

CITY OF ROSEVILLE

DESIGN AND CONSTRUCTION DETAILS

January 2023

Trench Backfill

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TRAFFIC SIGNALS

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Exterior Perimeter Property Line Grading	GR 4
Interior Property Line Grading	GR 5

Bikeways

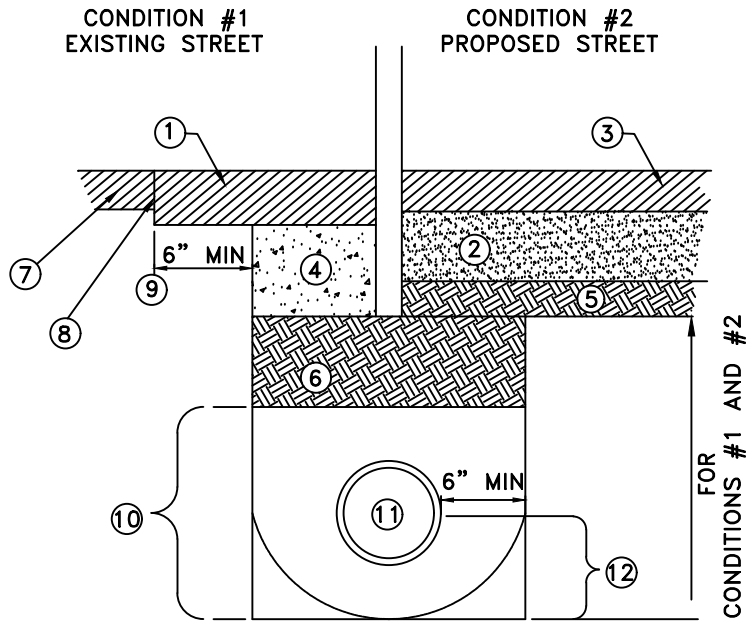
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Recycled Water inline 2” Blowoff Assembly (All Brass)	RW 2
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1” and 2” Air Release Valve Assembly	RW 5
3/4” and 1” Service Line	RW 6
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1 1/2” and 2” Recycled Water Service	RW 8
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Transmission Main Subsurface Blow Off	RW 10

Solid Waste

Standard Trash Enclosure	SW 1
Front Loading Compactor Enclosure	SW 2
Commercial Compactor Enclosure	SW 3
Residential/Commercial Compactor Enclosure	SW 4



NOTES:

1. PAVEMENT PATCH, 6 INCHES THICK OR THAT OF EXISTING, WHICHEVER IS MORE.
2. AGGREGATE BASE OR AGGREGATE BASE AND SUBBASE SECTION PER APPROVED PLAN. 95% RELATIVE COMPACTION.
3. PAVEMENT SECTION PER APPROVED PLANS.
4. 24 INCHES OF TWO SACK CONCRETE SLURRY PER CALTRANS STANDARD SPEC 19-3.062
5. SIX INCHES OF SUBGRADE, PROCESSED TO 95% RELATIVE COMPACTION.
6. NATIVE BACKFILL MATERIAL, 90% RELATIVE COMPACTION.
7. EXISTING STREET PAVEMENT.
8. TACK COAT ON ALL VERTICAL PAVEMENT SAWCUTS, OR SAWCUT CONCRETE PER STREETS DETAIL ST-54.
9. TYPICAL EACH SIDE OF TRENCH IN EXISTING STREET.
10. FOR PIPE EMBEDMENT SEE TB-2 FOR PLASTIC STORM DRAIN, W-1 FOR WATER PIPE, SS-1 FOR SANITARY SEWER PIPE, OF THESE CONSTRUCTION STANDARDS.
11. PIPE
12. FOR REINFORCED CONCRETE PIPE EMBEDMENT: PLACE 1/2 OR 3/4 INCH CRUSHED ROCK UP TO SPRING LINE WITH MINIMUM OF FOUR (4) INCHES OF 1/2 OR 3/4 INCH CRUSHED ROCK BEDDING. MAINTAIN MINIMUM OF SIX (6) INCHES OF CLEARANCE BETWEEN THE PIPE AND THE TRENCH WALL.
13. ALTERNATE TRENCH BOTTOM. THE DIAMETER OF THE ALTERNATE ROUNDED TRENCH BOTTOM SHALL EQUAL THE WIDTH OF THE TRENCH.

NOTE: IN CONDITION #1, TRENCH CUT FEE MAY APPLY PER CITY ORDINANCE.

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

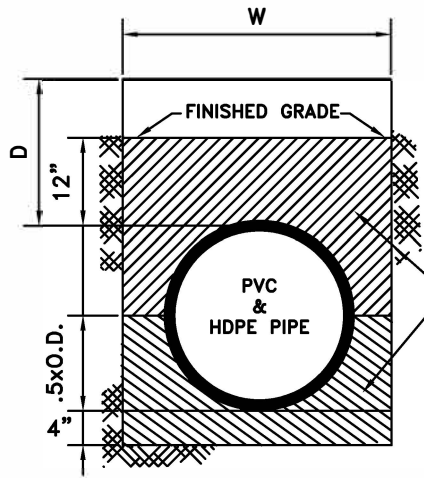


DEPARTMENT OF
PUBLIC WORKS

UTILITY TRENCH PAVING BACKFILL
AND EMBEDMENT

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: R MEDINA
APPROVED BY: JASON SHYKOWSKI

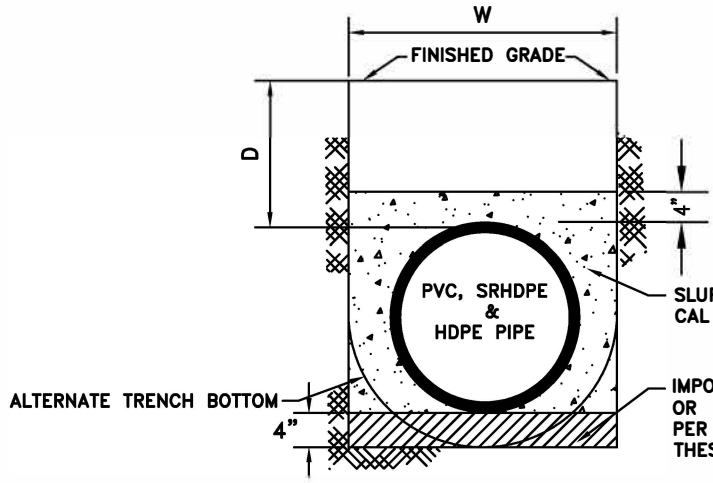
TB-1



IMPORTED MATERIAL: 1/2" OR 3/4" CRUSHED ROCK PER SECTION 71-5L OF THESE STANDARDS.

DETAIL A

SRHDPE, PVC & HDPE PIPE ONLY (NONRIGID)



SLURRY BACKFILL PER CALTRANS SEC. 19-3.02E

IMPORTED MATERIAL: 1/2" OR 3/4" CRUSHED ROCK PER SECTION 71-5L OF THESE STANDARDS.

DETAIL B

SRHDPE, PVC & HDPE PIPE ONLY (NONRIGID)

NOTES:

1. TRENCH WIDTH:

PIPE SIZE
30" AND UNDER
OVER 30"

TRENCH WIDTH = W
O.D. + 16"
O.D. x 1.25 + 12"

2. HIGH DENSITY POLYETHYLENE (HDPE) AND POLYPROPYLENE N-12HP, 12"-60" STORM DRAIN PIPE SHALL BE TYPE "S" AS DESCRIBED IN SECTION 64 OF THE CALTRANS STANDARD SPECIFICATIONS. PIPE INSTALLATION AND PIPE CONFIGURATION SHALL BE AS SHOWN ON THIS DRAWING AND AS DESCRIBED IN THESE GENERAL NOTES. JOINTS SHALL BE SEALED WITH A RUBBER GASKET. GASKETS SHALL MEET THE REQUIREMENT OF ASTM F-477. "
3. FILL HEIGHTS "D" FOR NONRIGID (PVS & HDPE) DRAIN PIPE SHALL BE A MINIMUM OF 36 INCH AND A MAXIMUM OF 15 FEET, AND (SRHDPE) SHALL HAVE A MINIMUM OF ONE FOOT (IN ADDITION TO THE ROADWAY STRUCTURAL SECTION) AND A MAXIMUM OF 30 FEET FROM THE TOP OF PIPE FINISH GRADE. (SEE DETAILS A & B FOR TRENCH BACKFILL REQUIREMENTS. CONTRACTOR MAY USE EITHER DETAIL A OR B.)
4. PIPE MATERIAL CHANGES BETWEEN STRUCTURES ARE PROHIBITED. OUTFALL/INLET RUNS AND STUBS INTO FUTURE SITES SHALL BE RCP. (SEE SECTION 101-6 D.1.C. AND 101-8 D.4. FOR CONCRETE PIPE APPLICATION.)
5. REFER TO TB-1 FOR TREATMENT OF THE TOP PORTION OF THE TRENCH WITHIN THE CITY STREET.
6. THE DIAMETER OF THE ALTERNATE, ROUNDED TRENCH BOTTOM SHALL BE EQUAL TO THE WIDTH OF THE TRENCH.

MARC STOUT
CITY ENGINEER

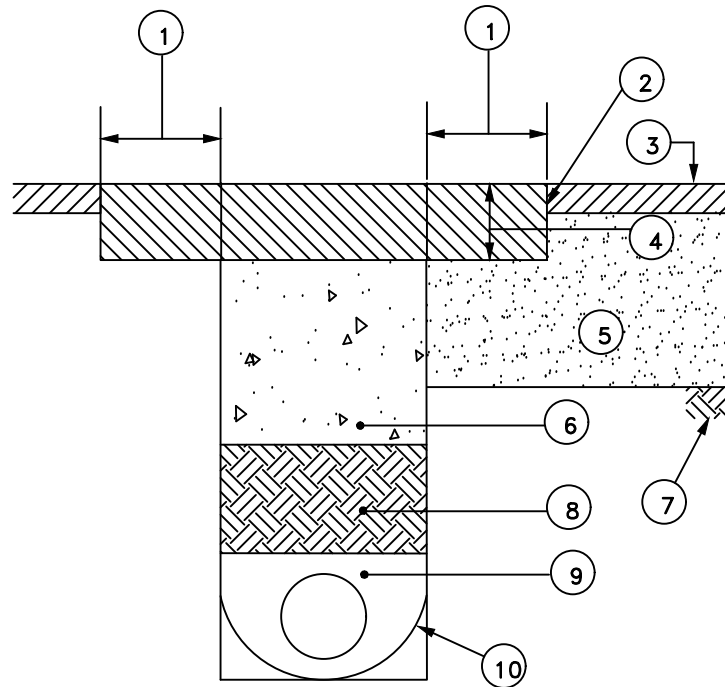


DEVELOPMENT SERVICES
DEPARTMENT

HDPE, SRHDPE PVC STORM DRAIN
PIPE ONLY (NONRIGID)
BEDDING AND BACKFILL

SCALE: NONE
REVISED: JANUARY 1, 2019
DRAWN BY: R MEDINA
APPROVED BY: MARC STOUT

TB-2



NOTES:

1. 18 INCH KEY OUTSIDE TRENCH LINE
2. COAT ALL EXISTING VERTICAL FACES WITH ASPHALTIC EMULSION (TACK) PRIOR TO PAVING
3. EXISTING PAVING
4. PATCH SHALL BE THICKNESS OF EXISTING SECTION PLUS 2 1/2 INCHES. PER CITY TRENCH CUT ORDINANCE (6 INCH MINIMUM THICKNESS).
5. AGGREGATE BASE/SUBBASE: RECOMPACT DISTURBED SURFACE AREAS TO 95%.
6. TWO FEET OF TWO SACK CONCRETE SLURRY PER CALTRANS STANDARD SPECIFICATION 19-3.062
7. NATIVE SOIL
8. NATIVE SOIL TO BE PROCESSED TO 90% RELATIVE COMPACTION.
9. FOR PIPE EMBEDMENT, SEE THE FOLLOWING CONDITIONS:
 - a. TB-2 FOR PLASTIC STORM DRAIN PIPE
 - b. W-1 FOR WATER PIPE
 - c. SS-1 FOR WASTE WATER PIPE
 - d. FOR REINFORCED CONCRETE PIPE, PLACE 1/2 OR 3/4 INCH CRUSHED ROCK UP TO SPRING LINE WITH A MINIMUM OF FOUR INCHES OF BEDDING BELOW PIPE. MAINTAIN A MINIMUM OF SIX INCHES OF CLEARANCE BETWEEN THE PIPE AND THE TRENCH WALL.
10. ALTERNATE TRENCH BOTTOM. THE DIAMETER OF THE ALTERNATE, ROUNDED TRENCH BOTTOM SHALL EQUAL THE WIDTH OF THE TRENCH.

NOTE: THIS DETAIL APPLIES TO UTILITY TRENCHES IN WHICH TRENCH CUT FEES WERE NOT PAID BY THE APPLICANT, OR AS SPECIFIED BY THE ENGINEER.

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

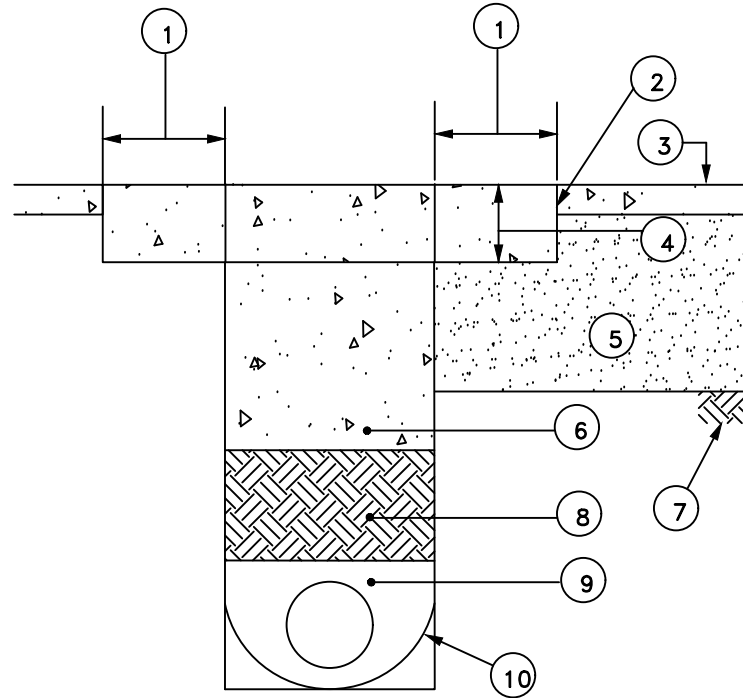


DEPARTMENT OF
PUBLIC WORKS

DEEP CUT "T"
PATCH RECONSTRUCTION
ASPHALT STREETS

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: R MEDINA
APPROVED BY: JASON SHYKOWSKI

TB-3



NOTES:

1. SAWCUT EXISTING CONCRETE PAVEMENT PER ST-54 AT LEAST 18" FROM TRENCH LINE AND:
 - a. AT AN EXISTING JOINT
 - b. IN THE MIDDLE OF A TRAVELED LANE OR MID-PANEL PERPENDICULAR TO PATH OF TRAVEL
2. COAT ALL EXISTING VERTICAL FACES WITH TWO-PART EPOXY PRIOR TO PLACING CONCRETE.
3. EXISTING PAVING
4. PATCH SHALL BE THICKNESS OF EXISTING SECTION. PER CITY TRENCH CUT ORDINANCE (6 INCH MINIMUM THICKNESS).
5. AGGREGATE BASE/SUBBASE: RECOMPACT DISTURBED SURFACE AREAS TO 95%.
6. TWO FEET OF TWO SACK CONCRETE SLURRY PER CALTRANS STANDARD SPECIFICATION 19-3.062
7. NATIVE SOIL
8. NATIVE SOIL TO BE PROCESSED TO 90% RELATIVE COMPACTION.
9. FOR PIPE EMBEDMENT, SEE THE FOLLOWING CONDITIONS:
 - a. TB-2 FOR PLASTIC STORM DRAIN PIPE
 - b. W-1 FOR WATER PIPE
 - c. SS-1 FOR WASTE WATER PIPE
 - d. FOR REINFORCED CONCRETE PIPE, PLACE 1/2 OR 3/4 INCH CRUSHED ROCK UP TO SPRING LINE WITH A MINIMUM OF FOUR INCHES OF BEDDING BELOW PIPE. MAINTAIN A MINIMUM OF SIX INCHES OF CLEARANCE BETWEEN THE PIPE AND THE TRENCH WALL.
10. ALTERNATE TRENCH BOTTOM. THE DIAMETER OF THE ALTERNATE, ROUNDED TRENCH BOTTOM SHALL EQUAL THE WIDTH OF THE TRENCH.

NOTE: THIS DETAIL APPLIES TO UTILITY TRENCHES IN WHICH TRENCH CUT FEES WERE NOT PAID BY THE APPLICANT, OR AS SPECIFIED BY THE ENGINEER.

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

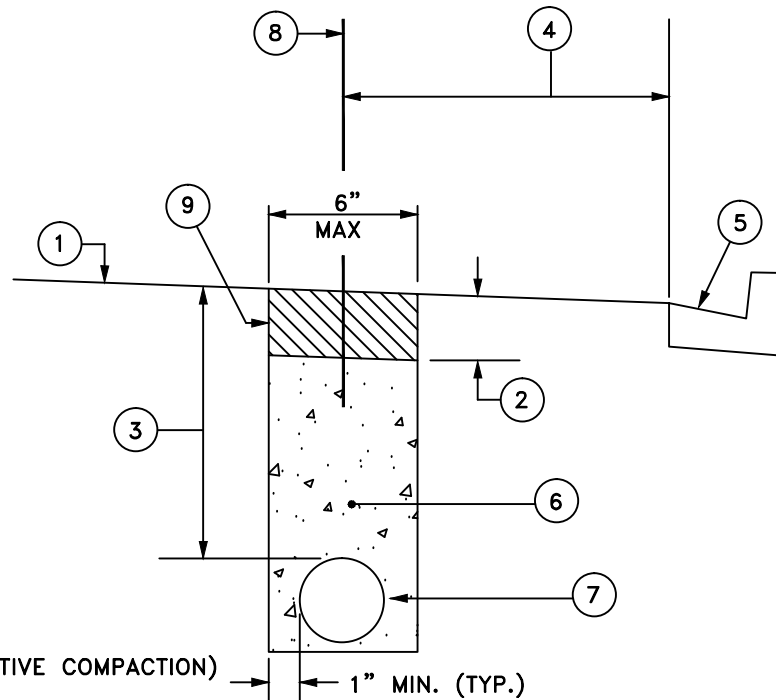


DEVELOPMENT SERVICES
DEPARTMENT

DEEP CUT "T"
PATCH RECONSTRUCTION
CONCRETE STREETS

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: BENNETT ENGINEERING
APPROVED BY: JASON SHYKOWSKI

TB-3a



LEGEND:

1. SURFACE OF EXISTING STREET SECTION
2. .25' THICK ASPHALT CONCRETE PER SECTION 71-4.D. (93% RELATIVE COMPACTION)
3. PIPE COVER PER UTILITY CO. (18" MIN TO 30" MAX)
4. DISTANCE VARIES. IF LESS THAN 3 FEET, THEN CONTRACTOR IS REQUIRED TO EDGE GRIND FROM LIP OF GUTTER (.15' DEEP) TO INSIDE LIMIT LINE OF TRENCH
5. EXISTING CURB AND GUTTER
6. "MINOR CONCRETE" CONFORMING TO THE PROVISIONS IN SECTION 71-5B, "CONCRETE", WITH FINE AGGREGATE (PEA GRAVEL MIX). CONCRETE SHALL BE FLOW-ABLE AT DISCRETION OF CITY INSPECTOR
7. CONDUIT AS SPECIFIED
8. CENTER LINE OF BIKE LANE STRIPE
9. PLACE BINDER (TACK COAT) ON ALL SURFACES PRIOR TO PAVING PER SECTION 39 OF STATE STANDARD SPECIFICATIONS

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF BIKE LANE STRIPE AND LEGENDS (AFFECTED BY TRENCHING) WITH THERMOPLASTIC MATERIAL.
2. ALL EXCAVATED AREAS IN THE PAVEMENT SHALL BE BACKFILLED, EXCEPT FOR THE TOP 0.25' BY THE END OF EACH WORK DAY. THE TOP .25' SHALL BE PLACED WITHIN 3 WORKING DAYS AFTER TRENCHING. DELINEATORS SHALL BE PLACED ON TEN FOOT CENTERS, AND WITHIN 1' OF EACH SIDE OF DRIVEWAYS IN THE INTERIM. REFER TO SECTION 6.2W.5 FOR TRANSITION LOCATIONS.
3. TRENCH CUT FEE SHALL APPLY PER CITY ORDINANCE. NO ALTERNATE TRENCH CONFIGURATION IS ALLOWED.
4. SEE DETAIL TS-13 FOR MULTIPLE CONDUIT PROVISIONS.

MARC STOUT
CITY ENGINEER

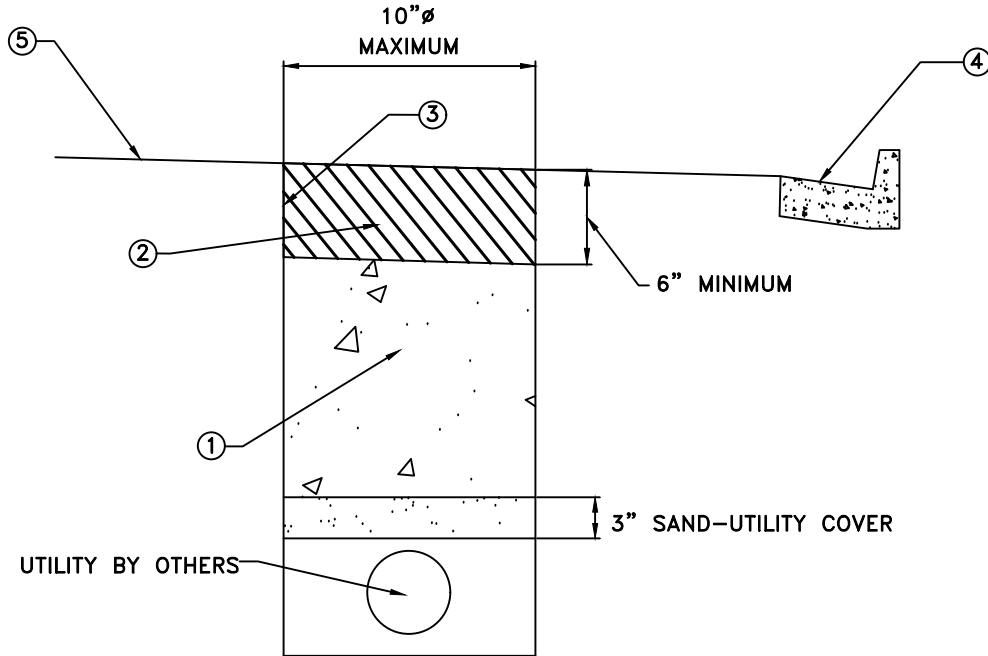
CITY OF
ROSEVILLE
CALIFORNIA

DEVELOPMENT SERVICES
DEPARTMENT

ROCK WHEEL TRENCH
(IN EXISTING STREET)

SCALE: NONE
REVISED: JANUARY 1, 2016
DRAWN BY: J MCKINNEY
APPROVED BY: MARC STOUT

TB-4



LEGEND:

1. "MINOR CONCRETE" CONFORMING TO THE PROVISIONS IN SECTION 71-5B, "CONCRETE", WITH FINE AGGREGATE (PEA GRAVEL MIX).
2. A) FOR ASPHALT CONCRETE, 1/2" ASPHALT PER CONSTRUCTION STANDARDS SECTION 71-4.D. (93% RELATIVE COMPACTION).
B) FOR PORTLAND CEMENT CONCRETE, SEE CONSTRUCTION STANDARDS SECTION 71-4.
3. A) FOR ASPHALT CONCRETE, PLACE BINDER (TACK COAT) ON ALL SURFACES PRIOR TO PAVING PER SECTION 39 OF STATE STANDARD SPECIFICATIONS.
B) FOR PORTLAND CEMENT CONCRETE, SAWCUT PER DETAIL ST-54 AND COAT ALL SURFACES WITH TWO-PART EPOXY PRIOR TO PLACING CONCRETE PAVEMENT.
4. EXISTING CURB AND GUTTER
5. SURFACE EXISTING STREET SECTION (PAVEMENT)

NOTES

1. ASPHALT CONCRETE ROADWAY SURFACE POTHOLE SHALL BE SAW CUT OR JACKHAMMERED IN A UNIFORM FASHION. FOR PORTLAND CEMENT CONCRETE ROADWAYS, BRING CONCRETE BACKFILL TO SURFACE, AND FINISH WITH MEDIUM BROOM FINISH PARALLEL TO PATH OF TRAVEL.
2. MAXIMUM POTHOLE SIZE SHALL BE 10" DIAMETER. SHOULD POTHOLE SIDEWALL CAVE-IN OCCUR DURING JET-VAC EXCAVATION ADDITIONAL EXCAVATION MAY BE REQUIRED (AT THE DISCRETION OF THE DEVELOPMENT SERVICES INSPECTOR).
3. REPLACE ALL PAVEMENT MARKINGS AND THERMOPLASTIC LEGENDS THAT WERE DAMAGED.
4. POTHOLE EXCAVATION MUST BE TEMPORARILY BACKFILLED SAME DAY AS EXCAVATION AND PERMANENTLY WITHIN SEVEN CALENDAR DAYS.
5. TEMPORARY STEEL COVERS ARE REQUIRED WHEN POTHOLING IS LOCATED WITHIN THE TRAVEL LANES, WHEN OPEN TO TRAFFIC.

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

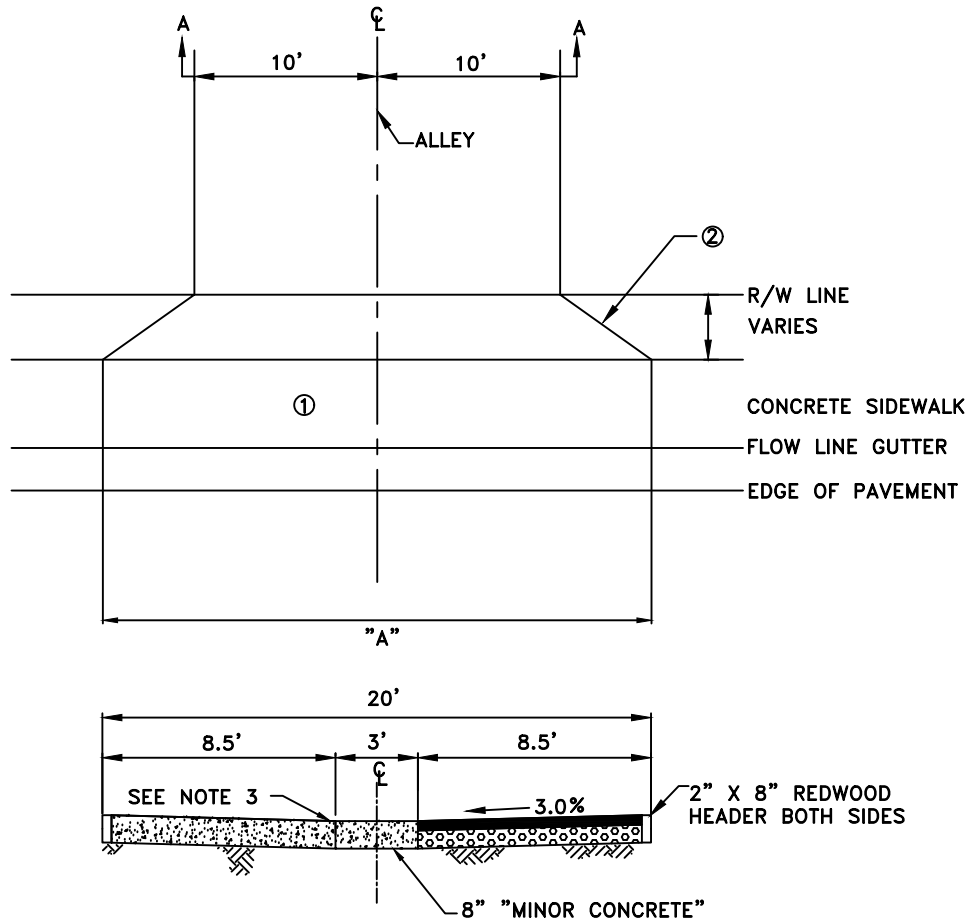


DEPARTMENT OF
PUBLIC WORKS

**POTHOLE
RECONSTRUCTION**

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: N. SIVIGLIA
APPROVED BY: JASON SHYKOWSKI

TB-5




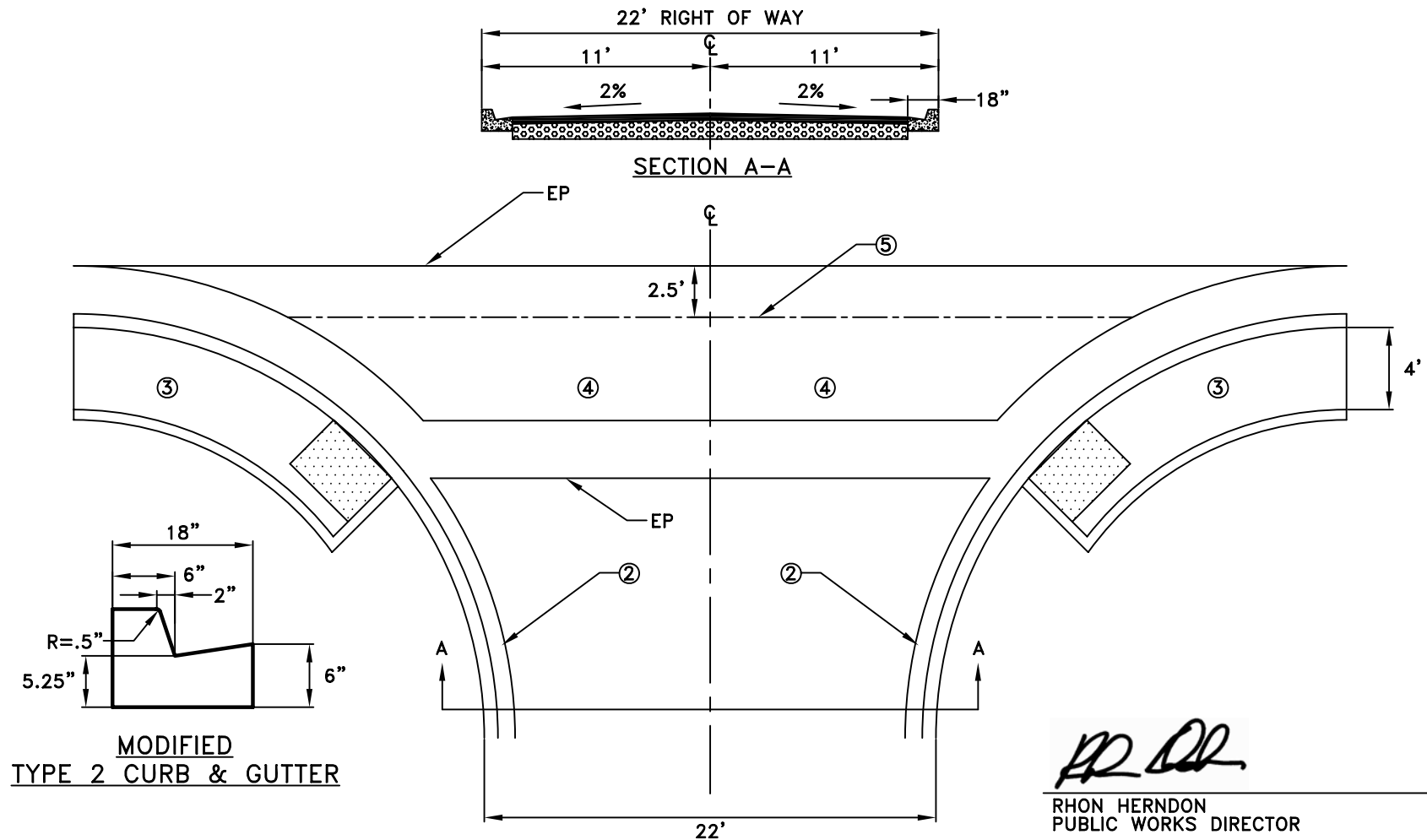
SECTION A-A

NOTES

1. ALLEY ENTRANCE SHALL CONFORM TO DESIGN STANDARD DRAWING ST-20 OR ST-21 WITH "A" EQUAL TO 25 FEET.
2. TRANSITION FROM DRIVEWAY TO ALLEY SHALL BE MADE BETWEEN BACK OF WALK AND RIGHT OF WAY. VARIATION FROM THIS MAY REQUIRE DEDICATION OF ADDITIONAL RIGHT OF WAY FOR TRANSITION.
3. SEE SECTION 7-4 OF THESE STANDARDS FOR STREET PAVEMENT REQUIREMENTS.
4. ALL CONCRETE TO BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.


Jason Shykowski
 JASON SHYKOWSKI
 PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
<h2 style="margin: 0;">ALLEY DETAIL</h2>	
SCALE: NONE REVISED: FEBRUARY 2021 DRAWN BY: N. SIVIGLIA APPROVED BY: JASON SHYKOWSKI	ST-1a



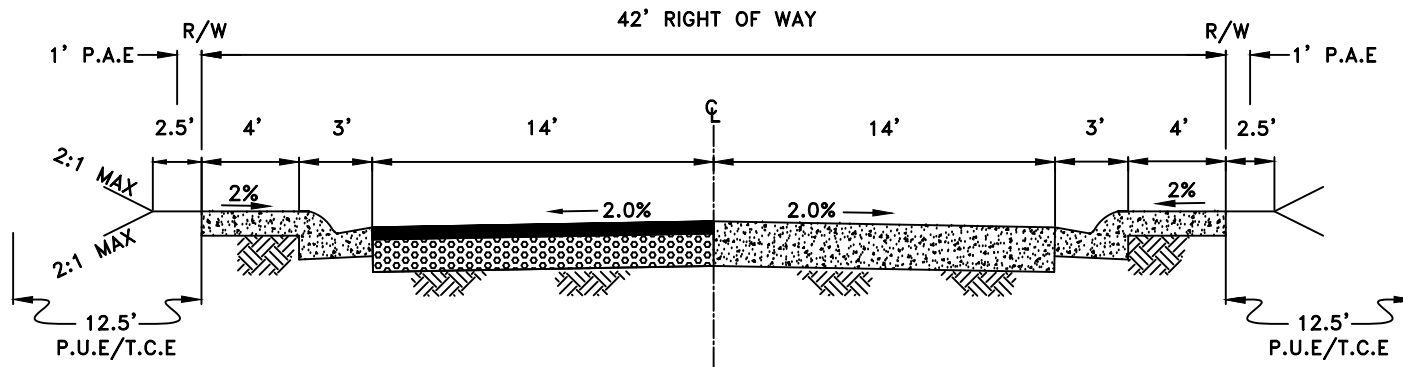
RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

		DEPARTMENT OF PUBLIC WORKS
MODIFIED ALLEY RESIDENTIAL		
SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON		ST-1b

NOTES

1. PAVEMENT SECTION TO BE DESIGNED BASED ON A TRAFFIC INDEX (TI) OF 7. SEE SECTION 7-4 OF THE DESIGN STANDARDS FOR STREET PAVEMENT REQUIREMENTS.
2. CURB AND GUTTER TO BE "MODIFIED TYPE 2" PER THIS DETAIL.
3. "CURB RAMP" PER DETAIL ST-22 WITH A 4' SIDEWALK.
4. ALL CONCRETE TO BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS, AND SHALL BE 10" THICK.
5. "V-GUTTER" PER DETAIL ST-22.



MINOR RESIDENTIAL STREETS
ATTACHED SIDEWALK

Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

NOTES:

1. SEE SECTION 7-4 OF THESE STANDARDS FOR STREET PAVEMENT REQUIREMENTS.
2. CURB AND GUTTER TO BE "TYPE 1" (ST-17) ADJACENT TO SINGLE FAMILY RESIDENTIAL LOTS. "TYPE 2" (ST-17) AT ALL OTHER LOCATIONS.
3. SIDEWALK TO HAVE EITHER THICKNESS OF 6" ON COMPACTED NATIVE SOIL OR 4" THICKNESS WITH 4" COMPACTED AGGREGATE BASE.
4. PRIVATE STREET SECTION'S WIDTH CAN BE REDUCED BY 4- FEET BY ELIMINATING SIDEWALK FROM ONE SIDE OF THE STREET WITH THE APPROVAL OF CITY ENGINEER.
5. P.U.E./T.C.E - PUBLIC UTILITY EASEMENT / TRAFFIC CONTROL EASEMENT
6. P.A.E - PEDESTRIAN ACCESS EASEMENT

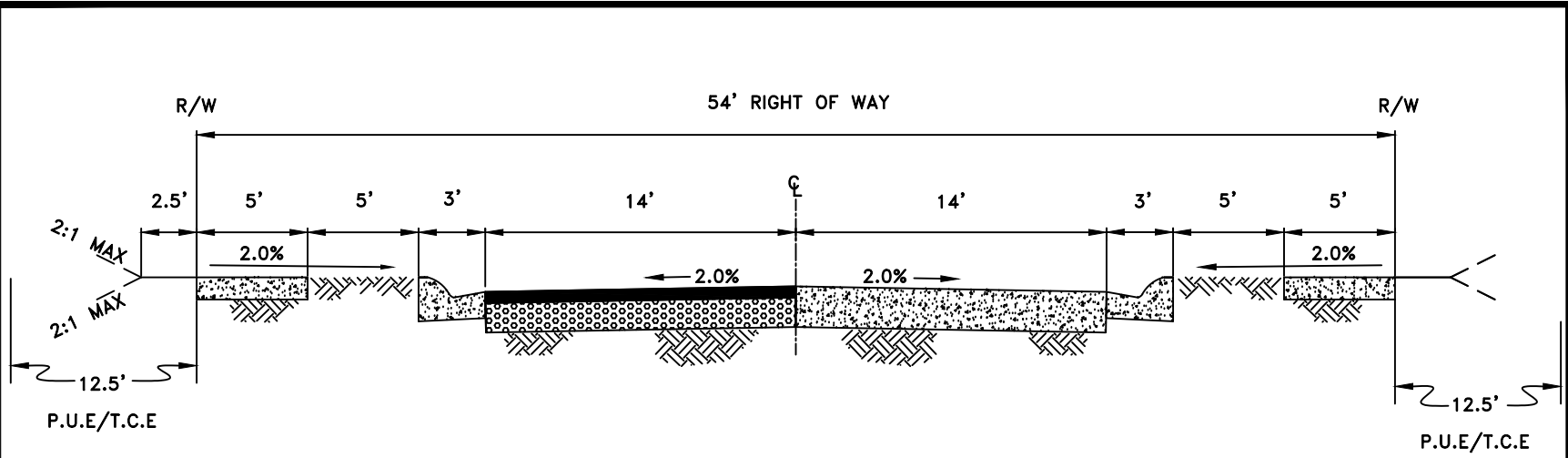
CITY OF
ROSEVILLE
CALIFORNIA

DEPARTMENT OF
PUBLIC WORKS

MINOR RESIDENTIAL STREETS
ATTACHED SIDEWALK

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: BENNETT ENG
APPROVED BY: JASON SHYKOWSKI

ST-2



MINOR RESIDENTIAL STREETS
DETACHED SIDEWALK

Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

NOTES:

1. SEE SECTION 7-4 OF THE DESIGN STANDARDS FOR STREET PAVEMENT REQUIREMENTS.
2. CURB AND GUTTER TO BE "TYPE 1"(ST-17) ADJACENT TO SINGLE FAMILY RESIDENTIAL LOTS. "TYPE 2"(ST-17) AT ALL OTHER LOCATIONS
3. SIDEWALK TO HAVE EITHER THICKNESS OF 6" ON COMPACTED NATIVE SOIL OR 4" THICKNESS WITH 4" COMPACTED AGGREGATE BASE.
4. P.U.E./T.C.E - PUBLIC UTILITY EASEMENT / TRAFFIC CONTROL EASEMENT

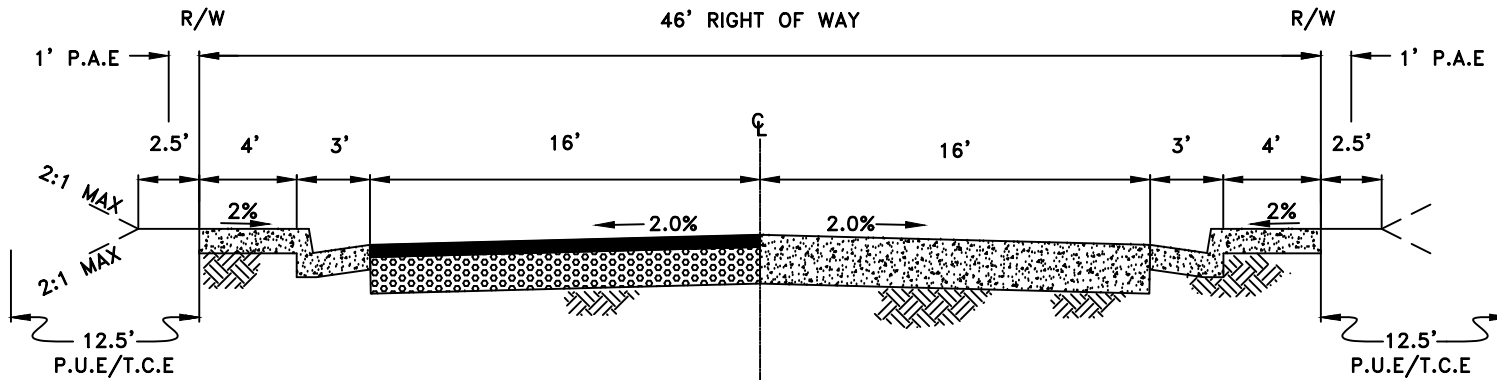


DEVELOPMENT SERVICES
DEPARTMENT

MINOR RESIDENTIAL STREETS
DETACHED SIDEWALK

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: BENNETT ENG
APPROVED BY: JASON SHYKOWSKI

ST-3



**PRIMARY RESIDENTIAL STREETS
ATTACHED SIDEWALK**

Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

NOTES:

1. SEE SECTION 7-4 OF THE DESIGN STANDARDS FOR STREET PAVEMENT REQUIREMENTS.
2. CURB AND GUTTER TO BE "TYPE 1"(ST-17) ADJACENT TO SINGLE FAMILY RESIDENTIAL LOTS. "TYPE 2"(ST-17) AT ALL OTHER LOCATIONS
3. SIDEWALK TO HAVE EITHER THICKNESS OF 6" ON COMPACTED NATIVE SOIL OR 4" THICKNESS WITH 4" COMPACTED AGGREGATE BASE.
4. P.U.E/T.C.E - PUBLIC UTILITY EASEMENT / TRAFFIC CONTROL EASEMENT
5. P.A.E - PEDESTRIAN ACCESS EASEMENT

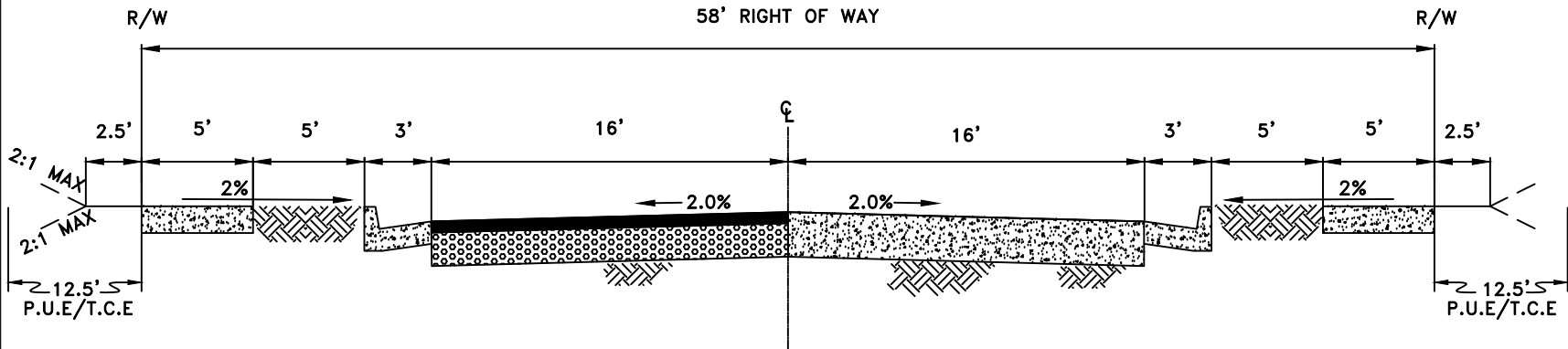


DEPARTMENT OF
PUBLIC WORKS

**PRIMARY RESIDENTIAL STREETS
ATTACHED SIDEWALK**

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: J MCKINNEY
APPROVED BY: JASON SHYKOWSKI

ST-4




**PRIMARY RESIDENTIAL STREETS
DETACHED SIDEWALK**

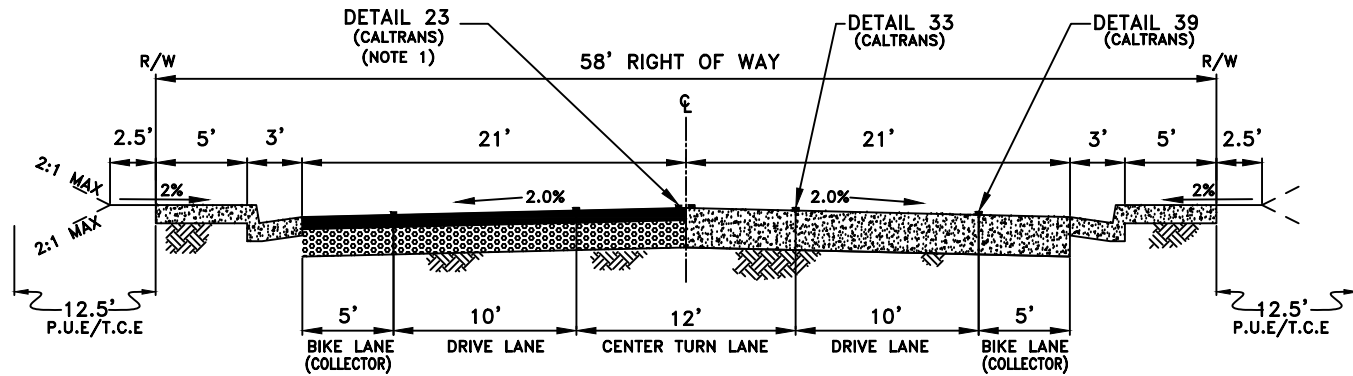
Jason Shykowski
 JASON SHYKOWSKI
 PUBLIC WORKS DIRECTOR

NOTES:

1. SEE SECTION 7-4 OF THE DESIGN STANDARDS FOR STREET PAVEMENT REQUIREMENTS.
2. CURB AND GUTTER TO BE "TYPE 1"(ST-17) ADJACENT TO SINGLE FAMILY RESIDENTIAL LOTS. "TYPE 2"(ST-17) AT ALL OTHER LOCATIONS
3. SIDEWALK TO HAVE EITHER THICKNESS OF 6" ON COMPACTED NATIVE SOIL OR 4" THICKNESS WITH 4" COMPACTED AGGREGATE BASE.
4. P.U.E/T.C.E - PUBLIC UTILITY EASEMENT / TRAFFIC CONTROL EASEMENT

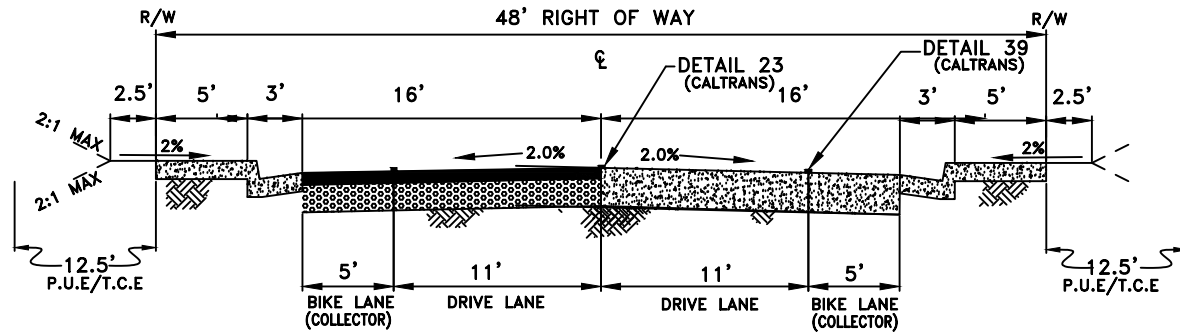
	DEPARTMENT OF PUBLIC WORKS
PRIMARY RESIDENTIAL STREETS DETACHED SIDEWALK	
SCALE: NONE REVISED: FEBRUARY 2021 DRAWN BY: BENNETT ENG APPROVED BY: JASON SHYKOWSKI	ST-5

OPTION A



OPTION B

(SEE NOTE #8)



NOTES:

1. ON INDUSTRIAL STREETS THE CENTER TWO WAY LEFT TURN (DETAIL 33) SHALL BE REPLACED BY A DETAIL "23"(CALTRANS) CENTERLINE STRIPING AND TURN LANES AS MAY BE REQUIRED. NO BIKE LANES ARE REQUIRED.
2. SEE SECTION 7-4 OF THE DESIGN STANDARDS FOR STREET PAVEMENT REQUIREMENTS.
3. CURB AND GUTTER SHALL BE "TYPE 2"(ST-17) AND SIDEWALK TO HAVE EITHER THICKNESS OF 6" ON COMPACTED NATIVE SOIL OR 4" THICKNESS WITH 4" COMPACTED AGGREGATE BASE.
4. STRIPING DETAIL NUMBERS REFERENCE CALTRANS STANDARDS.
5. P.U.E./T.C.E - PUBLIC UTILITY EASEMENT / TRAFFIC CONTROL EASEMENT
6. "NO PARKING"(R-26) SIGNS SHALL BE PLACED ON STREET LIGHT POLES WHERE BIKE LANE EXIST OR AS DIRECTED BY CITY ENGINEER.
7. SIGN DETAIL NUMBERS REFERENCE 2012 CALIFORNIA MUTCD.
8. IN CERTAIN INSTANCES, WITH THE RECOMMENDATION OF THE PUBLIC WORKS DIRECTOR, AND APPROVAL OF THE CITY COUNCIL, THIS ROADWAY STANDARD MAY BE MODIFIED WITH THE DEMONSTRATION THAT "BLUEPRINT" GOALS AND OBJECTIVES OF A WALKABLE COMMUNITY ARE BEING ACHIEVED WITHIN A COMMUNITY PLAN.

Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

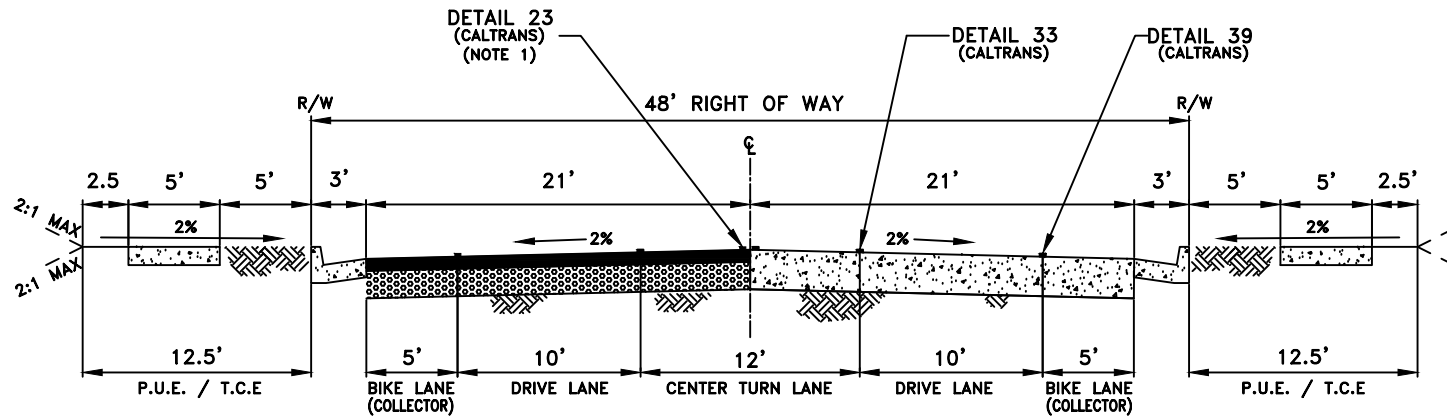


DEPARTMENT OF
PUBLIC WORKS

**COLLECTOR/INDUSTRIAL STREETS
ATTACHED SIDEWALK**

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: BENNETT ENG
APPROVED BY: JASON SHYKOWSKI

ST-6



**COLLECTOR/INDUSTRIAL STREETS
DETACHED SIDEWALK**

NOTES:

1. ON INDUSTRIAL STREETS THE CENTER TWO WAY LEFT TURN (DETAIL 33) SHALL BE REPLACED BY A DETAIL "23"(CALTRANS) CENTERLINE STRIPPING AND TURN LANES AS MAY BE REQUIRED. NO BIKE LANES ARE REQUIRED.
2. SEE SECTION 7-4 OF THE DESIGN STANDARDS FOR STREET PAVEMENT REQUIREMENTS.
3. CURB AND GUTTER SHALL BE "TYPE 2"(ST-17) AND SIDEWALK TO HAVE EITHER THICKNESS OF 6" ON COMPACTED SOIL OR 4" THICKNESS ON 4" COMPACTED AGGREGATE BASE. BIKE LANE MAY BE DISCONTINUED ALONG PARK OR SCHOOL FRONTAGE AS DEEMED APPROPRIATE BY THE CITY ENGINEER.
4. STRIPING DETAIL NUMBERS REFERENCE CALTRANS STANDARDS.
5. P.U.E./T.C.E - PUBLIC UTILITY EASEMENT / TRAFFIC CONTROL EASEMENT
6. "NO PARKING"(R-26) SIGNS SHALL BE PLACED ON STREET LIGHT POLES WHERE BIKE LANE EXIST OR AS DIRECTED BY CITY ENGINEER.
7. SIGN DETAIL NUMBERS REFERENCE 2012 CALIFORNIA MUTCD

Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

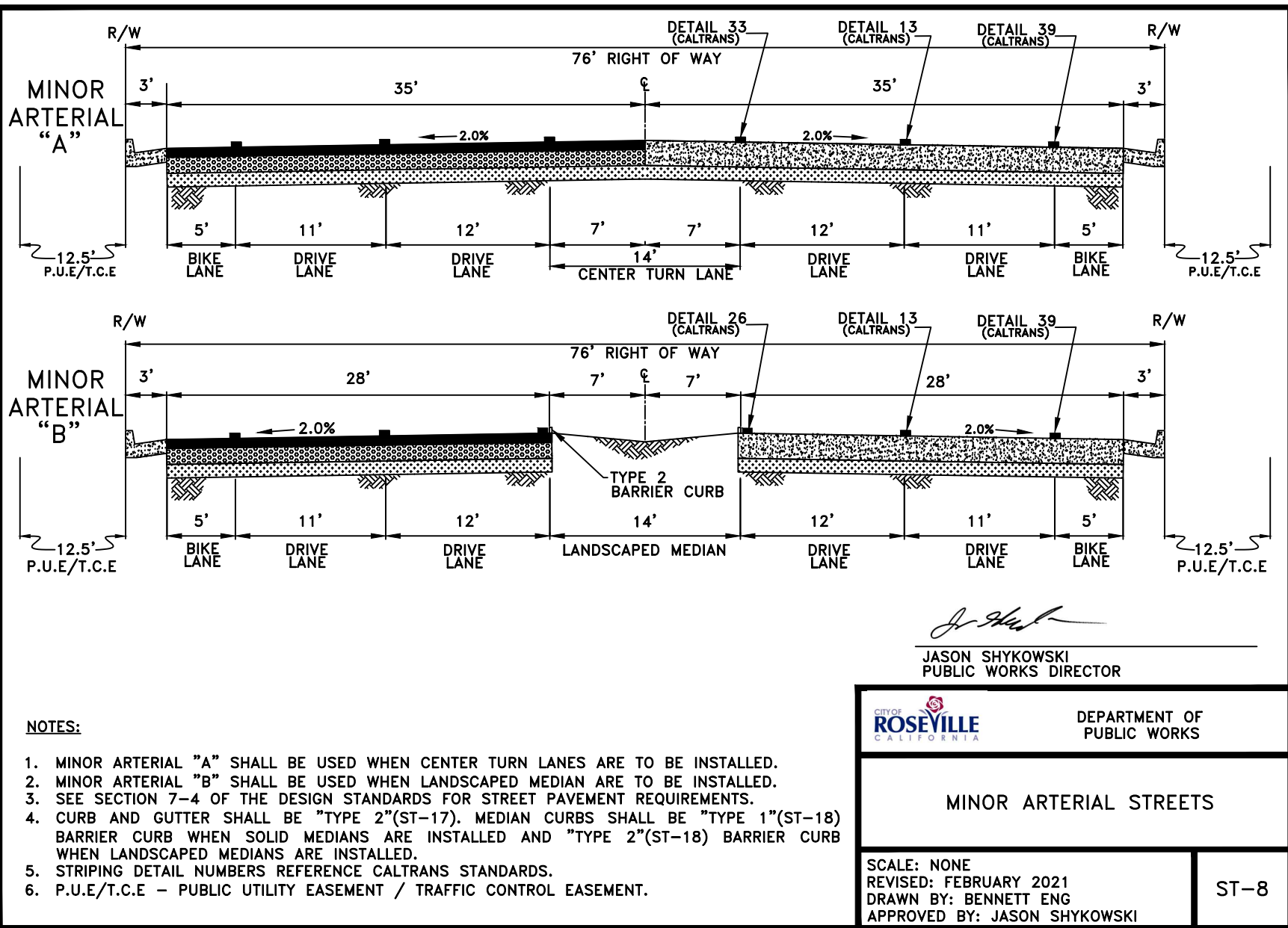


DEPARTMENT OF
PUBLIC WORKS

**COLLECTOR/INDUSTRIAL STREETS
DETACHED SIDEWALK**

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: BENNETT ENG
APPROVED BY: JASON SHYKOWSKI


ST-7

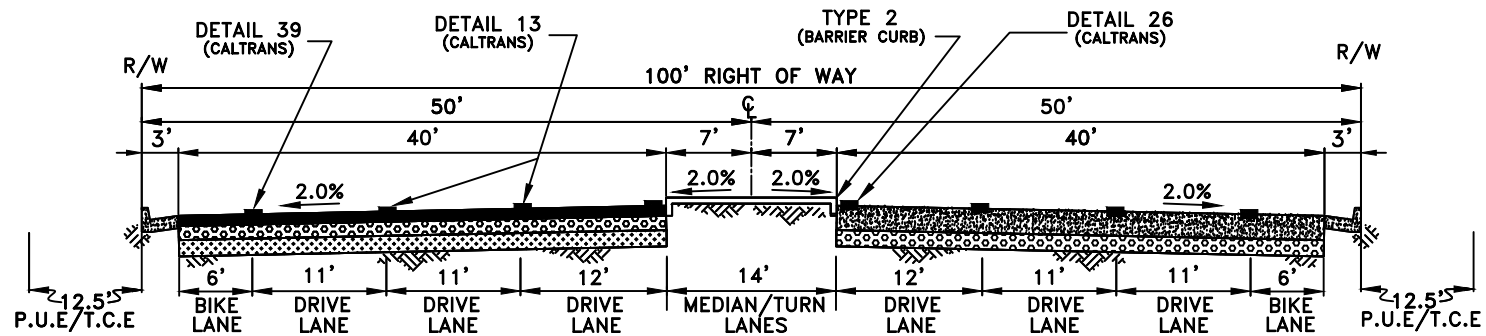


Jason Shykowski
 JASON SHYKOWSKI
 PUBLIC WORKS DIRECTOR

NOTES:

1. MINOR ARTERIAL "A" SHALL BE USED WHEN CENTER TURN LANES ARE TO BE INSTALLED.
2. MINOR ARTERIAL "B" SHALL BE USED WHEN LANDSCAPED MEDIAN ARE TO BE INSTALLED.
3. SEE SECTION 7-4 OF THE DESIGN STANDARDS FOR STREET PAVEMENT REQUIREMENTS.
4. CURB AND GUTTER SHALL BE "TYPE 2"(ST-17). MEDIAN CURBS SHALL BE "TYPE 1"(ST-18) BARRIER CURB WHEN SOLID MEDIANS ARE INSTALLED AND "TYPE 2"(ST-18) BARRIER CURB WHEN LANDSCAPED MEDIANS ARE INSTALLED.
5. STRIPING DETAIL NUMBERS REFERENCE CALTRANS STANDARDS.
6. P.U.E/T.C.E - PUBLIC UTILITY EASEMENT / TRAFFIC CONTROL EASEMENT.

 CITY OF ROSEVILLE CALIFORNIA	DEPARTMENT OF PUBLIC WORKS
<h2 style="margin: 0;">MINOR ARTERIAL STREETS</h2>	
SCALE: NONE REVISED: FEBRUARY 2021 DRAWN BY: BENNETT ENG APPROVED BY: JASON SHYKOWSKI	ST-8



MAJOR ARTERIAL STREETS

Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

NOTES:

1. CURB AND GUTTER SHALL BE "TYPE 2"(ST-17) AND THE MEDIAN CURB SHALL BE "TYPE 2"(ST-18) BARRIER CURB.
2. SEE SECTION 7-4 OF THE DESIGN STANDARDS FOR STREET PAVEMENT REQUIREMENTS.
3. STRIPING DETAIL NUMBERS REFERENCE CALTRANS STANDARDS.
4. P.U.E./T.C.E - PUBLIC UTILITY EASEMENT / TRAFFIC CONTROL EASEMENT.

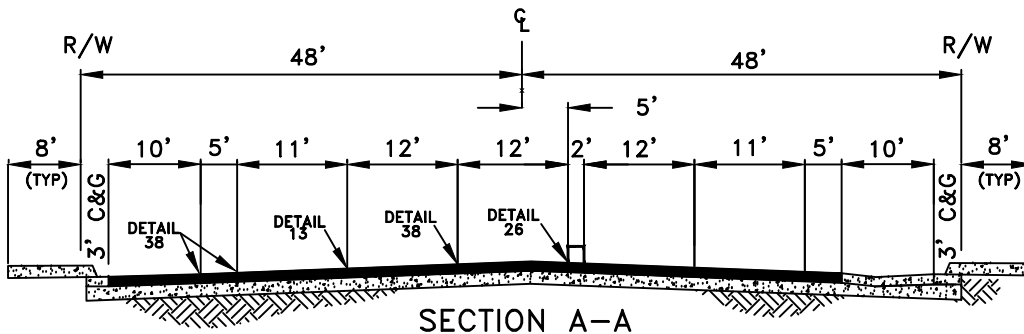
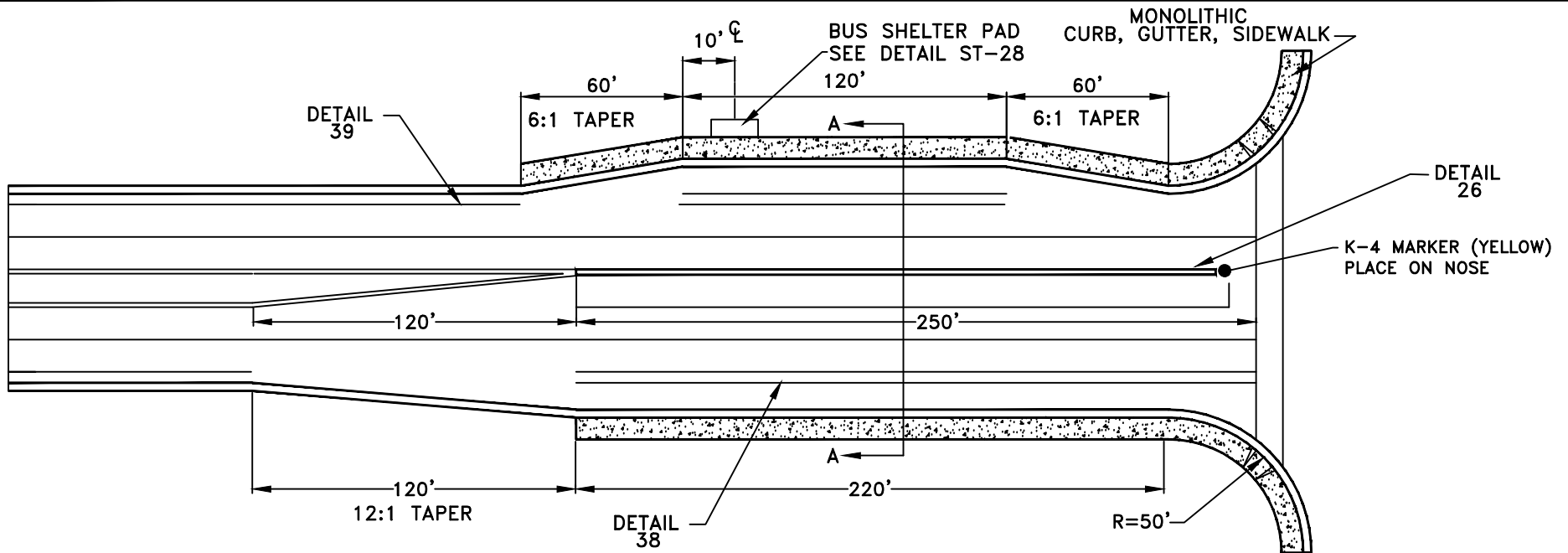


DEPARTMENT OF
PUBLIC WORKS

MAJOR ARTERIAL STREETS

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: BENNETT ENG
APPROVED BY: JASON SHYKOWSKI

ST-9



Marc Stout

MARC STOUT
CITY ENGINEER

CITY OF ROSEVILLE CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT

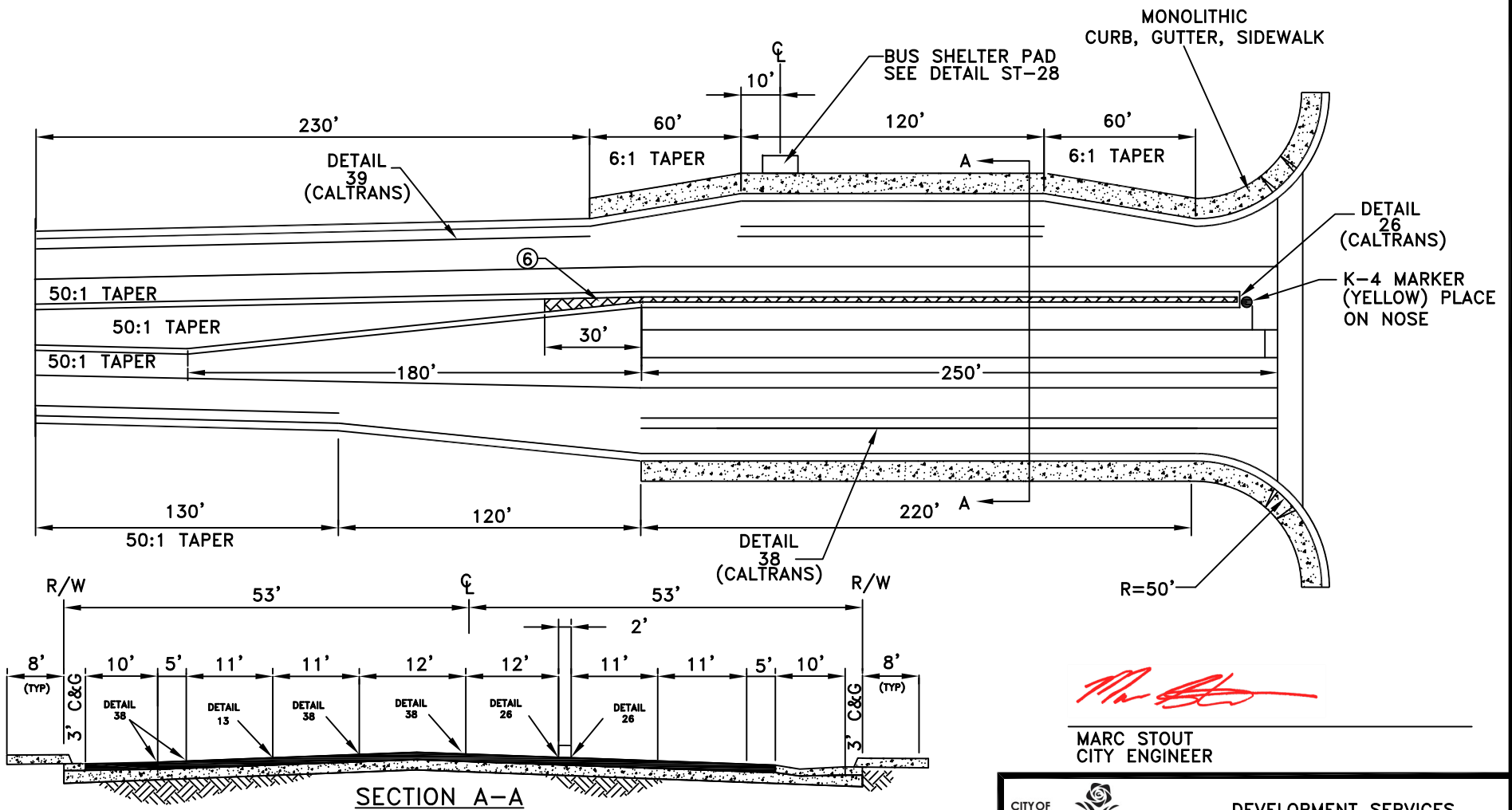
FOUR-LANE ARTERIAL
SINGLE LEFT TURNS

SCALE: NONE
REVISED: JANUARY 1, 2023
DRAWN BY: J THOMPSON
APPROVED BY: MARC STOUT

ST-10


NOTES:

1. RIGHT OF WAY SHALL BE DEDICATED TO ACCOMMODATE DUAL LEFT TURNS AS SPECIFIED IN DESIGN STANDARD DRAWING ST-11.
2. STOP BAR FOR LEFT TURN LANE SHALL BE TEN FEET BACK OF NEAR CROSSWALK STRIPE.
3. NOSE OF MEDIAN SHALL BE 15 FEET BACK OF NEAR CROSSWALK STRIPE.
4. STRIPING DETAIL NUMBERS REFERENCE CALTRANS STANDARDS.
5. SIGN DETAIL NUMBERS REFERENCE 2012 CALIFORNIA MUTCD.



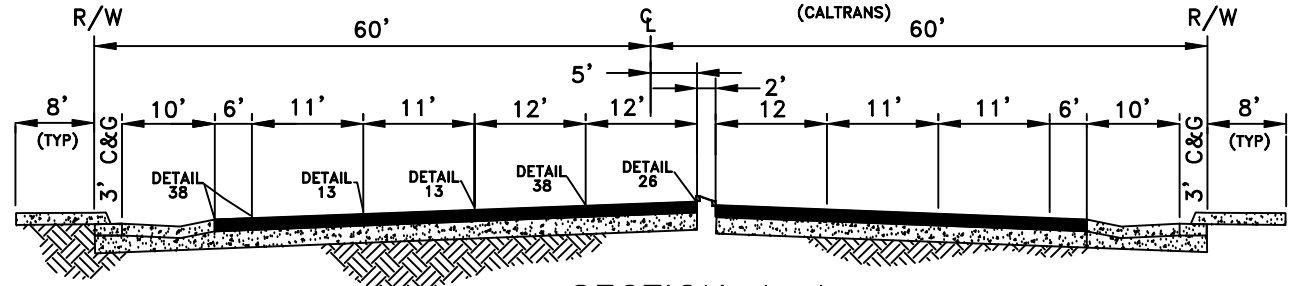
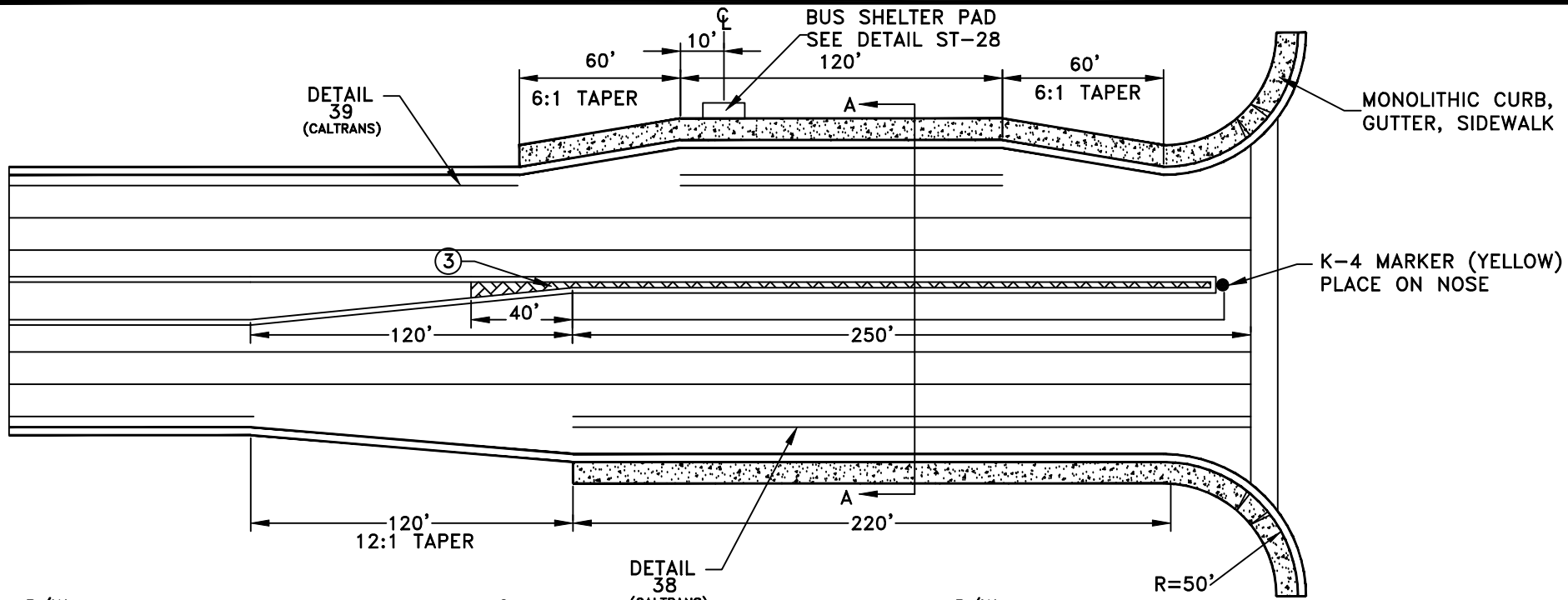
Marc Stout

MARC STOUT
CITY ENGINEER

		DEVELOPMENT SERVICES DEPARTMENT
FOUR-LANE ARTERIAL DUAL LEFT TURNS		
SCALE: NONE REVISED: JANUARY 1, 2023 DRAWN BY: J THOMPSON APPROVED BY: MARC STOUT		ST-11

NOTES:

1. STOP BAR FOR INSIDE DUAL LEFT TURN LANE SHALL BE TEN FEET BACK OF NEAR CROSSWALK STRIPE.
2. STOP BAR FOR OUTSIDE DUAL LEFT TURN LANE SHALL BE FIVE FEET BACK OF NEAR CROSSWALK STRIPE.
3. NOSE OF MEDIAN SHALL BE 15 FEET BACK OF NEAR CROSSWALK STRIPE.
4. STRIPING DETAIL REFERENCE CALTRANS STANDARDS.
5. SIGN DETAIL REFERENCE 2012 CALIFORNIA MUTCD.
6. "STAMPED CONCRETE" SEE DETAIL ST-37.



SECTION A-A

Marc Stout

MARC STOUT
CITY ENGINEER

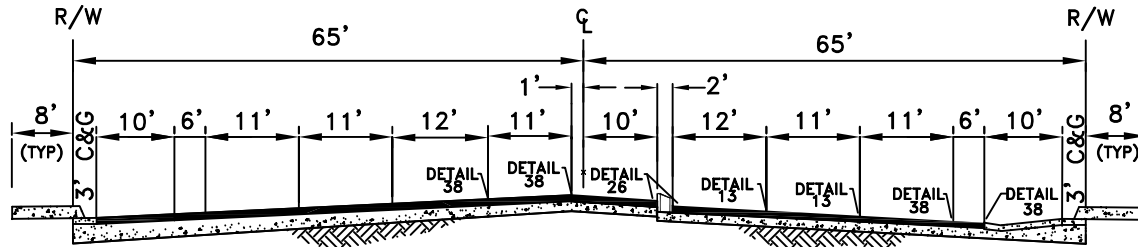
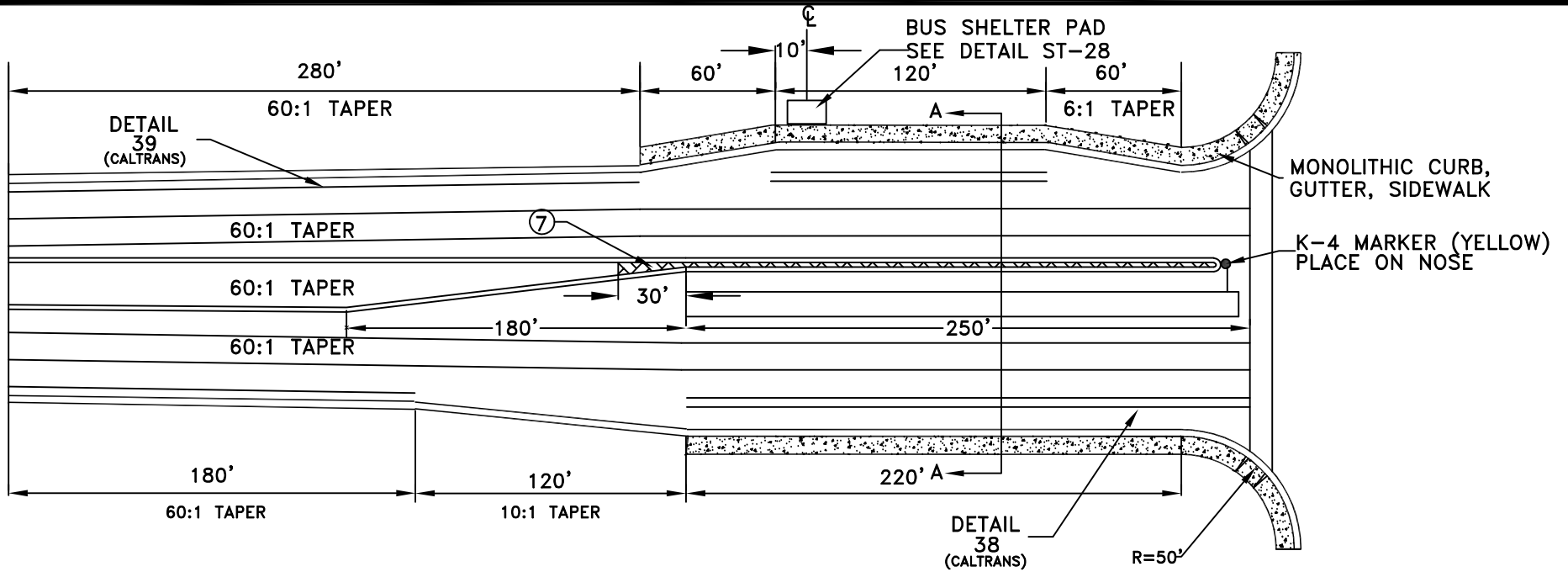
	DEVELOPMENT SERVICES DEPARTMENT
	SIX-LANE ARTERIAL SINGLE LEFT TURNS

NOTES:

1. STOP BAR FOR LEFT TURN LANE SHALL BE TEN FEET BACK OF NEAR CROSSWALK STRIPE.
2. NOSE OF MEDIAN SHALL BE 15 FEET BACK OF NEAR CROSSWALK.
3. "STAMPED CONCRETE" SEE DETAIL ST-37.
4. STRIPING DETAIL NUMBERS REFERENCE CALTRANS STANDARDS.
5. SIGN DETAIL NUMBERS REFERENCE 2012 CALIFORNIA MUTCD.

SCALE: NONE
 REVISED: JANUARY 1, 2016
 DRAWN BY: J MCKINNEY
 APPROVED BY: MARC STOUT

ST-12



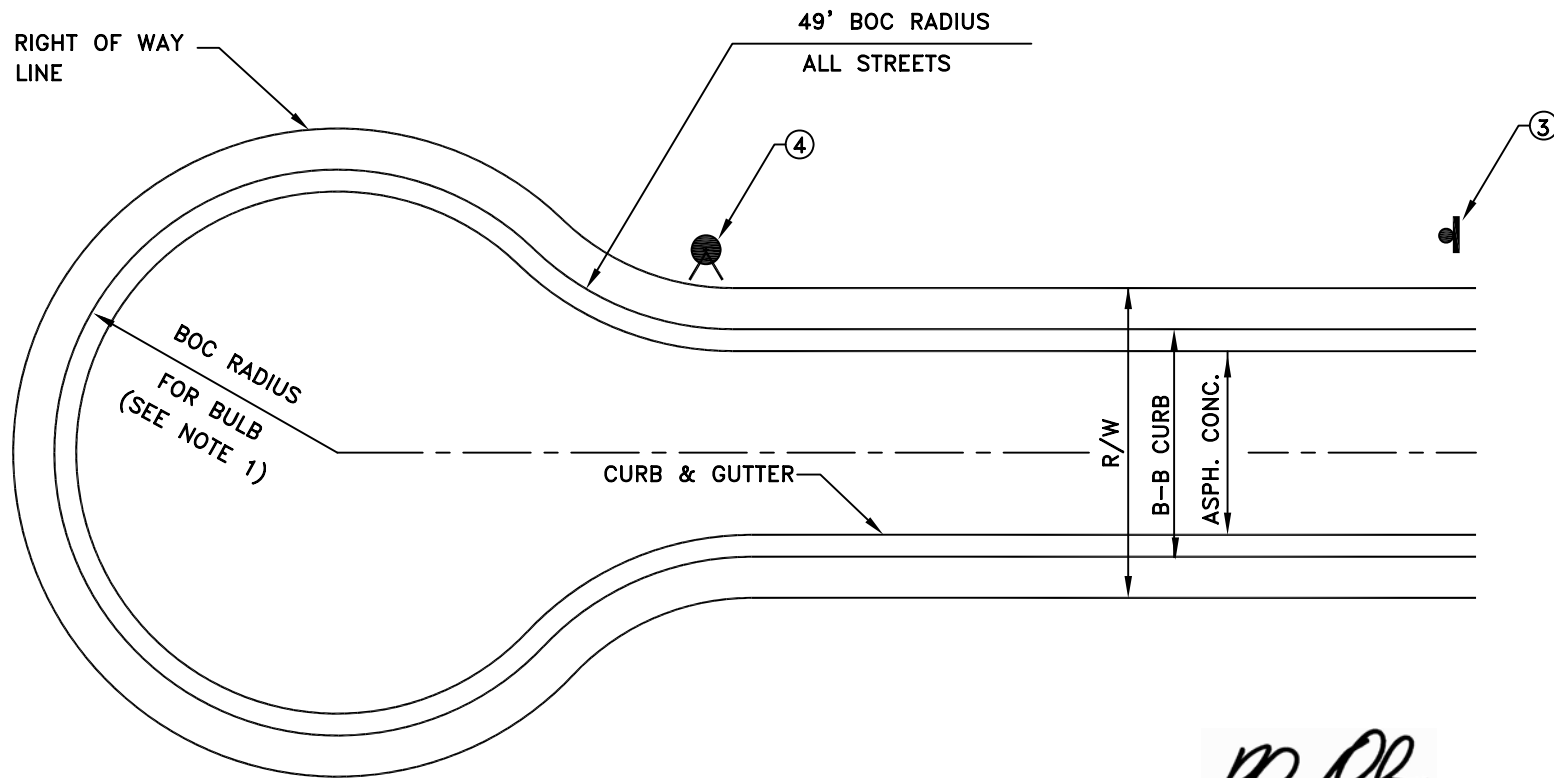
SECTION A-A

MARC STOUT
CITY ENGINEER

NOTES:

1. ONE FOOT WIDE BREAKS AT 50 FOOT CENTERS TO BE PROVIDED IN MEDIAN TO ALLOW DRAINAGE THROUGH MEDIAN FOR DUAL LEFT LANE.
2. NOSE OF MEDIAN SHALL BE 15 FEET BACK OF NEAR CROSSWALK STRIPE.
3. STOP BAR FOR INSIDE LEFT TURN LANE SHALL BE 10 FEET BACK OF NEAR CROSSWALK STRIPE.
4. STOP BAR FOR OUTSIDE DUAL LEFT TURN LANE SHALL BE 5 FEET BACK OF NEAR CROSSWALK STRIPE.
5. STRIPING DETAIL NUMBERS REFERENCE CALTRANS STANDARDS.
6. SIGN DETAIL NUMBERS REFERENCE 2012 CALIFORNIA MUTCD.
7. "STAMPED CONCRETE" SEE ST-37.

	DEVELOPMENT SERVICES DEPARTMENT
<h2>SIX-LANE ARTERIAL DUAL LEFT TURNS</h2>	
SCALE: NONE REVISED: April 1, 2022 DRAWN BY: J MCKINNEY APPROVED BY: MARC STOUT	
ST-13	




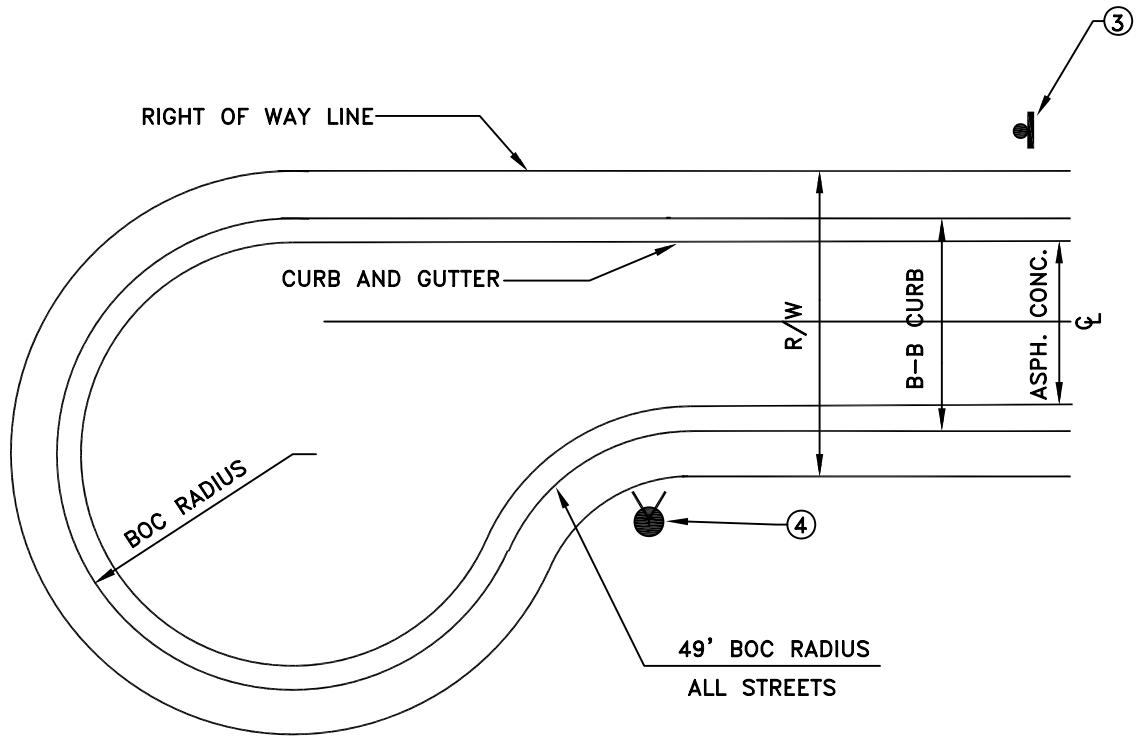
RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

NOTES:

1. BACK OF CURB RADIUS FOR BULB SHALL BE AS FOLLOWS:
INDUSTRIAL STREET / RESIDENTIAL STREET - 39 FEET
2. LENGTH OF CUL-DE-SAC STREETS SHALL BE MEASURED FROM CENTER OF BULB TO CENTER LINE OF INTERSECTING STREET. CUL-DE-SAC LENGTH SHALL NOT EXCEED 500 FEET WITHOUT THE APPROVAL OF THE CITY ENGINEER.
3. INSTALL "NOT A THROUGH STREET"(CALTRANS W-53) SIGN ON STREET LIGHT POLE WHEN END OF CUL-DE-SAC IS NOT VISIBLE FROM ADJACENT STREET.
4. ALL CUL-DE-SACS IN EXCESS OF 200' SHALL HAVE A FIRE HYDRANT INSTALLED AT THE BULB. SUBJECT TO THE APPROVAL OF THE FIRE DEPARTMENT.

	DEPARTMENT OF PUBLIC WORKS
<h3>CUL-DE-SAC STREET</h3>	
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	ST-14




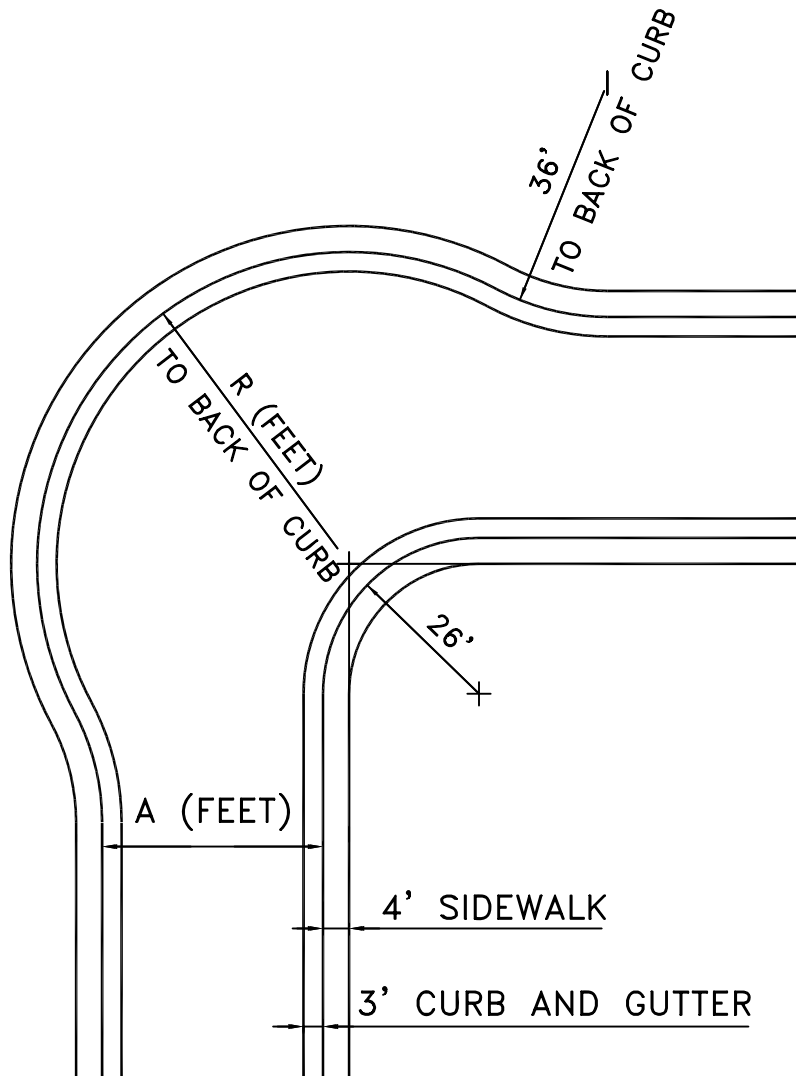
RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

NOTES:

1. BACK OF CURB RADIUS FOR BULB SHALL BE AS FOLLOWS:
INDUSTRIAL STREET / RESIDENTIAL STREET - 39 FEET
2. LENGTH OF CUL-DE-SAC STREETS SHALL BE MEASURED FROM CENTER OF BULB TO CENTER LINE OF INTERSECTING STREET. CUL-DE-SAC LENGTH SHALL NOT EXCEED 500 FEET WITHOUT THE APPROVAL OF THE CITY ENGINEER.
3. INSTALL "NOT A THROUGH STREET"(CALTRANS W-53) SIGN ON STREET LIGHT POLE WHEN END OF CUL-DE-SAC IS NOT VISIBLE FROM ADJACENT STREET.
4. ALL CUL-DE-SACS IN EXCESS OF 200' SHALL HAVE A FIRE HYDRANT INSTALLED AT THE BULB.

	DEPARTMENT OF PUBLIC WORKS
OFFSET CUL-DE-SAC STREET	
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	ST-15



A (FEET)	R (FEET)
34	48
38	52
40	54
48	62

RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

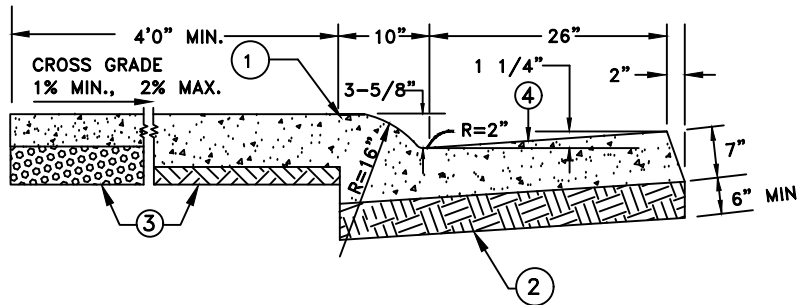
CITY OF
ROSEVILLE
CALIFORNIA

DEPARTMENT OF
PUBLIC WORKS

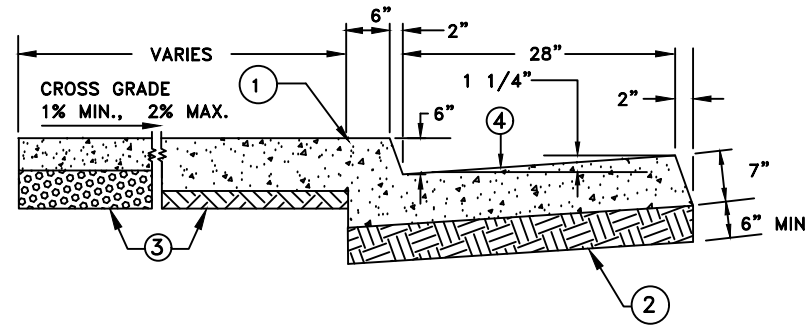
STANDARD ELBOW

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

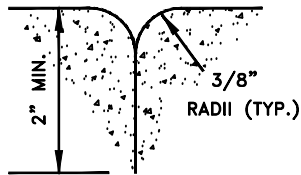
ST-16



TYPE 1
ROLLED CURB & GUTTER



TYPE 2
VERTICAL CURB & GUTTER
(OPTION 1)



TOOL JOINT
(TYP.)

SEE SECTION 71-4.C.3.
(CONSTRUCTION STANDARDS)

LEGEND:

1. SCORE MARK, 1/8" DEEP
2. NATIVE OR MINIMUM 4" AGGREGATE BASE UNDERNEATH CURB AND GUTTER.
3. ALL SIDEWALK HAS OPTION OF 4" CONCRETE ON 4" AGGREGATE BASE, IN LIEU OF 6" CONCRETE ON NATIVE.
4. GUTTER PAN CROSS SLOPE NOT TO EXCEED 5% MAX, OR BE LESS THAN 4%.

NOTES:

- A. ALL CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.
- B. SEE SECTION 71-4 C OF THE CITY CONSTRUCTION STANDARDS FOR FINISH AND JOINTS.
- C. ALL ADJOINING SIDEWALK, CURB AND GUTTER SHALL BE POURED MONOLITHIC.
- D. SUBGRADE AND/OR AGGREGATE BASE PROCESSED TO 95% RELATIVE COMPACTION.

MARC STOUT
CITY ENGINEER

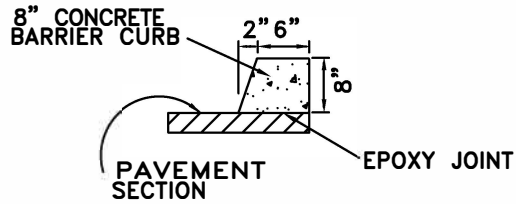


DEVELOPMENT SERVICES
DEPARTMENT

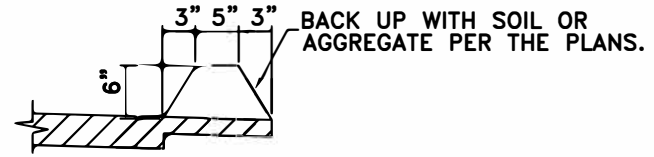
TYPE 1 AND 2 CURB AND
GUTTER WITH SIDEWALK

SCALE: NONE
REVISED: FEBRUARY 1, 2020
DRAWN BY: J HENDRIX
APPROVED BY: MARC STOUT

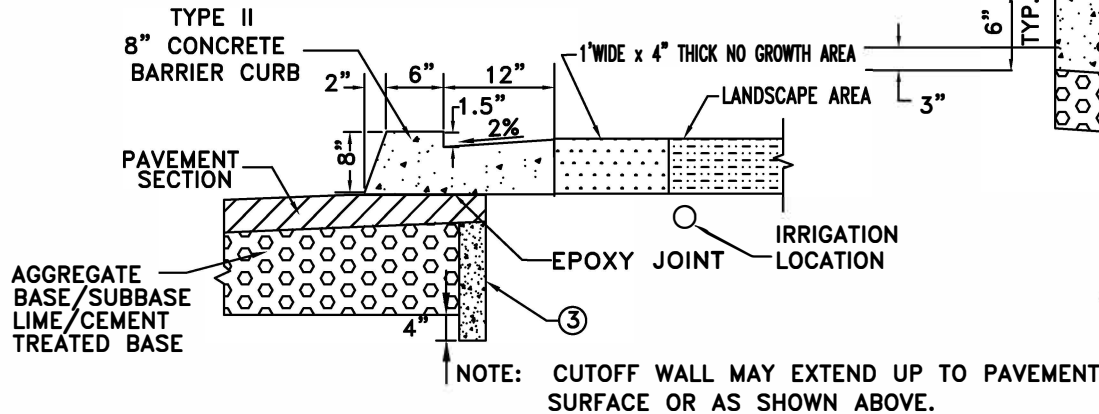
ST-17



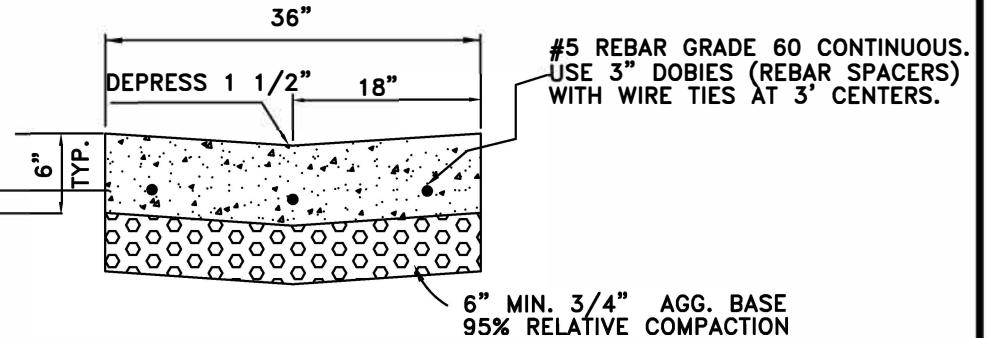
TYPE 1 BARRIER CURB
(ADJACENT TO UNIRRIGATED AREAS)



STATE "TYPE A" HIGH DIKE
(ASPHALT CONCRETE DIKE)



TYPE 2 BARRIER CURB
(ADJACENT TO IRRIGATED AREAS)




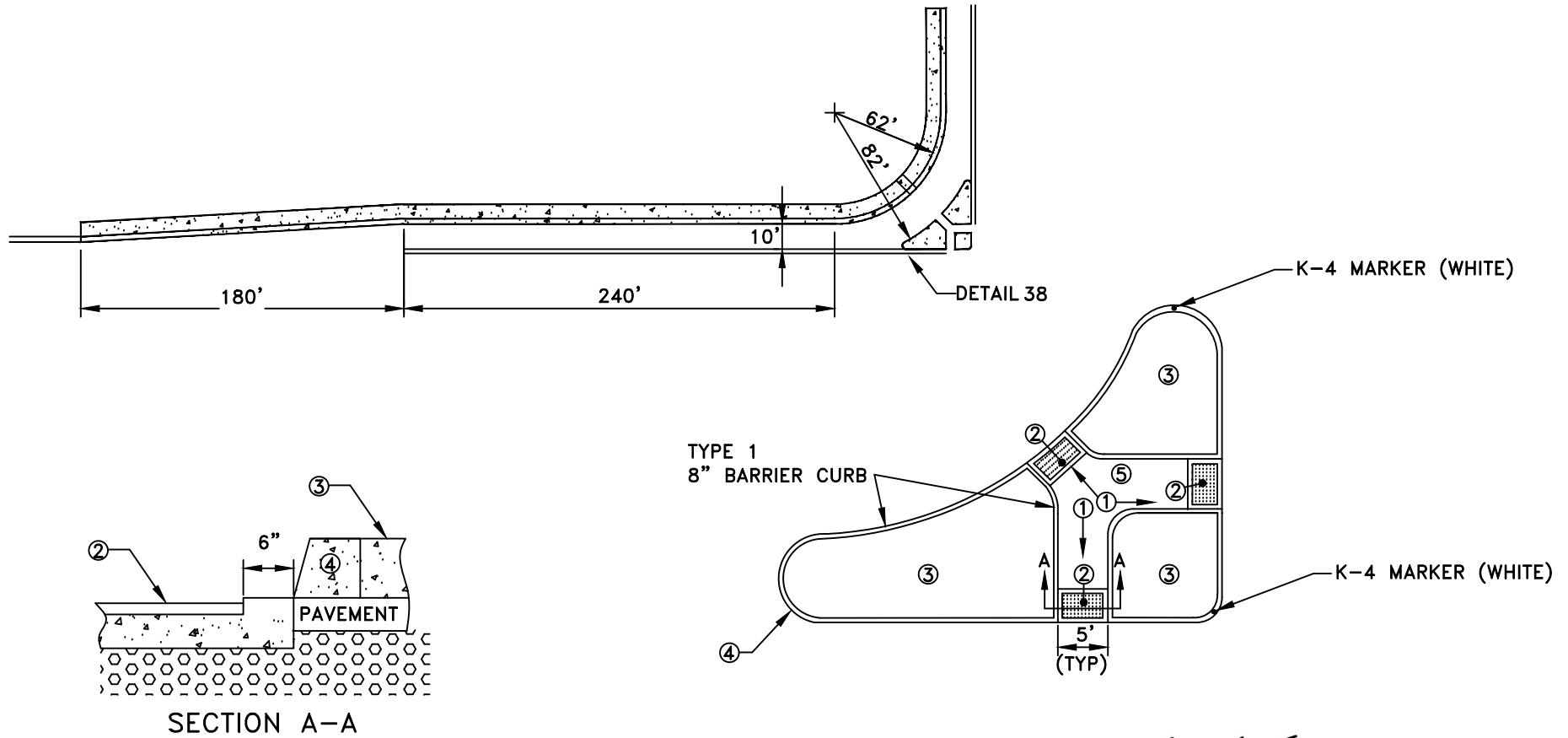
36 INCH VALLEY GUTTER
(ALLEYS ONLY)

Marc Stout
MARC STOUT
CITY ENGINEER

NOTES:

1. ALL CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS UNLESS OTHERWISE NOTED.
2. TOOL JOINTS" SEE DETAIL ST-17.
3. 4" THICK CONCRETE SLURRY CUTOFF WALL REQUIRED ADJACENT TO IRRIGATED AREAS, AS ALLOWED PER THE CITY'S WATER EFFICIENT LANDSCAPE ORDINANCE.


 CITY OF ROSEVILLE CALIFORNIA	DEVELOPMENT SERVICES DEPARTMENT
BARRIER CURBS AND VALLEY GUTTERS	
SCALE: NONE REVISED: JANUARY 1, 2020 DRAWN BY: R MEDINA APPROVED BY: MARC STOUT	
ST-18	



NOTES:

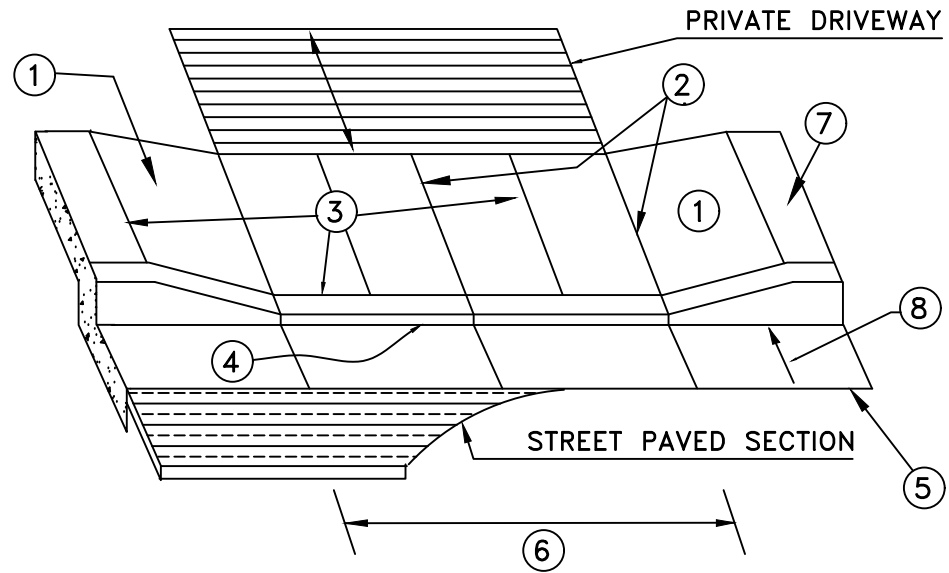
1. 1% TO 2% SLOPE SHALL BE MAINTAINED.
2. 3' X 4' DETECTABLE WARNING PANEL PER SECTION 71-5.E. OF THE CITY OF ROSEVILLE CONSTRUCTION STANDARDS. FLAT SURFACES SHALL BE FLUSH WITH CONCRETE AND ADJACENT PAVEMENT BORDER AROUND PANEL SHALL BE 6" ADJACENT PAVEMENT (TYP)
3. "STAMPED CONCRETE" SEE DETAIL ST-37
4. FACE OF "TYPE 1"(ST-18) EIGHT INCH BARRIER CURB, PAVEMENT EDGE. (TYPICAL)
5. PLACE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.
6. STRIPING DETAILS REFERENCE CALTRANS STANDRDS.

Jason Shykowski
 JASON SHYKOWSKI
 PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
ACCELERATION LANE FOR FREE RIGHTS	
SCALE: NONE REVISED: FEBRUARY 2021 DRAWN BY: N. SIVIGLIA APPROVED BY: JASON SHYKOWSKI	ST-19

LEGEND:

1. THE MAX. GRADE IS 5% IF LONGITUDINAL STREET GRADE ALLOWS. THE MAX. TRANSITION TO OBTAIN 5% IS 15 FEET. OTHERWISE, A MAX. GRADE OF 8.33% SHALL BE OBTAINED BETWEEN 15 AND 25 FEET. 25 FEET IS THE MAX. TRANSITION REQUIRED/ALLOWED, REGARDLESS OF LONGITUDINAL STREET GRADE.
2. "TOOL JOINT" SEE DETAIL ST-17.
3. SCORE MARKS EVERY 4 FEET FOR 4 FOOT SIDEWALK AND 5 FEET FOR 5 FOOT SIDEWALK ETC.
4. 1 INCH HIGH LIP AT 45 DEGREE BATTER.
5. "TYPE 2"(ST-17) CURB AND GUTTER.
6. DRIVEWAY WIDTH PER THE APPROVED PLAN. (MIN. 25',MAX 40' FOR COMMERCIAL 32' FOR RESIDENTIAL)
7. ADJACENT SIDEWALK.
8. GUTTER PAN CROSS SLOPE NOT TO EXCEED 5% MAX.



NOTES:

- A. SIDEWALK CROSS GRADE THROUGH THE ENTIRE DRIVEWAY SHALL BE 1% MINIMUM, 2% MAXIMUM.
- B. FOR COMMERCIAL DRIVEWAY: SIDEWALK, APRON AND GUTTER PAN SHALL BE 8" THICK WITH NO. 4, GRADE 60 REBAR ON 18" CENTERS EACH WAY. USE 3" DOBIES (REBAR SPACERS) AT 3' INTERVALS. FOR RESIDENTIAL: WALK, APRON, AND GUTTER PAN SHALL BE 7" THICK NONREINFORCED. FOR COMMERCIAL AND RESIDENTIAL, SIDEWALK, APRON AND GUTTER PAN SHALL BE PLACED MONOLITHICALLY. ALL CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.
- C. BASE FOR CONCRETE SHALL BE NATIVE SOIL OR CLASS 2, 3/4 INCH AGGREGATE BASE, EITHER PROCESSED 6 INCHES THICK TO 95% RELATIVE COMPACTION.
- D. SEE SECTION 71-4 C.6. OF THE CONSTRUCTION STANDARDS FOR PAVEMENT PATCH ADJACENT TO GUTTER LIP.
- E. FROM 8 TO 20 FEET BACK OF SIDEWALK, RAISE PRIVATE PAVING/LANDSCAPING TO A MINIMUM HEIGHT OF THE HIGHEST TOP OF CURB ELEVATION AT THE DRIVEWAY.

Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

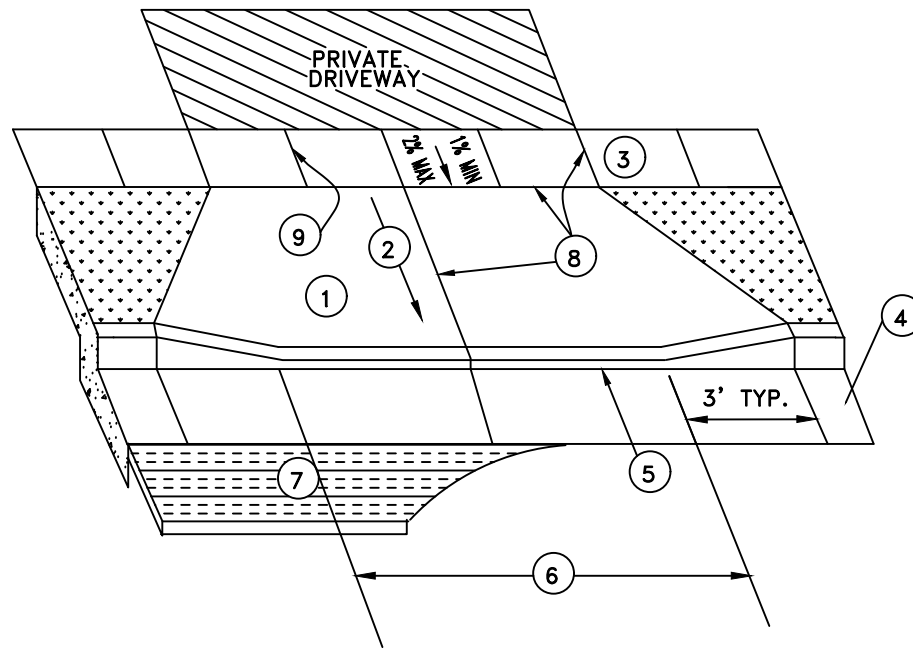


PUBLIC WORKS
DEPARTMENT

"TYPE S"
DRIVEWAY APRON

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: N. SIVIGLIA
APPROVED BY: JASON SHYKOWSKI

ST-20



NOTES:

1. FOR COMMERCIAL DRIVEWAY: SIDEWALK, APRON AND GUTTER PAN SHALL BE 8 INCHES THICK WITH NO. 4, GRADE 60 REBAR ON 18 INCH CENTERS EACH WAY. USE 3 INCH DOBIES (REBAR SPACERS) AT 3 FOOT INTERVALS. FOR RESIDENTIAL: WALK, APRON AND GUTTER PAN SHALL BE 7 INCHES THICK, NONREINFORCED. FOR COMMERCIAL AND RESIDENTIAL, SIDEWALK, APRON AND GUTTER PAN SHALL BE PLACED MONOLITHICALLY. ALL CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.
2. STRAIGHT GRADE FROM SIDEWALK TO LIP AT FLOWLINE.
3. ADJACENT SIDEWALK: IF EXISTING SIDEWALK EXCEEDS 2% CROSS GRADE, REPLACE 5 FEET ADDITIONAL EXISTING AND TRANSITION TO ACCOMMODATE 2% MAXIMUM CROSS GRADE IN SIDEWALK WITHIN DRIVEWAY.
4. "TYPE 2"(ST-17) CURB AND GUTTER: IF EXISTING IS NOT "TYPE 2" SECTION, MATCH THE EXISTING GUTTER PAN UNLESS OTHERWISE REQUIRED PER THE APPROVED PLAN.
5. 1 INCH HIGH LIP AT 45 DEGREE BATTER.
6. DRIVEWAY WIDTH PER THE APPROVED PLAN. MINIMUM 25' MAXIMUM OF 40' FOR COMMERCIAL, 32' FOR RESIDENTIAL.
7. SEE SECTION 71-4 C.6. OF THE CONSTRUCTION STANDARDS FOR PAVEMENT PATCH ADJACENT TO GUTTER LIP.
8. "TOOL JOINT" SEE DETAIL ST-17.
9. SCORE MARKS EVERY FOUR FEET FOR FOUR FOOT SIDEWALK AND FIVE FEET FOR FIVE FOOT SIDEWALK, ETC.
10. SUBGRADE BASE FOR CONCRETE WITHIN CITY RIGHT-OF-WAY SHALL BE 6 INCHES OF NATIVE SOIL, OR CLASS II, 3/4 INCH AGGREGATE BASE, BOTH AT 95% RELATIVE COMPACTION.

Jason Shykowski
 JASON SHYKOWSKI
 PUBLIC WORKS DIRECTOR



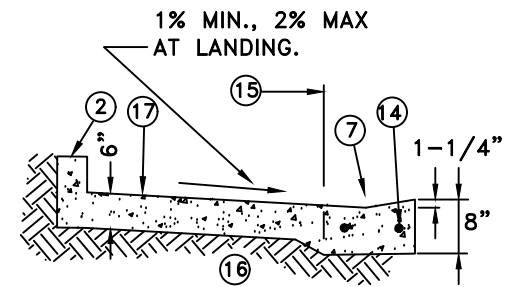
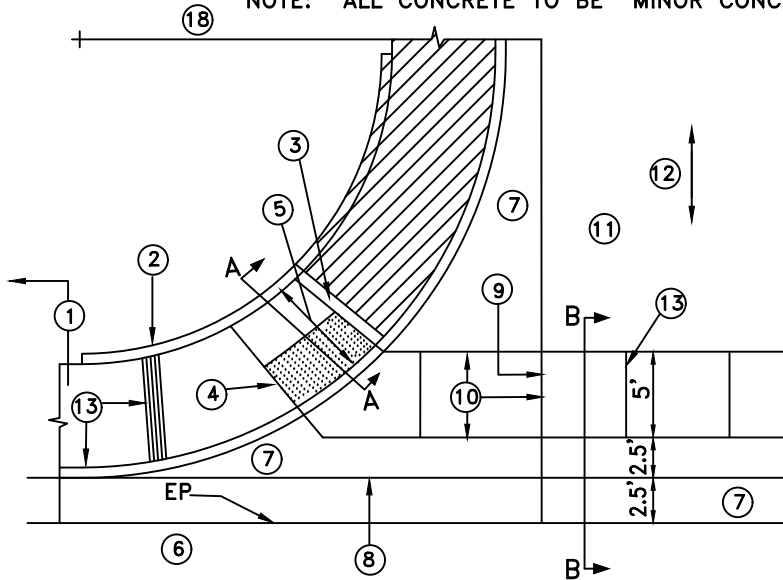
DEPARTMENT OF
 PUBLIC WORKS

"TYPE D"
 DRIVEWAY APRON

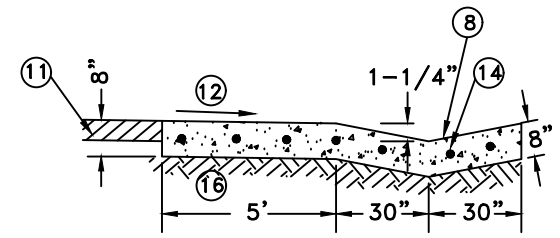
SCALE: NONE
 REVISED: FEBRUARY 2021
 DRAWN BY: N. SIVIGLIA
 APPROVED BY: JASON SHYKOWSKI

ST-21

NOTE: ALL CONCRETE TO BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS



SECTION A-A



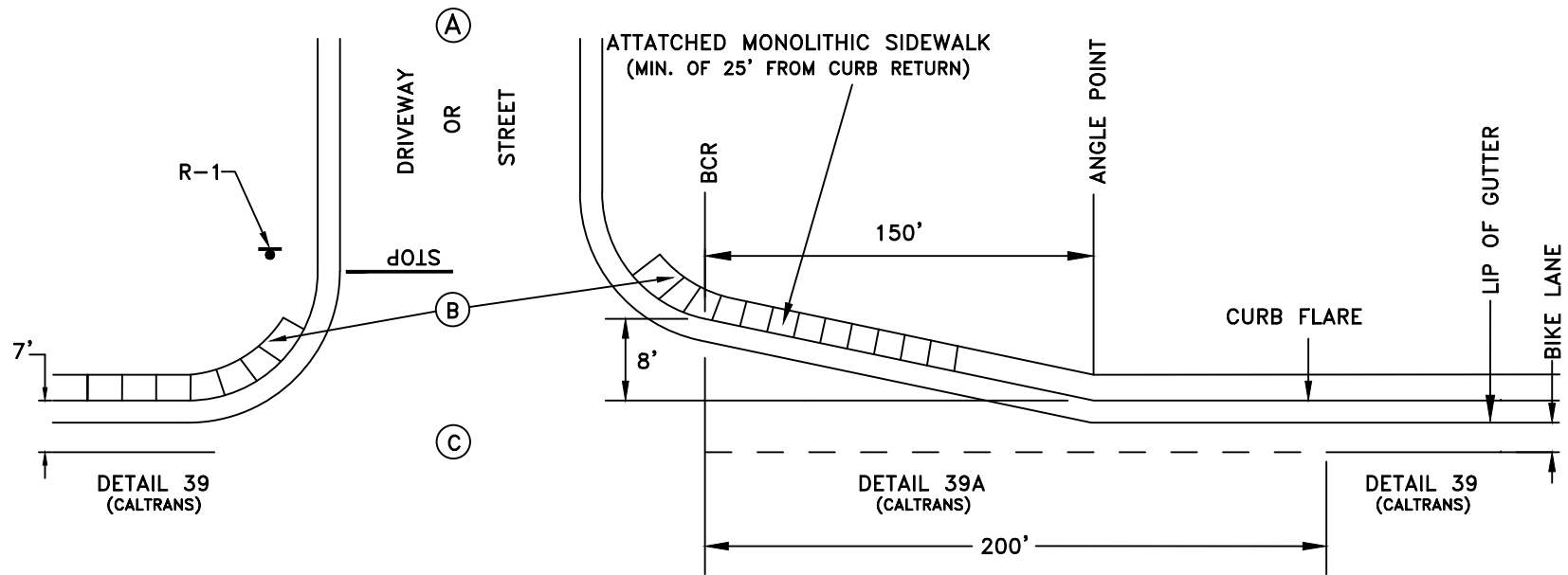
SECTION B-B

LEGEND

1. "TYPE 2"(ST-17) CURB AND GUTTER WITH SIDEWALK OUTSIDE DRIVEWAY AREA
2. RETAINING CURB AT BACK OF WALK, HEIGHT VARIES.
3. PLACE RAMP IF SIDEWALK EXTENDS ON SITE (CROSSHATCHED AREA); EXTEND RETAINING CURB IF NO ON-SITE SIDEWALK. (AT #3 ARROW)
4. CASE C RAMP WITH TRUNCATED DOME PANEL; NUMBER 4 LINE COINCIDES WITH BACK OF V GUTTER (TYP). SLOPE TOP OF CURB 1/2 INCH AT OPENING. NO LIP. SEE SECTION 71-4 C.4. (CONSTRUCTION STANDARDS).
5. LANDING DEPTH IS 6 FEET DEEP. TRANSITION TO ADJACENT WALK WIDTH FROM LANDING TO CURB RETURN.
6. STREET PAVING.
7. DRIVEWAY 8 INCHES THICK PER SECTION B-B, SIDEWALK 6 INCHES PER SECTION A-A.
8. GUTTER FLOW LINE.
9. PLACE GUTTER, WALKS AND CURBS MONOLITHICALLY. POUR MAY BE SEPARATED WITH COLD JOINT AT NUMBER 9 LINE.
10. "TOOL JOINT" SEE DETAIL ST-17.
11. PRIVATE PAVING PER APPROVED PLANS.
12. MAXIMUM GRADE OF 2%, MINIMUM GRADE OF 1%. THESE GRADE REQUIREMENTS SHALL EXTEND A MINIMUM DISTANCE OF 15 FEET BACK OF V-GUTTER.
13. SCORE MARKS, TYPICAL, 1/8 INCH DEEP.
14. NO. 4 REBAR, 18 INCHES O.C. EACH WAY, 3 INCH DOBIES WITH WIRE TIES AT 3 FOOT INTERVALS, EACH WAY.
15. EXTENDED CURB FACE.
16. IN DRIVEWAY, CLASS B, 3/4 INCH AGGREGATE BASE OR NATIVE SUBGRADE; EITHER PROCESSED TO 95% RELATIVE COMPACTION. UNDER SIDEWALK, NATIVE SOIL, MINIMUM 6 INCH, PROCESSED TO 95% RELATIVE COMPACTION AGGREGATE BASE THICKNESS SHALL BE AT THE CONTRACTOR'S DISCRETION.
17. ALL SIDEWALK 1% MINIMUM, 2% MAXIMUM CROSS GRADE TOWARD STREET.
18. STANDARD RADIUS IS 20- FEET. WHERE DELIVERY TRUCKS WILL ACCESS DRIVEWAYS RADIUS WILL BE INCREASED TO 30- FEET.

MARC STOUT
CITY ENGINEER

	DEVELOPMENT SERVICES DEPARTMENT
<h2 style="margin: 0;">"TYPE A-7" DRIVEWAY</h2>	
SCALE: NONE REVISED: JANUARY 1, 2020 DRAWN BY: J HENDRIX APPROVED BY: MARC STOUT	ST-22



LEGEND

- A. ON-SITE PAVEMENT
- B. CURB RAMPS AND SIDEWALK
- C. PAVEMENT PER DESIGN STANDARDS
- D. BCR - BEGINNING OF CURB RETURN

NOTES:

1. STRIPING DETAIL NUMBERS REFERENCE CALTRANS STANDARDS
2. DRIVEWAYS WHERE THE MEDIAN IS NOT BROKEN SHALL HAVE THE DETAIL 39 CONTINUE THROUGH THE CURB FLARE AND DRIVEWAY.
3. SIGN DETAIL NUMBERS REFERENCE 2012 CALIFORNIA MUTCD.
4. STOP BAR TO BE PLACED AT BEGINNING OF CURB RETURN.

Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

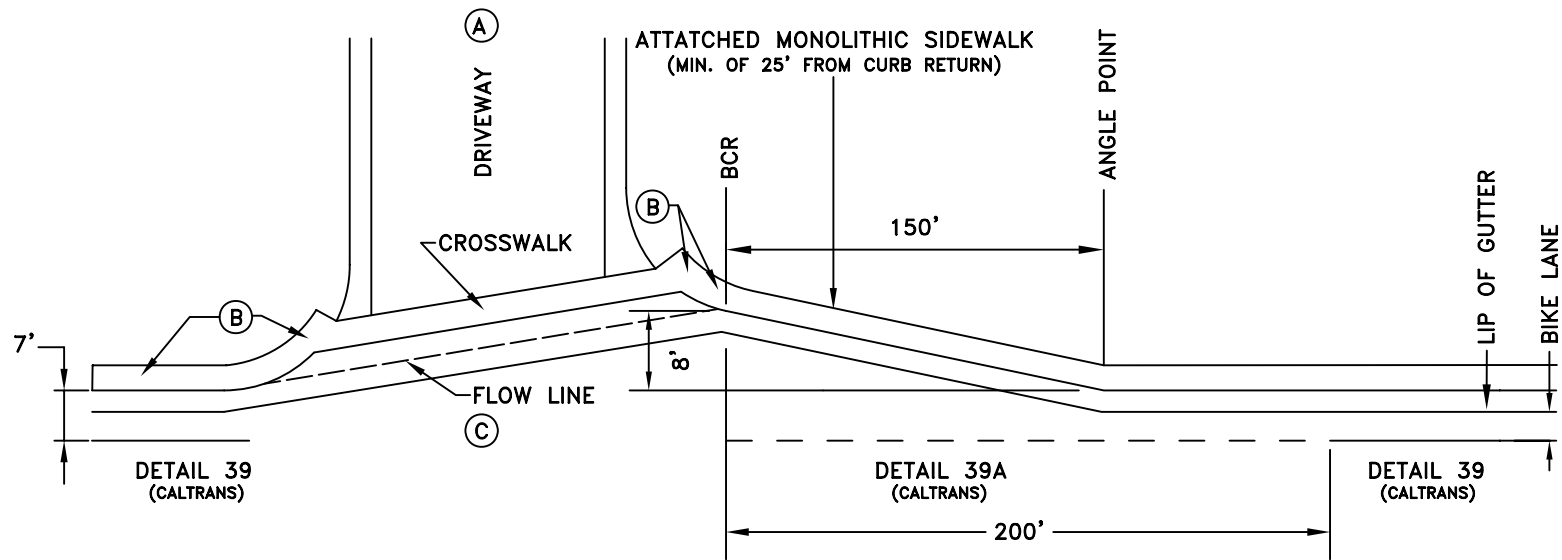


DEPARTMENT OF
PUBLIC WORKS

**RIGHT TURN
CURB FLARE**

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: N. SIVIGLIA
APPROVED BY: JASON SHYKOWSKI

ST-23



LEGEND

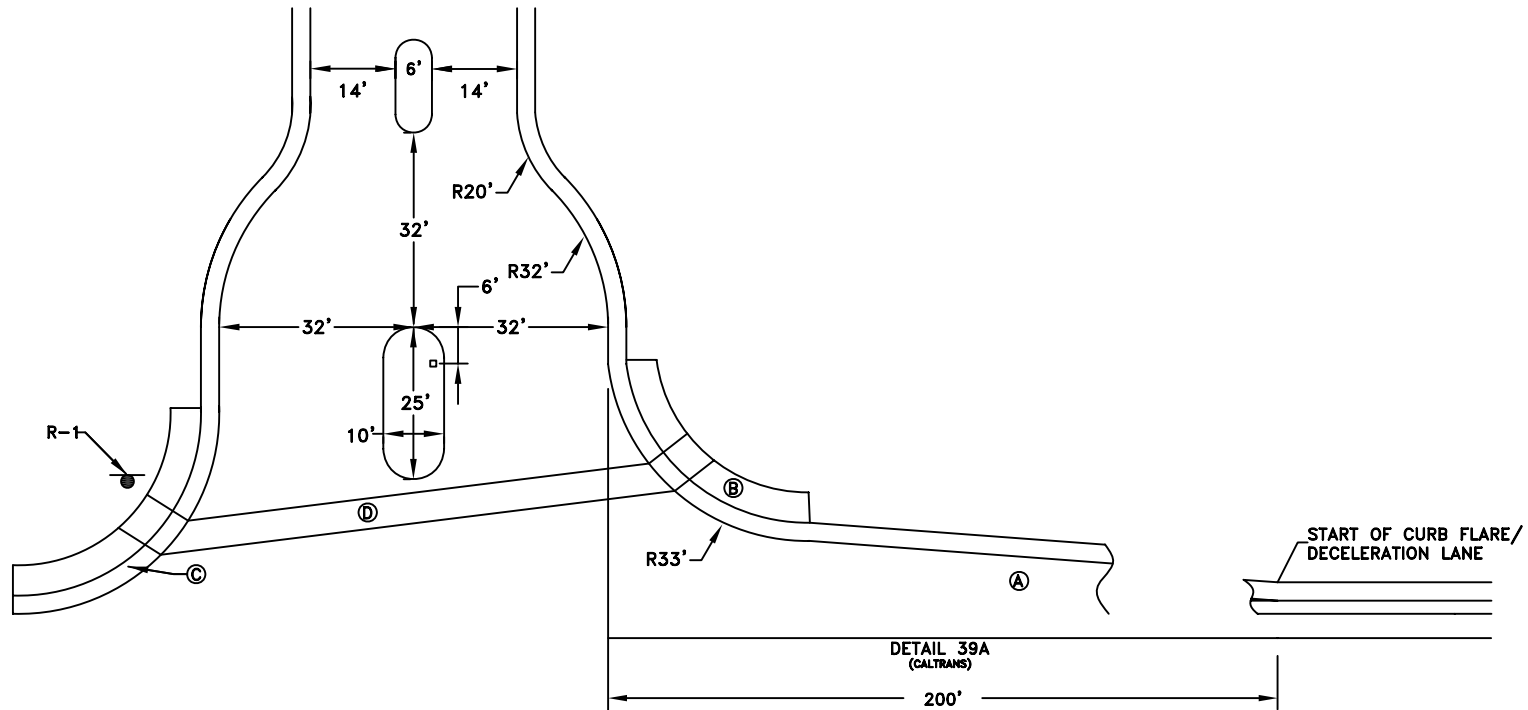
- A. ON-SITE PAVEMENT
- B. CURB RAMP AND SIDEWALK
- C. ASPHALT CONCRETE PAVEMENT PER DESIGN STANDARDS
- D. BCR - BEGINNING OF CURB RETURN

NOTES:

1. WHEN A CURB FLARE IS PROVIDED AT AN A-7 DRIVEWAY, THE FLOWLINE SHALL BE CONSTRUCTED WITH A CONCRETE VALLEY GUTTER EXTENDING FROM THE OUTSIDE END OF EACH CURB RETURN. DRAIN INLETS MAY BE REQUIRED ON DRIVEWAY LEG TO INTERCEPT WATER LEAVING THE SITE.
2. STRIPING DETAIL NUMBERS REFERENCE CALTRANS STANDARDS.
3. FOR "A-7 DRIVEWAY" SEE DETAIL ST-23.
4. DRIVEWAYS WHERE THE MEDIAN IS NOT BROKEN SHALL HAVE THE DETAIL 39 CONTINUE THROUGH THE CURB FLARE AND DRIVEWAY.

RHON HERNDON
PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
RIGHT TURN CURB FLARE (WITH "TYPE A-7" DRIVEWAY)	
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	
ST-24	



RH Herndon


RHON HERNDON
PUBLIC WORKS DIRECTOR

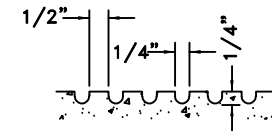
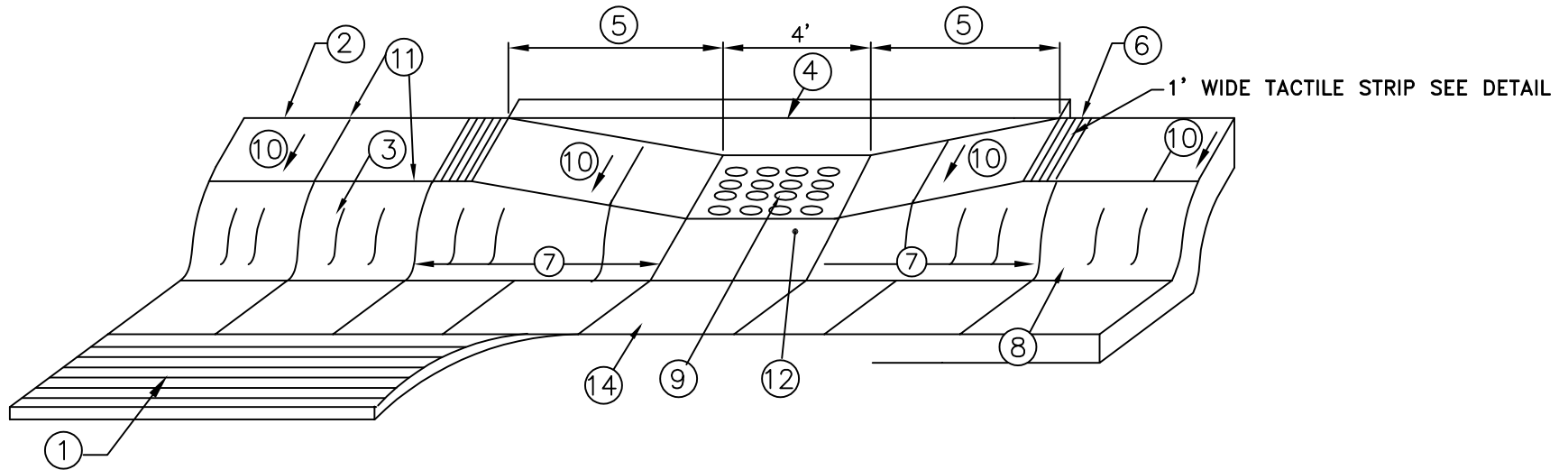
LEGEND

- A. STANDARD CURB FLARE OR DECELERATION LANE SEE DETAIL ST-23
- B. SIDEWALK WIDTH PER PLANS, 5 FOOT MINIMUM
- C. CURB AND GUTTER TO BE "TYPE 1" ST-17.
- D. PLACE CROSS WALK

NOTES

- 1. STRIPING DETAIL NUMBERS REFERENCE CALTRANS STANDARDS
- 2. SIGN DETAIL NUMBERS REFERENCE 2006 CALIFORNIA MUTCD
- 3. DRIVEWAYS WHERE THE MEDIAN IS NOT BROKEN SHALL HAVE THE DETAIL 39 CONTINUE THROUGH THE CURB FLARE AND DRIVEWAY.

 CITY OF ROSEVILLE CALIFORNIA	DEPARTMENT OF PUBLIC WORKS
<p>PRIVATE GATED ENTRANCE</p>	
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	<p>ST-25</p>



TACTILE STRIP GROOVE DETAIL

NOTES:

1. STREET PAVEMENT.
2. STANDARD SIDEWALK WIDTH IS 5 FEET FOR COMMERCIAL AND 4 FEET FOR RESIDENTIAL (BACK OF WALK TO BACK OF CURB FOR BOTH UNLESS SHOWN OTHERWISE ON PLANS).
3. TOP FACE OF CURB, STANDARD 6 INCH HIGH FOR COMMERCIAL, 3-5/8 INCH FOR RESIDENTIAL.
4. 6 INCH WIDE RETAINING CURB, HEIGHT TO BE DETERMINED BY PROJECTED BACK OF WALK GRADE. POUR MONOLITHIC WITH SIDEWALK; MINIMUM DEPTH SECTION FLUSH WITH BOTTOM OF SIDEWALK.
5. THE MAXIMUM 8.33%. FOR CASE C RAMPS, ON STEEPER GRADES WHERE 8.33% CANNOT BE ACHIEVED, 25 FEET IS THE MAXIMUM LENGTH TRANSITION REQUIRED.
6. GROOVES PER DETAIL THIS SHEET TYP.
7. "TOOL JOINT" SEE DETAIL ST-13.
8. GUTTER PAN, FLOW LINE.
9. TRUNCATED DOMES: SEE SECTION 71-4 C.2. AND 71-5 OF THE CONSTRUCTION STANDARDS FOR REQUIRED PRODUCT OR APPROVED EQUAL INFORMATION. 1% TO 2% GRADE TO STREET.
10. CROSS-GRADE SHALL BE 1% MIN, 2% MAX. (LANDING 1% MIN. TO STREET). PLEASE REFER TO SECTION 71-4.C.4.
11. SCORE MARK TYPICAL.
12. ACROSS THE 4 FOOT WIDTH OF THE CURB RAMP OPENING, THE TOP OF CURB SHALL BE SLOPED UP FROM THE FLOWLINE TO THE BACK OF RAMP LANDING 1% TO 2% SLOPE.
13. ALL CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.
14. GUTTER PAN CROSS SLOPE NOT TO EXCEED 5% MAX.

MARC STOUT
CITY ENGINEER

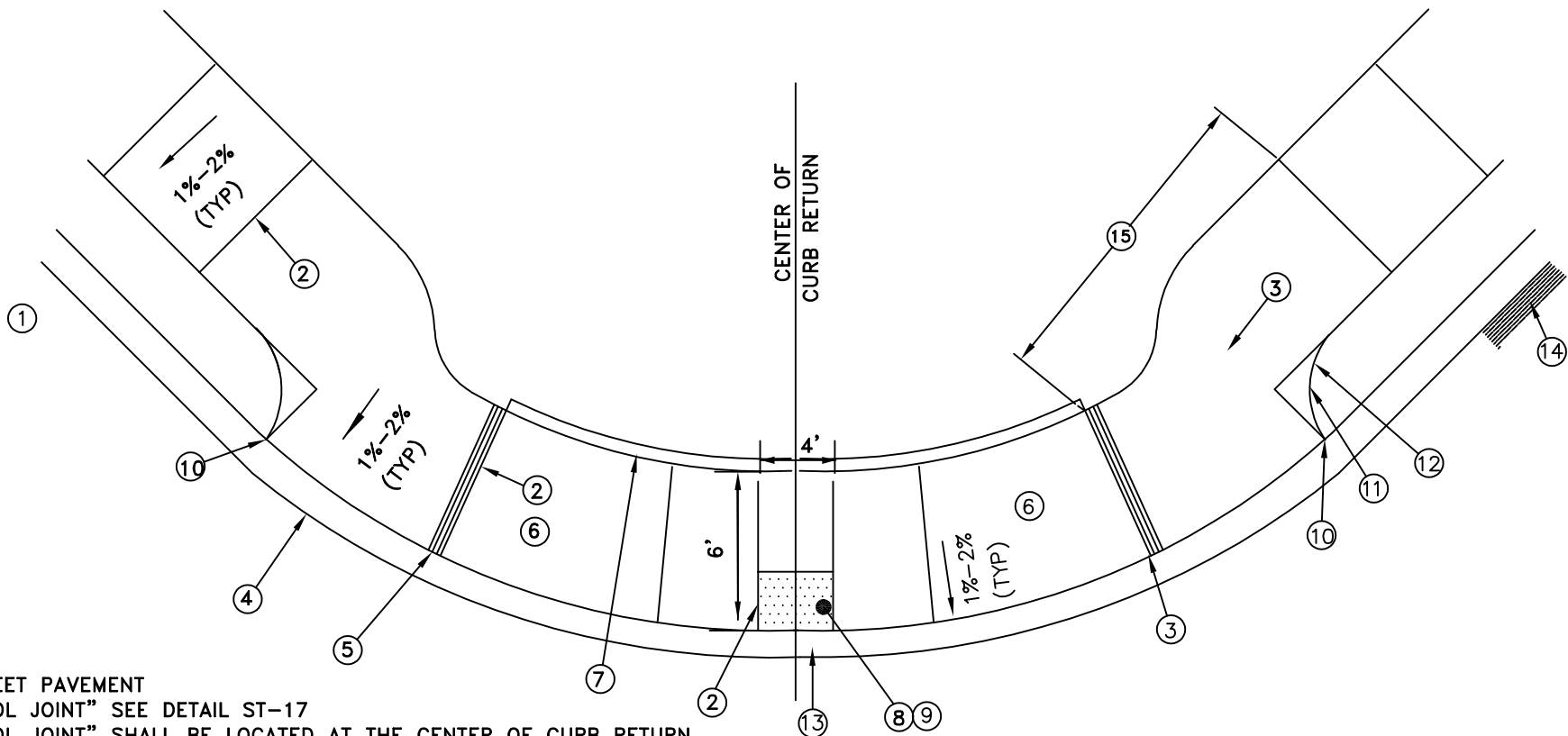


DEVELOPMENT SERVICES
DEPARTMENT

CASE "C" PEDESTRIAN CURB RAMP
ATTACHED SIDEWALK

SCALE: NONE
REVISED: JANUARY, 2021
DRAWN BY: J HENDRIX
APPROVED BY: MARC STOUT

ST-26



NOTES:

1. STREET PAVEMENT
2. "TOOL JOINT" SEE DETAIL ST-17
3. "TOOL JOINT" SHALL BE LOCATED AT THE CENTER OF CURB RETURN
4. "TYPE 2"(ST-17) CURB AND GUTTER
5. GROOVES PER CALTRANS STANDARD PLAN A88A (TYP)
6. THE MAXIMUM IS 8.33%. FOR "CASE C" RAMPS, ON STEEPER GRADES WHERE 8.33% CANNOT BE ACHIEVED, 25 FEET IS THE MAXIMUM LENGTH TRANSITION REQUIRED.
7. 6 INCH WIDE RETAINING CURB, HEIGHT TO BE DETERMINED BY PROJECTED BACK OF WALK GRADE. POUR MONOLITHIC WITH SIDEWALK; MINIMUM DEPTH SECTION FLUSH WITH BOTTOM OF SIDEWALK.
8. DETECTABLE WARNING PANEL, TRUNCATED DOMES"(ST-35) SEE SECTIONS 71-4, C.2, AND 71-5 OF THE CONSTRUCTION STANDARDS. 1% TO 2% GRADE TO FLOW LINE.
9. SLOPE TOP OF CURB DOWN TO FLOWLINE 1% TO 2% FOR TYPE 2"(ST-17) CURB AND GUTTER AT RAMP OPENING; NO LIP. SEE SECTION 71-4 C.40 F THE CONSTRUCTION STANDARDS.
10. TERMINATE PLANTER RADIUS AT CURB RETURN. RADIUS SHALL MATCH PLANTER WIDTH.
11. RADIUS OR SQUARE AS SHOWN ON PLANS. PLANTER WIDTH VARIES.
12. SIDEWALK TO HAVE EITHER THICKNESS OF 6" ON COMPACTED NATIVE SOIL OR 4" THICKNESS WITH 4" COMPACTED AGGREGATE BASE.
13. GUTTER PAN CROSS SLOPE NOT TO EXCEED 5% MAX. IN PATH OF TRAVEL.
14. SEE SECTION 71-4 C.6. OF CONSTRUCTION STANDARDS FOR AC PATCH ADJACENT TO GUTTER LIP.
15. REVERSE CURVE TRANSITION FROM TOP OF RAMP TO BACK OF MEANDERING SIDEWALK.

MARC STOUT
CITY ENGINEER

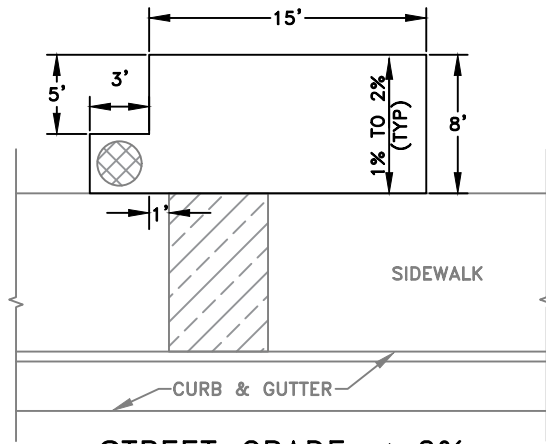
CITY OF
ROSEVILLE
CALIFORNIA

DEVELOPMENT SERVICES
DEPARTMENT

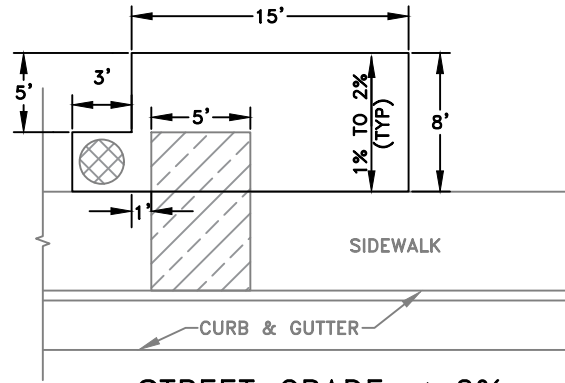
CASE "C" PEDESTRIAN CURB RAMP
AT CURB RETURN
DETACHED SIDEWALK

SCALE: NONE
REVISED: JANUARY 1, 2021
DRAWN BY: J HENDRIX
APPROVED BY: MARC STOUT

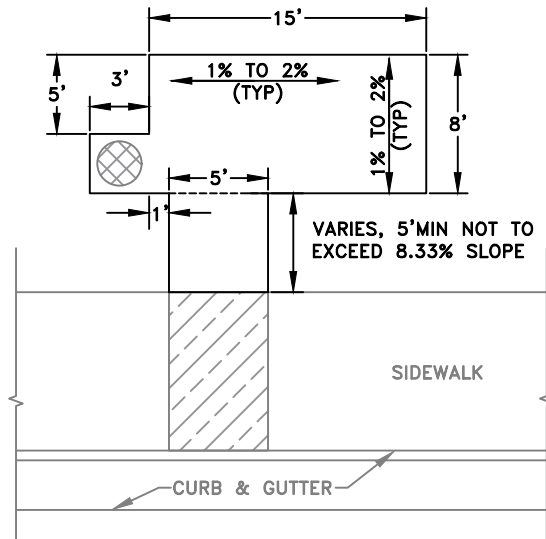
ST-27



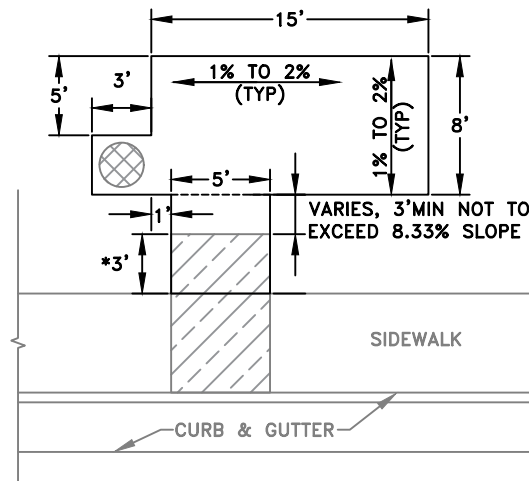
STREET GRADE \leq 2%
8' SIDEWALK



STREET GRADE \leq 2%
5' SIDEWALK



STREET GRADE $>$ 2%
8' SIDEWALK





STREET GRADE $>$ 2%
5' SIDEWALK

NOTES:

1. ALL CONCRETE SLABS SHALL BE 6 INCHES THICK, "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS. 6 INCHES OF SUBGRADE SHALL BE PROCESSED TO 95% RELATIVE COMPACTION.
2. FOR BUS SHELTER REQUIREMENTS, CONTACT ALTERNATIVE TRANSPORTATION DEPARTMENT AT 916-774-5293.
3. WHEN CONCRETE SLAB IS POURED SEPARATELY TO EXISTING SIDEWALK SLAB SHALL BE DOWELED PER CITY STANDARDS.
4. PROVIDE A 3 FOOT CLEAR WORKING SPACE AROUND THE SHELTER PAD. NO SLOPES GREATER THAN 2% WILL BE ALLOWED WITHIN THE 3 FOOT CLEAR AREA. A RETAINING WALL MAY BE REQUIRED TO MAINTAIN THE 2% MAXIMUM GRADE. ONLY TURF OR LOW GROWTH GROUND COVER LESS THAN 4 INCHES IN HEIGHT AND SUITABLE FOR WALKING ON ARE PERMITTED WITH THE CLEAR AREA.
5. REFERENCE ST-48 AND ST-49 FOR LOCATION OF BUS SHELTER PAD.

LEGEND:

- * FROM BACK OF SIDEWALK, FIRST 3 FEET SLAB OFFSET TO MATCH SIDEWALK SLOPE, REMAINING OFFSET SLAB TO WARP TO CONFORM TO BUS SHELTER PAD.
-  AREA FOR TRASH RECEPTACLE
-  8'x5' MINIMUM ADA LANDING PAD PER CITY ADA TRANSITION PLAN. MUST BE IN PLANE WITH EXISTING SIDEWALK. NO GRADE BREAKS IN THIS AREA.



MARC STOUT
CITY ENGINEER

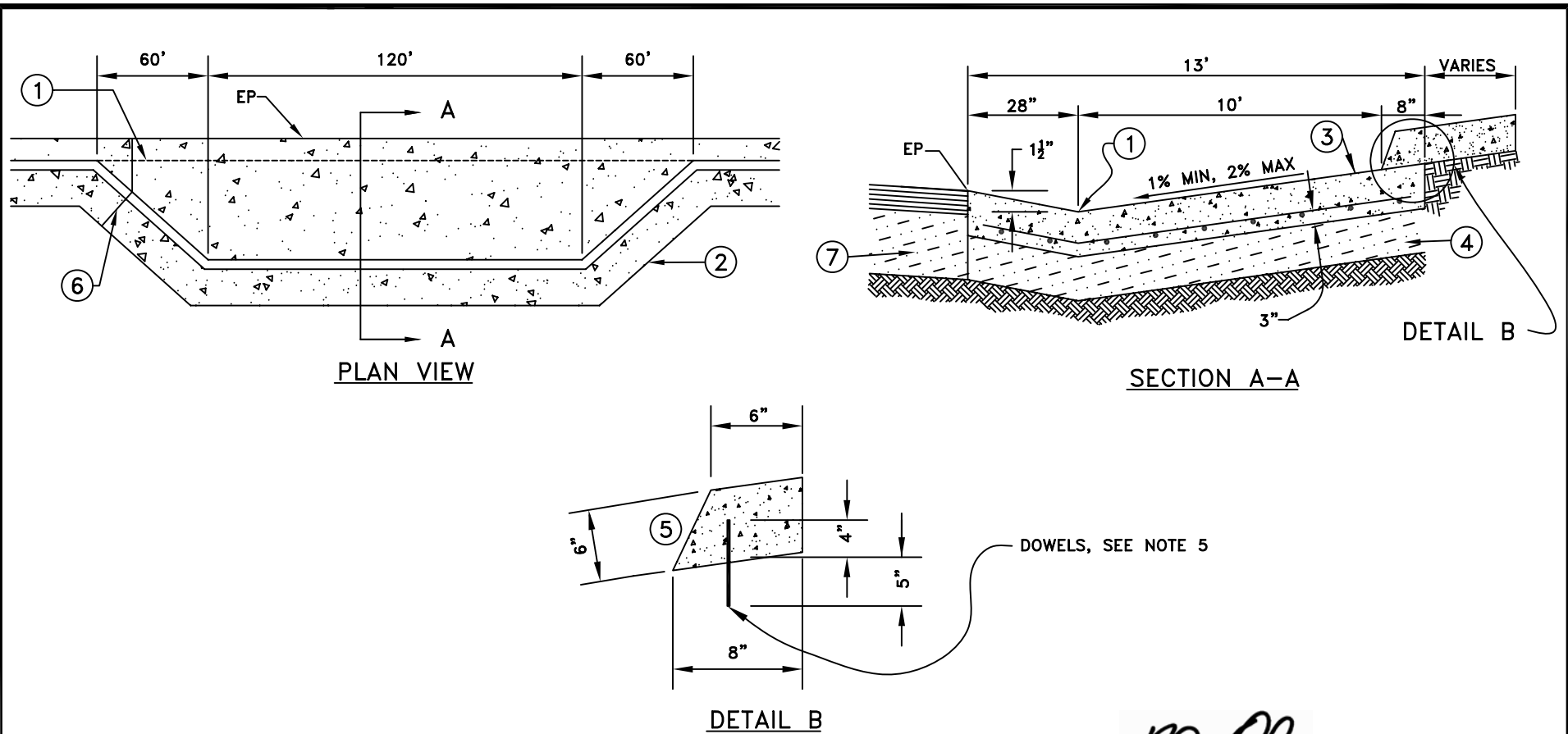
CITY OF
ROSEVILLE
CALIFORNIA

DEVELOPMENT SERVICES
DEPARTMENT

BUS STOP SHELTER PAD

SCALE: NONE
REVISED: JANUARY 1, 2020
DRAWN BY: J MCKINNEY
APPROVED BY: MARC STOUT

ST-28




NOTES:

1. GUTTER FLOWLINE.
2. SIDEWALK AND CURB.
3. CONCRETE SHALL BE EIGHT INCHES THICK WITH #4, GRADE 60 REBAR AT 18 INCH CENTERS EACH WAY. USE THREE INCH DOBIES (REBAR SPACERS WITH WIRE TIES). CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS, ALL FINISH SHALL BE MEDIUM BROOM
4. PLACE SIX INCHES OF 3/4 INCH AGGREGATE BASE AT 95% RELATIVE COMPACTION. THE TOP SIX INCHES OF SUBGRADE SHALL BE PROCESSED TO 95% RELATIVE COMPACTION. THE TOP SIX INCHES OF SIDEWALK SUBGRADE SHALL BE PROCESSED TO 95% RELATIVE COMPACTION PER THESE CONSTRUCTION STANDARDS.
5. THE SLAB FOR THE BUS TURNOUT MAY BE PLACED MONOLITHICALLY WITH THE CURB AND SIDEWALK (PREFERRED). IF CONCRETE IS PLACED WITH A COLD JOINT BETWEEN THE BOTTOM OF THE CURB AND THE TURNOUT SLAB, THEN THE CURB SHALL BE DOWELED (WET SET) TO THE SLAB WITH #4, GRADE 60 REBAR AT FOUR FOOT CENTERS. CURB SHALL ALSO BE EPOXYED TO THE SLAB. SIDEWALK SHALL CONFORM TO SECTION 71 OF THE CONSTRUCTION STANDARDS.
6. PLACE 2 INCH DEEP TOOL JOINTS AT 12 FOOT CENTERS, PERPENDICULAR TO THE LIP OF GUTTER IN THE TURNOUT SLAB AND EXTENDED PERPENDICULAR TO THE FACE OF CURB IN THE CURB AND SIDEWALK. SEE DETAIL ST-17.
7. EXISTING STRUCTURAL SECTION OR PER PLANS.

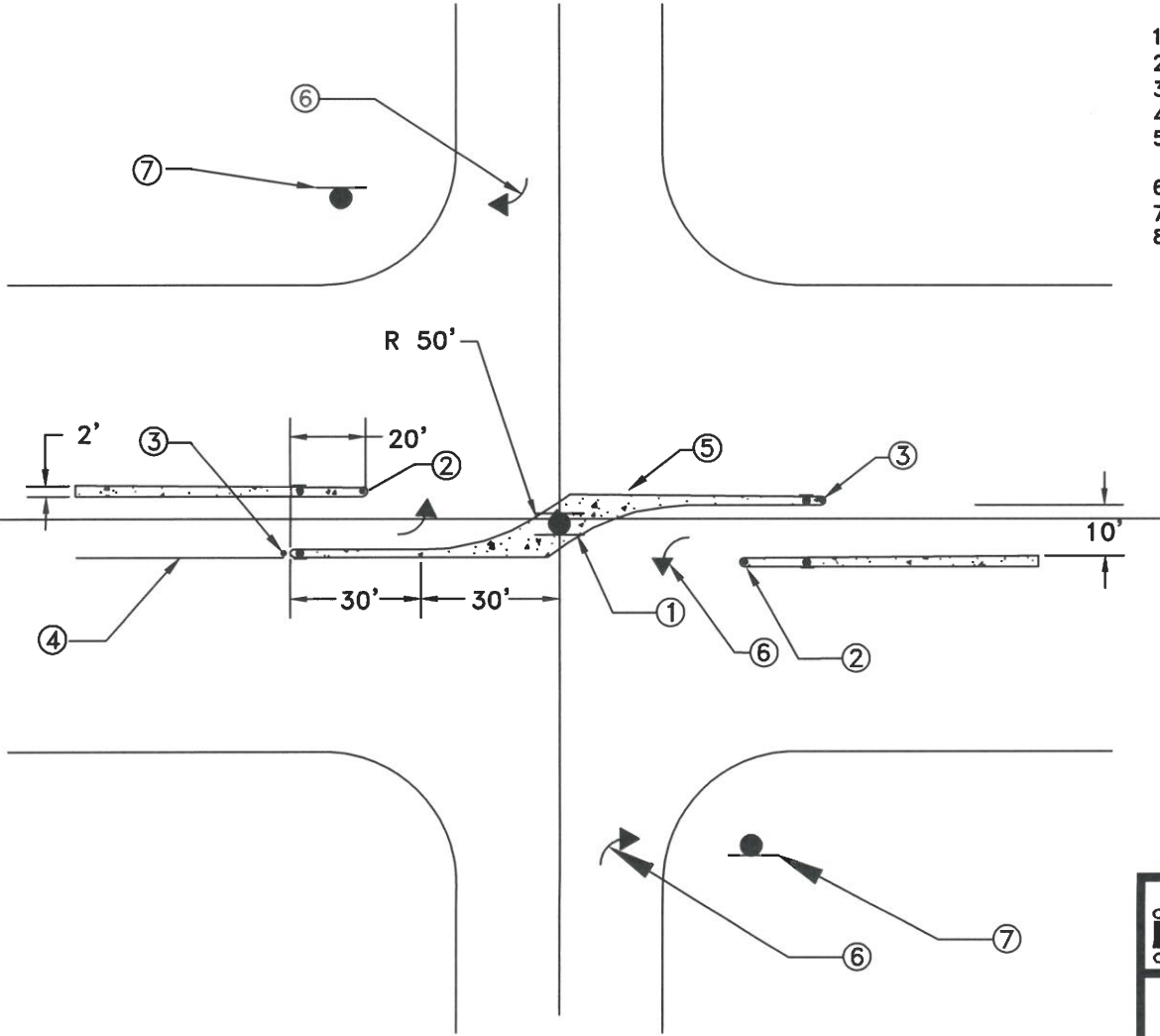
RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
BUS TURNOUT CONCRETE SLAB	
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	ST-29

NOTES:

1. PLACE TWO (2) R6-1(R) ON ONE POLE
2. PLACE YELLOW SUPERDUCK (TYP)
3. PLACE WHITE SUPERDUCK (TYP)
4. CALTRANS DETAIL 38 (TYP)
5. INSTALL DETAIL 26 MARKINGS ALONG RAISED MEDIAN 4 INCH OFF EDGE OF CURB.
6. TYPE III PAVEMENT ARROW (TYP)
7. PLACE ONE(1) R3-5(R) ON POLE
8. SIGN DETAIL NUMBERS REFERENCE 2014 REV 5 CALIFORNIA MUTCD.



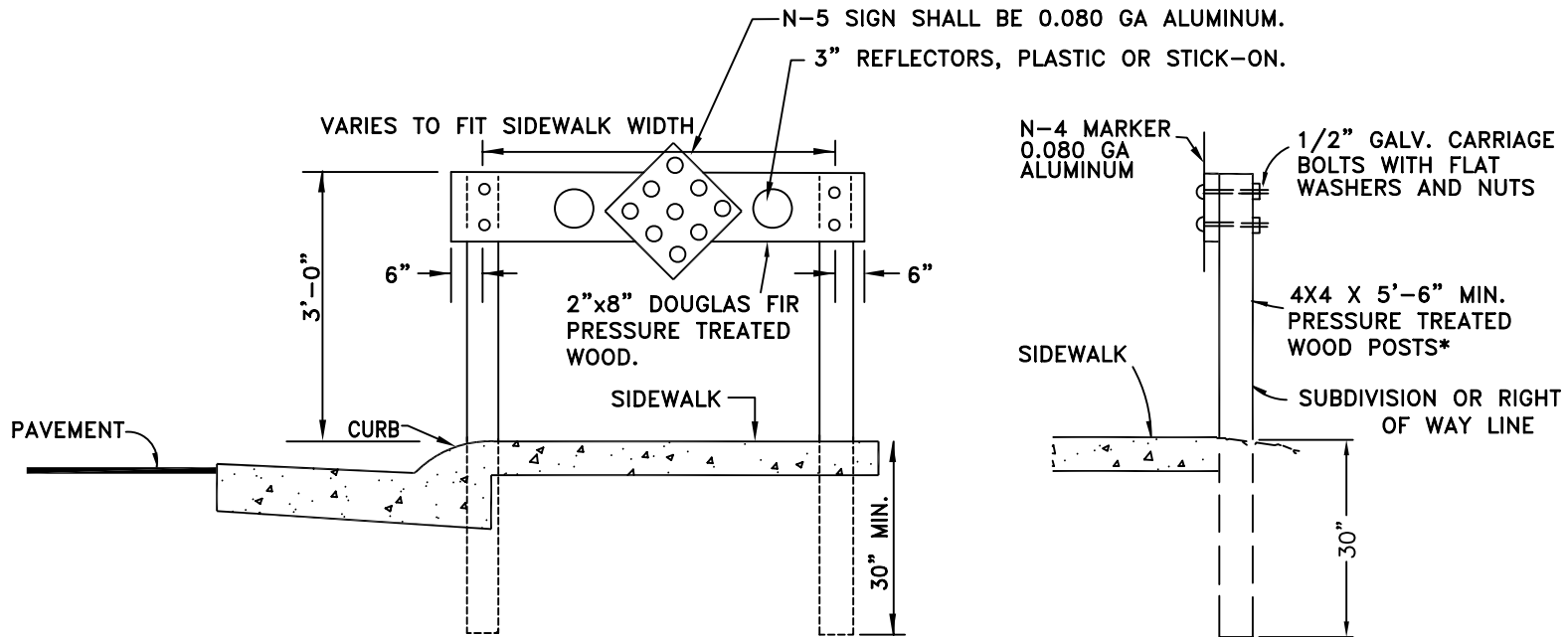

 JASON SHYKOWSKI
 PUBLIC WORKS DIRECTOR

 CITY OF ROSEVILLE CALIFORNIA	DEPARTMENT OF PUBLIC WORKS
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GULL WING DESIGN


SCALE: NONE
 REVISED: MARCH 2023
 DRAWN BY: J MCKINNEY (REVISED RY)
 APPROVED BY: JANA CERVANTES

ST-30



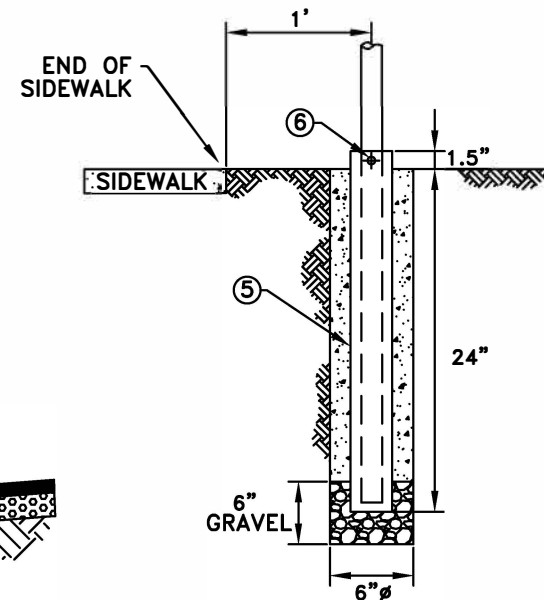
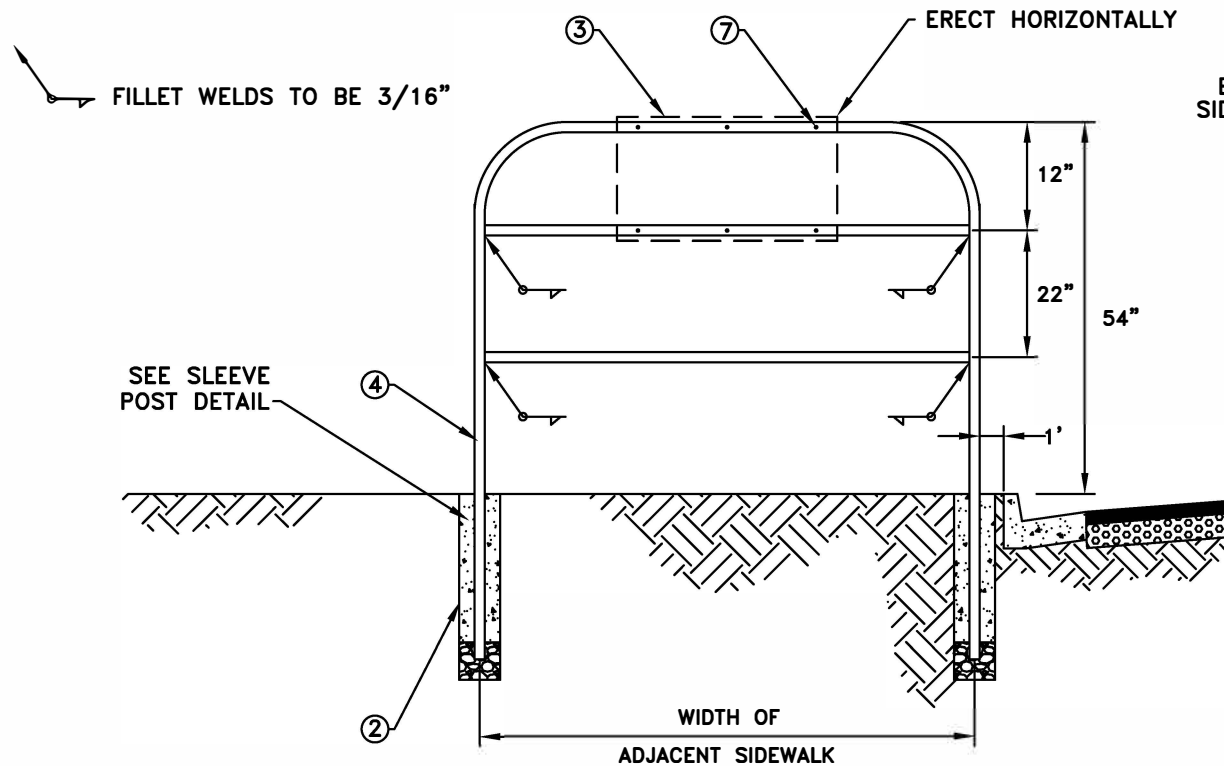
RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

		DEPARTMENT OF PUBLIC WORKS
TEMPORARY SIDEWALK BARRICADE		
SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON		ST-31

NOTES:

1. SIDEWALK BARRICADES SHALL BE ERECTED WHERE SATISFACTORY PROVISIONS CANNOT BE MADE FOR PEDESTRIAN TO CONTINUE BEYOND THE TERMINUS OF SIDEWALK.
2. ALL EXPOSED WOOD SURFACES SHALL BE PAINTED WITH TWO (2) COATS OF WHITE PAINT CONFORMING TO SECTION 91-3.02 OF STATE SPECIFICATIONS.



SLEEVE POST DETAIL

NOTES:

1. SIDEWALK BARRICADES SHALL BE PLACED ADJACENT TO BACK OF CURB. SIDEWALK SHALL BE PLACED ADJACENT TO CURB, AND CENTERED ON SIDEWALK WHEN SIDEWALK IS DETACHED FROM CURBS.
2. CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.
3. PLACE A R5-10c SIGN (SIGN DETAILS REFERENCE 2012 CALIFORNIA MUTCD).
4. USE 1.5" DIAMETER NPS, GALVANIZED STANDARD PIPE
5. STEEL SLEEVE TO BE CONSTRUCTED WITH A 1/10" LARGER DIAMETER THEN POST. WALL THICKNESS OF SLEEVE TO BE SAME AS POST OR LARGER.
6. 3/8" DIAMETER GALVANIZED BOLT, WITH NUT AND WASHER. DEFORM THREADS (TYP)
7. DRILL 1/2" DIAMETERS HOLES. TOTAL OF 6
8. ALL SURFACES SHALL BE PAINTED WITH TWO COATS OF WHITE PAINT CONFORMING TO SECTION 91-3.02 OF THE STATE SPECIFICATIONS.

MARC STOUT
CITY ENGINEER

CITY OF
ROSEVILLE
CALIFORNIA

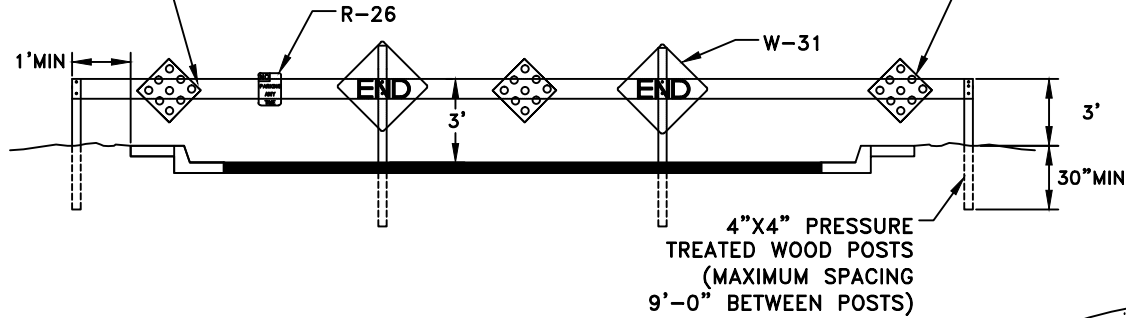
DEVELOPMENT SERVICES
DEPARTMENT

PEDESTRIAN BARRICADE

SCALE: NONE
REVISED: JANUARY 1, 2019
DRAWN BY: R MEDINA
APPROVED BY: MARC STOUT

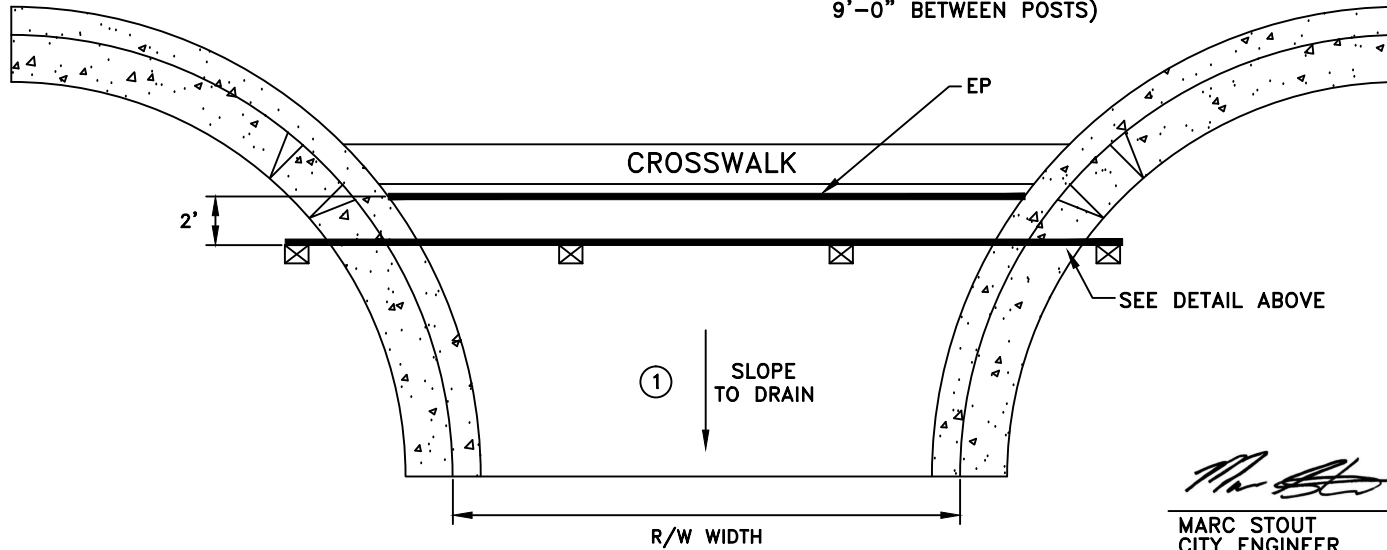
ST-32

2"x10" DOUGLAS FIR
PRESSURE TREATED WOOD



N-5 SIGN SHALL BE 0.080 GA ALUMINUM.

4"x4" PRESSURE
TREATED WOOD POSTS
(MAXIMUM SPACING
9'-0" BETWEEN POSTS)



MARC STOUT
CITY ENGINEER

NOTES:

1. ASPHALT BASE MATERIAL BACKFILLED TO 90% RELATIVE COMPACTION.
2. SIGN DETAIL NUMBERS REFERENCE 2012 CALIFORNIA MUTCD.
3. ALL EXPOSED SURFACES SHALL BE PAINTED WITH TWO COATS OF WHITE PAINT CONFORMING TO SECTION 91-3.02 OF THE STATE SPECIFICATIONS.
4. ALL FASTENED POINTS SHALL USE 1/2" DIAMETER GALVANIZED CARRIAGE BOLTS WITH FLAT WASHERS AND NUTS. (DEFORM THREADS TYP.)

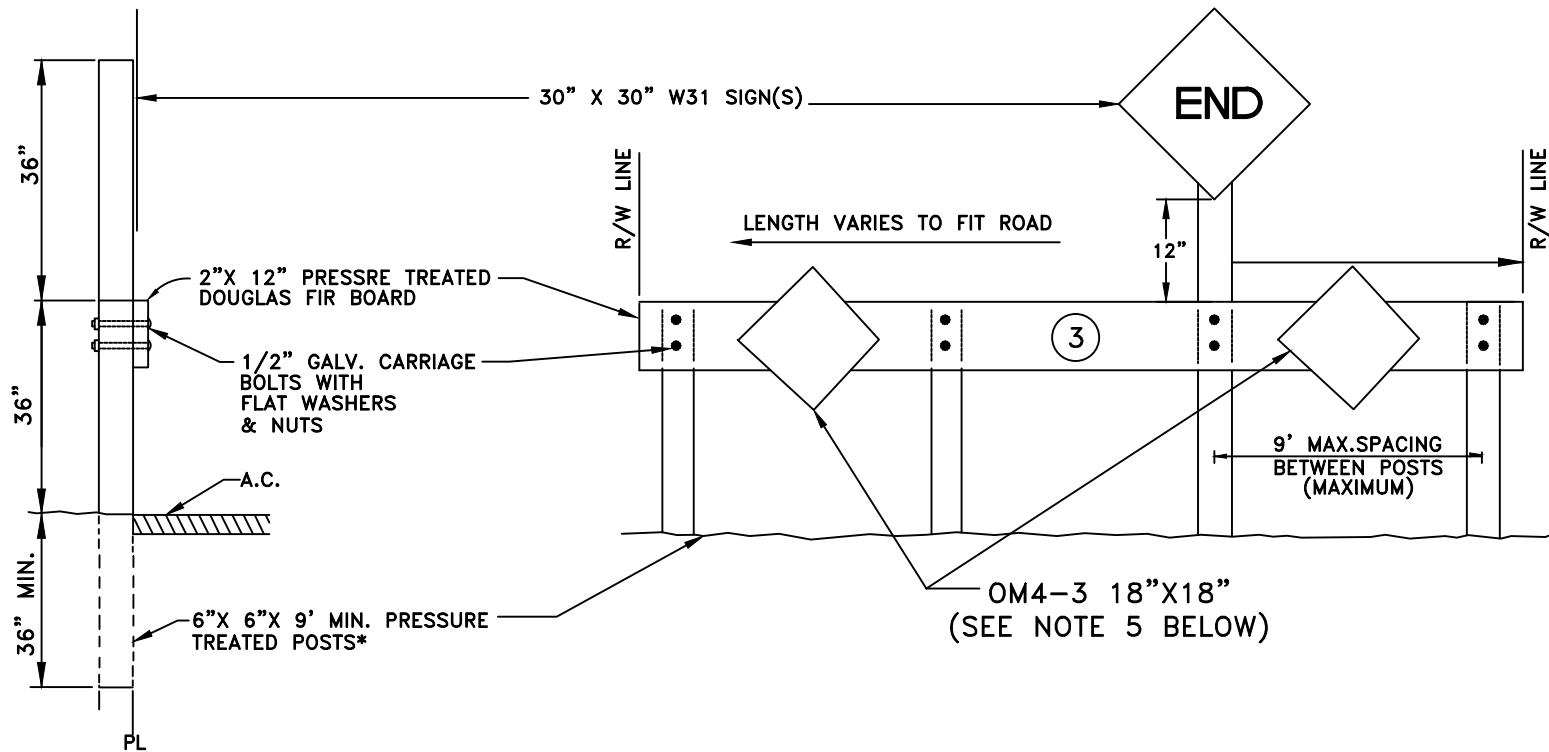
CITY OF
ROSEVILLE
CALIFORNIA

DEVELOPMENT SERVICES
DEPARTMENT

STUB STREET BARRICADE

SCALE: NONE
REVISED: JANUARY 1, 2016
DRAWN BY: J MCKINNEY
APPROVED BY: MARC STOUT

ST-33




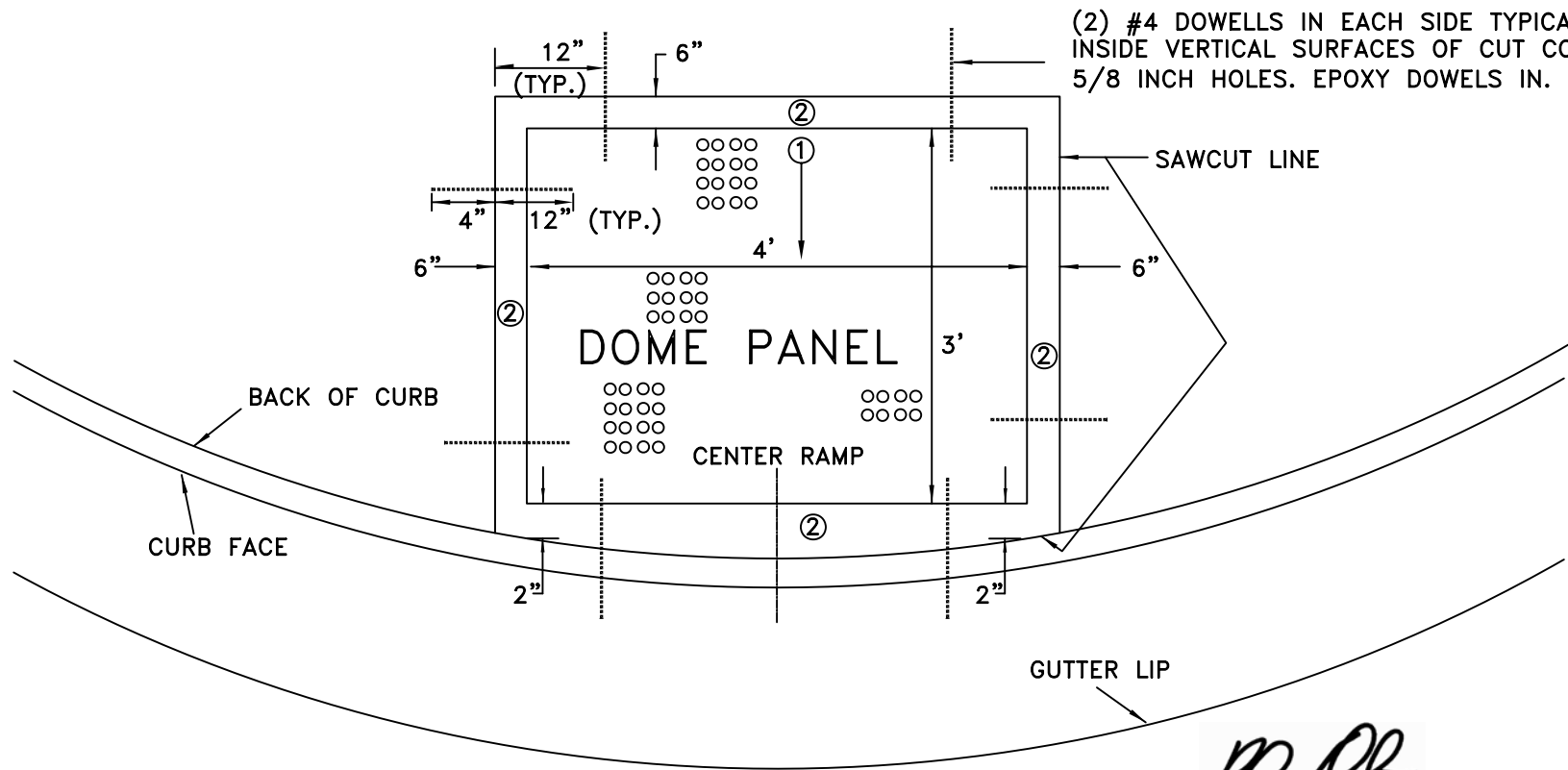
Marc Stout

MARC STOUT
CITY ENGINEER

NOTES:

1. ALL EXPOSED SURFACES SHALL BE PAINTED WITH 2 (TWO) COATS OF WHITE PAINT CONFORMING TO SECTION 91-3.02 OF THE STATE SPECIFICATIONS.
2. ALL SIGNS SHALL BE 0.080 GA ALUMINUM.
3. "NO PARKING" (R-26) SHALL BE POSTED ON RAILS. SIGN DETAIL NUMBERS REFERENCE THE 2012 CALIFORNIA MUTCD.
4. SIGN POST SHALL BE 9- FEET MINIMUM.
5. OM4-3 SIGN SHEETING MATERIAL TO BE RETROREFLECTIVE.


	DEVELOPMENT SERVICES DEPARTMENT
<h2 style="margin: 0;">END OF STREET TIMBER BARRICADE</h2>	
SCALE: NONE REVISED: JANUARY 1, 2016 DRAWN BY: J HENDRIX APPROVED BY: MARC STOUT	ST-34



(2) #4 DOWELS IN EACH SIDE TYPICAL. EPOXY INSIDE VERTICAL SURFACES OF CUT CONCRETE. 5/8 INCH HOLES. EPOXY DOWELS IN.

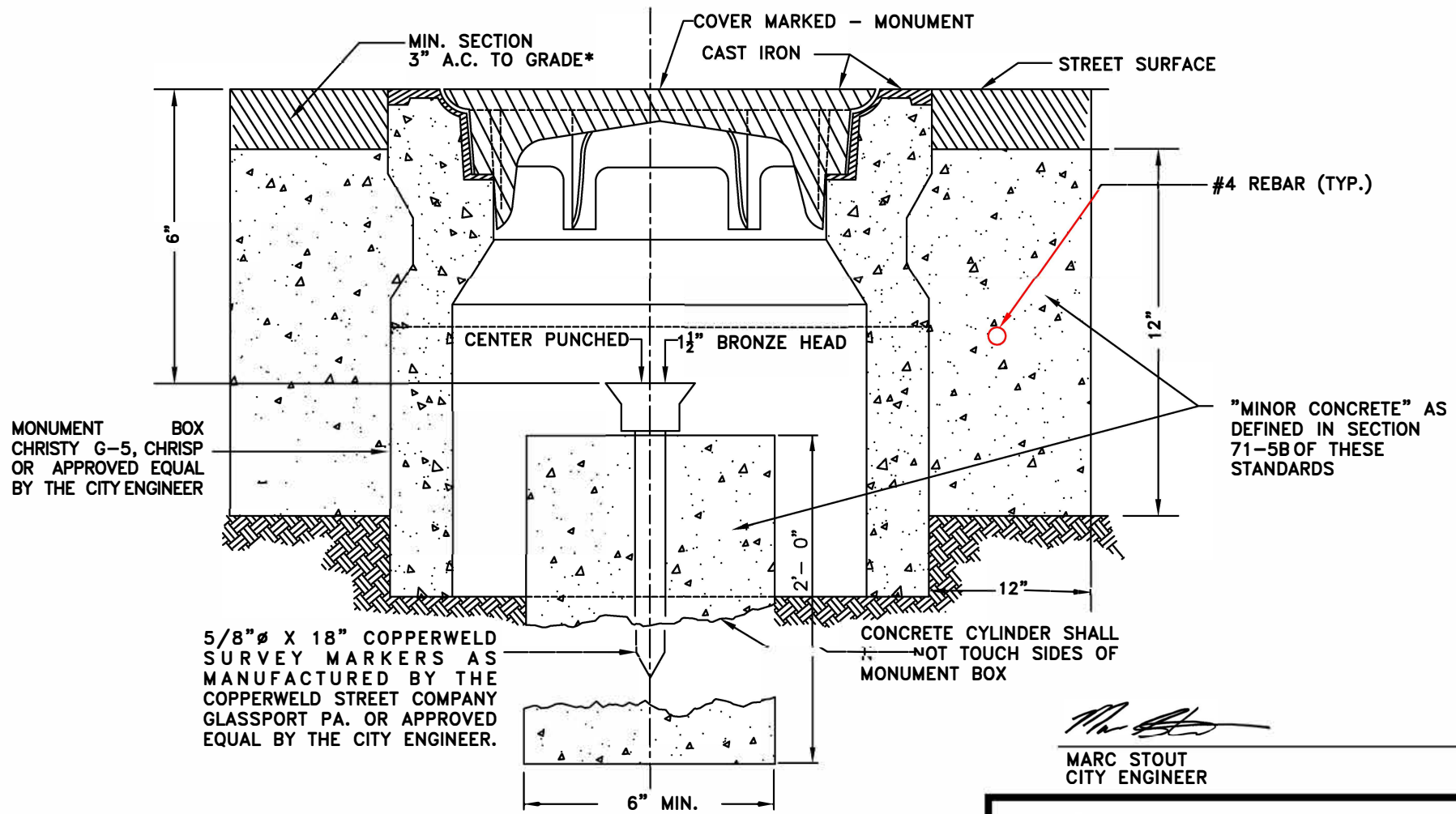
RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

		DEPARTMENT OF PUBLIC WORKS
DETECTABLE WARNING (TRUNCATED DOME PANEL) RETROFIT OR REPLACEMENT		
SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON		ST-35

NOTES:


1. PRIOR TO RETROFITTING TRUNCATED DOME PANEL, ASSURE GRADES CONFORM TO CITY REQUIREMENTS.
2. ALL CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.

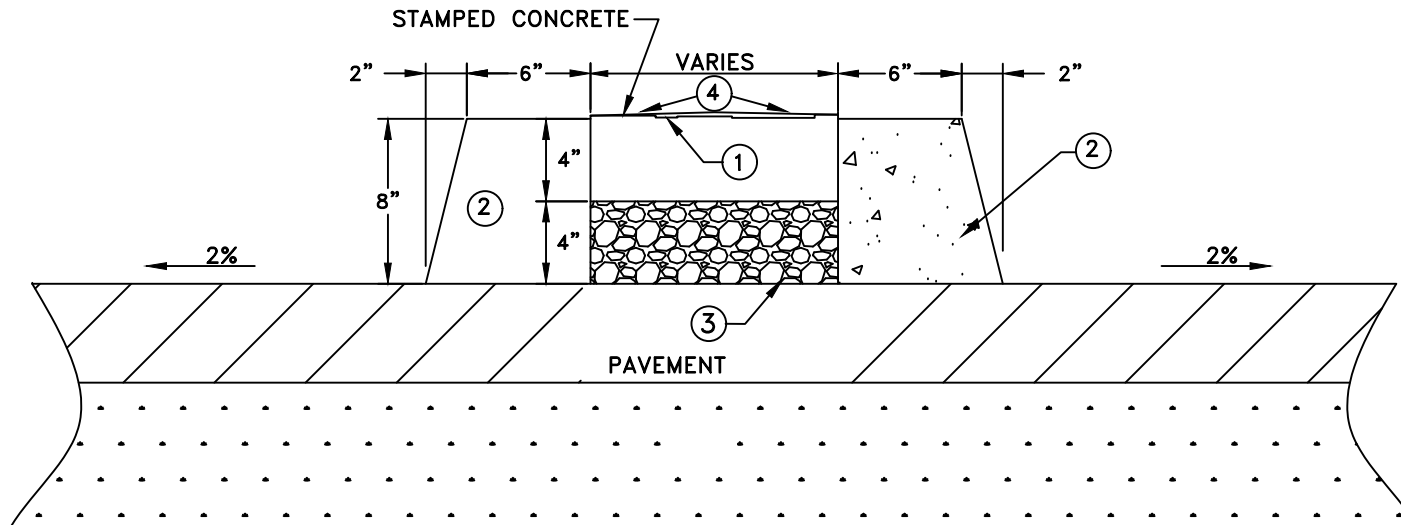


Marc Stout

MARC STOUT
CITY ENGINEER

*OPTION: CONCRETE COLLAR MAY BE PLACED FLUSH TO FINISHED SURFACE WITH MEDIUM BROOM FINISH PATTERN PERPENDICULAR TO VEHICLE TRAVEL DIRECTION.

	DEVELOPMENT SERVICES DEPARTMENT
	BOXED SURVEY MONUMENT
SCALE: NONE REVISED: JANUARY 1, 2019 DRAWN BY: R MEDINA APPROVED BY: MARC STOUT	ST-36



NOTES:

1. THE STANDARD PATTERN SHALL BE "BASKETWEAVE USED BRICK" AND THE STANDARD COLOR SHALL BE DAVIS STYLE TILE RED #1117, OR SCOFIELD SYSTEMS CHROMIX QUARRY RED, OR AS APPROVED EQUAL. APPLY 60 POUNDS PER 80 SQUARE FEET IN TWO HAND BROADCAST APPLICATIONS. CONTRACTOR MAY ELECT TO INCORPORATE APPROVED COLOR INTO CONCRETE MIX AT 30 POUNDS OF COLOR, INTEGRALLY MIXED, PER CUBIC YARD.
2. "TYPE 1" BARRIER CURB SEE DETAIL ST-18.
3. NATIVE MATERIAL OR BASE ROCK COMPACTED AT 90% RELATIVE COMPACTION OR FILL WITH CONCRETE.
4. SLOPE TO DRAIN, (1-2%)
5. WHERE RAISED CENTER MEDIANS ARE LESS THAN 4' WIDE FROM THE INSIDE FACE OF CURB, (NARROW MEDIANS AND NOSES), STAMPED CONCRETE (PER NOTE 1) SHALL APPLY. 4' TO 6' WIDE RAISED LANDSCAPED MEDIANS WILL BE RESTRICTED TO BARK ONLY, NO PLANTING OR IRRIGATION PERMITTED.

Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

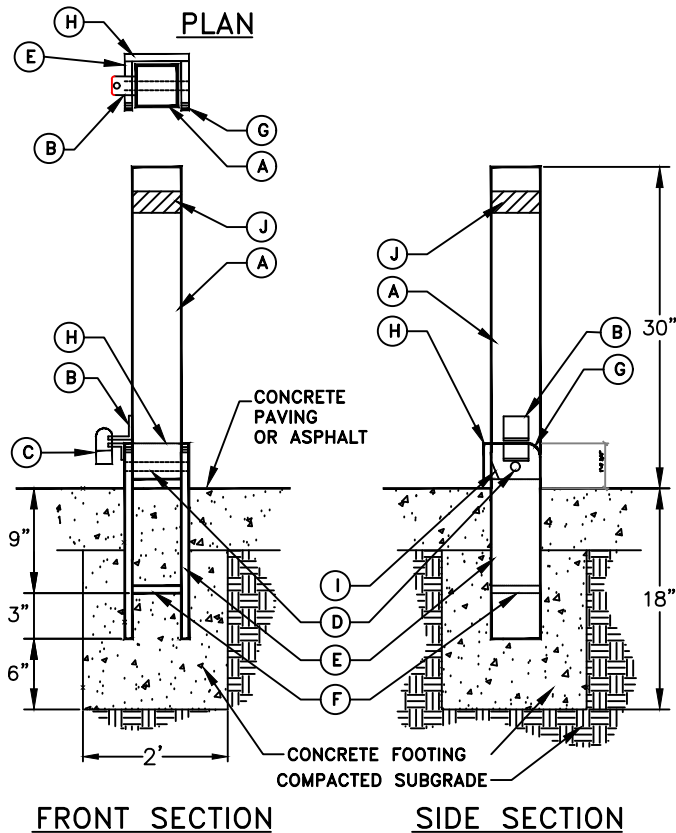


DEVELOPMENT SERVICES
DEPARTMENT

STAMPED CONCRETE

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: R MEDINA
APPROVED BY: JASON SHYKOWSKI

ST-37

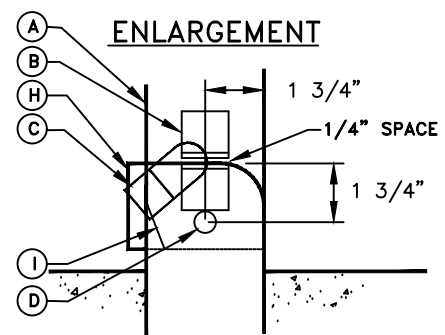


LEGEND

- A. 3 1/2" O.D. 1/4" WALL STEEL TUBE WITH CAP WELDED ON TOP, 3/4" HOLES FOR SWIVEL ROD. EASE ALL EDGES OF STEEL TUBE.
- B. 1 1/2" X 1 1/2" X 1/4" ANGLE IRON (2) WELDED TO TUBE AND BASE WITH 1 1/2" RADIUS CORNERS. PLACE 1/2" HOLE DRILLED 1/4" FROM END OF ANGLE IRON. ANGLE IRON ON BASE SIZE AS NECESSARY TO EQUAL LENGTH OF ANGLE IRON ON TUBE.
- C. PADLOCK, TO BE PROVIDED BY CITY.
- D. 5/8" DIA. STEEL SWIVEL ROD, WELD SWIVEL ROD TO SIDE PLATES.
- E. 3/8" x 16" x 4" STEEL BASE PLATE WITH 1 1/2" RADIUS CORNERS. EASE ALL EDGES.
- F. 3/8" STEEL BRACE. FILET WELD BOTH SIDES TO BASE PLATES.
- G. 1 1/2" RADIUS CORNERS, TYP.
- H. 4" X 4" x 3/8" STEEL BACK PLATE WELDED TO BASE PLATE.
- I. FISH MOUTH GRIND AT BOTTOM BACK CORNER OF TUBE.
- J. PLACE 2" WHITE REFLECTIVE TAPE.

NOTES

1. ALL TUBING SHALL BE BLACK STEEL PIPE.
2. ALL JOINTS SHALL BE WELDED IN ACCORDANCE WITH CA STATE STANDARD SPECIFICATIONS FOR WELDING STRUCTURAL STEEL AND GROUND SMOOTH.
3. ALL PARTS (EXCEPT PADLOCK) SHALL BE PAINTED WITH TWO COATS ZINC CHROMATE PRIMER AND TWO COATS EXTERIOR ENAMEL. COLOR: SAFETY YELLOW GLOSS.
4. BOLLARD SHALL BE INSTALLED SUCH THAT IT LAYS FLAT WHEN FOLDED.
5. CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.



MARC STOUT
CITY ENGINEER

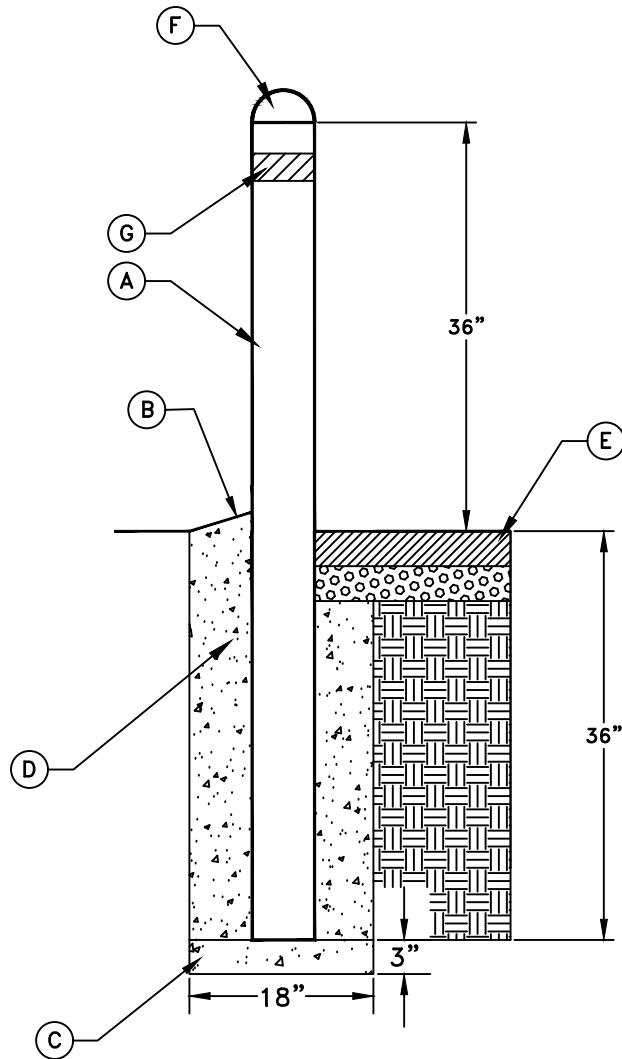
	DEVELOPMENT SERVICES DEPARTMENT
<h2 style="margin: 0;">BOLLARD</h2>	
SCALE: NONE REVISED: JANUARY 1, 2020 DRAWN BY: R MEDINA APPROVED BY: MARC STOUT	
ST-38	

LEGEND

- A. 6" O.D. 1/4" WALL STEEL TUBE WITH CONCRETE CAP.
- B. SLOPE CONCRETE BASE IN LANDSCAPE AREAS.
- C. REST ON 3" DOBIES.
- D. CONCRETE FOOTING.
- E. AC PAVING OR CONCRETE PER PAVING PLAN.
- F. CONCRETE CAP.
- G. PLACE 2" WHITE REFLECTIVE TAPE.

NOTES

- 1. ALL TUBING SHALL BE BLACK STEEL PIPE.
- 2. ALL PARTS SHALL BE PAINTED WITH TWO COATS ZINC CHROMATE PRIMER AND TWO COATS EXTERIOR ENAMEL. COLOR: SAFETY YELLOW GLOSS.
- 3. CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.



MARC STOUT
CITY ENGINEER

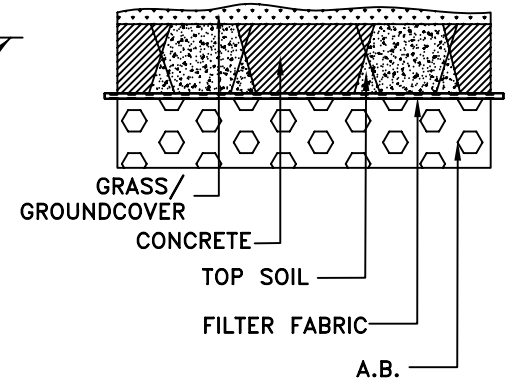
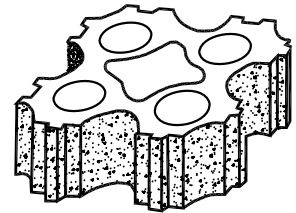
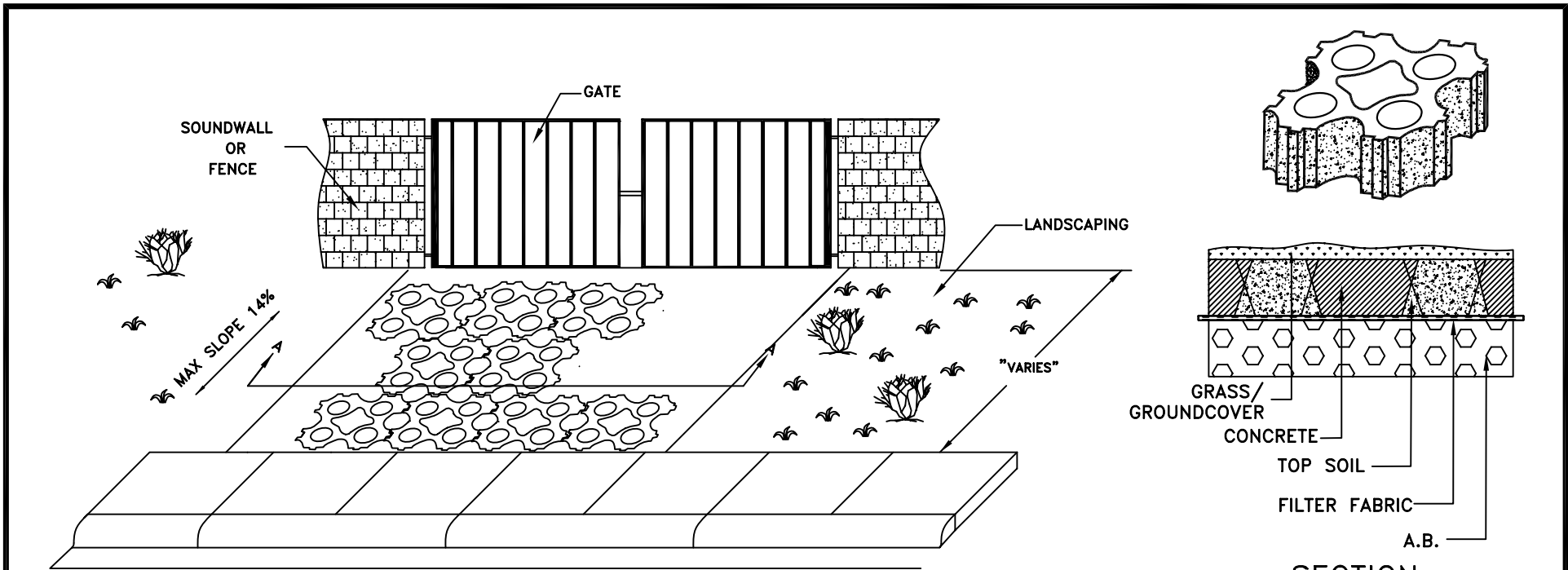
CITY OF
ROSEVILLE
CALIFORNIA

DEVELOPMENT SERVICES
DEPARTMENT

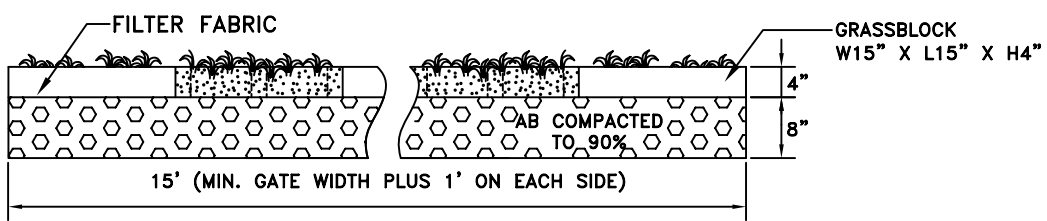
FIXED BOLLARD

SCALE: NONE
REVISED: JANUARY 1, 2020
DRAWN BY: R MEDINA
APPROVED BY: MARC STOUT

ST-38A



SECTION



SECTION A-A

RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

NOTES:

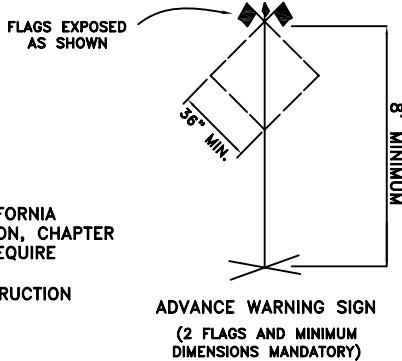
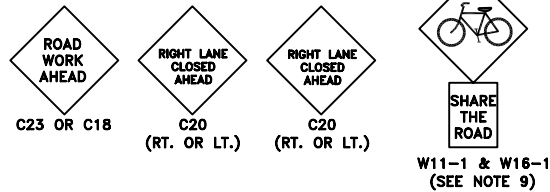
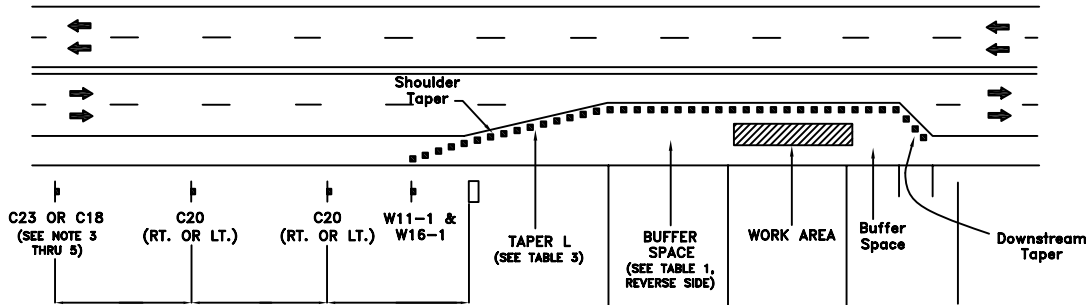
1. STANDARD GRASSBLOCK OR TURFSTONE
2. PLACE FILTER FABRIC UNDER GRASSBLOCK.
3. PLACE TOP SOIL ON GRASS BLOCK AND COMPACT TO 90%.
4. ACCESS DRIVEWAY TO CONTINUE THROUGH GATE TO BACK OF ADJOINING CURB OR SIDEWALK.
5. IRRIGATION LINES SHALL BE SLEAVED IN AREAS UNDER STRUCTURAL SECTION AND VEHICULAR WHEEL LOADS. AREA SHALL BE IRRIGATED WITH PERIMETER HEADS.

 CITY OF ROSEVILLE CALIFORNIA	DEPARTMENT OF PUBLIC WORKS
--	-------------------------------

**EMERGENCY ACCESS GATE THROUGH
LANDSCAPE MEDIAN**

SCALE: NONE
 REVISED: JANUARY 1, 2010
 DRAWN BY: J MCKINNEY
 APPROVED BY: RHON HERNDON

ST-39



SPECIAL NOTES:

THIS DETAIL IS REPRODUCED FROM FIGURE 6C-1 OF THE CALIFORNIA MANUAL ON UNIFORMED TRAFFIC CONTROL DEVICES 2012 EDITION, CHAPTER 6-TEMPORARY TRAFFIC CONTROL. FIELD CONDITIONS COULD REQUIRE DEVIATIONS FROM THESE PLANS AND ACCOMPANYING NOTES. SEE SECTION 21-2 OF THE CITY OF ROSEVILLE DESIGN/CONSTRUCTION STANDARDS FOR CONES AND DELINEATORS.

LEGEND:

- ⊥ SIGN
- CONE OR PORTABLE DELINEATOR
- ➔ DIRECTION OF TRAFFIC
- FLASHING ARROW SIGN

NOTES:

TAPER FORMULA:
 $L = WS^2/60$ FOR SPEEDS OF 40 MPH OR LESS
 $L = S \times W$ FOR SPEEDS OF 45 MPH OR MORE
WHERE:
 L = MINIMUM LENGTH OF TAPER
 S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85th PERCENTILE SPEED
 W = WIDTH OF OFFSET

TABLE 3

Speed in Miles per Hour	Length of Taper in Feet	
	11 Feet	12 Feet
25	115	125
30	165	180
35	225	245
40	293	320
45	495	540
50	550	600
55	605	660
60	660	720
65	715	780
70+	770	1000

TABLE 2

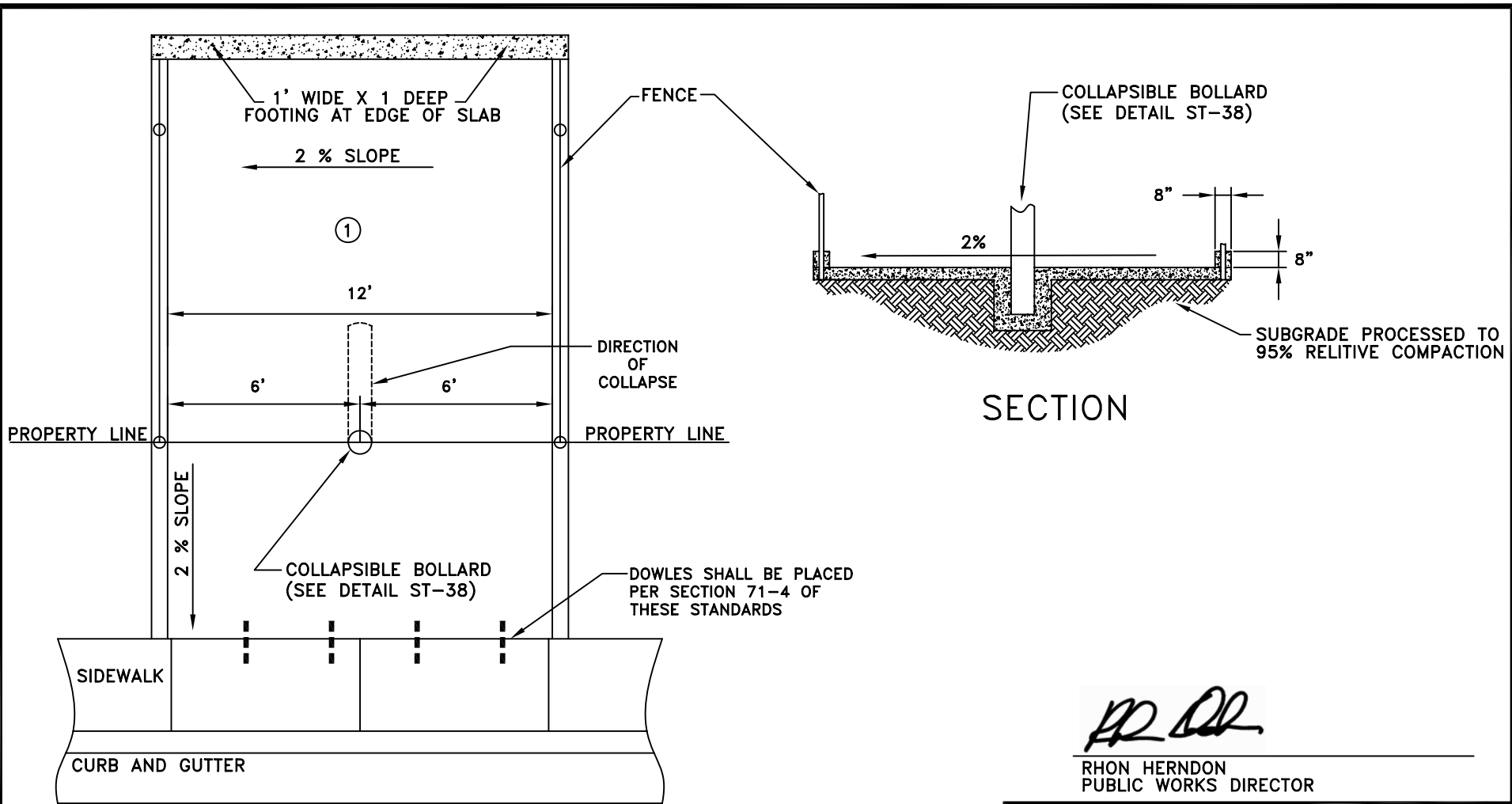
Advance Warning Sign Spacing	
Speed Limits	Distance Between Signs in Feet
25 mph or less	100
30 or more	350
Rural	500
Expressway	1000

NOTES:

1. 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 CLOSURE DOES NOT MEET THE STANDARDS CONTAINED IN THIS PLAN. AS EQUIPMENT OR PERSONNEL BECOME AVAILABLE, AN IMMEDIATE EFFORT SHOULD THEN BE MADE TO IMPLEMENT THE STANDARDS SHOWN ON THIS PLAN.
2. ALL ADVANCE WARNING SIGNS SHALL BE 36" X 36" MINIMUM. (SEE NOTE 5)
3. ALL WARNING SIGNS FOR NIGHT CLOSURES SHALL BE EITHER ILLUMINATED OR RETROREFLECTORIZED.
4. A "C18 ROAD CONSTRUCTION AHEAD" SIGN MAY BE USED IN LIEU OF THE C23. (SEE NOTE 3)
5. WARNING (W) SERIES SIGNS USED IN WORK ZONES SHALL BE BLACK ON ORANGE. EXISTING YELLOW WARNING SIGNS ALREADY IN PLACE WITHIN THESE AREAS MAY REMAIN IN USE.
6. PAYEMENT MARKINGS FOR CLOSURES SHALL CONFORM TO SECTION 6 OF THE CALIFORNIA MUTCD 2006 EDITION AND CALTRANS STANDARD PLANS.
7. ALL CONES SHALL BE INTERNALLY ILLUMINATED OR FITTED WITH RETROREFLECTIVE WHITE SLEEVES FOR NIGHT CLOSURES. (SEE SECTION 6-6F.59 OF THE CALIFORNIA MUTCD MANUAL)
8. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL TO THE SPEED LIMIT.
9. W11-1 AND W16-1 REQUIRED ONLY WHEN TAPER CROSSES A MARKED BICYCLE LANE.

RHON HERNDON
PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
<h2 style="margin: 0;">TYPICAL TRAFFIC CONTROL LANE CLOSURE/TRANSITION</h2>	
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	ST-40



RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

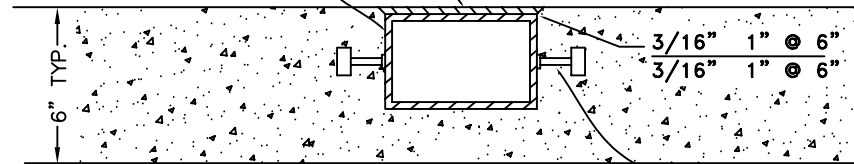
	DEPARTMENT OF PUBLIC WORKS
GREEN BELT ACCESS	
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	ST-41

NOTES:

1. 6" CONCRETE SLAB SECTION TO BE 6" A.B. COMPACTED SUBGRADE, 95% COMPACTION.
2. CHAIN LINK OR ROD IRON FENCE MAY NOT EXCEED 3' IN HEIGHT WITHIN BUILDING SET BACK, 6' IN HEIGHT THEREAFTER.
3. ALL CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.

4"x3"x1/4" STEEL TUBE
1/8" CHAMFER BOTH ENDS.

1/4"x 0'-5" CHECKER PLATE



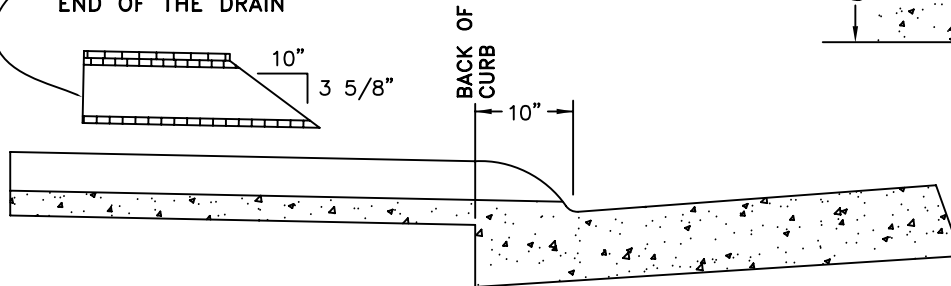
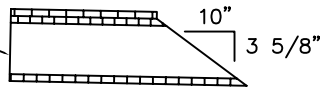
1/2"x 2" WELDED STEEL
STUD OR #4 REBAR,
2 REQUIRED EACH SIDE.

SECTION B-B

WHEN PLACING IN EXISTING SIDEWALK, SAWCUT
AND REPLACE A LENGTH OF CURB, GUTTER
AND SIDEWALK EQUAL TO THE SIDEWALK
WIDTH. IF THE ASPHALT CONCRETE EDGE IS
DAMAGED, SAWCUT THE PAVEMENT AND PAVE
A TWO FOOT WIDE BY SIX INCH DEEP PATCH
AT THE GUTTER LIP.

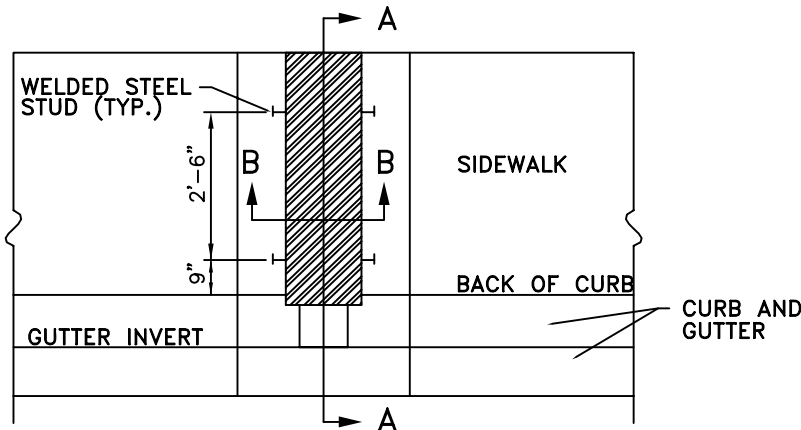
ALL HARDWARE SHALL BE GALVANIZED PER
CALTRANS SPECIFICATIONS.

DETAIL OF THE CURB
END OF THE DRAIN



SECTION A-A
FOR TYPE 1 CURB

(FOR TYPE II CURB & GUTTER, ASSEMBLY SHALL MATCH CURB BATTER)



PLAN VIEW OF CURB, GUTTER & SIDEWALK

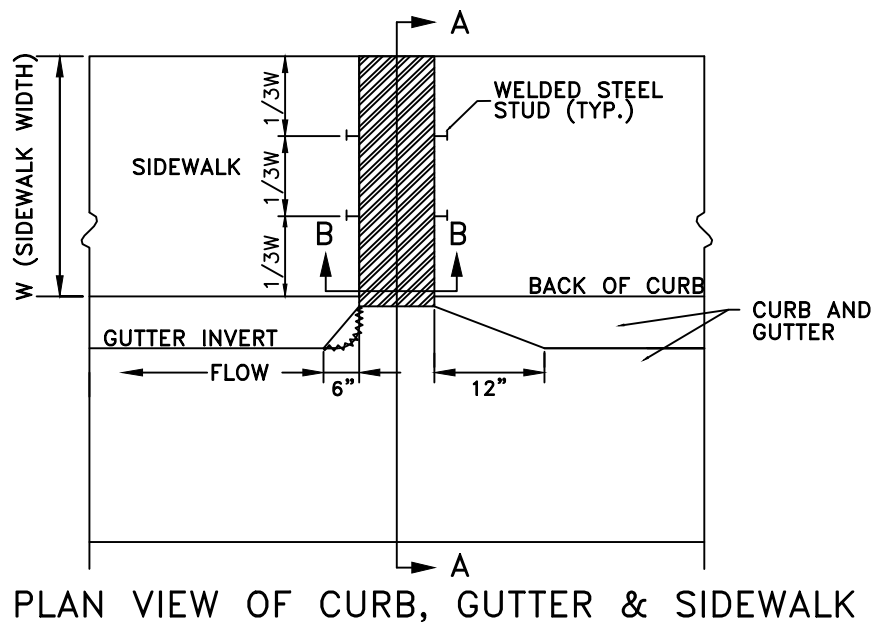
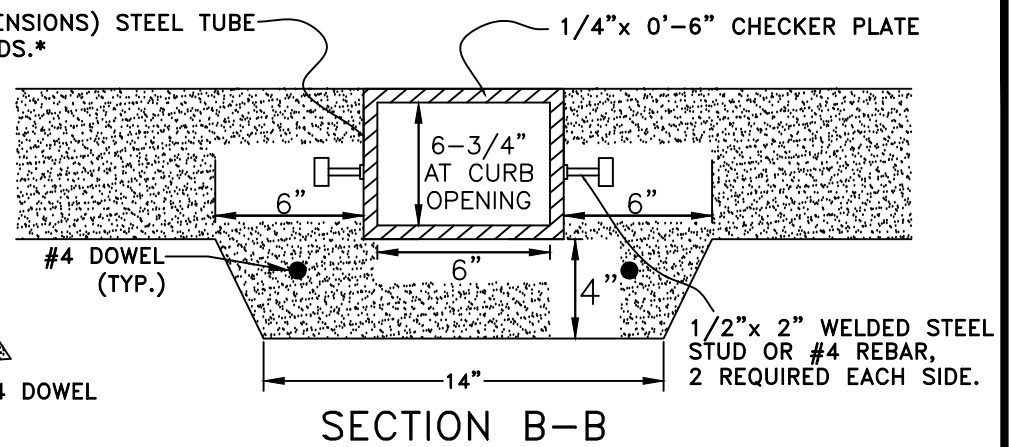
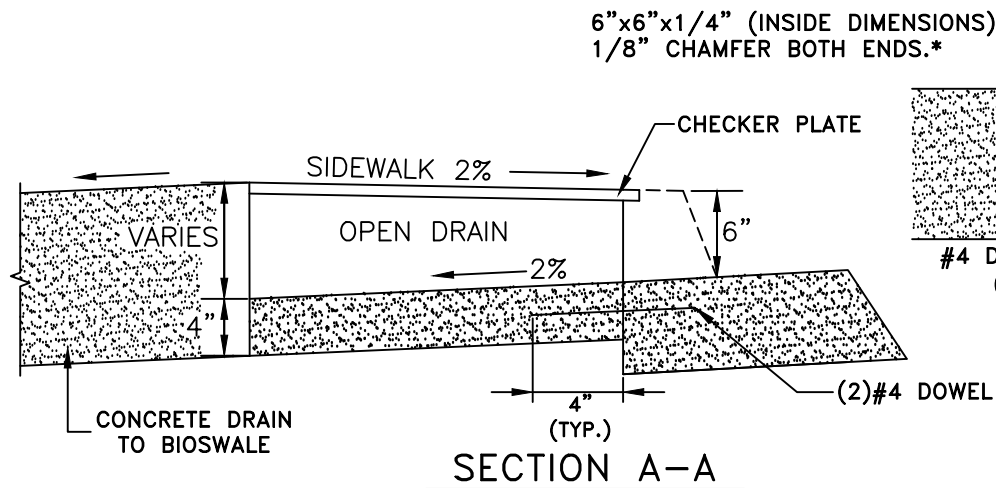
RHON HERNDON
PUBLIC WORKS DIRECTOR

 CITY OF ROSEVILLE CALIFORNIA	DEPARTMENT OF PUBLIC WORKS
---	-------------------------------

UNDER WALK DRAIN

SCALE: NONE
 REVISED: JANUARY 1, 2010
 DRAWN BY: J MCKINNEY
 APPROVED BY: RHON HERNDON

ST-42



WHEN PLACING IN EXISTING SIDEWALK, SAWCUT AND REPLACE A LENGTH OF CURB, GUTTER AND SIDEWALK EQUAL TO THE SIDEWALK WIDTH. IF ADJACENT ASPHALT PAVEMENT EDGE IS DAMAGED, SAWCUT THE PAVEMENT AND PAVE A TWO FOOT WIDE BY SIX INCH DEEP PATCH AT THE GUTTER LIP, PER CITY STANDARD. IF ADJACENT CONCRETE PAVEMENT EDGE IS DAMAGED, SAWCUT THE PAVEMENT AT THE NEAREST JOINT AND PAVE PER CITY STANDARD. IF APPROVED BY CITY, CONCRETE PAVEMENT MAY BE REPAIRED WITH CALTRANS SPALL REPAIR METHOD.

* ALL HARDWARE SHALL BE GALVANIZED PER CALTRANS SPECIFICATIONS.

J. Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR



DEVELOPMENT SERVICES
DEPARTMENT

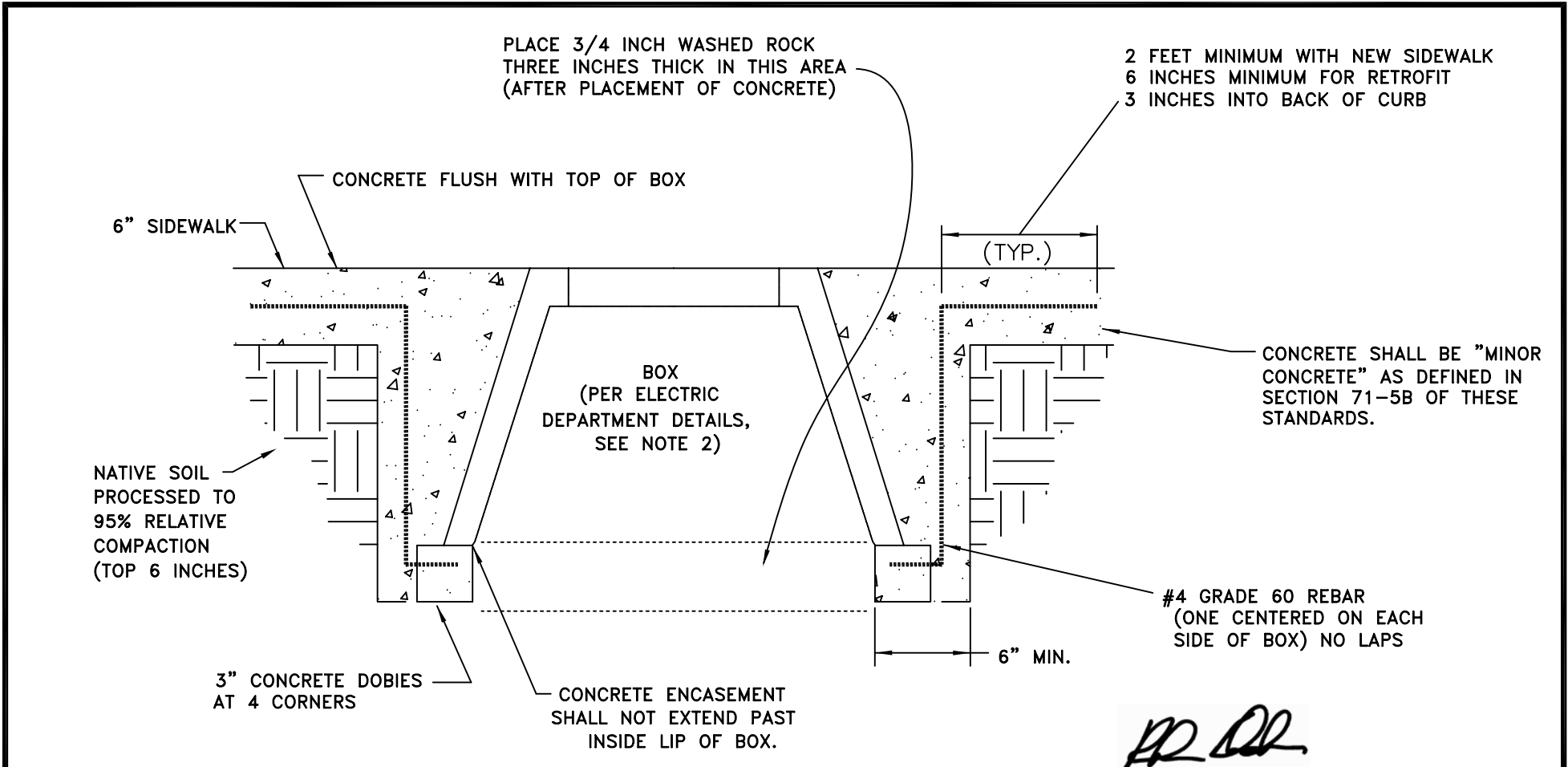
UNDER WALK DRAIN
(FLOWS FROM STREET)

NOTES:

1. VERTICAL CURB (TYPE 2)
2. MAINTAIN POSITIVE FLOW

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: R. MEDINA
APPROVED BY: JASON SHYKOWSKI

ST-42A



PLACE 3/4 INCH WASHED ROCK
THREE INCHES THICK IN THIS AREA
(AFTER PLACEMENT OF CONCRETE)

2 FEET MINIMUM WITH NEW SIDEWALK
6 INCHES MINIMUM FOR RETROFIT
3 INCHES INTO BACK OF CURB

CONCRETE FLUSH WITH TOP OF BOX

6" SIDEWALK

(TYP.)

BOX
(PER ELECTRIC
DEPARTMENT DETAILS,
SEE NOTE 2)

CONCRETE SHALL BE "MINOR
CONCRETE" AS DEFINED IN
SECTION 71-5B OF THESE
STANDARDS.

NATIVE SOIL
PROCESSED TO
95% RELATIVE
COMPACTION
(TOP 6 INCHES)

#4 GRADE 60 REBAR
(ONE CENTERED ON EACH
SIDE OF BOX) NO LAPS

3" CONCRETE DOBIES
AT 4 CORNERS

6" MIN.


CONCRETE ENCASEMENT
SHALL NOT EXTEND PAST
INSIDE LIP OF BOX.

RHON HERNDON

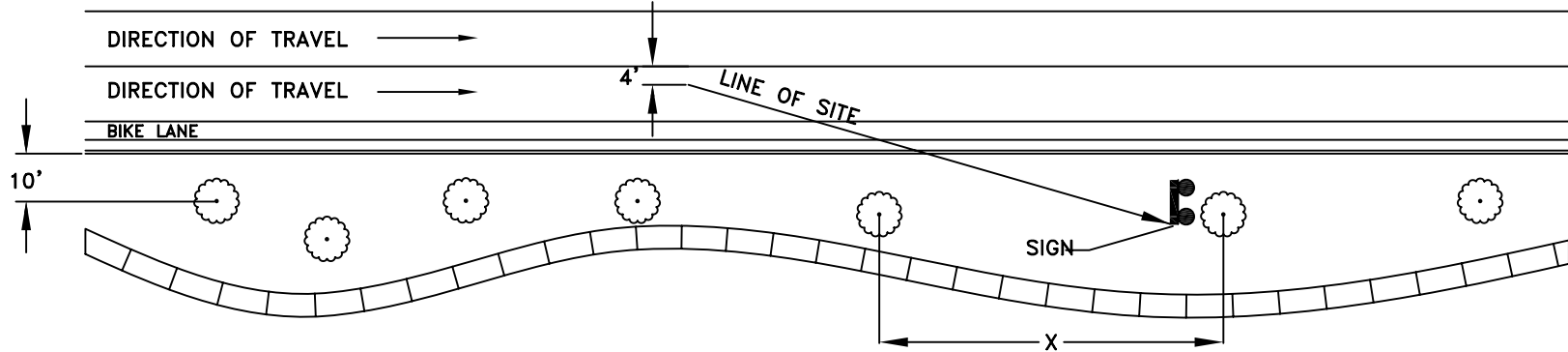
RHON HERNDON
PUBLIC WORKS DIRECTOR

NOTES:

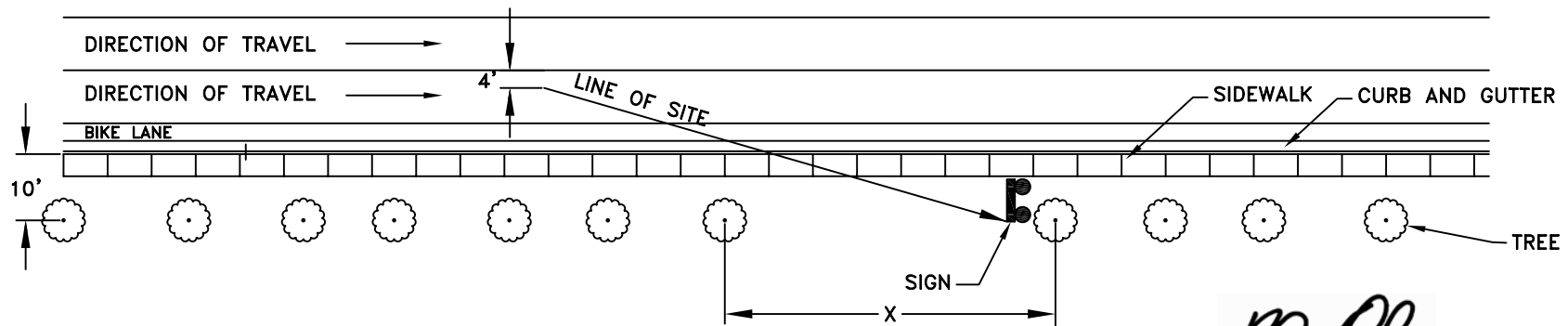
1. IF A BOX EXTENDS OUTSIDE BACK OF SIDEWALK, PROVIDE ONE FOOT WIDE BY SIX INCH THICK CONCRETE COLLAR AROUND FULL PERIMETER. (EXTEND REBAR 10 INCHES INTO COLLAR.)
2. SEE ELECTRIC DEPARTMENT DETAIL PAGES 6.1 AND 6.2 (RESIDENTIAL) AND PAGES 8.1 AND 8.2 (COMMERCIAL).

	DEPARTMENT OF PUBLIC WORKS
ENCASEMENT FOR ALL ROSEVILLE ELECTRIC JUNCTION BOXES IN CITY SIDEWALKS	
SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	ST-43

DETACHED SIDEWALK



ATTACHED SIDEWALK



RHON HERNDON

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PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

LANDSCAPE SIGHT DISTANCE

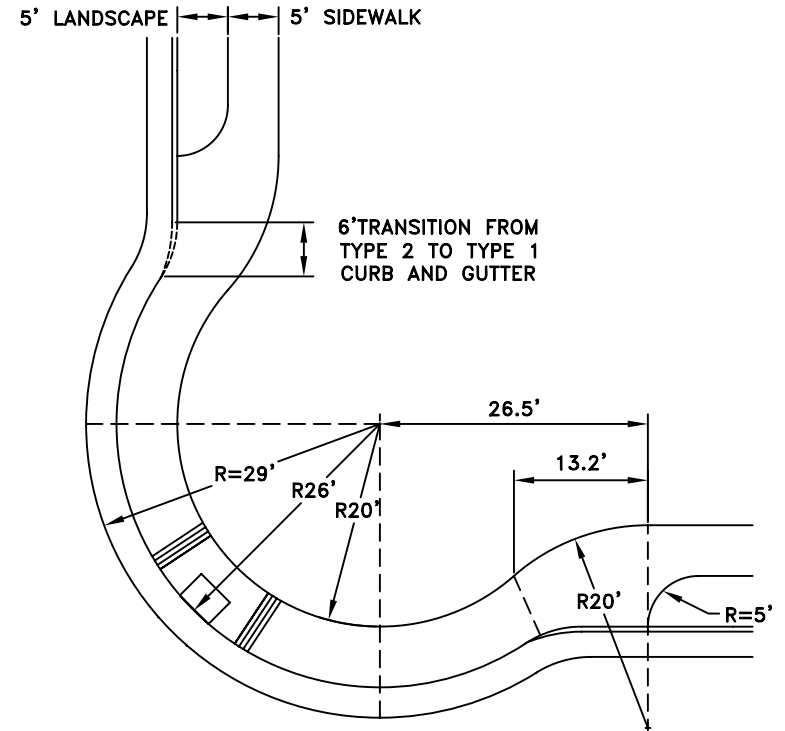
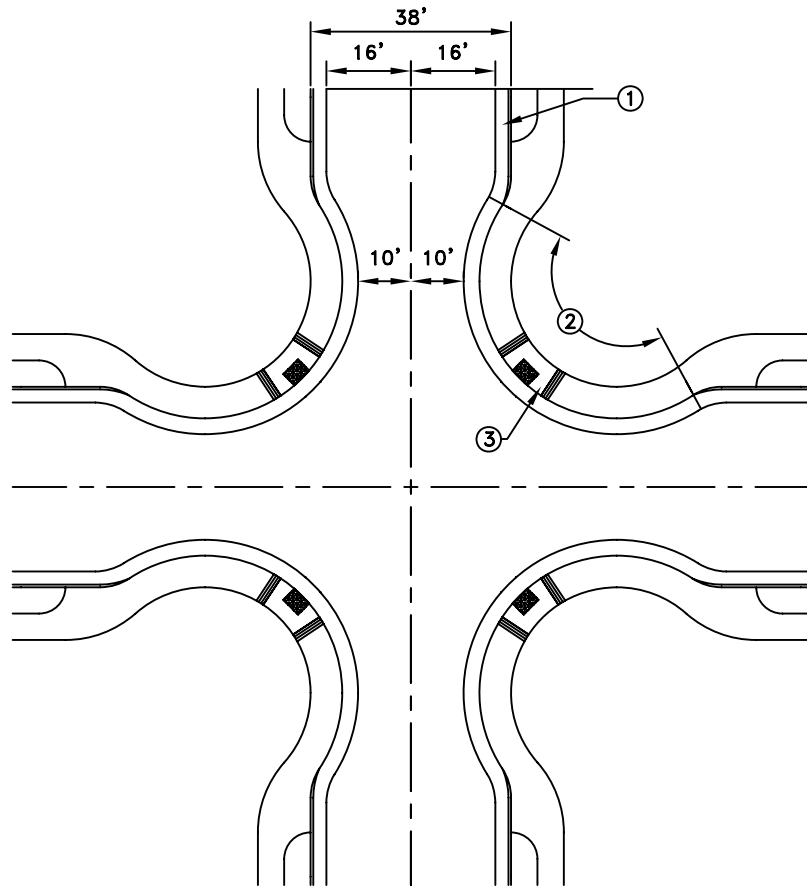
SPEED MPH	MINIUM CLEARANCE FOR LINE OF SITE "X"
25	75 -ft
30	90 -ft
40	120 -ft
50	150 -ft
60	180 -ft

NOTES:

1. THESE ARE MINIMUM DISTANCES FOR TREES ALONG ROADWAYS.
2. DISTANCE FROM BACK OF CURB TO CENTER OF TREE IS TO BE GREATER THEN OR EQUAL TO 10'

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

ST-44



RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

LEGEND

1. TYPE 2 CURB AND GUTTER
2. TYPE 1 CURB AND GUTTER AND SIDEWALK TO BE 10" THICK "MINOR CONCRETE"
3. PLACE CASE "C" PEDESTRIAN RAMP, SEE DETAIL "ST-27".

NOTES:

1. ALL CONCRETE TO "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THE STANDARDS.

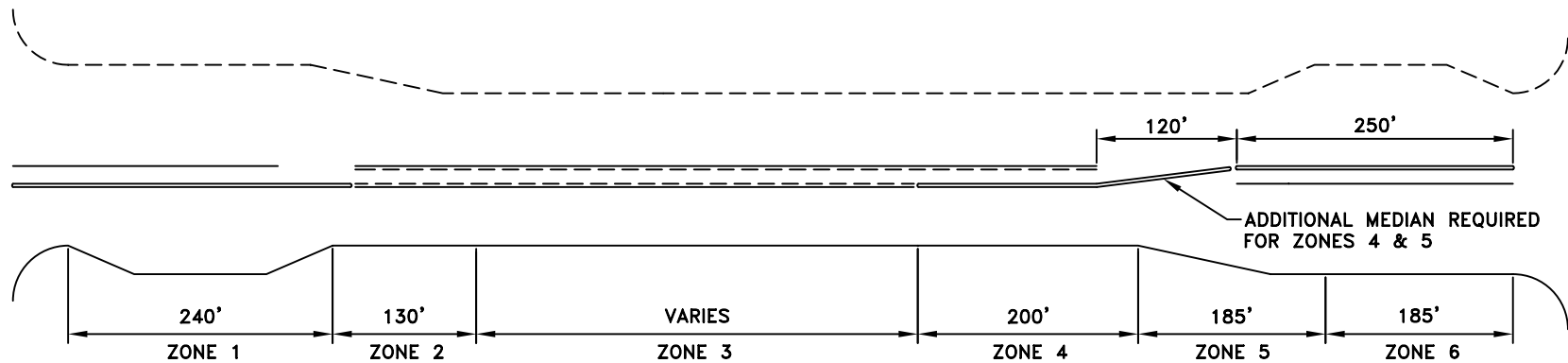


DEPARTMENT OF
PUBLIC WORKS

RESIDENTIAL BULBED
INTERSECTION

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

ST-45



- ZONE 1 NO DRIVEWAYS OR STREETS ALLOWED.
- ZONE 2 DRIVEWAYS AND STREETS ALLOWED. LEFT TURN OUT PROHIBITED. WHERE THE ADJACENT STREET WILL HAVE DUAL LEFT TURN LANES, ZONE 2 SHALL BE INCREASED TO 190 FEET.
- ZONE 3 DRIVEWAYS AND STREETS ALLOWED. ALL TURNING MOVEMENTS PERMITTED.
- ZONE 4 DRIVEWAYS AND STREETS ALLOWED. LEFT TURNS IN AND OUT PROHIBITED. ADDITIONAL MEDIAN REQUIRED.
- ZONE 5 DRIVEWAYS ARE ALLOWED. STREETS ARE PROHIBITED. LEFT TURNS IN AND OUT ARE PROHIBITED. ADDITIONAL MEDIAN REQUIRED.
- ZONE 6 NO DRIVEWAYS OR STREETS ALLOWED.

NOTES:

1. OPPOSING DRIVEWAYS SHOULD ALIGN WITH EACH OTHER, IF NOT SEE DETAIL "ST-47" FOR MINIMUM OFFSETS.
2. SEE DETAIL "ST-48" OR "ST-49" FOR DRIVEWAYS NEAR BUS TURNOUTS.

RHON HERNDON
PUBLIC WORKS DIRECTOR



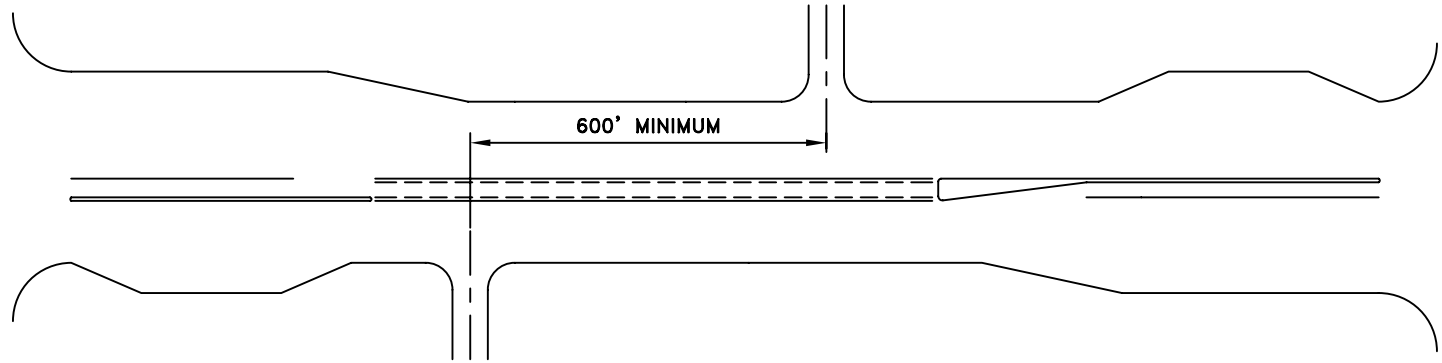
DEPARTMENT OF
PUBLIC WORKS

PERMITTED DRIVEWAYS
STREETS OR MINOR ARTERIALS

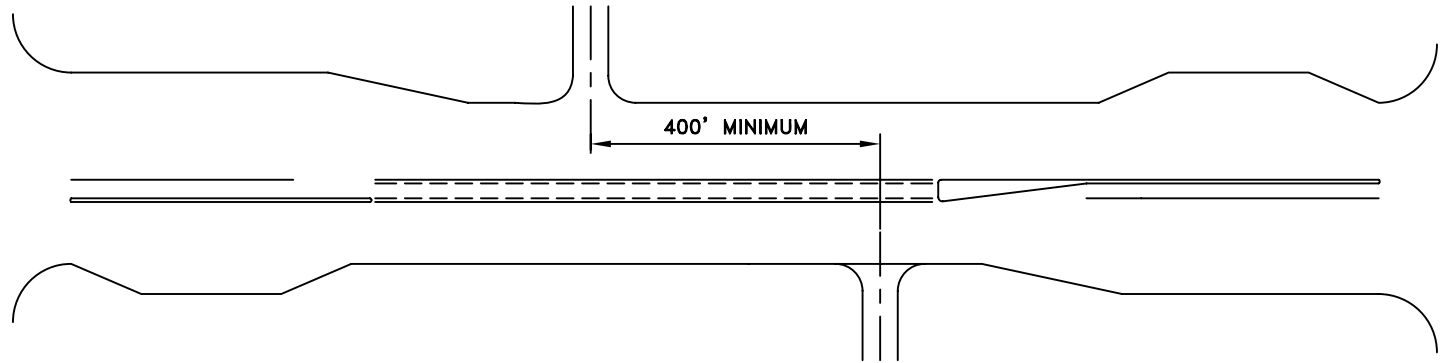
SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: R HERNDON

ST-46

RIGHT HAND OFFSET



LEFT HAND OFFSET



RHON HERNDON
PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

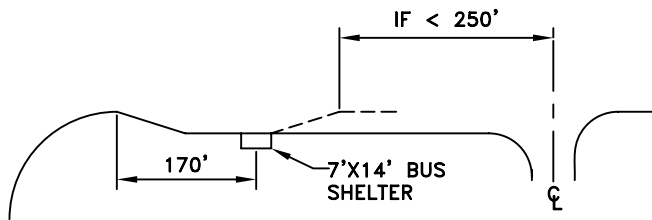
MINIMUM DRIVEWAY
OR STREET OFFSET ON
MINOR ARTERIAL

NOTES:

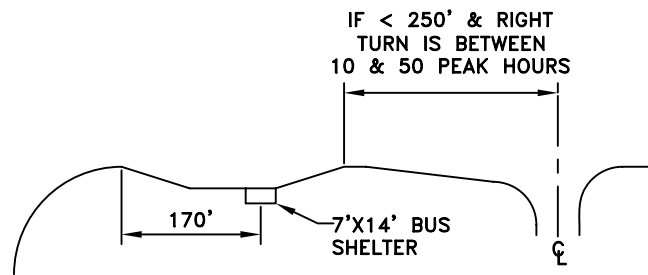
1. SEE DETAIL "ST-46" FOR PERMITTED LOCATIONS AND TURNING MOVEMENTS.

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: R HERNDON

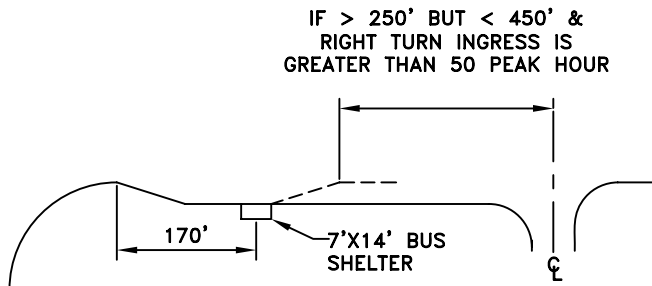
ST-47



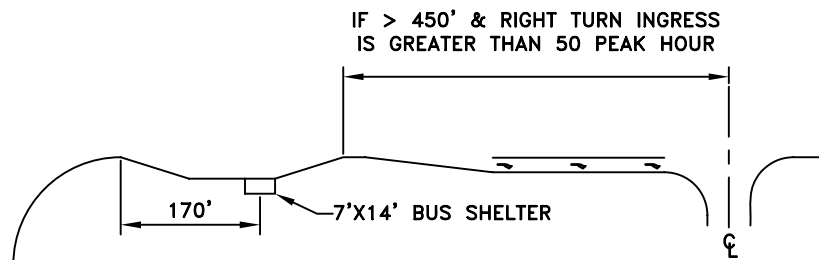
CASE 1



CASE 2



CASE 3



CASE 4

RHON HERNDON
PUBLIC WORKS DIRECTOR

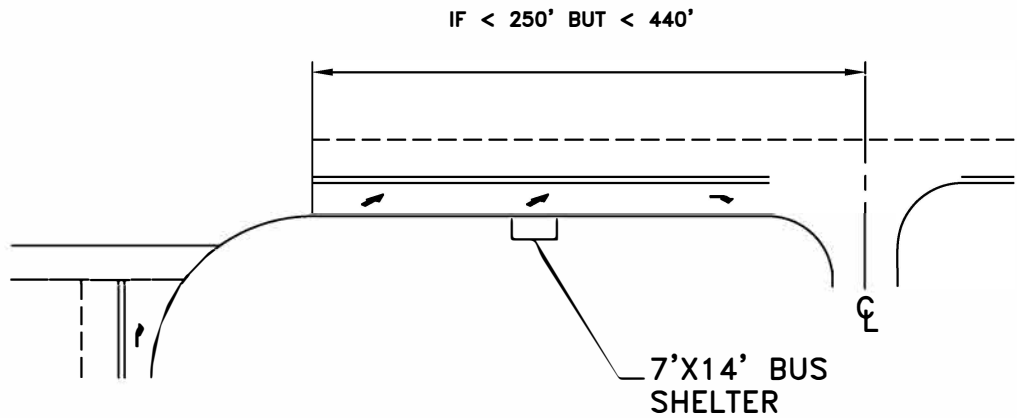
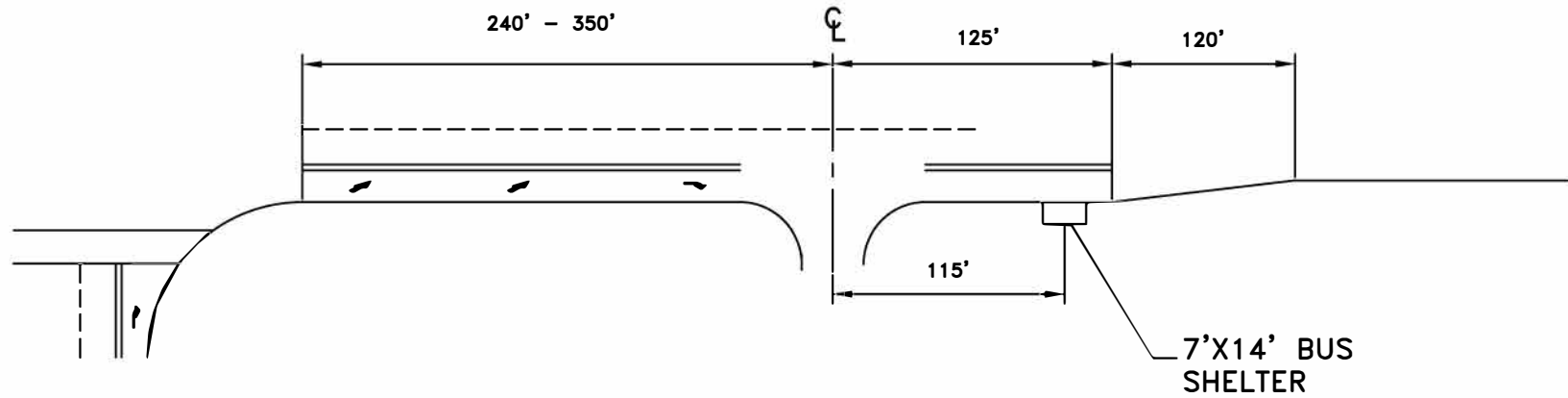


DEPARTMENT OF
PUBLIC WORKS

BUS SHELTER/DRIVEWAY
LOCATIONS

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: R HERNDON

ST-48



RH Herndon

RHON HERNDON
PUBLIC WORKS DIRECTOR

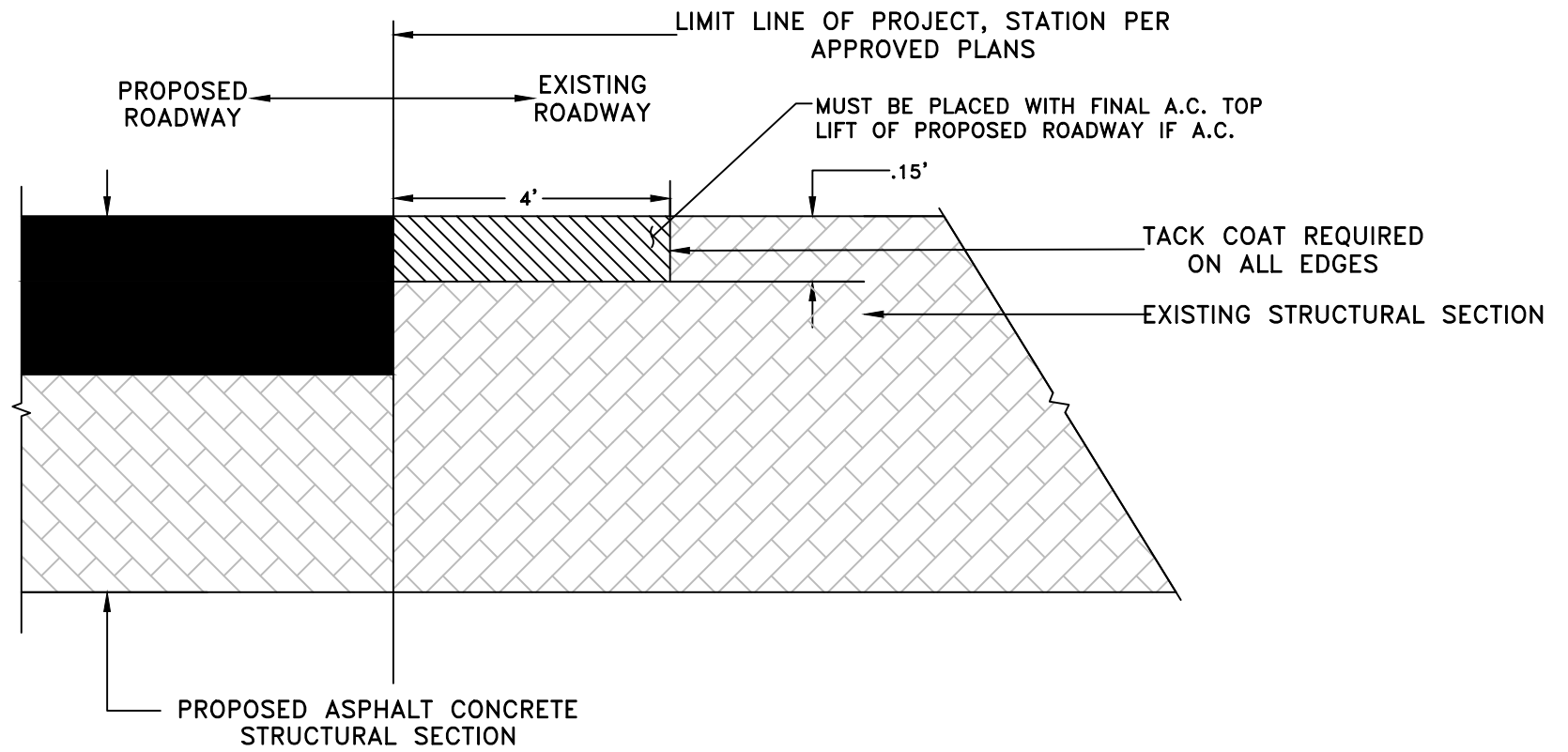


DEPARTMENT OF
PUBLIC WORKS

BUS SHELTER/DRIVEWAY
LOCATIONS -
ACCELERATION LANE

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: R HERNDON

ST-49



LEGEND:

- PROPOSED ASPHALT CONCRETE
- MILLED ASPHALT


SECTION DETAIL

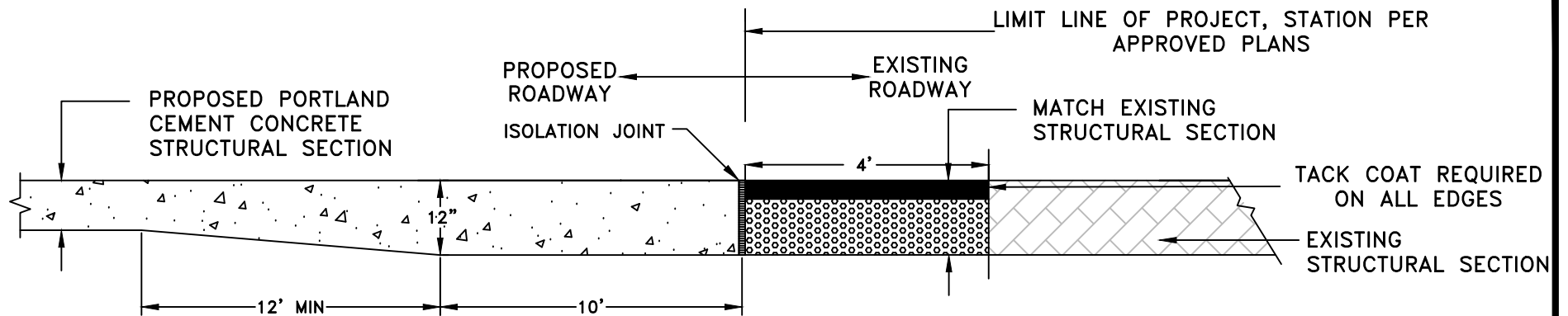
NOTES:

1. ALL MATERIAL AND COMPACTION REQUIREMENTS SHALL CONFORM TO CITY CONSTRUCTION STANDARDS.
2. ROADWAY CONFORMS INTENDED FOR ALL ARTERIAL & COLLECTOR ROADWAYS WHERE PHASED CONSTRUCTION EXISTS.
3. LIMITS OF RESIDENTIAL ROADWAY CONFORMS, INCLUDING STUB STREETS, SHALL BE AT THE CITY INSPECTORS DISCRETION.
4. ROADWAY STRUCTURAL COMPONENTS MAY VARY IN THICKNESS BETWEEN NEW AND EXISTING ROADWAYS. WHERE THIS OCCURS, EXISTING COMPONENTS SHALL BE TIED-IN AT CITY INSPECTORS DISCRETION.
5. FIRST 4 FEET OF MILLED ASPHALT FROM LIMIT LINE SHALL BE MILLED .15'.

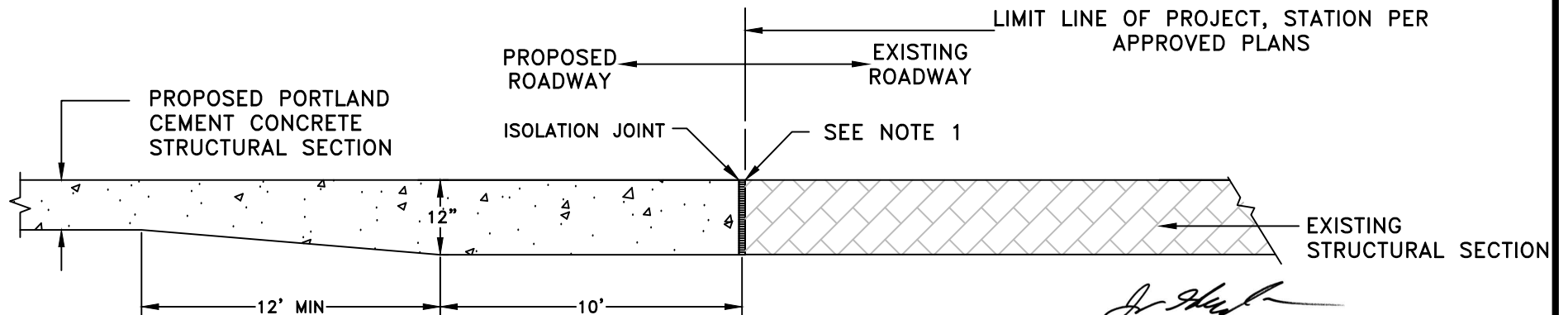
Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
<h3>ASPHALT CONCRETE ROADWAY STRUCTURAL SECTION CONFORM</h3>	
SCALE: NONE REVISED: FEBRUARY 2021 DRAWN BY: J HENDRIX APPROVED BY: JASON SHYKOWSKI	ST-50



SECTION DETAIL ADJACENT TO EXISTING ASPHALT CONCRETE PAVEMENT



SECTION DETAIL ADJACENT TO EXISTING PORTLAND CEMENT CONCRETE PAVEMENT

Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

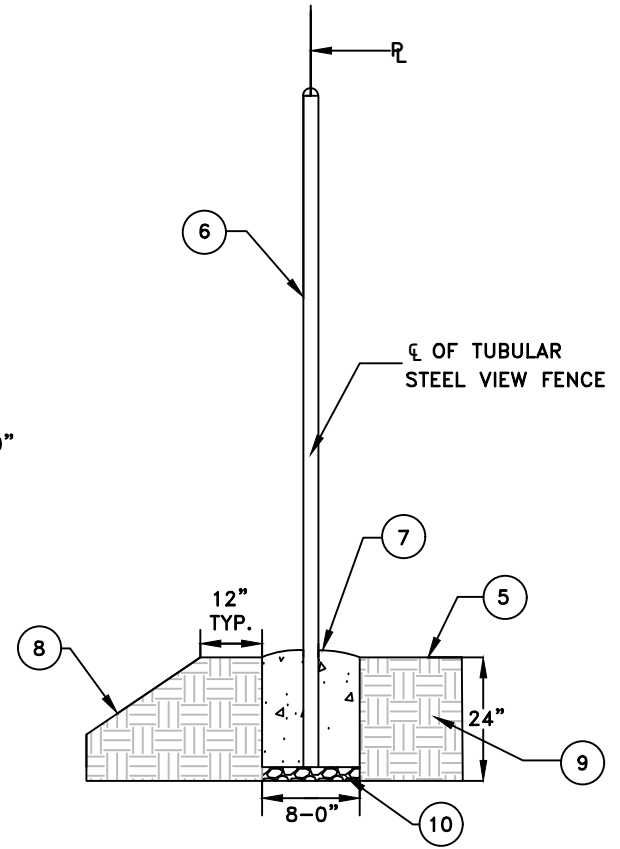
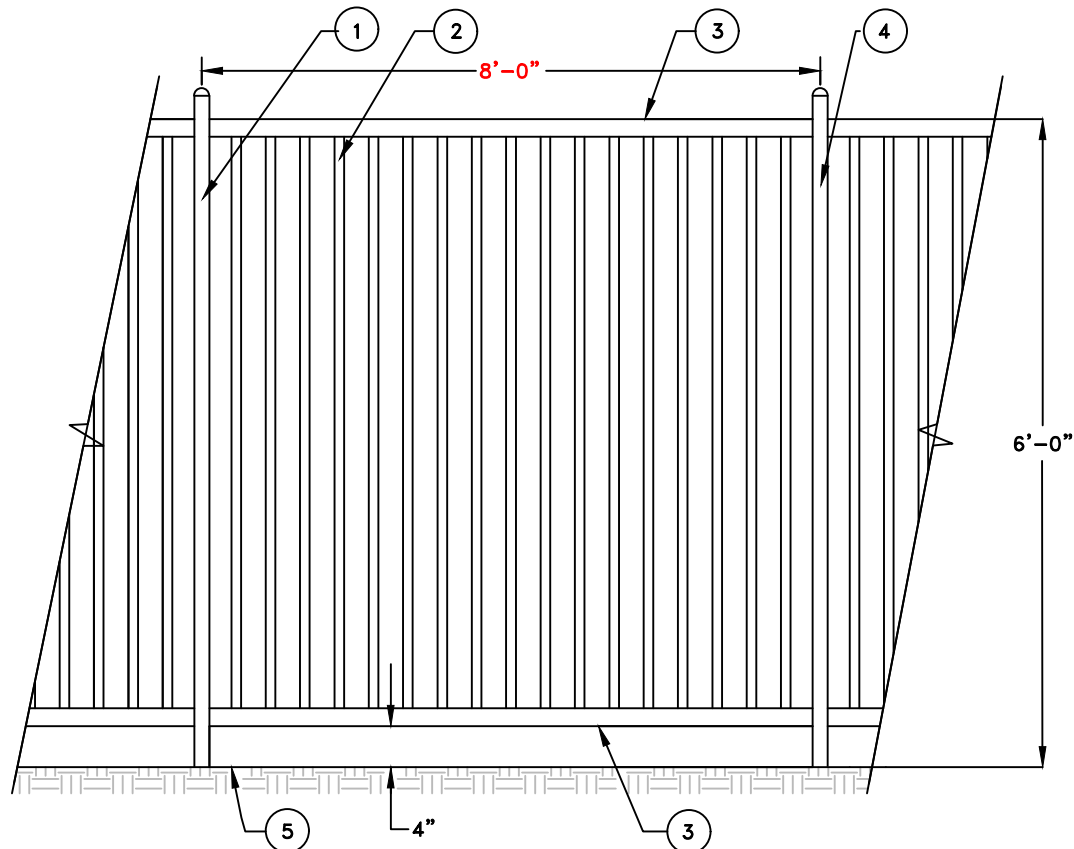
PORTLAND CEMENT CONCRETE
ROADWAY STRUCTURAL SECTION
CONFORM

NOTES:

1. SEE SECTION 71-4 OF THESE STANDARDS FOR TREATMENT OF ADJACENT PORTLAND CEMENT CONCRETE PAVEMENT.

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: BENNETT ENG
APPROVED BY: JASON SHYKOWSKI

ST-50a



LEGEND:

1. TERMINAL POST, LOCATE AT ALL DIRECTIONAL CHANGES AND ALL PROPERTY LINE CORNERS AND TERMINATIONS, TYP.
2. 3/4" X 14 GA. PICKET
3. 1-1/2" X 14 GA. RAIL (TOP & BOTTOM)
4. 2" X 12 GA. POST W/ CAP, TYP.
5. FINISH GRADE AT RESIDENTIAL LOT PAD
6. CONSTRUCT ON PROPERTY LINE UNLESS OTHERWISE NOTED ON APPROVED PLAN
7. TOP OF CONCRETE FOOTING EXPOSED MIN. 1" ABOVE EXISTING GRADE SLOPE TO DRAIN, TYP. MINOR CONCRETE AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.
8. FINISH GRADE BEHIND REAR PROPERTY LINE (SLOPE VARIES)
9. COMPACTED SUBGRADE TO 90% RELATIVE DENSITY, TYP.
10. 2" INCH THICK 3/4" CRUSHED ROCK.

NOTES:

1. ALL FENCE PARTS TO BE PREFINISHED BLACK POWDER COATED TUBULAR STEEL, ALL FULLY WELDED CONSTRUCTION AND INSTALLATION. GRIND SMOOTH ALL WELDS.
2. ALL PAINT AND PRIMER SHALL BE APPLIED TO CLEAN SURFACES IN 5 MIL. COATS. FINISH COLOR SHALL MATCH POWDER COAT SHEEN, AND BE RUSTOLEUM TYPE PAINT OR APPROVED EQUAL.
3. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
4. DESIGN ENGINEER TO SUBMIT MODIFIED FOOTING DESIGN DETAIL TO CITY FOR APPROVAL PRIOR TO CONSTRUCTION WHEN VIEW FENCE TERMINAL POST CANNOT BE CONSTRUCTED PER THIS DETAIL AS IN THE CASE OF A KEYSTONE BLOCK CONFIGURATION.

MARC STOUT
CITY ENGINEER

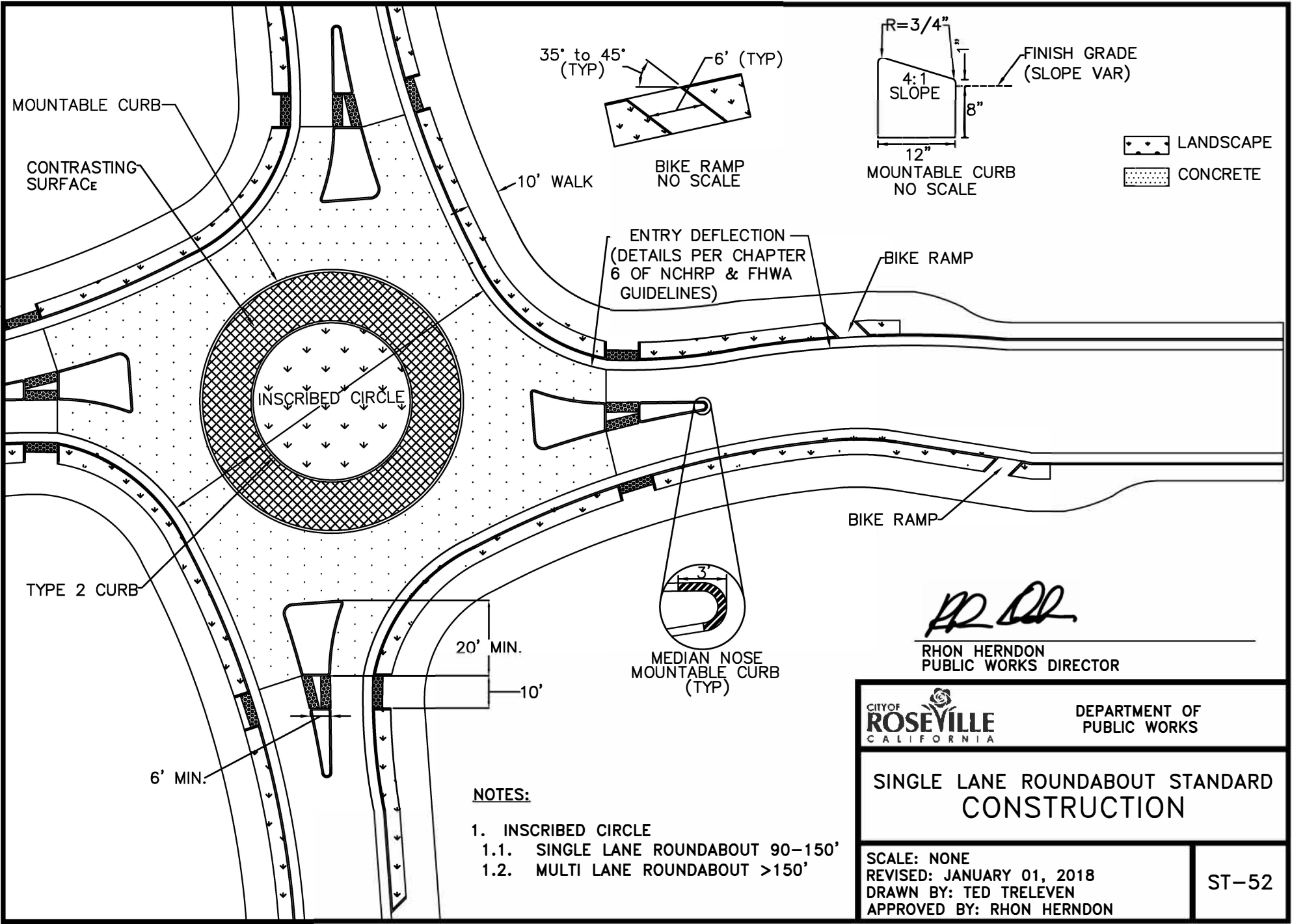


DEVELOPMENT SERVICES
DEPARTMENT

6' HIGH TUBULAR
STEEL VIEW FENCE

SCALE: NONE
REVISED: JANUARY 1, 2021
DRAWN BY: R MEDINA
APPROVED BY: G. HOWES

ST-51



NOTES:

- 1. INSCRIBED CIRCLE
 - 1.1. SINGLE LANE ROUNDABOUT 90-150'
 - 1.2. MULTI LANE ROUNDABOUT >150'

RH Herndon

RHON HERNDON
PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
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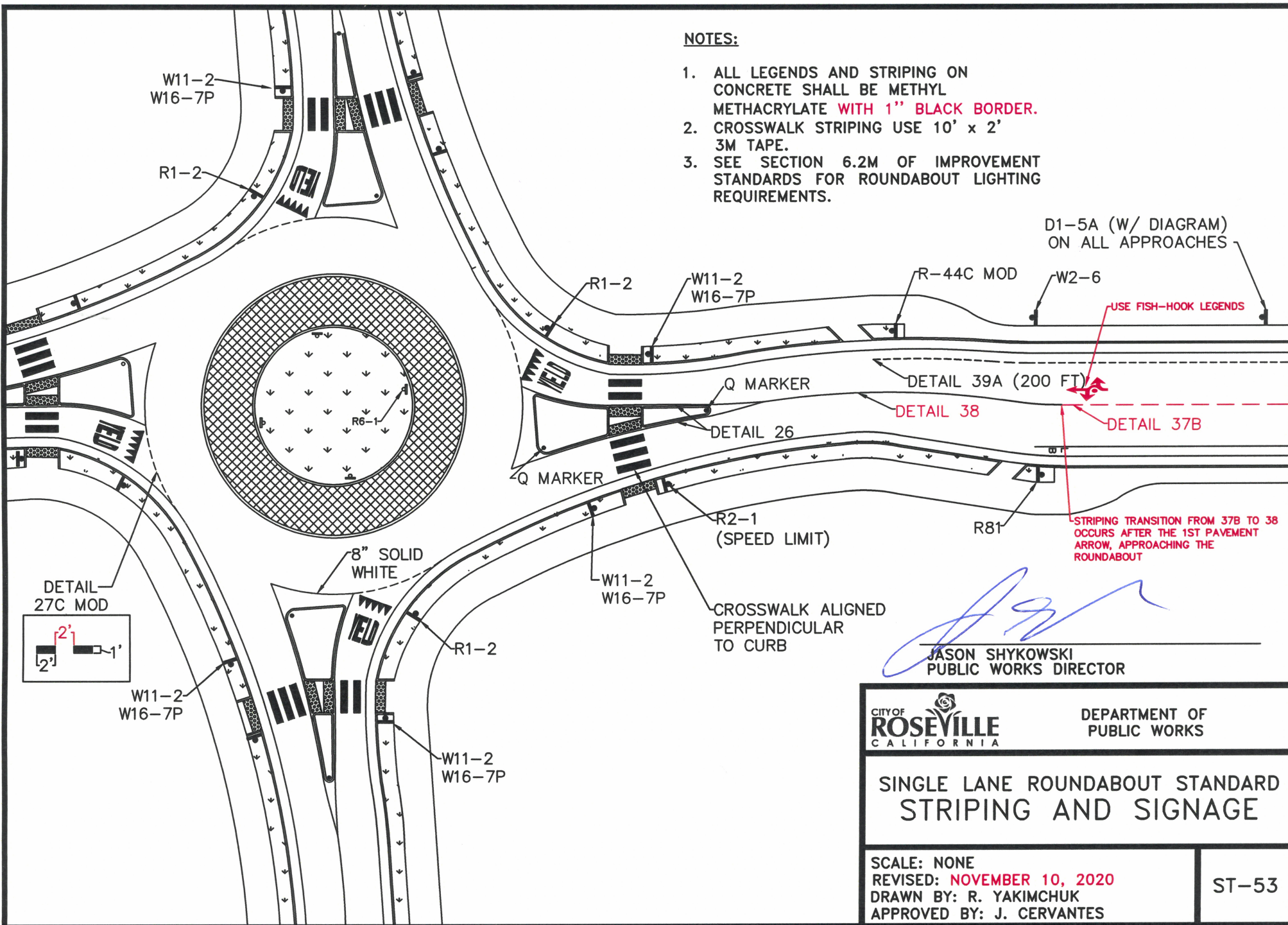
**SINGLE LANE ROUNDABOUT STANDARD
CONSTRUCTION**

SCALE: NONE
 REVISED: JANUARY 01, 2018
 DRAWN BY: TED TRELEVEN
 APPROVED BY: RHON HERNDON

ST-52

NOTES:

1. ALL LEGENDS AND STRIPING ON CONCRETE SHALL BE METHYL METHACRYLATE WITH 1" BLACK BORDER.
2. CROSSWALK STRIPING USE 10' x 2' 3M TAPE.
3. SEE SECTION 6.2M OF IMPROVEMENT STANDARDS FOR ROUNDABOUT LIGHTING REQUIREMENTS.



D1-5A (W/ DIAGRAM)
ON ALL APPROACHES

USE FISH-HOOK LEGENDS

DETAIL 39A (200 FT)

DETAIL 38

DETAIL 37B

STRIPING TRANSITION FROM 37B TO 38
OCCURS AFTER THE 1ST PAVEMENT
ARROW, APPROACHING THE
ROUNDABOUT

Jason Shykowski
JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

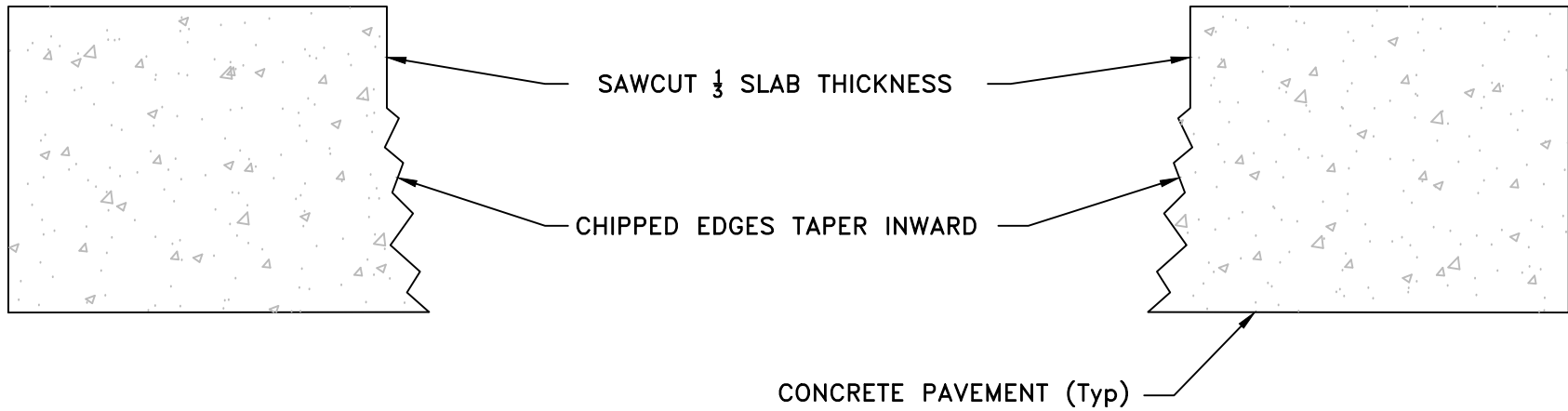
CITY OF
ROSEVILLE
CALIFORNIA

DEPARTMENT OF
PUBLIC WORKS

**SINGLE LANE ROUNDABOUT STANDARD
STRIPING AND SIGNAGE**

SCALE: NONE
REVISED: **NOVEMBER 10, 2020**
DRAWN BY: R. YAKIMCHUK
APPROVED BY: J. CERVANTES

ST-53



SECTION DETAIL

Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

NOTES:

1. CUT BOUNDARIES SHALL BE CUT TO DEPTH OF $\frac{1}{3}$ THE SLAB THICKNESS AND THE REMAINDER OF THE DEPTH SHALL BE REMOVED WITH A JACKHAMMER.
2. THE CHIPPED EDGES REMOVED WITH A JACKHAMMER SHALL TAPER INWARD.

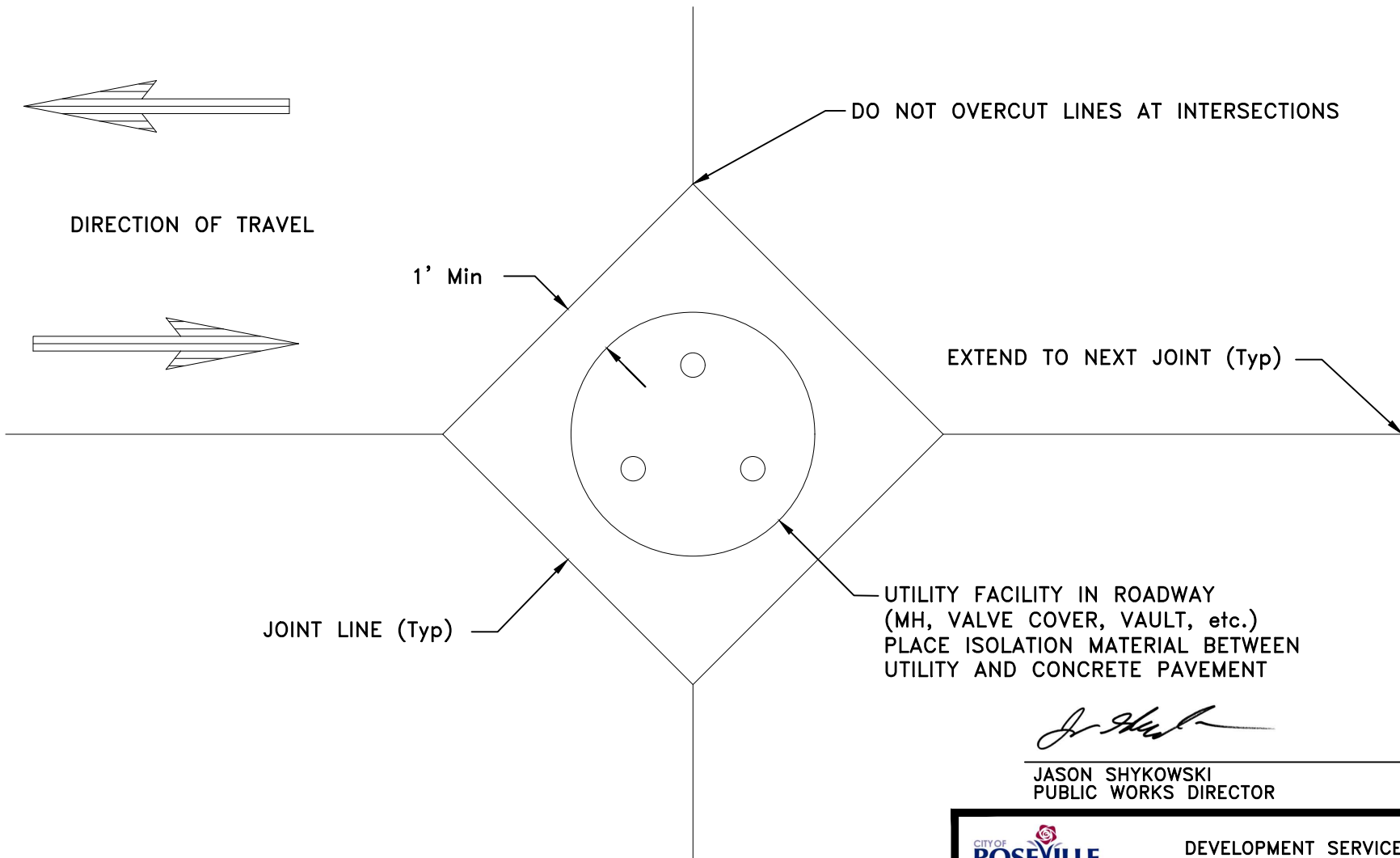
CITY OF
ROSEVILLE
CALIFORNIA

DEVELOPMENT SERVICES
DEPARTMENT

CUTTING CONCRETE FOR REMOVAL

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: BENNETT ENGINEERING
APPROVED BY: JASON SHYKOWSKI

ST-54



JOINT LINE (Typ)

UTILITY FACILITY IN ROADWAY
(MH, VALVE COVER, VAULT, etc.)
PLACE ISOLATION MATERIAL BETWEEN
UTILITY AND CONCRETE PAVEMENT

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

PLAN

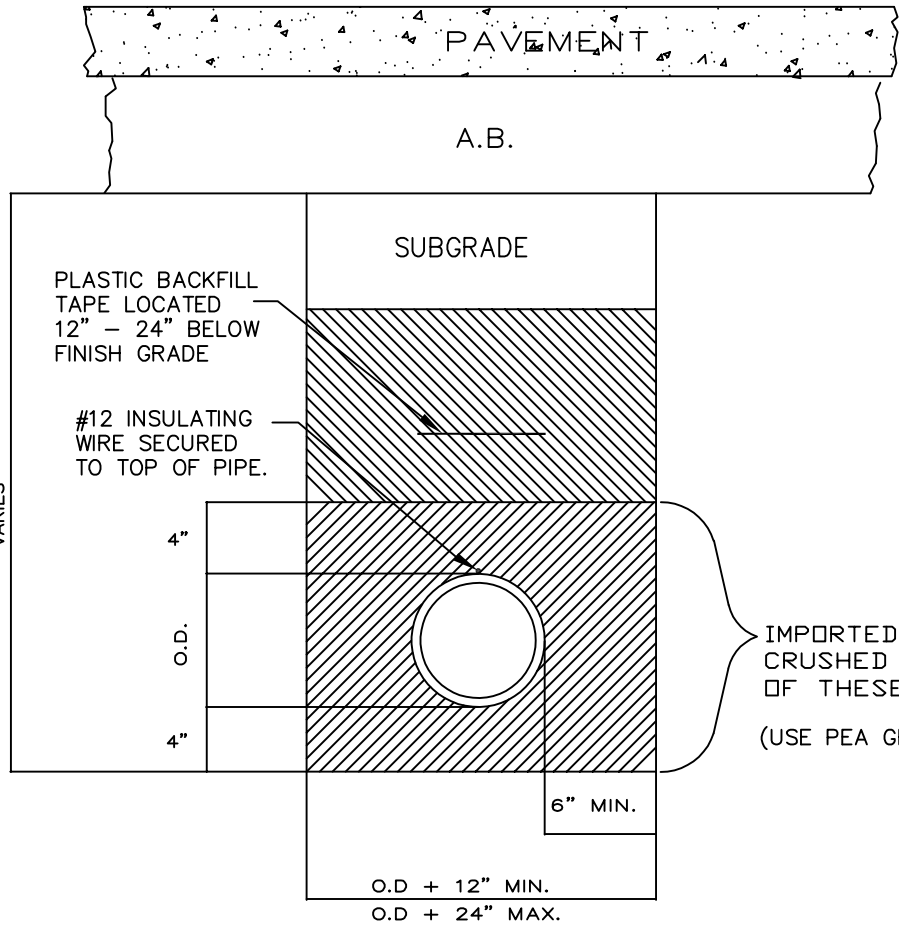


DEVELOPMENT SERVICES
DEPARTMENT

UTILITY FACILITY JOINTING

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: BENNETT ENG
APPROVED BY: JASON SHYKOWSKI

ST-55



TRENCH BACKFILL REQUIREMENTS:


1. PROPOSED STREETS – REFER TO DETAIL TB-1 OF SECTION 31 FOR BACKFILL REQUIREMENTS ABOVE THE PIPE ZONE.
2. EXISTING STREETS – REFER TO DETAILS TB-1 AND TB-3, TB-3a OF SECTION 31 FOR BACKFILL REQUIREMENTS ABOVE THE PIPE ZONE.

IMPORTED MATERIAL, 1/2" OR 3/4" CRUSHED ROCK, PER SECTION 71-5.L. OF THESE STANDARDS
(USE PEA GRAVEL ON METALLIC MAINS.)

Richard D. Plecker
RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

NOTES:

- BACKFILL SHALL BE MECHANICALLY CONSOLIDATED OR SHOVEL SLICED UNDER THE HAUNCHES OF THE PIPE.
- IN ROCKY OR UNYIELDING SOIL, THE TRENCH SHALL BE EXCAVATED A MINIMUM OF 12" BELOW THE PIPE AND THE TRENCH WIDTH SHALL BE INCREASED BY 12".
- ONE 12" WIDE STRIP OF BACKFILL TAPE SHALL BE USED FOR EVERY 12" PIPE DIAMETER OR FRACTION THERE OF.

	ENVIRONMENTAL UTILITIES DEPARTMENT
	WATER MAIN TRENCH AND BACKFILL
SCALE: NONE REVISED: OCTOBER 2020 DRAWN BY: R. VAN NESS APPROVED BY: RICHARD PLECKER	W-1

NOTES:

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPT.

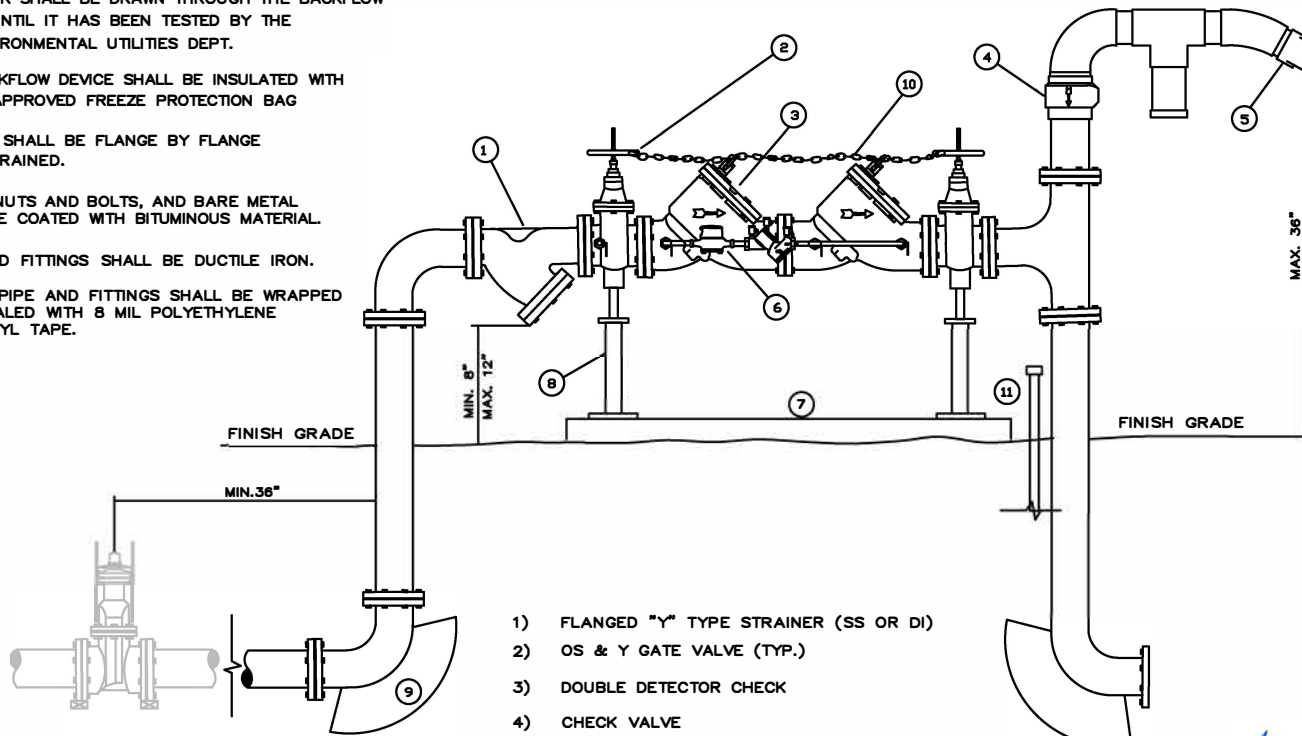
THE BACKFLOW DEVICE SHALL BE INSULATED WITH A CITY APPROVED FREEZE PROTECTION BAG

FITTINGS SHALL BE FLANGE BY FLANGE OR RESTRAINED.

BURIED NUTS AND BOLTS, AND BARE METAL SHALL BE COATED WITH BITUMINOUS MATERIAL.

PIPE AND FITTINGS SHALL BE DUCTILE IRON.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED AND SEALED WITH 8 MIL POLYETHYLENE AND VINYL TAPE.



SEE DETAILS
W-15 AND W-16
FOR VALVE

- 1) FLANGED "Y" TYPE STRAINER (SS OR DI)
- 2) OS & Y GATE VALVE (TYP.)
- 3) DOUBLE DETECTOR CHECK
- 4) CHECK VALVE
- 5) SIAMESE 45 DEGREE FDC WITH END CAPS
- 6) WATER METER
- 7) 3 1/2" THICK REINFORCED CONCRETE SLAB. WITH #4 REBAR 12" ON CENTER
- 8) SUPPORTS 2-TYP. SHALL BE BOLTED DOWN WITH A MINIMUM OF TWO BOLTS EACH
- 9) THRUST BLOCK (TYP.)
- 10) 1/4" NON CASE HARDENED CHAIN WITH BREAKAWAY LOCK BETWEEN VALVES.
- 11) VALVE TAMPER SWITCH CONDUIT TO BUILDING FIRE CONTROL ROOM

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

	ENVIRONMENTAL UTILITIES DEPARTMENT
	FIRE PROTECTION ASSEMBLY

SCALE: NONE
 REVISED: JANUARY 2017
 DRAWN BY: R. VAN NESS
 APPROVED BY: RICHARD PLECKER

W-2

NOTES:

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPT.

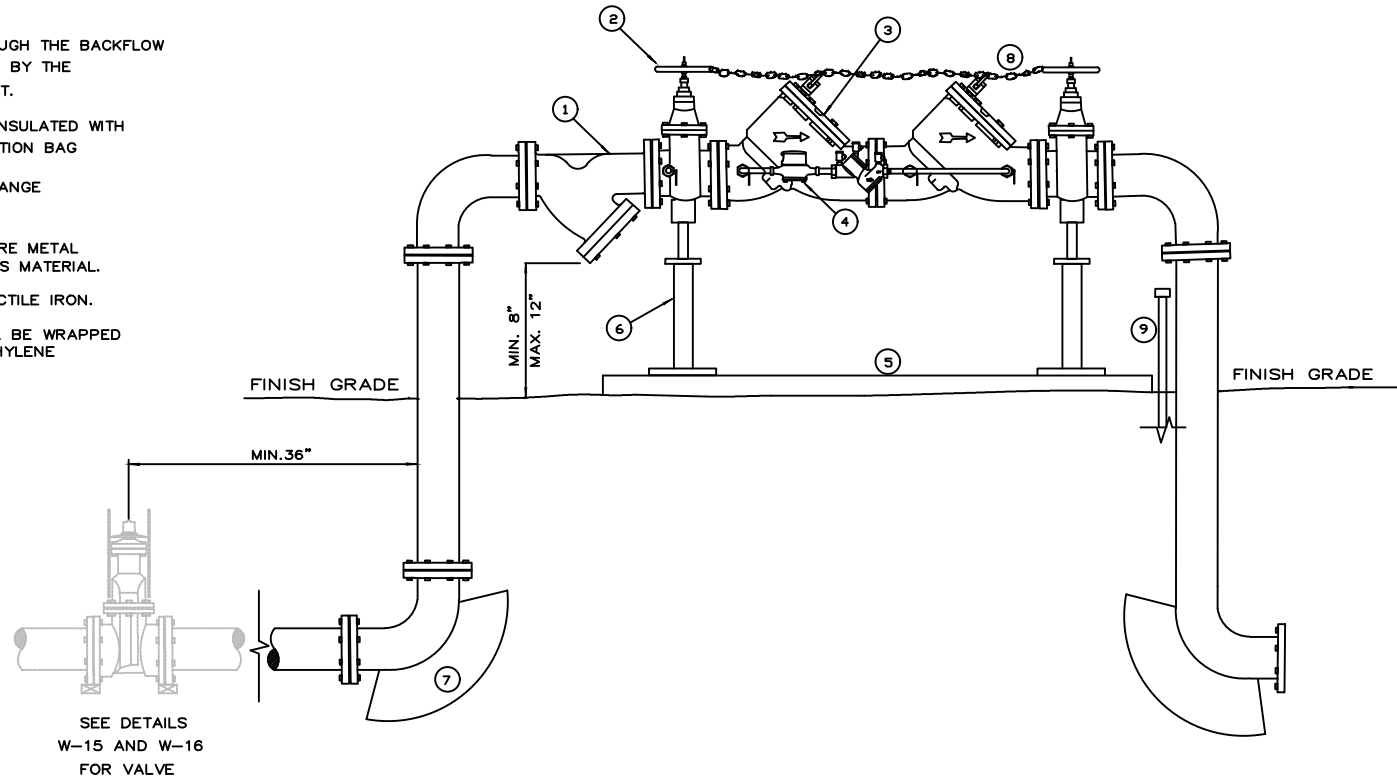
THE BACKFLOW DEVICE SHALL BE INSULATED WITH A CITY APPROVED FREEZE PROTECTION BAG

FITTINGS SHALL BE FLANGE BY FLANGE OR RESTRAINED.

BURIED NUTS AND BOLTS, AND BARE METAL SHALL BE COATED WITH BITUMINOUS MATERIAL.

PIPE AND FITTINGS SHALL BE DUCTILE IRON.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED AND SEALED WITH 8 MIL POLYETHYLENE AND VINYL TAPE.



SEE DETAILS
W-15 AND W-16
FOR VALVE

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

- 1) FLANGED "Y" TYPE STRAINER (SS OR DI)
- 2) OS & Y GATE VALVE (TYP.)
- 3) DOUBLE DETECTOR CHECK
- 4) WATER METER
- 5) 3 1/2" THICK REINFORCED CONCRETE SLAB W/#4 REBAR 12" ON CENTER.
- 6) SUPPORTS 2-TYP. SHALL BE BOLTED DOWN WITH A MINIMUM OF TWO BOLTS EACH
- 7) THRUST BLOCK (TYP.)
- 8) 1/4" NON CASE HARDENED CHAIN WITH BREAKAWAY LOCK BETWEEN VALVES.
- 9) VALVE TAMPER SWITCH CONDUIT TO BUILDING FIRE CONTROL ROOM.

	ENVIRONMENTAL UTILITIES DEPARTMENT
--	---------------------------------------

ONSITE FIRE PROTECTION

SCALE: NONE
 REVISED: JANUARY 2019
 DRAWN BY: R. VAN NESS
 APPROVED BY: RICHARD PLECKER

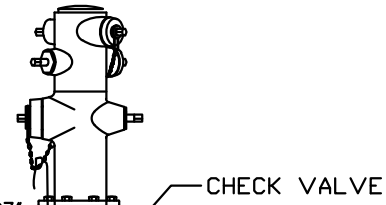
W-3

NOTE:

1. CONCRETE COLLAR MAY BE PLACED FLUSH TO FINISHED SURFACE WITH MEDIUM BROOM FINISH PERPENDICULAR TO VEHICLE TRAVEL DIRECTION
2. REFERENCE CITY DESIGN STANDARD 8-13.E

VALVE BOX W/LID
MARKED "B.O."
INSTALL PER W-16.

WHERE APPLICABLE
(SIDEWALK)



F.G.

2 1/2" MIN.
4" MAX.

INSTALL CONCRETE THRUST COLLAR 8" THICK
AND 30" X 30" SQUARE

MAINS: 36" MINIMUM COVER
TRANSMISSION MAINS: 48" MINIMUM COVER

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

TRACING WIRE

6" Ø FIRE HYDRANT BURY
(See Detail W-13)

FLANGED
GATE VALVE

CITY MAIN
WITH APPROVED
RESTRAINED
JOINTS

REDUCER

INSULATING FLANGE SEE DETAIL
W-19, W-20, AND W-21

6" Ø FLANGED DIP AND
FITTINGS, SEE PLANS
FOR LENGTH,
ORIENTATION AND
LOCATION

4" MIN
6" MAX



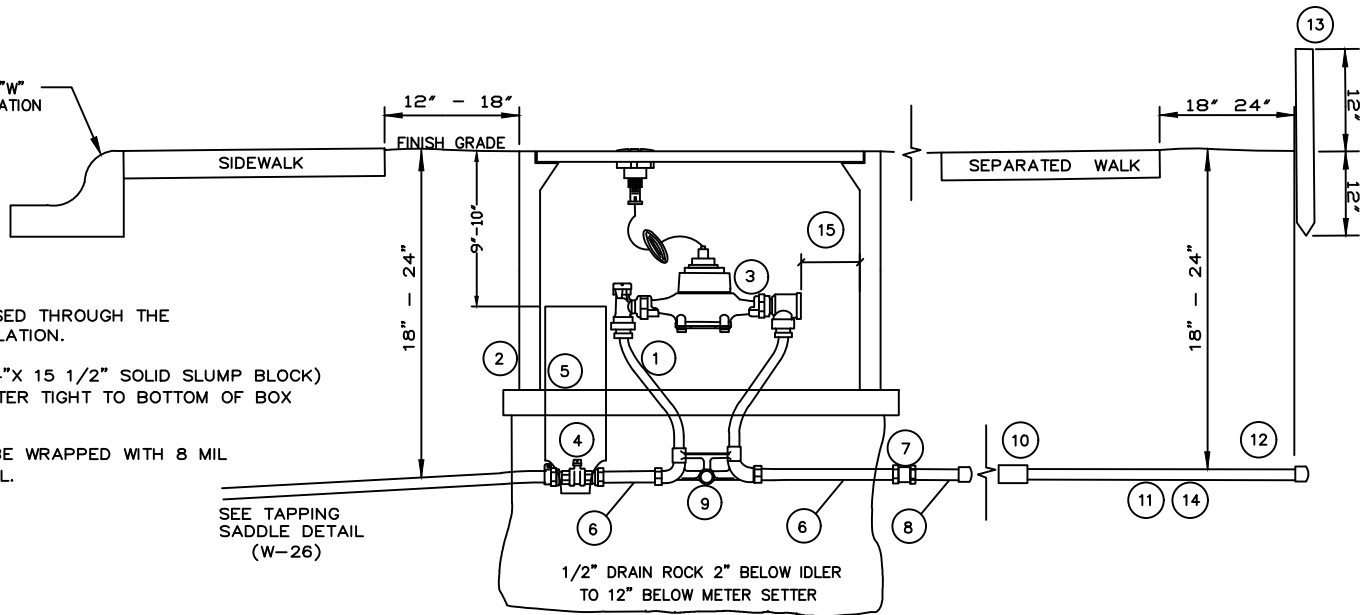
ENVIRONMENTAL UTILITIES
DEPARTMENT

**DEAD-END HYDRANT
ASSEMBLY**

SCALE: NONE
REVISED: JANUARY 2023
DRAWN BY: J THOMPSON
APPROVED BY: RICHARD PLECKER

W-4

CURB STAMPED "W"
AT SERVICE LOCATION



NOTES:

WATER METERS SHALL BE PURCHASED THROUGH THE CITY. PURCHASE INCLUDES INSTALLATION.

INSTALL CONCRETE BLOCKING (4"x4"x 15 1/2" SOLID SLUMP BLOCK) UNDER ENTIRE UTILITY BOX PERIMETER TIGHT TO BOTTOM OF BOX NO GAPS ALLOWED

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

SEE TAPPING
SADDLE DETAIL
(W-26)

1/2" DRAIN ROCK 2" BELOW IDLER
TO 12" BELOW METER SETTER

- 1) METER SETTER WITH IDLER
- 2)* N-30 UTILITY BOX WITH FL 30 METER LID FOR 1" SERVICE
- 3) WATER METER (PURCHASED THROUGH CITY)
- 4) CURB STOP (COMPRESSION X FIPT)
- 5) 4" DIA. BLUE SCHEDULE 40 RISER (NOTCHED OVER PIPE AT BASE)
- 6) 4" METER SPUD
- 7) BRASS COUPLING (FIPT X FIPT)
- 8) 18" BRASS NIPPLE WITH END CAP (FOR ATTACHED SIDEWALK)
- 9) SCH. 40 PVC THROUGH PIPE EYE
- 10) BRASS-PVC ADAPTER
- 11) 1 1/2" PVC
- 12) PVC END CAP
- 13) 2"x2" RDWD. STAKE PAINTED BLUE
- 14) AS AN OPTION, CONTRACTOR MAY INSTALL A 3" SCH 40 SLEEVE PRIOR TO INSTALLATION OF 1-1/2" PVC.
- 15) SETTERS W/VERTICAL CHECK, PROVIDE 1" GAP MIN. THE SETTERS W/HORIZONTAL CHECK, PROVIDE 2" GAP MIN.(NOTCH THE TOP OF THE 4"SCHEDULE 40 RISER TO ACHIEVE 2"GAP).

* IF LOCATED IN THE DRIVEWAY USE A B1324 BOX W/STEEL CHECKER COVER #B1324-51JH OR APPROVED EQUAL.

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR



ENVIRONMENTAL UTILITIES
DEPARTMENT

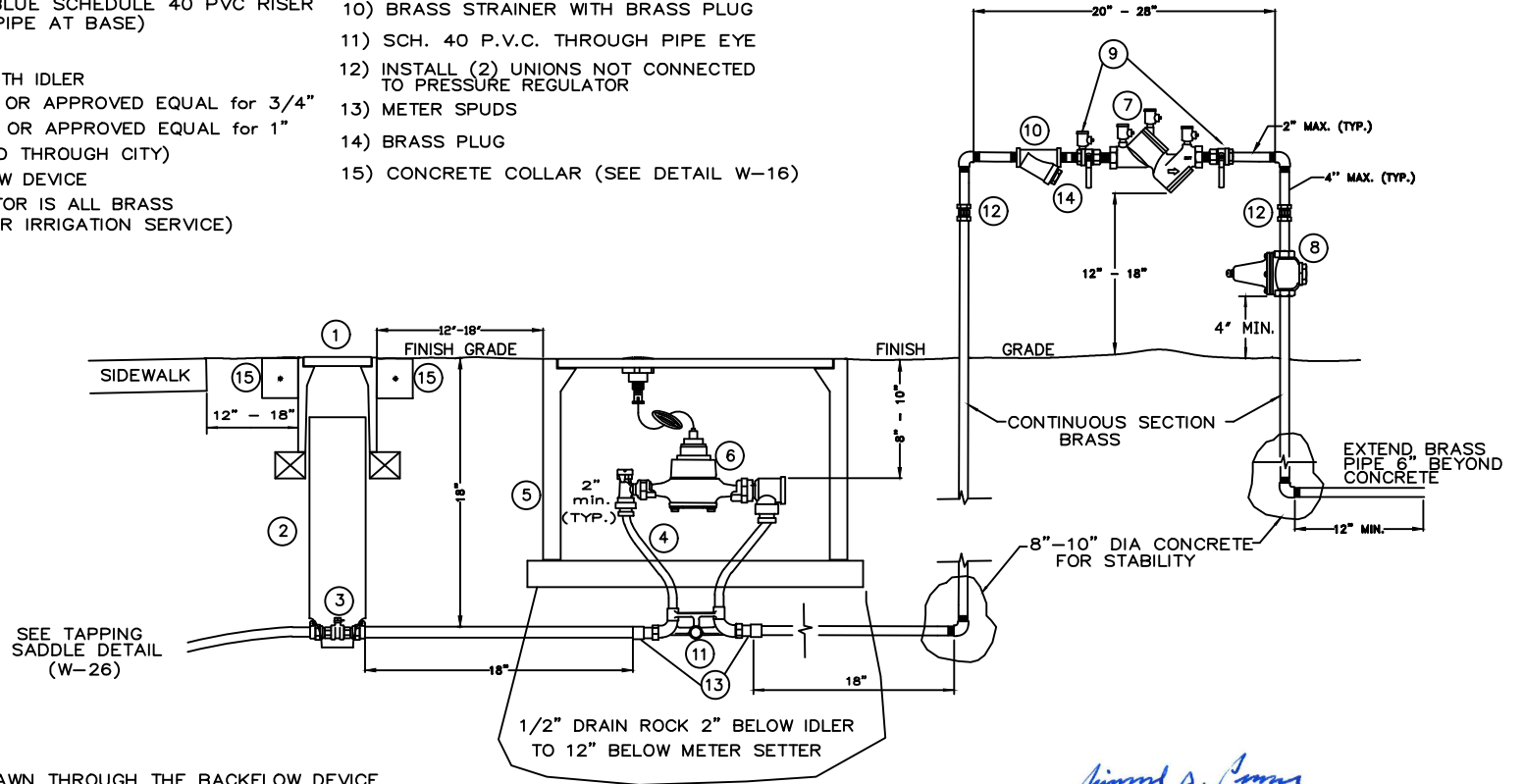
**RESIDENTIAL 1"
SERVICE LINE**

SCALE: NONE
REVISED: JANUARY 2022
DRAWN BY: J. VAROZZA
APPROVED BY: RICHARD PLECKER

W-5

- 1) CONCRETE VALVE BOX (G-5 PER DETAIL W-16)
- 2) 6" CONTINUOUS BLUE SCHEDULE 40 PVC RISER (NOTCHED OVER PIPE AT BASE)
- 3) CURB STOP
- 4) METER RESETTER WITH IDLER
- 5) N-16 UTILITY BOX OR APPROVED EQUAL for 3/4" N-30 UTILITY BOX OR APPROVED EQUAL for 1"
- 6) METER (PURCHASED THROUGH CITY)
- 7) R.P TYPE BACKFLOW DEVICE
- 8) PRESSURE REGULATOR IS ALL BRASS (NOT REQUIRED FOR IRRIGATION SERVICE)

- 9) BALL VALVES
- 10) BRASS STRAINER WITH BRASS PLUG
- 11) SCH. 40 P.V.C. THROUGH PIPE EYE
- 12) INSTALL (2) UNIONS NOT CONNECTED TO PRESSURE REGULATOR
- 13) METER SPUDS
- 14) BRASS PLUG
- 15) CONCRETE COLLAR (SEE DETAIL W-16)



NOTES:

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPT.

ALL FITTINGS AND PIPING SHALL BE BRASS BEGINNING AT CURB STOP

IF USED FOR IRRIGATION DO NOT INCLUDE PRESSURE REGULATOR.

INSTALL (3" X 5") CONCRETE BRICK UNDER PERIMETER OF UTILITY BOXES.

WATER METERS SHALL BE PURCHASED THROUGH THE CITY. PURCHASE INCLUDES INSTALLATION.

THE BACKFLOW DEVICE SHALL BE INSULATED WITH A CITY APPROVED FREEZE PROTECTION BAG.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR



ENVIRONMENTAL UTILITIES
DEPARTMENT

**COMMERCIAL 1"
SERVICE LINE**

SCALE: NONE
REVISED: JANUARY 2020
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-6

NOTES:

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPT.

WATER METERS SHALL BE PURCHASED THROUGH THE CITY. PURCHASE INCLUDES INSTALLATION.

THE BACKFLOW DEVICE SHALL BE INSULATED WITH A CITY APPROVED FREEZE PROTECTION BAG.

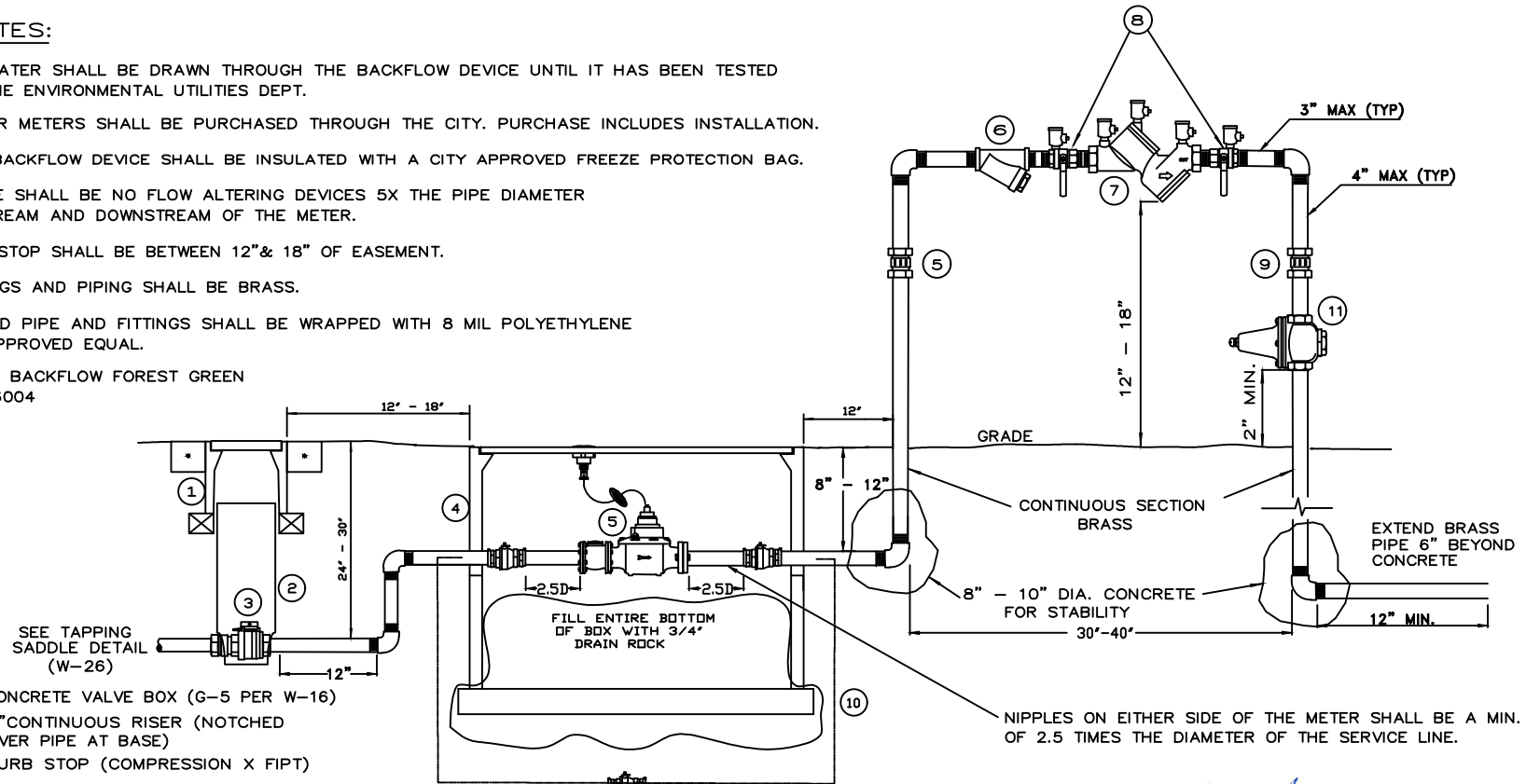
THERE SHALL BE NO FLOW ALTERING DEVICES 5X THE PIPE DIAMETER UPSTREAM AND DOWNSTREAM OF THE METER.

CURBSTOP SHALL BE BETWEEN 12" & 18" OF EASEMENT.

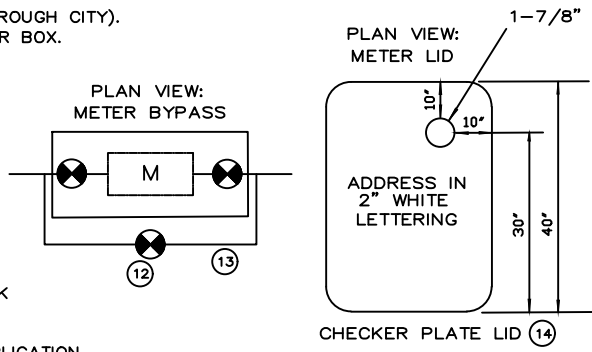
FITTINGS AND PIPING SHALL BE BRASS.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

PAINT BACKFLOW FOREST GREEN RAL 6004



- 1) CONCRETE VALVE BOX (G-5 PER W-16)
- 2) 6" CONTINUOUS RISER (NOTCHED OVER PIPE AT BASE)
- 3) CURB STOP (COMPRESSION X FIPT)
- 4) B-40 UTILITY BOX W/ EXTENSION (MORTAR JOINTS INSIDE & OUT)
- 5) TURBO METER WITH STRAINER FOR IRRIGATION. COMPOUND METER FOR COMMERCIAL (PURCHASED THROUGH CITY). INSTALL IDLER SPOOL DURING INSTALLATION OF METER BOX.
- 6) "Y" STRAINER WITH BRASS PLUG
- 7) R.P. TYPE BACKFLOW DEVICE
- 8) BALL VALVES
- 9) INSTALL (2) UNIONS
- 10) CONCRETE BRICK (4"x4"x15 1/2") UNDER ENTIRE PERIMETER OF UTILITY BOX
- 11) BRASS PRESSURE REGULATOR NOT REQUIRED FOR IRRIGATION SERVICE
- 12) 3/4" LOCKING CURB STOP IN G-5 BOX NOT REQUIRED FOR IRRIGATION SERVICE
- 13) 3/4" BY PASS MATERIAL TO BE SOFT COPPER TYPE K AND FITTINGS TO BE BRASS COMPRESSION TYPE. NOT REQUIRED FOR IRRIGATION SERVICE
- 14) OR, FOR APPLICABLE LID TYPE, REFER TO METER APPLICATION TABLE AT THE END OF MATERIALS SECTION.

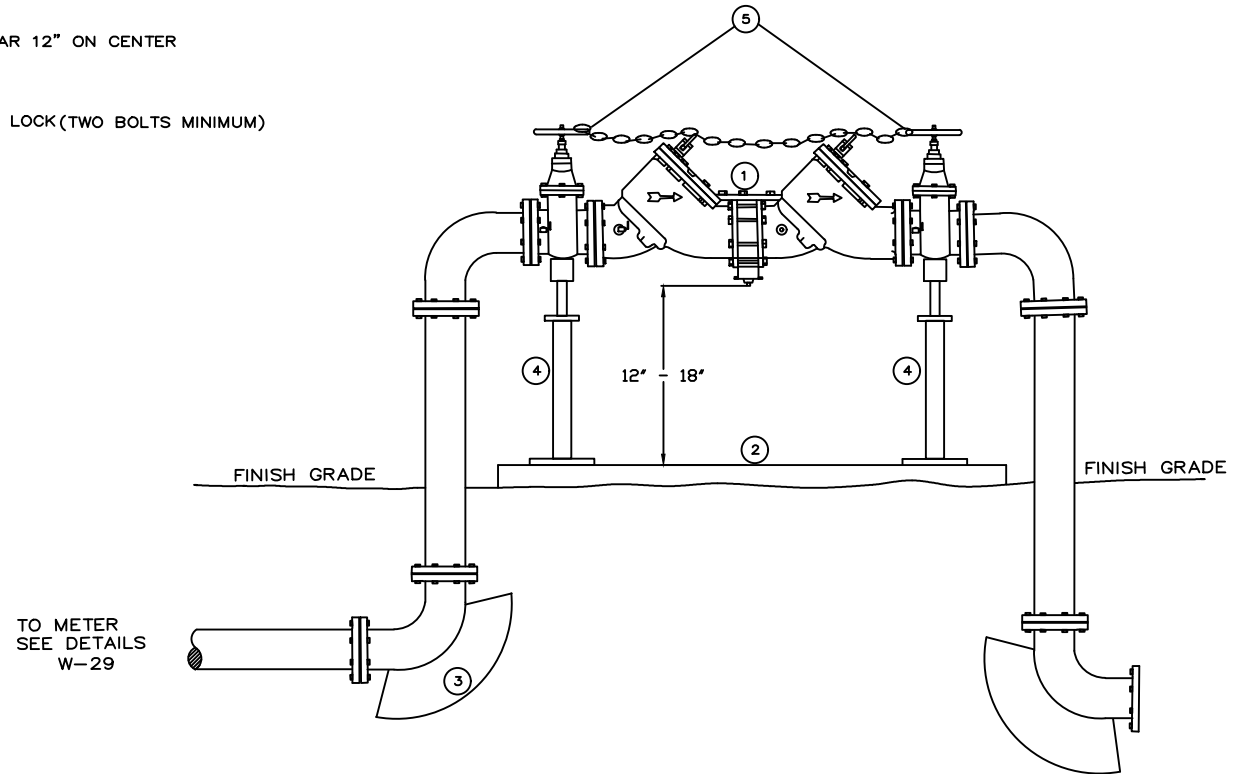


Richard D. Samuelson
 RICHARD PLECKER
 ENVIRONMENTAL UTILITIES DIRECTOR

	ENVIRONMENTAL UTILITIES DEPARTMENT
COMMERCIAL/IRRIGATION 1 1/2" & 2" SERVICE LINE	
SCALE: NONE REVISED: JANUARY 2021 DRAWN BY: D.SAMUELSON APPROVED BY: RICHARD PLECKER	
W-7	

MATERIALS:

- 1) R.P. TYPE BACKFLOW DEVICE (CITY APPROVED)
- 2) 4" THICK REINFORCED CONCRETE SLAB WITH #4 REBAR 12" ON CENTER
- 3) THRUST BLOCKS (TYP.)
- 4) SUPPORT STANDS BOLTED INTO CONCRETE
- 5) 1/4" NON-CASE HARDENED CHAIN WITH BREAKAWAY LOCK(TWO BOLTS MINIMUM)



NOTES:

NO WATER IS TO BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPT.

PIPE SHALL BE DUCTILE IRON.

PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL. POLYETHYLENE

USE CITY APPROVED RESTRAINED JOINTS OR FLANGED SPOOLS

THE BACKFLOW DEVICE SHALL BE INSULATED WITH A CITY APPROVED FREEZE PROTECTION BAG.

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

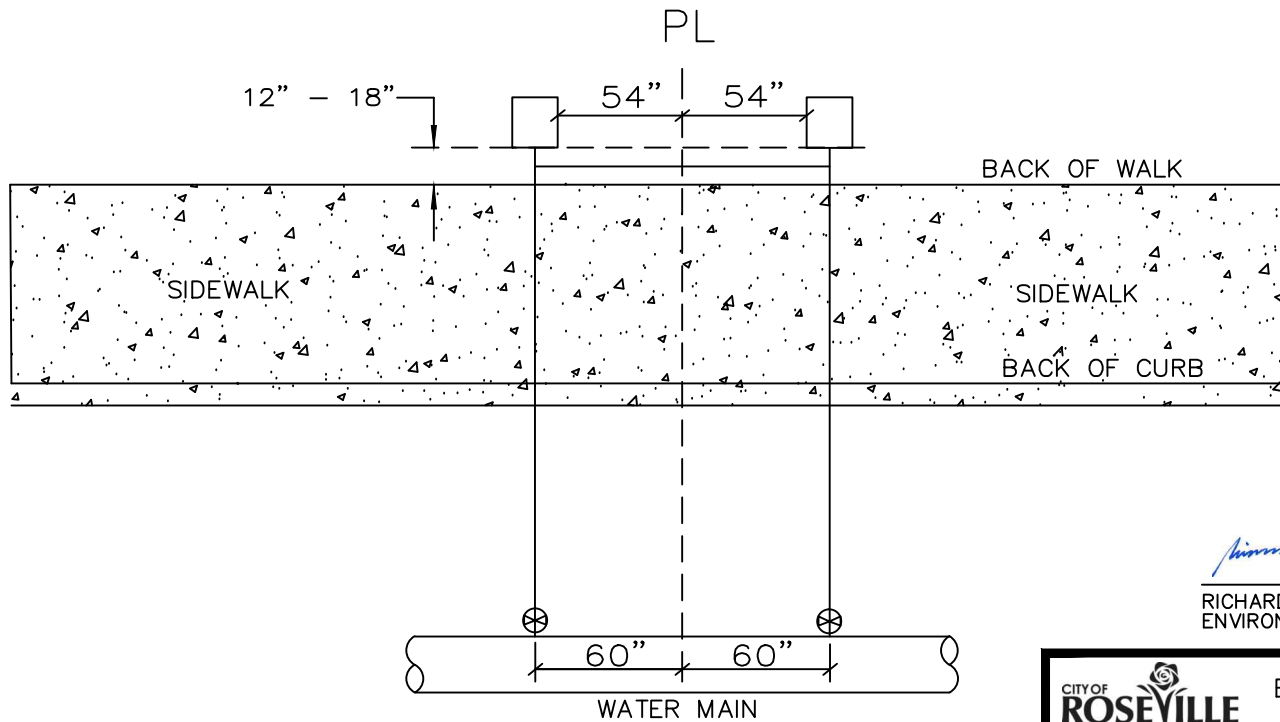
CITY OF
ROSEVILLE
CALIFORNIA

ENVIRONMENTAL UTILITIES
DEPARTMENT

**COMMERCIAL 3" & LARGER
SERVICE**

SCALE: NONE
REVISED: JANUARY 2023
DRAWN BY: J THOMPSON
APPROVED BY: RICHARD PLECKER

W-8



Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

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ROSEVILLE
CALIFORNIA

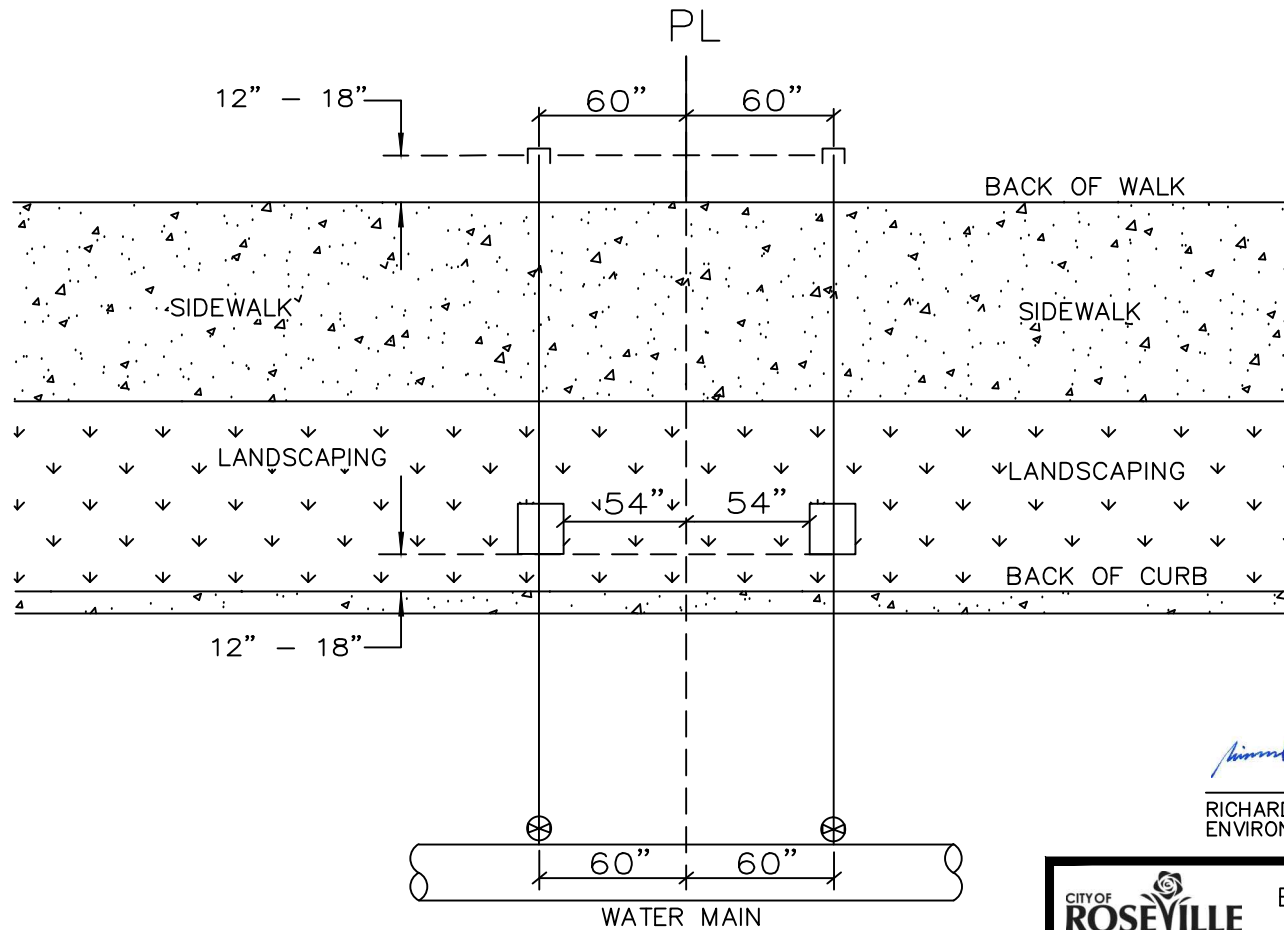
ENVIRONMENTAL UTILITIES
DEPARTMENT

RESIDENTIAL WATER SERVICE

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-9

NOTE: REFER TO DETAIL W-18 FOR "WATER SERVICE TRENCH AND BACKFILL"



Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR



ENVIRONMENTAL UTILITIES
DEPARTMENT

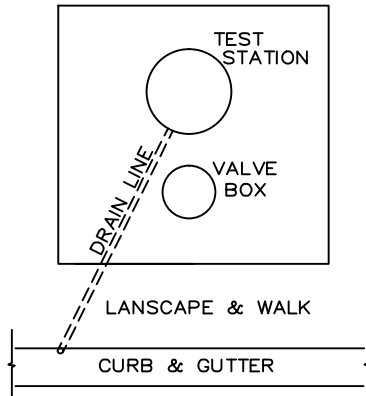
**RESIDENTIAL WATER SERVICE FOR
SEPARATED SIDEWALKS**

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-10

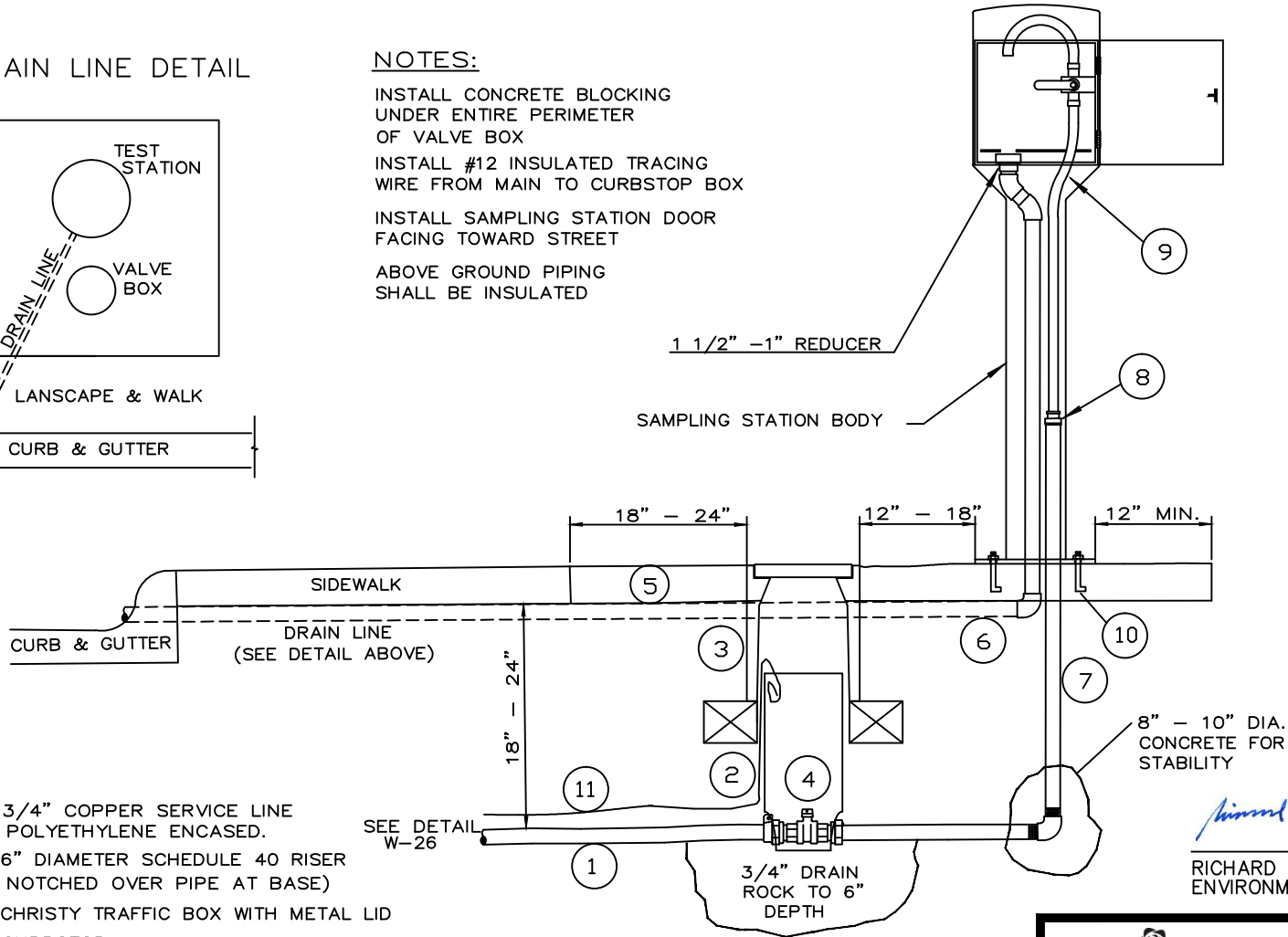
NOTE: REFER TO DETAIL W-18 FOR "WATER SERVICE TRENCH AND BACKFILL"

DRAIN LINE DETAIL



NOTES:

- INSTALL CONCRETE BLOCKING UNDER ENTIRE PERIMETER OF VALVE BOX
- INSTALL #12 INSULATED TRACING WIRE FROM MAIN TO CURBSTOP BOX
- INSTALL SAMPLING STATION DOOR FACING TOWARD STREET
- ABOVE GROUND PIPING SHALL BE INSULATED



- 1) 3/4" COPPER SERVICE LINE POLYETHYLENE ENCASED.
- 2) 6" DIAMETER SCHEDULE 40 RISER (NOTCHED OVER PIPE AT BASE)
- 3) CHRISTY TRAFFIC BOX WITH METAL LID
- 4) CURBSTOP
- 5) 3 1/2" THICK REINFORCED CONCRETE SLAB
- 6) 1" SCH. 40 PVC DRAIN TO GUTTER
- 7) 3/4" BRASS PIPE
- 8) 3/4" TO 1/2" REDUCER (BRASS)
- 9) 1/2" COPPER TUBING
- 10) (4) ANCHOR BOLTS WITH WASHERS & NUTS
- 11) INSTALL TRACING WIRE FROM MAIN TO CURB STOP. PLACE WIRE OUTSIDE THE RISER, BUT INSIDE THE BOX.

8" - 10" DIA. CONCRETE FOR STABILITY

Richard D. Plecker

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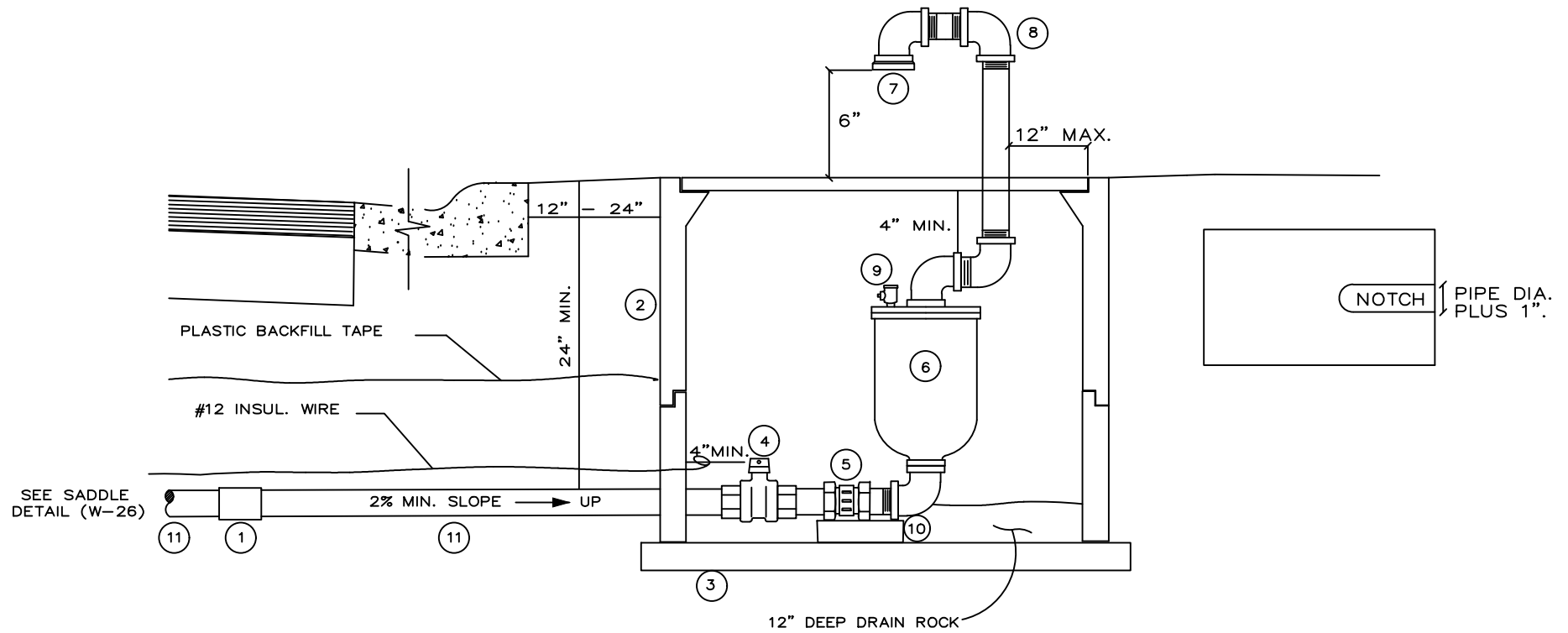


ENVIRONMENTAL UTILITIES DEPARTMENT

SAMPLING STATION

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-11



- 1) BRASS THREADED COUPLING (IF REQUIRED)
- 2) B-40 UTILITY BOX W/TRAFFIC COVER MARKED, "RSVL ARV" IF EXTENSION IS REQ. MOTAR EXTENSION JOINT INSIDE & OUT.
- 3) 3" x 5" CONCRETE BRICK UNDER ENTIRE PERIMETER OF UTILITY BOX.
- 4) CURB STOP
- 5) BRASS UNION
- 6) COMBINATION AIR / VACUUM VALVE
- 7) BRASS CAP WITH 9 DRILLED 1/16" HOLES OR APPROVED EQUAL.
- 8) USE GALVANIZED PIPE AND FITTINGS ABOVE GROUND
- 9) 1/4" TEST COCK
- 10) CONCRETE BLOCK FOR SUPPORT
- 11) THREADED BRASS PIPE

NOTE:

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

Richard D. Plecker

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ENVIRONMENTAL UTILITIES DIRECTOR

CITY OF
ROSEVILLE
CALIFORNIA

ENVIRONMENTAL UTILITIES
DEPARTMENT

**1" AND 2" AIR RELEASE
VALVE ASSEMBLY**

SCALE: NONE
REVISED: JANUARY 2017
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-12

NOTES:

FITTINGS SHALL BE DUCTILE IRON

VALVES AND FITTINGS SHALL BE WRAPPED
IN 8 MIL. OR THICKER POLYETHYLENE.

BURIED NUTS AND BOLTS SHALL BE COATED WITH A
BITUMINOUS MATERIAL. "T" BOLT HEADS DO NOT
REQUIRE COATING.

VALVE SHALL BE A MINIMUM OF 15' FROM HYDRANT.

USE APPROVED RESTRAINING JOINTS FROM
VALVE TO HYDRANT BURY.

MARK THE LOCATION OF THE HYDRANT WITH A BLUE
REFLECTOR PLACED 1' OFF STREET CENTERLINE.
HYDRANTS LOCATED AT INTERSECTIONS SHALL BE MARKED
ON BOTH STREETS, PER PROVISIONS IN SECTION 84
OF THE CALTRANS SPECIFICATIONS.

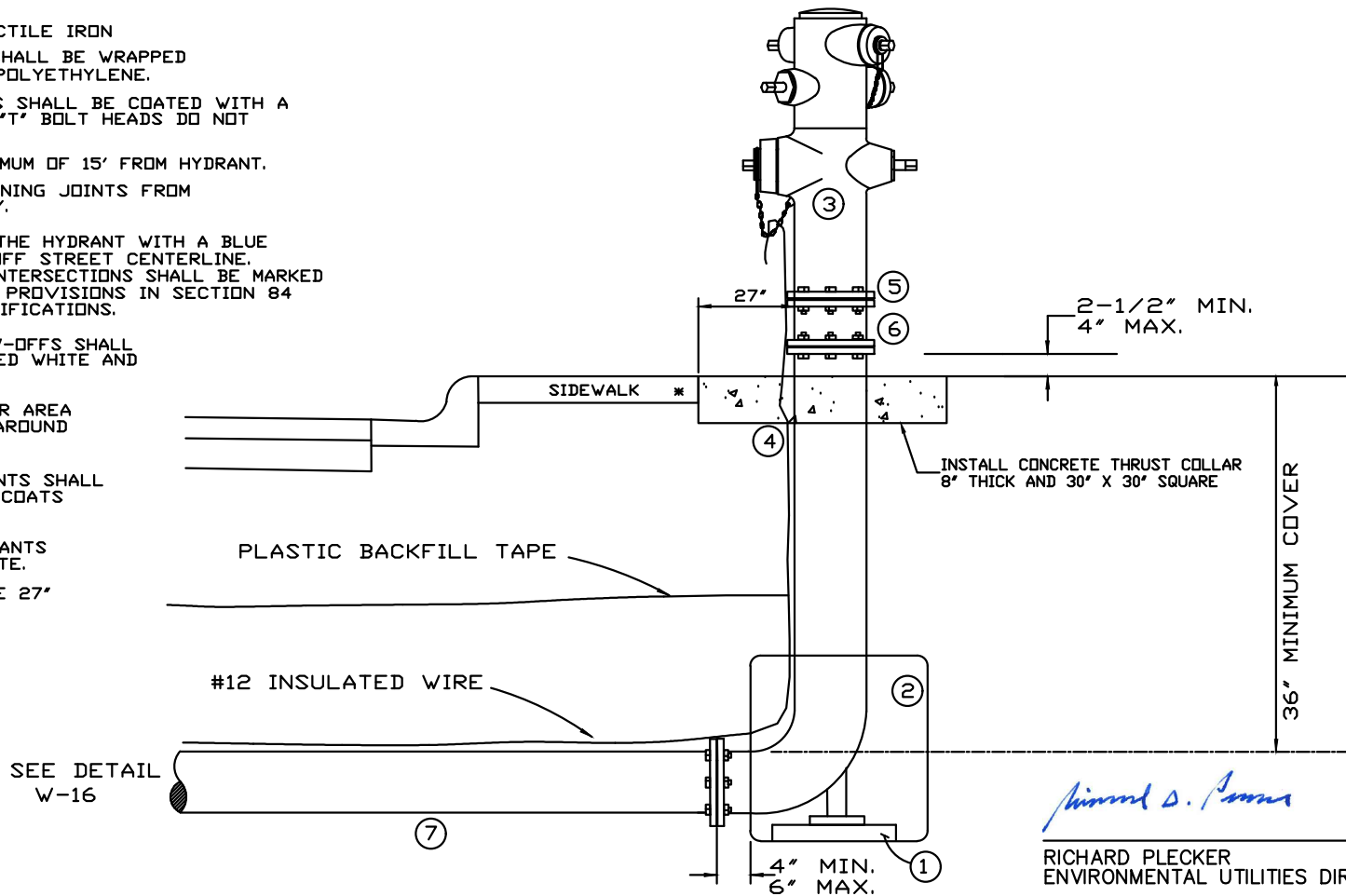
HYDRANTS USED AS BLOW-OFFS SHALL
HAVE THE TOP 2" PAINTED WHITE AND
BE MARKED WITH AN "X".

A MINIMUM 3 FOOT CLEAR AREA
SHALL BE MAINTAINED AROUND
THE FIRE HYDRANT.

CITY MAINTAINED HYDRANTS SHALL
BE PAINTED WITH TWO COATS
SAFTEY-YELLOW.

PRIVATELY OWNED HYDRANTS
SHALL BE PAINTED WHITE.

* - HYDRANTS SHALL BE 27"
BEHIND CURB WHEN THE
SIDEWALK IS DETACHED.



MATERIALS:

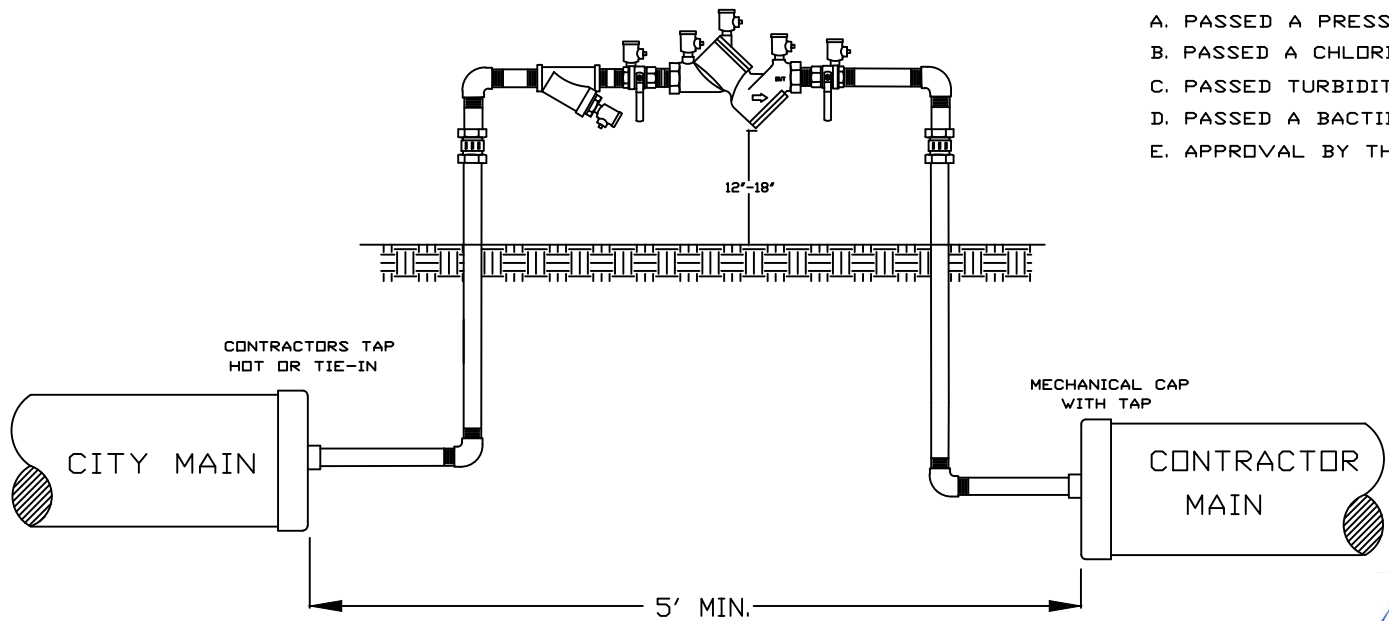
- 1) CONCRETE BLOCKING
- 2) CONCRETE SUPPORT AGAINST UNDISTURBED SOIL
- 3) FIRE HYDRANT 6"x 2-1/2"x 2-1/2x 4-1/2 (LEAD FREE)
- 4) INSTALL CONCRETE THRUST COLLAR 8" THICK AND 30" X 30" SQUARE
- 5) CLOW LP619 BREAK OFF CHECK VALVE OR APPROVED EQUAL
- 6) NON-BREAKAWAY BOLTS
- 7) FULLY RESTRAINED DUCTILE IRON PIPE ENTIRE LENGTH

CITY OF **ROSEVILLE** ENVIRONMENTAL UTILITIES DEPARTMENT
CALIFORNIA

FIRE HYDRANT ASSEMBLY

SCALE: NONE
REVISED: JANUARY 2023
DRAWN BY: J. THOMPSON
APPROVED BY: RICHARD PLECKER

W-13



PRIOR TO CONNECTION TO THE CITY MAIN, THE FOLLOWING CONDITIONS SHALL BE MET:

- A. PASSED A PRESSURE TEST
- B. PASSED A CHLORINE TEST
- C. PASSED TURBIDITY TEST
- D. PASSED A BACTII TEST
- E. APPROVAL BY THE EUD INSPECTOR

NOTES:

WATER SHALL ONLY BE DRAWN INTO THE CONTRACTORS MAIN THROUGH A CITY APPROVED RP TYPE BACKFLOW DEVICE WHICH HAS BEEN TESTED AND TAGGED BY THE ENVIRONMENTAL UTILITIES DEPARTMENT.

FINAL SYSTEM COMPONENTS NECESSARY FOR TIE-IN SHALL BE PRE-CHLORINATED AND PRE-FLUSHED IN THE PRESENCE OF AN ENVIRONMENTAL UTILITIES DEPARTMENT INSPECTOR.

UPON COMPLETION OF THE CONDITIONS NOTED ABOVE AND WITH THE APPROVAL OF THE EUD INSPECTOR, CONNECTION TO THE CITY SYSTEM MAY BE MADE. THE EUD INSPECTOR SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF WORK.

CONTRACTOR IS TO SIZE JUMPER ADEQUATELY FOR FLUSHING PURPOSES.

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

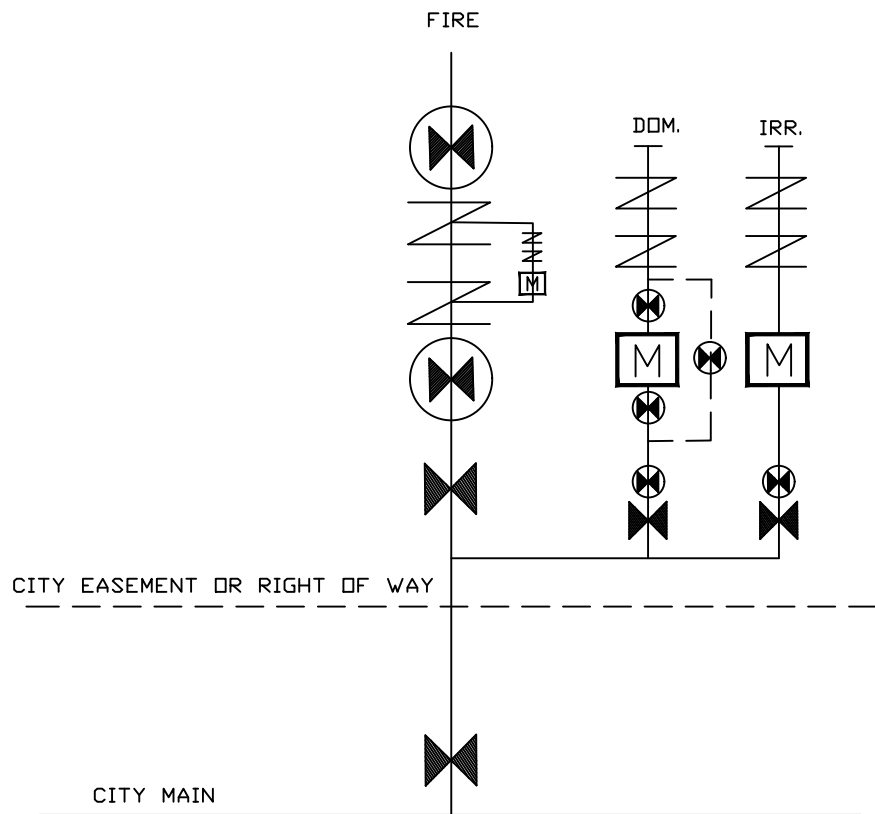


CITY OF ROSEVILLE
ENVIRONMENTAL UTILITIES DEPT.

CONSTRUCTION WATER DETAIL

SCALE: NONE
REVISED: JANUARY 2017
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-14



NOTES:

- 1) RESTRAINT ENTIRE MANIFOLD WITH APPROVED RESTRAINT SYSTEMS.
- 2) TAPS SHALL BE MADE SUCH THAT NO DEAD END LINES RESULT.
- 3) ALL LINES 3" AND LARGER SHALL BE DIP.
- 4) AFTER THE MANIFOLD, UNDERGROUND AND ABOVE, HAS BEEN ACCEPTED, METERS SHALL BE PURCHASED THROUGH THE CITY AND INSTALLED BY CITY CREWS. WATER MAY NOT DRAWN PRIOR TO TESTING AND TAGGING THE BACKFLOW DEVICE BY THE EUD
- 5) PROVIDE A PAD WITHIN THE LIMITS OF THE BACKFLOW MANIFOLD WITH POSITIVE DRAINAGE AND A 2% MAX. SLOPE.
- 6) IN A BACKFLOW MANIFOLD CONFIGURATION THAT INCLUDES DOMESTIC AND IRRIGATION SERVICES, THE IRRIGATION SERVICE TAP SHALL BE DOWNSTREAM OF THE DOMESTIC SERVICE TAP.
- 7) PROVIDE A MINIMUM 3 FOOT SEPARATION BETWEEN BACKFLOWS IN PARALLEL.
- 8) PROVIDE A 3' MINIMUM CLEARANCE FROM TOE OR TOP OF ANY SLOPE. NO SLOPES GREATER THAN 2:1 ADJACENT TO BACKFLOW MANIFOLD. IF THE ABOVE CRITERIA IS NOT MET, A RETAINING WALL IS REQUIRED. THE RETAINING WALL SHALL BE CONSTRUCTED OF CONCRETE OR MASONRY ONLY.
- 9) PROVIDE CURB STOPS AS REQUIRED PER THESE STANDARDS.
- 10) METER LID SHALL BE STENCILLED WITH THE NUMBER ADDRESS IT SERVES. USE WHITE ENAMEL PAINT AND 2" TALL STENCILING.
- 11) A METER BYPASS WITH A LOCKING CURB STOP OR LOCKING VALVE SHALL BE REQUIRED FOR ALL DOMESTIC SERVICES 3" AND LARGER OR WHERE REQUIRED.
- 12) MANIFOLD PIPING SHALL BE A MAXIMUM DEPTH OF 6 FEET.
- 13) MANIFOLD PIPING CONNECTING THE DOMESTIC AND IRRIGATION SERVICES SHALL BE 4" MINIMUM DIP BEYOND THE TEE CONNECTION WITH THE FIRE SERVICE.

Richard D. Plecker

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ENVIRONMENTAL UTILITIES DIRECTOR

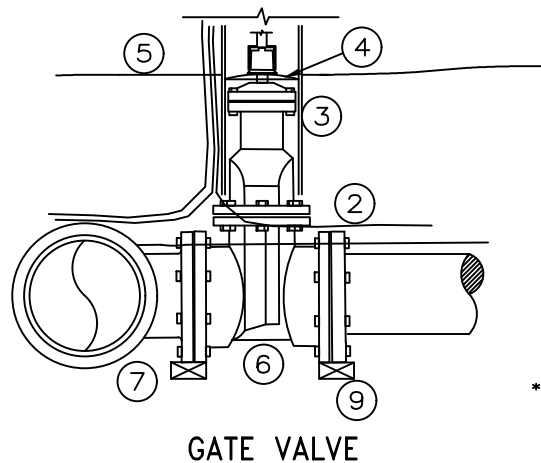
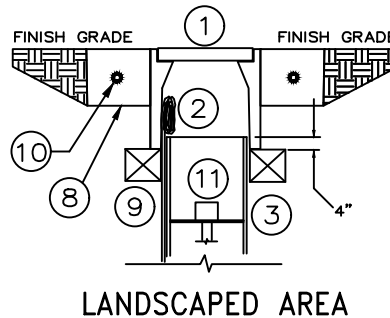
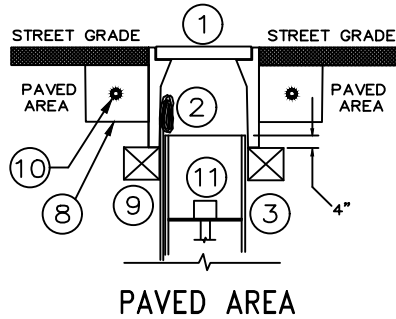
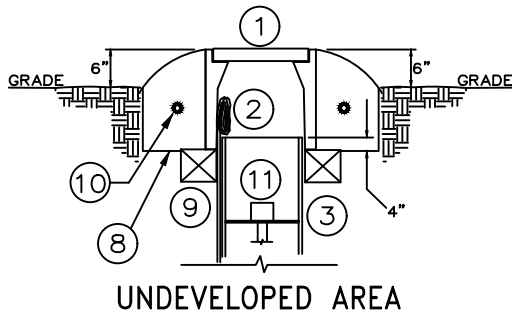


ENVIRONMENTAL UTILITIES
DEPARTMENT

BACKFLOW MANIFOLD SCHEMATIC

SCALE: NONE
REVISED: JANUARY 2022
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-15



MATERIALS

- 1) CONCRETE VALVE BOX
- 2) #12 INSULATED TRACING WIRE OUTSIDE RISER
- 3) 8" RISER STOCK
- 4) RISER ALIGNER
- 5) PLASTIC BACKFILL TAPE
- 6) GATE VALVE
- 7) DUCTILE IRON TEE
- 8) CONCRETE COLLAR (SEE NOTES) *
- 9) CONCRETE BRICK (SEE NOTES)
- 10) #4 REBAR AROUND CIRCUM. (TYP.)
- 11) VALVE EXTENSION PER SECTION 81-12.B

* CONCRETE COLLAR SHALL BE PLACED FLUSH TO FINISH GRADE IN ALL COLLECTORS AND ARTERIALS, OPTIONAL IN ALL OTHER ROADWAYS. FINISH SURFACE SHALL BE MEDIUM BROOM FINISH WITH PATTERN PERPENDICULAR TO VEHICLE TRAVEL DIRECTION. SET COLLAR 1/8" BELOW ADJACENT FINISHED PAVEMENTS.

NOTES:

TRACING WIRE THROUGH VALVE BOXES SHALL BE PLACED OUTSIDE OF RISER BUT INSIDE OF BOX.

TRACING WIRE SHALL BE SPLICED INSIDE THE VALVE BOX PER (W-17) AND SHALL LOOP WITHIN THE VALVE BOX WITH 18" OF SLACK WIRE

ALL GATE VALVES SHALL BE CENTERED IN A ONE PIECE RISER STOCK WITH THE USE OF A RISER ALIGNER

OPERATOR NUTS DEEPER THAN 40 INCHES FROM FINISH GRADE SHALL REQUIRE A VALVE NUT EXTENSION 2 FEET MINIMUM IN LENGTH.

VALVE BOXES LOCATED IN A PAVED AREA SHALL BE PLACED IN A 6" X 6" CONCRETE COLLAR A MINIMUM OF 3" BELOW PAVEMENT

VALVE BOXES LOCATED IN A LANDSCAPED AREA SHALL BE PLACED IN A 6" X 6" CONCRETE COLLAR AT FINISHED GRADE.

VALVE BOXES LOCATED IN AN UNDEVELOPED AREA SHALL BE PLACED IN A 12" DEEP BY 6" WIDE CONCRETE COLLAR 6 INCHES ABOVE GRADE.

INSTALL (3" X 5" CONCRETE BRICK) UNDER ENTIRE PERIMETER OF BOX.

VALVES AND FITTINGS SHALL BE WRAPPED AND SEALED IN 8 MIL POLYETHYLENE

VALVE RISOR STOCK SHALL BE A MINIMUM OF 4" INSIDE VALVE BOX AND MINIMUM 2" BELOW METAL RING.

Richard D. Plecker

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ENVIRONMENTAL UTILITIES DIRECTOR

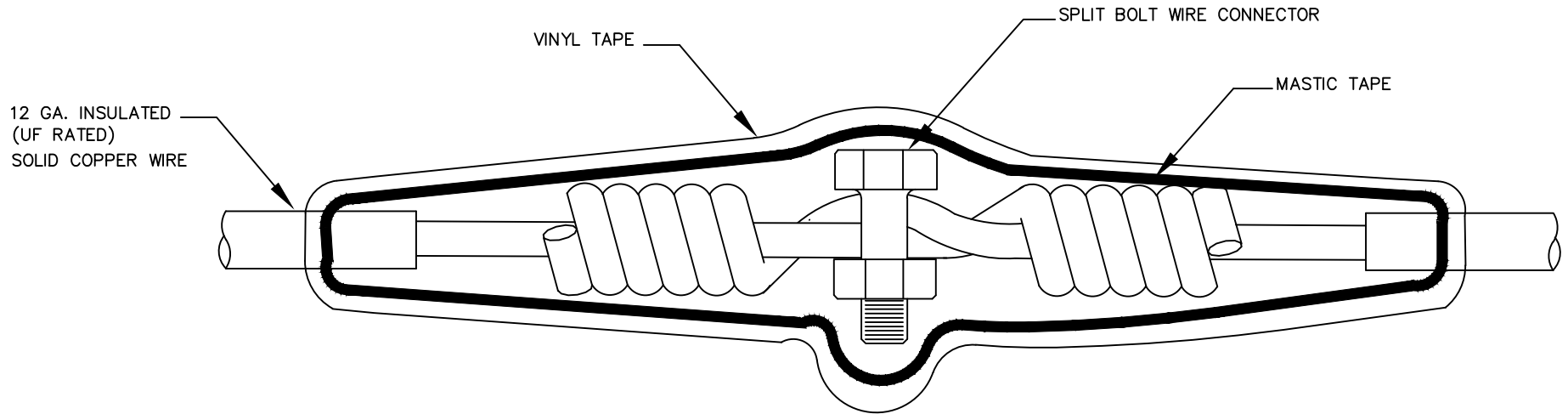


ENVIRONMENTAL UTILITIES
DEPARTMENT

GATE VALVE & BOX

SCALE: NONE
REVISED: JANUARY 2020
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-16



NOTES:

1. TWIST THE WIRE A MINIMUM OF (5) TIMES ON EACH END.
2. INSTALL SPLIT BOLT CONNECTOR.
3. SOLDER WIRE
4. COVER THE ENTIRE SPLICE WITH MASTIC TAPE WRAP
5. WRAP MASTIC WITH VINYL TAPE.
6. WIRE SPLICES SHALL BE LOCATED WITHIN A VALVE BOX PER DETAIL W-16.

Richard D. Plecker

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ENVIRONMENTAL UTILITIES DIRECTOR

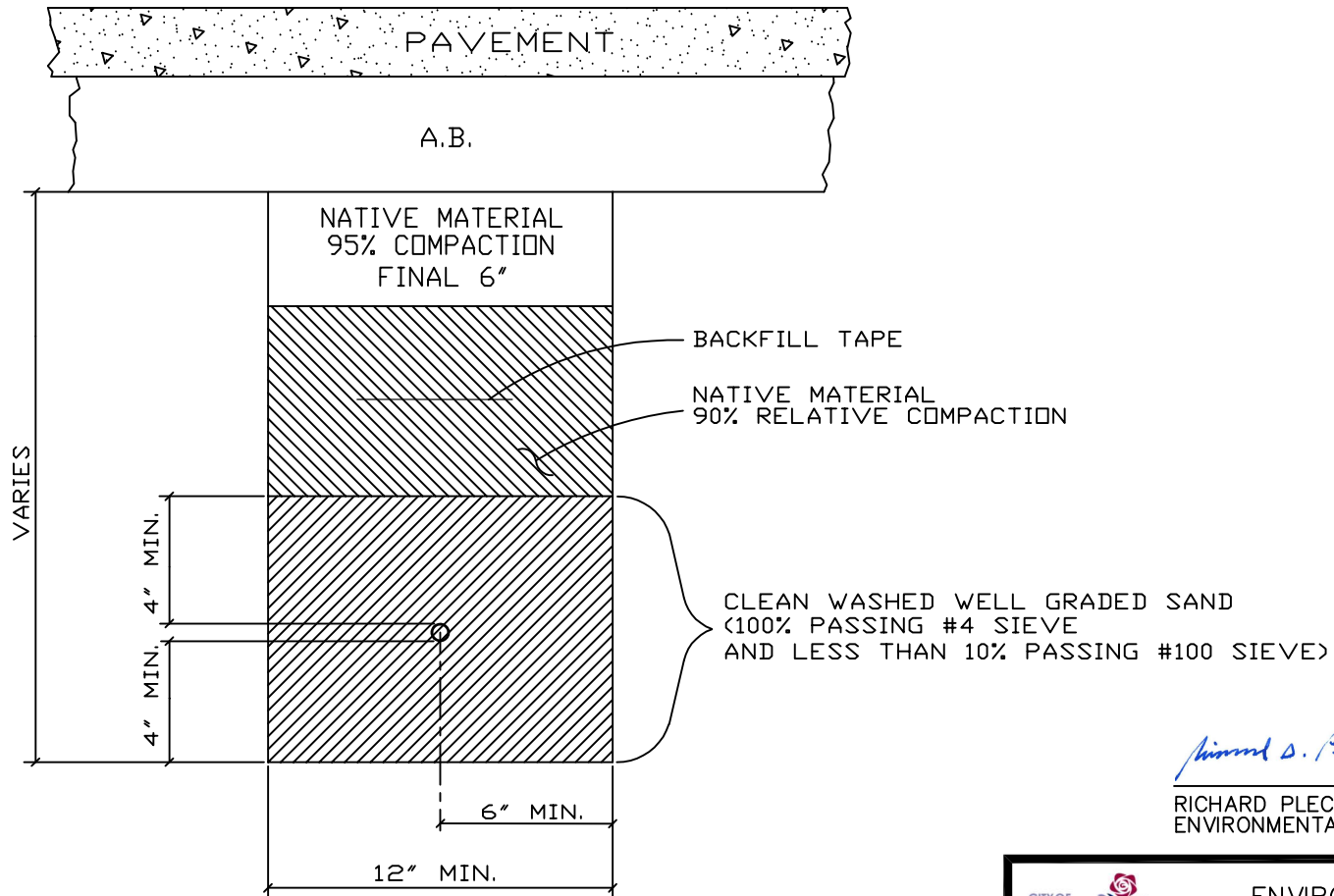
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ENVIRONMENTAL UTILITIES
DEPARTMENT

TRACING WIRE SPLICE

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-17



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ENVIRONMENTAL UTILITIES DIRECTOR

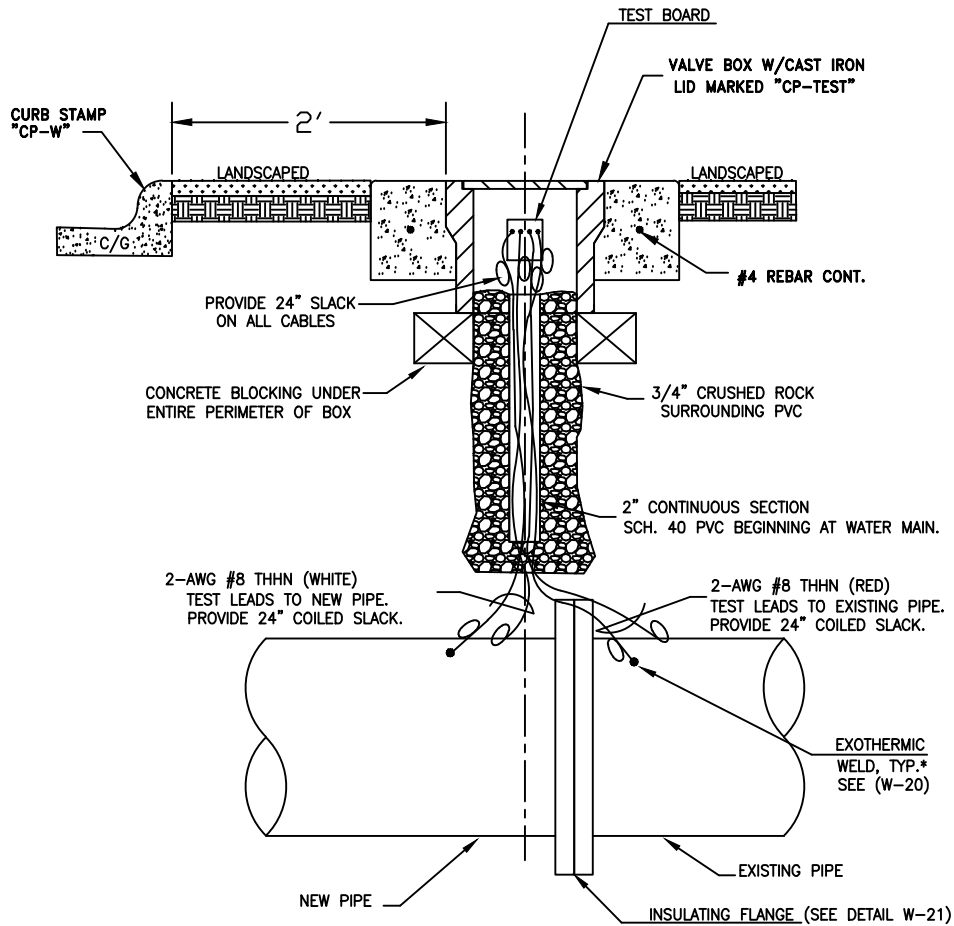


ENVIRONMENTAL UTILITIES
DEPARTMENT

TRENCH AND BACKFILL FOR ALL
WATER LINES 2" AND SMALLER

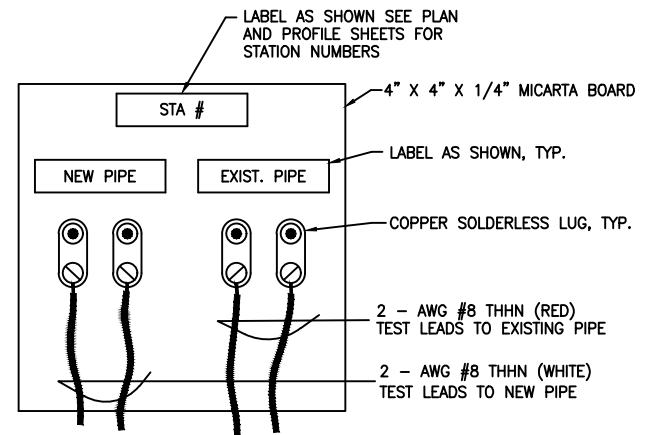
SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-18



TEST STATION (TYPICAL)

*FOR VALVES WELD ON FLANGE



TEST STATION BOARD (TYPICAL)

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ENVIRONMENTAL UTILITIES DIRECTOR

CITY OF
ROSEVILLE
CALIFORNIA

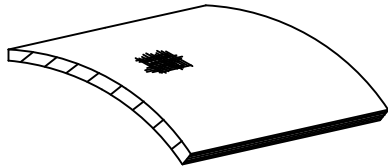
ENVIRONMENTAL UTILITIES
DEPARTMENT

INSULATING FLANGE TEST STATION

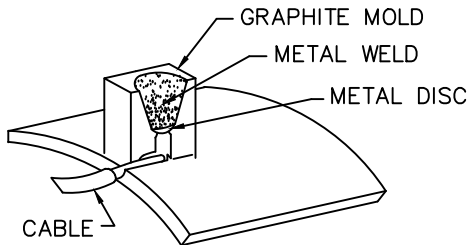
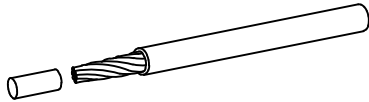
SCALE: NONE
REVISED: JANUARY 2017
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-19

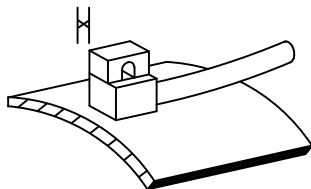
1) FILE TO BARE METAL & CLEAN OVER SURFACE



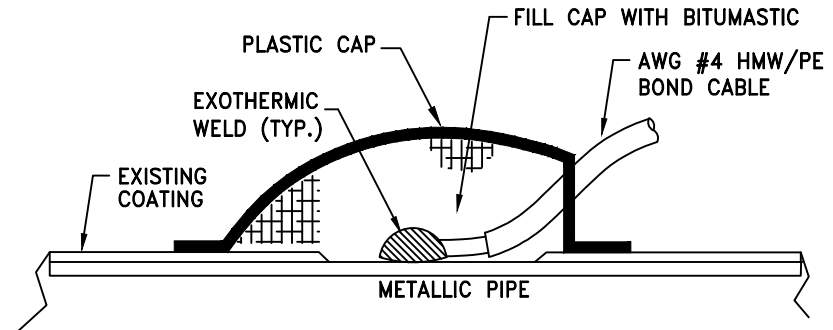
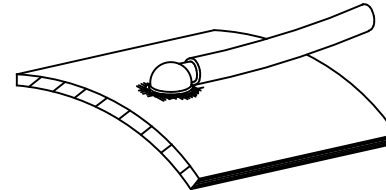
2) STRIP INSULATION FROM WIRE AND ATTACH SLEEVE



3) HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR, IGNITE WITH FLINT GUN



4) REMOVE SLAG FROM CONNECTION, COVER CONNECTION WITH COMPATIBLE COATING AND CAP OVER ALL EXPOSED METAL



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ENVIRONMENTAL UTILITIES DIRECTOR

NOTE:
EACH JOINT SHALL HAVE TWO
SEPARATE WELD WIRES.

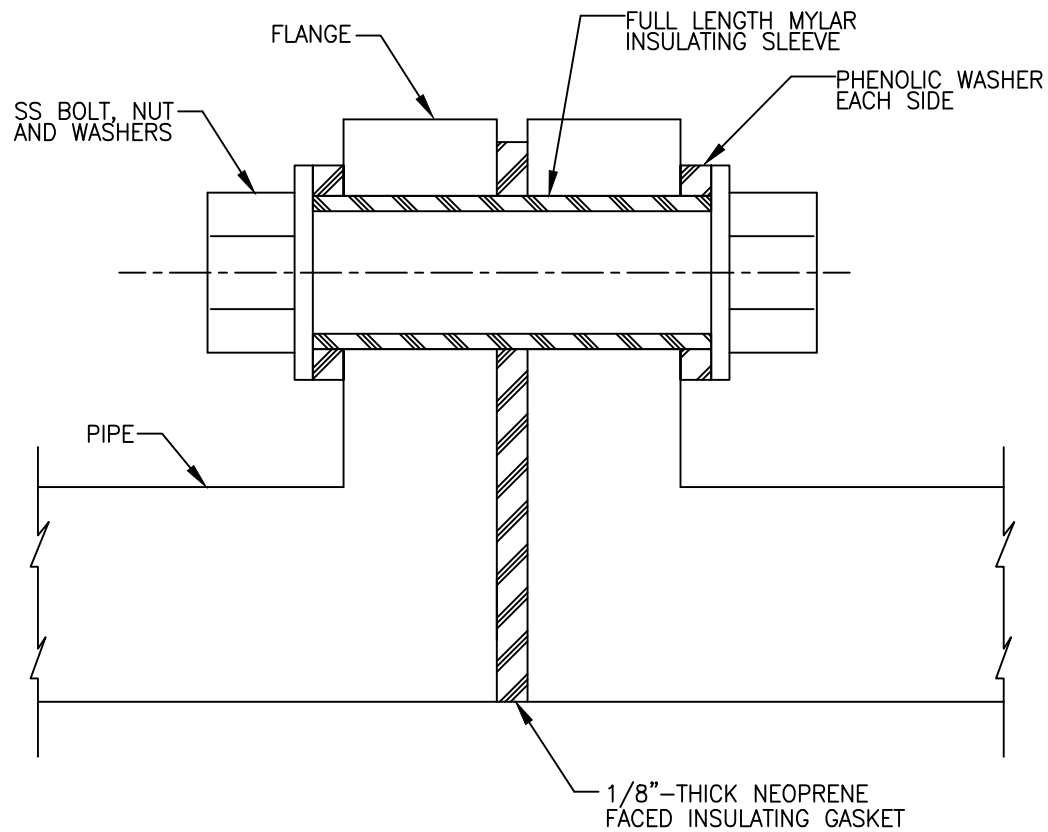


ENVIRONMENTAL UTILITIES
DEPARTMENT

EXOTHERMIC WELD

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-20



Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

NOTES:

1. DIELECTRIC FLANGE KITS SHALL BE MANUFACTURED BY F.H. MALONEY CP., CALPICO OR APPROVED EQUAL
2. PROVIDE AN INSULATING FLANGE TEST STATION FOR THE INSULATED FLANGE.

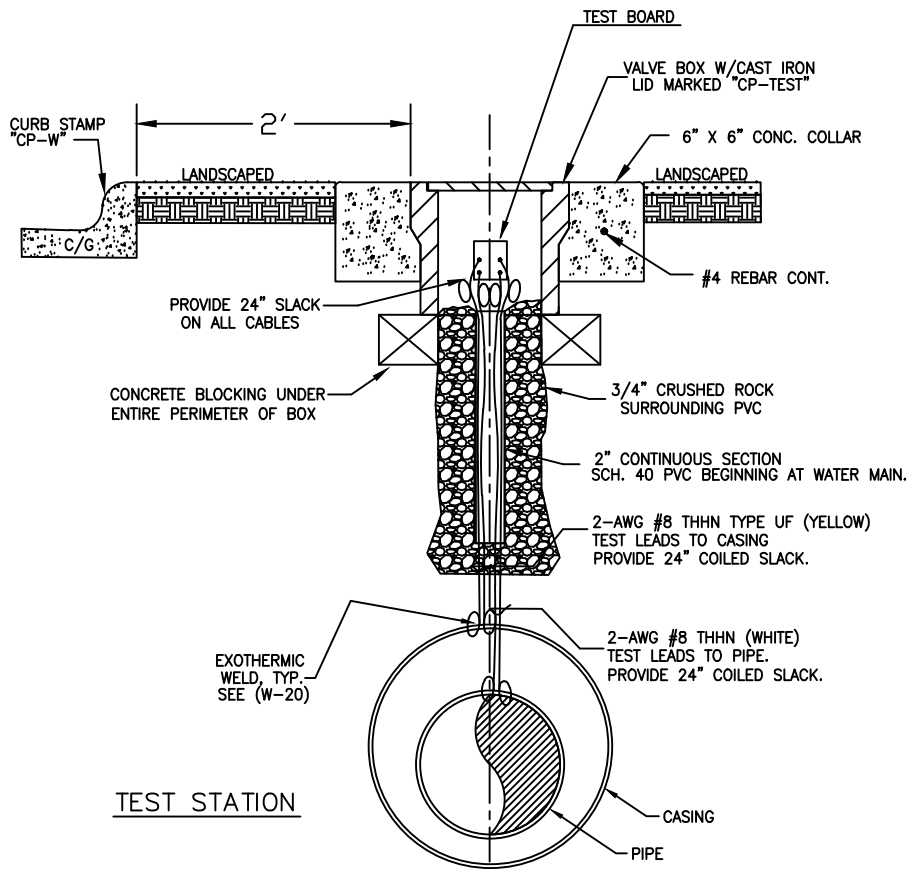
CITY OF
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CALIFORNIA

ENVIRONMENTAL UTILITIES
DEPARTMENT

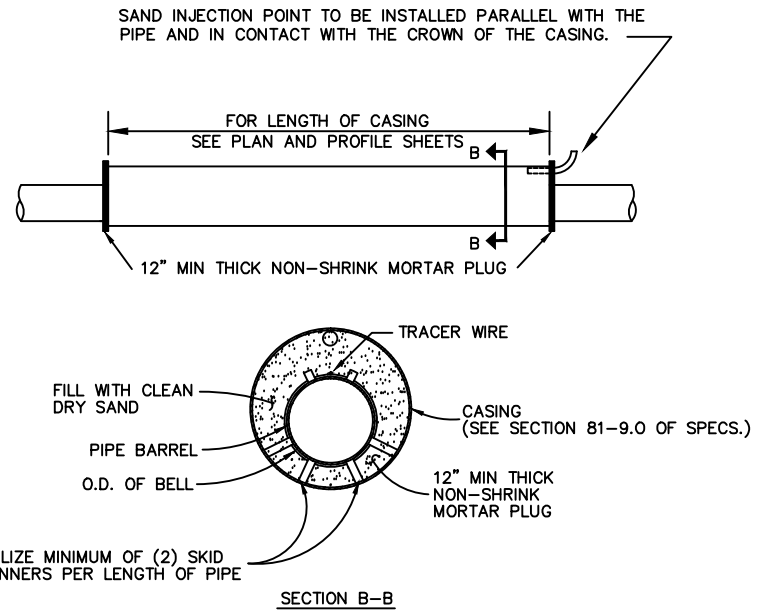
INSULATED FLANGE

SCALE: NONE
REVISED: JANUARY 2015
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-21



TEST STATION

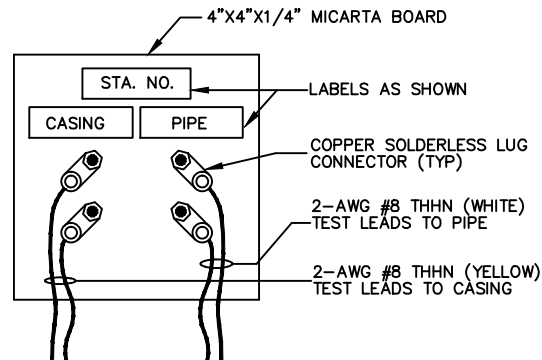


CASING DETAIL

NOTES:

1. THE MINIMUM STRENGTH FOR STEEL CASING SHALL BE 35,000 PSI
2. 18 MIL COAL TAR EPOXY SHALL BE APPLIED ON THE INSIDE & OUTSIDE OF THE STEEL CASING.
3. RESTRAINED PIPE WITHIN CASINGS OR BRIDGES SHALL BE FULLY EXTENDED OR "STRETCHED OUT" TO REMOVE THE SLACK BETWEEN THE JOINTS THE ENTIRE LENGTH OF THE STRUCTURE.

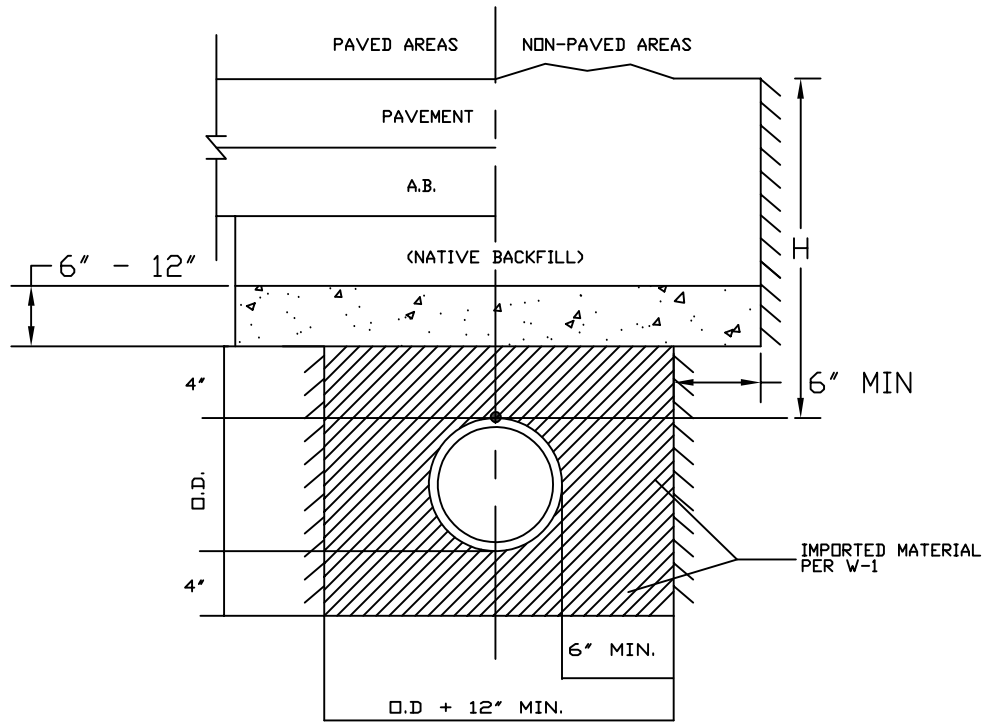
TEST BOARD



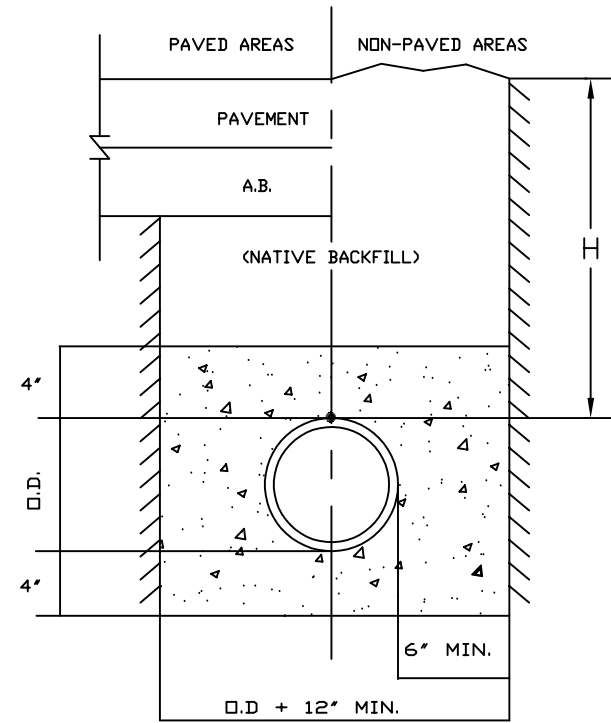
Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

	ENVIRONMENTAL UTILITIES DEPARTMENT
	CASING & TEST STATION
SCALE: NONE REVISED: JANUARY 2016 DRAWN BY: R. VAN NESS APPROVED BY: RICHARD PLECKER	
W-22	



CONCRETE CAP



CONCRETE ENCASEMENT

APPLICATION:

- WHERE $30'' < H < 36''$, USE DIP ONLY
- WHERE $20'' < H < 30''$
 - WITH SERVICES, USE DIP AND CONCRETE CAP
 - WITHOUT SERVICES, USE DIP AND CONCRETE ENCASE (WRAP DIP IN 1/2" CLOSED CELL FOAM PRIOR TO ENCASEMENT)
- WHERE $H < 20''$, REDESIGN WATERLINE

NOTE:

THIS DETAIL SHALL BE USED ON A CASE-BY-CASE BASIS WITH THE APPROVAL OF THE EUD DIRECTOR. IN MOST CASES, THE 36" MINIMUM COVER SHALL PREVAIL.

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

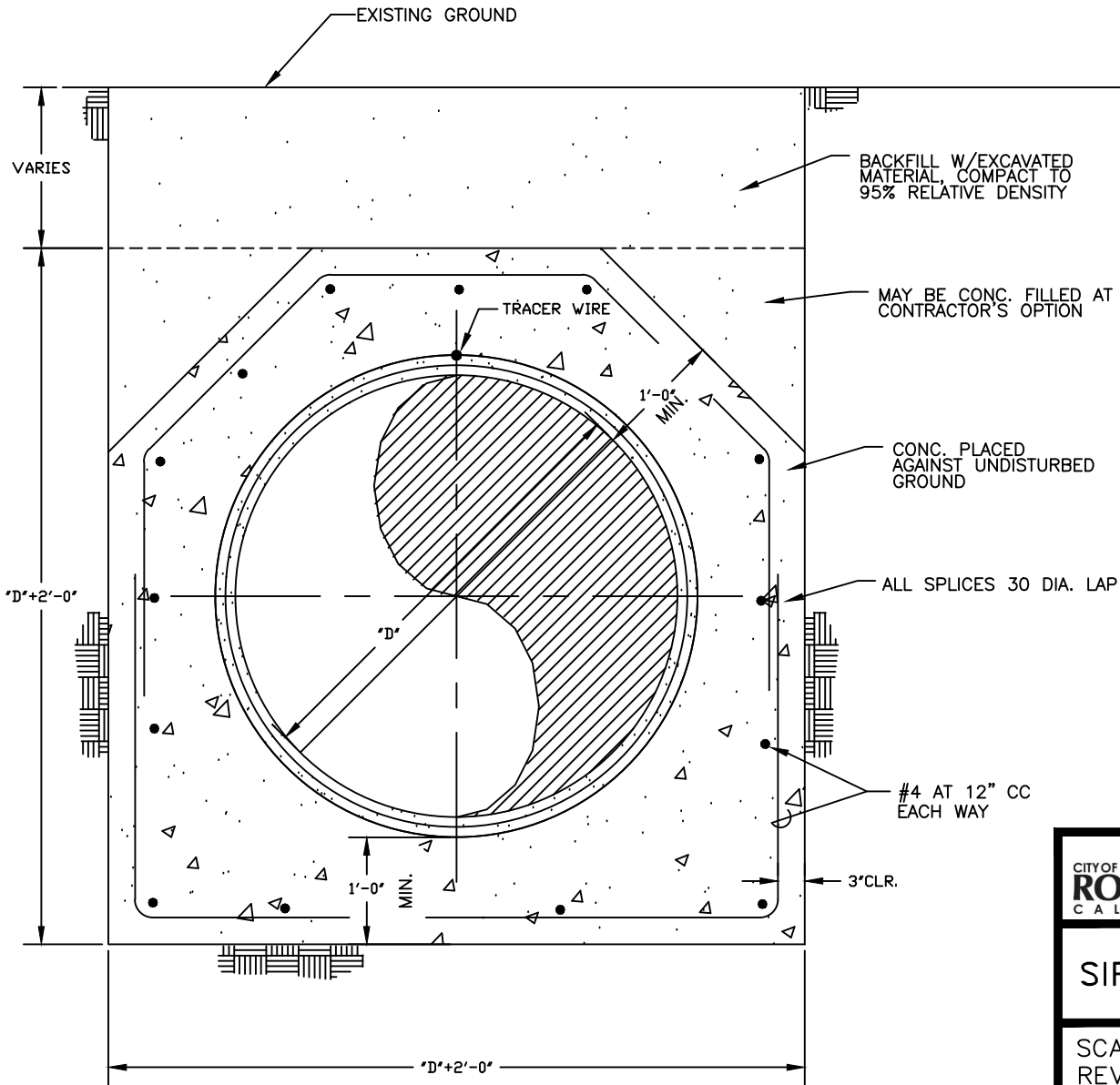


ENVIRONMENTAL UTILITIES
DEPARTMENT

SHALLOW WATER MAINS

SCALE: NONE
REVISED: JANUARY 2017
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-23



NOTES:

1. RESTRAINED PIPE WITHIN CASINGS OR BRIDGES SHALL BE FULLY EXTENDED OR "STRETCHED OUT" TO REMOVE THE SLACK BETWEEN THE JOINTS THE ENTIRE LENGTH OF THE STRUCTURE.

Richard D. Plecker

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ENVIRONMENTAL UTILITIES DIRECTOR



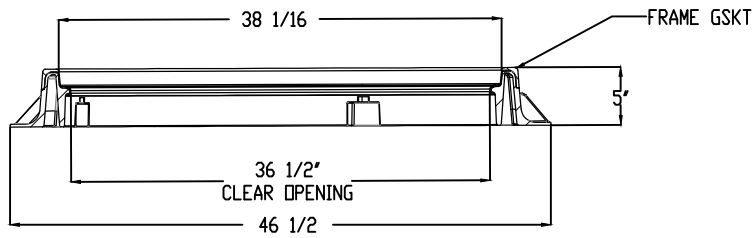
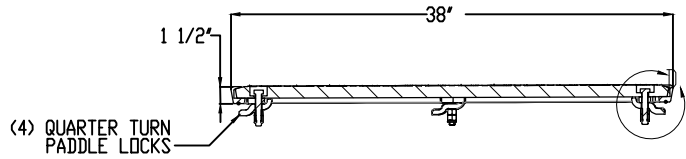
ENVIRONMENTAL UTILITIES
DEPARTMENT

SIPHON CONCRETE ENCASEMENT

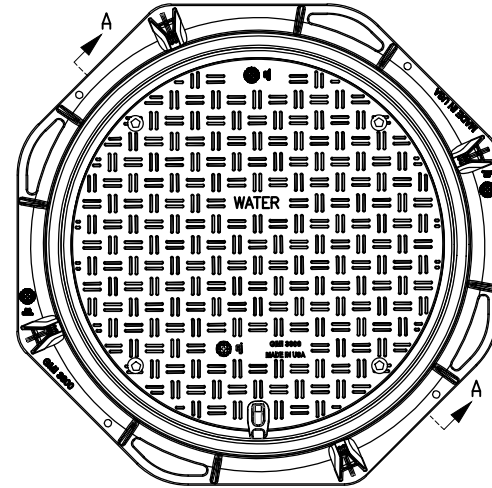
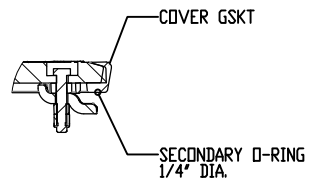
SCALE: NONE
REVISED: JANUARY 2020
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-24

GMI Cover and Frame Assembly



SECTION A-A



Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

CITY OF
ROSEVILLE
CALIFORNIA

ENVIRONMENTAL UTILITIES
DEPARTMENT

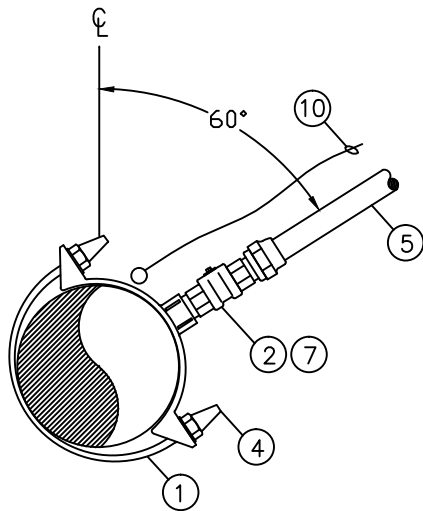
36" MANHOLE RING AND COVER

SCALE: NONE
REVISED: JANUARY 2017
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

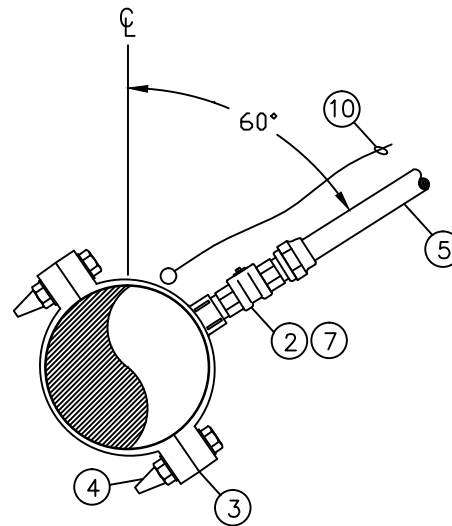
W-25

NOTES:

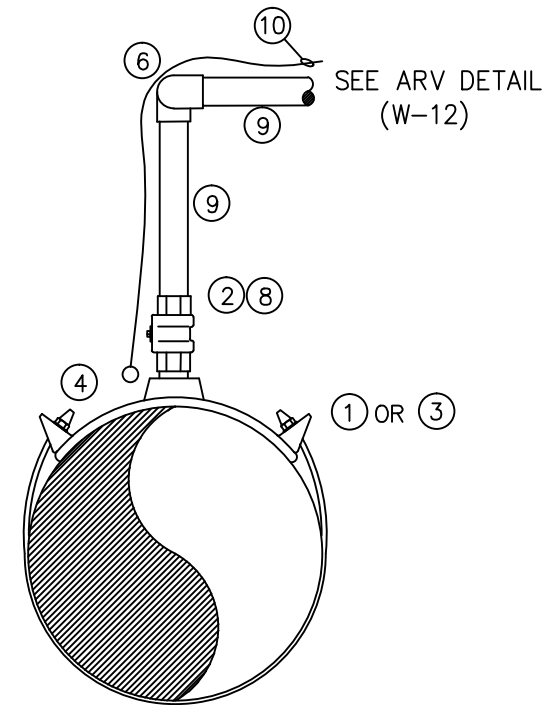
TO CONFORM TO AASHTO M306-05, H-20 AND H-25 EN/24 D4000.



DOUBLE STRAP
DUCTILE IRON PIPE SADDLE



PVC PIPE SADDLE



ARV SADDLE

MATERIALS:

- 1.) DOUBLE STRAP BRASS SADDLE FOR DUCTILE IRON MAIN
- 2.) INSULATING CORPORATION STOP OR NON INSULATED CORPORATION STOP WITH NYLON BUSHING
- 3.) BRASS SADDLE FOR PVC MAIN
- 4.) ZINC CAPS ON ALL BOLTS (ONLY WITH NON-INSULATED CORPORATION STOP)
- 5.) COPPER SERVICE
- 6.) SWING JOINT (2 - 90° BRASS FITTINGS)
- 7.) CORP STOP W/COMPRESSION COUPLING
- 8.) CORP STOP W/THREADED COUPLING
- 9.) THREADED BRASS PIPE
- 10.) TRACING WIRE (FOR COMMERCIAL SERVICES ONLY)

NOTES:

WRAP CORPORATION STOP AND COPPER SERVICE A MINIMUM OF 3' WITH AN APPROVED DIELECTRIC TAPE AND POLYKEN PRIMER PER MANUFACTURER'S RECOMENDATIONS.

SADDLES SHALL BE WRAPPED IN 8 MIL POLYETHYLENE AND BACKFILLED WITH SAND.

TRACING WIRE SHALL BE REQUIRED ON ARV, HYDRANT RUNS, BLOW OFFS, SERVICES WITHOUT CONTINUOUS COPPER PIPE, AND OTHER MAJOR APPURTENANCES.

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ENVIRONMENTAL UTILITIES DIRECTOR



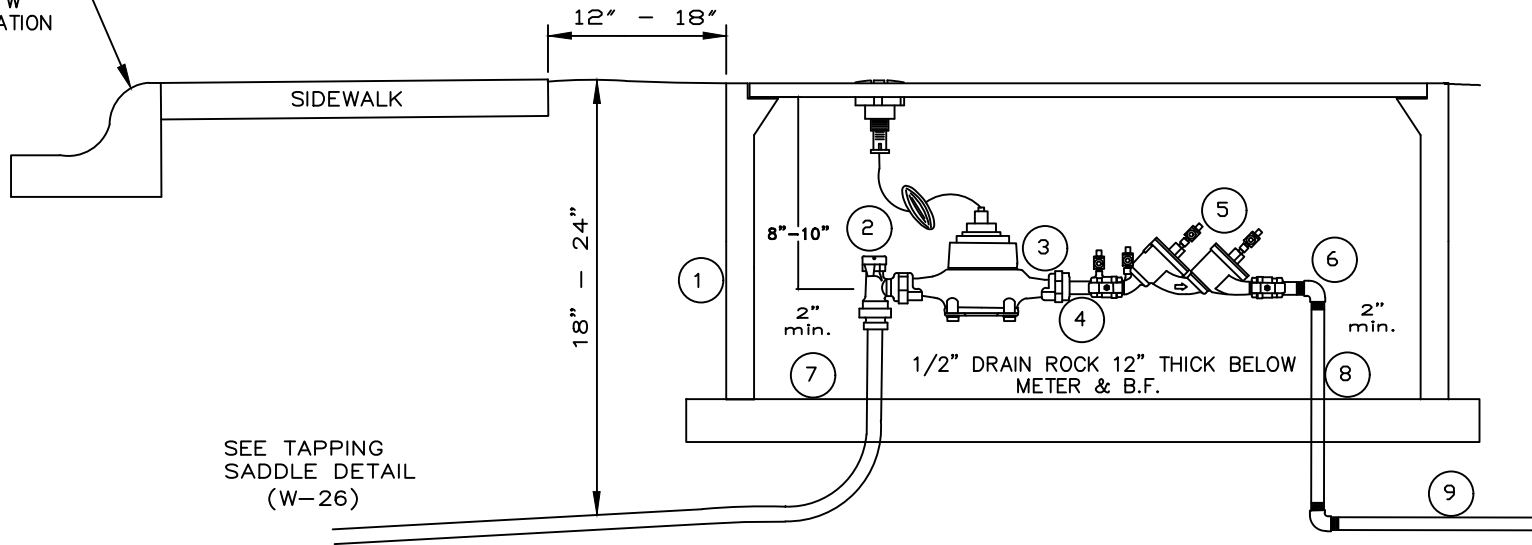
ENVIRONMENTAL UTILITIES
DEPARTMENT

SADDLE DETAIL

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-26

CURB STAMPED "W"
AT SERVICE LOCATION



SEE TAPPING
SADDLE DETAIL
(W-26)

NOTES:

WATER METERS SHALL BE PURCHASED THROUGH THE CITY
PURCHASE INCLUDES INSTALLATION.


INSTALL CONCRETE BLOCKING (4"x4"x 15 1/2" SOLID SLUMP BLOCK)
UNDER ENTIRE UTILITY BOX PERIMETER.

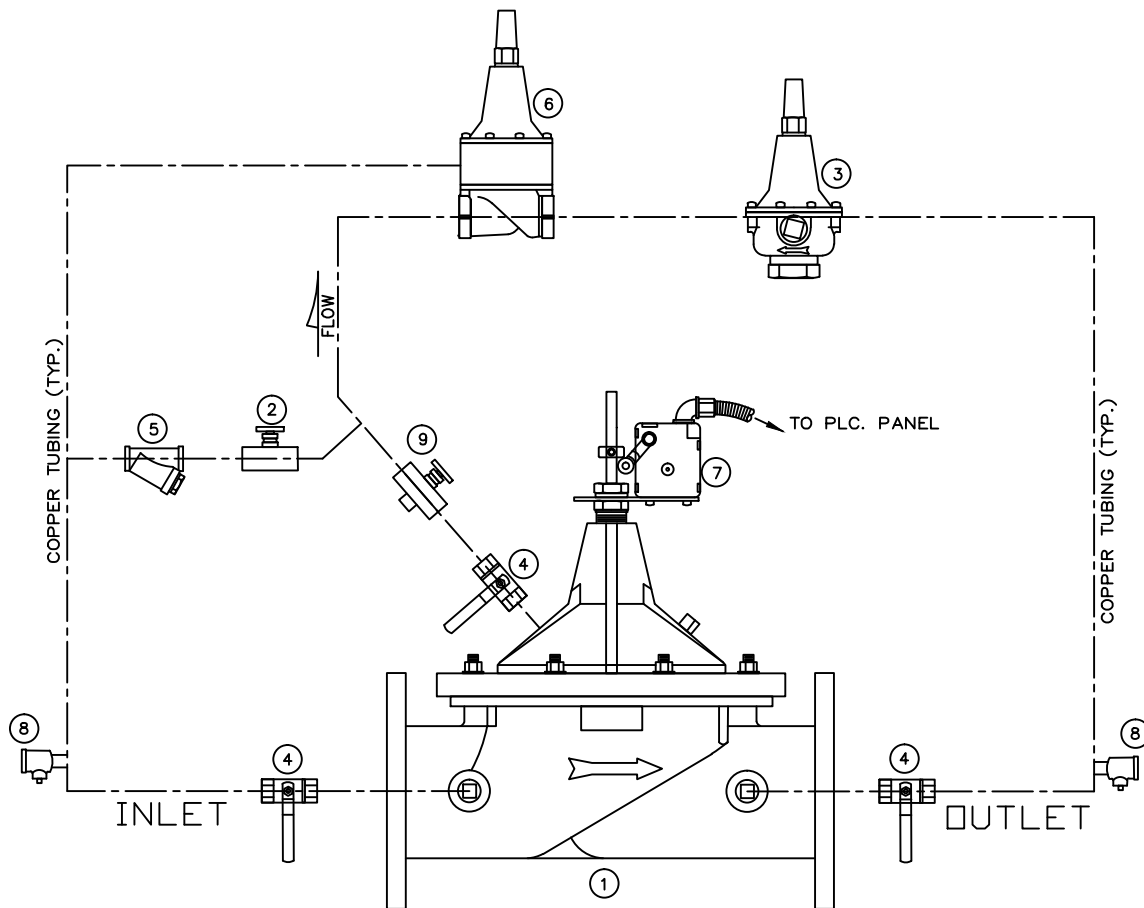
BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL
POLYETHYLENE OR APPROVED EQUAL.

- 1) N 36 UTILITY BOX
- 2) ANGLED METER VALVE W/PADLOCK WINGS (PACK JOINT)
- 3) WATER METER (PURCHASED THROUGH CITY)
- 4) 4" BRASS NIPPLE
- 5) DOUBLE CHECK VALVE (WATTS SERIES 719)
- 6) STREET "L" (BRASS)
- 7) 3" X 5" CONCRETE BRICK
UNDER ENTIRE PERIMETER OF BOX.
- 8) 12" BRASS NIPPLE
- 9) 18" BRASS NIPPLE (MIN.)

Richard D. Plecker

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ENVIRONMENTAL UTILITIES DIRECTOR

	ENVIRONMENTAL UTILITIES DEPARTMENT
DUAL WATER USE (POTABLE) 3/4" & 1" SERVICE LINE	
SCALE: NONE REVISED: JANUARY 2017 DRAWN BY: R. VAN NESS APPROVED BY: RICHARD PLECKER	
W-27	



- 1) MAIN VALVE, STAINLESS STEEL BODY, AMES, CLA VAL
- 2) NEEDLE VALVE, DELTRO
- 3) PRESSURE REDUCING CONTROL, AMES CP-15,
- 4) BALL VALVES, APOLLO OR HOKE
- 5) "Y" STRAINER WITH BRASS PLUG 1/4"NPT
- 6) PRESSURE SUSTAINING VALVE, AMES CP-16,
- 7) OPEN LIMIT SWITCH, MICROSWITCH
- 8) TEST COCK, MIPT 1/4" BRASS
- 9) OPENING SPEED CONTROL, DELTRO

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ENVIRONMENTAL UTILITIES DIRECTOR

NOTES:

CITY APPROVED GATE VALVES SHALL BE PLACED UP AND DOWN STREAM OF MAIN VALVE.

FITTINGS SHALL BE BRASS COMPRESSION TYPE



ENVIRONMENTAL UTILITIES
DEPARTMENT

COMBINATION PRESSURE REDUCING AND
PRESSURE SUSTAINING VALVE

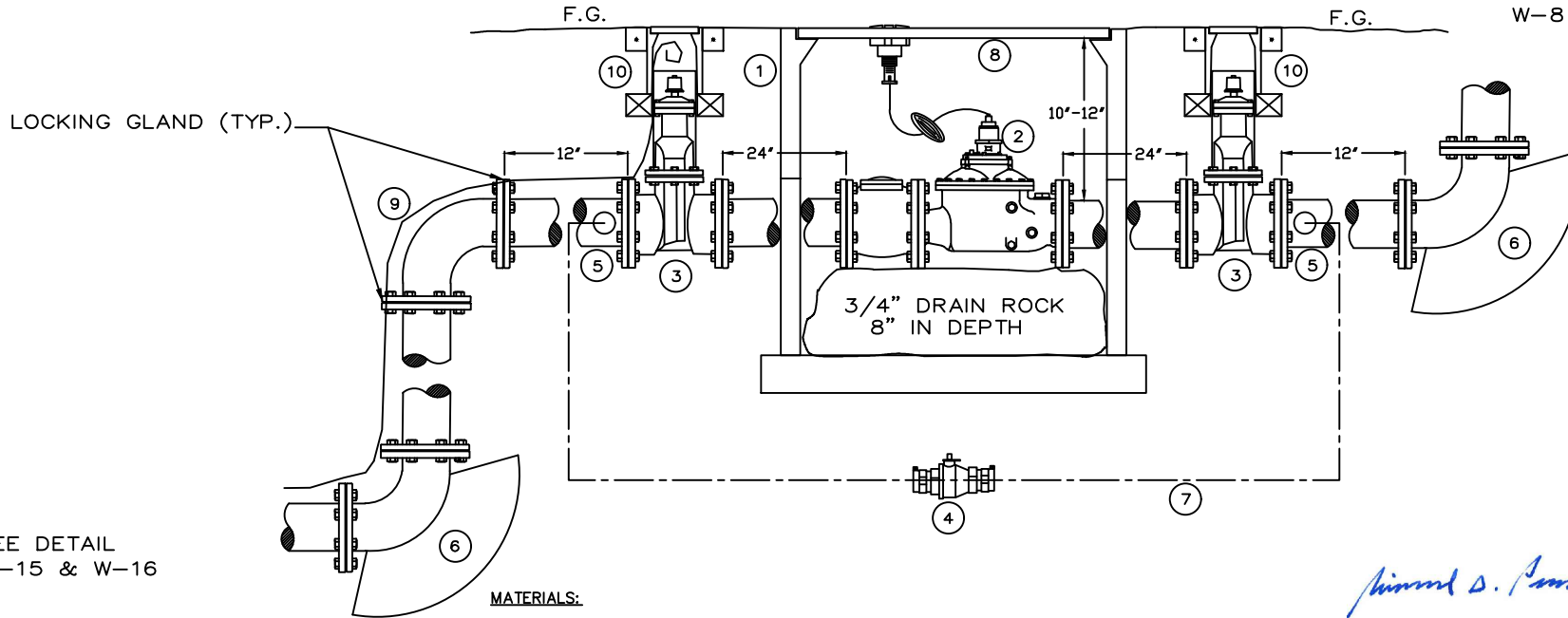
SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-28

NOTES:

- PIPE SHALL BE DUCTILE IRON FOR 3" AND LARGER.
- INSTALL (3" X 5") CONCRETE BRICK UNDER ENTIRE PERIMETER OF THE UTILITY BOX.
- PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL. POLYETHYLENE
- USE CITY APPROVED RESTRAINED JOINTS OR FLANGED SPOOLS
- WATER METER SHALL BE PURCHASED THROUGH THE CITY. PURCHASE INCLUDES INSTALLATION.
- USE TURBO METER FOR IRRIGATION & COMPOUND METER FOR COMMERCIAL SERVICE.

TO BACKFLOW
SEE DETAIL
W-8



SEE DETAIL
W-15 & W-16

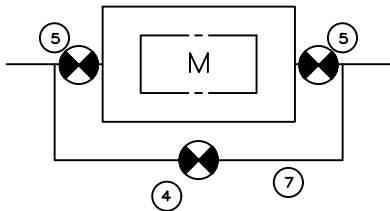
MATERIALS:

- 1) REFER TO METER TABLE IN SECTION 81-16 FOR UTILITY BOX SIZING. WITH EXTENSION. MORTAR EXTENSION JOINT INSIDE AND OUT.
- 2) METER WITH STRAINER (PURCHASED THROUGH CITY)
INSTALL IDLER SPOOL DURING INSTALLATION OF METER BOX.
- 3) RESILENT SEAT GATE VALVE (3"-6")
- 4) 2" LOCKING CURB STOP IN G-5 BOX
- 5) 2" DOUBLE STRAP BRASS SADDLE FOR DUCTILE IRON MAIN WITH 2" MIPT BY COMPRESSION ADAPTER
- 6) THRUST BLOCKS (TYP.)
- 7) 2" BYPASS PIPE MATERIAL TO BE SOFT COPPER TYPE K (STICK NOT ROLLED COPPER) AND FITTINGS TO BE BRASS COMPRESSION TYPE.
- 8) METAL TRAFFIC LID WELD MARKED "RSVL WATER"
- 9) TRACING WIRE
- 10) SEE W-16 FOR VALVE BOX AND RISER DETAIL

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ENVIRONMENTAL UTILITIES DIRECTOR

PLAN VIEW:
METER BYPASS

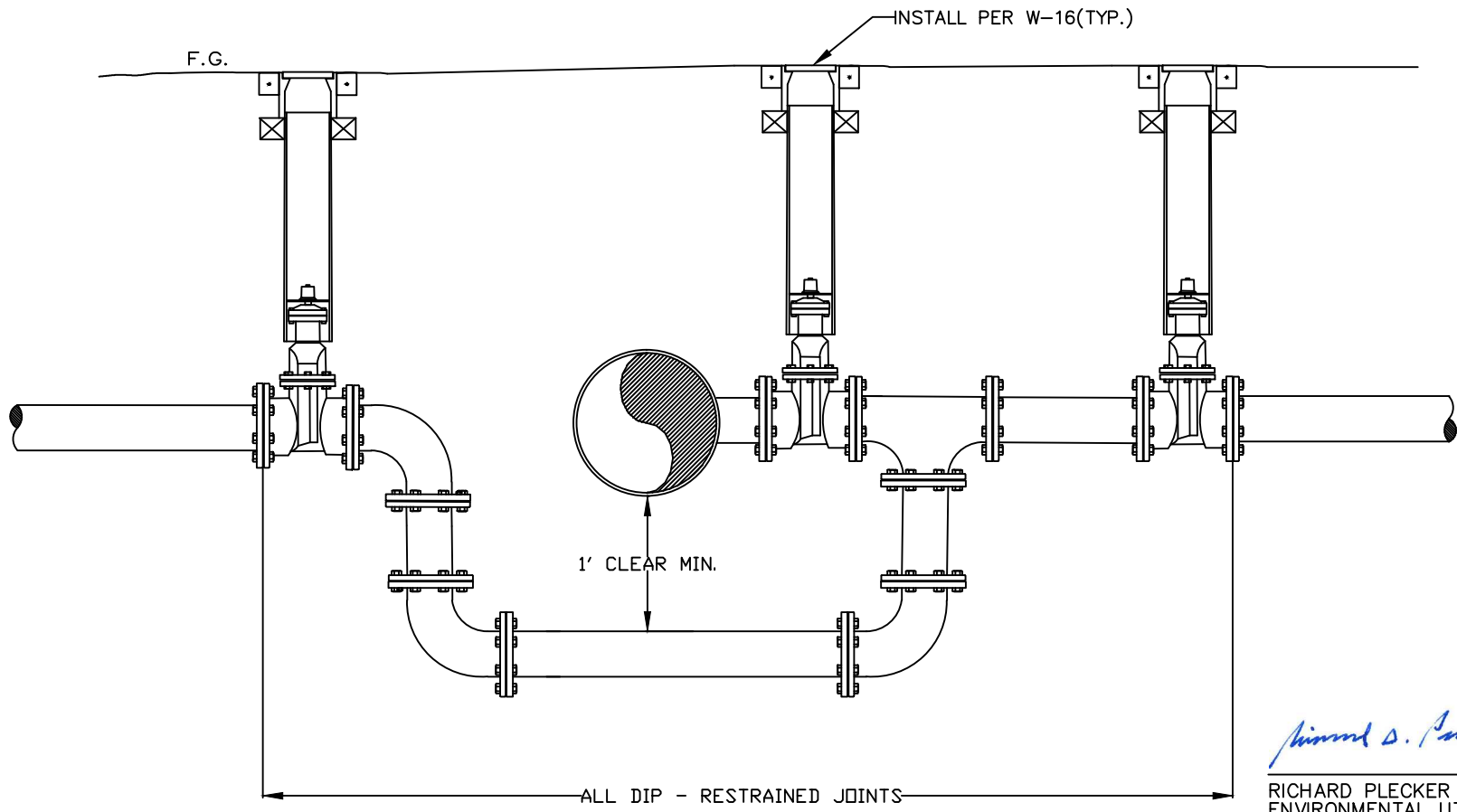


ENVIRONMENTAL UTILITIES
DEPARTMENT

3", 4", 6", 8" COMPOUND &
TURBO METER WITH BYPASS

SCALE: NONE
REVISED: JANUARY 2023
DRAWN BY: J. THOMPSON
APPROVED BY: RICHARD PLECKER

W-29



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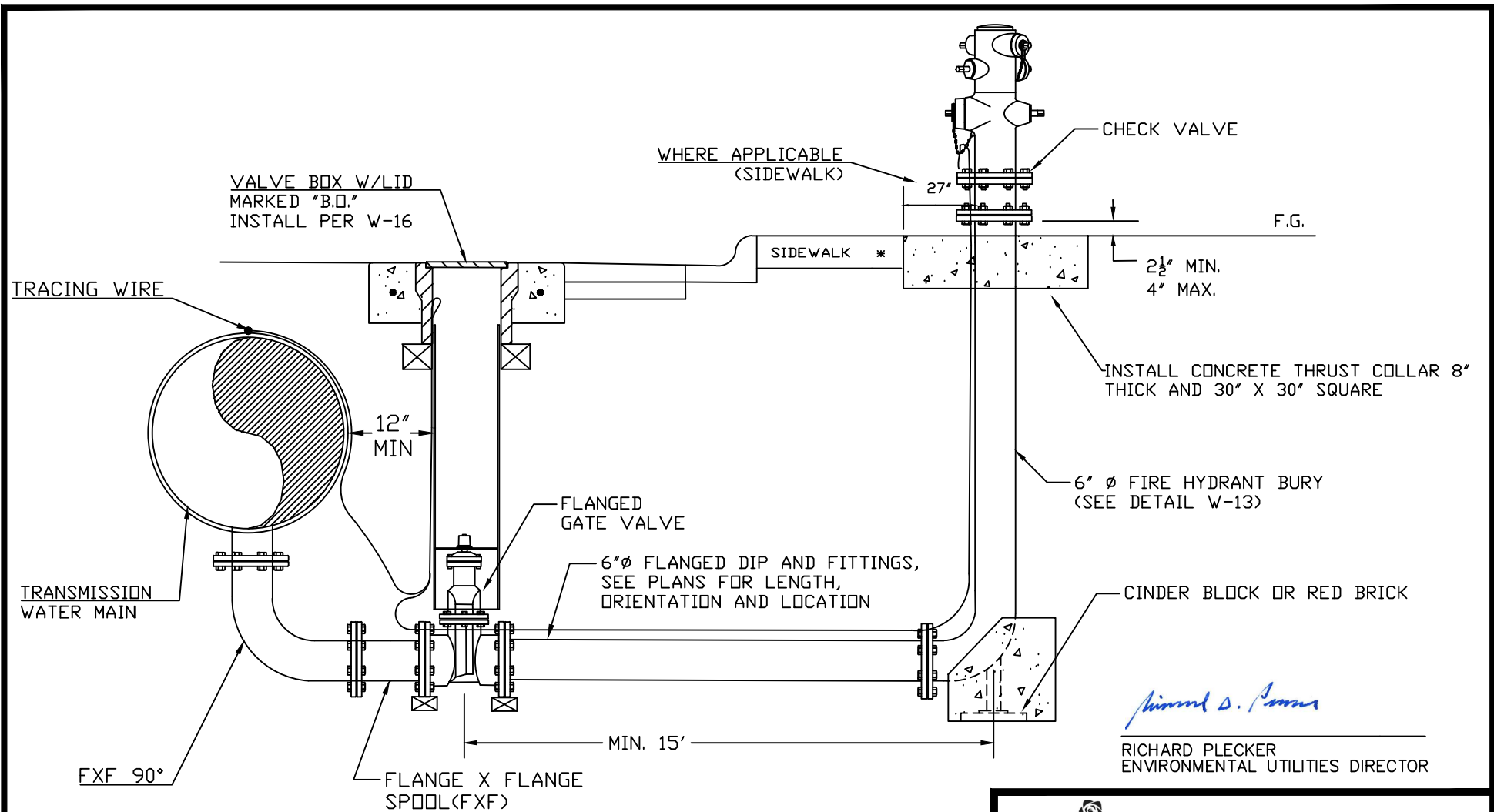
RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

CITY OF  ENVIRONMENTAL UTILITIES DEPARTMENT

FLOW THRU DETAIL


SCALE: NONE
 REVISED: JANUARY 2016
 DRAWN BY: R. VAN NESS
 APPROVED BY: RICHARD PLECKER

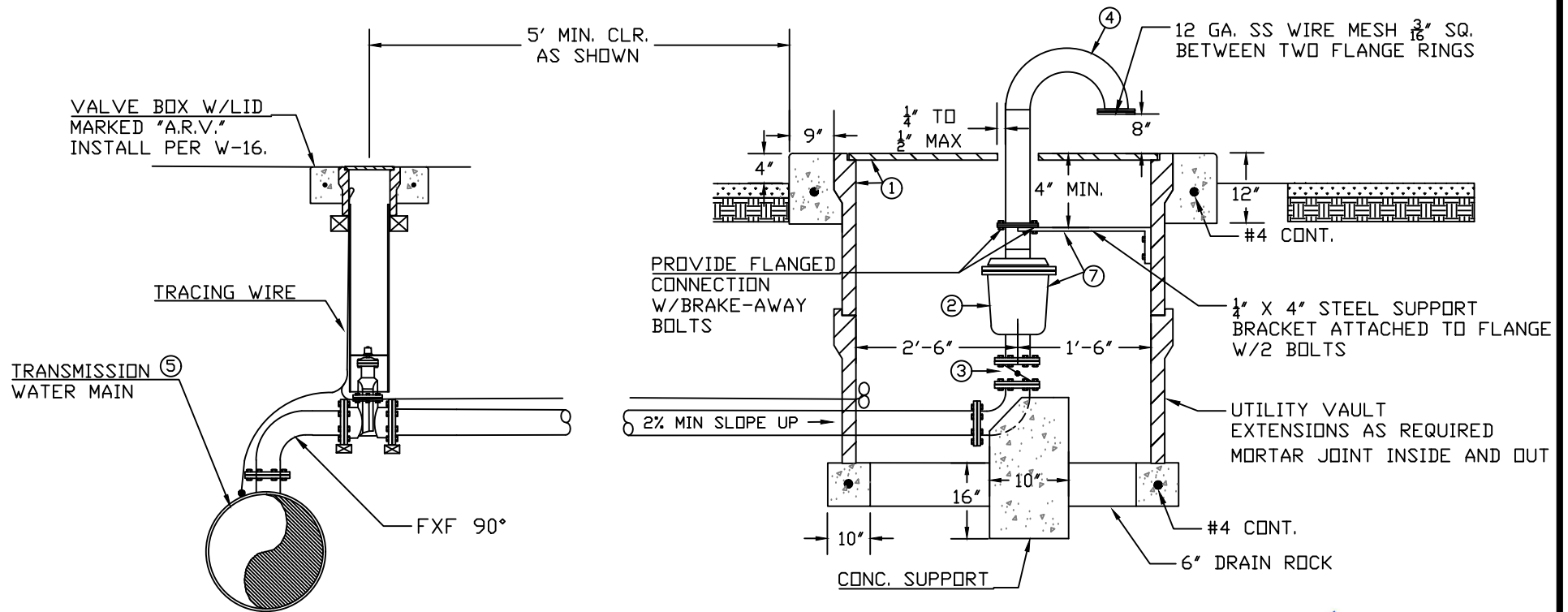
W-30



NOTES:

1. STATION LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. PLACE BLOW-OFFS ADJACENT TO LOW POINT IN MAIN LINE.
2. ALL FITTINGS SHALL BE DIP.
3. ENTIRE LENGTH TO BE RESTRAINED.
4. CONTRACTOR HAS THE OPTION OF USING MECHANICAL JOINT (MJ) FITTING. IF MJ FITTINGS ARE USED, MEGALUGS SHALL BE INSTALLED.
5. CONCRETE INSTALLED FOR STABILITY.

	ENVIRONMENTAL UTILITIES DEPARTMENT
TRANSMISSION MAIN HYDRANT BLOW OFF	
SCALE: NONE REVISED: JANUARY 2023 DRAWN BY: J. THOMPSON APPROVED BY: RICHARD PLECKER	
W-32	



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 ENVIRONMENTAL UTILITIES DIRECTOR

NOTES:

1. PRECAST CONC. UTILITY BOX (48"X48" I.D.) WITH GALV. STEEL LID CHECKERED PLATE COVER (2 PIECE SPLIT LID, DESIGNED FOR H₂O LOADING) MARKED "RSVL A.R.V." (USE SS HOLD DOWN SCREWS).
2. COMBINATION AIR/VACUUM RELEASE VALVE, PIPING, AND FITTINGS SIZED AS SHOWN ON PLAN & PROFILE SHEETS. (VALVE SHALL BE FLANGED)
3. FLANGED BUTTERFLY VALVE WITH HAND WHEEL OPERATOR.
4. WSP VENT, SCH 40, GALV. AFTER FABRICATION.
5. ARV TO BE PLACED AT HIGH POINT OF PIPE AT SIDE OUTLET FLANGE.
6. RESTRAIN ALL JOINTS BETWEEN C.C.P. AND ARV. RESTRAINED MJ WITH MEGALUG GLANDS MAY BE USED IN LUE OF FLANGED FITTINGS BEYOND G.V.
7. EXPOSED NON-GALVANIZED PIPING, VALVES, AND APPUR. SHALL BE PAINTED WITH TWO PRIMER AND TWO FINISH COATS OF MACHINERY ENAMEL (COLOR TO BE SELECTED BY EUD)
8. ALL BURIED PIPE, FITTINGS, VALVES AND APPUR. SHALL BE DUCTILE IRON AND ENCASED WITH 8 MIL. POLYETHYLENE.
9. CONCRETE INSTALLED FOR STABILITY.



ENVIRONMENTAL UTILITIES
 DEPARTMENT

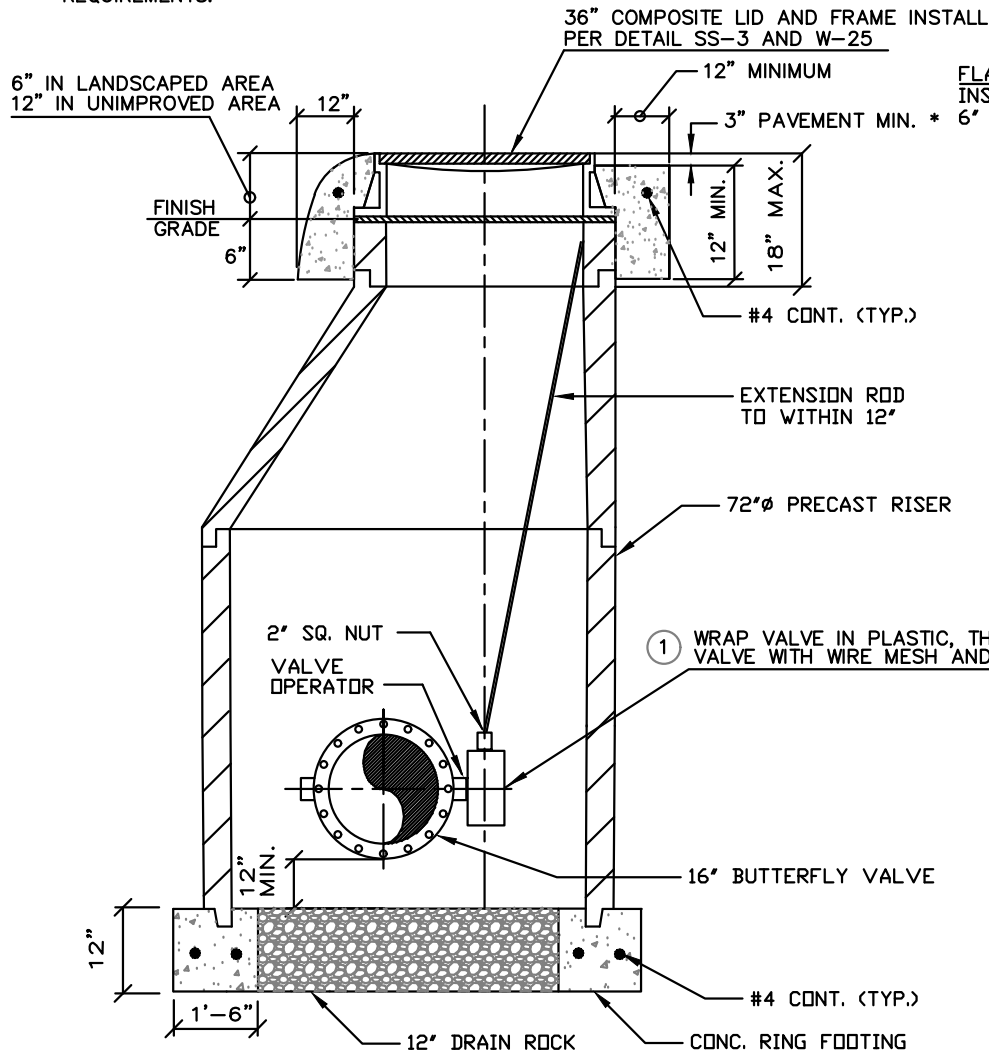
3" THROUGH 6" ARV

SCALE: NONE
 REVISED: JANUARY 2020
 DRAWN BY: R. VAN NESS
 APPROVED BY: RICHARD PLECKER

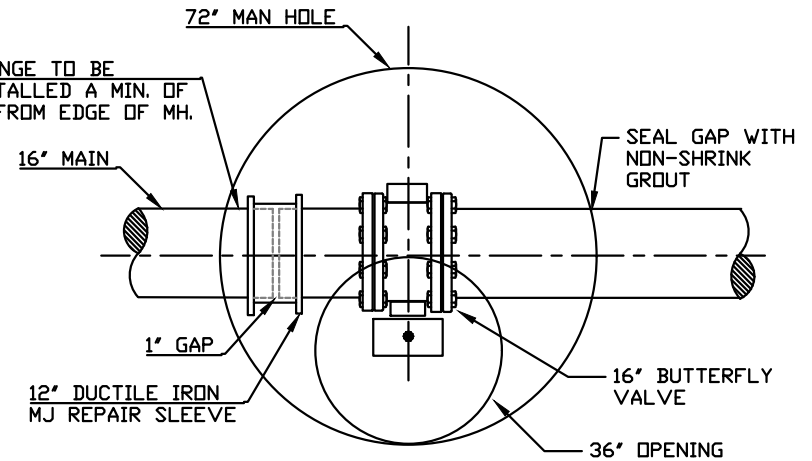
W-33

NOTES

- SEE VALVE BONDING DETAIL FOR ADDITIONAL REQUIREMENTS.



FLANGE TO BE INSTALLED A MIN. OF 6" FROM EDGE OF MH.



* NOTE: CONCRETE AROUND RIM SHALL BE BROUGHT TO FINISH GRADE FOR ALL COLLECTORS AND ARTERIALS, OPTIONAL IN ALL OTHER ROADWAYS. FINISH SURFACE SHALL BE MEDIUM FINISH WITH PATTERN PERPENDICULAR TO TRAVEL DIRECTION.

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ENVIRONMENTAL UTILITIES
DEPARTMENT

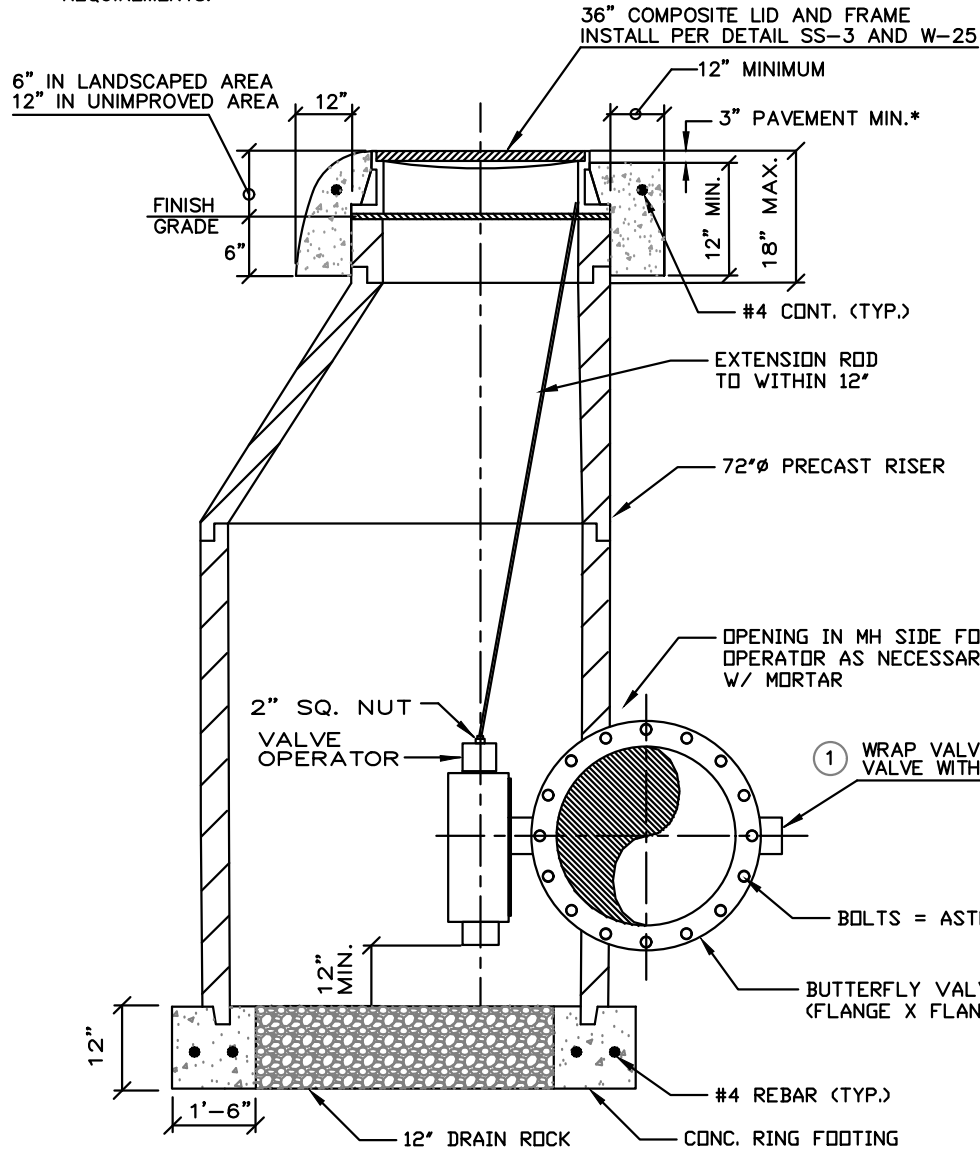
16" MAINLINE VALVE ENCLOSURE

SCALE: NONE
REVISED: JANUARY 2023
DRAWN BY: J. THOMPSON
APPROVED BY: RICHARD PLECKER

W-34

NOTES

1. SEE VALVE BONDING DETAIL FOR ADDITIONAL REQUIREMENTS.



* NOTE: CONCRETE COLLAR SHALL BE PLACED FLUSH TO FINISH GRADE IN ALL COLLECTORS & ARTERIALS, OPTIONAL FOR ALL OTHER ROADWAYS. FINISH SURFACE SHALL BE MEDIUM BROOM FINISH WITH PATTERN PERPENDICULAR TO VEHICLE TRAVEL DIRECTION. SET COLLAR 1/8" BELOW ADJACENT FINISHED PAVEMENT.

① WRAP VALVE IN PLASTIC, THEN ENCASE VALVE WITH WIRE MESH AND MORTAR.

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ENVIRONMENTAL UTILITIES DIRECTOR

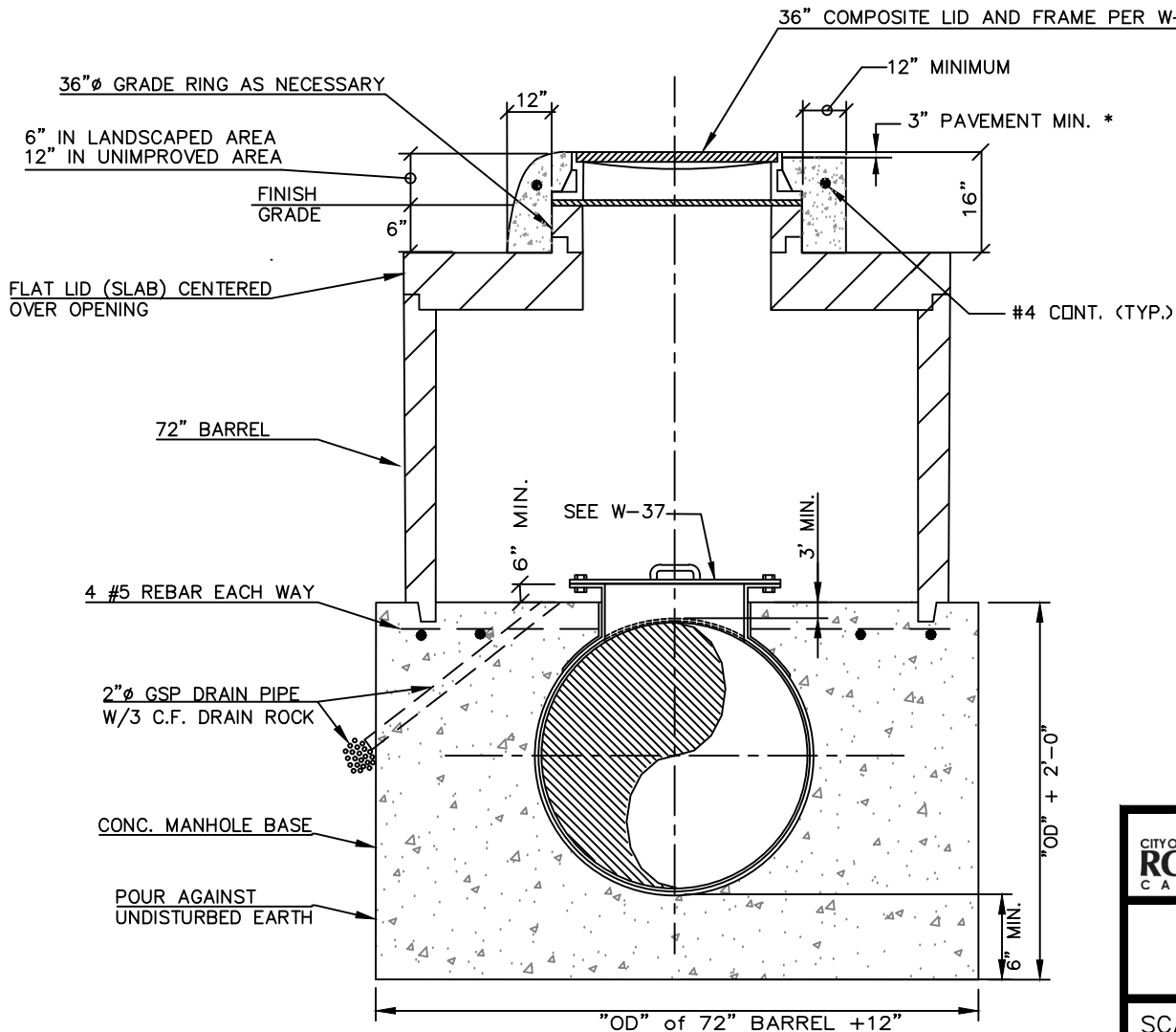


ENVIRONMENTAL UTILITIES
DEPARTMENT

24" & LARGER MAINLINE VALVE

SCALE: NONE
REVISED: JANUARY 2023
DRAWN BY: J. THOMPSON
APPROVED BY: RICHARD PLECKER

W-35



* NOTE: CONCRETE COLLAR MAY BE PLACED FLUSH TO FINISHED SURFACE WITH MEDIUM BROOM FINISH PERPENDICULAR TO VEHICLE TRAVEL DIRECTION.

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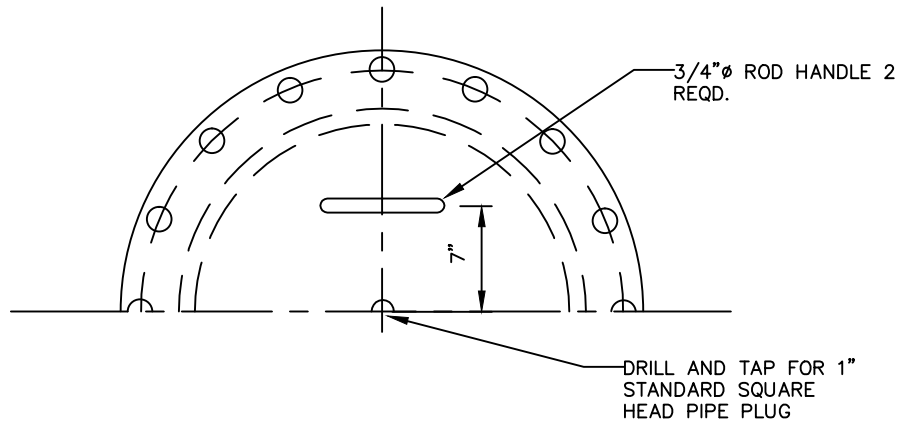
CITY OF
ROSEVILLE
CALIFORNIA

ENVIRONMENTAL UTILITIES
DEPARTMENT

**INSPECTION MANHOLE
FOR TRANSMISSION MAINS**

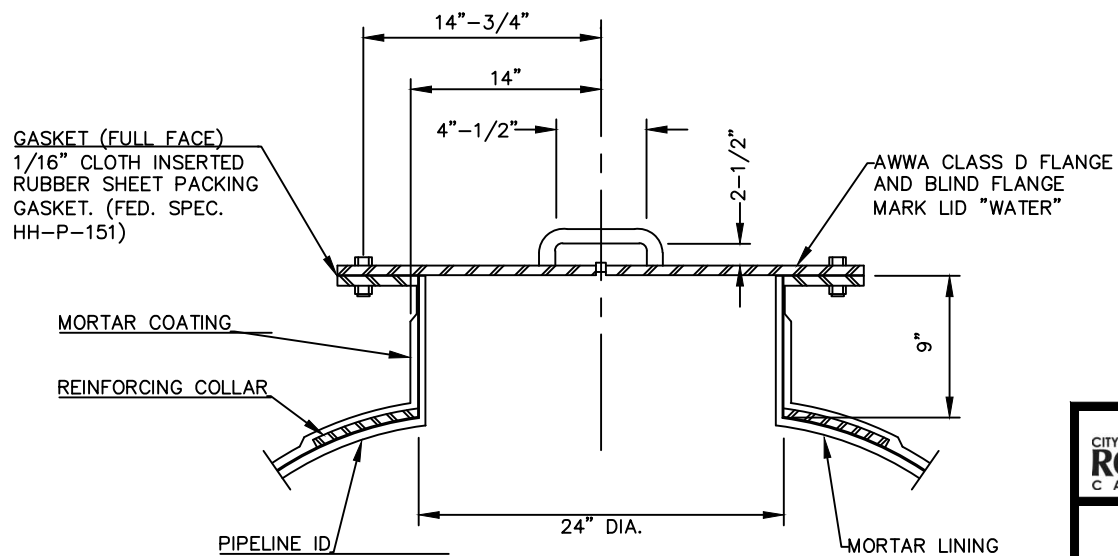
SCALE: NONE
REVISED: JANUARY 2018
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-36



NOTES

CONSTRUCT MANHOLE PER AWWA C208 AND C303. DESIGN PRESSURE SHALL MEET OR EXCEED PIPELINE DESIGN PRESSURE.



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ENVIRONMENTAL UTILITIES DIRECTOR

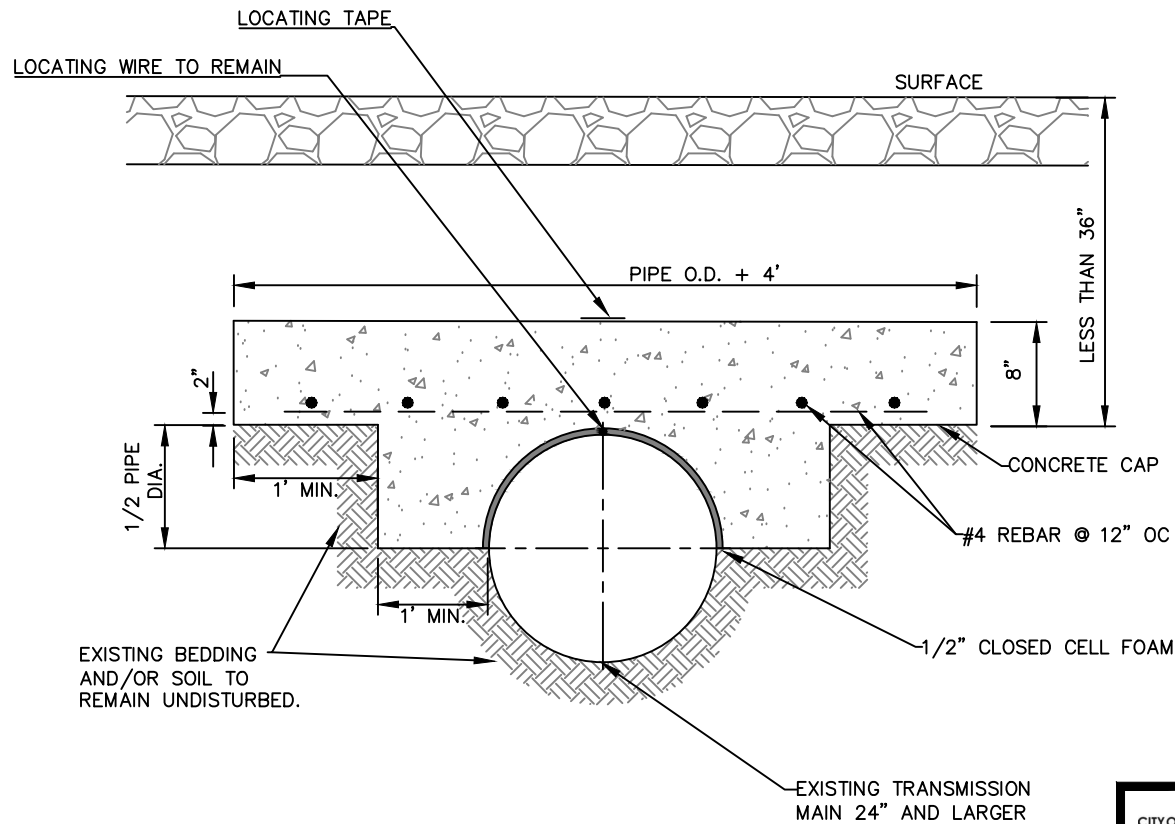


ENVIRONMENTAL UTILITIES
DEPARTMENT

**INSPECTION PORT
FOR TRANSMISSION MAINS**

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-37



NOTES

1. CONCRETE CAP REQUIRED FOR ALL AREAS WITH LESS THAN 36" COVER
2. CONCRETE SHALL BE 5 SACK MIX MECHANICALLY TAMPED TO ELIMINATE VOIDS.

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ENVIRONMENTAL UTILITIES DIRECTOR



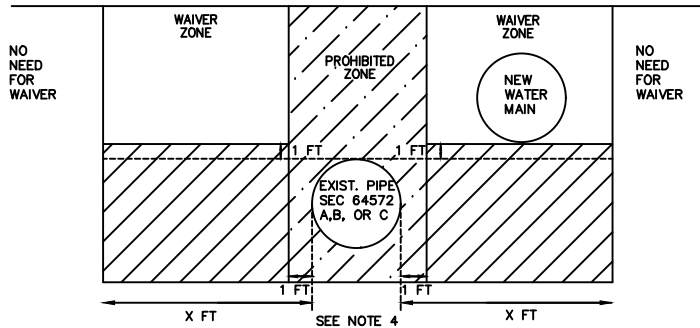
ENVIRONMENTAL UTILITIES
DEPARTMENT

**CONCRETE CAP ON SHALLOW
C.C.P. TRANSMISSION MAIN**

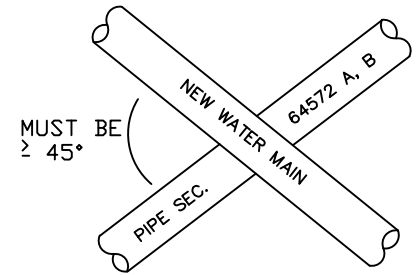
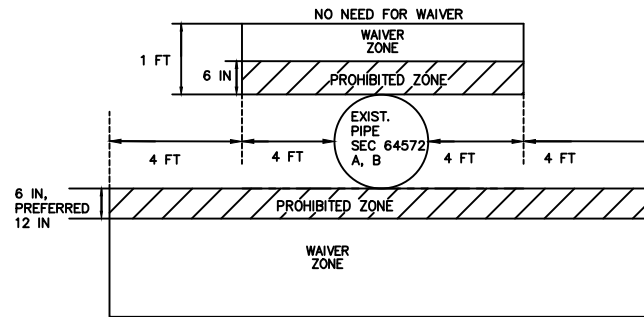
SCALE: NONE
REVISED: JANUARY 2019
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

W-38

NEW WATER MAIN PARALLEL CONSTRUCTION

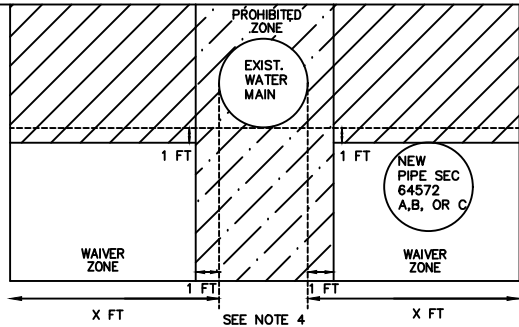


NEW WATER MAIN CROSSING CONSTRUCTION

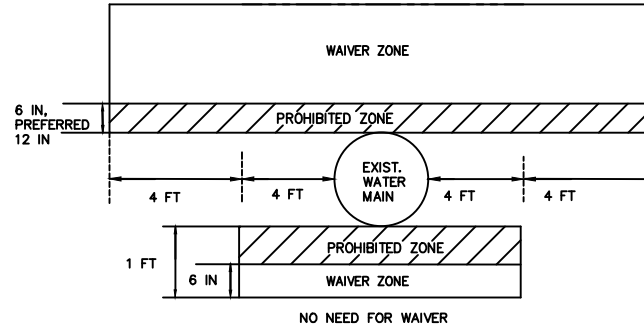


MUST BE $\geq 45^\circ$

NEW PIPE SEC. 64572 (A), (B), (C) PARALLEL CONSTRUCTION



NEW PIPE SEC. 64572 (A), (B) CROSSING CONSTRUCTION



NOTES:

1. THE CONTRACTOR SHALL FOLLOW THE CITY OF ROSEVILLE STANDARDS AND THE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 22 SECTION 64572 WATER MAIN SEPARATION REQUIREMENTS. SEE CITY DESIGN STANDARDS SECTION 8-13.C FOR DDW WAIVER PROCESS.
2. PARALLEL PIPE INSTALLATION: NO WATER MAINS PARALLEL TO PIPELINES CONVEYING A FLUID LISTED IN CCR TITLE 22 SECTION 64572 SUBSECTIONS (A), (B), OR (C) SHALL BE INSTALLED WITHIN THE WAIVER ZONES WITHOUT SPECIAL APPROVAL FROM THE DDW.
3. DISTANCE X FT EQUALS 10 FT WHEN NON-WATER MAIN PIPELINE CONVEYS A FLUID LISTED IN CCR TITLE 22 SECTION 64572 SUBSECTION (A).
4. DISTANCE OF X FT EQUALS 5 FT (CITY OF ROSEVILLE DESIGN STANDARD SECTION 8-13.A) WHEN NON-WATER MAIN PIPELINE CONVEYS A FLUID LISTED IN CCR TITLE 22 SECTION 64572 SUBSECTION (B) OR (C).
 - a. SEPARATION DISTANCES BETWEEN 4 FT AND 5 FT REQUIRE CITY OF ROSEVILLE ENVIRONMENTAL UTILITIES DIRECTOR APPROVAL. SEPARATION DISTANCES LESS THAN 4 FT ALSO REQUIRE A DDW WAIVER.
5. PIPE CROSSING INSTALLATION: WHEN LOCATED IN THE WAIVER ZONE, THE WATER MAIN SHALL HAVE NO JOINTS WITHIN 8 HORIZONTAL FEET OF THE PIPE CROSSING CONVEYING FLUIDS CLASSIFIED IN CCR TITLE 22 SECTION 64572 SUBSECTIONS (A) AND (B). THE CONTRACTOR MUST WORK WITH THE CITY TO OBTAIN A WAIVER FROM THE DDW TO INSTALL WITHIN THE WAIVER ZONE.
6. NEW WATER MAINS AND NEW PIPELINES CONVEYING A FLUID LISTED IN CCR TITLE 22 SECTION 64572 SUBSECTION (A) SHALL NOT BE INSTALLED IN THE SAME TRENCH.

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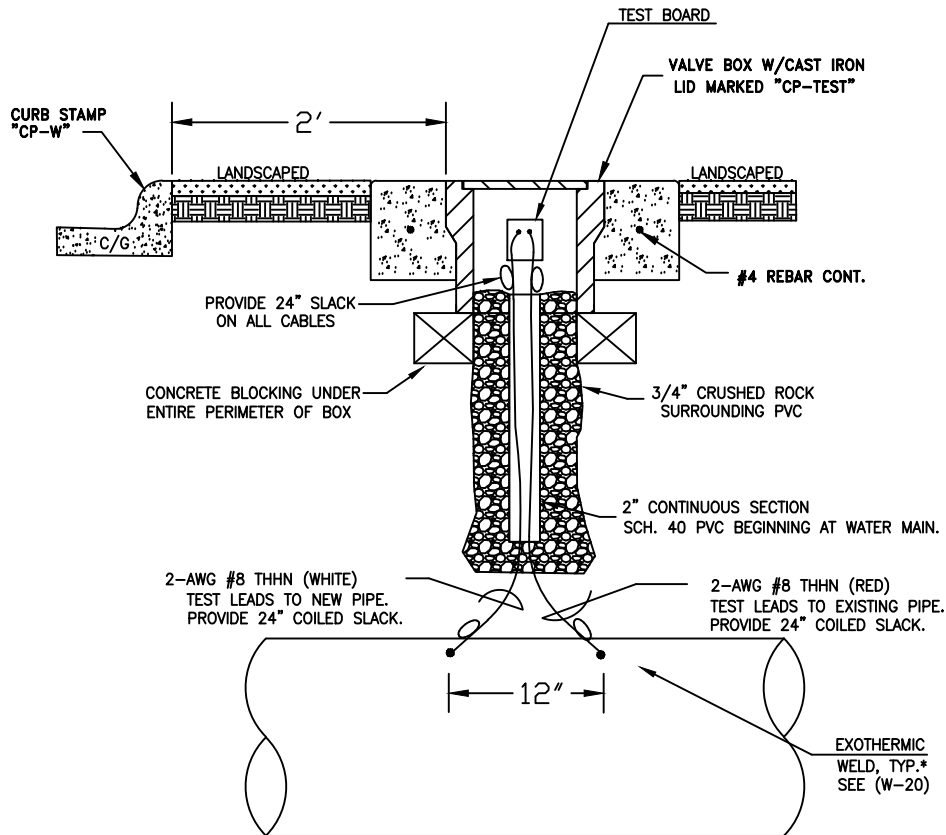
RICH PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

CITY OF ROSEVILLE CALIFORNIA ENVIRONMENTAL UTILITIES DEPARTMENT

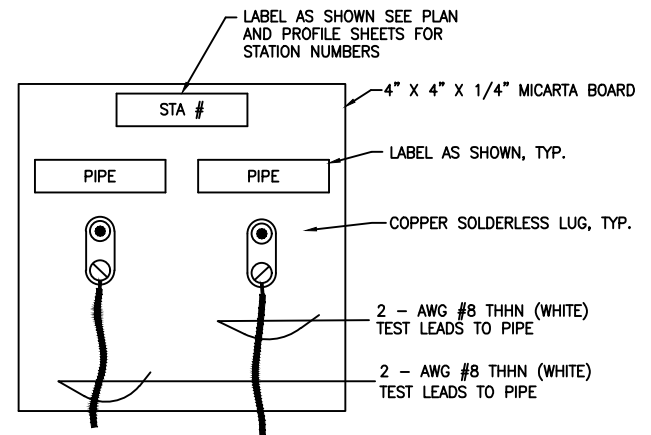
WATER MAIN AND SEWER MAIN CROSSING

SCALE: NONE
REVISED: JANUARY 2023
DRAWN BY: J. THOMPSON
APPROVED BY: R. PLECKER

W-39



TEST STATION (TYPICAL)



TEST STATION BOARD (TYPICAL)

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ENVIRONMENTAL UTILITIES DIRECTOR

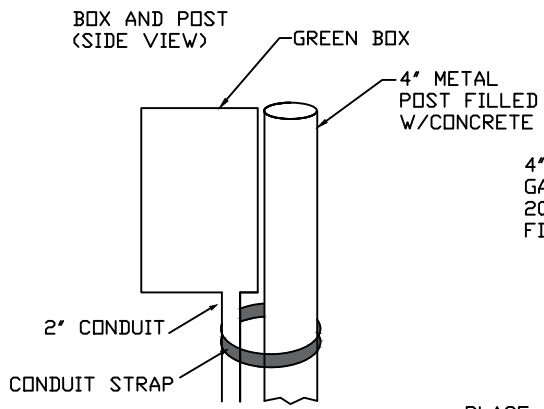


ENVIRONMENTAL UTILITIES
DEPARTMENT

TEST STATION

SCALE: NONE
REVISED: JANUARY 2019
DRAWN BY: D. SAMUELSON
APPROVED BY: RICHARD PLECKER

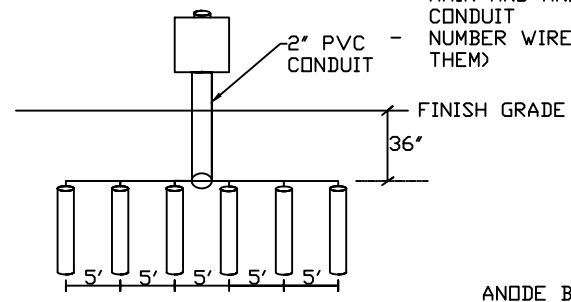
W-40



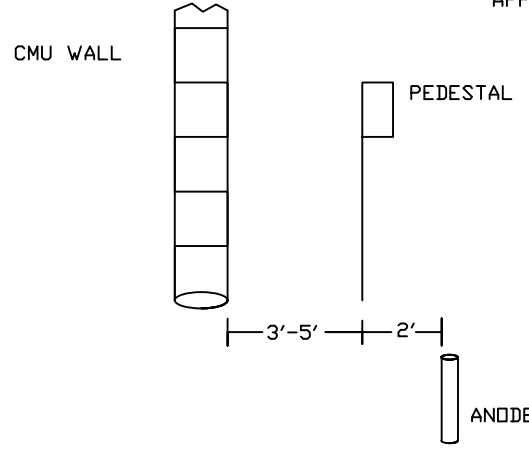
4" DIA. X 6" RIGID SCH. 80 GALVANIZED STEEL POST SET IN 20" DIA. X 24" DEEP CONCRETE. FILL POST WITH CONCRETE

2" DIA. RIGID GALVANIZED STEEL CONDUIT

- PLACE WIRES FROM WATER MAIN AND ANODE BAGS IN CONDUIT
- NUMBER WIRES (LABEL THEM)

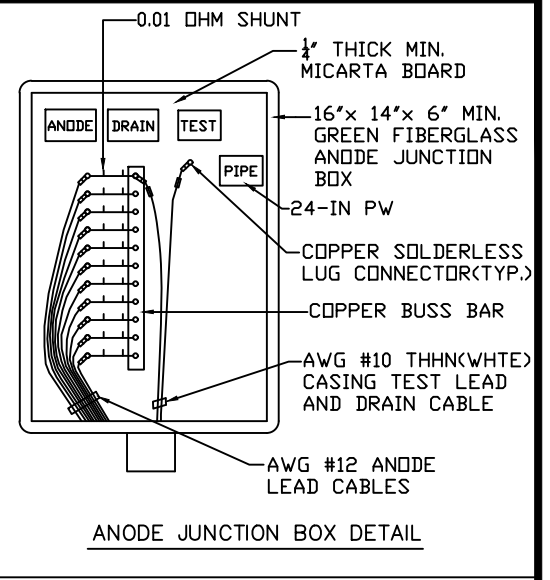
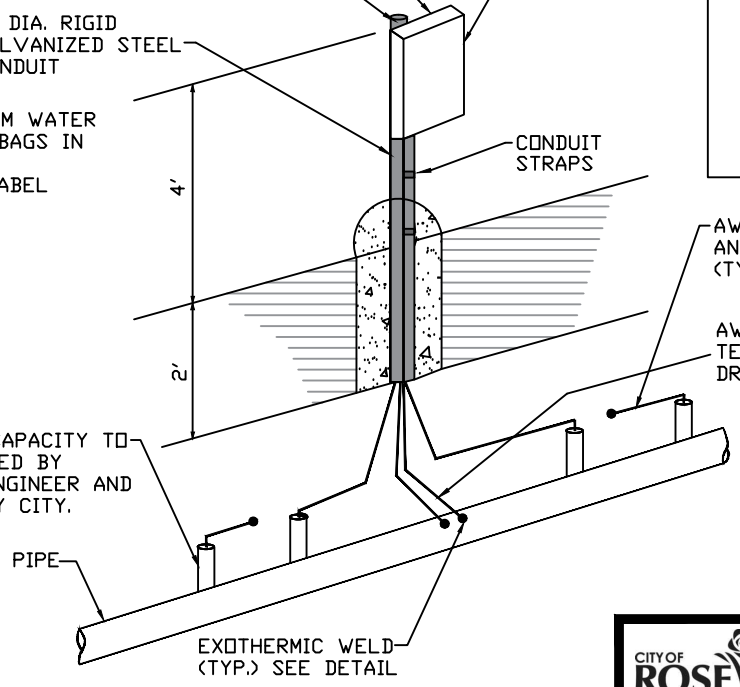


ANODE BAG CAPACITY TO BE DETERMINED BY DESIGNING ENGINEER AND APPROVED BY CITY.



JUNCTION BOX SHALL BE LOCATED 3'-5' FROM SOUNDWALL

GALVANIC ANODE JUNCTION BOX SEE DETAILS



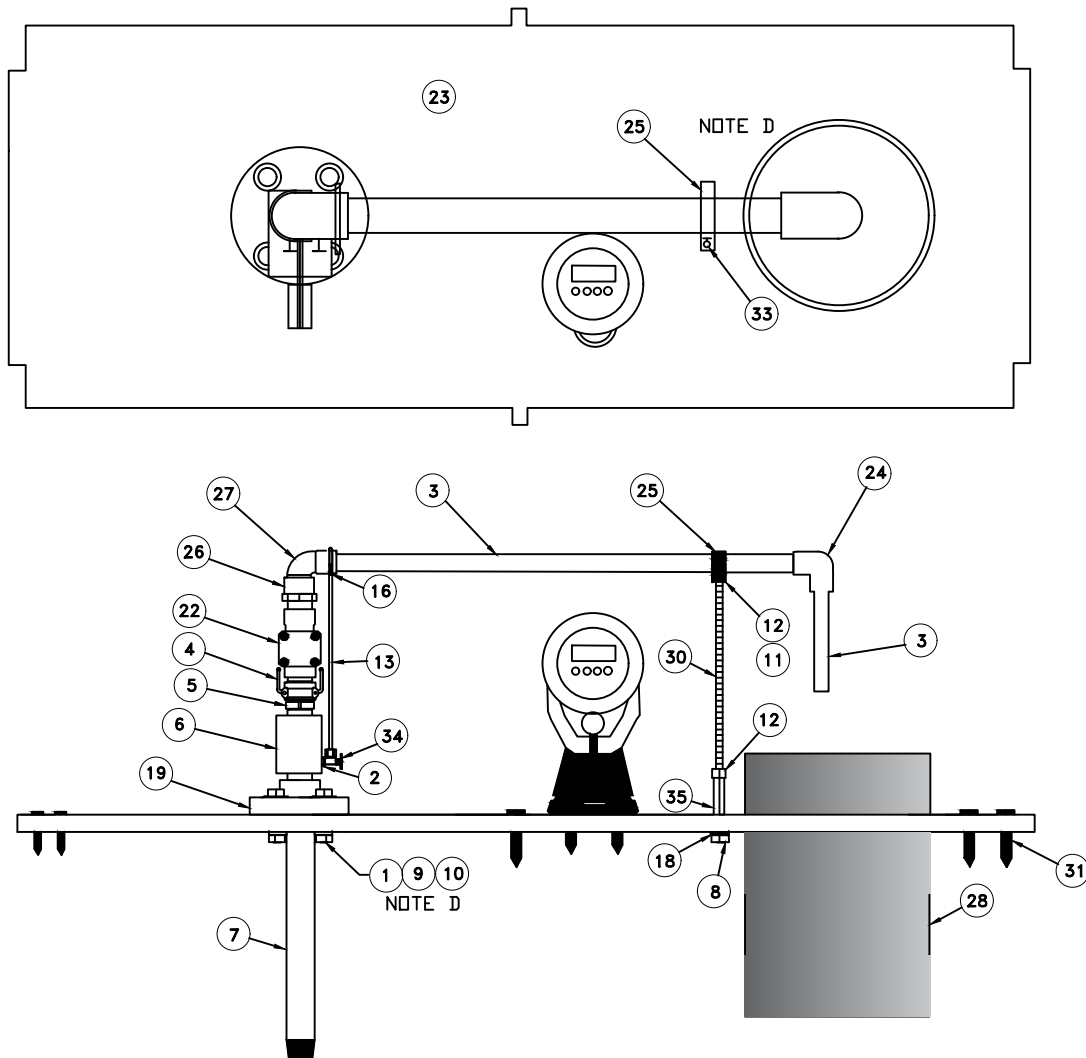
Richard D. Plecker

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ENVIRONMENTAL UTILITIES DIRECTOR

CITY OF ROSEVILLE CALIFORNIA ENVIRONMENTAL UTILITIES DEPARTMENT

GALVANIC ANODE INSTALLATION

SCALE: NONE
REVISED: FEBRUARY 2022
DRAWN BY: J. THOMPSON
APPROVED BY:



ITEM	DESCRIPTION	NOTES
1	S.S. WASHER FOR THREADED FLANGE	
2	1/4" X 1/8" S.S. HEX BUSHING	
3	1" SCH. 80 PVC PIPE	
4	1" S.S. "B" QUICK DISCONNECT	
5	1" S.S. "F" QUICK DISCONNECT	C
6	1" S.S. COUPLING	
7	1" S.S. PIPE	
8	COUPLING NUT BOLT	
9	S.S. BOLT FOR THREADED FLANGE	
10	S.S. NUT FOR THREADED FLANGE	
11	S.S. LOCK WASHER FOR THREADED FLANGE	
12	3/8"-16 S.S. HEX NUT	
13	1/4" COPPER TUBING	
14	SOLENOID COVER	A,C
15	CONTROLLER COVER	A,C
16	SAMPLING POINT COVER	
18	3/8" S.S. LOCK WASHER	
19	1" SCH. 80 PVC THREADED FLANGE	
20	VALVE CONTROLLER	A
21	9 VOLT BATTERY	A
22	1" PGV VALVE	C
23	9800 WCA FLOOR	
24	1" SCH. 80 PVC ELBOW (GLUE x GLUE)	
25	1" PIPE CLAMP	C
26	1" SCH. 80 PVC ADAPTER (MIP x GLUE)	
27	1" SCH. 80 STREET ELBOW (GLUE x GLUE)	
28	4" SCH. 40 PVC COUPLING	
29	4" SCH. 35 PVC SEWER PIPE	A
30	S.S. THREADED ROD	
31	FLOOR SCREW	
34	90° BRASS NEEDLE VALVE	
35	S.S. COUPLING NUT	

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

CITY OF **ROSEVILLE** ENVIRONMENTAL UTILITIES DEPARTMENT
CALIFORNIA

CHLORINE FLUSHING/ MONITORING STATION

SCALE: NONE
REVISED: JANUARY 2022
DRAWN BY: J. THOMPSON
APPROVED BY:

W-42

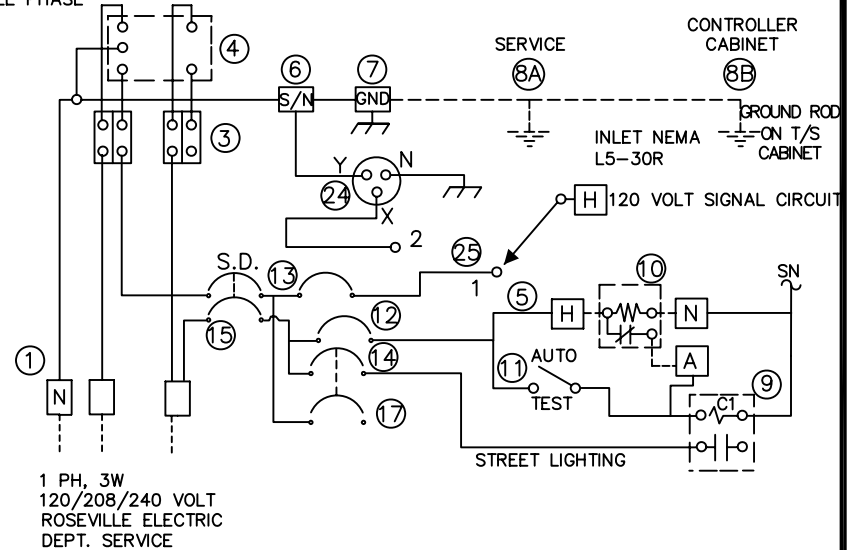
NOTE	DESCRIPTION
A	NOT SHOWN
C	SOLD AS REPLACEMENT PART
D	BOLT ASSEMBLY USED ON ALL SIMILAR HOLES/BRACKETS.

SERVICE ENCLOSURE WIRING DIAGRAM

METERED PER UTILITY REQUIREMENTS

TYPE III-AF SERVICE EQUIPMENT SCHEDULE		
	COMPONENT	NAME PLATE DESCRIPTION
①	NEUTRAL LUG	
②	LANDING LUG	
③	TEST BYPASS FACILITIES	
④	METER SOCKET AND SUPPORT	
⑤	TERMINAL BLOCKS	
⑥	SOLID NEUTRAL BUS	
⑦	GROUND BUS	
⑧	GROUND ROD	
⑨	35A MERCURY CONTACTOR	
⑩	PHOTO ELECTRIC UNIT	
⑪	15 AMP SWITCH SPST	LIGHTING TEST SWITCH
⑫	15A,120V,1P,CKT.BKR.	LIGHTING CONTROL
⑬	50A,120V,1P,CKT.BKR.	SIGNALS
⑭	20A,240V,1P,CKT.BKR.	STREET LIGHTS (TRAF.SIG.)
⑮	100A,240V,2P,CKT.BKR.	SERVICE DISCONNECT
⑰	20A,120V,1P,CKT.BKR.	SPARE
⑳	50A,120V,FLANGED RECEPTACLE	
㉑	55A,120V,1P	TRANSFER SWITCH

METER SOCKET
WIRED FOR
120/240 OR
208/240V
SINGLE PHASE



1 PH, 3W
120/208/240 VOLT
ROSEVILLE ELECTRIC
DEPT. SERVICE

RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

TYPICAL SERVICE AND WIRING SCHEDULE

SCALE: NONE
REVISED: JANUARY 1, 2013
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

TS-1


EQUIPMENT SCHEDULE

STANDARD		SIG. MA (FEET)	LUM. MA (FEET)	VEHICLE SIGNAL MOUNTING		PEDESTRIAN SIGNAL MOUNTING	PPB Ø	ARROW	HPS LUMINAIRE WATTAGE	REMARKS
LOC	TYPE			MAST ARM	POLE					
(A)	61-5-129 *	65'	15'	MAT MAS MAS	SV-1-T	SP-1-CS	-	-	400W	INSTALL EVD AND R73-5 ON SMA. INSTALL IISNS MAST ARM AND CITY SUPPLIED IISNS (Fiddymnt Rd) ON POLE AT 25'.
(B)	PPB POST	-	-	-	-	-	Ø6 Ø8	LEFT RIGHT	-	
(C)	1-B	-	-	-	TV-2-T	SP-1-CS	-	-	-	
(D)	61-5-129 *	65'	15'	MAT MAS	SV-1-T	SP-1-CS	-	-	400W	INSTALL EVA AND R73-5 ON SMA. INSTALL IISNS MAST ARM AND CITY SUPPLIED IISNS (Blue Oaks Blvd) ON POLE AT 25'.
(E)	PPB POST	-	-	-	-	-	Ø2 Ø8	RIGHT LEFT	-	
(F)	1-B	-	-	-	TV-2-T	SP-1-CS	-	-	-	
(G)	61-5-129 *	65'	15'	MAT MAS MAS	SV-1-T	SP-1-CS	-	-	400W	INSTALL EVB AND R73-5 ON SMA. INSTALL IISNS MAST ARM AND CITY SUPPLIED IISNS (Fiddymnt Rd) ON POLE AT 25' MIN. INSTALL WIFI CABLE AND PAN, TILT, ZOOM (PTZ) CAMERA CABLES TO TOP OF POLE WITH 10' SLACK. CITY WILL INSTALL PTZ CAMERA. PEU ATOP THIS POLE.
(H)	PPB POST	-	-	-	-	-	Ø2 Ø4	LEFT RIGHT	-	
(I)	1-B	-	-	-	TV-2-T	SP-1-CS	-	-	-	
(J)	61-5-129 *	65'	15'	MAT MAS	SV-1-T	SP-1-CS	-	-	400W	INSTALL EVC AND R73-5 ON SMA. INSTALL IISNS MAST ARM AND CITY SUPPLIED IISNS (Blue Oaks Blvd) ON POLE AT 25'.
(K)	PPB POST	-	-	-	-	-	Ø4 Ø6	LEFT RIGHT	-	
(L)	1-B	-	-	-	TV-2-T	SP-1-CS	-	-	-	

* CONTRACTOR SHALL PROVIDE TO THE CITY, ENGINEERING CALCULATIONS FROM THE POLE MANUFACTURER FOR LOADING CONDITIONS IF NOT ALREADY ON FILE WITH THE CITY.



RHON HERNDON
PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
TYPICAL POLE AND EQUIPMENT SCHEDULE	
SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	
TS-2	

CONDUCTOR SCHEDULE																								
CONDUCTOR DESIGNATION			NUMBER OF CONDUCTORS																					
CABLE TYPE	STD	PHASE	RUN NUMBER																					
			1	2	3	4	5	6	7	8	9	10	11											
VEH-PED 12CSC	(A)	1,6,4,4P,6P / 4P,6P					2	2					2	2										
	(B)	5,4,0LA,4P,6P / 4P,6P			2	2	2	2				2	2											
	(C)	1,4,2P,4P / 2P		2	1					2	1		2	1										
	(D)	/ 4P		1																				
	(E)	2,5,2P /		2									2	2										
	(F)	/ 2P,4P				2						2												
	PPB 3CSC	(G)	4,0LA,4P /		2		2			2	2				2									
		(H)	2,5,2P / 2P		2	1			2	1			2	1	2									
TOTAL CABLES 12/3 CONDUCTORS			2	1	6	2	4	2	2	6	8	2	2	2	1	4	4	4	4	2	4	1	6	5
#14	PEU							3	3	3	3													
#12	IISNS		2	2	2	2	2	2	2	2	2			2										
#8	LUMINAIRES		2	2	2	2	2	2	4	4	4			2										
	GROUND +		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	TRACER TAPE ++		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	MAXCELL INNERDUCT +++		1	1		1			1	1	1			1	1					1	1			
DLC	ø1			4	4	4	4	4	4	4	4	4	4											
	ø2												4	5										
	ø3					4	4	4	4	4	4	4	4											
	ø4									7	7	7	7	7	7	7								
	ø5										4	4	4	4										
	ø6			5	5	5	5	5	5	5	5	5	5	5										
	ø7									4	4	4	4	4	4	4								
	ø8					7	7	7	7	7	7	7	7	7										
	TOTAL		-	9	9	20	20	31	35	39	40	11	11											
EVP			1	1	2	2	3	4	4	4	4	4	1											
PTZ CCTV CABLE ⊙							2	2	2	2	2	2												
PTZ CCTV POWER CABLE *							1	1	1	1	1	1												
	CONDUIT SIZE		2"	3"	2-3"	2-3"	2-3"	3-3"	3-3"	3-3"	3-3"	3-3"	3"	3"										
	PERCENT FILL		25	22	15	21	26	25	27	28	26	24	15											

+ = PROVIDE 1 #8 AWG STRANDED COPPER WIRE WITH GREEN THW INSULATION IN EACH CONDUIT.

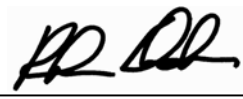
++ = ~~PROVIDE ORANGE NEPTCO TRACE SAFE TRACE WIRE IN EACH CONDUIT.~~
 PROVIDE A DLC TAPED WITH A 5" GREEN BAND AND LABELED WITH "LOCATE" IN EACH CONDUIT.

+++ = FURNISH AND INSTALL MAXCELL FABRIC INNER-DUCT (3 CELL) IN CONDUITS THAT CROSS THE ROADWAY.


⊙ = FURNISH AND INSTALL MOHAWK LAN-TRAK OSP CAT5E CABLES (PART NUMBER M58790 OR CITY APPROVED EQUIVALENT). COIL 10 FEET OF SLACK AT TOP OF POLE.

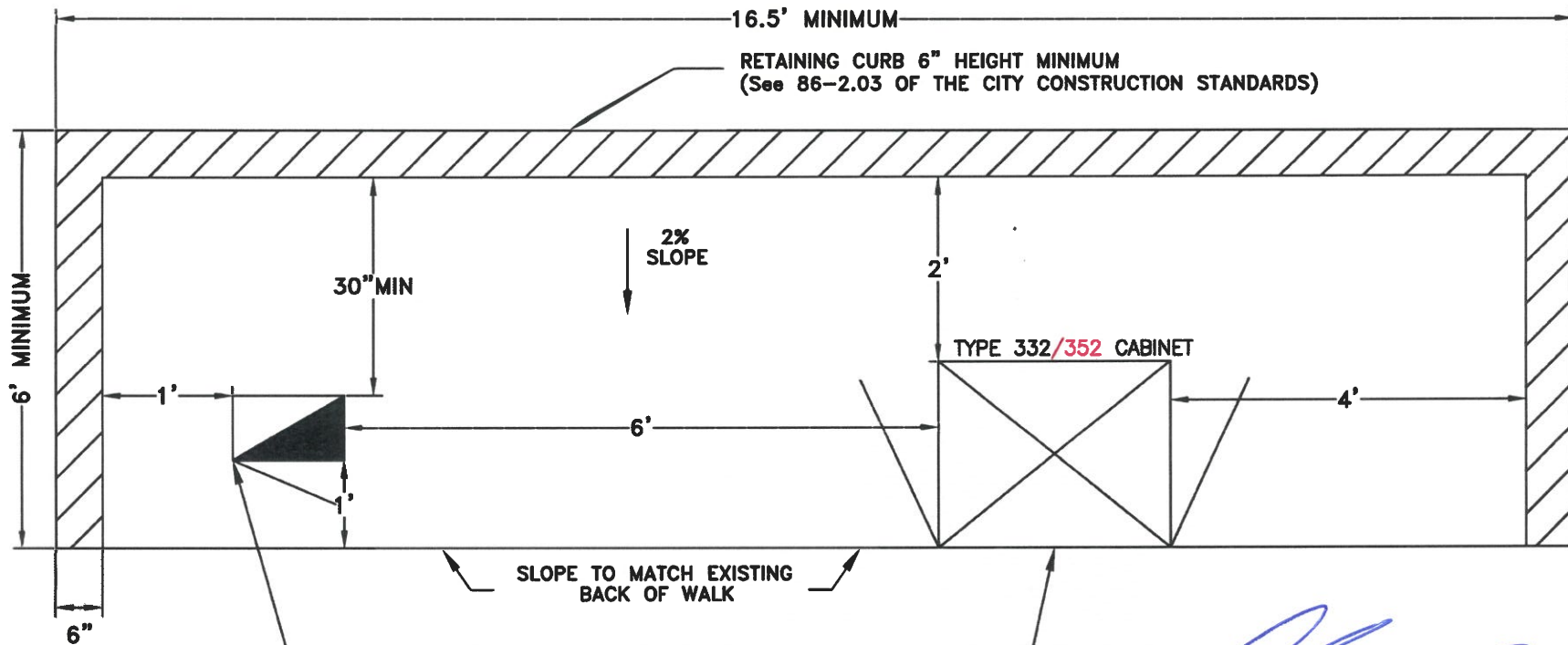
* = FURNISH AND INSTALL IMSA 14-3/20-1-STR 600V POWER CABLE, COLOR CODE 3/C (BELDEN PART NUMBER 601195 OR CITY APPROVED EQUIVALENT). COIL 10 FEET OF SLACK AT TOP OF POLE.

ALL FIELD WIRING SHALL BE COMPRISED OF MULTIPLE CIRCUIT CONDUCTORS PER THE "CONDUCTOR SIGNAL CABLE REQUIREMENTS" TABLE IN SECTION 86-2.08D OF THE CALTRANS STANDARD SPECIFICATIONS. **THERE SHALL BE 3 SPARE CONDUCTORS AT EACH POLE.**



RHON HERNDON
PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
<h3>TYPICAL CONDUCTOR SCHEDULE</h3>	
SCALE: NONE REVISED: NOVEMBER 20, 2016 DRAWN BY: J PASTOR APPROVED BY: J CERVANTES	
TS-3	



16.5' MINIMUM
 RETAINING CURB 6" HEIGHT MINIMUM
 (See 86-2.03 OF THE CITY CONSTRUCTION STANDARDS)

6' MINIMUM

30" MIN

2% SLOPE

TYPE 332/352 CABINET

1'

6'

4'

6"

SLOPE TO MATCH EXISTING
 BACK OF WALK

CONTROLLER FOUNDATION
 SHALL BE PER CALTRANS
 STANDARD PLANS ES-3C

Jason Shykowski
JASON SHYKOWSKI
 PUBLIC WORKS DIRECTOR

**TESCO TYPE 27-22
 SERVICE WITH BATTERY
 BACK-UP SYSTEM
 EQUIVALENT) (OR
 APPROVED SERVICE
 FOUNDATION SHALL BE
 21"(W)X21"(D)X24*(H)
 AND LEVEL. REFER TO
 MANUFACTURES SPECS
 FOR ADDITIONAL
 INFORMATION**

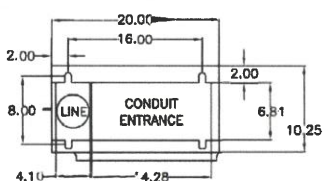


DEPARTMENT OF
 PUBLIC WORKS

**332/352 CONTROLLER/SERVICE
 CABINET PAD DETAIL**

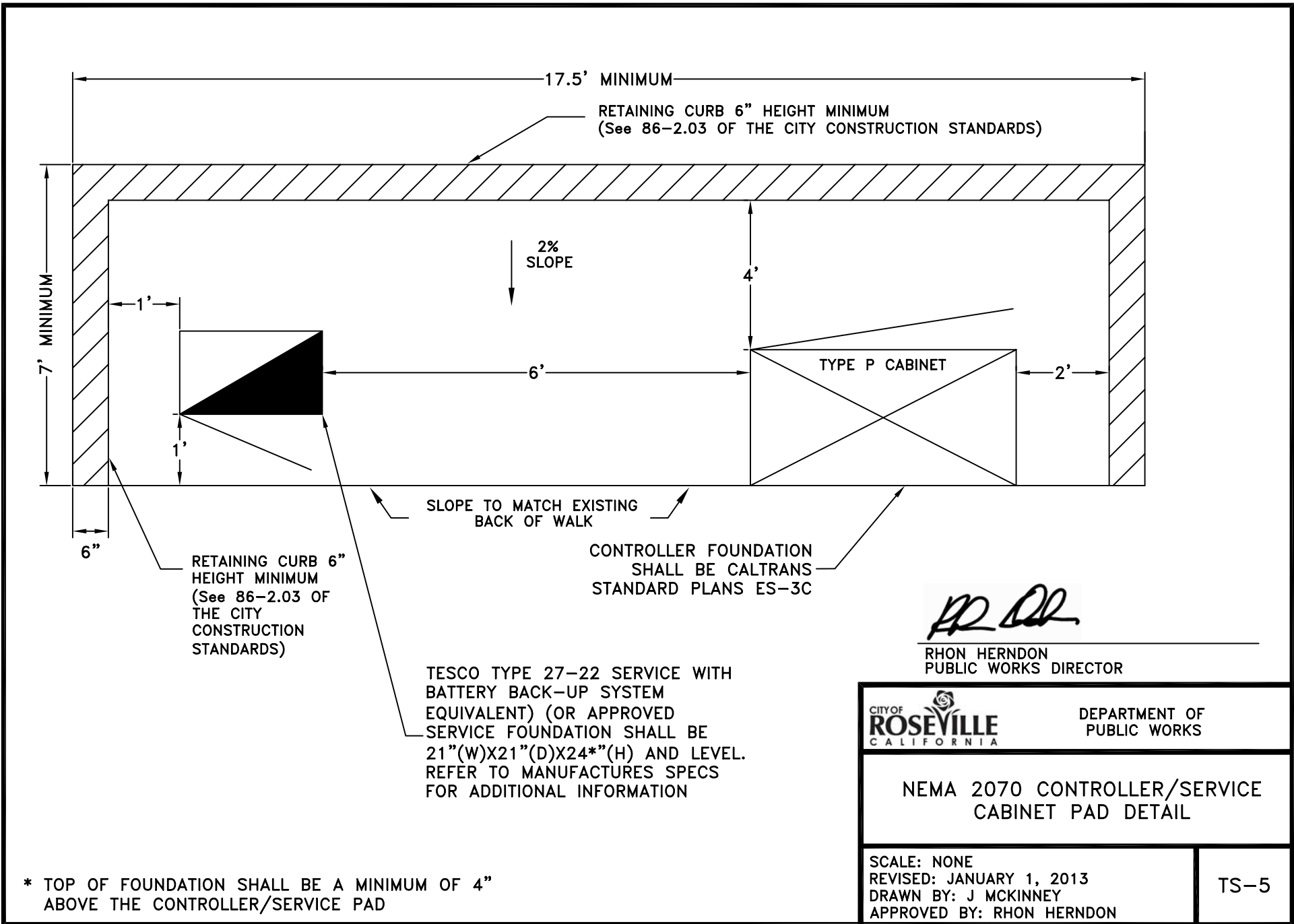
SCALE: NONE
 REVISED: NOVEMBER 19, 2020
 DRAWN BY: J PASTOR
 APPROVED BY: J CERVANTES

TS-4




**BASE PLATE LAYOUT
 FOR COMBO SERVICE**

***THE TOP OF FOUNDATION SHALL BE A MINIMUM OF 4"
 ABOVE THE CONTROLLER/SERVICE PAD**

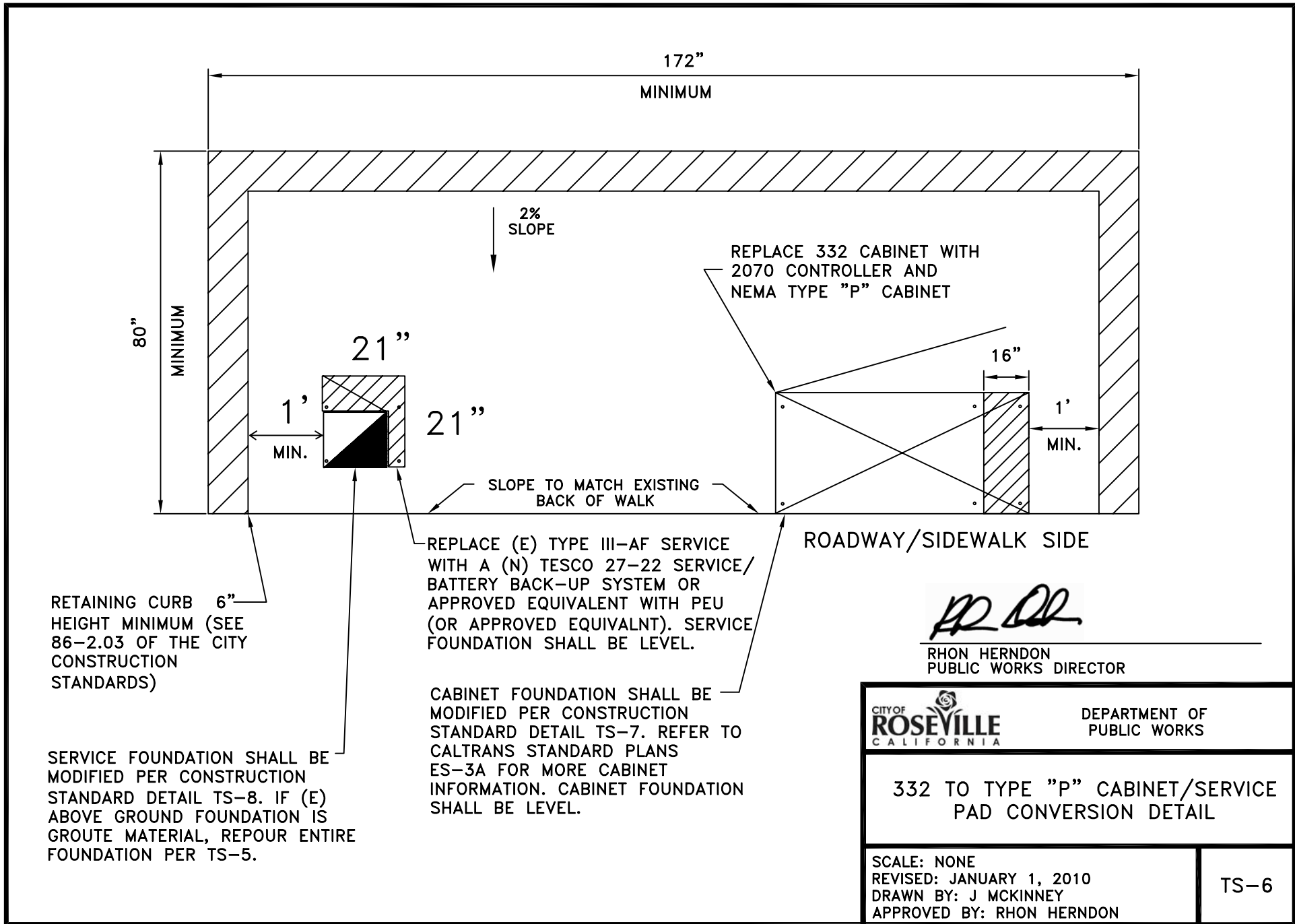


RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

		DEPARTMENT OF PUBLIC WORKS
NEMA 2070 CONTROLLER/SERVICE CABINET PAD DETAIL		
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON		TS-5

* TOP OF FOUNDATION SHALL BE A MINIMUM OF 4"
ABOVE THE CONTROLLER/SERVICE PAD



172"

MINIMUM

80"

MINIMUM

2%
SLOPE

REPLACE 332 CABINET WITH
2070 CONTROLLER AND
NEMA TYPE "P" CABINET

21"

1'
MIN.

21"

16"

1'
MIN.

SLOPE TO MATCH EXISTING
BACK OF WALK

ROADWAY/SIDEWALK SIDE

RETAINING CURB 6"
HEIGHT MINIMUM (SEE
86-2.03 OF THE CITY
CONSTRUCTION
STANDARDS)

REPLACE (E) TYPE III-AF SERVICE
WITH A (N) TESCO 27-22 SERVICE/
BATTERY BACK-UP SYSTEM OR
APPROVED EQUIVALENT WITH PEU
(OR APPROVED EQUIVALENT). SERVICE
FOUNDATION SHALL BE LEVEL.

CABINET FOUNDATION SHALL BE
MODIFIED PER CONSTRUCTION
STANDARD DETAIL TS-7. REFER TO
CALTRANS STANDARD PLANS
ES-3A FOR MORE CABINET
INFORMATION. CABINET FOUNDATION
SHALL BE LEVEL.

SERVICE FOUNDATION SHALL BE
MODIFIED PER CONSTRUCTION
STANDARD DETAIL TS-8. IF (E)
ABOVE GROUND FOUNDATION IS
GROUT MATERIAL, REPOUR ENTIRE
FOUNDATION PER TS-5.

RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

332 TO TYPE "P" CABINET/SERVICE
PAD CONVERSION DETAIL

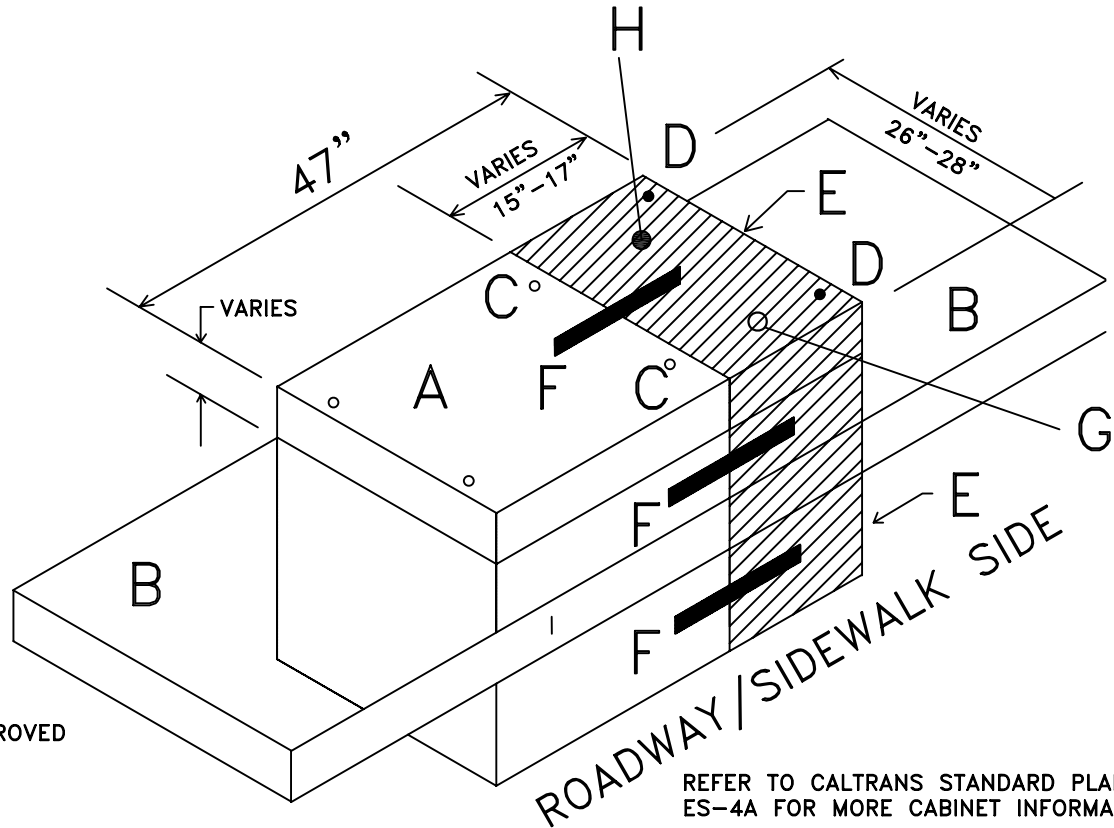
SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

TS-6

- A= EXISTING 332 CABINET FOUNDATION PER STANDARD PLANS DRAWING ES-3B.
- B= EXISTING PAD AROUND THE 332 CABINET IS TO BE REMOVED AND REPLACED PER CONSTRUCTION STD. DRAWING TS-6 WHEN POSSIBLE.
- C= EXISTING 332 CABINET MOUNTING BOLTS TO BE CUT OFF FLUSH WITH PAD.
- D= INSTALL TWO NEW CABINET BOLTS PER STD. PLANS ES-4A SPACING.
- E= INSTALL NEW FOUNDATION EXTENSION TO ACCOMMODATE TYPE "P" CABINET.
- F= INSTALL A MINIMUM OF (3) 5/8" X 17" METAL DOWELS & TWO PART EPOXY PER SECTION 71, PARAGRAPH 11 OF THE CITY CONSTRUCTION STANDARDS.
- G= SHOULD THE (E) 332 CABINET NOT HAVE A CONDUIT INTO THE SERVICE FOUNDATION, INSTALL ONE 2" C FROM THE NEW 'P' CABINET FOUNDATION TO THE NEW COMBO/SERVICE FOUNDATION.
- H= SHOULD THE (E) 332 CABINET NOT HAVE AN APPROVED GROUND ROD, INSTALL GROUND ROD IN NEW FOUNDATION AREA.


CAUTION: LOCATE (E) CONDUITS IN (E) FOUNDATION PRIOR TO DRILLING FOR DOWELS TO AVOID ELECTRICAL SHOCK HAZARD.

- NOTE:** 1) (E) 332 CABINET & 170 CONTROLLER ARE TO REMAIN IN OPERATION WHILE NEW FOUNDATION & PAD ARE POURED. CONVERSION TO THE NEW TYPE "P" CABINET & 2070 CONTROLLER ARE TO OCCUR ONLY AFTER COMPLETION OF ALL CONCRETE WORK, WITH MINIMAL TRAFFIC SIGNAL DOWN TIME.
- 2) THE TYPE "P" CABINET MOUNTING HOLES WILL HAVE TO BE RE-DRILLED ON ONE SIDE TO MATCH (E) BOLT PATTERN ON (E) FOUNDATION SIDE.
- 3) NEW GROUND ROD AND/OR CONDUITS INSTALLED IN NEW FOUNDATION AREA SHALL BE LOCATED AT LEAST 3" INSIDE THE NEW CABINET BOLTS TO AVOID HITTING THE NEW 'P' CABINET WHEN INSTALLED.



RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

 CITY OF ROSEVILLE CALIFORNIA	DEPARTMENT OF PUBLIC WORKS
EXISTING 332 TO TYPE "P" CABINET PAD CONVERSION DETAIL	
SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	
TS-7	

A= EXISTING TYPE III-AF CABINET FOUNDATION PER STANDARD PLANS DRAWING ES-2D.

B= EXISTING PAD AROUND THE TYPE III-AF SERVICE TO BE REMOVED AND REPLACED PER CONSTRUCTION STANDARD TS-6.

C= EXISTING TYPE III-AF CABINET MOUNTING BOLTS TO BE CUT OFF FLUSH WITH PAD.

D= INSTALL THREE (3) NEW CABINET BOLTS PER TESCO 27/22 PLAN SPACING.

E= INSTALL NEW FOUNDATION EXTENSION TO ACCOMMODATE TESCO 27-22 OR APPROVED EQUIVALENT CABINET.

F= INSTALL A MINIMUM OF (4) 5/8" X 12" METAL DOWELS & TWO PART EPOXY PER SECTION 71, PARAGRAPH 11 OF THE CITY CONSTRUCTION STANDARDS.

G= SHOULD THE (E) SERVICE NOT HAVE A CONDUIT DIRECTLY INTO THE CONTROLLER CABINET, INSTALL ONE 2" C FROM THE NEW SERVICE FOUNDATION TO THE NEW 'P' CABINET FOUNDATION.

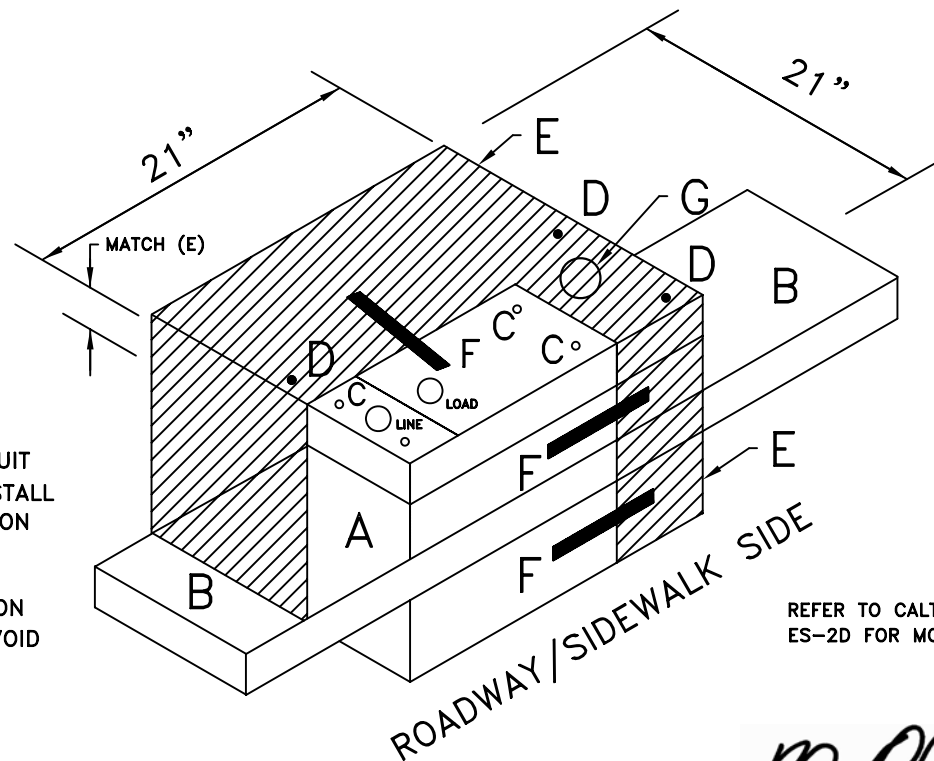
CAUTION: LOCATE (E) CONDUITS IN (E) FOUNDATION PRIOR TO DRILLING FOR DOWELS TO AVOID ELECTRICAL SHOCK HAZARD.

NOTE: 1) (E) TYPE III-AF CABINET & SERVICE ARE TO REMAIN IN OPERATION WHILE NEW FOUNDATION & PAD ARE POURED. CONVERSION TO THE NEW COMBO SERVICE/BATTERY BACK-UP ARE TO OCCUR ONLY AFTER COMPLETION OF ALL CONCRETE WORK, WITH MINIMAL TRAFFIC SIGNAL DOWN TIME.

2) THE COMBO 22-27 CABINET MOUNTING HOLES MAY HAVE TO BE RE-DRILLED ON ONE SIDE OF CABINET TO MATCH (E) BOLT PATTERN ON (E) FOUNDATION SIDE.

3) IF (E) ABOVE GROUND FOUNDATION IS GROUTE MATERIAL, REMOVE GROUT AND REPOUR AREA WITH THE NEW FOUNDATION EXTENSION.

4) ANY CONDUITS INSTALLED IN NEW PAD DETAIL SHALL BE LOCATED AT LEAST 3" INSIDE THE NEW COMBO/SERVICE BOLTS TO AVOID HITTING THE NEW COMBO/SERVICE CABINET WHEN INSTALLED.



REFER TO CALTRANS STANDARD PLANS ES-2D FOR MORE CABINET INFORMATION

RHON HERNDON
PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

EXISTING TYPE III-AF 27-22 COMBO
PAD CONVERSION DETAIL

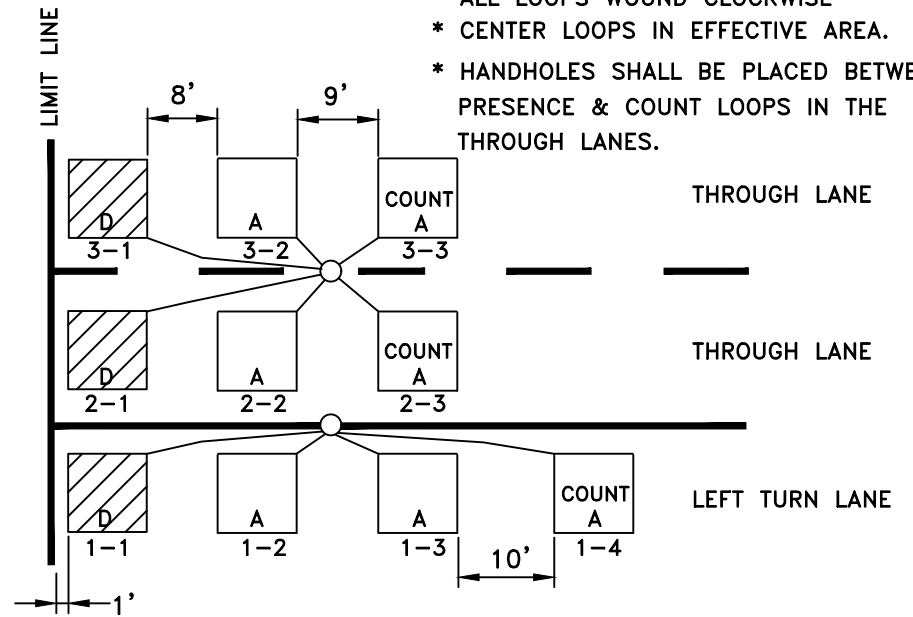
SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

TS-8

LEGEND

A= TYPE "A" OR "E" LOOP
 D= TYPE "D" LOOP OR QUADRACIRCLE
 1-1= LANE # , LOOP#
 COUNT= COUNT LOOP

* ALL LOOPS WOUND CLOCKWISE
 * CENTER LOOPS IN EFFECTIVE AREA.
 * HANDHOLES SHALL BE PLACED BETWEEN PRESENCE & COUNT LOOPS IN THE THROUGH LANES.



332 LOOP DETECTOR ASSIGNMENTS

	(1) LT		(2) LT		(1) THRU		(2) THRU		(3) THRU	
	170	2070	170	2070	170	2070	170	2070	170	2070
CALL TYPE 3/QUEUE ⊙	111U 315U 5J1U 7J5U	1 7 15 21	111L 315L 5J1L 7J5L	1 7 15 21	214U 418U 6J4U 8J8U	6 12 20 26	214L 418L 6J4L 8J8L	6 12 20 26		
COUNT/VOLUME TYPE 3/QUEUE #		119U 319L 5J9U 7J9L	13 14 27 28	213U 417U 6J3U 8J7U	4 10 18 24	212U 416U 6J2U 8J6U	2 8 16 22	212L 416L 6J2L 8J6L	3 9 17 23	
EXTENSION					213L 417L 6J3L 8J7L	5 11 19 25				

⊙ = L/T's are Call/Extension Detectors

= L/T's are Count-Volume/Extension Detectors

* Separate DLC's shall be provided for each loop detector and a permanent label shall be provided to designate their location.

RHON HERNDON
 PUBLIC WORKS DIRECTOR



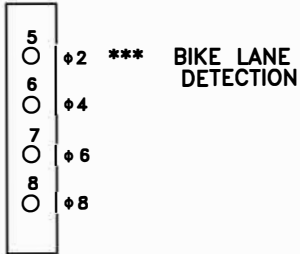
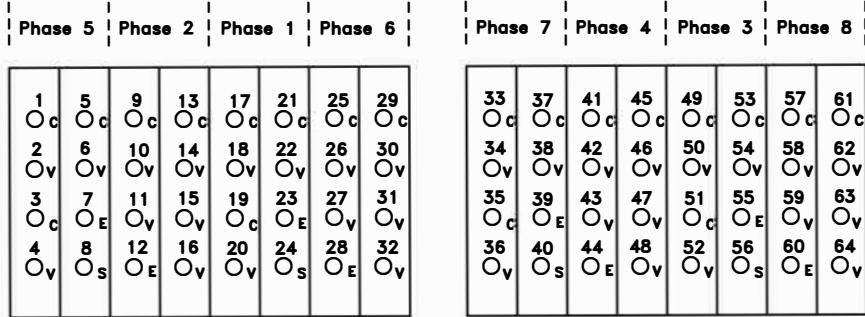
DEPARTMENT OF
 PUBLIC WORKS

332 TYPICAL LOOP DETECTOR LAYOUT

SCALE: NONE
 REVISED: JANUARY 01, 2018
 DRAWN BY: J PASTOR
 APPROVED BY: RHON HERNDON

TS-9

TYPE "P" CABINET DETECTOR LAYOUT



A = TYPE "A" OR "E" LOOP
D = TYPE "D" OR QUADRACIRCLE

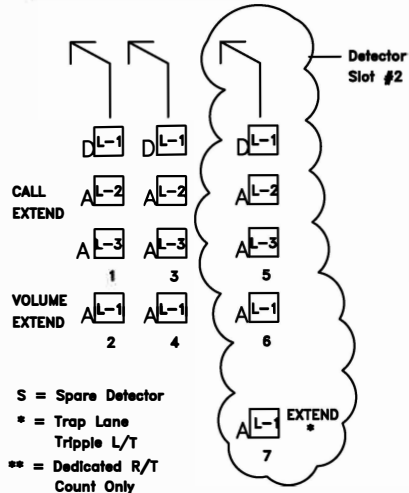
2070 LOOP DETECTOR ASSIGNMENTS

	(1) L	(2) L	(3) L	(1) THRU	(2) THRU	(3) THRU	(4) THRU	(5) R/T
CALL QUEUE C	1/17 3/49 5/1 7/33	1/19 3/51 5/3 7/35	1/21 3/53 5/5 7/37	2/9 4/41 6/25 8/57		2/13 4/45 6/29 8/61		
VOLUME QUEUE V	1/18 3/50 5/2 7/34	1/20 3/52 5/4 7/36	1/22 3/54 5/6 7/38	2/10 4/42 6/26 8/58	2/11 4/43 6/27 8/59	2/14 4/46 6/30 8/62	2/15 4/47 6/31 8/63	2/16 4/48 6/32 8/64
EXTENSION E		1/23 3/55 5/7 7/39			2/12 4/44 6/28 8/60			

⊙ = L/T's are Call/Extension Detectors
= L/T's are Volume/Extension Detectors
*** = If Phase 5 is a Tripple L/T use the Phase 1 Second Slot for Bike Lane Detection

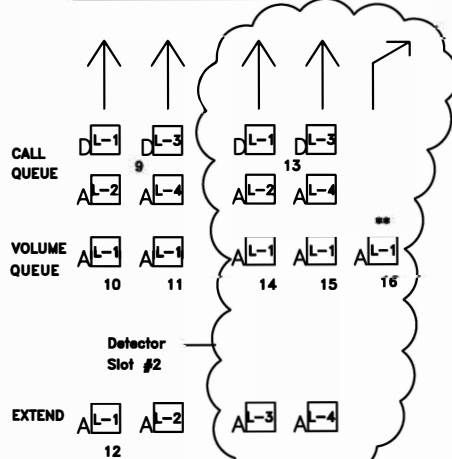
RHON HERNDON
PUBLIC WORKS DIRECTOR

TYPICAL LEFT TURNS



S = Spare Detector
* = Trap Lane Tripple L/T
** = Dedicated R/T Count Only

TYPICAL THRU LANES



NOTE: - Separate DLC's shall be provided for each loop detector and a name label shall be provided to designate their location.

perma - All loops shall be wound clockwise

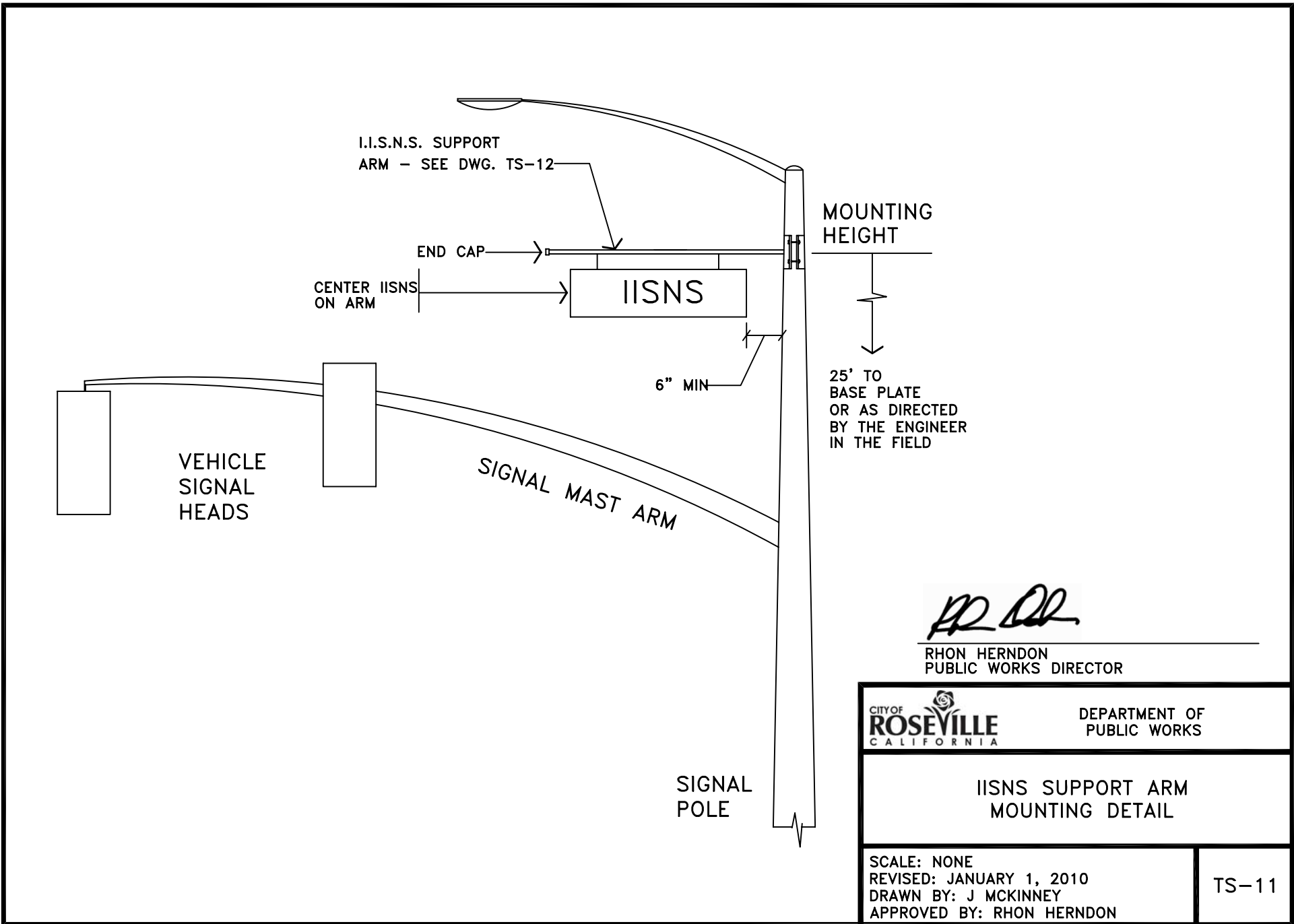


DEPARTMENT OF
PUBLIC WORKS

TYPE P CABINET LOOP DETECTOR LAYOUT


SCALE: NONE
REVISED: OCTOBER 26, 2017
DRAWN BY: J PASTOR
APPROVED BY: RHON HERNDON

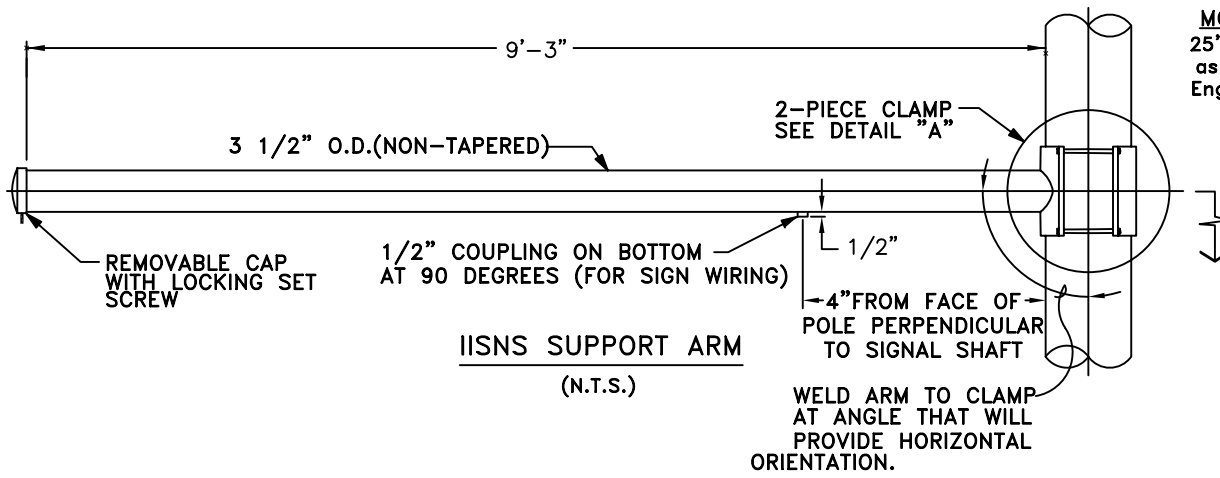
TS-10



RH Herndon

RHON HERNDON
PUBLIC WORKS DIRECTOR

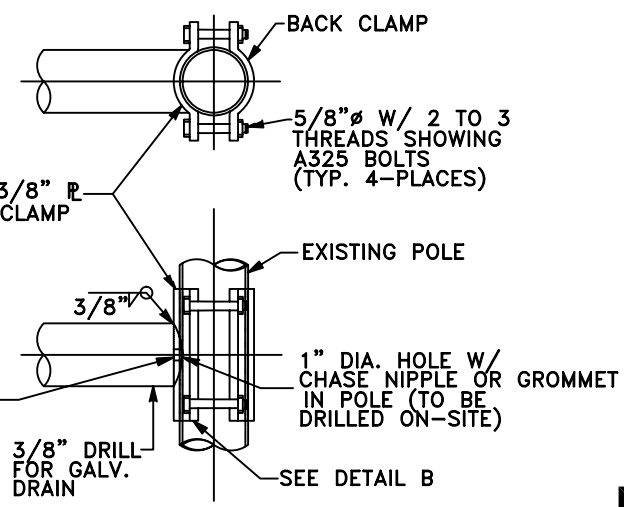
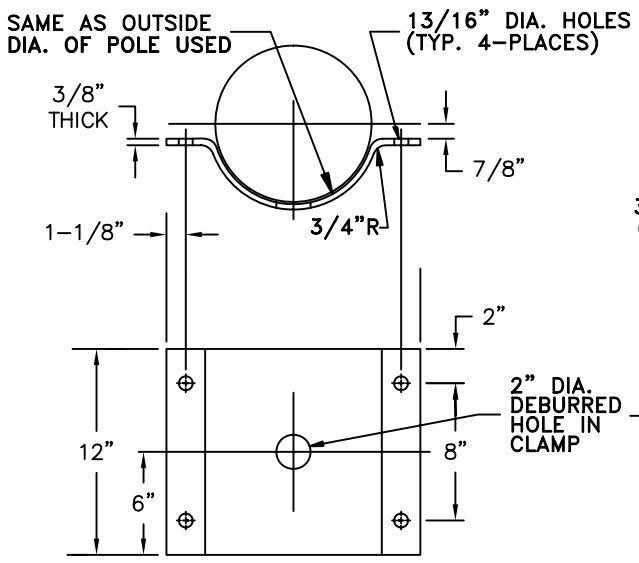
 <p>CITY OF ROSEVILLE CALIFORNIA</p>	<p>DEPARTMENT OF PUBLIC WORKS</p>
<p>IISNS SUPPORT ARM MOUNTING DETAIL</p>	
<p>SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON</p>	<p>TS-11</p>



MOUNTING HEIGHT
25' to base plate or as directed by the Engineer in the field

GENERAL NOTES	
MATERIAL SPECIFICATIONS	
SHAFT	STEEL OF 48,000 PSI MINIMUM YIELD AFTER FABRICATION
CLAMP PLATE	ASTM A-572 GR. 50 STEEL
MANUFACTURING PROCESSES	
LONGITUDINAL WELDS	ALL WELDS SHALL CONFORM TO AWS D1.1 WELD SPECIFICATION
FINISH COATING	
STRUCTURE	HOT DIP GALVANIZED PER ASTM A-123
HARDWARE	HOT DIP GALVANIZED PER ASTM A-153
DESIGN CRITERIA	
STRUCTURE, HARDWARE, AND WELDING	IN ACCORDANCE WITH THE "SPECIFICATIONS FOR STRUCTURAL SUPPORTS OF HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", AASHTO 1994

A SEPARATE LIGHTING CIRCUIT SHALL BE INSTALLED TO POWER THE SIGNS. (120 V./TWO #12 AWG CONDUCTORS). A 3/4" LB CONDULET SHALL BE INSTALLED AS A DISCONNECTING POINT BETWEEN THE SIGN AND THE SYSTEM POWER SOURCE.



CLAMP DETAILS
(N.T.S.)

RHON HERNDON
RHON HERNDON
PUBLIC WORKS DIRECTOR

		DEPARTMENT OF PUBLIC WORKS
IISNS SUPPORT ARM TYPICAL CLAMP DETAIL		
SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON		TS-12

NOTE: FURNISH SEPARATE CIRCUIT FOR IISNS TO BE CONNECTED TO THE BATTERY BACKUP

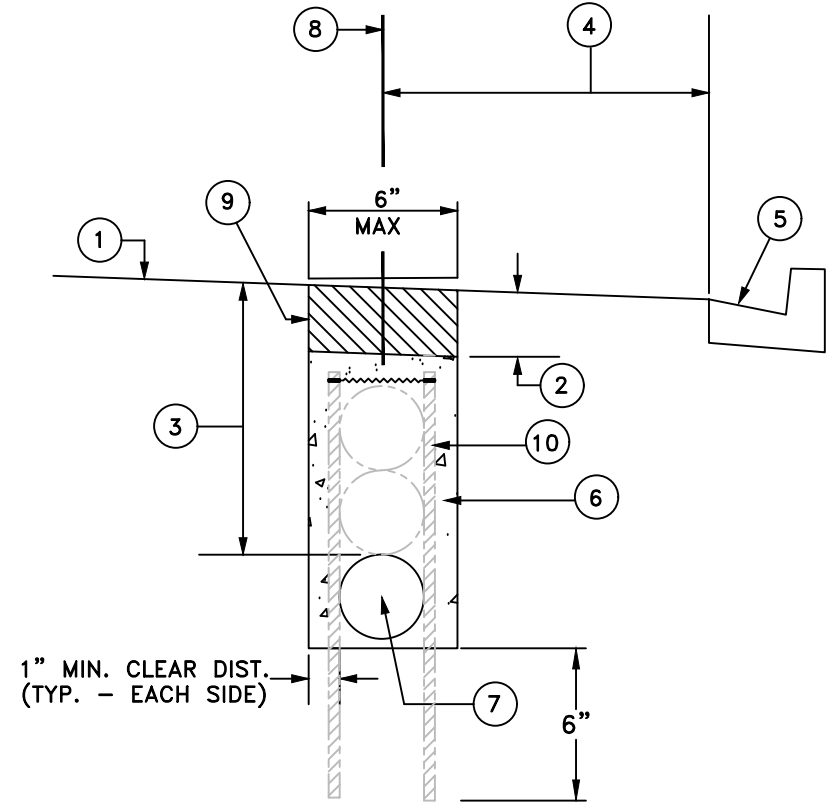
INCLUDE ENGINEERED SUPPORT ARM AND SIGNAL POLE LOAD CALCULATIONS IF NOT ALREADY ON FILE WITH THE CITY.

LEGEND:

1. SURFACE OF EXISTING STREET SECTION.
2. .25' THICK PAVEMENT PER SECTION 71-4.D. (93% RELATIVE COMPACTION).
3. PIPE COVER TO BE A MINIMUM 18" (18" MIN TO 30" MAX).
4. DISTANCE VARIES. IF LESS THAN 3 FEET, THEN CONTRACTOR IS REQUIRED TO EDGE GRIND FROM LIP OF GUTTER (.15' DEEP) TO INSIDE LIMIT LINE OF TRENCH.
5. EXISTING CURB AND GUTTER.
6. "MINOR CONCRETE" CONFORMING TO THE PROVISIONS IN SECTION 71-5B, "CONCRETE", WITH FINE AGGREGATE (PEA GRAVEL MIX). CONCRETE SHALL BE FLOW-ABLE AT DISCRETION OF CITY INSPECTOR.
7. CONDUIT(S) AS SPECIFIED.
8. CENTER LINE OF BIKE LANE STRIPE.
9. PLACE BINDER (TACK COAT) ON ALL SURFACES PRIOR TO PAVING PER SECTION 39 OF STATE STANDARD SPECIFICATIONS, OR SAWCUT CONCRETE PER STREETS DETAIL ST-54
10. REINFORCING BARS 2 - #3 TO SUPPORT MULTIPLE CONDUITS, VERTICAL ALIGNMENT ONLY. REINFORCING BARS SHALL BE DRIVEN 6" INTO BOTTOM OF TRENCH AND WIRED TOGETHER AT THE TOP. REINFORCING BAR SUPPORTS SHALL BE 8'-0" ON CENTER. MAXIMUM 3 - 3" CONDUITS PER ROCKWHEEL TRENCH.

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF BIKE LANE STRIPE AND LEGENDS (AFFECTED BY TRENCHING) WITH THERMOPLASTIC MATERIAL.
2. ALL EXCAVATED AREAS IN THE PAVEMENT SHALL BE BACKFILLED, EXCEPT FOR THE TOP 0.25' BY THE END OF EACH WORK DAY. THE TOP .25' SHALL BE PLACED WITHIN 3 WORKING DAYS AFTER TRENCHING. DELINEATORS SHALL BE PLACED ON TEN FOOT CENTERS, AND WITHIN 1' OF EACH SIDE OF DRIVEWAYS IN THE INTERIM. REFER TO SECTION 6.2.W.5. FOR TRANSITION LOCATIONS.
3. TRENCH CUT FEE SHALL APPLY PER CITY ORDINANCE. NO ALTERNATE TRENCH CONFIGURATION IS ALLOWED.
4. DETECTOR HANDHOLES (DH's) CONDUIT SHALL BE INSTALLED IN A SEPARATE TRENCH.



JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

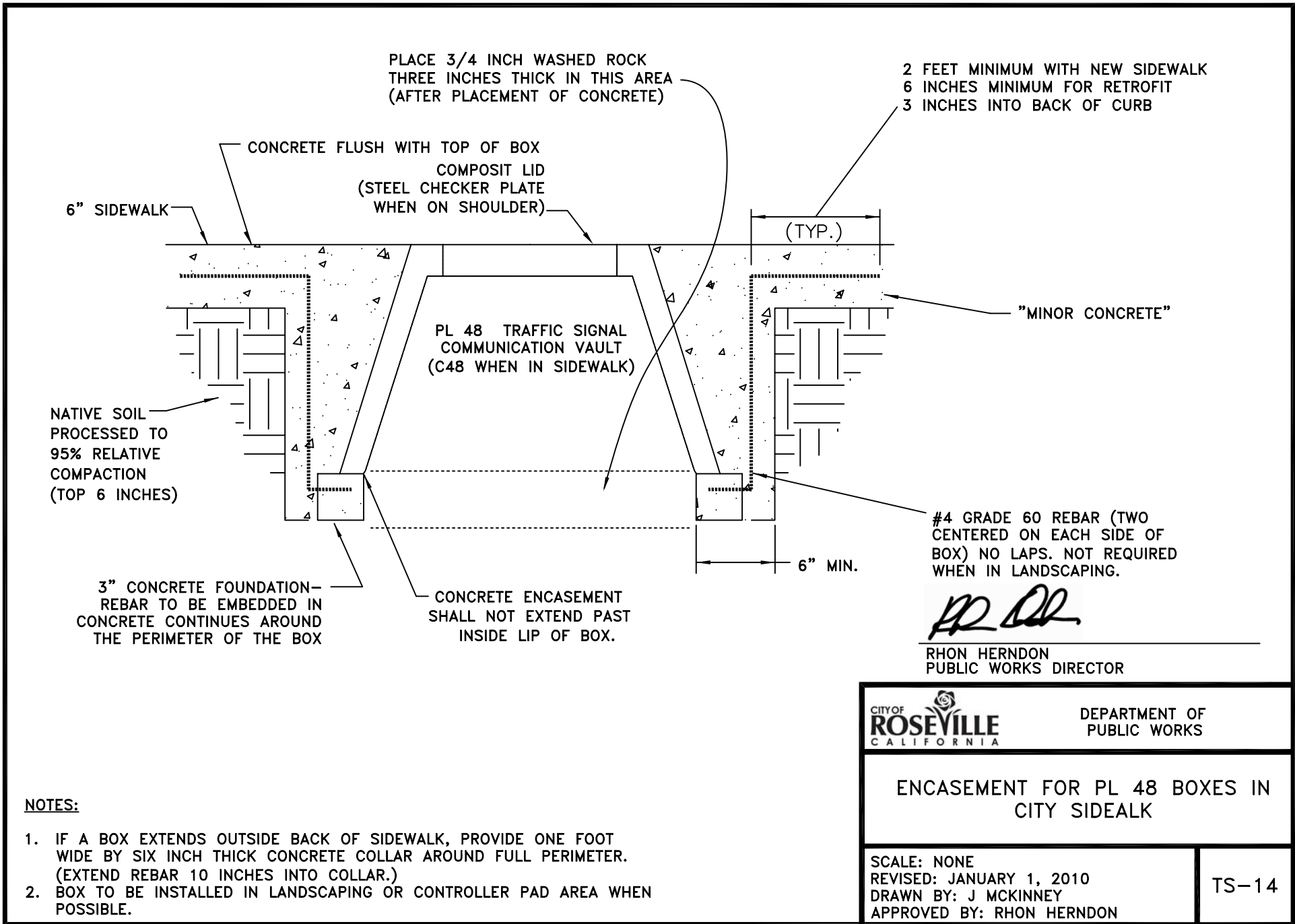


DEPARTMENT OF
PUBLIC WORKS

TRAFFIC SIGNAL ROCK WHEEL TRENCH
(IN EXISTING A.C. STREETS)

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: J PASTOR
APPROVED BY: JASON SHYKOWSKI

TS-13



PLACE 3/4 INCH WASHED ROCK
THREE INCHES THICK IN THIS AREA
(AFTER PLACEMENT OF CONCRETE)

2 FEET MINIMUM WITH NEW SIDEWALK
6 INCHES MINIMUM FOR RETROFIT
3 INCHES INTO BACK OF CURB

CONCRETE FLUSH WITH TOP OF BOX
COMPOSIT LID
(STEEL CHECKER PLATE
WHEN ON SHOULDER)

6" SIDEWALK

(TYP.)

"MINOR CONCRETE"

PL 48 TRAFFIC SIGNAL
COMMUNICATION VAULT
(C48 WHEN IN SIDEWALK)

NATIVE SOIL
PROCESSED TO
95% RELATIVE
COMPACTION
(TOP 6 INCHES)

#4 GRADE 60 REBAR (TWO
CENTERED ON EACH SIDE OF
BOX) NO LAPS. NOT REQUIRED
WHEN IN LANDSCAPING.

3" CONCRETE FOUNDATION—
REBAR TO BE EMBEDDED IN
CONCRETE CONTIGUES AROUND
THE PERIMETER OF THE BOX

CONCRETE ENCASEMENT
SHALL NOT EXTEND PAST
INSIDE LIP OF BOX.

6" MIN.

RH Herndon

RHON HERNDON
PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
---	-------------------------------

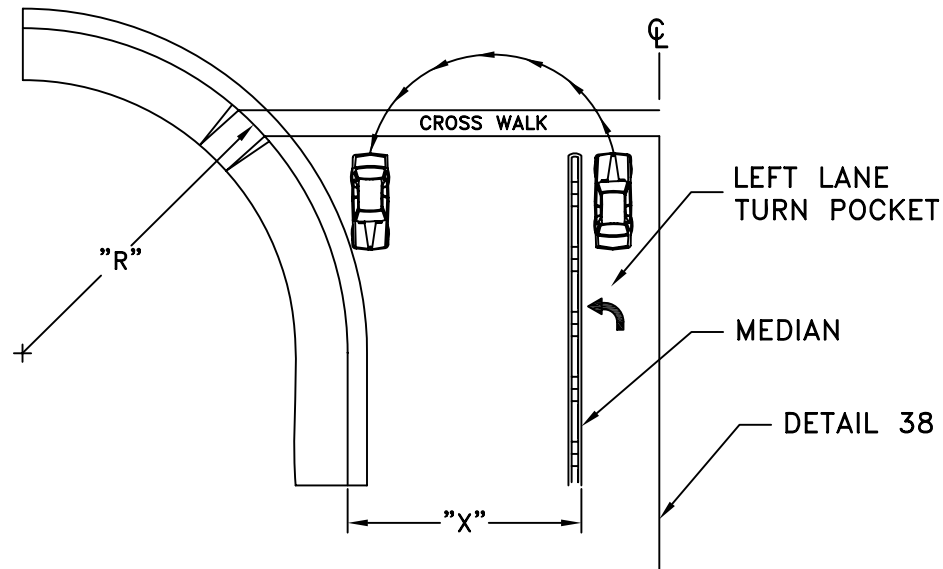
**ENCASEMENT FOR PL 48 BOXES IN
CITY SIDEWALK**

NOTES:

1. IF A BOX EXTENDS OUTSIDE BACK OF SIDEWALK, PROVIDE ONE FOOT WIDE BY SIX INCH THICK CONCRETE COLLAR AROUND FULL PERIMETER. (EXTEND REBAR 10 INCHES INTO COLLAR.)
2. BOX TO BE INSTALLED IN LANDSCAPING OR CONTROLLER PAD AREA WHEN POSSIBLE.

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

TS-14




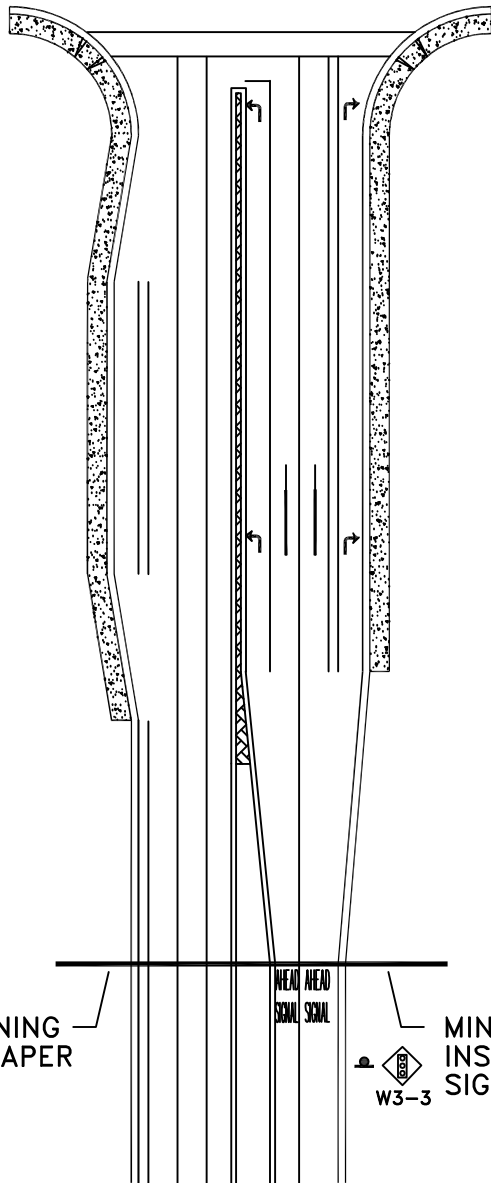
RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

NOTES:

1. U-TURNS ARE PERMISSIBLE UNDER THE FOLLOWING CONDITIONS:
IF "R" < 50', THEN "X" ≥ 35'
IF "R" ≥ 50', THEN "X" ≥ 30'
2. U-TURNS MAY BE RESTRICTED DUE TO RIGHT TURN OVERLAPS OR OTHER CONDITIONS DETERMINED BY THE CITY ENGINEER.
3. SIGN DETAILS NUMBERS REFERENCE THE 2006 CALIFORNIA MUTCD.
4. INSTALL TYPE R73-5 SIGN WHERE DUAL LEFT TURNS AND U-TURNS ARE PERMITTED.
5. WHERE U-TURNS ARE PERMITTED FOR A SINGLE LEFT TURN, NO SIGNS ARE NECESSARY.

	DEPARTMENT OF PUBLIC WORKS
<h2>U-TURNS</h2>	
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	
TS-15	



POSTED OR 85TH PERCENTILE SPEED	ADVANCED STREET G7 SIGNS	ADVANCED W3-1, W3-3, SIGNS	NO PARKING SIGNS
20MPH	175FT	N/A	300FT
25MPH	250FT	N/A	300FT
30MPH	325FT	100FT	300FT
35MPH	400FT	150FT	300FT
40MPH	475FT	225FT	300FT
45MPH	550FT	300FT	300FT
50MPH	625FT	375FT	300FT
55MPH	700FT	450FT	300FT
60MPH	775FT	550FT	300FT
65MPH	850FT	650FT	300FT

* USE EXISTING STREET LIGHT POLES WHERE POSSIBLE

RHON HERNDON
PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

ADVANCED SIGN
SPACING REQUIREMENTS

SCALE: NONE
REVISED: NOVEMBER 22, 2019
DRAWN BY: J PASTOR
APPROVED BY: J CERVANTES

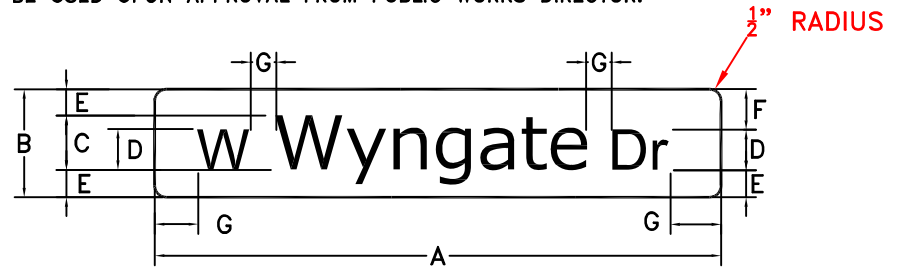
TS-16

LEGEND:

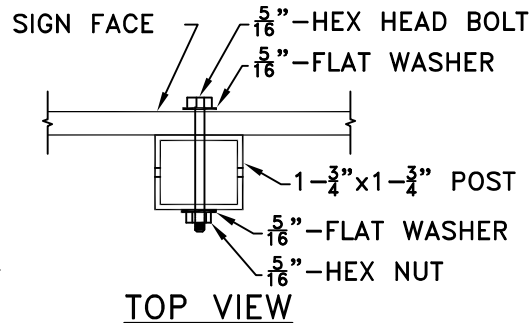
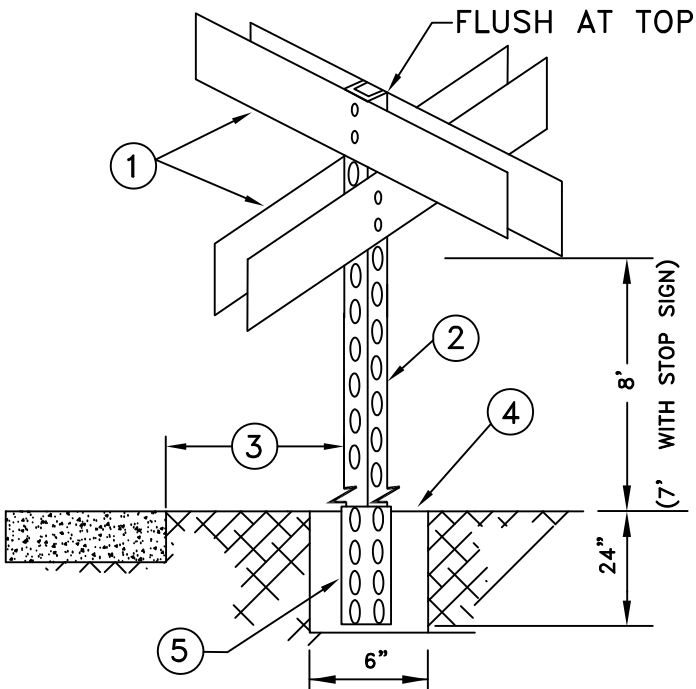
1. STREET NAME SIGNS.
2. SIGN POST SHALL BE SQUARE METAL WHITE POWDER COATED 12 GAUGE POSTS. REFER TO SECTION 56.02A.
3. EDGE OF STREET NAME SIGN SHALL BE A MINIMUM OF 2' FROM FACE OF CURB OR AT BACK OF SIDEWALK.
4. POST HOLE FOOTING SHALL BE 24" DEEP AND $\phi 6"$ IN DIAMETER AND BACKFILLED WITH MINOR CONCRETE.
5. 24" GALVANIZED ANCHOR SLEEVE SHALL BE INSTALLED IN POST FOOTING. TOP TWO HOLES OF ANCHOR SLEEVE SHALL REMAIN ABOVE FINISH GRADE OF CONCRETE, HOLES BELOW FINISH GRADE SHALL BE TAPED CLOSED. NO MATERIAL OTHER THAN SQUARE POST SHALL INTRUDE INTO SLEEVE. THE SQUARE POST SHALL MOVE FREELY IN THE SLEEVE IN A VERTICAL DIRECTION UPON INSTALLATION.
6. SIGN PLATE ATTACHMENT SHALL USE $\frac{5}{16}" \times 2\frac{1}{2}"$ ZINC PLATED HEX HEAD BOLTS AND NUTS. $\frac{5}{16}"$ ZINC PLATED WASHERS SHALL BE USED INSIDE OF BOLT AND NUT PER TOP VIEW DETAIL BELOW.

SIGN PLATE SPECIFICATIONS:

- A. SIGN PLATES SHALL BE 8" OR 12" TALL AND 24" TO 48" LONG IN 6" INCREMENTS.
- B. SIGN PLATES SHALL BE 0.080 GAUGE ALUMINUM.
- C. SIGN PLATE FINISH SHALL BE 3M HIGH INTENSITY PRISMATIC GRADE RETRO REFLECTIVE BACKGROUND WITH 3M ELECTRONIC CUTTABLE GREEN FILM SHEETING OR APPROVED EQUIVALENT.
- D. FONT FOR STREET NAME SIGNS SHALL BE FHWA SERIES "D" 2000EX. IF STREET NAME TEXT IS TOO LONG FOR 48" SIGN PLATE, SERIES "C" FHwy FONT MAY BE USED UPON APPROVAL FROM PUBLIC WORKS DIRECTOR.



SIGN DIMENSIONS							
MPH	A	B	C	D	E	F	G
25	VARIABLE	8"	4"	3"	2"	3"	3"
≥30	VARIABLE	12"	6"	4"	3"	5"	4.5"



MARC STOUT
CITY ENGINEER

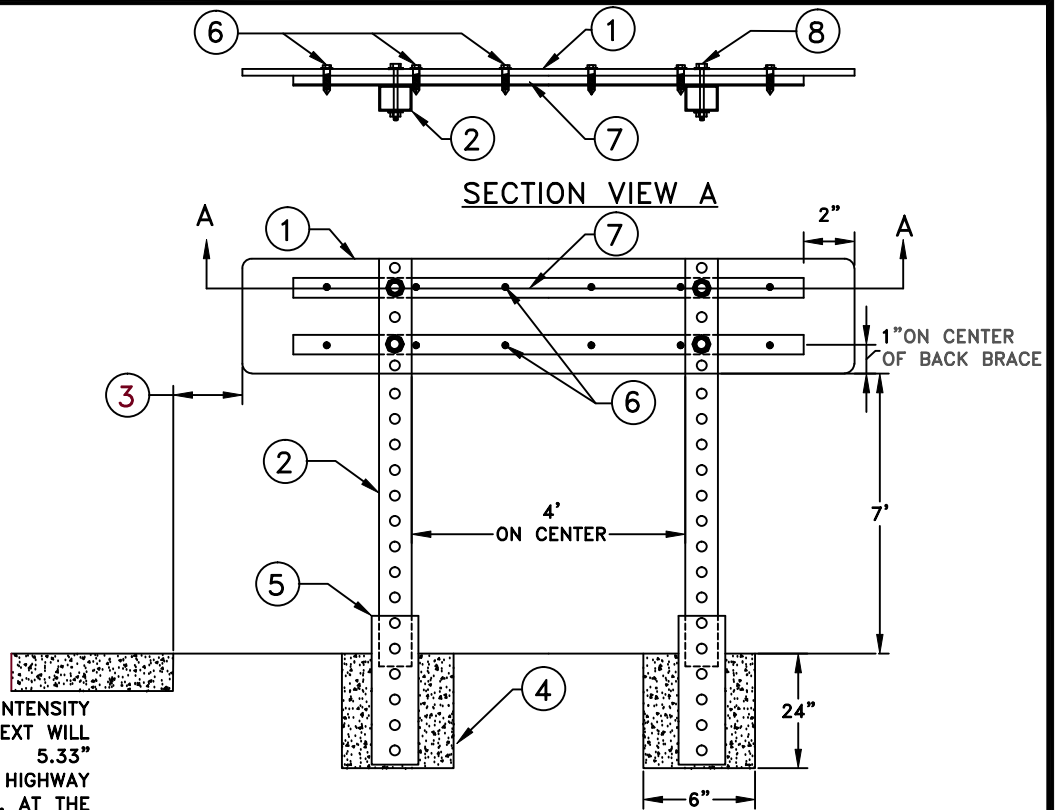
 CITY OF ROSEVILLE CALIFORNIA	DEVELOPMENT SERVICES DEPARTMENT
<h2>ROADWAY SIGNS</h2>	
SCALE: NONE REVISED: NOVEMBER 22, 2019 DRAWN BY: J PASTOR APPROVED BY: J CERVANTES	
TS-17A	

LEGEND:

1. STREET NAME SIGNS, D3 OR G8 GUIDE SIGN.
2. SIGN POST SHALL BE SQUARE METAL WHITE POWDER COATED 12 GAUGE POSTS. REFER TO SECTION 56.02A.
3. EDGE OF STREET NAME SIGN SHALL BE A MINIMUM OF 2' FROM FACE OF CURB OR AT BACK OF SIDEWALK.
4. POST HOLE FOOTING SHALL BE 24" DEEP AND $\phi 6"$ IN DIAMETER AND BACKFILLED WITH MINOR CONCRETE.
5. 24" GALVANIZED ANCHOR SLEEVE SHALL BE INSTALLED IN POST FOOTING. TOP TWO HOLES OF ANCHOR SLEEVE SHALL REMAIN ABOVE FINISH GRADE OF CONCRETE, HOLES BELOW FISH GRADE SHALL BE TAPED CLOSED. NO MATERIAL OTHER THAN SQUARE POST SHALL INTRUDE INTO SLEEVE. THE SQUARE POST SHALL MOVE FREELY IN THE SLEEVE IN A VERTICAL DIRECTION UPON INSTALLATION.
6. THE SIGN MUST BE FASTENED TO THE BACK BRACING USING NO.14 $\times \frac{3}{4}"$ LONG SELF TAPPING SCREWS, RIVETS OR APPROVED EQUAL AND SPACED 10" OFF CENTER.
7. BACK BRACING FOR SIGNS OVER FIVE SQUARE FEET SHALL BE CONNECTED TO THE POST. THE BACK BRACING SHALL BE MINIMUM OF $1-\frac{5}{8}" \times 1\frac{3}{8}" \times L$ (LENGTH VARIES), 14 GAUGE MINIMUM. A USTRUT, U-CHANNEL, SQUARE TUBING, C-CHANNEL OR APPROVED EQUAL CAN BE USED.
8. SIGN PLATE AND BACK BRACING ATTACHMENT SHALL USE $\frac{5}{8}"-18 \times 3-\frac{1}{2}"$ ZINC PLATED HEX HEAD BOLTS WITH $\frac{5}{8}"$ ZINC PLATED HEX NUTS USING $\frac{5}{16}"$ WASHER BETWEEN BOLT/HEAD AND SIGN PLATE. THREADS SHALL NOT PROTRUDE FARTHER THEN $\frac{1}{4}"$ PAST THE HEX NUT.

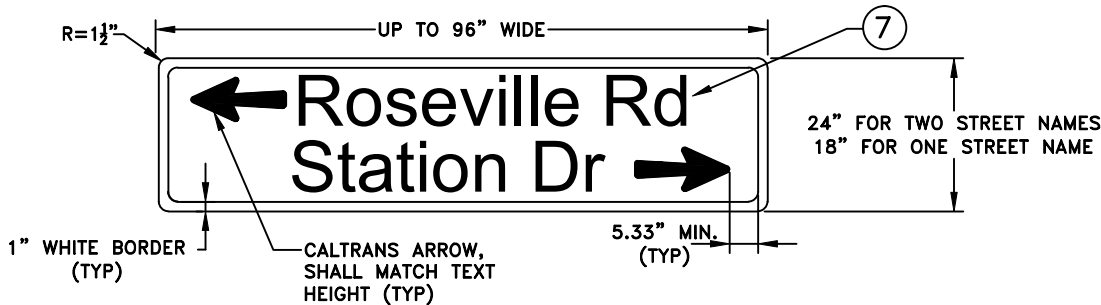
SIGN PLATE SPECIFICATIONS:

- A. TEXT SIZE SHALL BE 8" UPPER AND LOWER CASE WHITE HIGH INTENSITY PRISMATIC (HIP) OR APPROVED EQUAL. SERIES C HIGHWAY FONT TEXT WILL BE CENTERED TOP AND BOTTOM AND SIDES HAVE A MINIMUM 5.33" CLEAR SPACE FROM EDGE OF SIGN PLATE. IN THE EVENT A 8" HIGHWAY FONT EXCEEDS 96", 7" SERIES "C" HIGHWAY FONT MAY BE USED, AT THE DISCRETION OF THE PUBLIC WORKS DIRECTOR
- B. SIGN PLATES SHALL BE 0.080 GAUGE ALUMINUM.
- C. SIGN PLATE FINISH SHALL BE 3M HIGH INTENSITY PRISMATIC GRADE RETRO REFLECTIVE BACKGROUND WITH 3M ELECTRONIC CUTTABLE GREEN FILM SHEETING OR APPROVED EQUIVALENT. LETTER OF AUTHENTICITY IS REQUIRED. SEE CONSTRUCTION STANDARDS SEC 56 - SIGNS, 56 - 1.01.
- D. SIGNS SHALL BE D3 OR G8 GUIDE SIGNS.



Marc Stout

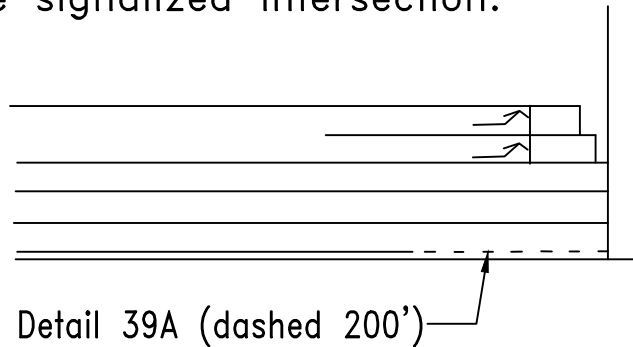
MARC STOUT
CITY ENGINEER



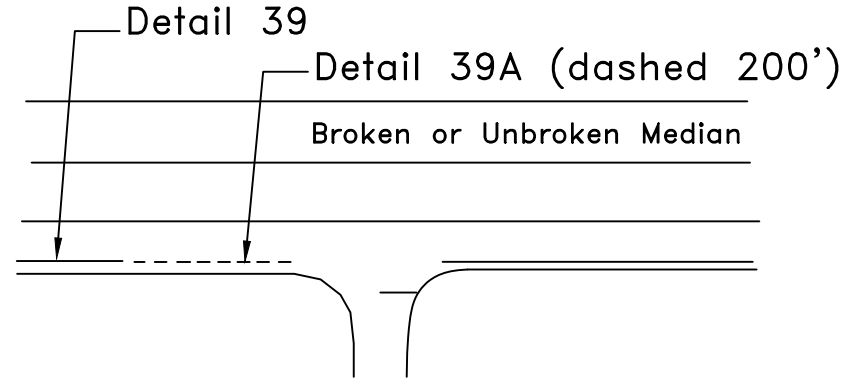
	DEVELOPMENT SERVICES DEPARTMENT
<h2 style="margin: 0;">MID BLOCK ROADWAY SIGNS</h2>	
SCALE: NONE REVISED: JANUARY 1, 2016 DRAWN BY: J HENDRIX APPROVED BY: MARC STOUT	TS-17B

SIGNALIZED INTERSECTIONS

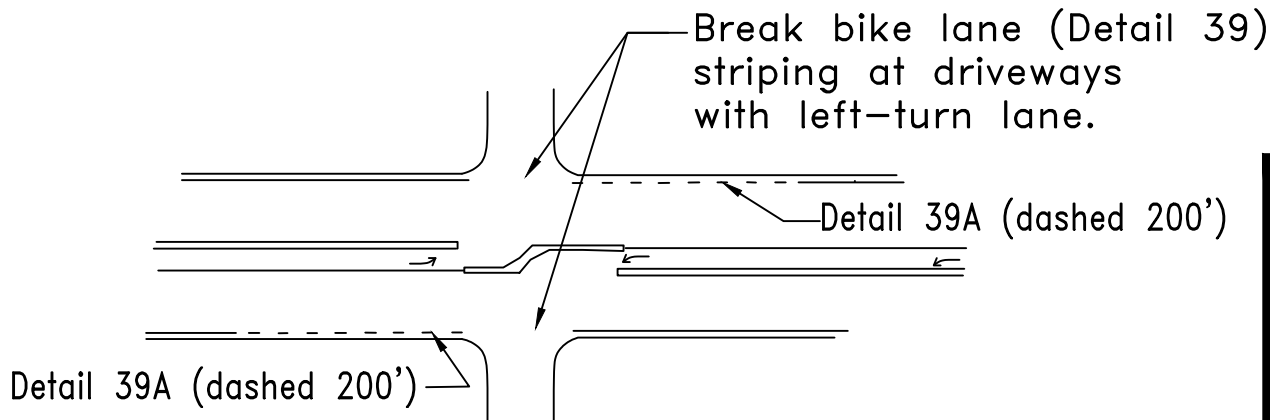
Extend bike lane (Detail 39) to the signalized intersection.



PUBLIC ROADWAYS



PRIVATE DRIVEWAYS WITH A LEFT-TURN LANE

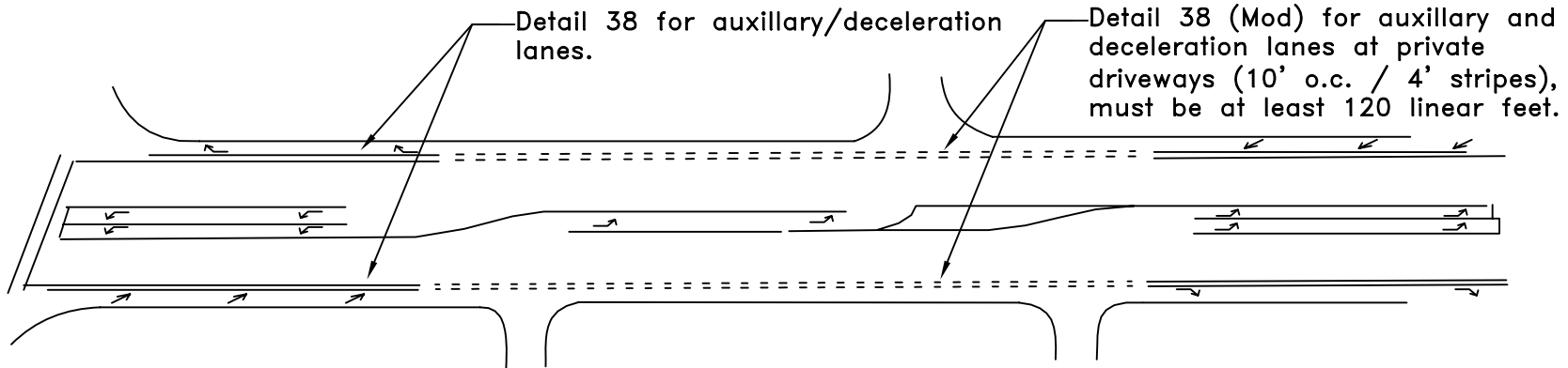


RHON HERNDON

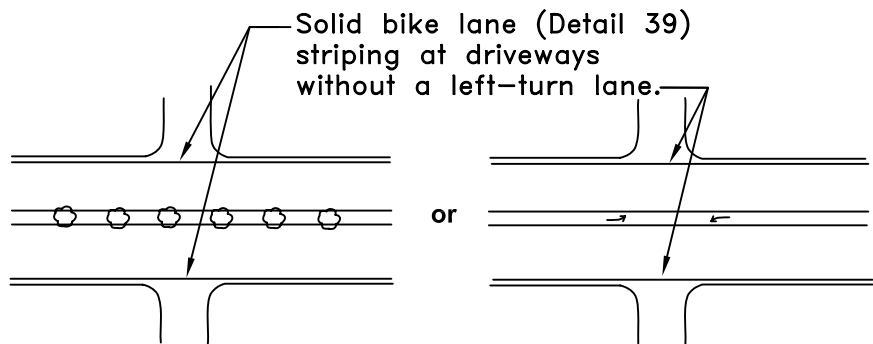
RHON HERNDON
PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
BIKE LANE STRIPING A	
SCALE: NONE REVISED: JANUARY 01, 2018 DRAWN BY: J PASTOR APPROVED BY: J CERVANTES	
TS-18	

AUXILLARY LANES



PRIVATE DRIVEWAYS WITHOUT A LEFT-TURN LANE



RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

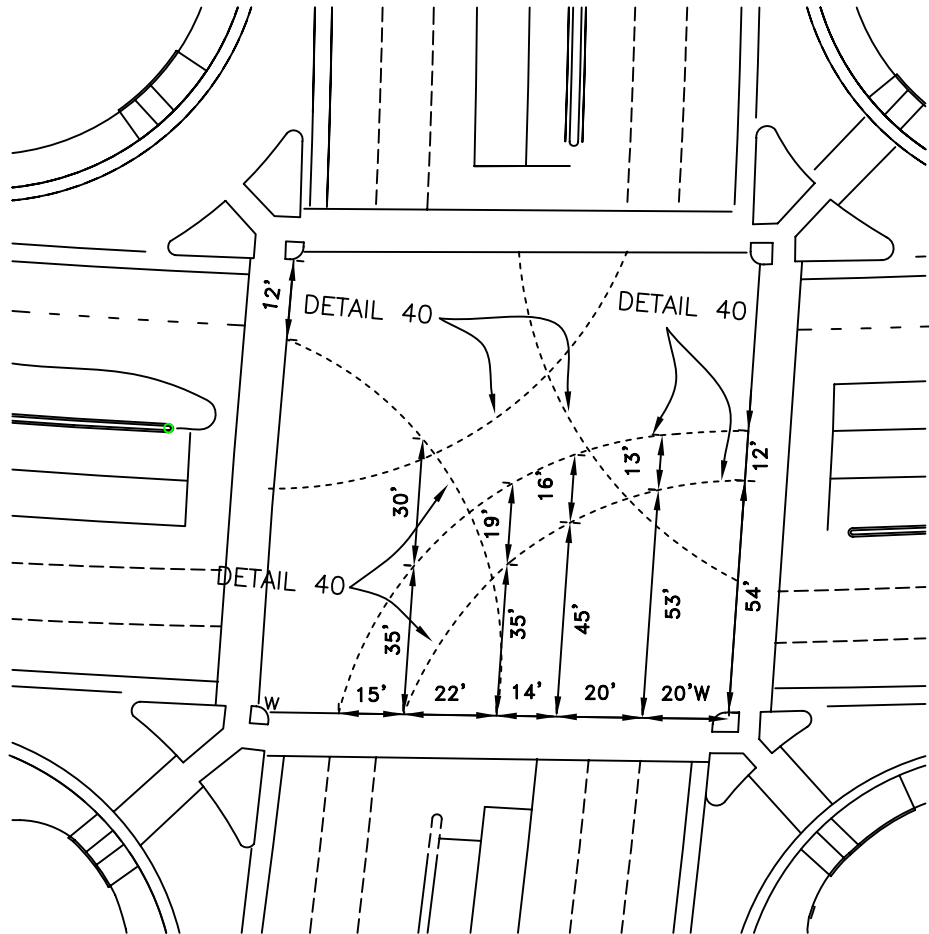
CITY OF
ROSEVILLE
CALIFORNIA

DEPARTMENT OF
PUBLIC WORKS

BIKE LANE STRIPING

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

TS-19



RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

TRIPLE LEFT STRIPING

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

TS-20



INTERSECTION RED FLASH APPROVAL

With stamped approval of this letter by the Traffic Section, Red Flash/Dark Signal is approved for the following intersection as specified below:

LOCATION: _____

PROJECT ACCOUNT NUMBER: _____

DATE: _____

TIME/DURATION: _____

RED FLASH APPROVED:

- 1. Contractor shall submit the completed Intersection Red Flash Approval Form to the City Inspector and to TRedFlashRequests@roseville.ca.us 72 hours prior to needing the intersection in red flash. Signal shutdown shall be performed only by City personnel, unless otherwise directed by the Engineer.
2. During normal working hours (M-F, 7am-5pm) the contractor shall contact the Traffic Signal Technician either by telephone at (916) 746-1760 or by email or text message at pagesignaltechnicians@roseville.ca.us one hour prior to needing the traffic signal placed into or removed from red flash. Outside of normal working hours - no phone call required.
3. The traffic signal will not be permitted to be placed in red flash during rain, lightning, or inclement weather conditions (including wet pavement conditions).
4. The Contractor shall reimburse the City for the actual cost of all inspection, including City Traffic Signal Technician time as required.
5. "Road Work Ahead" Signs required at all approaches to intersection when in red flash.
6. The Contractor shall furnish and place 36" "Stop" signs on arterial roadway approaches. Signs shall be mounted at a height of 84".

DARK SIGNAL APPROVED - ADDITIONAL REQUIREMENTS

- 1. The Contractor shall place "Stop Ahead" C-W17 and "Stop" R-1 signs to direct vehicle and pedestrian traffic through the intersection during traffic signal system shutdown. Temporary "Stop Ahead" and "Stop" signs shall be removed when the system is turned on.
2. "Stop Ahead" and "Stop" signs shall be furnished by the Contractor. Minimum size of "Stop" signs shall be 36" for single sign placements and 24" for dual sign placements. Signs shall be mounted at a height of 84".
3. One "Stop Ahead" sign and one "Stop" sign shall be placed for each direction of traffic. For approaches with two or more through or left turn lanes, two "Stop" signs shall be placed. Typical sign placement should be between the left turn and through lanes. Additional "Stop" signs should be placed on the shoulder. No "Stop" signs shall be placed in a manner that blocks bike lanes.
4. "Stop Ahead" and "Stop" signs shall be in place in each direction immediately prior to the intersection going dark and removed immediately after the intersection is placed back into red flash.
5. Red flashing beacons or flares shall be placed and maintained at each "Stop" sign during nighttime (dark) hours.
6. Traffic control must be verified by the Public Works Construction Inspector prior to the signal being deactivated.

I have read the above Intersection Red Flash Approval requirements.

REQUESTOR INFO: Name of Company _____

Print Name of Requestor _____ Contact Phone Number _____

SIGNATURE: X _____ / / Date

INSPECTOR NAME: _____ Inspector. Phone #: _____

Copy To: Contractor, Public Works Inspector, Signal Technicians, NOTE: Contractor is required to follow all requirements of this letter and keep a signed and stamped copy at job site.

Traffic Signal Inspection Check List

DSI – Development Services Inspector

TECH – Signal Technician

ENG – City Traffic Engineer

ATMS – Advanced Traffic Management System

PRIOR TO BEGINNING WORK

- Pre-Job** – DSI - DSI to e-mail the Signal Technicians a minimum of 24 hours prior to the scheduled project pre-job meeting. The TECH assigned to the project will respond to the DSI's e-mail confirming attendance.
- Communications** – DSI - At the pre-job meeting, the chain of communication shall be clearly defined. Requests for inspection, City supplied equipment, beginning of functional testing, and the scheduling of signal turn-on must be through the DSI. All other communication should either go through or be relayed to the DSI.

DURING CONSTRUCTION

- Approve Pole Locations** – DSI, TECH, ENG – Pole locations, face of curb, utilities, limit lines, and lane lines shall be clearly marked and checked by the DSI prior to requesting inspection by the TECH and ENG.
- Approve Controller and Service Cabinet Locations** – DSI, TECH, ENG – Face of curb, back of walk, and signal poles shall be clearly marked and verified by the DSI prior to requesting inspection by the TECH and ENG
- Approve PTZ Camera Location** – DSI, TECH, ENG
- Approve Loop/Handhole Layout** – DSI, TECH, ENG – Lane lines, limit lines, and medians shall be clearly marked and verified by the DSI prior to inspection by TECH and ENG.
- Inspect Signal Pole Foundation** – DSI, TECH, ENG - including size, reinforcement cage, foundation conduit, bolt pattern, bolt orientation, and foundation height
- Inspect Conduit Trenches** – DSI - including depth, width, and location
- Inspect Controller and Service Cabinet Foundations** – DSI, TECH – Require approval prior to concrete and grounding
- Inspect Conduit, Pull Box, and Handhole Installations** – DSI, TECH – Handholes must be located on the lane lines. Check conduit/Pull Box sizes.
- Inspect Loop Installation** – TECH
- Inspect Trench Backfill** – DSI - including AC/PCC repair
- Inspect DLC Installation** – TECH
- Inspect Signal Pole Installation** – DSI, TECH
- Inspect Phase and Service Wire Installation** – TECH
- Inspect Signal Head Installation and Alignment** – TECH
- Request City Supplied Equipment** –TECH, ENG – requires 10 day notice and prepayment for equipment prior to contractor pick-up unless exempt (contact Engineering for invoice)
- Inspect Controller and Service Cabinet Installations** – TECH – DSI to notify the TECH 48 hours prior to the contractor's scheduled equipment pickup date.
- Inspect Pedestrian Push Button, Opticom, and Luminaire Installation** – TECH
- Inspect SIC Installation** - TECH

PRIOR TO SIGNAL ACTIVATION

- Install/Verify Approved Signal Timing** - TECH
- 5 Day Functional Test** – TECH
- Flash Out Signal** – TECH
- Initiate QuicNet Communication** – TECH, ATMS
- Verify Final Striping** – DSI, TECH, ENG
- Signal Turn-On** – DSI, TECH, ENG

POST SIGNAL ACTIVATION

- Verify all Signal Indications and Pedestrian Phases Operational** – TECH, ENG
- Monitor Signal Timing** – TECH, ENG
- Generate Signal Punch List** – TECH, ENG
- 1-Year Warranty Inspection** – DSI, TECH

48 hour notice required for inspections, Functional testing, and Signal Turn-On without prior approval.

RESTRICTIONS 10 DAYS PRIOR TO THANKSGIVING THROUGH JANUARY 3RD

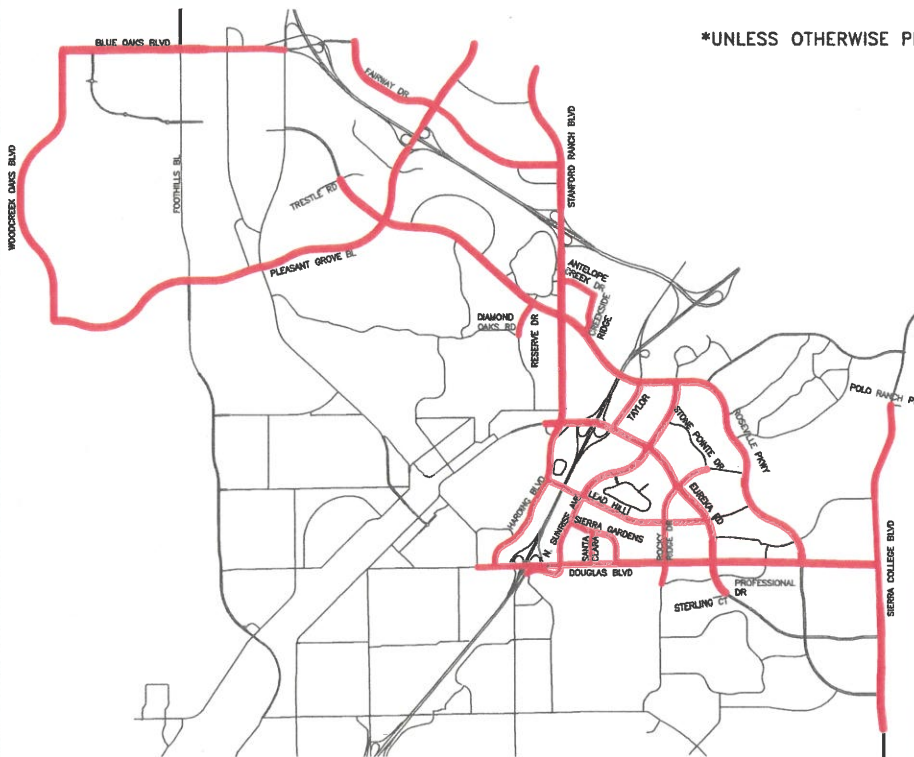
WORK MAY BE ALLOWED: WEEKDAYS 9PM TO 11AM


NO WORK ALLOWED: WEEKDAYS 11AM TO 9PM
WEEKENDS/HOLIDAYS

*UNLESS OTHERWISE PERMITTED BY AN APPROVED TRAFFIC CONTROL PLAN

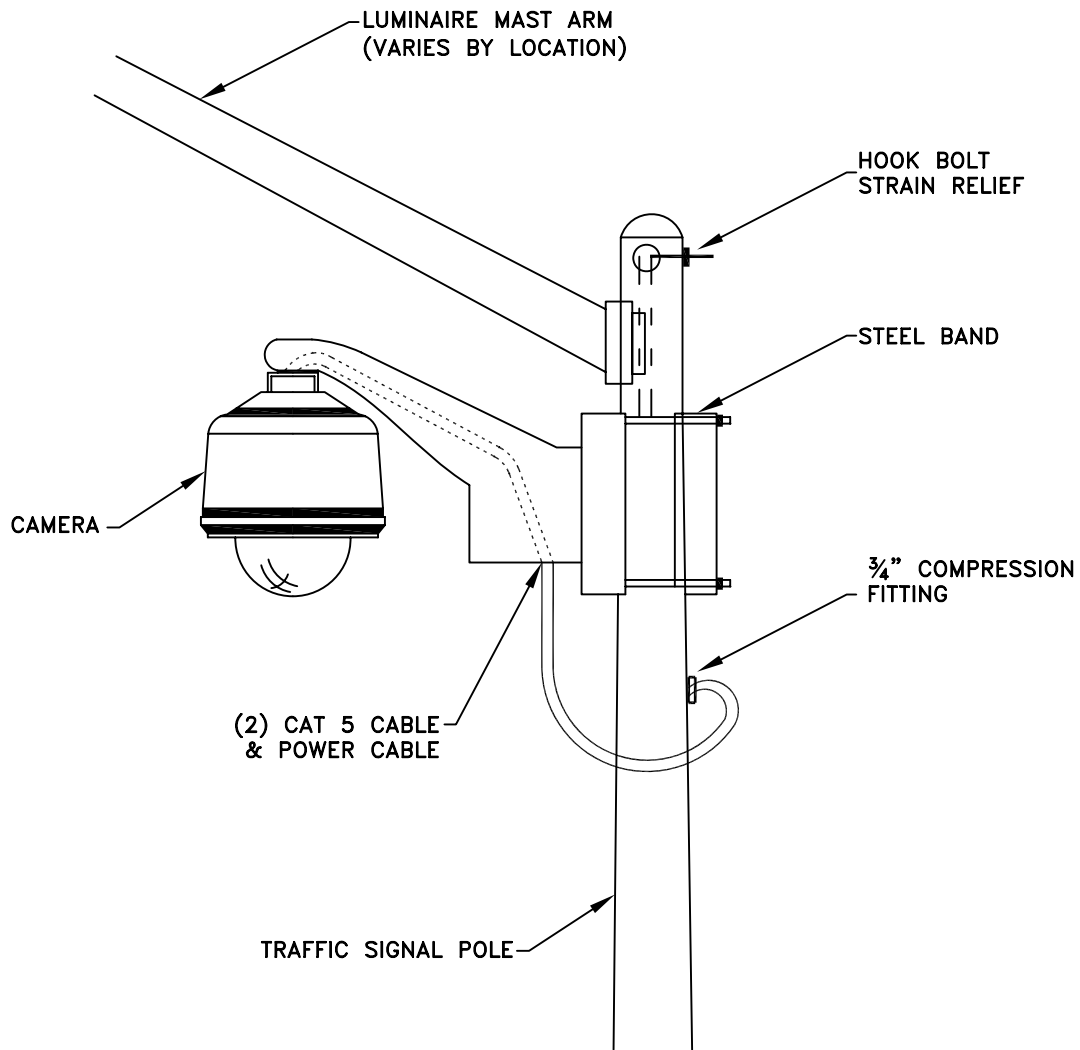
LEGEND

 RESTRICTED ROADWAYS

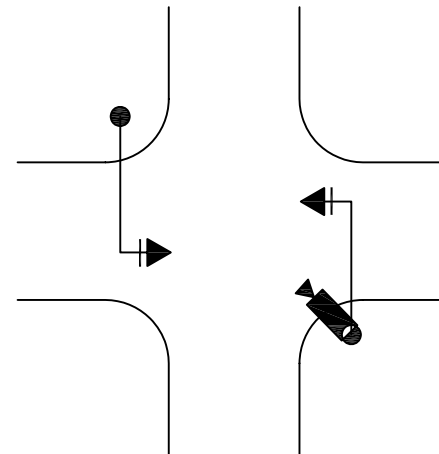



 JASON SHYKOWSKI
 PUBLIC WORKS DIRECTOR

CITY OF ROSEVILLE CALIFORNIA	DEPARTMENT OF PUBLIC WORKS
HOLIDAY TRAFFIC CONTROL RESTRICTIONS (IN ADDITIONS TO CITY STANDARDS WORKING HOUR RESTRICTIONS)	
SCALE: NONE REVISED: DEC 20, 2022 DRAWN BY: J PASTOR APPROVED BY: J CERVANTES	TS-23



CCTV MOUNTING ASSEMBLY ORIENTATION



THE ROTATION OF THE CCTV MOUNT SHALL BE ALIGNED TO A POINT AT THE TRAFFIC SIGNAL POLE ON THE DIAGONALLY OPPOSITE CORNER.

RHON HERNDON
PUBLIC WORKS DIRECTOR

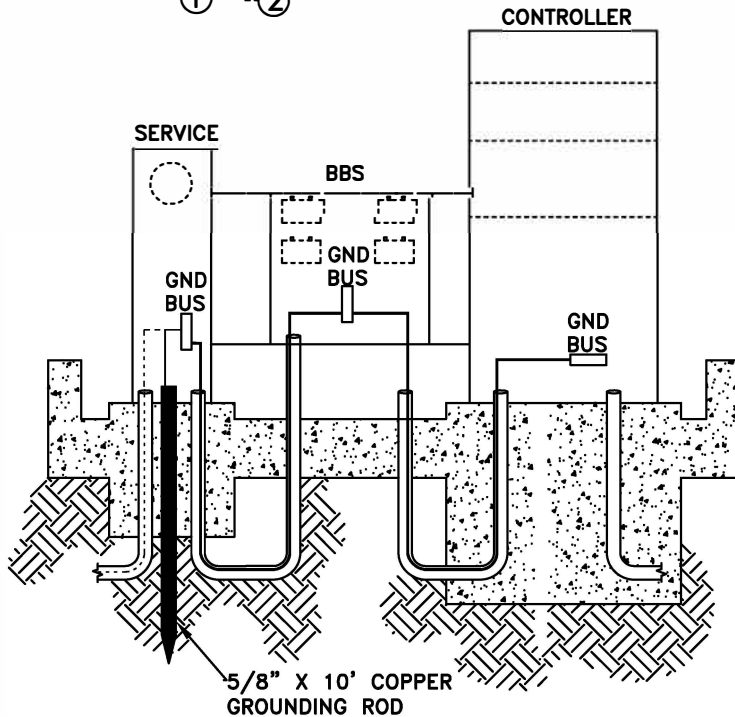
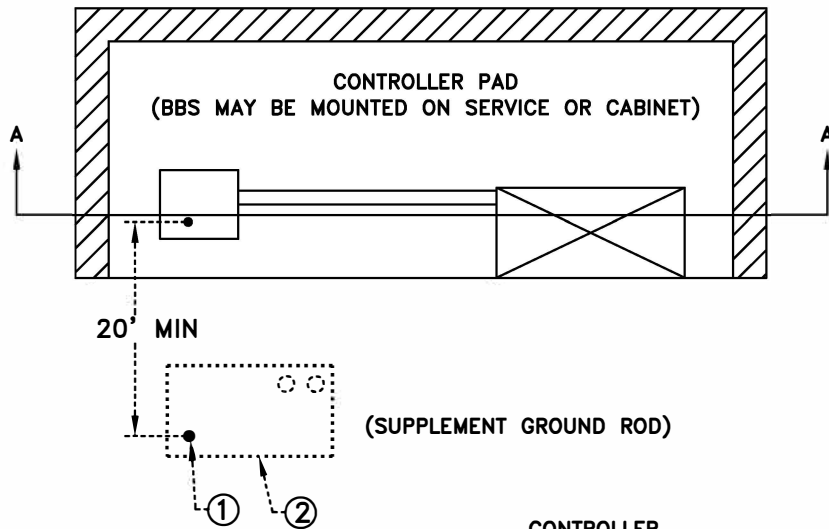


DEPARTMENT OF
PUBLIC WORKS

CCTV MOUNTING ASSEMBLY





SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

TS-24



SECTION A

LEGEND

-  $\phi 5/8"$ x 10' GROUNDING ROD
-  CONDUIT
-  GROUNDING ELECTRODE CONDUCTOR #6 STRANDED WITH THW INSULATION (COLOR GREEN)
-  EQUIPMENT GROUNDING CONDUCTOR - #8 STRANDED WITH THW INSULATION (COLOR GREEN)

NOTE (SUPPLEMENTAL GROUND ROD):

THE COMBINED GROUND ROD RESISTANCE BETWEEN THE SERVICE AND N-36 PULLBOX WITH EXTENSION SHOULD BE LESS THAN 5Ω. IF RESISTANCE IS GREATER THAN 5Ω, A THIRD GROUND ROD MAY BE NECESSARY (SEE CITY STAFF FOR FURTHER DIRECTION).

LEGEND (SUPPLEMENTAL GROUND ROD)

1. 5/8"X10'(L) GROUND ROD SHALL BE INSTALLED A MINIMUM OF 20' FROM SERVICE GROUND ROD. GROUND ROD TO BE PLACED ON STREET SIDE CORNER OF PULL BOX. GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS TO THE SERVICE GROUND ROD AND CONTINUE TO THE SERVICE GROUND BUS.
2. THE SUPPLEMENTAL GROUND ROD SHALL BE LOCATED IN A N-36 PULLBOX WITH EXTENSION THAT HAS A HORIZONTAL SEPARATION OF 20' OR GREATER FROM THE SERVICE GROUND ROD.



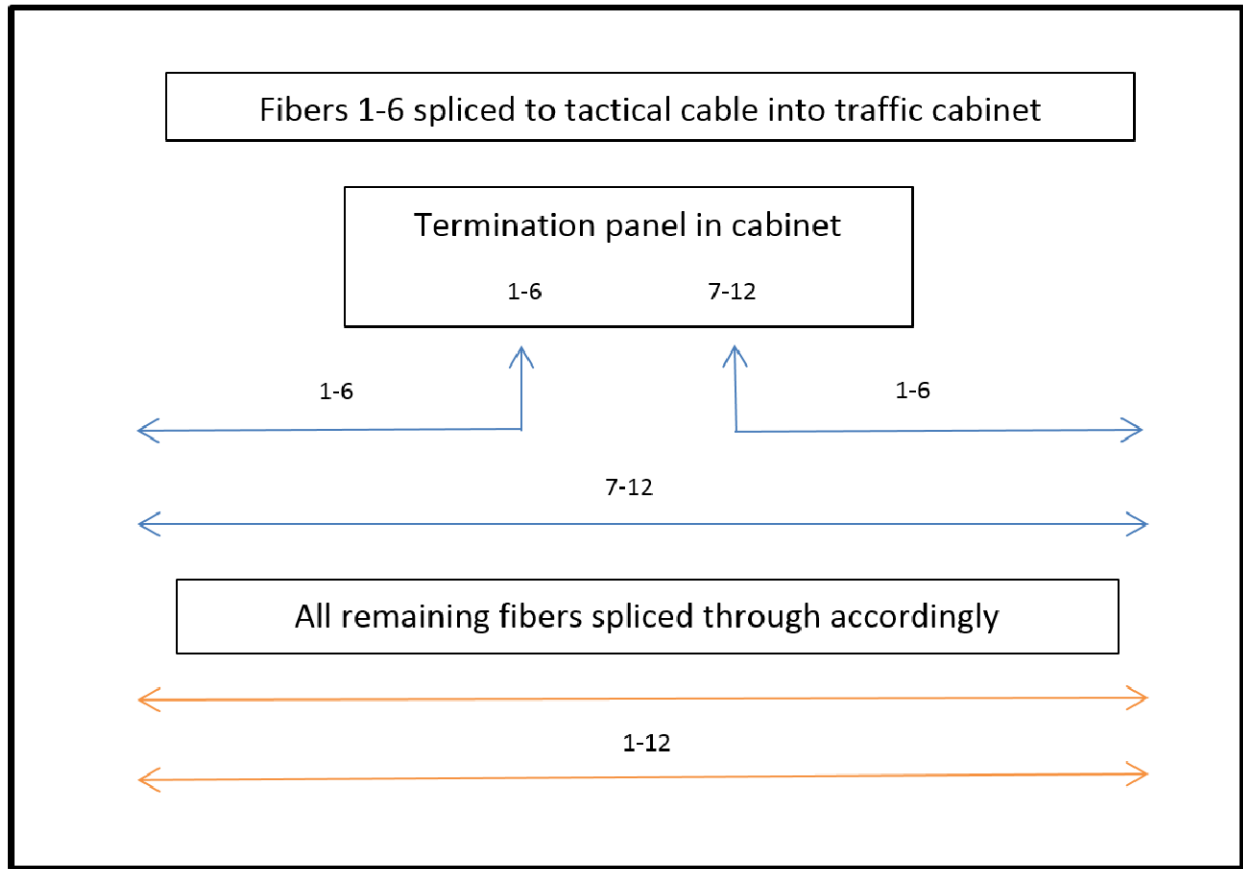
DEPARTMENT OF
PUBLIC WORKS

CONTROLLER/SERVICE
GROUNDING DIAGRAM

SCALE: NONE
REVISED: JANUARY 01, 2018
DRAWN BY: J PASTOR
APPROVED BY: J CERVANTES

TS-25


RHON HERNDON
PUBLIC WORKS DIRECTOR



RHON HERNDON

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PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

TYPE 1 FIBER SPLICE

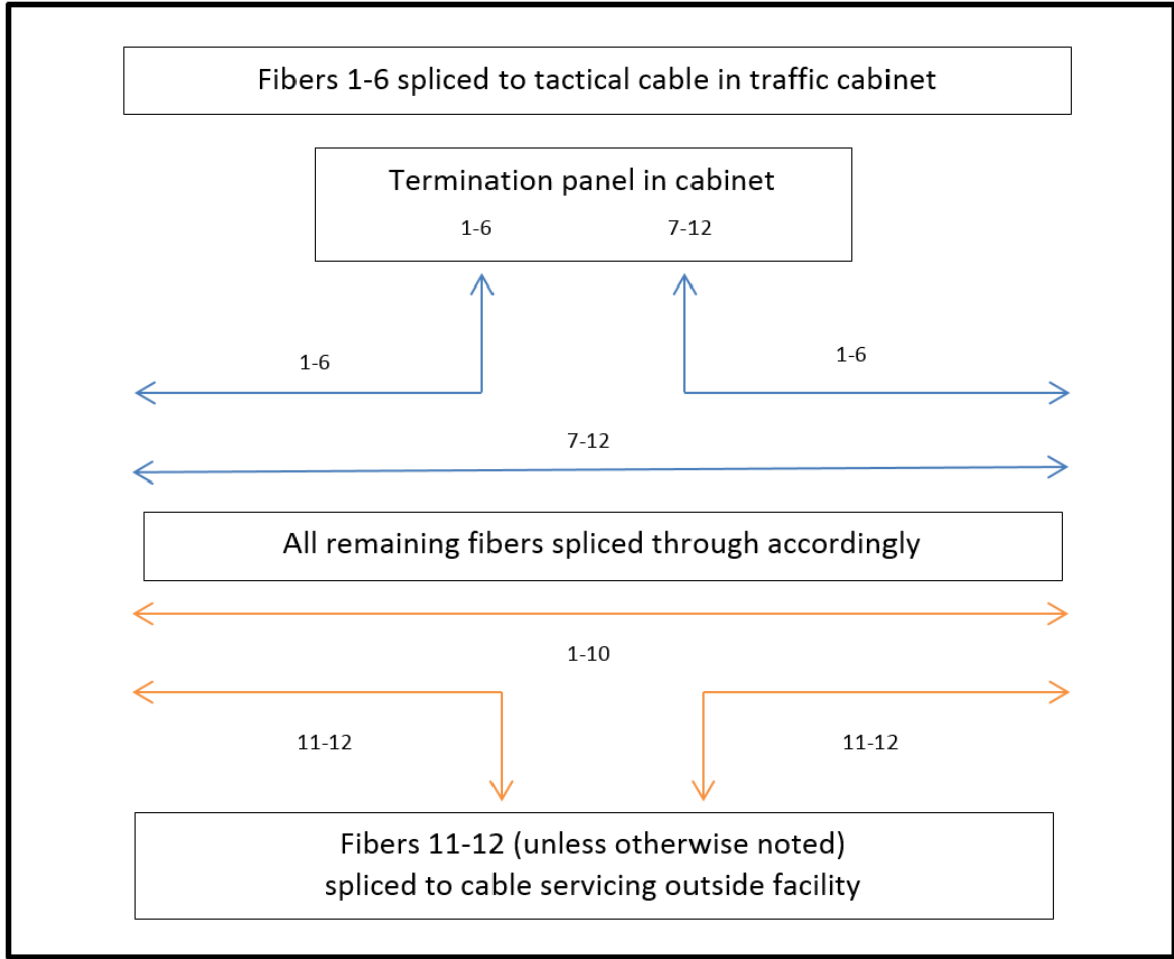
SCALE: NONE
REVISED: MAR. 24, 2015
DRAWN BY: T. ZAMORA
APPROVED BY: RHON HERNDON

TS-26

Materials required for Type 1 splice:

Coyote LCC splice enclosure and splice trays (P.N. COYFCC-F006) or Coyote Runt splice enclosure and splice trays (P.N. 8006671).
(City to determine which enclosure to use.)

Minimum pull box size for splice location is N-36.
Corning tactical fiber optic cable for local cabinet - see City approved equipment list.
Cabinet termination panel Corning SPH-01P housing with CCH-CP12-A9 panel.




RHON HERNDON

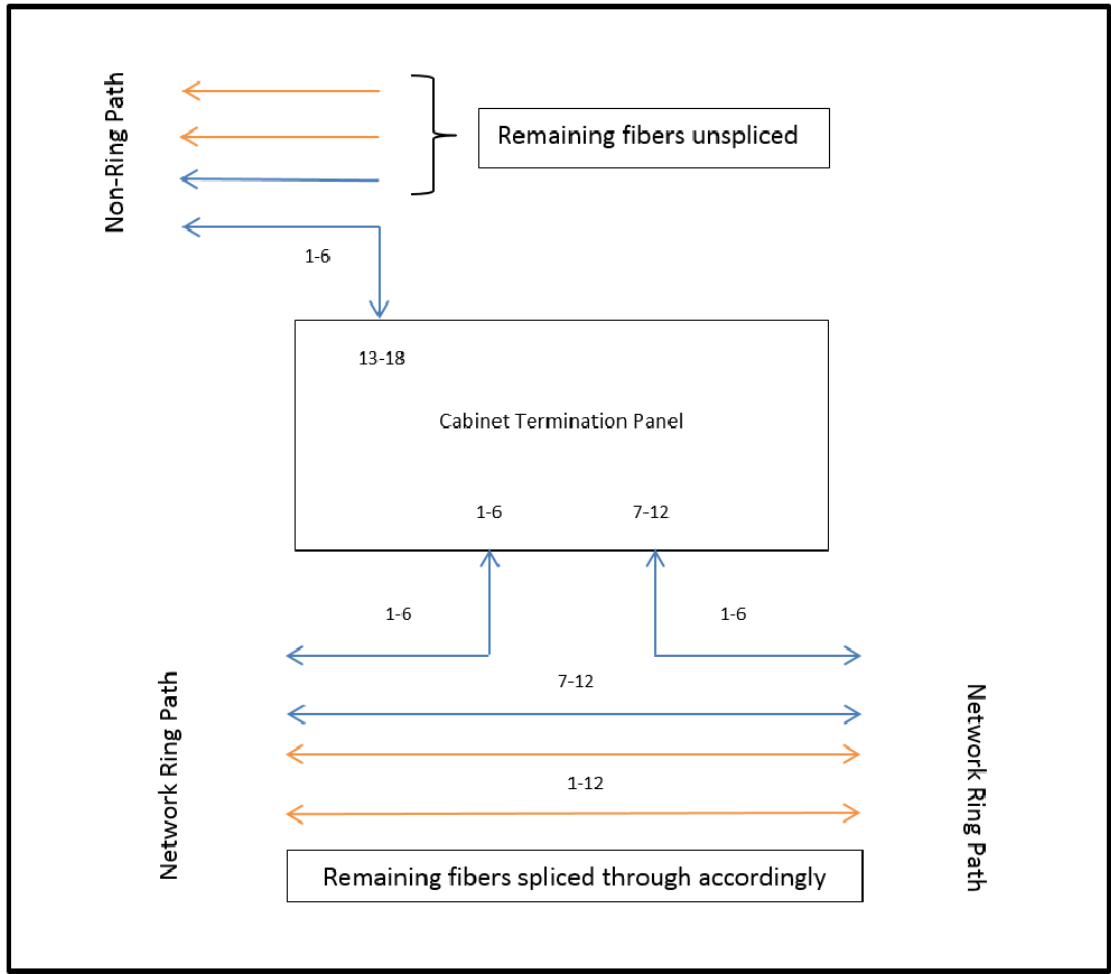
RHON HERNDON
PUBLIC WORKS DIRECTOR

Materials required for Type 2 splice:

Coyote LCC splice enclosure and splice trays (P.N. COYFCC-F006) or Coyote Runt splice enclosure and splice trays (P.N. 8006671).
(City to determine which enclosure to use.)

Minimum pull box size for splice location is N-36.
Corning tactical fiber optic cable for local cabinet – see City approved equipment list.
Cabinet termination panel Corning SPH-01P housing with CCH-CP12-A9 panel.

		DEPARTMENT OF PUBLIC WORKS
TYPE 2 FIBER SPLICE		
SCALE: NONE REVISED: MAR. 24, 2015 DRAWN BY: T. ZAMORA APPROVED BY: RHON HERNDON		TS-27



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PUBLIC WORKS DIRECTOR

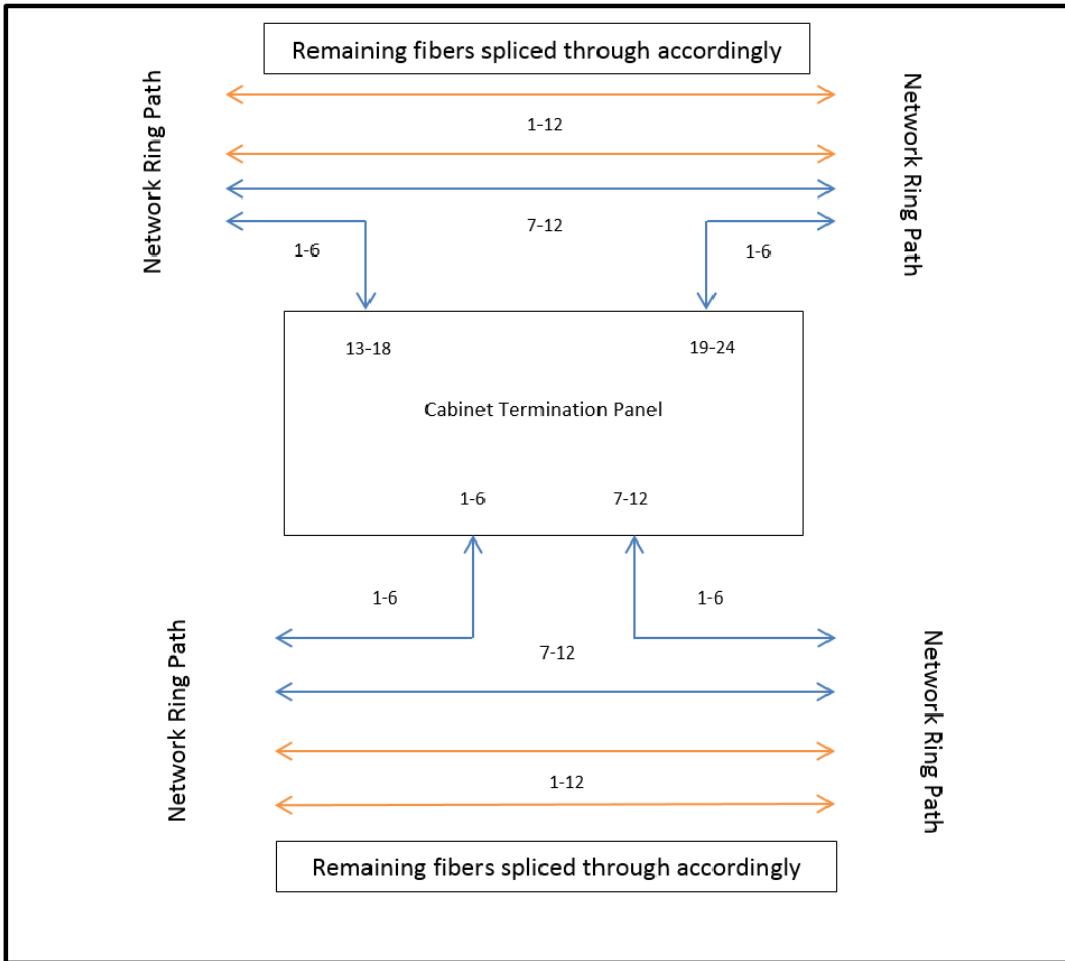
Materials required for Type 3 splice:

Coyote Runt splice enclosure and splice trays (P.N. 8006671).
 Minimum pull box size for splice location is N-36.
 Corning tactical fiber optic cable for local cabinet – see City approved equipment list.

Cabinet termination panel(s):

Corning SPH-01P housing (2 ea.) with CCH-CP12-A9 panels or
 Corning SPH-01P housing with CCH-CP24-A9 panel.
 (City to determine which panel(s) to use.)

		DEPARTMENT OF PUBLIC WORKS
<h3>TYPE 3 FIBER SPLICE</h3>		
SCALE: NONE REVISED: MAR. 24, 2015 DRAWN BY: T. ZAMORA APPROVED BY: RHON HERNDON		TS-28



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PUBLIC WORKS DIRECTOR


Materials required for Type 4 splice:





Coyote Runt splice enclosure and splice trays (P.N. 8006671) or
Coyote Dome splice enclosure (9.5" x 19") and splice trays (P.N. COYD-919B-000).
(City to determine enclosure to use.)

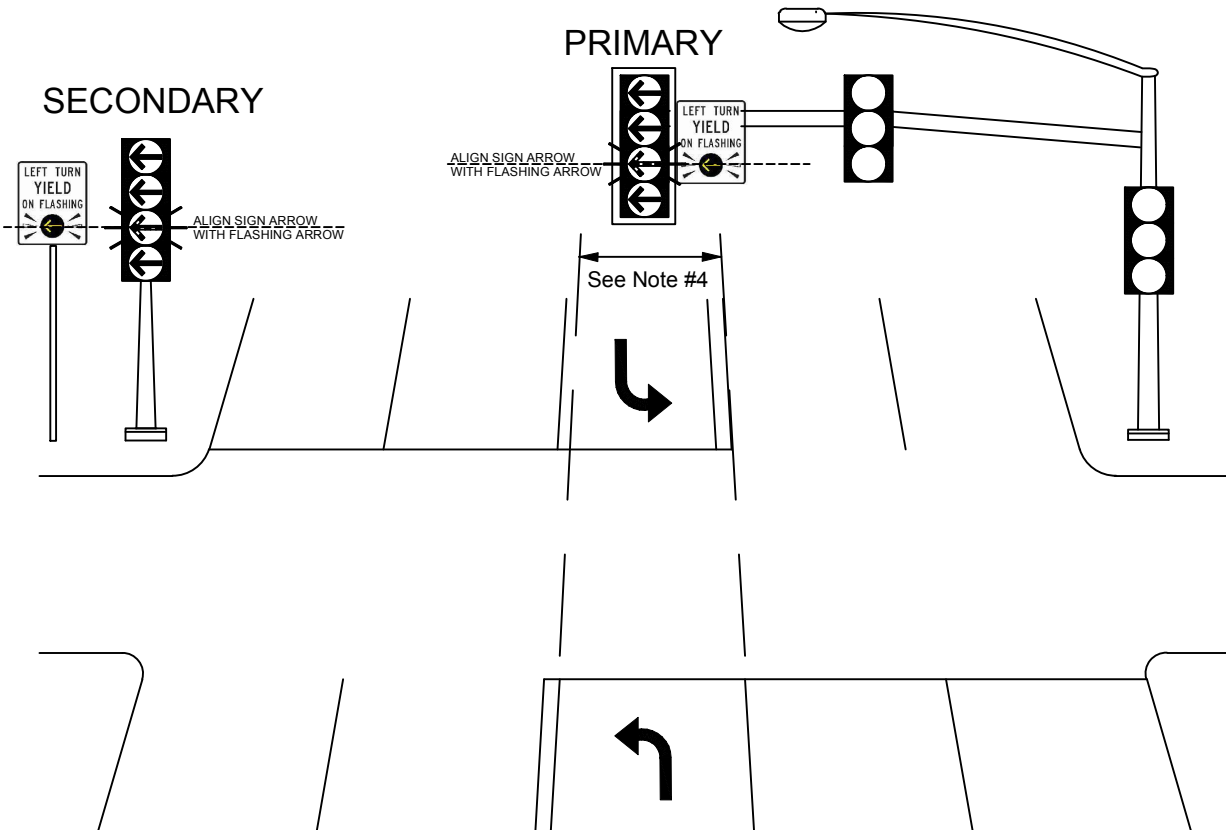
Minimum pull box size for splice location is N-48 with extension.
Corning tactical fiber optic cable for local cabinet – see City approved equipment list.

Cabinet termination panel(s):

Corning SPH-01P housing (2 ea.) with CCH-CP12-A9 panels or
Corning SPH-01P housing with CCH-CP24-A9 panel.
(City to determine which panel(s) to use.)

		DEPARTMENT OF PUBLIC WORKS
TYPE 4 FIBER SPLICE		
SCALE: NONE REVISED: MAR. 24, 2015 DRAWN BY: T. ZAMORA APPROVED BY: RHON HERNDON		TS-29

-  Steady Red Arrow - Drivers turning left must stop and wait
-  Steady Yellow Arrow - Stop, if you can do so safely
-  Flashing Yellow Arrow - Proceed with left turn after yielding to oncoming traffic
-  Steady Green Arrow - Proceed with left turn



NOTES:

1. Shall conform to current CA MUTCD guidelines.
2. Sight distance (SD) should meet AASHTO/FHWA recommended intersection SD for permissive left turns.
3. Number of opposing thru lanes ≤ 3 .
4. Implemented at Single Left turn lanes only.
5. Cannot be implemented if traffic signal has split phased operation.
6. Sign - "Left Turn Yield on Flashing" - Yellow Arrow Symbol, minimum size 24"x30" 36"x48", white - background, black-letters, yellow - arrow symbol.
7. MAS-4B mounting type shall be used for the signal mast arm 4-section head.
8. TV mounting type shall be used for the 1-b pole 4-section head.
9. Optional 2nd sign for "far-side" 1B. Sign to be angled towards corresponding left-turn lane. Sign location TBD in field.
10. Yellow reflective tape shall be installed on overhead signal head (outlined)

RHON HERNDON
PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

STANDARD INSTALLATION OF FLASHING
YELLOW ARROW PROTECTED/PERMISSIVE
TRAFFIC SIGNAL

SCALE: NONE
REVISED: **NOVEMBER 21, 2019**
DRAWN BY: J PASTOR
APPROVED BY: J CERVANTES

TS-30

City Approved Equipment List

March 24, 2021

The following items are approved for use in the City of Roseville:

Dynamic Message Signs (DMS)

1. Daktronics Vanguard VF-2320 RGB

Battery Backup Systems (BBS)

1. Tesco 27-22 Electrical Service with BBS

Traffic Monitoring Cameras

1. Axis- Q6135-E

Traffic Monitoring Camera 360

1. Axis Q6100-E

Traffic Signal Controllers

1. Q-Free 2070
2. Q-Free XN-1

Traffic Signal Cabinets

1. McCain "Stretch" P – See City Cabinet Specification
2. McCain 352i – See City Cabinet Specification

Traffic Signal Detectors

1. Reno Y/2-200-SS – 4 Channel
2. Reno G-200-S-2 Channel
3. Reno 222S -SS

Malfunction Monitoring Units (MMU)/Conflict Monitoring Units (CMU)

1. Reno MMU2 – 1600GE (LED Screen)
2. EDI 2018 KCLip
3. EDI 2212HV

Traffic Signal Preformed Loops

1. Reno 6 X 6 PLH
2. Reno 6 X 6 PLH-R

Emergency Vehicle Preemption Equipment

1. GTT Model #764 Discriminator

Traffic Signal Communication Switches

1. Ruggedcom RST916P

Internally Illuminated Street Names Signs (IISNS)

1. Southern Manufacturing – Clean Profile L.E.D. Sign
2. Overhead Mast Arm Bracket OMB100FIX

Light Emitting Diodes (LED)

1. GELCORE ITE Equivalent
2. Dialight ITE Equivalent
3. Leoteck ITE Equivalent

Traffic Signal 9 Inch Countdown Pedestrian Heads

1. GELCORE ITE Equivalent
2. Dialight ITE Equivalent
3. Leotek ITE Equivalent

Pedestrian Push Buttons (PPB)

1. Polara Bulldog III (Green)
2. Cambell 4-EVER (Green)

Audible Pedestrian System

1. PPB Station – Polara Intelligent Navigator iDS2-5AN1-G
2. Control Unit- Polara ICCU-S2 (P Cabinet)
3. Control Unit – Polara ICCU-C2 (332 Cabinet)

Camera Power Cable

1. Belden PN 601195
2. Lake Cable PN IM201143/7

Pull Tape

1. Fiber-TEK PN WPT1250
2. Neptco Trace Safe RT1800W (Orange)

Fiber Optic Cable

1. Corning Cable Systems ALTOS All-Dielectric Gel-Free Cables
PN XXXZU4-T4F22D20
2. Tactical Fiber OCC – D-012CSLS5km with AFL Fuse Connect
Terminations - Fuse LC9SMU-6
3. Tactical Fiber OCC – D-024CSLS5km with AFL Fuse Connect
Terminations - Fuse LC9SMU-6

Category 6 Outdoor Cable

1. Mohawk LAN – Trak OSP Category 6 PN – M57622

LED Street Lights – Traffic Signal Only

1. Leotek GC1-80F-MV-NW-3-GY-700 (400W Equiv)
2. Leotek GC1-60F-MV-NW-3-GY-530 (250W Equiv)
3. A.E.L. ATB2-40BLEDE10-120-R3-NR (400W Equiv)
4. A.E.L. ATB0-30BLEDE10-120-R3-NR (250W Equiv)
5. A.E.L. ATB2-60BLEDE10-120-R3-NR (400+W Equiv)

Signal Head Hardware

1. McCain
2. Econolite – Must install GGI Quick Change kit
3. Peek - Must install GGI Quick Change kit

Fiber Optic Splice Enclosures

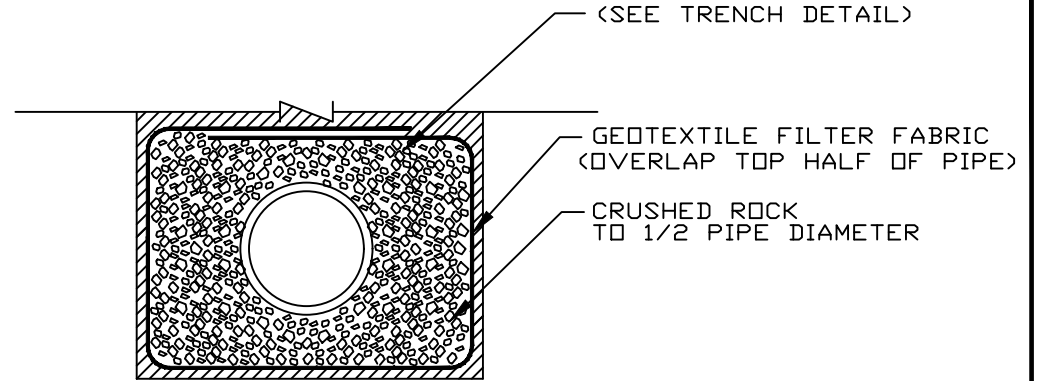
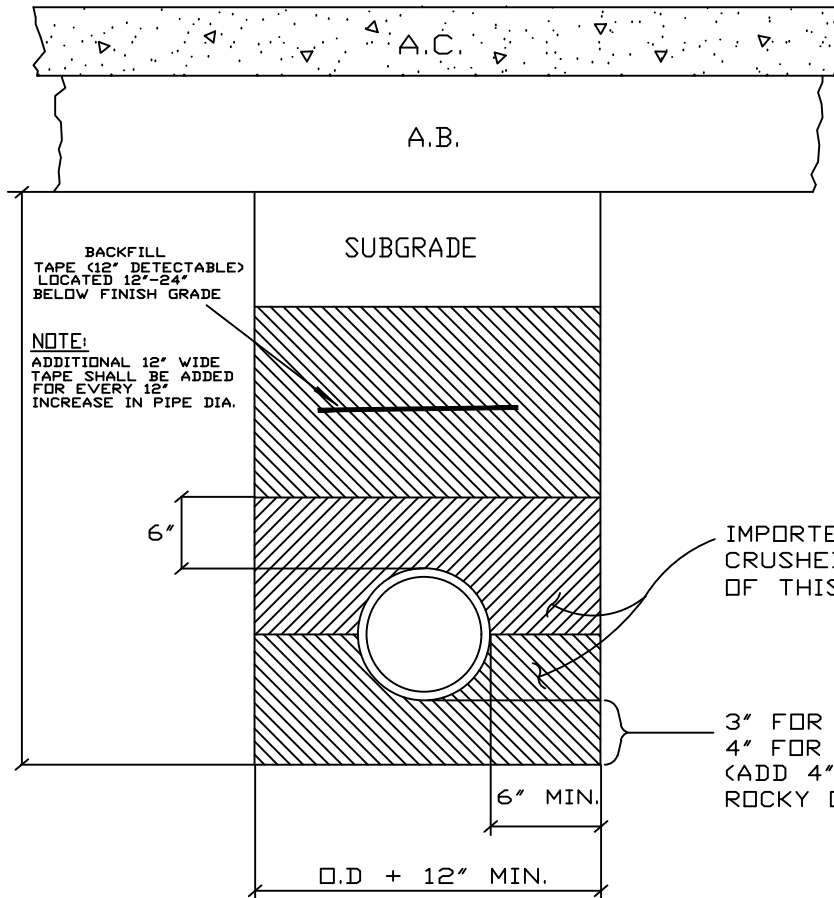
1. Coyote In-Line Runt 8006951 with 80809958 Tray
2. Coyote One Dome COY1-001 with 80809958 Tray

Pull Boxes and Vaults

1. Christy Fibrelyte FL-36
2. Christy Fibrelyte FL-36/24 Inch depth (Vault)

TRENCH BACKFILL REQUIREMENTS:

1. PROPOSED STREETS- REFER TO DETAIL TB-1 OF SECTION 31 FOR BACKFILL REQUIREMENTS ABOVE THE PIPE ZONE.
2. EXISTING STREETS- REFER TO DETAIL TB-1 AND TB-3 OF SECTION 31 FOR BACKFILL REQUIREMENTS ABOVE THE PIPE ZONE.



SATURATED PIPE TRENCH

Richard D. Plecker

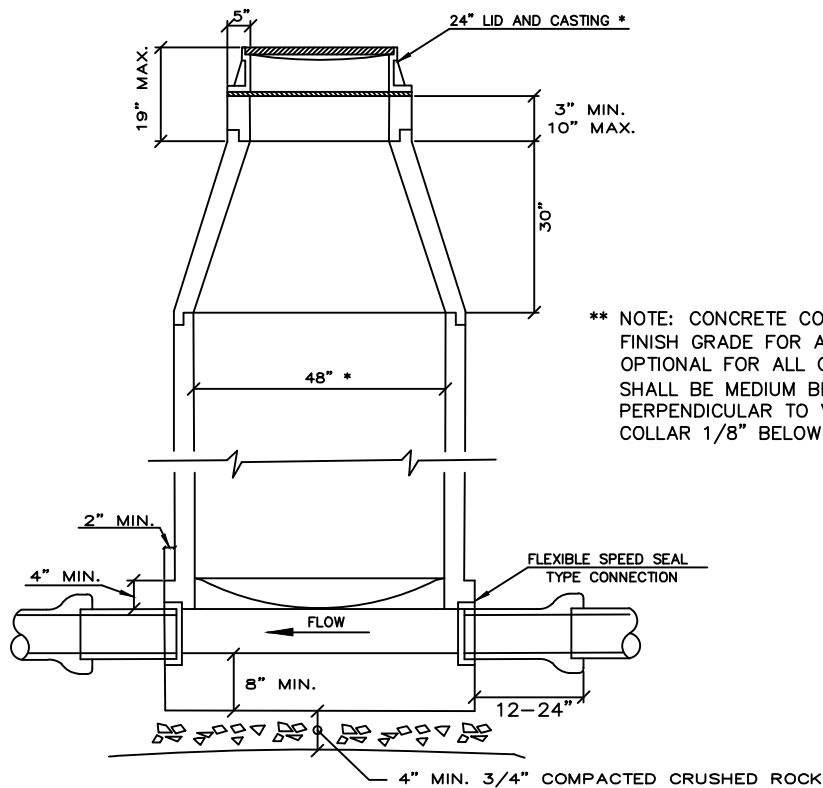
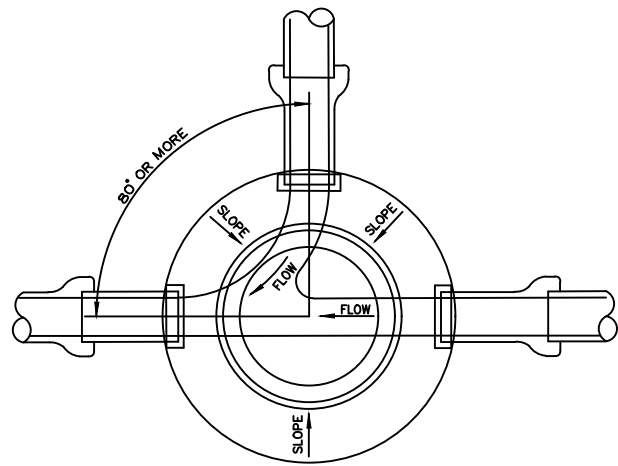
RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

	ENVIRONMENTAL UTILITIES DEPARTMENT
	SEWER MAIN TRENCH AND BACKFILL

SCALE: NONE
 REVISED: JANUARY 2019
 DRAWN BY: R. VAN NESS
 APPROVED BY: RICHARD PLECKER

SS-1

NOTE: BACKFILL SHALL BE MECHANICALLY CONSOLIDATED OR SHOVEL SLICED UNDER THE HAUNCHES OF THE PIPE



NOTES

MANHOLE LIDS SHALL BE SEALED WITH AN APPROVED RUBBER GASKET.

JOINTS SHALL BE MORTARED INSIDE AND OUT.

UNUSED CHANNELS SHALL BE COMPLETELY FILLED WITH GROUT.

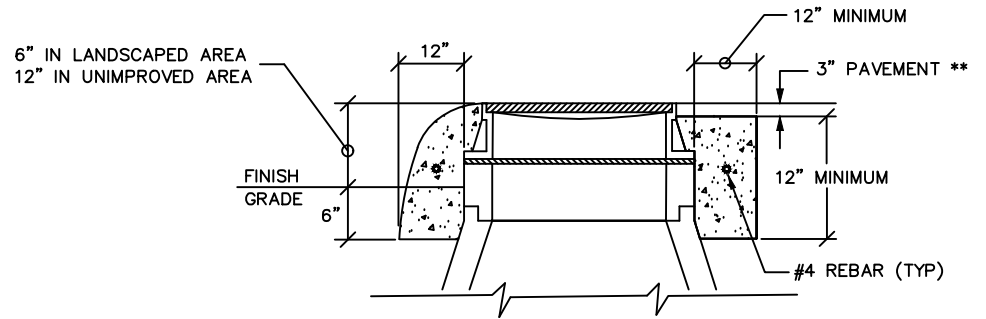
STUBS SHALL BE PLUGGED AND END MARKED ABOVE FINISHED GRADE WITH A REDWOOD 4 BY 4 POST PAINTED GREEN IF AN ECCENTRIC CONE IS USED, PLACE SUCH THAT THE OPENING IS OVER THE UPSTREAM INVERT.

NO CAULDER OR REPAIR COUPLINGS SHALL BE USED ON NEW CONSTRUCTION

FLOW LINES SHALL HAVE A 1/10 DROP OR AS INDICATED ON PLANS

MANHOLES WITH DROPS SHALL BE EPOXY COATED. THE COATING SHALL BE APPLIED PER SEC. 91-10K OF THESE STANDARDS.

* 60" & 72" MANHOLES SHALL USE A 36" COMPOSITE LID AND FRAME,



CONCRETE COLLAR DETAIL

** NOTE: CONCRETE COLLAR SHALL BE PLACED FLUSH TO FINISH GRADE FOR ALL COLLECTORS AND ARTERIALS, OPTIONAL FOR ALL OTHER ROADWAYS. FINISH SURFACE SHALL BE MEDIUM BROOM FINISH WITH PATTERN PERPENDICULAR TO VEHICLE TRAVEL DIRECTION. SET COLLAR 1/8" BELOW ADJACENT FINISHED PAVEMENT.

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

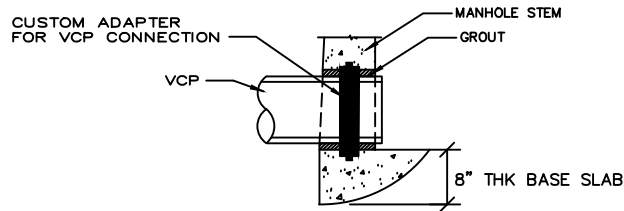
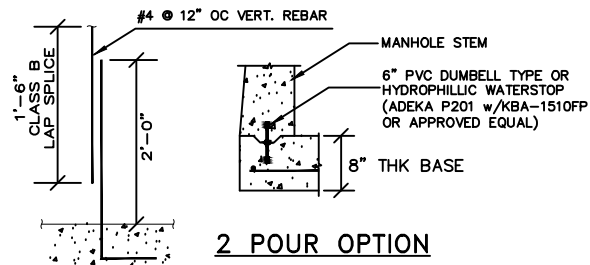
CITY OF
ROSEVILLE
CALIFORNIA

ENVIRONMENTAL UTILITIES
DEPARTMENT

SEWER MANHOLE STANDARD 48 INCH

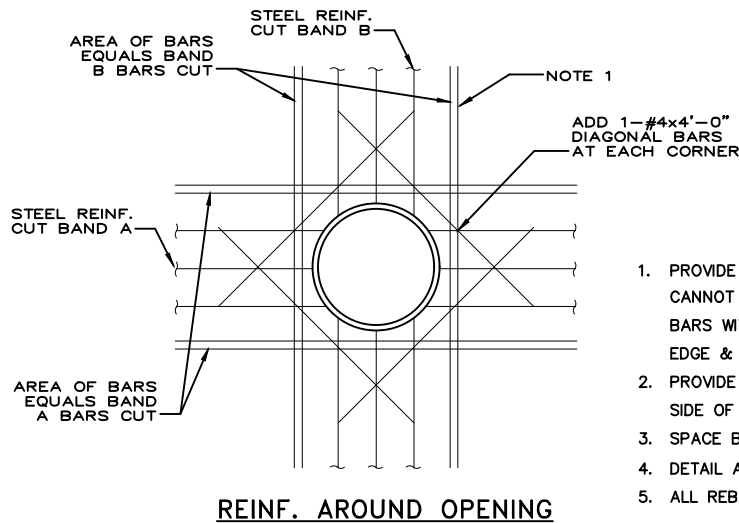
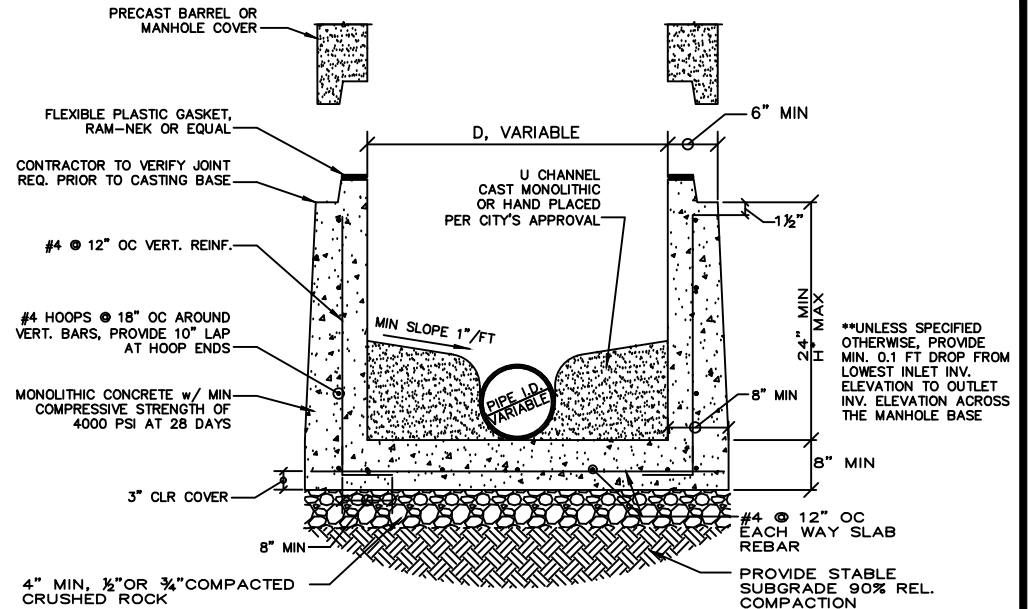
SCALE: NONE
REVISED: JANUARY 2020
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

SS-2



PIPE DIA	MANHOLE DIA, D"
6" THRU 12"	4'-0"
24" THRU 36"	5'-0"

* MANHOLE BASE DIMENSIONS FOR PIPE DIA. LARGER THAN 36" TO BE DESIGN BUILT. CONTRACTOR TO MODIFY THE DESIGN FOR BUOYANCY AS NEEDED FOR HIGH GROUND WATER, DEEP MANHOLE BASE APPLICATION.



1. PROVIDE MINIMUM LAP LENGTH, WHERE FULL LAP LENGTH CANNOT BE ACHIEVED DUE TO THE SLAB, TERMINATE BARS WITH A STANDARD 90° BEND, 2" CLEAR OF SLAB EDGE & BOTTOM.
2. PROVIDE A MIN OF 2"A" BARS AND 2"B" BARS EACH SIDE OF THE OPENING.
3. SPACE BARS AT 3*DIAMETER OR 3" MIN. ON CENTER
4. DETAIL APPLIES TO PIPE OPENINGS > 9" DIAMETER
5. ALL REBAR TO BE GRADE 40 KSI REINFORCING STEEL

Richard D. Plecker

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ENVIRONMENTAL UTILITIES DIRECTOR

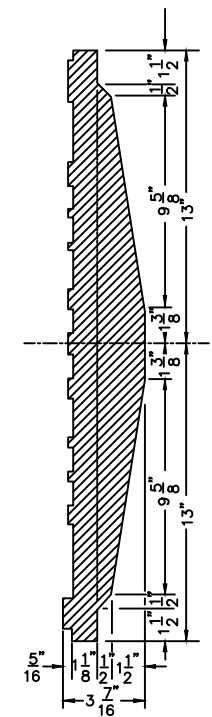
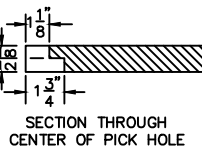
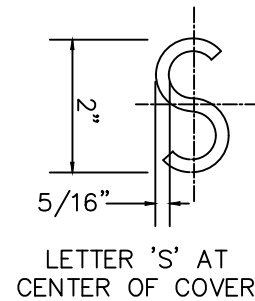
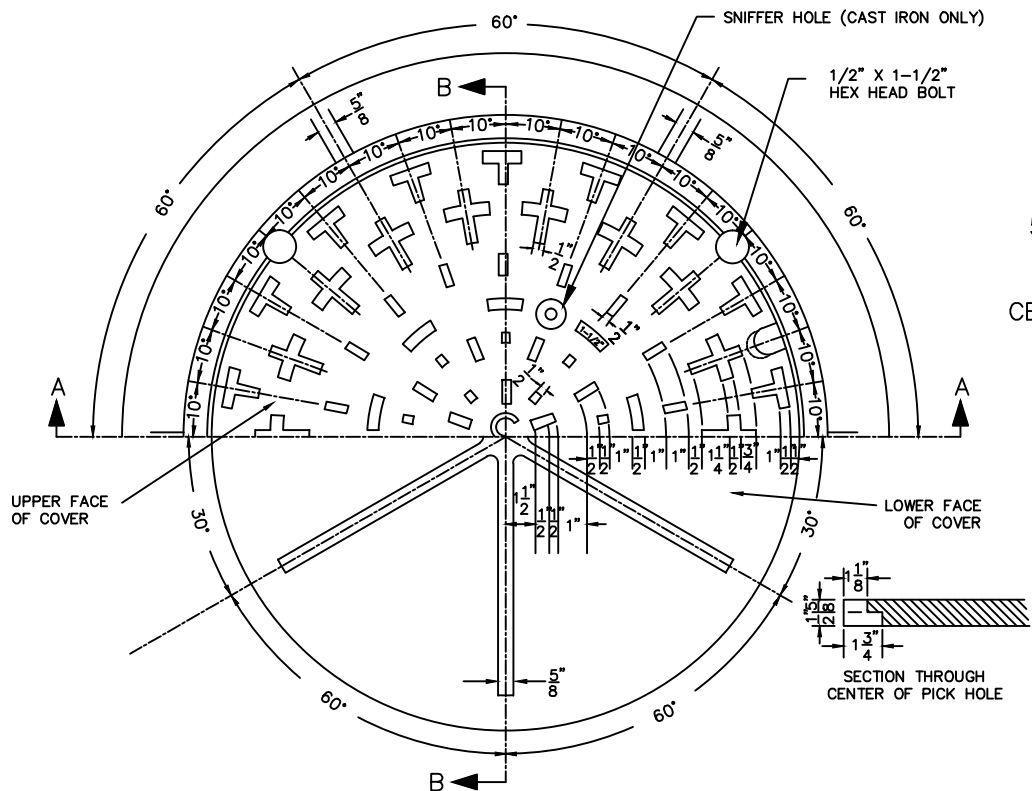


ENVIRONMENTAL UTILITIES
DEPARTMENT

**SEWER MANHOLE
CAST-IN-PLACE BASE**

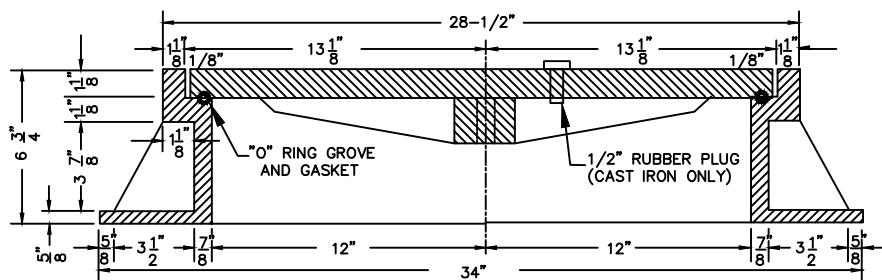
SCALE: NONE
REVISED: SEPTEMBER 2022
DRAWN BY: J. THOMPSON
APPROVED BY: RICHARD PLECKER

SS-2A



HALF PLAN OF HEAD AND COVER

SECTION B-B



SECTION A-A

NOTES: SEE SECTION 91-16.E.3 FOR APPROVED LIST OF SEWER MANHOLE FRAME AND COVER

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ENVIRONMENTAL UTILITIES DIRECTOR



ENVIRONMENTAL UTILITIES
DEPARTMENT

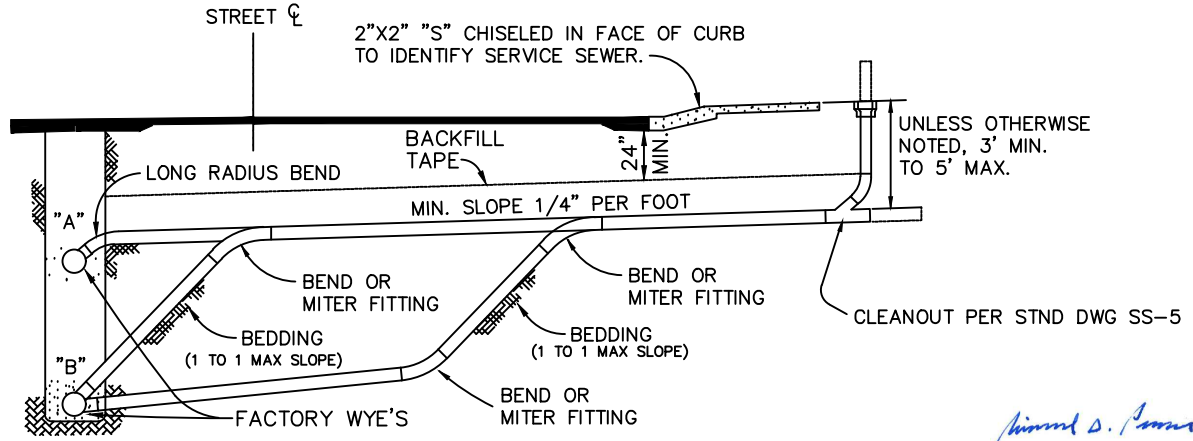
STANDARD SEWER MANHOLE
FRAME AND COVER

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

SS-3

GENERAL NOTES:

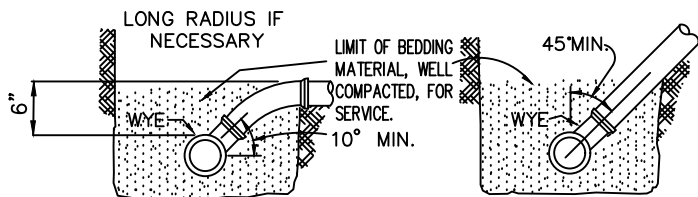
1. ALL SERVICE LINES SHALL BE 4" FOR RESIDENTIAL AND 6" FOR COMMERCIAL UNLESS OTHERWISE NOTED.
2. SERVICES SHALL HAVE SAME BEDDING AND BACKFILL AS LATERAL SEWER.
3. CONTRACTOR SHALL USE THE MOST APPROPRIATE TYPE CONNECTION (A OR B) FOR THE PARTICULAR SITUATION ENCOUNTERED.
4. SERVICE SEWER SHALL HAVE MINIMUM 3'-0" COVER AT PROPERTY LINE WHENEVER LATERAL DEPTH AND SERVICE SEWER SLOPE OF 1/4" PER FOOT (MINIMUM) PERMIT. SEE NOTE 10.
5. WHEN THE LATERAL SEWER DEPTH IS SUCH THAT MINIMUM COVER AT PROPERTY LINE CANNOT BE MET, THE MINIMUM SLOPE OF 1/4" PER FOOT SHALL GOVERN THE COVER.
6. MIN. SPECIFIED COVER AT THE PROPERTY LINE SHALL BE MEASURED FROM EXISTING GROUND SURFACE OR EDGE OF ADJACENT ROADWAY, WHICHEVER IS LOWER.
7. A SPECIFIC ELEVATION AT THE PROPERTY LINE, WHEN SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER, SHALL GOVERN.
8. MITER FITTING SHALL BE MAX. 45°.
9. MINIMUM DEPTH OF COVER SHALL BE INCREASED TO 4'-6" WHERE A WATER MAIN IS TO BE INSTALLED AT BACK OF SIDEWALK AS PART OF THE SUBDIVISION IMPROVEMENTS. IN SUCH CASES, THE SERVICE SHALL BE EXTENDED TO A MINIMUM OF 7' BACK OF SIDEWALK; CLEANOUT TO GRADE SHALL REMAIN WITHIN 3' OF BACK OF SIDEWALK.
10. SEWER SERVICES ORIGINATING FROM SEWER MAINS 14 FT AND GREATER IN DEPTH SHALL HAVE THE CROTCH OF THE VCP "WYE" FITTING FILLED WITH CONCRETE.
11. UNDERGROUND CONTRACTOR SHALL END SEWER SERVICE 2-3' UPSTREAM OF SEWER CLEANOUT. SEE STANDARD DETAIL SS-5.



ELEVATION

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR



TYPE A TYPE B

CONNECTION DETAILS

	ENVIRONMENTAL UTILITIES DEPARTMENT
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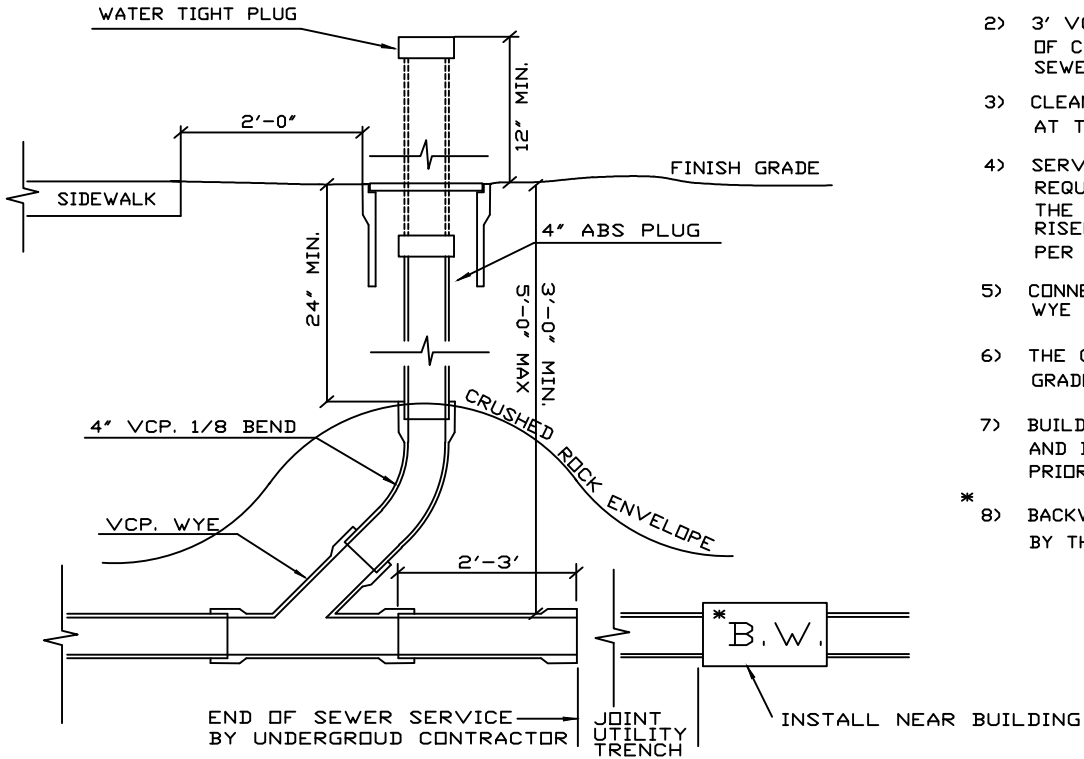
SEWER SERVICE

SCALE: NONE
 REVISED: JANUARY 2017
 DRAWN BY: R. VAN NESS
 APPROVED BY: RICHARD PLECKER

SS-4


NOTES:

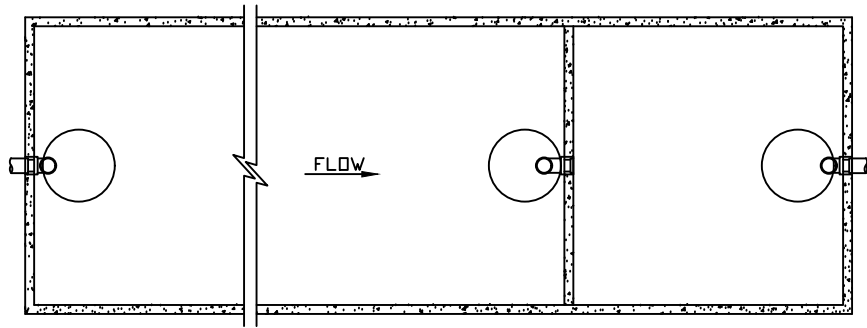
- 1) INSTALL ROUND NON-TRAFFIC TYPE CONCRETE VALVE BOX & COVER MARKED "SEWER" IN A NON - TRAFFIC AREA . INSTALL METAL LID MARKED "SEWER" IN AREAS WITH POTENTIAL TRAFFIC. A G5 BOX SHALL BE INSTALLED IN TRAFFIC AREAS.
- 2) 3' VCP STUB SHALL BE INSTALLED UPSTREAM OF CLEANOUT. 2' VCP SHALL BE INSTALLED WHERE SEWER SERVICE ENTERS OVER JOINT UTILITY TRENCH
- 3) CLEANOUT BOX TO BE FREE OF ALL DIRT AND READY AT TIME OF PRE-FINAL INSPECTION.
- 4) SERVICES OVER 100' LONG AND COMMERCIAL SERVICES REQUIRE A MIN. 6' CLEANOUT WITH 6" FITTINGS. THE CLEANOUT BOX SHALL BE A G-5 BOX FOR 4" - 6" RISERS AND A G-12 BOX FOR 8" RISERS. CONSTRUCT PER W-16.
- 5) CONNECTION TO MAIN SHALL BE WITH A FACTORY WYE OR AT A MANHOLE.
- 6) THE CLEANOUT RISER SHALL BE INSTALLED 12" ABOVE GRADE PRIOR TO BUILDING CONSTRUCTION.
- 7) BUILDING CONTRACTOR SHALL SET BOX TO FINISH GRADE AND INSTALL AN ABS PLUG SET 6" BELOW THE SURFACE PRIOR TO BUILDING PRE-FINAL.
- * 8) BACKWATER VALVE IF REQUIRED SHALL BE INSTALLED BY THE BUILDING CONTRACTOR



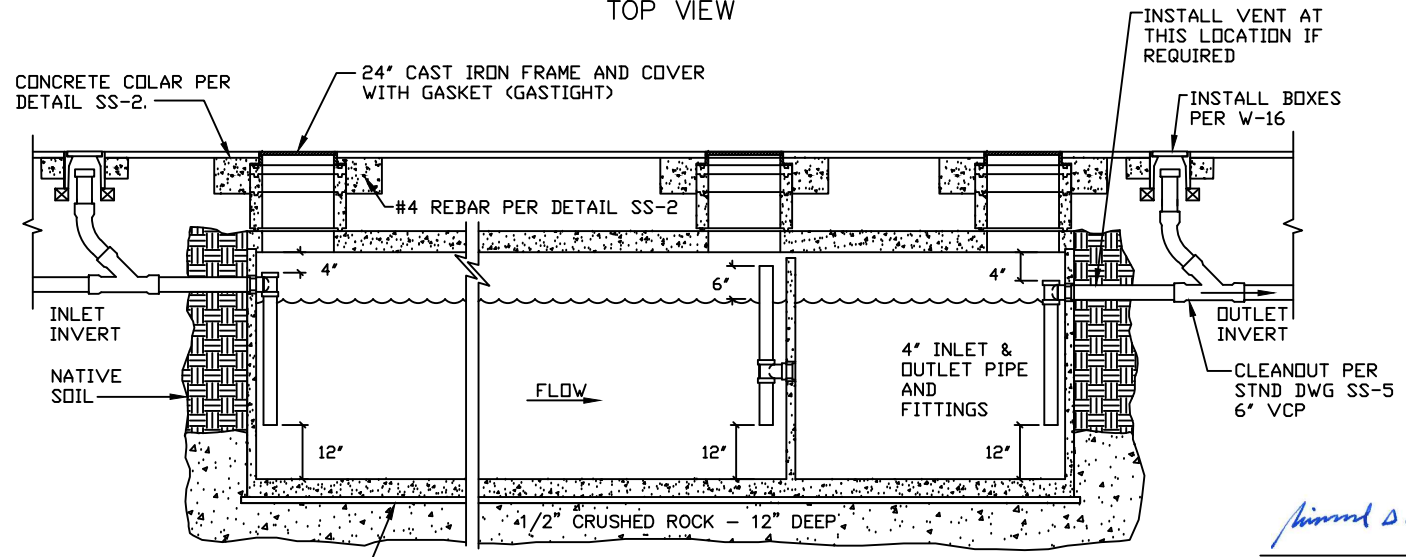
- 9) TREES ARE TO BE PLACED 7 1/2' FROM CLEAN OUT.
- 10) INSTALL A CITY CLEANOUT AT A MINIMUM 5' FROM COMMERCIAL BUILDINGS.

Richard D. Plecker
 RICHARD PLECKER
 ENVIRONMENTAL UTILITIES DIRECTOR

	ENVIRONMENTAL UTILITIES DEPARTMENT
SEWER SERVICE CLEANOUT	
SCALE: NONE REVISED: JANUARY 2020 DRAWN BY: R. VAN NESS APPROVED BY: RICHARD PLECKER	
SS-5	



TOP VIEW



SIDE VIEW (CUT AWAY)

MIN. BOX DESIGN LOAD: H-20 TRAFFIC

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

*NOTE: THE PRECAST CONCRETE UNITS SHALL BE PLACED ON LEVEL UNDISTURBED SOIL, W/1/2" CRUSHED ROCK 12" DEEP. TWO 2x6 REDWOOD GRADE BOARDS SHALL BE PLACED BELOW THE TANK SIDE WALLS ALONG THE LONG DIMENSION PER THE MANUFACTURERS GUIDELINES.

SIZING SHALL BE BASED ON THE CALIFORNIA PLUMBING CODE

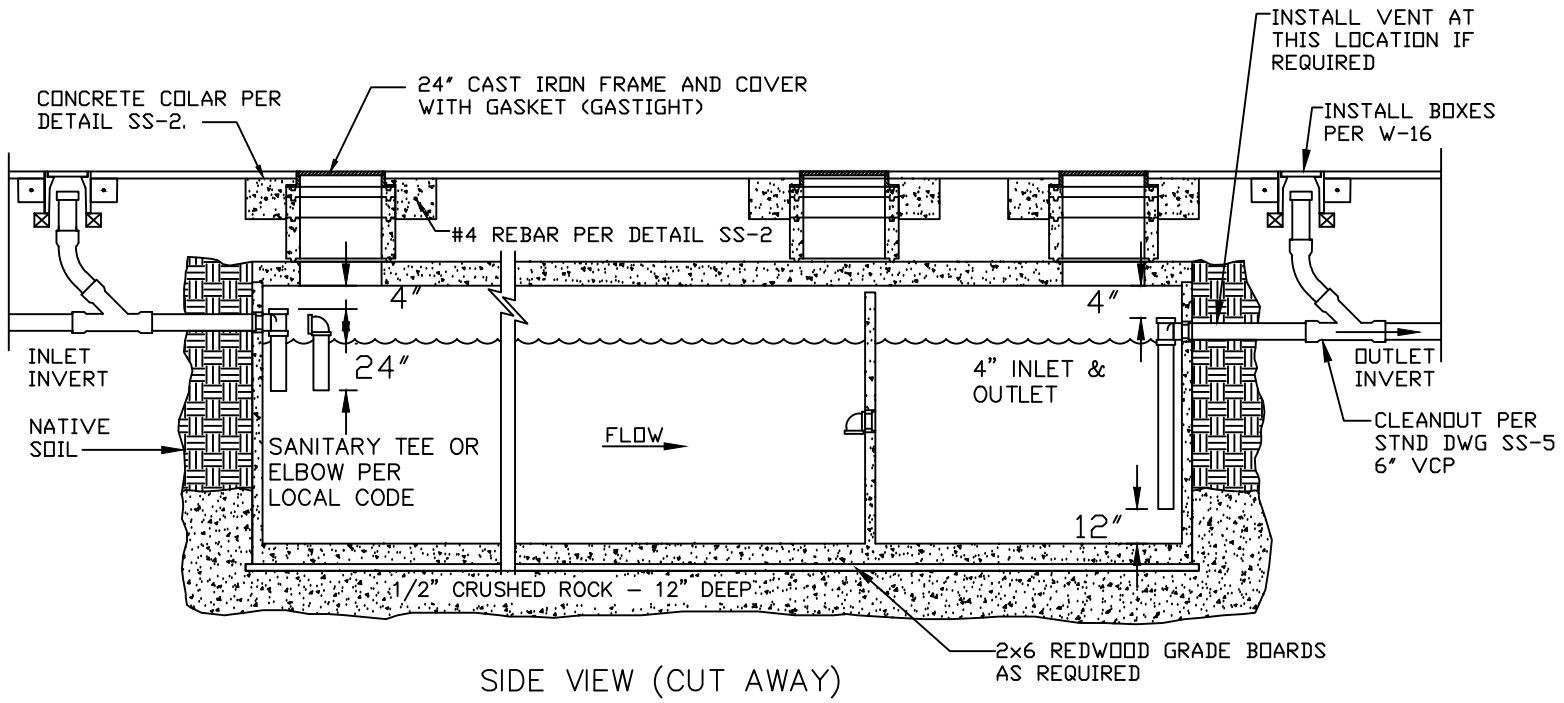
*NOTE: PRIOR TO BACKFILL, INTERCEPTOR SHALL BE FILLED WITH WATER AND HELD FOR 24HRS WITH NO VISIBLE LEAKAGE.

	ENVIRONMENTAL UTILITIES DEPARTMENT
--	---------------------------------------

GREASE INTERECEPTOR (TYP.)

SCALE: NONE
 REVISED: JANUARY 2017
 DRAWN BY: R. VAN NESS
 APPROVED BY: RICHARD PLECKER

SS-6



SIDE VIEW (CUT AWAY)

MIN. BOX DESIGN LOAD: H-20 TRAFFIC

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

*NOTE: THE PRECAST CONCRETE UNITS SHALL BE PLACED ON LEVEL UNDISTURBED SOIL, W/1/2" CRUSHED ROCK 12" DEEP. TWO 2x6 REDWOOD GRADE BOARDS SHALL BE PLACED BELOW THE TANK SIDE WALLS ALONG THE LONG DIMENSION PER THR MANUFACTURERS GUIDELINES.

SIZING SHALL BE BASED ON CALIFORNIA PLUMBING CODE

*NOTE: PRIOR TO BACKFILL, INTERCEPTOR SHALL BE FILLED WITH WATER AND HELD FOR 24HRS WITH NO VISIBLE LEAKAGE.

*NOTE: IF SIZE IS <1000 GAL, INTERCEPTOR DOES NOT HAVE MIDDLE MANHOLE

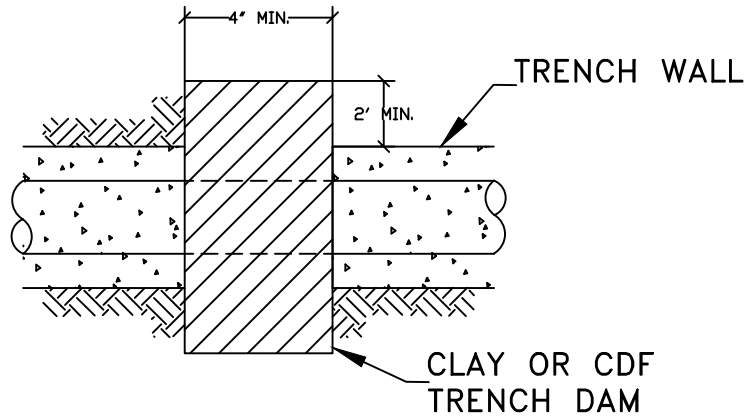


ENVIRONMENTAL UTILITIES
DEPARTMENT

SAND/OIL INTERECEPTOR

SCALE: NONE
REVISED: JANUARY 2017
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

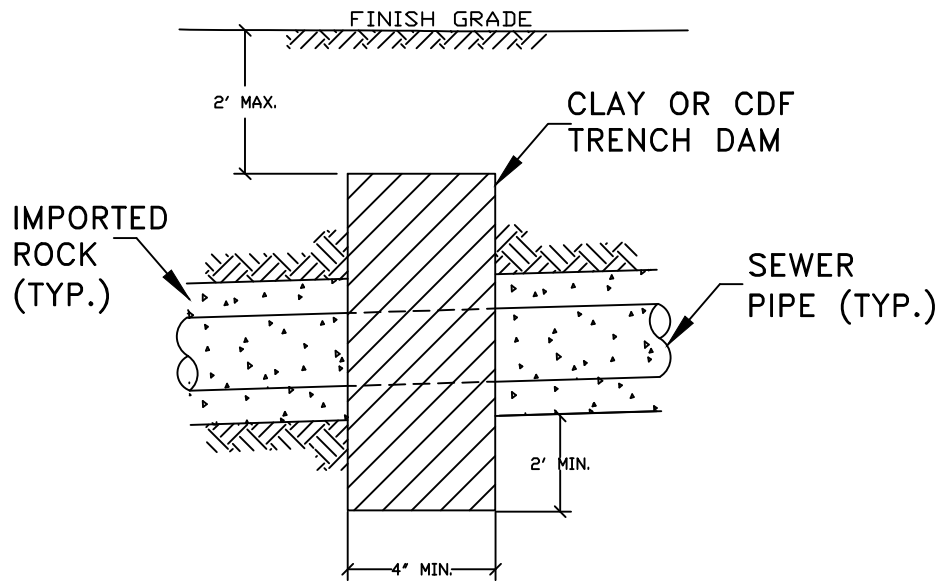
SS-7



PLAN VIEW

NOTE:

TRENCH DAM SHALL BE CONSTRUCTED OF CLEAN CLAY MATERIAL OR CONTROLLED DENSITY FILL.



PROFILE VIEW

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

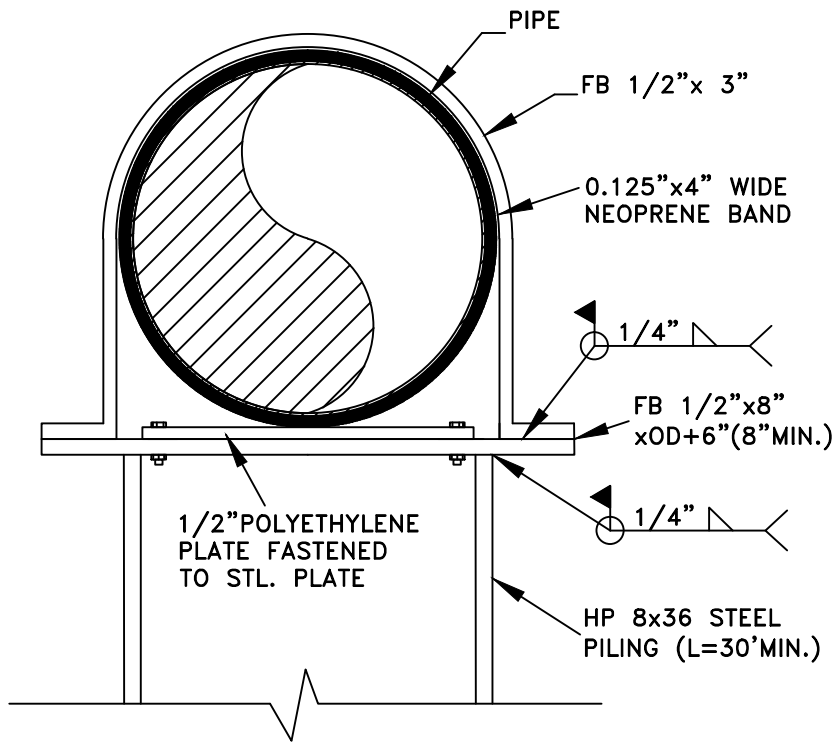


ENVIRONMENTAL UTILITIES
DEPARTMENT

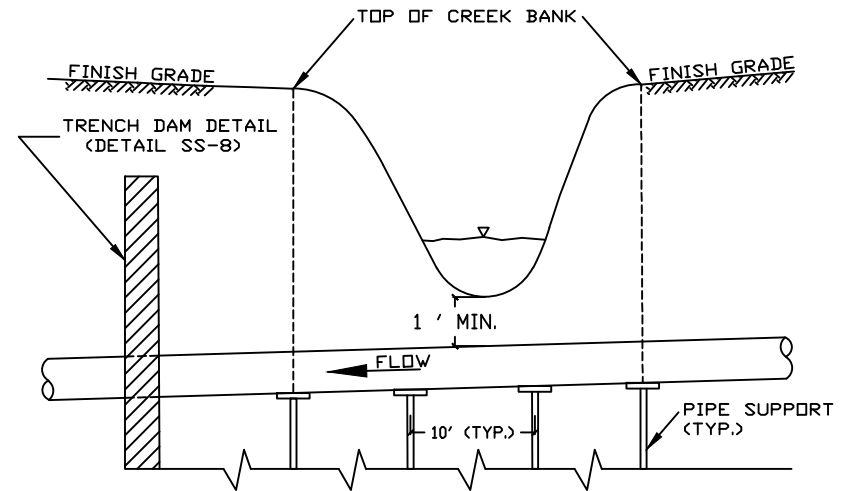
TRENCH DAM

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

SS-8



PIPE SUPPORT DETAIL



CREEK CROSSING

Richard D. Plecker


RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

MTRL. NOTES:

1. STRUCTURAL STL. SHALL BE A36 (Fy=36ksi)
2. WELDING RODS SHALL BE E70 (Fy=70ksi)

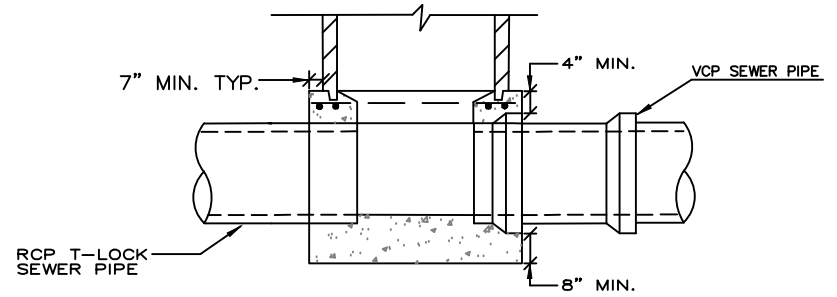
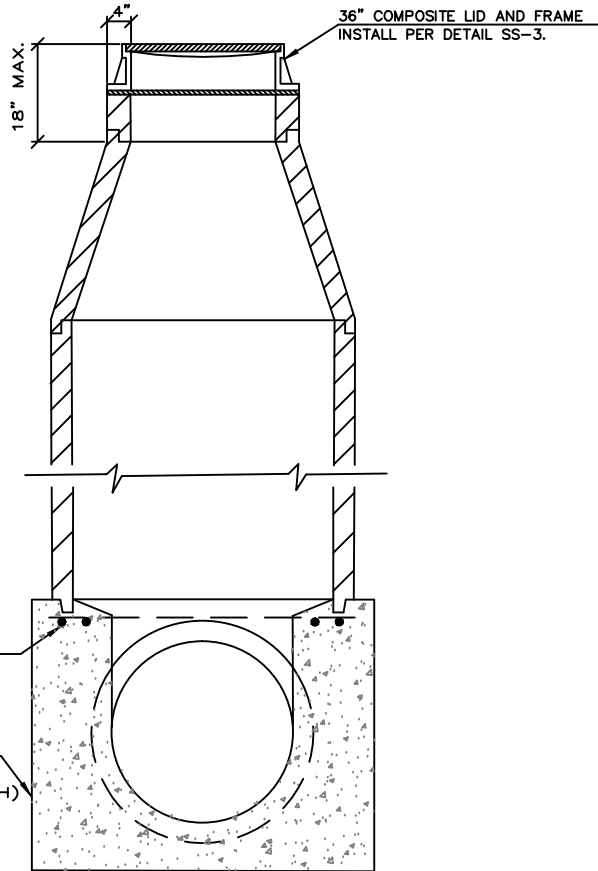
DESIGN NOTES:

1. PILES SHALL BE 10' ON CENTER BEGINNING AND ENDING AT CREEK BOTH SIDES "TOP OF BANK" AND AS NOTED ON THE PROJECT PLANS.

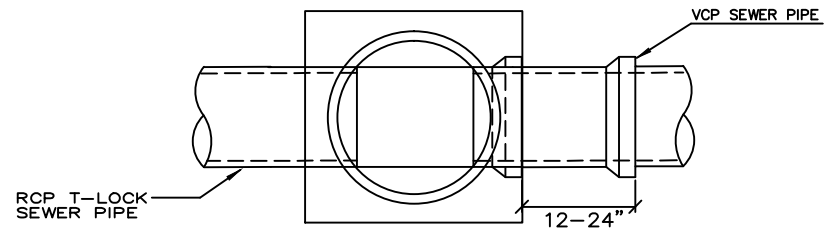
	ENVIRONMENTAL UTILITIES DEPARTMENT
	CREEK CROSSING SUPPORT
SCALE: NONE REVISED: JANUARY 2016 DRAWN BY: R. VAN NESS APPROVED BY: RICHARD PLECKER	SS-9

NOTES

1. MANHOLE LID SHALL BE SEALED WITH AN APPROVED RUBBER GASKET.
2. JOINTS SHALL BE MORTARED INSIDE AND OUT.
3. APPLY EPOXY COATING TO INTERIOR SURFACES OF MANHOLE IN ACCORDANCE WITH CITY STANDARDS 91-10 K.
4. PROVIDE SPARK TEST OVER ENTIRE PROTECTIVE COATINGS AFTER INSTALLATION.
5. SEE STANDARD DETAIL SS-2 FOR ADDITIONAL REQUIREMENTS.



PROFILE



PLAN

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

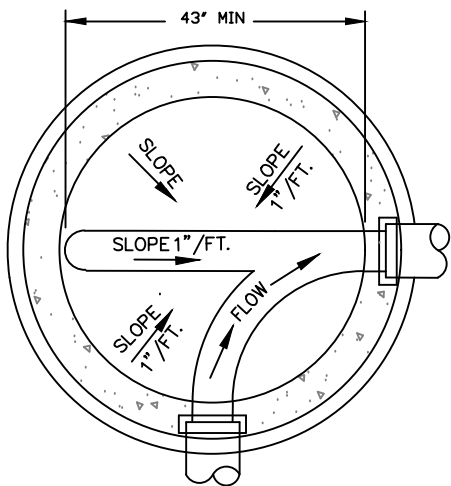


ENVIRONMENTAL UTILITIES
DEPARTMENT

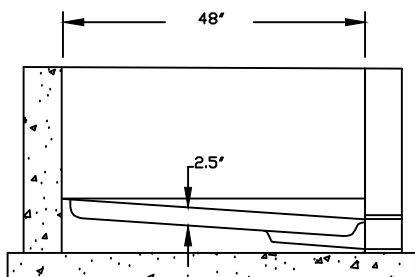
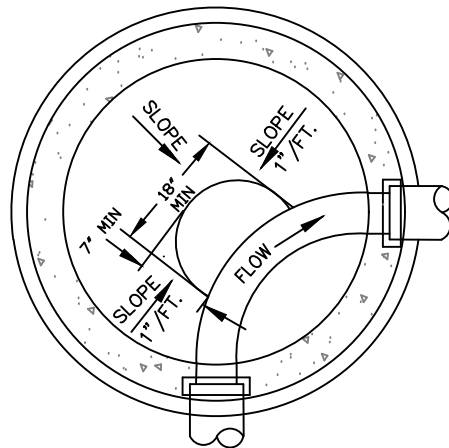
**60"+ SEWER TRUNK MAIN
MANHOLE**

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

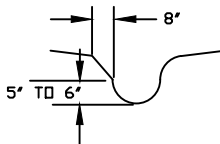
SS-10



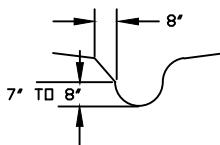
PLAN



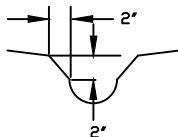
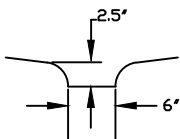
ELEVATION



FOR 8' PIPE BASE



FOR 10' PIPE BASE



Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

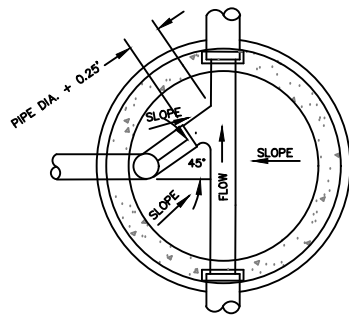


ENVIRONMENTAL UTILITIES
DEPARTMENT

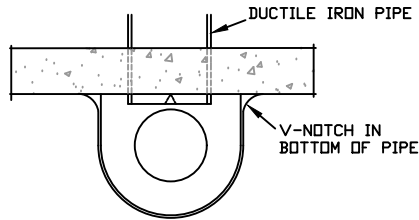
CAMERA CHANNEL
MANHOLE

SCALE: NONE
REVISED: JANUARY 2018
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

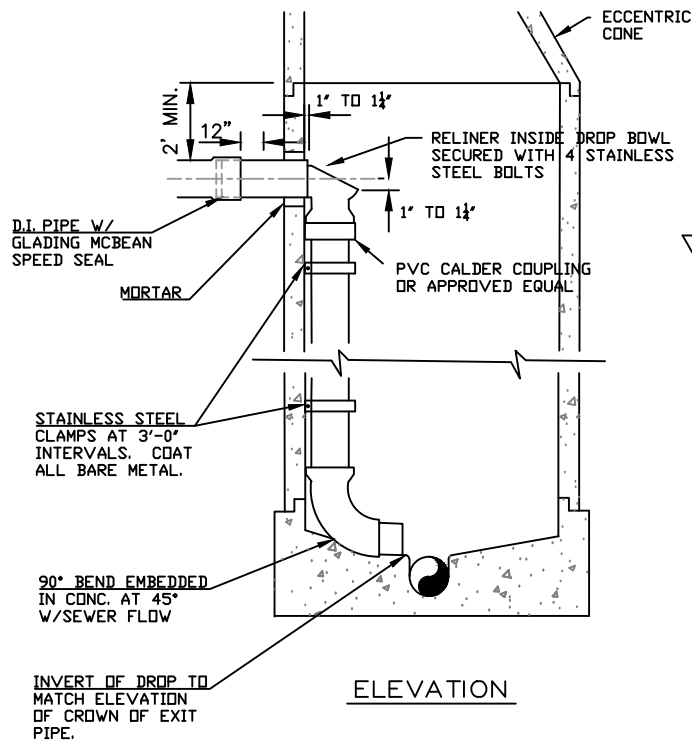
SS-11



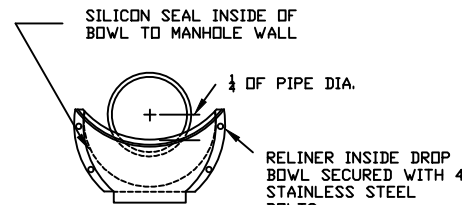
PLAN



DROP BOWL
MOUNTING POSITION
TOP VIEW



ELEVATION



DROP BOWL
MOUNTING POSITION
FRONT VIEW

NOTES

1. INSIDE DROP PIPING SHALL BE P.V.C. PIPE, SCHEDULE 40.
2. PRIME AND CEMENT ALL JOINTS AS RECOMMENDED BY THE MANUFACTURER.
3. DROP CONNECTION PIPE & FITTINGS TO BE SAME SIZE AS ENTERING PIPE.
4. USE ECCENTRIC CONE WITH OPENING ALIGNED ABOVE DROP CONNECTION.
5. INSIDE DROP CONNECTION SHALL USE DROP BOWL AS PRODUCED BY RELINER DURAN, INC. 53 MT ARCHER RD. LYME CT. 03671 (860)434-0277 FAX: (860)434-3195 OR APPROVED EQUAL
6. ATTACH DROP BOWL & EACH CLAMPING BRACKET TO THE MANHOLE WALL WITH STAINLESS STEEL $\frac{3}{8}''$ X $\frac{3}{4}''$ RAMSET/RED HEAD BOLTS. PRE-ROTO DRILL AND SET BOLTS IN PLACE WITH EPOXY PASTE. EPOXY PASTE SHALL MEET THE FOLLOWING REQUIREMENTS:
 - A. EPOXY PASTE SHALL BE A TWO COMPONENT 100% SOLID SYSTEM. EPOXY SHALL BE SIKADUR 31 HI-MOD GEL BY SIKA CORPORATION PHONE (592) 941-0231 OR EQUAL.
 - B. THE EPOXY PASTE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI IN 28 DAYS WHEN TESTED IN ACCORDANCE WITH ATSM D695 AT 73 DEGREES.
 - C. THE EPOXY PASTE SHALL DEVELOP A MINIMUM TENSILE STRENGTH OF 3,000 PSI IN 14 DAYS WHEN TESTED IN ACCORDANCE WITH ATSM D638.
 - D. THE EPOXY PASTE SHALL DEVELOP A MINIMUM BOND STRENGTH OF 2,000 PSI IN 2 DAYS WHEN TESTED IN ACCORDANCE WITH ATSM C882 (HARDENED CONCRETE TO HARDENED CONCRETE).
 - E. MANUFACTURER'S INSTRUCTION SHALL BE PRINTED ON EACH CONTAINER IN WHICH THE MATERIALS ARE PACKAGED.
 - F. DROP BOWL MODEL "A-4" SHALL BE USED FOR ALL LINES UP THROUGH FULL 6" INLETS. DROP BOWL MODEL "A-6" SHALL BE USED FOR ALL 8" INLETS. DROP BOWL MODEL "B-8" SHALL BE USED FOR ALL 10" INLETS. DROP BOWL MODEL "B-10" SHALL BE USED FOR ALL 12" INLETS.

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

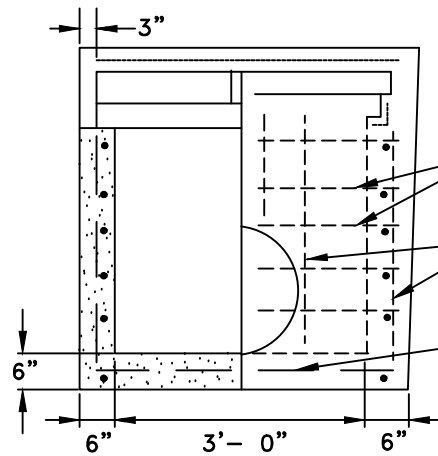
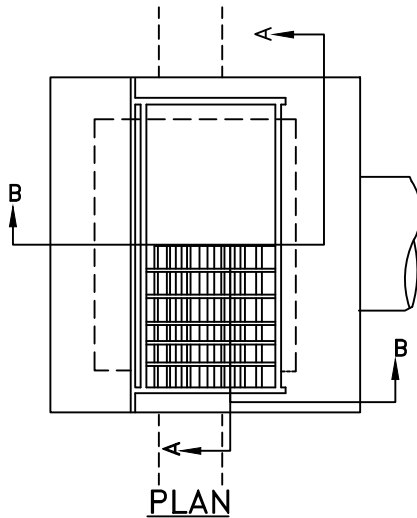
CITY OF
ROSEVILLE
CALIFORNIA

ENVIRONMENTAL UTILITIES
DEPARTMENT

INSIDE DROP
CONNECTION

SCALE: NONE
REVISED: JANUARY 2020
DRAWN BY: D. SAMUELSON
APPROVED BY: RICHARD PLECKER

SS-12

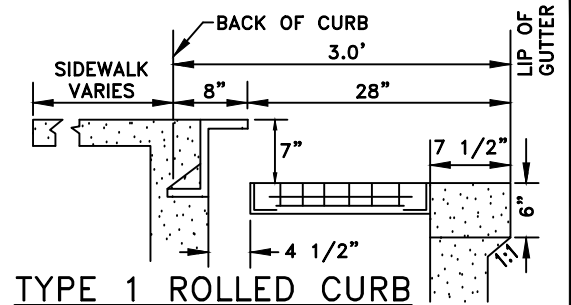


SECTION A-A

REINFORCEMENT REQUIRED
WHEN E=48" OR MORE.
NO.4 BARS @ 6" O.C.
EACH WAY. (HORZ) TYP 4
SIDES SEE NOTE 6.

NO.4 BARS @ 12" O.C.
EACH WAY. (VERT) TYP 4
SIDES

NO.4 BARS @
8" O.C. EACH
WAY.



TYPE 1 ROLLED CURB

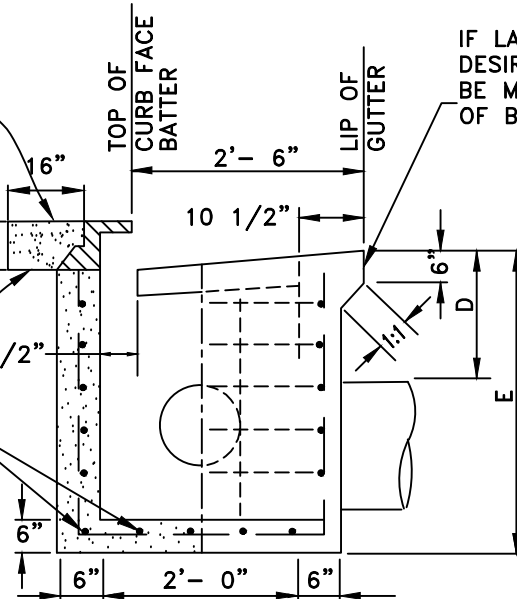
NOTES:

1. DIMENSIONS D AND E MAY VARY WITH EACH LOCATION.
2. SEE STANDARD DETAIL DR-9 FOR INLET GRATE.
3. THE INSIDE SURFACE OF FRONT AND BACK WALLS OF THE CATCH BASIN SHALL NOT DEVIATE MORE THEN 2" IN ALIGNMENT FROM INSIDE SURFACE OF THE WALLS OF THE TOP INLET PORTION.
4. SLOPE FLOOR 2" TO OUTLET.
5. CONCRETE SHALL BE "MINOR CONCRETE" AS DESCRIBED IN 71-5B OF THESE STANDARDS.
6. 6X6, 4 GAUGE WELDED WIRE FABRIC MAY BE USED IN LIEU OF #4 REBAR.
7. ALL REINFORCEMENT BAR SHALL BE GRADE 60.
8. CURB TRANSITION LENGTH FROM EACH SIDE OF DROP INLET TO STANDARD HEIGHT CURB SHALL BE 4'. MATCH DEEP TOOL JOINTS AND SCORE MARKS WITH CURB, GUTTER, AND SIDEWALK AS APPROPRIATE.
10. PIPE CONNECTIONS TO STRUCTURE SHALL BE MADE BY 12"X12" MINOR CONCRETE COLLARS.

"NO DUMPING"
SEE DETAIL
DR-20

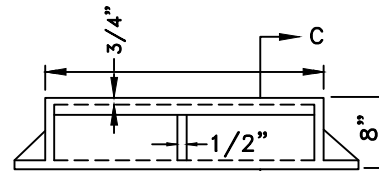
12" EACH SIDE
OF DRAIN
INLET. IF NOT
ADJOINING
SIDEWALK.

NO.4 BARS @
8" O.C. EACH
WAY.

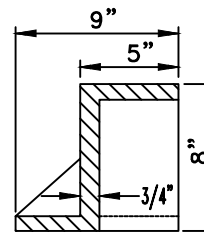


SECTION B-B

IF LARGER BOX IS
DESIRED FILLET CAN
BE MOVED TO INSIDE
OF BOX



BONNET



SECTION C-C

MARC STOUT
CITY ENGINEER

CITY OF
ROSEVILLE
CALIFORNIA

DEVELOPMENT SERVICES
DEPARTMENT

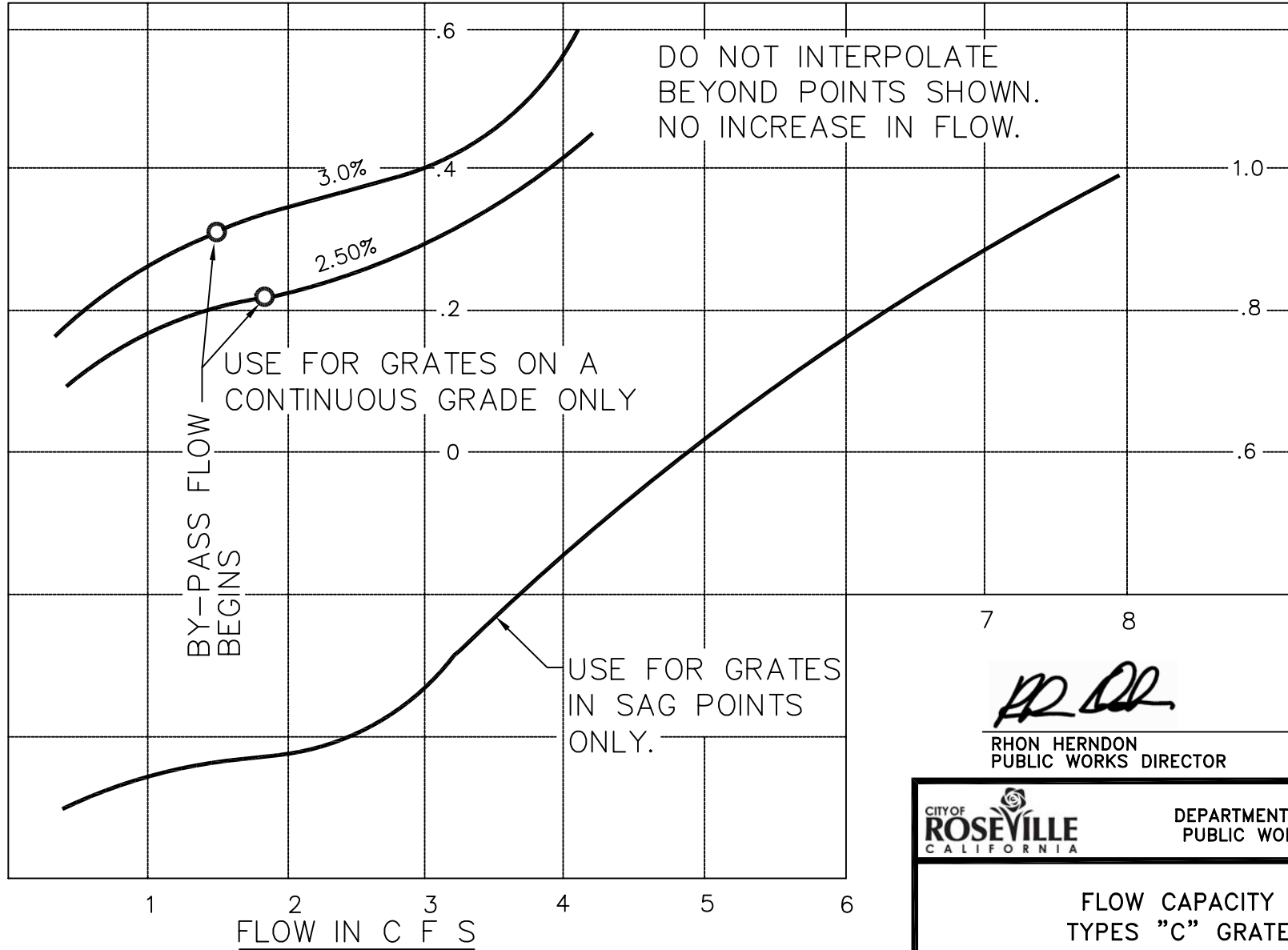
DROP INLET
TYPE "C"

FRAME, HOOD AND GRATE (OR APPROVED EQUAL APPLIES)
D&L SUPPLY: #FA-8543-R1 (FRAME), #FA-8543-02 (GRATE), #13541 (HOOD)
SOUTH BAY FOUNDRY: #1904 (FRAME, GRATE, HOOD)
HALM METAL FAB:#13542(FRAME), #13543 (GRATE), #13541 (HOOD)

SCALE: NONE
REVISED: May 10, 2021
DRAWN BY: R MEDINA
APPROVED BY: MARC STOUT

DR-1

DEPTH IN FEET AT GUTTER FLOWLINE (SUMP)



RHON HERNDON
PUBLIC WORKS DIRECTOR

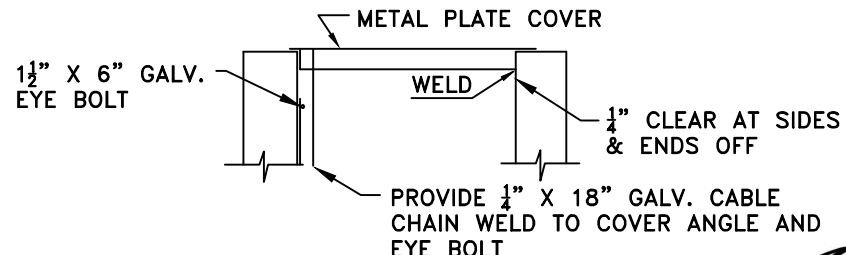
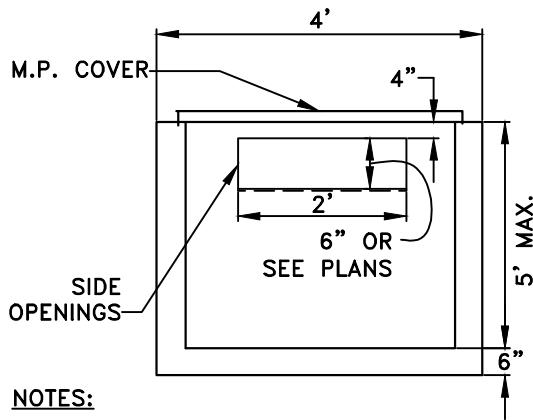
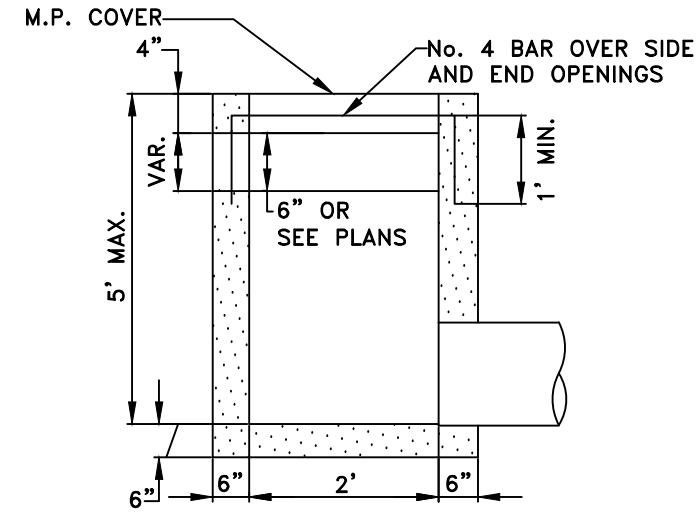
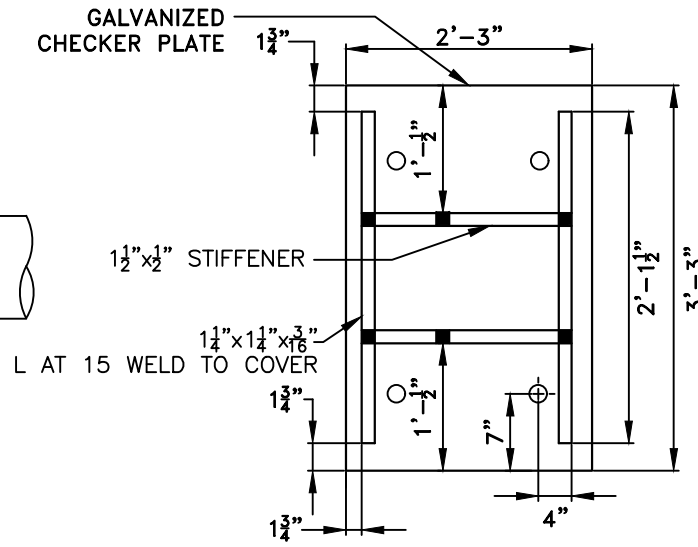
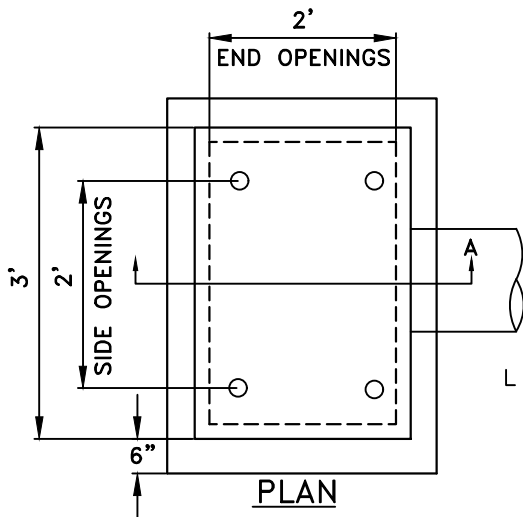


DEPARTMENT OF
PUBLIC WORKS

FLOW CAPACITY
TYPES "C" GRATE

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

DR-2



NOTE: METAL PLATE COVER TO BE D&L SUPPLY (FA-8452-01) OR APPROVED EQUAL)

NOTES:

1. METAL PLATE COVER TO BE GALVANIZED.
2. THIS STRUCTURE TO BE USED ONLY TO PICKUP ON SITE DRAINAGE ON PRIVATE PROPERTY UNLESS SPECIFICALLY APPROVED BY THE DIRECTOR.
3. DRAIN INLETS NOT WITHIN A PAVED AREA SHALL HAVE A 12" WIDE COLLAR OF 6" THICK CONCRETE.
4. THE INSIDE SURFACE OF FRONT AND BACK WALLS OF THE CATCH BASIN SHALL NOT DEVIATE MORE THEN 2" OF VERTICAL ALIGNMENT.
5. SLOPE FLOOR 2" TO OUTLET.
6. ALL CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.
7. PROVIDE END OR SIDE OPENINGS AS SHOWN ELSEWHERE ON PLANS OR CROSS SECTIONS.
8. TOP OF ALL WALLS SHALL BE FINISHED TO A LEVEL PAN TO PROVIDE EVEN BEARING FOR PLATE COVER.
9. SEE DETAIL DR-1 FOR REINFORCEMENT REQUIREMENTS.
10. PIPE CONNECTIONS TO STRUCTURE SHALL BE MADE BY 12"x12" MINOR CONCRETE COLLARS.

MARC STOUT
CITY ENGINEER

 CITY OF ROSEVILLE CALIFORNIA	DEVELOPMENT SERVICES DEPARTMENT
---	------------------------------------

DROP INLET
TYPE "F"

SCALE: NONE
 REVISED: JANUARY 1, 2020
 DRAWN BY: R MEDINA
 APPROVED BY: MARC STOUT

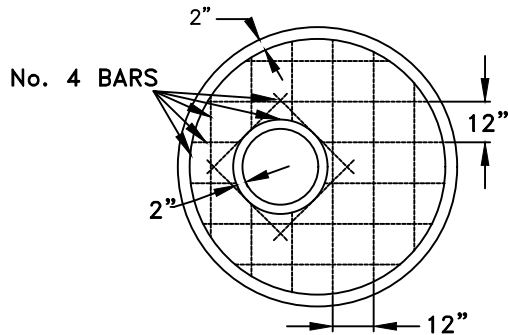
DR-3

TABLE OF DIMENSIONS

A	B	T MIN.
48"	18"	6"
60"	30"	8"
72"	42"	8"
84"	54"	12"
96"	12" (FLAT)	12"

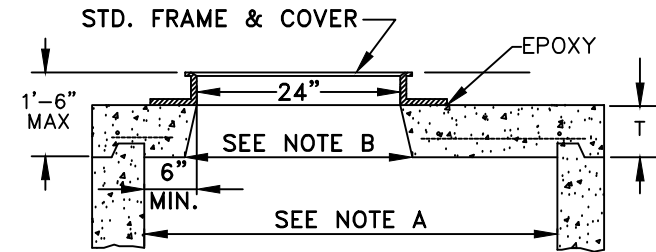
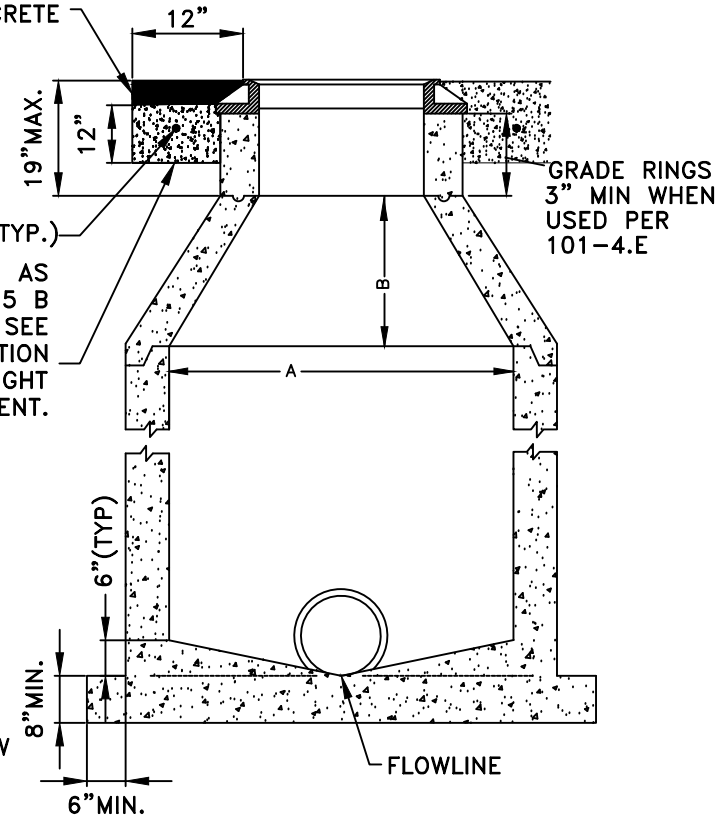
DIMENSION "B" IS A MINIMUM DIMENSION AND MAY BE GREATER IF DEPTH PERMITS.

RISER SECTIONS, CONES, AND ADJUSTING RINGS SHALL CONFORM TO ASTM DESIGNATION C-478



3" PAVEMENT PATCH OR MINOR CONCRETE PER SECTION 101-4.F FOR FINISH GRADE REQUIREMENTS

"MINOR CONCRETE" AS DEFINED IN SECTION 71-5 B OF THESE STANDARDS. SEE NOTE 7 BELOW. SEE SECTION 101-4F FOR CASTING HEIGHT OUTSIDE PAVEMENT.



- A. A FLAT TOP SLAB SHALL BE USED WHEN A SHALLOW LINE DOES NOT PERMIT USE OF A TAPERED CONE. NO CONCRETE COLLAR REQUIRED.
- B. IF THE BOTTOM, INSIDE DIAMETER OF THE FLAT TOP OPENING IS 28 INCHES OR MORE, THE THICKNESS OF THE SLAB MAY BE DISREGARDED IN COMPUTING THE MAXIMUM 18 INCH HEIGHT OF THE OPENING.

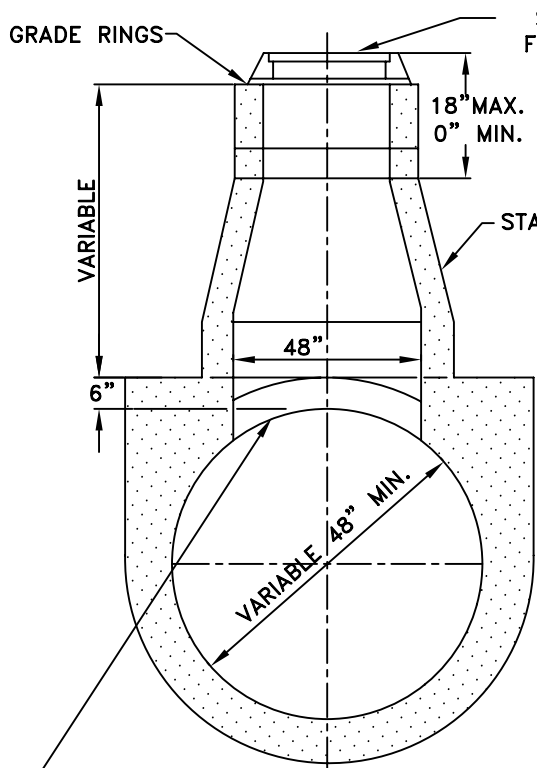
FLAT TOP SLAB

NOTES:

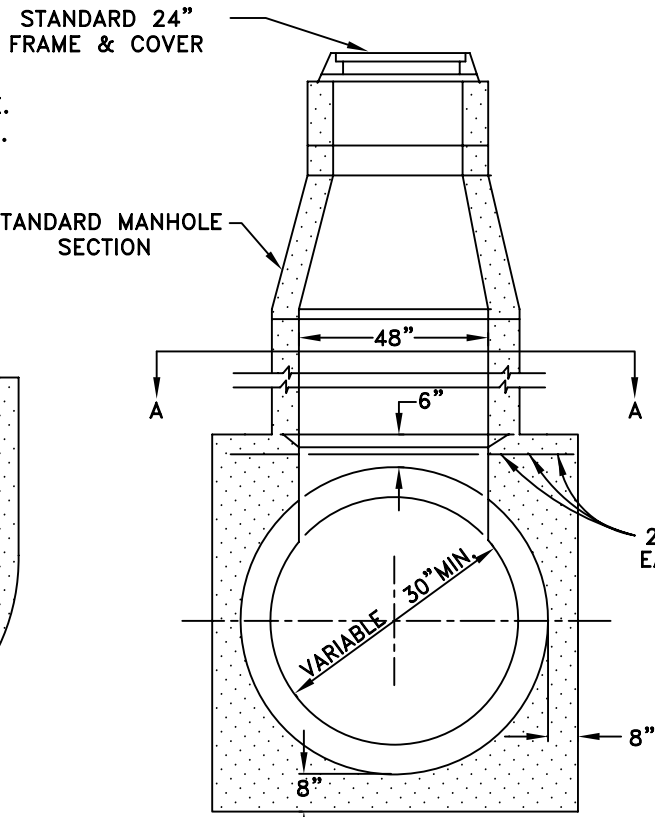
1. ECCENTRIC CONES SHALL BE USED WHERE SPECIFIED ON THE PLANS.
2. JOINT MAY BE EITHER KEYED OR TONGUE AND GROOVE.
3. SEE SECTION 101-8 (MATERIALS) FOR JOINT COMPOUND. (ALL MANHOLE JOINTS)
4. TOP OF FRAME SHALL BE 1/8 INCH BELOW ADJACENT PAVEMENT. (PER 101-4.F)
5. 0.20 FOOT MINIMUM FALL THROUGH MANHOLE.
6. O.D. OF PIPE SHALL NOT EXCEED I.D. OF ITS MANHOLE BARREL.
7. WHERE SHORT 24" FRAMES ARE USED, TO ACHIEVE FULL 3 INCH PAVEMENT PATCH SLOPE CONCRETE FROM BASE OF FRAME TO 3 INCHES BELOW FINISH GRADE.
8. PIPE CONNECTIONS TO STRUCTURE SHALL BE MADE BY 12"X12" MINOR CONCRETE COLLARS.
9. CONCRETE COLLAR AROUND RIM SHALL BE BROUGHT TO SURFACE FINISH GRADE FOR ALL COLLECTORS AND ARTERIALS, OPTIONAL IN ALL OTHER ROADWAYS. FINISH SURFACE SHALL BE MEDIUM BROOM FINISH WITH PATTERN PERPENDICULAR TO VEHICLE TRAVEL DIRECTION.

MARC STOUT
CITY ENGINEER

	DEVELOPMENT SERVICES DEPARTMENT
STANDARD PRECAST MANHOLE (DRAINAGE)	
SCALE: NONE REVISED: MARCH 1, 2021 DRAWN BY: R MEDINA APPROVED BY: MARC STOUT	DR-4

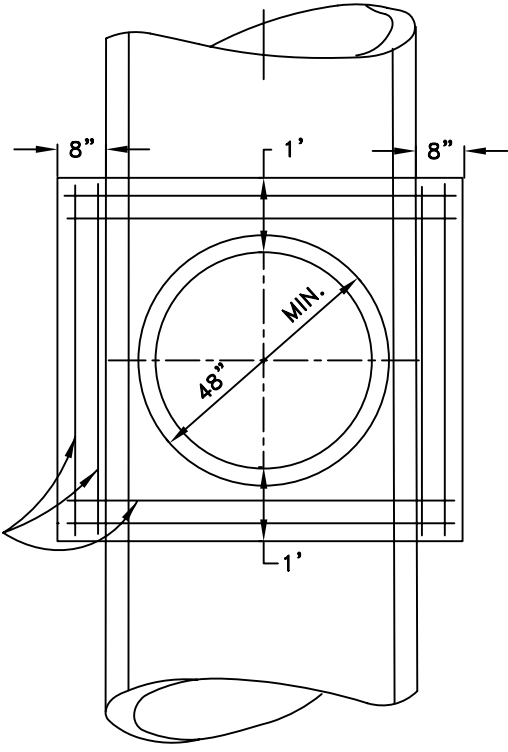


TYPE A
CAST-IN-PLACE PIPE ONLY



TYPE B

1. ALL PIPE OTHER THAN CAST-IN-PLACE PIPE
2. CAST-IN-PLACE PIPE LESS THAN 48" DIA.




SECTION A-A

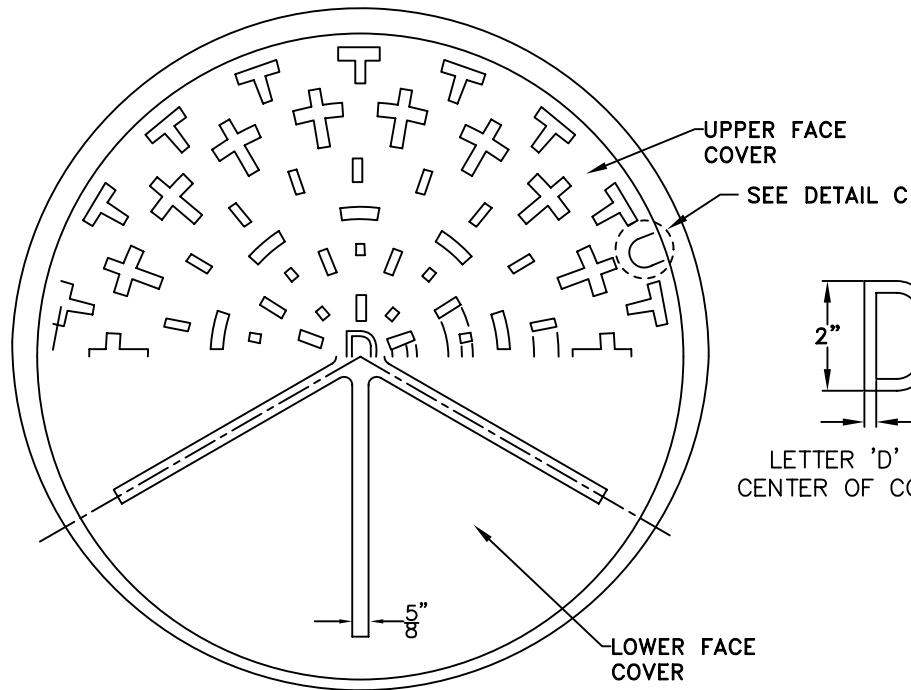
RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

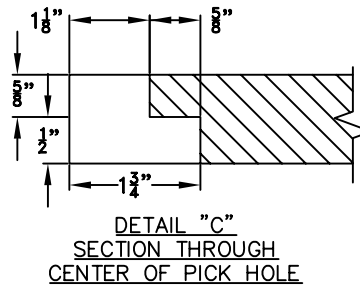
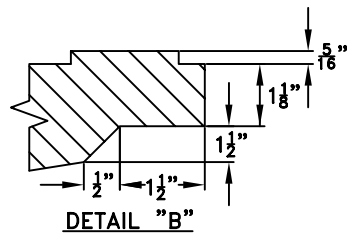
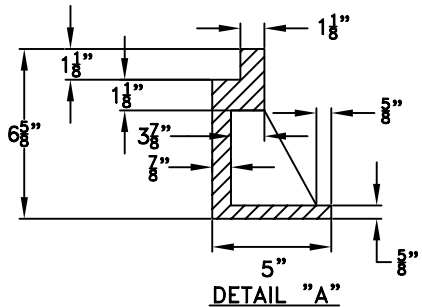
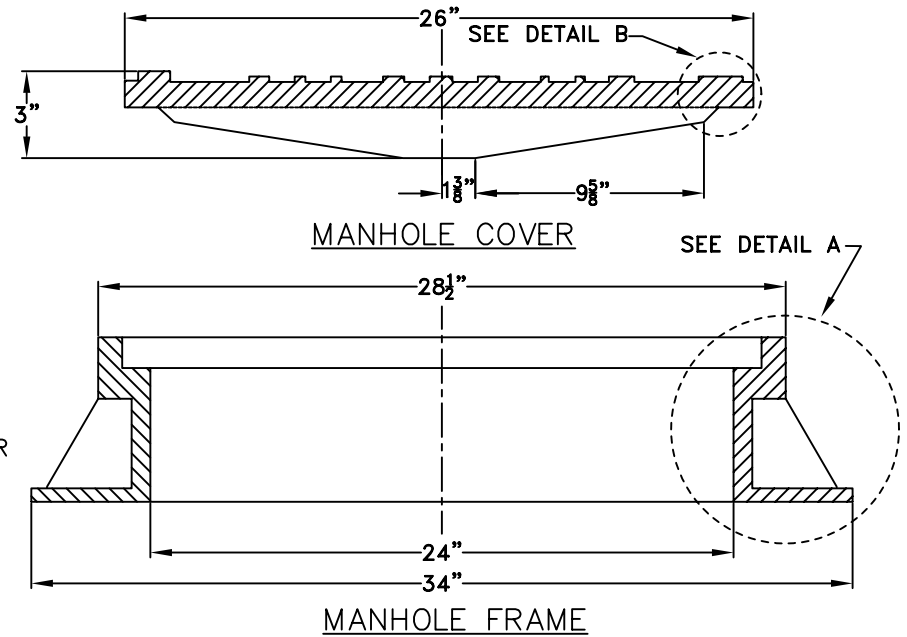
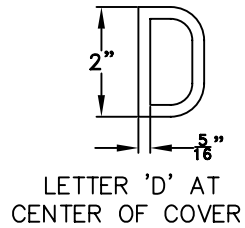
NOTE:
REMOVE CONCRETE IN MANHOLE OPENING AND CONSTRUCTION RISER BASE WHILE CONCRETE IS STILL FRESH

PLACE RISER SECTION AFTER CONCRETE HAS SET

	DEPARTMENT OF PUBLIC WORKS
TYPE A & B SADDLE MANHOLE	
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	
DR-5	



HALF PLAN OF HEAD AND COVER



RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

CITY OF
ROSEVILLE
CALIFORNIA

DEPARTMENT OF
PUBLIC WORKS

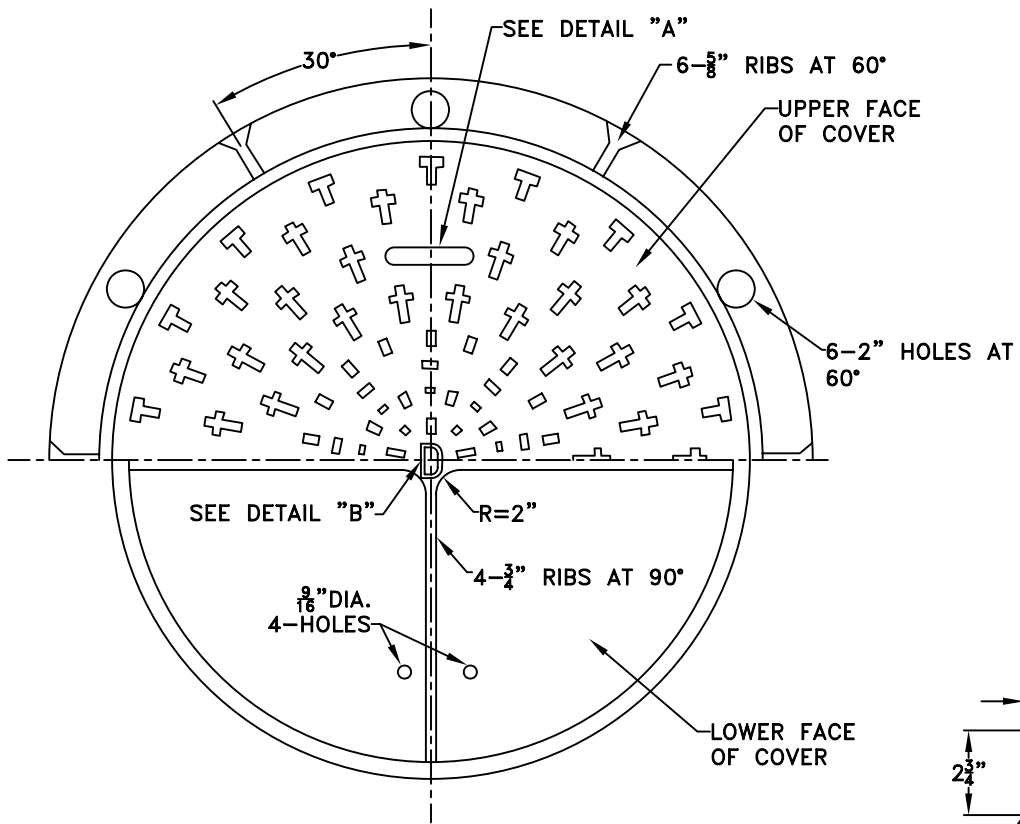
STANDARD DRAINAGE MANHOLE
FRAME AND COVER

SCALE: NONE
REVISED: JANUARY 1, 2013
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

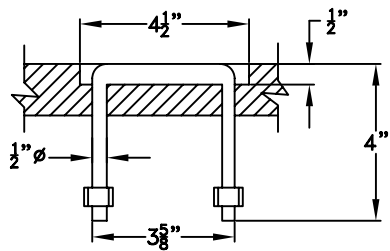
DR-6

NOTES:

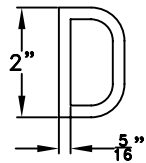
1. REMOVE CONCRETE IN MANHOLE OPENING AND CONSTRUCTION RISER BASE WHILE CONCRETE IS STILL FRESH
2. PLACE RISER SECTION AFTER CONCRETE HAS SET.
3. A SHORT FRAME REQUIRES APPROVAL OF THE PUBLIC WORKS INSPECTOR.
4. ALL MANHOLE COVERS ARE TO HAVE A ANTI SKID PATTERN
5. SEE SECTION 101-8 MATERIALS OF THE THESE CONSTRUCTION STANDARDS (DR 9 of 11) FOR APPROVED FRAME AND COVERS.



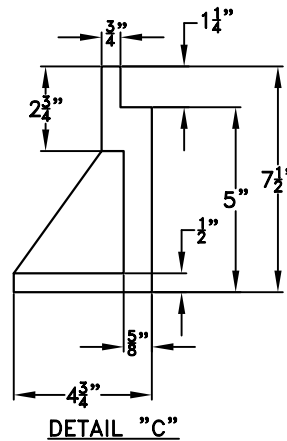
HALF PLAN OF MANHOLE COVER AND FRAME



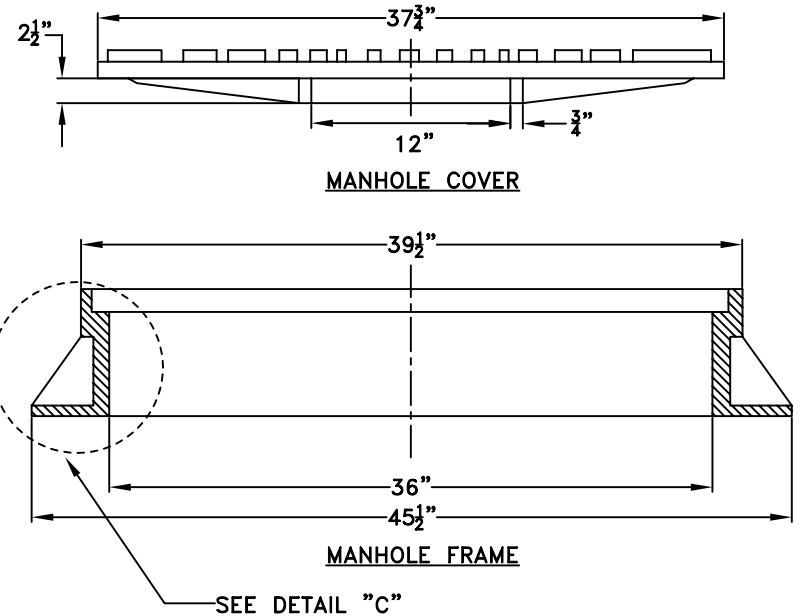
DETAIL "A" HANDLE



DETAIL "B"
LETTER "D" AT CENTER OF COVER



DETAIL "C"



NOTE:

FRAME WT. APPROX. 300 LBS.
COVER WT. APPROX. 375 LBS.

RHON HERNDON
PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

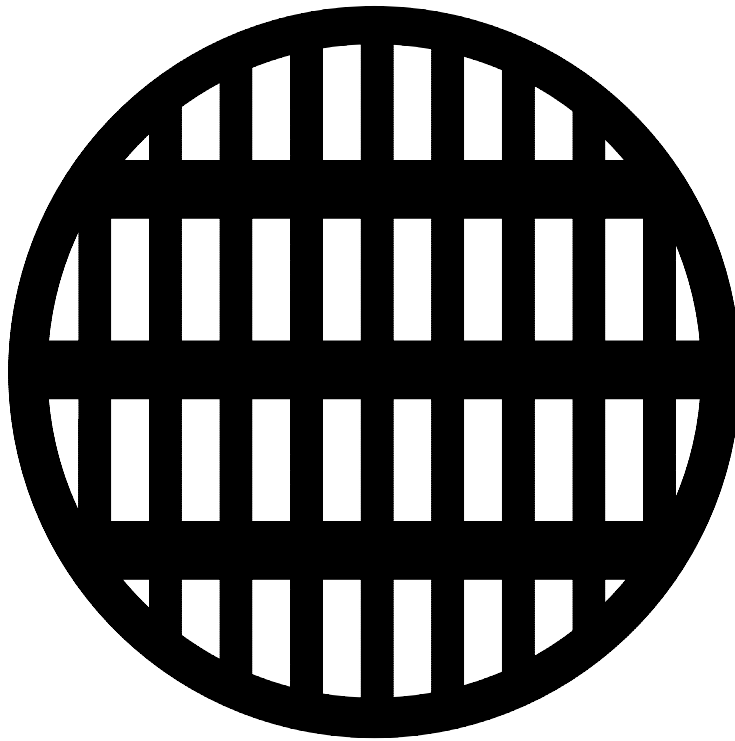
STANDARD 36" MANHOLE
FRAME AND COVER

NOTES:

1. ALL MANHOLE COVERS ARE TO HAVE A ANTI SKID PATTERN
2. SEE SECTION 101-8 MATERIALS OF THE THESE CONSTRUCTION STANDARDS (DR 9 of 11) FOR APPROVED FRAME AND COVERS.

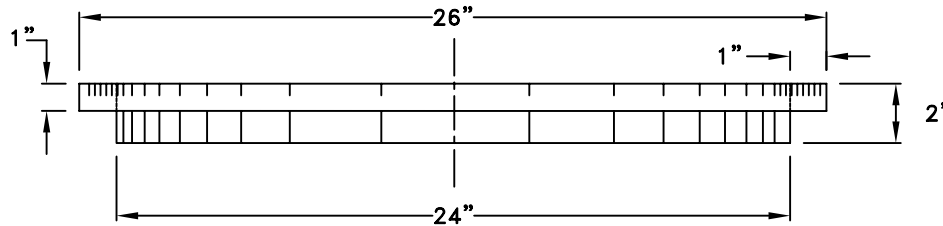
SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

DR-7




DRAIN INLET FRAME AND COVER ASSEMBLIES
(OR APPROVED EQUAL APPLIES)

D&L SUPPLY: #C-2660 (6 5/8 INCH HIGH STANDARD CASTING), #C-2661 (5 INCH), #C-2662 (3 INCH)
SOUTH BAY FOUNDRY: #1920 (6 5/8 INCH), #1922 (5 INCH), #1923 (3 INCH), (SPECIFY DRAIN INLET TYPE)

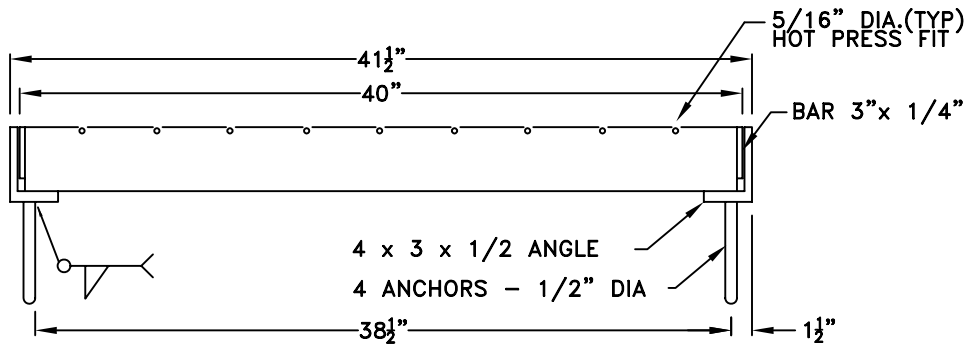
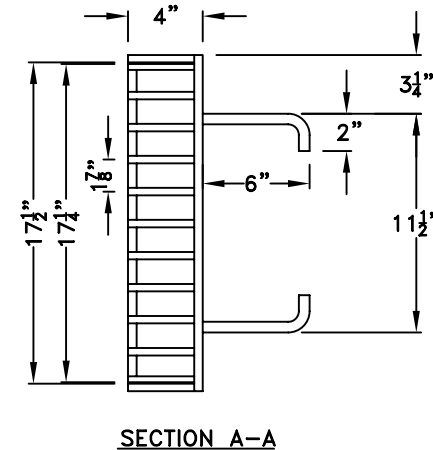
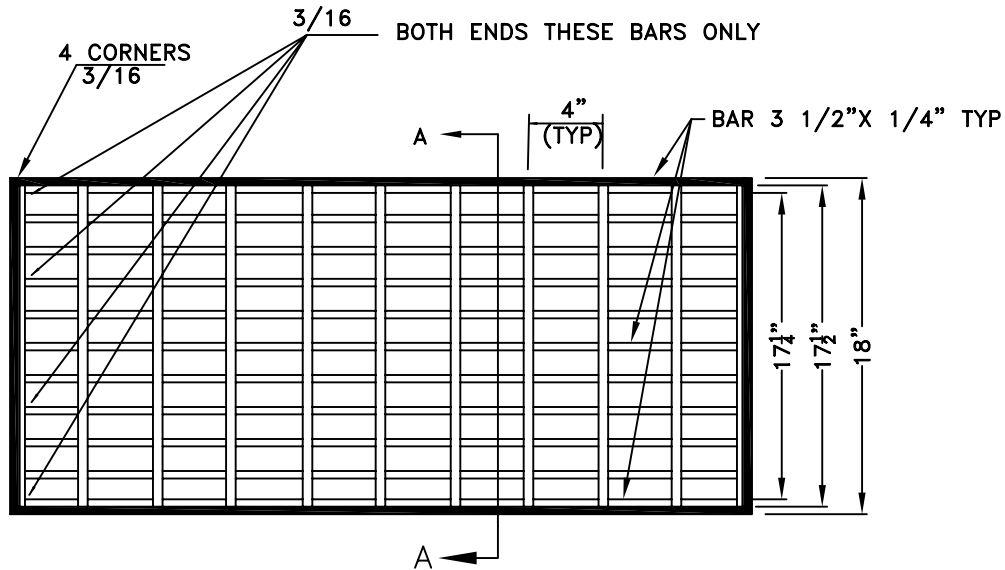


RHON HERNDON
PUBLIC WORKS DIRECTOR

		DEPARTMENT OF PUBLIC WORKS
GRATE TYPE MANHOLE COVER		
SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON		DR-8

NOTES:

1. DRAIN INLET AND NON DRAIN INLET FRAMES ARE IDENTICAL.
2. A SHORT FRAME REQUIRES APPROVAL OF THE PUBLIC WORKS INSPECTOR



RHON HERNDON

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CITY OF
ROSEVILLE
CALIFORNIA

DEPARTMENT OF
PUBLIC WORKS

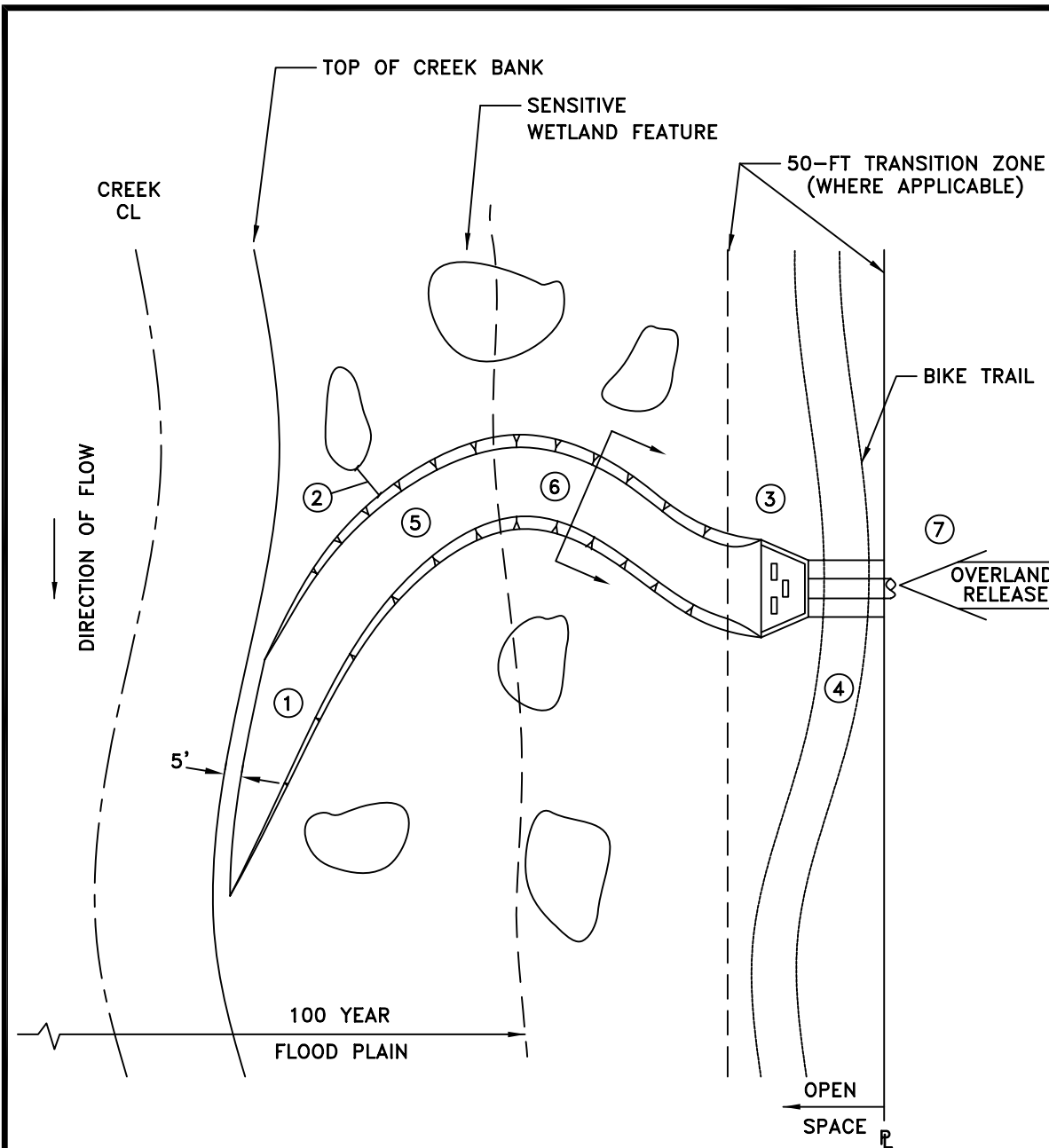
DROP INLET FRAME AND GRATE
FOR TYPE "C" INLETS

NOTES:

1. FOR CATCH BASINS EXCEEDING FOUR FEET IN DEPTH, AN 18 INCH LONG, 1/4 INCH X 1/8 INCH PROOF COIL CHAIN SHALL CONNECT THE GRATE AND FRAME. THE CHAIN SHALL BE WELDED TO THE STREET SIDE OF THE FRAME AND THE CURB SIDE OF THE GRATE AT THE SAME END.
2. AT THE CONTRACTOR'S OPTION, END SPACING OF 5/16" CROSS RODS MAY BE 2". INTERIOR SPACING SHALL REMAIN 4".

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

DR-9




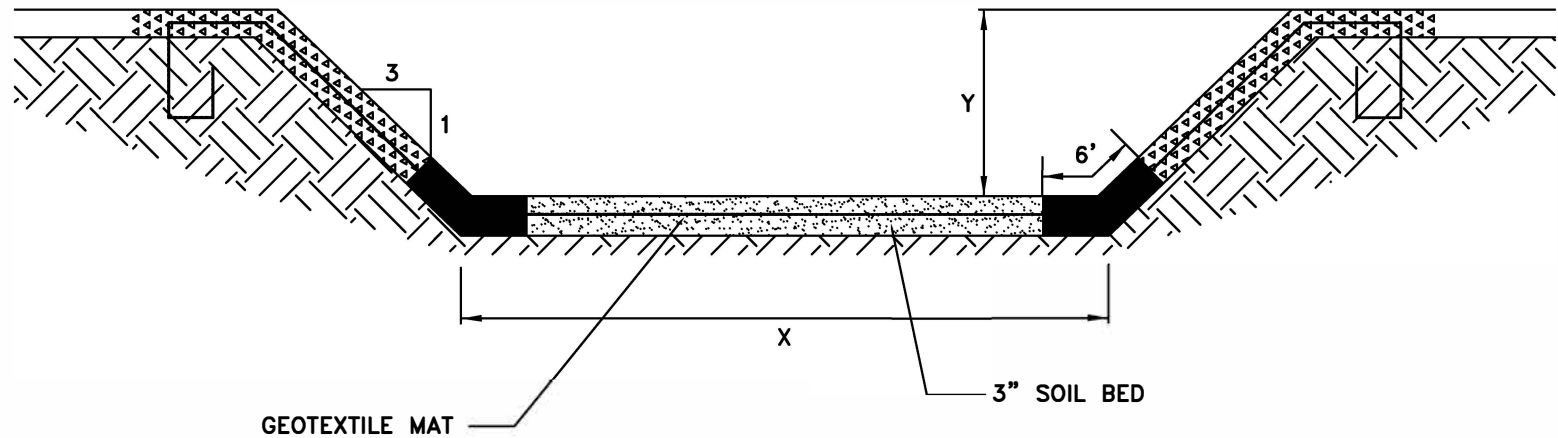
NOTES:

- ① DRAINAGE SWALE (DR-11) SHALL DAYLIGHT 5-FT PRIOR TO TOP OF CREEK BANK. FLOW VELOCITY SHALL BE AT 2 FPS PRIOR TO DAYLIGHT.
- ② EDGE OF DRAINAGE SWALE SHALL REMAIN A MINIMUM OF 5-FT FROM ANY SENSITIVE WETLAND FEATURES.
- ③ OUTFALL STRUCTURE (DR-12) MAY BE PLACED WITHIN 50-FT TRANSITION ZONE. IN AREAS WHERE A TRANSITION ZONE DOES NOT EXIST, THE LOCATION OF THE OUTFALL STRUCTURE SHALL BE ONSITE OR AS APPROVED BY THE CITY ENGINEER.
- ④ IF A BIKE TRAIL IS LOCATED WITHIN THE OPEN SPACE, THEN THE OUTFALL STRUCTURE SHALL BE PLACED ON THE STREAM SIDE OF THE BIKE TRAIL.
- ⑤ VELOCITY CHECK DAMS DR-14 SHALL BE USED WHEN DESIGN FLOW VELOCITY EXCEEDS 5 FPS.
- ⑥ SEE STANDARD DETAIL DR-11 FOR SWALE CROSS SECTION.
- ⑦ OVERLAND RELEASE SHALL TIE INTO HEADWALL STRUCTURE PER DETAIL DR-12.
- ⑧ SWALE LENGTH IS A FUNCTION OF CONTACT TIME AS REQUIRED FOR STORM WATER TREATMENT.




RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

 CITY OF ROSEVILLE CALIFORNIA	DEPARTMENT OF PUBLIC WORKS
WATER QUALITY OUTFALL SWALE WITHIN OPEN SPACE	
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	
DR-10	



KEY:

-  SWALE/WET NATIVE SEED MIX
(SEE SECTION 11, GRADING FOR SEED MIX)
-  DRY NATIVE SEED MIX
(SEE SECTION 11, GRADING FOR SEED MIX)
-  SWALE/WET AND DRY SEED MIX

- X CHANNEL BASE
- Y CHANNEL DEPTH

NOTES

1. PYRAMAT HPTRM OR APPROVED EQUAL SHALL BE PLACED ON TOP OF 3-IN SEEDED SOIL BED AND WILL BE INSTALLED PER THE MANUFACTURE'S SPECIFICATIONS. FOR CHANNEL VELOCITIES LESS THAN 5 FPS, THE PYRAMAT HTRM MAY BE REPLACED WITH A BIODEGRADABLE MATTING (I.E. COCONUT MATTING) THE BIODEGRADABLE MATTING SHALL A MINIMUM 3 YEAR LIFE.
2. WETLAND AND UPLAND SEEDING SHALL OVERLAP AT THE TRAPEZOIDAL HINGE POINT.
3. IF SWALE IS BEING USED FOR STORM WATER TREATMENT, THEN THE CHANNEL GEOMETRIC DESIGN SHALL FOLLOW THE GUIDLINES FOR CONTACT TIME FROM THE STORMWATER QUALITY DESIGN MANUAL FOR THE SACRAMENTO AND SOUTH PLACER REGIONS.
4. ALL SWALES SHALL BE DESIGNED TO CONVEY THE 10-YEAR STORM EVENT.



MARC STOUT
CITY ENGINEER

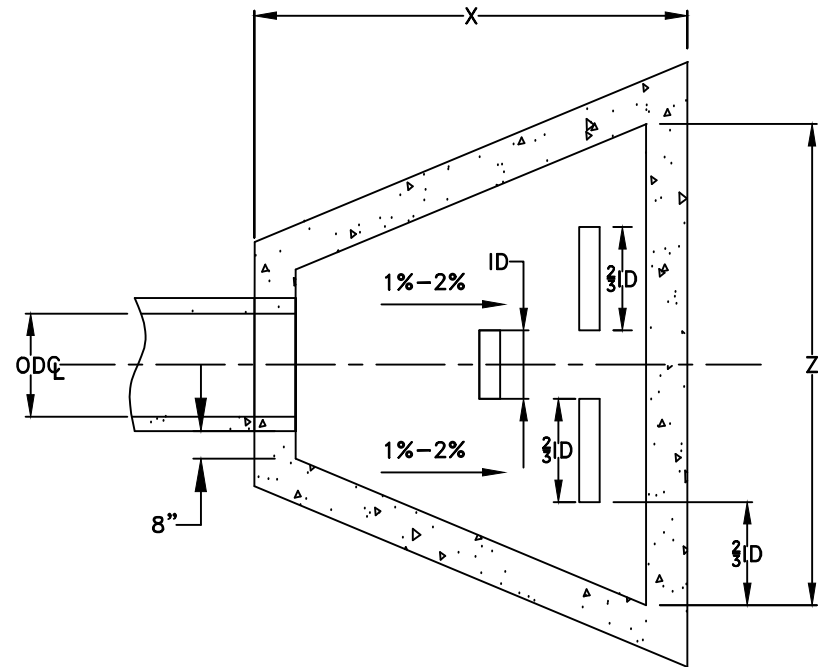
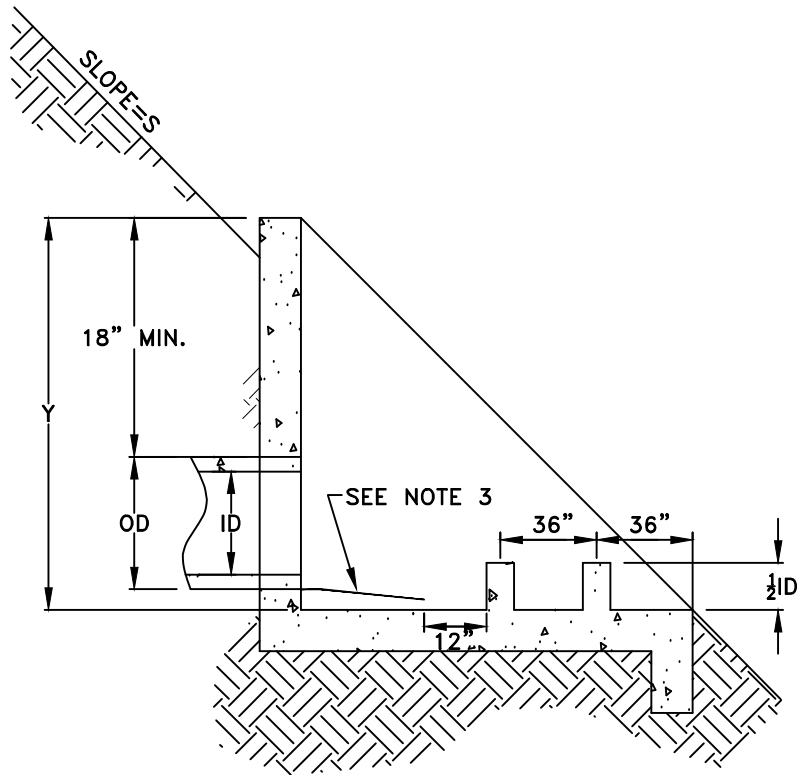
CITY OF
ROSEVILLE
CALIFORNIA

DEVELOPMENT SERVICES
DEPARTMENT

WATER QUALITY
OUTFALL SWALE

SCALE: NONE
REVISED: FEBRUARY 1, 2020
DRAWN BY: J HENDRIX
APPROVED BY: MARC STOUT

DR-11

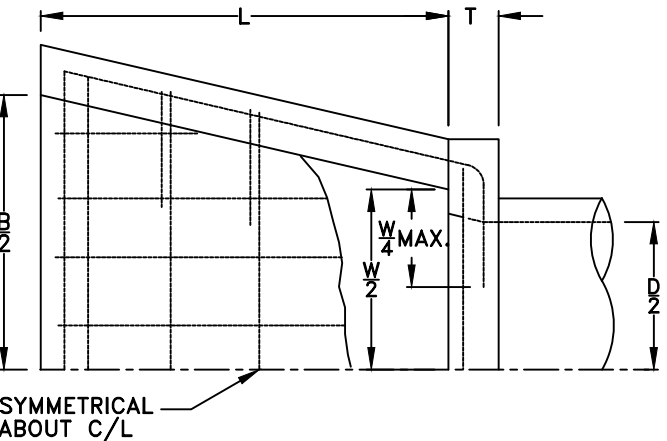


NOTES:

1. HEADWALL DESIGN MUST MEET THE FOLLOWING CRITERIA:
 - A. $X = SY$
 - B. $X \geq ID+6(FT)$
 - C. $Y \geq OD+2(FT)$
2. ALL CONCRETE SHALL BE MINIMUM 8" THICK
3. DESIGN ENGINEER SHALL PROVIDE A REBAR SCHEDULE FOR HEADWALLS LESS THAN 4 FEET IN HEIGHT
4. STRUCTURAL CALCULATIONS SHALL BE SUBMITTED FOR HEADWALLS 4 FEET OR GREATER IN HEIGHT
5. ALL CONCRETE TO BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS
6. REFER TO STANDARD DETAIL DR-16 FOR ACCESS CONTROL RACK REQUIREMENTS.
7. REFER TO DESIGN ENGINEER (STRUCTURAL) DESIGN WHERE FENCING IS REQUIRED.

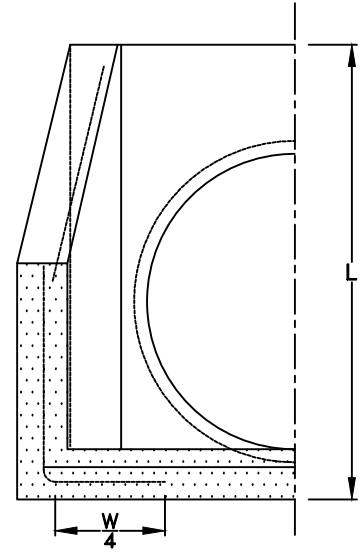
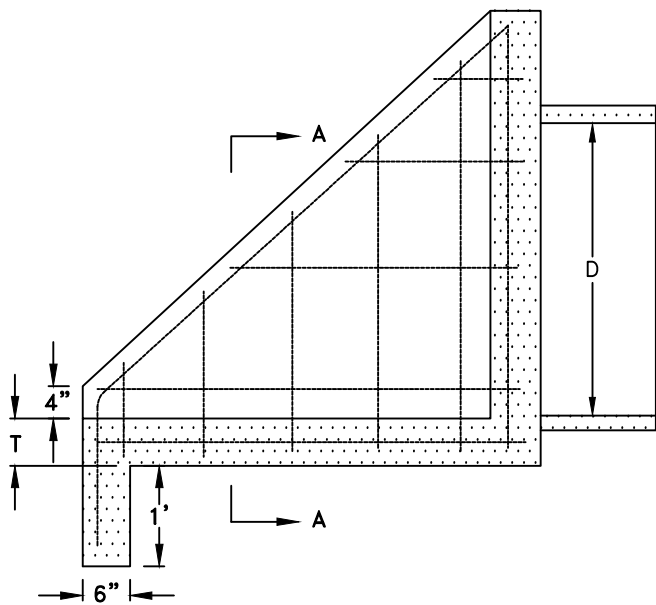
MARC STOUT
CITY ENGINEER

	DEVELOPMENT SERVICES DEPARTMENT
<h2 style="margin: 0;">HEADWALL</h2>	
SCALE: NONE REVISED: JANUARY 1, 2021 DRAWN BY: J MCKINNEY APPROVED BY: MARC STOUT	
DR-12	



DIMENSIONS & REINFORCING

D	W	B	L	T	ALL REINFORCING
33"	3'- 5"	5'- 3"	4'- 0"	6"	# 5 @ 12"
36"	3'- 8"	5'- 8"	4'- 2"	6"	# 5 @ 12"
42"	4'- 4"	6'- 4"	4'- 8"	6"	# 5 @ 12"
48"	4'-10"	7'- 2"	5'- 2"	8"	# 6 @ 12"
54"	5'- 4"	8'- 0"	6'- 0"	8"	# 6 @ 12"
60"	6'- 0"	8'-10"	6'- 6"	8"	# 6 @ 12"



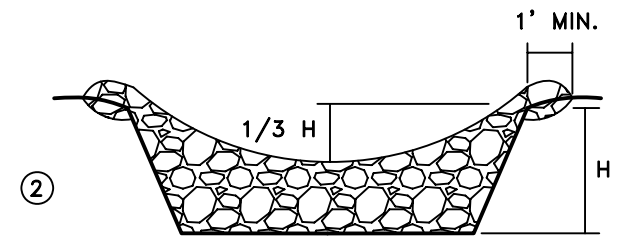
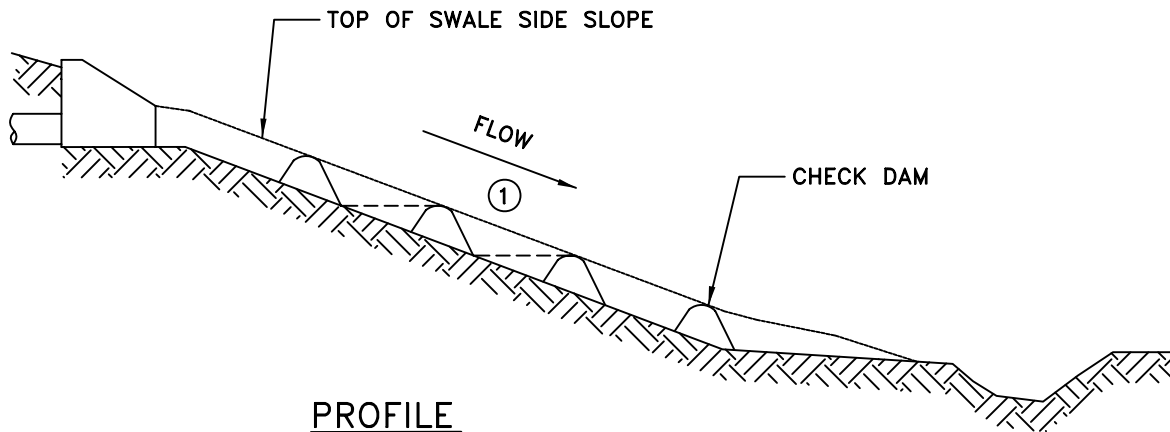
HALF SECTION A-A

RHON HERNDON
PUBLIC WORKS DIRECTOR

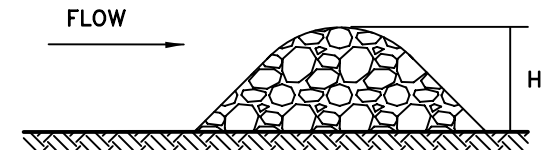
NOTES:

1. "B" MAY BE REDUCED IF REQUIRED BY CHANNEL DIMENSIONS
2. REINFORCING BAR SPACING SHOWN IS MAXIMUM SPACING.
3. ALL CONCRETE TO BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.
4. SEE DR-15 FOR TRASH RACK DETAIL.
5. REFER TO DESIGN ENGINEER'S (STRUCTURAL) DESIGN, WHERE FENCING IS REQUIRED.

	DEPARTMENT OF PUBLIC WORKS
	PIPE INLET STRUCTURE
SCALE: NONE REVISED: JANUARY 1, 2021 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	DR-13



FRONT VIEW



SIDE VIEW

RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

NOTES:

- ① CHECK DAMS SHALL BE SPACED SUCH THAT THE TOP OF THE DOWNSTREAM CHECK DAM ALIGNS WITH THE BOTTOM OF THE UPSTREAM CHECK DAM.
- ② RIP-RAP SHALL BE 4-INCH TO 6-INCH ANGULAR ROCK.
- ③ H = CHANNEL DEPTH

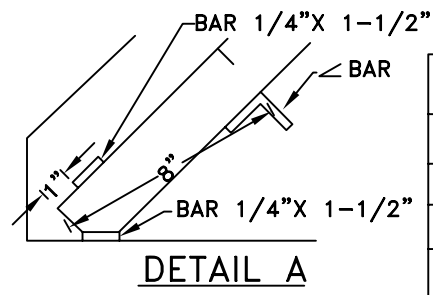
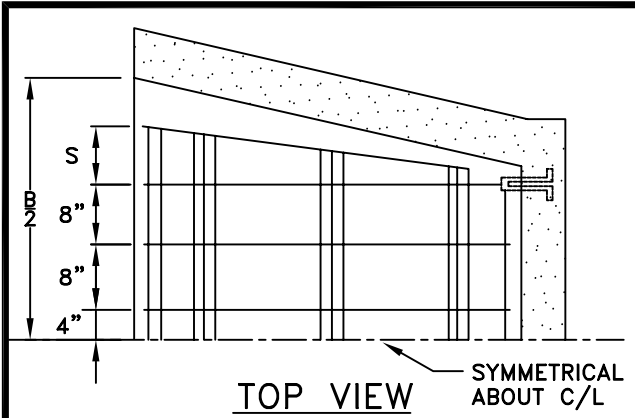


DEPARTMENT OF
PUBLIC WORKS

VELOCITY CHECK DAM

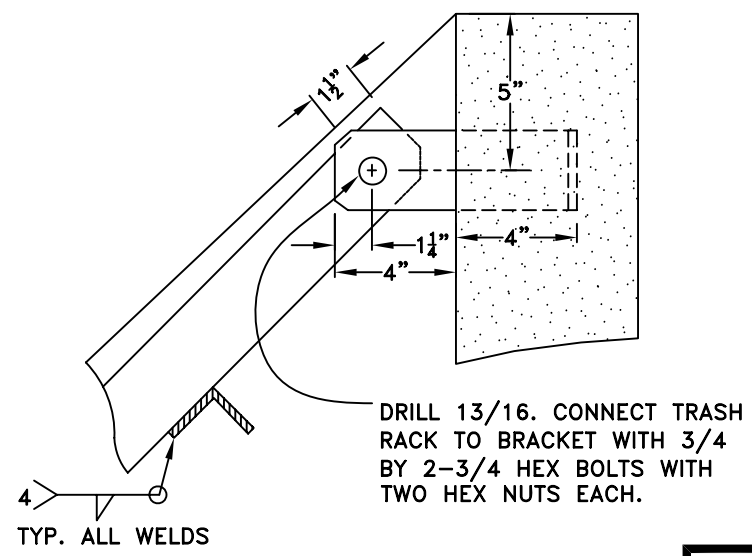
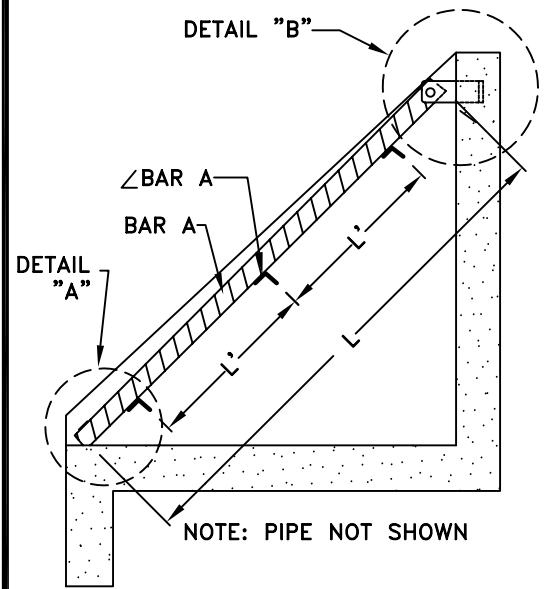
SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

DR-14



TRASH RACK DIMENSIONS

DIA.	NUMBER & SIZE		L	L'	S	H
	BAR A	L BAR				
33"	8-3/8 X 2 1/2	3-2 X 2 X 1/4	5'-1"	1'-10"	8"	3"-8"
36"	"	"	5'-4"	1'-11"	8"	3'-10"
42"	9-3/8 X 2 1/2	"	5'-11"	2'-3"	9"	4'-4"
48"	"	4-2 X 2 X 1/4	6'-7"	1'-9"	10"	4'-10"
54"	10-3/8 X 3	4-3 X 3 X 1/4	7'-9"	2'-1 1/2"	10 1/2"	5'-8"
60"	11-3/8 X 3 1/2	"	8'-5"	2'-4"	11"	6'-2"

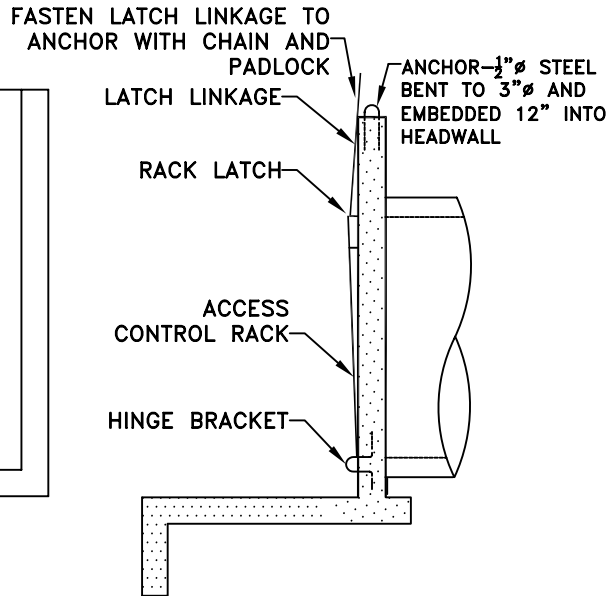
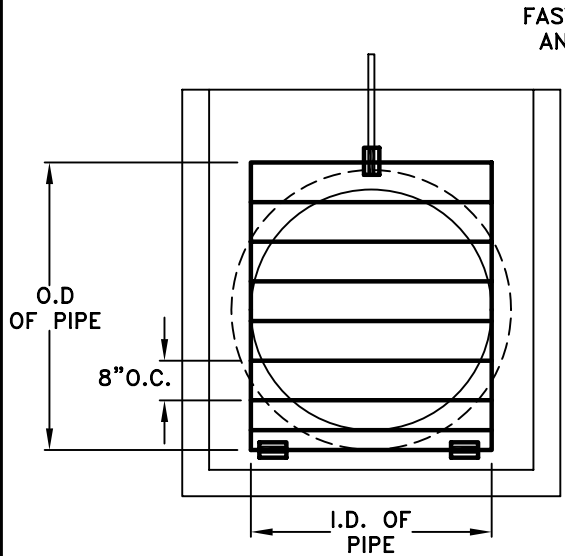


RHON HERNDON
PUBLIC WORKS DIRECTOR

NOTES

1. THIS TRASH RACK MAY BE USED WITH PIPE INLET STRUCTURES.
2. MATERIAL TO CONFORM TO ASTM DESIGNATION A-36.
3. 'S' MAY VARY WITH 'B'. SEE PLATE.
4. ALL FILLET WELDS TO BE 3/16"
5. TWO HINGES REQUIRED FOR 33, 36 & 42 INCH PIPES. THREE HINGES REQUIRED FOR 48, 54 & 60 INCH PIPES.

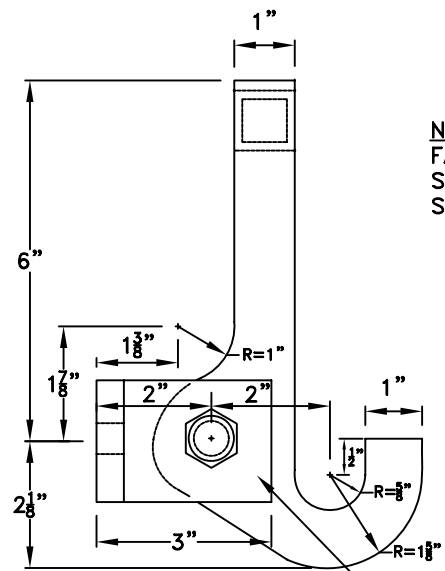
 DEPARTMENT OF PUBLIC WORKS	
INLET TRASH RACK 33" PIPE OR LARGER	
SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	DR-15



NOTES

1. ENTIRE RACK TO BE WELDED REINFORCING STEEL OR ROUND BARS OF EQUAL DIAMETER WITH HORIZONTAL BARS BEING 8" CENTER TO CENTER.
2. ROOM SHALL BE PROVIDED DOWNSTREAM TO LAY RACK FLAT.
3. FASTEN LATCH BRACKET TO HEADWALL WITH 1/2" X 6" BOLTS WITH HEX NUTS, OR 1/2" EXPANSION BOLTS.
4. WHEN RACK IS IN THE CLOSED POSITION, THE BOTTOM RACK BAR SHALL BE TIGHT AGAINST THE TOP OF THE HINGE BRACKET SO THAT THE RACK CANNOT BE LIFTED OFF THE LATCH.
5. FABRICATE HINGE BRACKET FROM #4 RE-BAR.

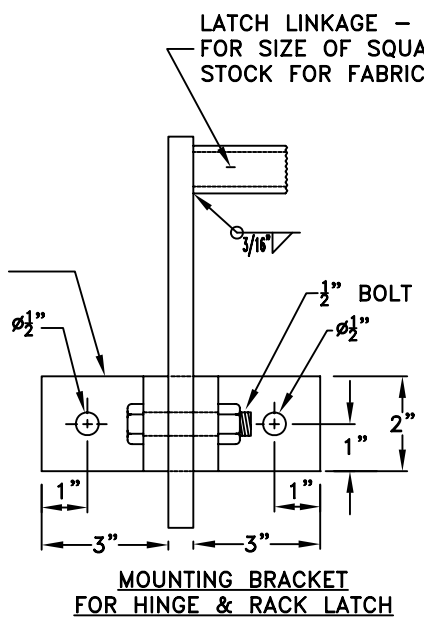
PIPE SIZE	RACK BAR SIZE	LATCH PLATE THICKNESS	LATCH LINKAGE SIZE
21"-27"	#4	1/4"	1", .095" THICK
30"-36"	#6	3/8"	1", .095" THICK
42"-54"	#7	1/2"	1", .133" THICK
60"-84"	#8	1/2"	1", .133" THICK



NOTE
FABRICATE LATCH FROM STEEL PLATE, THICKNESS SHOWN IN TABLE

3"X3" STEEL ANGLE
SAME PLATE THICKNESS
AS LATCH PLATE

3"X3" STEEL ANGLE
SAME PLATE THICKNESS
AS LATCH PLATE



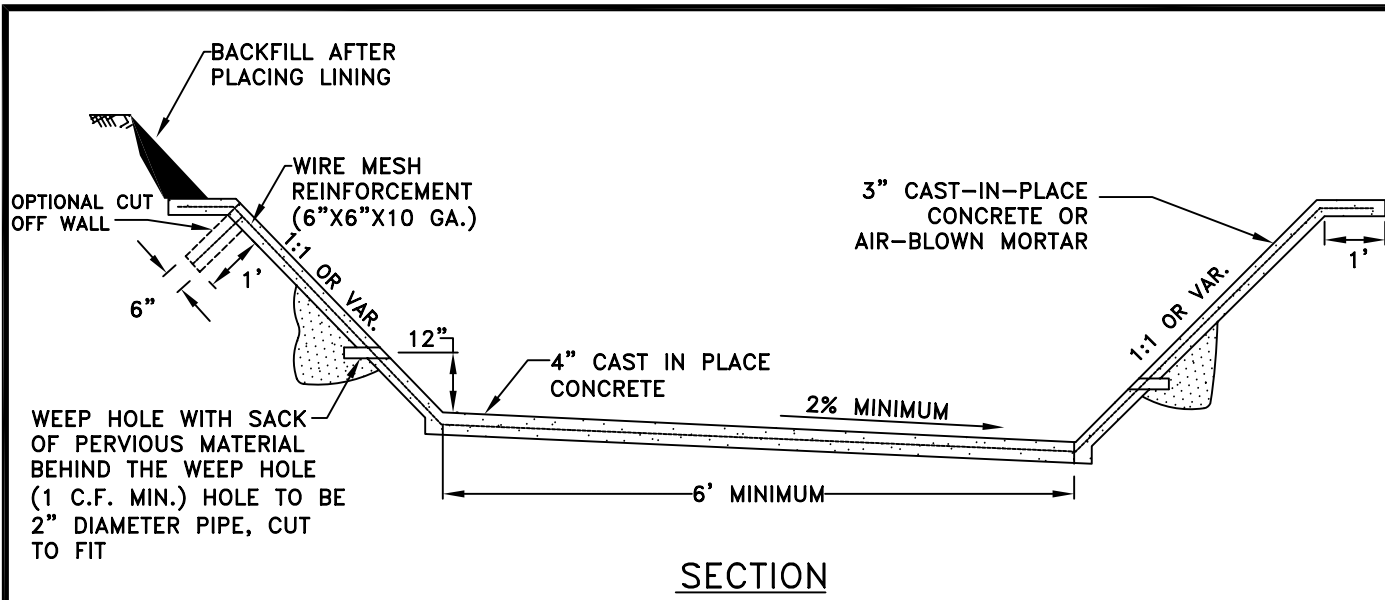
RHON HERNDON
PUBLIC WORKS DIRECTOR

CITY OF **ROSEVILLE** CALIFORNIA DEPARTMENT OF PUBLIC WORKS

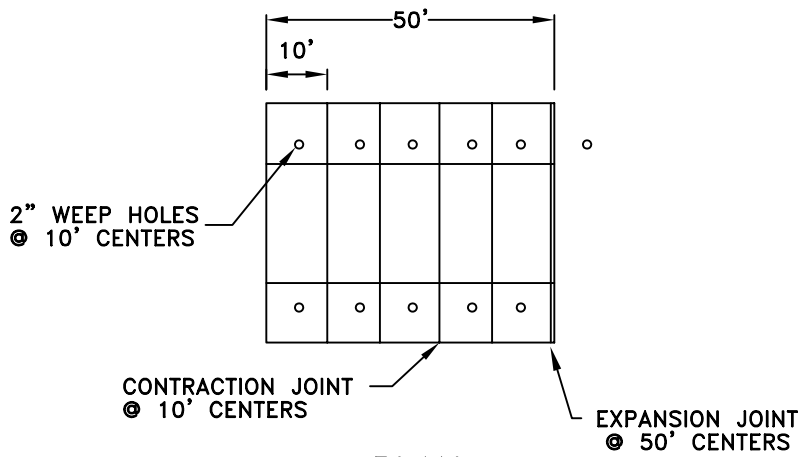
TRASH RACK

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

DR-16



SECTION



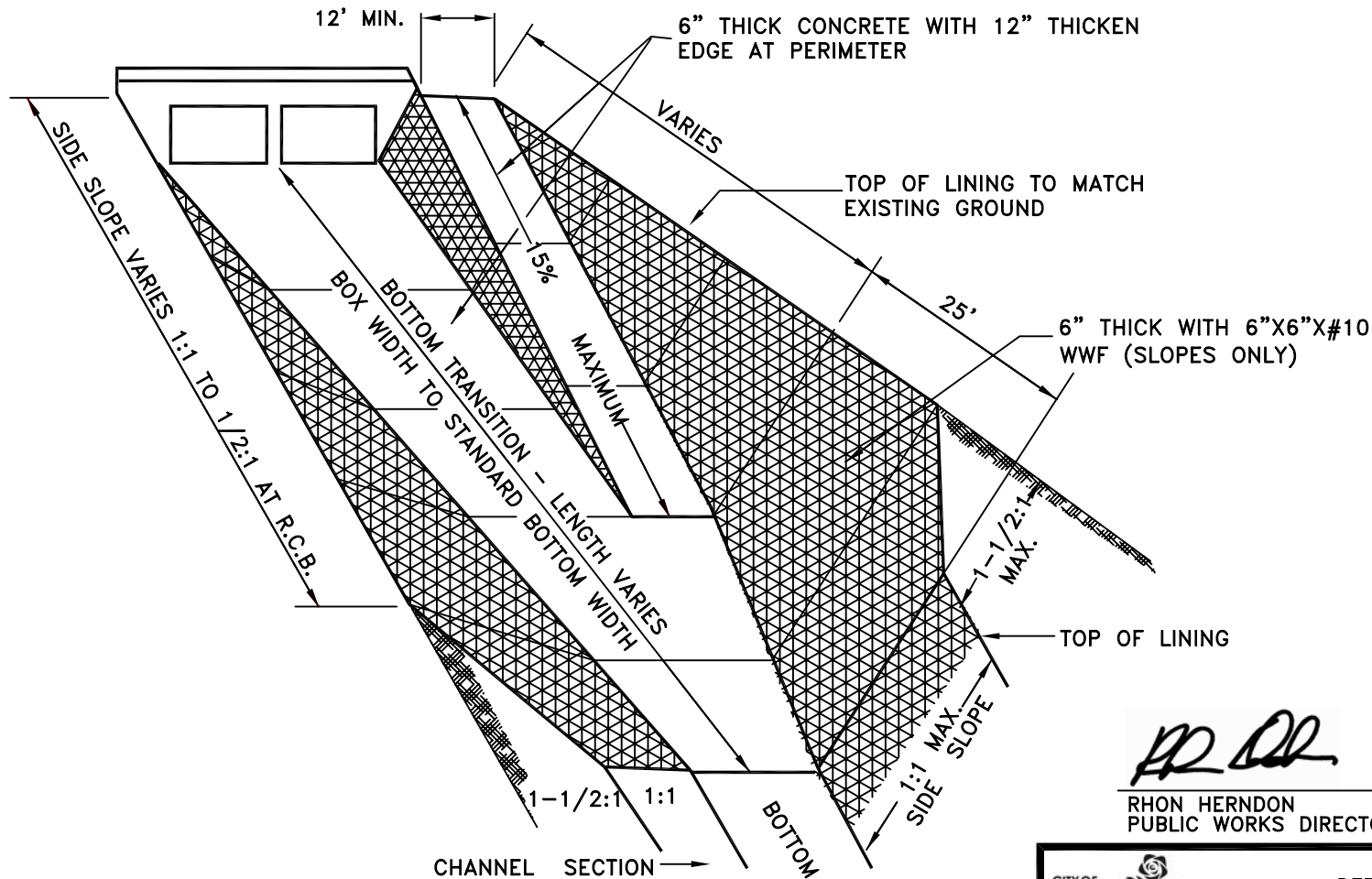
PLAN

NOTE:

1. ALL CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.

RHON HERNDON
PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
<p>LINED CHANNEL SECTION</p>	
SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	
DR-17	



RHON HERNDON

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PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

TYPICAL RAMP & TRANSITION

SCALE: NONE
REVISED: JANUARY 1, 2013
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

DR-18

NOTES:

1. BOTTOM TRANSITION 25' MINIMUM LENGTH WITH NO RAMP.
2. WEEP HOLES AND JOINTS AS REQUIRED FOR ALL LINED CHANNEL SECTIONS (SEE DETAIL DR-17).
3. LOW SIDE OF CHANNEL TO BE OPPOSITE RAMP.
4. SIDE SLOPE LINING MAY BE DELETED ON CHANNELS WITH BOTTOM LINING ONLY
5. ALL CONCRETE SHALL BE "MINOR CONCRETE" AS DEFINED IN SECTION 71-5B OF THESE STANDARDS.

MAXIMUM TRENCH DEPTH MEASURED SURFACE TO BOTTOM OF TRENCH IN FEET						
DIAMETER	REINFORCED CONCRETE PIPE -CLASS-					CAST IN PLACE
	I	II	III	IV	V	
10	NOT PERMITTED					NO LIMIT
12		8	12	30		
15		10	15	35		
18		11	16	38		
21		12	17	39		
24		12	18	39		
27		13	19	39		
30		14	19	38		
33		14	20	38		
36		13	17	27	69	
42		14	18	29	62	
48		15	19	30	60	
54		16	20	31	58	
60		14	16	21	31	
66	15	17	22	32	56	35
72	15	18	23	33	56	30


MINIMUM COVER MEASURED SURFACE TO TOP OF PIPE IN INCHES			
TYPE	CLASS	MIN. COVER	
		STREET	OFF ST.
REINFORCED CONCRETE	I	27	12
	II	24	12
	III	18	12
	IV	12	12
	V	12	12
CAST PLACE CONC. PIPE	-----	24	12
PVC PIPE		36	24

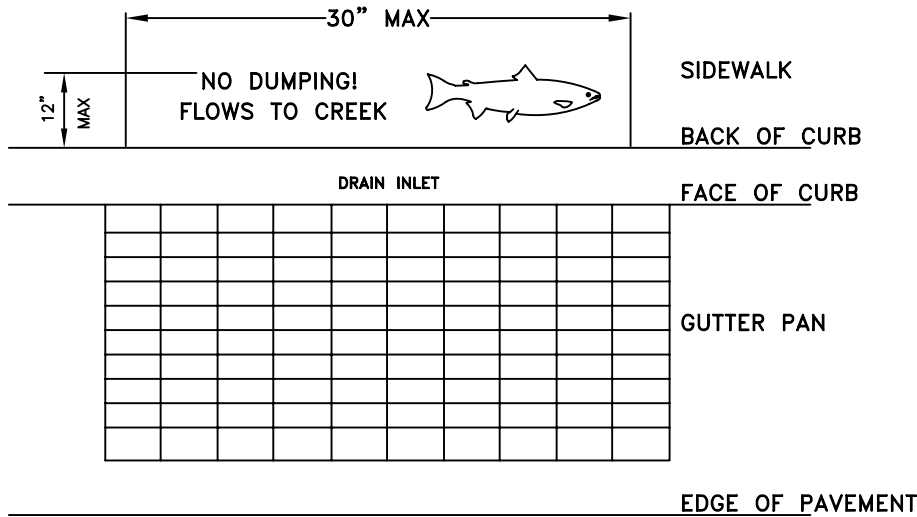


RHON HERNDON
PUBLIC WORKS DIRECTOR

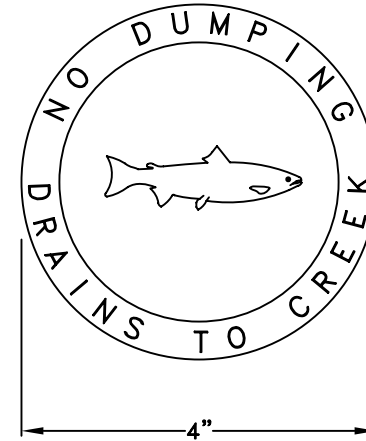
NOTES:

1. ALL DEPTHS SHOWN ARE FLEXIBLE PAVEMENT AND TRENCH WIDTH EQUAL TO O.D. OF PIPE PLUS 16" FOR PIPE 33" AND SMALLER IN INSIDE DIAMETER.
2. TRENCH WIDTH EQUALS O.D. OF PIPE PLUS 24" FOR PIPE 36" AND LARGER IN INSIDE DIAMETER. TRENCH WIDTH MEASURED AT TOP OF PIPE.

 CITY OF ROSEVILLE CALIFORNIA	DEPARTMENT OF PUBLIC WORKS
TRENCH DEPTH AND MINIMUM COVER REQUIREMENTS	
SCALE: NONE REVISED: JANUARY 1, 2010 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	
DR-19	



DETAIL "A"



DETAIL "B"

NOTES:

1. DETAIL "A" LETTERING SHALL BE 1 1/4 TO 1 1/2 INCHES HIGH. THE MESSAGE AND SYMBOL SHALL BE DEPRESSED 1/8 TO 1/4 INCH INTO THE CONCRETE. THE FISH SYMBOL SHALL BE A MINIMUM OF 11 INCHES LONG AND 3 1/2 INCHES HIGH.
2. DETAIL "A" SHALL BE PRE APPROVED BY THE CONSTRUCTION INSPECTOR PRIOR TO ITS USE.
3. DETAIL "A" SHALL APPLY TO ALL DRAIN INLET DESIGNS. WHERE THE SIDEWALK DOES NOT ADJOIN THE BACK OF CURB, THE NOTICE SHALL BE STAMPED IN THE CONCRETE BACKUP, BEHIND THE DRAIN INLET. WHERE THE DRAIN INLET IS PLACED IN A "V" GUTTER WITHOUT A CURB INLET, THE NOTICE SHALL BE STAMPED ON ONE SIDE OR THE OTHER, PARALLEL TO THE LENGTH OF THE INLET.
4. DETAIL "B" MAY BE PLACED WHERE DETAIL "A" DOES NOT WARRANT INSTALLATION AT THE DISCRETION OF THE PUBLIC WORKS CONSTRUCTION INSPECTOR. SEE DRAINAGE SECTION 101-8 OF THE DESIGN AND CONSTRUCTION STANDARDS FOR SPECIFICATIONS.
5. THE MESSAGE SHALL BE FREE OF BLEMISHES, LEGIBLE AND ACCEPTABLE TO THE CONSTRUCTION INSPECTOR.

RHON HERNDON
PUBLIC WORKS DIRECTOR

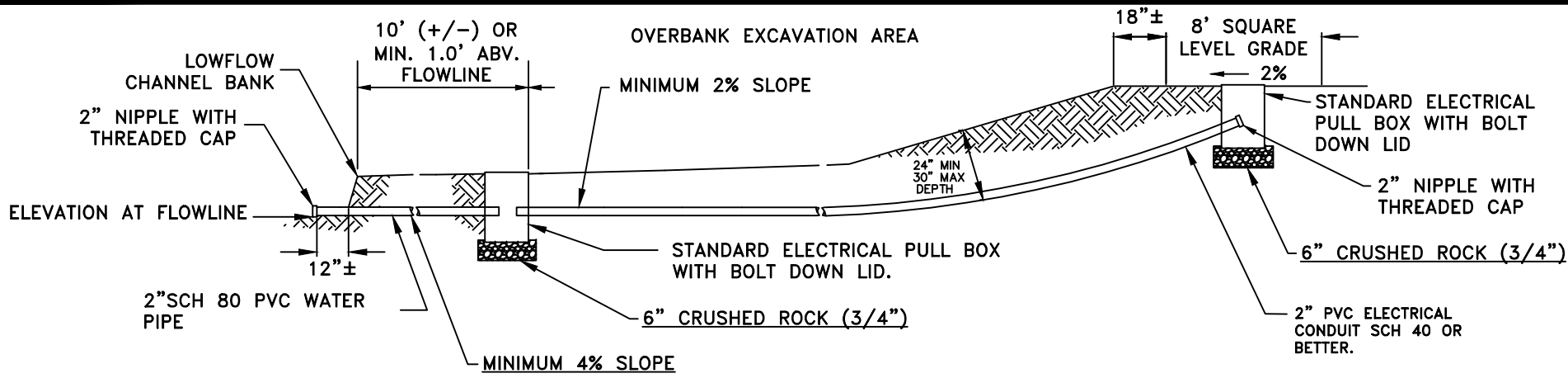


DEPARTMENT OF
PUBLIC WORKS

"NO DUMPING"
PUBLIC NOTICE

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

DR-20

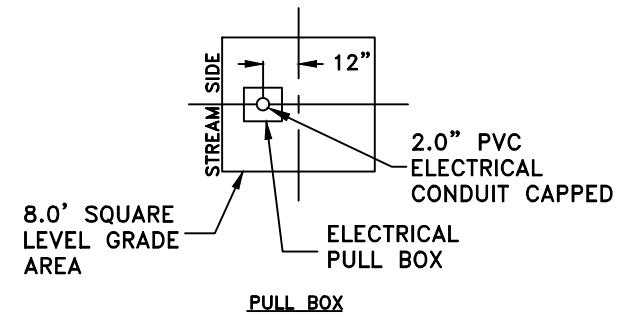


NOTE:
SLOPE PIPES TOWARD THE CREEK.

NOTES ON TYPICAL STREAM GAUGING PAD ADJACENT TO NEW BRIDGE CONSTRUCTION OVER CITY OF ROSEVILLE CREEKS.

EACH STREAM GAUGING CONDUIT WILL HAVE FOUR COMMON PRINCIPAL COMPONENTS:

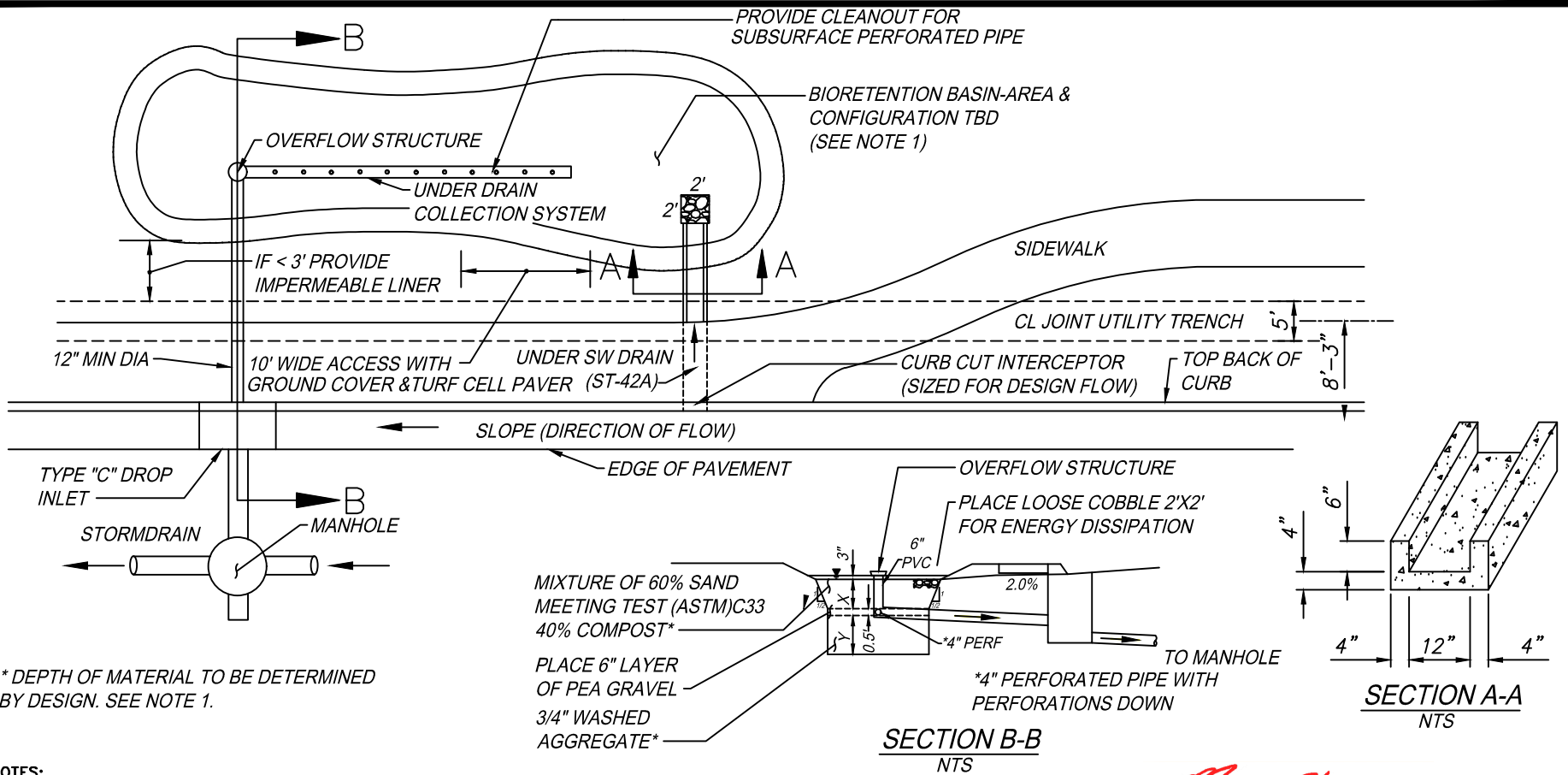
1. A PAD GRADE AREA 8.0 FEET SQUARE WITH 2% SLOPE TOWARD THE STREAM SIDE. AN ELECTRICAL PULL BOX WILL BE INSTALLED 12 INCHES OFF CENTER OF THE PAD TOWARD THE STREAM SIDE.
2. TWO INCH ELECTRICAL PVC CONDUIT SCH. 40 OR BETTER COMMENCING AT THE ELECTRICAL PULL BOX ON THE PAD AND TERMINATING IN AN ELECTRICAL PULL BOX 10 FEET +/- FROM THE LOW FLOW CHANNEL BANK OR 1 FOOT +/- ABOVE THE LOW FLOW. THE CONDUIT SHOULD NOT INCLUDE ONLY LONG RADIUS ELBOWS TO DROP IT DOWN TO THE APPROPRIATE ELEVATION. A PULL STRING 1/4" NYLON PULL ROPE SHALL BE BLOWN INTO THE CONDUIT FROM THE ELECTRICAL PULL BOX ON THE PAD AREA TO THE ELECTRICAL PULL BOX ADJACENT TO THE LOW FLOW CHANNEL.
3. STANDARD NO. 5 ELECTRICAL PULL BOXES WITH BOLT DOWN LIDS WILL BE USED. THE BOTTOMS OF PULL BOXES SHALL BE BEDDED IN 6 INCHES OF CLEAN CRUSHED ROCK. CONDUIT TERMINATION IN THE PULL BOX SHALL BE A MINIMUM OF 2 INCHES FROM THE SIDES OF THE PULL BOX, 6 INCHES ABOVE THE CRUSHED ROCK. PULL BOX RIM AND LID SHALL BE 1 1/2" ABOVE FINISH GRADE.
4. LOCATION OF THIS STRUCTURE SHOULD BE ON THE UPSTREAM SIDE OF THE BRIDGE AND BE ACCESSIBLE BY FOOT AT ALL POINTS FROM THE LEVEL GRADE AREA TO THE TERMINATION AT THE LOW FLOW CHANNEL. TRUCK ACCESS IS NECESSARY TO THE 8.0 SQUARE FOOT PAD AREA BUT NOT TO OTHER POINTS ALONG THE CONDUIT. ALONG WITH THIS PHYSICAL ACCESS CONCOMITANT RIGHTS OF ACCESS AND/OR EASEMENTS WILL BE GRANTED BY PROPERTY OWNER TO ALLOW FOR MAINTENANCE OF CITY EQUIPMENT INSTALLED ON THIS SITE.



Marc Stout

MARC STOUT
CITY ENGINEER

	DEVELOPMENT SERVICES DEPARTMENT
	STREAM GAUGING STATION
SCALE: NONE REVISED: JANUARY 1, 2016 DRAWN BY: J HENDRIX APPROVED BY: MARC STOUT	
DR-21	



* DEPTH OF MATERIAL TO BE DETERMINED BY DESIGN. SEE NOTE 1.

NOTES:

1. REFER TO THE WEST PLACER STORM WATER QUALITY DESIGN MANUAL (SWQDM) FOR THE DESIGN AND SIZING CRITERIA OF THE BIORETENTION BASIN. CURB CUT INTERCEPTOR, UNDER SIDEWALK DRAIN, AND INLET CHANNEL TO BE SIZED FOR DESIGN FLOW. SHAPE AND SIZE IS CONCEPTUAL ONLY. ACTUAL SIZE AND SHAPE TO BE DETERMINED BASED ON NEED.
2. GRADING TO CONFORM TO SURROUNDING AREA.
3. BASINS TO BE SEEDED W/NATURAL SEED (SELF-SOWING BLEND)
4. CARE TO BE TAKEN NOT TO CONTAMINATE BIORETENTION SOIL MIX.
5. WHEN LESS THAN 3' JOINT FROM UTILITY TRENCH, INSTALL 30 MIL LINER ALONG ADJACENT SIDE OF BIORETENTION BASIN PER SWQDM.
6. CONCRETE SHALL CONFORM TO SECTION 71-5B OF THE CITY CONSTRUCTION STANDARDS.
7. PENETRATE HARDPAN (IF IT EXISTS) TO ALLOW FOR BETTER PERCOLATION.
8. ALL IRRIGATION SHALL BE LOCATED OUTSIDE OF THE BASIN.
9. THE OVERFLOW INLET SHALL HAVE A SCREEN WITH 5 mm MAX OPENINGS TO PREVENT TRASH FROM ENTERING THE SYSTEM

M. Stout

MARC STOUT
CITY ENGINEER

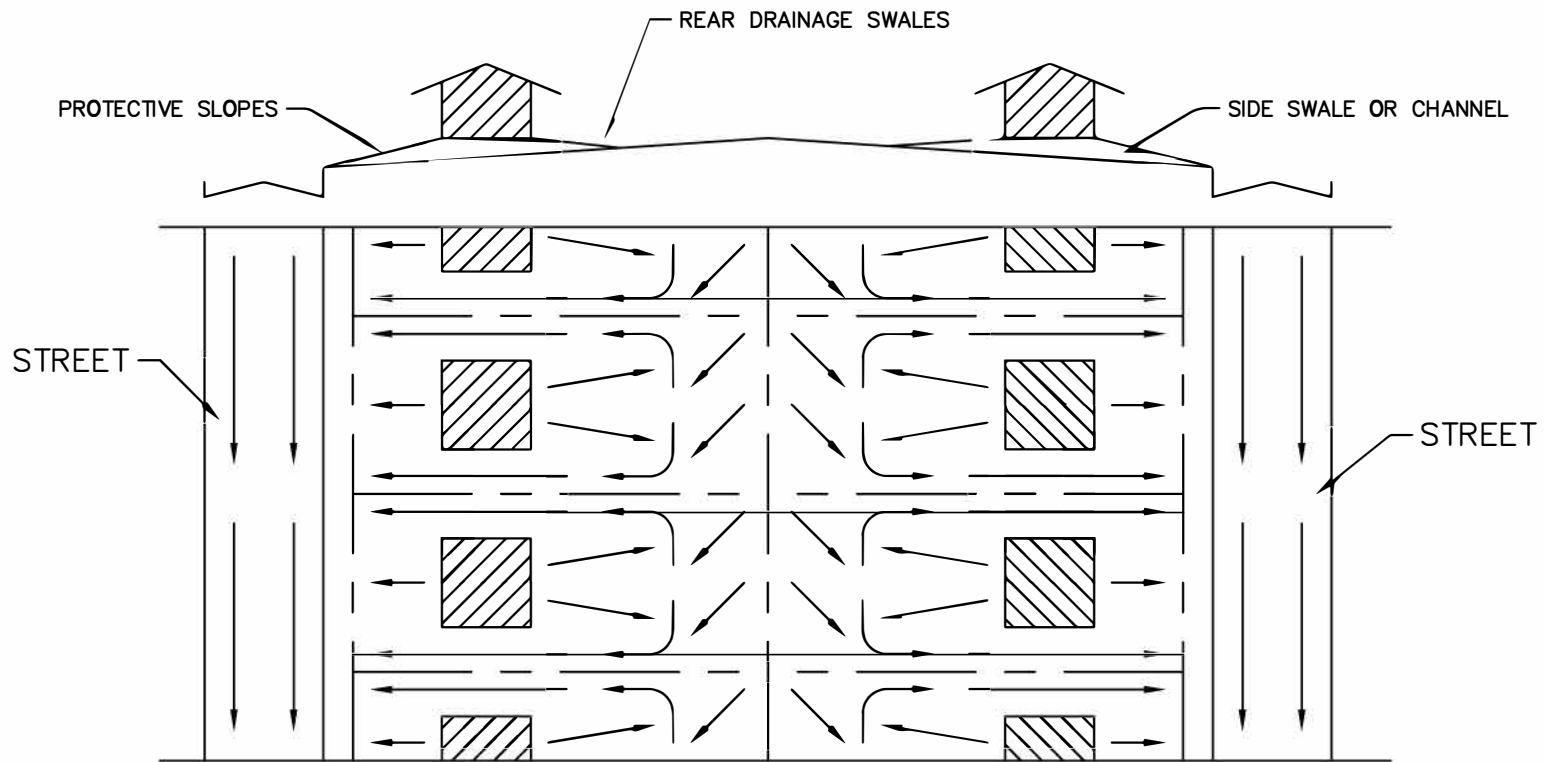
CITY OF
ROSEVILLE
CALIFORNIA

DEVELOPMENT SERVICES
DEPARTMENT

STREET-SIDE STORM WATER
BIORETENTION BASIN

SCALE: NONE
REVISED: JANUARY 1, 2023
DRAWN BY: J. THOMPSON
APPROVED BY: M. STOUT

DR-23



RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

CITY OF
ROSEVILLE
CALIFORNIA

DEPARTMENT OF
PUBLIC WORKS

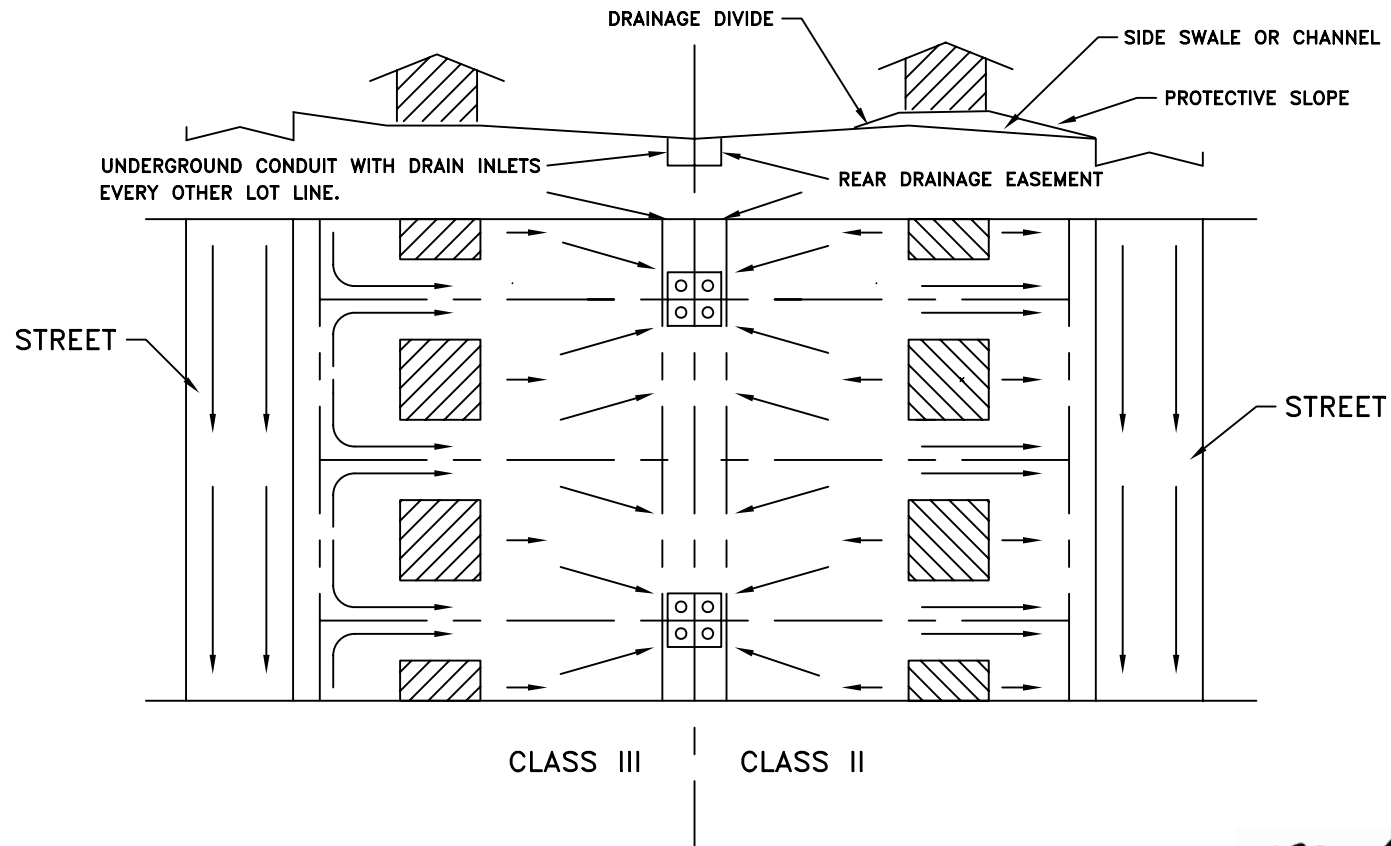
CLASS 1 LOT GRADING

NOTES:

1. LOTS CAN BE GRADED AS A PAD WITH A MINIMUM 1% GRADE TOWARD THE STREET -OR- LOTS CAN GRADED FLAT WITH DRAINAGE DITCHES EXTENDING THE LENGTH OF THE SIDE LOT LINE WITH A MINIMUM 1% GRADE TOWARD THE STREET.

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

GR-1



RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

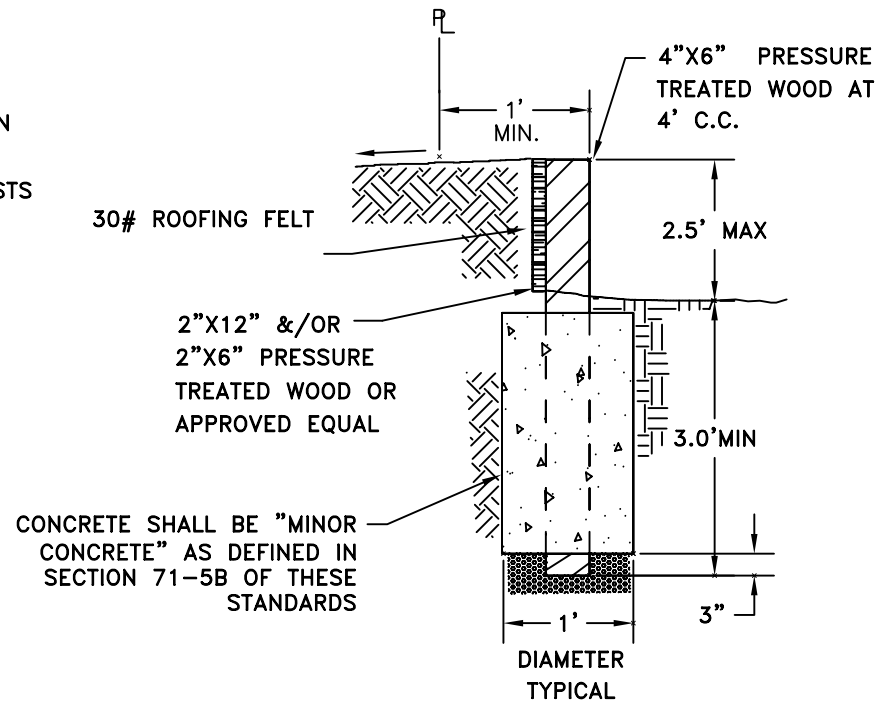
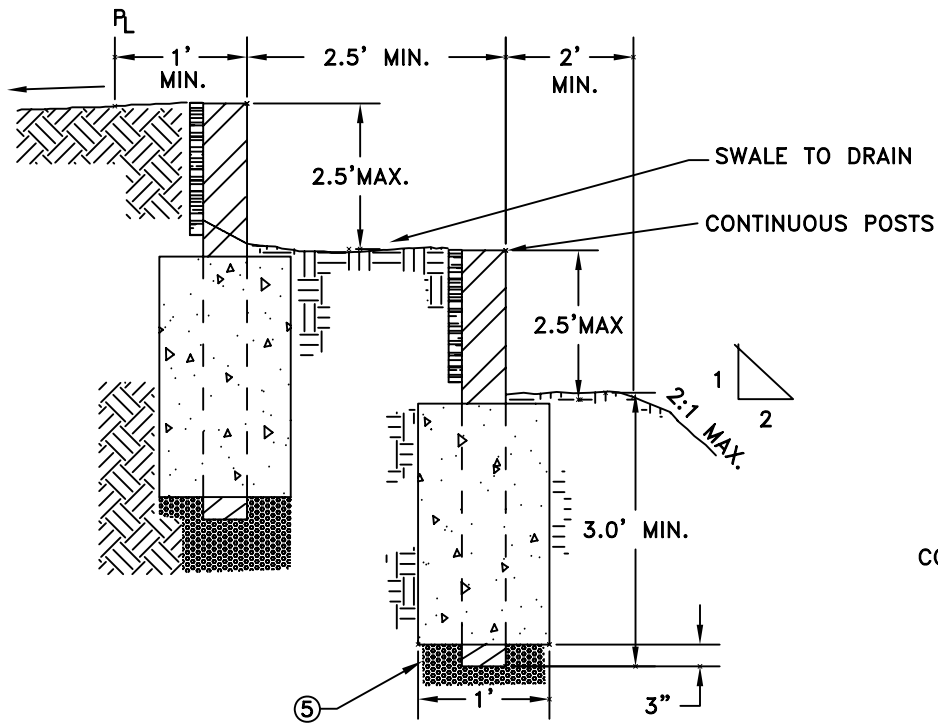
LOT GRADING
CLASS II AND III

NOTES:

1. THOSE LOTS WHICH DO NOT DRAIN TOWARDS EXISTING OR FUTURE LOTS MAY ELIMINATE THE USE OF REAR LOT DRAINS PROVIDED ADDITIONAL EROSION CONTROL MEASURES ARE IMPLEMENTED SUBJECT TO APPROVAL OF THE CITY ENGINEER.
2. EACH LOT TO HAVE IT'S OWN INLET.
3. STORM DRAIN SYSTEM SHALL BE LOCATED IN A PRIVATE DRAINAGE EASEMENT AND MAINTAINED BY PROPERTY OWNER.

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

GR-2




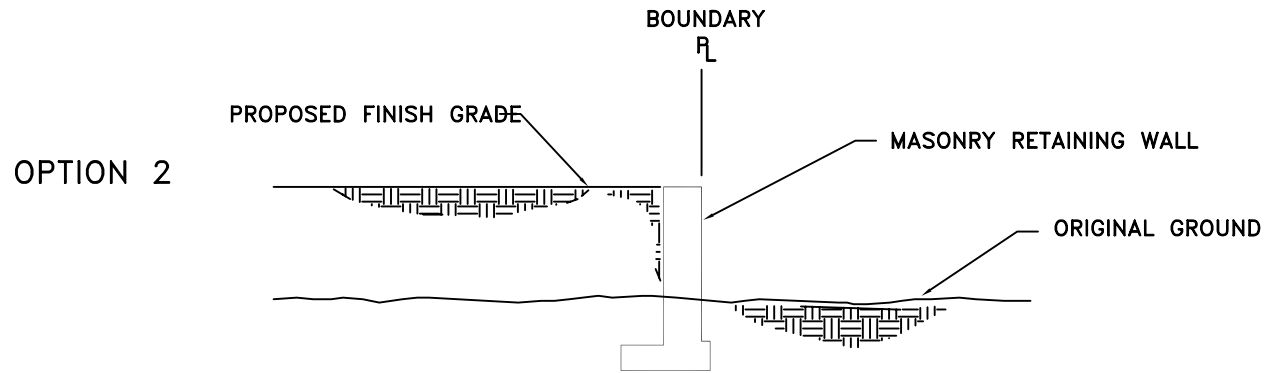
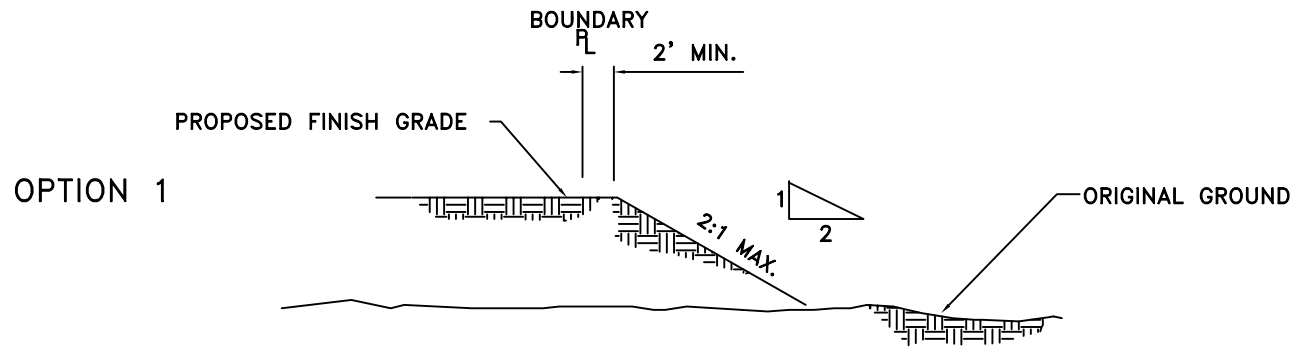
RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

NOTES:

1. MATERIAL FOR WOODEN WALLS SHALL BE PRESSURE TREATED WOOD OR APPROVED EQUAL BY THE CITY ENGINEER PRIOR TO INSTALLATION.
2. ALL METAL HARDWARE TO BE CORROSIVE RESISTANT PER UBC STANDARDS.
3. WOODEN WALLS SHALL NOT BE USED ADJACENT TO STREET RIGHT OF WAYS.
4. 4" X 6" POSTS AT 4' CENTERS SHALL BE USED WHEN FENCES ARE ATTACHED TO RETAINING WALLS; MINIMUM EMBEDMENT FOR POSTS SHALL BE 3.0'. -MEETS U.B.C. STANDARDS
5. DRAIN ROCK SHALL BE PLACED AT BASE OF ALL POST HOLES.

 CITY OF ROSEVILLE CALIFORNIA	DEPARTMENT OF PUBLIC WORKS
<h2 style="margin: 0;">WOOD RETAINING WALL</h2>	
SCALE: NONE REVISED: JANUARY 1, 2013 DRAWN BY: J MCKINNEY APPROVED BY: RHON HERNDON	GR-3



RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR

CITY OF
ROSEVILLE
CALIFORNIA

DEPARTMENT OF
PUBLIC WORKS

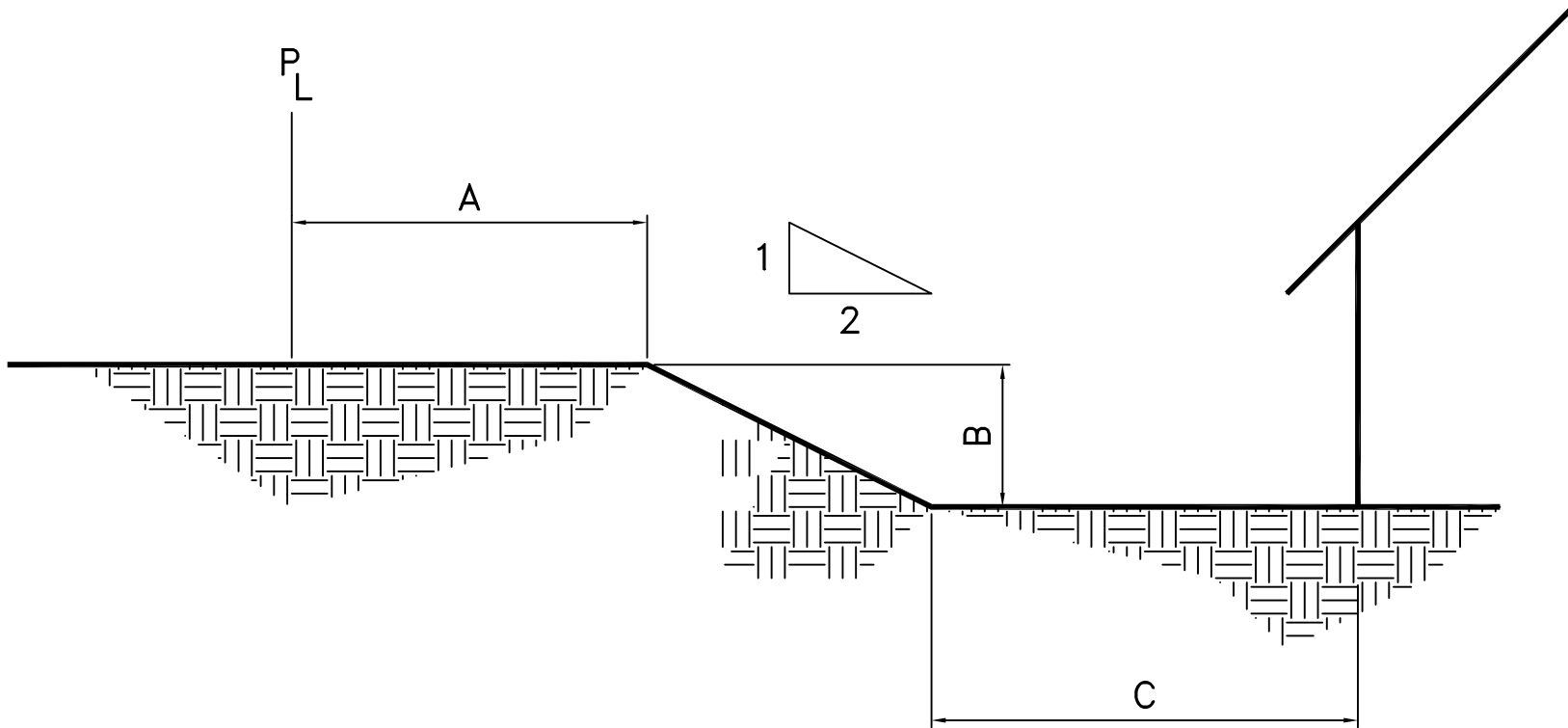
EXTERIOR PERIMETER
PROPERTY LINE GRADING

NOTE:

1. A NOTARIZED RIGHT OF ENTRY IS REQUIRED FROM ADJACENT PROPERTY OWNER FOR OPTION 1.

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

GR-4



RHON HERNDON

RHON HERNDON
PUBLIC WORKS DIRECTOR



DEPARTMENT OF
PUBLIC WORKS

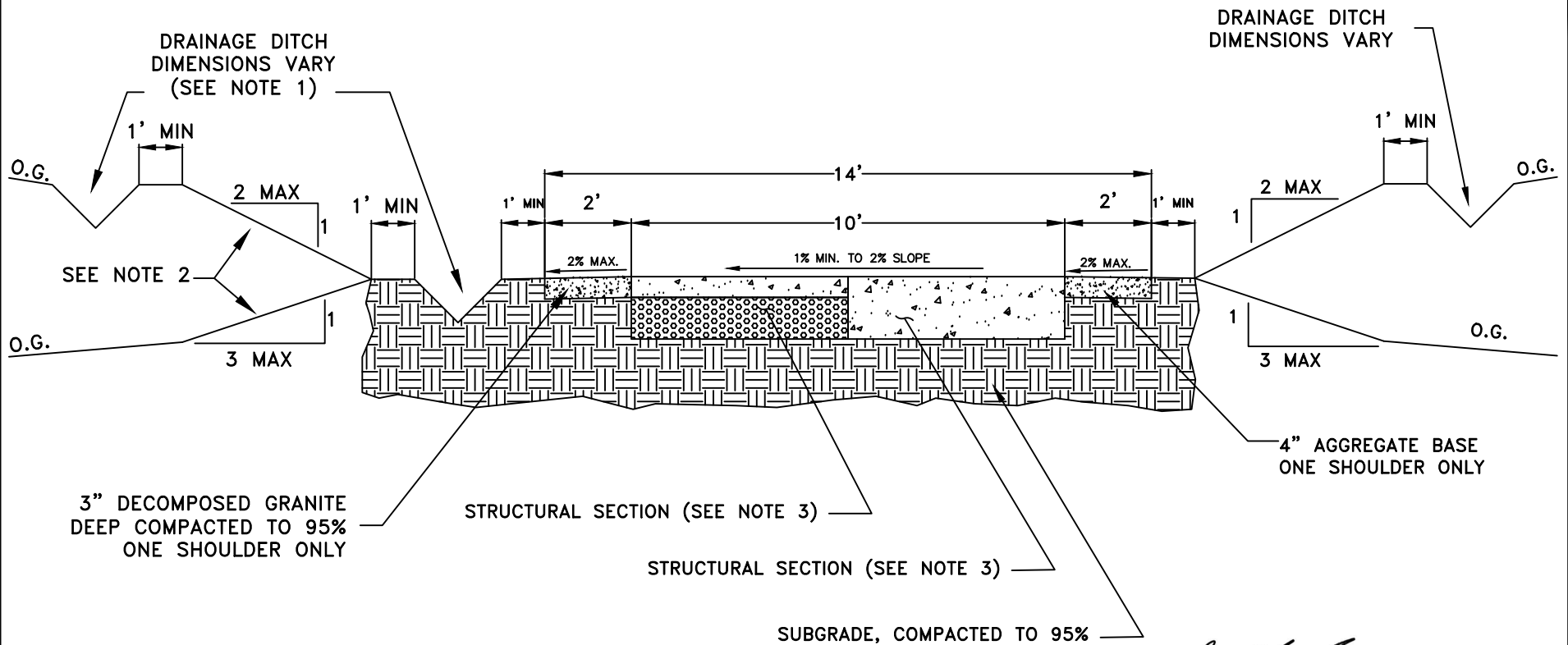
INTERIOR PROPERTY
LINE GRADING

SCALE: NONE
REVISED: JANUARY 1, 2010
DRAWN BY: J MCKINNEY
APPROVED BY: RHON HERNDON

GR-5

NOTES:

1. WHEN "B" IS LESS THAN OR EQUAL TO 0.5 FEET, "A" = 1.0 FEET.
2. WHEN "B" IS GREATER THAN 0.5 FEET, A RETAINING WALL IS REQUIRED OR A STANDARD LOT SETBACK GUARANTEE PROVIDED. IN SUCH CASE, "A" SHALL EQUAL 2.0 FEET AND "C" SHALL BE A MINIMUM OF 3.0 FEET.



NOTES

1. BIKE PATHS CONSTRUCTED WITHIN CUT-SLOPES SHALL HAVE A DRAINAGE DITCH OF SUITABLE DIMENSIONS ALONG THE UPHILL SIDE TO INTERCEPT THE HILLSIDE DRAINAGE. BIKE PATHS CONSTRUCTED ON TOP OF FILL SLOPES SHALL HAVE A DRAINAGE DITCH OF SUITABLE DIMENSIONS ALONG THE DOWNHILL SIDE TO INTERCEPT THE TRAIL'S DRAINAGE.
2. MAXIMUM SLOPE RATE FOR CUT AND FILL SLOPES SHALL BE PER THE RECOMMENDATIONS OF A LICENSED GEOTECHNICAL ENGINEER OR AS MODIFIED BY THE APPROVED PLANS. IN LOCATIONS ADJACENT TO CREEKS, DITCHES, OR DOWN-SLOPES GREATER THAN 3 FEET HORIZONTAL TO 1 FOOT VERTICAL, A MINIMUM SHOULDER WIDTH OF 5 FEET FROM THE EDGE OF PAVEMENT TO THE TOP OF SLOPE IS REQUIRED.
3. SEE SECTION 13-4 OF THESE STANDARDS FOR BIKEWAY PAVEMENT REQUIREMENTS.
4. WHEN FIRE DEPARTMENT REQUIRES ACCESS ON BIKEWAYS, STRUCTURAL SECTION SHALL BE CAPABLE OF SUPPORTING A MINIMUM GROSS VEHICULAR WEIGHT OF 30,000 POUNDS. IF SOILS ANALYSIS IDENTIFIES AN R-VALUE LESS THAN 10, THE STRUCTURAL SECTION SHALL BE MODIFIED AS NECESSARY TO SUPPORT 30,000 POUNDS.

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

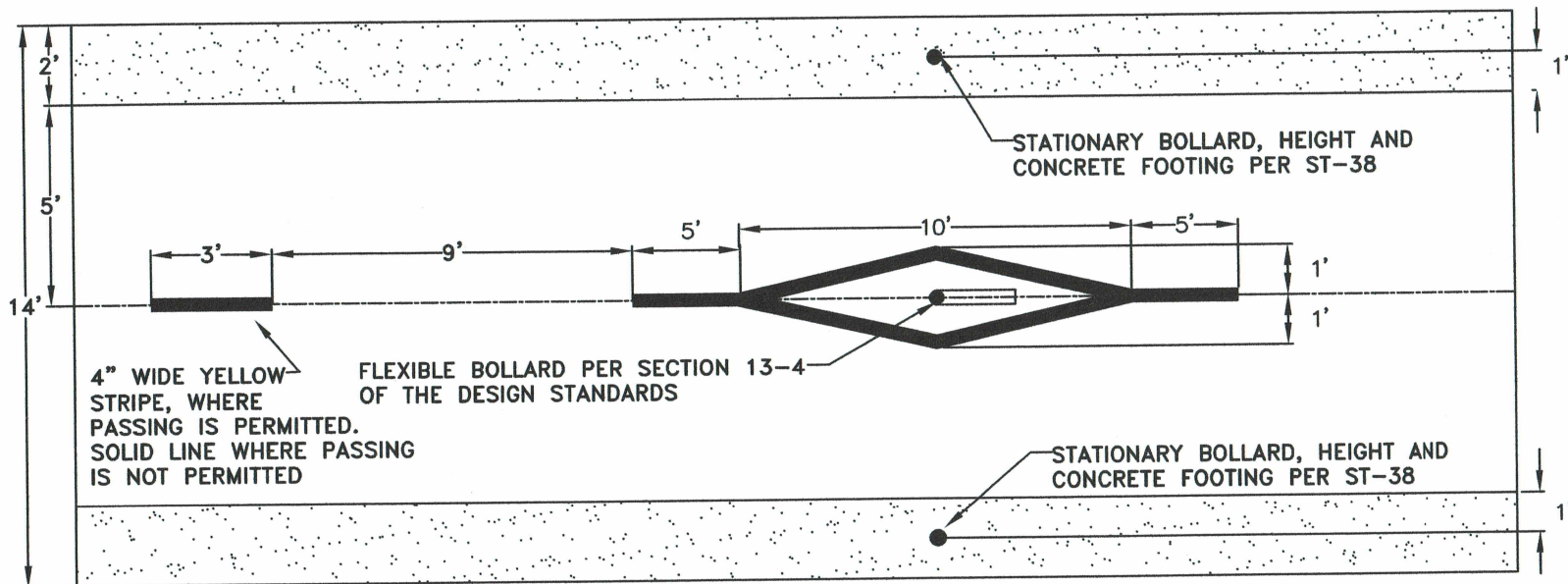


DEPARTMENT OF
PUBLIC WORKS

CLASS 1 BIKEWAY GRADING

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: J MCKINNEY
APPROVED BY: JASON SHYKOWSKI

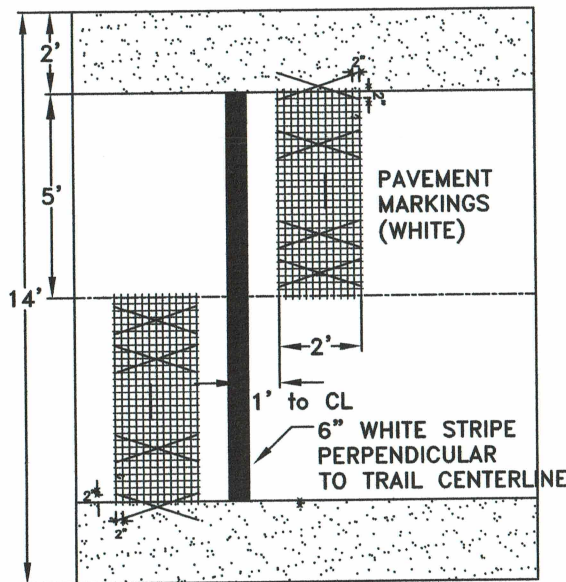
BK-1



BIKEWAY AND BOLLARD STRIPING DETAIL

NOTES:

1. ALL STRIPING AND PAVEMENT MARKINGS SHALL BE CONSTRUCTED WITH PAINT PER CALTRANS STANDARD SPECIFICATIONS SECTION 84-3.
2. BOLLARD STRIPING SHALL CONFORM WITH CALTRANS HIGHWAY DESIGN MANUAL, SECTION 1003.1.15 AND THE CALIFORNIA MUTCD SECTION 9C.101
3. INSTALL RETROREFLECTIVE MARKERS ON ALL BOLLARDS PER CALIFORNIA MUTCD SECTION 9C.101
4. MILEAGE MARKER DESIGNATIONS AND LOCATIONS SHALL BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.



MILEAGE MARKER DETAIL


 JASON SHYKOWSKI
 PUBLIC WORKS DIRECTOR

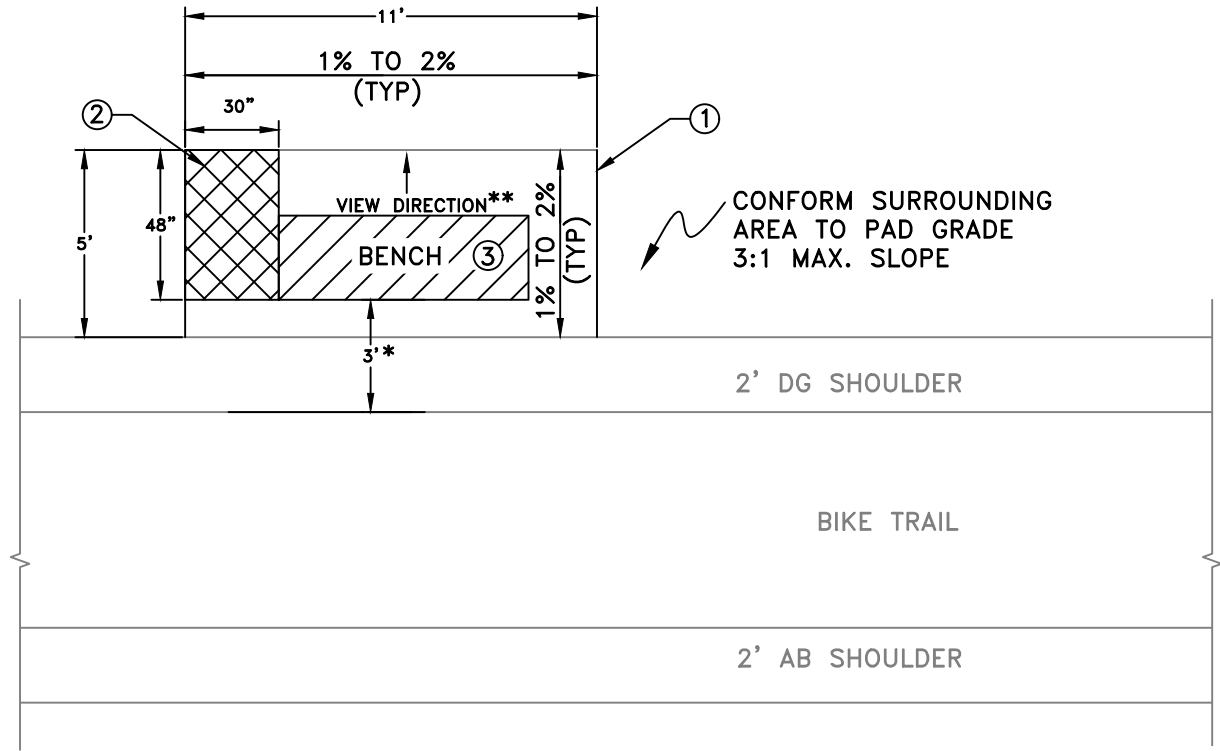
CITY OF
ROSEVILLE
 CALIFORNIA

DEPARTMENT OF
 PUBLIC WORKS

CLASS 1 BIKEWAY
 STRIPING DETAILS

SCALE: NONE
 REVISED: JANUARY, 2021
 DRAWN BY: J MCKINNEY
 APPROVED BY: JASON SHYKOWSKI

BK-2



CONFORM SURROUNDING AREA TO PAD GRADE
3:1 MAX. SLOPE

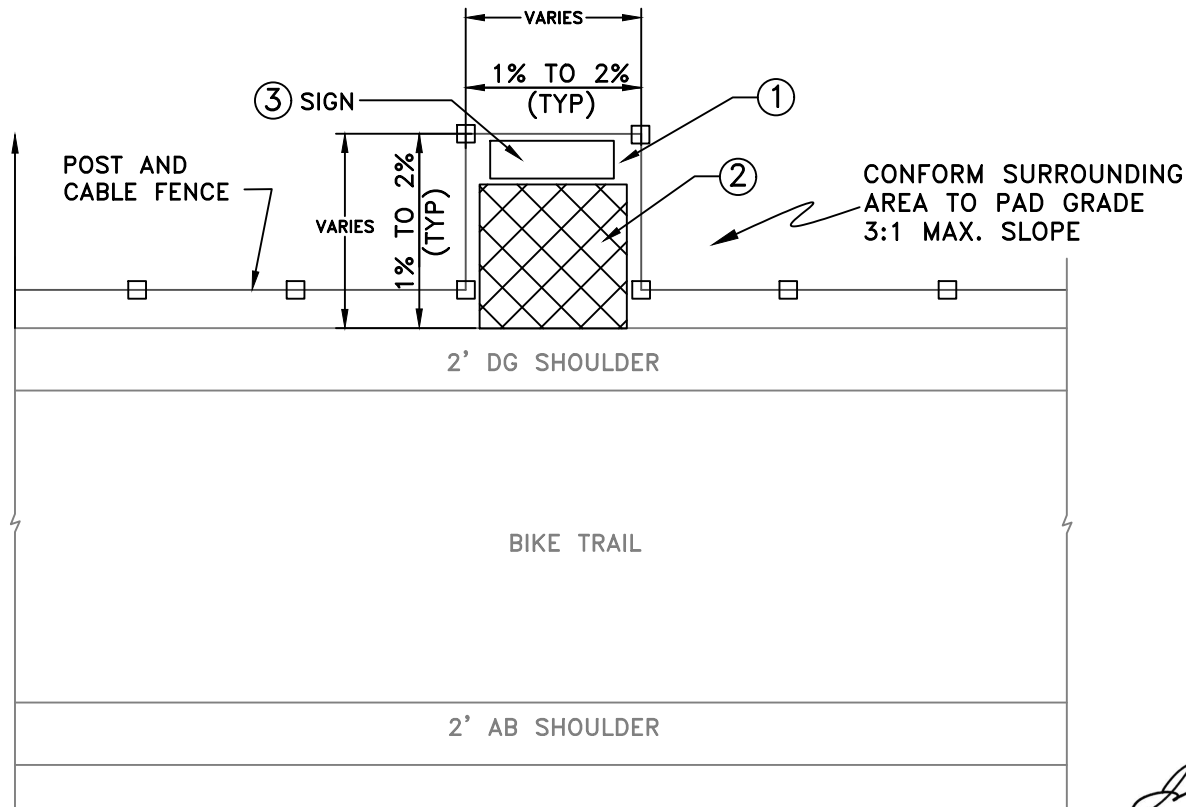
NOTES:

1. 5' X 11' DECOMPOSED GRANITE PAD. DECOMPOSED GRANITE TO BE 3" THICK, COMPACTED TO 95%.
2. 30" X 48" MINIMUM CLEAR SPACE TO BE PROVIDED AT ONE END OF THE BENCH.
3. INSTALL BENCH PER MANUFACTURERS INSTRUCTIONS. REFER TO PARKS CONSTRUCTION STANDARDS FOR APPROVED BENCHES.
4. BENCH LOCATIONS PER APPROVED PLANS AND TO BE LAID OUT BY THE CONTRACTOR AND INSPECTED BY THE CITY PRIOR TO GRADING.

- * 3 FOOT CLEARANCE (MINIMUM) BETWEEN EDGE OF PAVEMENT AND BENCH
- ** SEE PLANS FOR VIEW DIRECTION OF BENCH. IF VIEW DIRECTION IS REVERSED, MOVE BENCH TO REAR OF PAD.

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

	DEPARTMENT OF PUBLIC WORKS
BENCH INSTALLATION DETAIL ADJACENT TO BIKE TRAIL	
SCALE: NONE REVISED: FEBRUARY 2021 DRAWN BY: C GOSALVEZ APPROVED BY: JASON SHYKOWSKI	BK-3



Jason Shykowski

JASON SHYKOWSKI
PUBLIC WORKS DIRECTOR

NOTES:

1. DECOMPOSED GRANITE PAD, SIZE VARIES DEPENDING ON SIGN. DECOMPOSED GRANITE TO BE 3" THICK, COMPACTED TO 95%.
2. 5' X 5' MINIMUM CLEAR SPACE TO BE PROVIDED IN FRONT OF SIGN.
3. INSTALL SIGN PER MANUFACTURERS INSTRUCTIONS. HEIGHT OF SIGN TO COMPLY WITH CURRENT ADA STANDARDS.
4. SIGN LOCATIONS PER APPROVED PLANS AND TO BE LAID OUT BY THE CONTRACTOR AND INSPECTED BY THE CITY PRIOR TO GRADING



DEPARTMENT OF
PUBLIC WORKS

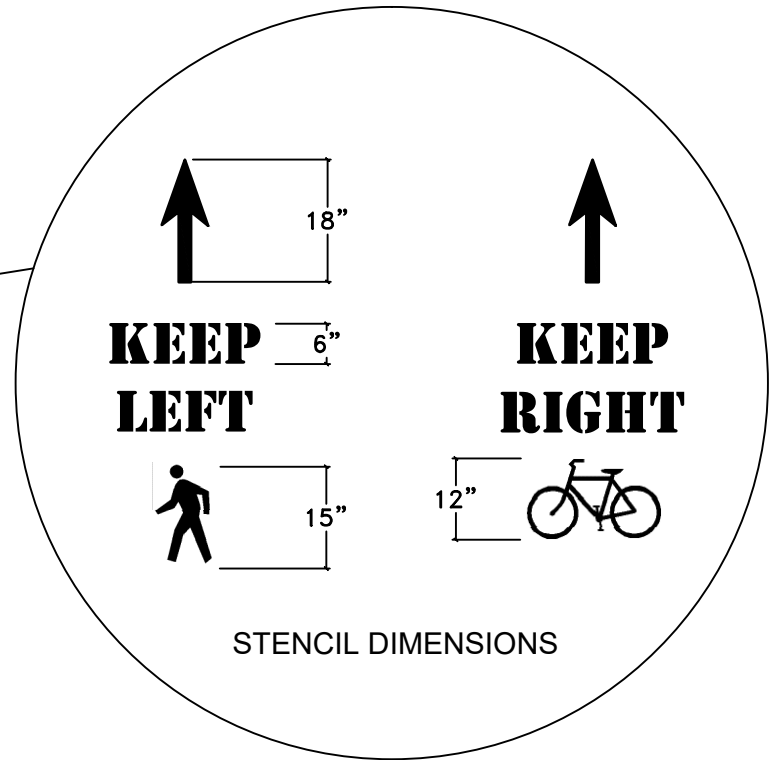
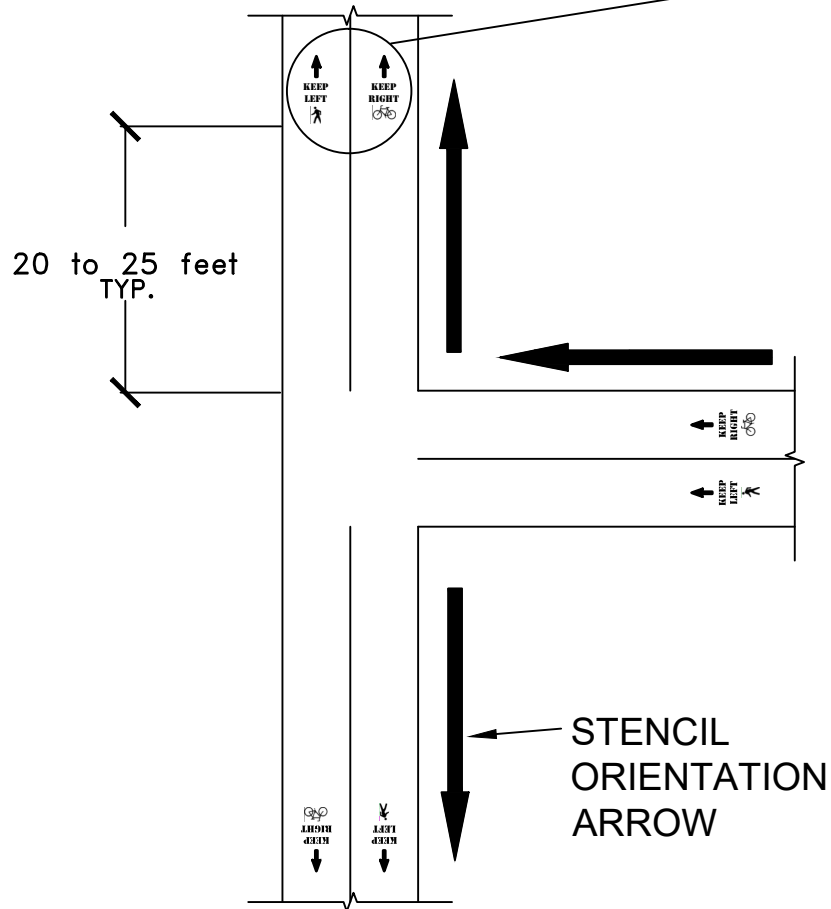
INTERPRETIVE SIGN INSTALLATION
ADJACENT TO BIKE TRAIL

SCALE: NONE
REVISED: FEBRUARY 2021
DRAWN BY: C GOSALVEZ
APPROVED BY: JASON SHYKOWSKI

BK-4

NOTES:

1. INSTALL STENCILS AT LOCATIONS SHOWN ON APPROVED PLANS.
2. ALL PAVEMENT MARKINGS SHALL BE CONSTRUCTED WITH PAINT PER CALTRANS STANDARD SPECIFICATIONS SECTION 84-3.



RHON HERNDON
PUBLIC WORKS DIRECTOR

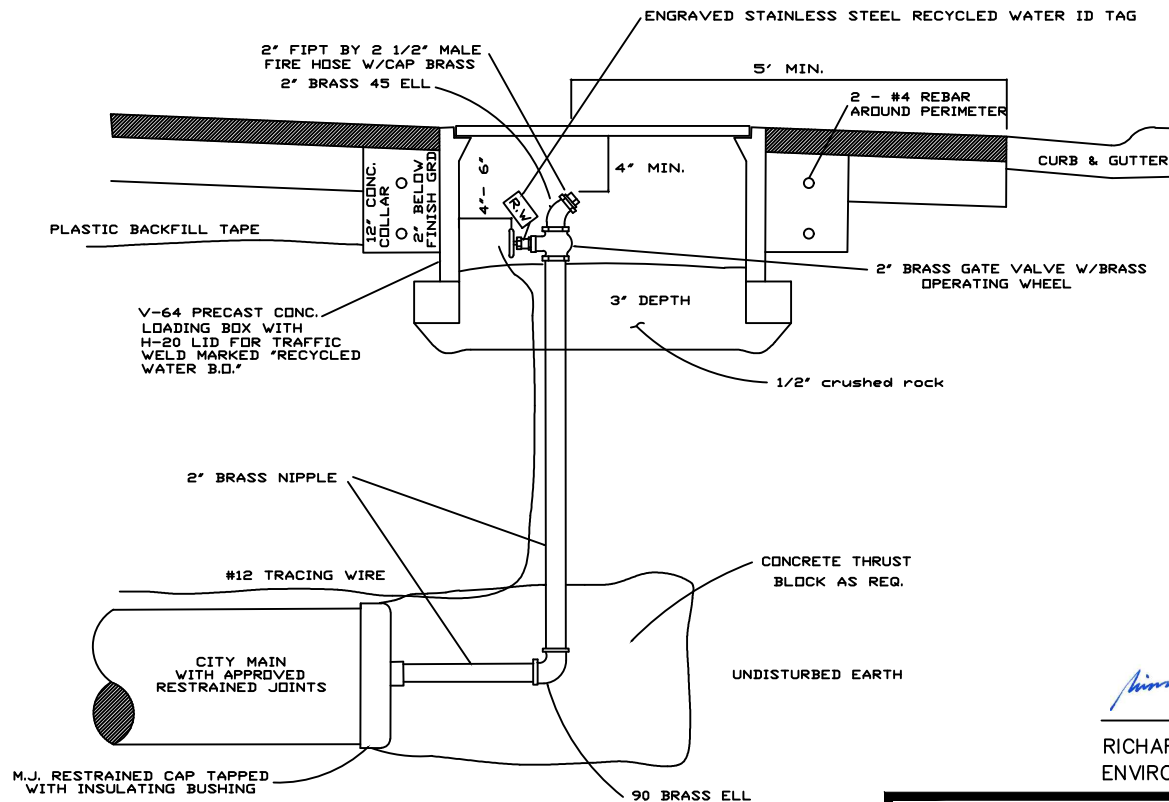
CITY OF
ROSEVILLE
CALIFORNIA

DEPARTMENT OF
PUBLIC WORKS

BIKE TRAIL STENCIL

SCALE: NONE
DATE: JANUARY 1, 2019
DRAWN BY: C GOSALVEZ
APPROVED BY: RHON HERNDON


BK-5

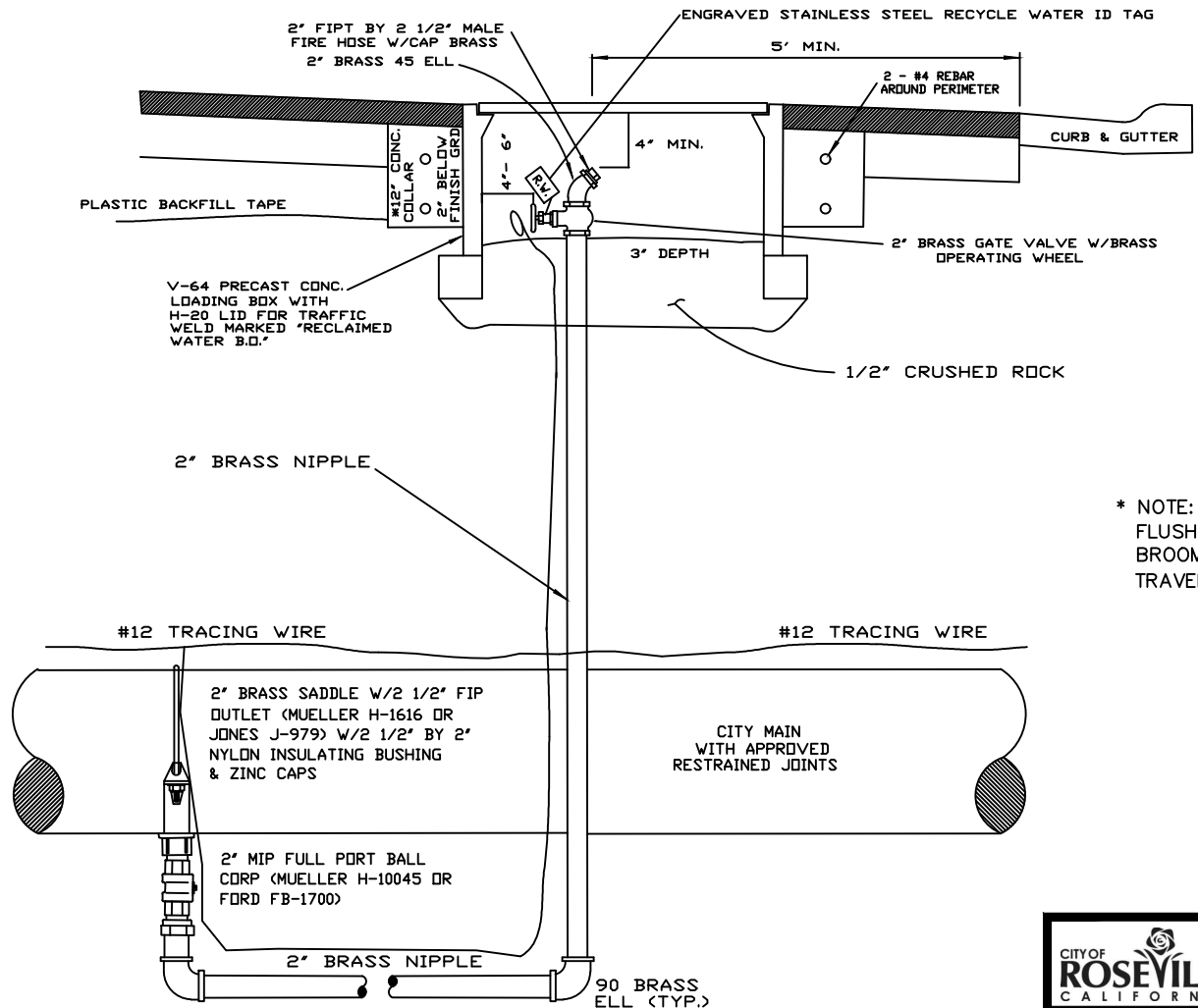


Richard D. Plecker
 RICHARD PLECKER
 ENVIRONMENTAL UTILITIES DIRECTOR

NOTE: ALL PIPING INCLUDING BRASS TO BE 8 MIL POLY SEALED.
 WRAP BRASS SPOOLS WITH RECYCLED WATER ID TAPE. TAPE
 TO BE PLACED OUTSIDE OF POLY SEAL.
 INSTALL RECYCLED WATER TAG TO VALVE STEM.

BLOWOFFS OUTSIDE OF PAVED AREAS SHALL BE A MINIMUM OF
 6" ABOVE GRADE AND MARKED WITH A CARSONITE MARKER.

	ENVIRONMENTAL UTILITIES DEPARTMENT	
	RECYCLED WATER 2" INCH BLOWOFF ASSEMBLY (ALL BRASS)	
SCALE: NONE REVISED: JANUARY 2021 DRAWN BY: R. VAN NESS APPROVED BY: RICHARD PLECKER		RW-1



* NOTE: CONCRETE COLLAR MAY BE PLACED FLUSH TO FINISHED SURFACE WITH MEDIUM BROOM FINISH PERPENDICULAR TO VEHICLE TRAVEL DIRECTION.

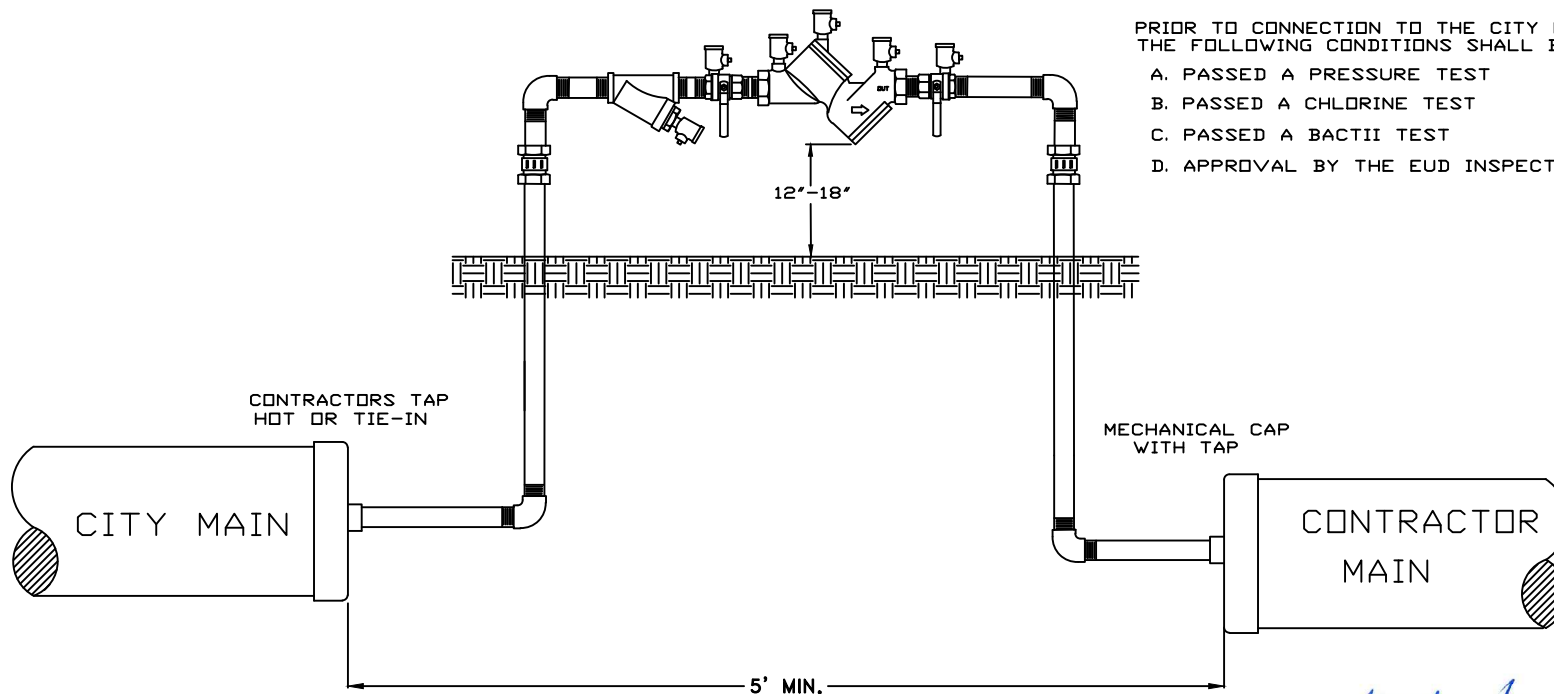
Richard D. Plecker
 RICHARD PLECKER
 ENVIRONMENTAL UTILITIES DIRECTOR

	ENVIRONMENTAL UTILITIES DEPARTMENT
	RECYCLED WATER INLINE 2" BLOWOFF ASSEMBLY (ALL BRASS)

NOTES: ALL PIPING INCLUDING BRASS TO BE 8 MIL POLY SEALED. WRAP BRASS WITH RECYCLED WATER ID TAPE. TAPE TO BE PLACED OUTSIDE OF POLY SEAL.
 INSTALL RECYCLED WATER TAG TO VALVE OPERATOR STEM.
 POUR (1) FOOT DEEP BY 6' WIDE CONCRETE COLLAR AROUND UTILITY BOX IF OUTSIDE PAVEMENT AREA.
 BLOWOFFS OUTSIDE OF PAVED AREAS SHALL BE A MINIMUM OF 6' ABOVE GRADE AND MARKED WITH A CARSONITE MARKER.

SCALE: NONE
 REVISED: JANUARY 2021
 DRAWN BY: R. VAN NESS
 APPROVED BY: RICHARD PLECKER

RW-2



PRIOR TO CONNECTION TO THE CITY MAIN,
THE FOLLOWING CONDITIONS SHALL BE MET:

- A. PASSED A PRESSURE TEST
- B. PASSED A CHLORINE TEST
- C. PASSED A BACTII TEST
- D. APPROVAL BY THE EUD INSPECTOR

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

NOTES:

WATER SHALL ONLY BE DRAWN INTO THE CONTRACTORS MAIN THROUGH A CITY APPROVED RP TYPE BACKFLOW DEVICE WHICH HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPARTMENT.

FINAL SYSTEM COMPONENTS NECESSARY FOR TIE-IN SHALL BE PRE-CHLORINATED AND PRE-FLUSHED IN THE PRESENCE OF AN ENVIRONMENTAL UTILITIES DEPARTMENT INSPECTOR.

UPON COMPLETION OF THE CONDITIONS NOTED ABOVE AND WITH THE APPROVAL OF THE EUD INSPECTOR, CONNECTION TO THE CITY SYSTEM MAY BE MADE. THE EUD INSPECTOR SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF WORK.



ENVIRONMENTAL UTILITIES
DEPARTMENT

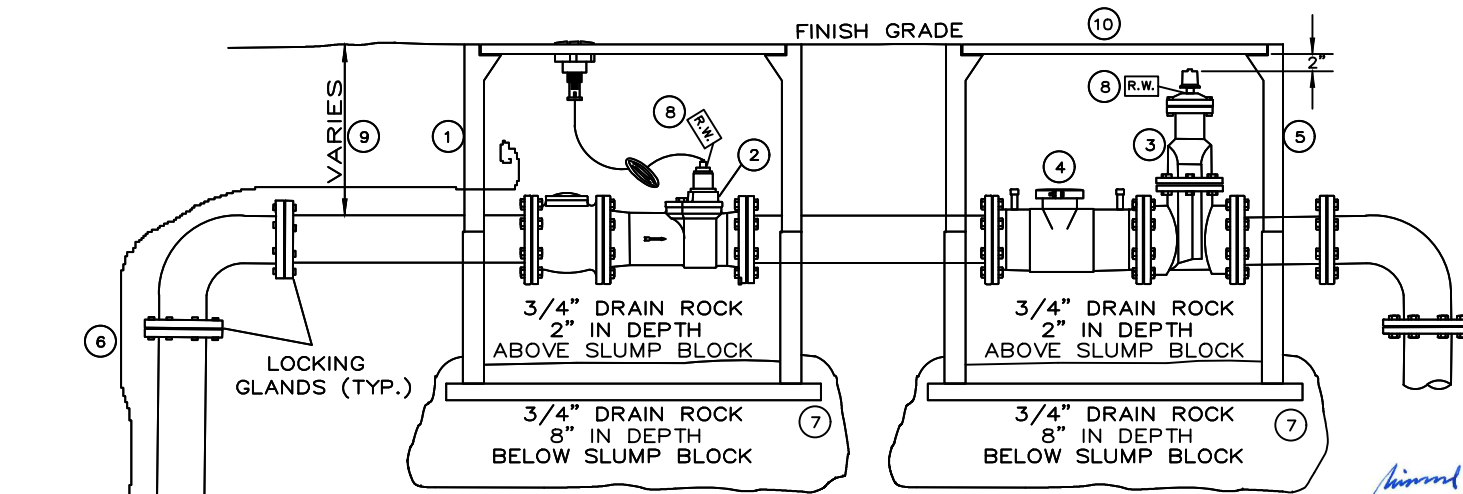
RECYCLED WATER
CONSTRUCTION WATER

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

RW-3

NOTES:

- NO WATER IS TO BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPT.
- PIPE SHALL BE DUCTILE IRON.
- SPOOLS UPSTREAM & DOWNSTREAM OF METER SHALL BE 5X THE PIPE DIAMETER
- PIPE AND FITTINGS SHALL BE WRAPPED 8 MIL POLYETHYLENE
- USE CITY APPROVED RESTRAINED JOINTS OR FLANGED SPOOLS
- WATER METER SHALL BE PURCHASED THROUGH THE CITY. PURCHASE INCLUDES INSTALLATION.
- BOXES SHALL HAVE METAL LIDS MARKED "RECYCLED WATER" WITH 2" LETTERS



SEE DETAILS
W-15 AND W-16

MATERIALS:

- 1) B48 BOX WITH 10" EXTENSION. MORTAR JOINTS INSIDE & OUT
- 2) METER WITH STRAINER (PURCHASED THROUGH CITY)
INSTALL IDLER SPOOL DURING INSTALLATION OF METER BOX.
- 3) RESILIENT SEAT GATE VALVE (NRS)
- 4) SINGLE CHECK BACKFLOW DEVICE, AMES 1000SS, (STAINLESS) OR AMERICAN FLOW CONTROL 2100 (EPOXY)
- 5) B48 BOX WITH 10" EXTENSION. MORTAR JOINTS INSIDE & OUT
- 6) CITY APPROVED TRACING WIRE
- 7) INSTALL CONCRETE BRICK (3" X 5")
UNDER ENTIRE PERIMETER OF BOXES
- 8) ENGRAVED STAINLESS STEEL RECYCLED WATER ID TAG
- 9) 3"-6" PIPE SHALL BE 16" MIN. TO 20" MAX.
8" OR 10" PIPE SHALL BE 22" MIN. TO 26" MAX.
- 10) ENGRAVED STAINLESS STEEL ADDRESS TAG AFFIXED TO WATER METER LID.

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR



ENVIRONMENTAL UTILITIES
DEPARTMENT

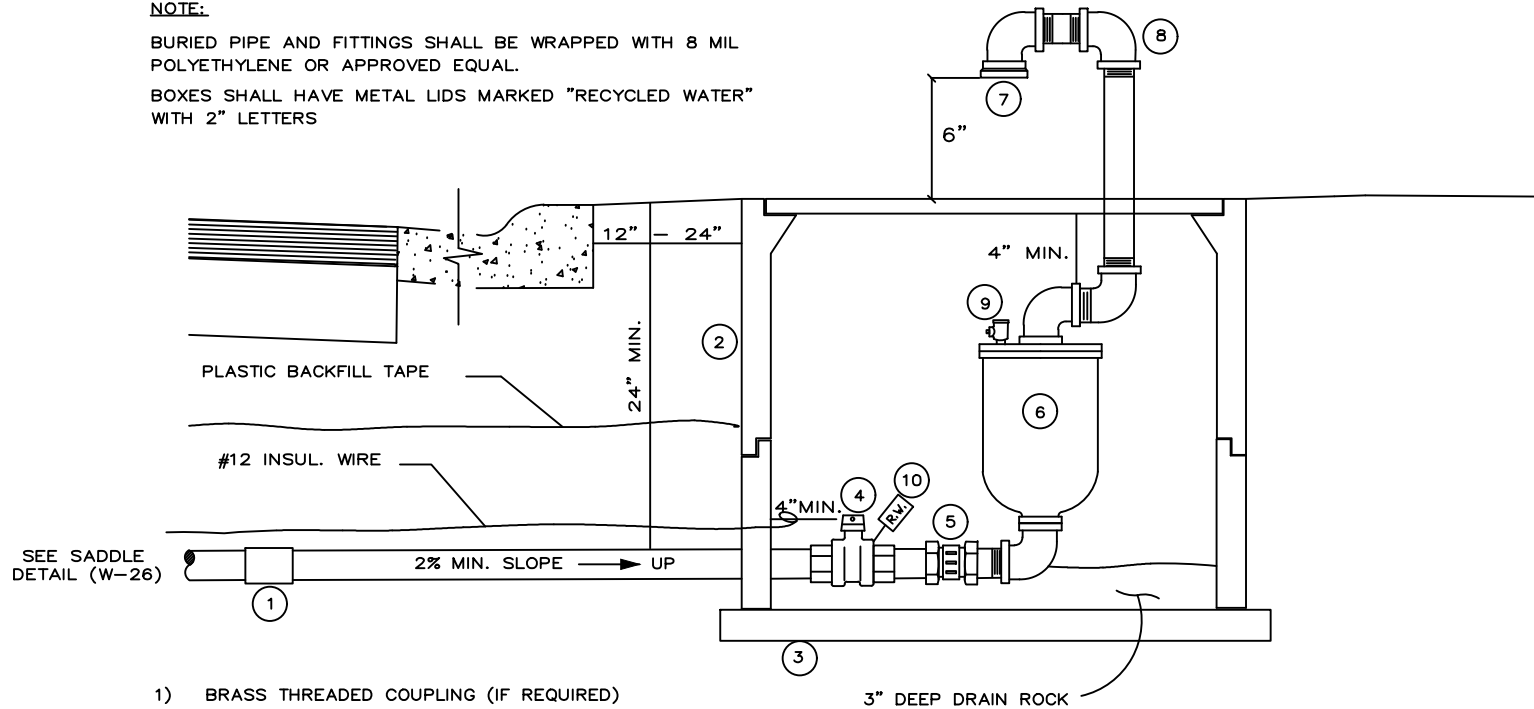
**RECYCLED WATER
3" & LARGER SERVICE**

SCALE: NONE
REVISED: JANUARY 2021
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

RW-4

NOTE:

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.
 BOXES SHALL HAVE METAL LIDS MARKED "RECYCLED WATER" WITH 2" LETTERS



- 1) BRASS THREADED COUPLING (IF REQUIRED)
- 2) B-40 UTILITY BOX W/TRAFFIC COVER MARKED, "RECYCLED WATER ARV". IF EXTENSION IS REQ. MORTAR EXTENSION JOINT INSIDE & OUT.
- 3) CONCRETE BRICK (3"X5") UNDER ENTIRE PERIMETER OF UTILITY BOX.
- 4) CURB STOP
- 5) BRASS UNION
- 6) COMBINATION AIR / VACUUM VALVE CRISPIN UL-20, APCO 145C OR APPROVED EQUAL.
- 7) BRASS CAP WITH 9 DRILLED 1/16" HOLES OR APPROVED EQUAL.
- 8) USE GALVANIZED PIPE AND FITTINGS ABOVE GROUND
- 9) 1/4" TEST COCK
- 10) ENGRAVED STAINLESS STEEL RECYCLED WATER I.D. TAG

Richard D. Plecker

RICHARD PLECKER
 ENVIRONMENTAL UTILITIES DIRECTOR



ENVIRONMENTAL UTILITIES
 DEPARTMENT

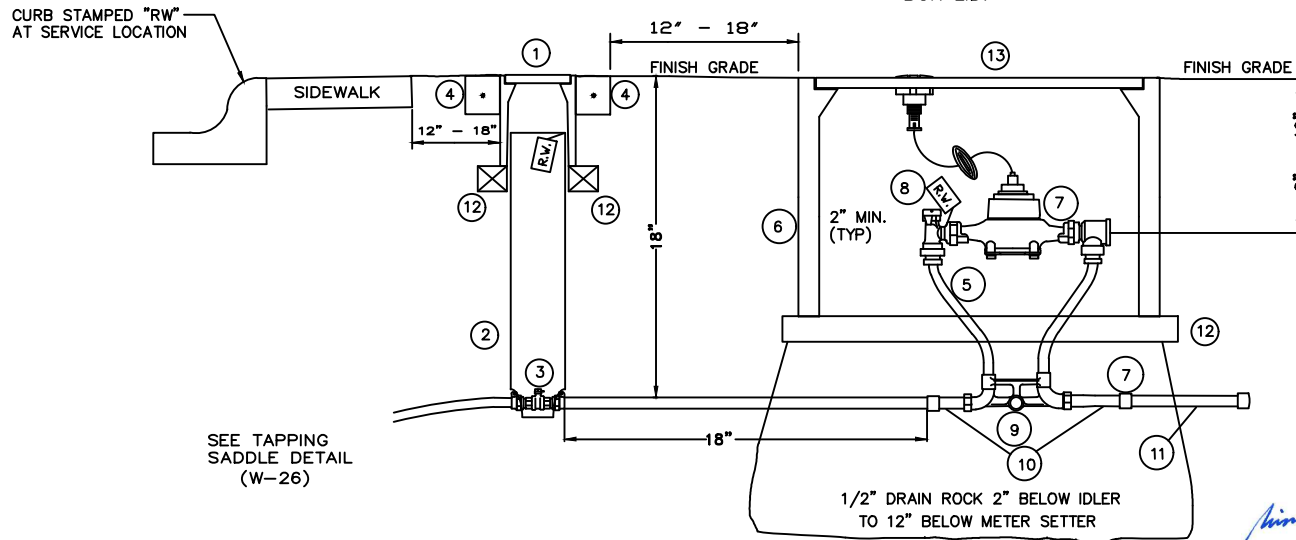
**1" AND 2" AIR RELEASE
 VALVE ASSEMBLY**

SCALE: NONE
 REVISED: JANUARY 2021
 DRAWN BY: R. VAN NESS
 APPROVED BY: RICHARD PLECKER

RW-5

- 1) CONCRETE VALVE BOX (G-5 PER DETAIL W-16)
BOX LID SHALL BE MARKED "RECYCLED WATER"
- 2) 6" CONTINUOUS RISER (NOTCHED OVER
PIPE AT BASE)
- 3) CURB STOP (COMPRESSION X FIPT)
- 4) CONCRETE COLLAR (SEE DETAIL W-16)
- 5) METER SETTER WITH IDLER
- 6) N-16 UTILITY BOX OR APPROVED EQUAL FOR 3/4"
N-30 UTILITY BOX OR APPROVED EQUAL FOR 1"

- 7) METER (PURCHASED THROUGH CITY)
- 8) ENGRAVED STAINLESS STEEL RECYCLED WATER I.D. TAG
- 9) SCH. 40 PVC THROUGH PIPE EYE
- 10) METER SPUD
- 11) 18" BRASS NIPPLE WITH END CAP
- 12) INSTALL CONCRETE BLOCKING
(4" X 4" X 15 1/2")
UNDER ENTIRE PERIMETER OF BOXES
- 13) ENGRAVED STAINLESS STEEL ADDRESS TAG AFFIXED TO METER
BOX LID.



RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

NOTES:

ALL FITTINGS AND PIPING SHALL BE BRASS BEGINNING AT THE CURB STOP

WATER METERS SHALL BE PURCHASED THROUGH THE CITY
PURCHASE INCLUDES INSTALLATION.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL
POLYETHYLENE OR APPROVED EQUAL.

BOXES SHALL HAVE METAL LIDS AND WILL BE MARKED
"RECYCLED WATER" WITH 2" LETTERS



ENVIRONMENTAL UTILITIES
DEPARTMENT

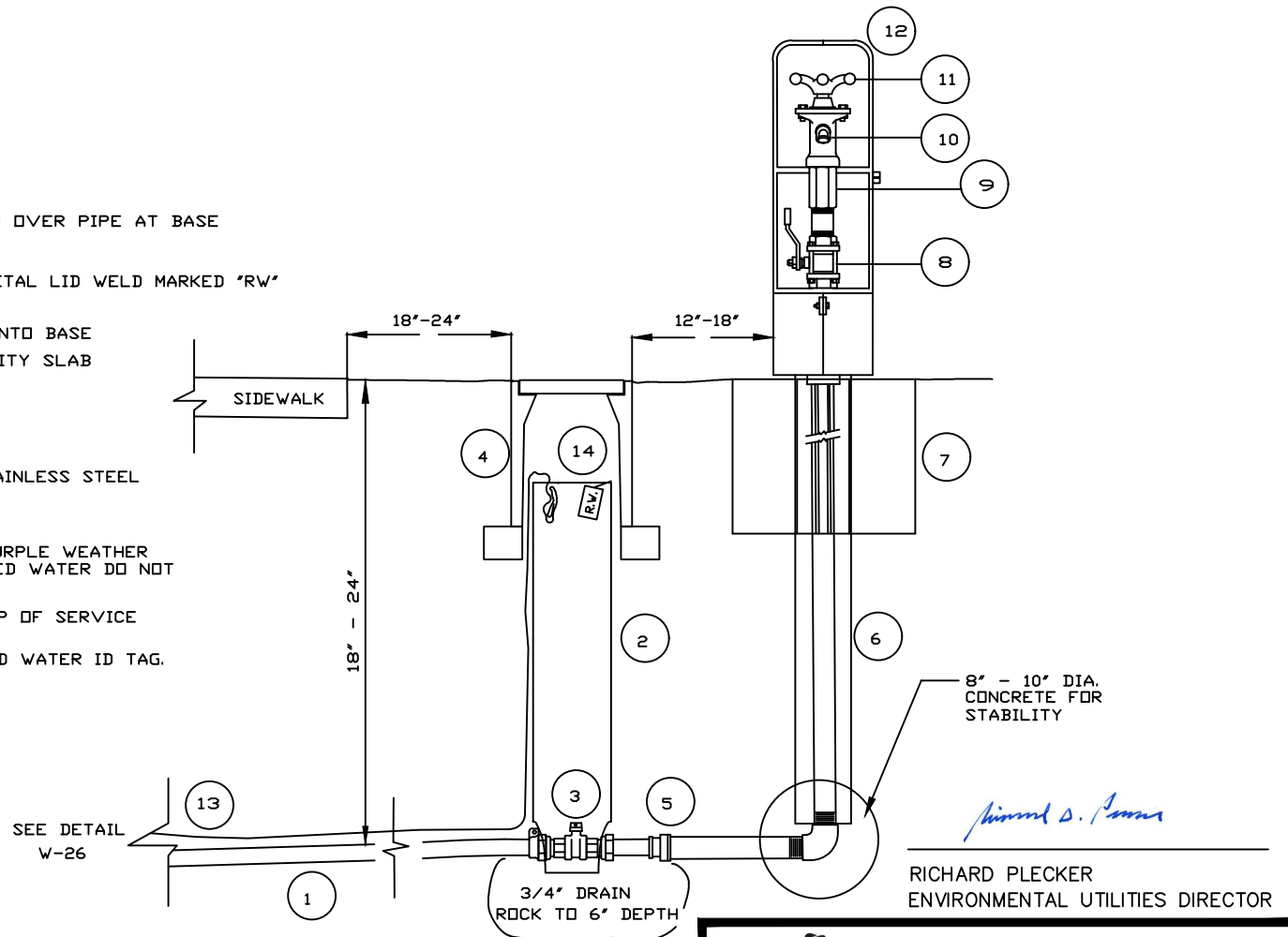
3/4" & 1"
SERVICE LINE

SCALE: NONE
REVISED: JANUARY 2021
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

RW-6

MATERIALS:


- 1) 3/4" COPPER SERVICE LINE - TYPE K
- 2) 6" DIA. SCHEDULE 40 RISER NOTCHED OVER PIPE AT BASE
- 3) CURB STOP
- 4) CHRISTY G-5 TRAFFIC BOX W/ ALL METAL LID WELD MARKED "RW"
- 5) 3/4" TO 1" REDUCER ALL BRASS
- 6) 4" LIGHT WELL STEEL PIPE BOLTED INTO BASE
- 7) 12" BY 12" BY 12" CONCRETE STABILITY SLAB
- 8) 1" BRASS BALL VALVE
- 9) HYDRANT STYLE BRASS VALVE
- 10) UNTHREADED BRASS NOZZLE
- 11) HANDLE OPERATOR WITH ENGRAVED STAINLESS STEEL RECYCLED WATER ID TAG ATTACHED.
- 12) ALUMINUM CAST BOX PAINTED WITH PURPLE WEATHER PROOF PAINT. STENCIL MARK "RECYCLED WATER DO NOT DRINK" ON MINIMUM OF (2) SIDES
- 13) LAY RECYCLED WATER ID TAPE ON TOP OF SERVICE
- 14) ENGRAVED STAINLESS STEEL RECYCLED WATER ID TAG.



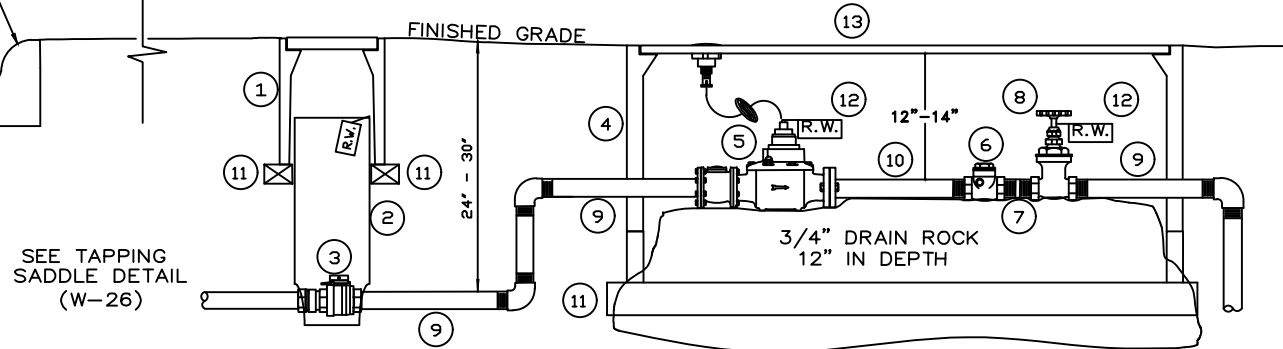
Richard D. Plecker
 RICHARD PLECKER
 ENVIRONMENTAL UTILITIES DIRECTOR

NOTES:

- INSTALL CONCRETE BRICK (3" X 5") UNDER ENTIRE PERIMETER OF THE BOX.
- ALL PIPING FROM REDUCER THROUGH TEST STATION TO BE 1" BRASS
- ALL FITTINGS TO BE BRASS

	ENVIRONMENTAL UTILITIES DEPARTMENT
	RECYCLED WATER #88-V ECLIPSE SAMPLING STATION FOR WARM CLIMATES
SCALE: NONE REVISED: JANUARY 2021 DRAWN BY: R. VAN NESS APPROVED BY: RICHARD PLECKER	RW-7

CURB STAMPED "RW"
AT SERVICE LOCATION



SEE TAPPING
SADDLE DETAIL
(W-26)

NOTES:

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPT.

CONTRACTOR SHALL LAY 3/4" DRAIN ROCK TO 12" DEPTH UNDER CONCRETE BLOCKING AT METER

WATER METERS SHALL BE PURCHASED THROUGH THE CITY. PURCHASE INCLUDES INSTALLATION.

THERE SHALL BE NO FLOW ALTERING DEVICES 5X THE PIPE DIAMETER UPSTREAM AND DOWNSTREAM OF THE METER.

CURBSTOP SHALL BE BETWEEN 12" & 18" OF EASEMENT.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

SINGLE CHECK BACKFLOWS: WATTS CVY (BRONZE), WATTS WCV -2 (BRASS W/RUBBER DISK SEALS) WATTS 806 (316 STAINLESS STL.), MATCO/NORCA MODEL 530 (BRONZE)


BOXES SHALL HAVE METAL LIDS MARKED "RECYCLED WATER" WITH 2" LETTERS.

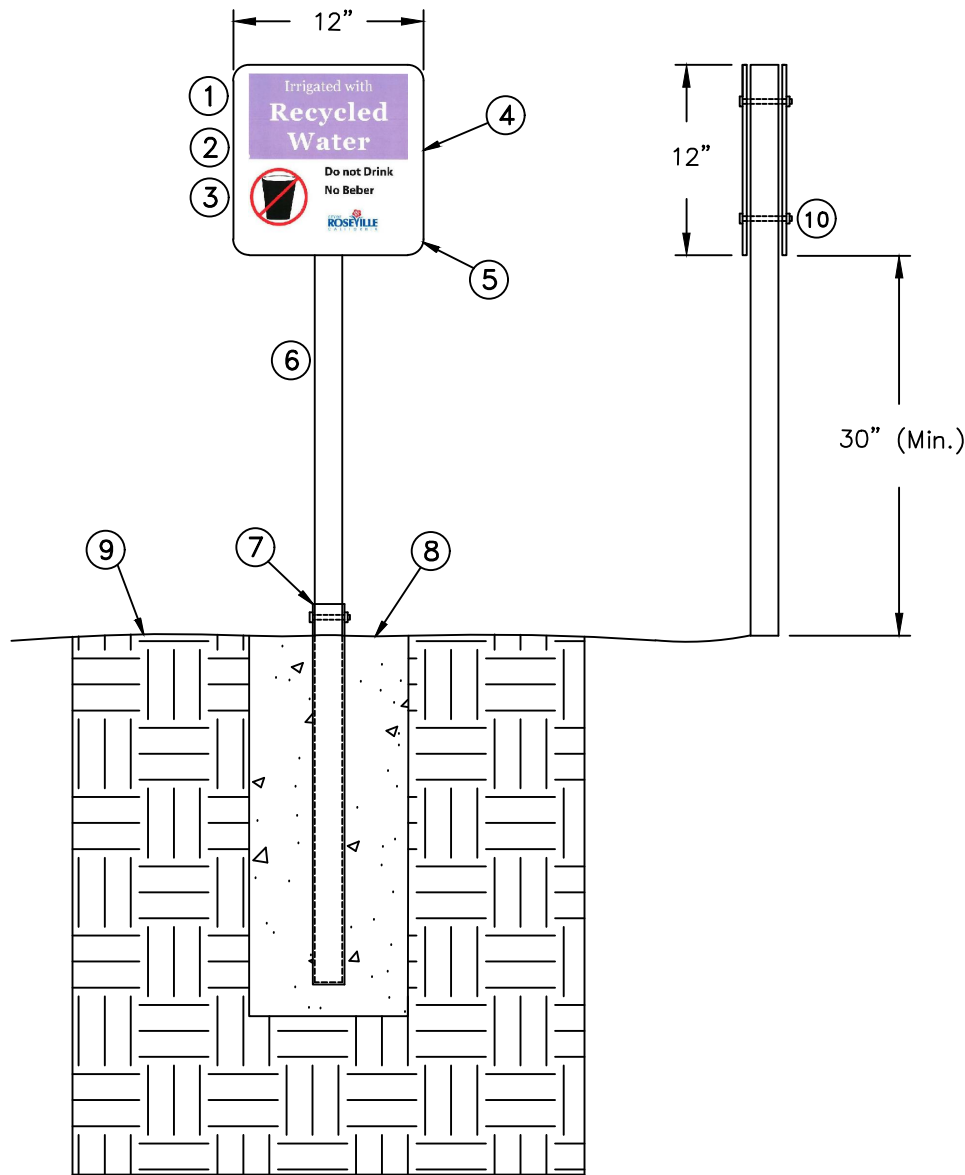
Richard D. Plecker

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ENVIRONMENTAL UTILITIES DIRECTOR

- 1) G-5 VALVE BOX (PER DETAIL W-16)
- 2) 6" CONTINUOUS RISER (NOTCHED OVER PIPE AT BASE)
- 3) CURB STOP COMPRESSION X FIPT
- 4) B-48 UTILITY BOX W/ EXTENSION (MORTAR JOINTS INSIDE & OUT)
- 5) TURBO METER WITH STRAINER (PURCHASED THROUGH CITY). INSTALL IDLER SPOOL DURING INSTALLATION OF METER BOX.
- 6) SINGLE CHECK (SEE NOTES)

- 7) 3" BRASS NIPPLE
- 8) ALL BRASS GATE VALVE (FIPT X FIPT)
- 9) 12" BRASS NIPPLE
- 10) 6" BRASS NIPPLE
- 11) INSTALL CONCRETE BRICK (3" X 5") UNDER ENTIRE PERIMETER OF UTILITY BOXES
- 12) ENGRAVED STAINLESS STEEL RECYCLED WATER ID TAG.
- 13) ENGRAVED STAINLESS STEEL ADDRESS TAG AFFIXED TO WATER METER BOX LID.

	ENVIRONMENTAL UTILITIES DEPARTMENT
<p style="font-size: 1.5em; margin: 0;">1 1/2" & 2"</p> <p style="font-size: 1.2em; margin: 0;">RECYCLED WATER SERVICE</p>	
SCALE: NONE REVISED: JANUARY 2021 DRAWN BY: R. VAN NESS APPROVED BY: RICHARD PLECKER	
RW-8	



- 1) SIGN: BLANKS TO BE ENGINEER GRADE ALUMINUM SHEETING ALLOY 0.80 GAUGE CORNERS TO HAVE 1" RADIUS ARC. SIGNS TO BE PAINTED AS SHOWN WITH WHITE BACK. TWO SIGNS PER POST.
- 2) THE PURPLE AREA AS SHOWN SHALL BE PER THE FOLLOWING: ALL LETTERS WHITE, FONT TYPE GEORGIA, "Irrigated with" SHALL BE 72 PT AND "Recycled Water" SHALL BE 120 PT. BOLD MATCH CASE.
- 3) INTERNATIONAL "DO NOT DRINK" SYMBOL: BLACK CUP 3" IN HT. SYMBOL WITH RED CIRCLE 3 1/2" DIA. AND SLASH.
- 4) THE BLACK LETTERING AS SHOWN SHALL BE PER THE FOLLOWING: ALL LETTERS BLACK, FONT TYPE ARIAL AND 60 PT. BOLD, MATCH CASE.
- 5) CURRENT APPROVED CITY OF ROSEVILLE LOGO PLACED AS SHOWN.
- 6) 1 3/4" SQUARE PERFORATED STEEL POST POWDER COATED WHITE.
- 7) 2" SQUARE GALV. STEEL ANCHOR SLEEVE MIN. 24" DEEP. SET SLEEVE 2" ABOVE FINISH GRADE AND PROVIDE HOLES FOR THE 5/16" HEX HEAD CAP BOLT.
- 8) 10" DIAMETER BY 24" DEEP CONCRETE FOOTING.
- 9) FINISHED GRADE.
- 10) 5/16" GALV. STL. HEX HEAD CAP BOLTS WITH NUTS
- 11) MOUNTING HARDWARE SHALL NOT OBSTRUCT THE VIEW OF ANY LETTERING LOGOS, OR SYMBOLS.
- 12) RECYCLED WATER SIGNS SHALL BE PROVIDED BY THE CONTRACTOR. SIGNS CAN BE PURCHASED FROM INTERSTATE SALES (530-823-6070) OR ZAP MANUFACTURING (530-272-8855).

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR



ENVIRONMENTAL UTILITIES
DEPARTMENT

RECYCLED WATER
USE SIGNAGE

SCALE: NONE
REVISED: JANUARY 2021
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

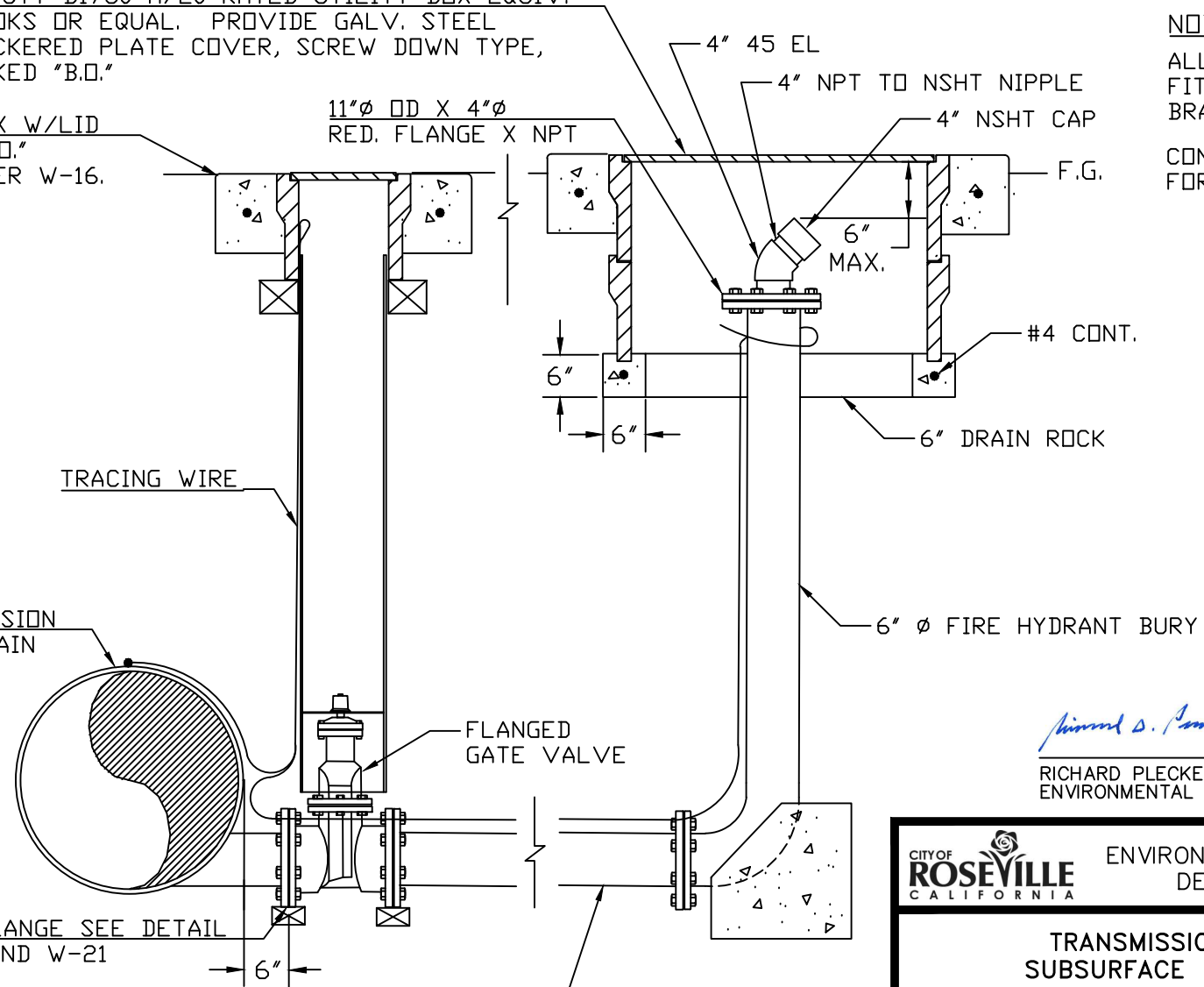
RW-9

CHRISTY B1730 H/20 RATED UTILITY BOX EQUIV.
 BROOKS OR EQUAL. PROVIDE GALV. STEEL
 CHECKERED PLATE COVER, SCREW DOWN TYPE,
 MARKED "B.O."

VALVE BOX W/LID
 MARKED "B.O."
 INSTALL PER W-16.

11" Ø OD X 4" Ø
 RED. FLANGE X NPT

NOTE:
 ALL THREADED PIPE
 FITTINGS SHALL BE
 BRASS
 CONCRETE INSTALLED
 FOR STABILITY



TRACING WIRE

TRANSMISSION
 WATER MAIN

FLANGED
 GATE VALVE

INSULATING FLANGE SEE DETAIL
 W-19, W-20, AND W-21

Richard D. Plecker
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 ENVIRONMENTAL UTILITIES DIRECTOR

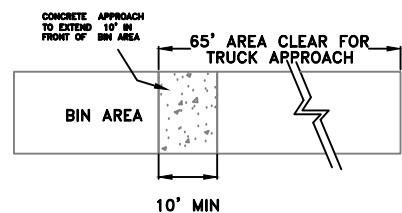
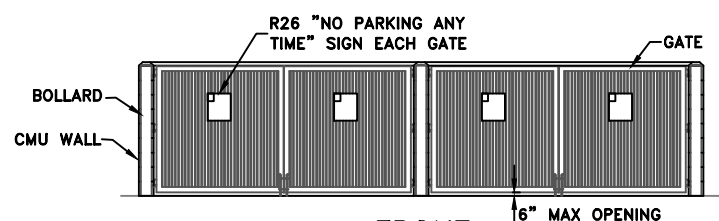
CITY OF **ROSEVILLE** ENVIRONMENTAL UTILITIES
 CALIFORNIA DEPARTMENT

**TRANSMISSION MAIN
 SUBSURFACE BLOW OFF**

SCALE: NONE
 REVISED: JANUARY 2023
 DRAWN BY: J. THOMPSON
 APPROVED BY: RICHARD PLECKER

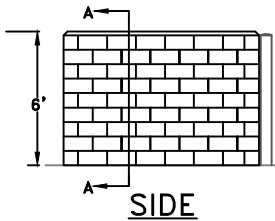
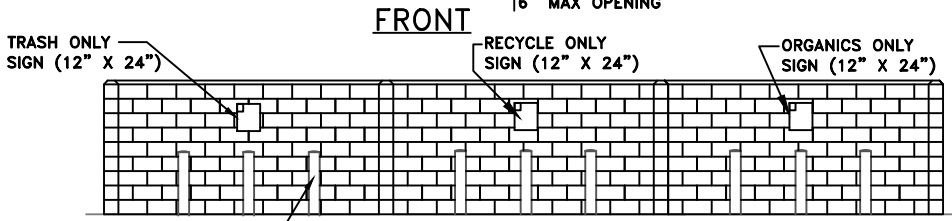
RW-10

6" Ø FLANGED DIP AND
 FITTINGS, SEE PLANS
 FOR LENGTH,
 ORIENTATION AND
 LOCATION



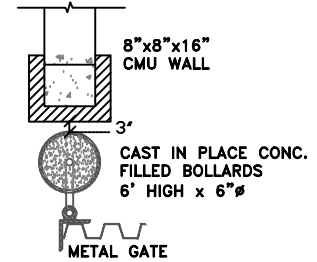
NOTES:

1. SINGLE ENCLOSURE IS 12' WIDE (INTERIOR)
2. THE EXTERIOR FINISH AND COLOR OF THE ENCLOSURE SHALL MATCH THE BUILDING PER THE DESIGN REVIEW PERMIT EXHIBITS AND/OR CONDITIONS OF APPROVAL
3. GREASE/TALLOW BIN ENCLOSURE MAY BE ATTACHED TO THE TRASH ENCLOSURE OR BE CONSTRUCTED SEPARATELY. THE GREASE/TALLOW BIN MUST NOT BE LOCATED WITHIN THE TRASH/RECYCLING ENCLOSURE.
4. NO. 4 REBAR, 12 INCHES O.C. EACH WAY, 3 INCH DOBIES WITH WIRE TIES AT 3' INTERVALS, EACH WAY.



SECTION A
BOLLARD CONFIGURATION

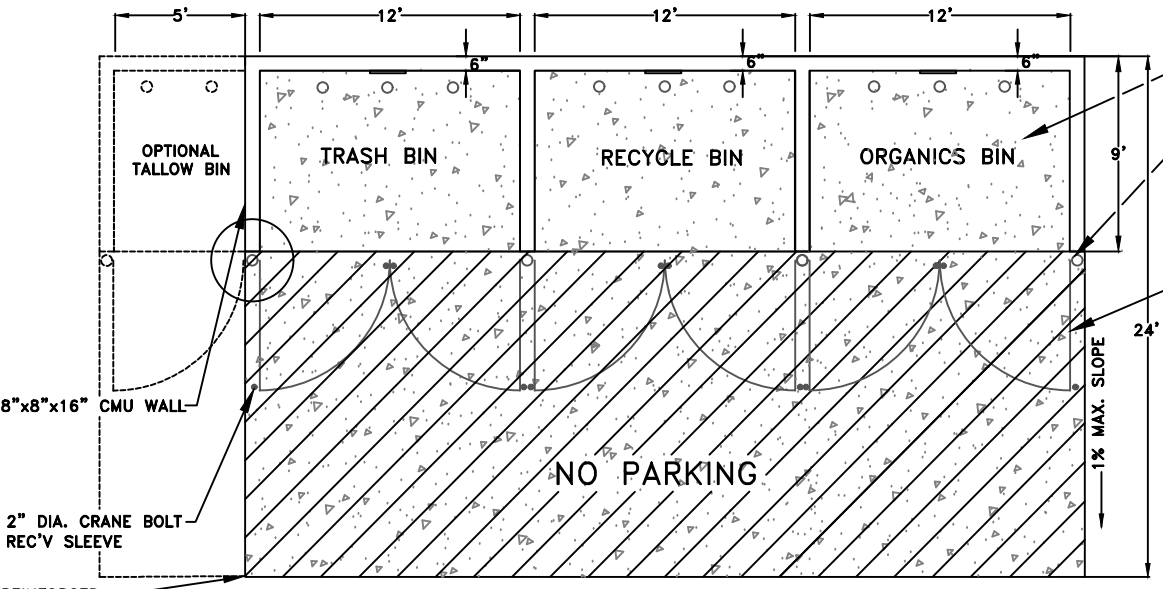
6" x 6" #6 CONC. FILLED BOLLARDS AT 3' O.C. (3' HIGH, 3' BURIED BELOW GROUND). SEE DETAIL ST-38A



BOLLARD GATE DETAIL

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR



REINFORCED CONCRETE APPROACH AND INTERIOR SHALL BE 6" THICK MIN. PAINTED "NO PARKING" 12" LETTERS WITH 4" DIAGONAL LINES

NO CROSS SLOPE ALLOWED

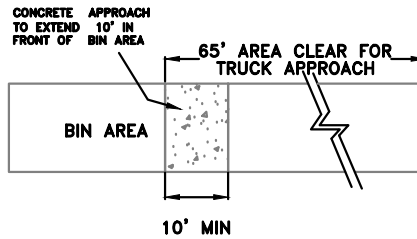
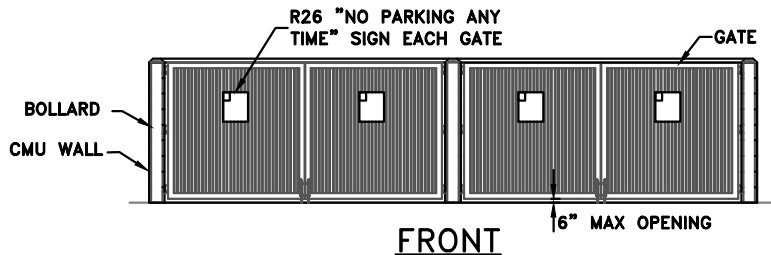
PLAN

CITY OF ROSEVILLE CALIFORNIA ENVIRONMENTAL UTILITIES DEPARTMENT

STANDARD TRASH ENCLOSURE

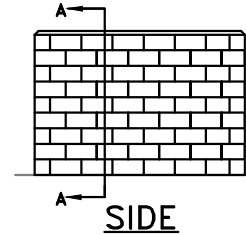
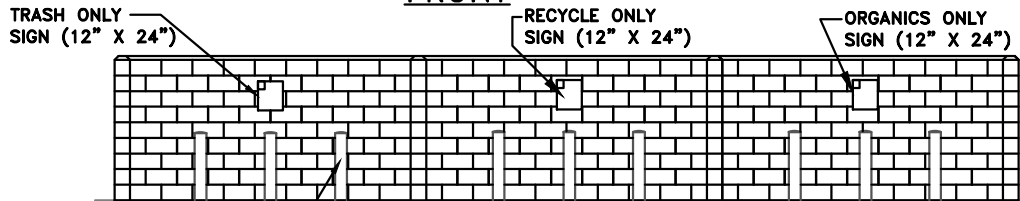
SCALE: NONE
REVISED: JANUARY 2023
DRAWN BY: J THOMPSON
APPROVED BY: RICHARD PLECKER

SW-1

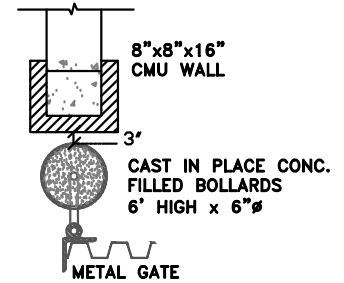


NOTES:

1. SINGLE ENCLOSURE IS 12' WIDE (INTERIOR)
2. THE EXTERIOR FINISH AND COLOR OF THE ENCLOSURE SHALL MATCH THE BUILDING PER THE DESIGN REVIEW PERMIT EXHIBITS AND/OR CONDITIONS OF APPROVAL
3. GREASE/TALLOW BIN ENCLOSURE MAY BE ATTACHED TO THE TRASH ENCLOSURE OR BE CONSTRUCTED SEPARATELY. THE GREASE/TALLOW BIN MUST NOT BE LOCATED WITHIN THE TRASH/RECYCLING ENCLOSURE.



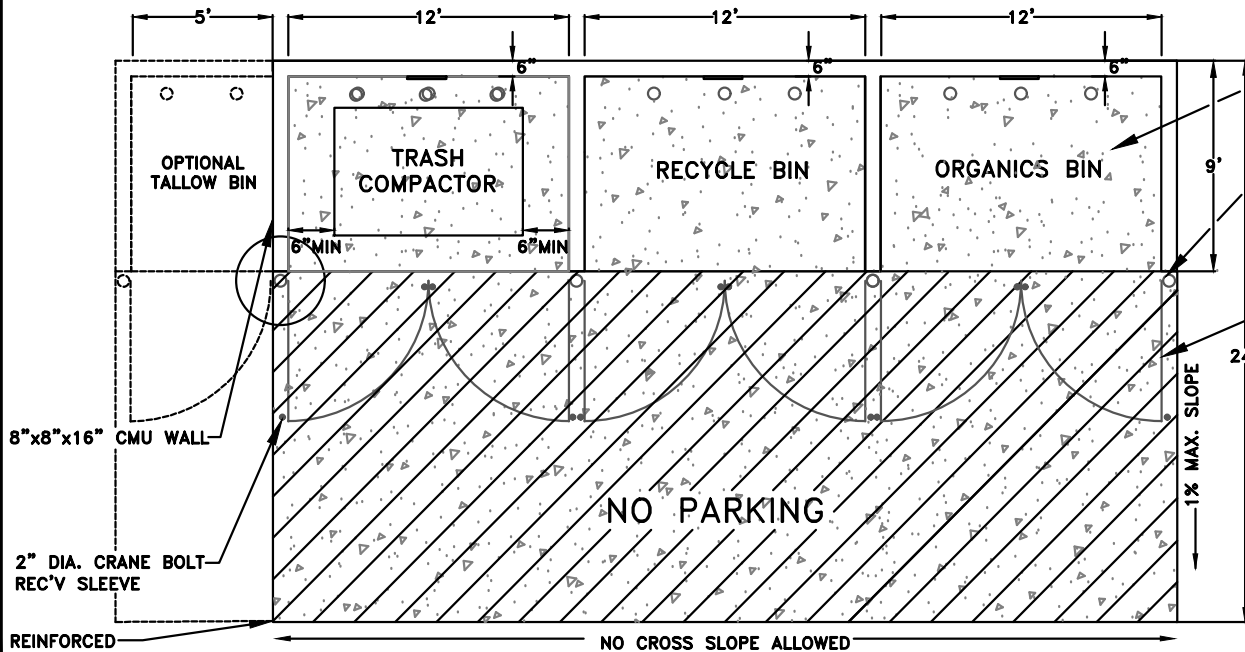
6' x 6" ϕ CONC. FILLED BOLLARDS AT 3' O.C. (3' HIGH, 3' BURIED BELOW GROUND). SEE DETAIL ST-38A



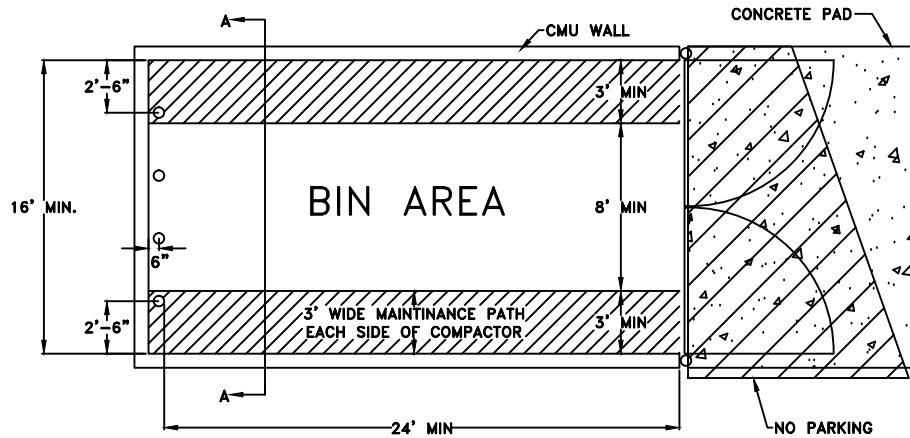
BOLLARD GATE DETAIL

Richard D. Plecker

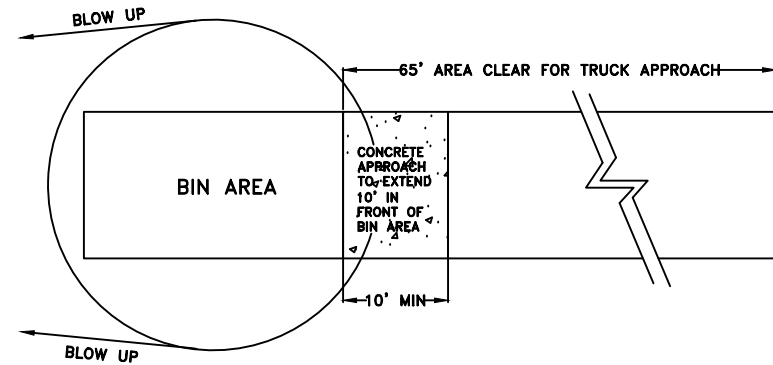
RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR



	ENVIRONMENTAL UTILITIES DEPARTMENT
	FRONT LOADING COMPACTOR ENCLOSURE
SCALE: NONE REVISED: MARCH 2023 DRAWN BY: J. THOMPSON APPROVED BY: RICHARD PLECKER	SW-2



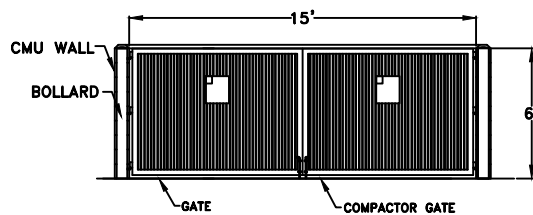
PLAN
COMPACTOR BIN



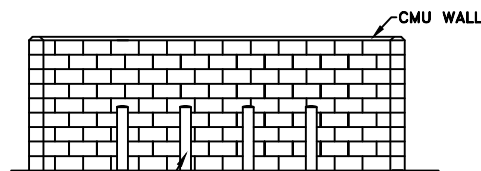
PLAN
BIN & APPROACH

NOTES:

1. APPROACH SHALL BE 6" THICK REINFORCED CONCRETE SLAB ON GRADE. IT SHALL BE PAINTED "NO PARKING" IN 12" LETTERS AND STRIPED WITH 4" DIAGONAL LINES.
2. THE EXTERIOR FINISH AND COLOR OF THE ENCLOSURE SHALL MATCH THE BUILDING PER THE DESIGN REVIEW PERMIT EXHIBITS AND/OR CONDITIONS OF APPROVAL



FRONT



6' x 6" CONC. FILLED
BOLLARDS AT 3' O.C.
(3' HIGH, 3' BURIED
BELOW GROUND)

SECTION A
BOLLARD CONFIGURATION

ELEVATIONS

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR

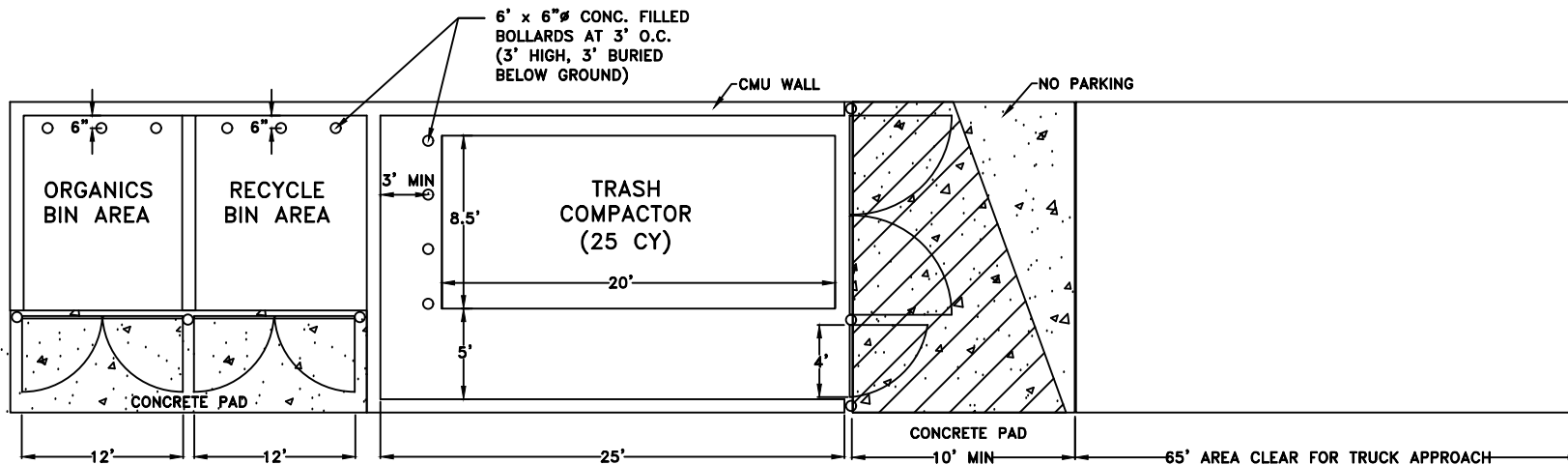


ENVIRONMENTAL UTILITIES
DEPARTMENT

**COMMERCIAL
COMPACTOR ENCLOSURE**

SCALE: NONE
REVISED: JANUARY 2016
DRAWN BY: R. VAN NESS
APPROVED BY: RICHARD PLECKER

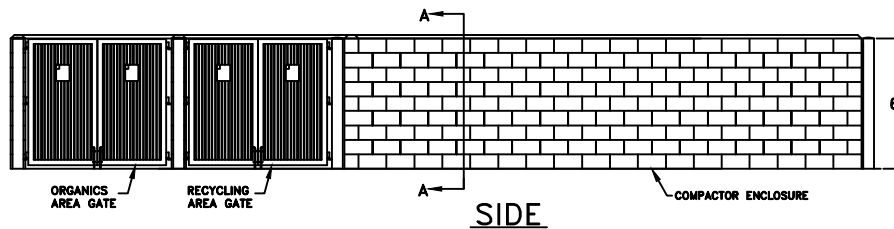
SW-3



PLAN
COMPACTOR BIN

NOTES:

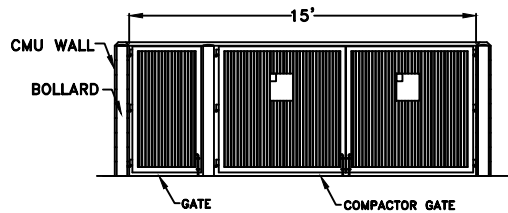
1. APPROACH SHALL BE 6" THICK REINFORCED CONCRETE SLAB ON GRADE. IT SHALL BE PAINTED "NO PARKING" IN 12" LETTERS AND STRIPED WITH 4" DIAGONAL LINES.
2. THE EXTERIOR FINISH AND COLOR OF THE ENCLOSURE SHALL MATCH THE BUILDING PER THE DESIGN REVIEW PERMIT EXHIBITS AND/OR CONDITIONS OF APPROVAL
3. IF GREASE/TALLOW BIN IS REQUIRED, SEE SW-1 AND SW-2 FOR DETAILS



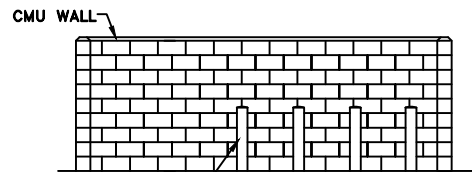
SIDE

Richard D. Plecker

RICHARD PLECKER
ENVIRONMENTAL UTILITIES DIRECTOR



FRONT



6" x 6" Ø CONC. FILLED
BOLLARDS AT 3' O.C.
(3' HIGH, 3' BURIED
BELOW GROUND)

SECTION A
BOLLARD CONFIGURATION
(TRASH COMPACTOR)



ENVIRONMENTAL UTILITIES
DEPARTMENT

**RESIDENTIAL/COMMERCIAL
COMPACTOR ENCLOSURE**

SCALE: NONE
REVISED: APRIL 2022
DRAWN BY: D.SAMUELSON
APPROVED BY: RICHARD PLECKER

SW-4