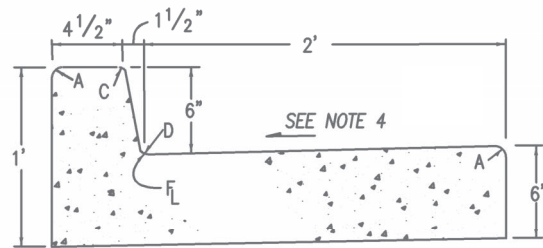
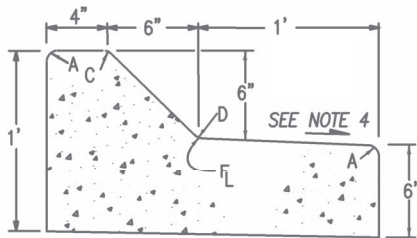


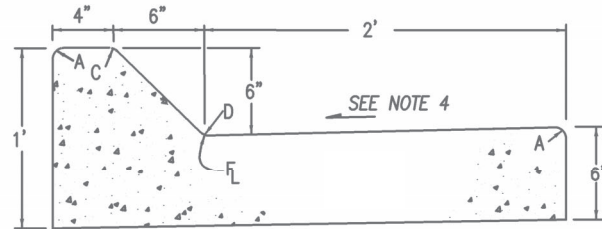
MEDIAN CURB AND GUTTER
(6" BARRIER - 1' GUTTER)



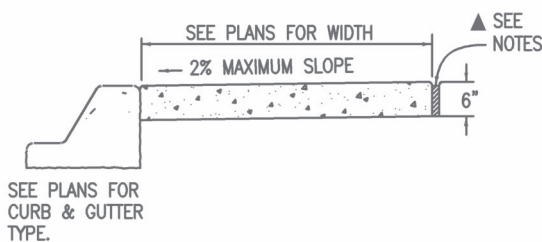
VERTICAL CURB AND GUTTER
(6" BARRIER - 2' GUTTER)



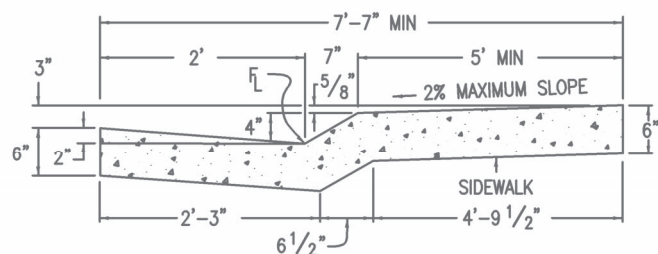
CURB AND GUTTER TYPE 2
(6" MOUNTABLE - 1' GUTTER)



CURB AND GUTTER TYPE 2
(6" MOUNTABLE - 2' GUTTER)



CONCRETE SIDEWALK



CURB AND GUTTER TYPE 2
(4" MOUNTABLE WITH SIDEWALK)

CURB AND GUTTER NOTES

1. AT THE LOW POINT(S) OF EACH MEDIAN A DRAIN SYSTEM SHALL BE DESIGNED TO CONVEY STORM AND IRRIGATION FLOWS.
2. ALL CONCRETE SHALL BE POURED ON 6" ABC MINIMUM.
3. GUTTER CROSS-SLOPE SHALL BE $\frac{1}{2}$ " PER FOOT WHEN DRAINING AWAY FROM CURB AND 1" PER FOOT WHEN DRAINING TOWARD CURB.
4. TRANSVERSE CONTRACTION JOINTS SHALL BE PLACED EVERY 10' ALONG CURB AND GUTTER AND CURB HEAD.

- ▲ EXPANSION JOINTS SHALL BE INSTALLED WHEN ABUTTING EXISTING CONCRETE OR FIXED STRUCTURE. EXPANSIONS JOINT MATERIAL SHALL BE $\frac{1}{2}$ " THICK AND SHALL EXTEND THE FULL DEPTH OF CONTACT SURFACE.

SIDEWALK NOTES

1. ALL CONCRETE SHALL BE POURED ON 6" ABC MINIMUM.
2. TRANSVERSE CONTRACTION JOINTS SHALL BE PLACED EVERY 5' ALONG SIDEWALK.
3. EXPANSION JOINTS SHALL BE PLACED AT 500' INTERVALS ALONG SIDEWALK.

LEGEND FOR RADII	
A	= $\frac{1}{8}$ " TO $\frac{1}{4}$ "
C	= $1\frac{1}{2}$ "
D	= $1\frac{1}{2}$ " TO 2"

APPROVAL:

DIRECTOR OF PUBLIC WORKS

**CURB, GUTTER, &
ATTACHED
SIDEWALK**

Centennial
COLORADO

STANDARD DETAIL NO.

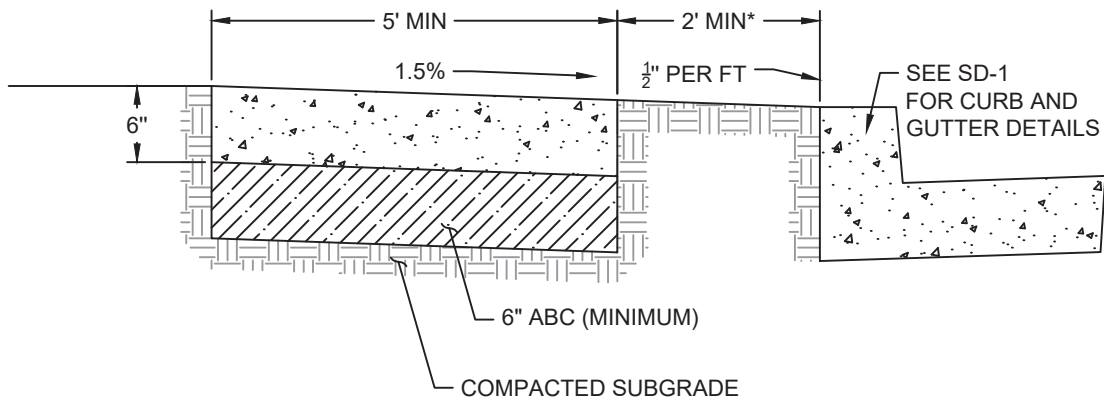
SD-1

REV #	DATE	DESCRIPTION

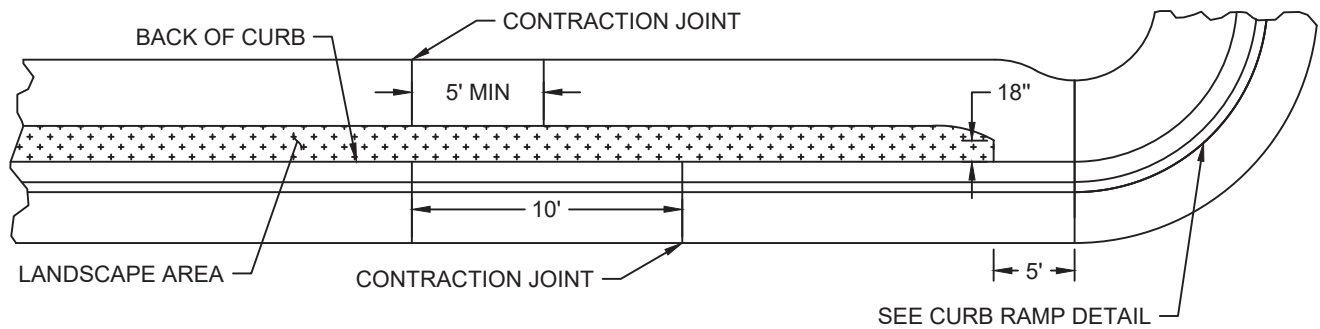
DATE: 11/24

NOT TO SCALE

ELEVATION VIEW



PLAN VIEW



GENERAL NOTES

1. SEE SIDEWALK NOTES ON SD-1 FOR MORE INFORMATION.
 2. 1.5% SHALL BE THE MAXIMUM DESIGN CROSS SLOPE FOR ALL SIDEWALKS AND CURB RAMPS. 2.0% SHALL BE THE MAXIMUM CONSTRUCTED CROSS SLOPE FOR ALL SIDEWALKS AND CURB RAMPS.
- *REFERENCE THE STANDARD DETAILS FOR TYPICAL STREET SECTIONS FOR LANDSCAPE AREA WIDTH REQUIREMENTS.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

DETACHED SIDEWALK



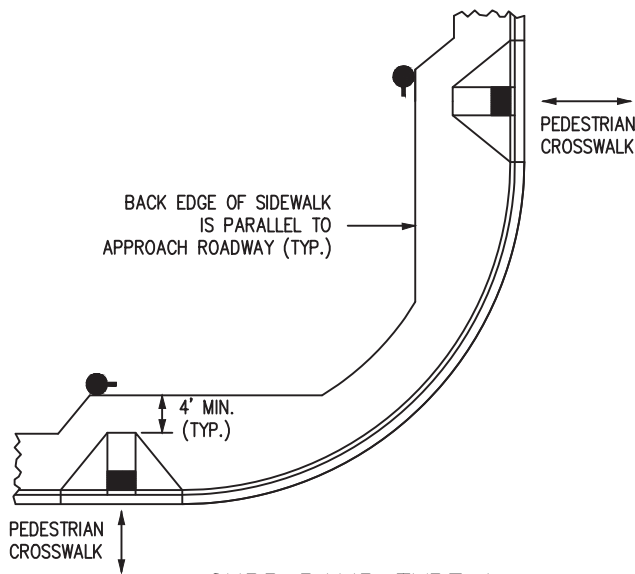
STANDARD DETAIL NO.

SD-2

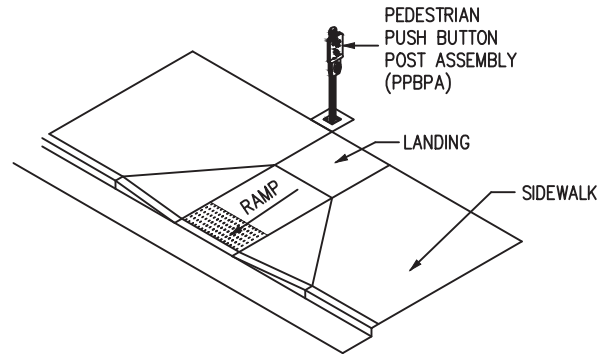
REV #	DATE	DESCRIPTION

DATE: 11/24

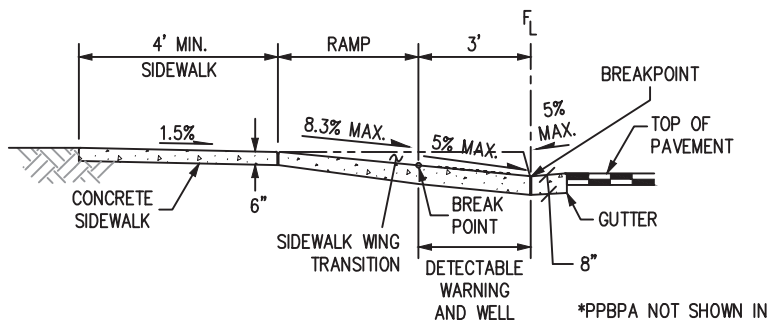
NOT TO SCALE



CURB RAMP TYPE 1

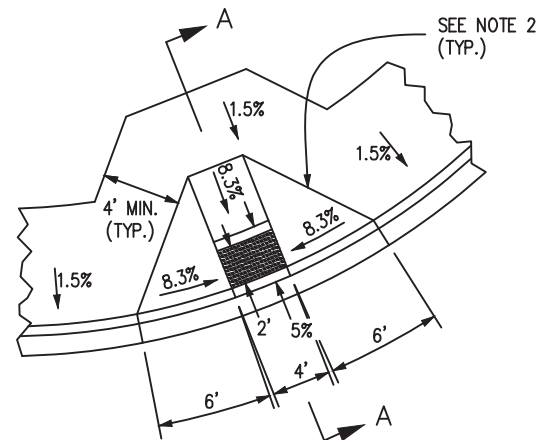


CURB RAMP WITH
PEDESTRIAN PUSH BUTTON POST



SECTION A-A*

*PPBPA NOT SHOWN IN
SECTION VIEWS AS IT
MAY NOT BE
REQUIRED



RAMP DETAIL

FOR CURB RAMP
TYPE 1

GENERAL NOTES

1. THE DETECTABLE WARNINGS SHALL BE INSTALLED AT SIDEWALK TO STREET TRANSITIONS PER THE CITY OF CENTENNIAL STANDARD DETAIL. THE DOMES SHALL BE IN A SQUARE GRID PATTERN.
2. RAMP SLOPES SHALL BE 8.3% OR FLATTER. THE DETECTABLE WARNING SLOPES SHALL BE 5% OR FLATTER.
3. MINIMUM SIDEWALK WIDTH IS 5 FT.
4. DO NOT INSTALL DRAINAGE STRUCTURES, TRAFFIC SIGNAL EQUIPMENT, JUNCTION BOXES, AND OTHER OBSTRUCTIONS IN FRONT OF THE RAMP ACCESS AREAS.
5. IF THE PLACEMENT OF A PEDESTRIAN PUSH BUTTON ASSEMBLY ON A TRAFFIC SIGNAL POLE WILL NOT BE WITHIN EASY REACH (10" OR LESS AND UNOBSTRUCTED) OF PEDESTRIANS (IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT), THEN A SEPERATE PEDESTRIAN PUSH BUTTON POST ASSEMBLY (PPBPA) SHALL BE INSTALLED WITHIN EASY REACH. THE PPBPA SHALL MEET THE PROVISIONS FOUND IN THE MUTCD MANUAL, LATEST EDITION.
6. THE SLOPES MAY BE FLATTER THAN WHAT IS SHOWN BUT THEY SHALL NOT EXCEED THESE VALUES. THE CURB RAMP (EXCLUDING ANY FLARED SIDES) OR BLENDED TRANSITION SHALL BE CONTAINED WHOLLY WITHIN THE WIDTH OF THE CROSSWALK AND/OR PEDESTRIAN STREET CROSSING THAT THE RAMP SERVES.
7. CURB RAMPS DIAGONALLY (ON THE APEX) ARE UNDESIRABLE AND SHALL NOT BE USED UNLESS APPROVED BY THE CITY PROJECT MANAGER. TYPICALLY, TWO CURB RAMPS MUST BE PROVIDED AT EACH STREET CORNER.
8. TRUNCATED DOMES SHALL BE ADA SOLUTIONS HERITAGE BRICK CAST-IN-PLACE OR APPROVED EQUAL.
9. CURB RAMP DESIGN SHALL CONFORM TO CURRENT PROWAG STANDARDS.
10. 1.5% SHALL BE THE MAXIMUM DESIGN CROSS SLOPE FOR ALL SIDEWALKS AND CURB RAMPS. 2.0% SHALL BE THE MAXIMUM CONSTRUCTED CROSS SLOPE FOR ALL SIDEWALKS AND CURB RAMPS.

● - PEDESTRIAN PUSH BUTTON
POST ASSEMBLY (PPBPA).
SEE NOTE 5.
SEE PLANS FOR
LOCATIONS.
THE SIGN FACE SHALL BE
PARALLEL TO THE
CROSSWALK.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

CURB RAMPS
TYPE 1



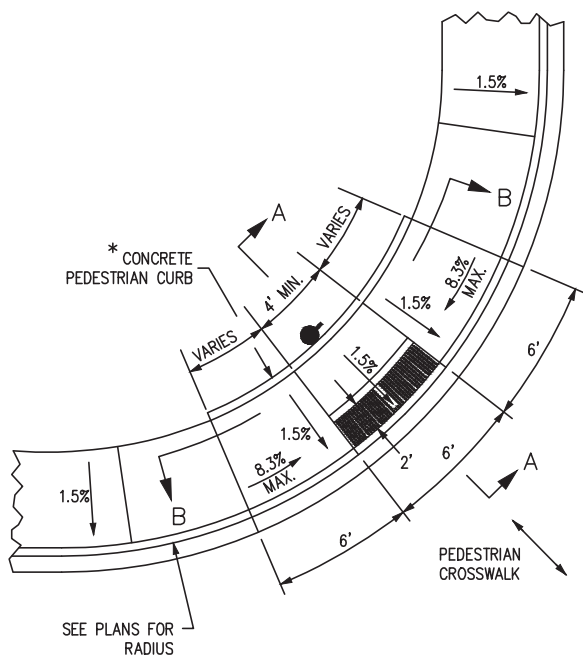
STANDARD DETAIL NO.

SD-3.1

REV #	DATE	DESCRIPTION

DATE: 11/24

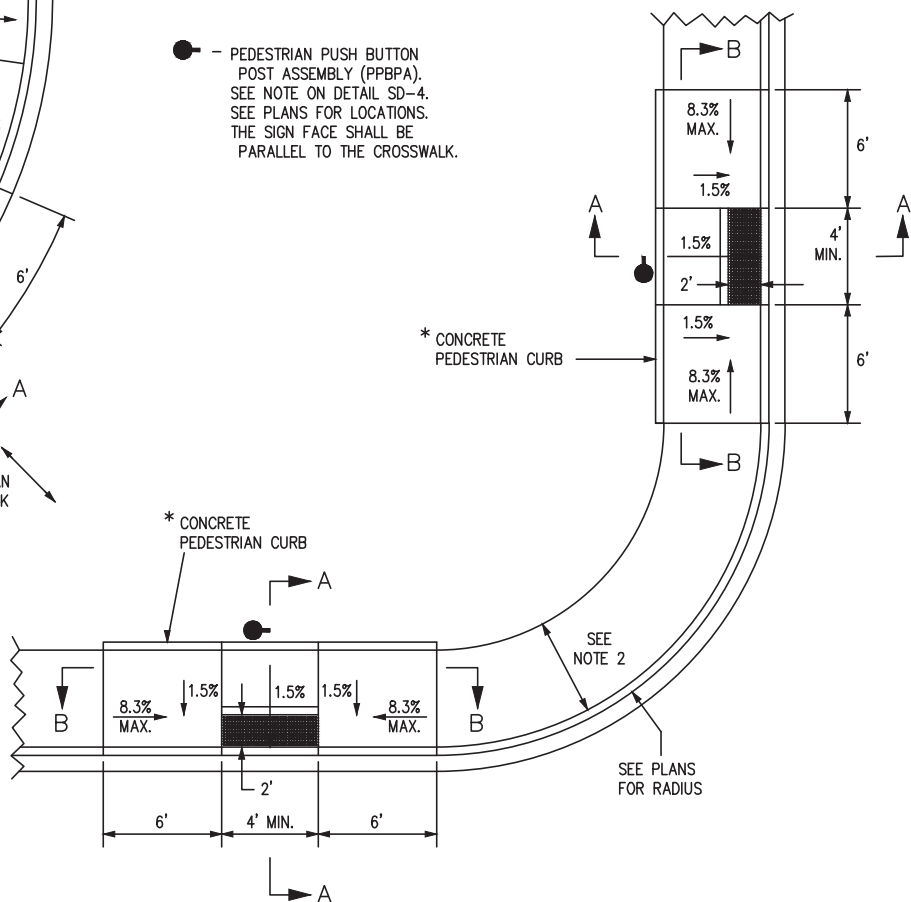
NOT TO SCALE



CURB RAMP TYPE 2A

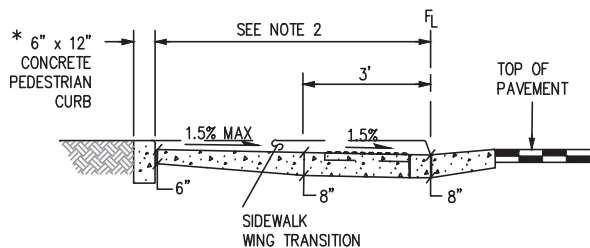
SEE NOTE 3.

● - PEDESTRIAN PUSH BUTTON POST ASSEMBLY (PPBPA).
SEE NOTE ON DETAIL SD-4.
SEE PLANS FOR LOCATIONS.
THE SIGN FACE SHALL BE PARALLEL TO THE CROSSWALK.



CURB RAMP TYPE 2B

SEE NOTE 3.

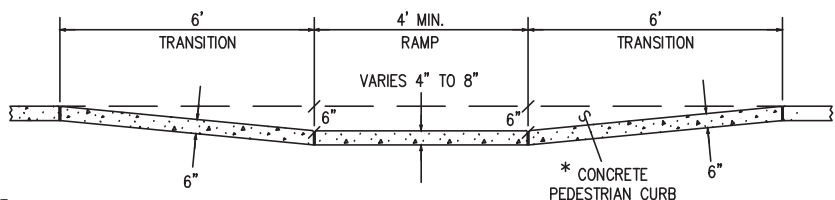


SECTION A-A

(PPBPA NOT SHOWN IN SECTION VIEWS AS IT MAY NOT BE REQUIRED.)

NOTES

1. CURB RAMP TYPE 2A MAY BE USED IN MID-BLOCK.
2. SEE PLANS FOR SIDEWALK WIDTH. THE MINIMUM SIDEWALK WIDTH IS 5 FT.
3. CURB RAMP TYPE 2A DIAGONAL (ON THE APEX) IS UNDESIRABLE AND SHALL NOT BE USED UNLESS APPROVED BY THE CITY PROJECT MANAGER. TYPICALLY, TWO CURB RAMPS AS IN TYPE 2B, MUST BE PROVIDED AT EACH STREET CORNER.
4. TRUNCATED DOMES SHALL BE ADA SOLUTIONS HERITAGE BRICK CAST-IN-PLACE OR APPROVED EQUAL.
5. CURB RAMP DESIGN SHALL CONFORM TO CURRENT PROWAG STANDARDS.
6. 1.5% SHALL BE THE MAXIMUM DESIGN CROSS SLOPE FOR ALL SIDEWALKS AND CURB RAMPS. 2.0% SHALL BE THE MAXIMUM CONSTRUCTED CROSS SLOPE FOR ALL SIDEWALKS AND CURB RAMPS.



SECTION B-B

APPROVAL:

DIRECTOR OF PUBLIC WORKS

**CURB RAMPS
TYPE 2**



STANDARD DETAIL NO.

SD-3.2

REV # DATE DESCRIPTION

DATE: 11/24

NOT TO SCALE

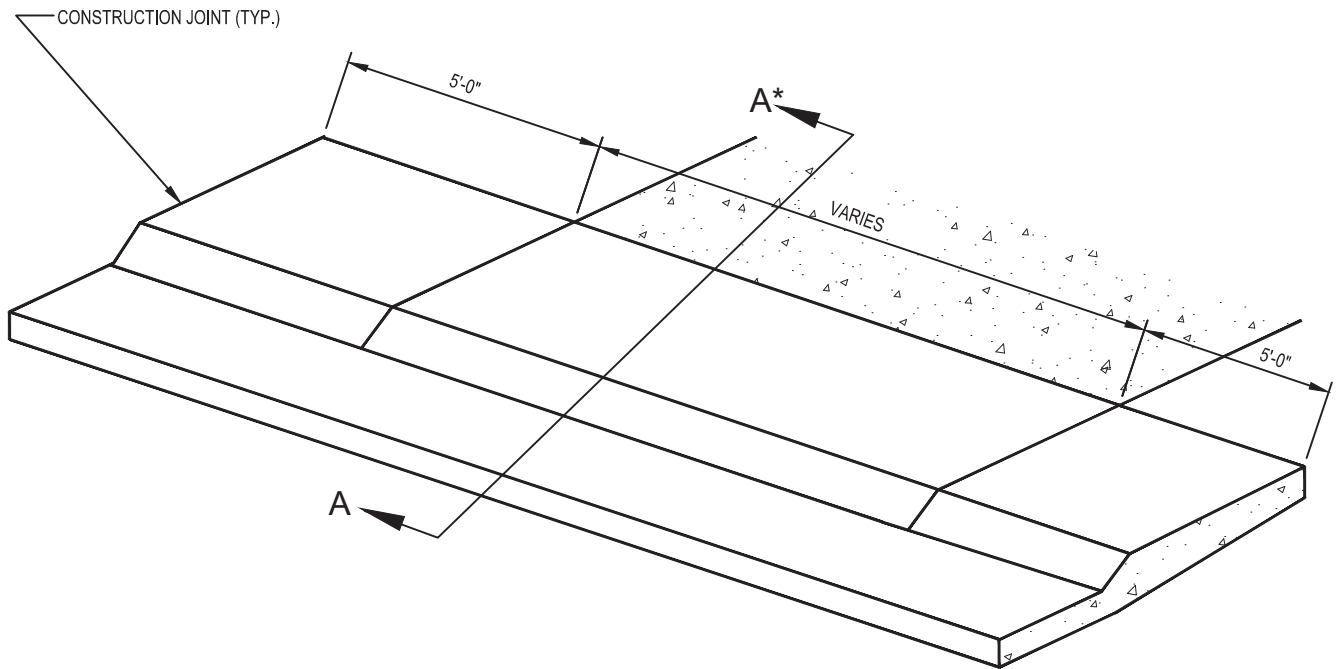


Diagram illustrating the dimensions and materials for a 4' ramp. The ramp is 4' long. The concrete pedestrian curb (typical) is shown on the left. The ramp surface is labeled "VARIES 0" TO 6"". The ramp is supported by a 6" (typical) base. The ramp is labeled "VARIES" and "6" (TYP.)".

SECTION F-F

● - PEDESTRIAN PUSH BUTTON POST ASSEMBLY (PPBPA).
SEE NOTE ON SHEET SD-3.1.
SEE PLANS FOR LOCATIONS.
THE SIGN FACE SHALL BE PARALLEL TO THE CROSSWALK.

SD-3.3



COMBINATION CURB GUTTER & SIDEWALK WITH DRIVEWAY

NOTES

1. CONSTRUCTION JOINTS REQUIRED IN DRIVEWAY AT MAXIMUM 10' SPACING.
2. DRIVEWAYS ARE TO BE PLACED MONOLITHIC WITH CURB & GUTTER.
3. CONCRETE THICKNESS SHALL BE 6" MINIMUM ON 6" ABC MINIMUM. SEE STANDARD DETAIL FOR ATTACHED SIDEWALK.
4. ALL ACCESSES ON COLLECTOR AND ARTERIAL STREETS OR ANY NON-SINGLE FAMILY USE MUST BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS OR DESIGNEE.
5. WHERE SITE OR OTHER CONDITIONS WARRANT, THE CITY MAY REQUIRE AN ALTERNATE DESIGN.

* SEE SD-1 (4" MOUNTABLE WITH SIDEWALK) FOR SECTION A-A

APPROVAL: 
 DIRECTOR OF PUBLIC WORKS

RESIDENTIAL
DRIVEWAY



STANDARD DETAIL NO.

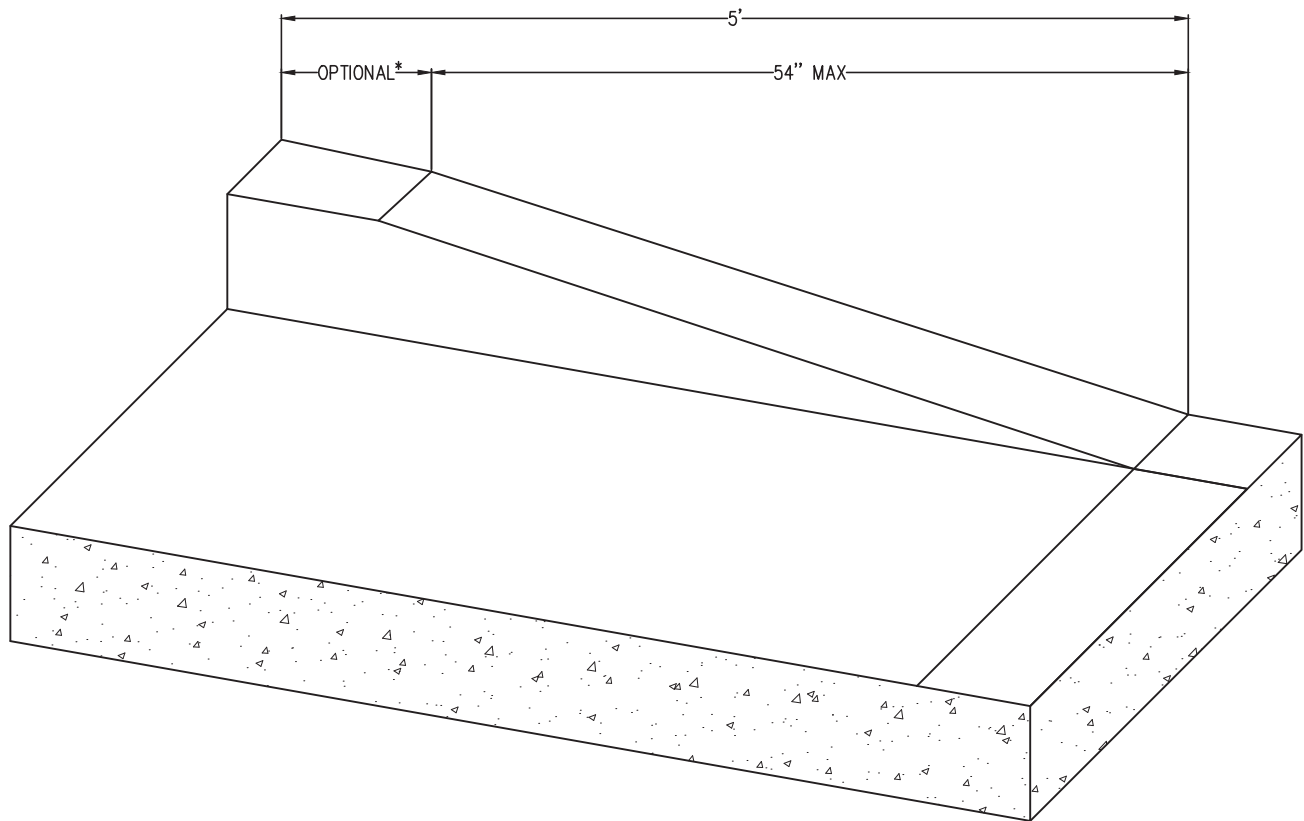
SD-4

REV #	DATE	DESCRIPTION

DATE: 11/24

NOT TO SCALE

CURB AND GUTTER TRANSITION



NOTE: SEE NOTES ON SD-1 FOR MORE INFORMATION ON BASE COURSE, SLOPES, AND JOINTS.
 * WHEN INCLUDED, 6" MINIMUM

APPROVAL: 
 DIRECTOR OF PUBLIC WORKS

CURB TRANSITION



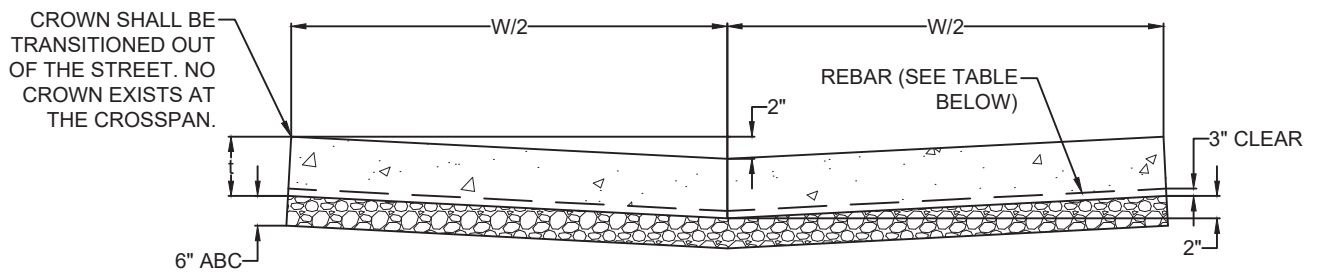
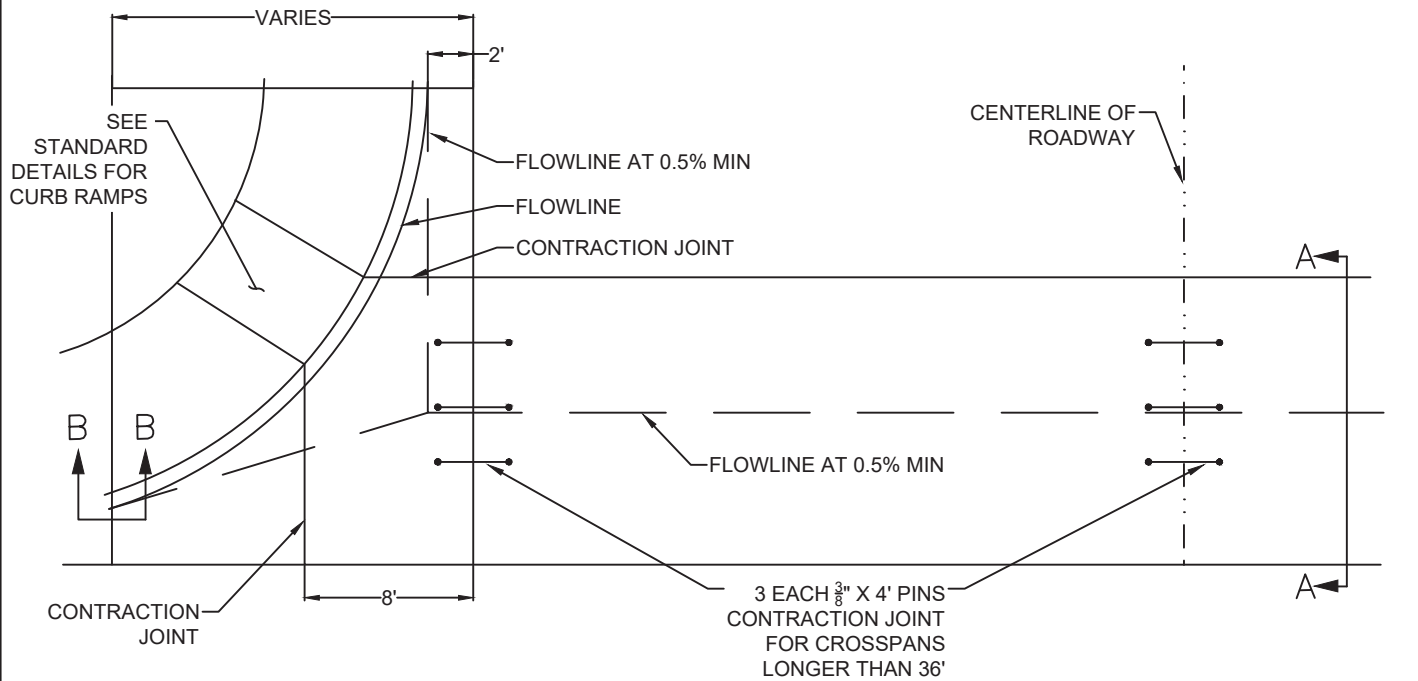
STANDARD DETAIL NO.

SD-5

REV #	DATE	DESCRIPTION

DATE: 11/24

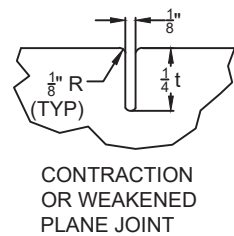
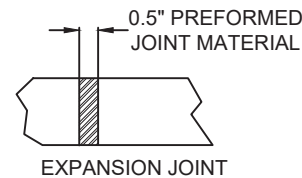
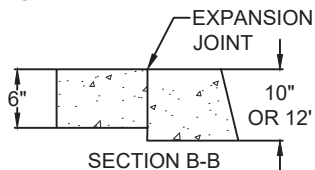
NOT TO SCALE



SECTION A-A

PAN LENGTH	REBAR REQUIREMENTS
36'	0.10 SQ. IN. PER FOOT (#4 @ 18")
46'	0.13 SQ. IN. PER FOOT (#4 @ 18")
64'	0.20 SQ. IN. PER FOOT (#4 @ 12")
84'	0.26 SQ. IN. PER FOOT (#4 @ 9")

CROSSPAN INFORMATION	
WIDTH (W)	THICKNESS (t)
96 IN.	10" WITH #4 OR 12" NO REBAR
120 IN.	10" WITH #4 OR 12" NO REBAR



NOTES:

1. THE CROSSPAN SHALL BE 12" THICK WITHOUT REINFORCING OR 10" THICK WITH REINFORCING AS DETAILED ABOVE.
2. CONCRETE SHALL BE POURED ON 6" AGGREGATE BASE COURSE (ABC) MINIMUM.
3. JOINT FILLER SHALL BE PLACED WITH THE TOP EDGE $\frac{1}{4}$ " BELOW THE CONCRETE SURFACE AND SHALL BE HELD IN PLACE BY STEEL PINS DRIVEN INTO THE SUBGRADE AT SPACING ADEQUATE TO PREVENT WARPING OF THE FILLER DURING FLOATING. UPON COMPLETION OF FLOATING, THE STEEL PINS SHALL BE REMOVED AND WHEN FINISHING OPERATIONS HAVE BEEN COMPLETED, THE JOINT SHALL BE EDGED WITH AN EDGING TOOL HAVING A RADIUS OF $\frac{1}{8}$ ".
4. CONTRACTION JOINTS WILL BE PLACED AT 10' MAXIMUM SPACING THROUGHOUT THE CROSSPAN.
5. ALL REBAR SHALL BE EPOXY COATED.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

CROSSPAN



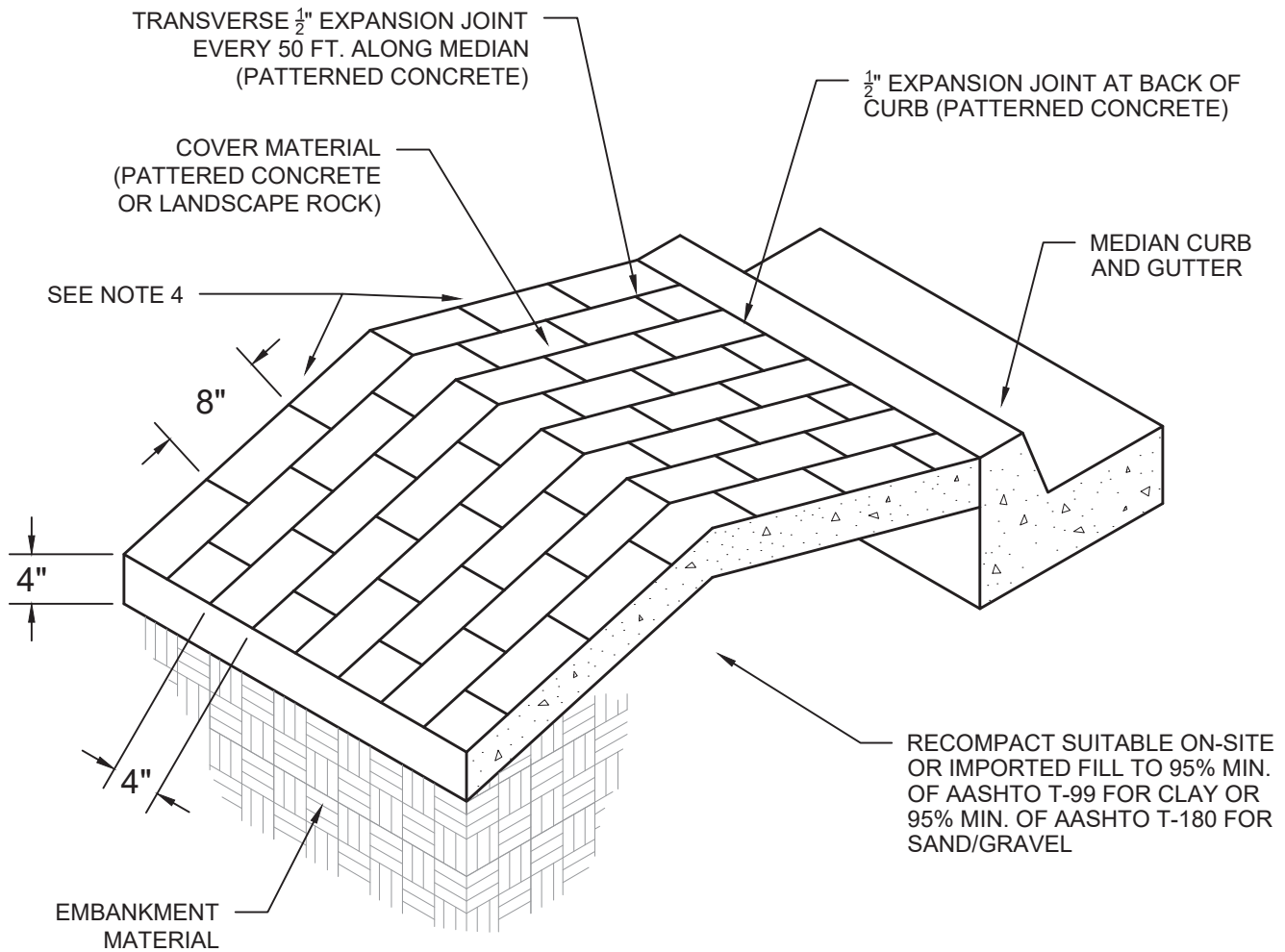
STANDARD DETAIL NO.

SD-6

REV #	DATE	DESCRIPTION

DATE: 11/24

NOT TO SCALE



NOTES

1. THE MEDIAN COVER MATERIAL SHALL BE 4" THICK.
2. PATTERNED CONCRETE MEDIAN COVER:
 - INTEGRALLY COLORED CONCRETE, EMBOSSED WITH A RUNNING-BOND BRICK PATTERN AS SHOWN.
 - INSTALL $\frac{1}{2}$ "X4" EXPANSION MATERIAL AT BACK OF CURB, MEDIAN NOSES, FIXED OBJECTS, AND AT TRANSVERSE JOINTS AT 50 FT. INTERVALS (MAXIMUM) ALONG THE MEDIAN.
 - FOR INTEGRAL COLOR USE DAVIS COLOR SUNSET ROSE OR OMAHA TAN, AS APPROVED BY THE CITY IN ADVANCE.
 - CONCRETE MIX DESIGN SHALL CONFORM TO CDOT CLASS D AND A 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI.
3. LANDSCAPE ROCK MEDIAN COVER:
 - ROCK SHALL BE HORIZON RIVER ROCK COBBLE, 2 INCHES TO 4 INCHES IN SIZE, OR APPROVED EQUAL.
 - COMMERCIAL-GRADE LANDSCAPE WEED BARRIER FABRIC SHALL BE INSTALLED PRIOR TO PLACING ROCK.
 - THE TOP OF LANDSCAPE ROCK SHALL BE FLUSH WITH THE TOP OF THE CURB AND SLOPED TO THE CENTER OF THE MEDIAN PER NOTE 4.
4. COVER MATERIAL CROSS SLOPE MAY VARY IN AREAS WHERE THE CURB AND GUTTER ELEVATIONS ON EACH SIDE OF MEDIAN VARY SIGNIFICANTLY. SLOPE SHALL BE AS APPROVED BY THE CITY IN ADVANCE.
5. WHERE A SIGN IS TO BE PLACED WITHIN THE MEDIAN COVER, INSTALL A 4" PVC SLEEVE THROUGH THE FULL-DEPTH OF MEDIAN COVER MATERIAL. SIGNS PLACEMENT SHALL BE COORDINATED WITH THE CITY.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

ROADWAY MEDIAN
COVER



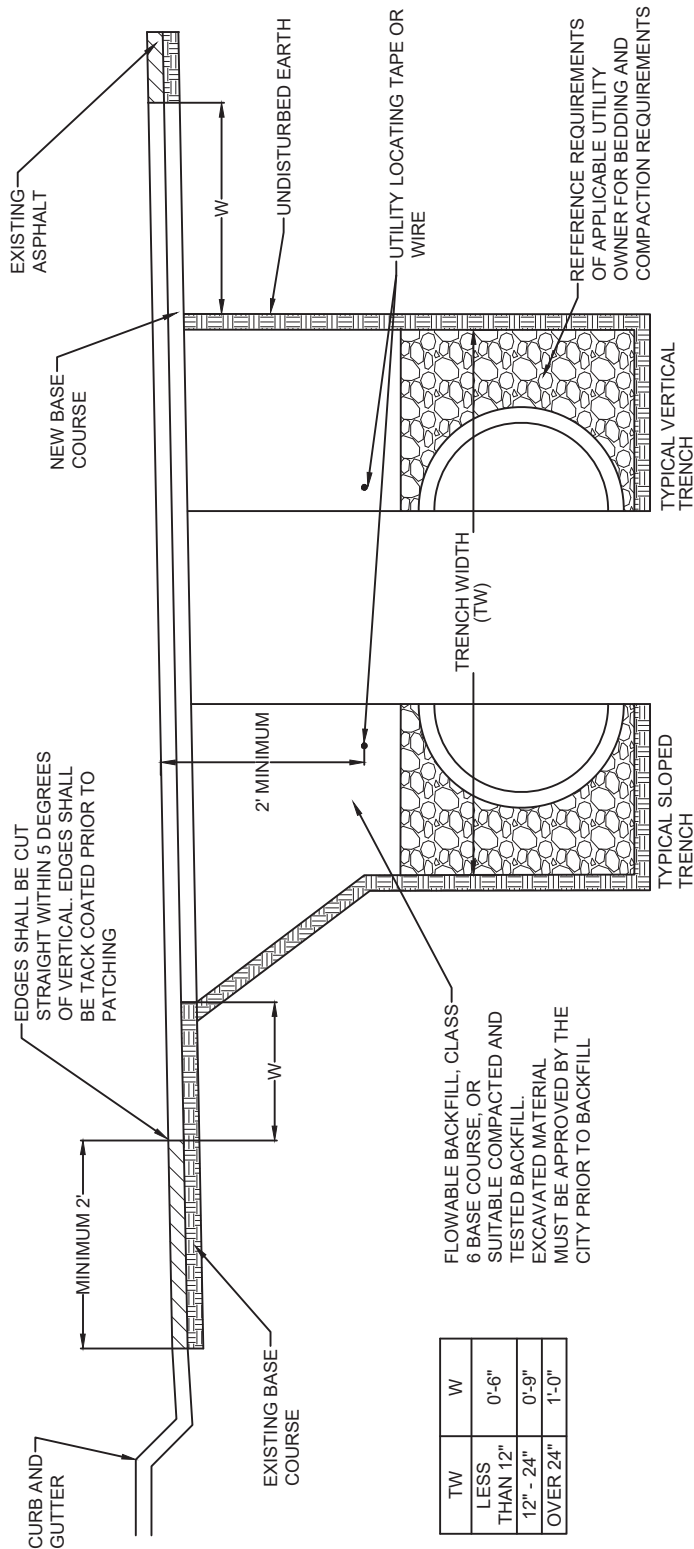
STANDARD DETAIL NO.

SD-7

REV #	DATE	DESCRIPTION

DATE: 11/24

NOT TO SCALE



- NOTES:
- THIS TRENCH PATCHING DETAIL SPECIFIES REQUIREMENTS IN ADDITION TO THOSE SPECIFIED IN THE MGPEC STANDARDS, LATEST EDITION.
 - ANY UTILITY INSTALLED WITHIN THE ROW OR EASEMENTS SHALL HAVE UTILITY LOCATING TAPE OR WIRE OVER THE TOP OF THE UTILITY LOCATED AT A MINIMUM OF 2'-0" BELOW FINAL GRADE OR LOCATED ON UTILITY IF MINIMUM DEPTH CAN NOT BE ACHIEVED.
 - TRENCH SHALL BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND PROTECTION OF OTHER UTILITIES OR STRUCTURES IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS.
 - THE TRENCH WIDTH SHALL BE CONFINED TO THOSE MINIMUM DIMENSIONS WHICH WILL PERMIT PROPER INSTALLATION AND ACCEPTABLE PIPE LOADING, AS ESTABLISHED BY CURRENT ACCEPTABLE ENGINEERING PRACTICES.
 - EXISTING ASPHALT SHALL BE CUT BACK TO A MINIMUM OF W (SEE ABOVE) BEYOND THE TRENCH LIMITS OR TO SOUND PAVEMENT, WHICHEVER IS GREATER. IF ENCROACHMENT INTO THE OUTSIDE 2-FOOT ZONE, THE 2-FOOT ZONE SHALL BE INCLUDED IN THE REQUIRED PATCH.
 - MOTORIST STREET REQUIREMENTS WILL REQUIRE ADDITIONAL PAVEMENT REQUIREMENTS. SEE THE RIGHT OF WAY REGULATIONS FOR WORK WITHIN THE ROW.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

TRENCHING AND BEDDING



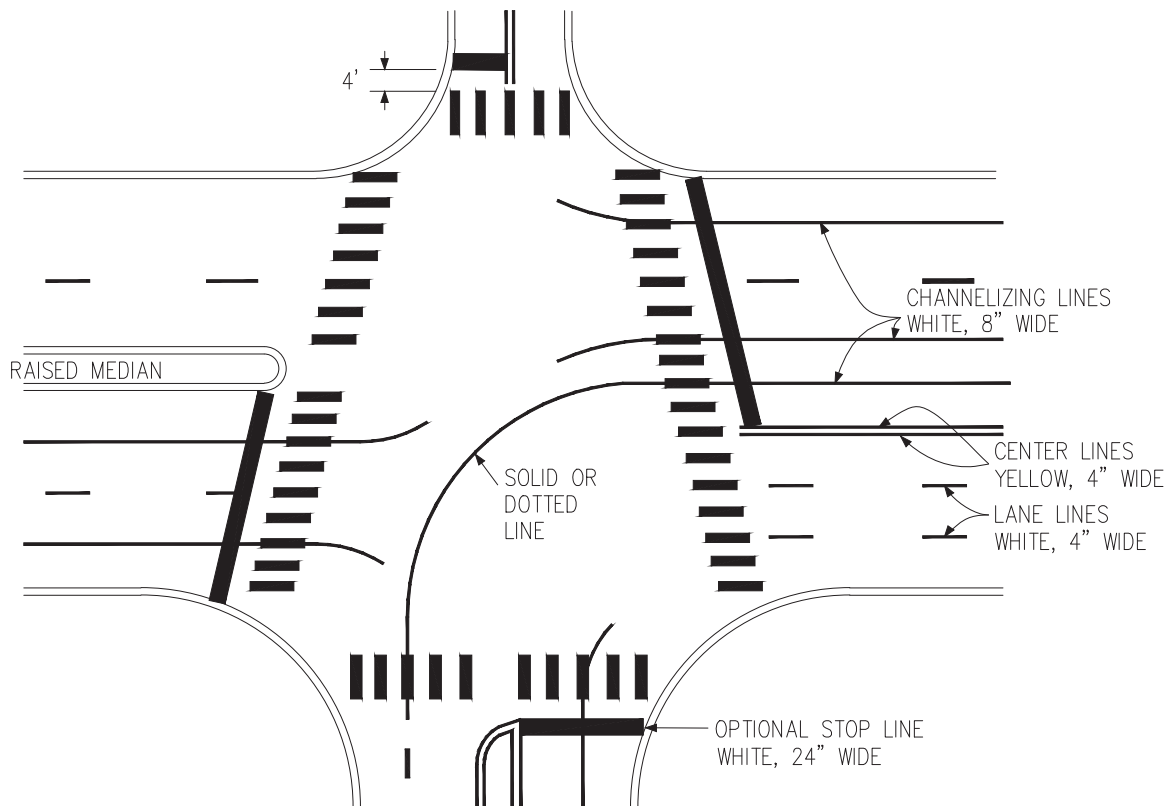
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SD-8

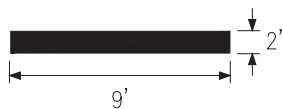
REV #	DATE	DESCRIPTION

DATE: 11/24

NOT TO SCALE



CROSSWALK LINE DETAIL



LAYOUT NOTES

1. CENTER CROSSWALKS ON CURB RAMPS. IF SUCH RAMPS ARE NOT PROVIDED, CENTER ON SIGNAL POLES WHEREVER PRACTICAL.
2. CROSSWALKS SHOULD BE STRIPED EVERY 6' ON-CENTER OR CENTERED ON LANE LINE.
3. ALLOWABLE MATERIALS MAY INCLUDE ACRYLIC, EPOXY, AND THERMOPLASTIC AS PER CDOT SPECIFICATION 627, WITH THE EXCEPTION OF CROSSWALK MARKINGS, WHICH SHALL BE PRE-FORMED PAVEMENT MARKING TAPE, 3M, OR APPROVED EQUAL.

APPROVAL

DIRECTOR OF PUBLIC WORKS

TYPICAL INTERSECTION MARKINGS



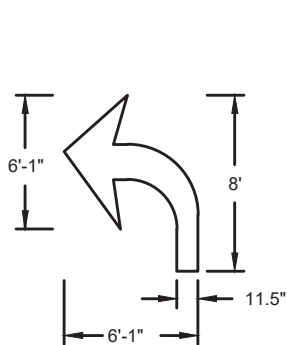
STANDARD DETAIL NO.

SD-9.1

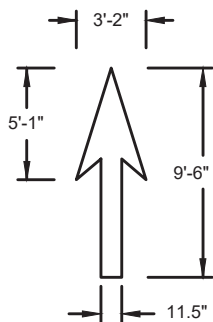
REV #	DATE	DESCRIPTION

DATE: 11/24

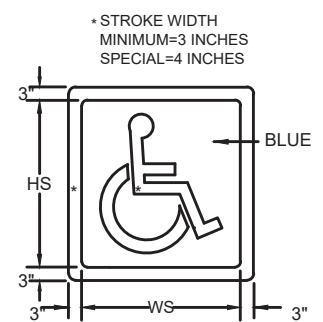
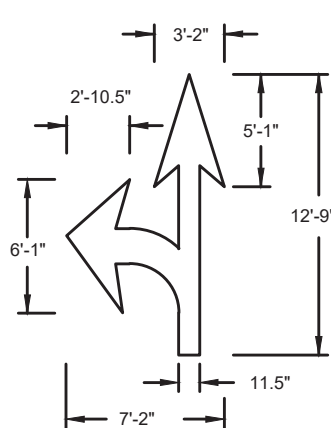
NOT TO SCALE



AREA = 15.5 SQ.FT.



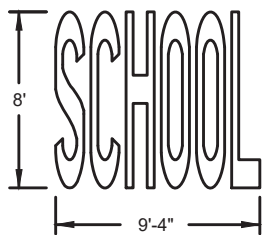
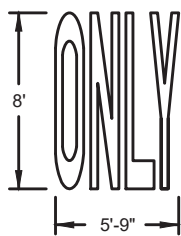
AREA = 12.5 SQ.FT.



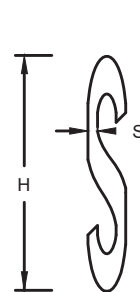
HS HEIGHT OF SYMBOL WS WIDTH OF SYMBOL
MINIMUM=28 INCHES MINIMUM=24 INCHES
SPECIAL=41 INCHES SPECIAL=36 INCHES

NOTE: BLUE BACKGROUND AND
WHITE BORDER ARE OPTIONAL

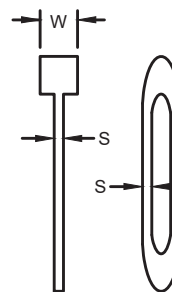
TYPICAL LETTER MEASUREMENTS



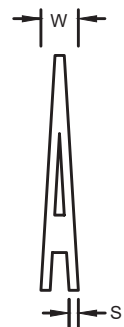
1-LANE SCHOOL



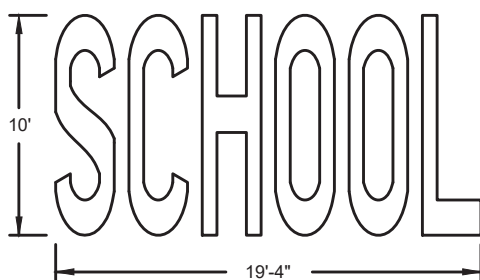
H = HEIGHT
W = WIDTH
S = STROKE



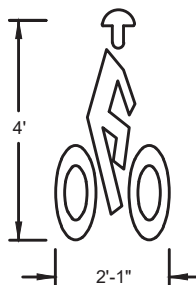
H = 8'
W = 1'-3.4" TO 1'-4"
S = 3.8" TO 4"



H = 4'
W = 7.7" TO 8"
S = 1.9" TO 2"



STROKE = 8"
2-LANE SCHOOL



AREA = 3.0 SQ.FT.

DESIGNATED PAYMENT AREAS

FOR THE FOLLOWING H, W, AND S DIMENSIONS PAY:
36"

H = 8' WORDS

STOP - 23.0 SQ.FT. SCHOOL(1L) - 33.0 SQ.FT.
ONLY - 22.5 SQ.FT. SCHOOL(2L) - 85.0 SQ.FT.
AHEAD - 29.0 SQ.FT.

NOTES

- IF HEIGHT IS INCREASED OR DECREASED THEN ALL MEASUREMENTS CHANGE PROPORTIONATELY. EXAMPLE: "H" MEASUREMENT FOR STOP IS REDUCED TO 4' FROM 8' THEN SQUARE FEET = 5.75 (1/4 OF 23.0 SQ. FT.).
- ALLOWABLE MATERIALS MAY INCLUDE ACRYLIC, EPOXY, AND THERMOPLASTIC AS PER CDOT SPECIFICATION 627, WITH THE EXCEPTION OF CROSSWALK MARKINGS, WHICH SHALL BE PRE-FORMED PAVEMENT MARKING TAPE, 3M, OR APPROVED EQUAL.

APPROVAL: 
DIRECTOR OF PUBLIC WORKS

PAVEMENT MARKINGS
WORDS AND SYMBOLS



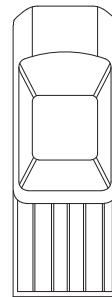
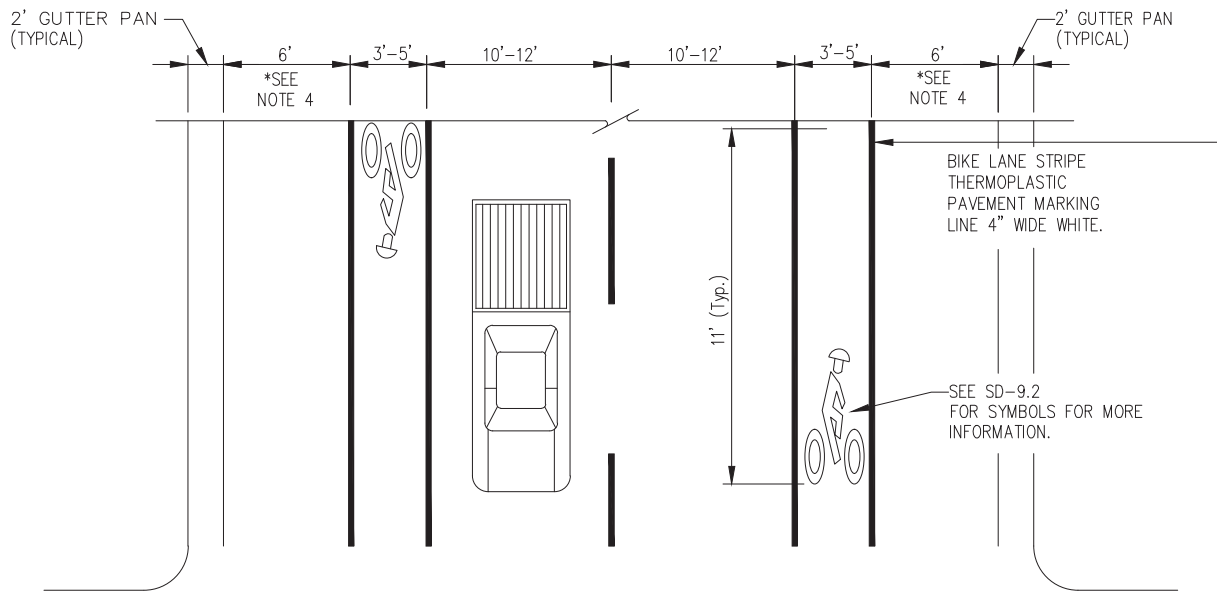
STANDARD DETAIL NO.

SD-9.2

REV #	DATE	DESCRIPTION

DATE: 11/24

NOT TO SCALE



NOTES

1. BIKE LANE AND PARKING STRIPES REMAIN SOLID WHEN PASSING ALLEY AND DRIVEWAY ENTRANCES.
2. SYMBOL SHALL BE PLACED 100' BEFORE AND AFTER EVERY MAJOR INTERSECTION, COLLECTORS & ARTERIALS. SYMBOL SHALL BE PLACED MID-BLOCK APPROXIMATELY EVERY 600' ON RESIDENTIAL STREETS.
3. BIKE LANE STRIPES SHALL NOT EXTEND THROUGH ANY PUBLIC STREET INTERSECTION.
4. PARKING MAY NOT BE INCLUDED IN STREET SECTION. IF NOT, REMOVE 6' PARKING AS SHOWN AND MATCH 3-5' BIKE LANE TO LIP OF GUTTER.
5. ALLOWABLE MATERIALS MAY INCLUDE ACRYLIC, EPOXY, AND THERMOELASTIC AS PER CDOT SPECIFICATION 627, WITH THE EXCEPTION OF CROSSWALK MARKINGS, WHICH SHALL BE PRE-FORMED PAVEMENT MARKING TAPE, 3M, OR APPROVED EQUAL.



APPROVAL

DIRECTOR OF PUBLIC WORKS

TYPICAL BIKE LANE PAVEMENT MARKINGS



STANDARD DETAIL NO.

SD-9.3

REV #	DATE	DESCRIPTION

DATE:11/24

NOT TO SCALE



NOTES:

1. PRIVATE STREET SIGNAGE SHALL BE LOCATED ON PRIVATE PROPERTY AT ENTRANCES TO PRIVATE STREET SYSTEMS AND SHALL BE PERMANENTLY MAINTAINED BY THE PROPERTY OWNER.
2. ALTERNATE SIGN TEMPLATES MAY BE UTILIZED WITH APPROVAL BY THE CITY.

APPROVAL

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

PRIVATE STREET SIGN

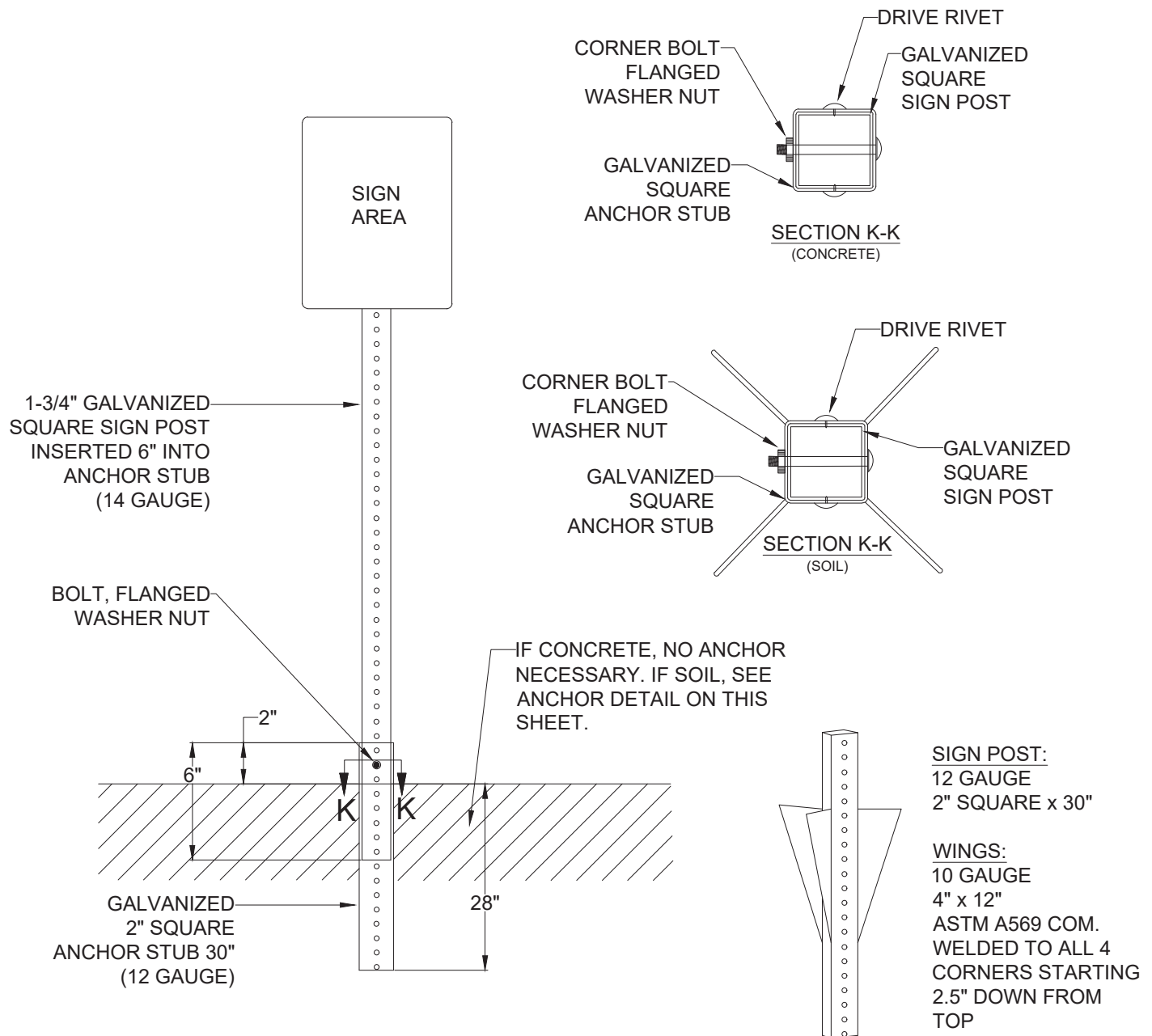


STANDARD DETAIL NO.

SD-10.1

DATE:11/24

NOT TO SCALE



NOTES

1. BOLT SHALL BE INSTALLED PERPENDICULAR TO THE DIRECTION OF TRAVEL.

MULTI-DIRECTIONAL ANCHOR (FOR USE IN SOIL)

APPROVAL

DIRECTOR OF PUBLIC WORKS

SIGNAGE - POSTS
AND ANCHORING



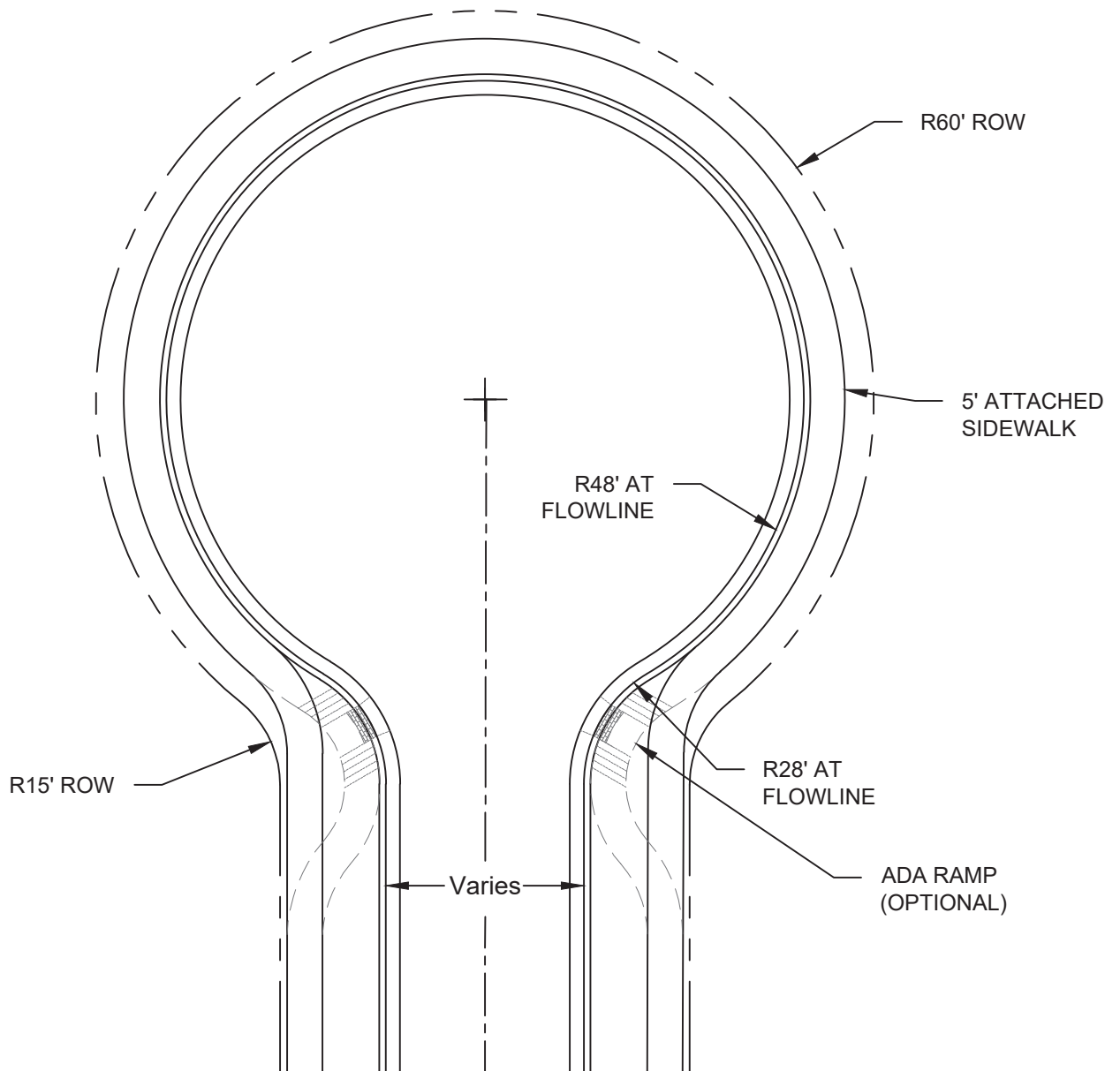
STANDARD DETAIL NO.

SD-10.2

REV #	DATE	DESCRIPTION

DATE: 11/24

NOT TO SCALE



APPROVAL: 
 DIRECTOR OF PUBLIC WORKS

STANDARD CUL-DE-SAC BULB



STANDARD DETAIL NO.

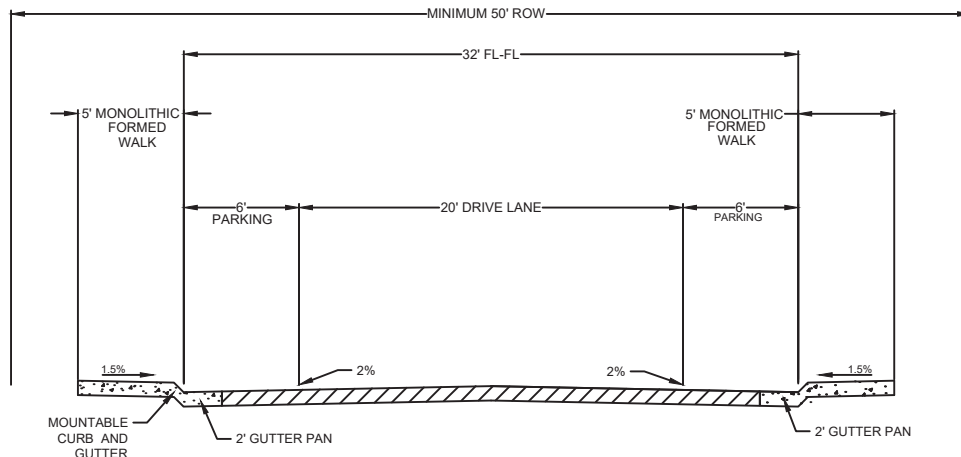
SD-11

REV #	DATE	DESCRIPTION

DATE:11/24

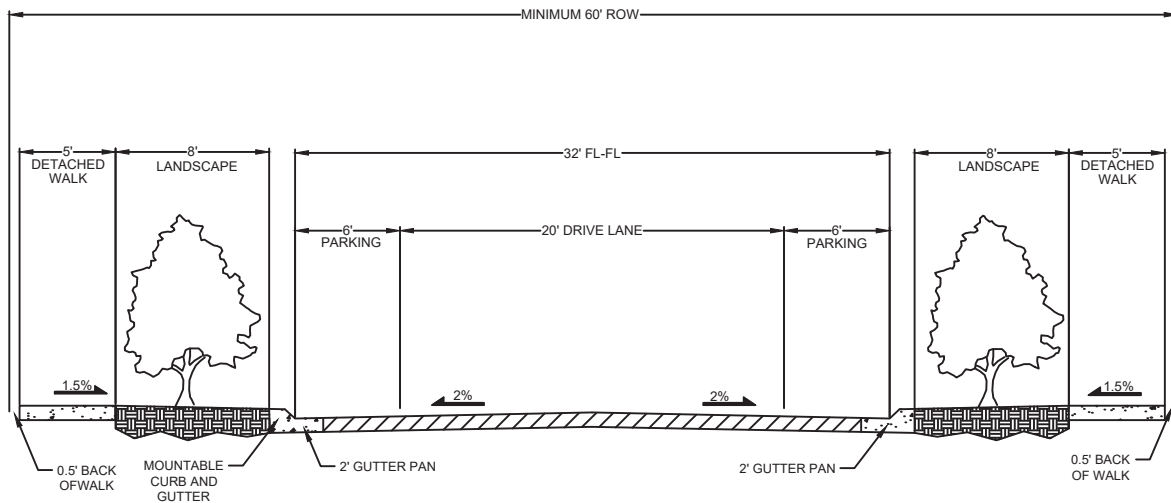
NOT TO SCALE

LOCAL RESIDENTIAL ATTACHED WALK (<1,000 ADT)



- NOTES:
1. DRIVEWAYS SHALL NOT EXCEED 1.5% SLOPE IN ANY DIRECTION UNTIL BACK OF WALK.
 2. DRIVEWAYS SHALL EXTEND 18-FEET MINIMUM FROM BACK OF WALK TO THE STRUCTURE.

LOCAL RESIDENTIAL DETACHED WALK (<1,000 ADT)



- NOTES:
1. DRIVEWAYS SHALL NOT EXCEED 1.5% SLOPE IN ANY DIRECTION UNTIL BACK OF WALK.
 2. DRIVEWAYS SHALL EXTEND 18-FEET MINIMUM FROM BACK OF WALK TO THE STRUCTURE.
 3. PLACEMENT OF ROCK MULCH WITHIN LANDSCAPE BUFFERS SHALL BE SUBJECT TO APPROVAL BY THE CITY. ROCK MULCH PLACEMENT SHALL NOT INTERFERE WITH DESIRED AND PLANNED VEGETATION GROWTH AND MAINTENANCE. WHERE ROCK MULCH IS UTILIZED, THE FOLLOWING CRITERIA WILL APPLY:
 TYPE: ROUNDED OR ANGULAR STONE
 COLOR: ROCK MULCH COLOR SHALL BE BASED ON AN ESTABLISHED THEME IN THE VICINITY. WHERE NO THEME EXISTS OR WHERE A NEW THEME IS DESIRED, NATURALLY OCCURRING, EARTH-TONED COLORS FOUND WITHIN COLORADO SHALL BE SELECTED. EXAMPLES OF DESIRED NATURALLY OCCURRING, EARTH-TONED COLORS FOUND IN COLORADO INCLUDE SHADES OF RED, BROWN, TAN/BEIGE, AND GRAY. ROCK MULCH COLOR SHALL BE CONSISTENT TO MAINTAIN A UNIFORM APPEARANCE. BRIGHT, ARTIFICIAL, OR REFLECTIVE COLORS ARE NOT PERMITTED. ROCK MULCH COLOR SHALL BE SUBJECT TO APPROVAL BY THE CITY.
 NOMINAL SIZE: PASSING 1.5" SCREEN
 DEPTH OF ROCK MULCH: 4"-6"
 INTERFACE BETWEEN SOIL AND ROCK MULCH: LINED WITH LANDSCAPE FABRIC
 TOP OF ROCK MULCH: 0.5" +/- ABOVE ADJACENT SIDEWALK AND / OR CURB AND GUTTER, IF PRESENT.
 MODIFICATIONS TO THE ROCK MULCH SIZE MAY BE APPROVED DUE TO STORMWATER DRAINAGE OR OTHER REQUESTS, HOWEVER THIS WILL ALSO CHANGE THE DEPTH OF ROCK MULCH REQUIRED, AND WILL BE SUBJECT TO APPROVAL BY THE CITY.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

TYPICAL LOCAL RESIDENTIAL STREET CROSS-SECTIONS



STANDARD DETAIL NO.

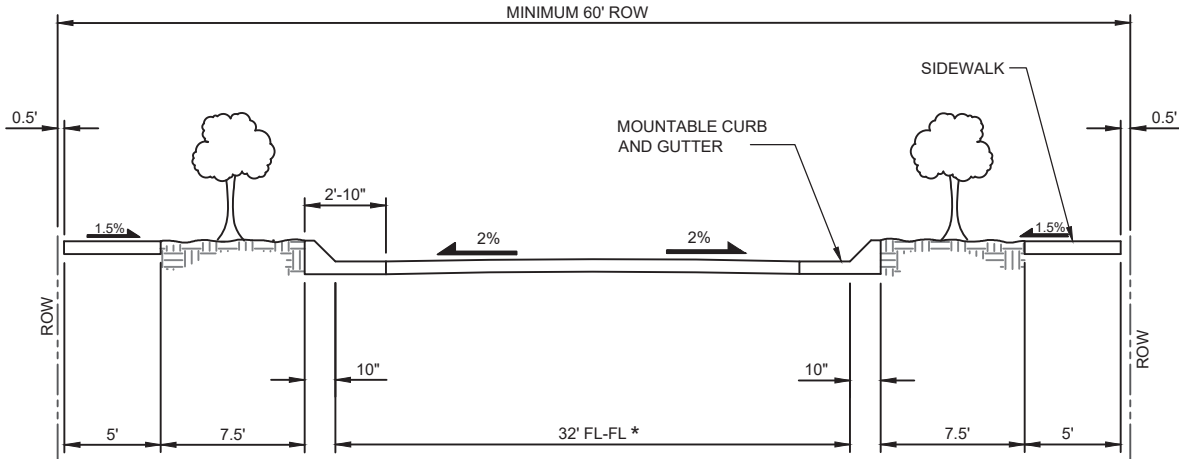
SD-12.1

REV #	DATE	DESCRIPTION

DATE: 11/24

NOT TO SCALE

LOCAL COMMERCIAL (<3,000 ADT)

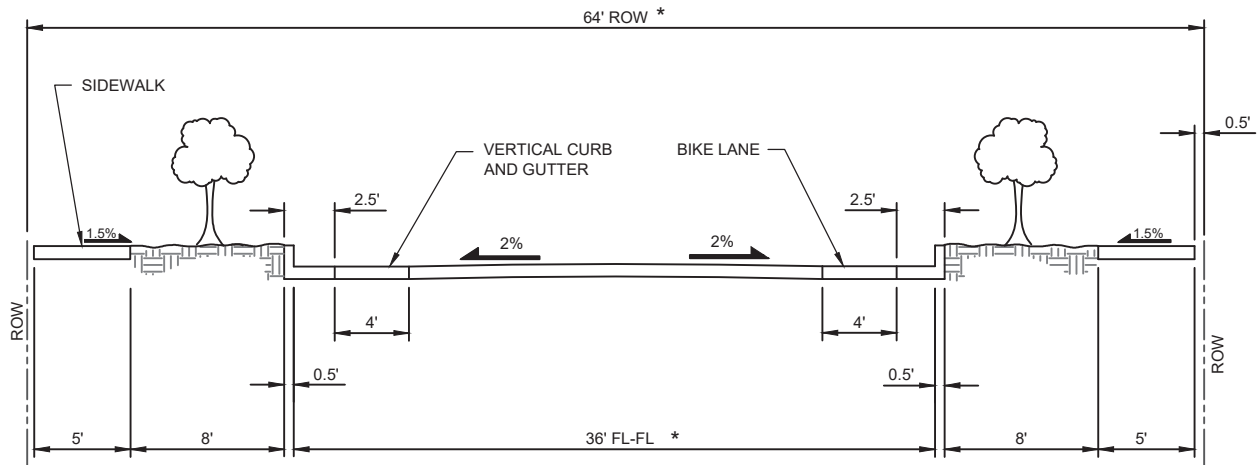


NOTES:

1. LEFT-TURN LANES AT INTERSECTIONS AND ACCESS POINTS AS NECESSARY.
2. LIMITED AND RESTRICTED ACCESS.
3. NO SINGLE FAMILY RESIDENTIAL FRONTAGE OR RESIDENTIAL DRIVEWAY ACCESS.

* WITH ON-STREET PARKING, ADD 6-FEET TO EACH SIDE.

TWO-LANE COLLECTOR (<8,000 ADT)



NOTES:

1. LEFT-TURN LANES AT INTERSECTIONS AND ACCESS POINTS AS NECESSARY.
2. LIMITED AND RESTRICTED ACCESS.
3. NO SINGLE FAMILY RESIDENTIAL FRONTAGE OR RESIDENTIAL DRIVEWAY ACCESS.

* WITH ON-STREET PARKING, ADD 6-FEET TO EACH SIDE.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

TYPICAL LOCAL
COMMERCIAL AND TWO-LANE
COLLECTOR STREET
CROSS-SECTIONS

DATE: 11/24

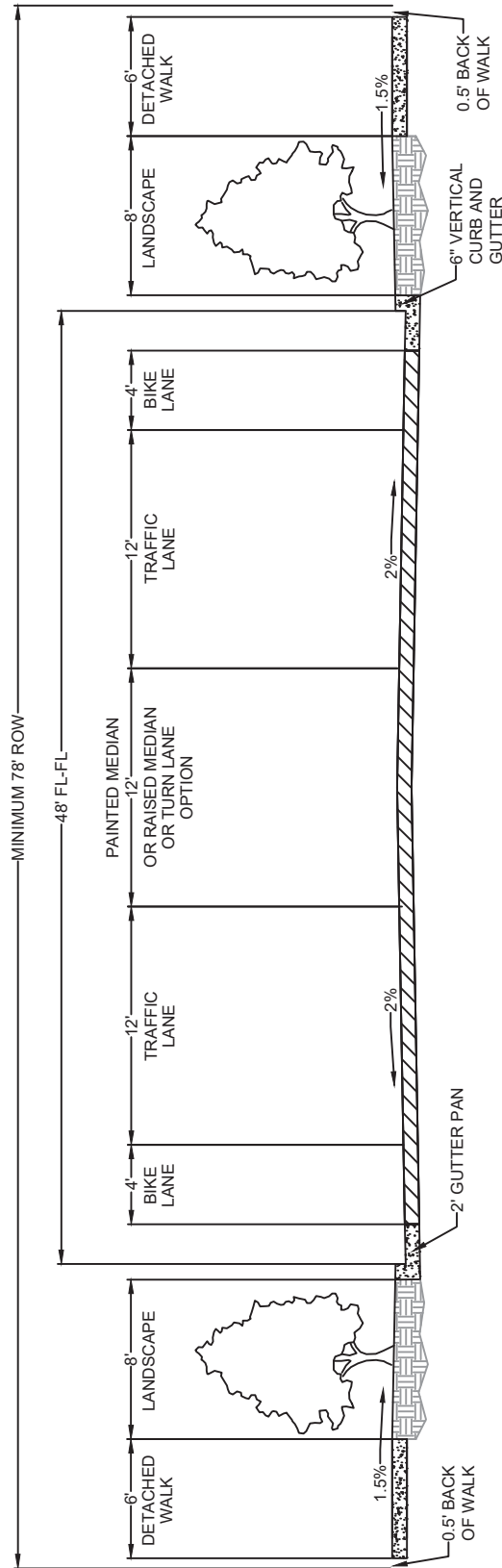
NOT TO SCALE



STANDARD DETAIL NO.

SD-12.2

THREE-LANE COLLECTOR (<15,000 ADT)



- NOTES:
1. RESIDENTIAL DRIVEWAYS SHALL BE PROHIBITED ON MAJOR COLLECTOR ROADWAYS.
 2. BIKE LANES, AT INTERSECTIONS WHERE AUXILIARY LANES ARE REQUIRED, SHALL CONTINUE THROUGH AND THE AUXILIARY LANE. VEHICLES SHALL YIELD TO BIKE TRAFFIC.
 3. PLACEMENT OF ROCK MULCH WITHIN LANDSCAPE BUFFERS SHALL BE SUBJECT TO APPROVAL BY THE CITY. ROCK MULCH PLACEMENT SHALL NOT INTERFERE WITH DESIRED AND PLANNED VEGETATION GROWTH AND MAINTENANCE. WHERE ROCK MULCH IS UTILIZED, THE FOLLOWING CRITERIA WILL APPLY:
 TYPE: ROUNDED OR ANGULAR STONE
 COLOR: ROCK MULCH COLOR SHALL BE BASED ON AN ESTABLISHED THEME IN THE VICINITY. WHERE NO THEME EXISTS OR WHERE A NEW THEME IS DESIRED, NATURALLY OCCURRING, EARTH-TONED COLORS FOUND WITHIN COLORADO SHALL BE SELECTED. EXAMPLES OF DESIRED NATURALLY OCCURRING, EARTH-TONED COLORS FOUND IN COLORADO INCLUDE SHADES OF RED, BROWN, TAN/BEIGE, AND GRAY. ROCK MULCH COLOR SHALL BE CONSISTENT TO MAINTAIN A UNIFORM APPEARANCE. BRIGHT, ARTIFICIAL, OR REFLECTIVE COLORS ARE NOT PERMITTED. ROCK MULCH COLOR SHALL BE SUBJECT TO APPROVAL BY THE CITY.
 NOMINAL SIZE: PASSING 1.5" SCREEN
 DEPTH OF ROCK MULCH: 4"-6"
 TOP OF ROCK MULCH: 0.5" +/- ABOVE ADJACENT SIDEWALK AND / OR CURB AND GUTTER, IF PRESENT.
 MODIFICATIONS TO THE ROCK MULCH SIZE MAY BE APPROVED DUE TO STORMWATER DRAINAGE OR OTHER REQUESTS, HOWEVER THIS WILL ALSO CHANGE THE DEPTH OF ROCK MULCH REQUIRED, AND WILL BE SUBJECT TO APPROVAL BY THE CITY.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

TYPICAL MAJOR THREE-LANE COLLECTOR STREET CROSS-SECTION

DATE: 11/24

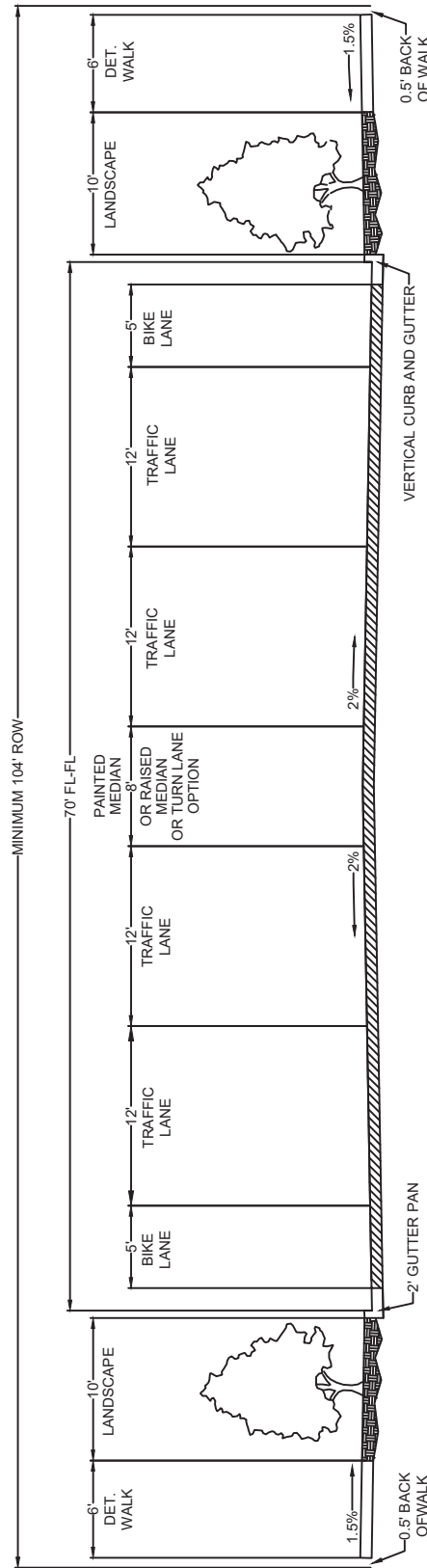
NOT TO SCALE



STANDARD DETAIL NO.

SD-12.3

FOUR-LANE ARTERIAL (<30,000 ADT)



- NOTES:
1. ON STREETS WHERE BIKE LANE MARKING/DESIGNATION HAS BEEN APPROVED, BIKE LANES AT INTERSECTIONS WHERE AUXILIARY LANES ARE REQUIRED BIKE LANES SHALL CONTINUE THROUGH AND AUXILIARY LANE VEHICLES SHALL YIELD TO BIKE TRAFFIC.
 2. MEANDERING SIDEWALK IS PERMISSIBLE PROVIDED IT REMAINS WITHIN RIGHT-OF-WAY OR ADEQUATE PUBLIC USE EASEMENTS ARE DEDICATED.
 3. PLACEMENT OF ROCK MULCH WITHIN LANDSCAPE BUFFERS SHALL BE SUBJECT TO APPROVAL BY THE CITY. ROCK MULCH PLACEMENT SHALL NOT INTERFERE WITH DESIRED AND PLANNED VEGETATION GROWTH AND MAINTENANCE. WHERE ROCK MULCH IS UTILIZED, THE FOLLOWING CRITERIA WILL APPLY:
 - TYPE: ROUNDED OR ANGULAR STONE
 - COLOR: ROCK MULCH COLOR SHALL BE BASED ON AN ESTABLISHED THEME IN THE VICINITY. WHERE NO THEME EXISTS OR WHERE A NEW THEME IS DESIRED, NATURALLY OCCURRING, EARTH-TONED COLORS FOUND WITHIN COLORADO SHALL BE SELECTED. EXAMPLES OF DESIRED NATURALLY OCCURRING, EARTH-TONED COLORS FOUND IN COLORADO INCLUDE SHADES OF RED, BROWN, TAN/BEIGE, AND GRAY. ROCK MULCH COLOR SHALL BE CONSISTENT TO MAINTAIN A UNIFORM APPEARANCE. BRIGHT, ARTIFICIAL, OR REFLECTIVE COLORS ARE NOT PERMITTED. ROCK MULCH COLOR SHALL BE SUBJECT TO APPROVAL BY THE CITY.
 - NOMINAL SIZE: PASSING 1.5" SCREEN
 - DEPTH OF ROCK MULCH: 4"-6"
 - INTERFACE BETWEEN SOIL AND ROCK MULCH: LINED WITH LANDSCAPE FABRIC
 - TOP OF ROCK MULCH: 0.5" +/- ABOVE ADJACENT SIDEWALK AND / OR CURB AND GUTTER, IF PRESENT.
 - MODIFICATIONS TO THE ROCK MULCH SIZE MAY BE APPROVED DUE TO STORMWATER DRAINAGE OR OTHER REQUESTS, HOWEVER THIS WILL ALSO CHANGE THE DEPTH OF ROCK MULCH REQUIRED, AND WILL BE SUBJECT TO APPROVAL BY THE CITY.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

TYPICAL FOUR-LANE ARTERIAL STREET CROSS-SECTION

DATE: 11/24

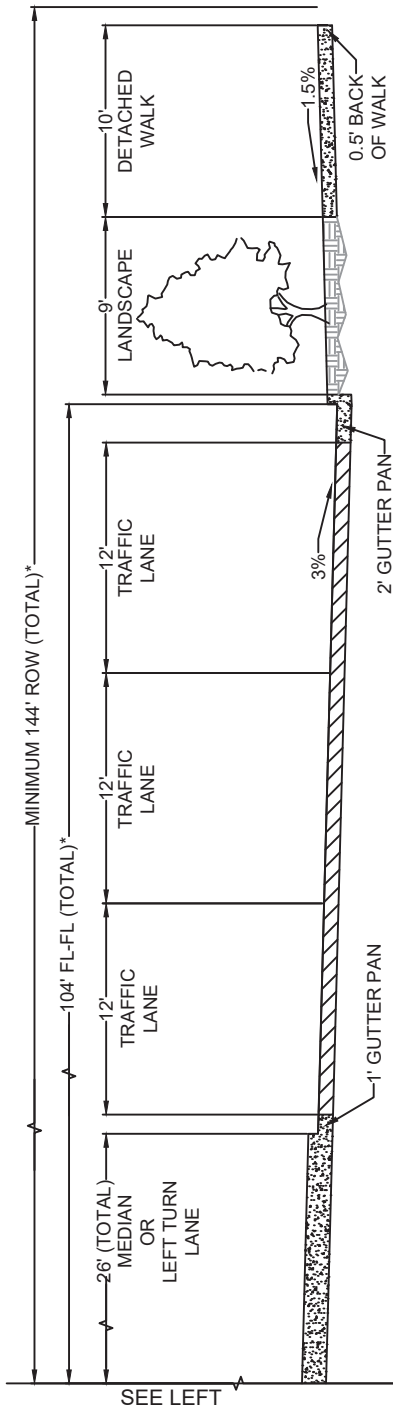
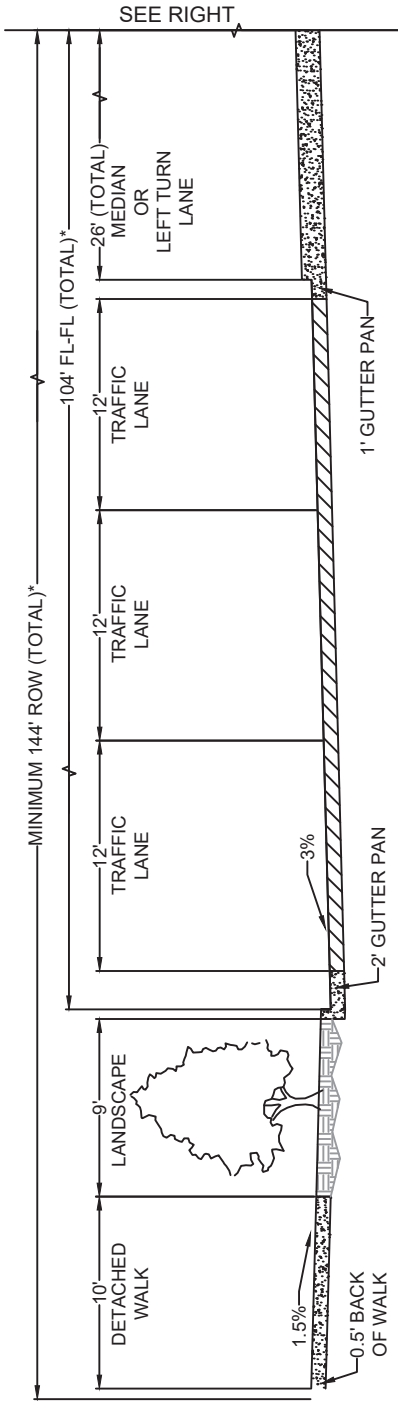
NOT TO SCALE



STANDARD DETAIL NO.

SD-12.4

SIX-LANE ARTERIAL (>30,000 ADT) WITHOUT BIKE LANES



NOTES: 1. MEANDERING SIDEWALK IS PERMISSIBLE PROVIDED IT REMAINS WITHIN RIGHT-OF-WAY OR ADEQUATE PUBLIC USE EASEMENTS ARE DEDICATED.

2. SEE STANDARD DETAIL FOR MEDIAN COVER FOR MORE INFORMATION ON RAISED MEDIAN REQUIREMENTS.

3. PLACEMENT OF ROCK MULCH WITHIN LANDSCAPE BUFFERS SHALL BE SUBJECT TO APPROVAL BY THE CITY. ROCK MULCH PLACEMENT SHALL NOT INTERFERE WITH DESIRED AND PLANNED VEGETATION GROWTH AND MAINTENANCE. WHERE ROCK MULCH IS UTILIZED, THE FOLLOWING CRITERIA WILL APPLY:

TYPE: ROUNDED OR ANGULAR STONE

COLOR: ROCK MULCH COLOR SHALL BE BASED ON AN ESTABLISHED THEME IN THE VICINITY. WHERE NO THEME EXISTS OR WHERE A NEW THEME IS DESIRED, NATURALLY OCCURRING, EARTH-TONED COLORS FOUND WITHIN COLORADO SHALL BE SELECTED. EXAMPLES OF DESIRED NATURALLY OCCURRING, EARTH-TONED COLORS FOUND IN COLORADO INCLUDE SHADES OF RED, BROWN, TAN/BEIGE, AND GRAY. ROCK MULCH COLOR SHALL BE CONSISTENT TO MAINTAIN A UNIFORM APPEARANCE. BRIGHT, ARTIFICIAL, OR REFLECTIVE COLORS ARE NOT PERMITTED. ROCK MULCH COLOR SHALL BE SUBJECT TO APPROVAL BY THE CITY.

NOMINAL SIZE: PASSING 1.5" SCREEN

DEPTH OF ROCK MULCH: 4"-6"

INTERFACE BETWEEN SOIL AND ROCK MULCH: LINED WITH LANDSCAPE FABRIC

TOP OF ROCK MULCH: 0.5" +/- ABOVE ADJACENT SIDEWALK AND / OR CURB AND GUTTER, IF PRESENT.

MODIFICATIONS TO THE ROCK MULCH SIZE MAY BE APPROVED DUE TO STORMWATER DRAINAGE OR OTHER REQUESTS, HOWEVER THIS WILL ALSO CHANGE THE DEPTH OF ROCK MULCH REQUIRED, AND WILL BE SUBJECT TO APPROVAL BY THE CITY.

*WITH BIKE LANES, ADD 5' TO EACH SIDE.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

TYPICAL SIX-LANE ARTERIAL STREET CROSS-SECTION

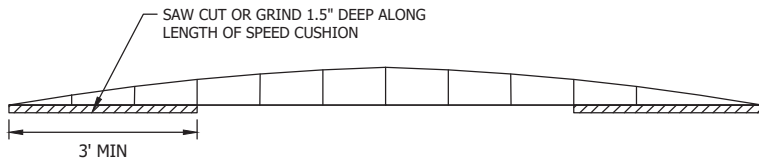
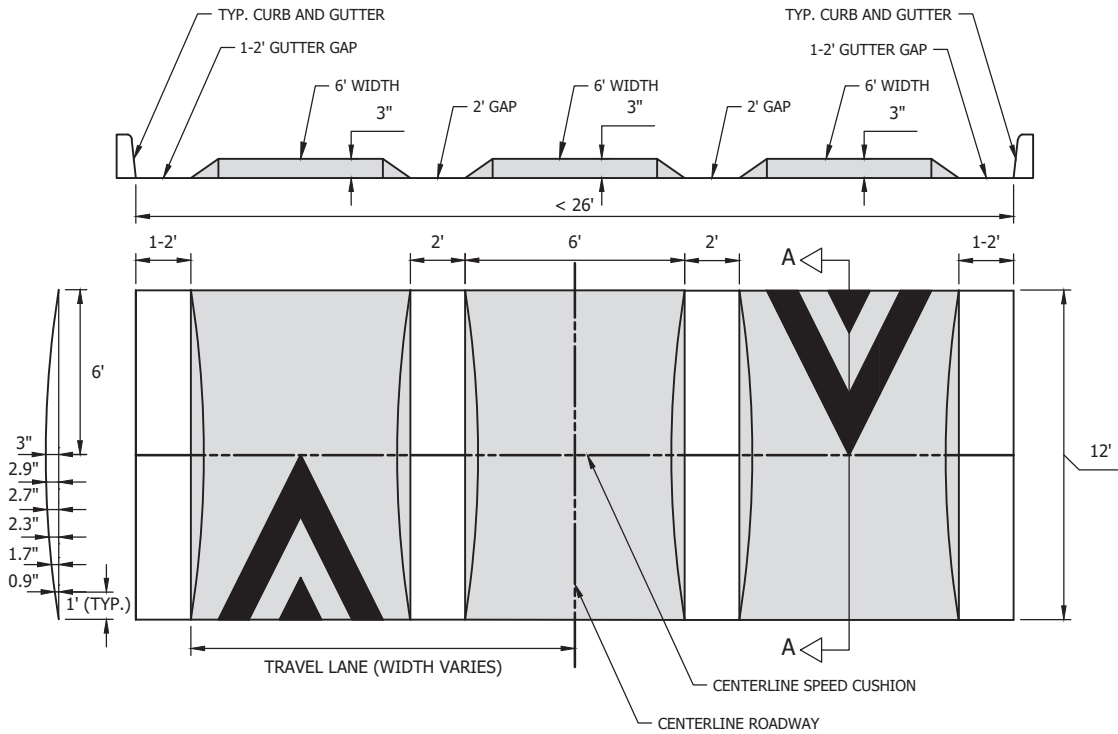
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NOT TO SCALE



STANDARD DETAIL NO.

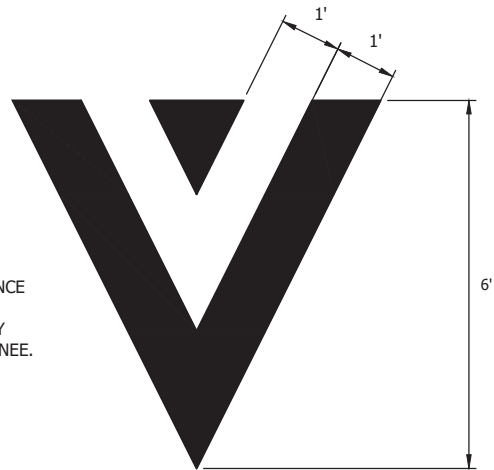
SD-12.5



SECTION A

NOTES:

1. SPEED CUSHION CHEVRON MARKINGS SHALL BE THERMOPLASTIC, HEAT FUSED PREFORMED.
2. SPEED HUMP WARNING SIGNAGE SHALL BE POSTED WITH CUSHION INSTALLATIONS, IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION.
3. SPEED CUSHION LAYOUT MAY BE ADJUSTED ON A SITE SPECIFIC BASIS FOR MULTIMODAL FACILITY ACCOMMODATION OR AS NEEDED AT THE DISCRETION OF THE CITY TRAFFIC ENGINEER OR DESIGNEE.



CHEVRON DETAIL

APPROVAL:

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

SPEED CUSHION DETAIL
ROADWAY WIDTH 26'
LESS THAN 26'

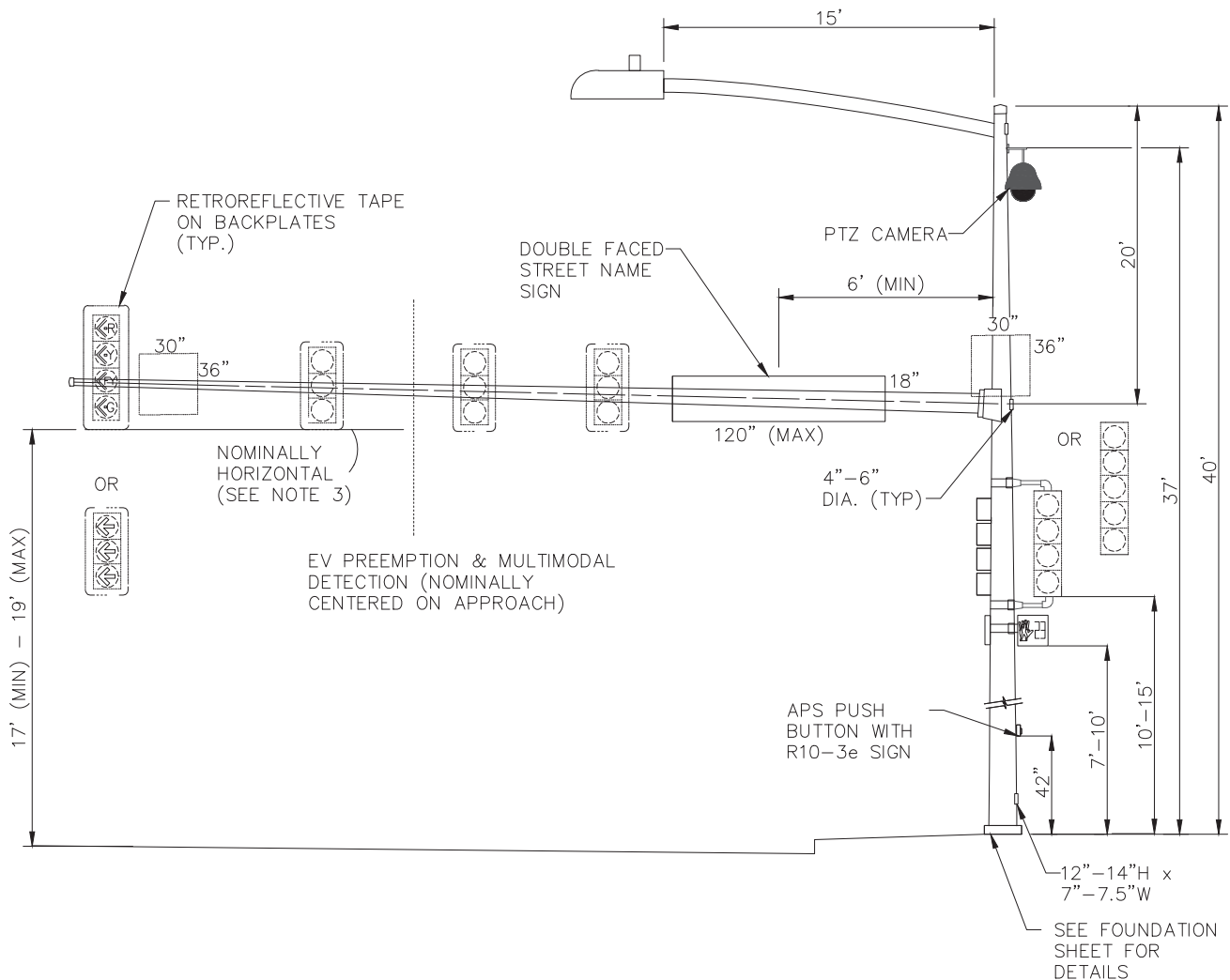
DATE: 11/24

NOT TO SCALE



STANDARD DETAIL NO.

SD-13.1



NOTES:

1. CONDITION SHOWN INDICATES MAXIMUM LOADING FOR MASTARMS UP TO 45 FEET IN LENGTH. ACTUAL LENGTH MAY VARY BY LOCATION.
2. REFERENCE CURRENT CITY OF CENTENNIAL ROADWAY DESIGN AND CONSTRUCTION STANDARDS, SECTION 4.7, FOR SPECIFICS OF REQUIRED SIGNING AND SIGNALS TO DETERMINE THE LOADING SURFACE AREAS AND WEIGHTS NECESSARY FOR POLE AND MAST ARM DESIGN. ALL OTHER REQUIREMENTS SHALL BE SHOWN IN THESE STANDARD DRAWINGS. DESIGN SHALL BE PER THE CURRENT EDITION OF AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, INCLUDING ALL INTERIMS AND ERRATA.
3. THE BOTTOM OF ALL MAST ARM-MOUNTED SIGNAL HEADS SHALL BE ON THE SAME HORIZONTAL PLANE AND HAVE A MINIMUM CLEARANCE OF 17 FEET AND MAXIMUM OF 19 FEET ABOVE THE PAVEMENT SURFACE AT THE CENTER OF THE ROADWAY, UNLESS OTHERWISE SPECIFIED.
4. POLE COLOR TO BE AS SPECIFIED ON DESIGN PLANS OR AS OTHERWISE DIRECTED BY THE CITY TRAFFIC ENGINEER OR DESIGNEE.
5. PEDESTRIAN HYBRID BEACON DISPLAYS MAY BE USED AS PER PLAN.

APPROVAL

DIRECTOR OF PUBLIC WORKS

TRAFFIC SIGNALS
SIGNAL POLE WITH
MAST ARM (UP TO 45')



STANDARD DETAIL NO.

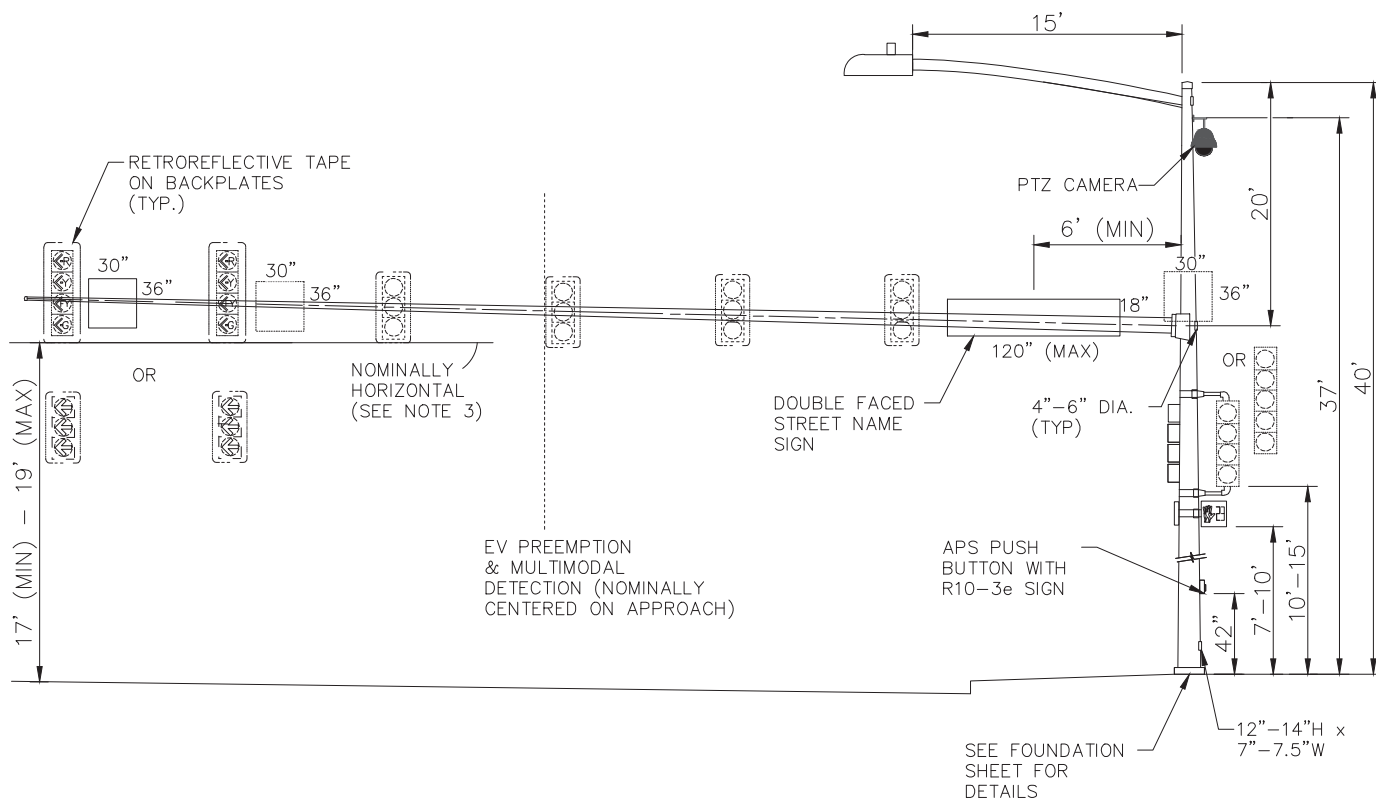
SD-14.1

REV #	DATE	DESCRIPTION

DATE:11/24

NOT TO SCALE

SD-14.2



NOTES:

1. CONDITION SHOWN INDICATES MAXIMUM LOADING FOR MASTARMS 65 FEET TO 75 FEET IN LENGTH. ACTUAL LENGTH MAY VARY BY LOCATION.
2. REFERENCE CURRENT CITY OF CENTENNIAL ROADWAY DESIGN AND CONSTRUCTION STANDARDS, SECTION 4.7, FOR SPECIFICS OF REQUIRED SIGNING AND SIGNALS TO DETERMINE THE LOADING SURFACE AREAS AND WEIGHTS NECESSARY FOR POLE AND MAST ARM DESIGN. ALL OTHER REQUIREMENTS SHALL BE SHOWN IN THESE STANDARD DRAWINGS. DESIGN SHALL BE PER THE CURRENT EDITION OF AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, INCLUDING ALL INTERIMS AND ERRATA.
3. THE BOTTOM OF ALL MAST ARM-MOUNTED SIGNAL HEADS SHALL BE ON THE SAME HORIZONTAL PLANE AND HAVE A MINIMUM CLEARANCE OF 17 FEET AND MAXIMUM OF 19 FEET ABOVE THE PAVEMENT SURFACE AT THE CENTER OF THE ROADWAY, UNLESS OTHERWISE SPECIFIED.
4. POLE COLOR TO BE SPECIFIED ON DESIGN PLANS OR AS OTHERWISE DIRECTED BY THE CITY TRAFFIC ENGINEER OR DESIGNEE.
5. PEDESTRIAN HYBRID BEACON DISPLAYS MAY BE USED AS PER PLAN.

APPROVAL

DIRECTOR OF PUBLIC WORKS

TRAFFIC SIGNALS
SIGNAL POLE
WITH MAST ARM
(65'-75')



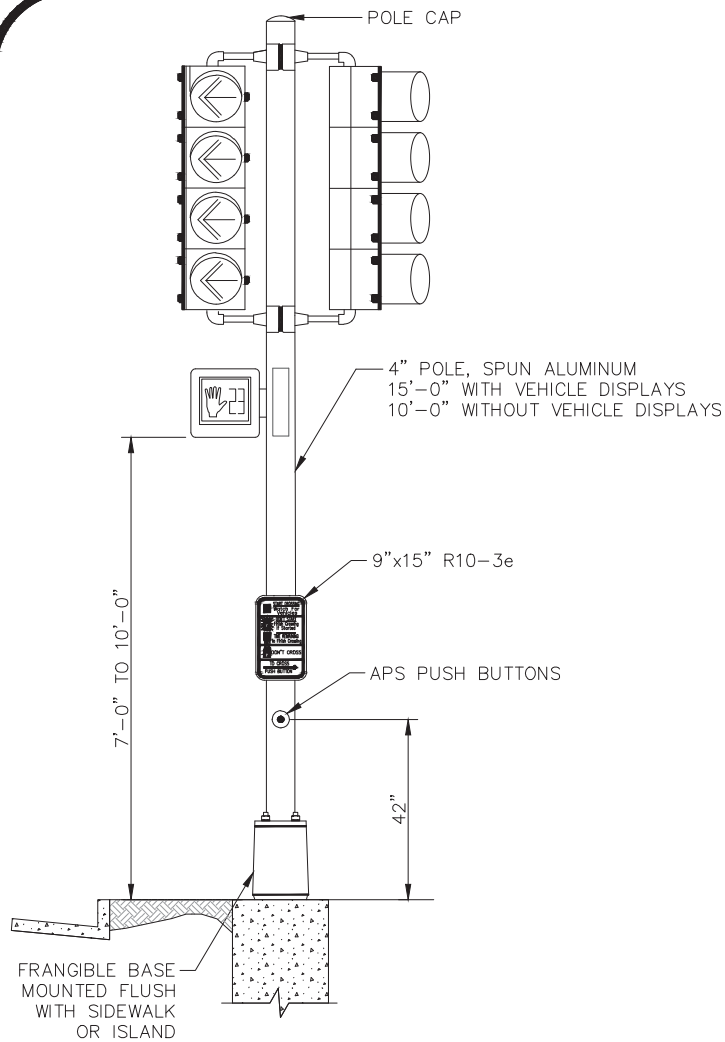
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SD-14.3

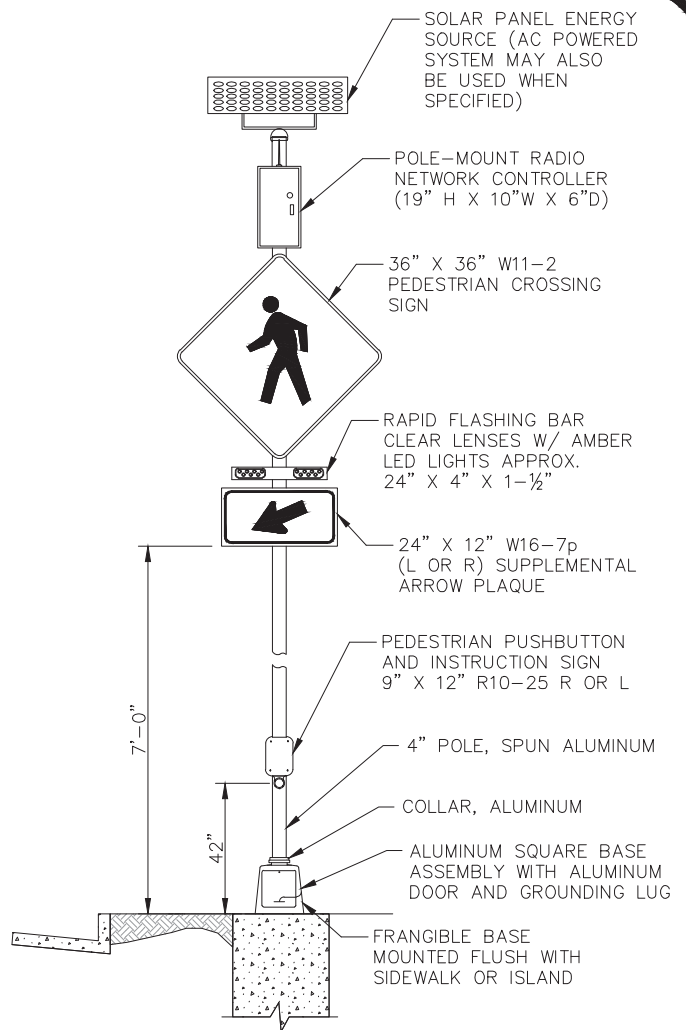
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DATE:11/24

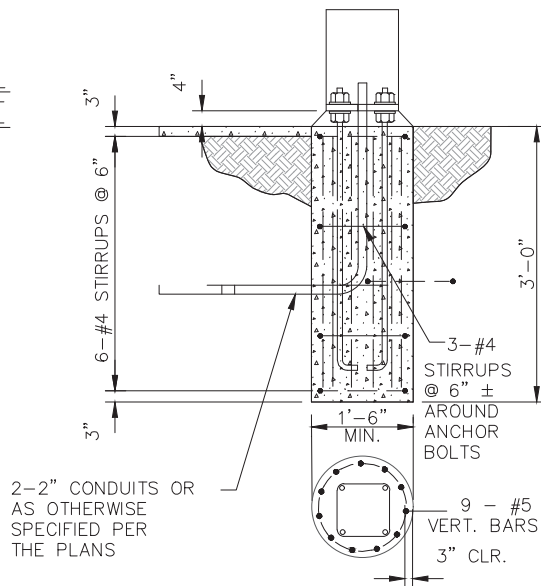
NOT TO SCALE



TRAFFIC SIGNAL
PEDESTAL POLE



RECTANGULAR RAPID
FLASHING BEACON (RRFB)
PEDESTAL POLE



PEDESTAL FOOTING
DETAIL

NOTES:

- SEE SD-14.7 FOR CONSTRUCTION NOTES.

APPROVAL

DIRECTOR OF PUBLIC WORKS

TRAFFIC SIGNALS
PEDESTAL POLES
(1 OF 2)



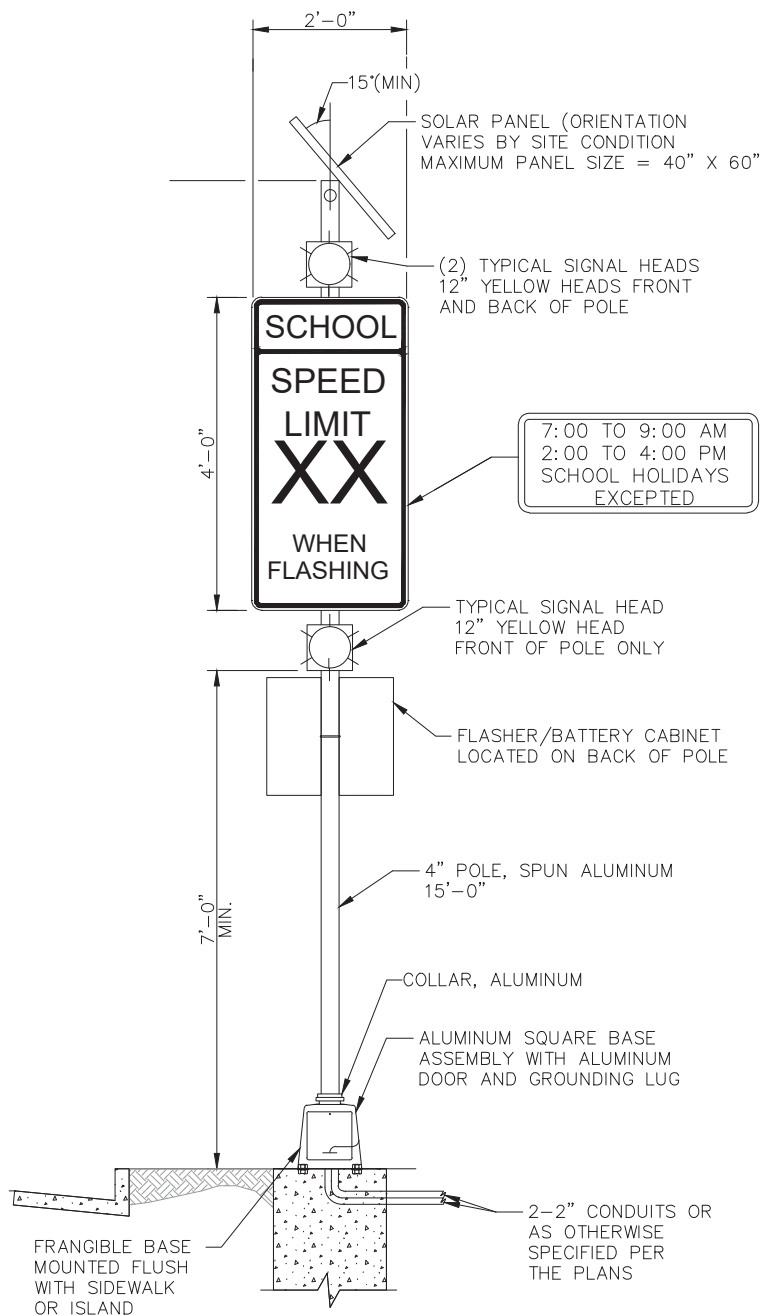
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SD-14.4

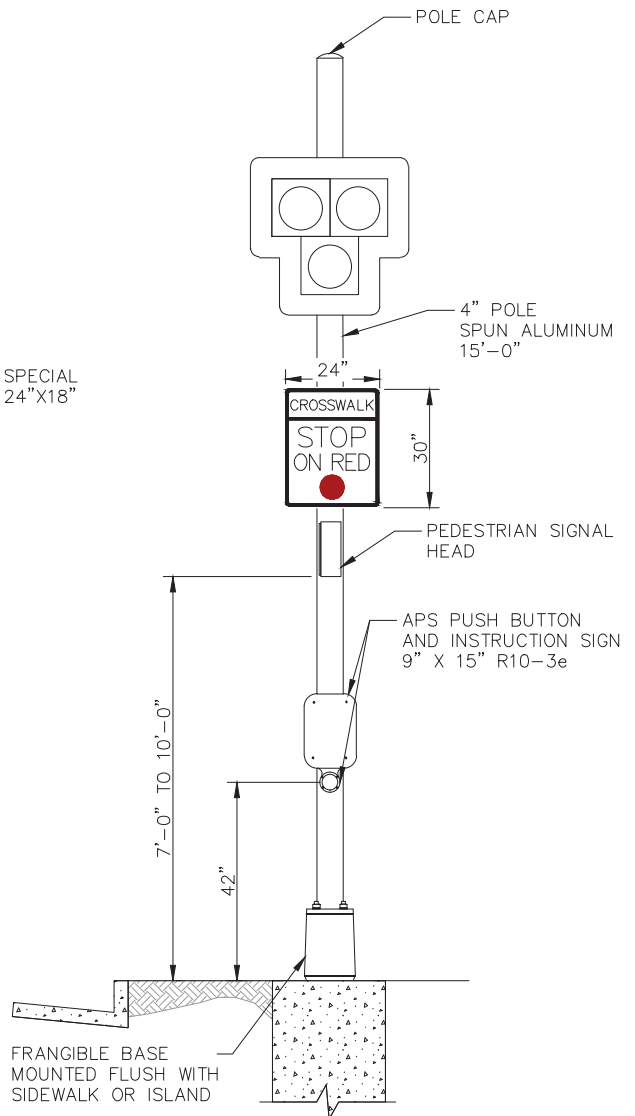
REV #	DATE	DESCRIPTION

DATE: 11/24

NOT TO SCALE



SCHOOL FLASHING BEACON
PEDESTAL POLE



PEDESTRIAN HYBRID BEACON
PEDESTAL POLE

NOTES:

1. SEE SD-14.7 FOR CONSTRUCTION NOTES.

APPROVAL

DIRECTOR OF PUBLIC WORKS

TRAFFIC SIGNALS
PEDESTAL POLES
(2 OF 2)



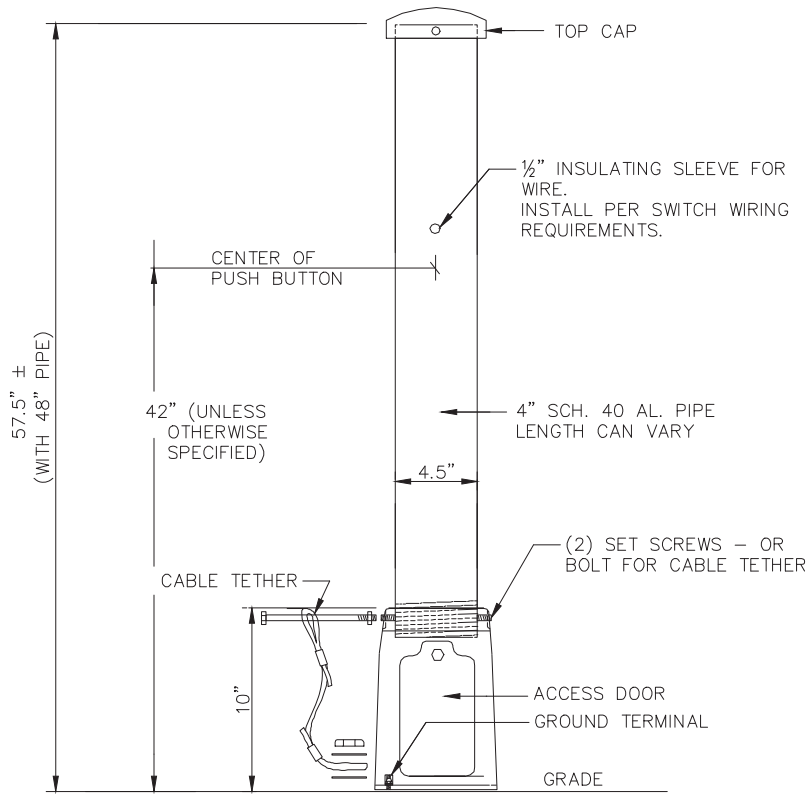
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SD-14.5

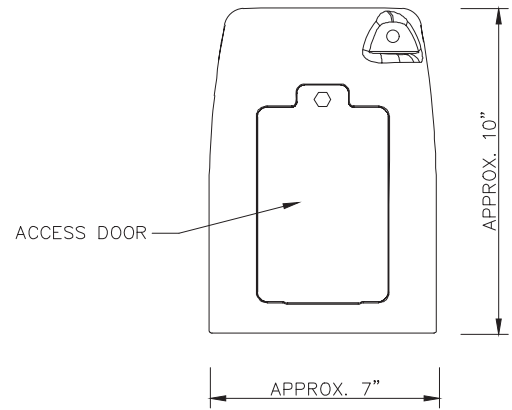
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DATE:11/24

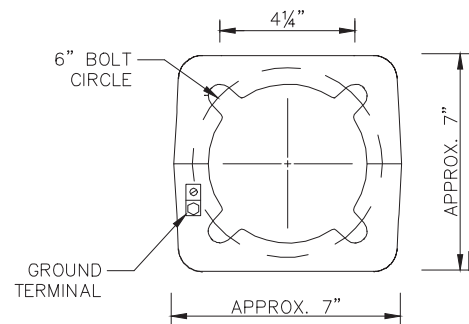
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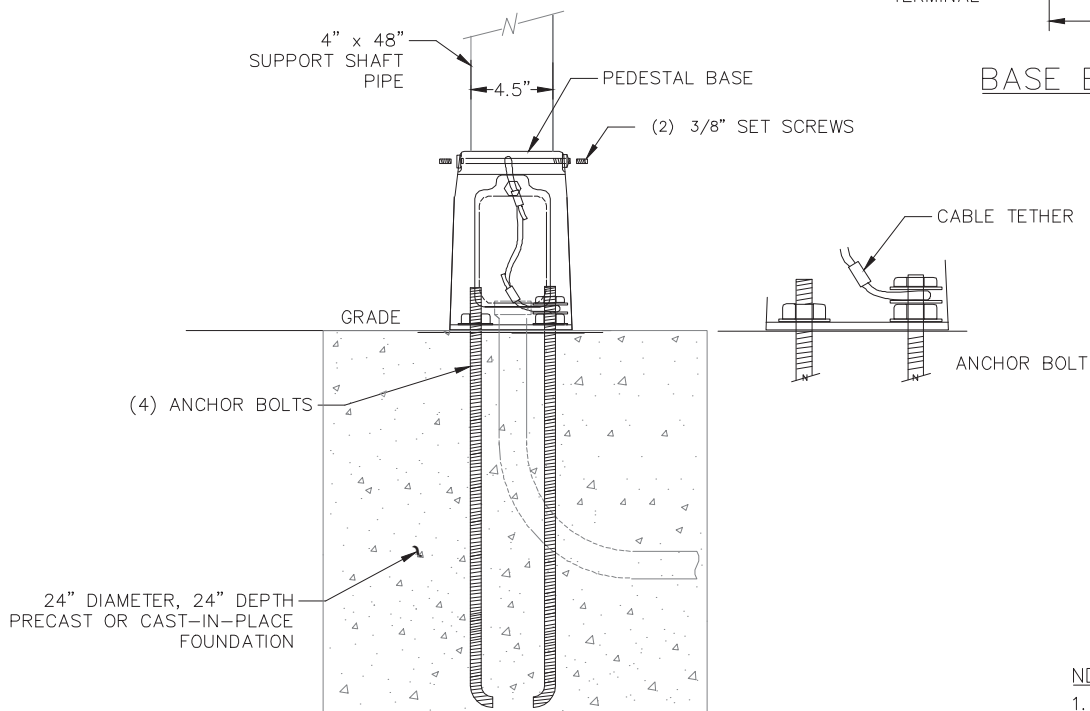
PUSH BUTTON BOLLARD ASSEMBLY



BASE SIDE VIEW



BASE BOTTOM VIEW



BASE MOUNTING

NOTES:

1. SEE SD-14.7 FOR CONSTRUCTION NOTES.

APPROVAL

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

TRAFFIC SIGNALS
PEDESTRIAN PUSH
BUTTON BOLLARD

DATE:11/24

NOT TO SCALE



STANDARD DETAIL NO.

SD-14.6

HEAVY HEX NUTS AND FLAT WASHERS. PLUMBING OF POLES SHALL BE ACCOMPLISHED BY ADJUSTING NUTS. THREADS SHALL EXTEND A MINIMUM OF $\frac{3}{4}$ " ABOVE THE NUT AFTER THE TIGHTENING PROCESS HAS BEEN COMPLETED.

BASE PLATE OF POLE

PULL BOX

FINISHED GRADE

REFERENCE TRAFFIC SIGNAL BONDING AND GROUNDING STANDARDS

2-2" AND 2-3" PVC CONDUITS

ANCHOR BOLT DESIGN PROVIDED BY THE CONTRACTOR. HOOKED BOLTS ARE SHOWN. STRAIGHT BOLTS WITH AN APPROPRIATELY DESIGNED ANCHOR HEAD MAY BE SUBSTITUTED.

AT 36" DIA. CAISSONS:
11-#9 VERTICAL BARS
AT 42" DIA. CAISSONS:
14-#9 VERTICAL BARS
AT 48" DIA. CAISSONS:
18-#9 VERTICAL BARS

DIAMETER VARIES
(SEE TABLE)

SIGNAL POLE

NON-SHRINK GROUT TO BE PLACED BETWEEN BASE PLATE AND TOP OF FOUNDATION AS DIRECTED BY ENGINEER

2" CLR.

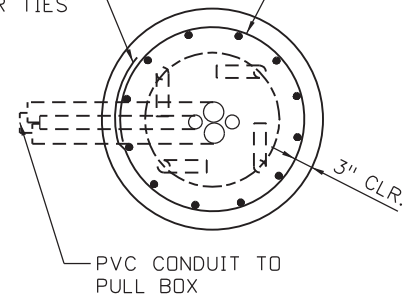
#4 TIES @ 7" FOR 36" CAISSON
#4 TIES @ 9" FOR 42" AND 48" CAISSON

LENGTH VARIES 15'-0" TO 22'-0"
(SEE SIGNAL POLE FOUNDATION SCHEDULE)

SIGNAL POLE FOUNDATION SCHEDULE			
MAST ARM LENGTH (FT)	MAX BOLT CIRCLE DIA. (IN)	CAISSON DIA. (IN)	CAISSON LENGTH (FT)
UP TO 45'	22"	36"	15'-0"
50' TO 60'	25"	42"	20'-0"
65' TO 75'	30"	48"	22'-0"

12" MIN LAP FOR TIES

#4 TIE



TRAFFIC SIGNAL FOUNDATION TOP VIEW

TRAFFIC SIGNAL FOUNDATION ELEVATION

CONSTRUCTION NOTES

- FOUNDATIONS SHOULD BE POURED 10 TO 20 DAYS PRIOR TO POLE INSTALLATION.
- CAISSONS SHALL BE PLACED AGAINST UNDISTURBED EARTH.
- CONCRETE MIX DESIGN SHALL CONFORM TO CDDT CLASS BZ WITH A 28-DAY COMPRESSIVE STRENGTH OF $f'_c=4,000$ PSI. CONCRETE SHALL BE VIBRATED.
- A MINIMUM OF 3" CONCRETE COVER SHALL BE MAINTAINED AROUND THE STEEL CAGE. A MAXIMUM OF 4" OF COVER IS ALLOWED AT THE TOP OF THE CAGE. ALL REINFORCING SHALL BE GRADE 60.
- LOOSE DIRT SHALL BE REMOVED FROM THE BOTTOM OF THE HOLE PRIOR TO POURING CONCRETE.
- NO COLD JOINTS ARE ALLOWED IN CAISSONS. POUR CAISSONS CONTINUOUSLY TO FINISH GRADE.
- POLE FOUNDATION MAY ALTER IN DEPTH AND/OR DIAMETER, AS APPROVED BY THE CITY'S TRAFFIC ENGINEER. THE CITY SHALL APPROVE MODIFICATIONS NEEDED FOR THE CAISSONS DUE TO UNFORESEEN CONDITIONS.
- BASE DIMENSIONS MAY VARY FROM THE STANDARD, BUT ONLY UPON APPROVAL BY THE CITY TRAFFIC ENGINEER.
- THE BOLT CIRCLE DIAMETERS SHOWN REPRESENT THE MAXIMUM ANTICIPATED DIAMETERS REQUIRED AT THE SIGNAL POLE BASES FOR THE CORRESPONDING MAST ARM SPAN.
- FOUNDATION DESIGN REQUIRES THAT THE SHAFTS BE FOUNDED IN SOIL WITH NO LESS THAN THE FOLLOWING MINIMUM PARAMETERS:
SOIL DENSITY $\gamma = 110$ LBS./CU. FT.
SOIL COHESION = 750 LBS./SQ. FT. FOR MEDIUM STIFF COHESIVE SOIL
SOIL ϕ ANGLE = 30° FOR MEDIUM DENSE COHESIONLESS SOIL

APPROVAL: 
DIRECTOR OF PUBLIC WORKS

TRAFFIC SIGNALS SIGNAL POLE FOUNDATION



STANDARD DETAIL NO.

SD-14.7

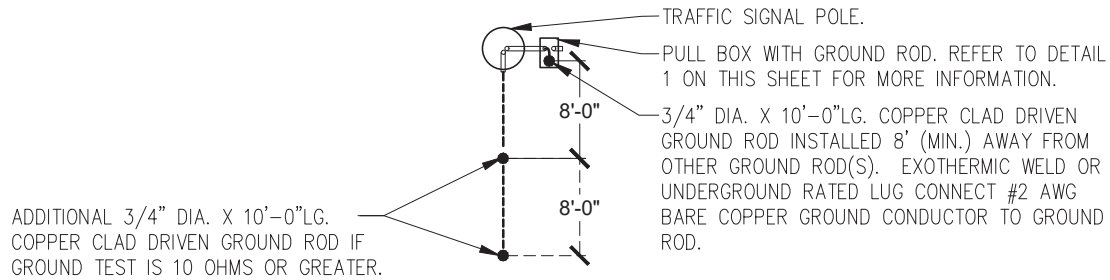
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DATE:11/24

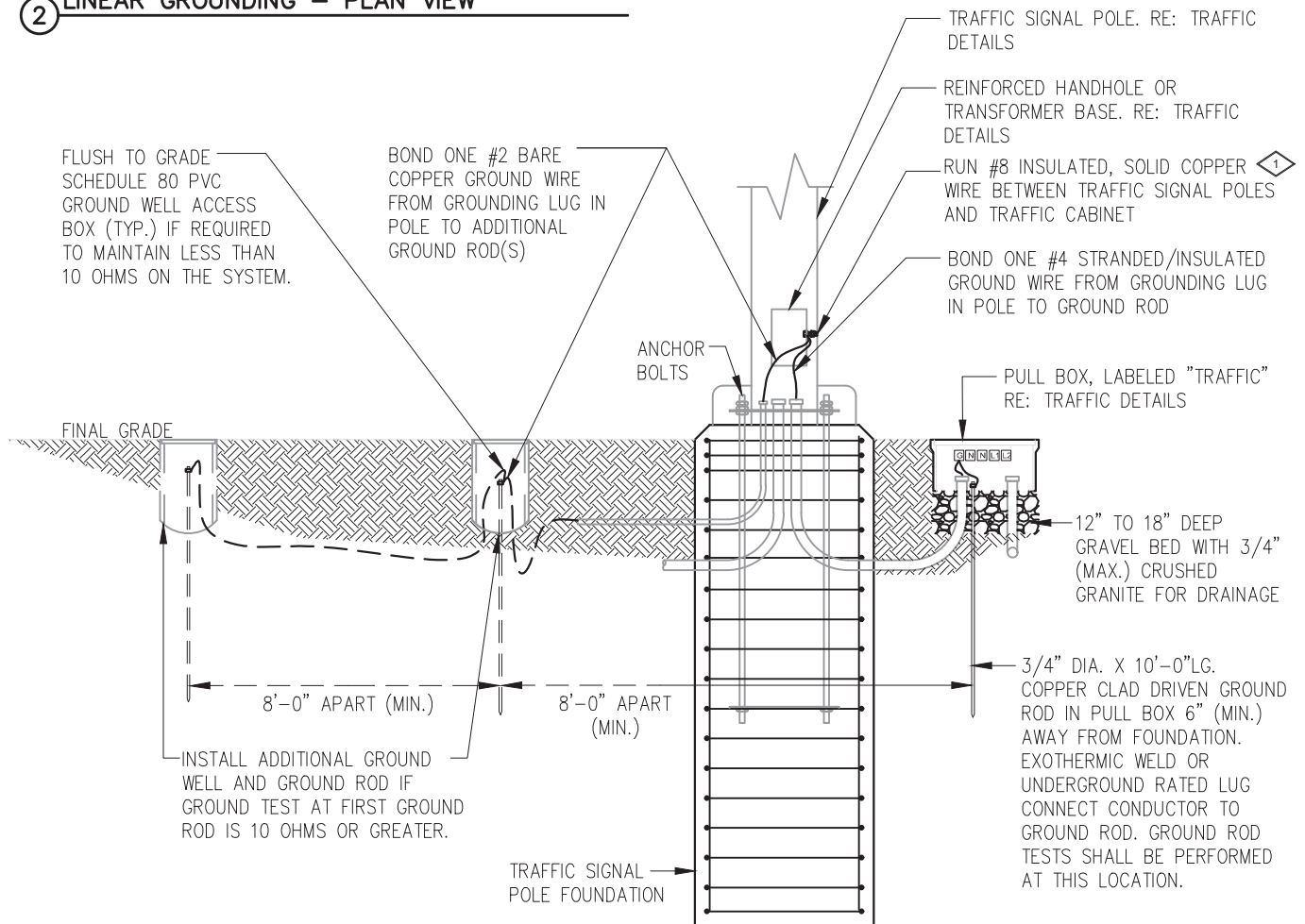
NOT TO SCALE

TRAFFIC SIGNAL ELECTRICAL DETAIL NOTES

1. CONTRACTOR SHALL TEST GROUND RESISTANCE USING 3-POINT (FALL-OFF-POTENTIAL) METHOD, AND INSTALL ADDITIONAL GROUND RODS AS NECESSARY. GROUND RESISTANCE SHALL BE LESS THAN 10 OHMS.
2. INFORMATION IS SHOWN FOR GROUNDING PURPOSES ONLY. REFER TO THE CITY OF CENTENNIAL TRAFFIC STANDARDS FOR ALL STRUCTURAL, ELECTRICAL, AND POLE REQUIREMENTS.
3. ANCHOR BOLTS DIMENSIONS AND SPACING SHALL BE PER THE MANUFACTURER'S DRAWINGS.



2 LINEAR GROUNDING - PLAN VIEW



1 TRAFFIC SIGNAL FOUNDATION

FLAG NOTE:

- #8 INSULATED, SOLID COPPER GROUNDING WIRE IS SIZED FOR A 50-AMP BREAKER WITH #6 CONDUCTORS. IF A LARGER BREAKER IS UTILIZED OR LARGER ELECTRICAL CONDUCTOR IS INSTALLED, THEN THE GROUND CONDUCTOR SHALL BE INCREASED PER THE NATIONAL ELECTRICAL CODE (NEC).

APPROVAL:

DIRECTOR OF PUBLIC WORKS

TRAFFIC SIGNALS
POLE GROUNDING



STANDARD DETAIL NO.

SD-14.8

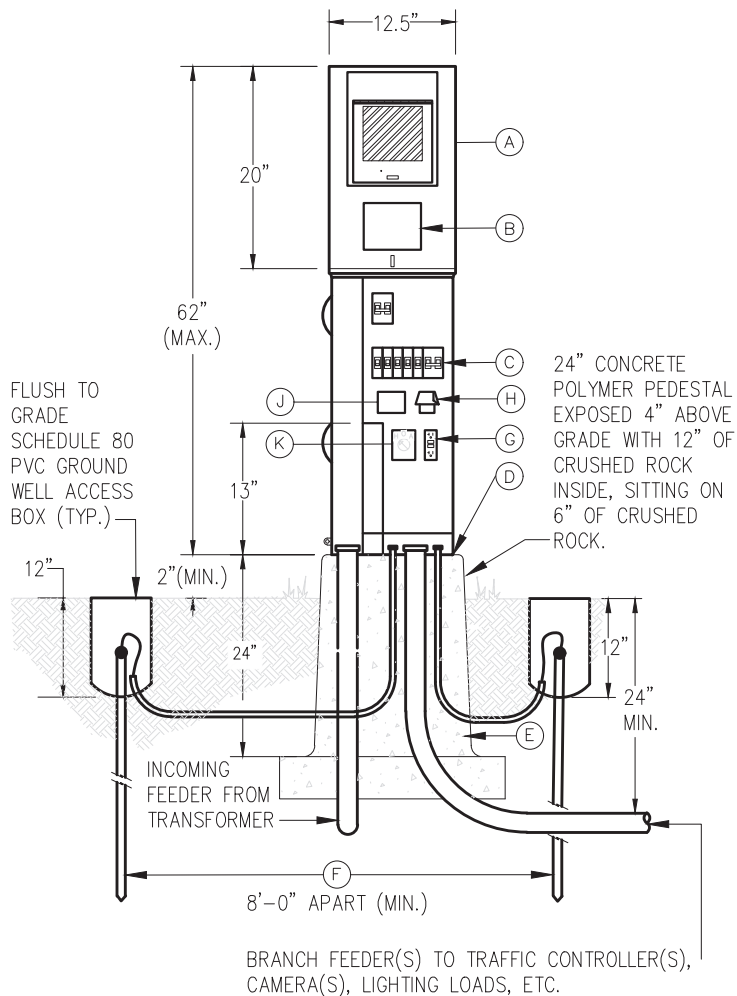
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DATE: 11/24

NOT TO SCALE

METER POWER PEDESTAL COMPONENT LIST

- (A) STAINLESS STEEL, 200A, 120/240V-1PH-3W, NEMA 3R COMBINATION, SERVICE ENTRANCE RATED, COLD SEQUENCE, METER/POWER PEDESTAL WITH LEVER BYPASS, LOAD CENTER, MCB AND FUSED TEE-HANDLE PULL OUT DISCONNECT AHEAD OF METER TO LOCAL UTILITY SPECIFICATIONS. SEE PANEL SCHEDULE FOR SIZE OF MAIN AND NUMBER AND SIZE OF BRANCH BREAKERS REQUIRED. SET ENCLOSURE ON CONCRETE PAD PLUMB AND LEVEL.
- (B) T-HANDLE, PULL-OUT FUSE TYPE METER, DISCONNECT FLUSH MOUNTED INTO THE BACK SIDE OF THE ENCLOSURE FOR METER PROTECTION PER UTILITY SPECIFICATION, COLD SEQUENCE METER WITH WEATHERPROOF COVER AND TAB FOR SEAL. THIS ITEM MAY BE OMITTED BY UTILITY COMPANY SPECIFICATIONS HOT SEQUENCE REQUIREMENTS.
- (C) SERVICE ENTRANCE PANEL BREAKER SECTION, FOR CUSTOMER LOADS. SEE PANEL SCHEDULES FOR SIZE OF BREAKERS AND NUMBER OF POLES REQUIRED.
- (D) PROVIDE RECESSED CONCRETE PAD MOUNTING PLATE WITH L-BOLTS TO MATCH THE ENCLOSURE BASE BOLT PATTERN.
- (E) POLYMER CONCRETE PEDESTAL FOUNDATION WITH FIBERGLASS REINFORCEMENT. THE PAD SHALL BE CONTINUOUS CLOTH REINFORCEMENT ON THE INSIDE AND OUTSIDE PERIMETER. WEIGHT OF THE FOUNDATIONS SHALL BE STENCILED ON THE SIDEWALL OF THE FOUNDATION. OR PROVIDE 4500 PSI, RE-BAR REINFORCED, CONCRETE WITH A DIRECT EARTH BURY DEPTH OF 18 INCHES (MINIMUM), 2 INCHES OVERLAP OF THE ENCLOSURE ON ALL SIDES FRONT AND BACK AND 2 INCHES EXPOSURE ABOVE GRADE. PROVIDE 3/4 INCH CHAMFERED EDGES. PROVIDE STRUCTURAL ENGINEERING STAMPED DRAWING FOR PAD.
- (F) 3/4 INCH x 10 FEET LONG, COPPER-CLAD DRIVEN GROUND RODS. EXOTHERMIC WELD OR UNDERGROUND LUG CONNECT CONDUCTOR TO ROD. TWO (2) GROUND RODS REQUIRED. GROUND ROD TO BE LOCATED IN SCHEDULE 80 PVC GROUND WELL ACCESS BOX (TYP.)
- OPTIONAL:
- (G) • BUILT-IN GFCI NEMA 5-20R, DUPLEX, GFCI MAINTENANCE RECEPTACLE FLUSH MOUNTED IN PANEL DEAD-FRONT.
- (H) • PHOTOCELL - NEMA 3R 120V PHOTOELECTRIC CONTROL WITH 3-PRONG TWIST-LOCK RECEPTACLE BASE. THE PHOTOCELL SHALL BE MOUNTED INSIDE THE ENCLOSURE WITH A GLASS LENS COVERED HOLE IN THE EXTERIOR OF THE ENCLOSURE TO ALLOW THE PHOTOCELL TO RECEIVE DAYLIGHT.
- (J) • LIGHTING CONTACTOR - CONTROLLED BY OPTIONAL PHOTOCELL ITEM 'H' ABOVE WHEN MORE THAN ONE CIRCUIT IS TO BE CONTROLLED BY THE PHOTOCELL.
- (K) • HAND-OFF-AUTO SWITCH WHEN ITEMS 'H' AND 'J' ABOVE ARE USED. PROVIDE THIS HOA SWITCH WITH THE PHOTOCELL CONTROL WIRED IN THE AUTO POSITION.



1 METER POWER PEDESTAL DETAIL

NOTES:

- ALL COMPONENTS LISTED SHALL BE INCLUDED IN THE METER POWER PEDESTAL PAY ITEM. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED PER THE APPROPRIATE UL REQUIREMENTS. INCLUDING BUT NOT LIMITED TO 508A INDUSTRIAL CONTROL CENTER.
- FUSED TEE-HANDLE PULL OUT DISCONNECT AHEAD OF METER IS A REQUIREMENT FOR COLD SEQUENCE METERING UTILITY COMPANIES (SUCH AS XCEL ENERGY) AND IS NOT REQUIRED ON METER POWER PEDESTAL FOR UTILITY COMPANIES THAT REQUIRE HOT SEQUENCE METERING.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

TRAFFIC SIGNALS
METER POWER PEDESTAL

Centennial
COLORADO

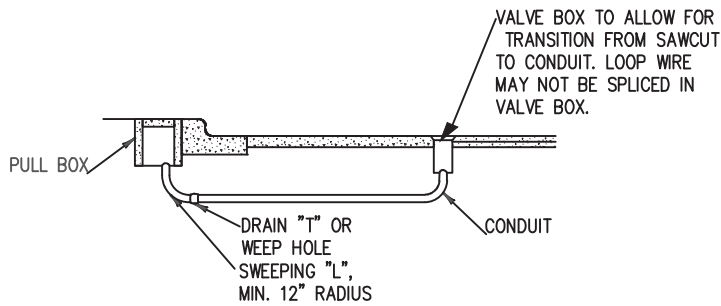
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SD-14.9

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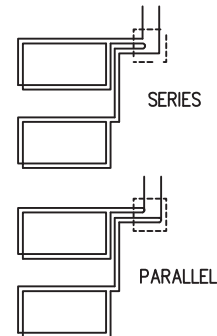
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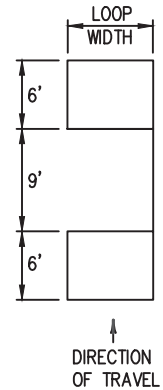


LOOP DETECTOR LEAD-IN

WIRE CONFIGURATION

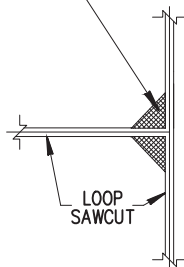


LAYOUT



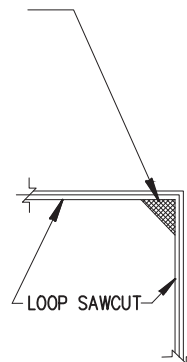
STANDARD LOOP

CHISEL OUT $\frac{1}{8}$ " TO $\frac{1}{2}$ " CORNER
REMOVE PAVEMENT TO SAW-
CUT DEPTH AND FILL
WITH SEALANT (TYP.)



T - SAWCUT DETAIL

CHISEL OUT $\frac{1}{8}$ " TO $\frac{1}{2}$ " CORNER
REMOVE PAVEMENT TO SAW-
CUT DEPTH AND FILL
WITH SEALANT



CORNER SAWCUT DETAIL

LOOP INSTALLATION PROCEDURE

1. CUT SLOTS IN PAVEMENT TO 3 IN. MINIMUM DEPTH.
2. CLEAN AND DRY SLOTS WITH OIL-FREE COMPRESSED AIR.
3. ONE CONTINUOUS LENGTH OF 14/C, RHW, USE, XLPE, RHW, OR THWN WIRE SHALL BE USED FOR EACH LOOP FROM PULL BOX AROUND THE LOOP WITH THE NUMBER OF TURNS SPECIFIED AND BACK TO THE PULL BOX. LOOP WIRE SHALL BE DUCT TYPE. LOOP WIRE MAY NOT BE SPLICED.
4. USE A BLUNT, NON-METALLIC INSTRUMENT TO PUSH WIRE INTO SLOT. DO NOT COIL LEADS.
5. CONNECT DETECTOR AND TEST LOOP.
6. SEAL SLOTS AS SPECIFIED.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

TRAFFIC SIGNALS
TRAFFIC LOOP (1)



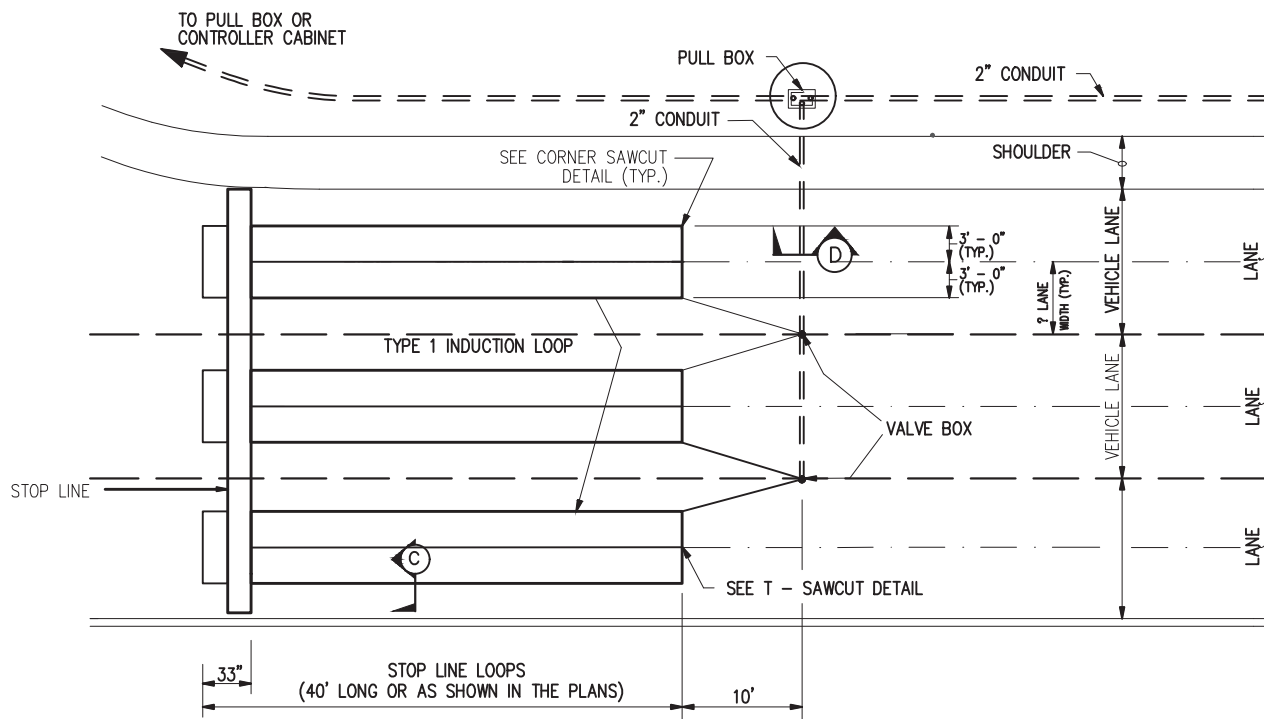
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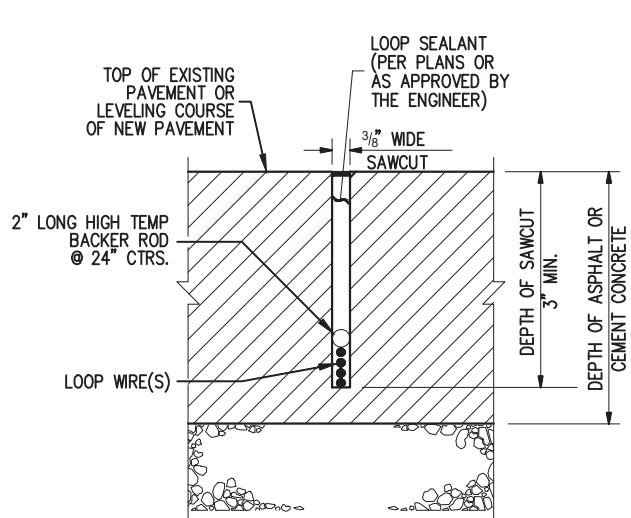
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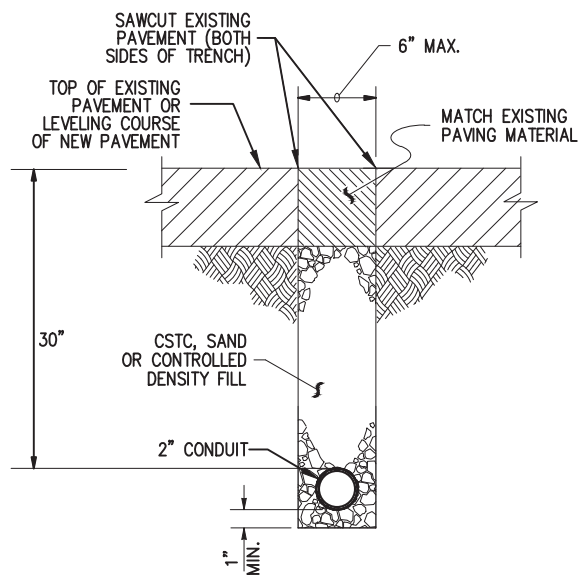
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STOP LINE LOOPS - PLAN VIEW



SECTION C-C



SECTION D-D

APPROVAL: 
 DIRECTOR OF PUBLIC WORKS

TRAFFIC SIGNALS
 TRAFFIC LOOP (2)



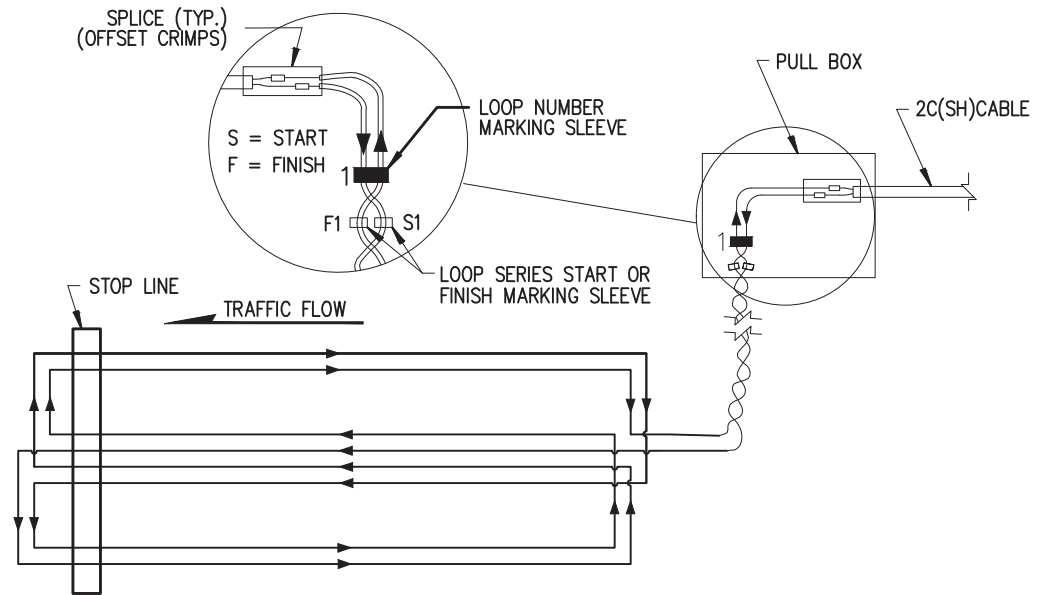
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DATE: 11/24

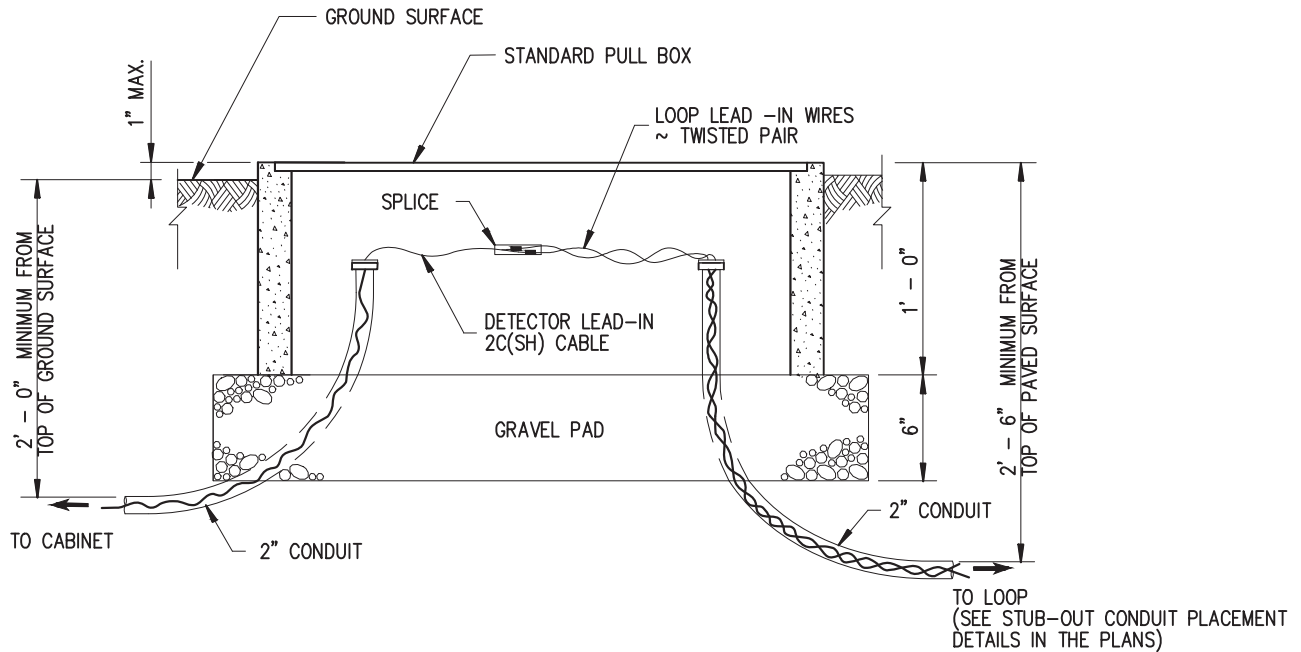
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STANDARD DETAIL NO.

SD-14.11



LOOP WIRING DIAGRAM



PULL BOX PLACEMENT DETAIL

APPROVAL:

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

TRAFFIC SIGNALS
TRAFFIC LOOP (3)
AND PULL BOXES

DATE: 11/24

NOT TO SCALE



STANDARD DETAIL NO.

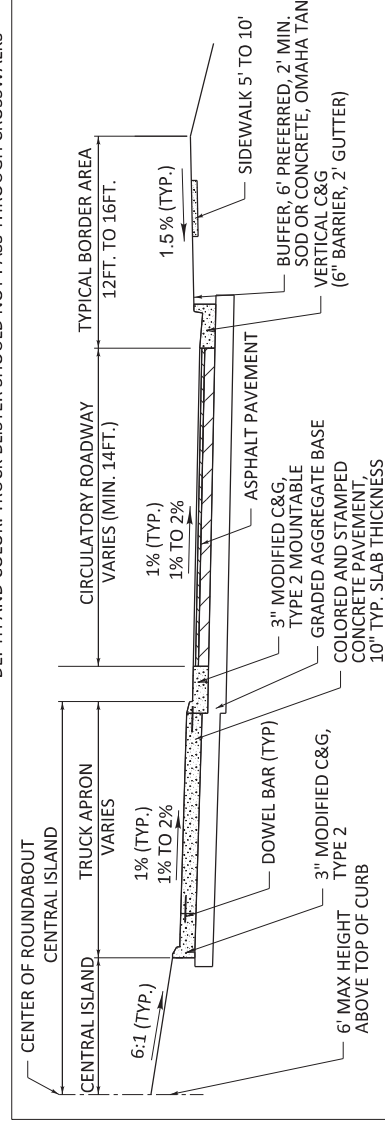
SD-14.12

SINGLE LANE AND COMPACT ROUNDABOUTS. THE DESIGN OF A SINGLE LANE ROUNDABOUT SHOULD HAVE ENOUGH ENTRY PATH DEFLECTION TO CREATE BALANCED SPEEDS THROUGH THE ROUNDABOUT. THE USE OF LEFT OFFSET HELPS IN REDUCING SPEEDS IN ADVANCE OF THE ENTRY LINE; THIS IS ESPECIALLY IMPORTANT FOR COMPACT ROUNDABOUTS.

1. **INSCRIBED CIRCLE DIAMETER:** MEASURE OF THE SIZE OF A ROUNDABOUT. GOVERNED BY NUMBER OF ENTRY AND EXIT LANES, SIZE OF DESIGN VEHICLE, AND PROPERTY CONSTRAINTS.

2. CIRCULATORY ROAD: THE MINIMUM WIDTH IS GENERALLY EQUAL TO THE WIDEST ENTRY.
3. LANDSCAPED CENTRAL ISLAND: A CENTRAL NON-OVERRUN AREA, SIGHTLINES SHALL BE MAINTAINED AROUND THE OUTSIDE, BUT BLOCKED THROUGH THE MIDDLE USING MOUNDING AND LANDSCAPING.
4. TRUCK APRON: A TRAVERSABLE AREA FOR TRUCKS NECESSARY FOR SINGLE-LANE ROUNDABOUTS TO AVOID A VERY WIDE CIRCULATORY ROAD OR SMALL CENTRAL ISLAND. COLOR SHOULD BE SUNSET ROSE.
5. ENTRY RADIUS: THE SMALLEST CURB RADIUS BEFORE OR AT THE YIELD LINE. NOT THE SAME AS ENTRY PATH RADIUS OR DEFLECTION.
6. ENTRY WIDTH: WIDTH AT THE ROUNDABOUT ENTRANCE. MEASURED TO CURB FACE. MUST BE SIZED TO ACCOMMODATE DESIGN VEHICLE. YET NOT BE OVERLY WIDE AT SINGLE-LANE ROUNDABOUTS. THE DISTANCE OVER WHICH THE APPROACH WIDENS TO THE ENTRY IS THE FLARE LENGTH.
7. EXIT WIDTH: WIDTH AT THE ROUNDABOUT EXIT, MEASURED TO CURB FACE. EXIT WIDTH SHOULD BE AS WIDE AS THE CIRCULATORY ROADWAY THEN TAPERED DOWNSTREAM
8. SPLITTER ISLAND: DIRECTS DRIVERS TO CIRCULATE COUNTER-CLOCKWISE, AND PROVIDES REFUGE AREA FOR PEDESTRIANS. COLOR SHOULD BE OMAHA TAN.
9. PEDESTRIAN CROSSING: TWO-STAGE CROSSING LOCATED ONE TO TWO CAR LENGTHS (25 FT TO 40 FT ON EXITS) BEHIND THE YIELD LINE.
10. DETECTABLE WARNING STRIP: PLACED PERPENDICULAR TO THE TRAVEL WAY.

11. TRUCK BLISTER: MAY BE NECESSARY AT OUTSIDE CURB RADII TO ACCOMMODATE LARGER DESIGN VEHICLES. STEPPED CURB HEIGHT SHALL BE 4". CONCRETE SURFACE TO BE THE SAME AS THE TRUCK APRON IN DEPTH AND COLOR. TRUCK BLISTER SHOULD NOT PASS THROUGH CROSSWALKS



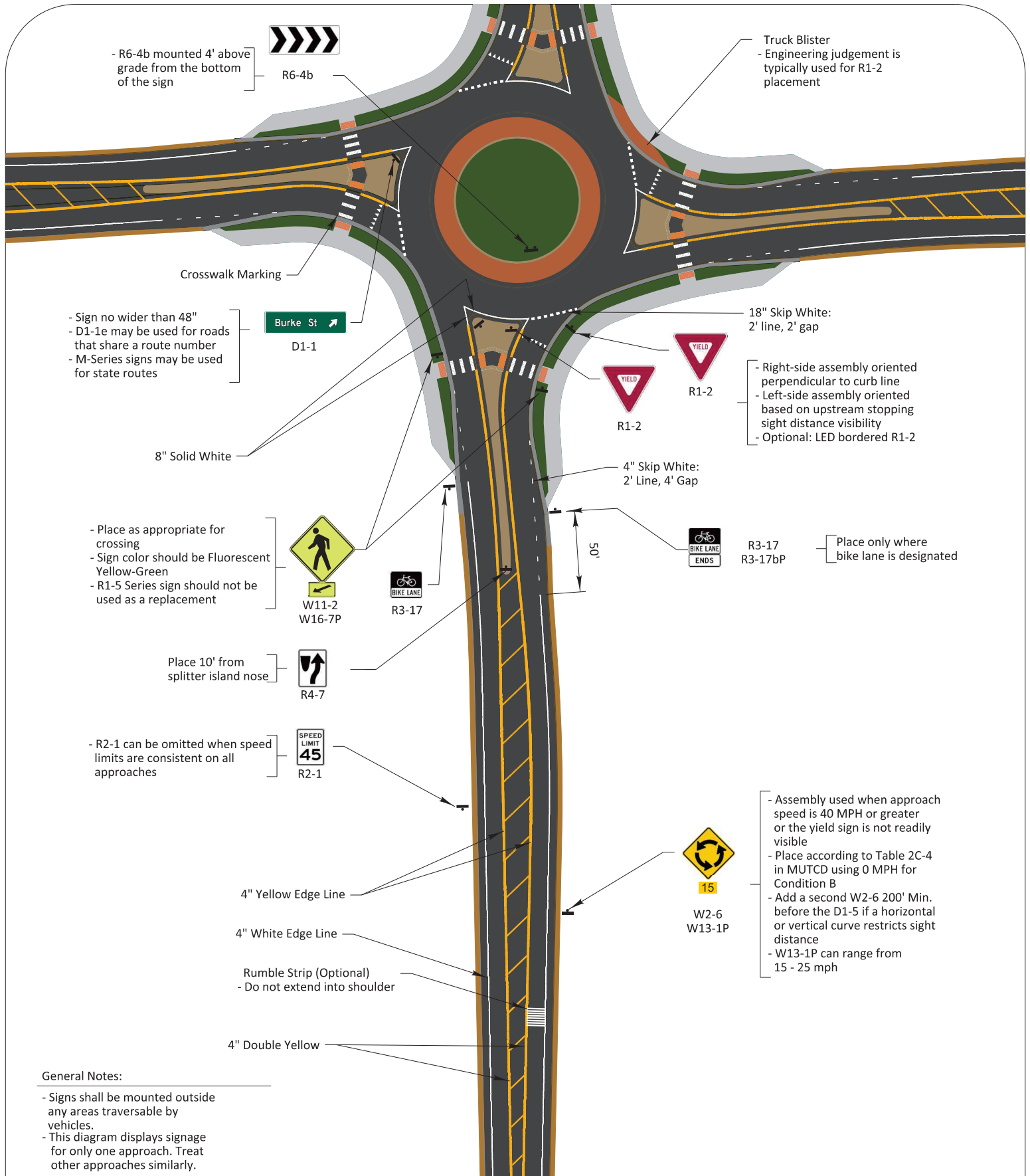
Centennial
COLORADO

SD-15.1

NOT TO SCALE

APPROVAL: 

[illegible]



APPROVAL: 

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

SIGNING AND MARKING SINGLE LANE ROUNDABOUT

DATE: 11/24 NOT TO SCALE



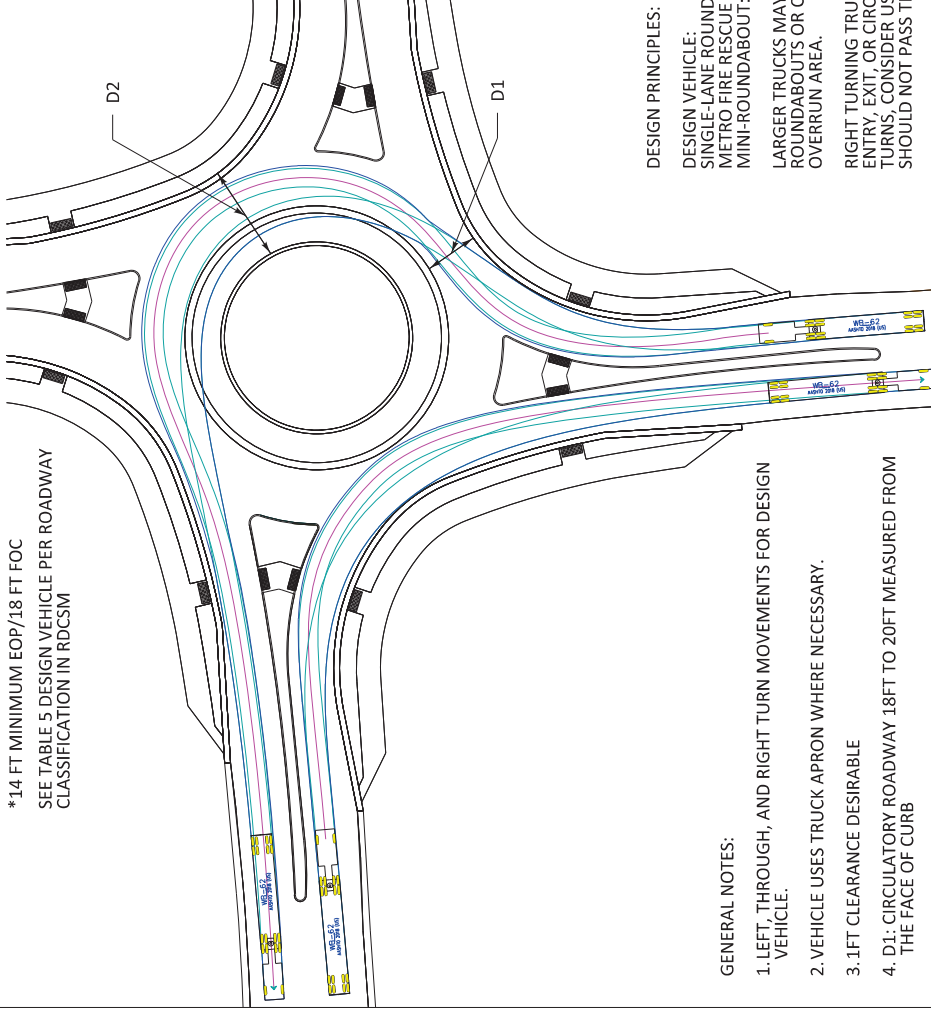
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SD-15.2

LEFT TURNING WIDTH REQUIRED FOR SINGLE-LANE ROUNDABOUTS ('D' IN FEET)					
INSCRIBED CIRCLE DIAMETER	DESIGN VEHICLES				
	D1 (EOP)			D2 (FOC)	
	SU-30	B-40	FIRE TRUCK	WB-62	WB-67
110	14*	15	14	32	39
120	14*	15	14	30	36
130	14*	14	14*	27	33
140	14*	14	14*	26	30

TABLE NOTE: THE VALUES PROVIDED ARE FOR GENERAL GUIDANCE.

*14 FT MINIMUM EOP/18 FT FOC

SEE TABLE 5 DESIGN VEHICLE PER ROADWAY CLASSIFICATION IN RDCSM



GENERAL NOTES:

1. LEFT, THROUGH, AND RIGHT TURN MOVEMENTS FOR DESIGN VEHICLE.
2. VEHICLE USES TRUCK APRON WHERE NECESSARY.
3. 1FT CLEARANCE DESIRABLE
4. D1: CIRCULATORY ROADWAY 18FT TO 20FT MEASURED FROM THE FACE OF CURB

APPROVAL:

DIRECTOR OF PUBLIC WORKS

REV # DATE DESCRIPTION

TRUCK MOVEMENTS SINGLE-LANE ROUNDABOUT AND MINI-ROUNDABOUT



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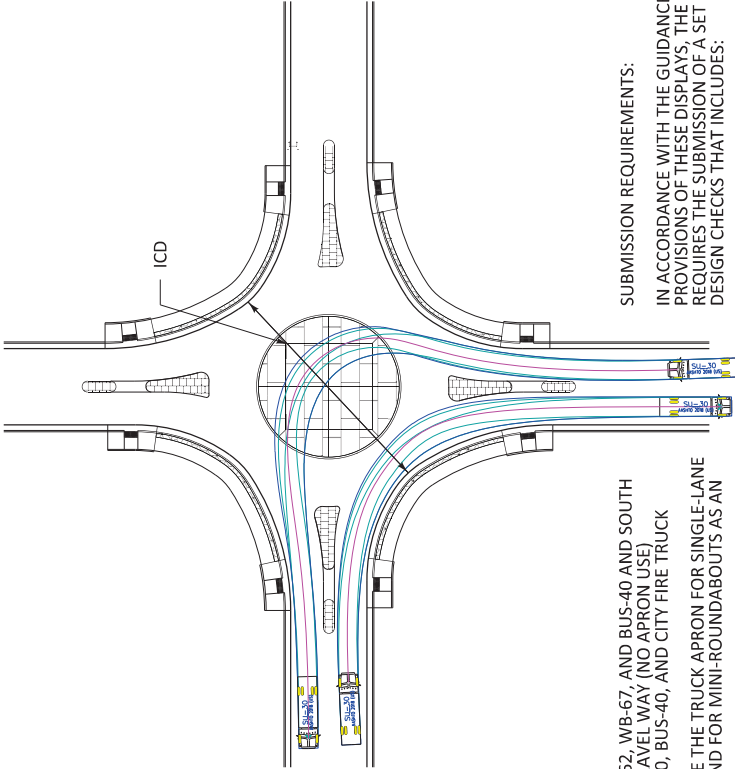
SD-15.4

DATE: 11/24

NOT TO SCALE

MINI-ROUNDABOUT ICD REQUIREMENTS FOR VEHICLE U-TURNS AND LEFT TURNS (LT)				
INSCRIBED CIRCLE DIAMETER	DESIGN VEHICLES			
	SU-30	B-40	FIRE TRUCK	WB-62
60	LT-ONLY	NO	LT-ONLY	NO
65	LT-ONLY	LT-ONLY	LT-ONLY	NO
70	LT-ONLY	LT-ONLY	YES	NO
80	LT-ONLY	LT-ONLY	YES	LT-ONLY
90	YES	YES	YES	YES
100	YES	YES	YES	YES

TABLE NOTE: SPLITTER ISLANDS SHOULD BE MOUNTABLE AS NEEDED BASED ON SWEEP PATHS



DESIGN PRINCIPLES:

DESIGN VEHICLE:
SINGLE-LANE ROUNDABOUT: WB-62, WB-67, AND BUS-40 AND SOUTH METRO FIRE RESCUE TRUCK ON TRAVEL WAY (NO APRON USE)
MINI-ROUNDABOUT: WB-62, SU-30, BUS-40, AND CITY FIRE TRUCK
LARGER TRUCKS MAY NEED TO USE THE TRUCK APRON FOR SINGLE-LANE ROUNDABOUTS OR CENTRAL ISLAND FOR MINI-ROUNDABOUTS AS AN OVERRUN AREA.

RIGHT TURNING TRUCKS ARE NOT TO USE THE TRUCK APRON, WHERE ENTRY, EXIT, OR CIRCULATING WIDTHS BECOME EXCESSIVE FOR RIGHT TURNS. CONSIDER USING AN OUTER EDGE TRUCK BLISTER. TRUCK BLISTER SHOULD NOT PASS THROUGH CROSSWALKS.

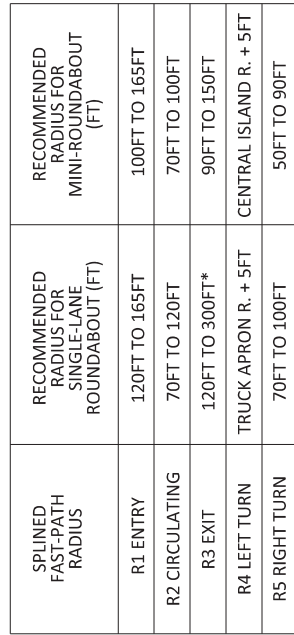
SUBMISSION REQUIREMENTS:

IN ACCORDANCE WITH THE GUIDANCE AND PROVISIONS OF THESE DISPLAYS, THE CITY REQUIRES THE SUBMISSION OF A SET OF DESIGN CHECKS THAT INCLUDES:

1. DESIGN VEHICLE SWEEP PATHS
2. GEOMETRIC SPEED CHECKS
3. SIGHT DISTANCE CHECKS

DESIGN PRINCIPLES: GEOMETRIC ENTRY PATH DEFLECTION IS BEST REPRESENTED BY A CONTINUOUS SPLINE (A CURVE WITH CONSTANTLY CHANGING RADIUS) BECAUSE THIS MOST CLOSELY APPROXIMATES HOW A VEHICLE TRACES ITS FASTEST PATH THROUGH A ROUNDABOUT. A SPLINE ALSO ALLOWS ANALYSTS TO DRAW THE SMOOTHEST, MOST NATURAL VEHICULAR PATH. IT IS DRAWN FROM A STARTING POINT APPROXIMATELY 165 FT IN ADVANCE OF THE ENTRY LINE, WITH AN OFFSET OF 5 FT FROM CURBS, 5 FT FROM A CENTERLINE, AND 3 FT FROM OTHER PAVEMENT MARKINGS (SUCH AS A PAINTED MEDIAN OR TWO-WAY LEFT-TURN LANE). THE CRITICAL ENTRY PATH RADIUS, REFERRED TO AS R, OCCURS OVER THE SPLINE FOR 65 FT TO 80 FT, NEAR THE YIELD POINT, WHERE THE TIGHTEST RADIUS EXISTS.

IN MOST CASES, SPEED CONTROL ON ENTRY IS THE MOST IMPORTANT FASTEST PATH CRITERIA FOR ALL ROUNDABOUT CONFIGURATIONS. IN ADDITION, IF A LOCATION HAS A SIGNIFICANT PEDESTRIAN COUNT (GREATER THAN 25 PEDESTRIANS PER HOUR), STEPS SHOULD BE TAKEN TO FACILITATE LOWER VEHICLE SPEEDS AT ALL PEDESTRIAN CONFLICT AREAS, (INCLUDING EXIT SPEEDS FROM THE ROUNDABOUT), WHEN CHECKING EXIT SPEEDS, BOTH THE PREDICTIVE METHOD (BASED ON THE R3 EXIT PATH RADIUS) AND NCHRP 1043 EQUATION 9.7 (WHICH ACCOUNTS FOR ACCELERATION FROM R2 TO R3) SHOULD BE CHECKED.



* WHERE PEDESTRIAN USE OF AN EXIT CROSSWALK IS FREQUENT (GREATER THAN 25 PEDESTRIANS PER HOUR), ADJUST EXIT RADIUS TO REDUCE THE R3 TO <200FT.

NOTES:

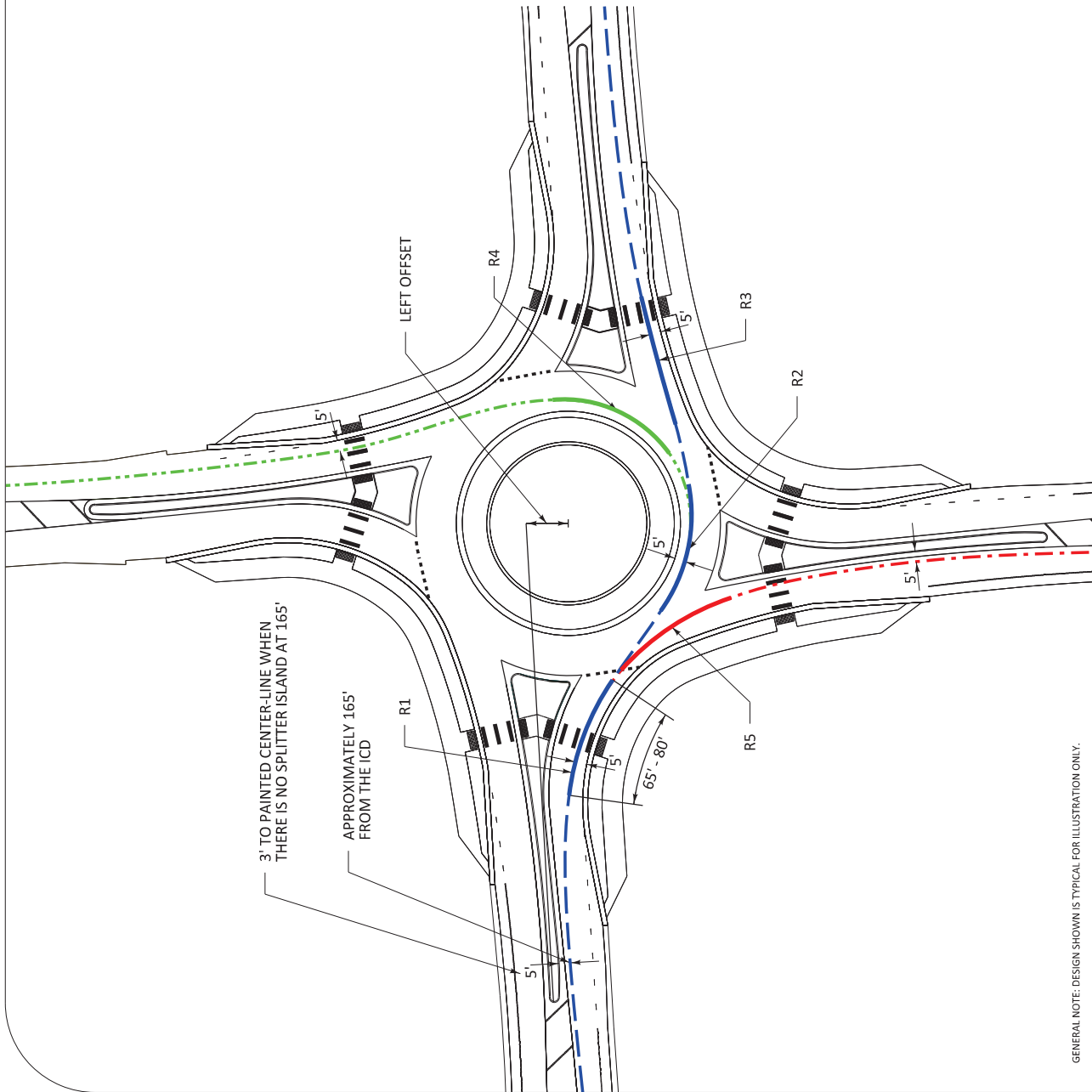
1. R1, R2, R3 PATH TO FOLLOW NATURAL SPLINE.
2. GEOMETRIC ENTRY SPEED USUALLY GOVERNED BY R1 RADIUS, BUT MAY BE GOVERNED BY R5 RADIUS.
3. ON DESIGNS THAT CANNOT ACHIEVE DEFLECTION USING CENTRAL ISLAND AND

3. ON DESIGNS THAT CANNOT ACHIEVE DEFLECTION USING CENTRAL ISLAND AND APPROACH ALIGNMENT OFFSET TO THE LEFT OF CENTER-LINE, ADD REVERSE CURVES ON THE APPROACH SPLITTER ISLAND, SEPARATED BY A SHORT TANGENT 50 FT TO 100 FT. APPROACH CURVE RADIUS TO BE SIZED USING AASHTO TABLE 3-13. LOW SPEED URBAN DESIGN TO AVOID NEEDING SUPERELEVATION.

SUBMISSION REQUIREMENTS:

IN ACCORDANCE WITH THE GUIDANCE AND PROVISIONS OF THESE DISPLAYS, THE CITY REQUIRES THE SUBMISSION OF A SET OF DESIGN CHECKS THAT INCLUDES:

1. DESIGN VEHICLE SWEEP PATHS
2. GEOMETRIC SPEED CHECKS
3. SIGHT DISTANCE CHECKS



GENERAL NOTE: DESIGN SHOWN IS TYPICAL FOR ILLUSTRATION ONLY.

APPROVAL: 

REV #	DATE	DESCRIPTION

GEOMETRIC SPEED CHECKS SINGLE LANE ROUNDABOUT

DATE: 11/24

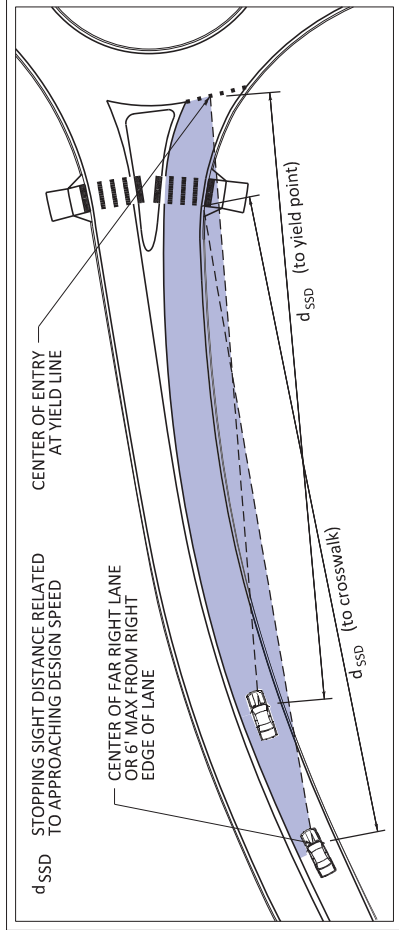
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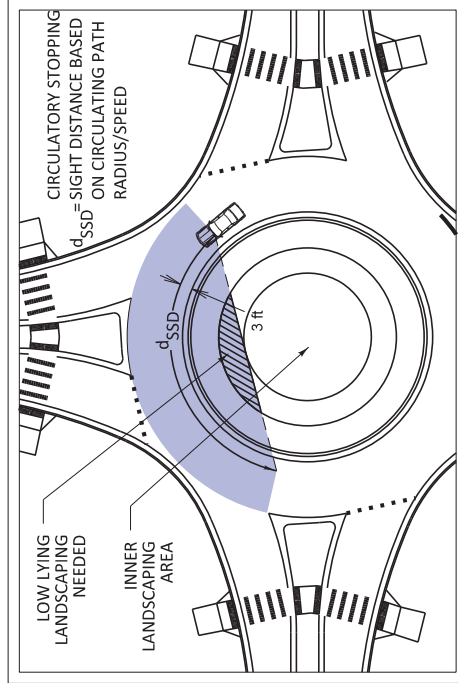
SD-15.5

APPROACH STOPPING SIGHT DISTANCE



* SSD VALUES BASED ON APPROACH POSTED SPEED AND AASHTO CHAPTER 3.2 SIGHT DISTANCE

CIRCULATING STOPPING SIGHT DISTANCE



SSD VALUES BASED ON APPROACH POSTED SPEED AND AASHTO CHAPTER 3.2 SIGHT DISTANCE

SUBMISSION REQUIREMENTS:

IN ACCORDANCE WITH THE GUIDANCE AND PROVISIONS OF THESE DISPLAYS, THE CITY REQUIRES THE SUBMISSION OF A SET OF DESIGN CHECKS THAT INCLUDES:

- 1. DESIGN VEHICLE SWEEP PATHS
- 2. GEOMETRIC SPEED CHECKS
- 3. SIGHT DISTANCE CHECKS

APPROVAL:

DIRECTOR OF PUBLIC WORKS

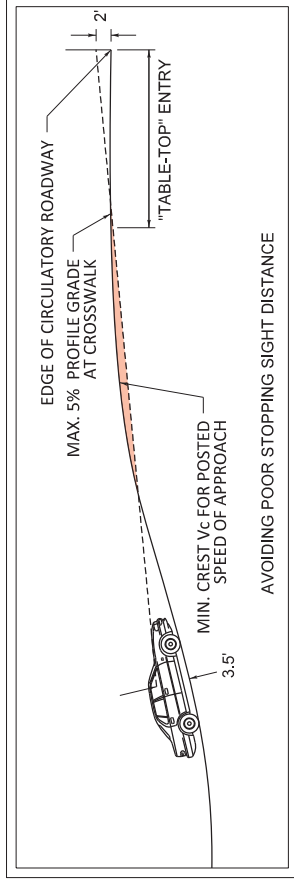
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SIGHT DISTANCE CHECKS
SINGLE LANE ROUNDABOUT

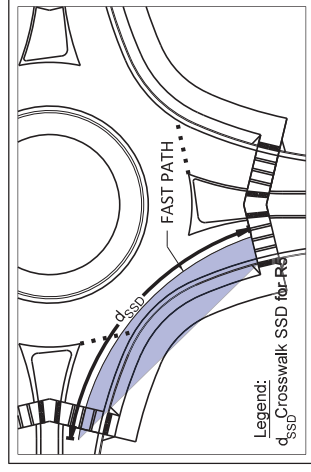
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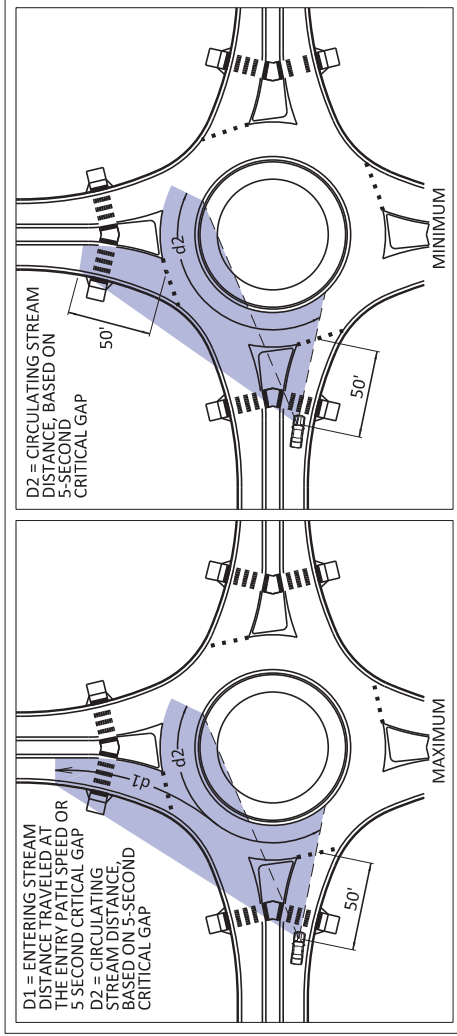
VERTICAL SIGHT DISTANCE

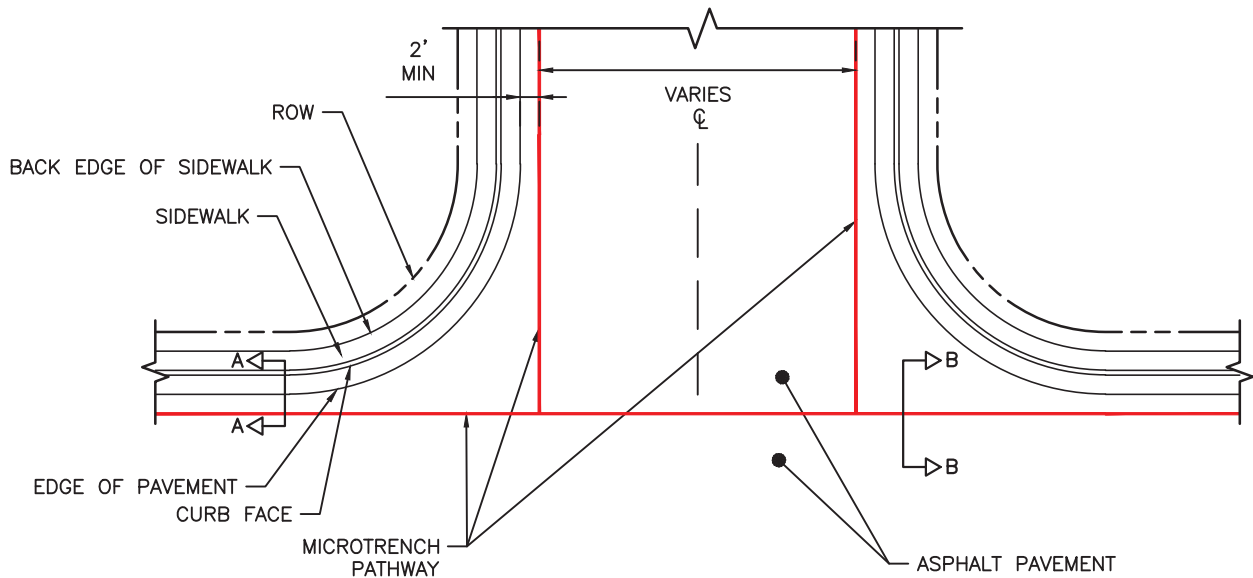
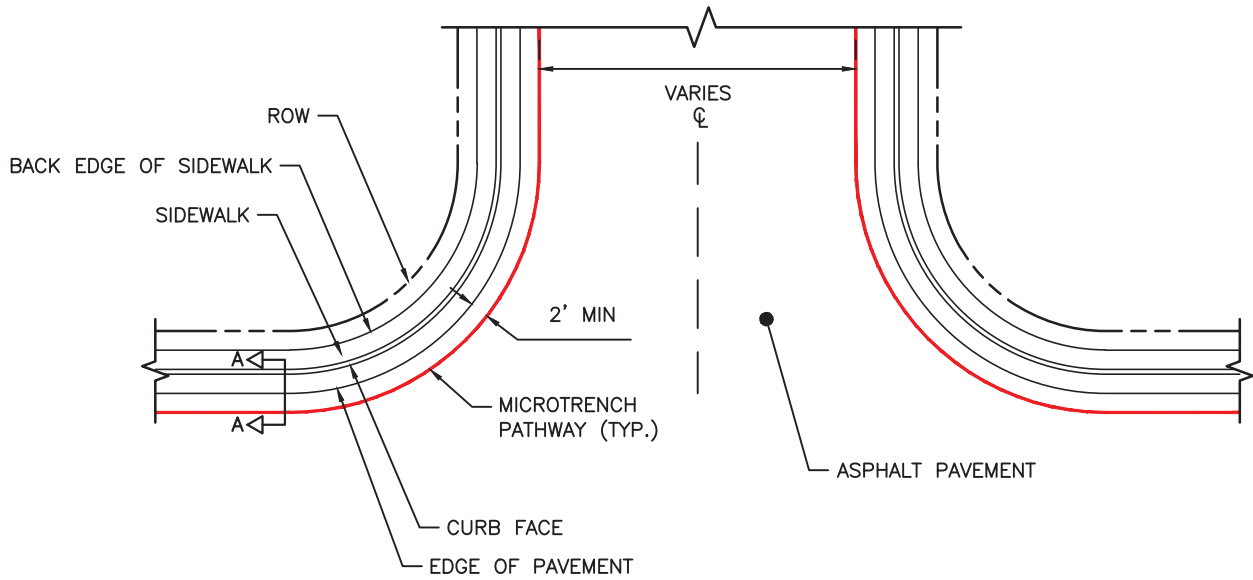


STOPPING SIGHT DISTANCE
TO THE DOWNSTREAM CROSSWALK



ENTERING AND CIRCULATING INTERSECTION SIGHT DISTANCE





ROADWAY WITH CURB RETURNS
AND CURB & GUTTER
PLAN VIEW
SCALE: NTS

NOTES

1. SEE SD-16.3 FOR SECTIONS.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

MICROTRENCHING
TYPICAL DETAILS
1 OF 3

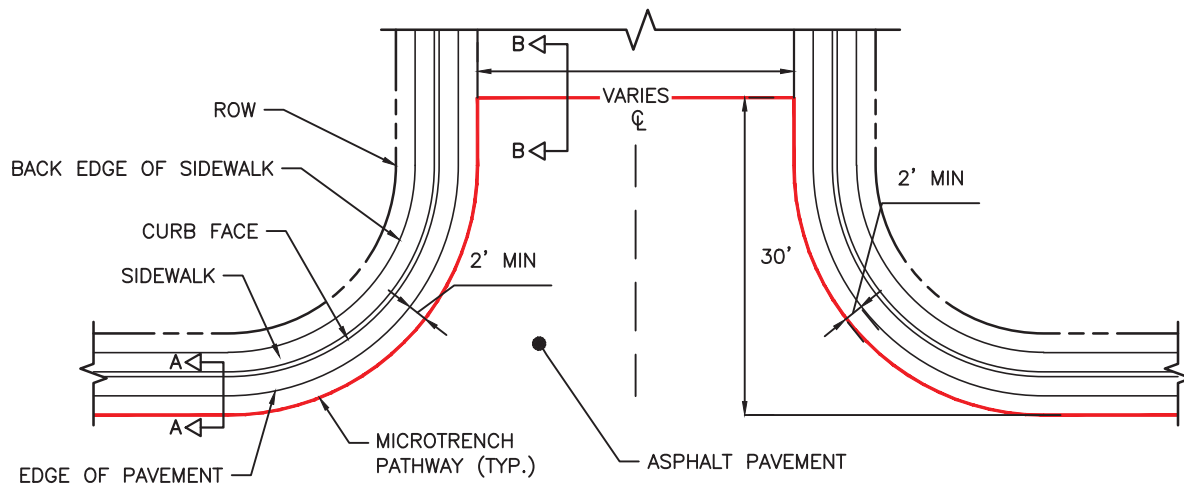
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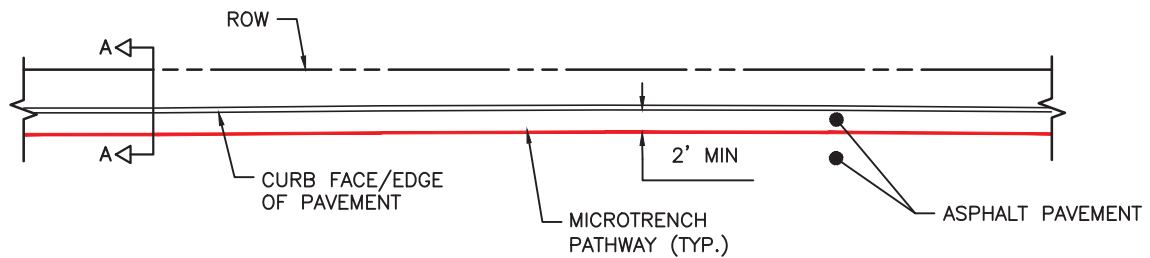


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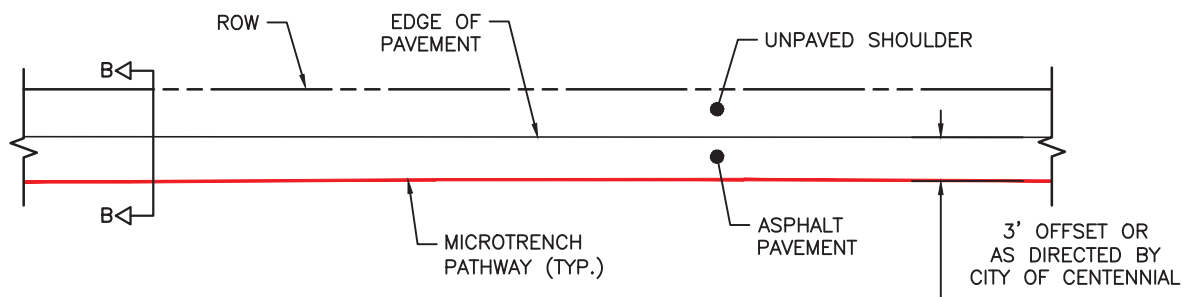
SD-16.0



STREET CROSSING
PLAN VIEW
SCALE: NTS



ROADWAY WITH CONCRETE CURB ONLY
PLAN VIEW
SCALE: NTS



ROADWAY WITHOUT CURB (INCLUDES AC CURB)
PLAN VIEW
SCALE: NTS

NOTES

1. SEE SD-16.3 FOR SECTIONS.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

MICROTRENCHING
TYPICAL DETAILS
2 OF 3

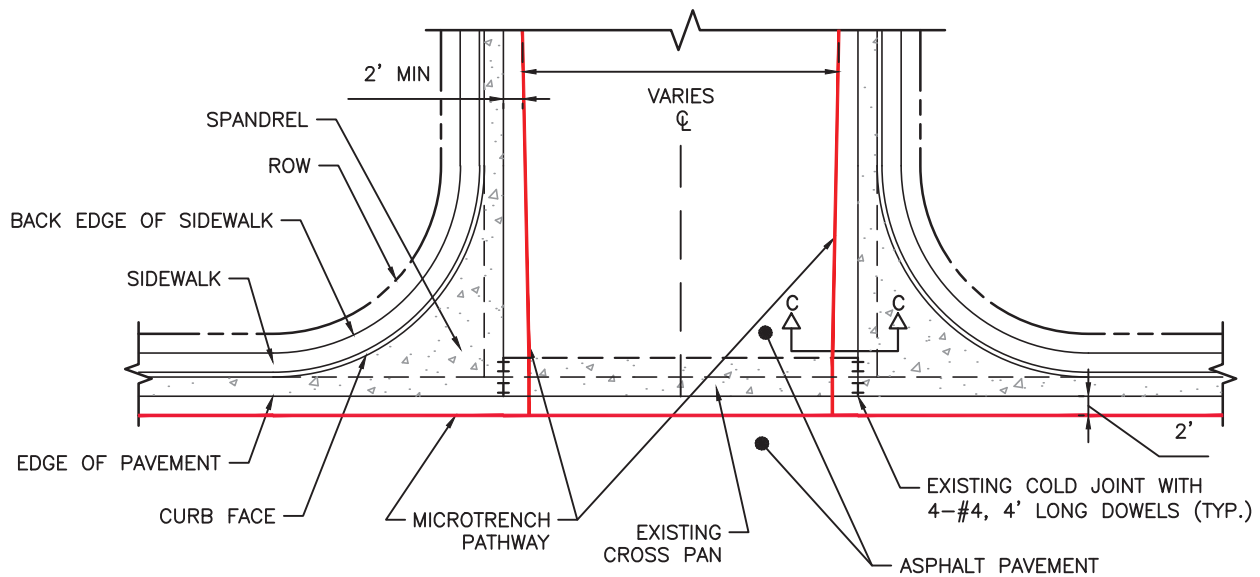
DATE: 11/24

NOT TO SCALE

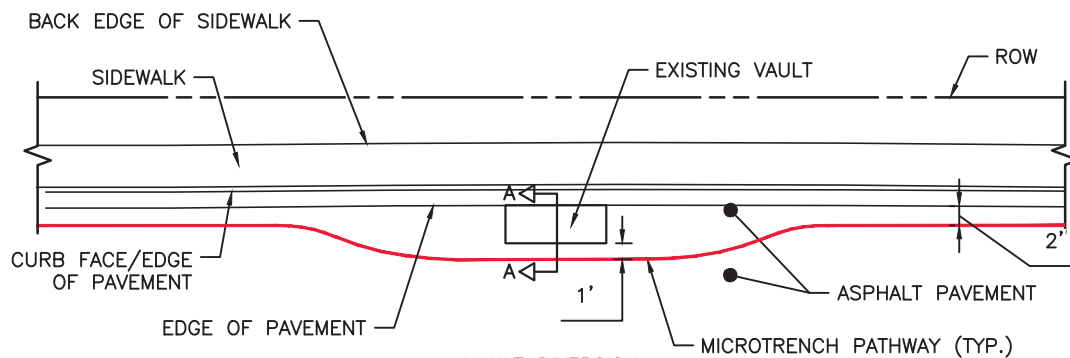


STANDARD DETAIL NO.

SD-16.1



SPANDREL & CROSS PAN
PLAN VIEW
SCALE: NTS



VAULT DIVERSION
PLAN VIEW
SCALE: NTS

NOTES

1. SEE SD-16.3 FOR SECTIONS.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

MICROTRENCHING
TYPICAL DETAILS
3 OF 3

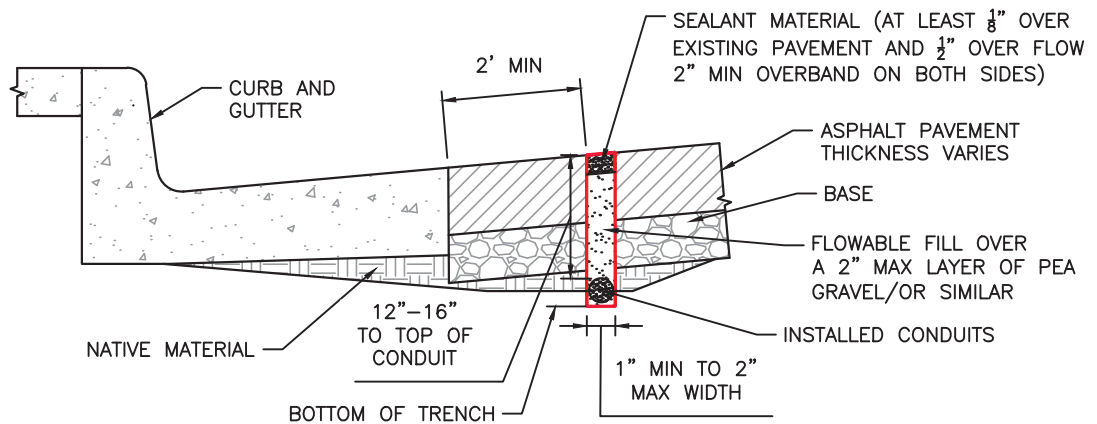
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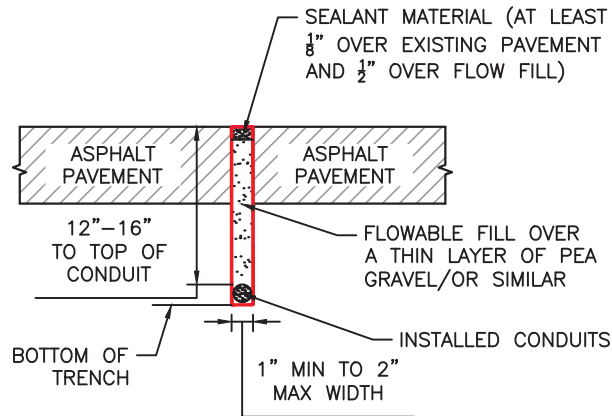


STANDARD DETAIL NO.

SD-16.2



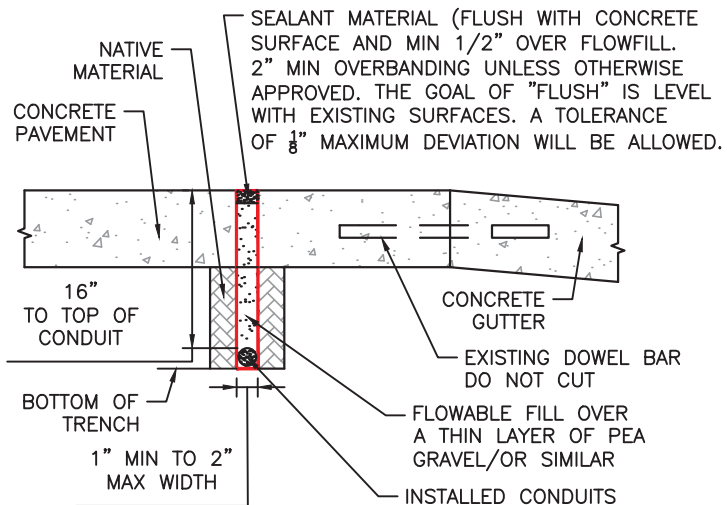
SECTION VIEW A-A



SECTION VIEW B-B

NOTES

1. PRIOR TO APPLICATION OF SEALANT MATERIAL MICROTRENCH SHALL BE CLEARED OF ALL DEBRIS TO ENSURE SEALANT ADHERES TO FLOW FILL BELOW.
2. SEALANT SHALL BE A HOT APPLIED MASTIC PAVEMENT REPAIR MATERIAL MEETING ASTM D8260-20, OR APPROVED EQUAL. ASPHALT AND CROSSSPAN SEALANT COLOR SHALL BE BLACK. SIDEWALK SEALANT SHALL BE GRAY. COLORS SHALL BE APPROVED PRIOR TO INSTALLATION.



SECTION VIEW C-C

APPROVAL:

DIRECTOR OF PUBLIC WORKS

**MICROTRENCHING
TYPICAL SECTIONS**



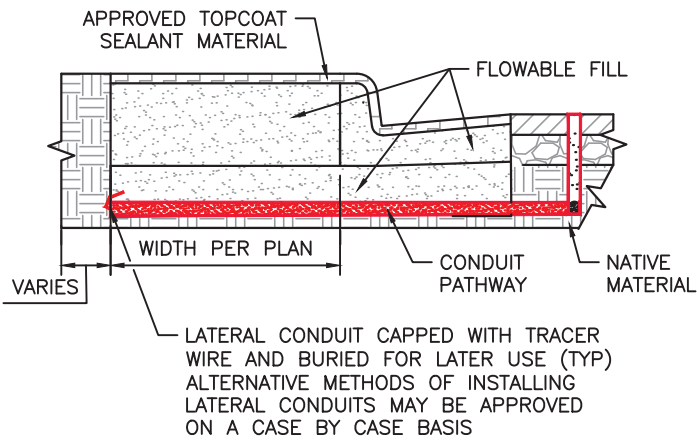
STANDARD DETAIL NO.

SD-16.3

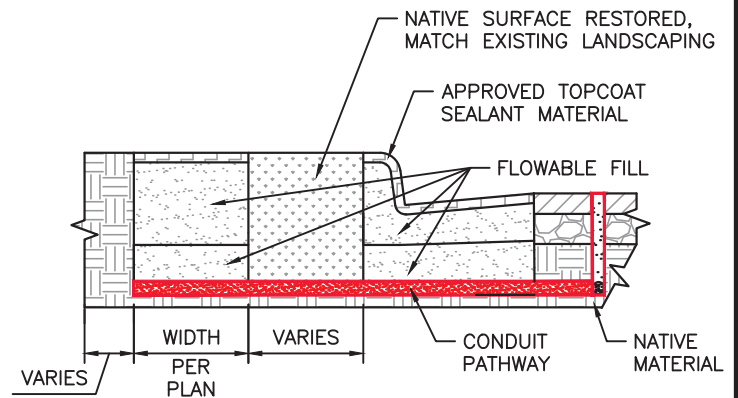
REV #	DATE	DESCRIPTION

DATE: 11/24

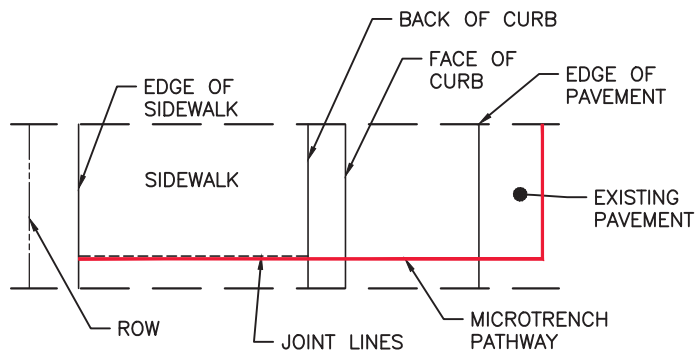
NOT TO SCALE



SECTION VIEW

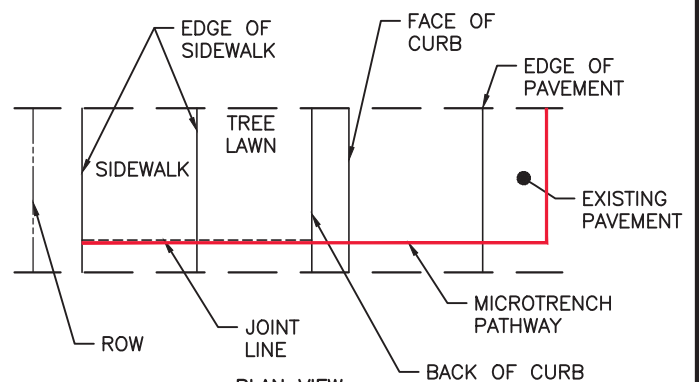


SECTION VIEW



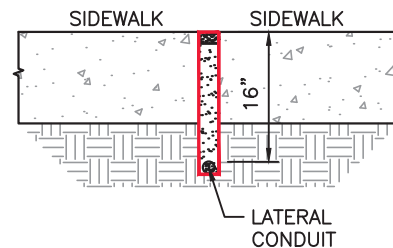
PLAN VIEW
SCALE: NTS

FULL WIDTH SIDEWALK



PLAN VIEW
SCALE: NTS

RESIDENTIAL-TYPE SIDEWALK



ELEVATION VIEW

NOTES

1. SEE SD-16.3 FOR SECTIONS.

APPROVAL:

DIRECTOR OF PUBLIC WORKS

REV #	DATE	DESCRIPTION

MICROTRENCHING SIDEWALK & CONDUIT TERMINOLOGY

DATE: 11/24

NOT TO SCALE



STANDARD DETAIL NO.

SD-16.4