CITY OF PALM DESERT STANDARD DETAILS AND DESIGN GUIDELINES

<u>INDEX - PAGE 1 OF 2</u>

GENERAL

100 ACRONYMS AND ABBREVIATIONS

101 DRAFTING STANDARDS AND TOPOGRAPHY

SYMBOLS

STREET STANDARDS

Per General Plan or Specific Plan

SIDEWALKS, DRIVEWAYS, & RAMPS

300 301	SIDEWALK MEANDERING SIDEWALK
302	DG MULTIPURPOSE TRAIL
303	RESIDENTIAL DRIVEWAY APPROACH (FOR RIGHT-OF-WAY WIDTH BEHIND CURB OF 10' OR MORE)
304	RESIDENTIAL DRIVEWAY APPROACH (FOR CONFINED RIGHT-OF-WAY)
305	COMMERCIAL DRIVEWAY
306	SINGLE CURB RAMP
307	DUAL CURB RAMP

CURB & GUTTER

400	CURB ONLY	
401	WEDGE CURB	
402	ASPHALT CONCRETE BERM	
403	CURB AND GUTTER	
404	CROSS GUTTER	
405	VALLEY GUTTER	

DRAINAGE

500	UNDER SIDEWALK DRAIN
501	UNDER SIDEWALK DRAIN (CAST IN PLACE)
502	CURB DRAIN CASE A & B
503	CURB SUPPORT DETAIL
504	GUTTER DEPRESSION FOR CURB OPENING CATCH BASINS
505	MANHOLE FRAME AND COVER (LOCAL & COLLECTOR STREETS)
506	MANHOLE FRAME AND COVER (ARTERIAL & SECONDARY STREETS)
507	STANDARD DRYWELL DETAIL
508	VALVE OPERATOR WELL INSTALLATION

<u>MEDIANS</u>

600	TYPICAL MEDIAN CONSTRUCTION
601	RESTRICTED LEFT-TURN MEDIAN OPENING
602	MEDIAN TAPER
603	MEDIAN FLARE

MONUMENTS

700	TYPE A, B, & C MONUMENTS
701	TYPE "B" MONUMENT
702	TIE-OUT STANDARDS
703	STREET CENTERLINE MONUMENT

GEOMETRICS

800	CUL-DE-SAC (SYMMETRICAL)
801	CUL-DE-SAC (ASYMMETRICAL)
802	KNUCKLE
803	UTILITY TRENCH PAVEMENT REPLACEMENT

TRAFFIC

900	TRAFFIC LOOP DETECTOR
901	TYPE P CONTROLLER ASSEMBLY DETAIL
902	TYPE R CONTROLLER ASSEMBLY DETAIL
903	INTERCONNECT PULL BOX DETAILS

CITY OF PALM DESERT STANDARD DETAILS AND DESIGN GUIDELINES

INDEX - PAGE 2 OF 2

TRAFFIC (CONTINUED)

FO-SIC ISOLATION DETAIL 904 905 IISNS MOUNTING DETAIL 906 INTERNALLY ILLUMINATED STREET NAME SIGNS STREET NAME SIGNS 907 908 STREET NAME SIGN INSTALLATION TYPICAL SIGN POST 909 910 TYPICAL MEDIAN NOSE INSTALLATION TYPICAL MEDIAN NOSE SIGN INSTALLATION 911 (2-FT NOSE)BICYCLE/GOLF CART LANE SIGNS AND PAVEMENT MARKINGS 912 GOLF CART SYMBOL FOR SIGNAGE 913 914 GOLF CART LANE SIGN 915 GOLF CART ROUTE SIGN BICYCLE/GOLF CART LANE COMBINATION SIGN 916 917 GOLF CART PAVEMENT LEGEND 918 BICYCLE DETECTOR PAVEMENT MARKING BICYCLE PAVEMENT MARKING 919 BICYCLE/GOLF CART LANE CLOSURE 920

LANDSCAPE & IRRIGATION

1000	TREE INSTALLATION
1001	SHRUB INSTALLATION
1002	PALM TREE INSTALLATION
1003	ESPALIER DETAIL
1004	BOULDER INSTALLATION
1005	MOUNDING DETAIL
1006	GROUTED COBBLESTONE MEDIAN DETAIL
1007	PARKWAY LANDSCAPE MOUNDING
1008	MEDIAN LANDSCAPE MOUNDING
1009	MEDIAN GRADING DETAIL
1010	BOULDER PLACEMENT (MEDIAN)
1011	PALM/TREE IRRIGATION DETAIL
1012	TRENCHING DETAIL
1013	CONTROLLER WITH ENCLOSURE
1014	AMBIENT LIGHT IRRIGATION CONTROLLER
1015	MASTER VALVE ASSEMBLY DETAIL
1016	BALL VALVE ASSEMBLY DETAIL
1017	END FLUSH VALVE DETAIL
1018	QUICK COUPLING VALVE
1019	ELECTRIC CONTROL VALVE (DRIP)
1020	ELECTRIC CONTROL VALVE (TURF)
1021	TYPICAL ELECTRIC CONTROL VALVE
1022	TYPICAL XERIGATION CONTROL VALVE
1023	ROTOR HEAD DETAIL
1024	TURF SPRAY DETAIL
1025	BUBBLER/EMITTER DETAIL
1026	DRIP EMITTER DETAIL
1027	
1028	TREE EMITTER

ABBREVIATION	<u>DEFINITION</u>	ABBREVIATION	<u>DEFINITION</u>
Ac.	Acre	HW	Head Wall
AASHTO	American Association of State Highway	HDM	Highway Design Manual
	and Transportation Officials	HP	High Point
ASTM	American Society for Testing and Materials	Hor.	Horizontal
Area	Area	H.G.L.	Hydraulic Grade Line
A.C.	Asphalt Concrete	I.B.M.	Imported Base Material
Ave.	Avenue	IISNS	Internally Illuminated Street Name Sign
Avg	Average	lnv.	Invert
B.C.R.	Beginning of Curb Return	I.E.	Invert Elevation
B.C.	Beginning of Curve	LS	Landscape
B.V.C.	Beginning of Vertical Curve	Lat.	Lateral
B.M.	Bench Mark	Lt.	Left
Blvd.	Boulevard	L	Length
Calc.	Calculated	Ĺ.F.	Linear Feet
CA MUTCD	California Manual on Uniform Traffic Control Devices	LP	Low Point
C.I.	Cast Iron	L.C.	Lowercase
C.B.	Catch Basin	M.H.	Manhole
C.T.B.	Cement Treated Base	M.B.	Map Book
C	Center	Max.	Maximum
<u>@</u> C−C	Centerline	M.O.C.	Middle of Curve
	Center to Center	M.O.	Middle Ordinate
Cir.	Circle	Min.	Minimum
C.O.	Cleanout	Mon	Monument
Conc.	Concrete	N.T.S.	Not to Scale
C.P.	Concrete Pipe	N.	North
Cons.	Construct	NE'ly	Northeasterly
Co.	County or Company	NW'ly	Northwesterly
Cor.	Corner	No.	Number
C.M.P.	Corrugated Metal Pipe	0.C.	On Center
C.M.P.A.	Corrugated Metal Pipe Arch	Орр.	Opposite
cu. ft.	Cubic Feet	OG	Original Ground
C.Y.	Cubic Yards	PE	Pad Elevation
Cb.	Curb	P.V.C.	Plastic Pipe (Polyvinyl Chloride)
C&G	Curb & Gutter	P.C.C.	
		Γ.Ο.Ο.	Point of Compound Curvature or
C.F.	Curb Face	D C V C	Portland Cement Concrete
C.R.	Curb Return	P.C.V.C.	Point of Compound Vertical Curve
D.G.	Decomposed Granite	P.C.	Point of Curvature
DLC	Digital Loop Carrier	P.I.G.	Point of Intersecting Gutters
Dr.	Drive	P.I.	Point of Intersection
Dwy	Driveway	P.R.C.	Point of Reverse Curvature
E.	East	P.R.V.C.	Point of Reverse Vertical Curve
E'ly	Easterly	P.T.	Point of Tangency
E.P.	Edge of Existing Paving	P.P.	Power Pole
Elev.	Elevation	P.B.	Pull Box
E.C.R.	End of Curb Return	P	Property Line
E.C.	End of Curve	Qty	Quantity
E.V.C.	End of Vertical Curve	RÍ	Radius
E.O.R.	Engineer of Record	RPM	Raised Pavement Marker
Est.	Estimate	R.S.	Record of Survey
Exc.	Excavation	R.W. Hdr.	Redwood Header
Exist	Existing	R.E.	Registered Engineer
F.B.	Field Book	R.C.B.	Reinforced Concrete Box
F.G.	Finished Grade	R.C.P.	Reinforced Concrete Pipe
F.F.E.	Finish Floor Elevation	Rt.	Right
F.H.		_	
г.п. F.L.	Fire Hydrant	R/W	Right of Way
	Flow Line	Riv.	Riverside
Ft.	Foot	Rd.	Road San Barnardina
Fd.	Found	S.B.	San Bernardino
Guy	Guy Wire of Pole	SBB&M	San Bernardino Base & Meridian
GB	Grade Break	SS	Sanitary Sewer

N.T.S.

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ACRONYMS AND ABBREVIATIONS SHEET 1 OF 2

ABBREVIATION DEFINITION

Sec. Section
SMH Sewer Manhole
S/W Sidewalk
SIC Signal Innerconnect

S. South
SE'ly Southeasterly
SW'ly Southwesterly

SW'ly Southwesterly Spec. Specifications Spike Sq. Square

Sq. Square
SS Stainless Steel
Stk. Stake
Std. Standard
Sta. Station
S.D. Storm Drain
St. Street

T.O.E. Thread One End
T.C. Top of Curb
TF Top of Footing
T.P. Top of Pavement
TW Top of Wall
Tr. Tract

TS Traffic Signal
Typ. Typical
U.C. Uppercase
Vert. Vertical
V.C. Vertical Curve

V.P.I. Vertical Point of Intersection

V.C.P. Vitrified Clay Pipe

W. West
W'ly Westerly
XING Crossing
X-Walk Crosswalk

2:1 2 Horizontal to 1 Vertical

N.T.S.

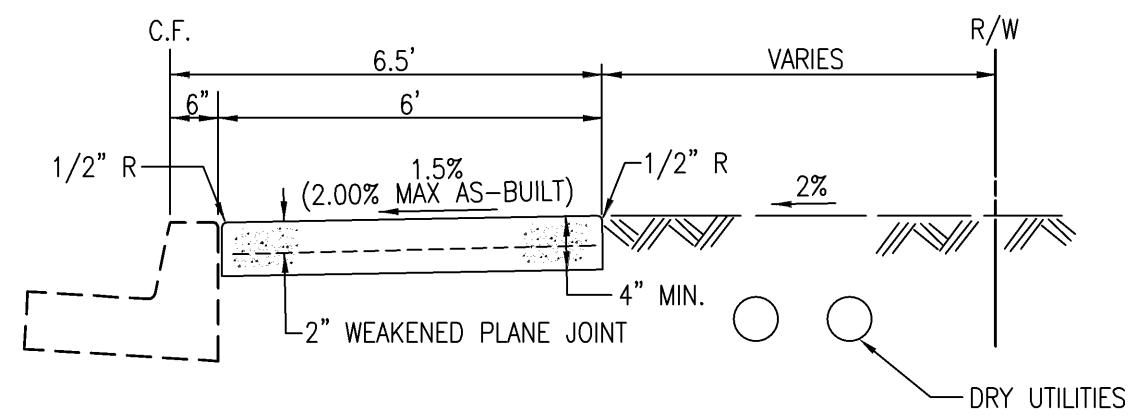
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DEPARTMENT OF PUBLIC WORKS STD NO.

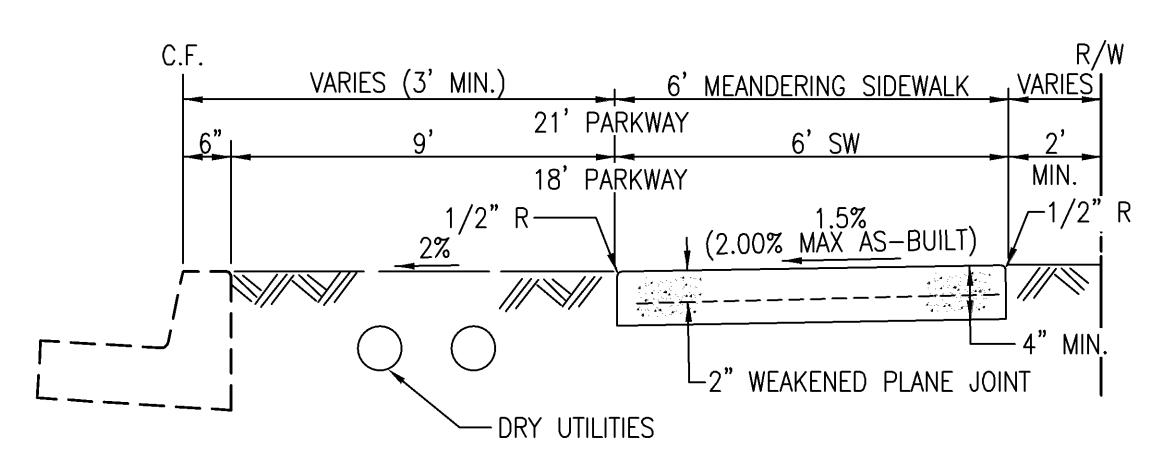
ACRONYMS AND ABBREVIATIONS
SHEET 2 OF 2

TYPICAL LEGE	END			
EASEMENT ROLLED/WEDGE CURB AND GUTT	CURB <u></u>	RIGHT-OF-WA POINT OF INT LOT LINE		
CENTERLINE		EXISTING PROPOSED	LIGHT GRA' BLACK	Y
UNDERGROUN	ID UTILITIES			
SANITARY SE		TELEPHONE COND	_	<u> </u>
WATER LINE STORM DRAIN	——W———— √ ———S.D.———	- ELECTRICAL COND - STREET LIGHTING)UIT — E — — — SL — —	
GAS LINE	G	TRAFFIC SIGNAL	—— SIG—— ——	-SIG
IRRIGATION L	INE ———IRR.——	- CABLE TELEVISION	1 ——CTV—— ——	-CTV——
TOPOGRAPHY				
	BLOCK WALL BOARD FENCE		TOP OF SLOPE TOE OF SLOPE	
—X— —X— W			- DIRECTION OF FLOW	N
	HAIN LINK FENCE		E RETAINING WALL	
	TARY SEWER M.H.	G GAS METI		
•	RM DRAIN M.H. PHONE VAULT	二∭ RAILROAD ° RAILROAD		
-	R METER	¤→ STREET L	IGHT	
	HYDRANT	⊗ VALVE	IT.	
o POLE	& GUY ANCHOR	◆ MONUMEN → STRFFT N	NI NAME SIGN	
1	FIC SIGN	■ MAIL BOX		
		CITRUS TREE		EXISTING SOIL
	CONCRETE	DECIDIOUS	TDEE OOO	GRAVEL
	ASPHALT	DECIDUOUS	IKEE MANAGEMENT	
(ASPHALT)	EDGE OF PAVEMENT	PALM TREE	•	TRAFFIC CONE
(DIRT)		FALIVI TIVEL	00	BARRICADE
	BUILDING	TREE STUMP	(DELINEATOR
	UNDERGROUND STRUCTURE	THEE STOWN		BIKE LANE SIGN
	OVERHANGING STRUCTURE	SHRUBBERY		
				N.T.S.
TY OF PALM DESE	ERT APPROVED BY:		DEPARTMENT OF PUBLIC	WORKS STD NO.
			DRAFTING STAND	ARDS
	CITY ENGINEER	DATE	AND TOPOGRAF	
	OIT LINOINLLIN	DAIL	SYMBOLS	SHEET 1 OF 2

TRAFFIC, LIGHTIN	IG, & STRIPING	G LINE STYLES			
EXISTING LANE PROPOSED LANE EXISTING LEAD—IN		PROPOSED L EXISTING LAN EXTENSION	IE		
PROPOSED LEAD-IN EXISTING LANE		PROPOSED L EXTENSION	ANE	• • • • •	
EXTENSION			JBLE CENTER		
PROPOSED LANE EXTENSION		— — PROPOSED D EXISTING PAS	OUBLE CENTER		
EXISTING LANE DROP			PASSING ZONE		
UTILITY LINE STY	'LES				
TELEVISION				— – (oh) ——	_
TELEPHONE		——————————————————————————————————————		(911)	_
TELECOM FIBER OPTIC		——————————————————————————————————————		— — (oh) —— —— (oh) ——	_
ELECTRICAL		0		— — (oh)——	
SYMBOLS					
PROPOSED	EXISTING				
		LOUVERED VISOR (LEFT-ANGLE	SHOWN - REVE	RSED FOR RIG	HT ANGLE)
•		TRAFFIC SIGNAL PULLBOX (PB)			
		STREET LIGHTING PULLBOX (SLF	PB)		
		CONTROLLER CABINET			
		UNDERGROUND SERVICE CABINE	Т		
0		TRAFFIC SIGNAL POLE			
	<>>-	VEHICLE SIGNAL HEAD WITH NO			
◆ +	<>+-	VEHICLE SIGNAL HEAD WITH BAC			
	$\langle 1 \rangle + -$	PROGRAMMED VISIBILITY VEHICLE	•	,	
		SIGNAL VEHICLE HEAD WITH ALL (REVERSE DIRECTION OF ARROW	FOR LEFT OR	RIGHT TURNS)	
		PEDESTRIAN SIGNAL HEAD			
	———————————————————————————————————	SIGNAL AND LUMINAIRE MAST AF 3-12" SECTIONS WITH BACK PL	RMS WITH VEHIC _ATE	LE SIGNAL HEA	AD,
'	Ϋ́	MAST ARM WITH VEHICLE SIGNAL			
	V	TRAFFIC SIGNAL POLE WITH VEH	HICLE SIGNAL AN	D PEDESTRIAN	HEADS
	χ	TRAFFIC SIGNAL POLE WITH LUN		RM	
		RETRO-REFLECTIVE MAST ARM I			
		INTERNALLY ILLUMINATED MAST	ARM MOUNTED S	SIGN	
\bigcirc		INDUCTIVE LOOP DETECTOR			
		BICYCLE LOOP DETECTOR			
		VIDEO DETECTION CAMERA VIDEO DETECTION ZONE			
W.C.	< w.c.>—	WIRELESS RADIO ANTENNA			
₹ ₹	573	FLASHING BEACON			N.T.S.
CITY OF PALM DESERT	APPROVED BY:		DEPARTMENT OF	PLIBLIC WORKS	
			DEI /IIVIIVIEIVI OI	1 ODLIG HOIMS	315 110.
			DRAFTING S	STANDARDS	
		D A TC	AND TOP		1()1
	CITY ENGINEER	DATE	SYME	SUL5	SHEET 2 OF 2



CURB ADJACENT SIDEWALK



MEANDERING SIDEWALK

NOTES:

- 1. ALL CONCRETE SHALL BE 560-C-3250 WITH CURING COMPOUND.
- 2. MINIMUM 4-FT CLEARANCE FOR ACCESSIBILITY PATH THROUGHOUT SIDEWALK.
- 3. ALL SIDEWALKS SHALL BE A MINIMUM THICKNESS OF 4".
- 4. SPECIFIC CONSTRUCTION DETAILS SHALL BE PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION MANUAL.
- 5. EXPANSION PAPERS & WEAKENED PLANE JOINTS TO MATCH CURB & GUTTER.
- 6. MEET CURRENT ADA STANDARD. CROSS SLOPE OF SIDEWALKS SHALL BE MINIMUM OF 2% OR AS SPECIFIED BY STATE AND FEDERAL ACCESSIBILITY GUIDELINES, WHICHEVER MORE RESTRICTIVE.
- 7. LONGITUDINAL GRADE SHALL MEET CURRENT STATE AND LOCAL ACCESSIBILITY STANDARDS. LONGITUDINAL SLOPES OF MORE THAN 8% ARE SUBJECT TO THE CITY ENGINEER APPROVAL.
- 8. REMOVAL AND REPLACEMENT SHALL BE DONE TO THE NEAREST JOINT.

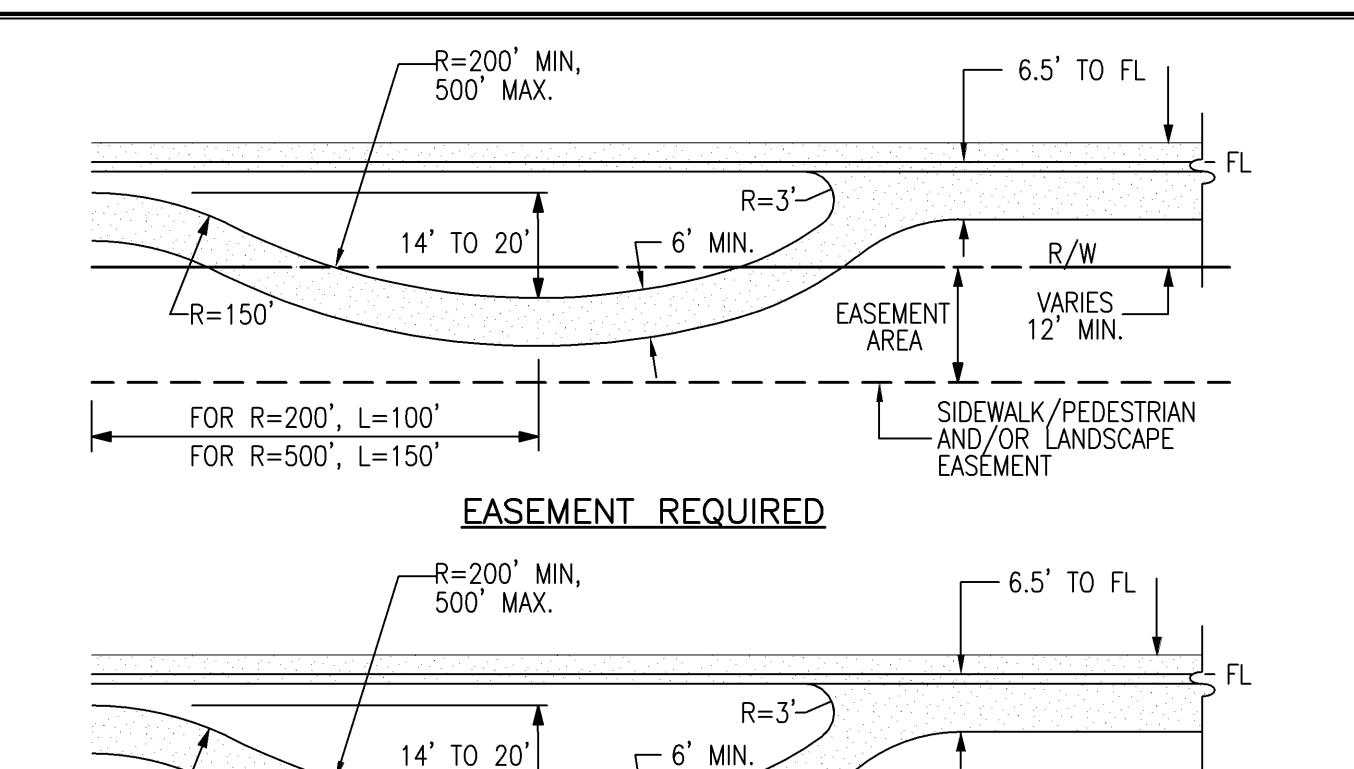
CITY OF PALM DESERT APPROVED BY:

CITY ENGINEER DATE

N.T.S.

DEPARTMENT OF PUBLIC WORKS STD NO.

SIDEWALK 300



EASEMENT NOT REQUIRED

NOTES:

- 1. ALL CONCRETE SHALL BE 560-C-3250 WITH CURING COMPOUND.
- 2. MINIMUM 4-FT CLEARANCE FOR ACCESSIBILITY PATH THROUGHOUT SIDEWALK.
- 3. ALL SIDEWALKS SHALL BE A MINIMUM THICKNESS OF 4".

FOR R=200', L=100'

FOR R=500', L=150'

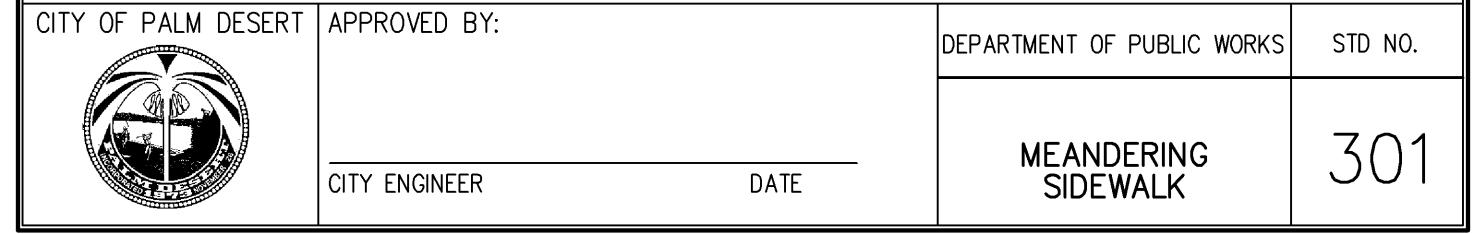
 \angle R=150'

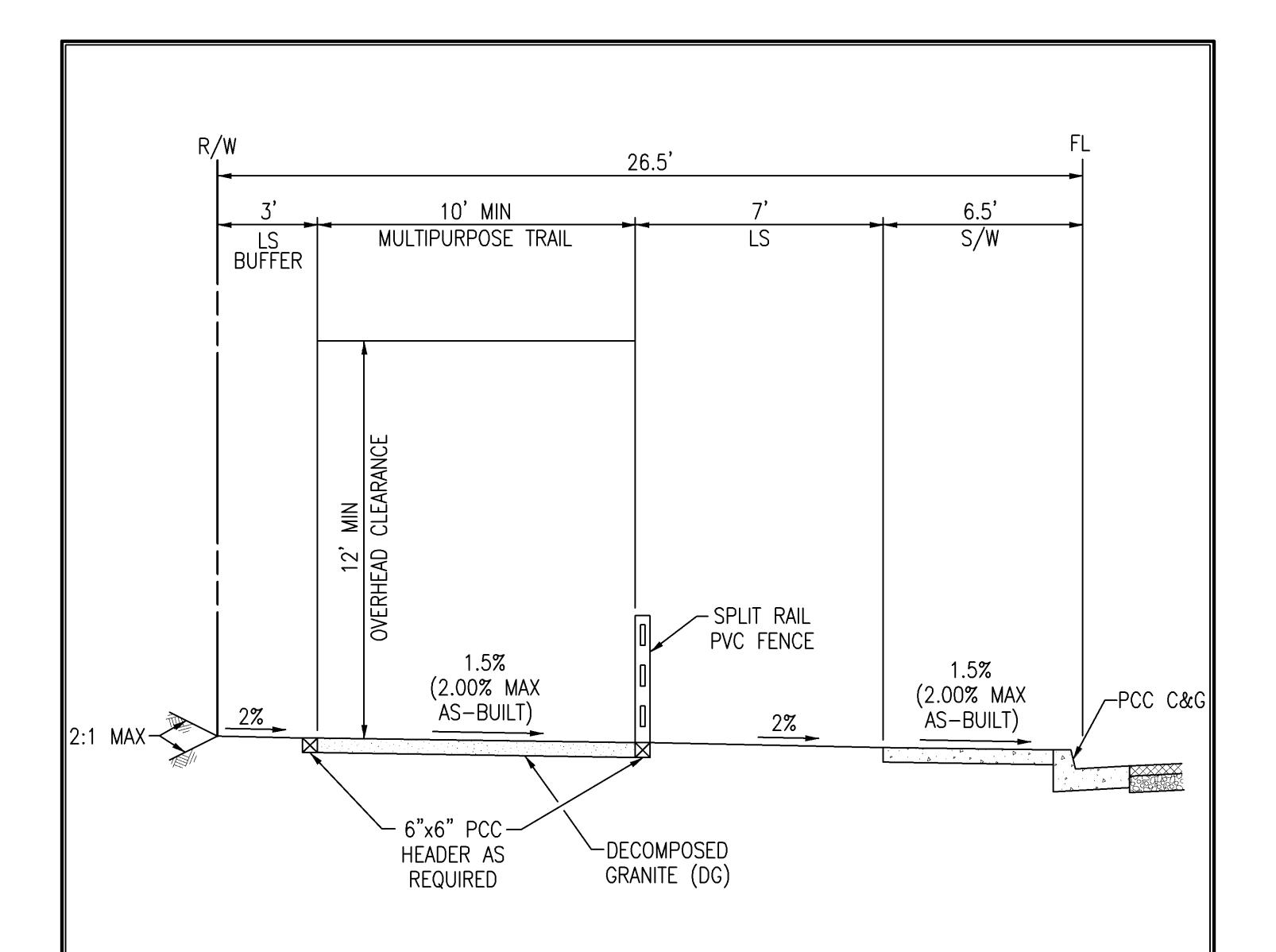
- 4. DIMENSIONS OF MEANDERING SIDEWALK AS SPECIFIED ON APPROVED IMPROVEMENT PLANS.
- 5. SPECIFIC CONSTRUCTION DETAILS SHALL BE PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION MANUAL.
- 6. EXPANSION PAPERS & WEAKENED PLANE JOINTS TO MATCH CURB & GUTTER.
- 7. MEET CURRENT ADA STANDARD. CROSS SLOPE OF SIDEWALKS SHALL BE MINIMUM OF 2% OR AS SPECIFIED BY STATE AND FEDERAL ACCESSIBILITY GUIDELINES, WHICHEVER MORE RESTRICTIVE.
- 8. LONGITUDINAL GRADE SHALL MEET CURRENT STATE AND LOCAL ACCESSIBILITY STANDARDS. LONGITUDINAL SLOPES OF MORE THAN 8% ARE SUBJECT TO THE CITY ENGINEER APPROVAL.
- 9. CURB SHALL BE PER STANDARD DRAWING NO. 400 OR 403. PROVIDE EXPANSION JOINT EVERY 10-FT.
- 10. REMOVAL AND REPLACEMENT SHALL BE DONE TO THE NEAREST JOINT.

N.T.S.

R/W

VARIES -

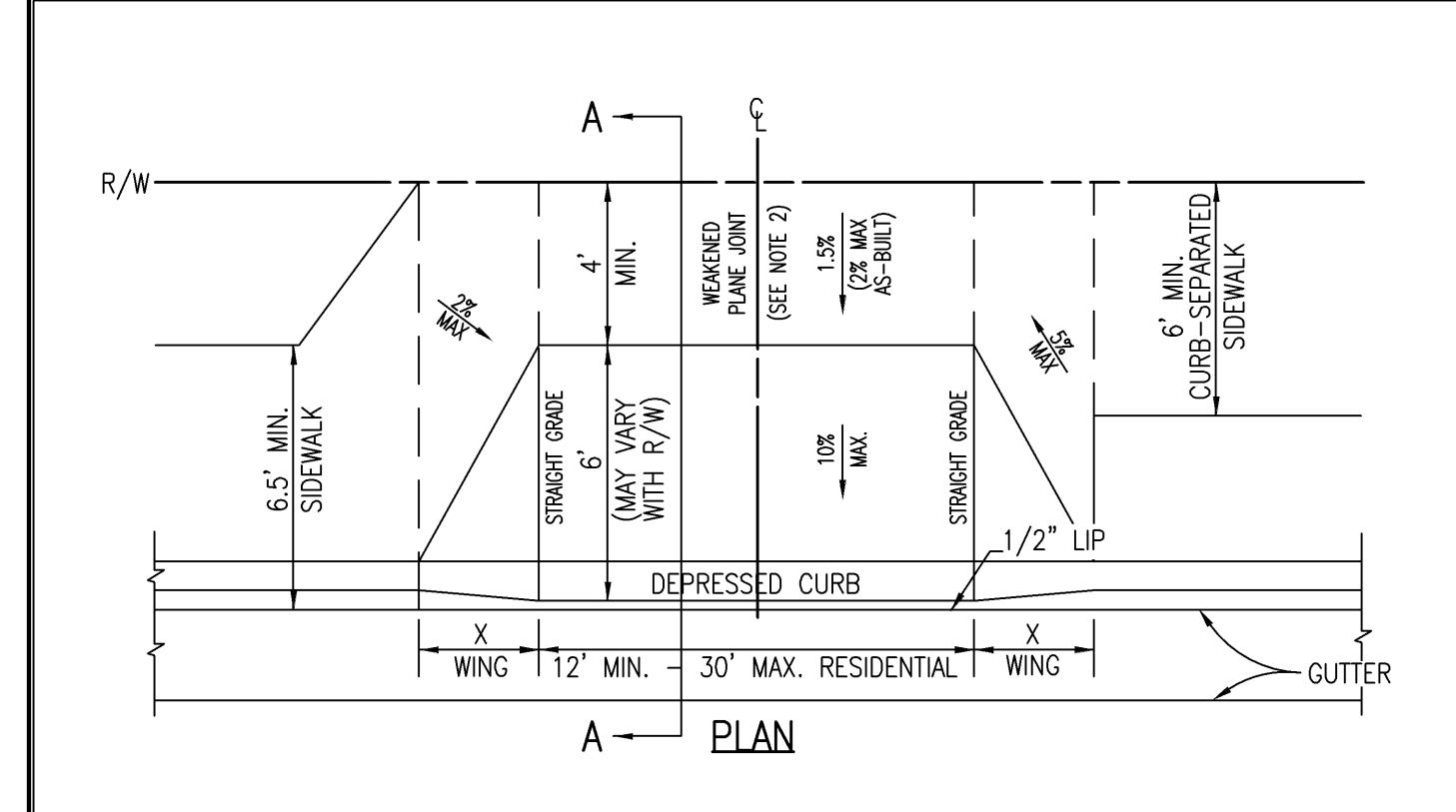


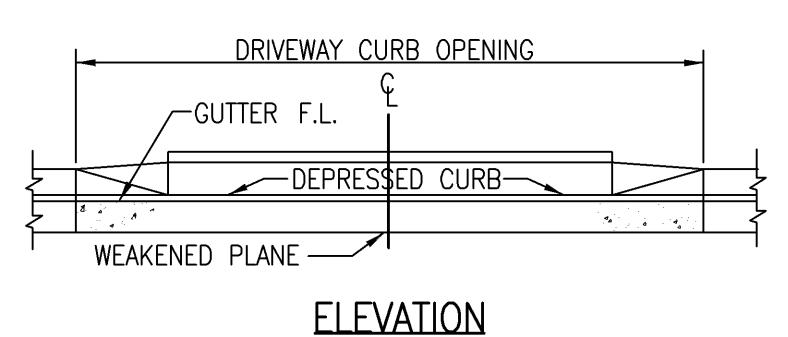


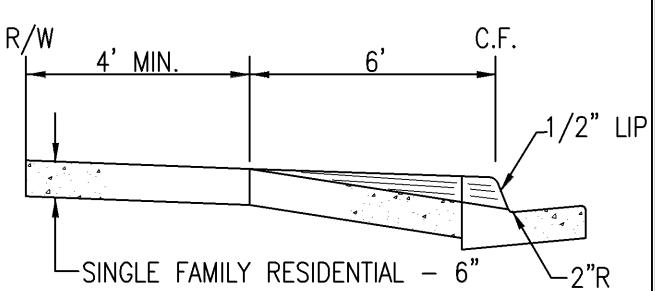
NOTES:

- 1. OMIT FENCE WITHIN SIGHT DISTANCE OF RESTRICTED USE AREAS.
- 2. TRAIL AND FENCE TO BE CONSTRUCTED PER LATEST DETAILS.
- 3. FOR TRAIL AND FENCE DETAILS, REFER TO THE COUNTY OF RIVERSIDE COMPREHENSIVE LANDSCAPE GUIDELINES AND STANDARDS.
- 4. DECOMPOSED GRANITE SHALL BE STABILIZED WITH CEMENT OR OTHER APPROVED METHOD.

				N.T.S.
CITY OF PALM DESERT	APPROVED BY:		DEPARTMENT OF PUBLIC WORKS	STD NO.
	CITY ENGINEER	DATE	DG MULTIPURPOSE TRAIL	302







SECTION "A-A"

NOTES:

1. ALL CONCRETE SHALL BE 560-C-3250 WITH CURING COMPOUND.

<	6" C.F.	8" C.F.
^	3'	4'

- 2. WEAKENED PLANE JOINTS REQUIRED ON DRIVEWAY © FOR DRIVEWAYS 12' TO 20' WIDE, DRIVEWAYS WIDER THAN 20' SHALL HAVE TWO WEAKENED PLANE JOINTS EVENLY SPACED. (OR 10' MIN.)
- 3. GRADE TO CONTROL DRIVEWAY DESIGN (OVER DISTANCE) IN ORDER TO PROVIDE UNINTERRUPTED ADA PATH OF TRAVEL

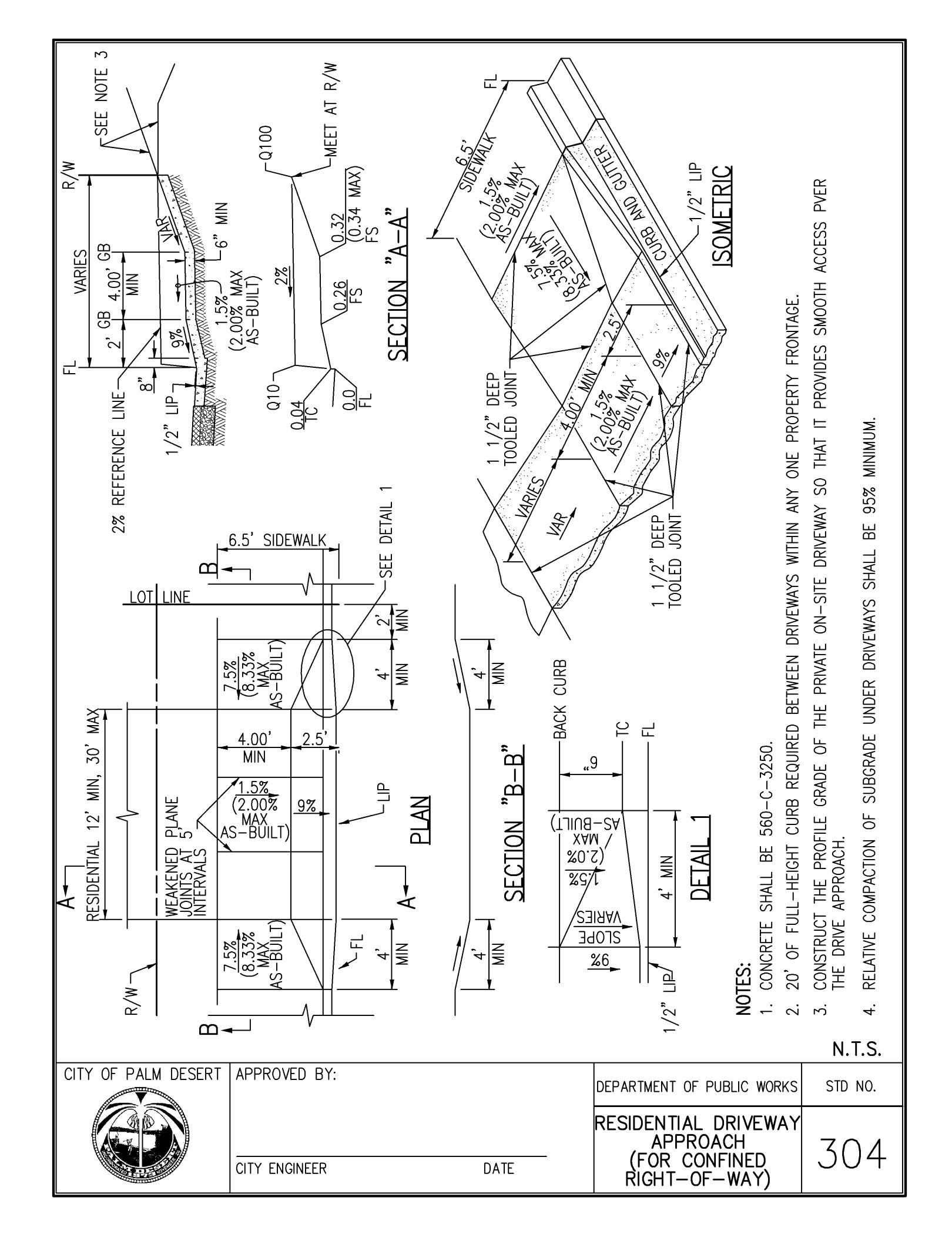
CITY OF PALM DESERT APPROVED BY:

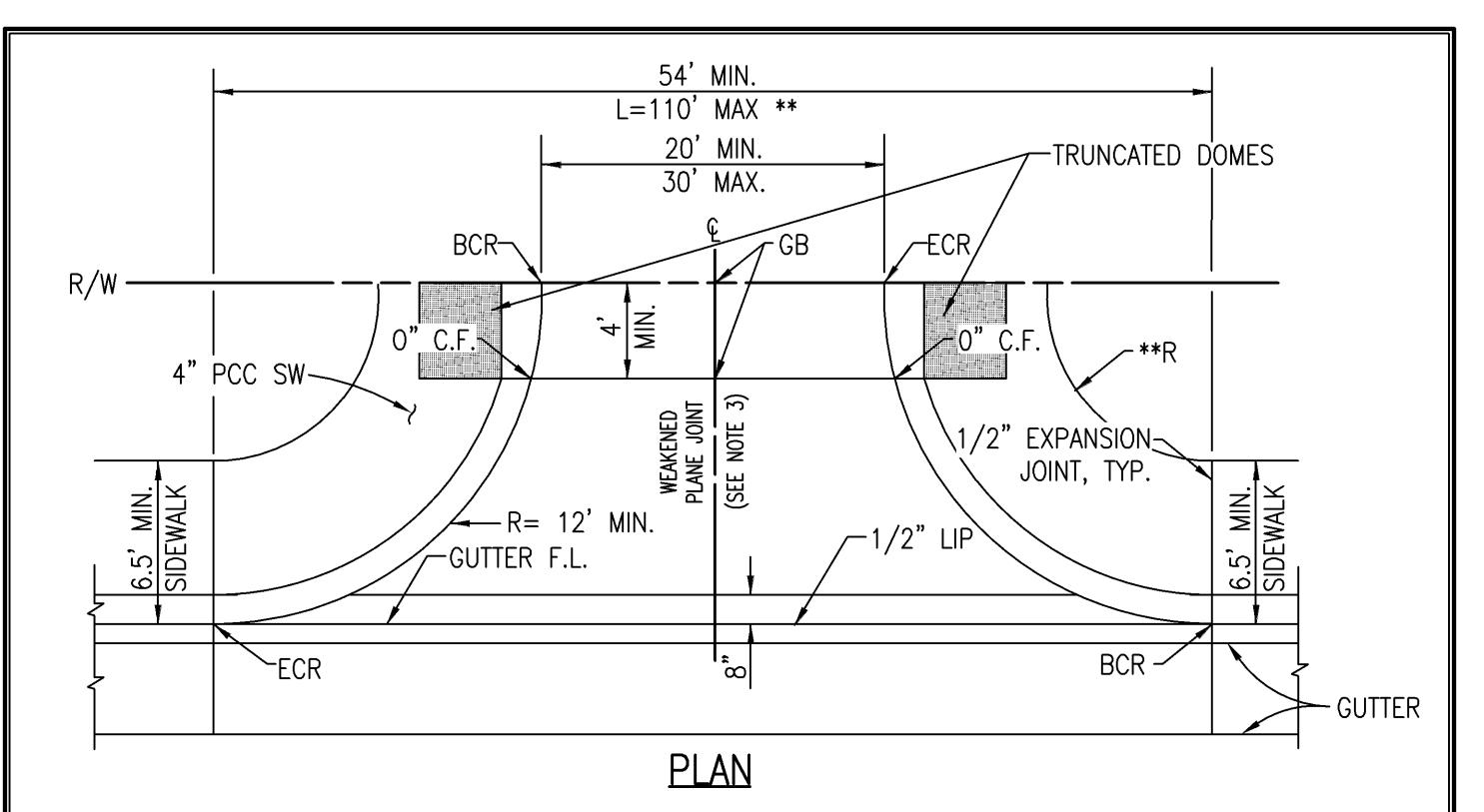
CITY ENGINEER

DEPARTMENT OF PUBLIC WORKS STD NO.

RESIDENTIAL DRIVEWAY (FOR RIGHT-OF-WAY WIDTH BEHIND CURB OF 10' OR MORE)

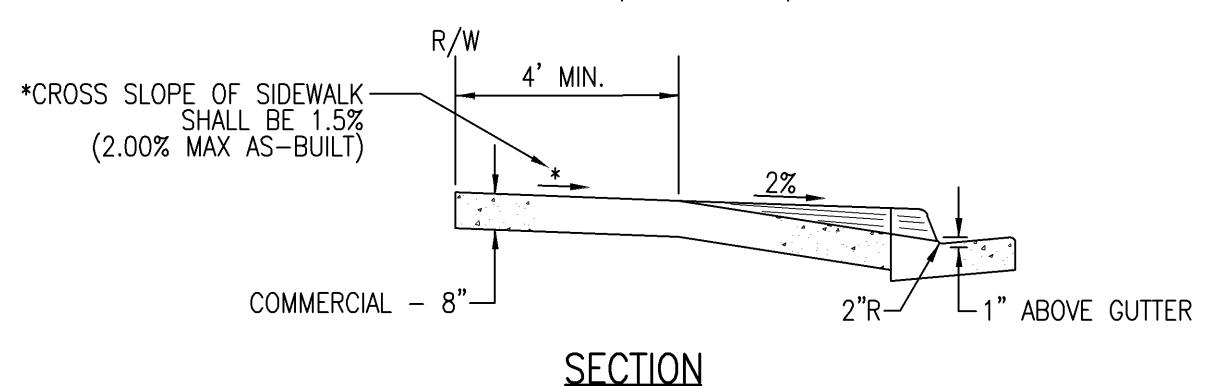
303





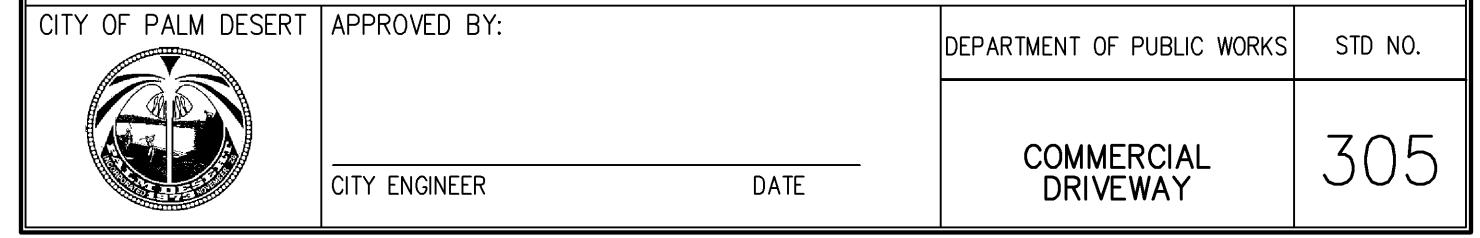
R=15' MIN TO 35' MAX

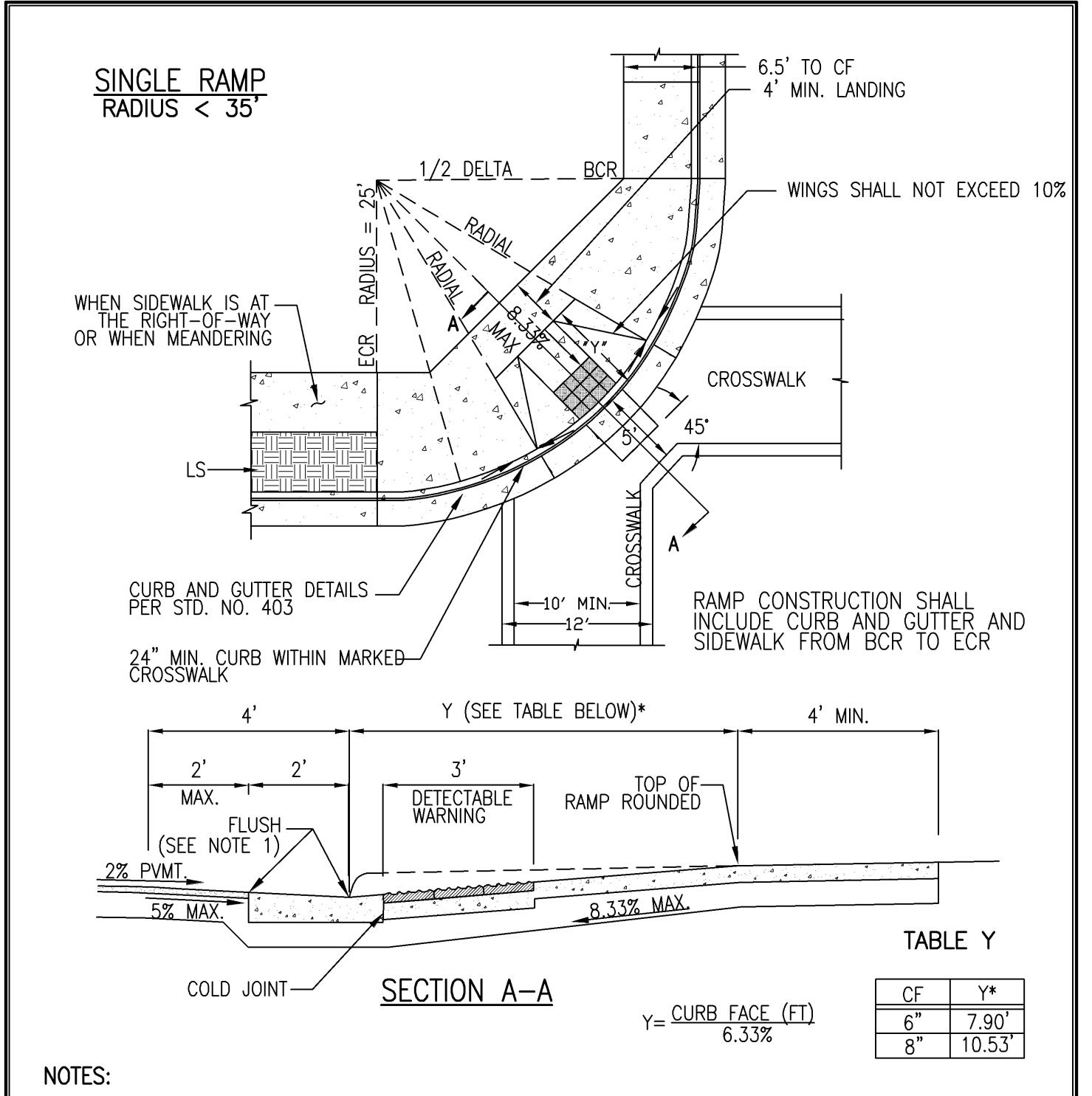
** SERVICE ENTRANCES ONLY; L=140' MAX, R=50' MAX



NOTES:

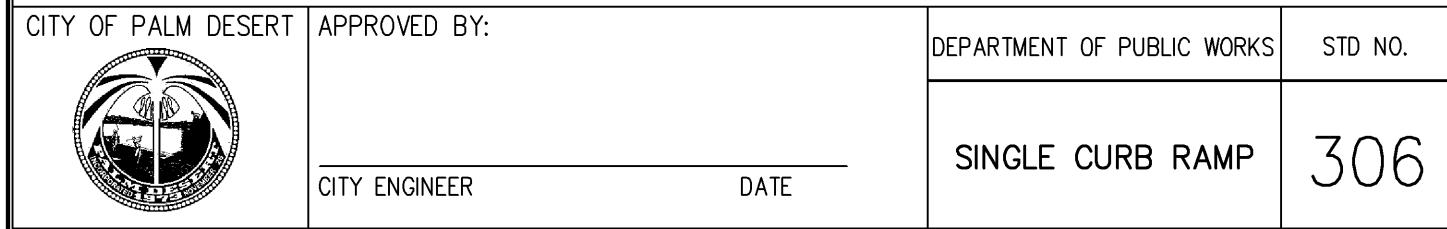
- 1. MINIMUM REQUIRED DISTANCE BETWEEN DRIVEWAYS IN COMMERCIAL ZONE PER CITY OF ENGINEER APPROVAL.
- 2. ALL CONCRETE SHALL BE 560-C-3250.
- 3. WEAKENED PLANE JOINTS REQUIRED ON DRIVEWAY © FOR DRIVEWAYS 12' TO 20' WIDE, DRIVEWAYS WIDER THAN 20' SHALL HAVE TWO WEAKENED PLANE JOINTS EVENLY SPACED. (MIN. 10' APART)
- 4. COMMERCIAL DRIVEWAYS PROPOSING/REQUIRING AN ENTRANCE MEDIAN: MEDIAN SHALL BE LOCATED BEHIND PROPERTY/RIGHT-OF-WAY LINE. DRIVEWAY DESIGN IS SUBJECT TO THE CITY ENGINEER APPROVAL.
- 5. TRUNCATED DOMES SHALL BE CAST-IN-PLACE, REPLACEABLE, FEDERAL YELLOW IN COLOR.

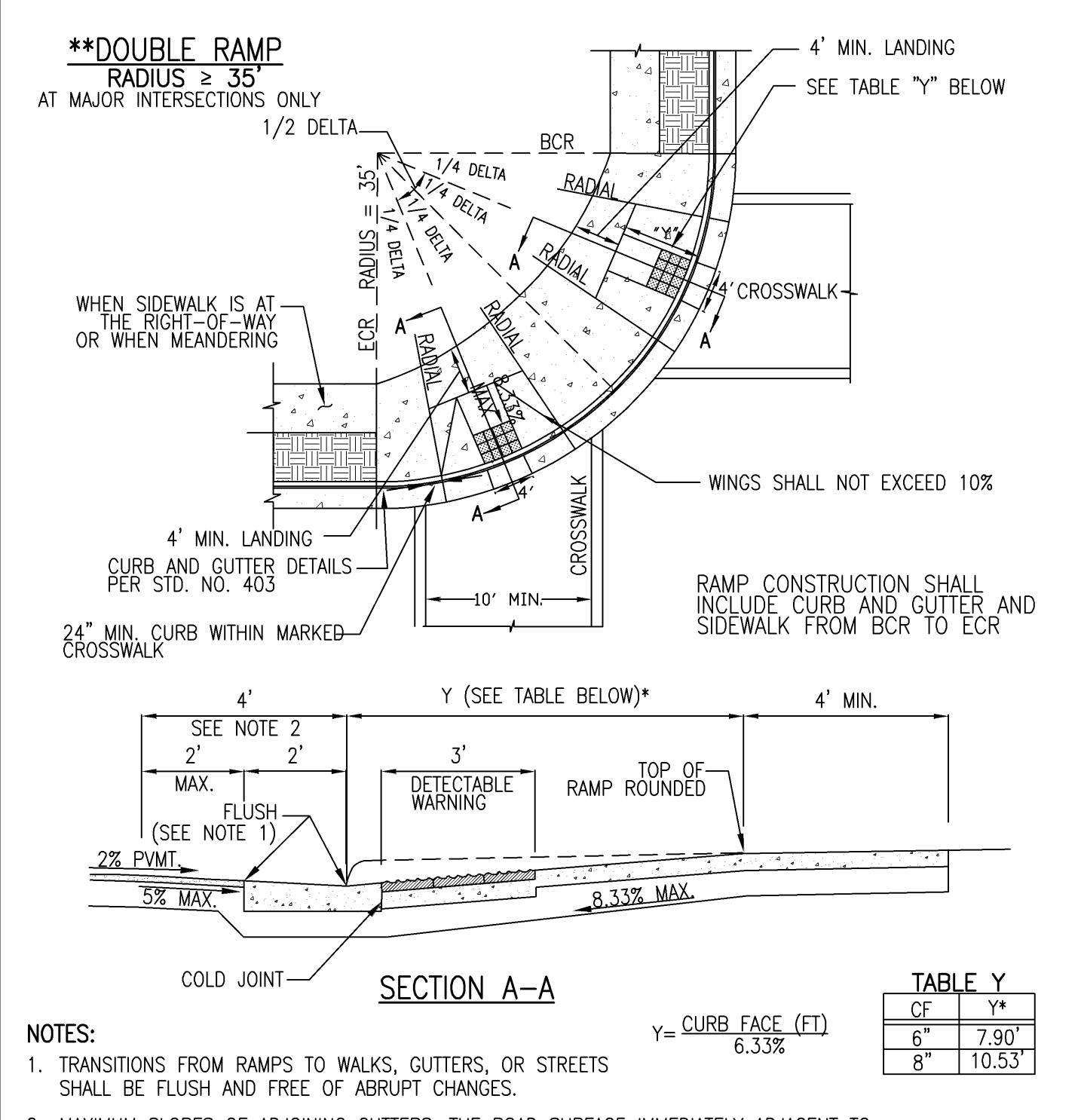




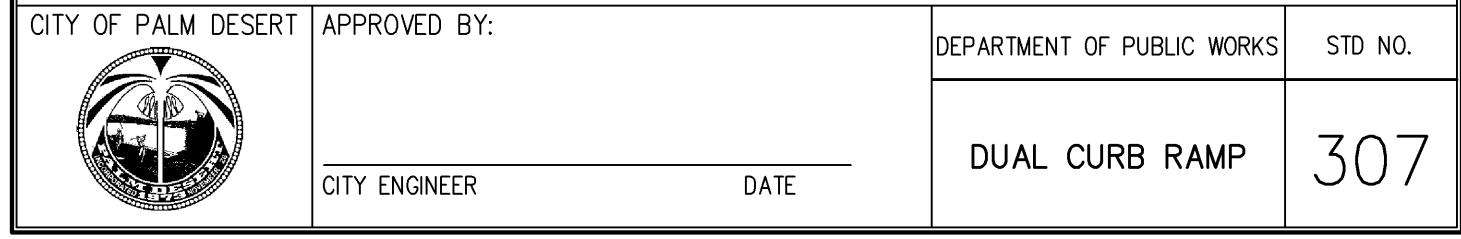
- 1. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
- 2. TRUNCATED DOMES SHALL BE CAST-IN-PLACE, REPLACEABLE, FEDERAL YELLOW IN COLOR.
- 3. MODIFICATION TO MEET CURRENT ADA STANDARDS MAY BE REQUIRED BY THE CITY ENGINEER.

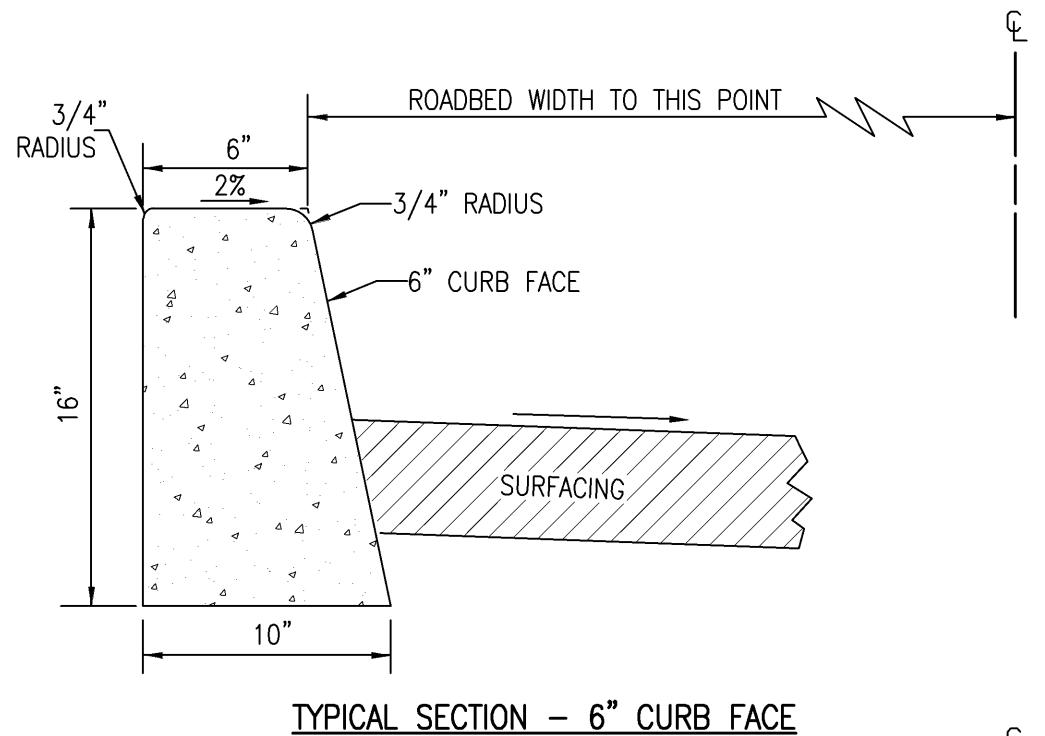
* 'Y' SHALL NOT EXCEED 10.53', UNLESS APPROVED BY THE CITY ENGINEER

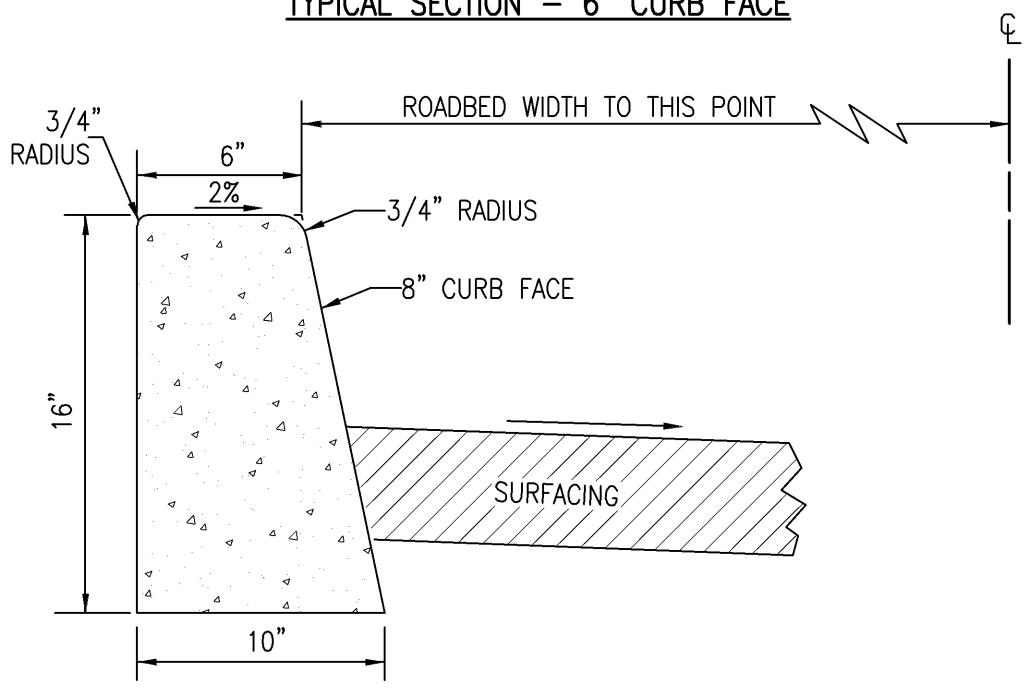




- 2. MAXIMUM SLOPES OF ADJOINING GUTTERS: THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP AND CONTINUOUS PASSAGE TO THE CURB RAMP SHALL NOT EXCEED 5% WITHIN 4 FEET OF THE BOTTOM OF THE CURB RAMP.
- 3. TRUNCATED DOMES SHALL BE CAST-IN-PLACE, REPLACEABLE, FEDERAL YELLOW IN COLOR.
 - * 'Y' SHALL NOT EXCEED 10.53', UNLESS APPROVED BY THE CITY ENGINEER
 - ** ELIMINATE ONE RAMP IF NO FUTURE PATH OF TRAVEL EXISTS







TYPICAL SECTION - 8" CURB FACE

NOTES:

- 1. ALL CONCRETE SHALL BE 560-C-3250 WITH CURING COMPOUND.
- 2. CU. YD. = 30.41 L.F. 8" CURB
- 3. 0.888 CU. FT./LF.
- 4. WEAKENED PLANE JOINT EVERY 10' O.C.
- 5. EXPANSION PAPER REQUIRED EVERY 50', AT THE TOPS OF DRIVEWAY X's, AND AT ECR's & BCR's.
- 6. REMOVAL AND REPLACEMENT SHALL BE DONE TO THE NEAREST JOINT.

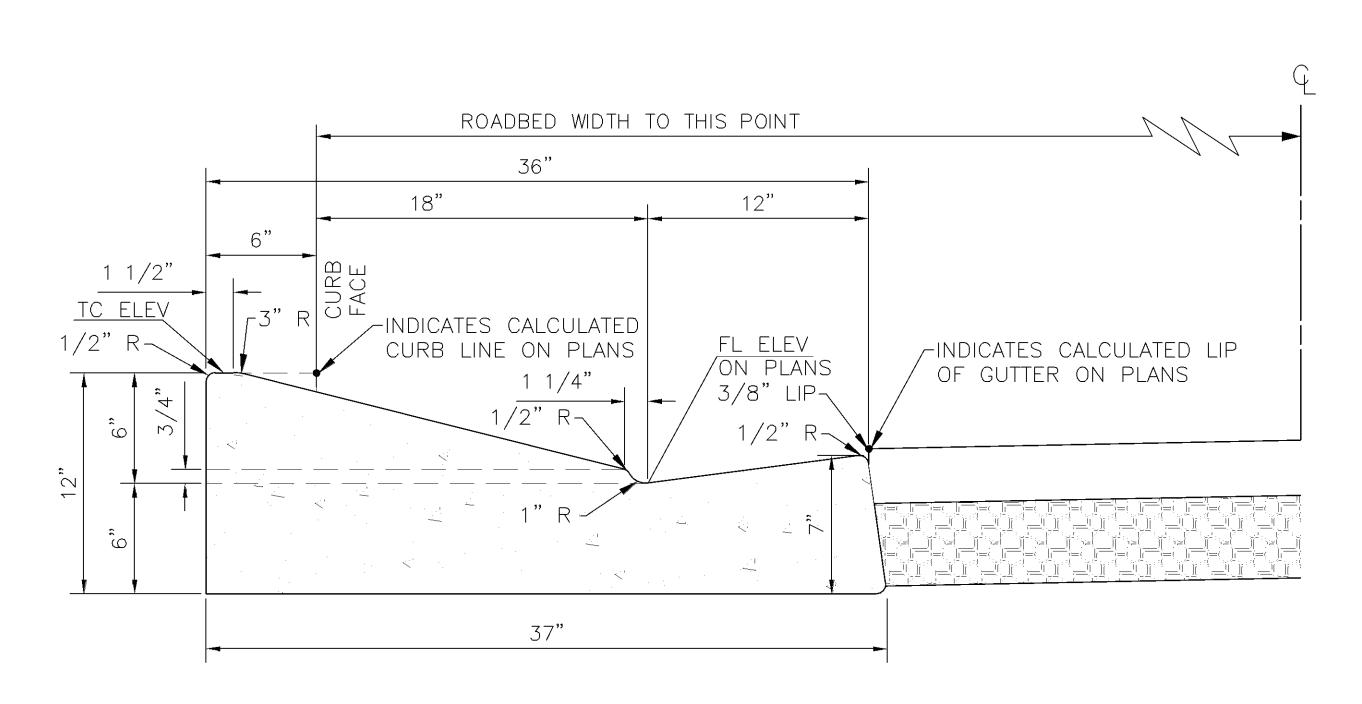
N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

CITY ENGINEER DATE

DEPARTMENT OF PUBLIC WORKS STD NO.



WEDGE CURB

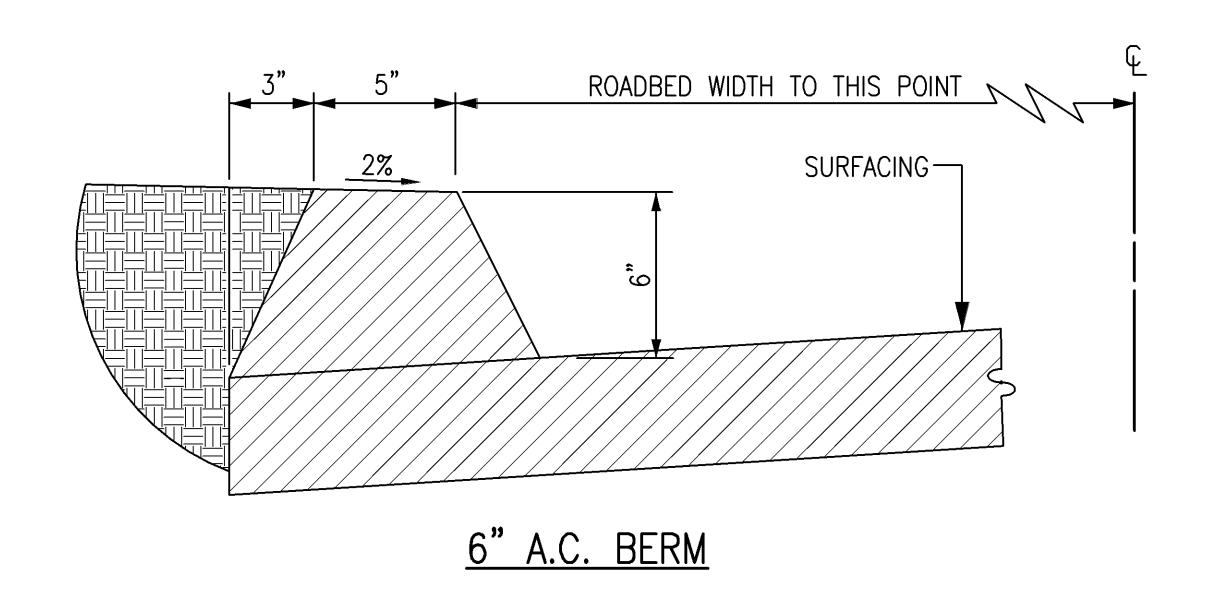
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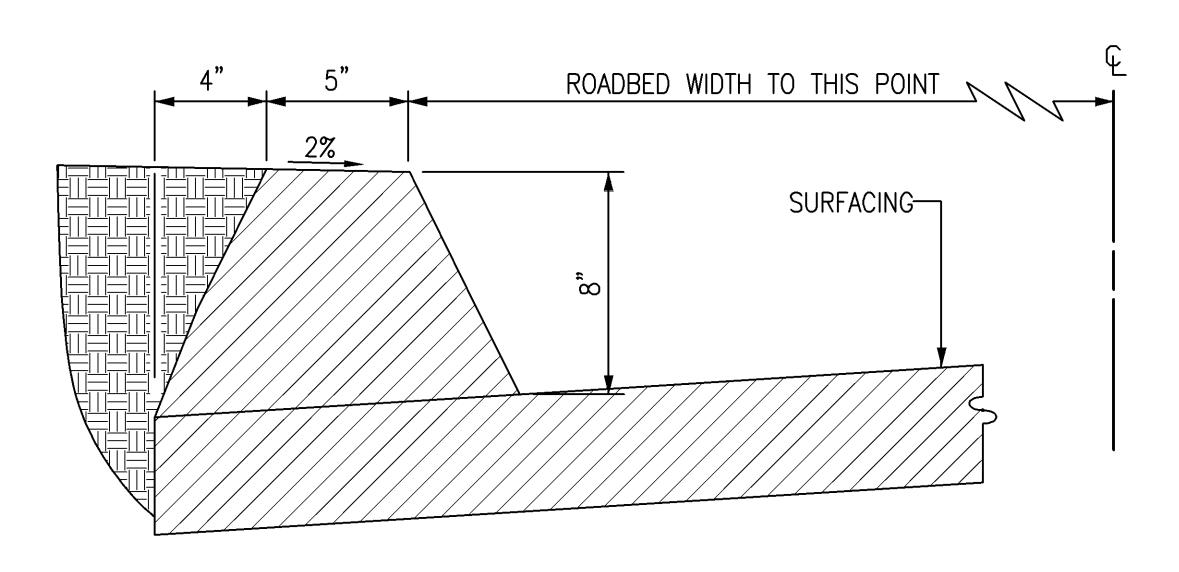
- 1. ALL CONCRETE SHALL BE 560-C-3250 WITH CURING COMPOUND
- 2. CU. YD. = 16.21 L.F.
- 3. RELATIVE COMPACTION OF SUBGRADE UNDER CURB AND GUTTER SHALL BE 95% MIN.
- 4. WEAKEND PLANE JOINT EVERY 10' O.C.
- 5. EXPANSION PAPER REQUIRED EVERY 50', AND AT ECR'S AND BCR'S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

WEDGE CURB 401





8" A.C. BERM

NOTES:

1. A.C. BERM REQUIRED WHERE FILL SLOPES ARE STEEPER THAN 4:1, MATERIAL IS SUSCEPTIBLE TO EROSION, OR WHERE ROADWAY GRADIENT EXCEEDS 3%.

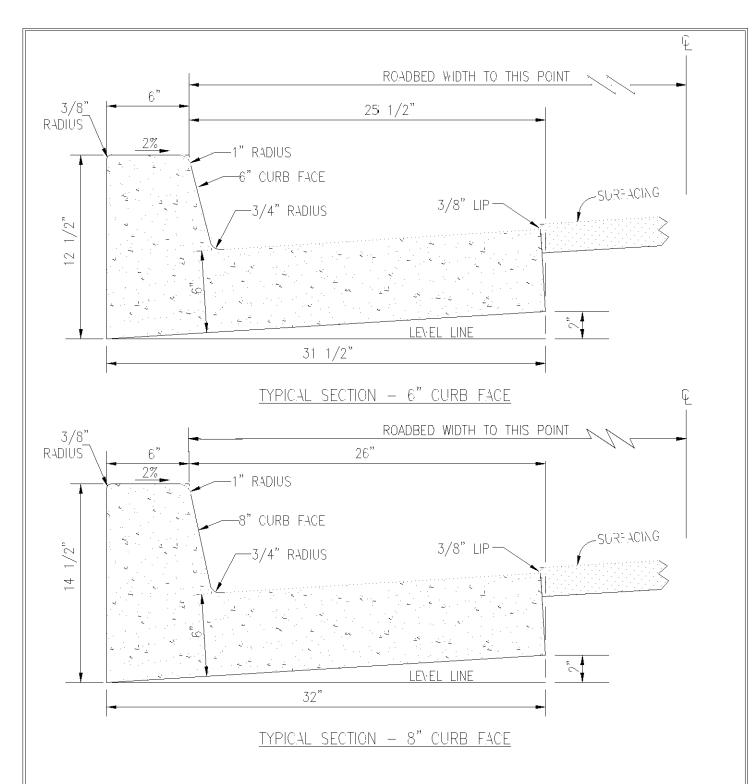
CITY OF PALM DESERT APPROVED BY:

CITY ENGINEER DATE

N.T.S.

DEPARTMENT OF PUBLIC WORKS STD NO.

ASPHALT CONCRETE BERM 402



NOTES:

- 1. ALL CONCRETE SHALL BE 560-C-3250 WITH CURING COMPOUND.
- 2. WEAKENED PLANE JOINT EVERY 10' O.C.
- 3. REMOVAL AND REPLACEMENT SHALL BE DONE TO THE NEAREST JOINT.
- 4. CURB FACE SHALL BE AS SPECIFIED ON PLANS.
 - 5. EXPANSION PAPER REQUIRED EVERY 50', AT THE TOPS OF DRIVENIAY X's, AND AT ECR's & BCR's.

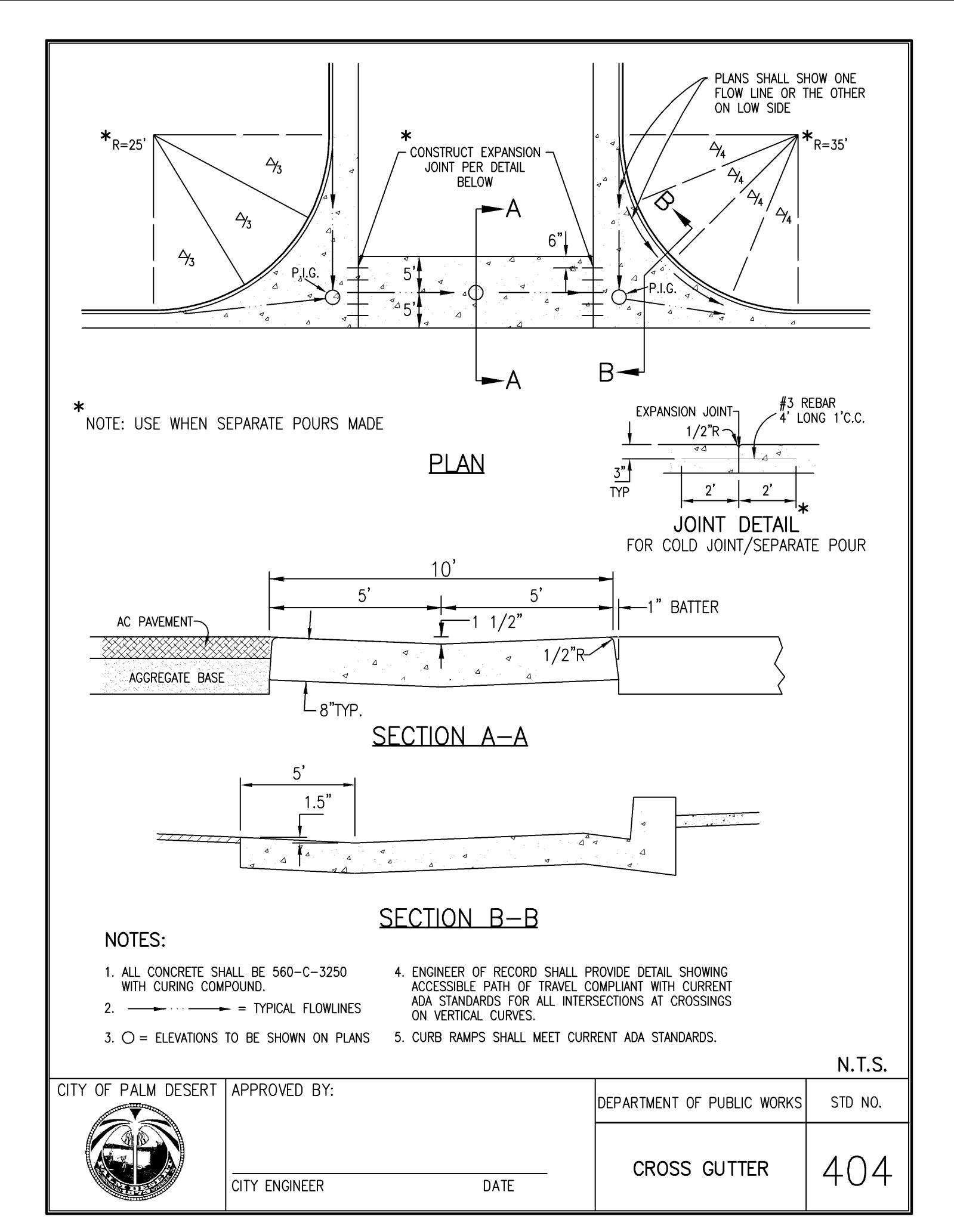
N.T.S.

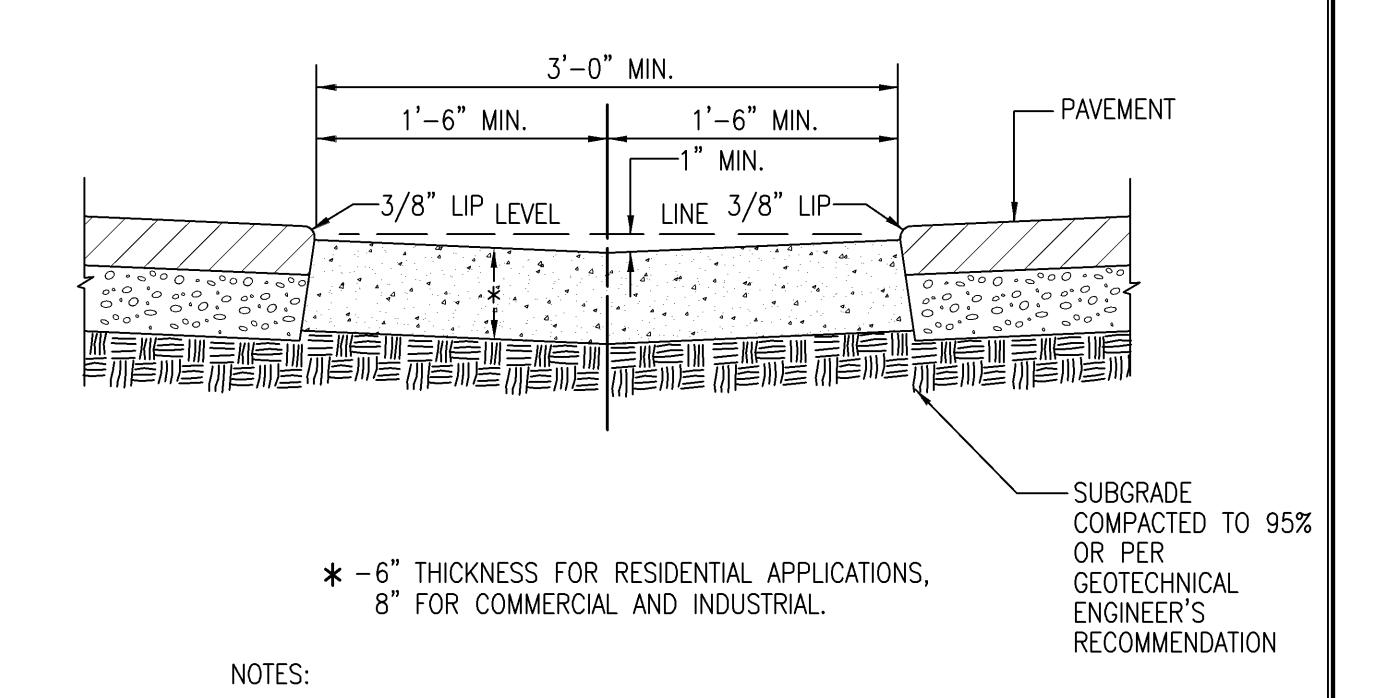
CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

CITY ENGINEER DATE

CURB AND GUTTER 403





1. ALL CONCRETE SHALL BE 560-C-3250 WITH CURING COMPOUND.

DATE

N.T.S.

STD NO.

DEPARTMENT OF PUBLIC WORKS

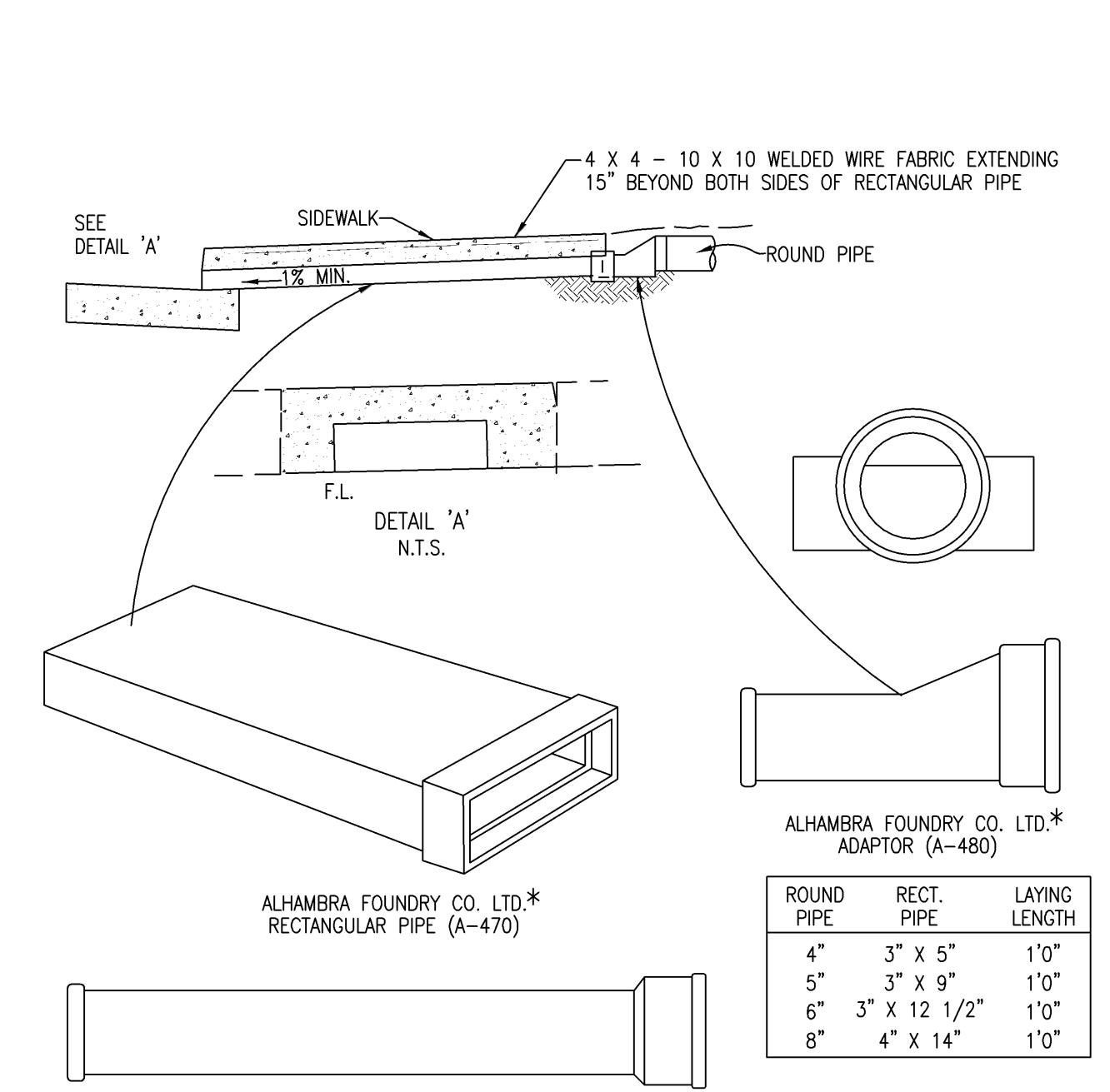
VALLEY GUTTER

2. WEAKENED PLANE JOINTS EVERY 10' O.C.

3. EXPANSION PAPER REQUIRED EVERY 50'.

CITY OF PALM DESERT APPROVED BY:

CITY ENGINEER



OUTSIDE PIPE	OUTSIDE HUBS	TRANSVERSE AREA – NET	LAYING LENGTH
3" X 5"	4 1/4" X 6 1/4"	11.25 SQ. IN.	5'0"
3" X 5"	4 1/4" X 6 1/4"	11.25 SQ. IN.	2'6"
3" X 9"	4 1/4" X 10 1/4"	21.20 SQ. IN.	5'0"
3" X 12 1/2"	4 1/4" X 14"	30.00 SQ. IN.	5'0"
3" X 12 1/2"	4 1/4" X 14"	30.00 SQ. IN.	2'6"
4" X 14"	5 1/4" X 15 1/4"	47.50 SQ. IN.	5'0"
4" X 14"	5 1/4" X 15 1/4"	47.50 SQ. IN.	2'6"

* ALTERNATIVE SYSTEMS MAY BE UTILIZED. USE OF ANY OTHER SYSTEM IS SUBJECT TO REVIEW AND APPROVAL BY THE CITY ENGINEER.

N.T.S.

CITY OF PALM DESERT APPROVED BY:



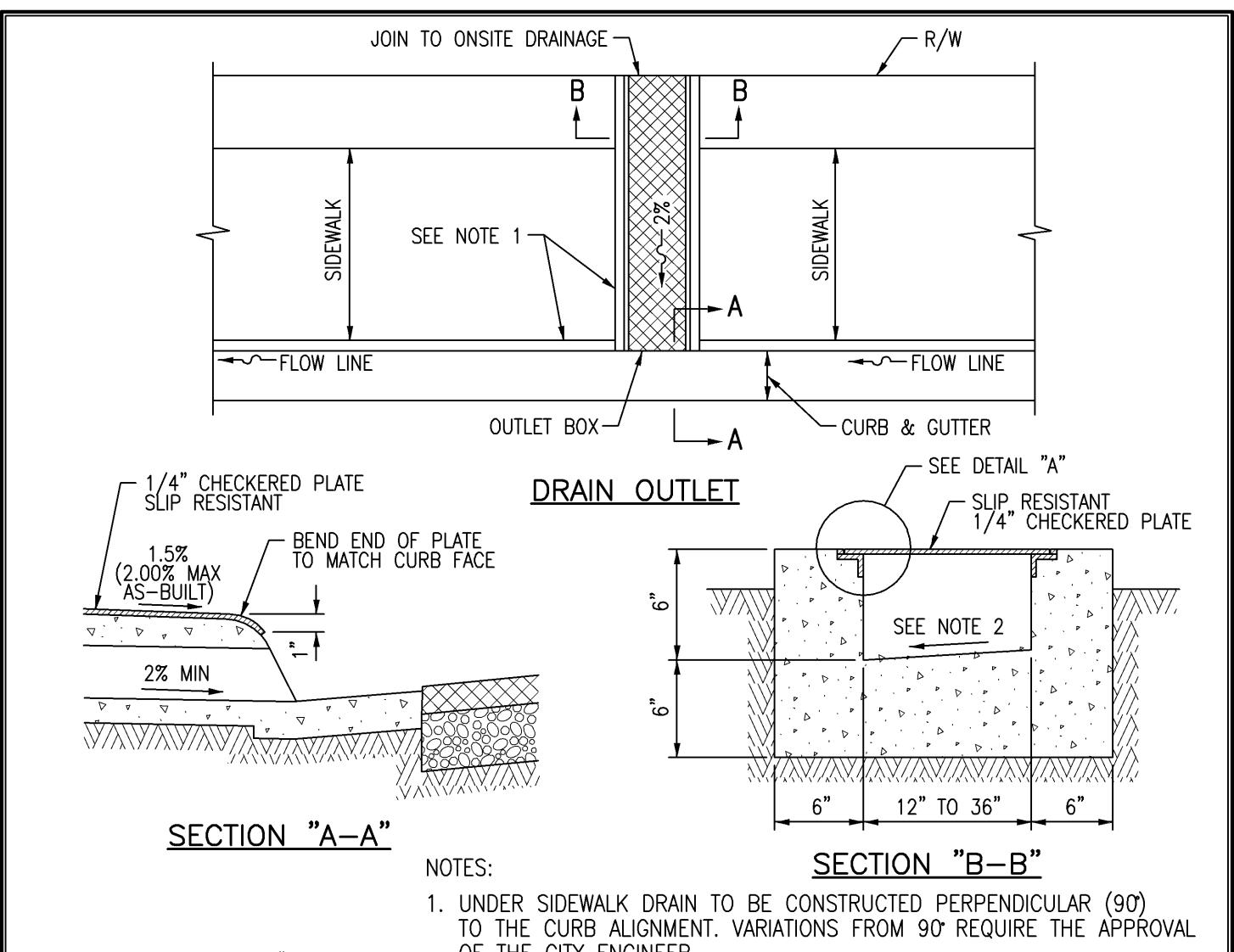
DEPARTMENT OF PUBLIC WORKS

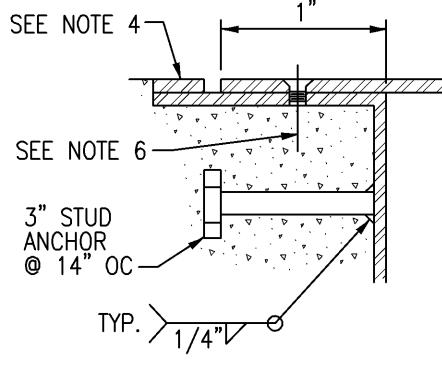
STD NO.

CITY ENGINEER

DATE

UNDER SIDEWALK DRAIN



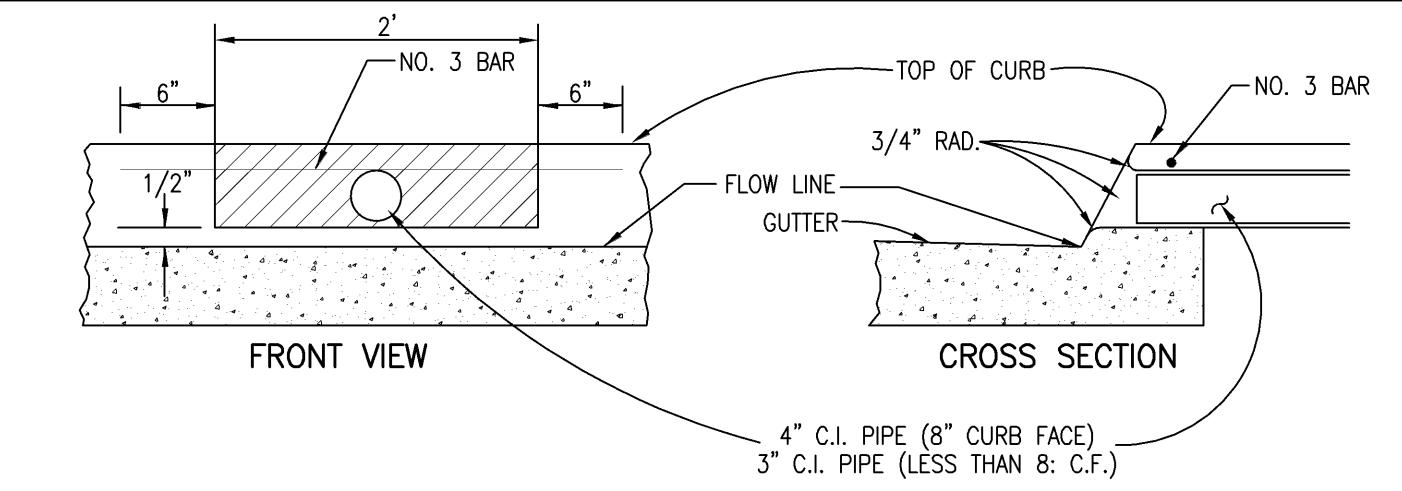


DETAIL "A"

- OF THE CITY ENGINEER.
- 2. SLOPE TO DRAIN TO ONE SIDE.
- 3. ALL EXPOSED METAL PARTS TO BE HOT-DIP GALVANIZED AFTER FABRICATION.
- 4. 1 1/2" X 1 1/2" X 1/4" "L" FRAME WITH 3/8" X 1/4" STEEL STRIP WELDED TO FRAME.
- 5. CHECKERED PLATE SHALL BE SLIP RESISTANT HOT-DIP GALVANIZED STEEL MAXIMUM WIDTH 36".
- 6. FASTEN WITH 1/4" COARSE-THREAD COUNTERSINK STAINLESS STEEL SCREWS AT 12" OC.
- 7. WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, USE A MODIFIED CONCRETE MIX AND PLACE 6" MIN CLASS 2 AGGREGATE BASE AND 6 MIL. PLASTIC SHEETING UNDER AND AROUND ALL SIDES OF CONCRETE IMPROVEMENTS. FOR EXPANSIVE SOIL, PLACE 6" MIN CLASS 2 AGGREGATE BASE UNDER CONCRETE IMPROVEMENTS AS DIRECTED BY THE ENGINEER.
- 8. CONCRETE MINIMUM CEMENTITIOUS MATERIAL CONTENT =505LB/CU YD.
- 9. NOT FOR USE IN PUBLIC RIGHT-OF-WAY.

N.T.S.

CITY OF PALM DESERT APPROVED BY: STD NO. DEPARTMENT OF PUBLIC WORKS UNDER SIDEWALK DRAIN CITY ENGINEER DATE CAST IN PLACE



NOTE 1: SAWCUT AND REMOVE CROSS HATCHED PORTION OF CURB SECTION.

NOTE 2: CLASS 560-C-3250 CONCRETE SHALL BE USED TO RECONSTRUCT THE CURB SECTION.

NOTE 3: WHEN CURB FACE ELEVATION IS LESS THAN 8" HIGH, THE FLOW LINE OF THE PIPE SHALL BE AT LEAST 1/2" ABOVE THE ELEVATION OF THE FLOW LINE OF THE GUTTER, AND THE PIPE SHOULD BE 3" IN DIAMETER.

NOTE 4: A MINIMUM SEPARATION OF TEN FEET (10') IS REQUIRED BETWEEN ADJACENT DRAINS ON THE SAME PROPERTY.

NOTE 5: WHEN GREATER CAPACITY IS REQUIRED, CITY OF PALM DESERT STANDARD 500 SHALL BE CONSTRUCTED.

NOTE 6: DOWEL REBAR 6" INTO ADJACENT CONCRETE. REBAR SHALL OVERLAP 12", SIDE-BY-SIDE.

NOTE 7: IF CURB DRAIN IS INSTALLED UNDER SIDEWALK, THE ENTIRE SIDEWALK PANEL MUST BE REMOVED AND REPLACED.

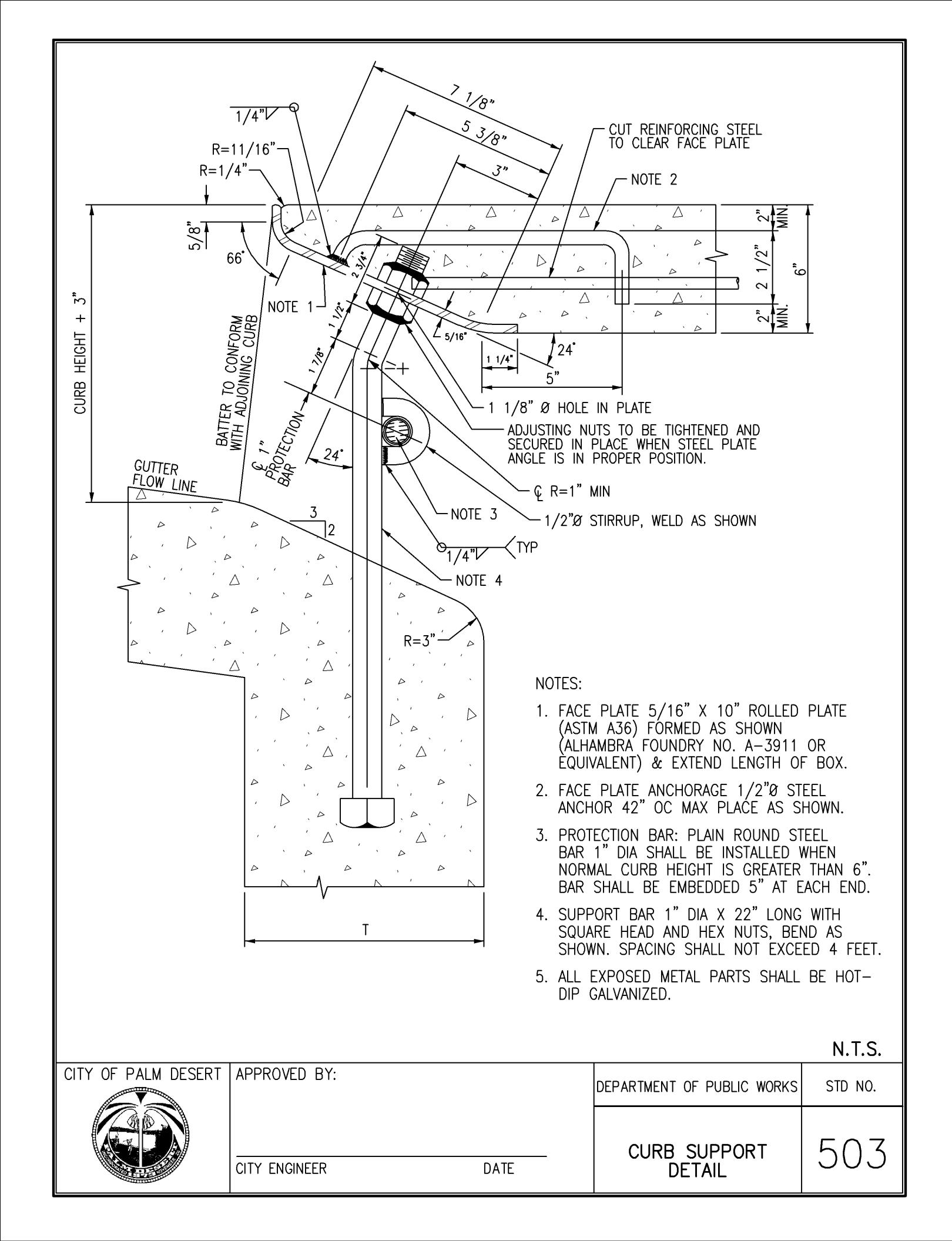
CASE A - SAW CUT OPTION

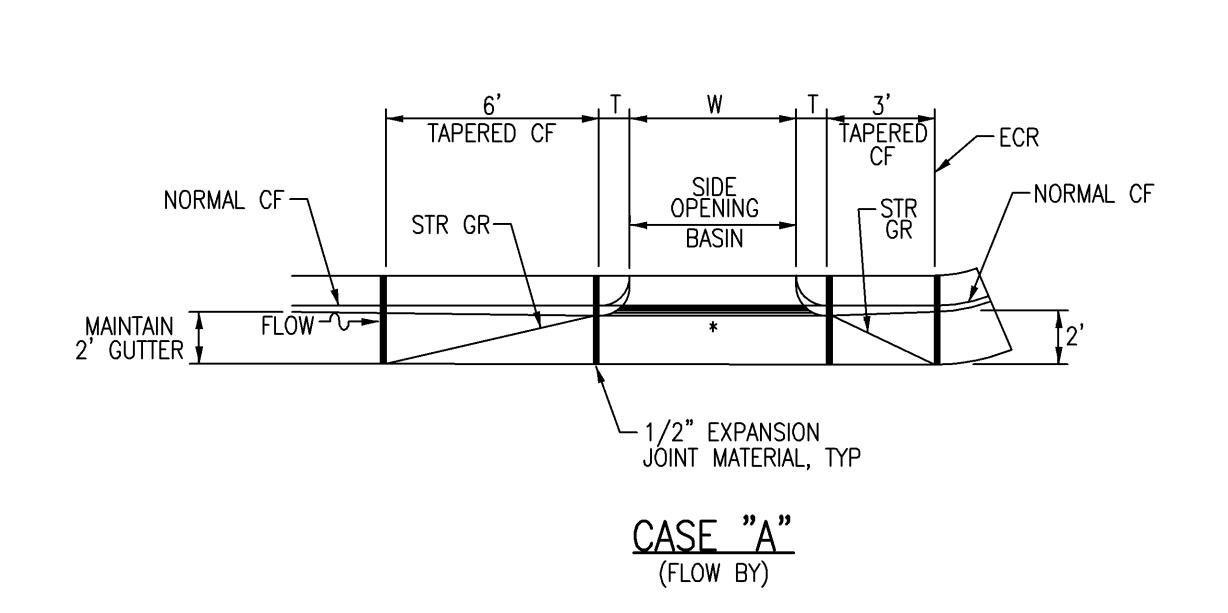
CORE DRILLING IN LIEU OF SAW CUT OPTION IS PERMITTED PROVIDED:

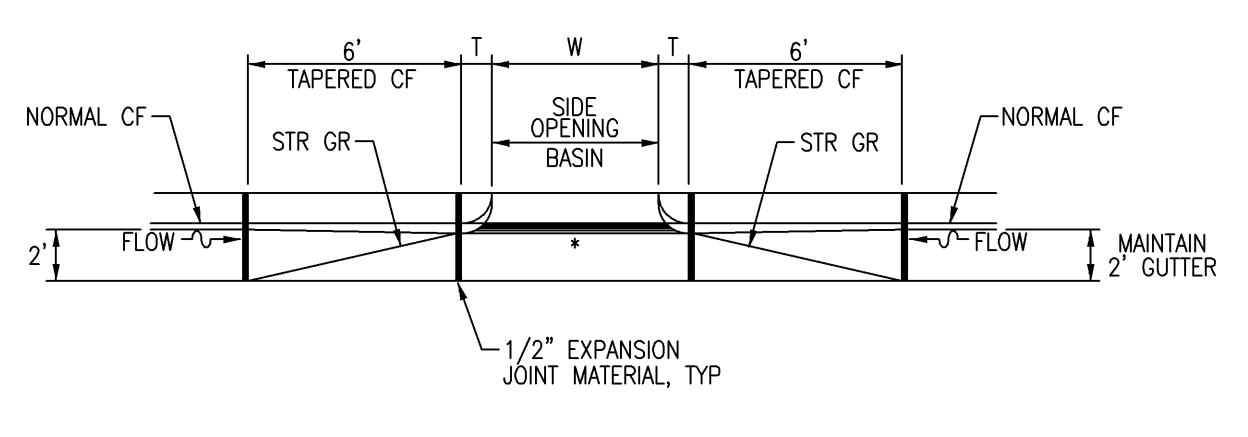
- (1) INVERT ELEVATION OF THE CORE SHALL BE AT LEAST 1/2" ABOVE THE FLOW LINE ELEVATION.
- (2) CORE DIAMETER SHALL NOT EXCEED 50% OF THE CURB FACE DIMENSION.
- (3) A MINIMUM SEPARATION OF TEN FEET (10') IS REQUIRED BETWEEN ADJACENT DRAINS ON THE SAME PROPERTY.
- (4) WHEN GREATER CAPACITY IS REQUIRED, CITY OF PALM DESERT STANDARD NUMBER 200 SHALL BE CONSTRUCTED.
- (5) THERE SHALL BE A MINIMUM OF 2" OF CONCRETE OVER THE TOP OF THE PIPE.

CASE B - CORE DRILL OPTION

CITY OF PALM DESERT	APPROVED BY:		DEPARTMENT OF PUBLIC WORKS	STD NO.
	CITY ENGINEER	DATE	CURB DRAIN CASE A & CASE B	502







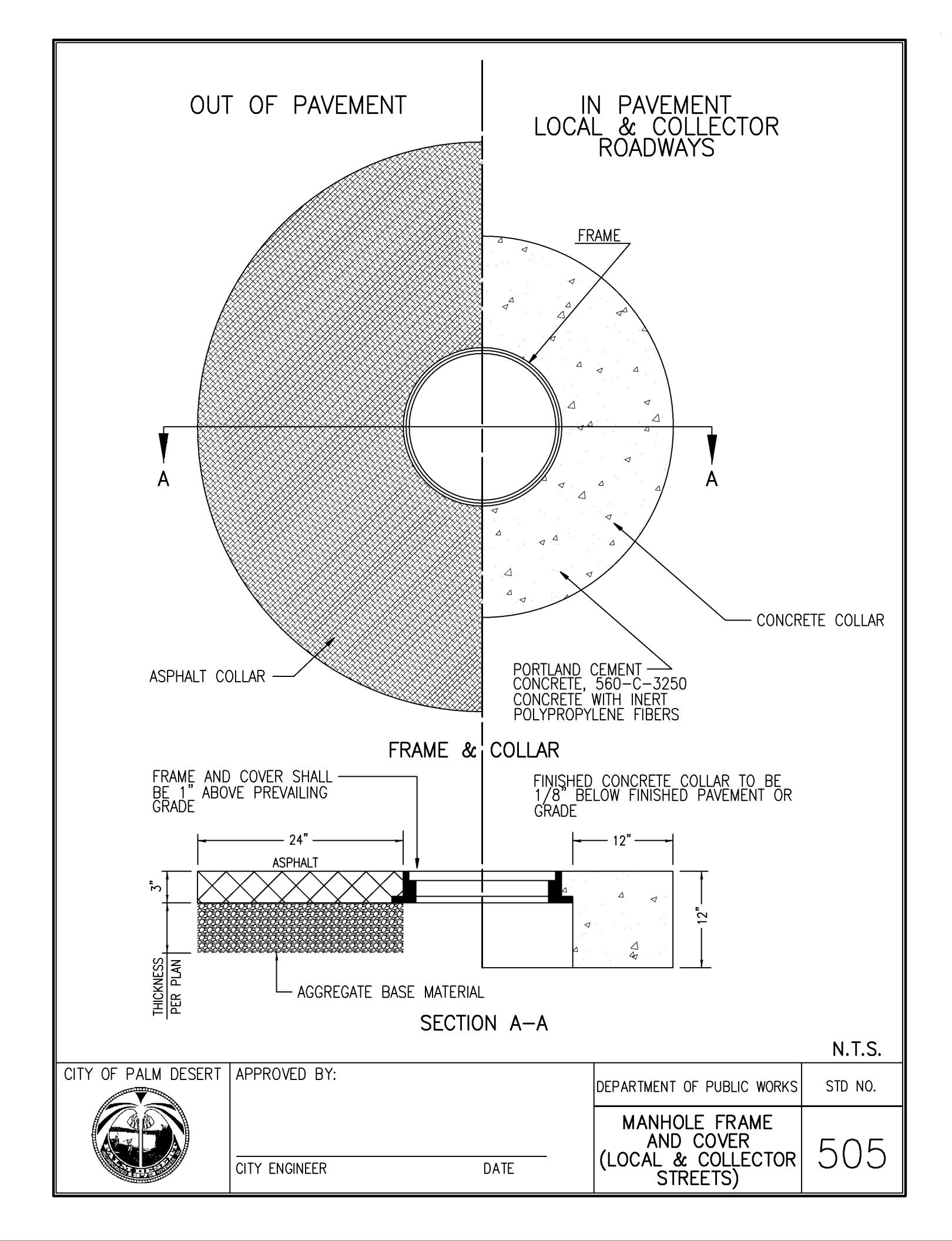
CASE "B" (SUMP)

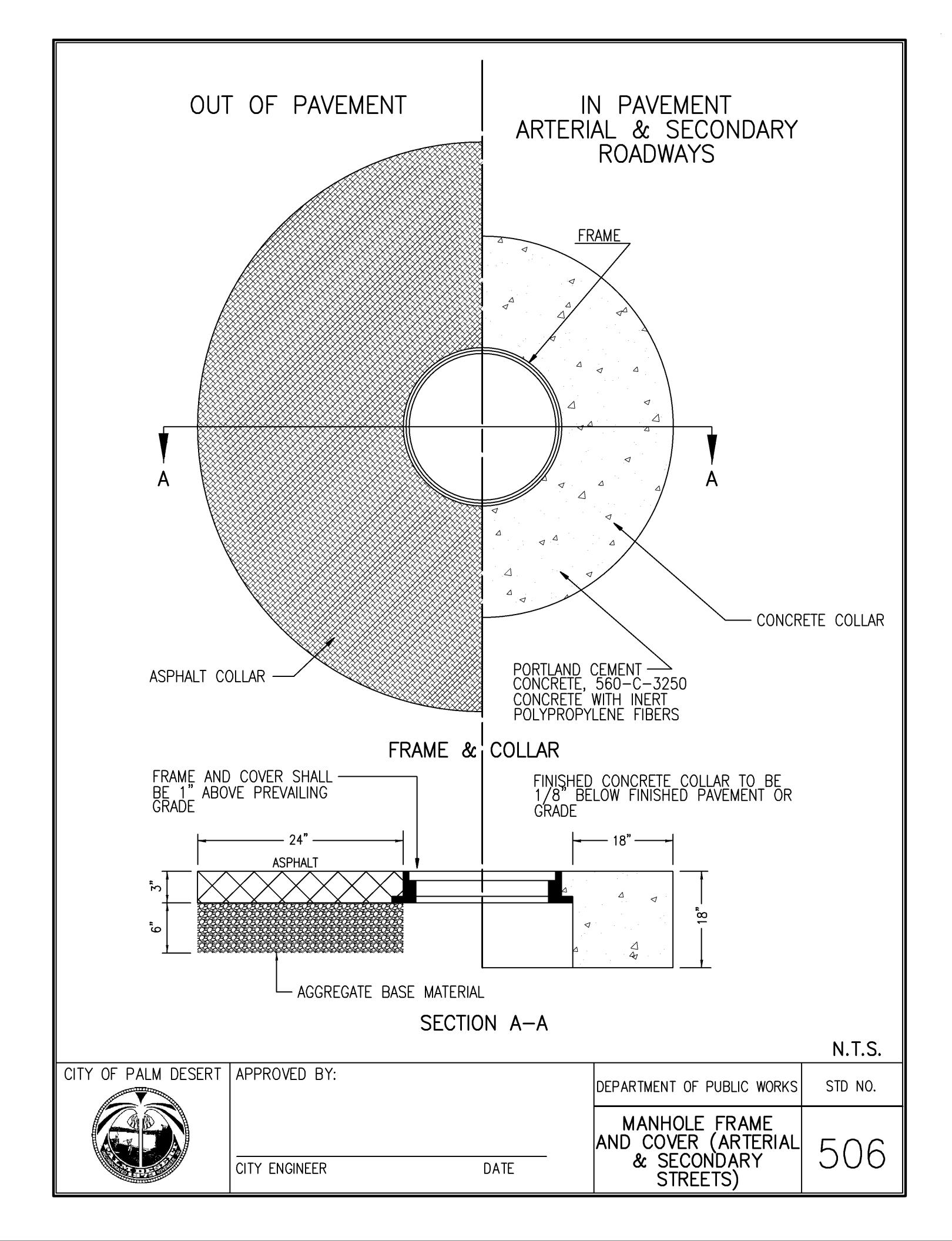
* CATCH BASIN OPENING = NORMAL CURB HEIGHT + 3 INCHES UNLESS OTHERWISE SPECIFIED.

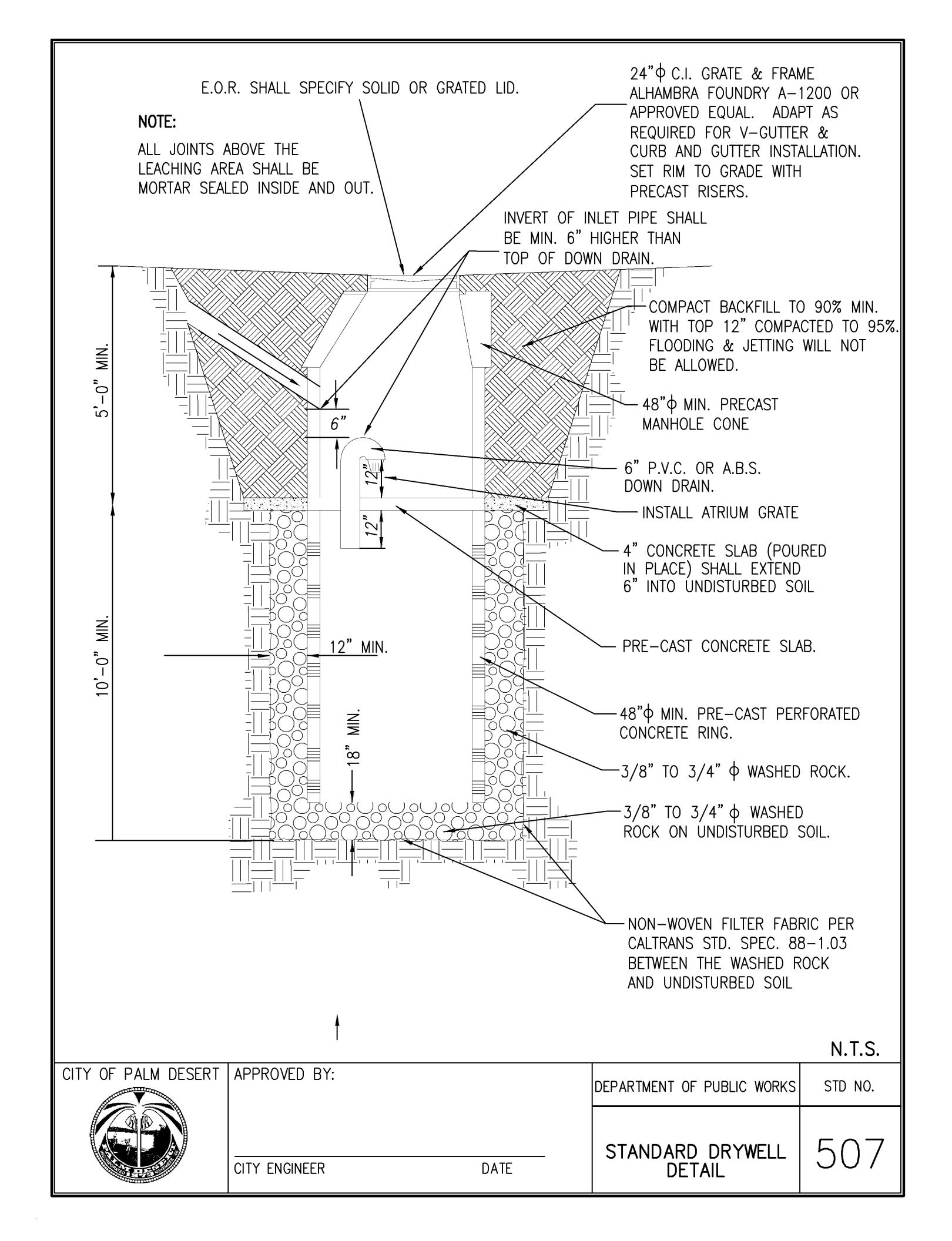
CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

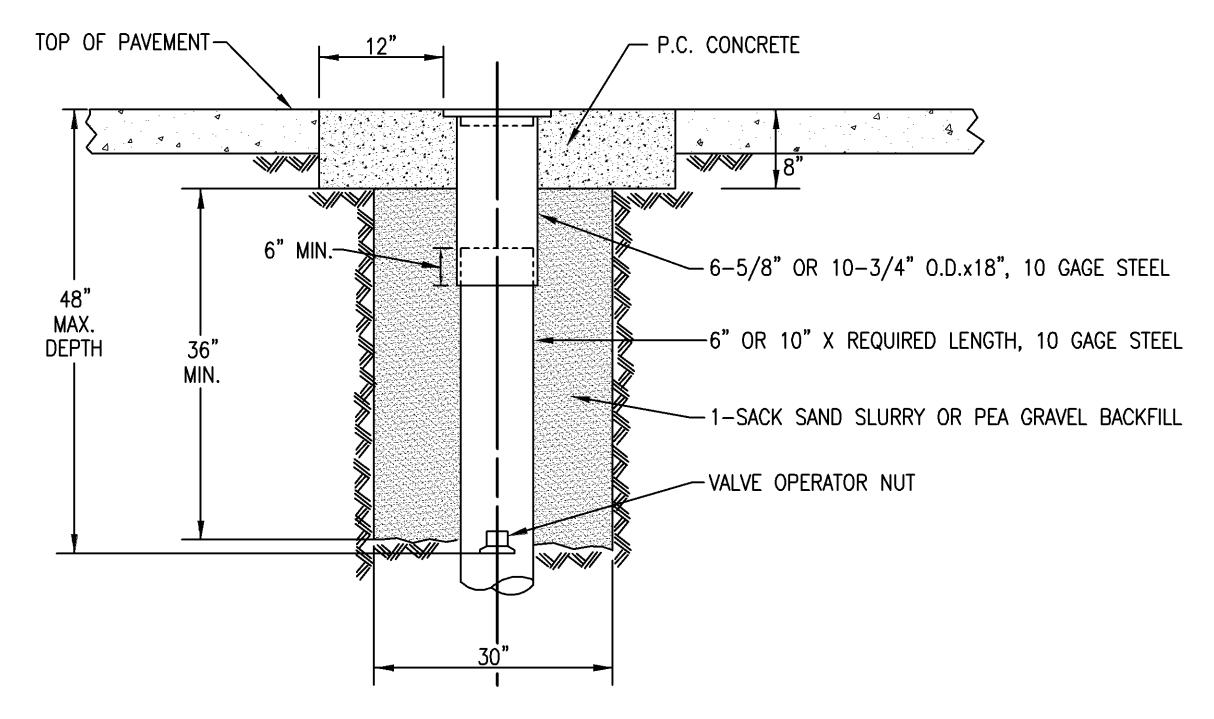
GUTTER DEPRESSION FOR CURB OPENING CATCH BASINS 504



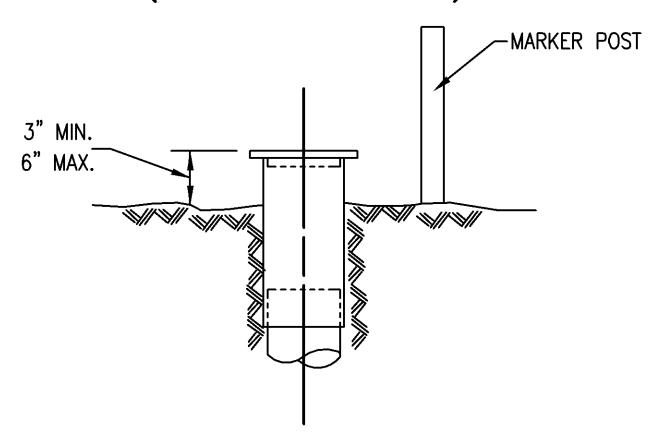




TYPICAL INSTALLATION (STREET OR ALLEY)



TYPICAL INSTALLATION (UNTRAVELED AREAS)



NOTES:

- 1. ALL CONCRETE SHALL BE 560-C-3250
- 2. CONCRETE SURFACE SHALL RECEIVE HEAVY BROOM FINISH.

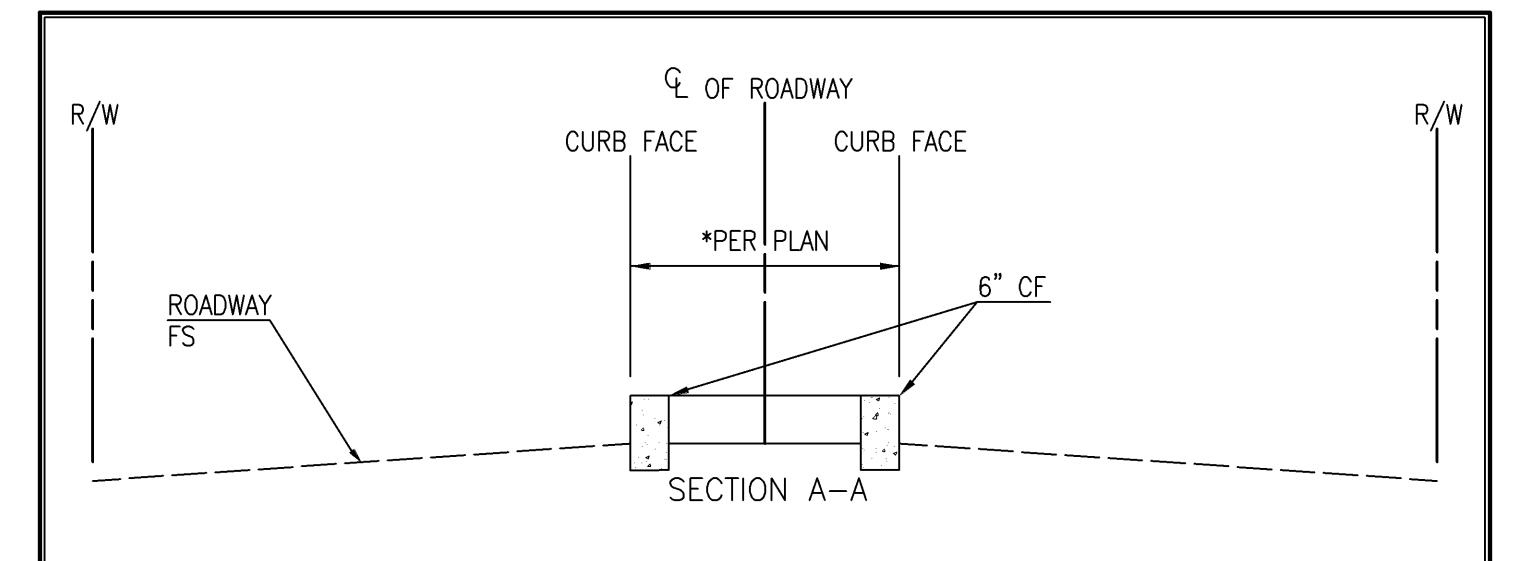
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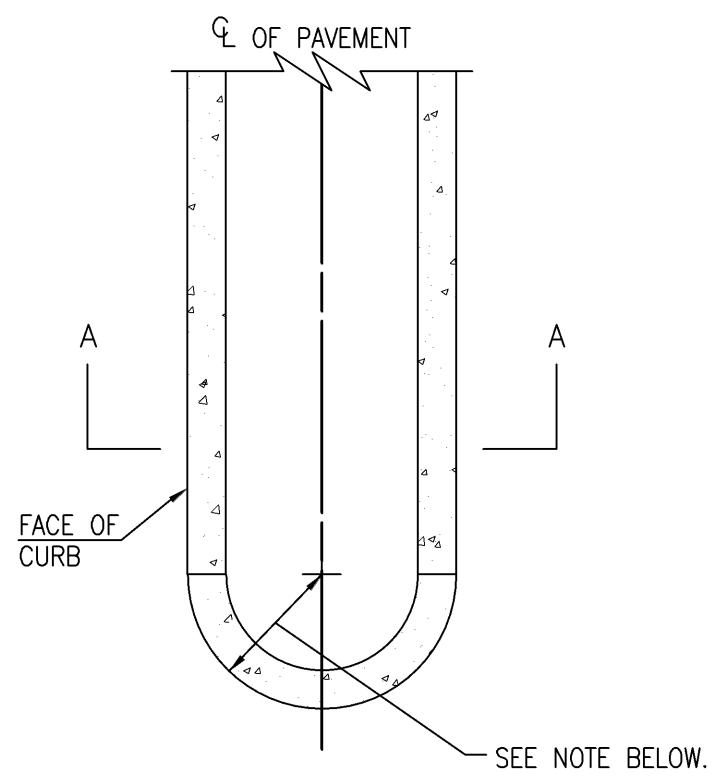
CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

VALVE OPERATOR WELL INSTALLATION

508

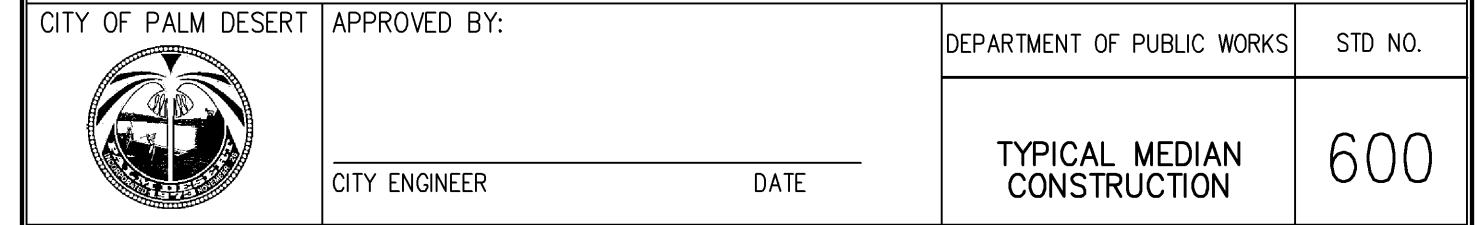


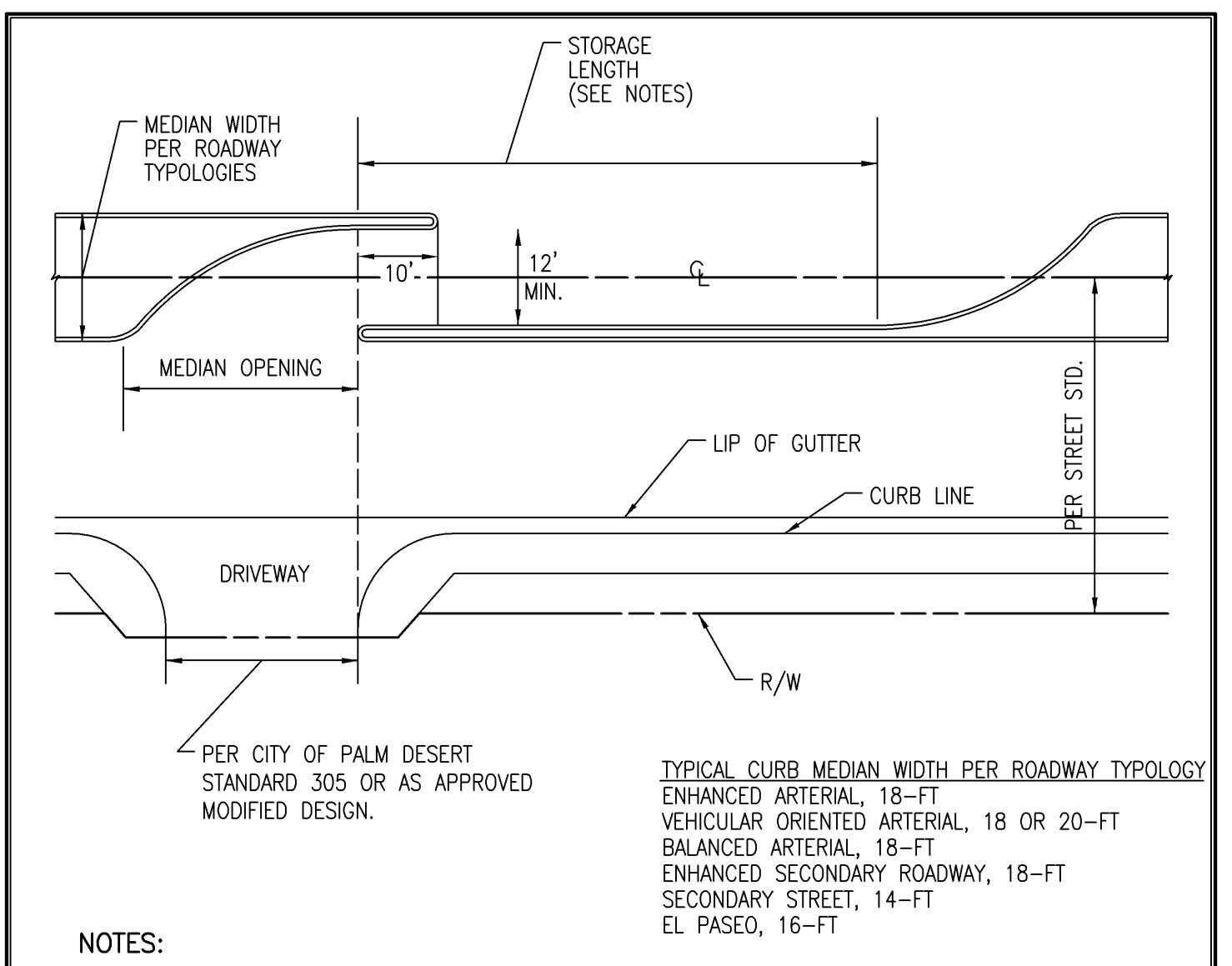


NOTES:

- 1. MEDIAN DESIGN SHALL FOLLOW CALIFORNIA HIGHWAY DESIGN MANUAL.

 SEE CITY OF PALM DESERT STANDARD 910 AND 911 FOR SIGNAGE PLACEMENT GUIDANCE.
- 2. RADIUS AT MEDIAN BREAKS SHALL BE MINIMUM OF 10' WHEN MEDIAN TAPERING IS NOT REQUIRED.
- 3. FOR MEDIAN TAPER (BAY TAPER) REFER TO CALIFORNIA HIGHWAY DESIGN MANUAL FOR DESIGN GUIDANCE, SUBJECT TO THE CITY ENGINEER APPROVAL.
- 4. CURB SHALL BE CONSTRUCTED PER CITY OF PALM DESERT STD 400 OR 404, SUBJECT TO APPROVAL BY THE CITY ENGINEER.
- * FOR EL PASEO, 14 FT MEDIAN.



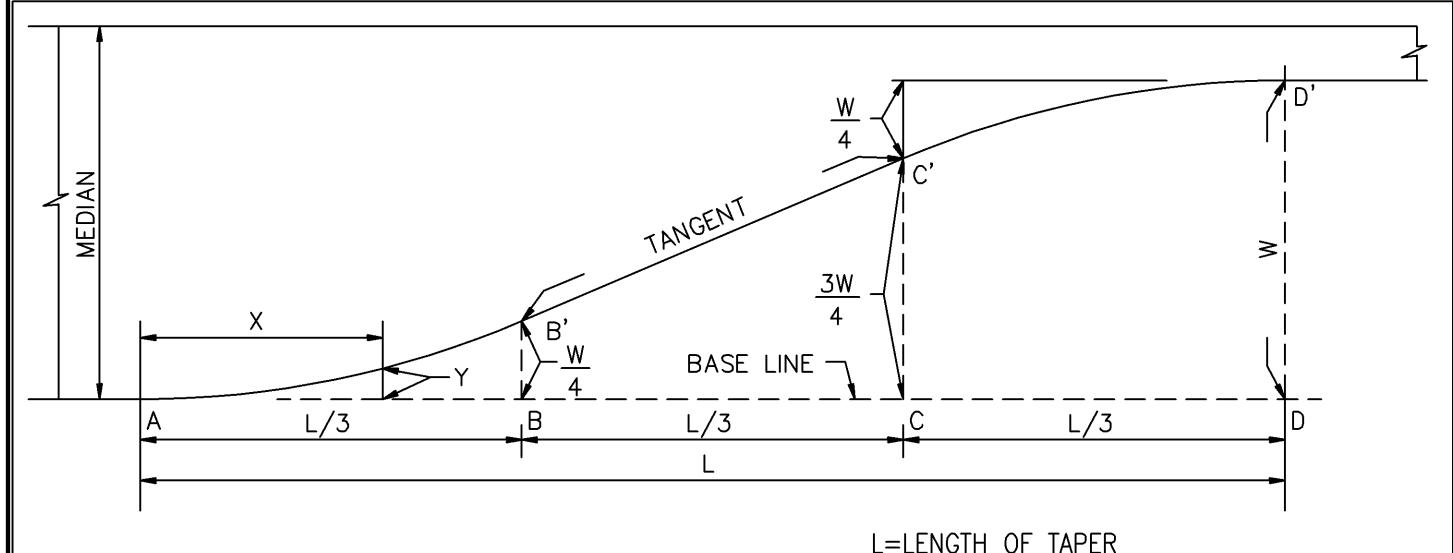


- 1. DIRECTIONAL LEFT TURN MEDIAN BAY SHALL BE DESIGNED PER AASHTO STANDARDS AND IS SUBJECT TO APPROVAL BY THE CITY ENGINEER.
- 2. THE LENGTH OF BAY TAPER SHOULD BE SHORT TO CLEARLY DELINEATE THE LEFT TURN AND TO DISCOURAGE THROUGH TRAFFIC FROM DRIFTING TO THE LEFT TURN LANE. FOR URBAN AREAS, CONSIDER LENGTH OF 60 FEET AND 90 FEET PER CALIFORNIA HIGHWAY DESIGN MANUAL GUIDELINES. FINAL DESIGN IS SUBJECT TO THE CITY ENGINEER APPROVAL.
- 3. STORAGE LENGTH SHALL BE PER THE RECOMMENDATIONS OF A TRAFFIC ENGINEER AND SUBJECT TO THE CITY ENGINEER APPROVAL.
- 4. LENGTH OF MEDIAN OPENING SHALL BE MINIMIZED TO DISCOURAGE VEHICLES TO ENTER FROM OPPOSITE TRAFFIC DIRECTION, BUT AT LEAST THE SAME WIDTH AS THE CORRESPONDING DRIVE/OPENING. TRAFFIC DIRECTION.
- 5. TRUCK TURNING TEMPLATES SHALL BE SUBMITTED TO SHOW NO CONFLICT WITH DRIVEWAY OR MEDIAN STRUCTURES.
- 6. TURNING LANE WIDTH REDUCTION TO A MINIMUM OF 10 FEET WILL BE CONSIDERED FOR PROJECTS WHERE A 12-FOOT DESIGN IS NOT FEASIBLE, SUBJECT TO APPROVAL OF THE CITY ENGINEER.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

RESTRICTED LEFT TURN MEDIAN OPENING 601



 $Y = 2.25W(\frac{X}{L})^2$

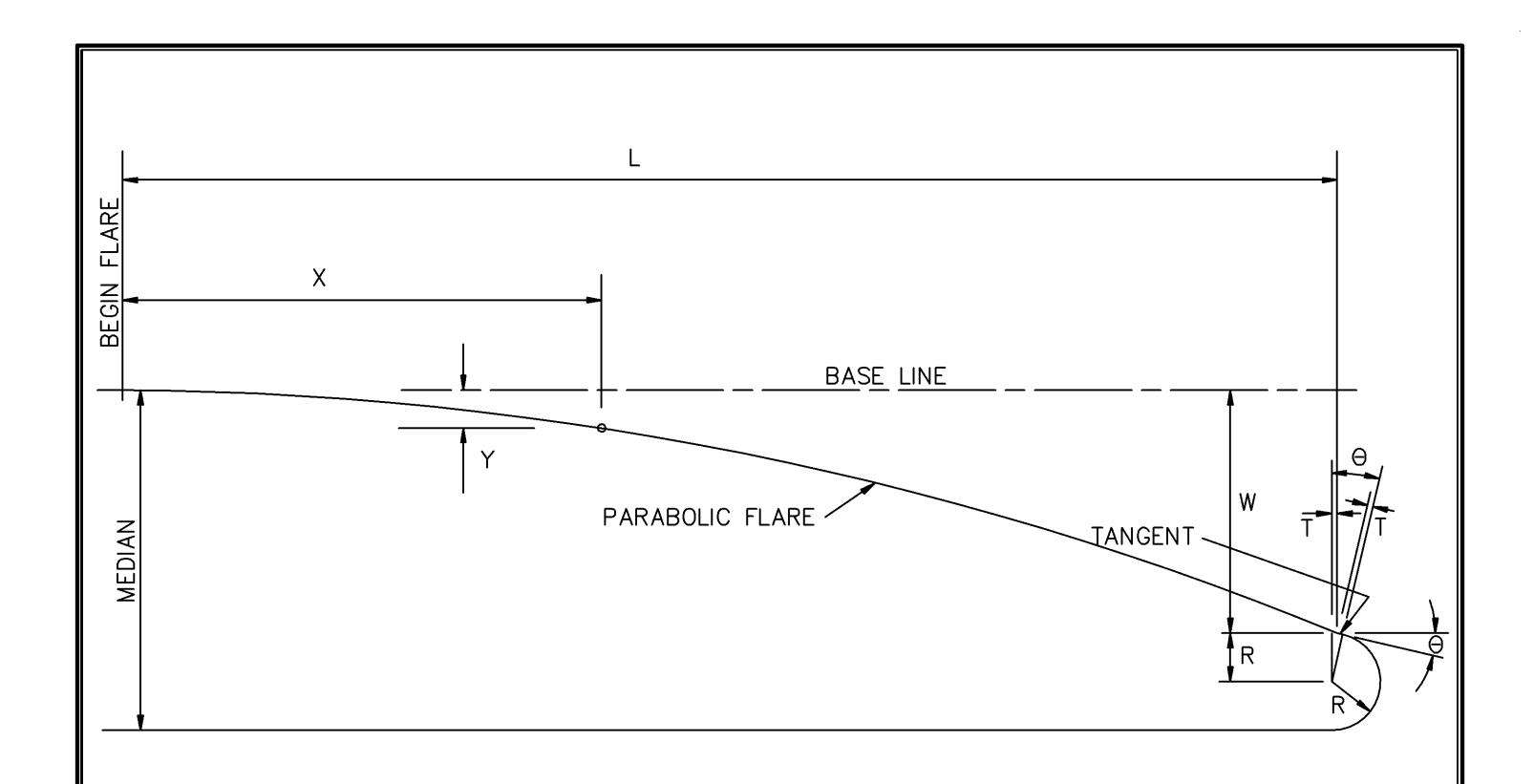
L=LENGTH OF TAPER
W=MAXIMUM OFFSET DISTANCE
X=DISTANCE ALONG BASE LINE
Y=OFFSET FROM BASE LINE

L, ft	DISTANCE X, L/12 INCREMENTS, ft											
60'	5'	10'	15'	20'	25'	30'	35'	40'	45'	50'	55'	60'
72'	6'	12'	18'	24'	30'	36'	42'	48'	54'	60'	66'	72'
90'	7.5'	15'	22.5'	30'	37.5'	45'	52.5'	60'	67.5	75'	82.5'	90'
120'	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'
150'	12.5'	25'	37.5'	50'	62.5'	75'	87.5	100'	112.5'	125'	137.5'	150'
W, ft					OFFSET	Y, ft						
10'	0.16'	0.62	1.41'	2.50'	3.75'	5.00'	6.25'	7.50'	8.59'	9.38'	9.84'	10.00'
11'	0.17'	0.69'	1.55'	2.75'	4.13'	5.50'	6.88'	8.25'	9.45'	10.31'	10.83'	11.00'
12'	0.19'	0.75'	1.69'	3.00'	4.50'	6.00'	7.50'	9.00'	10.31'	11.25'	11.81'	12.00'
19'	0.30'	1.19'	2.67'	4.75'	7.13'	9.50'	11.88'	14.25'	16.33'	17.81'	18.70'	19.00'
20'	0.31'	1.25'	2.81'	5.00'	7.50'	10.00'	12.50'	15.00'	17.19'	18.75'	19.69'	20.00'
21'	0.33'	1.31'	2.95'	5.25'	7.88'	10.50'	13.13'	15.75'	18.05'	19.69'	20.67'	21.00'
22'	0.34'	1.38'	3.09'	5.50'	8.25	11.00'	13.75'	16.50'	18.91'	20.62'	21.66'	22.00'

NOTE:

TO DETERMINE OFFSET DISTANCE FOR ANY LENGTH OF TAPER USE THE FORMULA $Y=2.25W(\frac{X}{L})^2$ FOR THE PORTIONS A—B' AND C—D' WHICH ARE PARABOLIC CURVES. THE PORTION B'C' IS A TANGENT. WHEN THE BASE LINE IS CURVED, THE OFFSETS ARE APPLIED TO THE CURVED BASE LINE, AND B'C' IS NO LONGER A TANGENT.

CITY OF PALM DESERT	APPROVED BY:		DEPARTMENT OF	PUBLIC WORKS	STD NO.
	CITY ENGINEER	DATE	MEDIAN	TAPER	602



L=LENGTH OF TAPER
W=MAXIMUM OFFSET DISTANCE
X=DISTANCE ALONG BASE LINE
Y=OFFSET FROM BASE LINE
T=TANGENT LENGTH

R=RADIUS OF NOSE ⊖=MAXIMUM FLARE DEFLECTION ANGLE $Y = W(\frac{X}{L})^{2}$ $TAN \Theta = \frac{2W}{L}$ $T = R TAN \frac{\Theta}{2}$

IF STATION OF RADIUS POINT IS NOT GIVEN ON PLAN, TANGENT DISTANCE T MAY BE IGNORED

OFFSET Y, ft

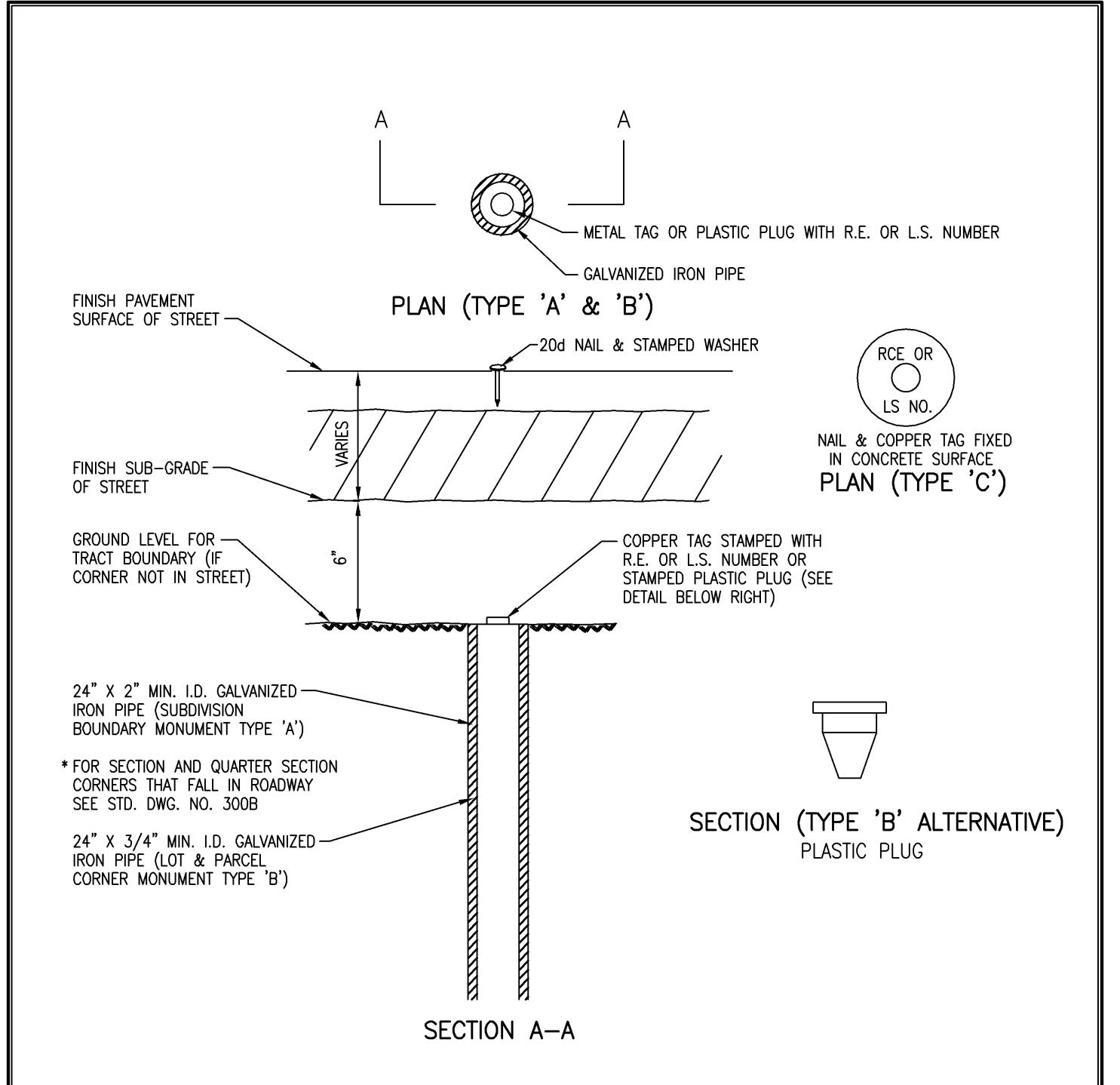
X, ft															
L, ft	W, ft	10'	15'	20'	25'	30'	40'	45'	50'	60'	70'	75'	80'	90'	100'
	W/L = 1:5														
25'	5'	0.80'	1.80'	3.20'	5.00'										
50'	10'	0.40'	0.90'	1.60'	2.50'	3.60'	6.40'	8.10'	10.00'						
							W/L =	= 1:10							
50'	5'	0.20'	0.45'	0.80'	1.25'	1.80'	3.20'	4.05'	5.00'						
100'	10'	0.10'	0.23'	0.40'	0.63'	0.90'	1.60'	2.03'	2.50'	3.60'	4.90'	5.63'	6.40'	8.10'	10.00'
							W/L =	= 1:15							
45'	3'	0.15'	0.33'	0.59'	0.93'	1.33'	2.37'	3.00'							
75'	5'	0.09'	0.20'	0.36'	0.56	0.80'	1.42'	1.80'	2.22'	3.20'	4.36'	5.00'			
90'	6'	0.07	0.17'	0.30'	0.46	0.67	1.19'	1.50'	1.85'	2.67'	3.63'	4.17'	4.74'	6.00'	

N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

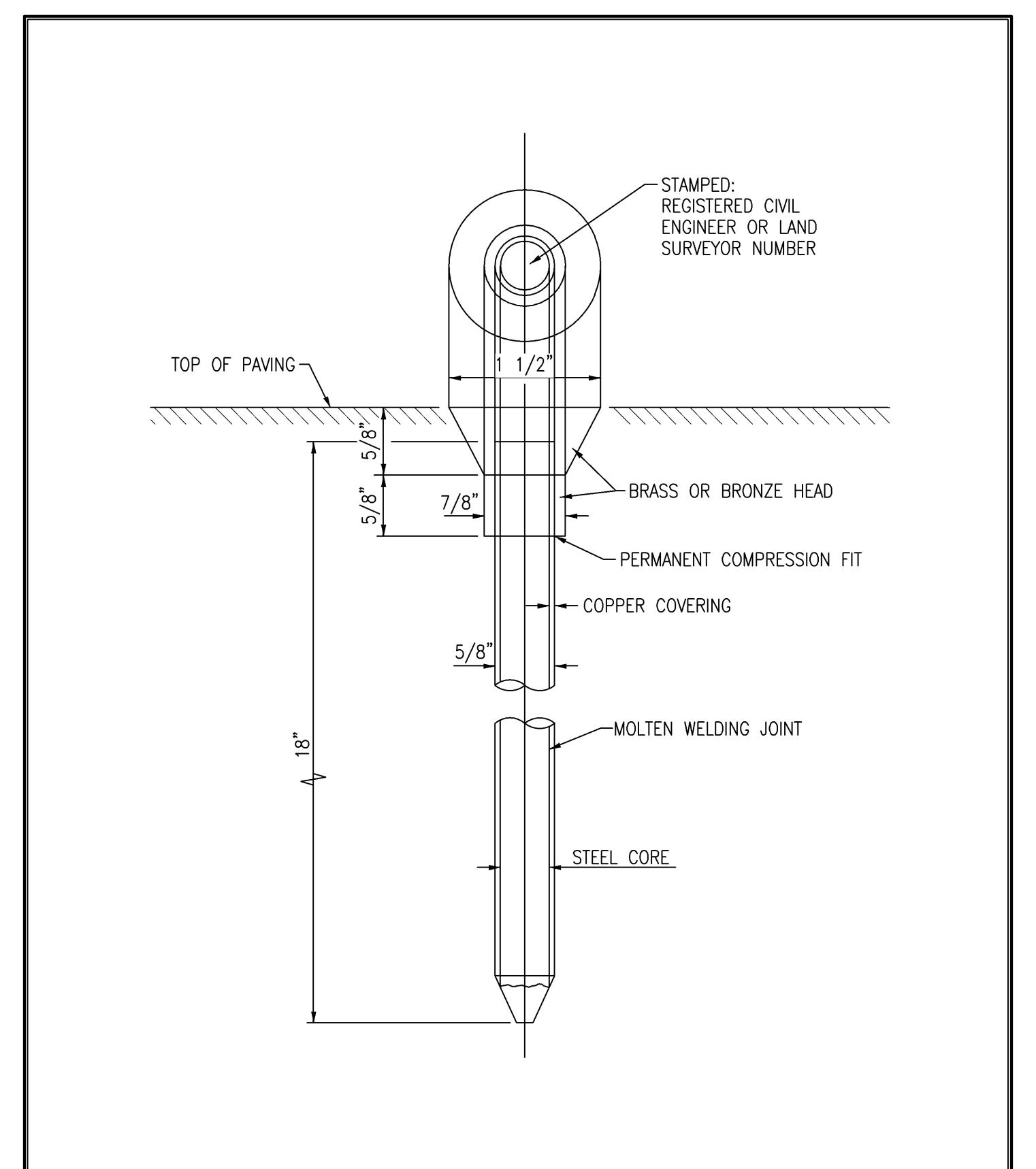
MEDIAN FLARE 603



NOTES:

- 1. SUBDIVISION BOUNDARY MONUMENT TYPE 'A' TO BE SET 6" BELOW FINISH SUB-GRADE IN ROADWAY OR FLUSH AT TRACT BOUNDARY CORNERS.
- 2. ALL LOT AND PARCEL CORNERS SHALL USE TYPE 'B' MONUMENTS SET AT PROPER GRADE WITH A COPPER DISC OR PLASTIC PLUG BEARING THE REGISTERED CIVIL ENGINEER OR LAND SURVEYOR NUMBER.
- 3. TYPE 'C' MONUMENT TO CONSIST OF LEAD PLUG OR STEEL PIN WITH COPPER IDENTIFICATION DISC SET IN CONCRETE CURB OR WALL. (SEE DETAIL ABOVE RIGHT.)

CITY OF PALM DESERT	APPROVED BY:		DEPARTMENT OF PUBLIC WORKS	STD NO.
	CITY ENGINEER	DATE	TYPE A, B, & C MONUMENTS	700

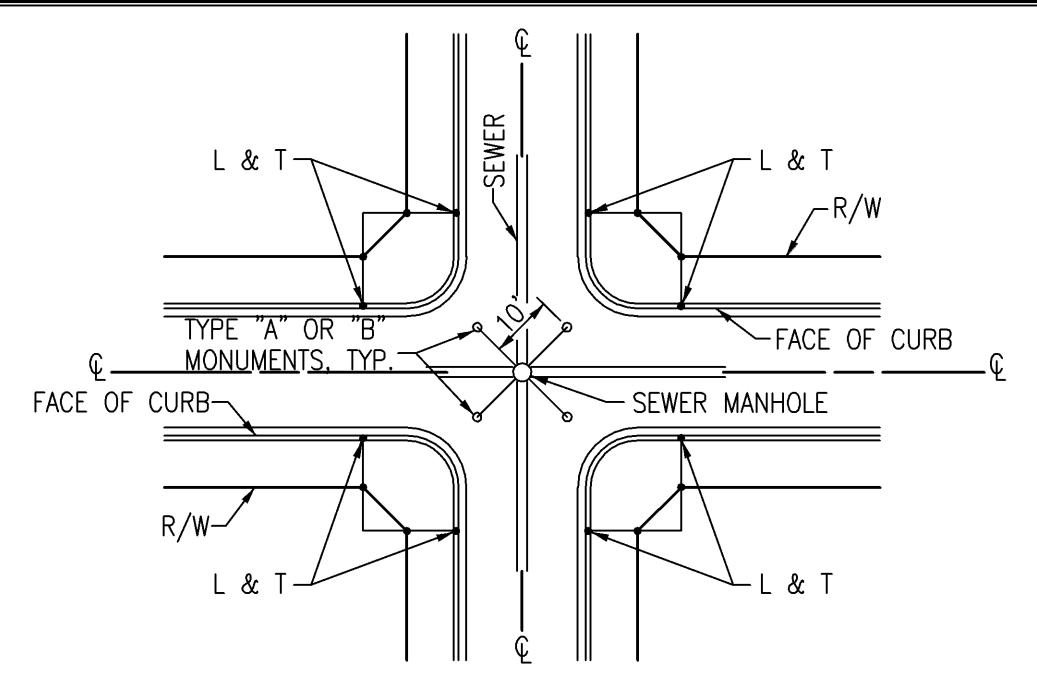


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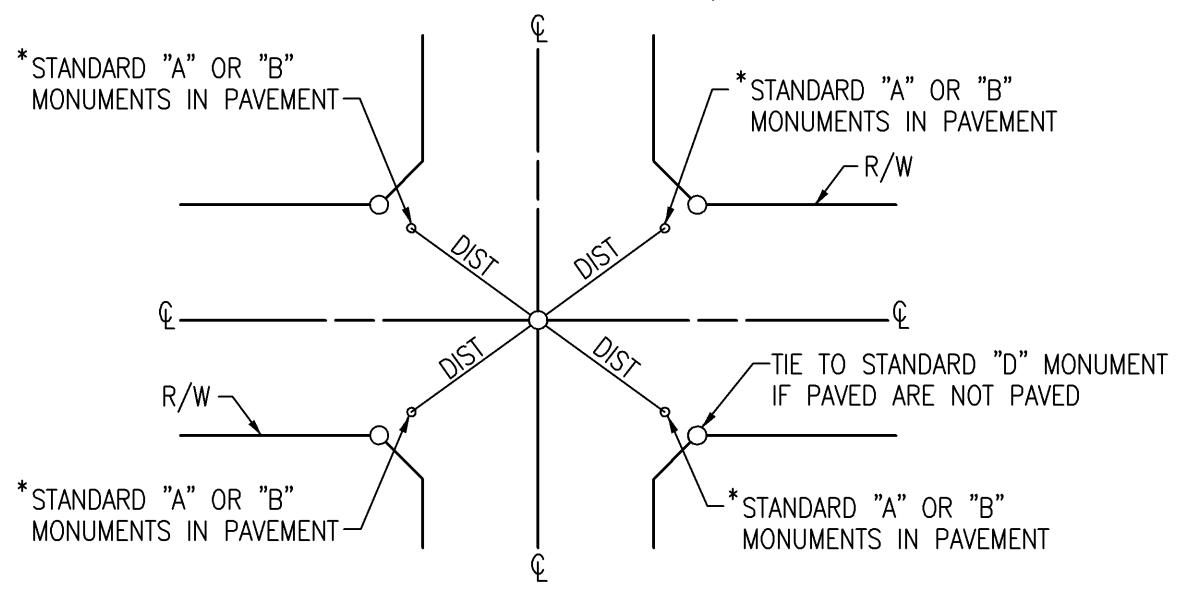
CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

TYPE "B" MONUMENT 701



MONUMENTING STREET CENTERLINES WHEN SEWERS ARE LOCATED ON CENTERLINE USING 10' CROSS TIES AND/OR SWING TIES



* SET TIE IN PAVEMENT IF RAW IS UNAVAILABLE.

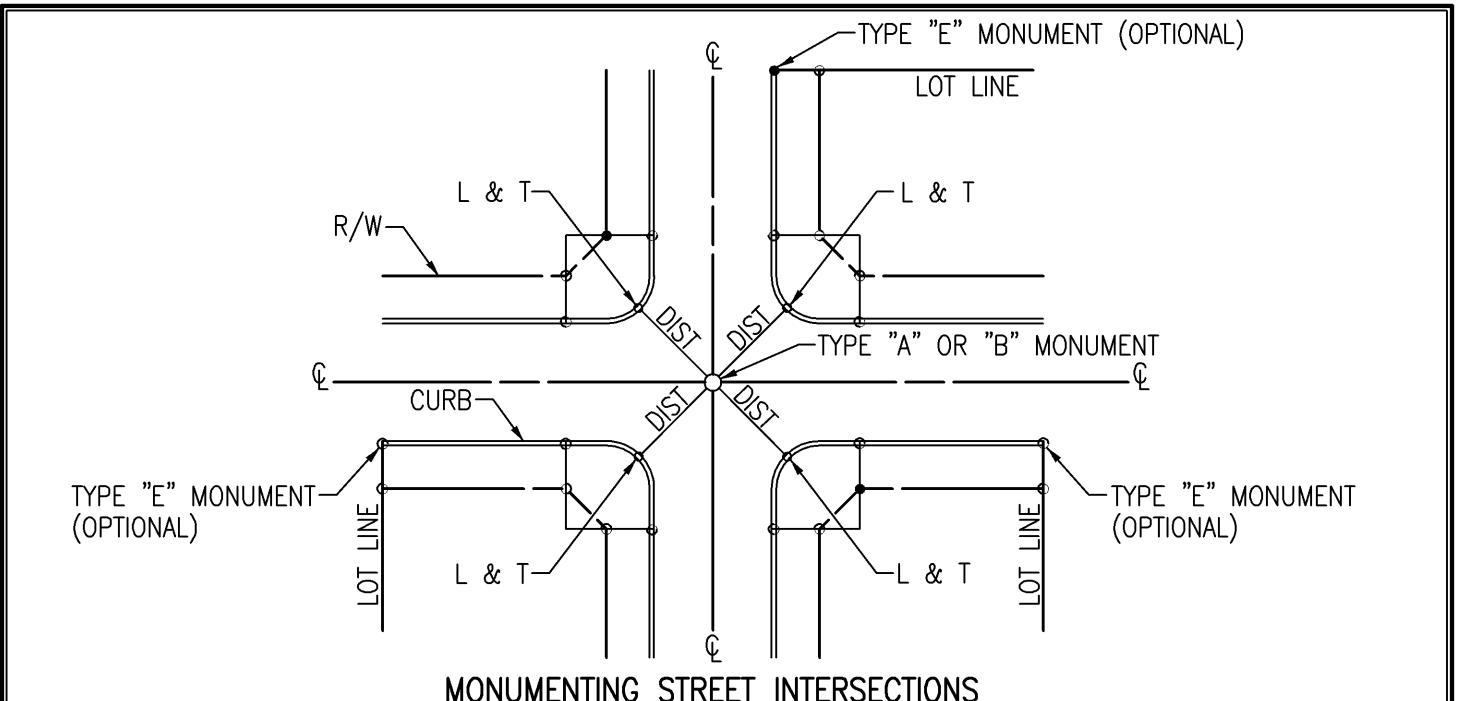
NOTES:

- 1. L & T AS SHOWN HEREON INDICATES LEAD AND TACK OR STEEL PIN MONUMENT SET IN CURB.
- 2. LEAD AND TACK OR STEEL PIN MONUMENT WITNESS TO PROPERTY CORNER MAY BE SET, NOT REQUIRED.

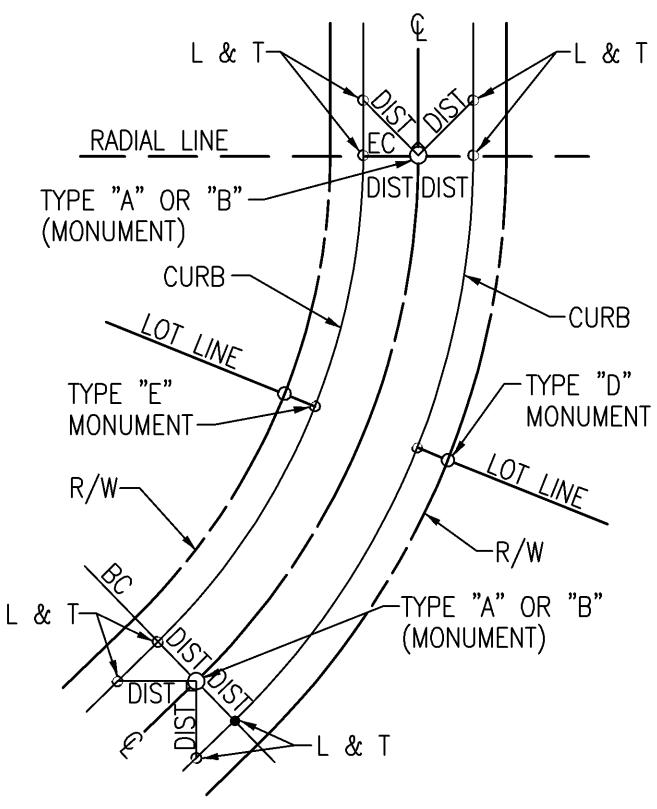
CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

TIE-OUT STANDARDS 702



MONUMENTING STREET INTERSECTIONS WHERE CURBS AND GUTTERS ARE INSTALLED



MONUMENTING
BEGINNING AND ENDING OF CURVE

NOTES:

- 1. L & T AS SHOWN HEREON INDICATES A LEAD AND TACK OR STEEL PIN MONUMENT SET IN CONCRETE CURB.
- 2. A METAL IDENTIFICATION DISK SET WITH A LEAD AND TAG OR STEEL PIN MONUMENT WITNESS TO PROPERTY CORNER MAY BE SET ("E" MONUMENT), IN LIEU OF SETTING FRONT LOT CORNERS ("D" MONUMENT).
- 3. THE PI OF THE CURVE CENTERLINE OF A STREET MAY BE MONUMENTED IN LIEU OF EC & BC, IF THE PI FALLS WITHIN THE TRAVELED WAY. IT SHALL BE REFERENCED WITH L & T'S IN CURB.
- 4. TYING OUT BC'S AND EC'S WITH 90 DEGREE TIES INTO THE TANGENT.

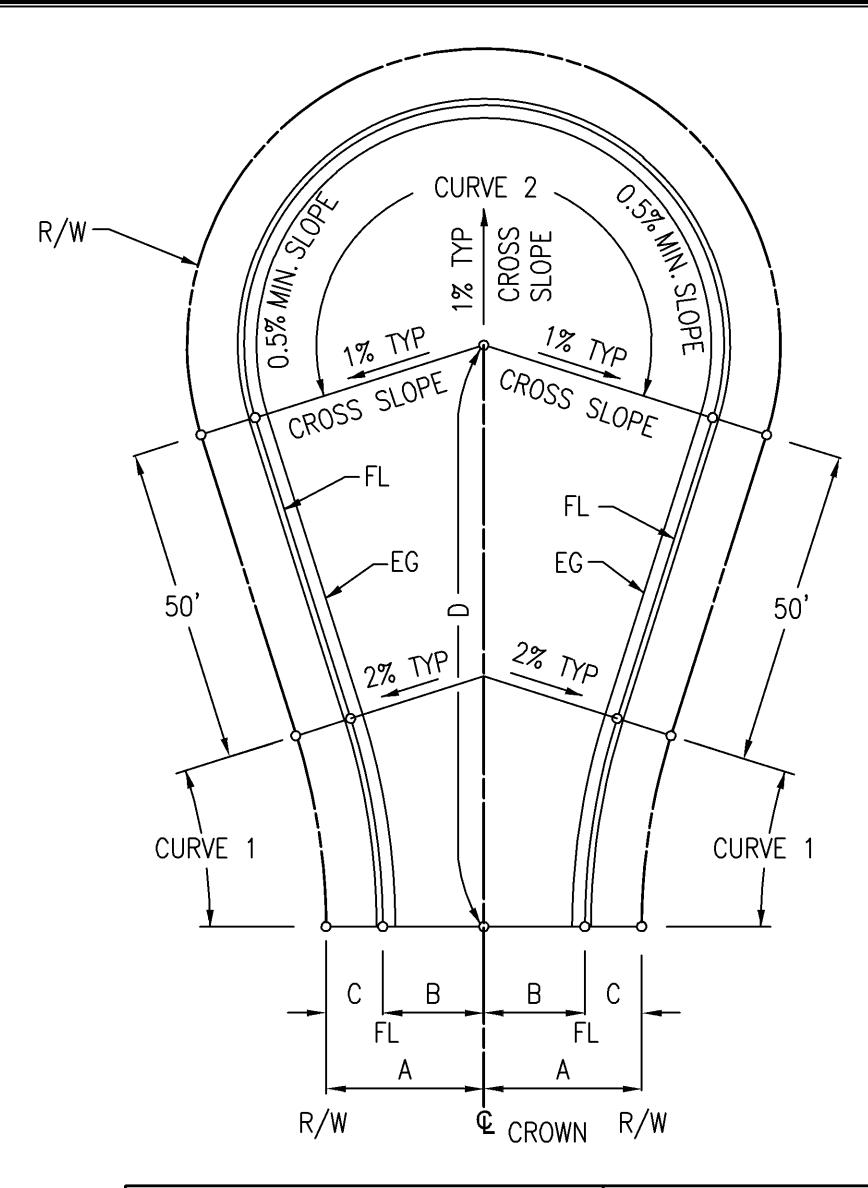
CITY OF PALM DESERT APPROVED BY:

CITY ENGINEER DATE

N.T.S.

DEPARTMENT OF PUBLIC WORKS STD NO.

STREET CENTERLINE MONUMENT 703



						CURVE 2								
					^	FL		R/W		^		FL		R/W
R/W	Α	В	С	D	\triangle	R		R	L		R	L	R	L
50'	25'	16'	9'	92.11'	17°36'01"	109'	33.48'	100'	30.72	215°12'02"	38'	142.73	47'	176.53
56'	28'	18'	10'	89.55	16°18'41"	110'	31.31	100'	28.47'	212°37'22"	38'	141.02'	48'	178.12
60'	30'	20'	10'	86.63'	15°00'38"	110'	28.82'	100'	26.20'	210°01'17"	38'	139.29	48'	175.95
66'	33'	22'	11'	83.74'	13°38'40"	111'	26.44	100'	23.82'	207°17'21"	38'	137.48'	49'	177.28'
74'	37'	22'	15'	84.50'	13°34'05"	115'	27.23	100'	23.68	207°08'10"	38'	137.38'	53'	191.61
78'	39'	28'	11'	95.39	17°12'31"	111'	33.33'	100'	30.03'	214°25'02"	50'	187.11	61'	228.28
SCHEDIILE "H"				DCE C	NE ACCR	FCATE	BASE	CLIRVE 2_ED	<u> </u>	OF ACCR	FC/1	F RASE		

SCHEDULE "H"				H"	CURVE 1-EDGE OF AGGREGATE BASE				CURVE 2-EDGE OF AGGREGATE BASE					
_	_	12'		90.00	21°02'30"	82.69'	30.37	_	_	222°04'59"	38'	147.29	_	_

N.T.S.

CITY OF PALM DESERT APPROVED BY:

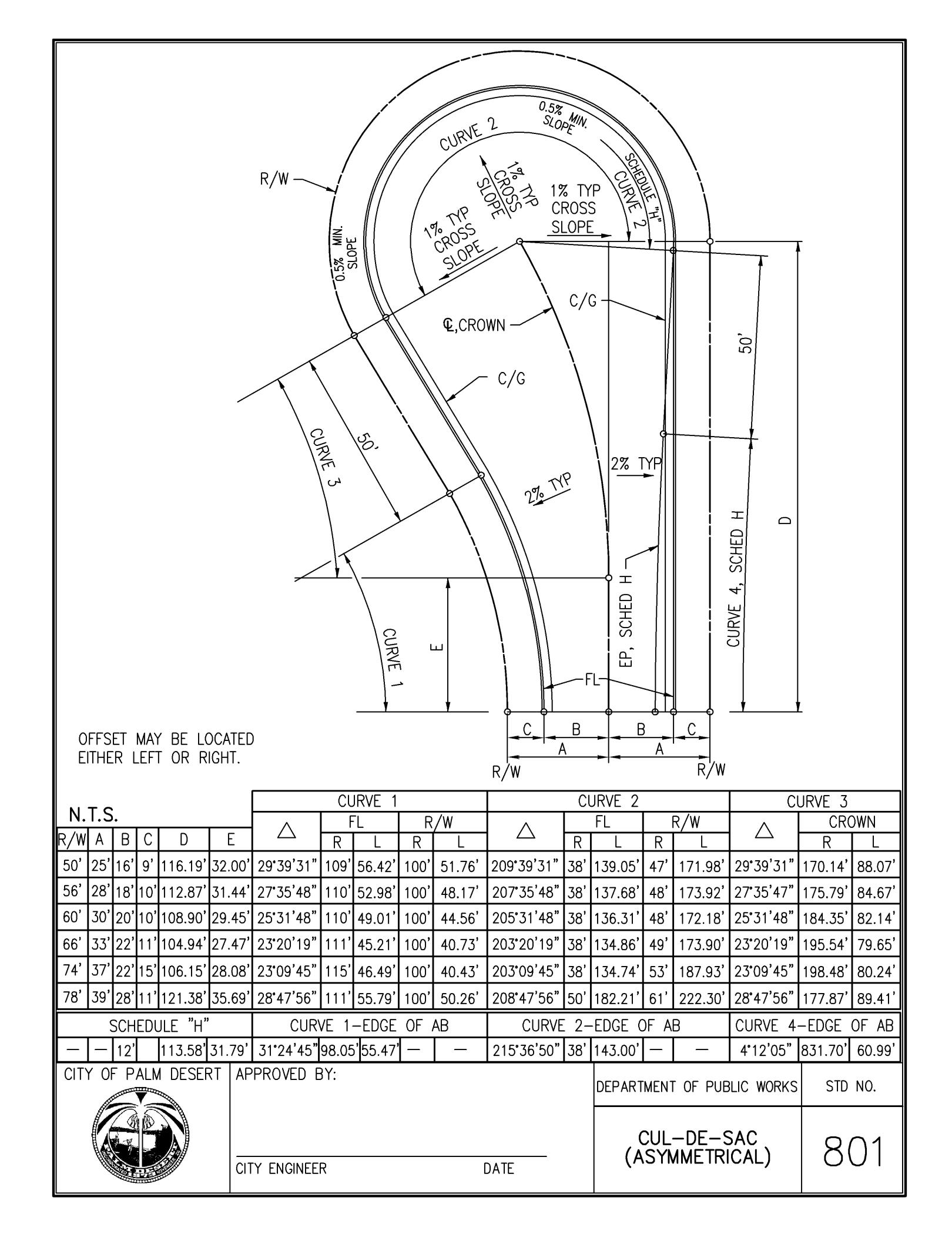
DEPARTMENT OF PUBLIC WORKS STD NO.

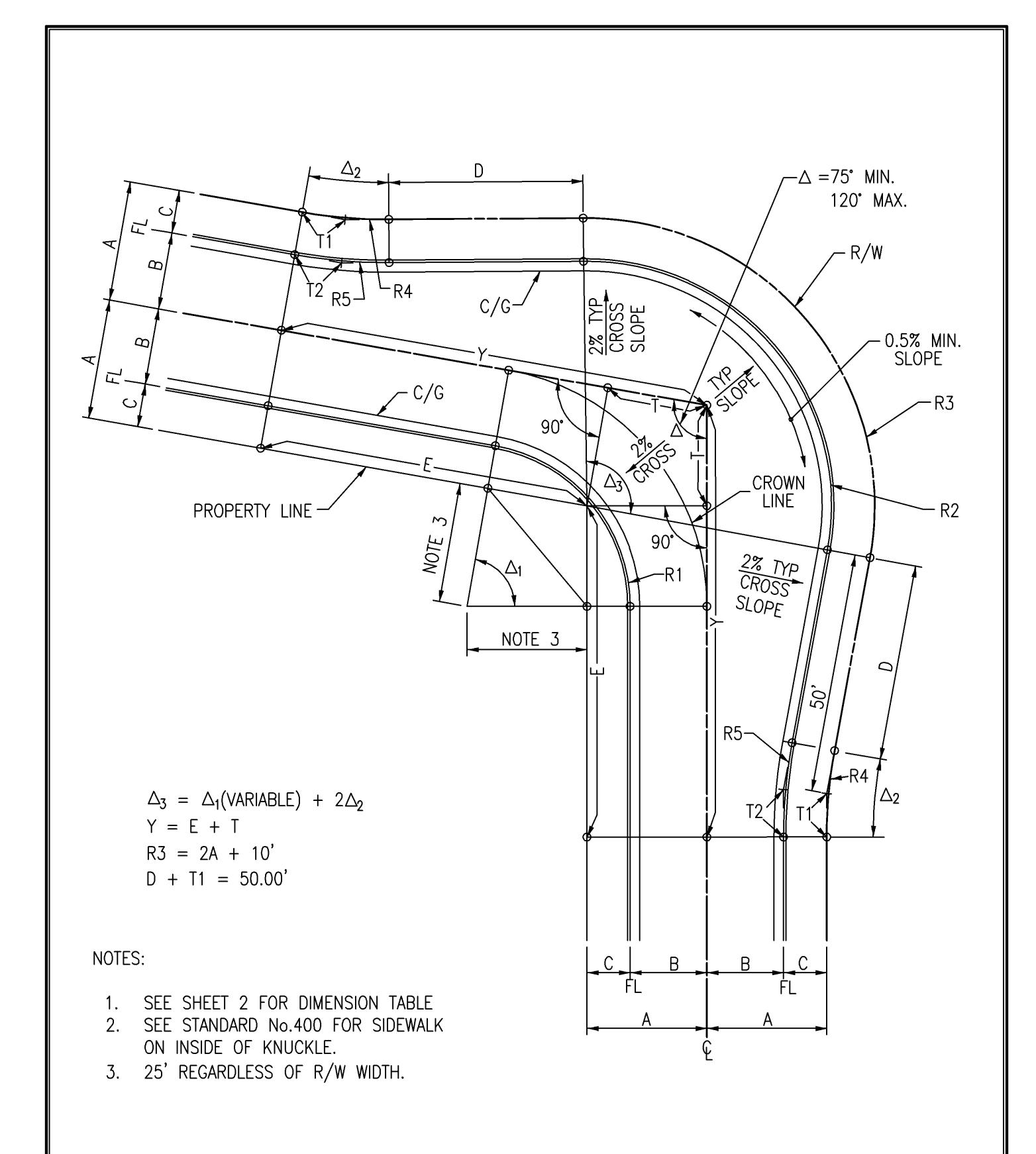
CITY ENGINEER DATE

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

CUL-DE-SAC (SYMMETRICAL)





CITY OF PALM DESERT APPROVED BY: CITY ENGINEER DATE N.T.S. DEPARTMENT OF PUBLIC WORKS STD NO. KNUCKLE 802 SHEET 1 OF 2

KNUCKLE DIMENSION TABLE

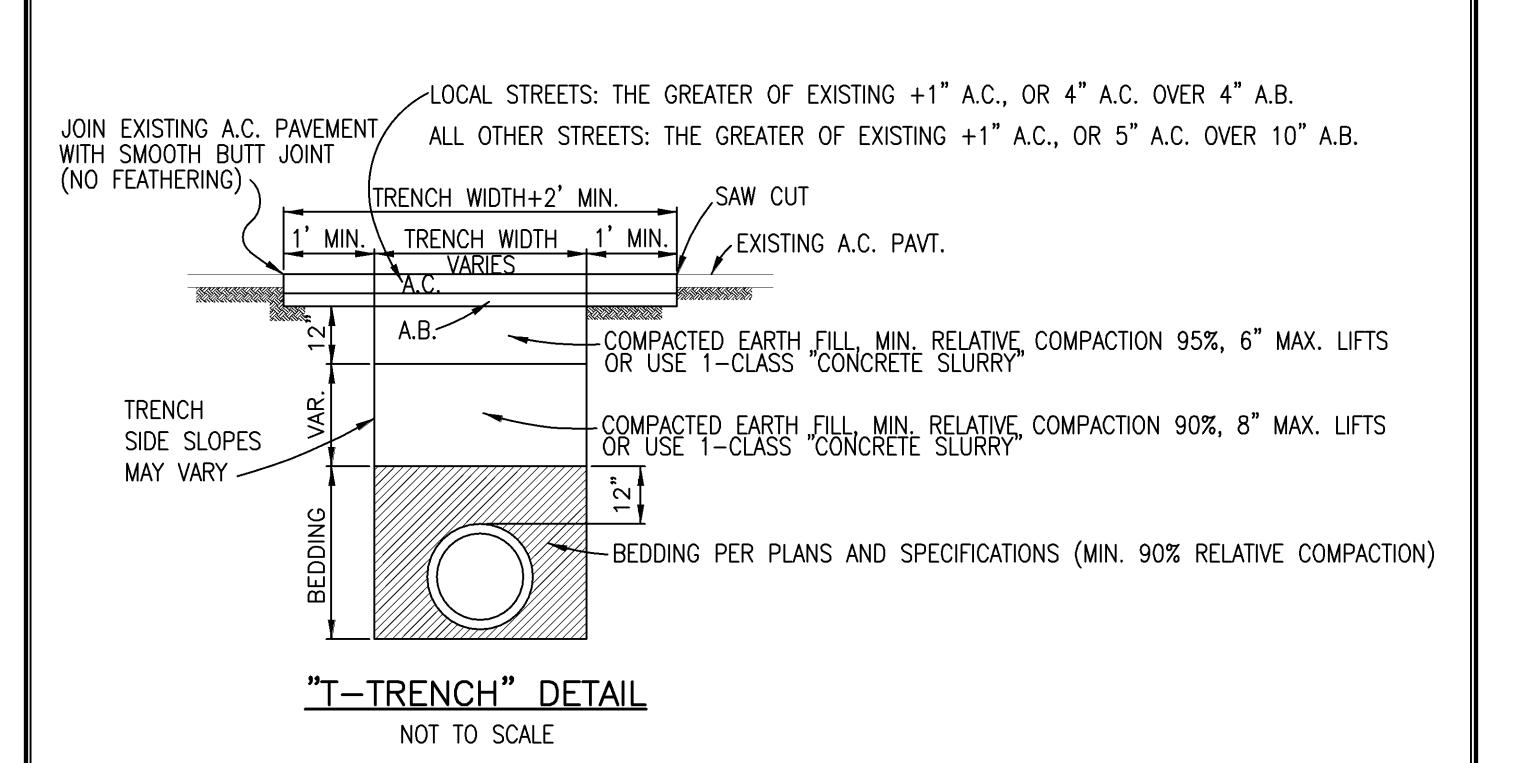
R/W	ROADWAY IMPROVEMENT WIDTH	Α	В	С	D	E	R1	R2	R3	Δ_2	R4	T1	R5	T2
50'	32'	25'	16'	9'	40.91'	69.09'	35'	51'	60'	10°23'19"	100'	9.09'	109'	9.91'
56'	36'	28'	18'	10'	40.99	70.00'	35'	56'	66'	10°17'48"	100'	9.01'	110'	9.91'
60'	40'	30'	20'	10'	41.04'	70.60'	35'	60'	70'	10°14'12"	100'	8.96'	110'	9.85'
66'	44'	33'	22'	11'	41.12'	71.49'	36'	65'	76'	10°08'58"	100'	8.88'	111'	9.86'
74'	44'	37'	22'	15'	41.22'	72.66	40'	69'	84'	10°02'13"	100'	8.88	115'	10.10'
78'	56'	39'	28'	11'	41.27	73.23'	36'	77'	88'	9°58'58"	100'	8.73'	111'	9.69'

N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

KNUCKLE 802
SHEET 2 OF 2



NOTE:

AN ALTERNATIVE SECTION MAY BE CONSIDERED. PROPOSED DESIGN SHALL BE SIGNED BY A LICENSED ENGINEER AND IS SUBJECT TO APPROVAL OF THE CITY ENGINEER.

TRANSVERSE TRENCH CUTS

0" TO 12" WIDE - REPAIR TRENCH WIDTH ONLY (NO "T-TRENCH")
12" TO 24" WIDE - REPAIR TRENCH WIDTH PLUS ADDITIONAL 1' "T" ON BOTH SIDES
>24" WIDE - REPAIR TRENCH WIDTH PLUS ADDITIONAL 1' "T" ON BOTH SIDES PLUS
GRIND/OVERLAY 0.1' MIN. DEPTH FOR AN ADDITIONAL 3' ON BOTH SIDES

LONGITUDINAL TRENCH CUTS IN DRIVING LANES

0" TO 12" WIDE — REPAIR TRENCH WIDTH ONLY (NO "T-TRENCH") PLUS 0.1' GRIND AND OVERLAY FROM LANE LINE TO LANE LINE

12" TO 24" WIDE — REPAIR TRENCH WIDTH PLUS ADDITIONAL 1' "T" ON BOTH SIDES PLUS 0.1' GRIND/OVERLAY FROM LANE LINE TO LANE LINE

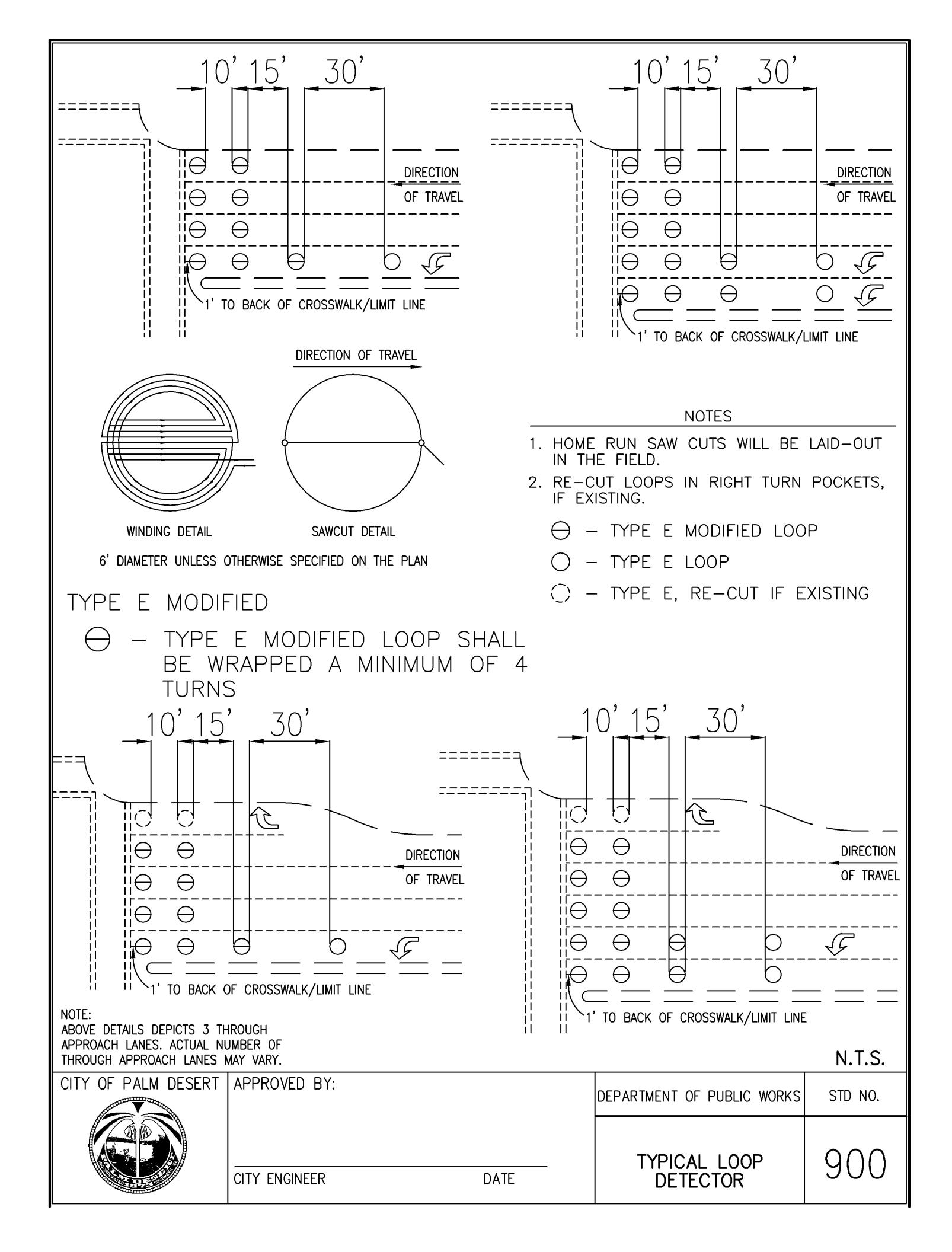
>24" WIDE — REPAIR TRENCH WIDTH PLUS ADDITIONAL 1' "T" ON BOTH SIDES PLUS GRIND/OVERLAY 0.1' MIN. FROM LANE LINE TO LANE LINE

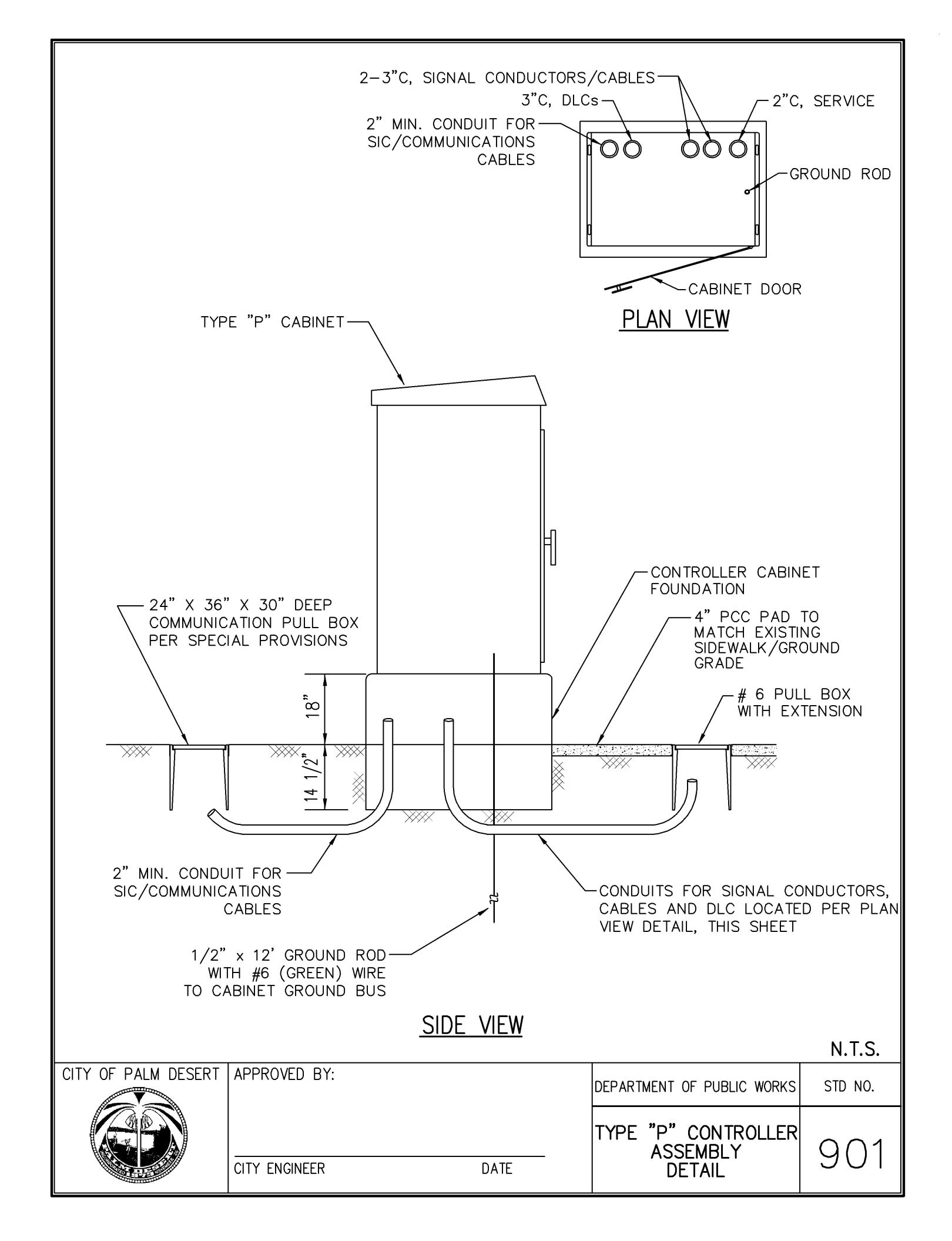
FOR CAP, MILL CL TO LIP OF GUTTER, OR LANE LINE TO LIP OF GUTTER 0.1'

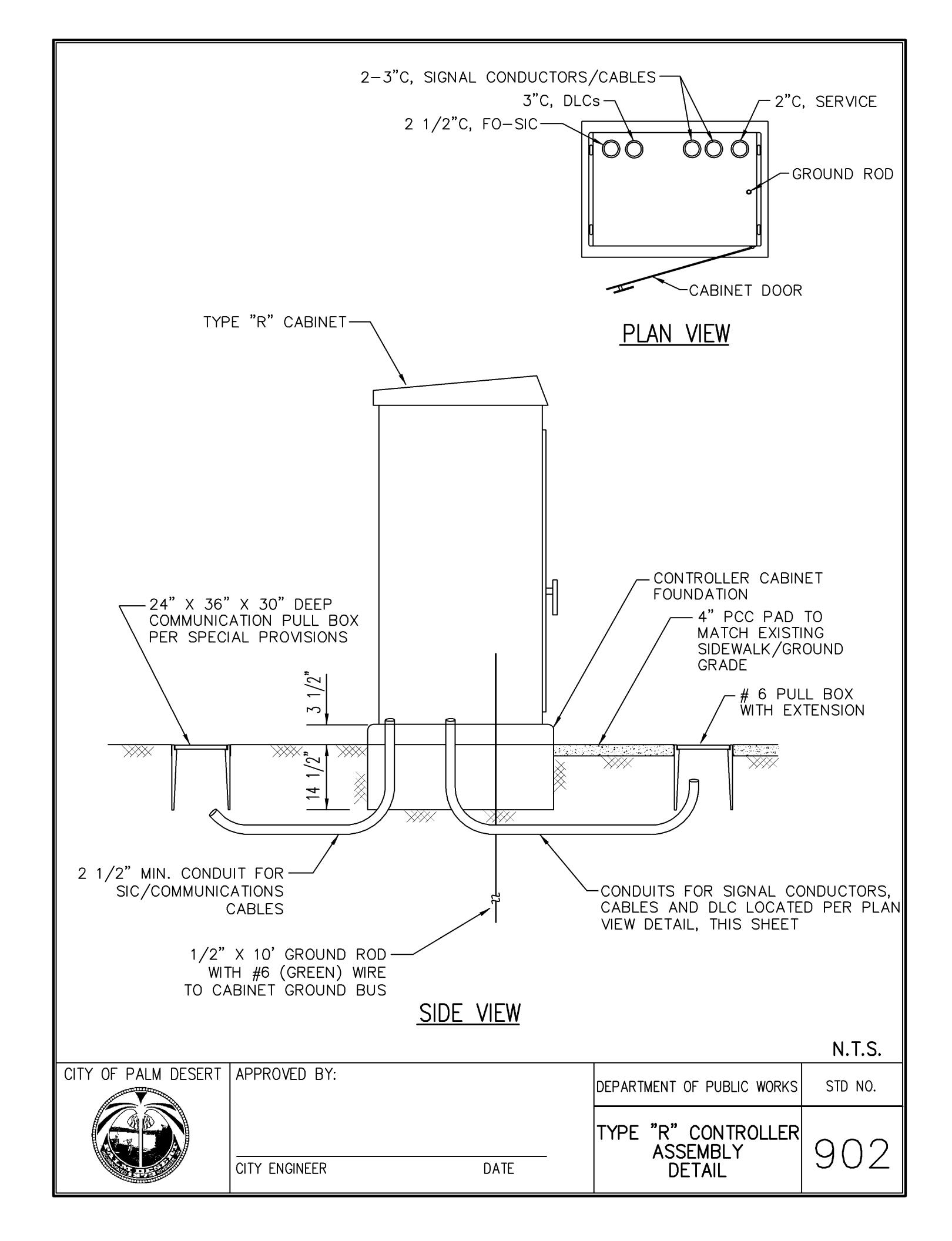
SHOULDER TRENCH CUTS

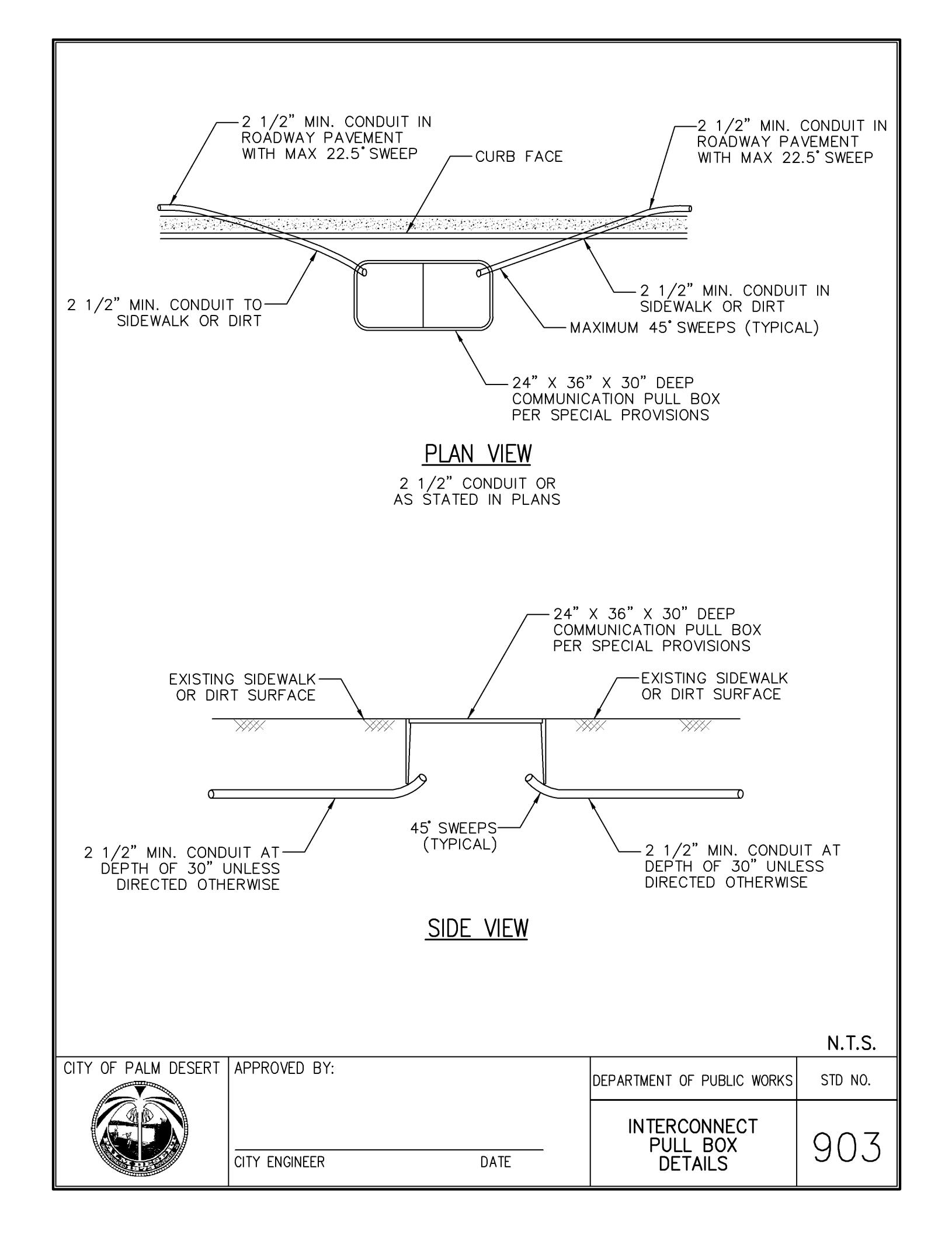
AT EDGE OF GUTTER — REPAIR TRENCH WIDTH ONLY (NO "T-TRENCH")
OFF EDGE OF GUTTER — NO LESS THAN 5' "FLOATER" BETWEEN TRENCH AND GUTTER
SLURRY OR FOG SEAL MAY BE REQUIRED UNLESS THE ROADWAY IS A DESIGNATED
BIKE ROUTE, WHICH WOULD REQUIRE A 0.1' THICK GRIND/OVERLAY
FROM EDGE OF GUTTER TO LANE LINE.

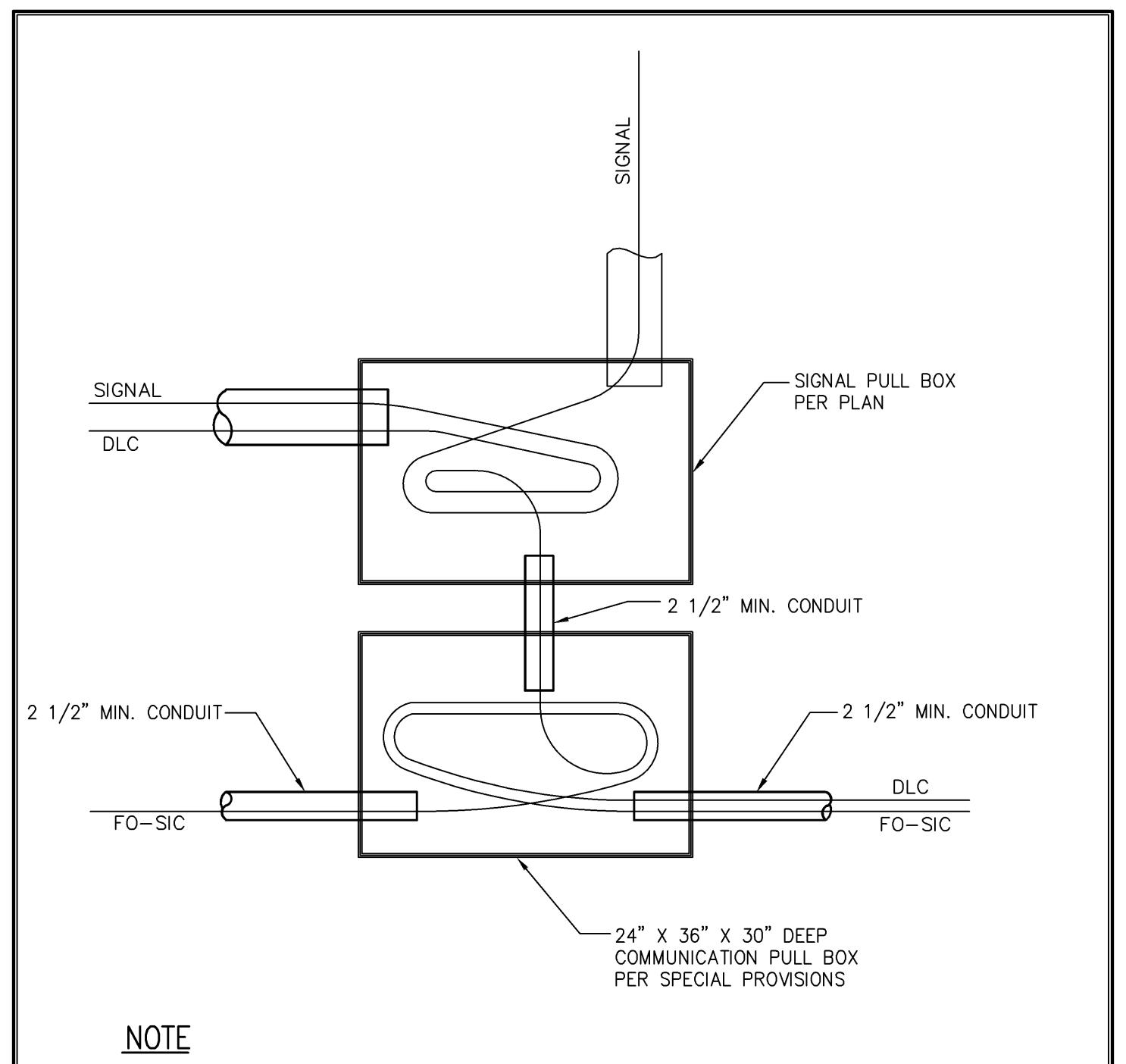
CITY OF PALM DESERT	APPROVED BY:		DEPARTMENT OF PUBLIC WORKS	STD NO.
	CITY ENGINEER	DATE	UTILITY TRENCH PAVEMENT REPLACEMENT	803





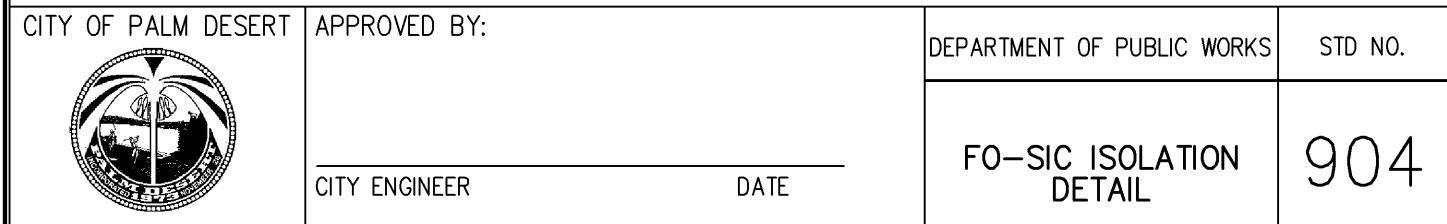


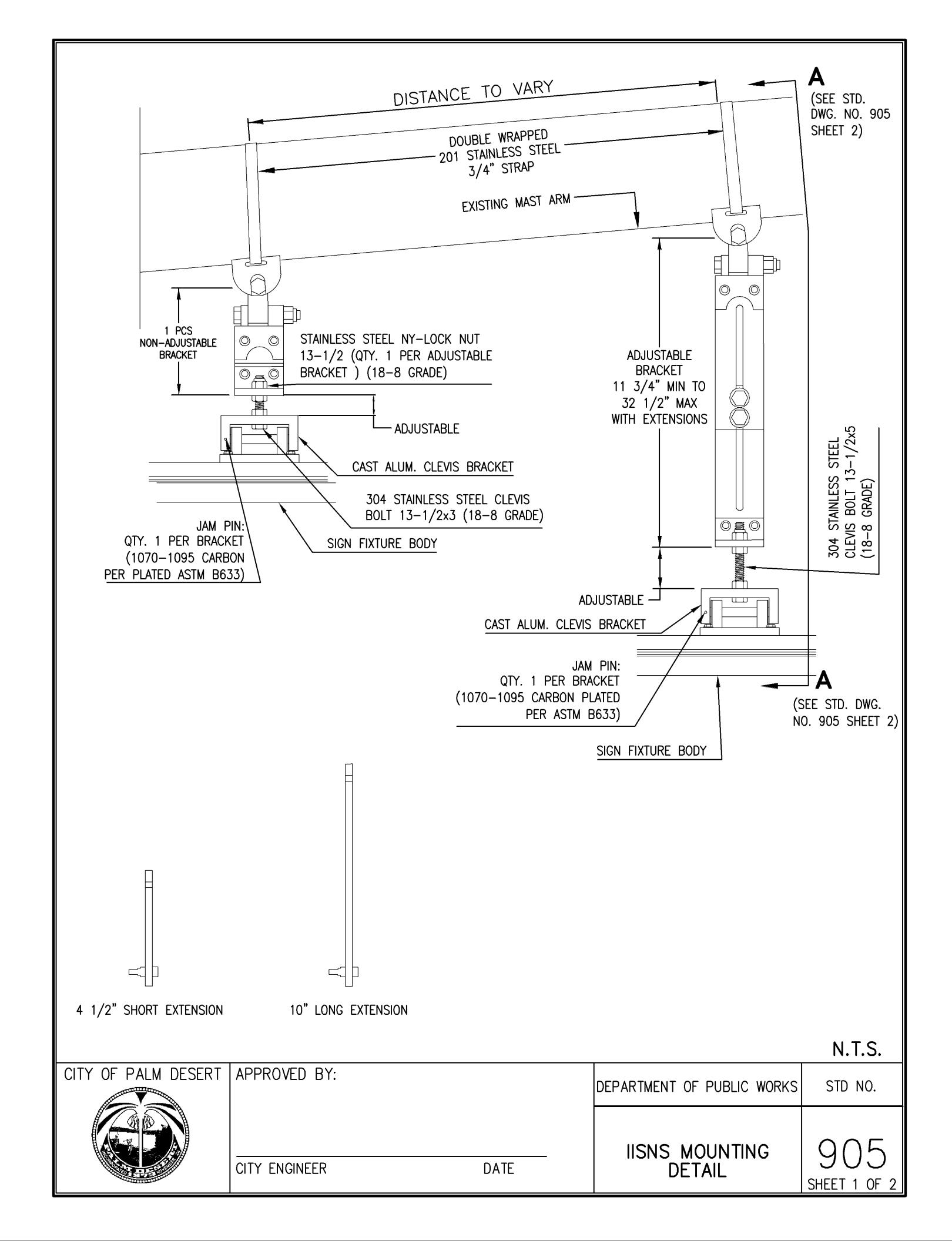


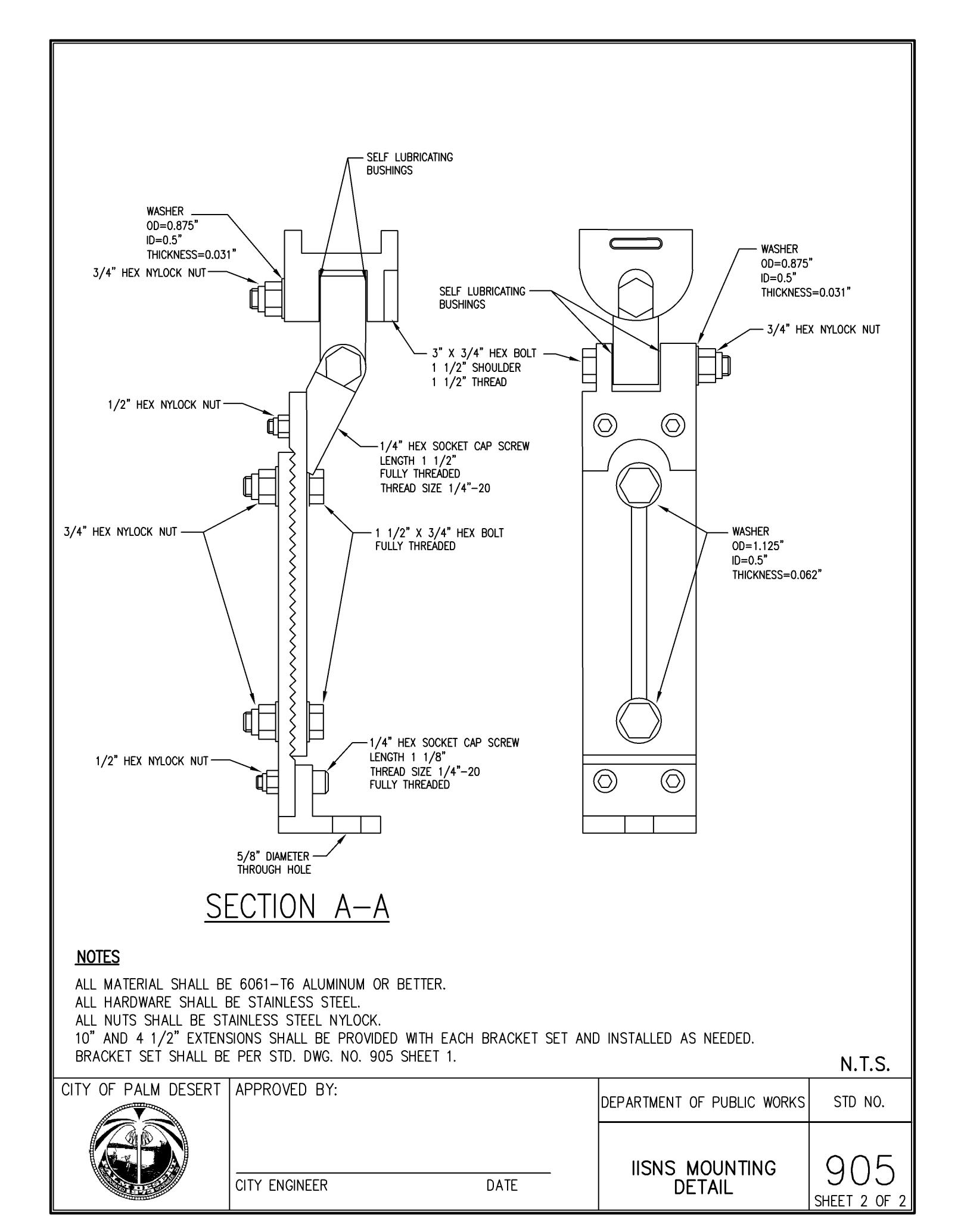


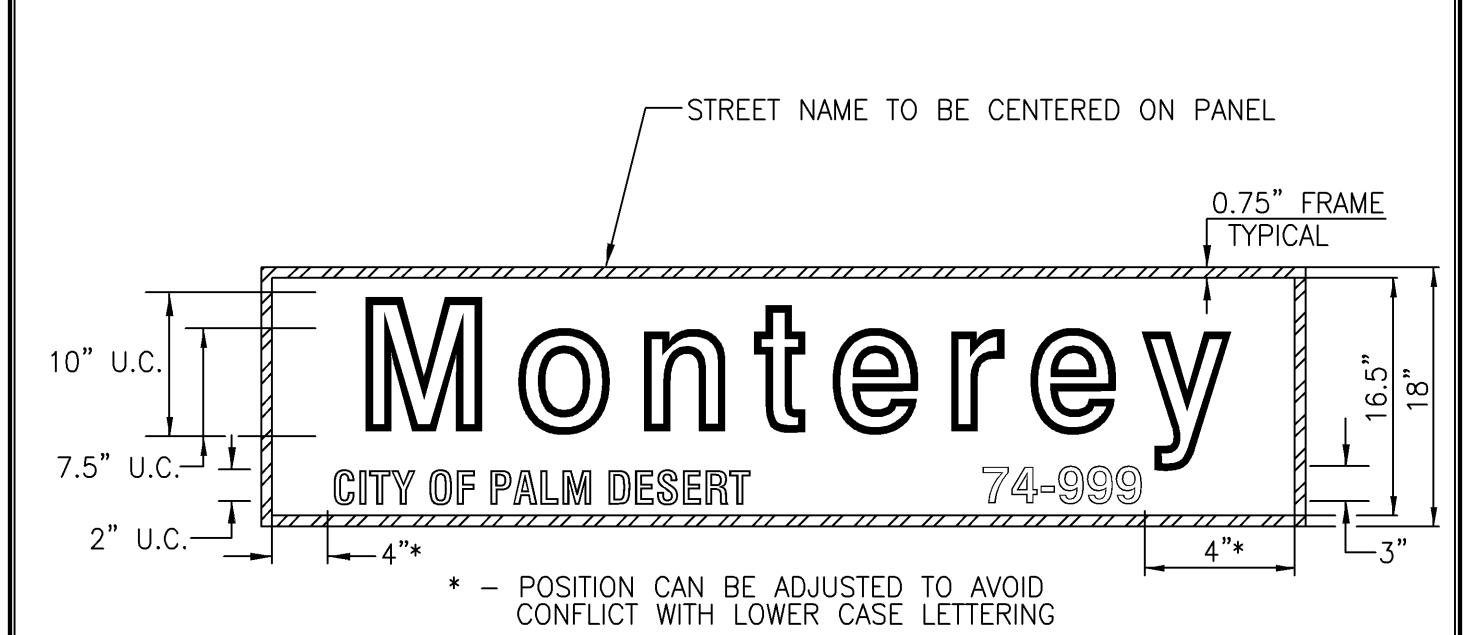
- 1. CONDUIT, CONDUCTORS AND PULLBOXES SHALL BE PER THE PLAN.
- 2. THIS DETAIL IS SCHEMATIC. FIELD CONDITIONS MAY REQUIRE VARIED CONFIGURATIONS.
- 3. SIGNAL AND FO-SIC CONDUCTORS MUST BE ISOLATED FROM EACH OTHER.

FO-SIC - FIBER OPTIC SIGNAL INTERCONNECT.









STANDARD PANEL

NOTES:

1) SIGNS SHALL BE TYPE "A" PER 2010 STATE STANDARD SPECIFICATIONS SECTION 86-6.09 AND 2010 STATE STANDARD PLAN #ES-7P EXCEPT ALL REFERENCE TO FLUORESCENT LAMP AND BALLAST ILLUMINATION IS AMENDED TO READ:

"INTERNAL ILLUMINATION OF SIGN SHALL BE DONE THROUGH ILLUMICOM LED RETROFIT KIT OR NATIONAL SIGNAL MATRIX LED RETROFIT KIT. THE LED LIGHT ENGINE LIFE SHALL BE RATED FOR A MINIMUM OF 50,000 HOURS, WITH SPARE PERIOD OF FIVE YEARS FROM DATE OF PURCHASE. THE EQUIPMENT SHALL HAVE A DATE OF MANUFACTURE AS PART OF THE SERIAL NUMBER. ALL UNITS PROVIDED SHALL HAVE A MANUFACTURE DATE CODE OF NO MORE THAN 6 MONTHS FROM DATE OF DELIVERY. THE LED LIGHT SHALL BE UNIFORMLY DISTRIBUTED ACROSS THE SIGN PANELS. STRIPING OR PIXILATION OF SIGN PANEL SHALL NOT BE VISIBLE. ENERGY SAVINGS SHALL BE AT A MINIMUM OF 60% OF STANDARD T12 FLUORESCENT LIGHTING TYPICALLY FOUND ON IISNS."

- 2) PANELS SHALL BE FOR EITHER 72" OR 96" HOUSING AS REQUIRED.
- 3) SIGN FACE SHALL BE CONSTRUCTED PER 2010 STATE STANDARD SPECIFICATIONS SECTION 86-6.09.
- 4) WHITE LETTERING ON GREEN BACKGROUND. NO BORDER. LETTER AND NUMBER SIZES AS SPECIFIED ABOVE.
- 5) ILLUMINATED STREET NAME SIGNS SHALL NOT DISPLAY A SUFFIX, (I.E.: ST., DR., CIR., ETC.) EXCEPT AS DIRECTED BY THE ENGINEER OR AS NOTED ON THE PLANS.
- 6) HWY. SERIES "E" LETTERING PREFERRED EXCEPT SERIES "C" OR "D" MAY BE USED IF NEEDED. LETTER SPACING MAY BE ADJUSTED TO AVOID LOWER CASE LETTERING CONFLICTS.

				N.T.S.
CITY OF PALM DESERT	APPROVED BY:		DEPARTMENT OF PUBLIC WORKS	STD NO.
	CITY ENGINEER	DATE	INTERNALLY ILLUMINATED STREET NAME SIGNS	906

REGIONAL

(FOR ARTERIAL & SECONDARY STREETS)

LENGTH: 36", 42", OR 48" 3"1 AVE. 3/8" **SILVER BORDER** CITY OF PALM DESERT_\$\frac{1}{3}\frac{1}{4}\cdot 3\cdot \frac{1}{3} - 000

RESIDENTIAL

12,"

(FOR RESIDENTIAL, COLLECTOR & LOCAL STREETS)



-3/8" **SILVER BORDER**

SPECIFICATIONS

DESIGN APPROVAL

Street name sign layout requires Public Works approval prior to fabrication.

BASE METAL

The base metal substrate shall be sheet aluminum alloy Zumar Model 812Ex25Q (or approved equal).

BLADE SIZE

There shall be two sizes of street name signs. Regional and Residential. Regional shall be 12 inches and residential shall be 10 inches. The horizontal length shall be determined by the legend.

REFLECTIVE SHEETING:

Sign shall have 3M Diamond Grade DG reflective sheeting overlay and 3M 1160A Anti Graffiti film overlay.

PROCESSING:

Colors shall be silver copy on green background with 3/8 inch silver border. The sign shall be reversed screened and coated with a clear finish. The Residential sign shall have a 5 inch Palm Desert City Seal logo. The logo shall be reversed silk screened.

MESSAGE LENGTH:

The length of the message will be dependent upon the name length plus its suffix and block numbers, but shall be in multiples of six inches. Regional signs shall have an overall length of not less than 36 inches and not over 54 inches. Residential signs shall have an overall length of not less than 36 inches and not over 48 inches.

LETTER SIZE AND SERIES:

Street name legend and suffix shall be upper and lower case lettering in standard lengths and shall be fabricated using standard FWHA "B" or "C" Series letters for all copy.
Regional sign shall have 8 inch upper case and 8 inch lower case legend with 3 inch suffix and block number.
Residential sign shall 8 inch upper case and 4½ inch lower case legend. The suffix shall be 2 inches and the

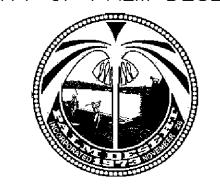
block number shall be 2½ inches.

MOUNTING HOLES:

Two 3/8 inch diameter holes shall be drilled on both the top and bottom of the sign to match the metal substance above. N.T.S.

> STD NO. IDEPARTMENT OF PUBLIC WORKS STREET NAME

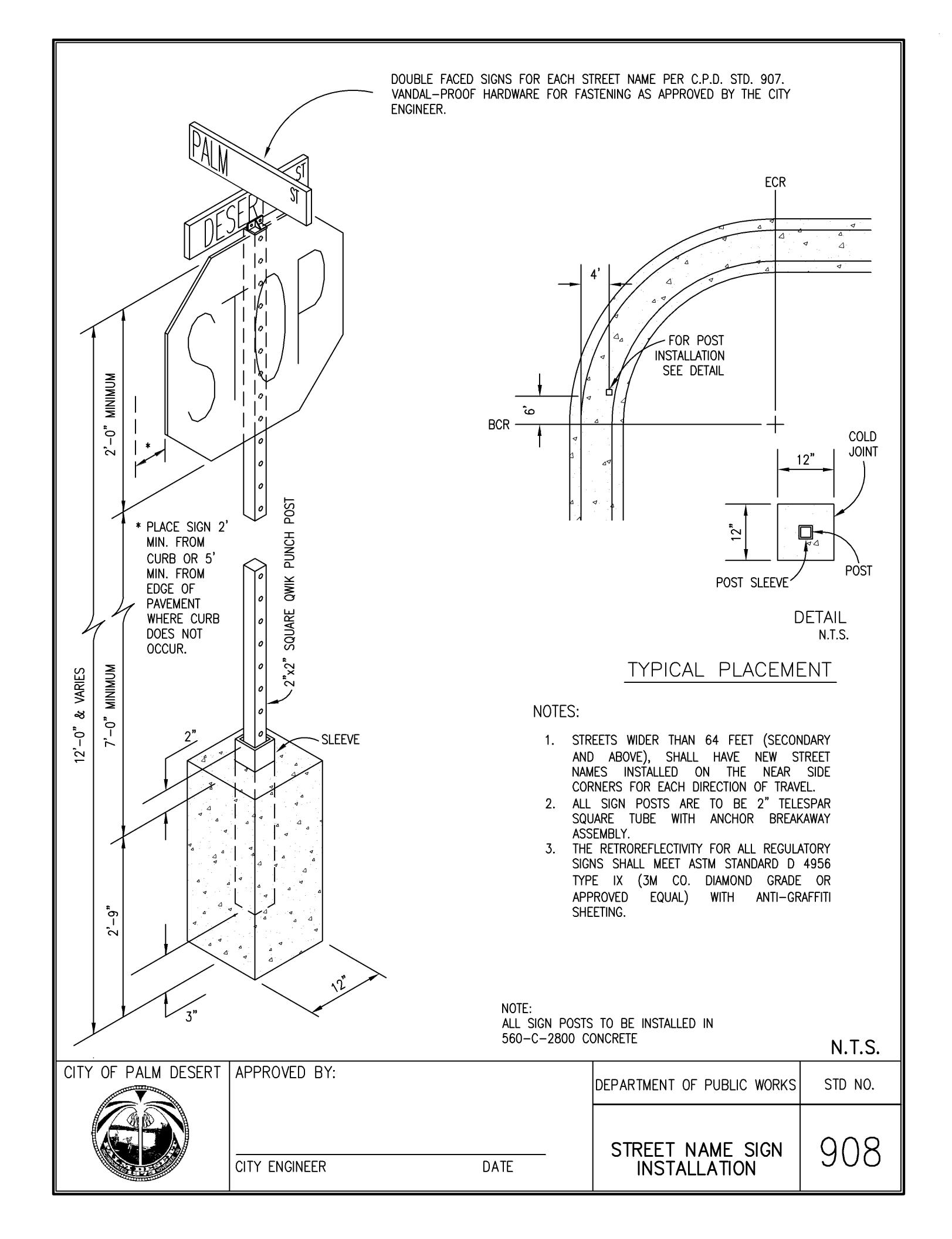
CITY OF PALM DESERT | APPROVED BY:



CITY ENGINEER

DATE

SIGNS



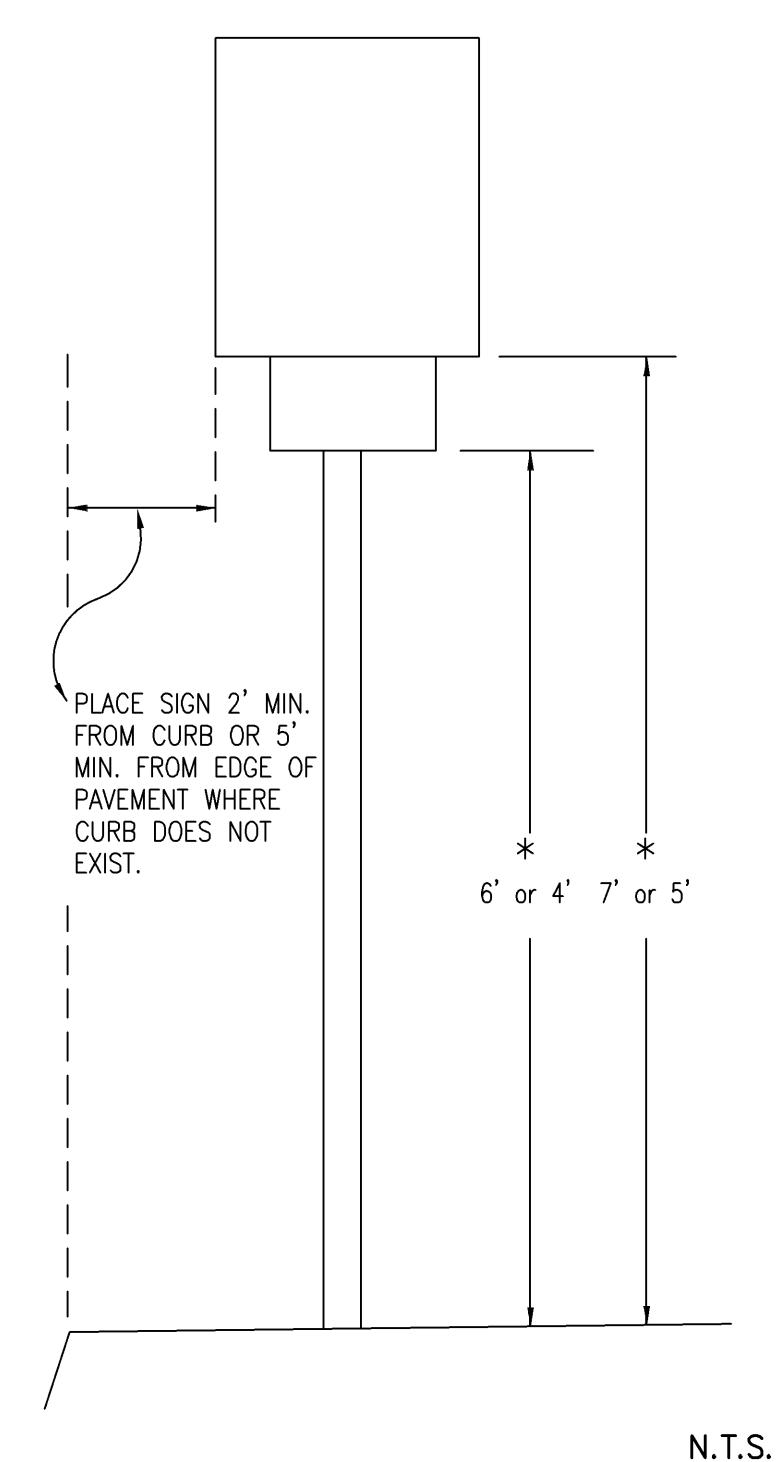
NONE: POST INSTALLATION SHALL BE IN ACCORDANCE WITH STANDARD DRAWING NO. 908

SIGNS HEIGHTS Warning Signs shall be mounted at a height of at least 5 feet, measured from the bottom of the sign to the near edge of the pavement. In business, commercial and residential areas where parking and/or pedestrian movement is likely to occur or where there are other obstructions to view, the clearance to the bottom of the sign shall be at least 7 feet. The height to the bottom of a secondary sign mounted below another sign may be 1 foot less than the appropriate height specified above.

Regulatory Sign

The bottom of the sign shall be 5 feet above the surface of the pavement on conventional highways. In urban areas and where parking is prevalent, the bottom of the sign shall be placed at least 7 feet above the top of the curb.

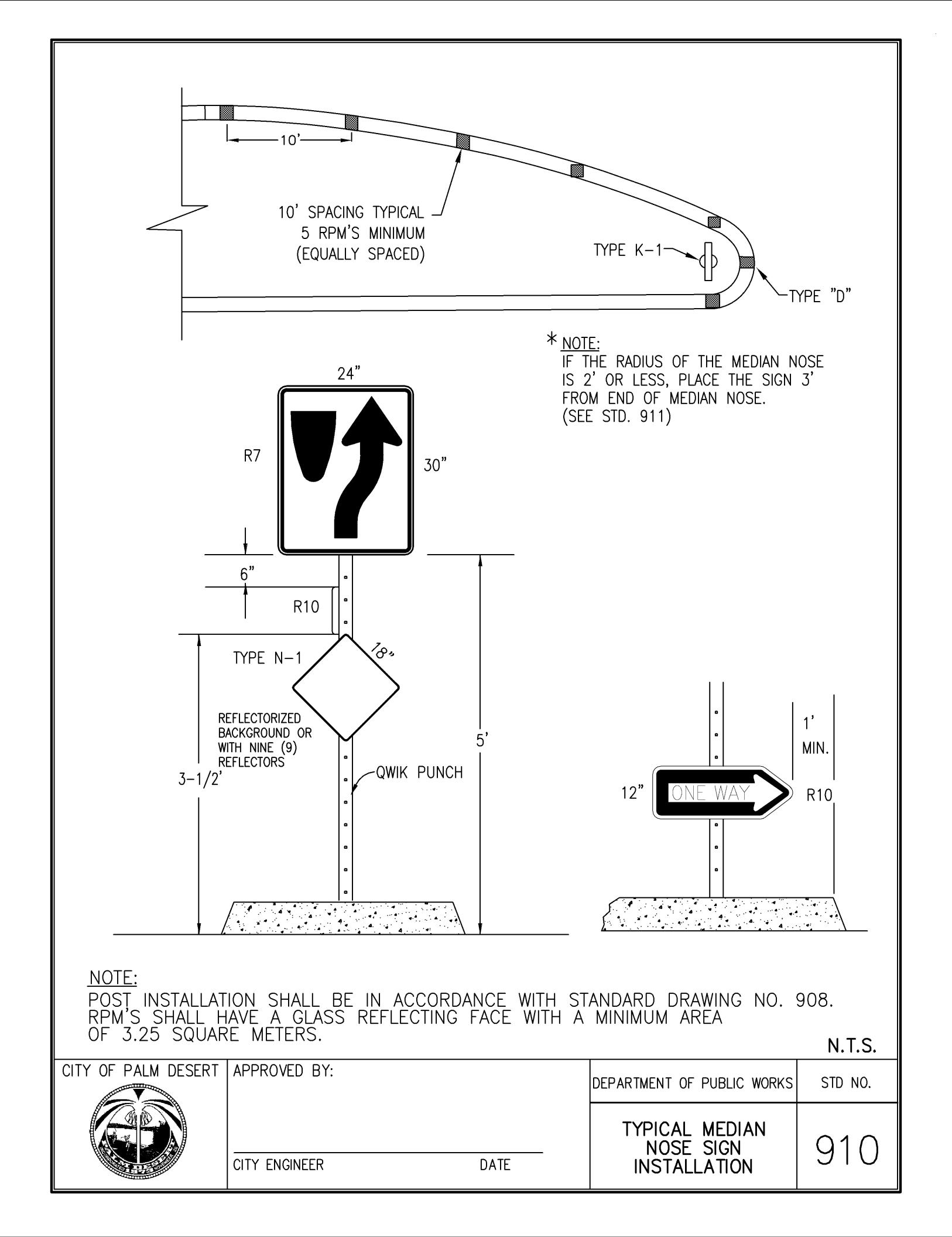
Any Modifications must be per the approval of the City Engineer.

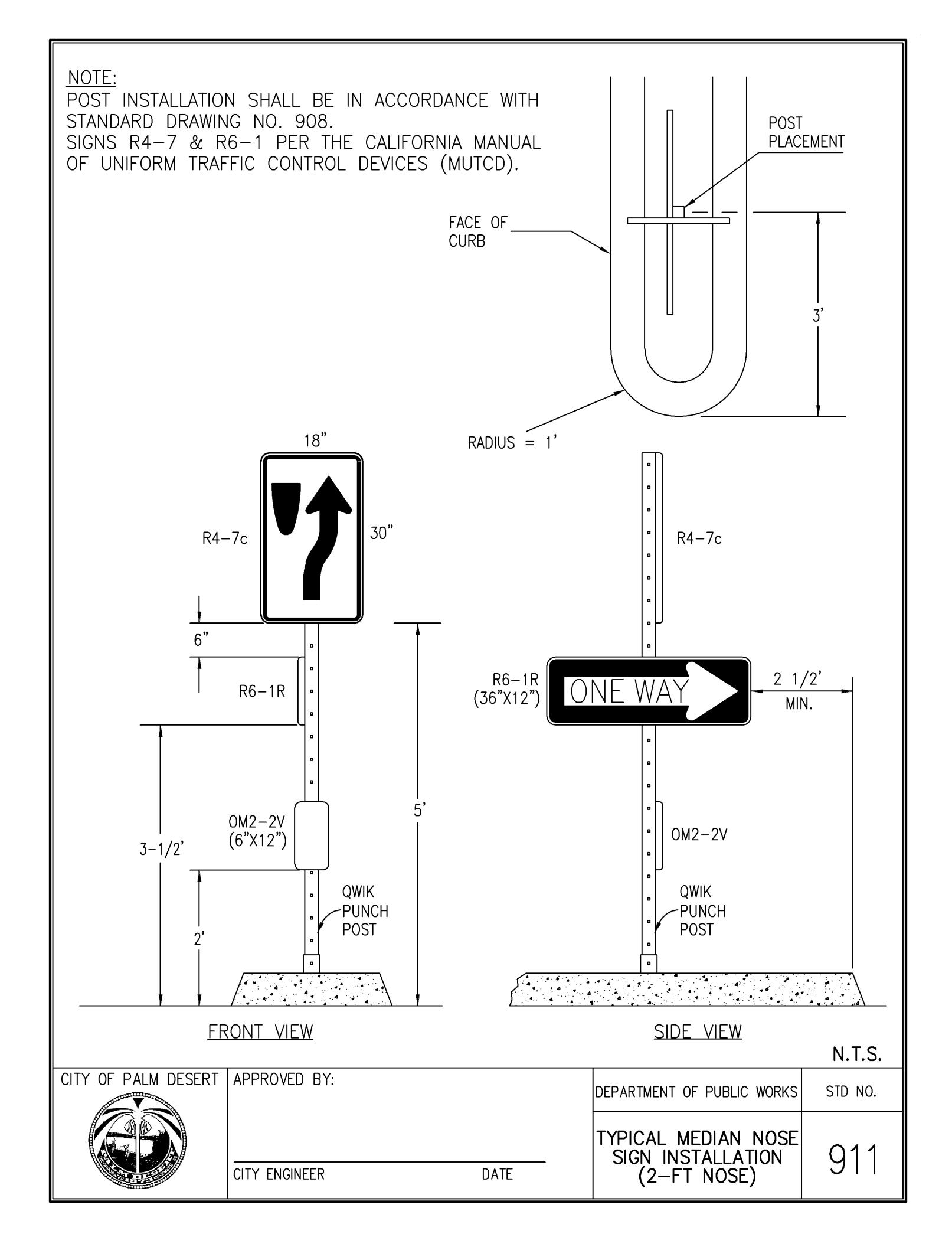


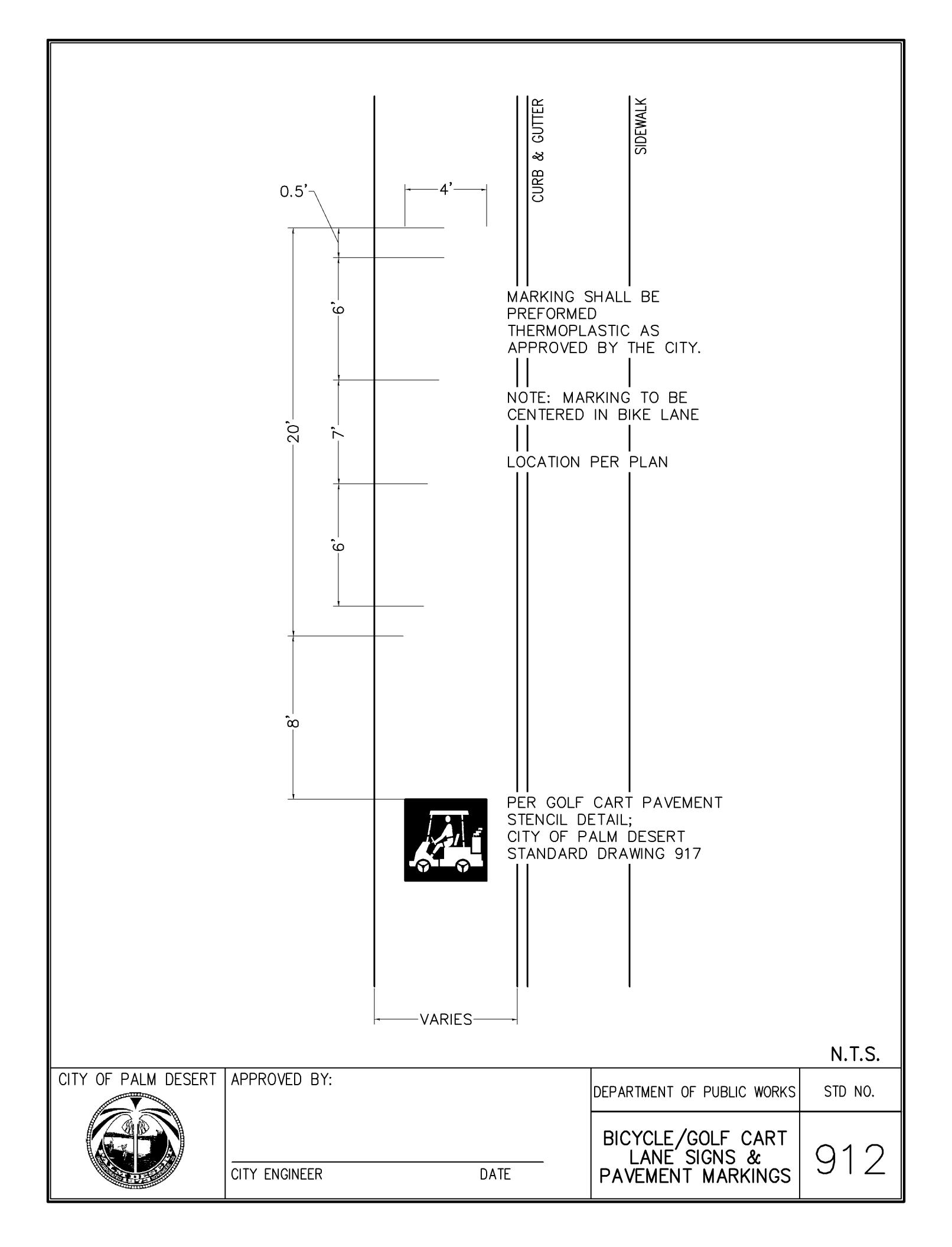
CITY OF PALM DESERT APPROVED BY:

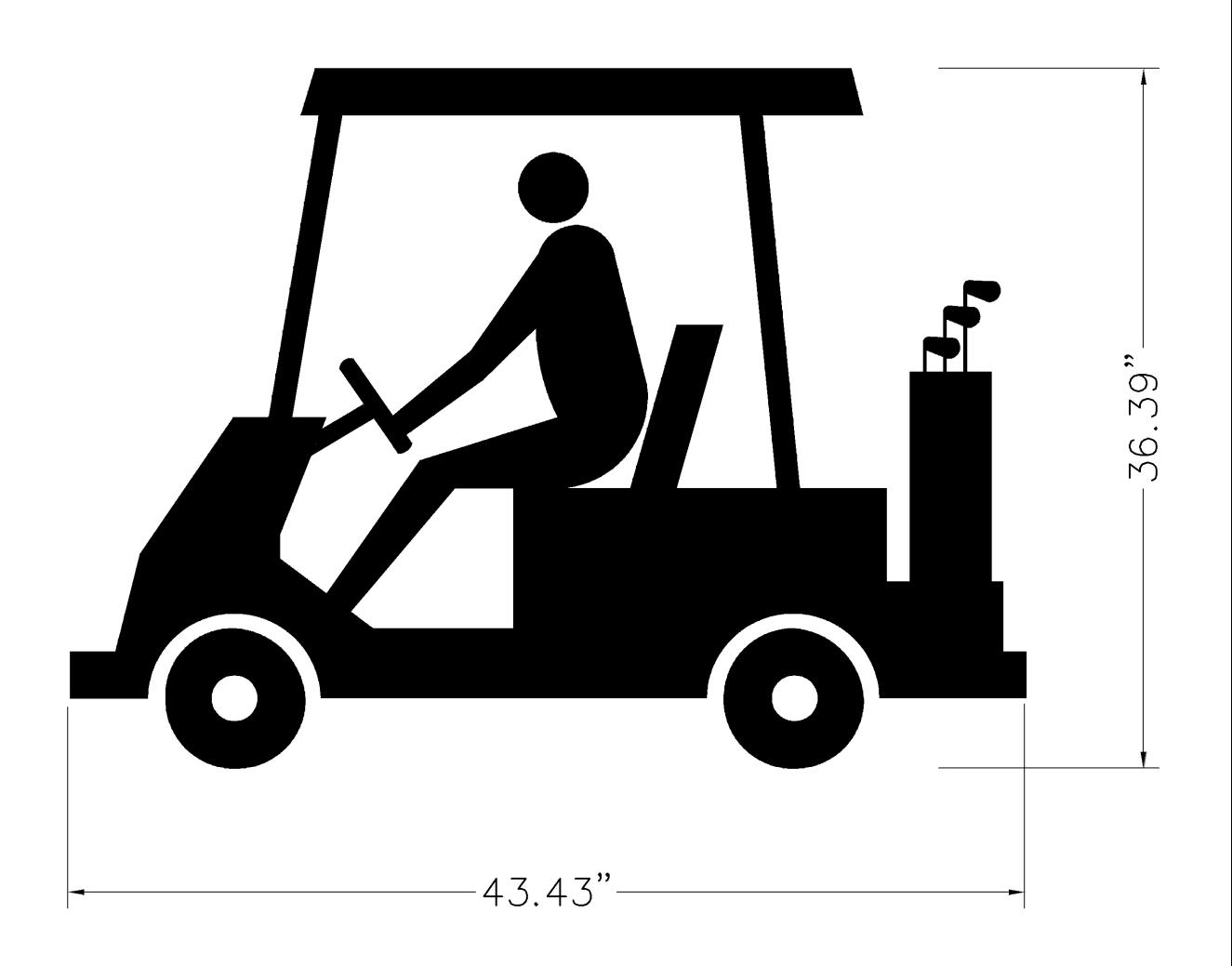
DEPARTMENT OF PUBLIC WORKS STD NO.

TYPICAL SIGN POST 909









1' = 1"

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

CITY ENGINEER DATE

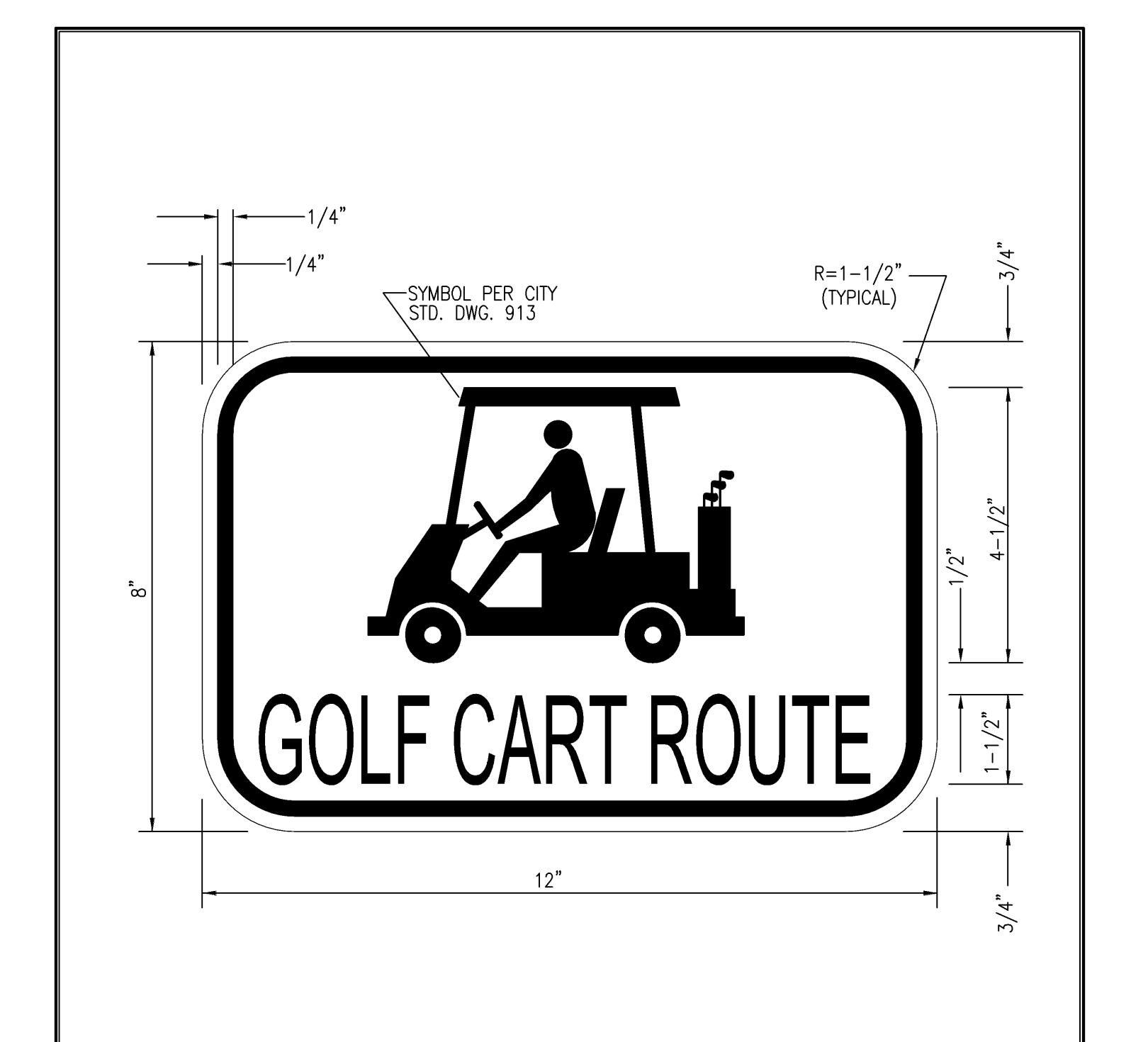
DEPARTMENT OF PUBLIC WORKS STD NO.



COLORS

BORDER AND LEGEND - BLACK (Non-Reflective)
BACKGROUND - WHITE (Reflective)

				=
CITY OF PALM DESERT	APPROVED BY:		DEPARTMENT OF PUBLIC WORKS	STD NO.
	CITY ENGINEER	 DATE	GOLF CART LANE SIGN	914

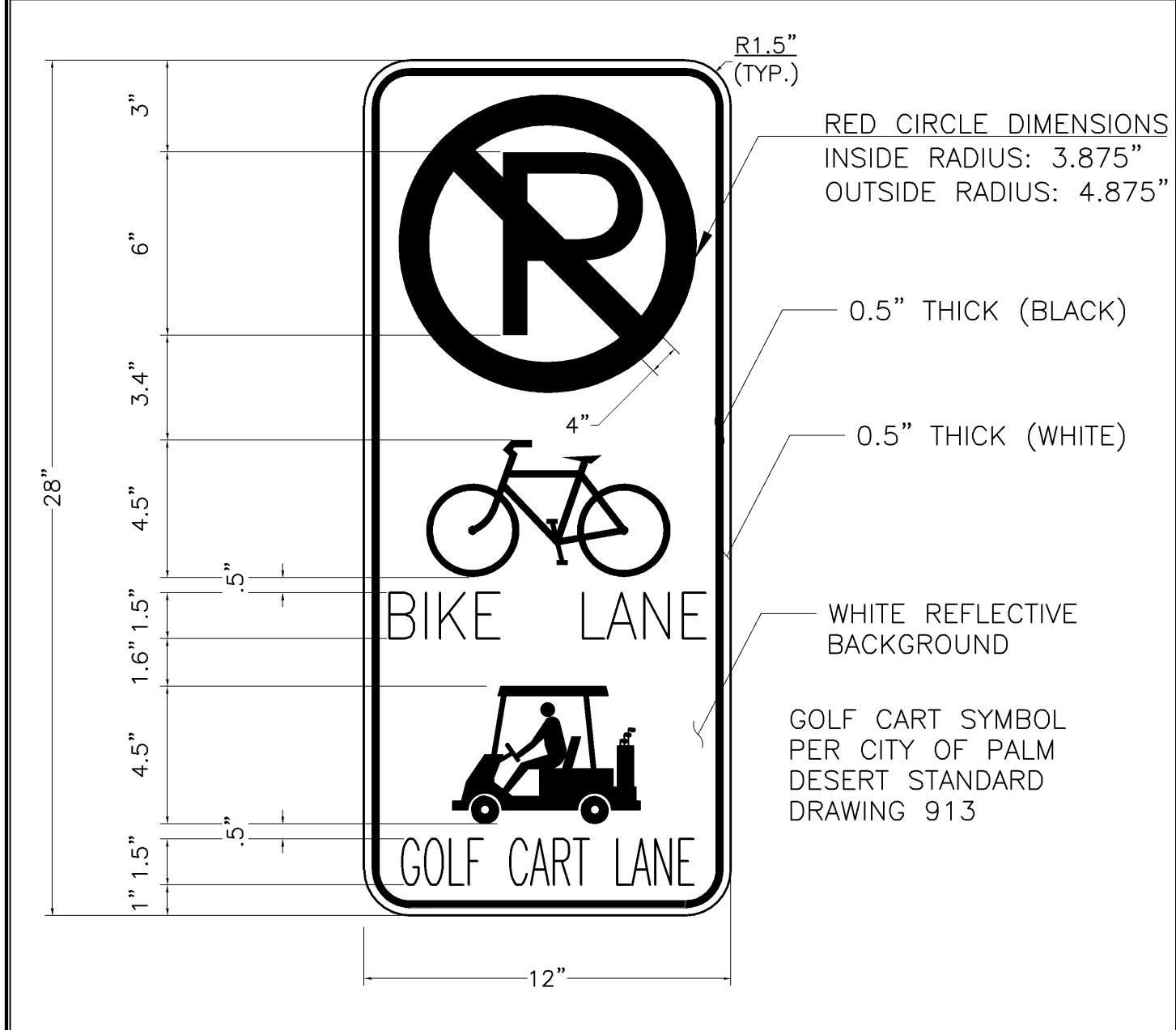


COLORS BORDER AND LEGEND - WHITE (Non-Reflective) BACKGROUND - GREEN (Reflective)

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

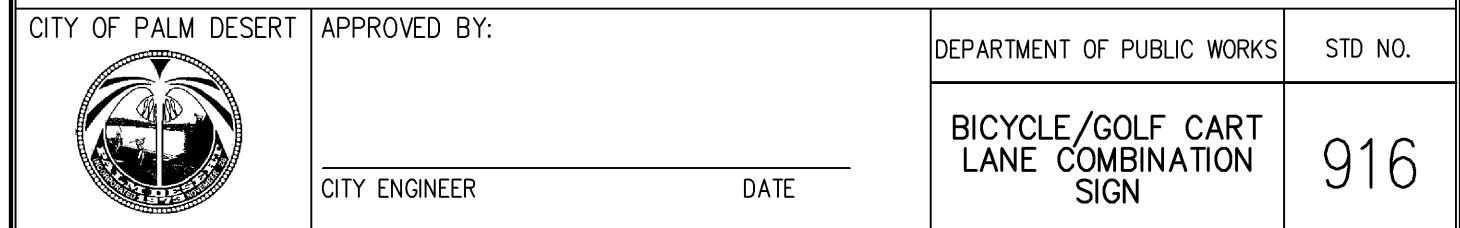
GOLF CART ROUTE SIGN 915

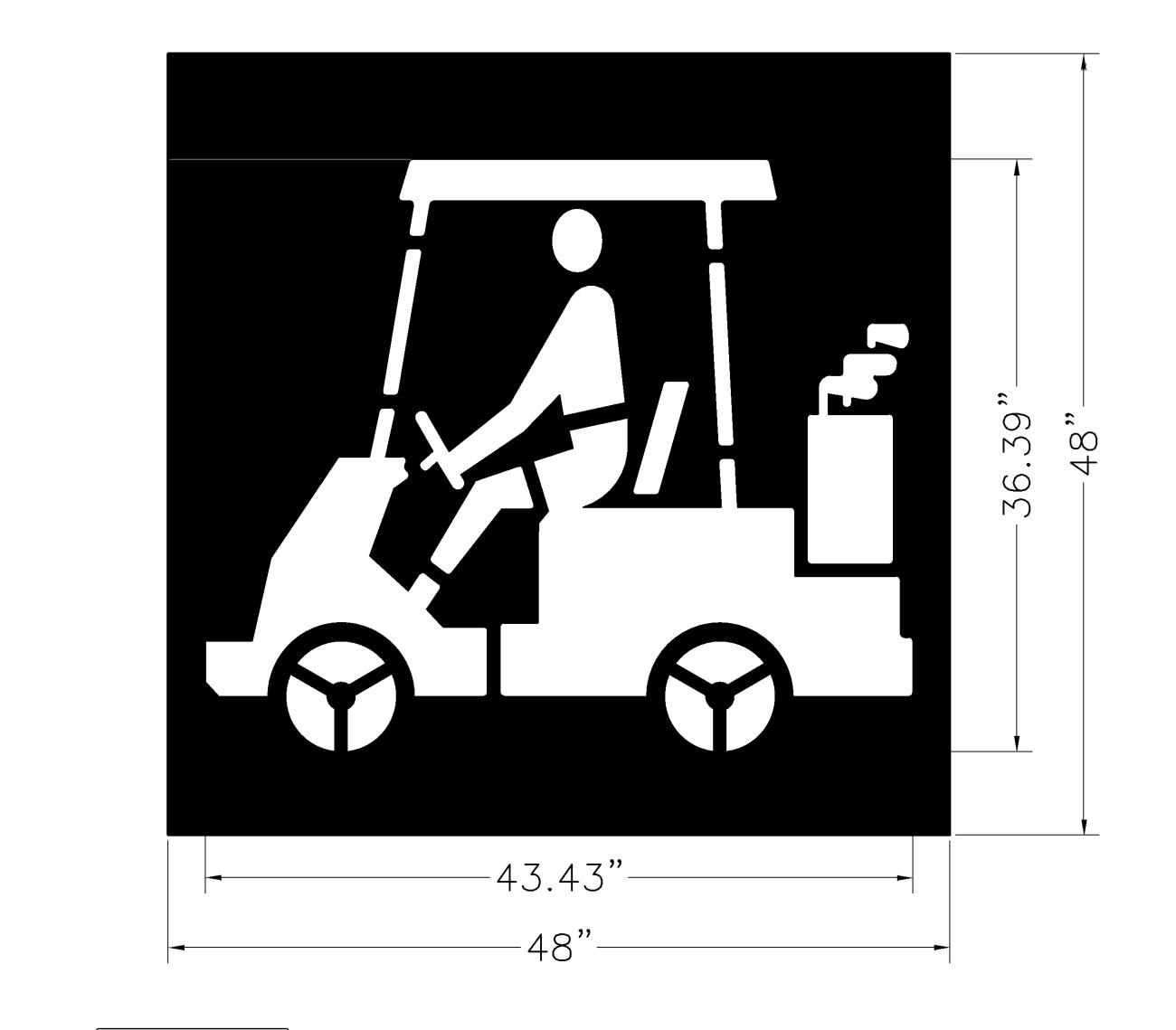


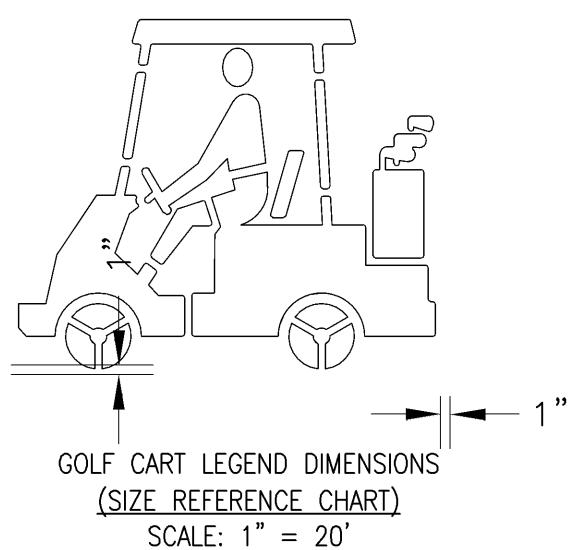
MID-BLOCK BIKE/GOLF CART LANE SIGN

NOTES:

- 1. R81A(CA) "BEGIN" SIGN SHALL BE INSTALLED BELOW MID-BLOCK BIKE/GOLF CART LANE SIGN AT THE START OF EVERY BIKE LANE.
- 2. "MID-BLOCK" SIGN SHALL BE INSTALLED EVERY 500 LINEAR FEET, UNLESS OTHERWISE SPECIFIED BY THE CITY.
- 3. R81B(CA) "END" SIGN SHALL BE INSTALLED BELOW MID-BLOCK BIKE/GOLF CART LANE SIGNAT THE END OF EVERY BIKE LANE.
- 4. FOR BICYCLE FACILITIES SPECIFIC SIGNAGE, REFERENCE THE CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).







NOTE: MARKING SHALL BE PREFORMED THERMOPLASTIC AS APPROVED BY THE CITY.

N.T.S.

CITY OF PALM DESERT APPROVED BY:

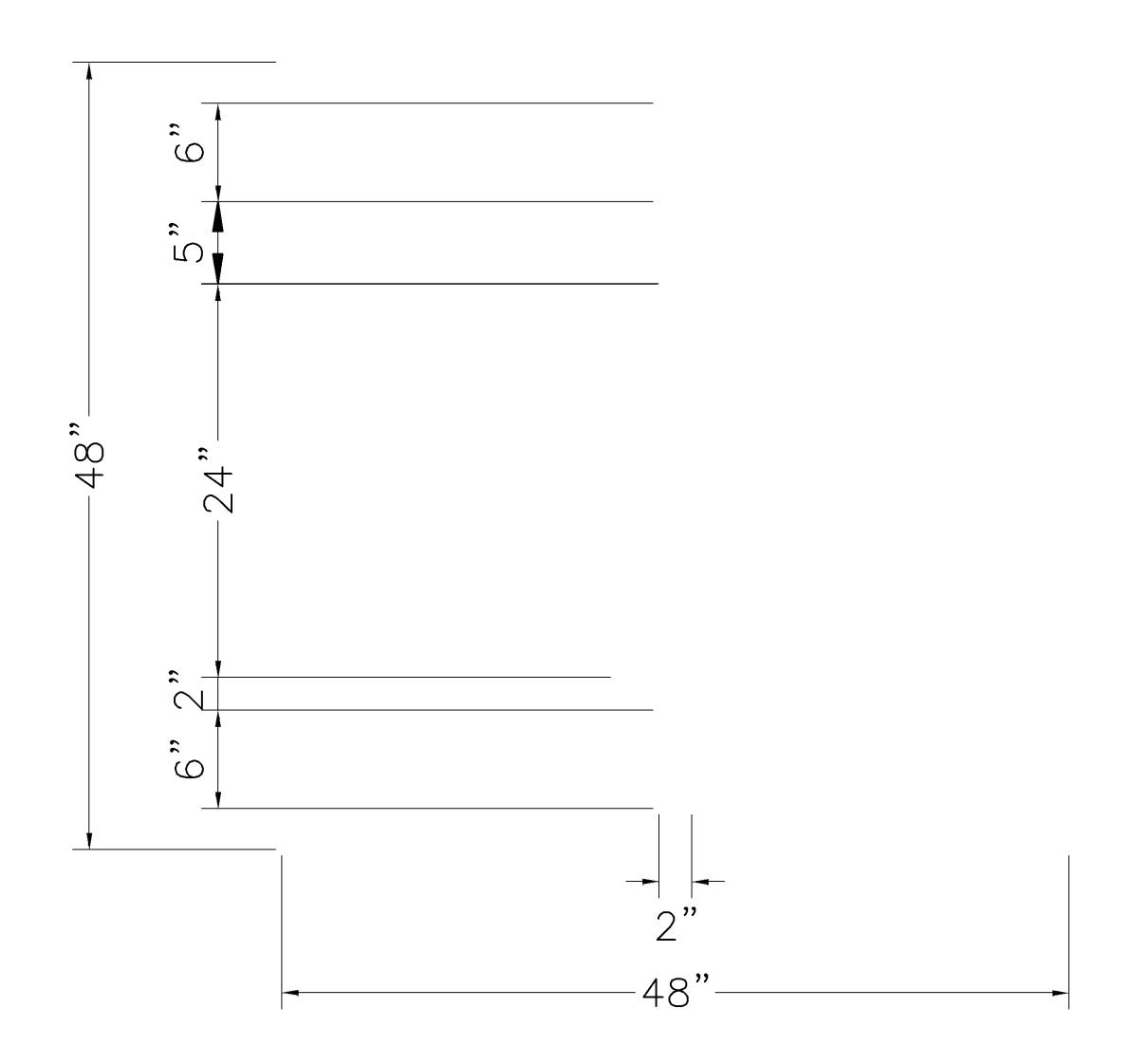


CITY ENGINEER DATE PAVE

DEPARTMENT OF PUBLIC WORKS STD NO.

GOLF CART 917

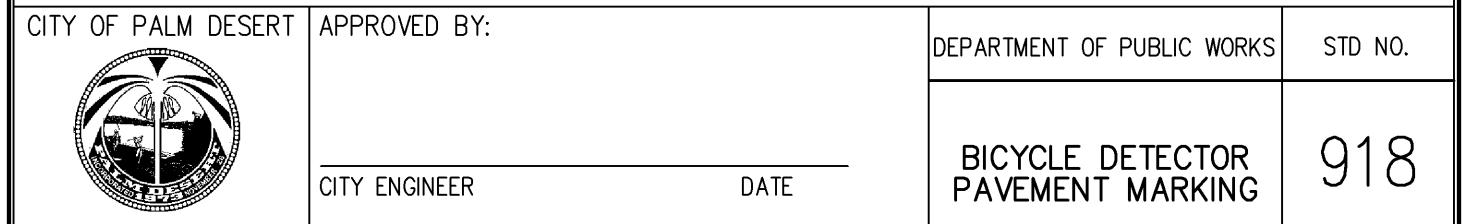
PAVEMENT LEGEND

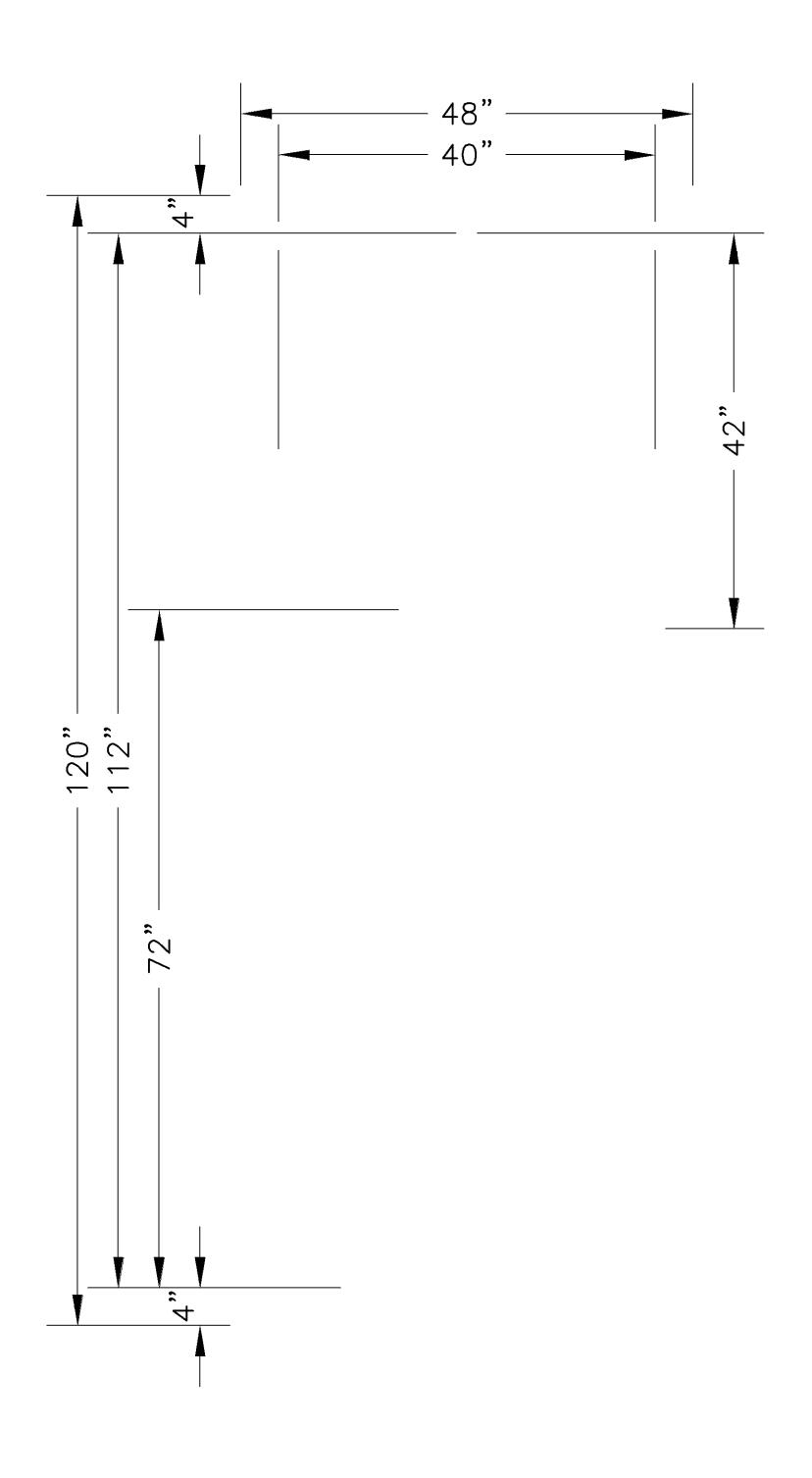


BICYCLE DETECTOR PAVEMENT MARKING

NOTES:

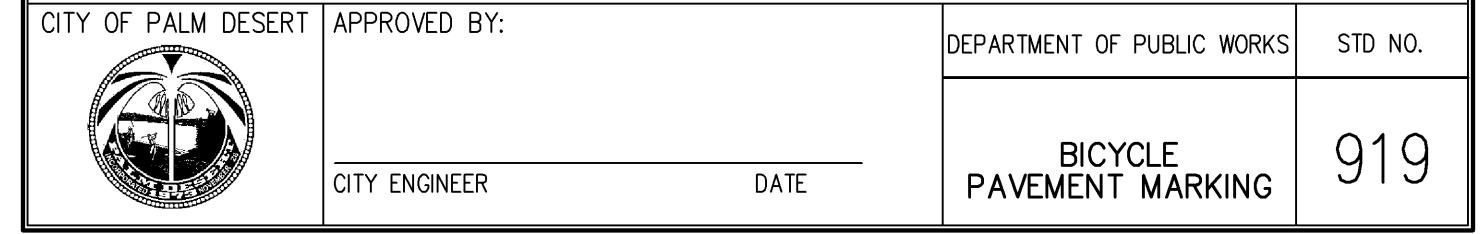
- 1. USE GREEN COLORED PAVEMENT MARKINGS. SEE CVAG ACTIVE TRANSPORTATION DESIGN GUIDELINES AS A GUIDE.
- 2. SYMBOL SHALL BE PLACED OVER BICYCLE DETECTION LOOPS IN PAVEMENT AT SIGNALIZED INTERSECTIONS TO INDICATE THE OPTIMUM POSITION FOR A BICYCLE TO ACTIVATE THE SIGNAL AS DIRECTED BY THE CITY.
- 3. SIGN R10-22 IN THE CALIFORNIA MUTCD (CURRENT EDITION) MAY BE INSTALLED TO SUPPLEMENT THE PAVEMENT MARKINGS AS DIRECTED BY THE CITY.
- 4. MARKINGS SHALL BE PREFORMED THERMOPLASTIC AS APPROVED BY THE CITY.

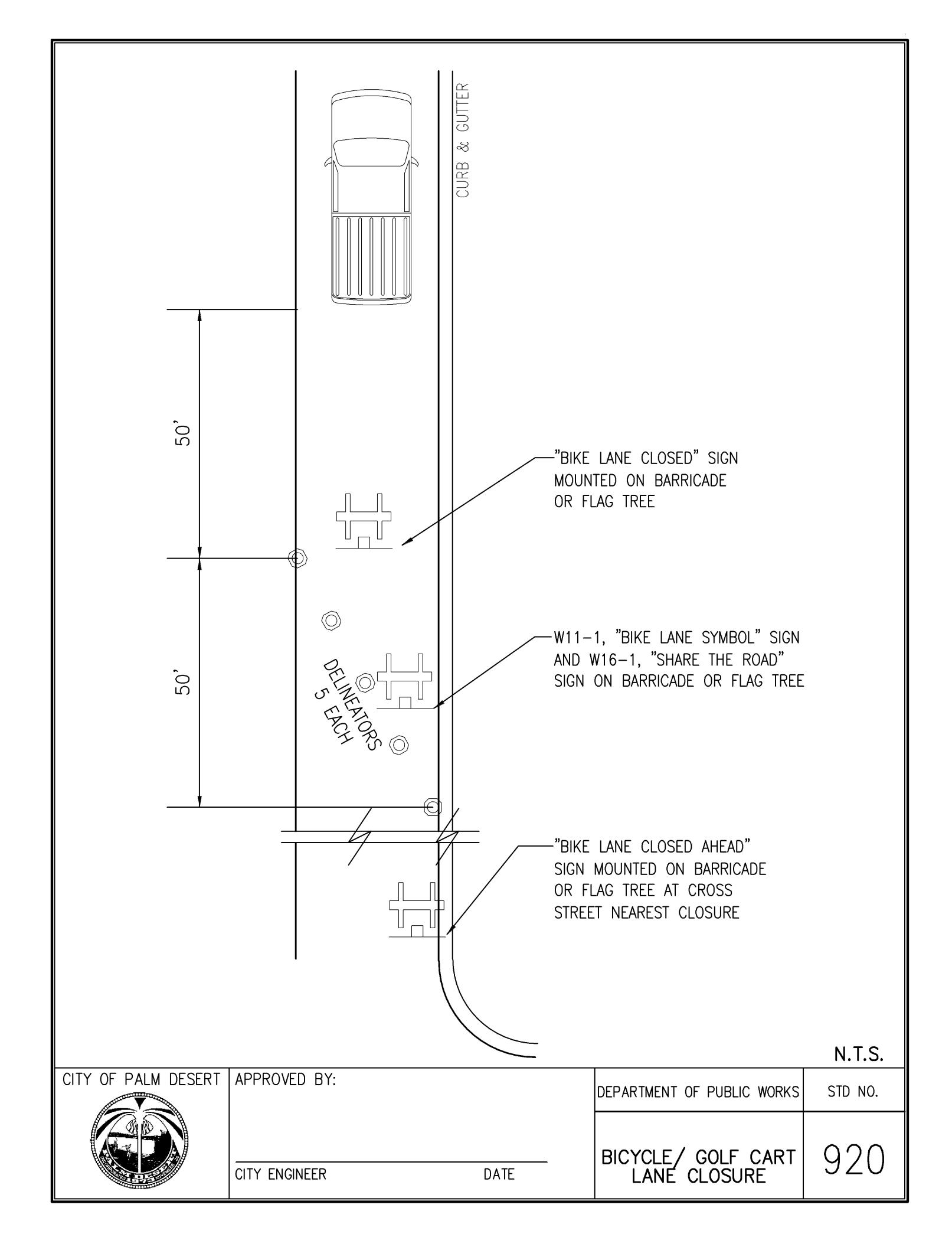


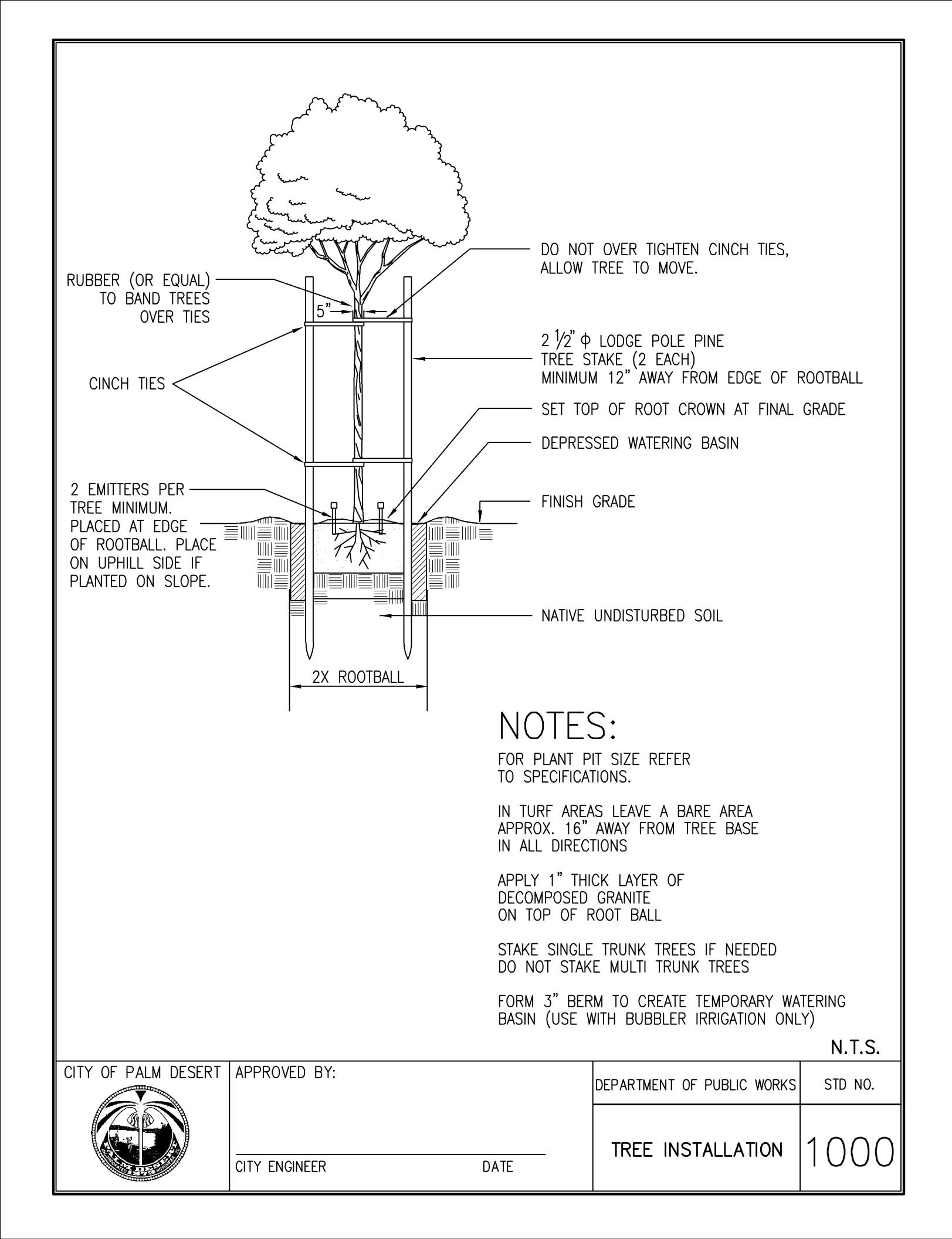


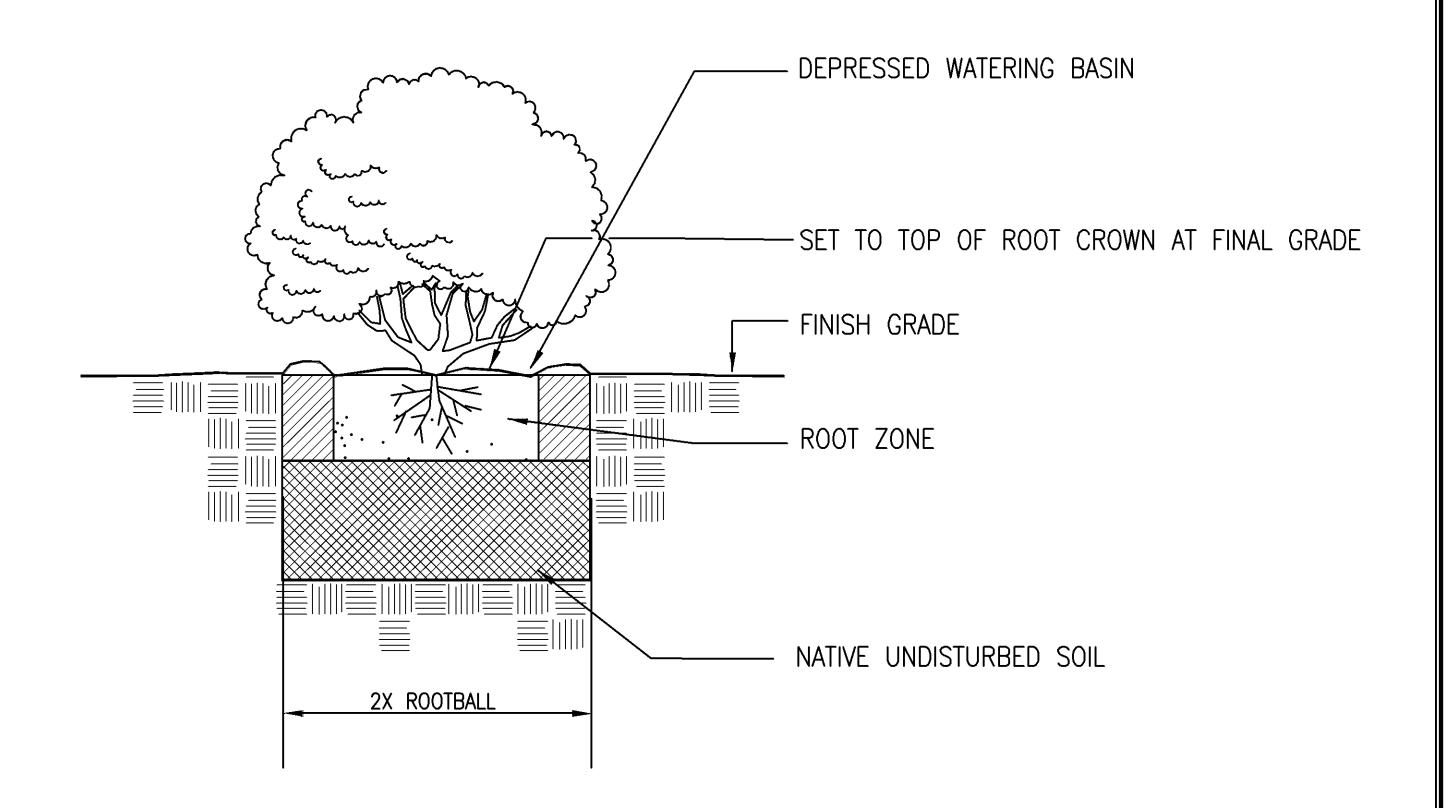
NOTES:

- 1. USE GREEN COLORED PAVEMENT MARKINGS. SEE CVAG ACTIVE TRANSPORTATION DESIGN GUIDELINES AS A GUIDE.
- 2. MARKINGS SHALL BE PREFORMED THERMOPLASTIC AS APPROVED BY THE CITY.









NOTES:

PLANT SHRUBS MINIMUM OF 3' FROM CURB IN MEDIANS, 3' FROM CURB/SIDEWALKS IN PARKWAYS OR AS NOTED ON PLANS

APPLY 1" THICK LAYER OF DECOMPOSED GRANITE ON TOP OF ROOT BALL

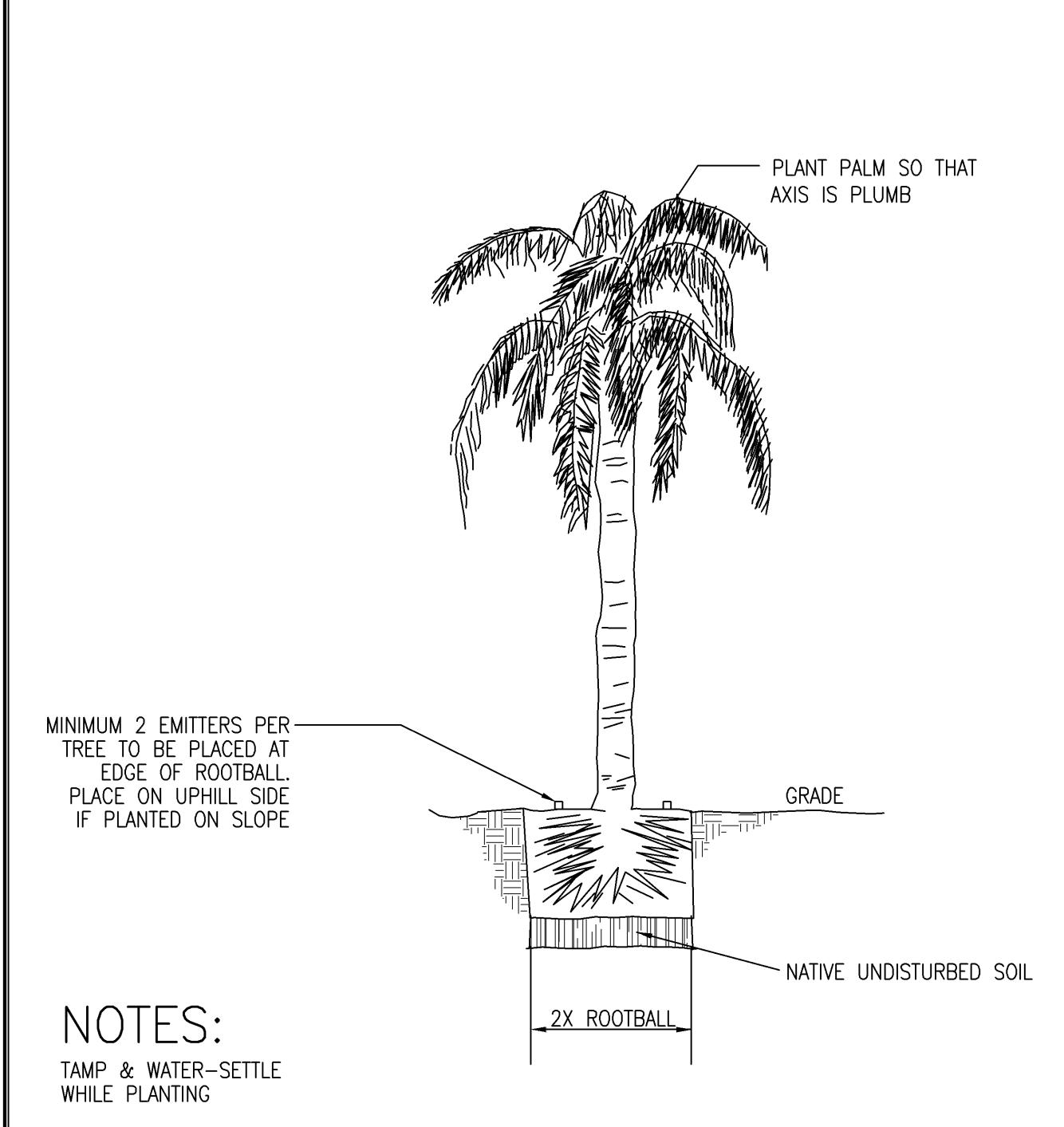
FORM 3" BERM TO CREATE TEMPORARY WATERING BASIN (USE WITH ONE BUBBLER EMITTER MINIMUM IRRIGATION ONLY)

N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

SHRUB INSTALLATION 1001



TOP OF ROOT BALL NOT TO BE LOWER THAN FINISH GRADE

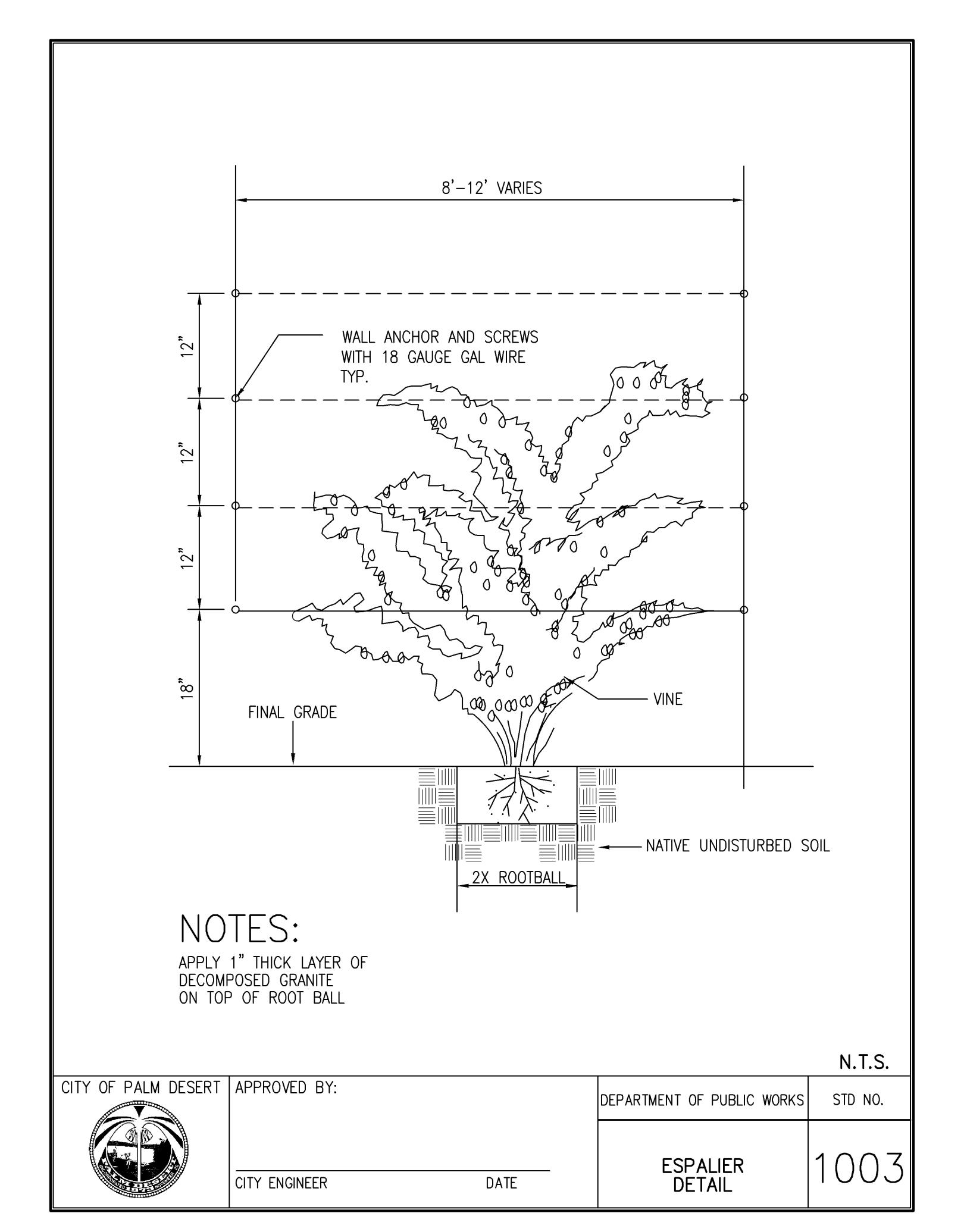
APPLY 1" THICK LAYER OF DECOMPOSED GRANITE ON TOP OF ROOT BALL

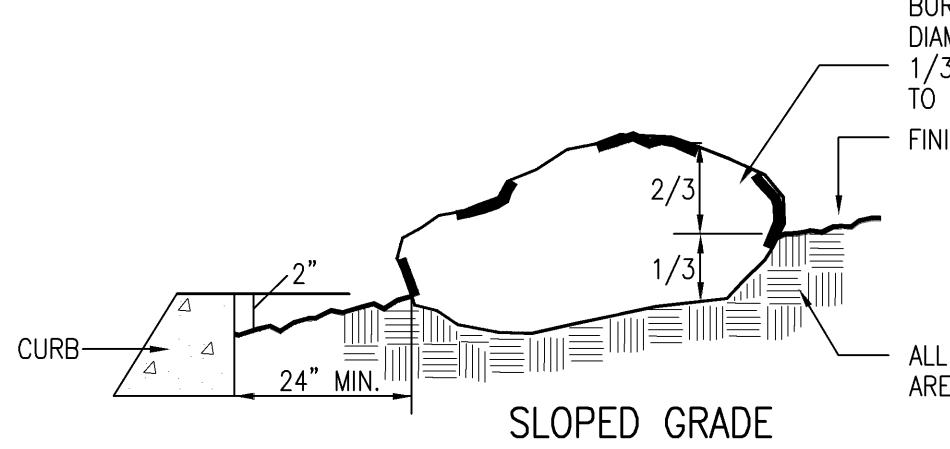
N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

PALM TREE INSTALLATION 1002

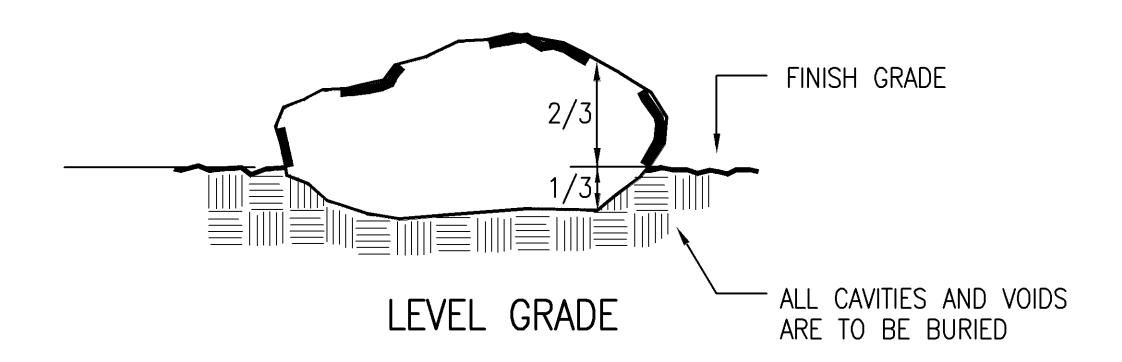




BURY BOULDERS MIN 1/3 OF THEIR DIAMETER INTO FINISH GRADE.
1/3 OF BOULDER BURIED IN ADDITION TO 12" MAX HEIGHT.

FINISH GRADE

ALL CAVITIES AND VOIDS ARE TO BE BURIED



NOTES:

ALL BOULDERS TO BE A MINIMUM 24" FROM CURB/HARDSCAPE UNLESS NOTED ON PLAN

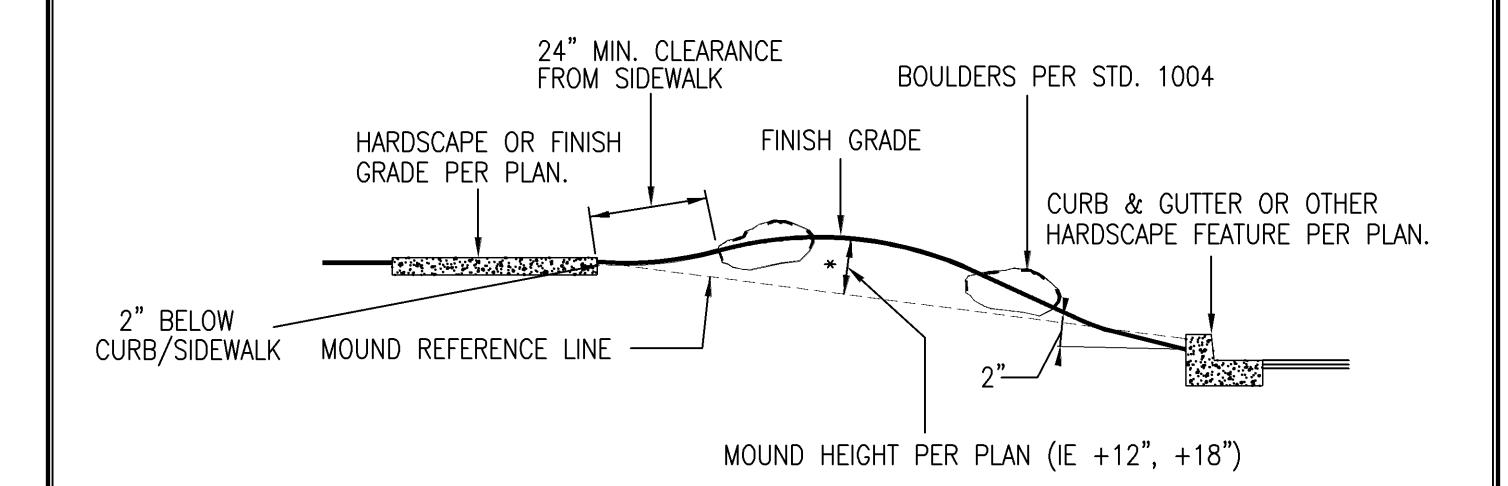
BOULDERS IN CLUSTERS TO BE SET AT VARIOUS HEIGHTS PER CITY APPROVAL

N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

BOULDER INSTALLATION 1004



NOTES:

MOUNDS ARE PER DIAGRAM

MOUND SHAPES DO NOT REPRESENT ACTUAL CONTOURS

GRADE TO ACTUAL SITE CONDITIONS OR REFER TO LANDSCAPE PLANS

GIVE PRIORITY TO DRAINAGE OF PLANTED AREAS.

FINISH SURFACE MUST BE 2" BELOW ADJACENT CURB OR SIDEWALK

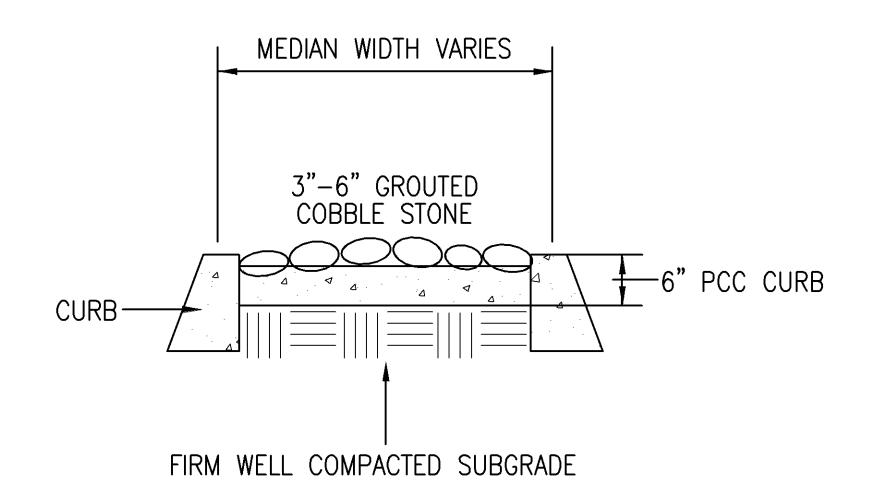
N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

CITY ENGINEER DATE

DEPARTMENT OF PUBLIC WORKS STD NO.



NOTES:

SET COBBLE IN 6" THICK CONCRETE MAINTAIN 1/2" SPACE BETWEEN ROCKS. GROUT ALL JOINTS, REMOVE EXCESS CONCRETE IN JOINTS. TROWEL TO 1/2" DEEP BETWEEN JOINTS.

CONCRETE MIX TO BE: 6 SACKS WITH PEAGRAVEL/SAND SLURRY MIX

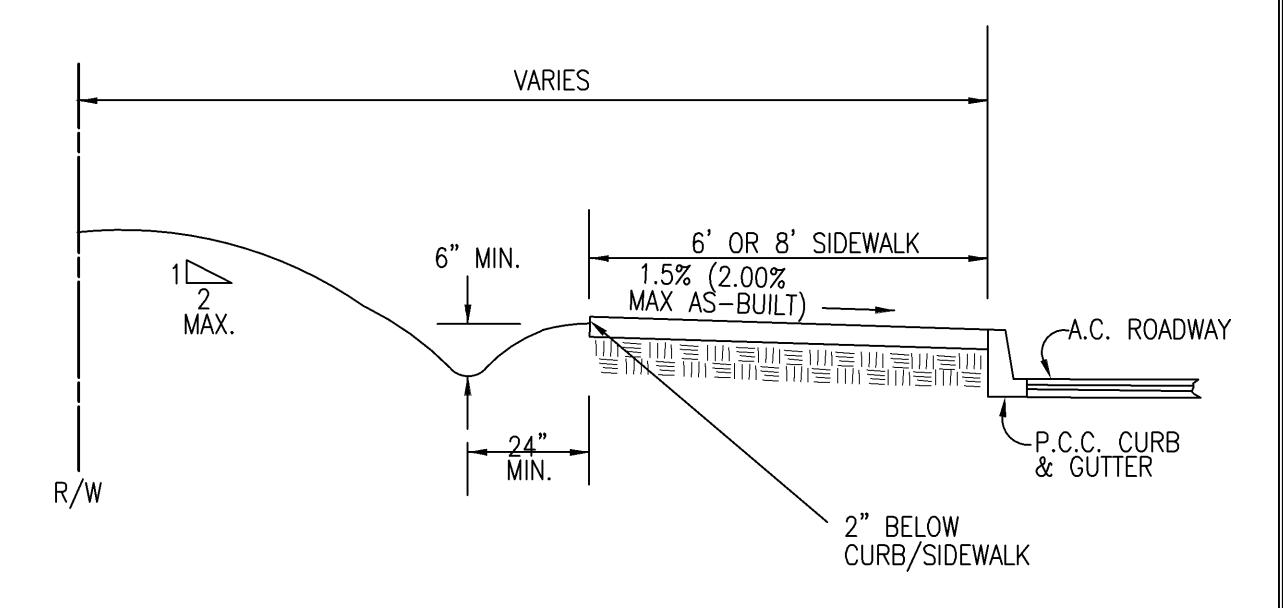
COBBLE STONE PATTERN RANDOM PLACED WITH FLAT SIDE UP, 50% BURIED IN CONCRETE

CITY OF PALM DESERT APPROVED BY:

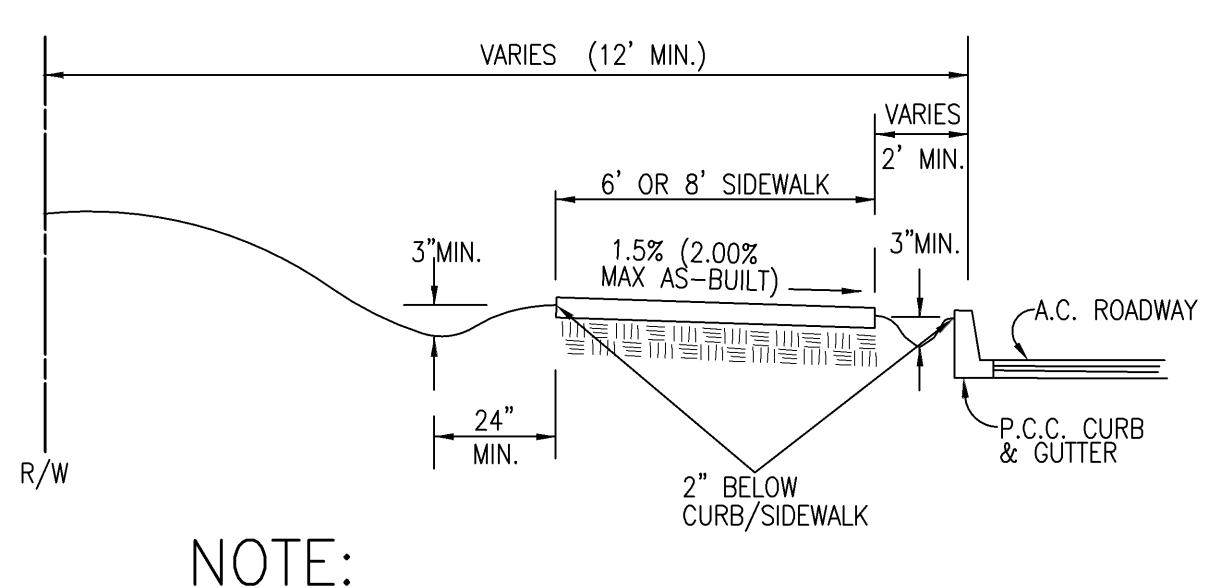
DEPARTMENT OF PUBLIC WORKS STD NO.

GROUTED COBBLESTONE MEDIAN DETAIL 1006

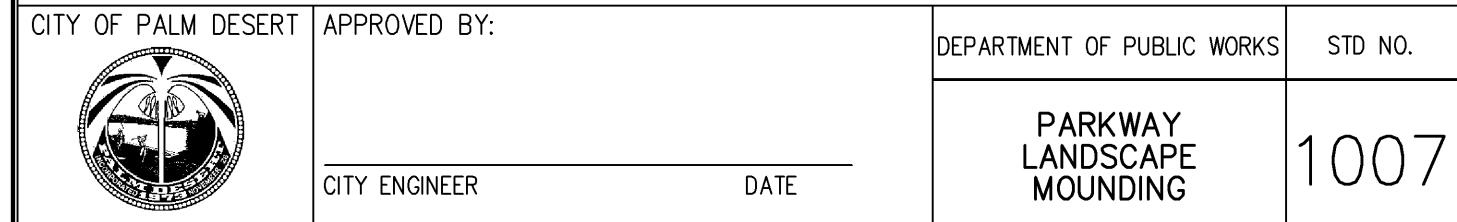
CASE 1 - CURBSIDE SIDEWALK - PARKWAY



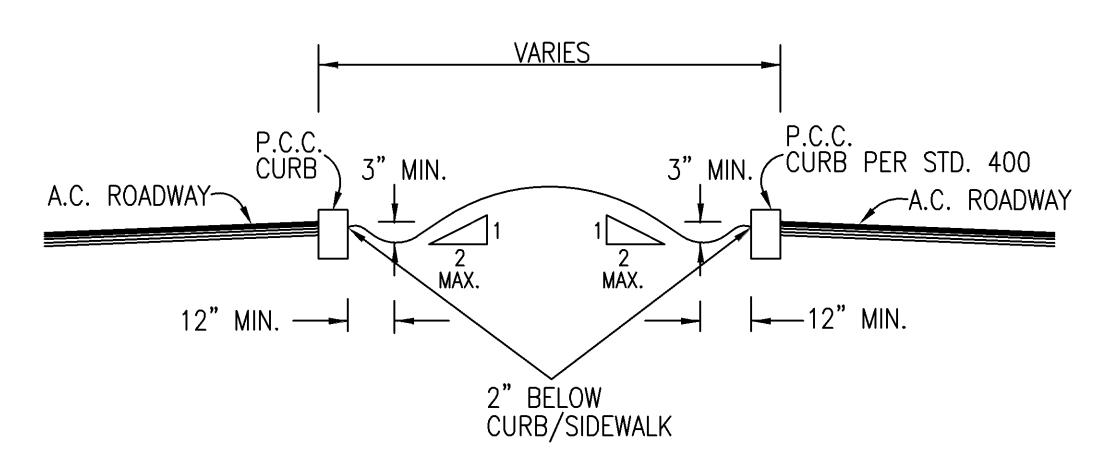
CASE II - MEANDERING SIDEWALK - PARKWAY



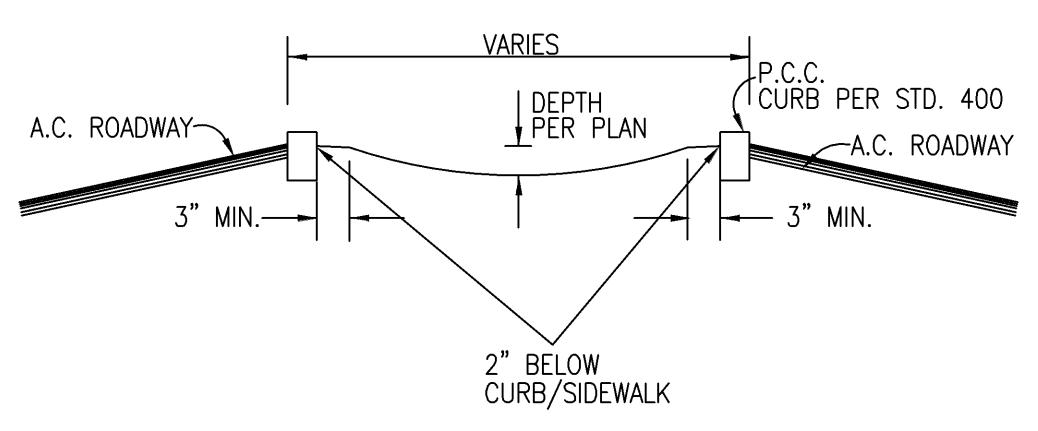
FINISH SURFACE MUST BE 2" BELOW ADJACENT CURB OR SIDEWALK



CASE III(A) - RAISED MEDIAN ISLAND

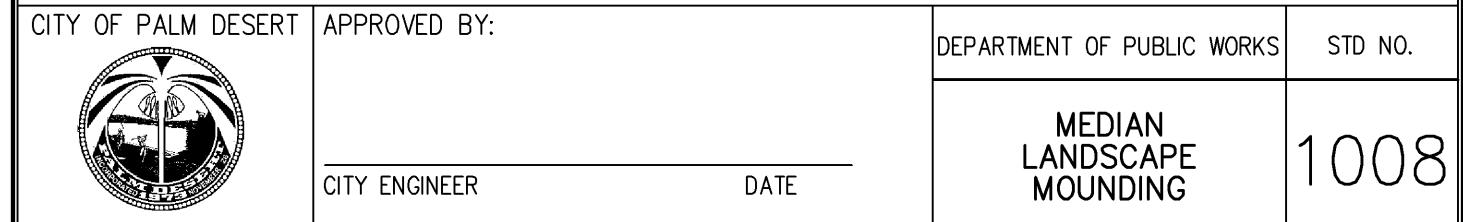


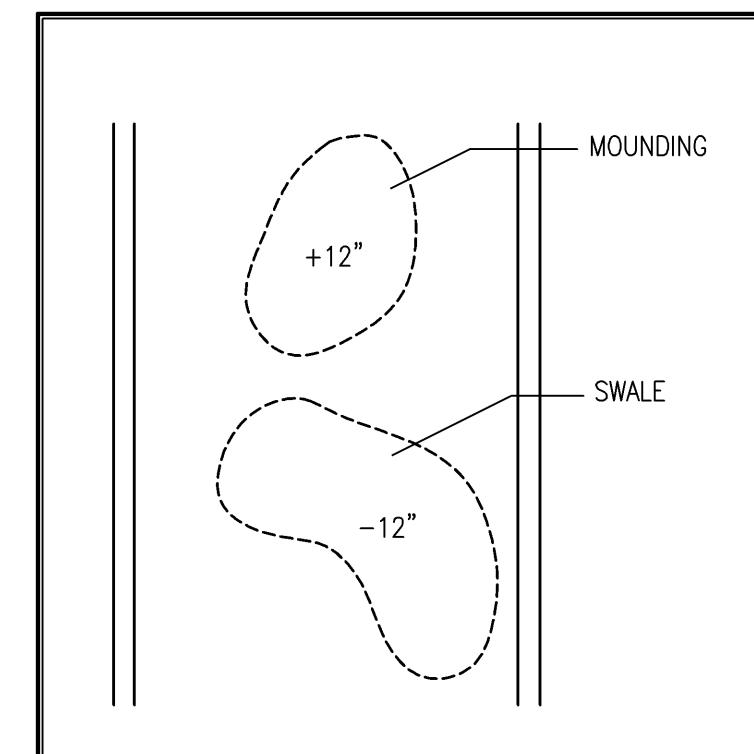
CASE III(B) - DEPRESSED MEDIAN ISLAND

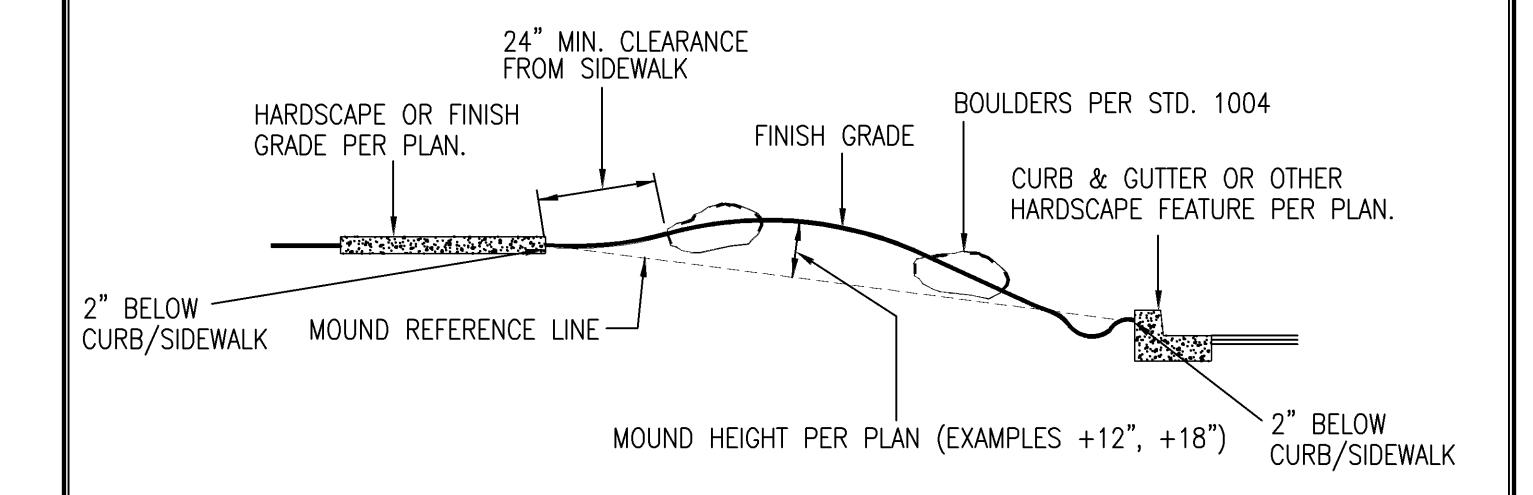


NOTE: FINISH SURFACE MUST BE 2" BELOW ADJACENT CURB OR SIDEWALK

N.T.S.







MOUNDS ARE PER DIAGRAM

MOUND SHAPES DO NOT REPRESENT ACTUAL CONTOURS

GRADE TO ACTUAL SITE CONDITIONS GIVE PRIORITY TO DRAINAGE OF PLANTED AREAS.

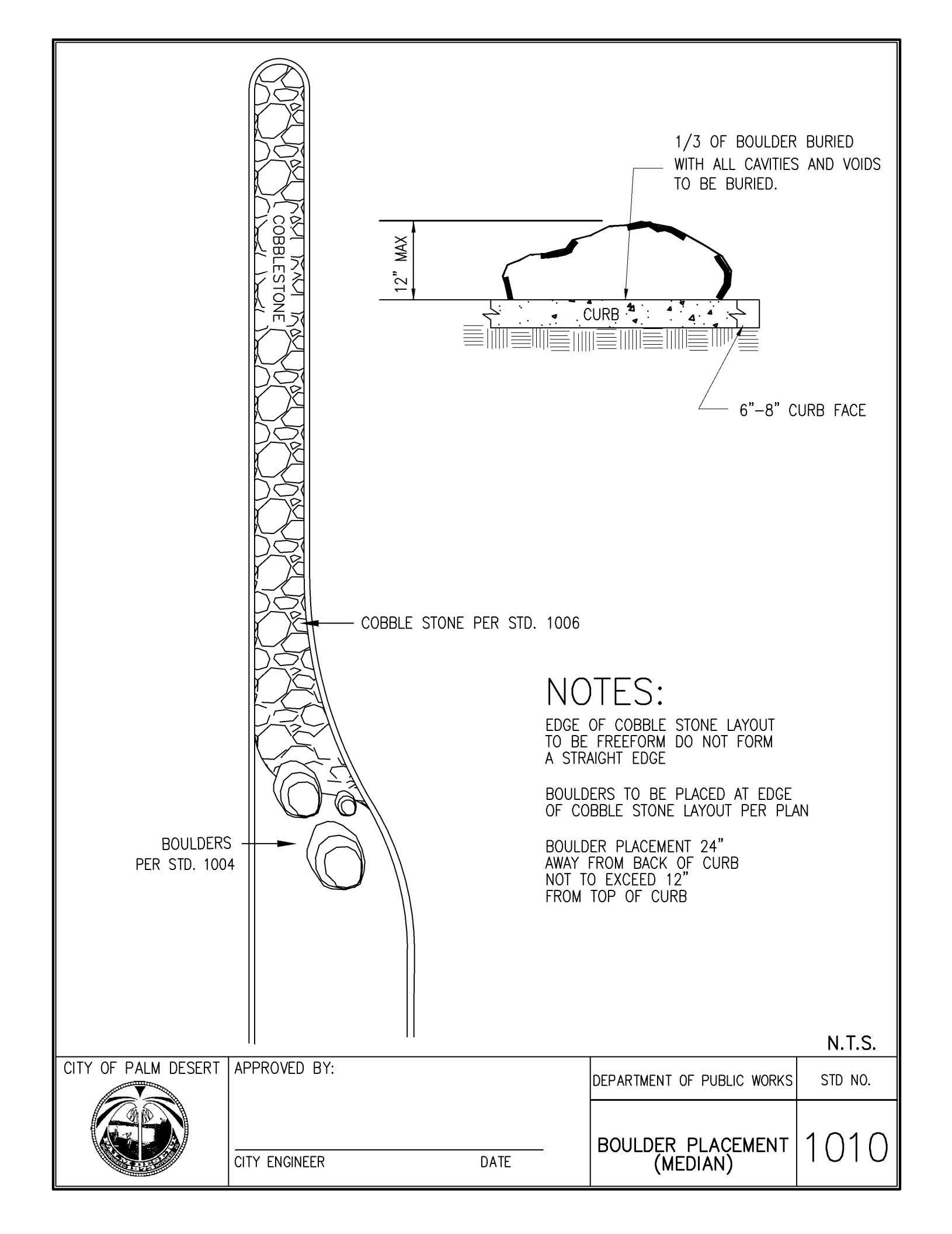
FINISH SURFACE MUST BE 2" BELOW CURB OR SIDEWALK

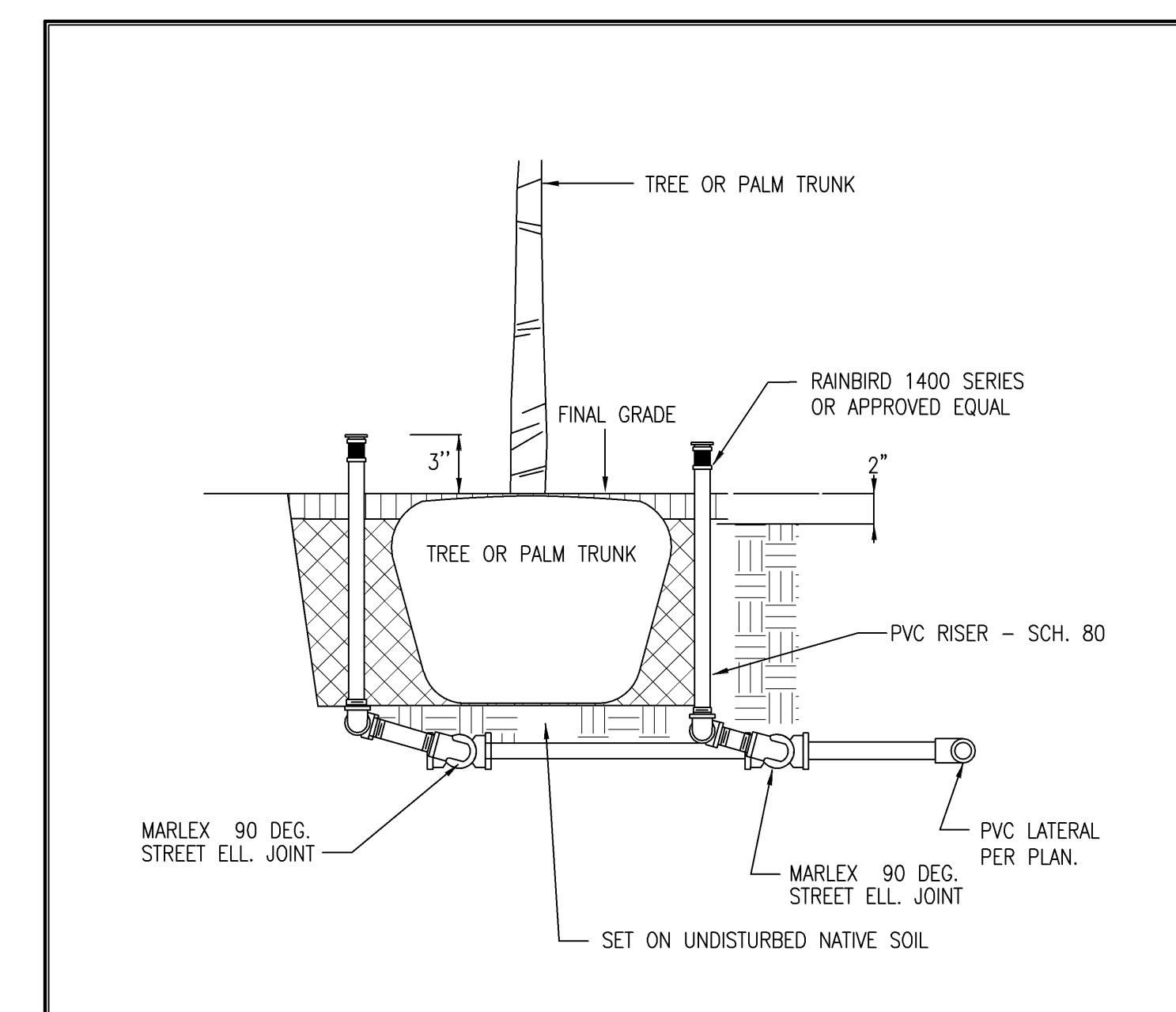
N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

MEDIAN GRADING DETAIL 1009





SET BUBBLER MINIMUM 12" AWAY FROM ROOT BALL

SET PALM/TREE ON NATIVE UNDISTURBED SOIL

PROVIDE MINIMUM 2" DEPTH OF CLEAN BACKFILL UNDER IRRIGATION PIPES
TREE PIT PER PLANTING DETAILS

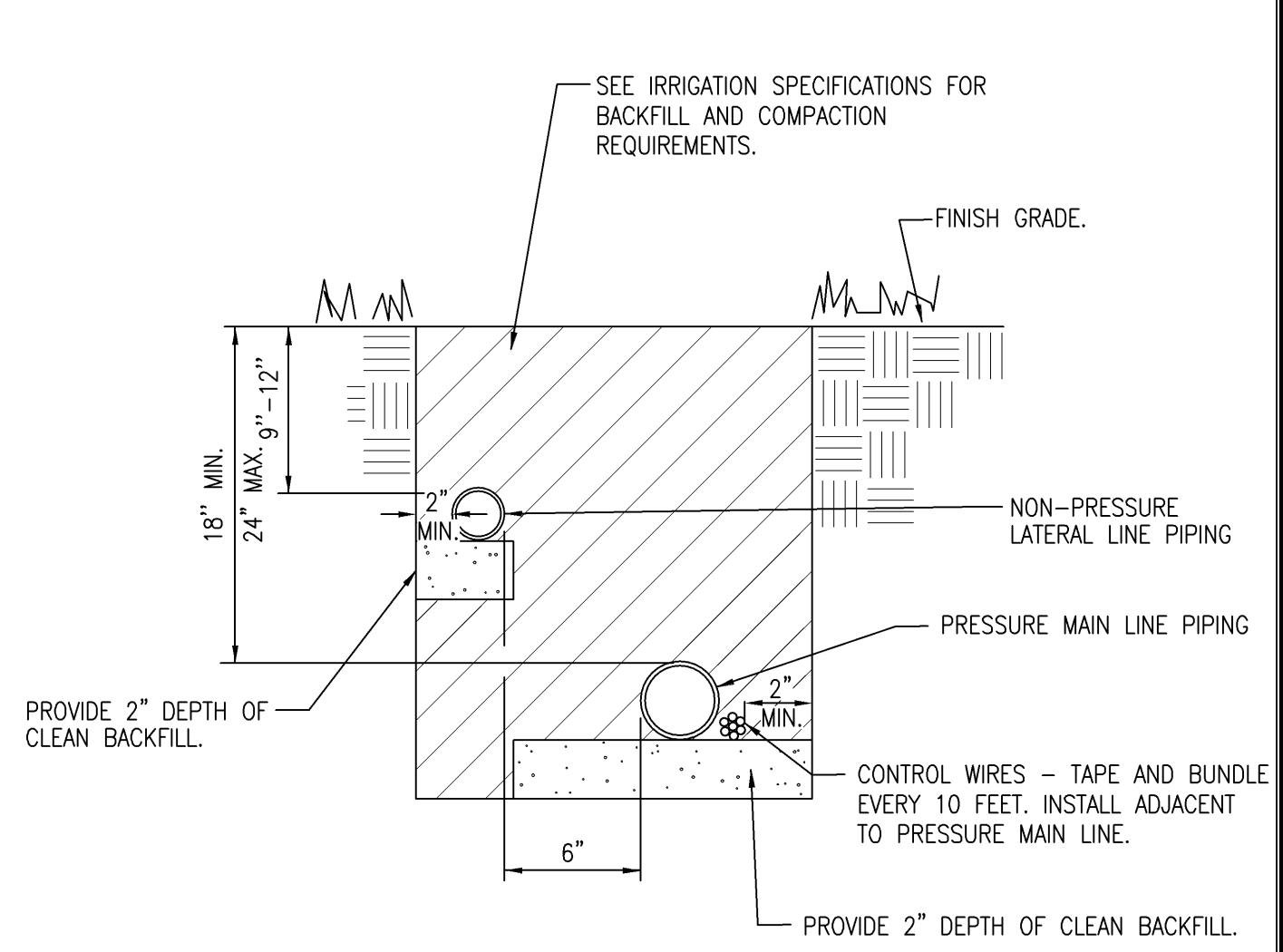
CITY OF PALM DESERT APPROVED BY:

CITY ENGINEER DATE

N.T.S.

DEPARTMENT OF PUBLIC WORKS STD NO.

PALM/TREE IRRIGATION DETAIL 1011



TAPE AND BUNDLE 14g SINGLE STRAND CONTROL WIRE EVERY 10 FT. INSTALL ADJACENT TO PRESSURIZED MAIN LINE.

COIL 24 IN OF WIRE IN ALL CORNERS.

SEE IRRIGATION SPECS. FOR BACKFILL AND COMPACTION REQUIREMENTS.

MINIMUM BACKFILL DEPTHS FROM FINAL GRADE TO TOP OF MAINLINE 18 IN FOR PIPE SIZES 2 1/2 IN AND SMALLER 24 IN FOR PIPE SIZES 3 IN AND LARGER.

PROVIDE MINIMUM 2" DEPTH OF CLEAN BACKFILL UNDER IRRIGATION PIPES.

NO ELECTRICAL CONDUIT TO BE PLACED IN IRRIGATION TRENCH.

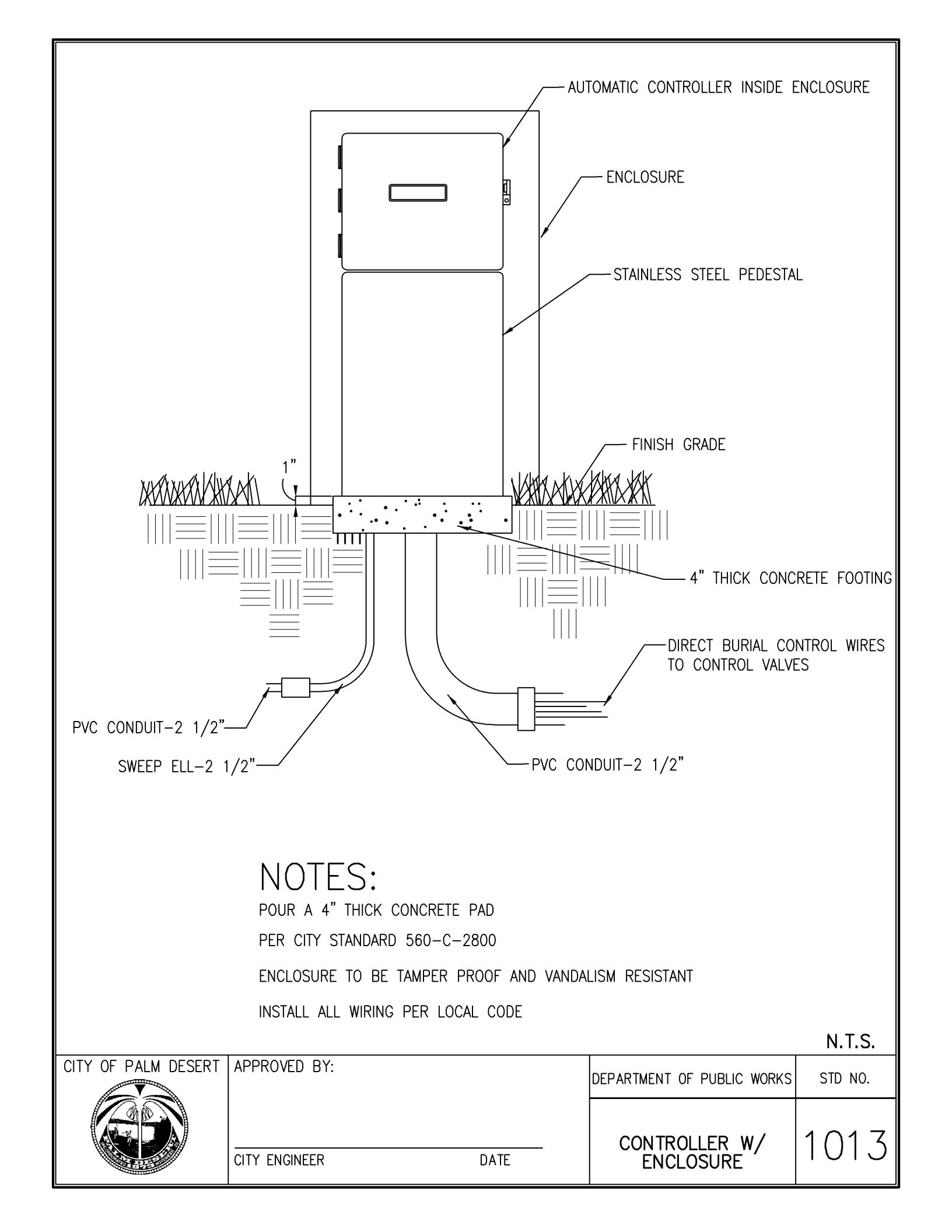
CITY OF PALM DESERT APPROVED BY:

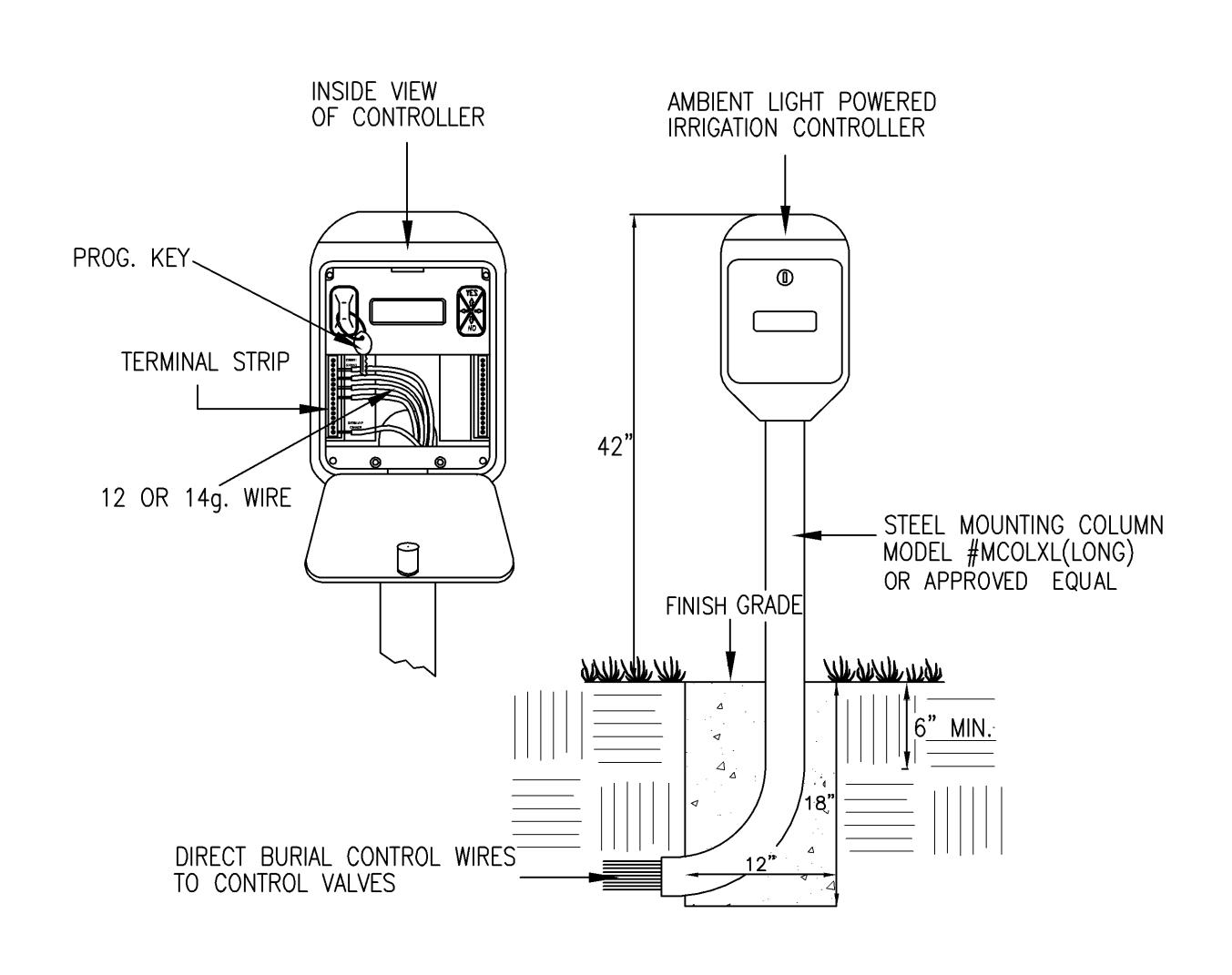
CITY ENGINEER DATE

N.T.S.

DEPARTMENT OF PUBLIC WORKS STD NO.

TRENCHING DETAIL 1012





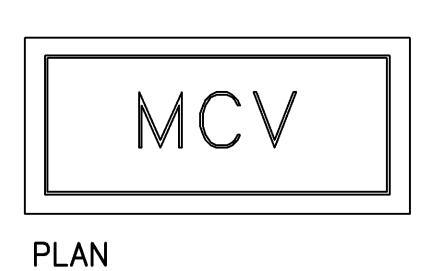
POUR A 1-1/2 CU. FT. CONCRETE BASE PAD PER CITY STANDARD 560-C-3250 OR MANUFACTURER'S RECOMMENDATION

CITY OF PALM DESERT APPROVED BY:

CITY ENGINEER

DEPARTMENT OF PUBLIC WORKS STD NO.

AMBIENT LIGHT IRRIGATION CONTROLLER 1014



SECTION

FINISH GRADE WATER PROOF WIRE CONNECTORS ID TAG COIL WIRE PER SPECS BRASS, COPPER, OR SCH. 80 PVC PIPE SCH. 80 NIPPLE T.O.E. W/SS PVC COUPLING SCH. 40 PVC PIPE -TO P.O.C. BY CVWD PVC CC 90° ELL. COMMON BRICK (4 REQ.) SCH. 40 PVC PIPE-CONTROL WIRE-PVC SCH.40 PIPE /4" CRUSHED AGGREGATE VALVES COMMON WIRE TO OTHER VALVES

ON THE SAME CONTROLLER

NOTES:

MAIN LINE FITTING

W/SOLVENT WELD OUTLET

RAIN BIRD BG SERIES ELEC. CONTROL VALVE OR APPROVED EQUAL

RECTANGULAR VALVE BOX W/GREEN BOLT DOWN COVER IN TURF AND TAN IN SHRUB BEDS

HEAT BRAND VALVE STATION NO. ON LID 2" HIGH CHARACTERS

ALL FITTINGS AND PIPE TO BE EITHER BRASS OR COPPER FROM POINT OF CONNECTION TO CONTROL VALVE ASSEMBLY

CONTROL WIRES FROM CONTROLLER TO BE COLOR ORANGE UNLESS OTHERWISE SPECIFIED BY THE CITY OF PALM DESERT

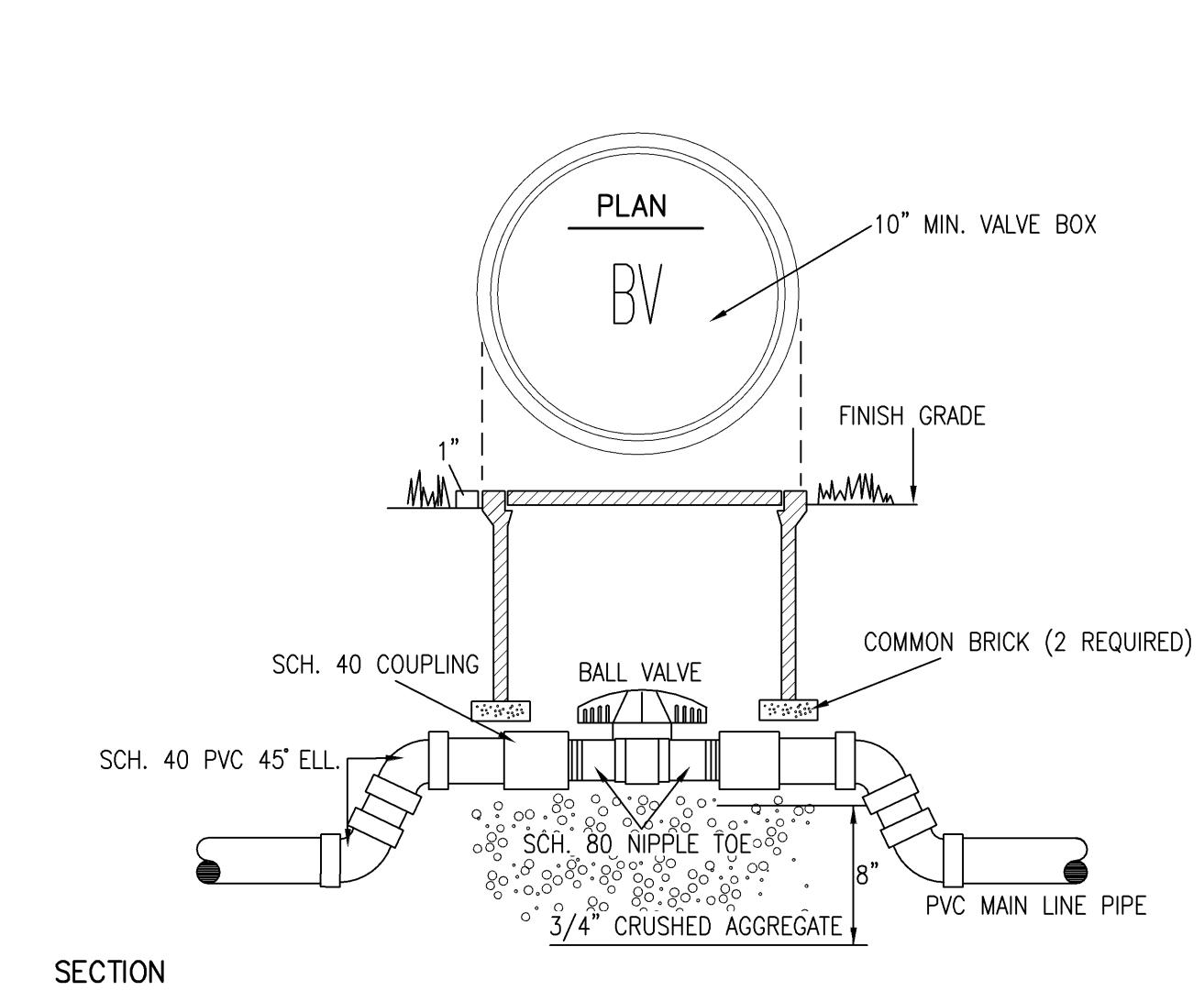
ALL CONNECTORS TO BE WATERPROOF

N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

MASTER VALVE ASSEMBLY DETAIL 1015



VALVE BOX WITH TAN BOLT DOWN COVER - (GREEN IF IN TURF)

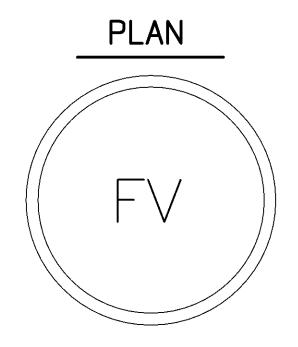
HEAT BRAND "BV" ON VALVE BOX COVER IN 2" HIGH LETTERS.

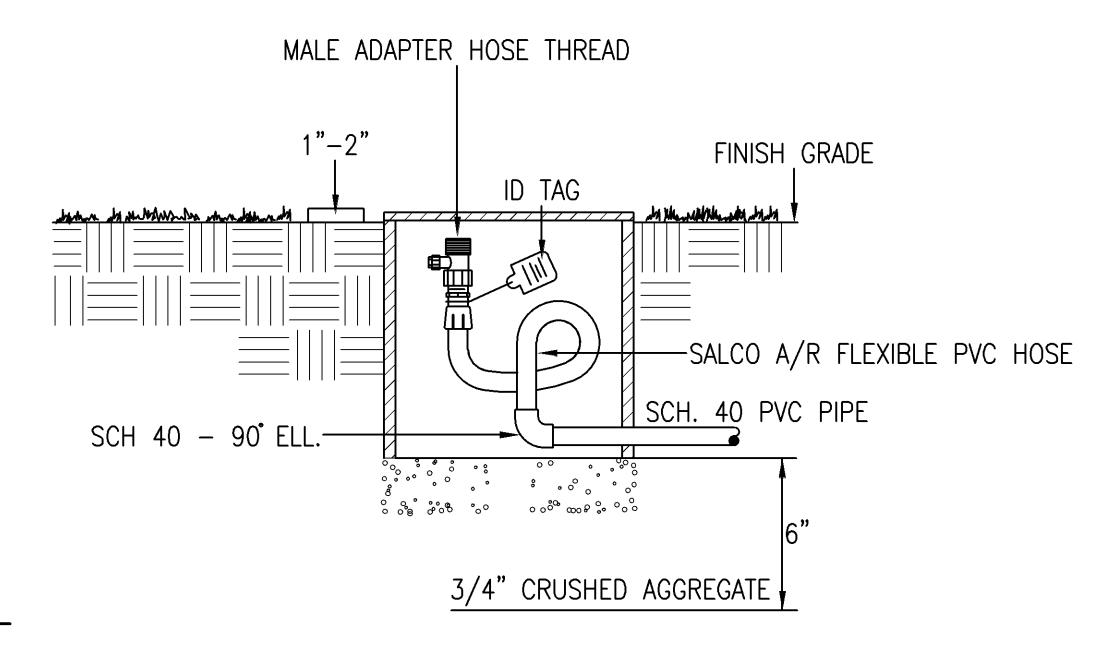
BRASS BODIED BALL VALVE FULL-PORT

SCH. 40 PVC PIPE EXTENSION, DIA. TO ALLOW FOR MOVEMENT OF HANDLE ON VALVE LENGTH AS REQUIRED.

SCH. 80 NIPPLE TOE W/SS PVC COUPLING

N.T.S. CITY OF PALM DESERT APPROVED BY: STD NO. DEPARTMENT OF PUBLIC WORKS BALL VALVE CITY ENGINEER DATE ASSEMBLY DETAIL





SECTION

NOTES:

10" ROUND VALVE BOX WITH TAN COVER OR GREEN IN TURF

HEAT BRAND "FV" ON LID IN 2" HIGH CHARACTERS.

AG PRODUCTS 3/4"-(PLASTIC) BALL VALVE

PVC SCH. 40 MALE ADAPTER HOSE THREAD

SALCO A/R FLEXIBLE PVC HOSE MINIMUM 3 FOOT LENGTH (OR APPROVED EQUAL)

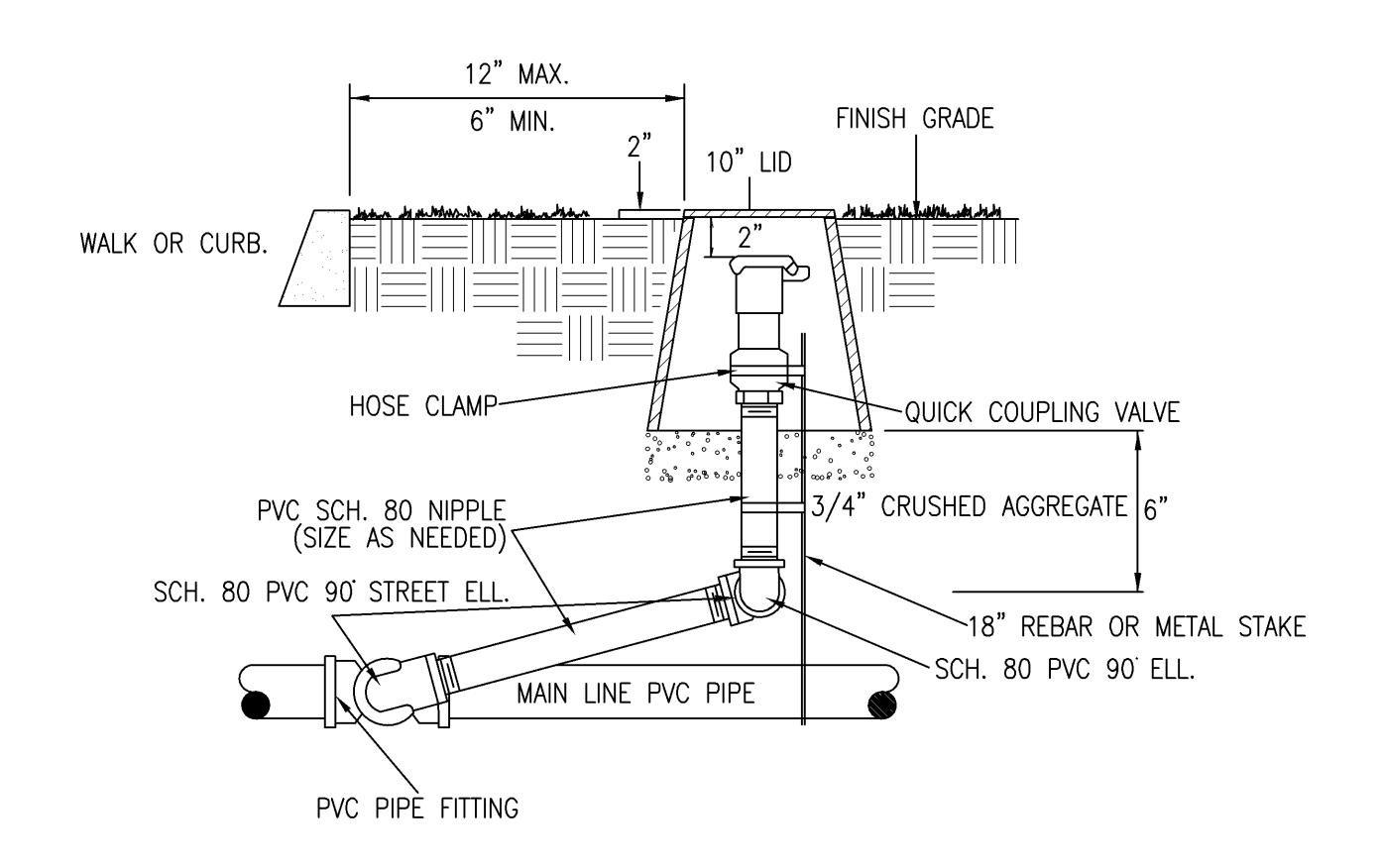
USE TEFLON TAPE ON ALL MALE PIPE THREADS

N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

END FLUSH VALVE DETAIL 1017



VALVE BOX COLOR GREEN IN TURF AREAS TAN IN DECOMPOSED GRANITE PLANTING BEDS

HEAT BRAND "QCV" ON LID IN 2" HIGH CHARACTERS.

USE TEFLON TAPE ON ALL MALE PIPE THREADS

18" REBAR OR METAL STAKE REQUIRED TO ATTACH COUPLING VALVE (TO FIX UPRIGHT)

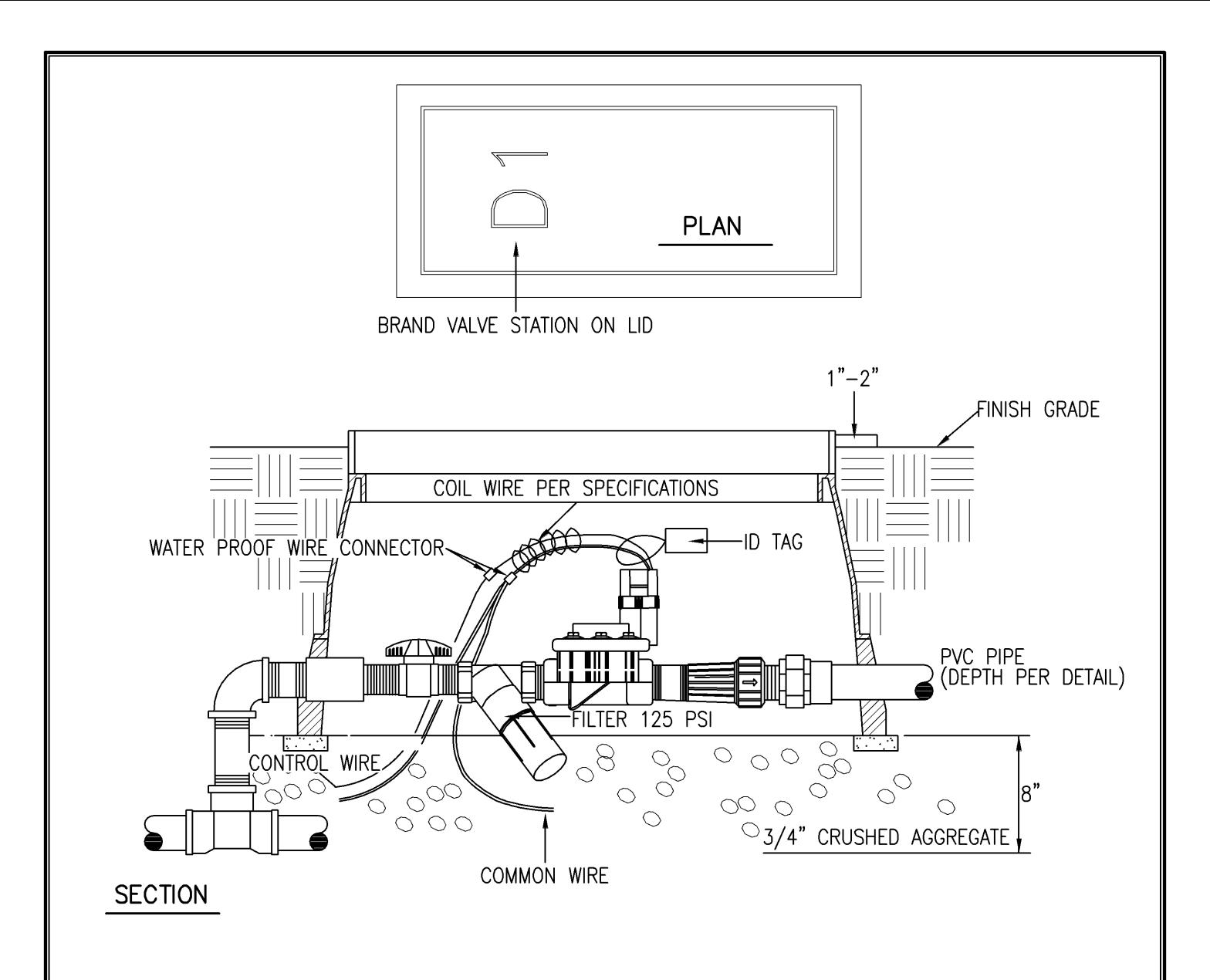
CITY OF PALM DESERT APPROVED BY:

CITY ENGINEER DATE

N.T.S.

DEPARTMENT OF PUBLIC WORKS STD NO.

QUICK COUPLING VALVE 1018



RECTANGULAR VALVE BOX W/GREEN BOLT DOWN COVER IN TURF AND TAN IN SHRUB BEDS

BRAND VALVE STATION NO. ON LID IN 2" HIGH CHARACTERS

12" X 18" RECTANGULAR VALVE BOX

FILTER MUST WITHSTAND 125 PSI

IF A SPECIFIC MANUFACTURER'S ASSEMBLY
IS SPECIFIED, FOLLOW THAT MANUFACTURER'S SPECIFICATIONS

(2) BRICKS FOR SUPPORT

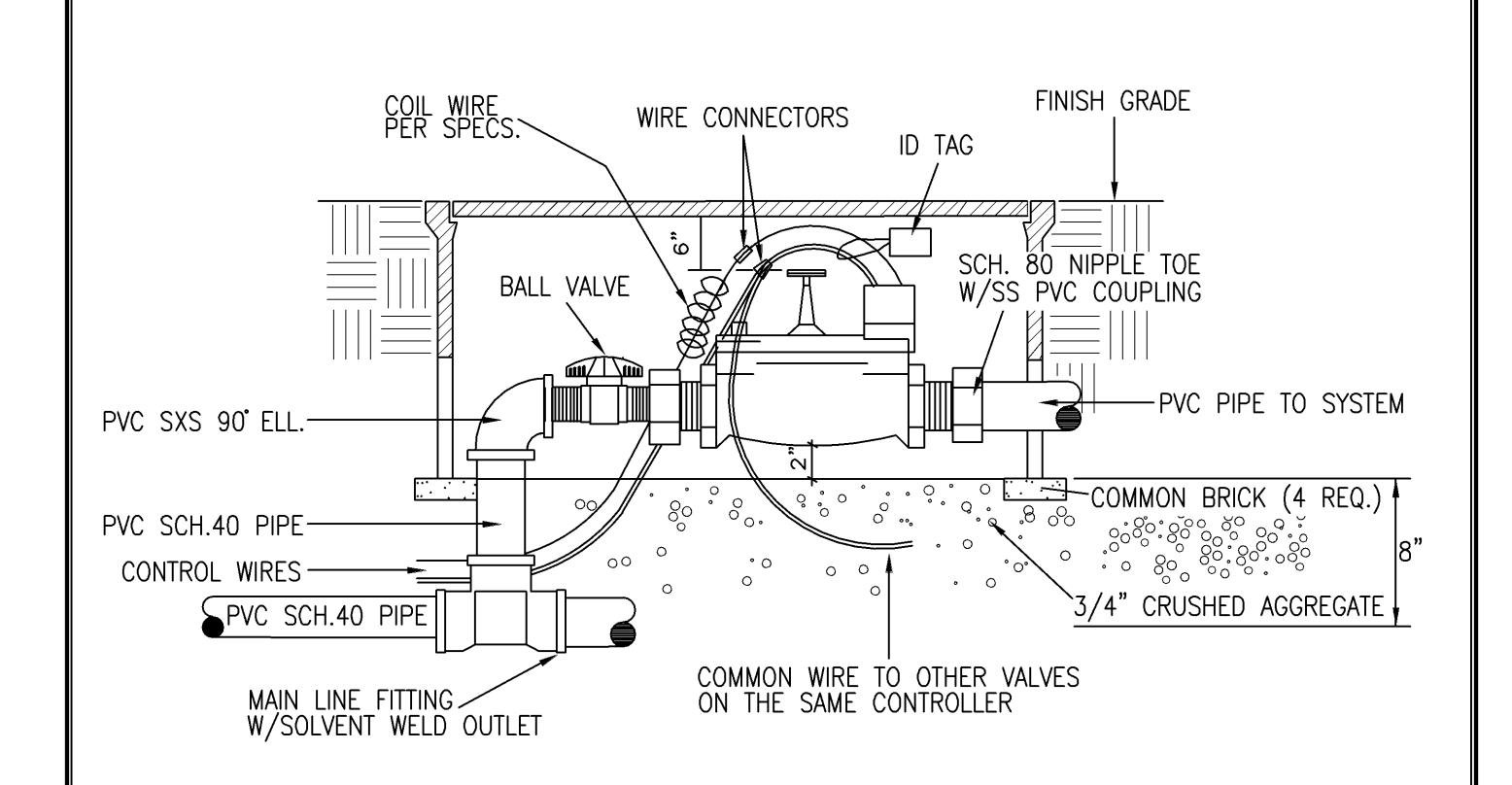
CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

CITY ENGINEER DATE

N.T.S.

ELECTRIC CONTROL 1019



RAIN BIRD BG SERIES ELEC. CONTROL VALVE OR APPROVED EQUAL

RECTANGULAR VALVE BOX W/GREEN BOLT DOWN COVER TURF AND TAN IN SHRUB BEDS HEAT VALVE STATION NO. ON LID 2" HIGH CHARACTERS

ALL CONNECTORS TO BE WATERPROOF

TOP OF BOX TO BE FLUSH IN TURF AREA 1"-2" ABOVE FG IN SHRUB AREAS

ANGLE PIPE TO SPECIFIED DEPTH W/45° ELLS.

BALL VALVE MUST BE INSIDE BOX
IF BALL VALVE OUTSIDE
IT MUST BE ENCASED IN A SEPARATE BOX

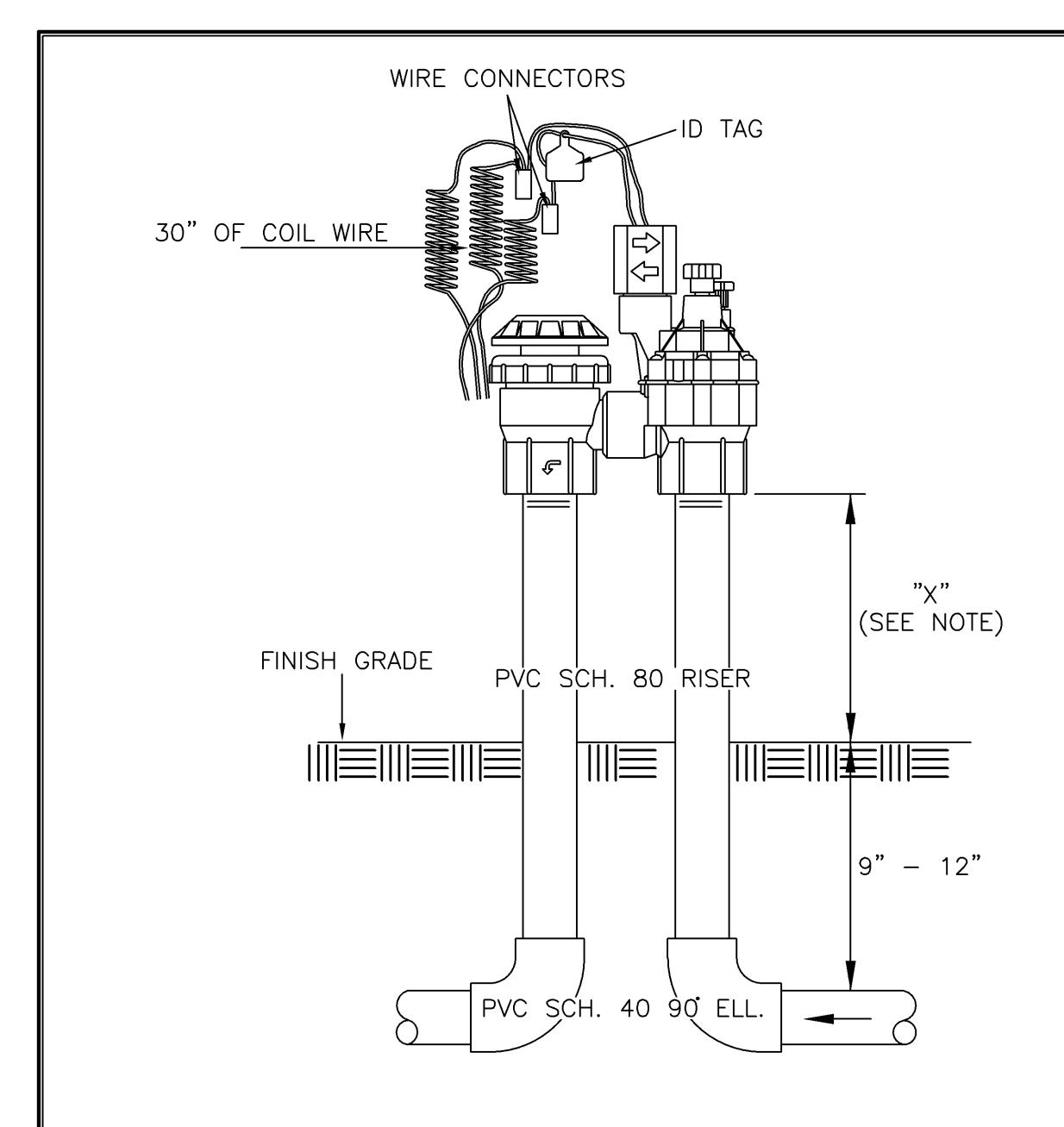
CITY OF PALM DESERT APPROVED BY:

CITY ENGINEER

DEPARTMENT OF PUBLIC WORKS STD NO.

ELECTRIC CONTROL VALVE (TURF)

1020



REMOTE CONTROL VALVE

FULL PORT BALL HAVE MUST BE LOCATED AT MANIFOLD IN 10" ROUND VALVE BOX

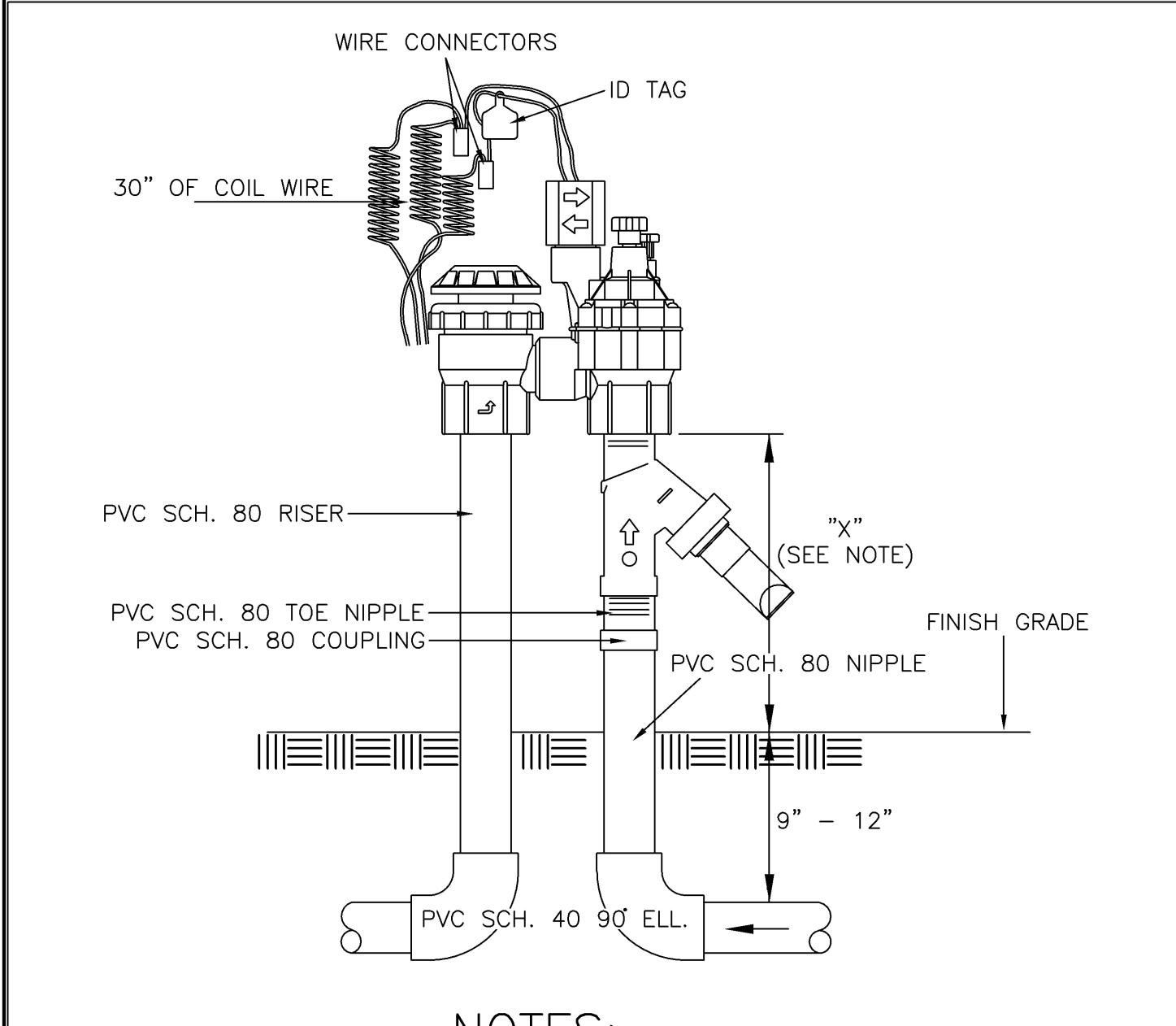
"X"= BOTTOM OF VALVE MUST BE 12" HIGHER THAN THE HIGHEST SPRINKLER HEAD

N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

TYPICAL ELECTRIC CONTROL VALVE 1021



CONTROL ZONE KIT (INCLUDES LOW FLOW ANTI SIPHON VALVE) BACK FLUSH PRESSURE REGULATING FILTER, FILTER MUST WITHSTAND 125 PSI

FULL PORT BALL VALVE
MUST BE LOCATED AT
MANIFOLD IN 10" ROUND VALVE BOX

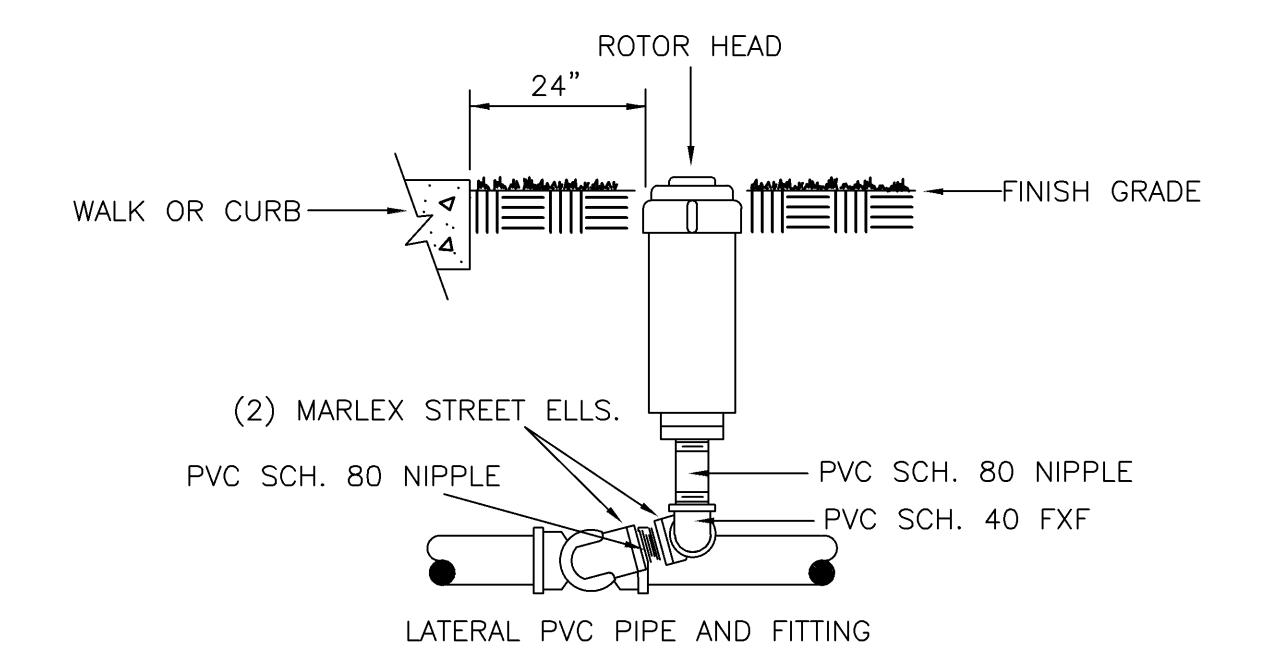
"X"= BOTTOM OF VALVE MUST BE 12"
HIGHER THAN THE HIGHEST SPRINKLER HEAD

N.T.S.

CITY OF PALM DESERT APPROVED BY:

DEPARTMENT OF PUBLIC WORKS STD NO.

TYPICAL XERIGATION CONTROL VALVE 1022



SET ROTOR FLUSH WITH FINAL GRADE

PVC SCH. 80 NIPPLE CUT TO LENGTH AS NEEDED

USE TEFLON TAPE ON ALL MALE PIPE THREADS

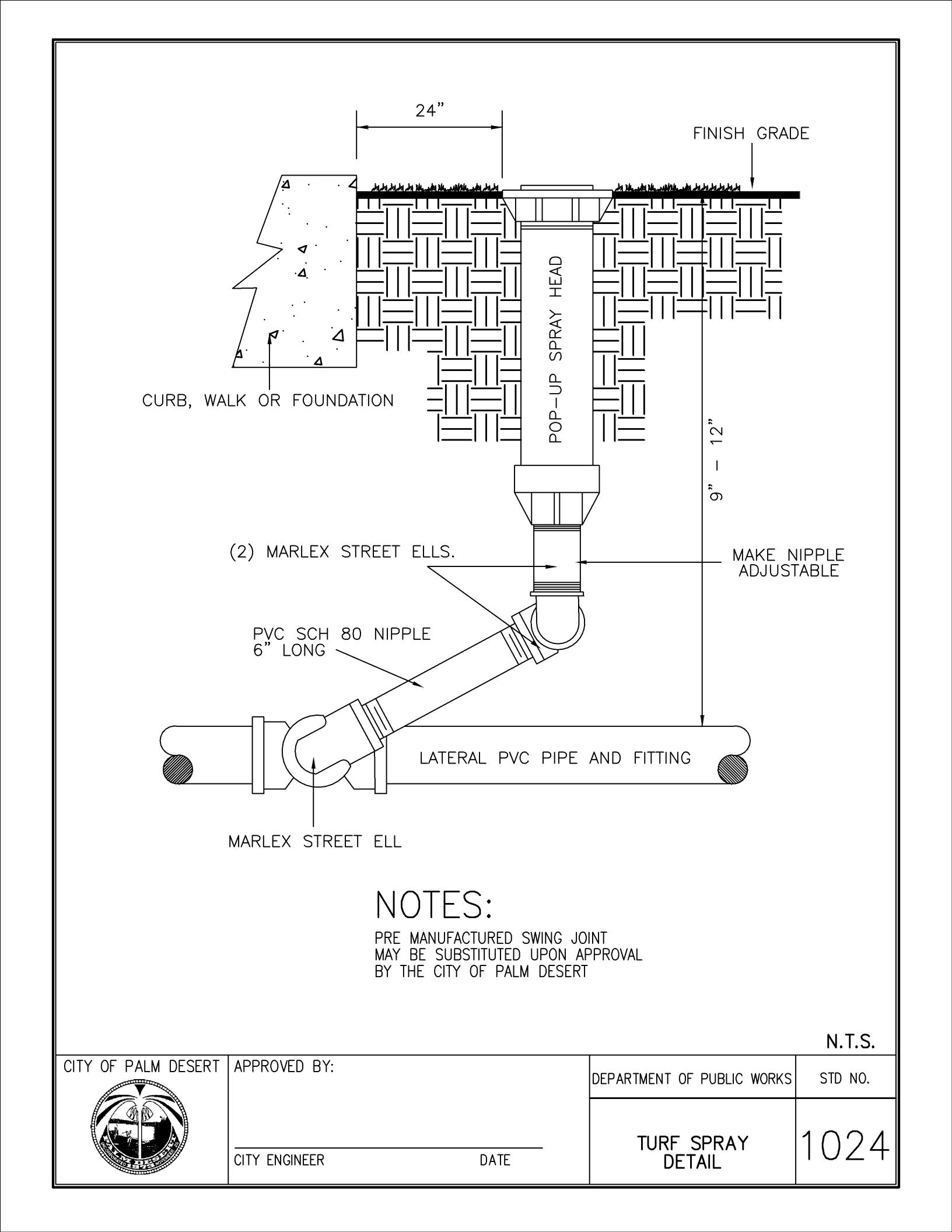
CITY OF PALM DESERT APPROVED BY:

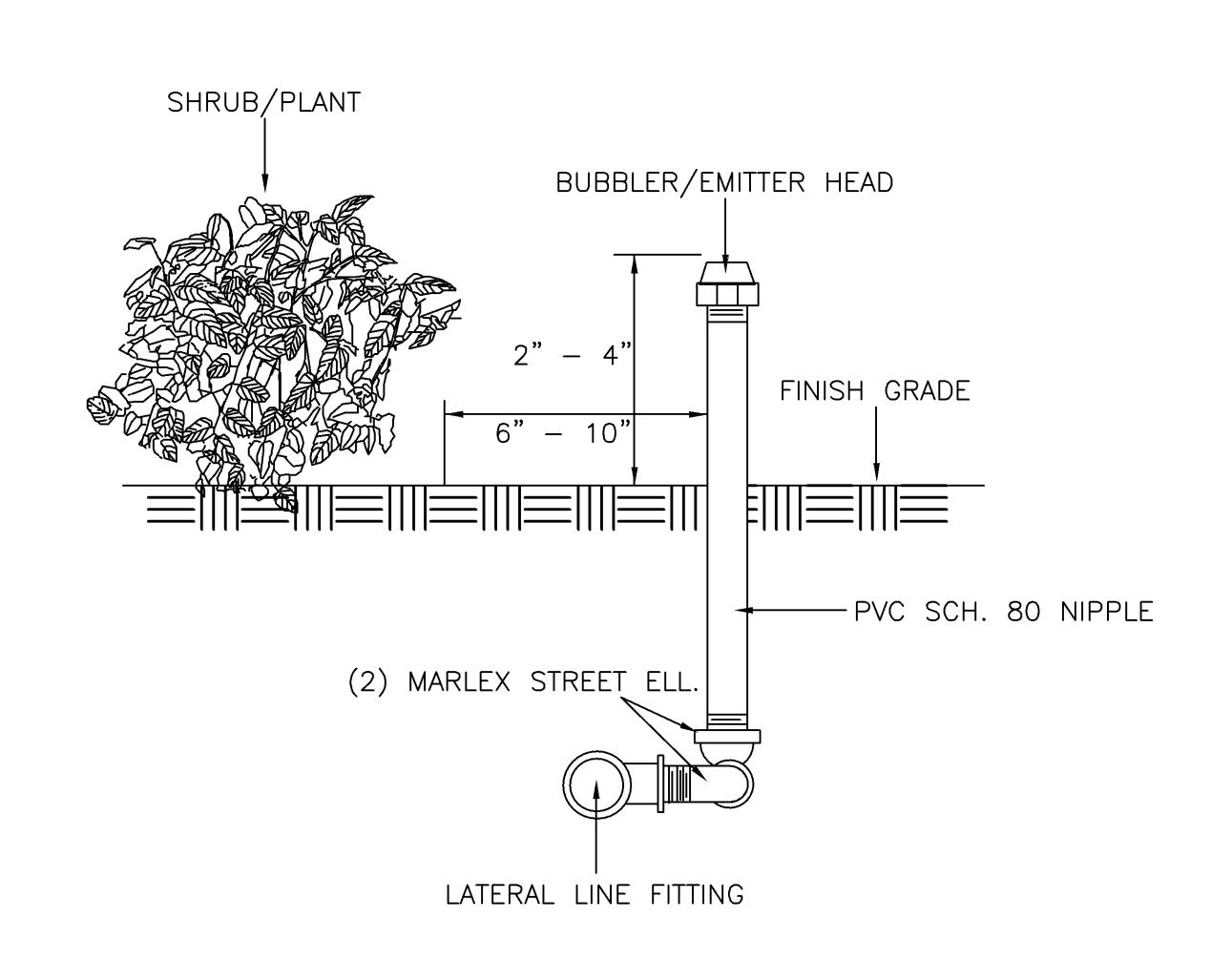
CITY ENGINEER DATE

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DEPARTMENT OF PUBLIC WORKS STD NO.

ROTOR HEAD DETAIL 1023





HEADS 2" TO 4" ABOVE FINAL GRADE

EMITTER TO BE 6" TO 10" AWAY FROM EDGE OF ROOTBALL OR PLANTS/SHRUBS ON HIGH SIDE OF PLANT

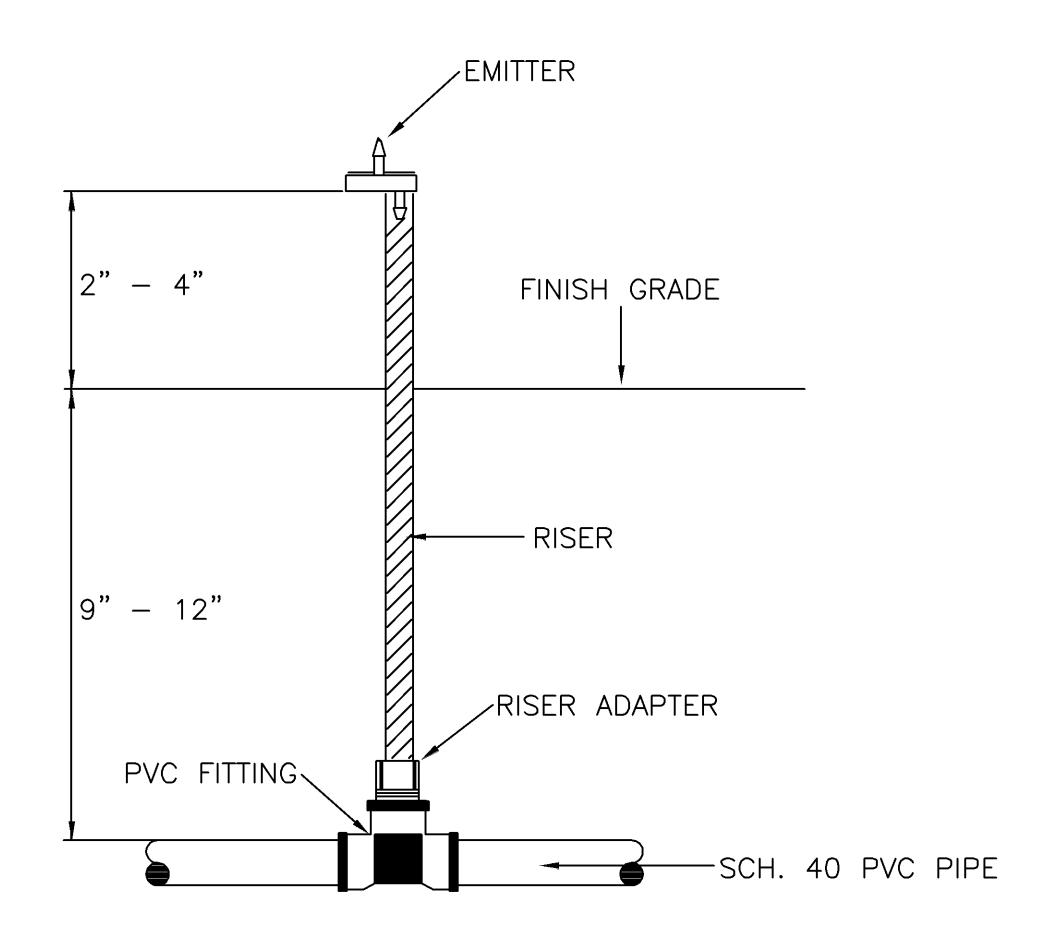
CITY OF PALM DESERT APPROVED BY:

CITY ENGINEER DATE

N.T.S.

DEPARTMENT OF PUBLIC WORKS STD NO.

BUBBLER/EMITTER DETAIL 1025



POLY FLEX RISER 1/4"

EMITTER TO HAVE DIFFUSER CAP IF NEEDED OR APPROVED EQUAL W/POLY FLEX RISER ADAPTER

PVC FITTING (S X S X 1/2" FIPT.)

PVC PIPE (DEPTH PER SPECIFICATIONS)

CITY OF PALM DESERT APPROVED BY:

CITY ENGINEER DATE

N.T.S.

DEPARTMENT OF PUBLIC WORKS STD NO.

DRIP EMITTER DETAIL 1026

