMINATED ON THE LEFT HAND SIDE OF BLOCK. CABLE RUNNING FROM THE SOUTH OR EAST SHOULD BE TERMINATED ON THE RIGHT HAND SIDE OF BLOCK.

CITY OF WALNUT CREEK WILL CONFIGURE ETHERNET OVER COPPER COMMUNICATIONS.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

TRAFFIC SIGNAL INTERCONNECT CABLE TERMINATION BLOCK WIRING DIAGRAM

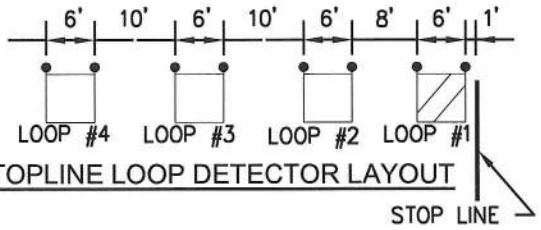
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-15

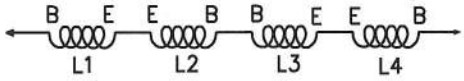
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-15.dwg

GENERAL NOTES:

1. LOOP MATERIALS SHALL COMPLY WITH CALTRANS STD. SPECIFICATIONS SECTION 86-5.
2. LOOPS SHALL BE TYPE "A" (6' X 6' SQUARE) OR "E" (6' DIA. ROUND) UNLESS OTHERWISE NOTED. LOOP WIRE SHALL BE TYPE 2. DETECTOR LEAD-IN CABLE (DLC), WHEN SPECIFIED, SHALL BE TYPE C. SLOTS SHALL BE FILLED WITH ELASTOMERIC (3M BLACK 5000) OR HOT MELT RUBBERIZED ASPHALT SEALANT.
3. FOR TYPE "D" LOOP LAYOUT AND WINDING, REFER TO LATEST CALTRANS STD. PLAN ES-5D.
4. HANDHOLES, WHEN SPECIFIED, SHALL BE INSTALLED AS SHOWN IN CALTRANS STD. PLAN ES-5D, AND SHALL BE TYPE A UNLESS OTHERWISE NOTED.
5. INSTALL 1.5" OF 3/8" HMA FLUSH WITH SURFACE WITH PRECAST BOX OVER CONCRETE COLLAR.
6. LOOP #1 SHOULD BE A TYPE D LOOP.



STOPLINE LOOP DETECTOR LAYOUT



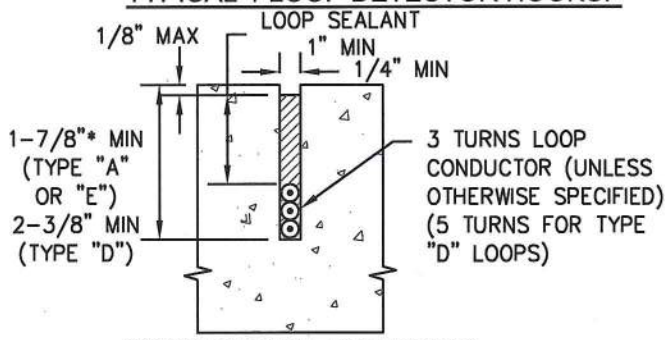
WIND LOOPS CLOCKWISE
B = BEGINNING
E = END

TYPICAL 4-LOOP DETECTOR HOOKUP

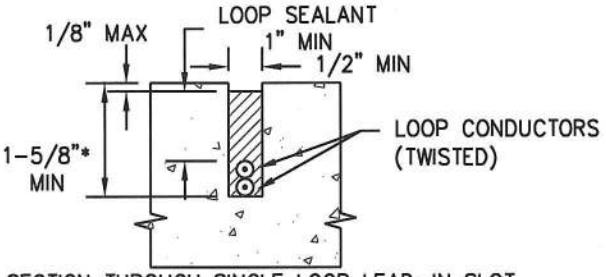
LOOP INSTALLATION PROCEDURE:

LOOP LOCATIONS SHALL BE APPROVED PRIOR TO INSTALLATION.

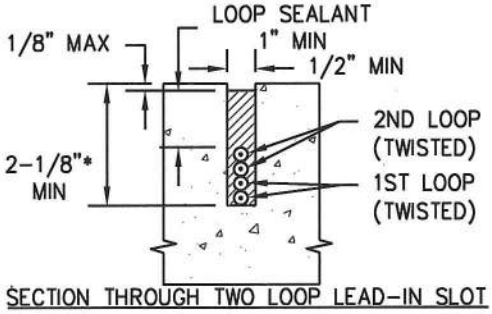
1. SAW SLOTS IN PAVEMENT FOR LOOP CONDUCTORS AS SHOWN IN DETAILS. BOTTOM OF SAW SLOT SHALL BE SMOOTH WITH NO SHARP EDGES.
2. SLOTS SHALL BE WASHED, BLOWN OUT AND THOROUGHLY DRIED BEFORE INSTALLING LOOP CONDUCTORS.
3. INSTALL LOOP CONDUCTOR IN SLOT USING A 3/16" TO 1/4" THICK WOOD PADDLE OR SIMILAR BLUNT TOOL.
4. ALLOW ADDITIONAL LENGTH OF CONDUCTOR FOR THE RUN TO TERMINATION PULL BOX PLUS 5 FEET OF SLACK IN PULL BOX.
5. THE ADDITIONAL LENGTH OF EACH CONDUCTOR FOR EACH LOOP SHALL BE TWISTED TOGETHER INTO A PAIR (AT LEAST 2 TURNS PER FOOT) BEFORE BEING PLACED IN THE SLOT AND CONDUIT TO TERMINATION PULL BOX.
6. NO MORE THAN 2 TWISTED PAIRS SHALL BE INSTALLED IN ONE SAWED SLOT.
7. IDENTIFY AND TAG LOOP CIRCUIT PAIRS IN THE TERMINATION PULL BOX WITH LANE NUMBER, LOOP NUMBER AND BEGINNING OF LOOP CONDUCTOR. IDENTIFY AND TAG LEAD-IN CABLE WITH SENSOR NUMBER AND PHASE. USE SELF-CLINCHING WIRE TIES. BEGINNING AND LOOP NUMBER MAY BE IDENTIFIED WITH BANDS OF COLORED ELECTRICAL TAPE, USING UNIQUE COLORS FOR EACH LANE.
8. FILL SLOTS AS SHOWN IN DETAILS.
9. SPLICE LOOP CONDUCTORS TO DLC IN PULL BOX ONLY (NOT HANDHOLE). ALL SPLICES SHALL BE SOLDERED USING ROSIN-CORE SOLDER. OPEN FLAME SOLDERING IS NOT PERMITTED.
10. ENDS OF DLC AND LOOP WIRE SHALL BE WATERPROOFED PRIOR TO INSTALLING IN CONDUIT TO PREVENT MOISTURE FROM ENTERING THE CABLE.
11. DLC SHALL NOT BE SPLICED BETWEEN THE PULL BOX AND THE CONTROLLER CABINET TERMINALS.
12. CHECK EACH LOOP CIRCUIT FOR CONTINUITY, CIRCUIT RESISTANCE AND INSULATION RESISTANCE AT THE CONTROLLER CABINET LOCATION.
13. WHERE LOOP CONDUCTORS ARE NOT TO BE SPLICED TO A LEAD-IN CABLE, THE ENDS OF THE CONDUCTORS SHALL BE SOLDERED, TAPED AND WATERPROOFED WITH AN ELECTRICAL INSULATING COATING.
14. DISTANCE BEWEEN SIDE OF LOOP AND A LEAD-IN SAW CUT FROM ADJACENT DETECTORS SHALL BE 2 FEET MINIMUM. DISTANCE BETWEEN LEAD-IN SAW CUTS SHALL BE 6 INCHES MINIMUM.
15. LOOPS SHALL BE CENTERED IN LANES, UNLESS OTHERWISE NOTED.



SECTION THROUGH LOOP WINDING



SECTION THROUGH SINGLE LOOP LEAD-IN SLOT



SECTION THROUGH TWO LOOP LEAD-IN SLOT

SLOT DETAILS

*SPECIAL NOTE:
ADD 1" TO SLOT DEPTH WHEN LOOP OR LEAD-IN IS WITHIN 6' OF GUTTER LIP.

CITY OF WALNUT CREEK

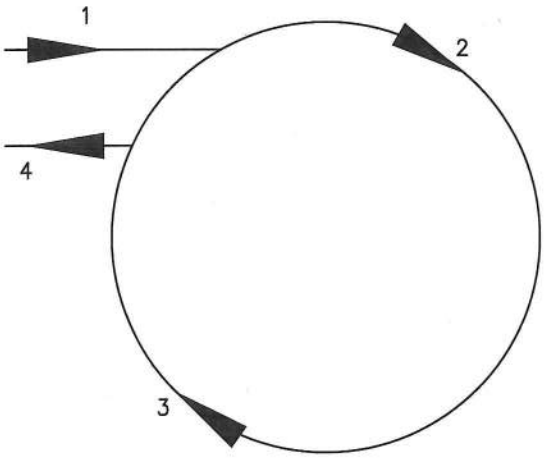
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	R.R.	L.P.	NOVEMBER 2018

LOOP DETECTORS

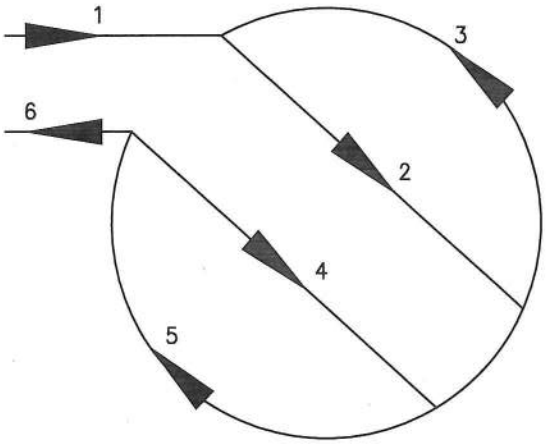
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-16-1

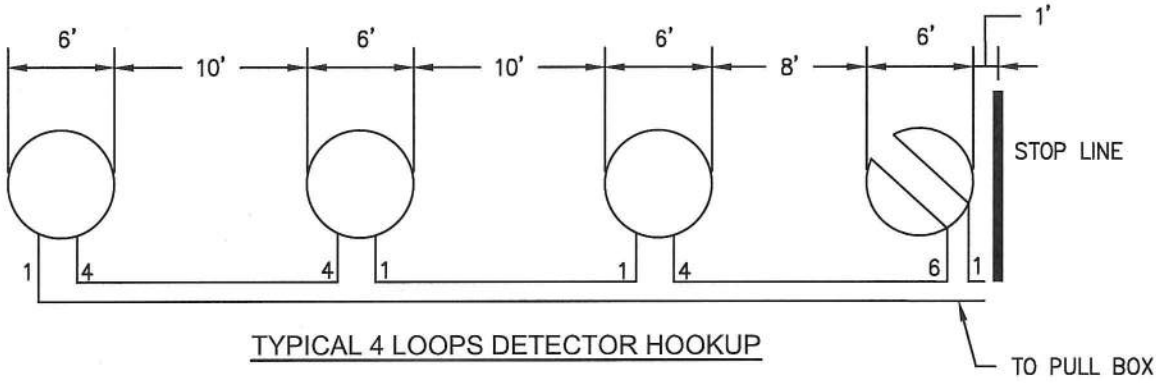
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-16-1.dwg



TYPE E LOOP



TYPE D LOOP



TYPICAL 4 LOOPS DETECTOR HOOKUP

NOTES:

1. LOOPS SHALL BE TYPE "E" (6' DIA ROUND) PER CALTRANS STANDARD PLANS ES-5B UNLESS OTHERWISE NOTED.
2. LOOP WIRE SHALL BE TYPE 2, DETECTOR LEAD-IN CABLE (DLC) SHALL BE TYPE 2C.
3. SLOTS SHALL BE FILLED WITH HOT MELT RUBBERIZED ASPHALT SEALANT.
4. HAND-HOLES SHALL BE INSTALLED AS SHOWN IN CALTRANS STANDARD PLAN ES-5D AND SHALL BE TYPE A UNLESS OTHERWISE NOTED.

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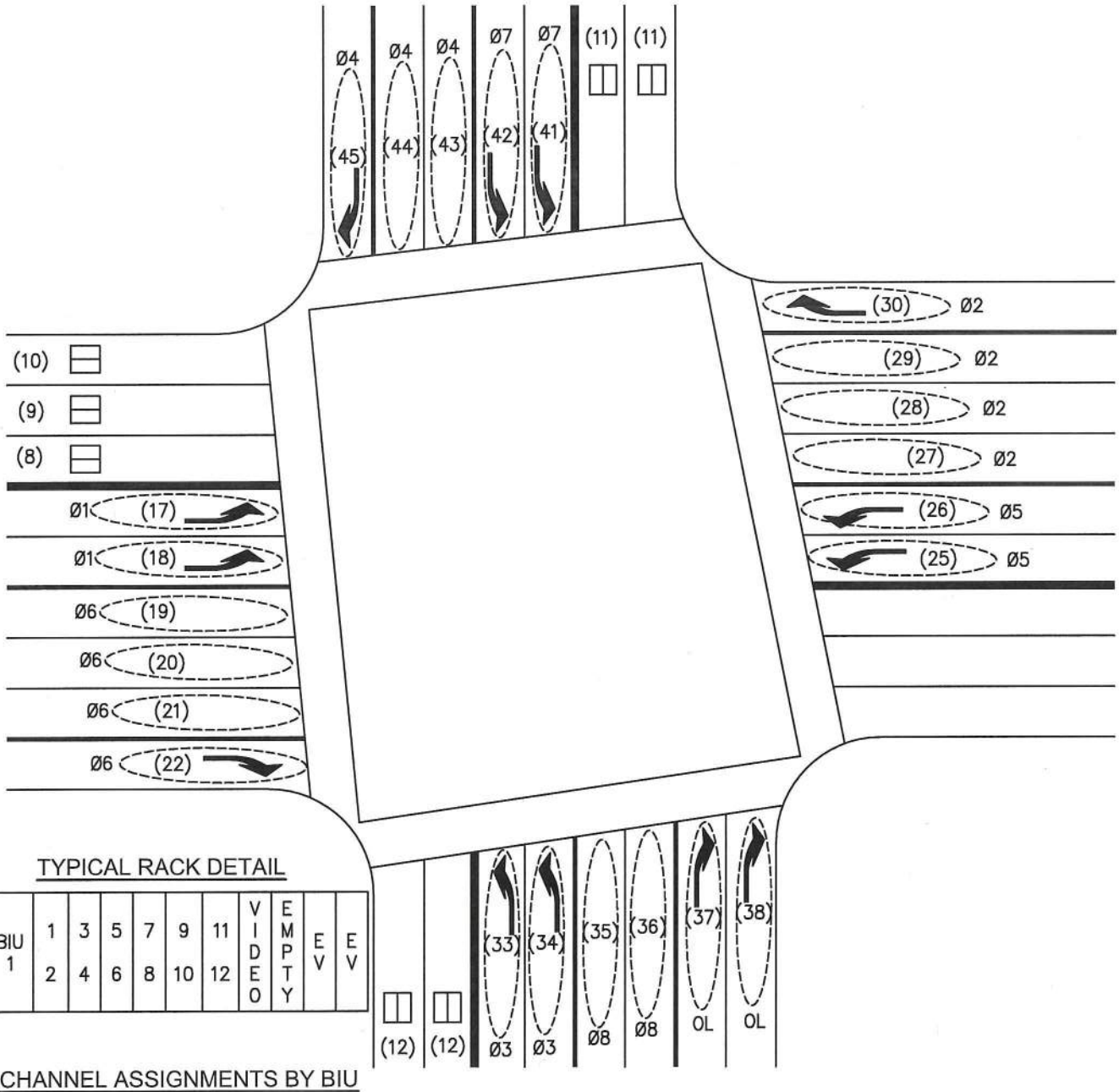
CITY OF WALNUT CREEK

LOOP DETECTORS

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-16-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-16-2.dwg



TYPICAL RACK DETAIL

BIU 1	1 2	3 4	5 6	7 8	9 10	11 12	VIDEO	EMPTY	EV	EV

CHANNEL ASSIGNMENTS BY BIU

BIU	APPROACH	CHANNEL ASSIGNMENTS	NOTES
1	ADV LOOPS & SYSTEM LOOPS	1–4 5–12	12 DET CHANNELS REMAIN IN BIU–1 WITH VIDEO DETECT EQUIP SLOTS 13–16
2	E/B W/B	17–24 25–32	VIRTUAL BIU THROUGH VIDEO UNIT
3	N/B	33–40	VIRTUAL BIU THROUGH VIDEO UNIT

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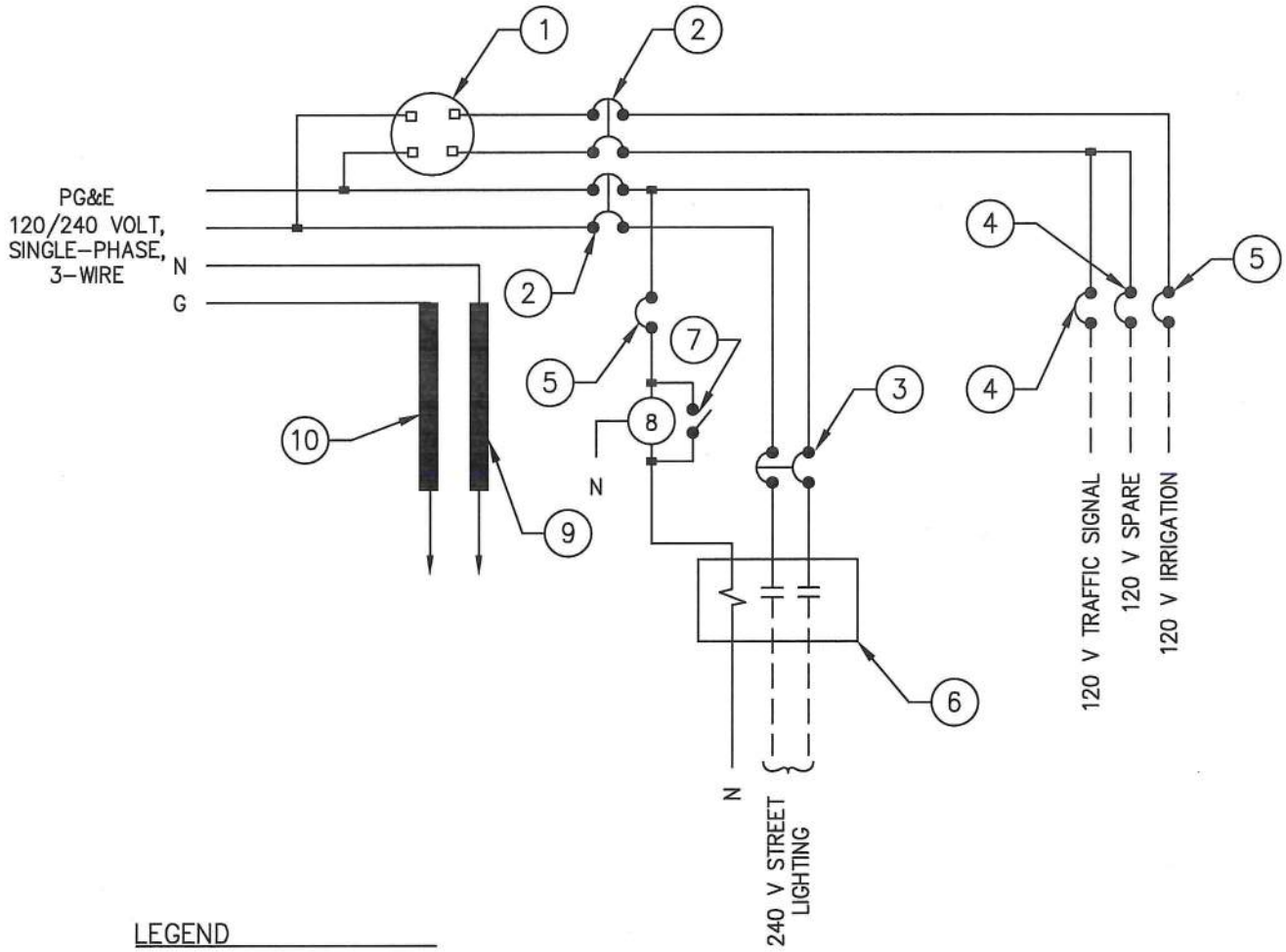
VIDEO DETECTION CHANNEL ASSIGNMENT

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-16-3

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-16-3.dwg



LEGEND

1. PG&E METER
2. 100 A, 240 V, 2P, CB
3. 30 A, 240 V, 2P, CB
4. 30 A, 120 V, 1P, CB
5. 15 A, 120 V, 1P, CB
6. 30 A, 2P, NORMALLY OPEN CONTACTOR
7. 15 A, 1P, TEST SWITCH
8. INTERNAL PHOTOCELL
9. NEUTRAL BAR LUG
10. GROUND BAR LUG

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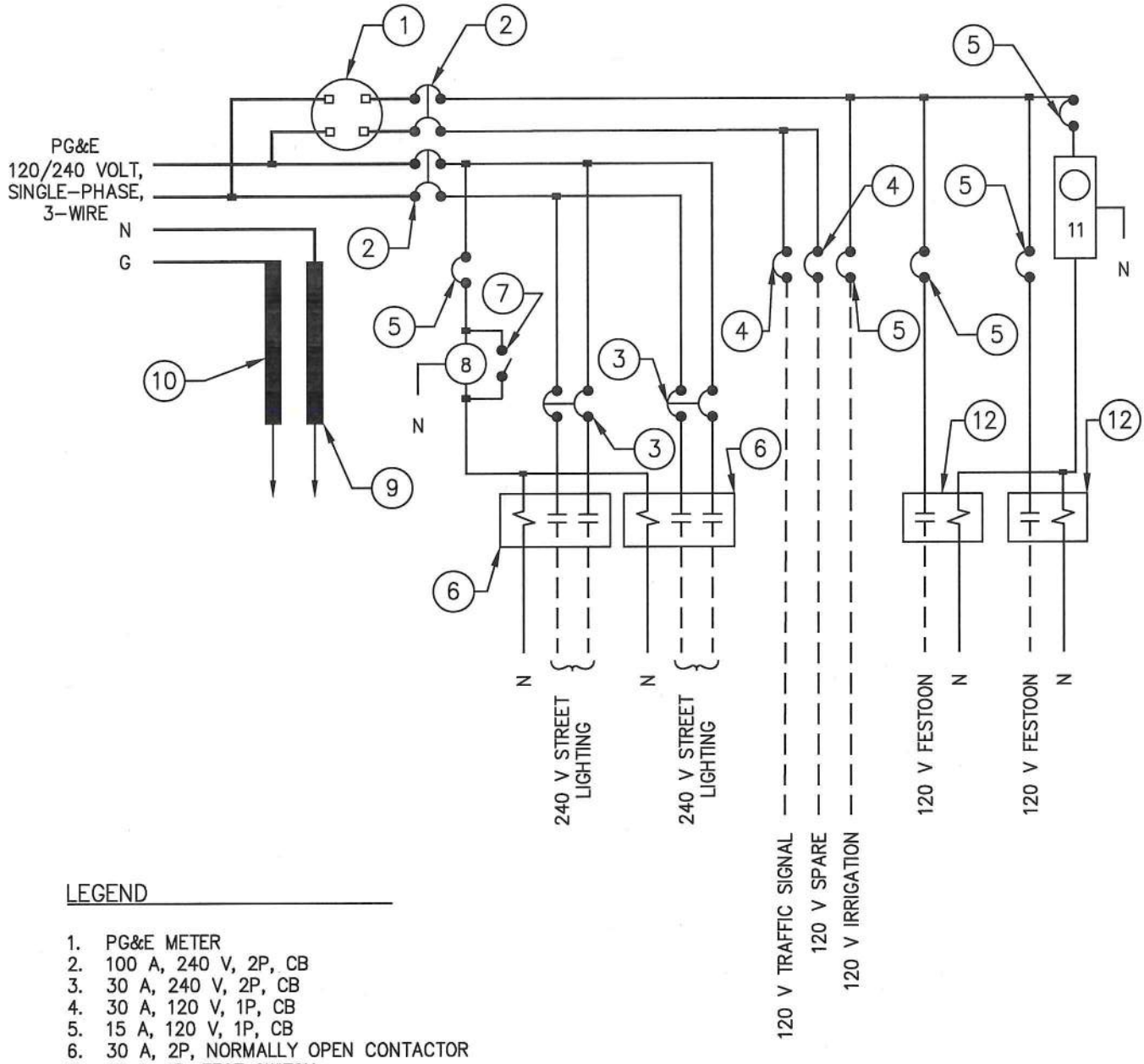
CITY OF WALNUT CREEK

TYPE III AF 26-100 SERVICE WIRING DIAGRAM

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-17-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-17-1_updated.dwg



LEGEND

1. PG&E METER
2. 100 A, 240 V, 2P, CB
3. 30 A, 240 V, 2P, CB
4. 30 A, 120 V, 1P, CB
5. 15 A, 120 V, 1P, CB
6. 30 A, 2P, NORMALLY OPEN CONTACTOR
7. 15 A, 1P, TEST SWITCH
8. INTERNAL PHOTOCELL
9. NEUTRAL BAR LUG
10. GROUND BAR LUG
11. ELECTRIC TIME CLOCK
12. 30 A, 1P, NORMALLY OPEN CONTACTOR

CITY OF WALNUT CREEK

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TYPE III AF 27-100 SERVICE WIRING DIAGRAM

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-17-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-17-2_updated.dwg

GENERAL NOTES:

1. SERVICE EQUIPMENT ENCLOSURES AND METERING EQUIPMENT SHALL MEET THE REQUIREMENTS OF THE SERVING UTILITY. WHEN THE SERVING UTILITY PROVIDES BOTH METERED AND UNMETERED CIRCUITS, A SEPARATE BUS SHALL BE PROVIDED FOR EACH CIRCUIT. THE METER AREA SHALL HAVE A SEALABLE, LOCKABLE, RAINTIGHT COVER THAT CAN BE REMOVED WITHOUT THE USE OF TOOLS.

2. SERVICE EQUIPMENT ENCLOSURES SHALL BE FACTORY WIRED AND CONFORM TO NEMA STANDARDS.

3. THE DEAD FRONT PANELS ON SERVICE EQUIPMENT ENCLOSURES SHALL HAVE A CONTINUOUS STAINLESS STEEL PIANO HINGE. THE PANEL IN FRONT OF THE BREAKERS SHALL BE SECURED WITH CAPTIVE SCREWS; THE LOWER PANEL SHALL BE SECURED WITH A LATCH OR CAPTIVE SCREWS.

4. THE EXTERIOR DOOR SHALL HAVE PROVISIONS FOR PADLOCKING WITH A CITY–FURNISHED LOCK. THE PADLOCK HOLE SHALL BE A MINIMUM DIAMETER OF 7/16 INCH.

5. FASTENERS ON THE EXTERIOR OF THE ENCLOSURE SHALL BE VANDAL–RESISTANT AND SHALL NOT BE REMOVABLE FROM FROM THE EXTERIOR. ALL SCREWS, NUTS, BOLTS AND WASHERS SHALL BE STAINLESS STEEL.

6. TERMINAL LUGS SHALL BE COPPER OR TIN–PLATED ALUMINUM. SOLID NEUTRAL TERMINAL STRIP SHALL BE RATED FOR 200 AMPERES AND FOR USE WITH COPPER CONDUCTORS. ALL TERMINALS SHALL BE COMPATIBLE WITH COPPER CONDUCTORS TO SUIT THE CONDUCTORS SHOWN ON THE PLAN. THE TERMINALS SHALL INCLUDE BUT ARE NOT LIMITED TO: A) INCOMING TERMINALS (LANDING LUGS). B) NEUTRAL LUGS. C) SOLID NEUTRAL TERMINAL STRIP. D) TERMINAL STRIPS FOR CONDUCTORS WITHIN THE ENCLOSURE.

7. ALL CONTROL WIRING SHALL BE 600–VOLT NO. 14 STRANDED MACHINE TOOL WIRE. WHERE SUBJECT TO FLEXING, 19 STRAND WIRE SHALL BE USED.

8. ALL MAIN BUSSING INCLUDING PG&E LANDING LUGS SHALL BE RATED FOR 200 AMPERES UNLESS SHOWN OTHERWISE ON DRAWINGS AND FOR USE WITH COPPER CONDUCTORS.

9. A PLASTIC LAMINATED WIRING DIAGRAM SHALL BE PROVIDED WITH BRASS MOUNTING EYELETS AND ATTACHED TO THE INSIDE OF THE ENCLOSURE OR THE WIRING DIAGRAM SHALL BE MOUNTED TO THE INTERIOR OF THE DOOR WITH AN UL OR ETL APPROVED METHOD.

10. AN ENGRAVED PHENOLIC NAMEPLATE ON THE DEAD FRONT PANEL INDICATING THE FUNCTION OF EACH CIRCUIT WITHIN THE ENCLOSURE SHALL BE INSTALLED WITH STAINLESS STEEL, RIVETS OR STAINLESS STEEL SCREWS: A) ADJACENT TO THE BREAKER OR DEVICE. CHARACTER SIZE SHALL BE A MINIMUM OF 1/8 INCH. B) AT TOP OF THE EXTERIOR DOOR PANEL INDICATING SYSTEM NO., VOLTAGE LEVEL, AND NUMBER OF PHASES. CHARACTER SIZE SHALL BE A MINIMUM OF 3/16 INCH.

11. THE PLAN SHOWS THE APPROXIMATE LOCATION OF DEVICES WITHIN THE ENCLOSURE. COMPONENTS MAY BE REARRANGED. HOWEVER, THE "WORKING" CLEARANCES WITHIN THE ENCLOSURE SHALL BE MAINTAINED.

12. IN UNPAVED AREAS A RAISED PCC PAD 24" X 3 1/2" X WIDTH OF FOUNDATION SHALL BE PLACED IN FRONT OF NEW SERVICE INSTALLATION. PAD SHALL BE SET TO ELEVATION OF FOUNDATION UNLESS SHOWN OTHERWISE.

13. INTERNAL BUSSING, WHERE SHOWN, IS TYPICAL ONLY. ALTERNATIVE DESIGNS OF PROPOSED SERVICE EQUIPMENT ENCLOSURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

14. CIRCUIT BREAKERS MAY BE MOUNTED IN THE VERTICAL POSITION ONLY.

15. ON TYPE AF SERVICE EQUIPMENT ENCLOSURES, THE METER VIEWING WINDOWS SHALL BE LOCATED ON THE FRONT SIDE OF THE SERVICE EQUIPMENT ENCLOSURE.

16. IF SERVICE CABINET TYPE III AF IS TO BE INSTALLED IN THE DOWNTOWN AREA (AS DETERMINED BY THE ENGINEER), A TIMER SHALL BE INSTALLED IN THE SERVICE CABINET TO CONTROL THE STREETLIGHT TIMING AND OTHER ITEMS THAT MAY BE DEEMED NECESSARY BY THE ENGINEER.

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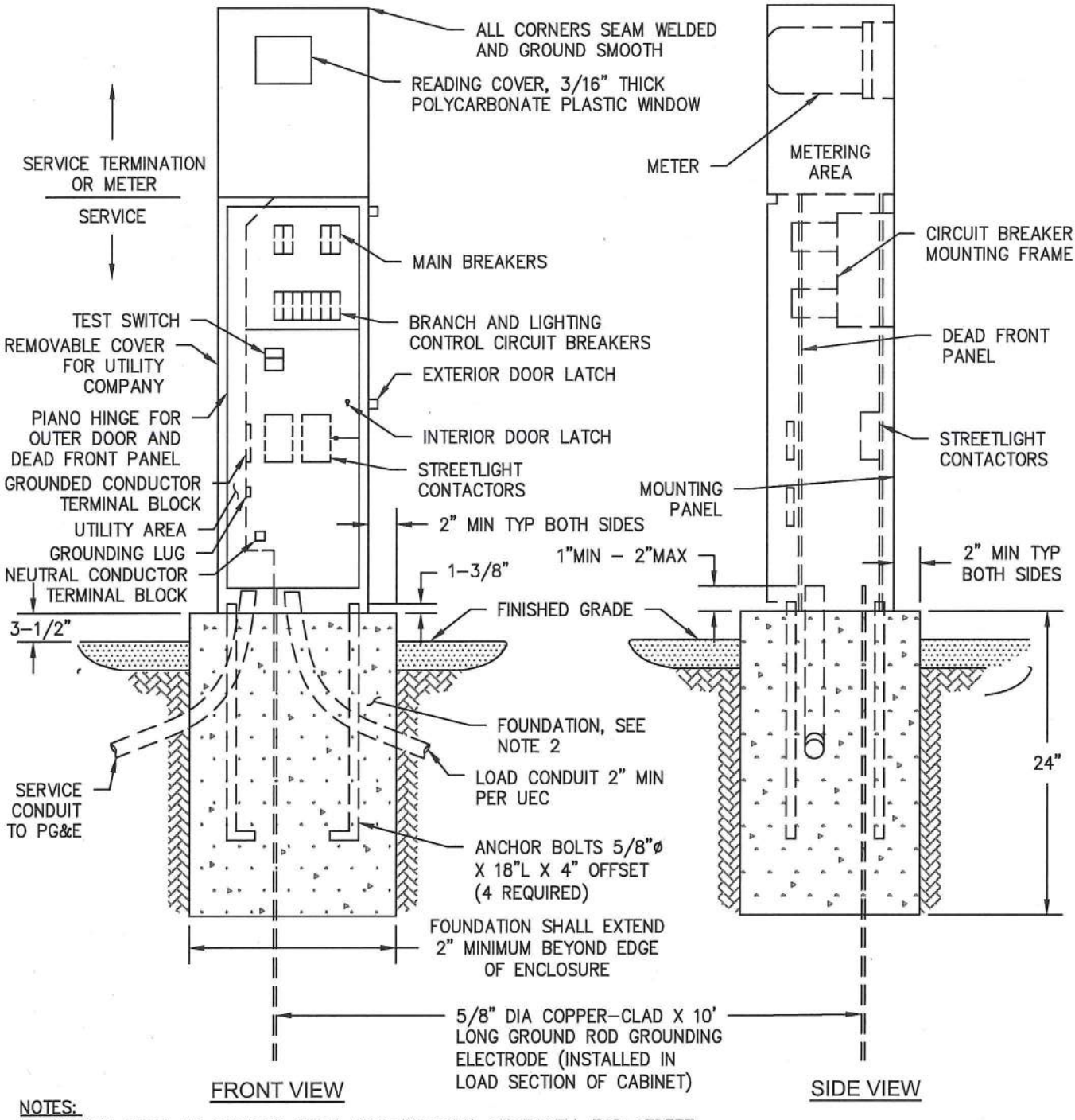
SERVICE EQUIPMENT TYPE III AF NOTES

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-17-3

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-17-3.dwg



NOTES:

1. CABINET SHALL BE LOCATED SUCH THAT INTERNAL PHOTOCELL FOR STREET LIGHTS IS NOT TRIGGERED BY VEHICLE HEADLIGHTS
2. CONCRETE FOUNDATION SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" IN THE STATE STANDARD SPECIFICATIONS.

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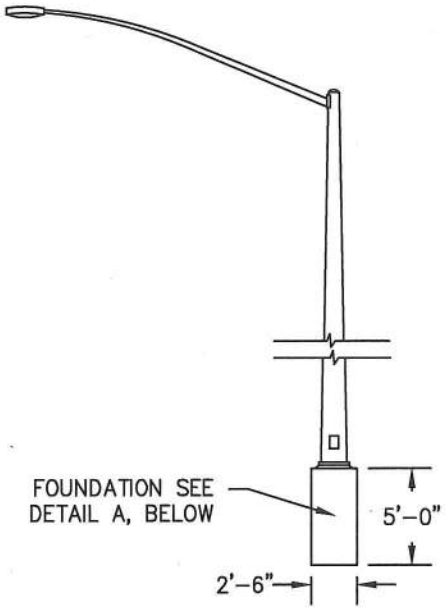
SERVICE EQUIPMENT TYPE III AF (DETAILS)

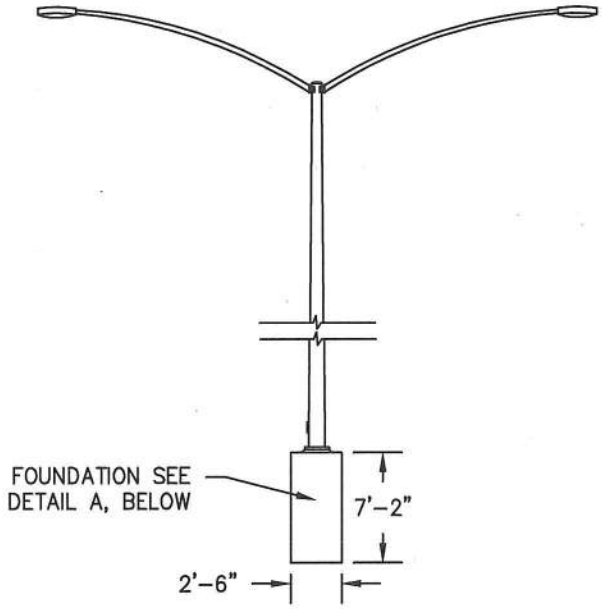
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-17-4

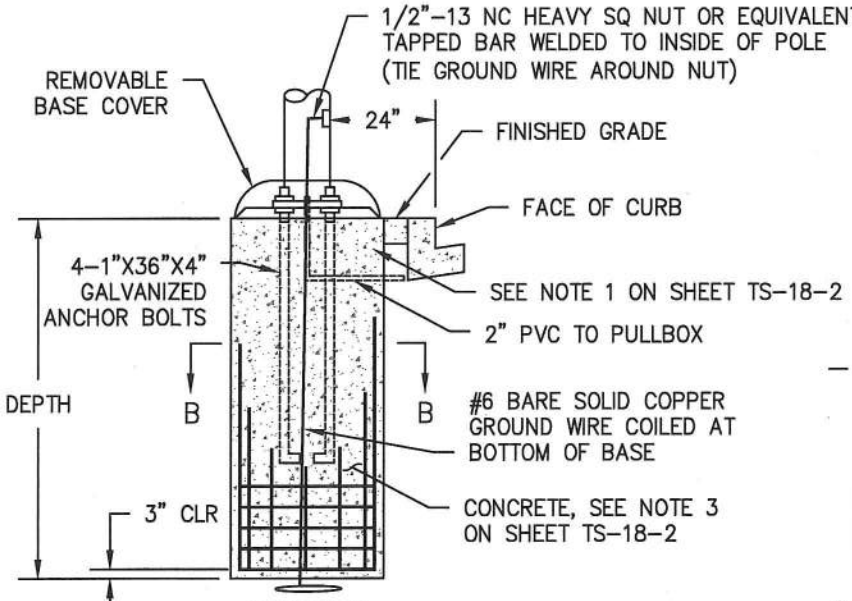
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-17-4.dwg



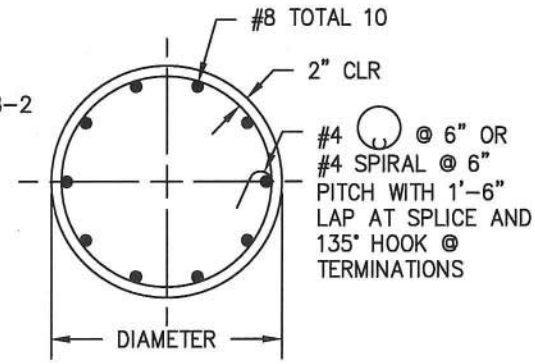
SINGLE ARM
ELEVATION



DOUBLE ARM
ELEVATION



DETAIL A
CAST-IN-DRILLED HOLE PILE FOUNDATION
REINFORCED PILE



SECTION B-B
REINFORCEMENT BAR LAYOUT

REFERENCES:
CALTRANS TYPE 15/15D
STD PLANS ES-6A, ES-6D, ES-7N

NOTE:
VERIFY DEPENDENT DIMENSIONS FOR THOSE POLES TO BE INSTALLED ON EXISTING FOUNDATIONS BEFORE FABRICATING THE POLES.

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CITY OF WALNUT CREEK

CITY STREET LIGHTS

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-18-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-18-1.dwg

GENERAL NOTES:

1. SERVICE TO BE UNDERGROUND AS SHOWN ON THE PLANS. CONDUIT SHALL BE 2" SCHEDULE 40 PVC, WITH BUSHINGS REQUIRED AT ENDS. BENDS SHALL HAVE 12" MINIMUM RADIUS. A BARE #8 AWG GROUND WIRE SHALL BE PROVIDED IN ALL CONDUITS. CONDUIT SHALL BE INSTALLED WITH 30" OF COVER IN CONCRETE SIDEWALK AREAS AND CURBED MEDIAN AREAS AND 30" BELOW FINISHED GRADE ELSEWHERE.

2. A #3-1/2 PULLBOX SHALL BE INSTALLED WITHIN 5 FEET OF EACH POLE UNLESS OTHERWISE NOTED. LIDS SHALL BE GRAY COLORED PLASTIC AND MARKED "STREET LIGHTING" (SEE SHEET TS-14-2). SERVICE POINT PULLBOX SHALL MEET PG&E GREEN BOOK REQUIREMENTS.

3. CAST-IN-HOLE-DRILLED CONCRETE PILE FOUNDATION SHALL CONTAIN NOT LESS THAN 590 LBS CEMENTITIOUS MATERIAL PER CALTRANS 2015 STANDARD SPECIFICATIONS SECTION 56-3.01C(2)(b).

4. POLE SHALL BE SELECTED PER SCHEDULE BELOW:

SINGLE OR DOUBLE ARM	BRAND: AMERON	BRAND: VALMONT
6' ARM LENGTH, 28'-6" POLE	A286	DS30 6' ARM
8' ARM LENGTH, 28'-6" POLE	A288	DS30 8' ARM

EIGHT FOOT ARM TO BE USED ON ROADWAYS WHERE THE LIGHTING COVERS 3 OR MORE LANES. 11-1/2" FOUNDATION BOLT CIRCLE (OR EQUAL). PRIMED AND PAINTED AS SPECIFIED.

PAINT, IF SPECIFIED, SHALL BE POLYESTER COAT GREEN COLOR NO. RAL6005. THE CITY WILL PROVIDE A CHIP SAMPLE OF THE PAINT COLOR TO MATCH. IN RETURN, SUBMIT A METAL CHIP SAMPLE (2"X2" MINIMUM SIZE) FOR APPROVAL.

5. LUMINAIRE SHALL BE AN OPTION OF NAVION ROADWAY LED, CREE BETA LEDWAY, OR CREE XSP. LUMINAIRE TO PROVIDE NEMA PHOTOCELL RECEPTACLE. BALLAST FOR LAMPS OF 200 WATTS OR GREATER SHALL BE CAPABLE OF MULTIVOLT OPERATION.

6. WHENEVER POSSIBLE, NEW LIGHTS SHOULD BE CONNECTED TO EXISTING CITY OWNED CIRCUITS, WITH THE EXISTING CIRCUIT UPGRADED AS NECESSARY TO CARRY THE ADDITIONAL LOAD. NEW CIRCUITS SHALL BE UNMETERED 240 VOLT, INSTALLED WITH A TYPE III-AF STAINLESS STEEL SERVICE ENCLOSURE, FURNISHED WITH A TEST SWITCH, MERCURY CONTACTOR AND REMOTE PHOTOCELL LOCATED ON THE NEAREST ELECTROLIER. LUMINAIRES ON REMOTE CONTROLLED CIRCUITS SHALL BE INSTALLED WITH SHORTING CAPS.

7. PG&E SERVICE ASSIGNMENT LS-2A TO BE USED FOR NEW INSTALLATIONS, COMMERCIAL LOCATIONS AND AREAS WITH TYPE III SERVICE AVAILABLE. OTHERWISE LS-1C TO BE USED.

FOR DETAIL (SEE TS-18-1)

REF: AMERON & VALMONT SPECS
SINGLE/DBL ARM CALTRANS TYPE 15/15D

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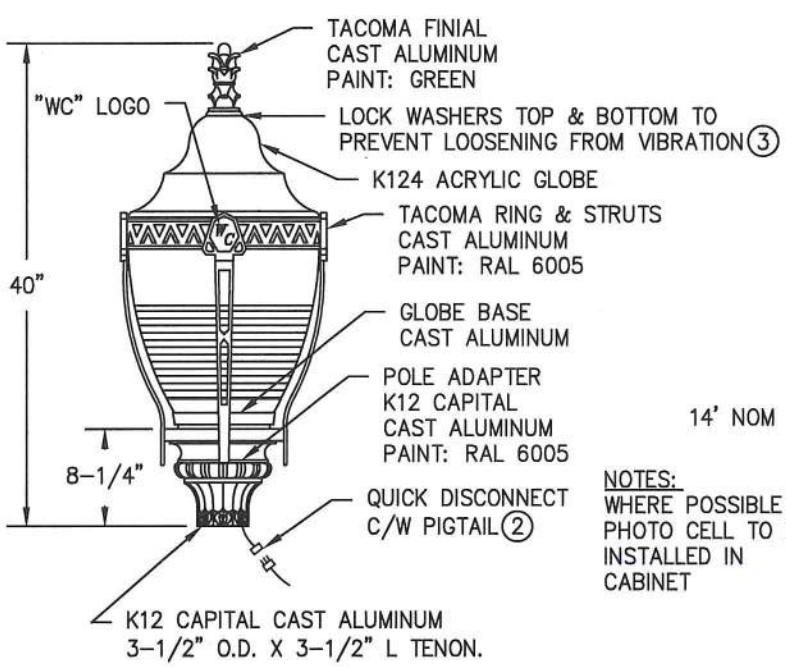
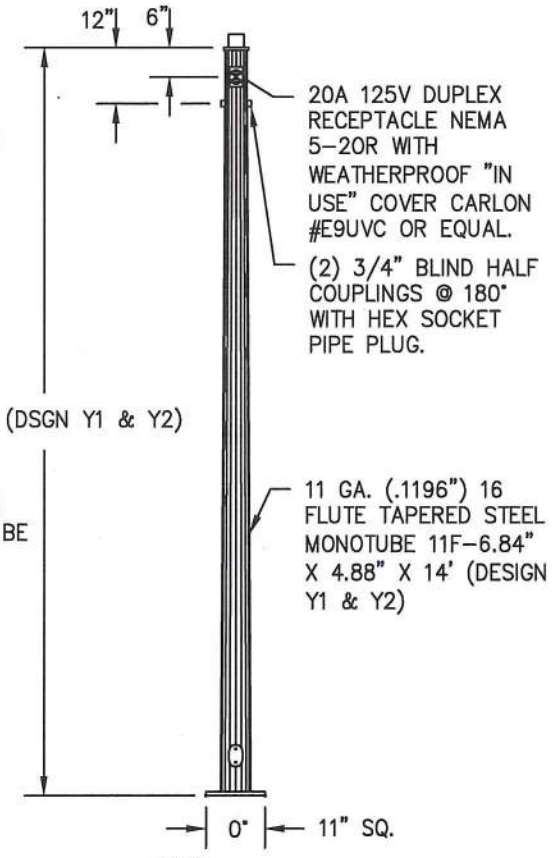
CITY STREET LIGHTS (NOTES)

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-18-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-18-2.dwg

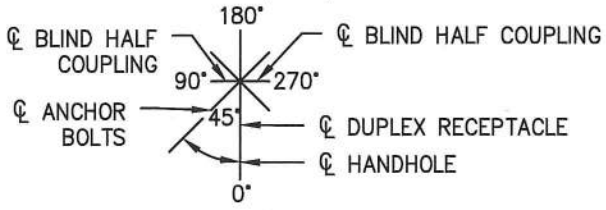




NOTES:
WHERE POSSIBLE PHOTO CELL TO BE INSTALLED IN CABINET

SPECIFICATIONS:

CATALOGUE NO.:	KCK124-B2AR-III-100W(SSL)-1063-120-TRS-4K S/F EXISTING K12
GLOBE MOUNTING:	NON-ROTOLOK
OPTICAL SYSTEM.:	BAFFLED ARRAY ACRYLIC RIPPLED
IES CLASS:	TYPE III
INPUT WATTAGE:	100W SOLID STATE LIGHTING
SERIES:	1063
LINE VOLTAGE:	120V
CCT:	4000K
POLE ADAPTOR:	K12
PAINT:	SMOOTH RAL 6005 MATCH
OPTIONS:	TRS(MOD) RING & STRUTS WITH "WC" LOGO



STREET SIDE @ 0% TOP VIEW ORIENTATION

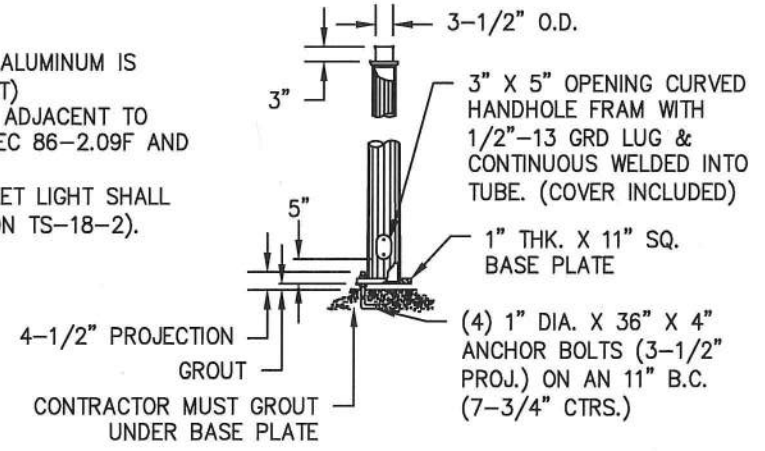
NOTES:
1. LAMP BY OTHERS
2. WET PROCESS POLYESTER COATING ON CAST ALUMINUM IS CONSIDERED SUPERIOR TO DRY (POWDER COAT)
3. 10A FUSE SHALL BE INSTALLED IN PULL BOX ADJACENT TO STREET LIGHT POLE PER 2015 STATE STD SPEC 86-2.09F AND 87-1.03N "FUSED SPLICE CONNECTORS"
4. PAINT-ALL METAL COMPONENTS OF THE STREET LIGHT SHALL BE PAINTED (FOR PAINT TYPE, SEE NOTE 4 ON TS-18-2).

ALTERATION TO SUPPLIER'S DRAWING

(1) DELETED PHOTO BUTTON CELL

(2) ADDED QUICK DISCONNECT C/W PIGTAIL

(3) ADDED LOCK WASHER TOP AND BOTTOM TO PREVENT LOOSENING FROM VIBRATION.



CITY OF WALNUT CREEK

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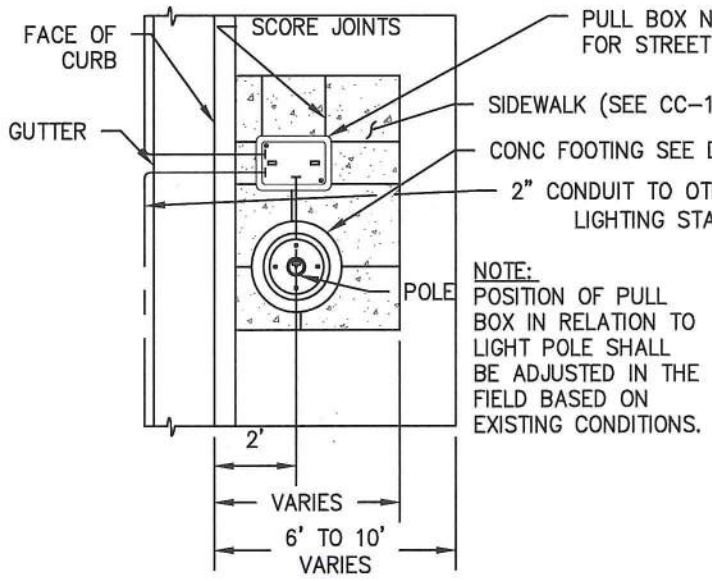
DECORATIVE DOWNTOWN STREET LIGHT (LIGHT POLE AND FIXTURE)

NO.	DATE	APP	REVISION DESCRIPTION

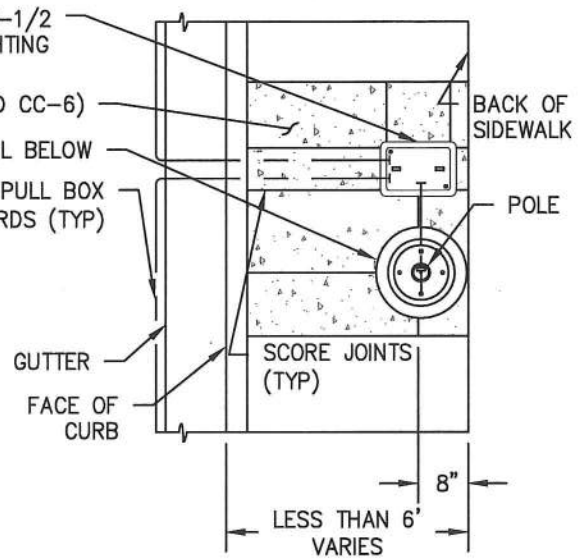
STANDARD DETAIL
TS-19-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-19-1.dwg



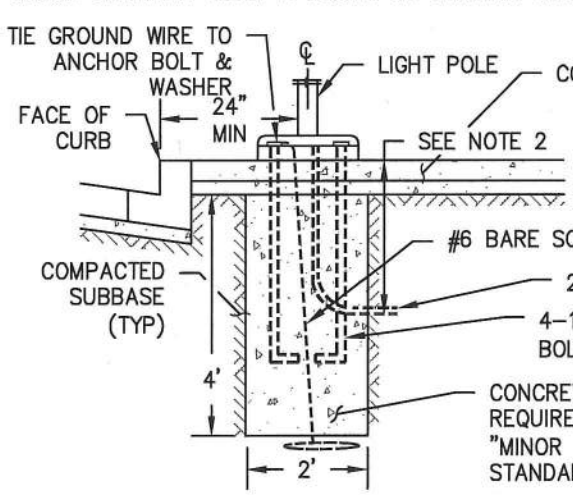
PULL BOX AND POLE BASE LAYOUT PLAN

WHERE SIDEWALK WIDTH IS EQUAL OR GREATER THAN 6' N.T.S.

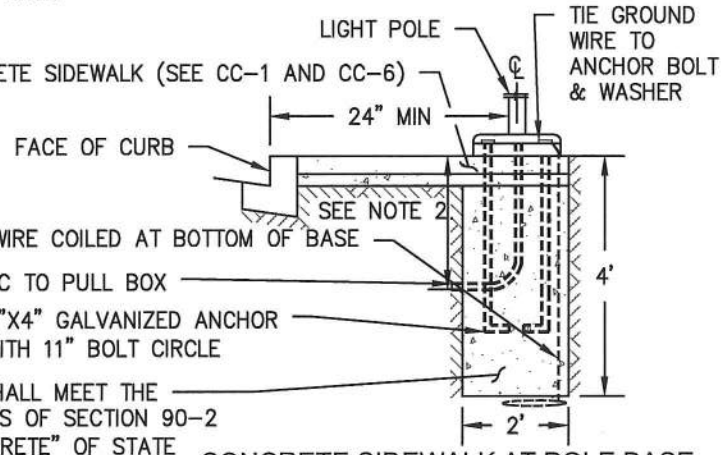


PULL BOX AND POLE BASE LAYOUT PLAN

WHERE SIDEWALK WIDTH IS LESS THAN 6' N.T.S.



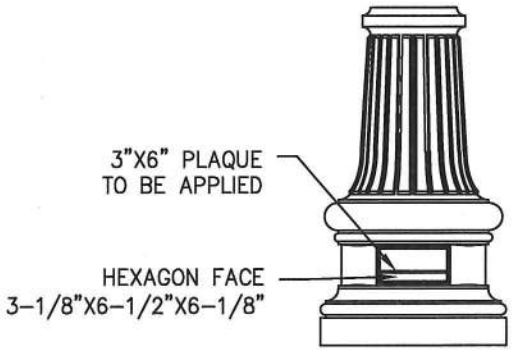
CONCRETE SIDEWALK AT POLE BASE



CONCRETE SIDEWALK AT POLE BASE

NOTES:

1. DECORATIVE LIGHT POLE BASES SHALL BE PROVIDED AT THE SOLE COST OF DEVELOPER OR CONTRACTOR, WITH THE AUTHORIZATION OF THE CITY.
2. CONDUIT SHALL BE INSTALLED WITH 30" OF COVER. 2" MIN CONDUIT SIZE.
3. FOR STREET LIGHT POLE DETAILS, REFER TO TS-19-1.
4. FESTOONS AS REQ'D BY CITY ENGINEER 20 AMP BREAKER, 12 AWG WIRE MIN.
5. ALL PULL BOXES SHALL BE INSTALLED PER STANDARD DETAILS TS-14-2 AND NOTE 2 ON TS-18-2.



LIGHT POLE BASE

CITY OF WALNUT CREEK

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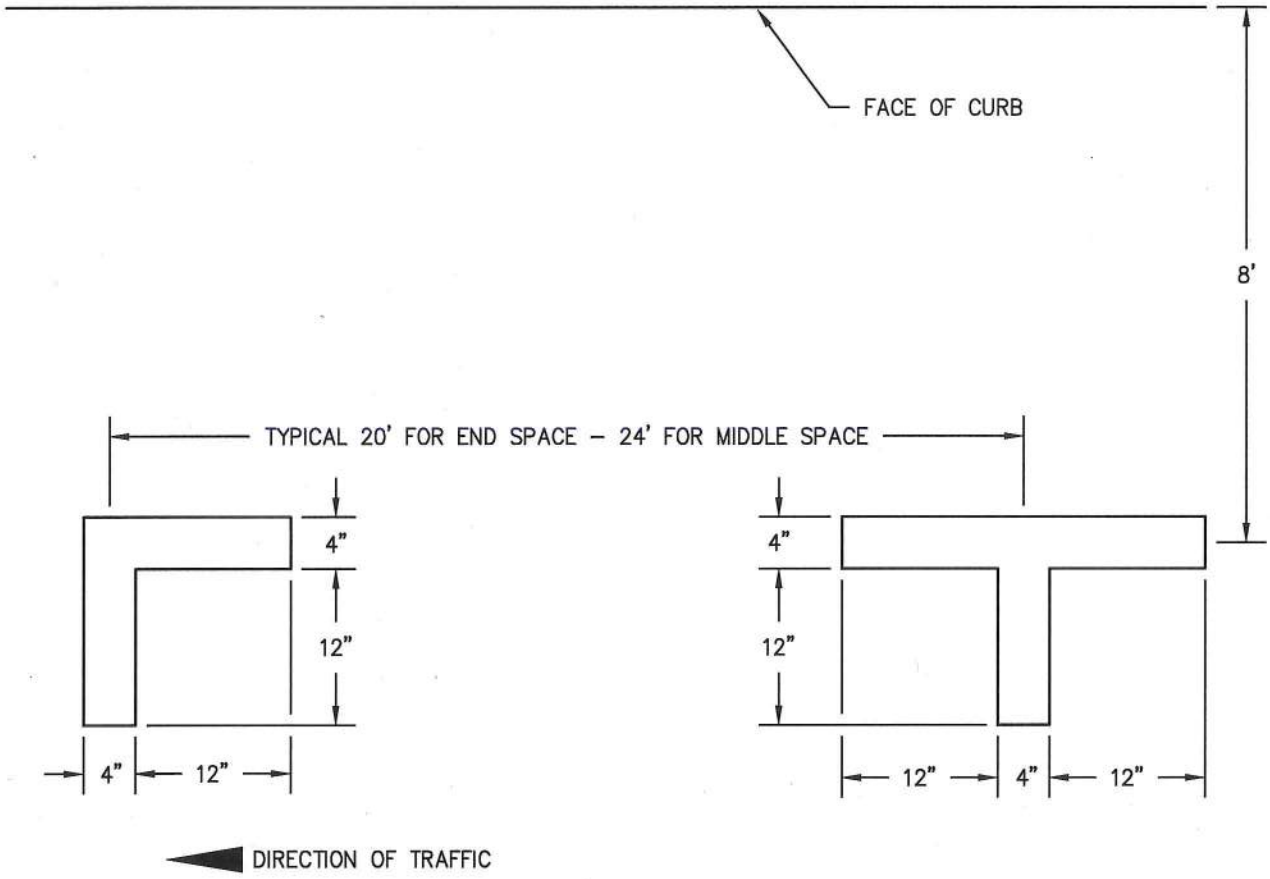
DECORATIVE DOWNTOWN STREET LIGHT (LAYOUT AND LIGHT POLE BASE DETAILS)

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-19-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-19-2.dwg



NOTES:

1. ALL PARKING TEES MUST BE WHITE THERMOPLASTIC.

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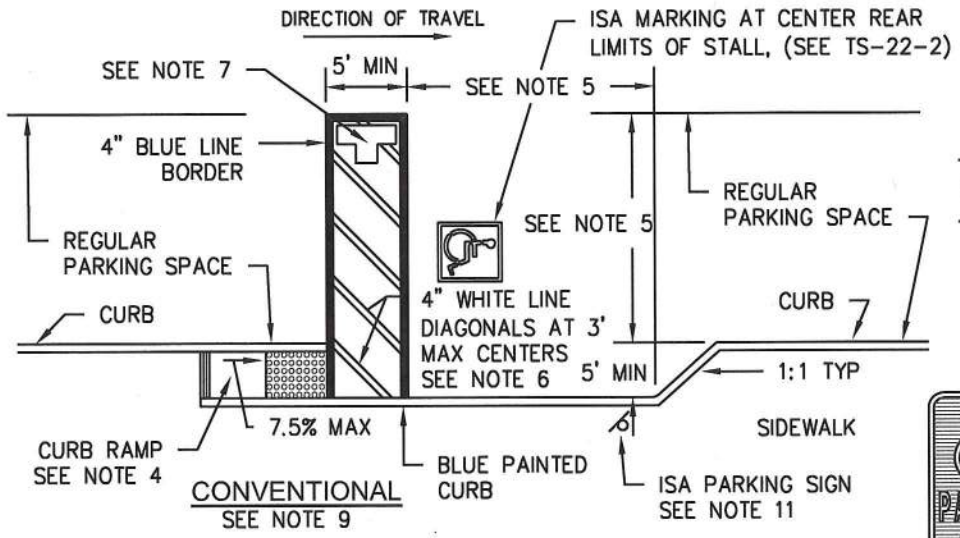
CITY OF WALNUT CREEK

ON-STREET PARKING SPACE

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-20

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-20.dwg



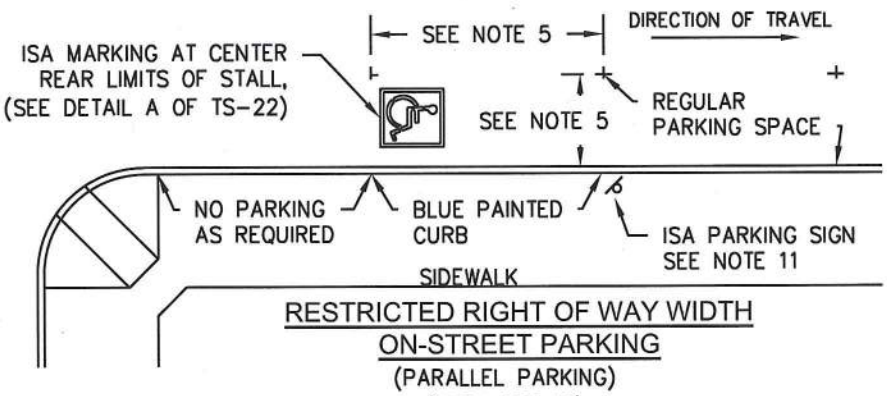
PAVEMENT MARKING
SEE NOTE 7

SIGN R99 (CA)

SIGN R99C (CA)
SEE NOTE 3

PLAQUE R99B (CA)

SIGN R99 (CA) WITH PLAQUE R99B (CA)
SEE NOTE 3



RESTRICTED RIGHT OF WAY WIDTH
ON-STREET PARKING
(PARALLEL PARKING)
(SEE NOTE 10)

NOTES:

1. 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. SURFACE SLOPES OF ACCESSIBLE ON-STREET PARKING SPACES SHALL BE THE MINIMUM FEASIBLE.
3. WHERE PLAQUE R99B (CA) OR SIGN R99C (CA) ARE INSTALLED, THE BOTTOM OF THE SIGN OR PLAQUE PANEL SHALL BE A MINIMUM OF 7'-0" ABOVE THE SURROUNDING SURFACE.
4. CURB RAMPS SHALL CONFORM TO THE DETAILS SHOWN ON (CC-7).
5. ACCESSIBLE ON-STREET PARKING SPACES SHALL NOT BE LESS THAN 22'-0" IN LENGTH AND NOT LESS THAN 8'-0" IN WIDTH.
6. ALL MARKINGS SHALL BE PAINT, THERMOPLASTIC IS NOT TO BE USED.
7. THE WORDS "NO PARKING" PAVEMENT MARKINGS IS TO BE USED FOR PARKING FACILITIES. THE WORDS "NO PARKING" SHALL BE PAINTED IN WHITE LETTERS, NO LESS THAN 1'-0" HIGH, ON A CONTRASTING BACKGROUND AND LOCATED SO THAT IT IS VISIBLE TO TRAFFIC ENFORCEMENT OFFICIALS.
8. 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.
9. THE CONVENTIONAL DETAIL SHOULD BE THE PRIMARY CHOICE OF ACCESSIBLE ON-STREET PARKING. HOWEVER, IF THE SIDEWALK LACKS ADEQUATE SPACE TO CONSTRUCT A STANDARD CURB RAMP, THE RESTRICTED RIGHT OF WAY DETAIL SHOULD BE USED.
10. IF THE RESTRICTED RIGHT OF WAY WIDTH DETAIL IS SELECTED AND IT CONFLICTS WITH A BUS STOP OR OTHER USES, THIS DETAIL MAY APPLY TO THE OTHER END OF THE BLOCK.
11. ACCESSIBLE PARKING ONLY SIGN SHALL BE SIGN R99C (CA) OR SIGN R99 (CA) WITH PLAQUE R99B (CA).

REF: CA STANDARD PLANS 2015 A90B

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	SB	L.P.	NOVEMBER 2018

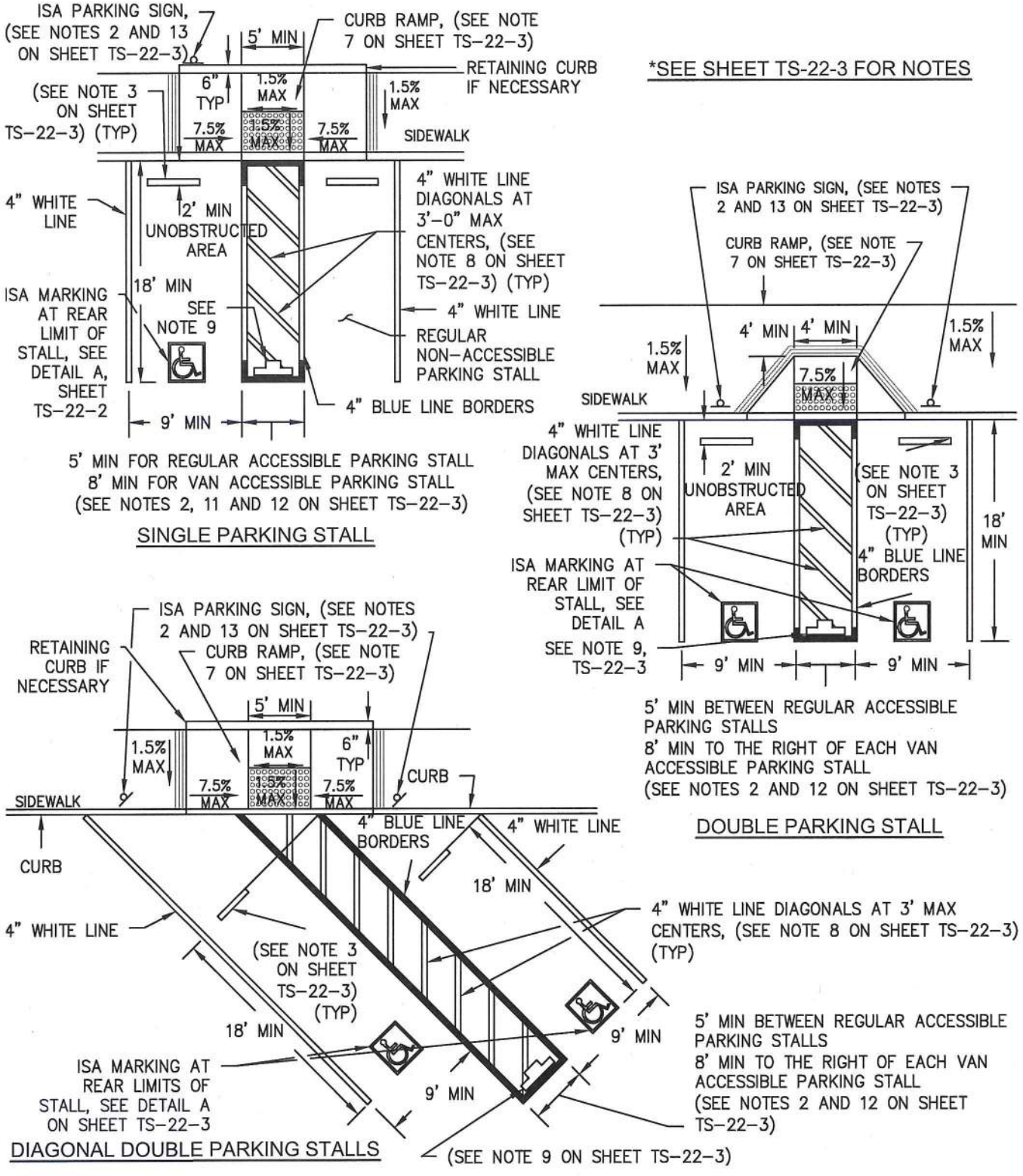
ACCESSIBLE PARKING ON-STREET

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-21

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-21.dwg

SHT 1 OF 1



APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

CITY OF WALNUT CREEK

ACCESSIBLE PARKING OFF-STREET (DETAILS)

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-22-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-22-1.dwg

TOTAL NUMBER OF PARKING SPACES OR STALLS	MINIMUM NUMBER OF DISABLED ACCESSIBLE PARKING SPACES OR STALLS
1–25	1
26–50	2
51–75	3
76–100	4
101–150	5
151–200	6
201–300	7
301–400	8
401–500	9
501–1000	2 PERCENT OF TOTAL
GREATER THAN 1000	20 PLUS 1 FOR EACH 100 OR FRACTION THEREOF OVER 1001

TABLE A

SIGN R7-8b
(SEE NOTES 2 AND 6 ON SHEET 3)

SIGN R99C (CA)
SEE NOTE 13
ON SHEET 3

ISA MARKING
SEE CALTRANS
LATEST STD
PLAN A24C

DETAIL A

SIGN R100B (CA)
(SEE NOTE 10 ON SHEET 3)

SIGN R99 (CA)

PLAQUE R99B (CA)
SIGN R99 (CA) WITH
PLAQUE R99B (CA) SEE
NOTE 6 ON SHEET 3

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

ACCESSIBLE PARKING OFF-STREET (SIGNAGE)

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-22-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-22-2.dwg

GENERAL 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 LOCATED ON THE SHORTEST ACCESSIBLE ROUTE OF TRAVEL TO AN ACCESSIBLE PEDESTRIAN ENTRANCE OF THE PARKING FACILITY.

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.

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 SHALL BE THE MINIMUM POSSIBLE AND SHALL NOT EXCEED 2 PERCENT IN ANY DIRECTION.

5. TABLE A SHALL BE USED TO DETERMINE THE REQUIRED NUMBER OF ACCESSIBLE PARKING STALLS IN ANY PARKING LOT OR GARAGE.

6. WHERE PLAQUE R99B (CA), SIGN R99C (CA) OR SIGN R7-8B ARE INSTALLED, THE BOTTOM OF THE PLAQUE SHALL BE A MINIMUM OF 7'-0" ABOVE THE SURROUNDING SURFACE.

7. CURB RAMPS SHALL CONFORM TO THE DETAILS SHOWN ON CC-7, EXCEPT THAT THE DETECTABLE WARNING SURFACE SHALL ONLY APPLY WHERE THE CURB RAMP IS PROVIDED FOR A PEDESTRIAN TO CROSS A VEHICULAR WAY.

8. ALL MARKINGS SHALL BE PAINT, THERMOPLASTIC IS NOT TO BE USED.

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. SEE TS-21 FOR DETAILS OF THE "NO PARKING" PAVEMENT MARKING.

10. A R100B (CA) SIGN 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 ADDRESS WHERE THE TOWED VEHICLE MAY BE RECLAIMED AT, AND 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 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).

CITY OF WALNUT CREEK

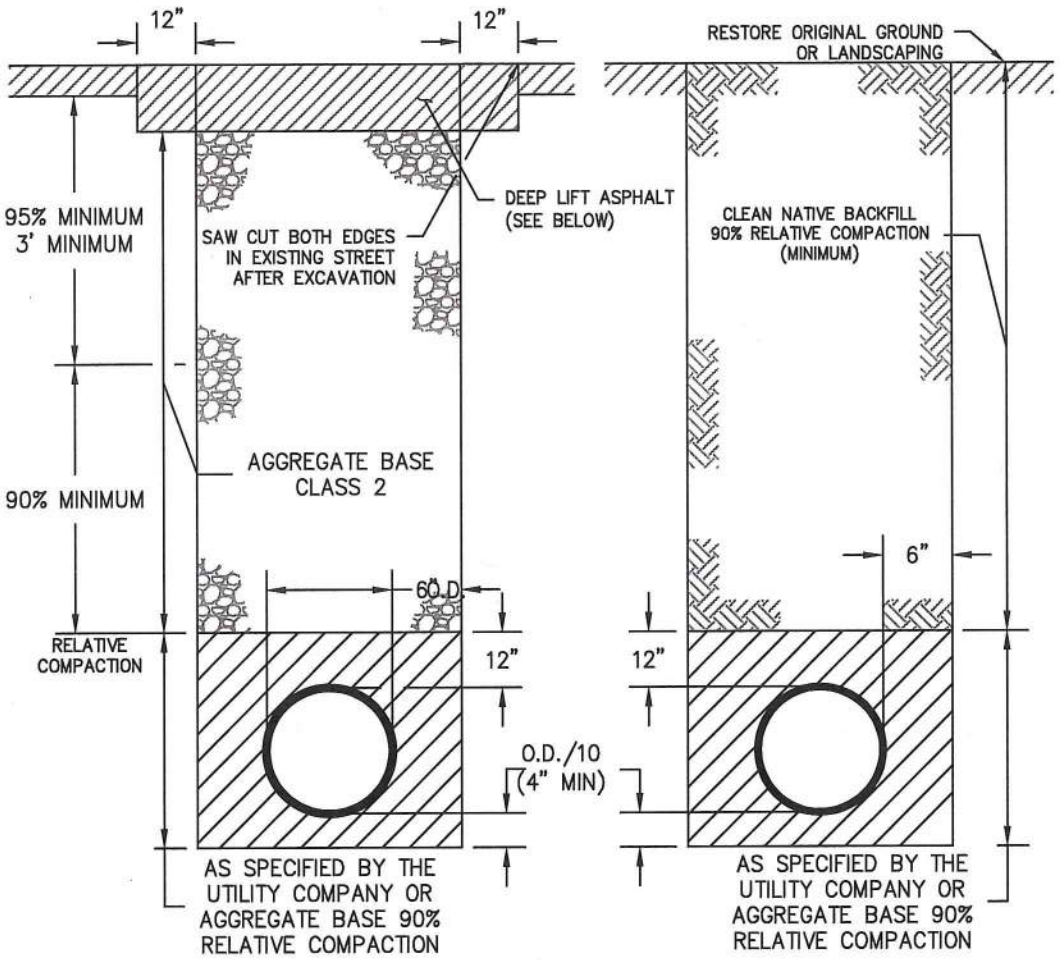
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

ACCESSIBLE PARKING OFF-STREET (NOTES)

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
TS-22-3

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\TS-22-3.dwg



EXISTING AND FUTURE PAVED AREAS NON ROADWAY AREAS

DEEP LIFT ASPHALT SECTIONS MINIMUM REQUIREMENTS:
RESIDENTIAL – 5"
RESIDENTIAL COLLECTORS – 8"
COLLECTORS – 10"
ARTERIALS – 12"
YGNACIO VALLEY ROAD – 13"

NOTE:

1. TRENCH WIDTH AND PIPE BEDDING FOR HDPE OR PVC PIPE SHALL BE APPROVED BY THE PUBLIC WORKS DIRECTOR OR THEIR DESIGNEE.
2. PAVING SHALL CONFORM TO CALTRANS STANDARD SPECIFICATIONS, SECTION 39.
3. SLURRY CEMENT BACKFILL (1–SACK LEAN MIX) MAY BE CONSIDERED AS ALTERNATIVE TO CLASS 2 AB PER CALTRANS STD SPECS WITH APPROVAL OF THE CITY ENGINEER.
4. MAX TRENCH WIDTH IS PIPE O.D. PLUS 6" ON EITHER SIDE.
5. ALL TEMPORARY TRENCH AND PATCH PAVING SHALL BE MAINTAINED IN A COMPACTED AND SMOOTH CONDITION WITH A MINIMUM OF 2" HOT MIX ASPHALT OVER 95% COMPACTED BACKFILL. COLD MIX ASPHALT MAYBE USED ONLY AT THE DISCRETION AND PERMISSION OF THE ENGINEERING INSPECTOR.
6. ALL TRENCH PLATES IN THE ROADWAY OR SIDEWALK SHALL BE NON–SKID. TRENCH PLATES SHALL BE INSTALLED SO THAT THEY ARE FLUSH WITH THE SURROUNDING GRADE. AT THE DIRECTION OF THE ENGINEERING INSPECTOR, PLATES MAYBE SECURELY PINNED AND/OR TACK WELDED AT THE END OF EACH WORK DAY.
7. ALL PIPES ABANDONED IN THE PUBLIC RIGHT OF WAY SHALL BE REMOVED. WITH THE APPROVAL OF THE CITY ENGINEER PIPES MAY BE ABLE TO REMAIN IN PLACE IF THEY ARE SLURRY FILLED.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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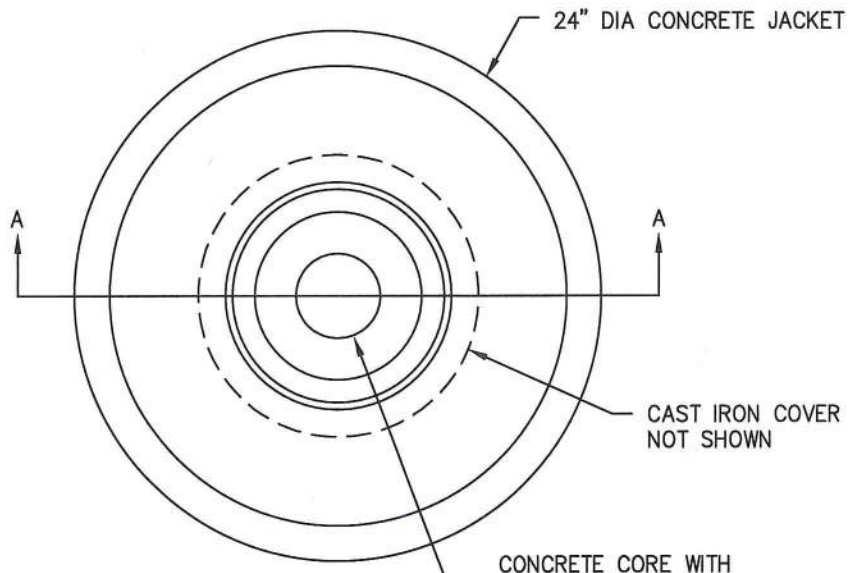
TRENCH BACKFILL AND RESURFACING

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
MS-1

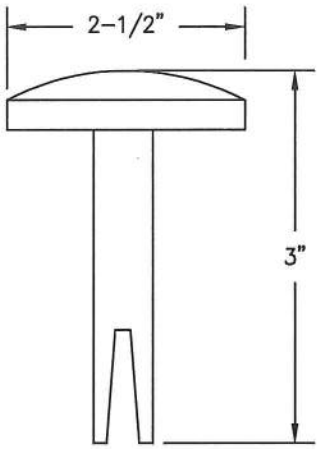
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-1.dwg

SHT 1 OF 1

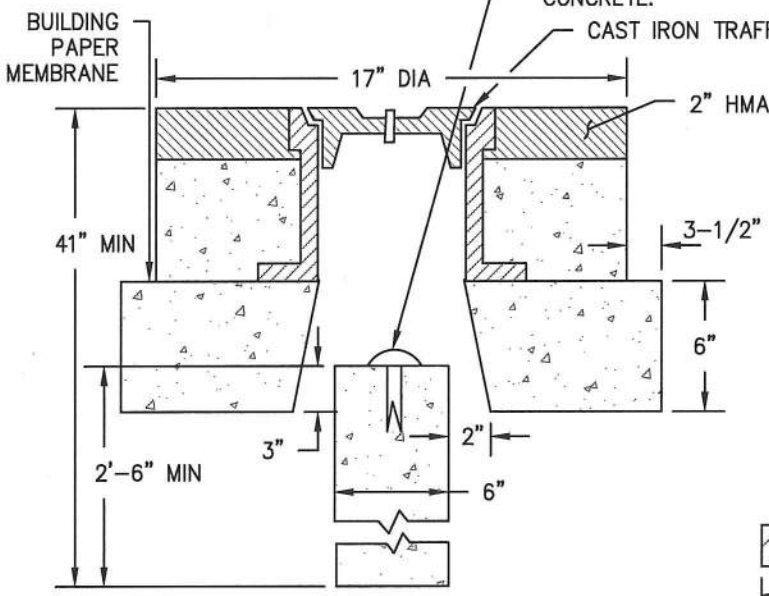


PLAN

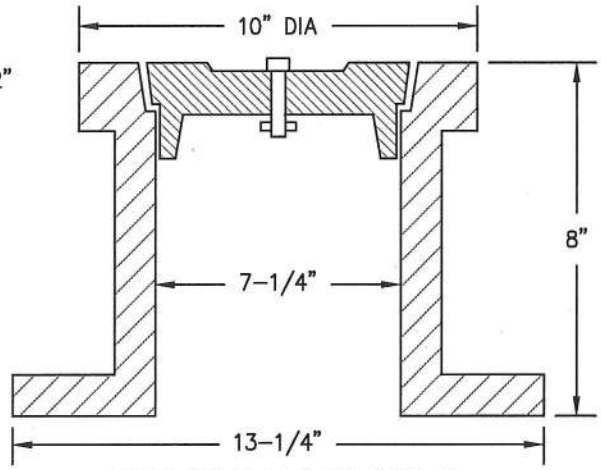
WALNUT CREEK
R.E. NO.
YEAR



BRASS CAP



SECTION A-A



CAST IRON BASE & COVER
D&L FOUNDARY MODEL K-6016 OR APPROVED EQUAL

NOTES:
1. CAST IRON COVER SHALL HAVE THE WORDS "CITY MONUMENT" IN RAISED LETTERS.
2. CENTER PUNCH HOLES IN BRASS CAPS SHALL BE PLACED BY A LICENSED LAND SURVEYOR OR REGISTERED ENGINEER. THE REGISTRATION NO. OF THE ENGINEER OR SURVEYOR SHALL BE STAMPED ON THE CAP.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
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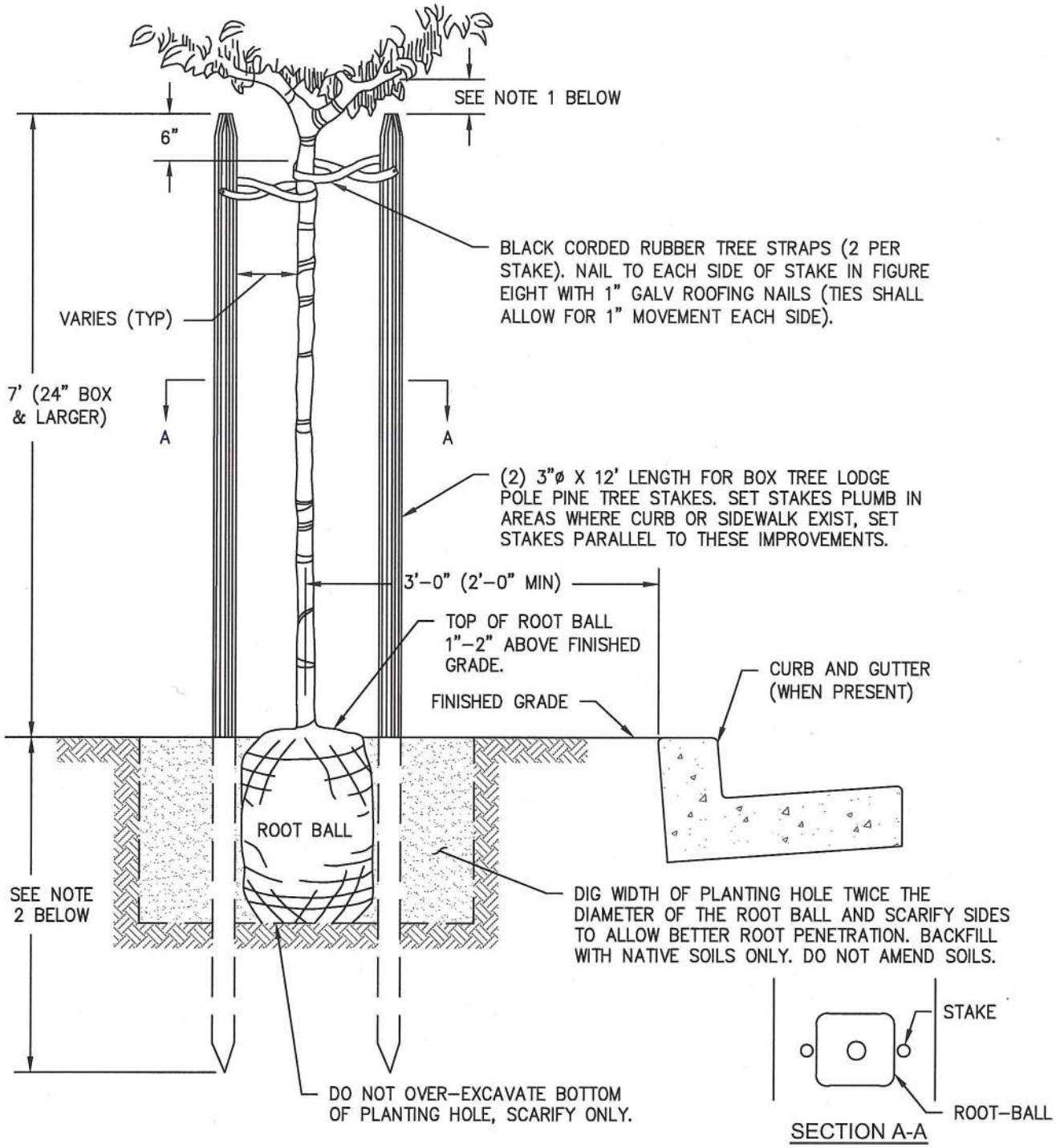
STANDARD STREET MONUMENT

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
MS-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-2.dwg

SHT 1 OF 1



NOTES:
1. PROVIDE A SIX-INCH MINIMUM CLEARANCE BETWEEN THE STAKE AND TREE BRANCHES.
2. DRILL THE TREE STAKE FIRMLY IN GROUND, CLEAR FROM THE TREE ROOTBALL ZONE.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

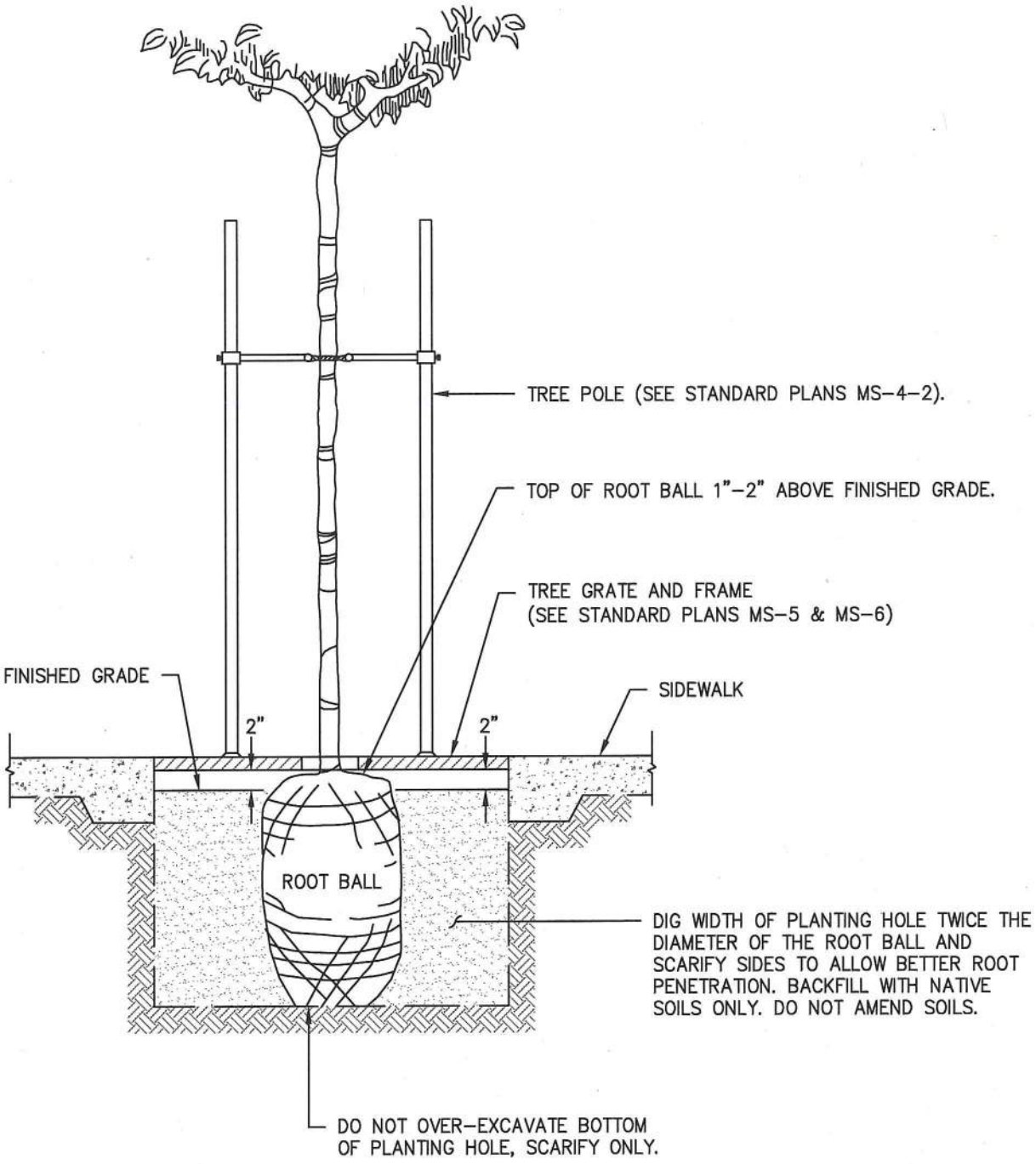
TREE PLANTING IN LANDSCAPE AREA

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
MS-3

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-3.dwg

SHT 1 OF 1



APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

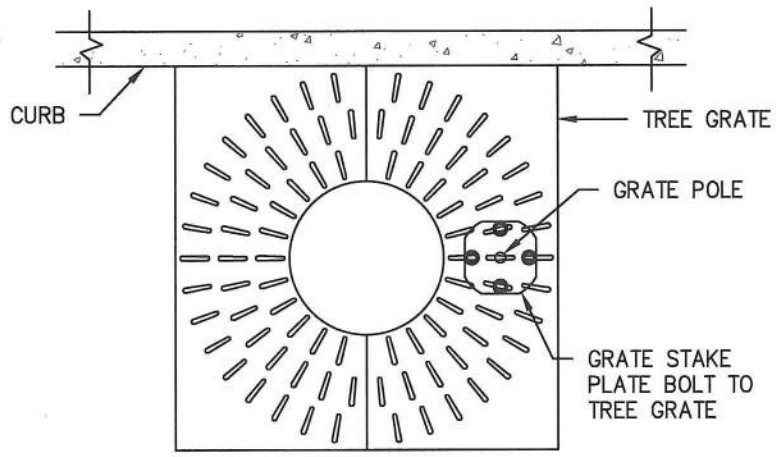
CITY OF WALNUT CREEK

TREE PLANTING IN SIDEWALK AREA

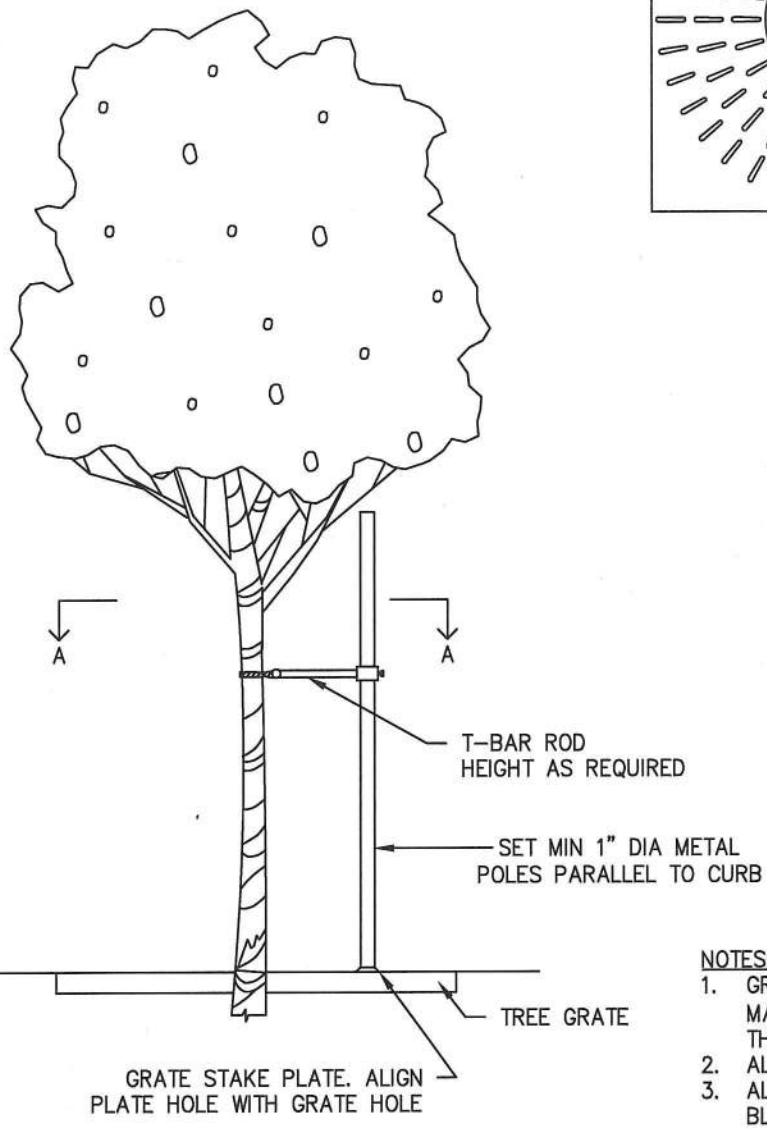
NO.	DATE	APP	REVISION DESCRIPTION

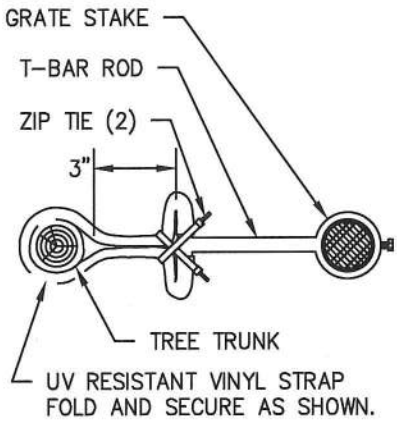
STANDARD DETAIL
MS-4-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-4-1.dwg



PLAN





SECTION A-A

NOTES:
1. GRATE STAKE SYSTEM. INSTALL PER MANUFACTURER'S SPECIFICATIONS, AVAILABLE THROUGH DECORATION FOR GENERATIONS.
2. ALL FASTENERS SHALL BE GALVANIZED.
3. ALL POLES SHALL BE PAINTED RAL 6005 OR BLACK.

STREET TREE GRATE AND POLE SUPPORT

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

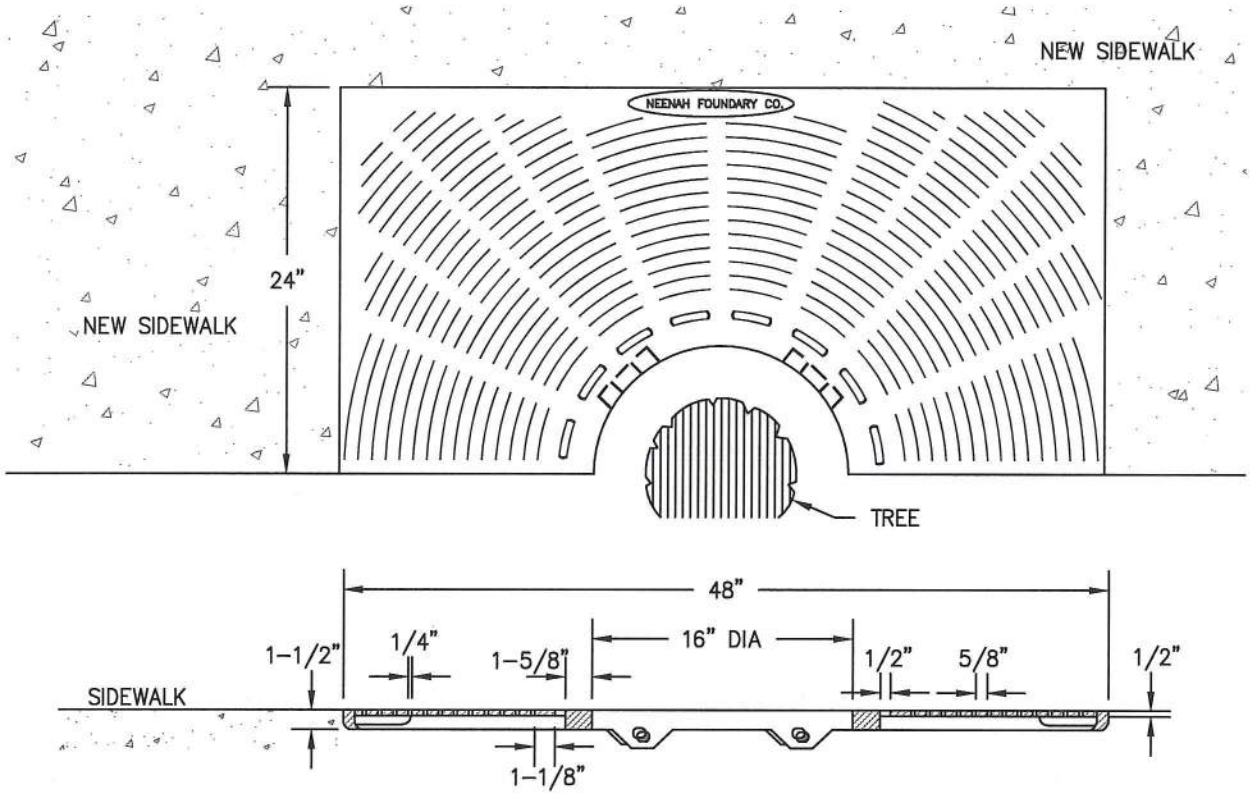
TREE PLANTING IN SIDEWALK AREA

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
MS-4-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-4-2.dwg

TREE GRATE DETAIL



HALF PLAN AND SECTION

NOTES:

1. TREE GRATE IN THE SIDEWALKS 10 FEET OR GREATER IN WIDTH SHALL BE NEENAH CAST IRON GRATES R-8708 180 SQUARE 48"x48".

2. THE FOLLOWING MAY BE USED ONLY IF APPROVED BY ENGINEER.

   R-8704 180 SQUARE 30"x30"
   R-8704-A 180 SQUARE 36"x36"
   R-8713 180 SQUARE 60"x60"
   R-8718 180 SQUARE 72"x72"

   SEE SHEET MS-5-2 FOR TREE GRATE FRAME DETAILS

3. FOR RETROFIT USE R-9002 180 SQUARE 52"x52"

4. ALL GRATES MUST HAVE 1/4" MAXIMUM SLOT OPENINGS FOR SPECIAL PEDESTRIAN REQUIREMENTS. GRATES WITH SLOT OPENINGS GREATER THAN 1/4" WILL NOT BE USED.

CITY OF WALNUT CREEK

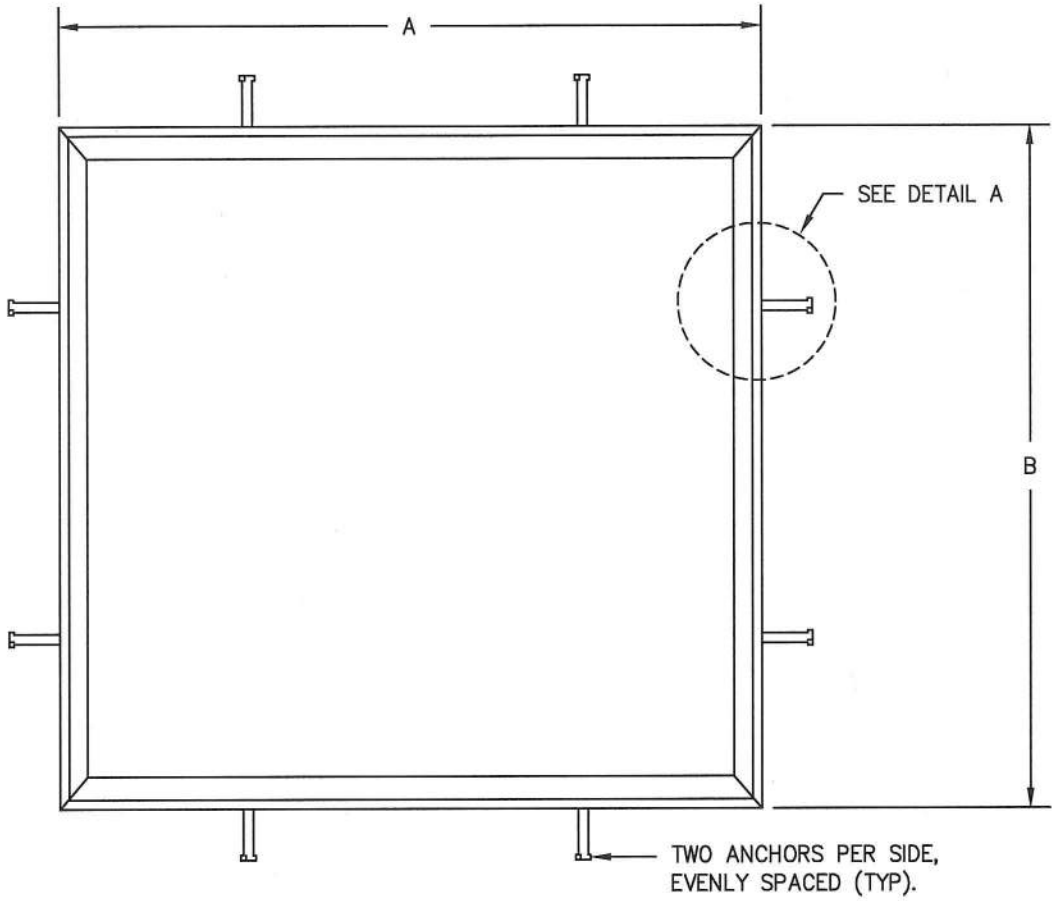
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

TREE GRATE DETAIL

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
MS-5-1

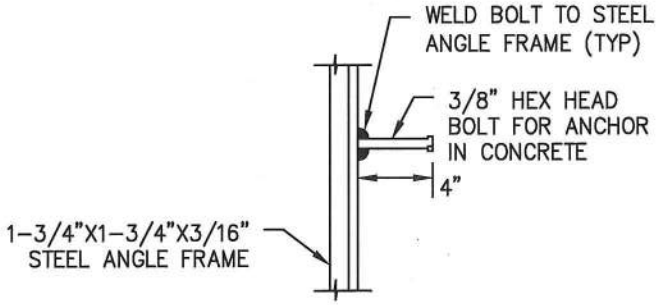
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-5-1.dwg



TREE GRATE FRAME DETAIL

TREE GRATE TYP	A	B
36" SQUARE	36-3/4"	36-3/4"
48" SQUARE	48-3/4"	48-3/4"
60" SQUARE	60-3/4"	60-3/4"
72" SQUARE	72-3/4"	72-3/4"

DIMENSIONS ARE O.D. OF FRAME



DETAIL A

STEEL FRAMES FOR 1-1/2" TREE GRATES

APP CITY ENGINEER	CHECKED BY: CT	DRAWN BY: RC	DATE: NOVEMBER 2018

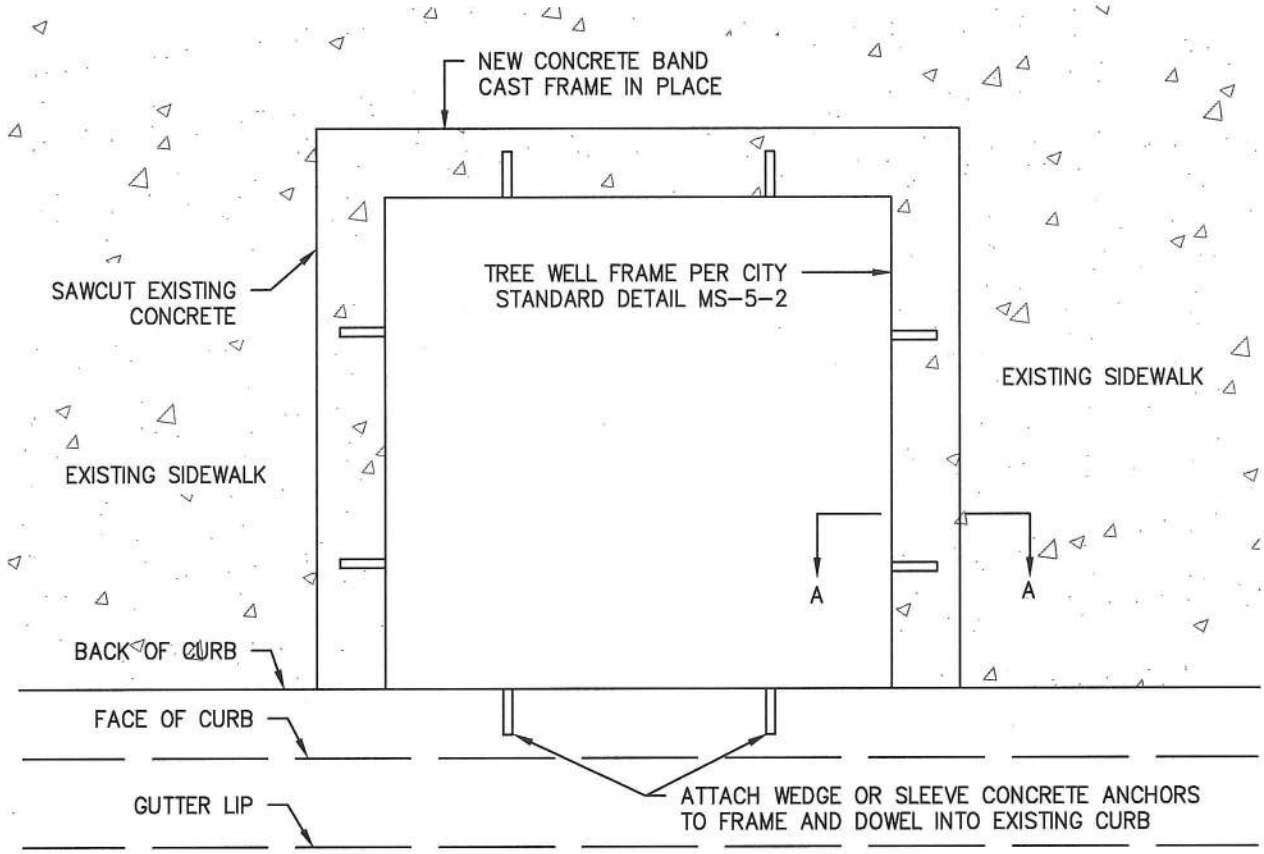
TREE GRATE DETAIL

NO.	DATE	APP	REVISION DESCRIPTION

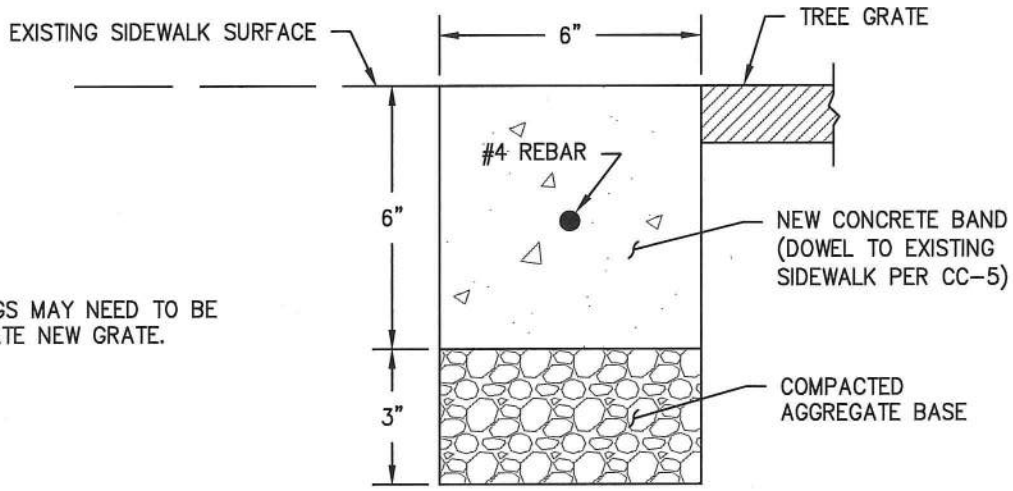
CITY OF WALNUT CREEK

STANDARD DETAIL
MS-5-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-5-2.dwg



PLAN VIEW



SECTION A-A

NOTE:
ADJACENT SIDEWALK FLAGS MAY NEED TO BE REMOVED TO ACCOMMODATE NEW GRATE.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

TREE GRATE FRAME INSTALLATION IN EXISTING SIDEWALK

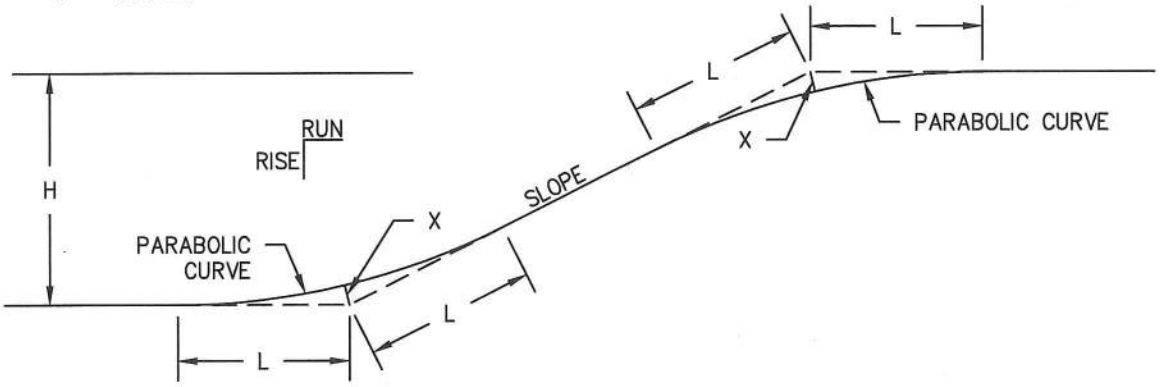
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
MS-6

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-6.dwg

SHT 1 OF 1

"L" – IN FEET
"X" – IN FEET
"H" – IN FEET



SLOPE ROUNDING TABLE

H	L (FOR VARIOUS SLOPES		
	S = 1.5:1	S = 2:1	S = 3:1
0–2	–	–	–
3–4	1.5	1.0	–
5–6	2.0	2.0	–
7–8	2.5	2.0	1.5
9–10	3.0	2.5	2.0
11–12	3.5	3.0	2.5
13–14	4.0	3.5	3.0
15–16	4.5	4.0	3.5
17–18	5.0	4.5	4.0
19–20	5.5	5.0	4.5
21–22	6.0	5.5	5.0
23–24	6.5	6.0	5.5
25–26	7.0	6.5	6.0
27–28	7.5	7.0	6.5
29–30	8.0	7.5	7.0

NOTES:

1. MODIFICATIONS MAY BE PERMITTED OR REQUIRED BY THE PUBLIC SERVICES DIRECTOR WHEN SUCH MODIFICATIONS PRODUCE A MORE VISUALLY PLEASING SLOPE OR FOR THE PRESERVATION OF THE NATURAL ENVIRONMENT.
2. THE DIMENSION "H" SHALL BE ROUNDED UP TO THE NEAREST WHOLE NUMBER IN DERIVING "L".
3. THE DIMENSION "X" SHALL BE AS NECESSARY TO PRODUCE A SMOOTH PARABOLIC CURVE.
4. SLOPE ROUNDING FOR SLOPES FLATTER THAN 3 TO 1 SHALL BE AS APPROVED BY THE CITY ENGINEER.
5. WHEN PROPERTY LINE IS AT THE TOP OR BOTTOM OF SLOPE, L = 2.0 FEET FOR ALL HEIGHTS.

CUT AND FILL SLOPES

CITY OF WALNUT CREEK

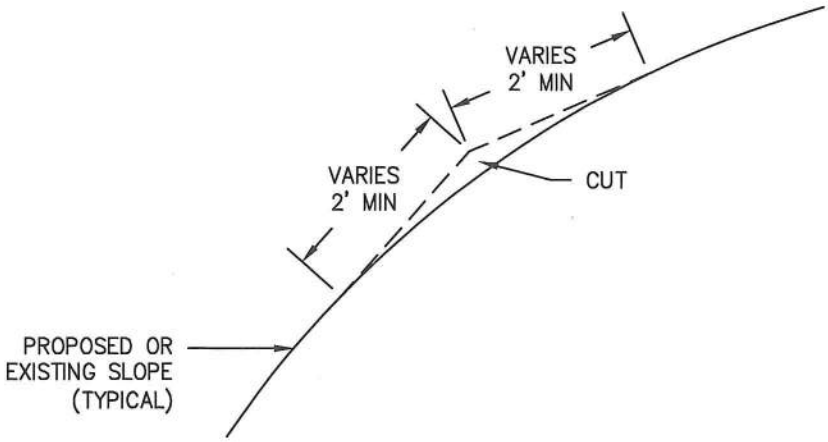
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

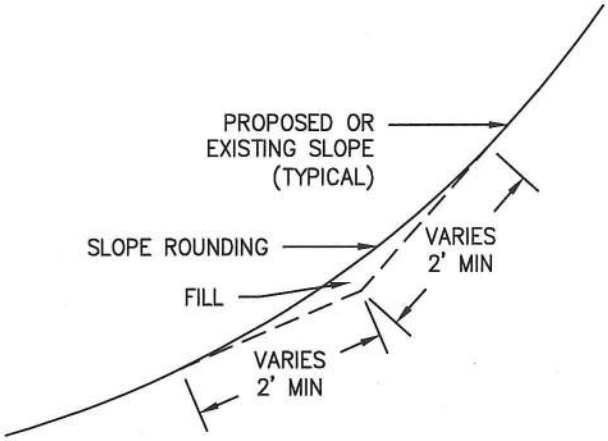
SLOPE ROUNDING DETAILS

NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
MS-7-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-7-1.dwg





NOTE:

THE LIMITS OF SLOPE ROUNDING ARE TO BE AS NECESSARY TO BLEND THE PROPOSED SLOPES TOGETHER OR TO BLEND THE SLOPE, IN A NATURAL APPEARANCE WITH THE EXISTING GROUND, YET TO PRESERVE OTHER NATURAL FEATURES, SUCH AS TREES.

INTERSECT OF VARIABLE SLOPES

CITY OF WALNUT CREEK

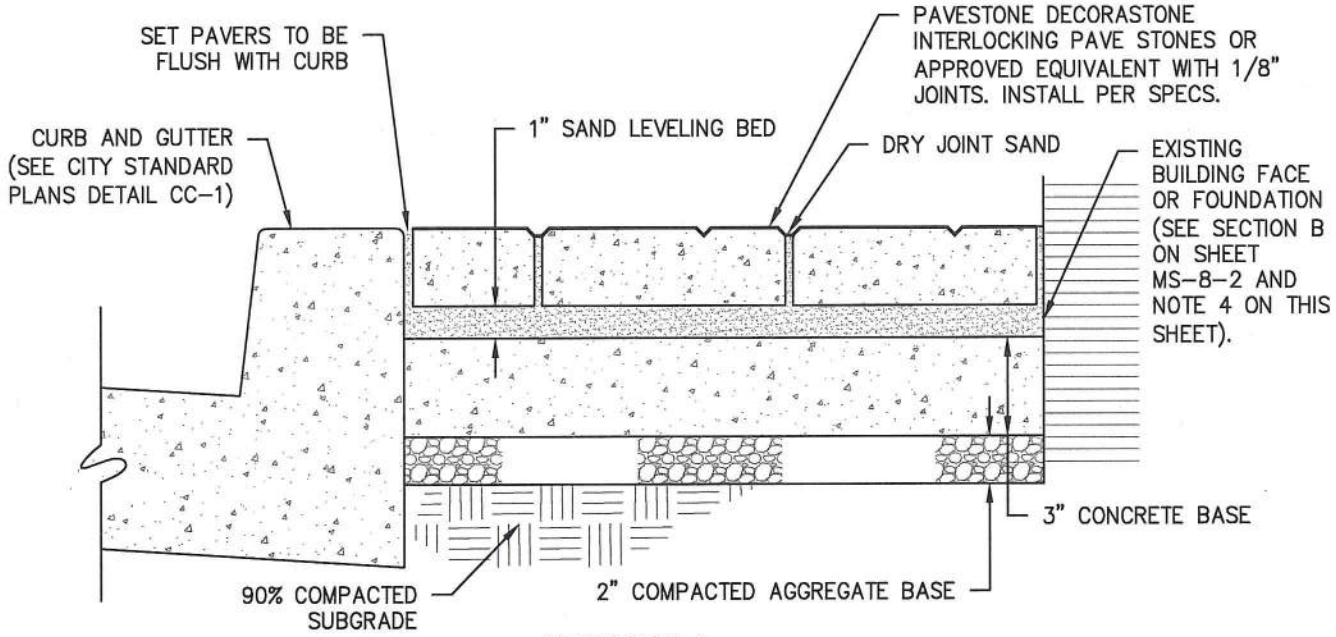
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

SLOPE ROUNDING DETAILS

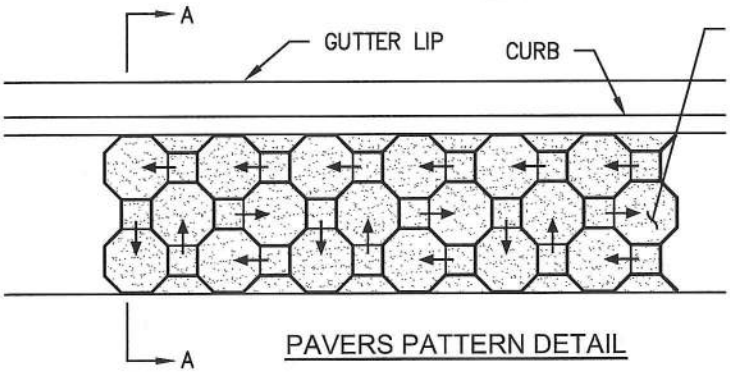
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
MS-7-2

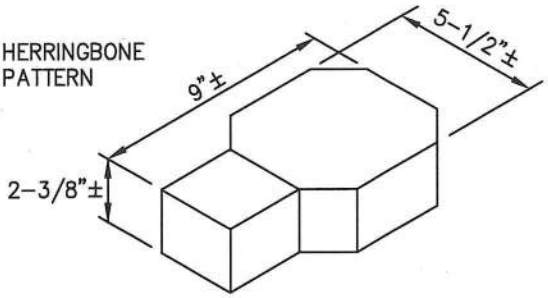
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-7-2.dwg



SECTION A-A



PAVERS PATTERN DETAIL



INTERLOCKING PAVER STONE

INSTALLATION NOTES:

1. EXCAVATE UNSUITABLE, UNSTABLE OR UNCONSOLIDATED SUBGRADE MATERIAL AND COMPACT THE AREA WHICH HAS BEEN CLEARED.
2. PLACE 3 INCH OF CONCRETE OVER 2 INCH OF COMPACTED AGGREGATE BASE.
3. PLACE BEDDING COURSE OF SAND TO A UNIFORM DEPTH OF 1 INCH SCREEDED TO THE GRADE AND PROFILE REQUIRED. ALL SAND SHALL BE PER THE LATEST ICPI SPECIFICATIONS.
4. 6" CONCRETE COLLAR TO BE PROVIDED WHERE EXISTING BUILDING FACE OR FOUNDATION IS ADJACENT TO PROVIDE EDGE RESTRAINT. (SEE SECTION B ON SHEET MS-8-2).
5. WHERE REQUIRED, CUT PAVERS WITH AN APPROVED CUTTER TO FIT ACCURATELY, NEATLY AND WITHOUT DAMAGED EDGES.
6. TAMP PAVERS WITH A PLATE COMPACTOR, UNIFORMLY LEVEL, TRUE TO GRADE AND FREE OF MOVEMENT.
7. PAVER SEALENT SHALL BE REQUIRED AND APPLIED PER MANUFACTURER SPECIFICATION.
8. ALL UTILITY BOXES SHALL BE SET IN CONCRETE COLLAR AS SHOWN ON SHEET MS-8-3.
9. PAVERS TO BE OAKS BLEND, RED AND CHARCOAL IN COLORS. PERCENTAGES OF COLORS USED AT EACH LOCATION SHALL BE DETERMINED PER CITY APPROVAL.

CITY OF WALNUT CREEK

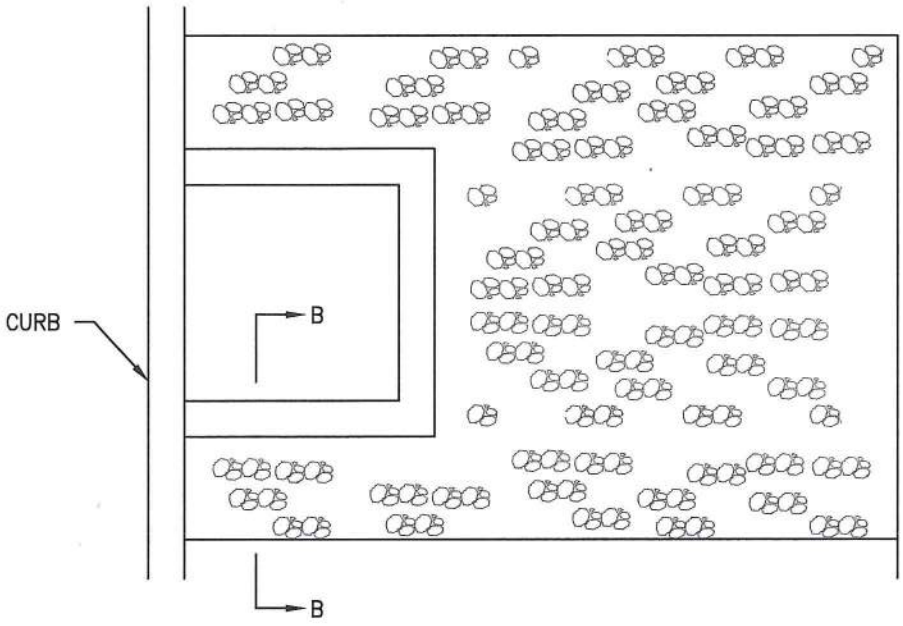
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

SIDEWALK PAVERS

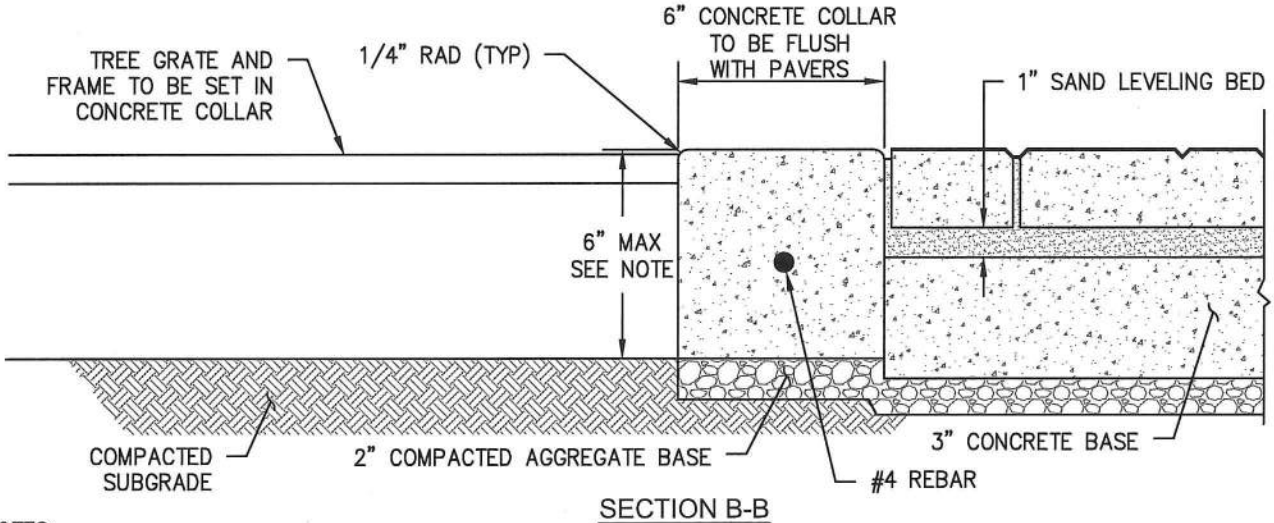
NO.	DATE	APP	REVISION DESCRIPTION

STANDARD DETAIL
MS-8-1

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-8-1.dwg



PAVER AGAINST TREE GRATES



SECTION B-B

NOTES:

1. CONCRETE COLLARS SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE STANDARDSPECIFICATION AND 1 LB OF LAMP BLACK PER CY UNLESS COLORED CONCRETE IS REQUIRED BY CITY ENGINEER. IF REQUIRED, A SAMPLE COLOR CONCRETE SUBMITTAL WIL BE REQUIRED PRIOR TO CONSTRUCTION.

2. CONCRETE COLLAR TO BE 6" DEEP UNLESS OBSTRUCTED BY EXISTING TREE ROOTS. COLLAR DEPTH SHALL BE ADJUSTED SUBJECT TO APPROVAL OF CITY ENGINEER AND CITY ARBORIST. CONTRACTOR SHALL CONTACT CITY ARBORIST TO INSPECT TREE AND ROOTS PRIOR TO WORK AT EACH STREET TREE LOCATION.

CITY OF WALNUT CREEK

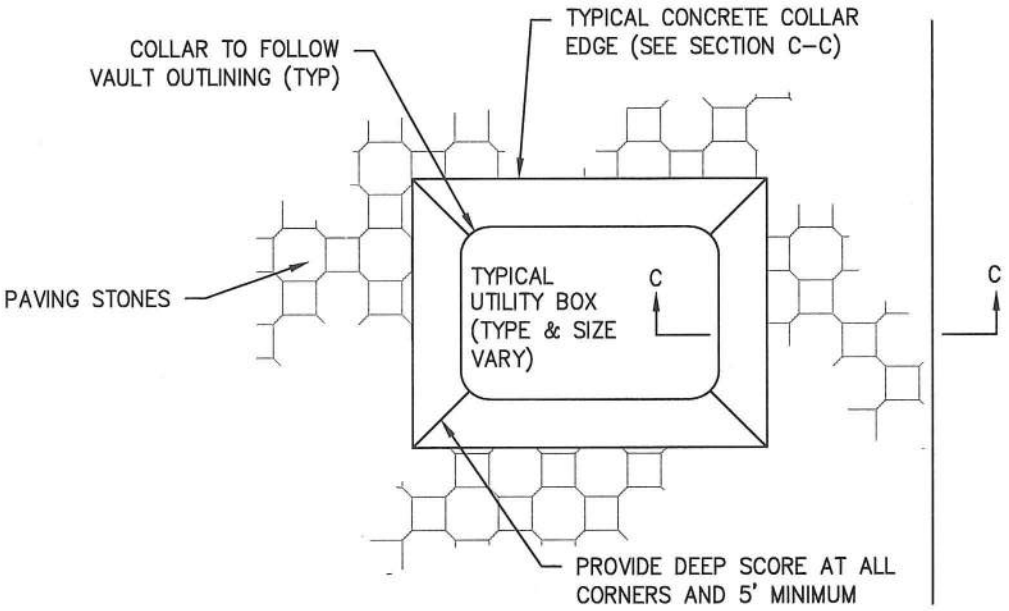
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

SIDEWALK PAVERS

NO.	DATE	APP	REVISION DESCRIPTION

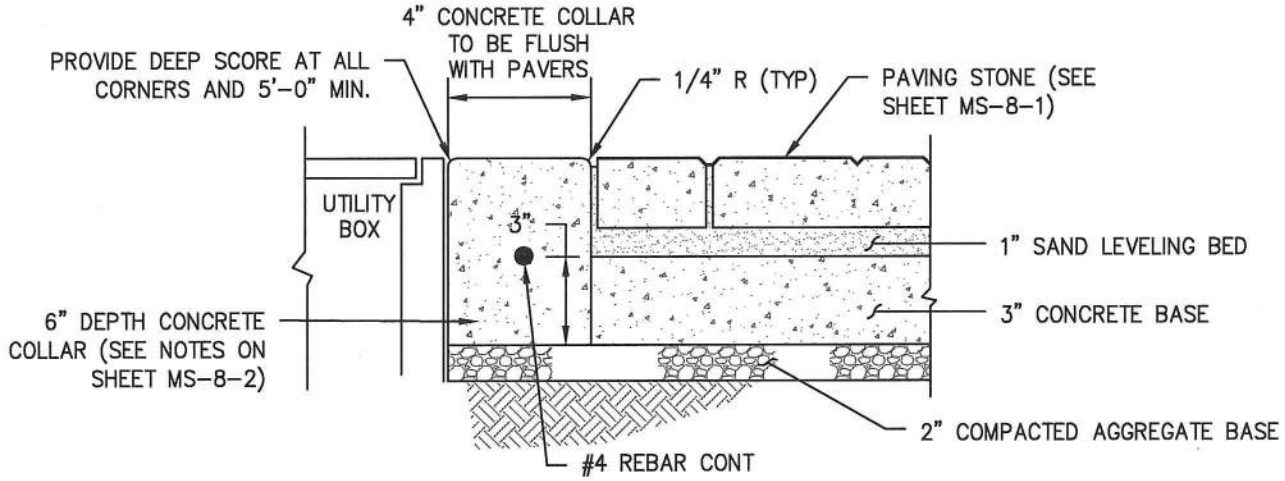
STANDARD DETAIL
MS-8-2

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-8-2.dwg



TYPICAL UTILITY BOX COLLAR DETAIL

NOT TO SCALE



SECTION C-C CONCRETE COLLAR AT UTILITY BOXES

	CT	RC	NOVEMBER 2018
APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE

CITY OF WALNUT CREEK

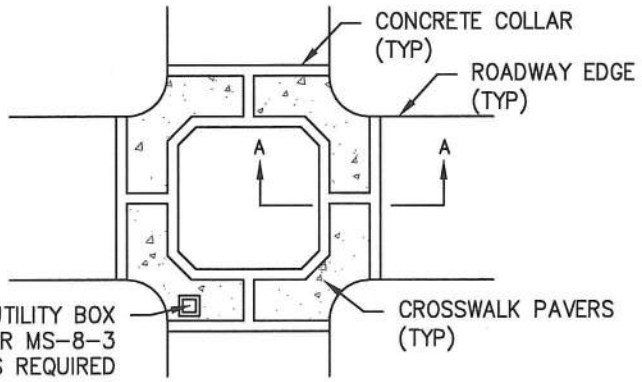
SIDEWALK PAVERS

NO.	DATE	APP	REVISION DESCRIPTION

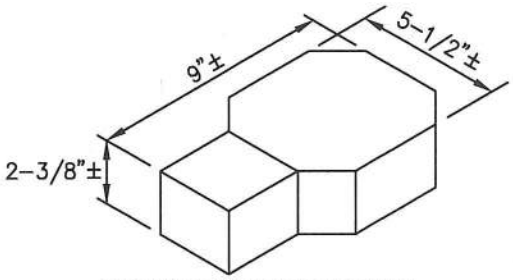
STANDARD DETAIL

MS-8-3

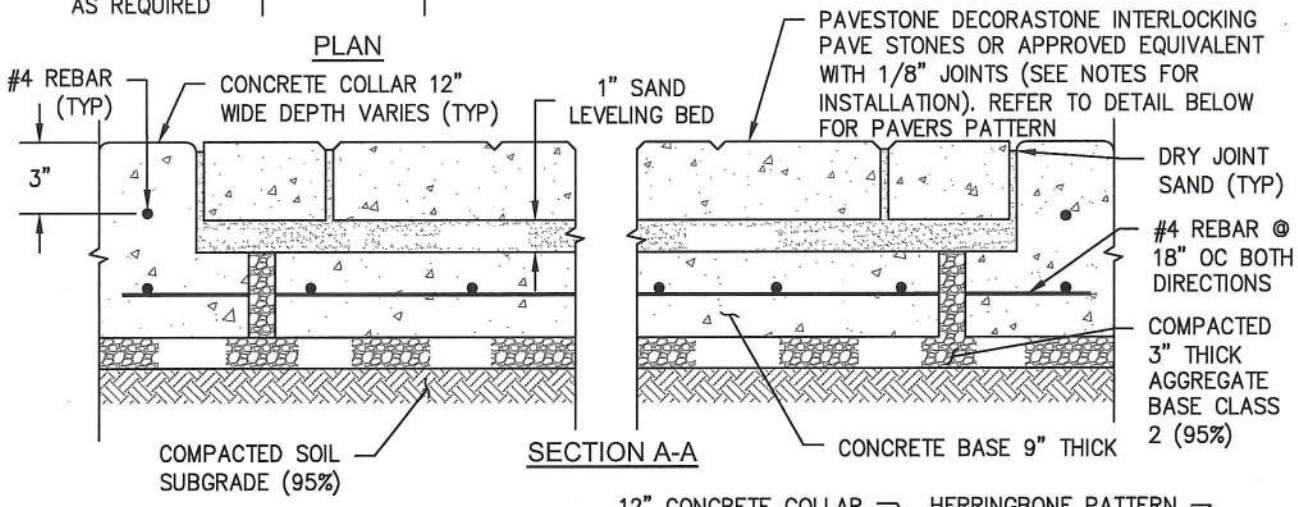
ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-8-3.dwg



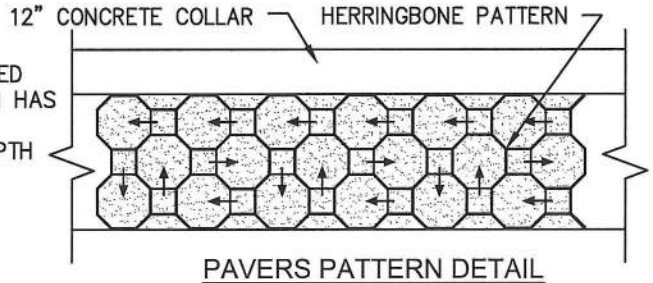
PLAN



TRAFFIC RATED (80MM) INTERLOCKING PAVER STONE



SECTION A-A



PAVERS PATTERN DETAIL

INSTALLATION NOTES:

1. EXCAVATE UNSUITABLE, UNSTABLE OR UNCONSOLIDATED SUBGRADE MATERIAL AND COMPACT THE AREA WHICH HAS BEEN CLEARED.
2. PLACE BEDDING COURSE OF SAND TO A UNIFORM DEPTH OF 1 INCH, SCREEDED TO THE GRADE AND PROFILE REQUIRED. SAND SHALL BE PER THE LATEST ICPI SPECFICATIONS.
3. WHERE REQUIRED, CUT PAVERS WITH AN APPROVED CUTTER TO FIT ACCURATELY, NEATLY AND WITHOUT DAMAGED EDGES.
4. TAMP PAVERS WITH A PLATE COMPACTOR, UNIFORMLY LEVEL, TRUE TO GRADE AND FREE OF MOVEMENT.
5. PAVER SEALANT SHALL BE REQUIRED AND APPLIED PER MFG SPECIFICATION, PLATE PAVERS FOR 48 HRS MIN AFTER SEALANT APPLICATION, PAVERS SEALANT TO BE APPROVED BY ENGINEERING PRIOR TO APPLICATION.
6. PAVERS TO BE OAK BLEND, RED AND CHARCOAL IN COLORS. PERCENTAGE OF COLORS USED AT EACH LOCATION SHALL BE DETERMINED PER CITY APPROVAL.
7. CONCRETE COLLAR SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE STANDARD SPECIFICATION AND 1 LB OF LAMP BLACK PER CY UNLESS COLORED CONCRETE IS REQUIRED BY ENGINEER. IF REQUIRED, A SAMPLE COLOR CONCRETE SUBMITTAL WILL BE REQUIRED PRIOR TO CONSTRUCTION.
8. CONCRETE BAND SHALL BE CONSTRUCTED MONOLITHICALLY WITH CONCRETE BASE.
9. CONCRETE COLLAR AND BASE SHALL HAVE WEAKENED PLANE JOINTS PER CC-6.
10. PROVIDE #4 REBAR, 15" LENGTH DOWEL WHENEVER NEW CONCRETE IS TO BE POURED AGAINST EXISTING CONCRETE.

CITY OF WALNUT CREEK

APP CITY ENGINEER	CHECKED BY	DRAWN BY	DATE
	CT	RC	NOVEMBER 2018

ROADWAY CROSSWALK PAVERS

NO.	DATE	APP	REVISION DESCRIPTION

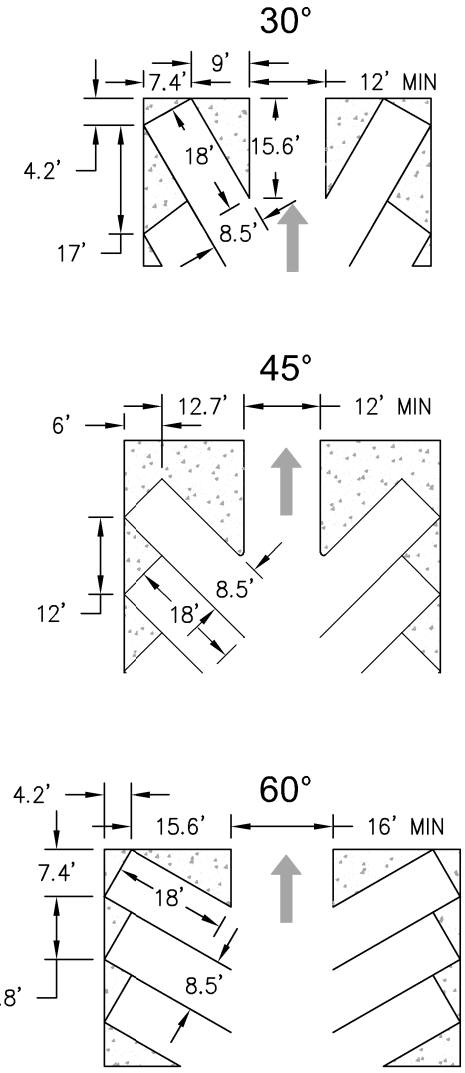
STANDARD DETAIL
MS-9

ACAD FILE NAME : H:\STDPLNS\2018 Update\DWG\MS-9.dwg

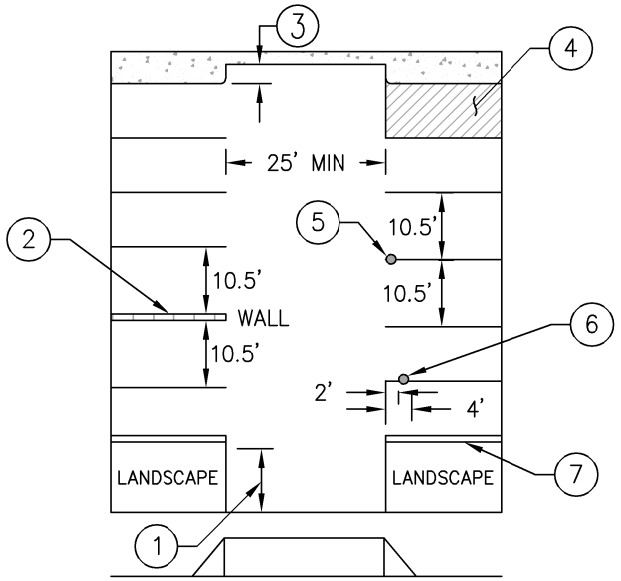
SHT 1 OF 1

CITY OF WALNUT CREEK OFF STREET PARKING STANDARDS

STALL LAYOUT FOR ANGLED PARKING



STALL LAYOUT



	WIDTH	LENGTH
STANDARD STALL DIMENSIONS	8.5'	18'
STANDARD STALL DIMENSIONS WITH LANDSCAPE OVERHANG	8.5'	15.5'
COMPACT STALL DIMENSIONS	7.5'	15'
COMPACT STALL DIMENSIONS WITH LANDSCAPE OVERHANG	7.5'	13'

(1) THERE SHALL BE A MINIMUM DISTANCE OF 10 FEET FROM THE BACK OF SIDEWALK, PROPERTY LINE, OR BACK OF CURB WHERE THERE IS NO SIDEWALK TO THE FIRST STALL.

(2) STALLS ADJACENT TO WALLS OR SIMILAR STRUCTURE SHALL BE A MINIMUM OF 10.5 FEET WIDE.

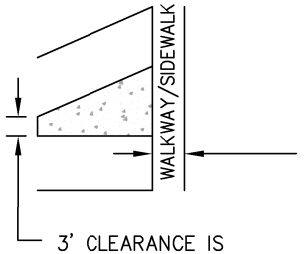
(3) PROVIDE A 3 FOOT NOTCH SPACE AT THE DEAD END OF A DRIVE AISLE

(4) A HATCHED TURNAROUND STALL SHALL BE PROVIDED FOR DEAD END AISLES.

(5) WHEN A COLUMN IS LOCATED LESS THAN 2 FEET FROM THE TAIL END OF A STALL, THE PARKING STALL SHALL BE A MINIMUM OF 10.5 FEET WIDE.

(6) COLUMN IS TO BE LOCATED BETWEEN 2 FEET AND 4 FEET TO MAINTAIN A STANDARD 8.5 FOOT WIDE STALL DIMENSION.

(7) IT IS RECOMMENDED TO PROVIDE A 1 FOOT CONCRETE BAND WHEN A PARKING STALL IS ADJACENT TO A LANDSCAPED AREA.



IN AREAS WHERE CARS OVERHANG WALKWAYS/SIDEWALKS, THE MINIMUM UNOBSTRUCTED WIDTH SHALL BE 5 FEET OR AS SPECIFIED BY OTHER REGULATION.

NOTES:

GENERAL:

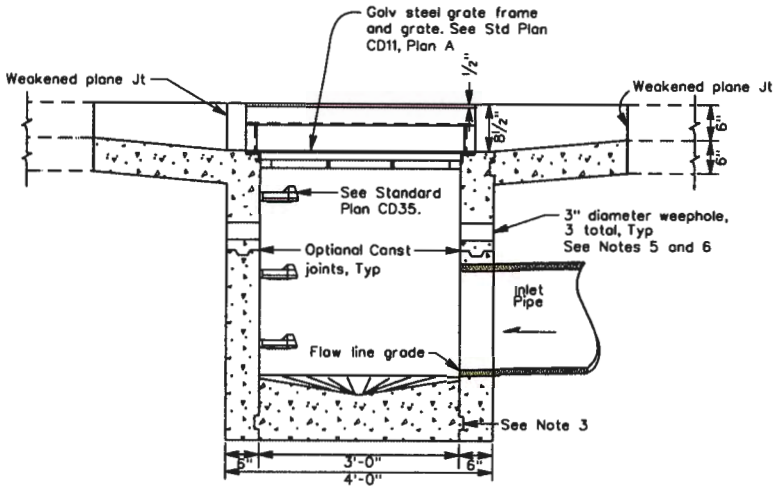
1. COVERED PARKING SPACES FOR SINGLE FAMILY HOMES ARE 9'X20' FOR A SINGLE SPACE AND 18'X20' FOR TWO SPACES.
2. LANDSCAPE OVERHANGS ARE NOT INTENDED TO DEFINE THE LOCATION OF WHEEL STOPS.
3. ALL TWO-WAY AISLES SHALL BE A MINIMUM OF 20 FEET WIDE EXCEPT FOR 90 DEGREE PARKING WHERE AISLES SHALL BE A MINIMUM OF 25 FEET WIDE.
4. ALL PARKING LOTS SHALL BE DESIGNED AND MAINTAINED IN SUCH A WAY THAT VEHICLES DO NOT OVERHANG OR PARK IN THE PUBLIC RIGHT-OF-WAY, OR USE PUBLIC RIGHT OF WAY FOR BACKING OUT OF STALLS (I.E. BACK OUT OF A STALL INTO THE STREET OR ACROSS A SIDEWALK).

COMPACT STALLS:

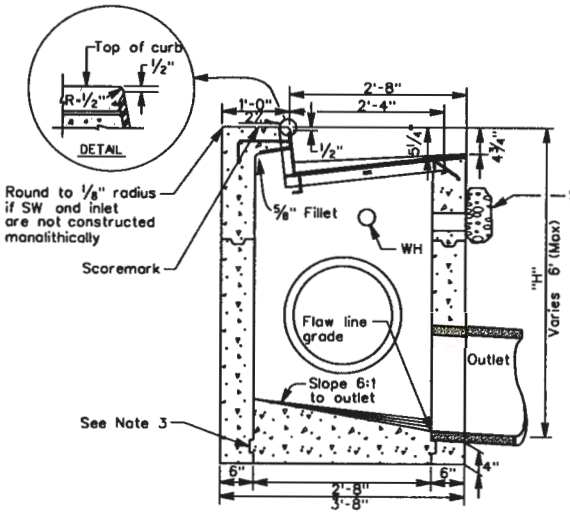
5. COMPACT STALLS ARE ALLOWED ONLY FOR BUSINESS & PROFESSIONAL OFFICE USE WHERE MORE THAN 10 SPACES ARE REQUIRED.
6. EXISTING COMPACT STALLS FOR OTHER USES MAY REMAIN IF THERE ARE STRUCTURAL CONSTRAINTS OR IF CONVERTING TO STANDARD STALLS WOULD REDUCE THE NUMBER OF STALLS TO BELOW THE MINIMUM REQUIRED.

REVISED: JUNE 2018

REFER TO W.C.M.C. SECTION 10-2.3.206 IN THE ZONING ORDINANCE FOR ADDITIONAL NOTES



SECTION A-A
NO SCALE



SECTION B-B
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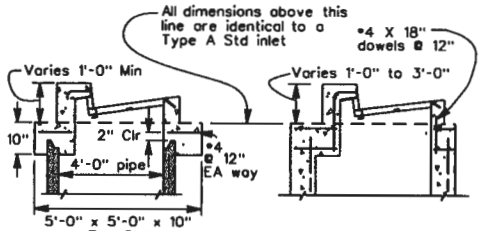
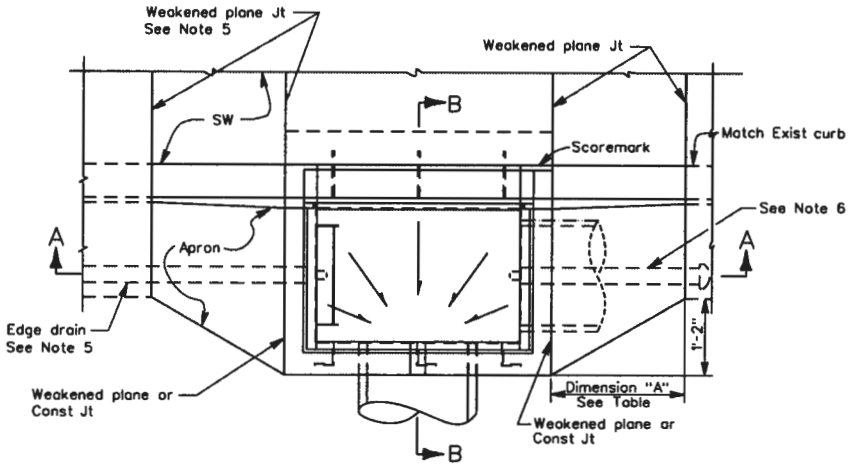


SECTION OF TYPE A OPENING
ON PRECAST MANHOLE BARREL
SEE STANDARD PLAN CD30

SECTION OF TYPE A OPENING
ON MANHOLE BASE
SEE STANDARD PLAN CD31 OR CD32



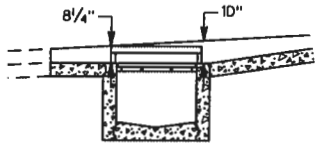
PLAN
NO SCALE
GRATE NOT SHOWN

TABLE

DIMENSION "A" (in)		
UPSTREAM CURB GRADE	"A" UPSTREAM	"A" DOWNSTREAM
2% and less	24	24
3%	36	24
4%	48	24
5%	60	24
6%	72	24
7%	84	12
8%	96	12
9%	108	12
10% and greater	120	12

← See "DETAIL FOR STEEP CURB SLOPE"

When curb grade upstream is 5% or greater, depress upstream edge of grate to 10".



DETAIL FOR STEEP CURB SLOPE

NOTES:

1. Unless approved by the County Public Works Department, no new Type A inlets are to be constructed. Type G inlets, Standard Plan CD27, are to be used. This plan is maintained for Record purposes and reference for repairs of existing Type A inlets.
2. For Inlet General Notes and Details, see Standard Plan CD35.
3. Construction joints are optional where shown, other locations are subject to the approval of the Public Works Department. Key dimensions-3/4" x 3".
4. When dimension "H" exceeds 6'-0", use a manhole base with Type "A" inlet top.
5. If edge drains are specified by Public Works Department or shown on the plans, see Standard Plan CD08 for edge drain (ED) details.
6. See Standard Plan CD35 for weephole drainage details unless edge drain is shown on plans or as specified by Public Works Department. For edge drain details, see Standard Plan CD08.

PUBLIC WORKS DIRECTOR
March 11, 2014
PLANS APPROVAL DATE

The County of Contra Costa or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER
JULIA R BUEREN
No. 37937
CIVIL
STATE OF CALIFORNIA

NO.	DATE	REVISION DESCRIPTION	BY

COUNTY OF CONTRA COSTA
PUBLIC WORKS DEPARTMENT
MARTINEZ, CALIFORNIA

STANDARD PLAN

TYPE "A" INLET

(SUPERSEDED BY STD PLAN CD27, SEE NOTE 1)

SCALE: NO SCALE | DATE: 3/14
DRAWN BY: H. HUSSEY | PLAN NO. CD20
CHECKED BY: M. HOLLINGSWORTH

STD. PLAN CD20