

CITY OF ARVIN
CONSTRUCTION STANDARDS

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WATER STANDARDS

Per requirement of the Arvin Community Service District

GENERAL NOTES

1. Class "A" concrete is defined as 6 sack per cubic yard with slump 2.5" to 4" maximum.
2. Class "B" concrete is defined as 5 sack per cubic yard with slump 3" to 5.5" maximum.

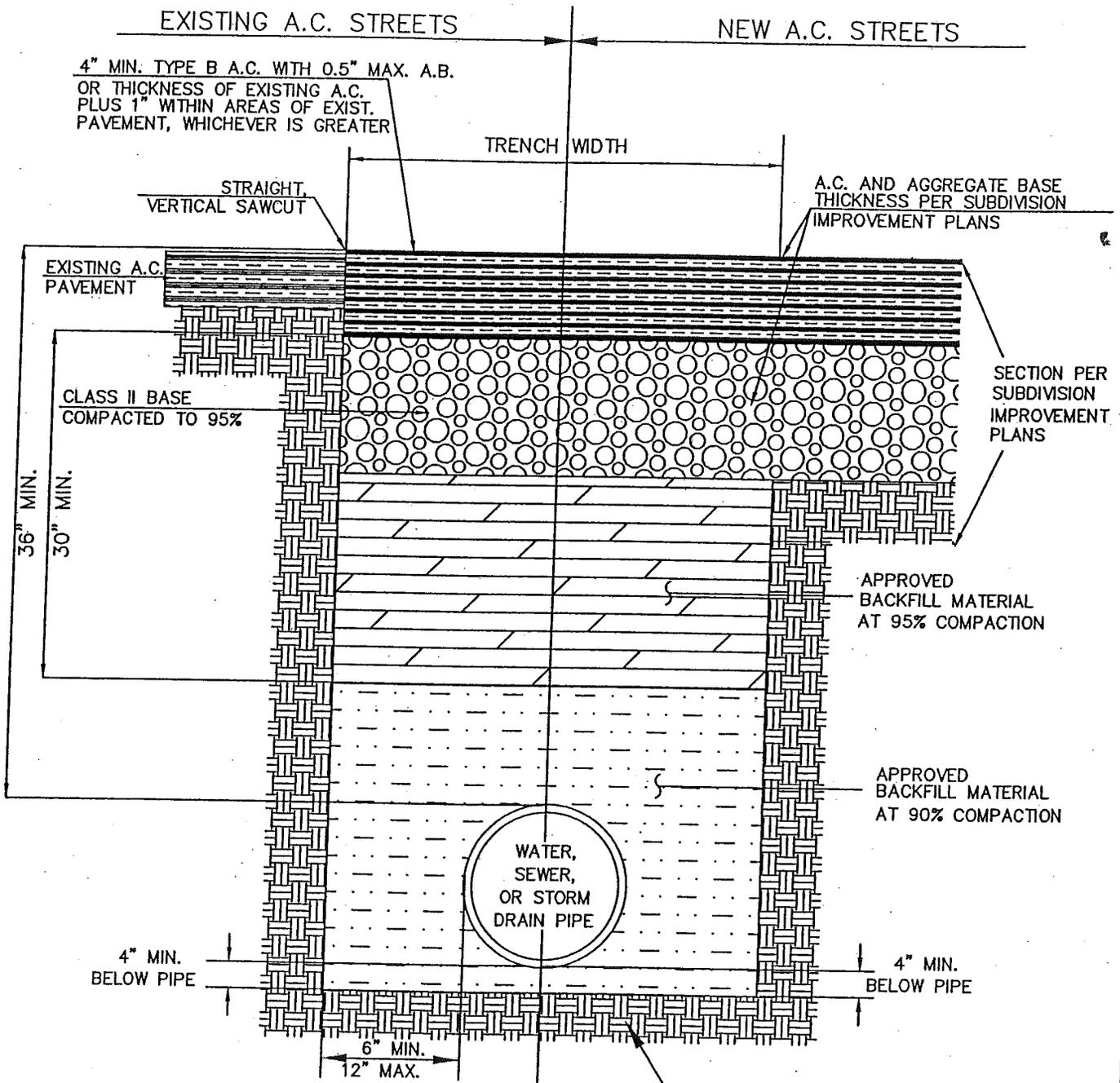
ABBREVIATIONS

AB
AB
B. W.
BCR
C
CL
CLR
CONC.
CONT.
CORP.
D
D.F.
DIA.
E.W.
ECR
ELEC.
FL
FPS
FT.
GAL.
GALV.
GPD
I.D.
IRRG.
L
LB(S).
MAX.
MIN.
O.C.
O.D.
P.S.I.
PL
PUE
R
RAD.
ROW
S
SHT.
SPECS.
SQ.FT.
STD(S)
T.I.
TW
TYP.
V-GUTTER
W
W/

DEFINITIONS

Aggregate Base
Asphalt Concrete
Both Ways
Begin Curb Return
Clearance
Centerline
Clear
Concrete
Continuous
Corporation
Distance
Douglas Fir Tree
Diameter
Each Way
End Curb Return
Electrical
Curb and Gutter Flowline
Feet Per Second
Foot (Feet)
Gallon(s)
Galvanized
Gallons Per Day
Inner Diameter
Irrigation
Length
Pound(s)
Maximum
Minimum
On Center
Outer Diameter
Pounds Per Square Inch
Property Line
Public Utility Easement
Radius
Radius
Right-of-Way
Slope
Sheet
Specifications
Square Foot (Feet)
Standard(s)
Traffic Index
Travel Width
Typical
Valley Gutter
Width
With

INSTALLATION OF NEW PIPE



THE BOTTOM OF THE TRENCH SHALL BE GRADED AND PREPARED TO PROVIDE A FIRM AND UNIFORM BEARING THROUGHOUT THE ENTIRE LENGTH OF THE PIPE. SEE SOILS REPORT FOR ADDITIONAL REQUIREMENTS.

SEE GENERAL NOTES PLATE B1-B

SOLUTION # 02-43

CITY OF ARVIN

Harold J. Vay
CITY ENGINEER

STANDARD TRENCH
BACKFILL

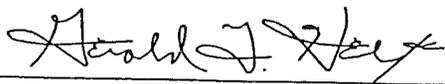
PLATE
B1-A

REVISED: NOV. 2002 SHT. 1 OF 1

GENERAL NOTES

1. THE CONTRACTOR SHALL CONTACT USA AT 1-800-227-2600, 48 HOURS PRIOR TO START OF WORK FOR CLEARING UNDERGROUND UTILITIES.
2. CONTRACTOR TO SECURE ENCROACHMENT PERMIT FOR WORK WITHIN CITY RIGHT-OF-WAY.
3. CONTRACTOR TO NOTIFY THE CITY PUBLIC WORKS DEPARTMENT AT LEAST 24 HOURS PRIOR TO TRENCHING.
4. ALL WORK TO CONFORM TO THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED JULY 1995, AND/OR ASTM SPECIFICATIONS FOR TESTING. ANY DEVIATIONS FROM THESE STANDARDS SHALL BE APPROVED BY THE CITY ENGINEER.
5. UNLESS OTHERWISE SPECIFIED BY PRELIMINARY SOILS REPORT, BACKFILL MATERIAL TO BE PROPERLY MOISTENED AND PLACED IN 8" MAX. LOOSE LIFTS. ALL BACKFILL MATERIAL SHALL PASS A 1" SIEVE AND BE FREE FROM ORGANIC MATTER OR OTHER DELETERIOUS SUBSTANCES, AND SHALL BE OF SUCH NATURE THAT IT CAN BE COMPACTED READILY UNDER WATERING AND ROLLING OR TAMPING TO FORM A FIRM, STABLE BASE.
6. CLASS II BASE, 3/4" MAX., TO CONFORM TO SECTION 26 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED JULY 1995, AND COMPACTED TO A MINIMUM OF 95%, THICKNESS SHALL BE PER APPROVED PLANS.
7. IN AREAS THAT REQUIRE ASPHALT CONCRETE, PLACE A MIN. OF 4" OF ASPHALT CONCRETE USING TYPE B, 1/2" MAX, MEDIUM GRADE AGGREGATE CONFORMING TO SECTION 39 AND AR-4000 ASPHALT CONFORMING TO SECTION 92 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED JULY 1995.
8. IN AREAS THAT REQUIRE ROAD MIX, PLACE A MINIMUM OF 4" OF ROAD MIXED ASPHALT SURFACING CONFORMING TO SECTION 39 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED, JULY 1995.
9. SAWCUT AND TRIM EXISTING STREET PAVING. APPLY PAINT BINDER TO VERTICAL SURFACES PRIOR TO PAVING. PAINT BINDER TO CONFORM TO SECTION 39-4.02 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED JULY 1995. SEAL FINISH SAW-CUT JOINT WITH APPROVED SEALANT WHEN FINISHED SURFACE IS CONSTRUCTED.
10. MINIMUM TRENCH WIDTH MEASURED AT OUTSIDE OF PIPE SHALL BE PIPE OUTSIDE DIAMETER PLUS 12". MAXIMUM TRENCH WIDTH MEASURED AT OUTSIDE OF PIPE SHALL BE THE OUTSIDE DIAMETER OF THE PIPE BELL OR COUPLING PLUS 24". PIPE SHALL BE CENTERED IN THE TRENCH.
11. THE CITY PUBLIC WORKS DEPARTMENT DESIGNATED INSPECTOR MAY REQUIRE COMPACTION TESTS. ALL TESTS ARE TO BE ARRANGED AND PAID FOR BY THE CONTRACTOR AT TIMES AND LOCATIONS DESIGNATED BY THE CITY'S INSPECTOR. METHOD OF TESTING TO BE ASTM 1557-5 LAYER.
12. THE TRENCH SHALL BE BACKFILLED IN ACCORDANCE WITH THESE DETAILS WITHIN 5 WORKING DAYS AFTER COMPLETION OF TRENCHING OPERATIONS. EITHER A TEMPORARY COLD ASPHALT MIX OR FINAL PAVING IS TO COMPLETED WITHIN 10 WORKING DAYS AFTER COMPLETION OF BACKFILL OPERATIONS. IF A TEMPORARY COLD MIX IS PROVIDED, FINAL PAVING IS TO BE COMPLETED WITHIN 30 WORKING DAYS AFTER PLACEMENT OF THE COLD MIX. CONTRACTOR SHALL MAINTAIN TEMPORARY COLD MIX UNTIL SUCH TIME AS FINAL PAVING IS COMPLETED.
13. ALL APPURTENANCES SUCH AS VALVE BOXES, GRATES, MANHOLES, ETC. SHALL BE BROUGHT TO GRADE AS REQUIRED WITHIN 20 WORKING DAYS OF COMPLETION OF PAVING.
14. TRAFFIC SHALL BE ALLOWED TO PASS THROUGH THE CONSTRUCTION SITE. THE CONTRACTOR SHALL INSTALL SIGNS, LIGHTS, BARRICADES AND OTHER FACILITIES FOR THE CONVENIENCE, SAFETY AND DIRECTION OF PUBLIC TRAFFIC. IF NECESSARY, THE CONTRACTOR SHALL PROVIDE COMPETENT FLAGMEN WHOSE ONLY DUTY SHALL BE TO DIRECT THE MOVEMENT OF TRAFFIC THROUGH OR AROUND THE WORK AREA. ALL TRAFFIC CONTROL SHALL CONFORM TO SECTION 12 OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED JULY 1995.
15. IN AREAS OF NO PAVEMENT OR PHASED SUBDIVISIONS OR WHERE NO A.C. PAVEMENT AND/OR AGGREGATE BASE IS REQUIRED, THE COMPACTED BACKFILLED MATERIAL SHALL BE APPLIED TO A DEPTH OF 30" BELOW THE EXISTING GRADE AND SHALL BE COMPACTED TO 95% COMPACTION.
16. UTILITY POTHOLE (AND/OR) SMALL BELL HOLE. STREET EXCAVATION TO BE BACKFILLED PER CITY PUBLIC WORKS INSPECTOR.

RESOLUTION # 02-43


 CITY ENGINEER

CITY OF ARVIN

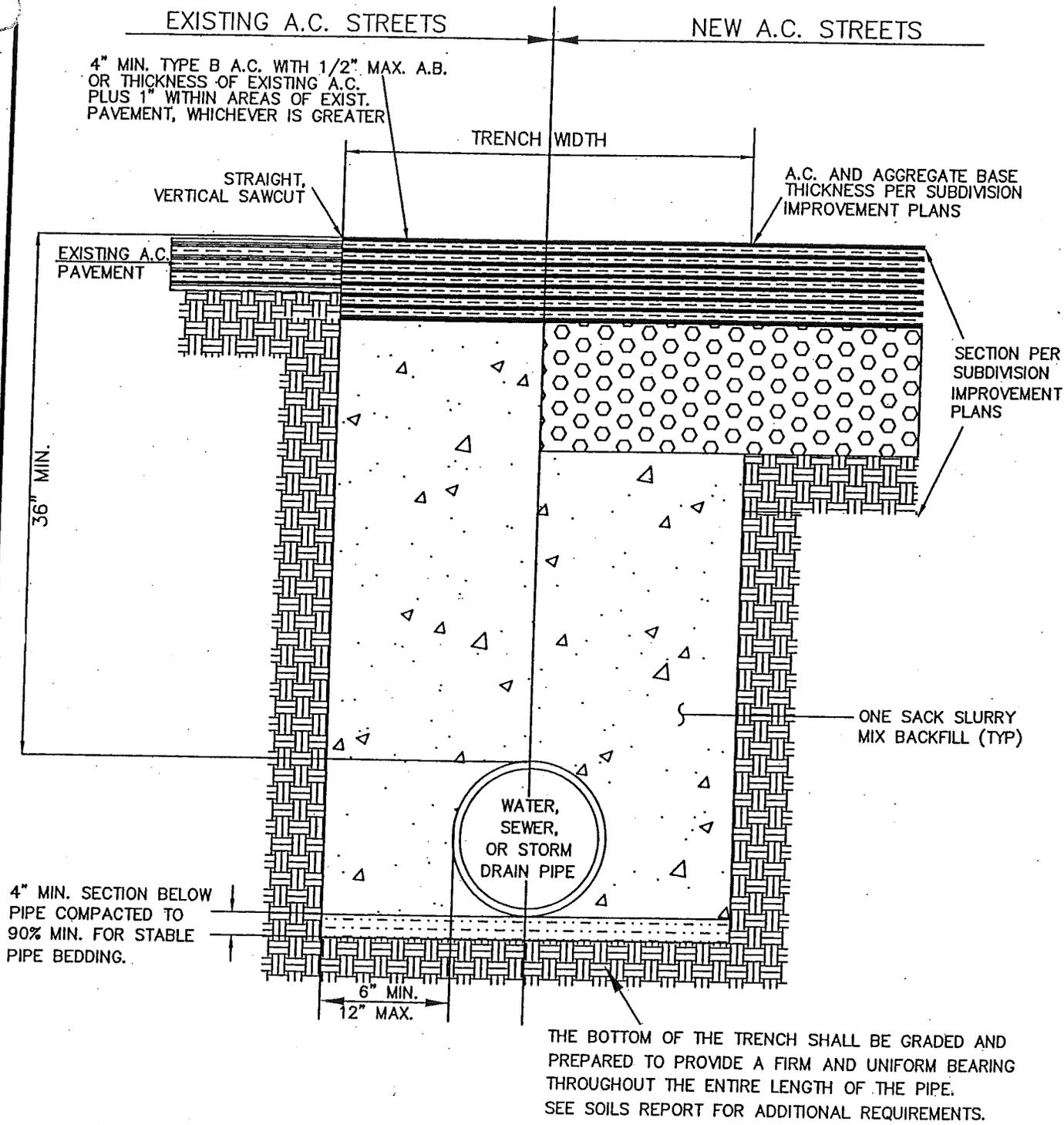
**STANDARD TRENCH
 BACKFILL**

PLATE

B1-B

REVISED: NOV. 2002 SHT. 1 OF 1

INSTALLATION OF NEW PIPE



THE BOTTOM OF THE TRENCH SHALL BE GRADED AND PREPARED TO PROVIDE A FIRM AND UNIFORM BEARING THROUGHOUT THE ENTIRE LENGTH OF THE PIPE. SEE SOILS REPORT FOR ADDITIONAL REQUIREMENTS.

SEE GENERAL NOTES PLATE B2-B

RESOLUTION # 02-43

Harold J. Vay
CITY ENGINEER

CITY OF ARVIN

ONE SACK SLURRY
TRENCH BACKFILL

PLATE
B2-A

REVISED: NOV. 2002 SHT. 1 OF 1

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CITY OF ARVIN

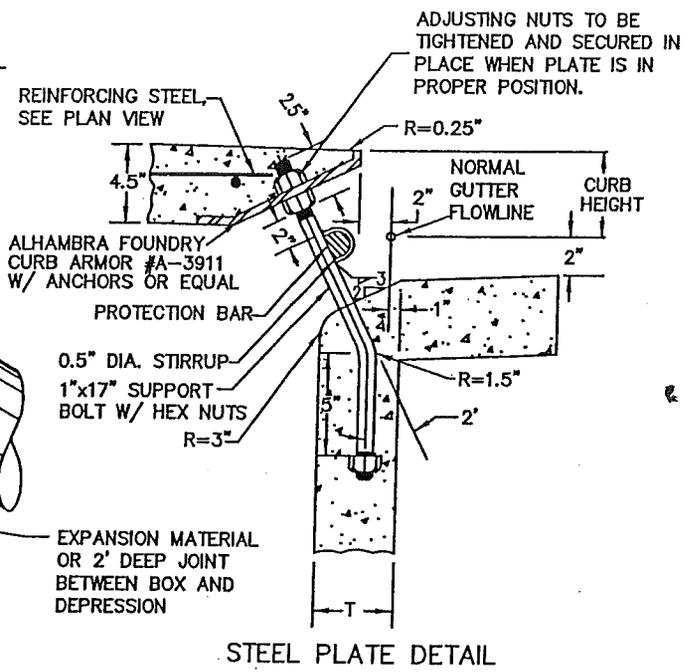
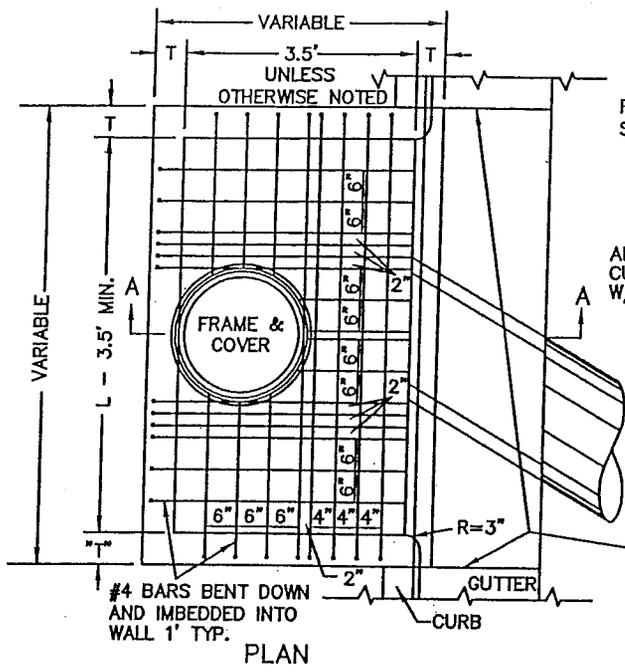
Harold J. Wiley

 CITY ENGINEER

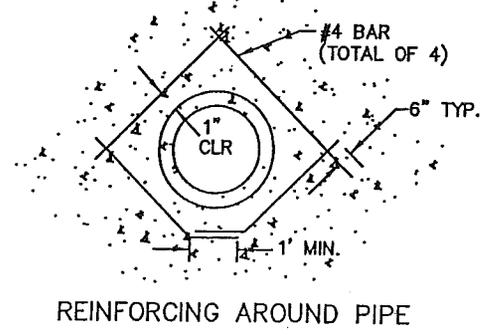
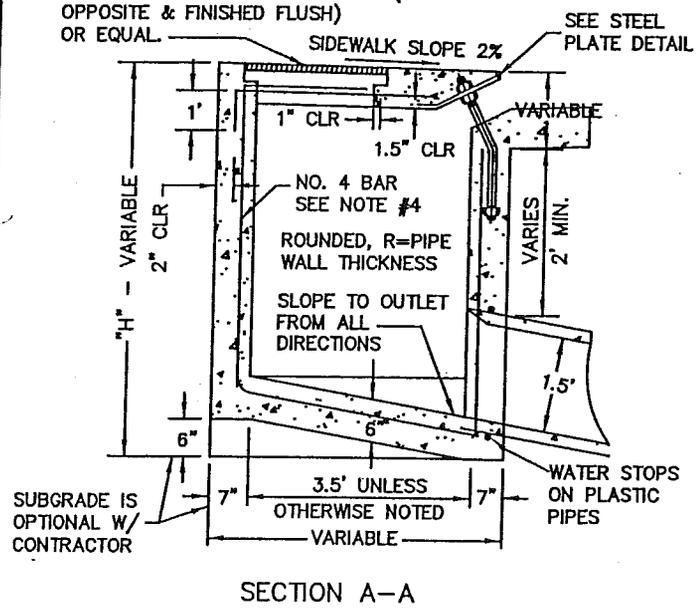
**ONE SACK SLURRY
 TRENCH BACKFILL**

PLATE

B2-B



ALHAMBRA FOUNDRY GALV. FRAME AND COVER #A1530 WITH 2.75" STAINLESS STEEL SOCKET HEAD SET SCREWS (SET OPPOSITE & FINISHED FLUSH) OR EQUAL



- NOTES:
1. ALL CONCRETE SHALL BE CLASS "A" AND SHALL BE WITHIN 2.5" TO 5.0" SLUMP.
 2. SLAB TO BE POURED MONOLITHIC WITH SIDEWALK WHERE SIDEWALK IS REQUIRED OR NEEDS REPLACING. SURFACES OF ALL EXPOSED CONCRETE SHALL MATCH SLOPE, FINISH, COLOR AND SCORING OF ADJACENT CONCRETE.
 3. WALL THICKNESS: T=6" EXCEPT WHEN H>8', T=8" OR L>8', T= 8". CATCH BASIN WALLS SHALL BE INCREASED BY 2" MINIMUM IN THICKNESS IF POURED AGAINST NATURAL GROUND IN LIEU OF OUTSIDE FACE FORMS.
 4. WALL REINFORCING NOT REQUIRED WHEN H=8.0' OR LESS AND L=7' OR LESS. WALLS EXCEEDING THESE LIMITS SHALL BE REINFORCED WITH NO. 4 BARS AT 1.5" O.C. BOTH WAYS. ALL REINFORCING SHALL BE NO. 4 BARS 1.5" CLEAR OF INSIDE FACE UNLESS OTHERWISE SHOWN.
 5. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AFTER FABRICATION.
 6. SUPPORT BOLTS SHALL BE INSTALLED WHEN LENGTH OF OPENING EXCEEDS 5' O.C. AND SHALL BE SPACED BETWEEN 3' TO 5' O.C.
 7. WHEN CURB OPENING EXCEEDS 5.5", A PLAIN ROUND STEEL PROTECTION BAR 1" IN DIAMETER SHALL BE INSTALLED. BAR SHALL BE IMBEDDED 5" AT EACH END.
 8. PIPE SHALL BE AS SPECIFIED OR AS DIRECTED BY THE CITY ENGINEER. THE ANGULAR CUT ON THE PIPE SHALL BE MADE AS DIRECTED BY THE CITY ENGINEER.
 9. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.

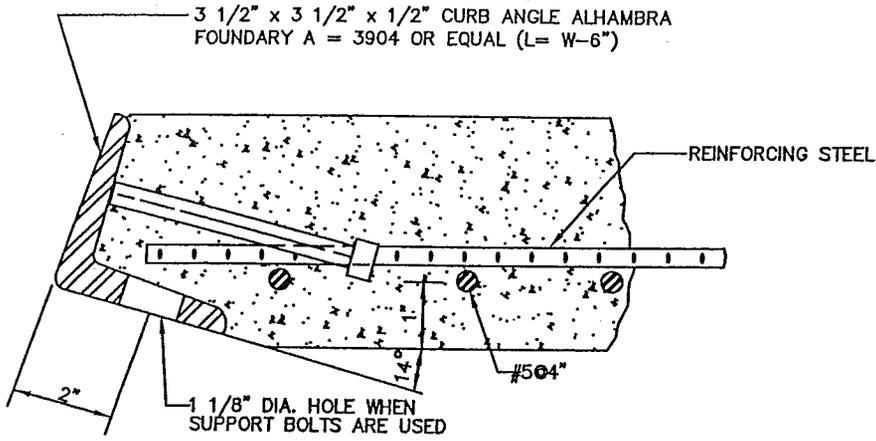
SOLUTION # 02-43

Harold J. Day
CITY ENGINEER

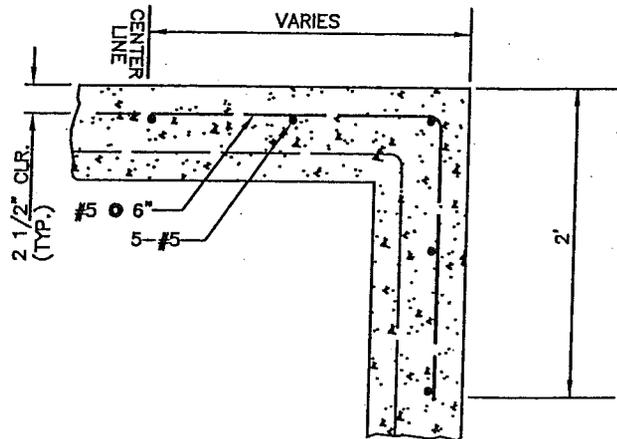
CITY OF ARVIN

CATCH BASIN

PLATE
D1



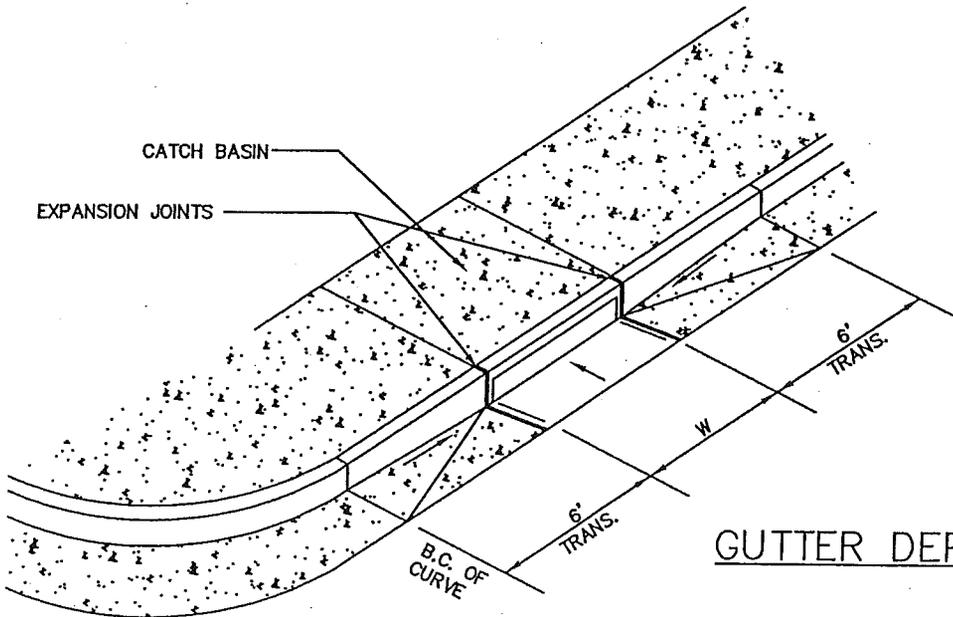
CURB ANGLE DETAIL



CORNER REINFORCING DETAIL

WALL THICKNESS "T" SHALL BE AS FOLLOWS:

- $W \geq 8'$, $T = 8"$
- $H \geq 8'$, $T = 8"$
- OTHERWISE $T = 6"$



GUTTER DEPRESSION DETAIL

SOLUTION # 02-43

CITY OF ARVIN

Harold J. [Signature]

CITY ENGINEER

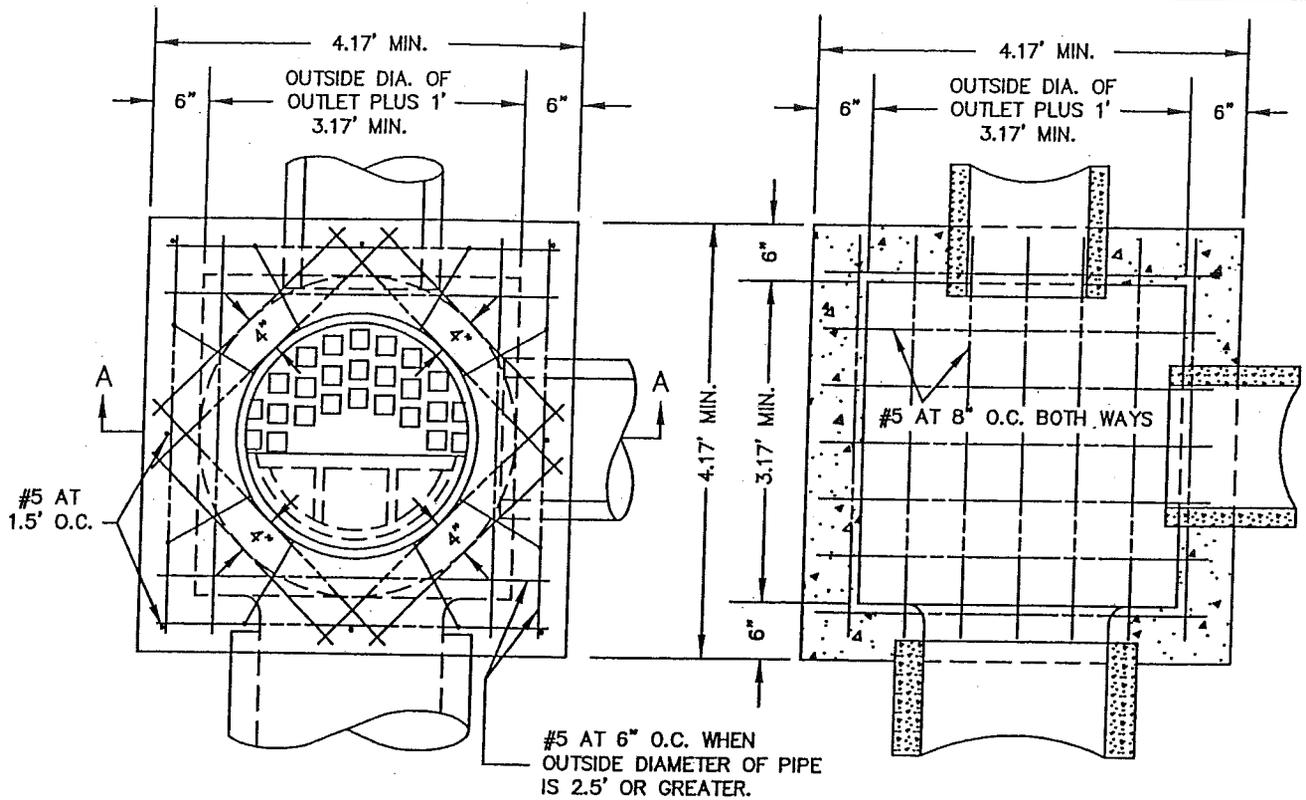
CATCH BASIN DETAILS

PLATE

D1-A

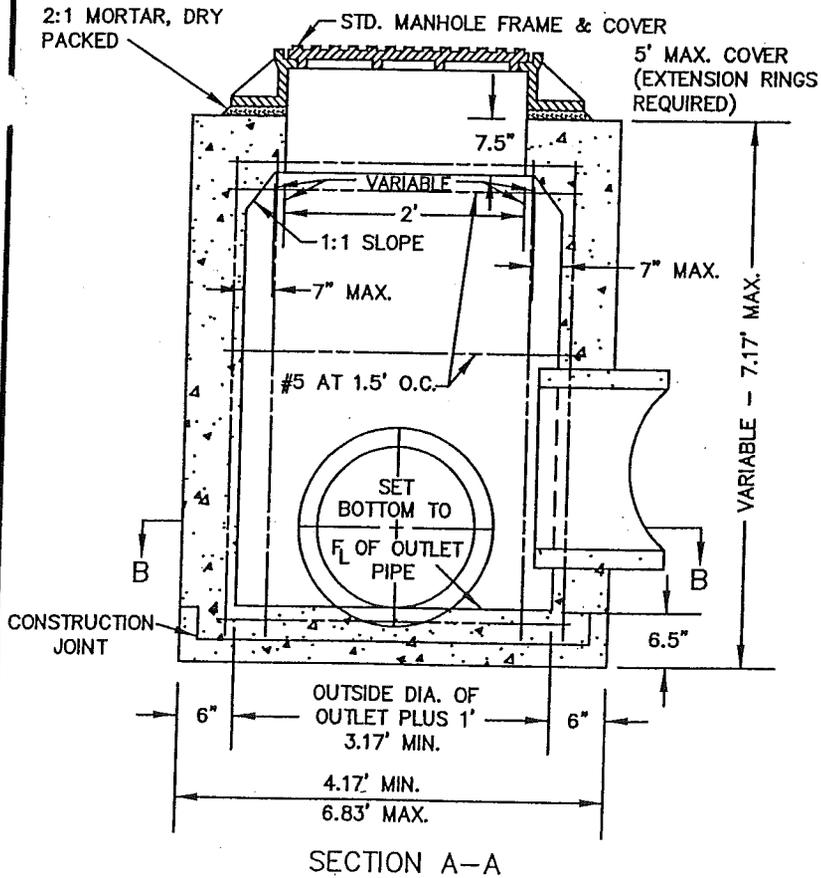
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SHT. 1 OF 1



PLAN

SECTION B-B



SECTION A-A

NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.
2. ALL CONCRETE SHALL BE CLASS "A" UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
3. ALL REINFORCING STEEL SHALL BE OF #5 REINFORCING BARS AND BENT AS SHOWN.
4. MANHOLE COVER SHALL HAVE CAST THEREON IN RAISED LETTERS "DRAIN". LETTERING IS TO BE 3" IN HEIGHT AND RAISED 0.125".

RESOLUTION # 02-43

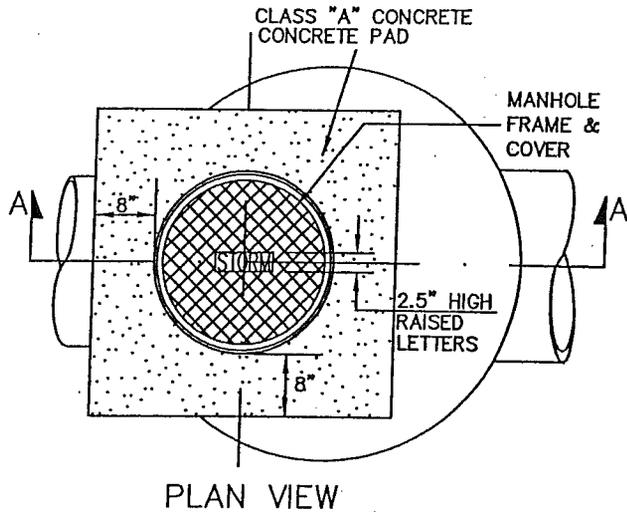
CITY OF ARVIN

Harold J. Kelly
CITY ENGINEER

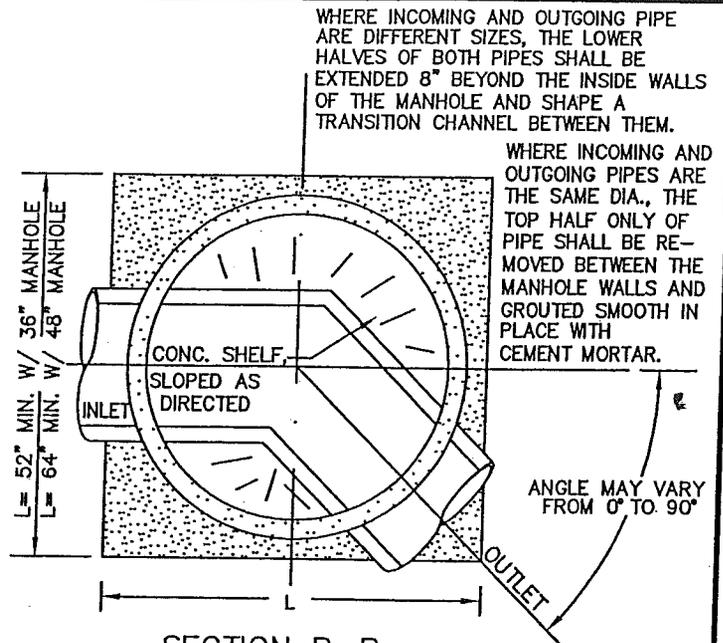
JUNCTION BOX

PLATE
D2

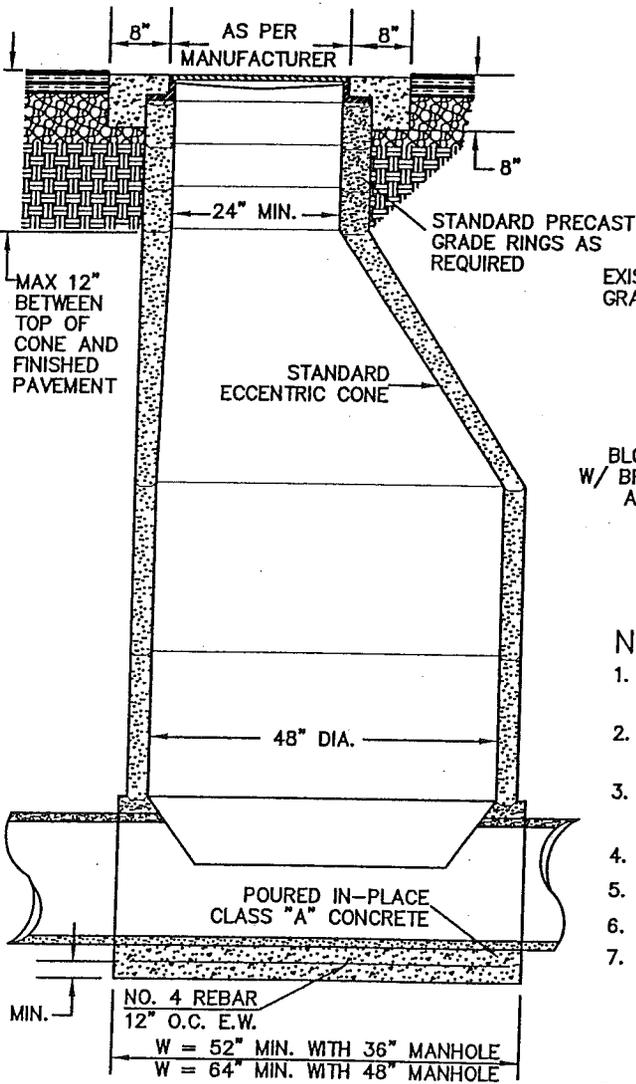
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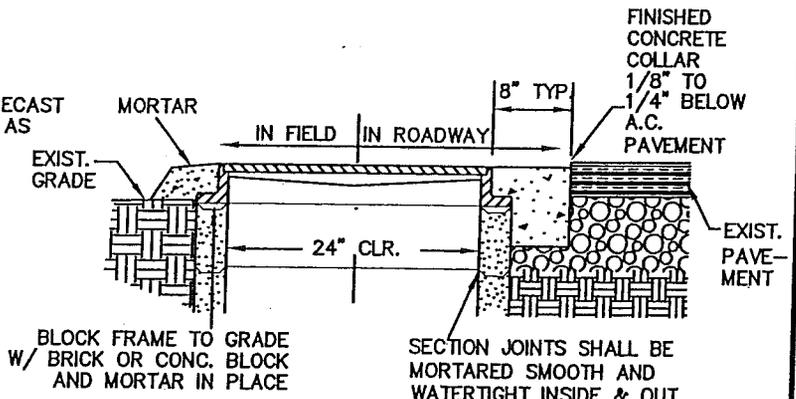
PLAN VIEW



SECTION B-B



SECTION A-A



STANDARD MANHOLE FRAME & COVER

NOTES:

1. MANHOLE FRAME SHALL WEIGH NOT LESS THAN 165 LBS. AND THE COVER NOT LESS THAN 150 LBS.
2. ALL MATERIALS USED IN MANUFACTURING OF MANHOLE FRAME AND COVER SHALL CONFORM TO ASTM 48-30.
3. FRAME AND COVER BEARING SURFACES MACHINED TO ASSURE CLOSE, QUITE FIT.
4. CASTINGS SHALL BE DIPPED IN BLACK BITUMINOUS PAINT.
5. FRAME AND COVER SHALL EXCEED H-20 WHEEL LOADING.
6. STANDARD COVER MARKINGS: "STORM"
7. MANHOLES CONSTRUCTED ON STORM DRAIN PIPE OF 36" DIA. OR LARGER SHALL USE 48" DIA. SHAFT, FOR STORM DRAIN PIPE LESS THAN 36" DIA. SHALL USE 36" DIA. SHAFT, AND SHALL BE SPACED AT INTERVALS NOT TO EXCEED 600' ALONG THE CONDUIT. SEE SECTION 46-5.04 OF THE SPECIFICATIONS.
8. MANHOLE FRAME AND COVERS SHALL BE: ALHAMBRA FOUNDRY A-1254 OR APPROVED EQUAL.

SOLUTION # 02-43

Harold J. [Signature]
CITY ENGINEER

CITY OF ARVIN

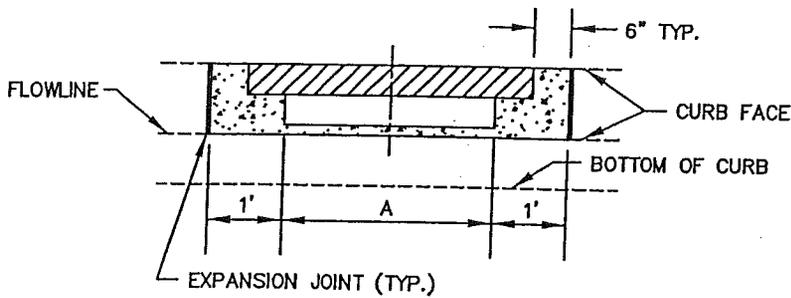
STORM DRAIN MANHOLE

PLATE

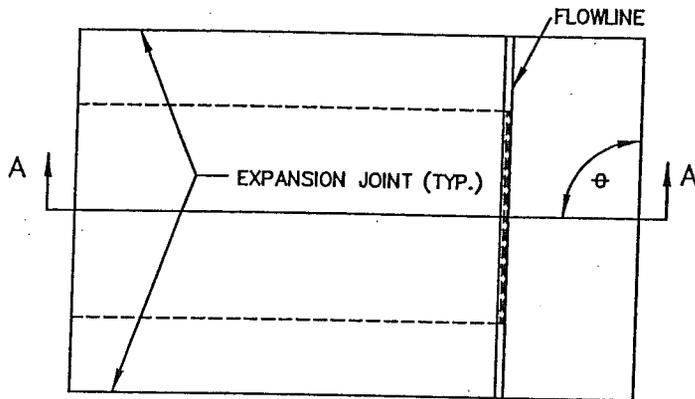
D3

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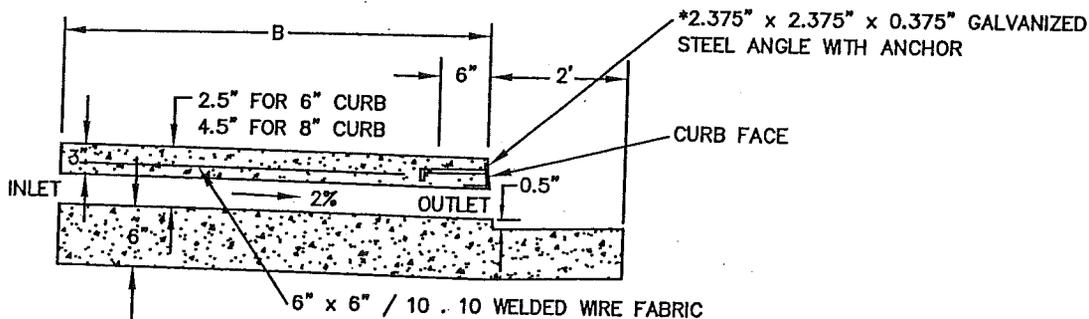
ALHAMBRA FOUNDRY COMPANY
 NO. A-3900, FACE ANGLE
 2.375" x 2.375" x 0.375" GALVANIZED



ELEVATION



PLAN



SECTION A-A

* ANCHOR IS 0.375" DIA. x 4"

NOTES:

1. SIDEWALK UNDERDRAIN ONLY TO BE USED WITH THE APPROVAL OF THE CITY ENGINEER.
2. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED, "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.
3. ALL CONCRETE SHALL BE CLASS "A" AND SHALL HAVE A SLUMP WITHIN 2.5" TO 4.0".
4. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION, WITH COMPACTION OF 90% TO A DEPTH OF 6".
5. EXISTING SIDEWALK SHALL BE SAWCUT AND REMOVED AT THE FIRST SCORING LINE AT OR BEYOND THE PLANNED JOINT. ALL EXPOSED SURFACES OF THE SIDEWALK UNDERDRAIN SHALL MATCH THE EXISTING CURB, GUTTER AND SIDEWALK SURFACES.
6. EXPANSION JOINT FILLER MATERIAL SHALL BE PERFORMED OF A DURABLE, RESILIENT COMPOUND.
7. DIMENSIONS
 A = GUTTER WIDTH, 1' < A < 3'
 B = SIDEWALK WIDTH
 $\phi = 90^\circ$
 ALL DIMENSIONS TO BE APPROVED BY CITY ENGINEER.
8. ALL INLET MODIFICATIONS SHALL BE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.

SOLUTION # 02-43

CITY OF ARVIN

Harold J. [Signature]
 CITY ENGINEER

SIDEWALK UNDERDRAIN

PLATE
 D4

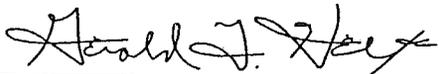
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DRAINAGE DESIGN STANDARDS

1. USE THE CURRENT EDITION OF THE KERN COUNTY SUBDIVISION STANDARDS, SECTION 301, "STANDARDS FOR DRAINAGE" AND THE KERN COUNTY HYDROLOGY MANUAL SHALL BE THE BASIS FOR DESIGN.

RESOLUTION # 02-43

CITY OF ARVIN



CITY ENGINEER

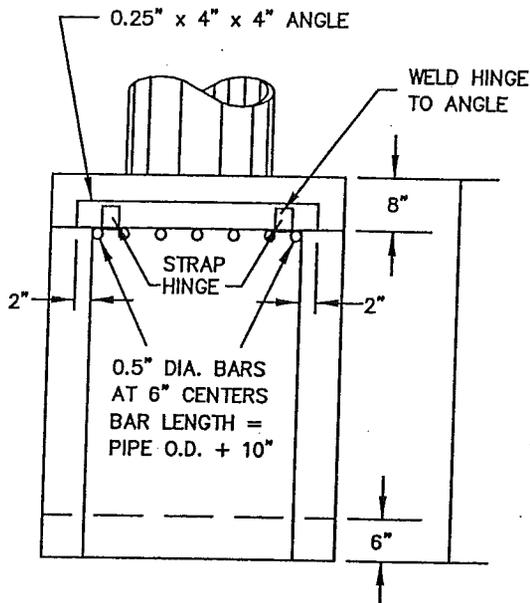
DRAINAGE DESIGN
STANDARDS

REVISED: NOV. 2002

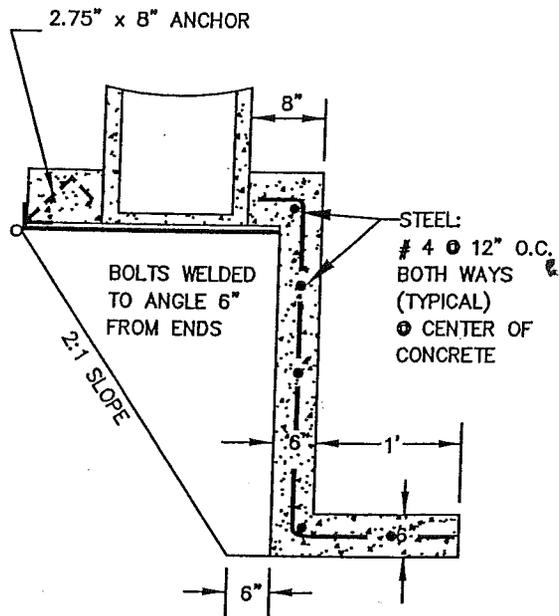
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PLATE
D5,
D6

* UNLESS OTHERWISE ALLOWED



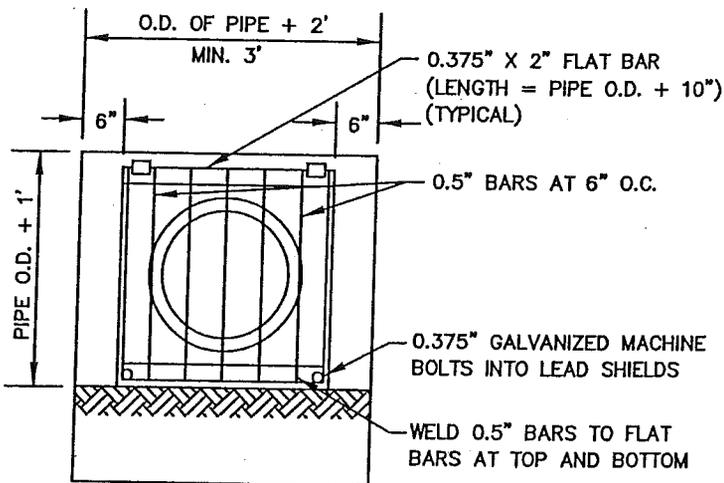
PLAN



SECTION

NOTES:

1. ALL WORK SHOWN SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.
2. SIDE SLOPES SHALL NOT EXCEED 2:1.
3. ALL EXPOSED METAL IN THE OUTLET STRUCTURE SHALL NOT BE LESS THAN 20 AND SHALL CONFORM TO THE FOLLOWING GRADING: DIPPED GALVANIZED AFTER FABRICATION.
4. CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE CITY ENGINEER.
5. CONCRETE SHALL BE CURED WITH A WHITE PIGMENTED CURING COMPOUND COMPLYING TO SEC. 90-7.01B OF THE STANDARD SPECIFICATIONS.
6. NO PIPE BELLS SHALL BE PLACED IN THE STRUCTURE.



ELEVATION
OUTLET STRUCTURE

SOLUTION # 02-43

CITY OF ARVIN

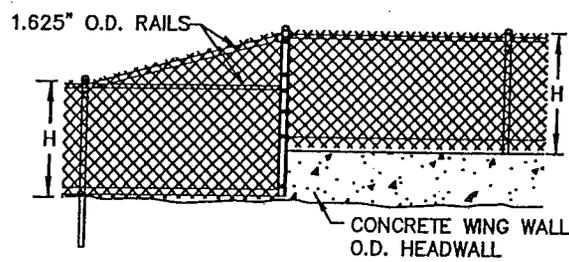
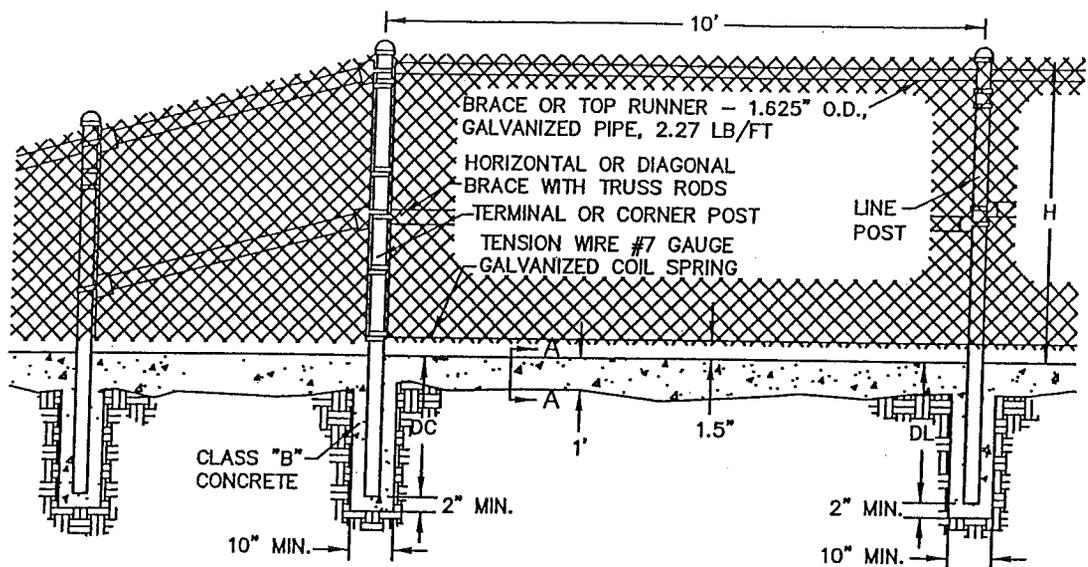
PLATE

Harold J. [Signature]
CITY ENGINEER

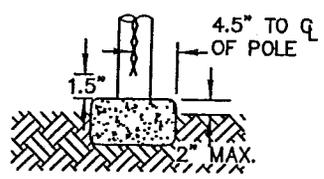
TYPICAL
OUTLET STRUCTURE

D7

REVISED: NOV. 2002 SHT. 1 OF 1



TYPICAL DETAIL AT
CULVERT ENDWALLS



SECTION A-A

NOTES:

1. INSTALLATION OF FENCING AND GATES SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.
2. A 6" x 9" CLASS "B" CONCRETE CURB SHALL BE CONSTRUCTED UNDER ALL FENCES. WITHIN CITY PARKS A 6" THICK x 12" WIDE CURB SHALL BE USED. IN EITHER CASE, A 1.5" CLEARANCE BETWEEN THE CURBING AND FABRIC SHALL BE USED.
3. FABRIC SHALL BE FASTENED TO GATE POST, TERMINAL POST, OR CORNER POST WITH 0.25" x 0.75" STRETCHER BAR BANDS AT 8" ON CORNER.
4. CORNER POSTS SHALL BE INSTALLED AT ALL ANGLES IN FENCE LINE EXCESS OF 10 DEGREES.
5. FABRIC SHALL BE FASTENED TO LINE POST WITH FABRIC BANDS SPACED APPROXIMATELY 14" APART, AND TO TOP RUNNER AND BOTTOM TENSION WIRES WITH FABRIC BANDS SPACED APPROXIMATELY 24" APART.
6. FABRIC SHALL CONFORM TO ASTM 1-392, CLASS 1.
7. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION WITH COMPACTION OF 85% TO A DEPTH OF 6".
8. CONCRETE SHALL BE CLASS "B" AND SHALL BE WITHIN 2.5" AND 5.5" SLUMP.
9. SURFACE OF CONCRETE SHALL BE TROWELED SMOOTH AND BRUSH FINISHED.
10. CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS PRIOR APPROVAL IS OBTAINED IN WRITING FROM THE CITY ENGINEER.
11. END, CORNER AND GATE POSTS SHALL BE BRACED TO THE NEAREST LINE POST WITH GALVANIZED DIAGONAL OR HORIZONTAL BRACES USED AS COMPRESSION MEMBERS AND GALVANIZED 0.375" STEEL TRUSS RODS WITH TURNBUCKLES OR TRUSS TIGHTENER USED AS TENSION MEMBERS.

FENCING TABLE	
HEIGHT (H)	6'-0"
DEPTH AT CORNER POST (DC)	3'-0"
DEPTH AT LINE POST (DL)	2'-6"
TERMINAL POST OR CENTER POST	2-7/8" O.D. GALV. PIPE 5.79 LBS./FT.
LINE POST	H COLUMN 2-1/4" x 1-7/8" 4.10 LBS./FT.
	2-3/8" O.D. GALV. PIPE 3.65 LBS./FT.
FENCE FABRIC	9 GAUGE, 2" MESH, GALV. AFTER WEAVING, KNUCKLED TOP AND BOTTOM
	9 GAUGE, 1.75" TENNIS FENCE MESH, GALV. AFTER WEAVING, KNUCKLED TOP AND BOTTOM
REDWOOD SLATS	2-3/16" x 1/4"

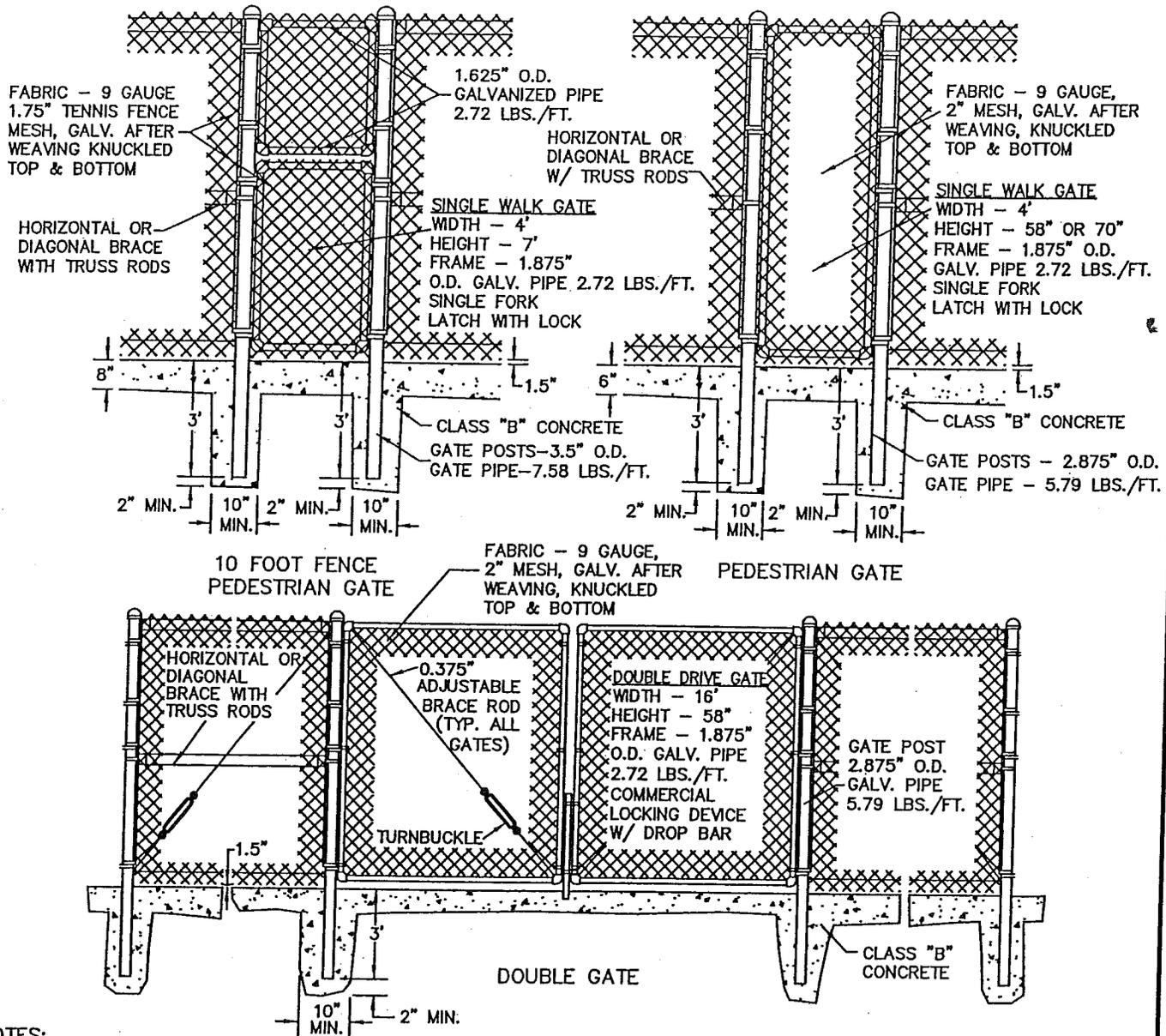
SOLUTION # 02-43

CITY OF ARVIN

Harold J. Vay
CITY ENGINEER

CHAINLINK FENCE

PLATE
D8



NOTES:

1. SUBRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION WITH COMPACTION OF 85% TO A DEPTH OF 6".
2. CONCRETE SHALL BE CLASS "B" AND SHALL BE WITHIN 3.0" AND 5.5" SLUMP. CONCRETE SHALL BE TROWELED SMOOTH AND BRUSH FINISHED.
3. CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE CITY ENGINEER. CONCRETE SHALL BE CURED WITH A WHITE PIGMENTED CURING COMPOUND COMPLYING TO SECTION 90-7.01B OF THE STANDARD SPECIFICATIONS.
4. END, CORNER AND GATE POSTS SHALL BE BRACED TO THE NEAREST LINE POST WITH GALV. DIAGONAL OR HORIZONTAL BRACES USED AS COMPRESSION MEMBERS AND GALV. 0.375" STEEL TRUSS RODS WITH TURNBUCKLES OR TRUSS LIGHTENERS USED AS TENSION MEMBERS.
5. WHEN REDWOOD SUBURBAN SCREEN IS REQUIRED, IT SHALL BE USED WITH 3 x 5 - 9 GAUGE FABRIC SO CONSTRUCTED THAT THE SLOTS ARE LOCKED INTO POSITION AND CAN ONLY BE REMOVED WITH TOOLS.
6. FRAMES SHALL BE MADE WITH FITTINGS OR WELDED, WITH WELDS GROUND SMOOTH AND REGALVANIZED.
7. CHAINLINK FENCE FABRIC SHALL CONFORM TO THE SPECIFICATIONS OF ASTM DESIGNATION: A-392, CLASS 1.
8. INSTALLATION OF FENCING AND GATES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SEC. 80-4 OF THE STANDARD SPECIFICATIONS, CURRENT EDITION.

RESOLUTION # 02-43

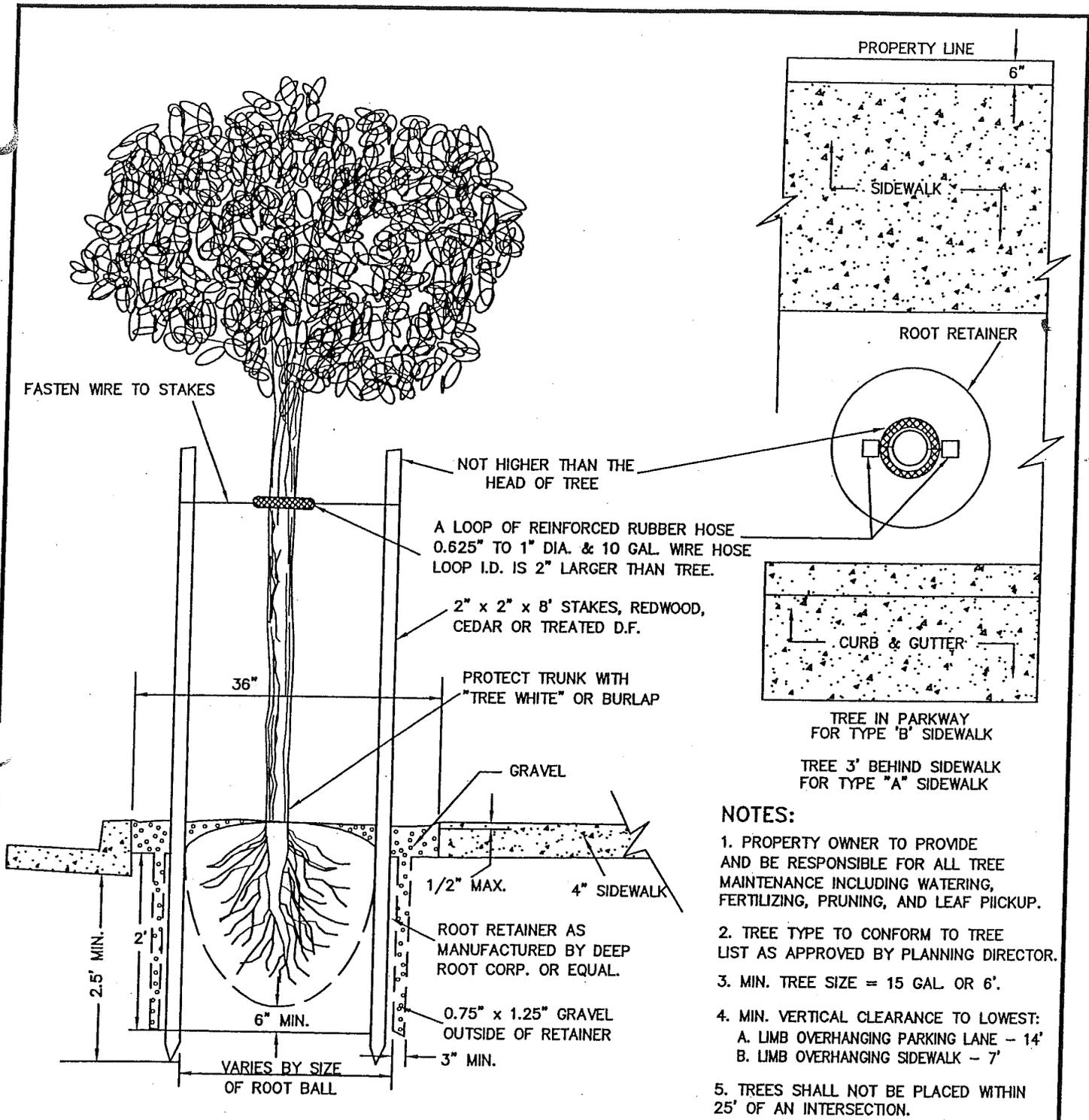
Heath J. Kelly
 CITY ENGINEER

CITY OF ARVIN

CHAINLINK GATES

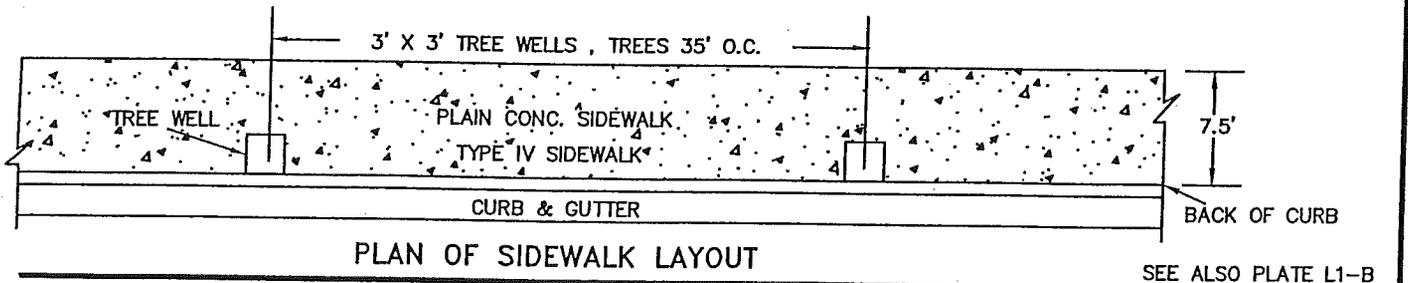
PLATE
 D9

REVISED: NOV. 2002 SHT. 1 OF 1



NOTES:

1. PROPERTY OWNER TO PROVIDE AND BE RESPONSIBLE FOR ALL TREE MAINTENANCE INCLUDING WATERING, FERTILIZING, PRUNING, AND LEAF PICKUP.
2. TREE TYPE TO CONFORM TO TREE LIST AS APPROVED BY PLANNING DIRECTOR.
3. MIN. TREE SIZE = 15 GAL. OR 6'.
4. MIN. VERTICAL CLEARANCE TO LOWEST:
 - A. LIMB OVERHANGING PARKING LANE - 14'
 - B. LIMB OVERHANGING SIDEWALK - 7'
5. TREES SHALL NOT BE PLACED WITHIN 25' OF AN INTERSECTION.



SEE ALSO PLATE L1-B

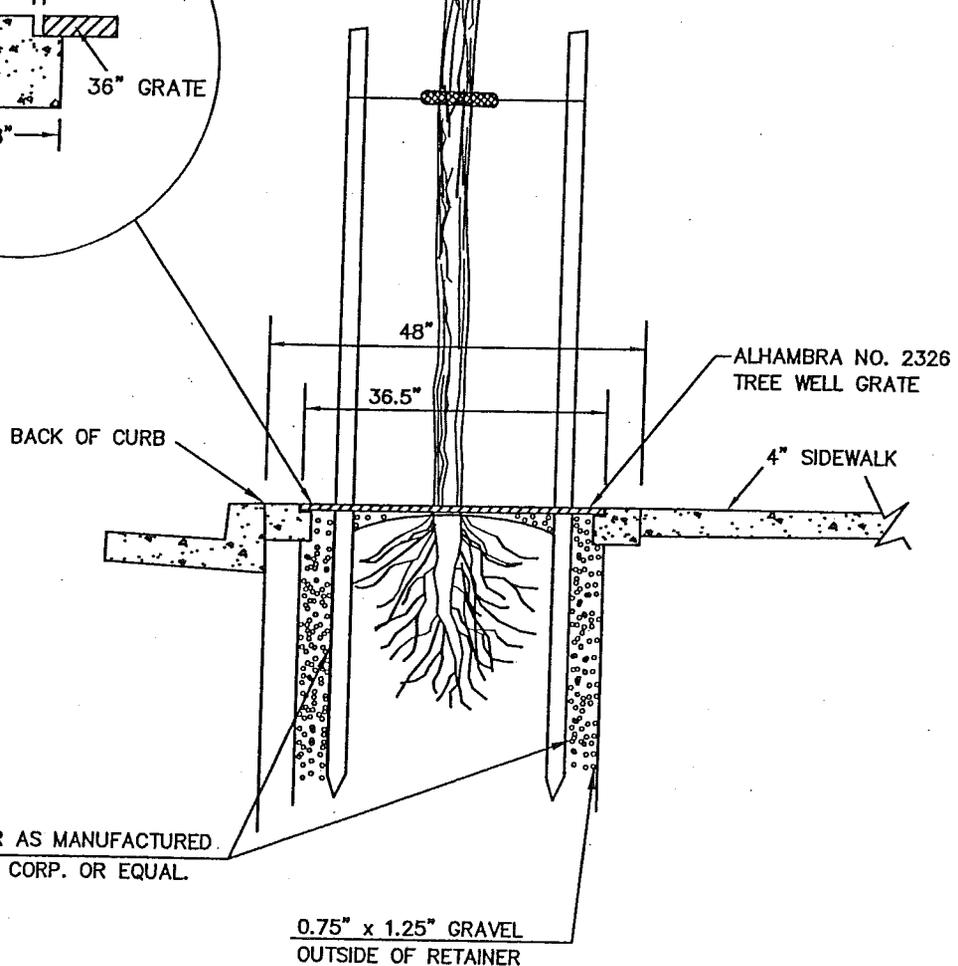
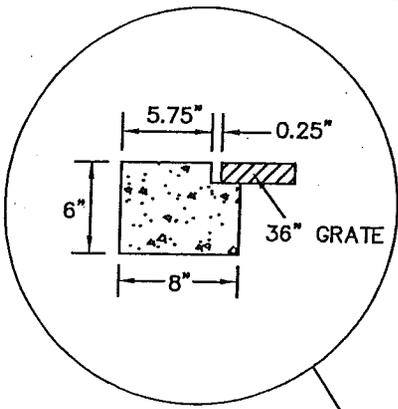
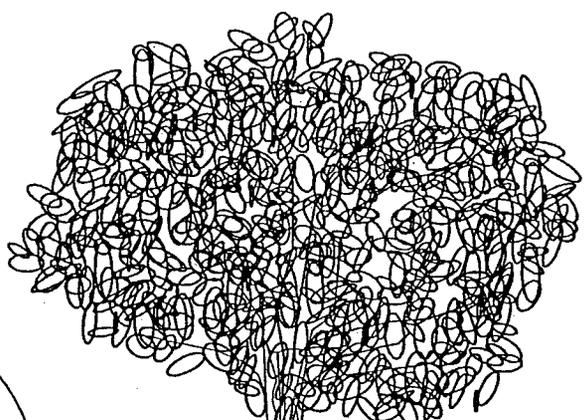
SOLUTION # 02-43

CITY OF ARVIN

Harold J. Vay
CITY ENGINEER

**TREE PLACEMENT
RESIDENTIAL**

PLATE
L1-A



ROOT RETAINER AS MANUFACTURED BY DEEP ROOT CORP. OR EQUAL.

TREE PLACEMENT WITH TREE WELL GRATE

SEE ALSO PLATE L1-A

SOLUTION # 02-43

CITY OF ARVIN

Harold J. Key
CITY ENGINEER

TREE PLACEMENT

PLATE
L1-B

REVISED: NOV. 2002 SHT. 1 OF 1

1. USE THE CURRENT EDITION OF THE KERN COUNTY SUBDIVISION STANDARDS, STANDARD R61 AND R62.

RESOLUTION # 02-43

CITY OF ARVIN

Harold J. Key

CITY ENGINEER

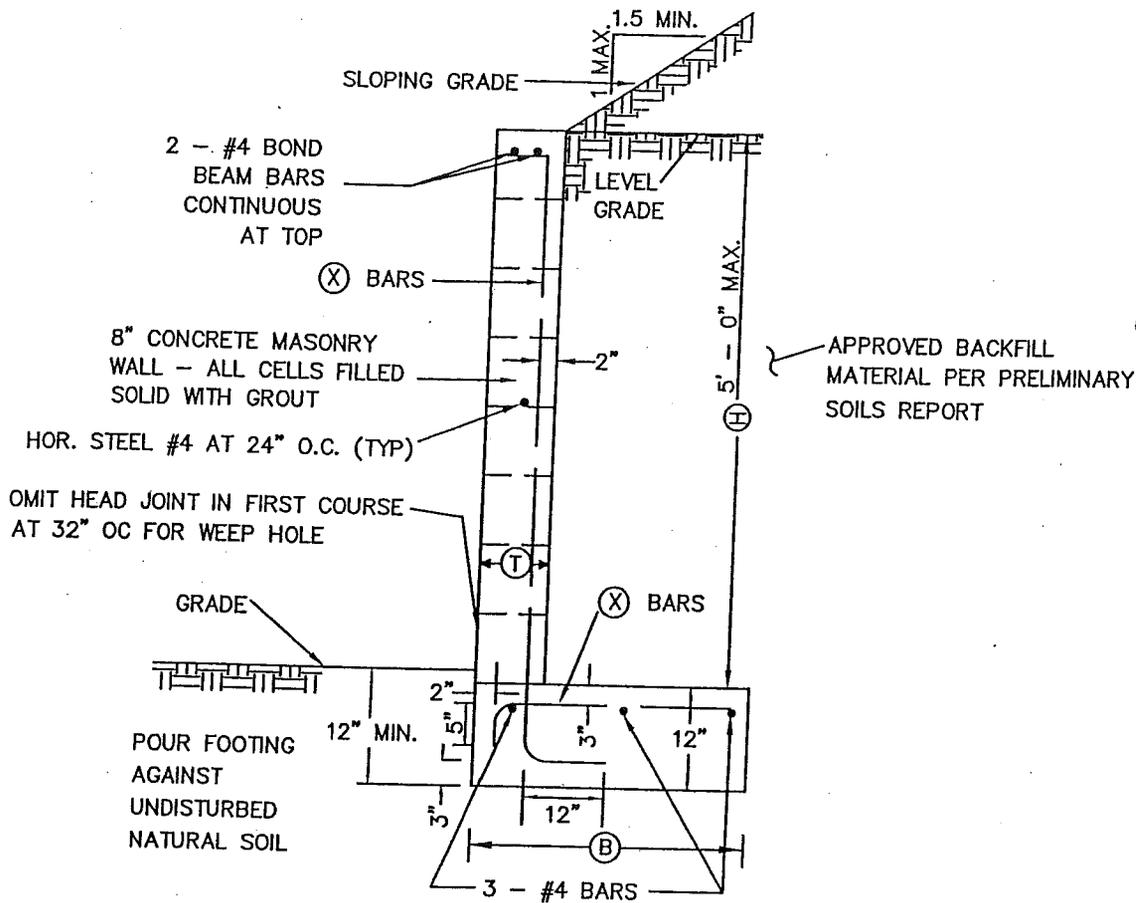
BLOCK WALL

PLATE

L2

REVISED: NOV. 2002

SHT. 1 OF 1



SECTION 5'-0" MAX.

(H)	(T)	(B)	(X) BARS
3'	8"	1'-10"	#3 @ 32" OC
4'	8"	2'-6"	#4 @ 32" OC
5'	8"	3'-0"	#5 @ 24" OC

DESIGN FOR LEVEL GRADE ABOVE WALL

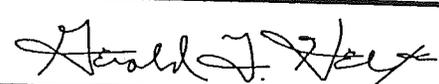
(H)	(T)	(B)	(X) BARS
3'	8"	2'-9"	#4 @ 32" OC
4'	8"	3'-6"	#5 @ 24" OC
5'	8"	4'-0"	#5 @ 16" OC

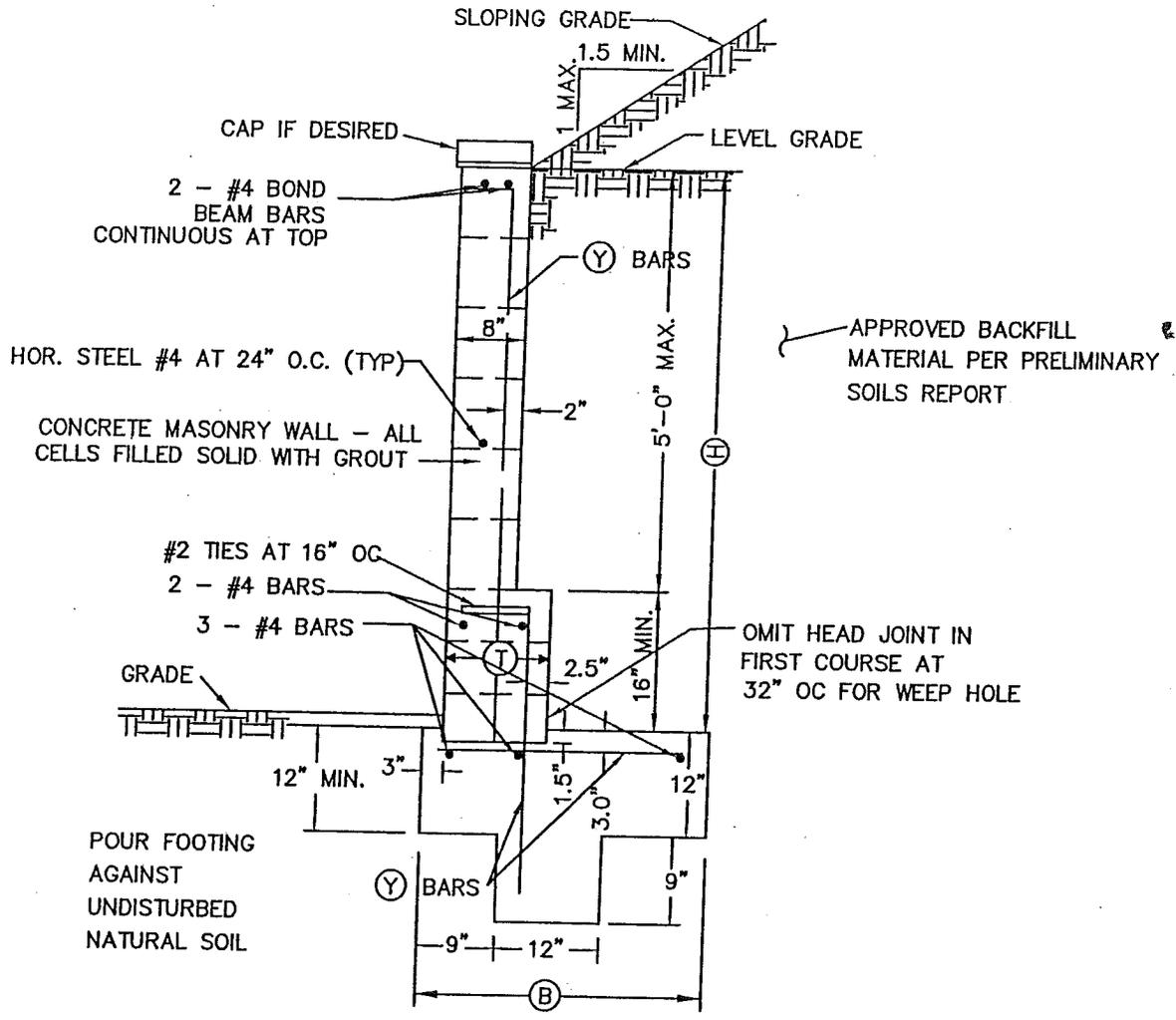
DESIGN FOR SLOPING GRADE ABOVE WALL

NOTES:

1. CONCRETE IN FOOTING TO TEST 2000 LBS PER SQ. IN. @ 28 DAYS
2. CONCRETE BLOCK - GRADE "A" UNITS A.S.T.M. C-90
3. GROUT - 1 PART CEMENT, 3 PARTS SAND, 2 PARTS PEA GRAVEL
4. MORTAR - 1 PART CEMENT, 1/2 PART LIME PUTTY, 4-1/2 PARTS SAND
5. RETAINING WALL NOT TO BE USED AS FOUNDATION FOR BUILDING.

MAXIMUM STRESSES
 $F_s = 20,000$ PSI $F_m = 400$ PSI
 SHEAR $V = 15$ PSI BOND $U = 100$ PSI
 SOIL PRESSURE = 1000 LBS PER SQ. FT.
 CONCRETE TO SOIL FRICTION COEFFICIENT = 0.4
 SOIL LATERAL = $30\# / F^3$
 SOIL VERTICAL = $100\# / F^3$

RESOLUTION # 02-43	CITY OF ARVIN	
 CITY ENGINEER	RETAINING WALL 5' HIGH MAXIMUM	PLATE M1
REVISED: NOV. 2002 SHT. 1 OF 1		



SECTION OVER 5'-0" TO 8'-0" HIGH

(H)	(T)	(B)	(Y) BARS
6'	12"	3'-8"	#5 @ 24" OC
7'	12"	4'-6"	#5 @ 16" OC
8'	12"	5'-3"	#6 @ 16" OC

(H)	(T)	(B)	(Y) BARS
6'	12"	4'-9"	#6 @ 24" OC
7'	12"	5'-6"	#6 @ 16" OC
8'	12"	6'-9"	#7 @ 16" OC

DESIGN FOR LEVEL GRADE ABOVE WALL

DESIGN FOR SLOPING GRADE ABOVE WALL

NOTES:

1. CONCRETE IN FOOTING TO TEST 2000 LBS PER SQ. IN. AT 28 DAYS
2. CONCRETE BLOCK - GRADE "A" UNITS A.S.T.M. C-90
3. GROUT - 1 PART CEMENT, 3 PARTS SAND, 2 PARTS PEA GRAVEL
4. MORTAR - 1 PART CEMENT, 1/2 PART LIME PUTTY, 4-1/2 PARTS SAND
5. RETAINING WALL NOT TO BE USED AS FOUNDATION FOR BUILDING.

MAXIMUM STRESSES

$F_s = 20,000$ PSI $F_m = 450$ PSI
 SHEAR $V = 15$ PSI BOND $U = 100$ PSI
 SOIL PRESSURE = 1000 LBS PER SQ. FT.
 CONCRETE TO SOIL FRICTION COEFFICIENT = 0.4
 SOIL LATERAL = $30\# / F^3$
 SOIL VERTICAL = $100\# / F^3$

RESOLUTION # 02-43

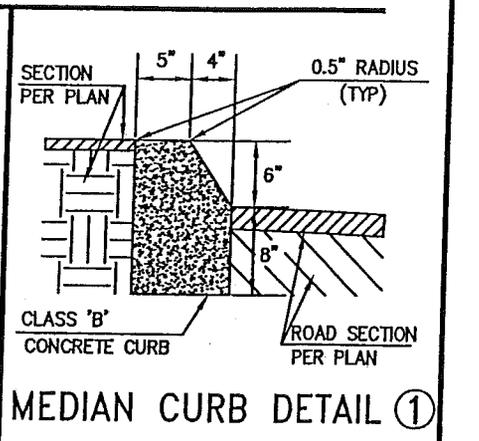
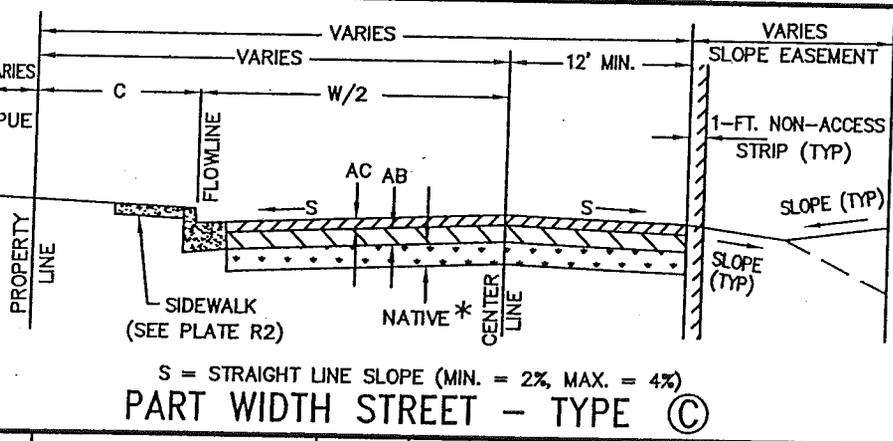
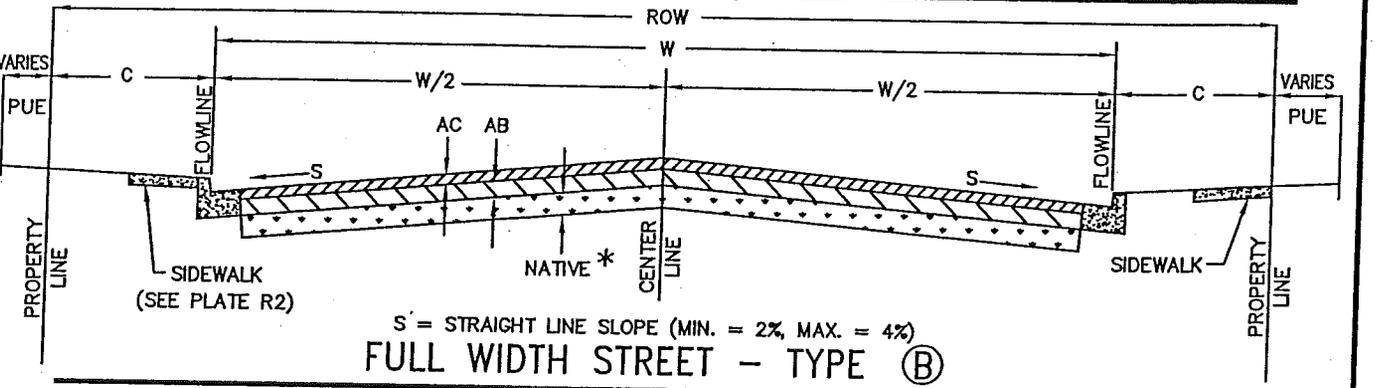
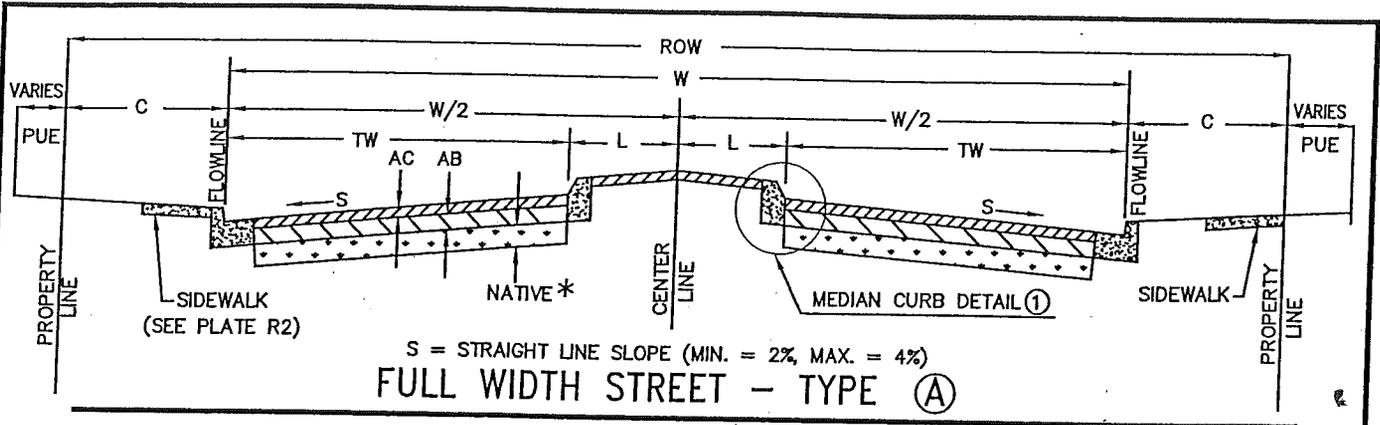
CITY OF ARVIN

Harold J. [Signature]
CITY ENGINEER

RETAINING WALL
OVER 5' HIGH TO 8' HIGH

PLATE
M2

REVISED: NOV. 2002 SHT. 1 OF 1



#	STREET CLASSIFICATION	STREET TYPE	ROW (FT.)	C (FT.)	TW (FT.)	L (FT.)	W/2 (FT.)	W (FT.)	T.I.	AC (IN.)	AB (IN.)	SEE STANDARD R2		PUE (FT.)
												CURB & GUTTER	SIDEWALKS	
1	MAJOR	A, B	110	10	36	9	45	90	9.0	3	8	TYPE "A"	TYPE 1, 2, 3	0
2	MAJOR	A, B	146	10	54	9	63	126	9.0	3	8	TYPE "A"	TYPE 1, 2, 3	0
3	COLLECTOR	B	90	10	--	--	35	70	7.0	3	6	TYPE "A"	TYPE 1, 2, 3	0
4	LOCAL	B	60	10	--	--	20	40	4.75	2	4	TYPE "A"	TYPE 1	6
5	LOCAL	B	50	7	--	--	18	36	4.75	2	4	TYPE "A"	TYPE 1	6

* 12" SECTION NATIVE MATERIAL COMPACTED TO 95% RELATIVE COMPACTION.
 NOTE: TYPICAL STREET SECTIONS AS SHOWN MAY BE REVISED PER REQUIREMENTS OF THE PRELIMINARY SOILS REPORT.
 PUE-PUBLIC UTILITY EASEMENT AC-ASPHALT CONCRETE AB-AGGREGATE BASE T.I.-TRAFFIC INDEX ROW-RIGHT OF WAY

RESOLUTION # 02-43

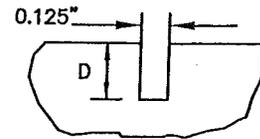
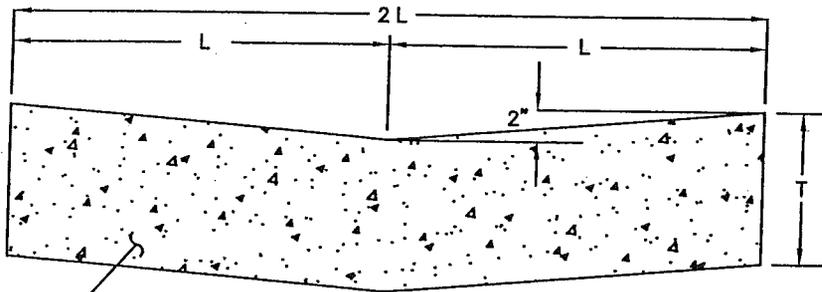
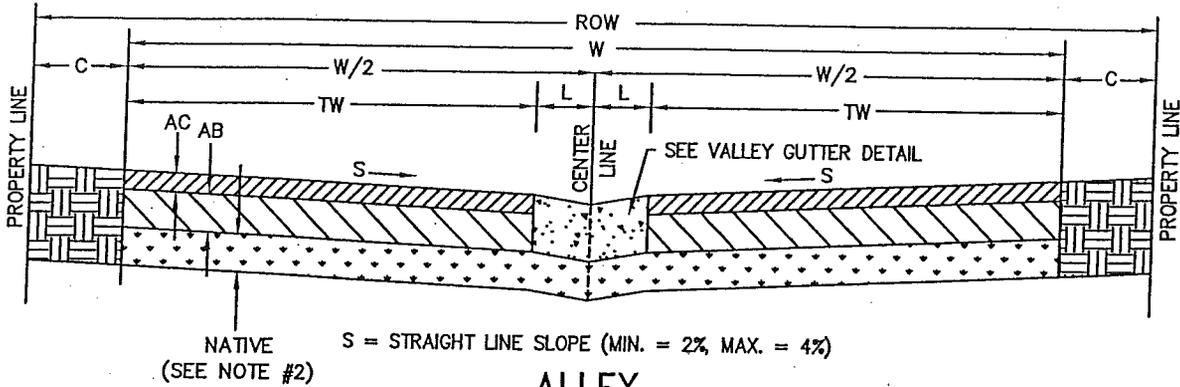
CITY OF ARVIN

Harold J. [Signature]
 CITY ENGINEER

STREET SECTIONS

PLATE
R1

REVISED: NOV. 2002 SHT. 1 OF 1



D = 1" FOR 4" THICK CONCRETE
D = 1.5" FOR 6" OR 8" THICK CONCRETE

NOTES:

1. ALL CONCRETE SHALL BE CLASS "A".
2. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION WITH COMPACTION OF 95% TO A DEPTH OF 12".
3. VALLEY GUTTER FLOWLINE SHALL MATCH BACK EDGE OF ALLEY DRIVEWAY APPROACH TO ELIMINATE PONDING.
4. EXPANSION JOINT MATERIAL OR WEAKENED PLANE JOINTS SHALL BE PLACED AT 15' INTERVALS IN VALLEY GUTTER (TYP).
5. EXPANSION JOINTS SHALL BE EITHER (A) 1/2" TO 3/4" PREMOLDED EXPANSION JOINT FILLER PER SEC. 51-1.12 OF THE STANDARD SPECIFICATIONS, OR (B) 2" DEEP SCORE JOINT (WEAKENED PLANE, EXTRUSION MACHINE ONLY).
6. VALLEY GUTTER MINIMUM SLOPE = 0.15%.

#	ALLEY CLASSIFICATION	ROW (FT.)	C (FT.)	TW (FT.)	L (FT.)	2L (FT.)	T (IN.)	W/2 (FT.)	W (FT.)	T.I.	AC (IN.)	AB (IN.)	COMMENTS
1	INDUSTRIAL	30	0	13	2	4	8	15	30	9.0	3	8	
2	COMMERCIAL	30	0	13	2	4	8	15	30	7.0	3	6	
3	RESIDENTIAL (MULTI-FAMILY)	25	0	10.5	2	4	6	12.5	25	4.75	2	4	
4	RESIDENTIAL (SINGLE-FAMILY)	20	0	8	2	4	6	10	20	4.75	2	4	

NOTE: TYPICAL ALLEY SECTIONS AS SHOWN MAY BE REVISED PER REQUIREMENTS OF THE PRELIMINARY SOILS REPORT.
AC-ASPHALT CONCRETE AB-AGGREGATE BASE T.I.-TRAFFIC INDEX ROW-RIGHT OF WAY

SOLUTION # 02-43

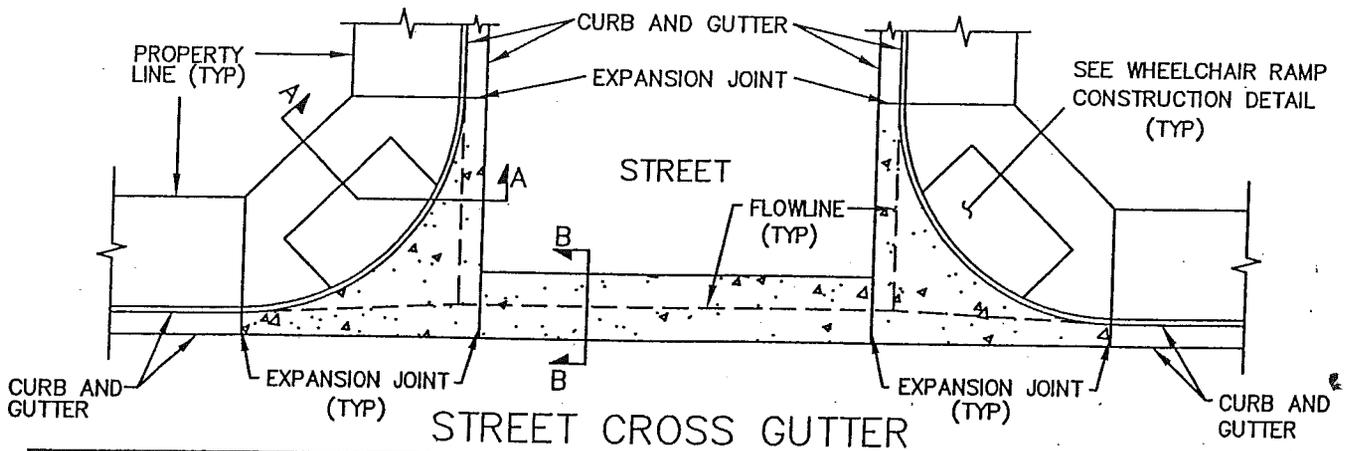
CITY OF ARVIN

Harold J. Vay
CITY ENGINEER

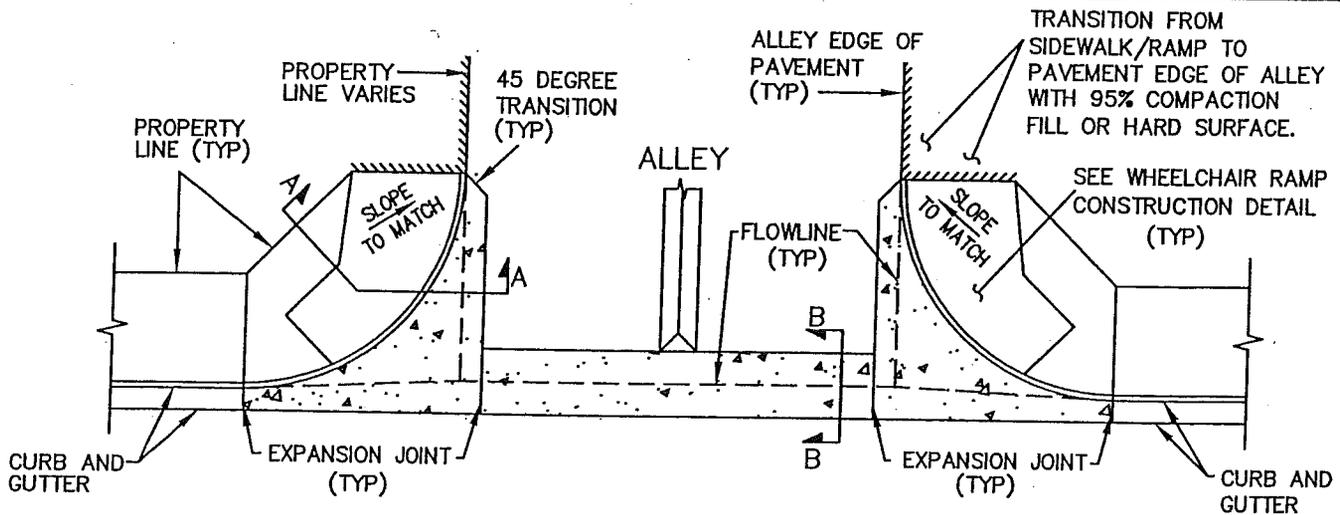
ALLEY SECTIONS

PLATE
R3

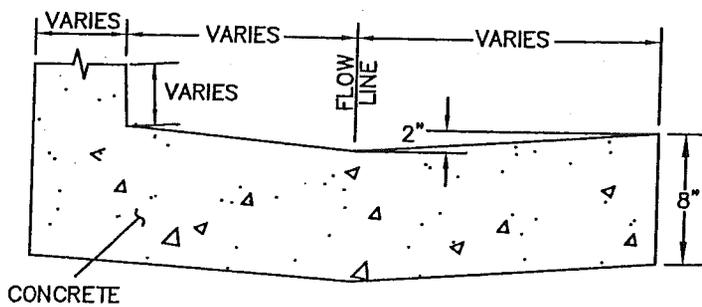
REVISED: MARCH 2007 SHT. 1 OF 1



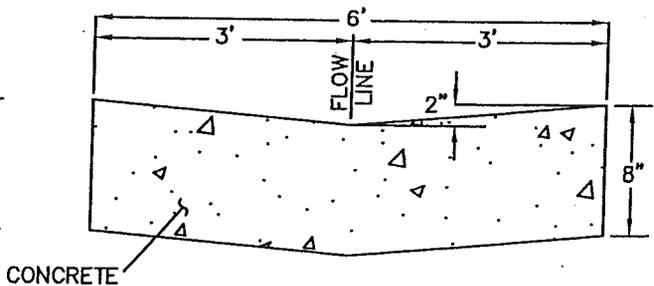
STREET CROSS GUTTER



ALLEY CROSS GUTTER



SECTION A-A



SECTION B-B

NOTES:

1. ALL CONCRETE SHALL BE CLASS "A".
2. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION WITH COMPACTION OF 95% TO A DEPTH OF 12".
3. ALL CONCRETE SURFACES SHALL BE GIVEN A BROOM FINISH WITH STROKES PARALLEL TO GUTTER FLOWLINE AND SHALL BE CURED WITH AN APPROVED CURING COMPOUND.
4. EXPANSION JOINTS SHALL BE PLACED AT 15' INTERVALS (TYP).
5. EXPANSION JOINTS SHALL BE EITHER (A) 1/2" TO 3/4" PREMOULDED EXPANSION JOINT FILLER PER SEC. 51-1.12 OF THE STANDARD SPECIFICATIONS, OR (B) 2" DEEP SCORE JOINT (WEAKENED PLANE, EXTRUSION MACHINE ONLY).
6. CROSS GUTTER SHALL HAVE A 0.15% MINIMUM SLOPE.
7. ALLEYS WITHOUT ADEQUATE SPACE FOR A CURB RETURN TO BE DESIGNED AS SPECIAL CONDITION.

SOLUTION # 02-43

CITY OF ARVIN

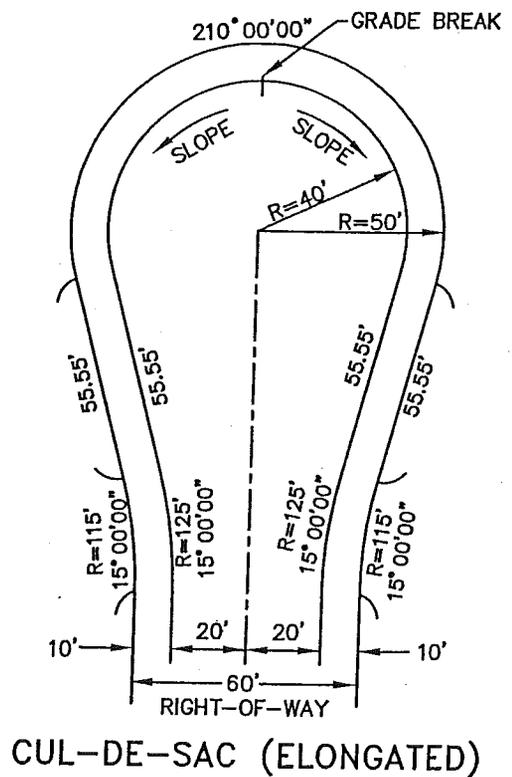
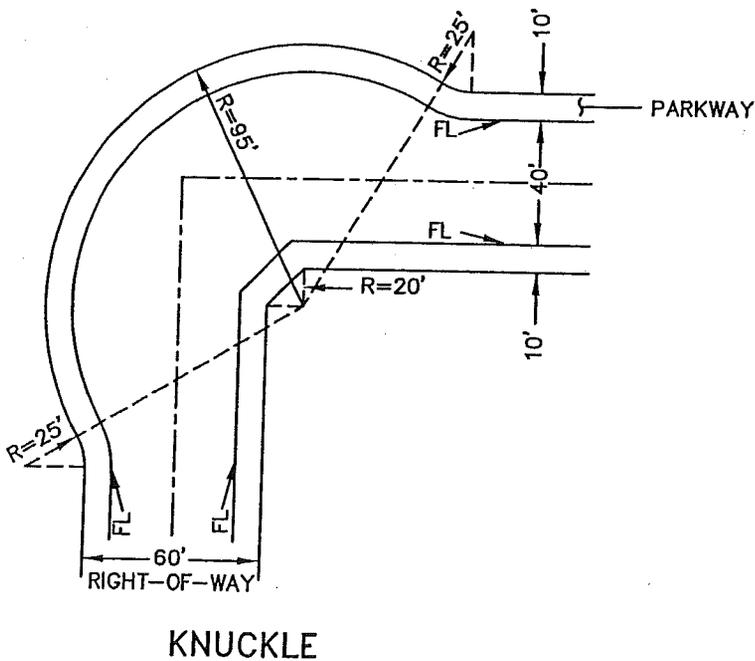
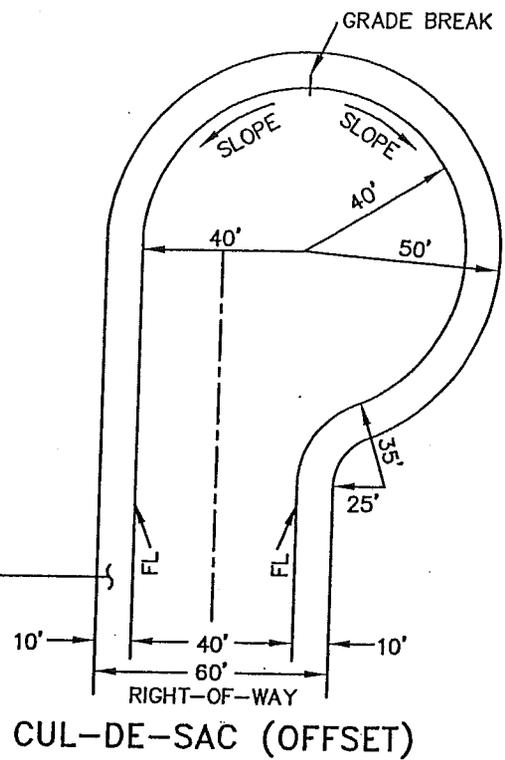
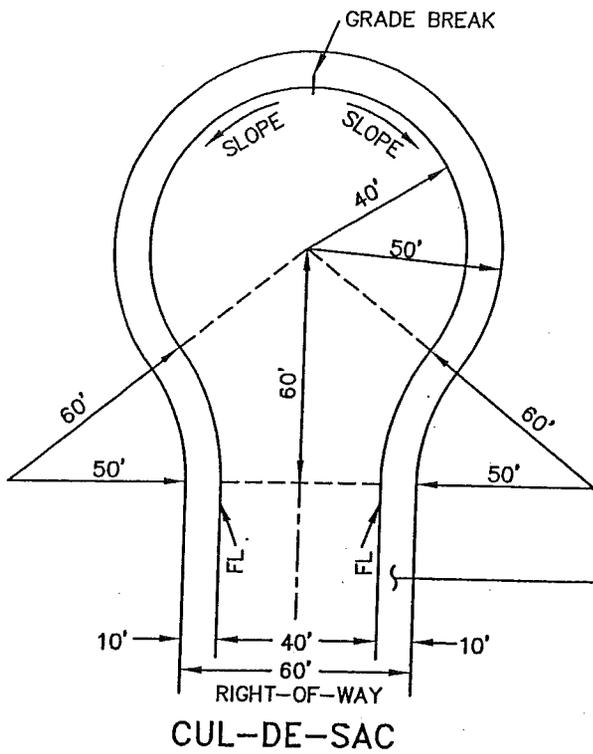
Arnold J. Key

CITY ENGINEER

CROSS GUTTER

PLATE

R4



NOTES:

1. PARKWAY WIDTH TO BE MAINTAINED AT A UNIFORM WIDTH AROUND CUL-DE-SAC AND KNUCKLE.
2. GUTTER FLOWLINE SLOPE TO BE 0.2% MINIMUM.
3. FL = CURB AND GUTTER FLOWLINE

SOLUTION # 02-43

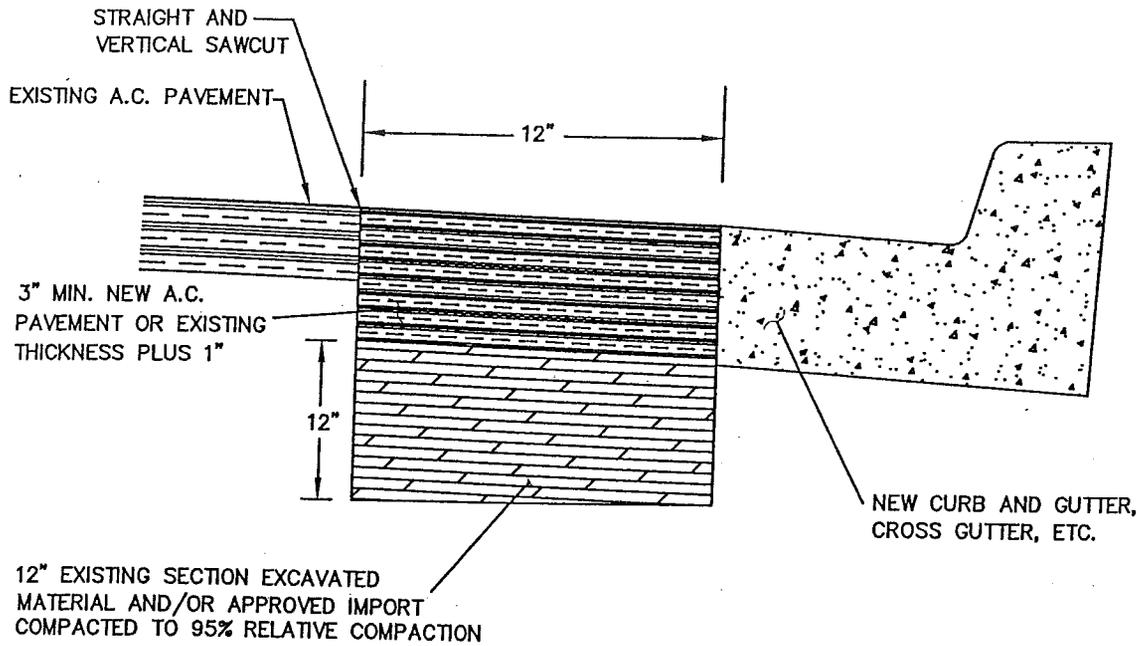
CITY OF ARVIN

Harold J. [Signature]
CITY ENGINEER

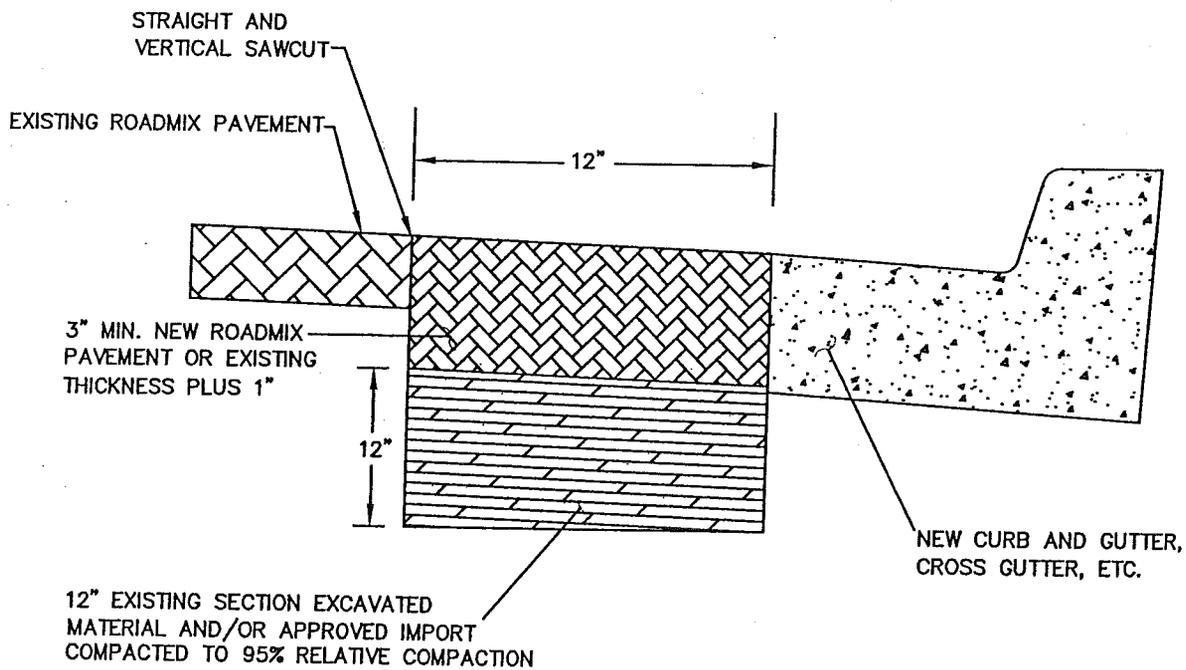
CUL-DE-SAC AND
KNUCKLE TREATMENTS

PLATE
R5

REVISED: NOV. 2002 SHT. 1 OF 1



A.C. STREETS



ROADMIX STREETS

NOTES:

1. ALL EXISTING VERTICAL SURFACES SHALL BE COATED WITH AN ASPHALTIC PAINT BINDER (TACK COAT) PRIOR TO PLACING NEW PAVEMENT.
2. ALL NEW PAVEMENT AND EARTHWORK SHALL BE COMPACTED BY MECHANICAL MEANS.
3. COMPACTION TESTING PER REQUIREMENTS OF CITY ENGINEER.

SOLUTION # 02-43

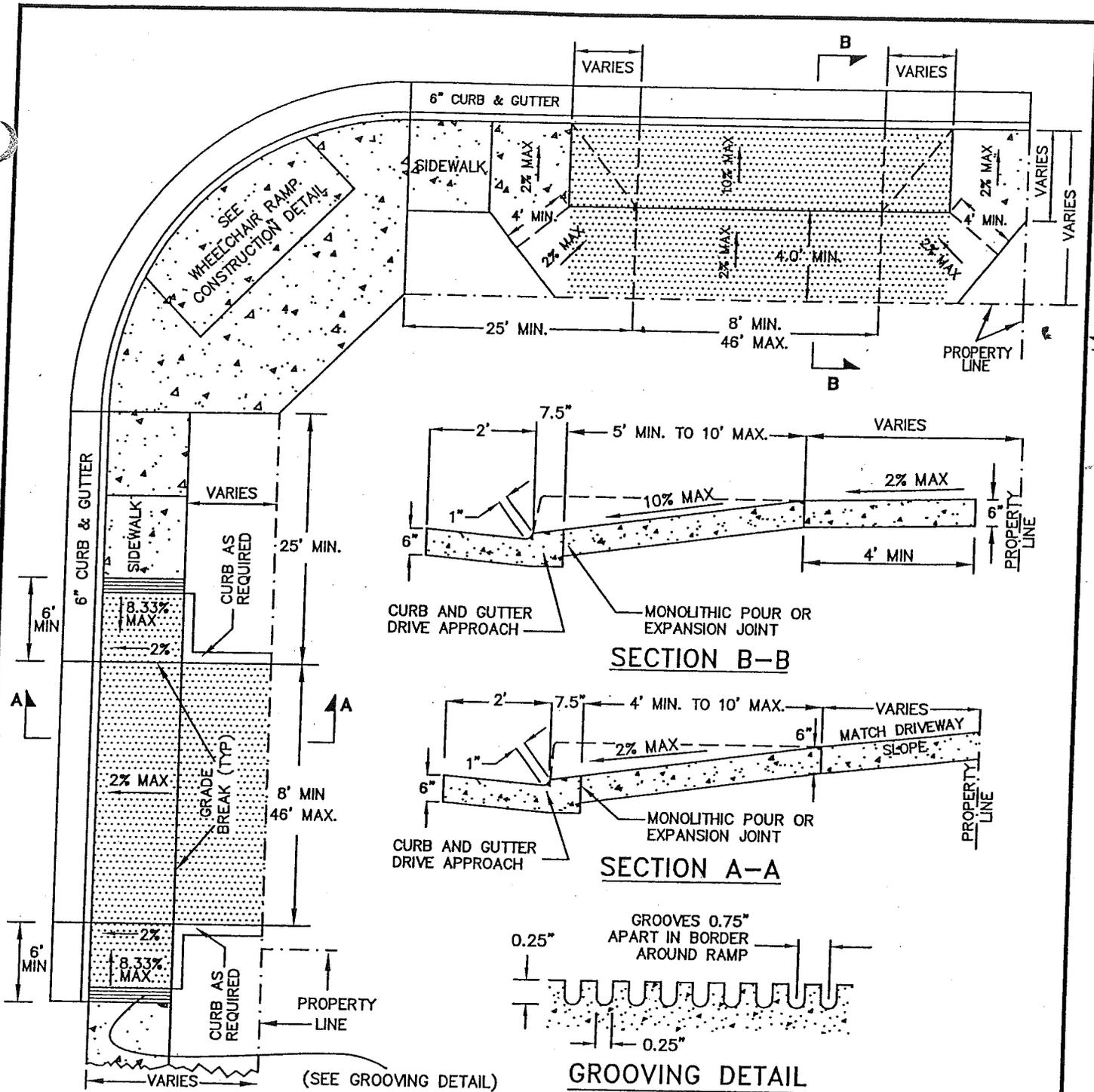
CITY OF ARVIN

Harold J. Vay
 CITY ENGINEER

PAVEMENT TIE-IN

PLATE
R6

REVISED: NOV. 2002 SHT. 1 OF 1



NOTES:

1. DRIVE APPROACH SHALL BE CONSTRUCTED TO MEET CURRENT A.D.A. STANDARDS.
2. ALL CONCRETE SHALL BE CLASS "A".
3. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE WITH COMPACTION OF 95% TO A DEPTH OF 12".
4. ALL CONCRETE SURFACES SHALL BE FINISHED TO GRADE WITH A FLOAT, TROWELED SMOOTH AND FINISHED WITH A BROOM.
5. EXPANSION JOINT(S) SHALL CONSIST OF 0.25" TO 0.5" PREMOLDED JOINT MATERIAL APPROVED FOR SUCH USE.
6. DRIVEWAY APPROACH TO CURB AND GUTTER TO BE POURED AS MONOLITHIC OR WITH AN EXPANSION JOINT.
7. APARTMENTS OF 4 UNITS OR LESS SHALL USE THIS DRIVEWAY APPROACH.
8. APARTMENTS OF MORE THAN 4 UNITS SHALL USE THE COMMERCIAL DRIVEWAY APPROACH PLATE.
9. THIS STANDARD APPLIES TO 6" CURB ONLY.

SOLUTION # 02-43

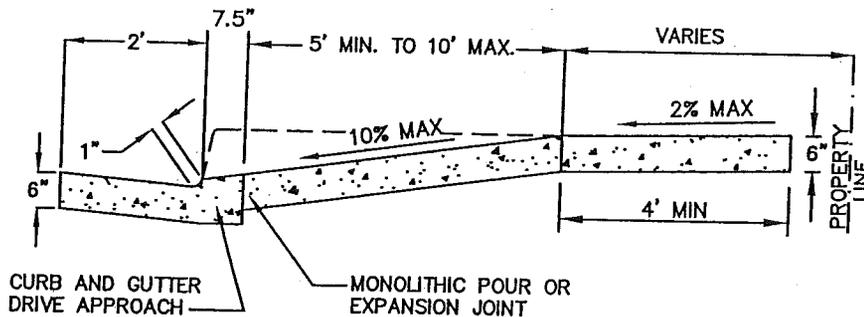
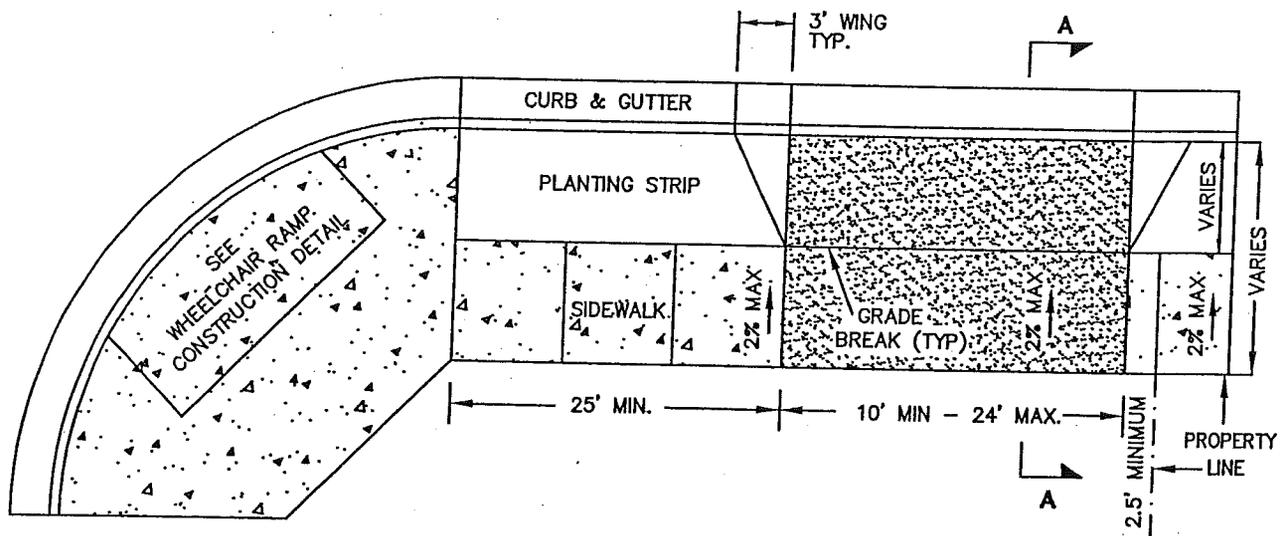
Harold J. Vay
CITY ENGINEER

CITY OF ARVIN

RESIDENTIAL
DRIVE APPROACH

NTS

PLATE
R7



SECTION A-A

NOTES:

1. DRIVE APPROACH SHALL BE CONSTRUCTED TO MEET CURRENT A.D.A. STANDARDS.
2. ALL CONCRETE SHALL BE CLASS "A".
3. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE WITH COMPACTION OF 95% TO A DEPTH OF 12".
4. ALL CONCRETE SURFACES SHALL BE FINISHED TO GRADE WITH A FLOAT, TROWELED SMOOTH AND FINISHED WITH A BROOM.
5. EXPANSION JOINT(S) SHALL CONSIST OF 0.25" TO 0.5" PREMOLDED JOINT MATERIAL APPROVED FOR SUCH USE.
6. DRIVEWAY APPROACH TO CURB AND GUTTER TO BE POURED AS MONOLITHIC OR WITH AN EXPANSION JOINT.
7. APARTMENTS OF 4 UNITS OR LESS SHALL USE THIS DRIVEWAY APPROACH.
8. APARTMENTS OF MORE THAN 4 UNITS SHALL USE THE COMMERCIAL DRIVEWAY APPROACH PLATE.
9. THIS STANDARD APPLIES TO 6" CURB ONLY.

NTS

SOLUTION # 02-43

CITY OF ARVIN

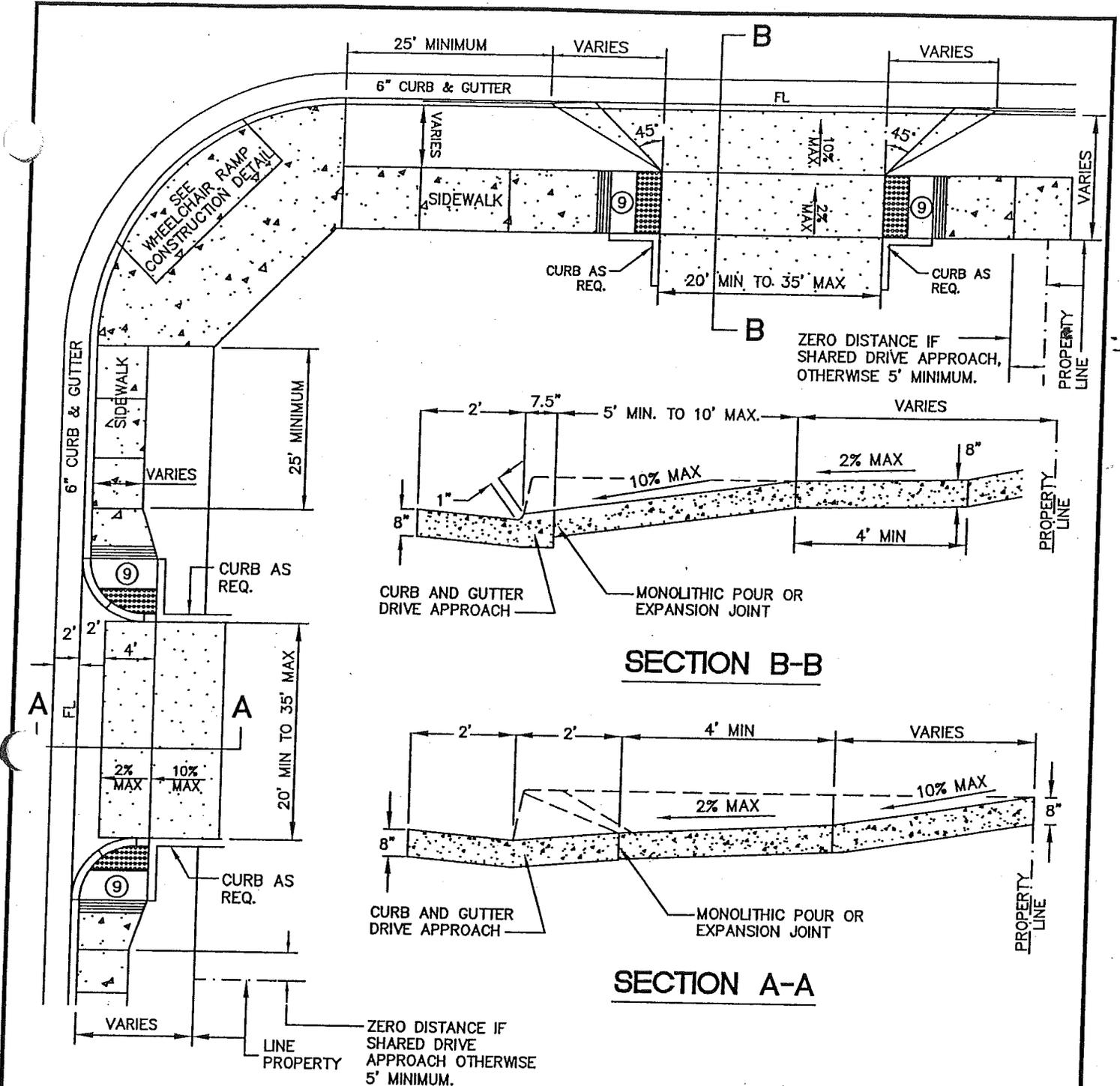
RESIDENTIAL
DRIVE APPROACH
PLANTING STRIP

PLATE

R7A

CITY ENGINEER

REVISED: DECEMBER 2006 SHEET 1 OF 1



NOTES:

1. DRIVE APPROACH SHALL BE CONSTRUCTED TO MEET CURRENT A.D.A. STANDARDS.
2. ALL CONCRETE SHALL BE CLASS "A".
3. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE WITH COMPACTION OF 95% TO A DEPTH OF 12".
4. ALL CONCRETE SURFACES SHALL BE FINISHED TO GRADE WITH A FLOAT, TROWELED SMOOTH AND FINISHED WITH A BROOM.
5. EXPANSION JOINT(S) SHALL CONSIST OF 0.25" TO 0.5" PREMOLDED JOINT MATERIAL APPROVED FOR SUCH USE.
6. DRIVEWAY APPROACH TO CURB AND GUTTER TO BE POURED AS MONOLITHIC OR WITH AN EXPANSION JOINT.
7. APARTMENTS OF 4 UNITS OR LESS SHALL USE THE RESIDENTIAL DRIVEWAY APPROACH PLATE.
8. APARTMENTS OF MORE THAN 4 UNITS SHALL USE THE COMMERCIAL DRIVEWAY APPROACH PLATE.
9. SEE PLATE R9 FOR ADDITIONAL A.D.A. RAMP REQUIREMENTS AND INFORMATION REGARDING GROOVING & TRUNCATED DOMES.

NTS

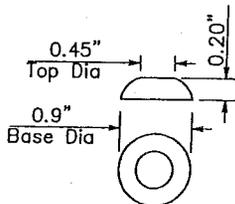
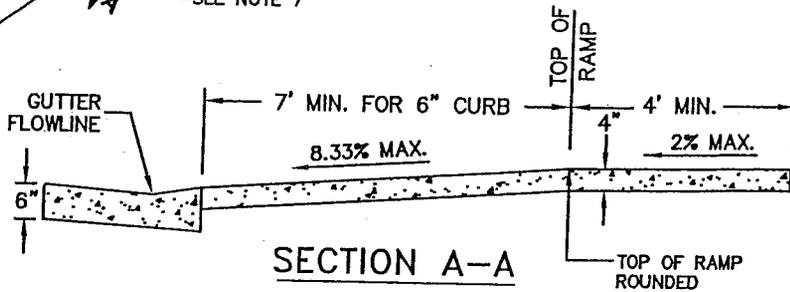
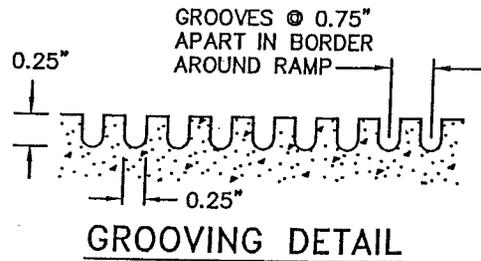
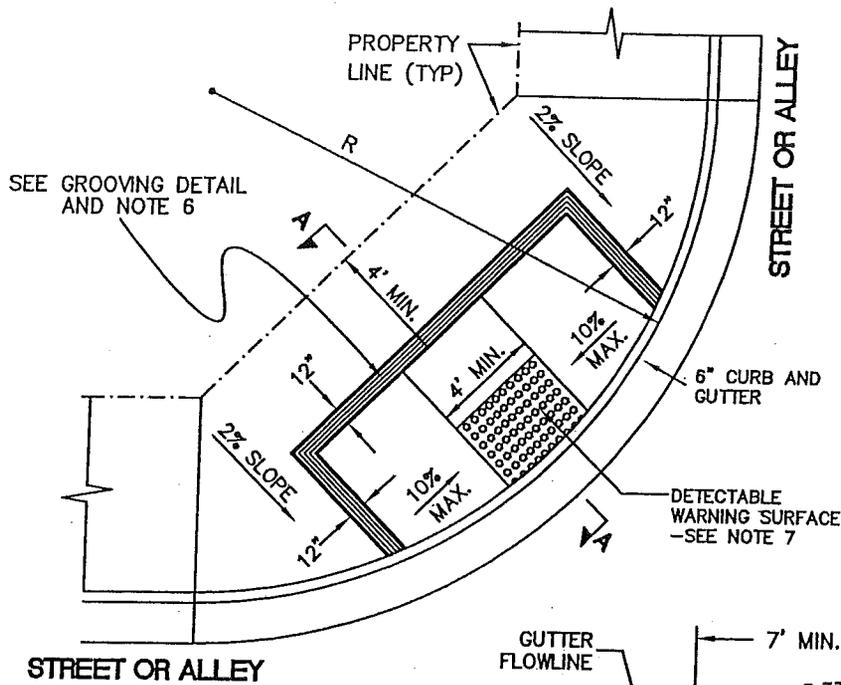
OLUTION # 02-43

CITY OF ARVIN

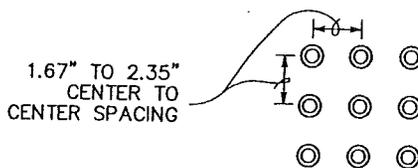
Harold J. [Signature]
CITY ENGINEER

COMMERCIAL
DRIVE APPROACH

PLATE
R8



RAISED TRUNCATED DOME



RAISED TRUNCATED DOME PATTERN (IN-LINE)

DETECTABLE WARNING SURFACE

R = 20' FOR RESIDENTIAL CURB RETURNS
 R = 30' FOR COMMERCIAL/INDUSTRIAL CURB RETURNS

NOTES:

1. CURB RAMP (WHEELCHAIR RAMP) SHALL BE CONSTRUCTED TO MEET CURRENT A.D.A. STANDARDS.
2. ALL CONCRETE SHALL BE CLASS "B".
3. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE WITH COMPACTION OF 95% TO A DEPTH OF 12".
4. ALL CONCRETE SURFACES SHALL BE FINISHED TO GRADE WITH A FLOAT, TROWELED SMOOTH AND FINISHED WITH A BROOM.
5. EXPANSION JOINT(S) SHALL CONSIST OF 0.5" PREMOLDED JOINT MATERIAL APPROVED FOR SUCH USE.
6. THE RAMP SHALL HAVE A 12" WIDE BORDER WITH 0.25" GROOVES, 0.75" APART. SEE GROOVING DETAIL.
7. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3'-0" DEPTH OF THE RAMP. COLOR YELLOW CONFORMING TO FEDERAL COLOR NO. 33538.
8. BECAUSE OF EXISTING CONDITIONS, OTHER WHEELCHAIR RAMP CONFIGURATIONS MAY BE NECESSARY. THESE SHALL MEET THE STATE OF CALIFORNIA ARCHITECTURAL BARRIERS LAWS AND BE APPROVED PRIOR TO INSTALLATION.

NTS

SOLUTION # 02-43

CITY OF ARVIN

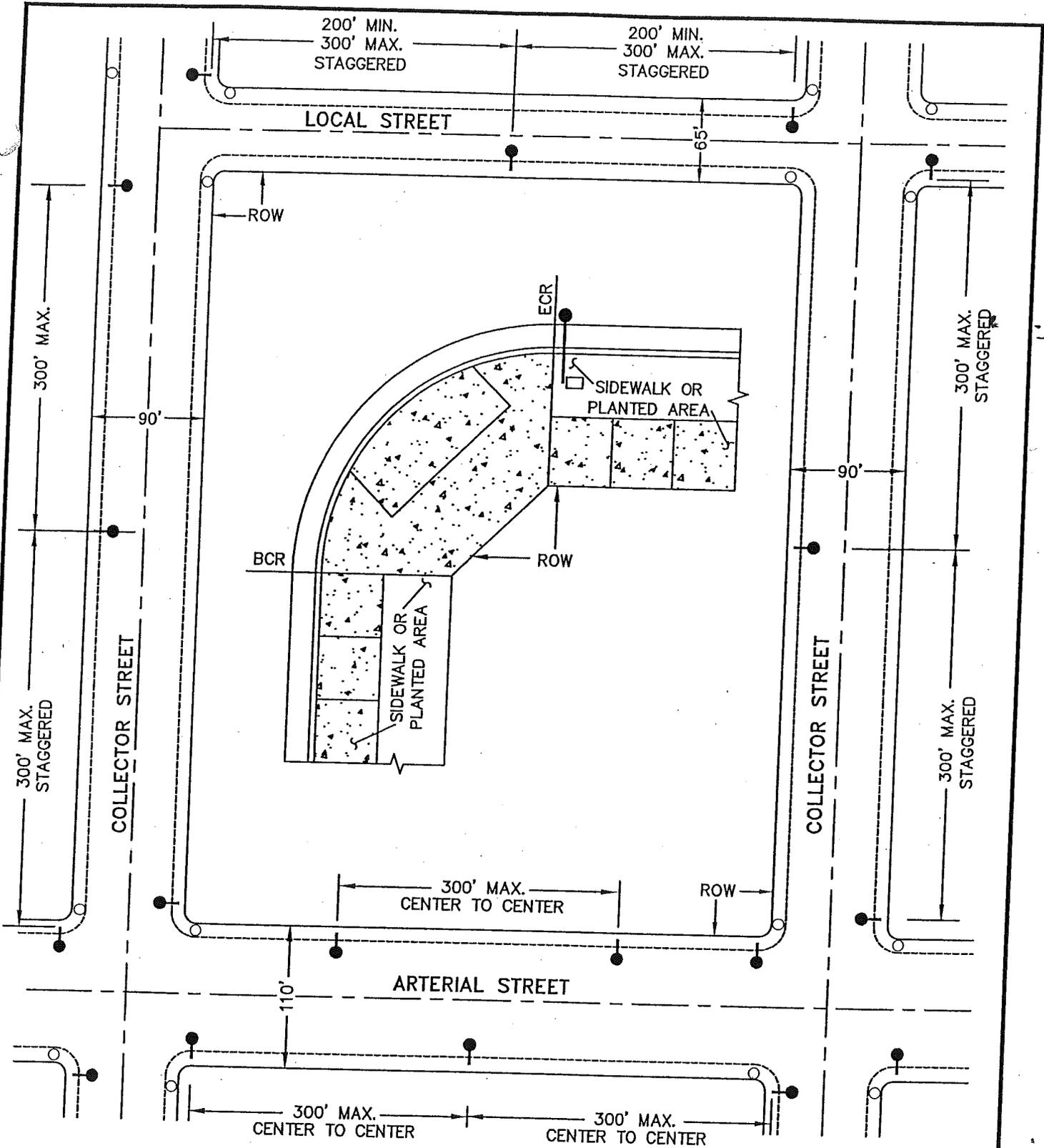
Harold J. Key

CITY ENGINEER

CURB RAMP

PLATE

R9



LEGEND

- STREET LIGHT
- STOP SIGN
- PULL BOX
- ECR END CURB RETURN
- BCR BEGIN CURB RETURN
- ROW RIGHT-OF-WAY

NOTES

1. STREET/STOP SIGNS LOCATED AT BCR.
2. STREET LIGHT LOCATIONS AT ECR.
3. SEE GENERAL NOTES PLATE R14.

SOLUTION # 02-43

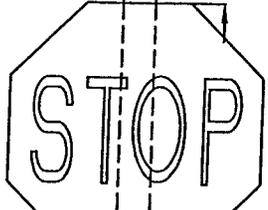
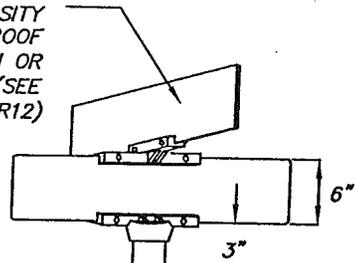
Harold J. Vay
CITY ENGINEER

CITY OF ARVIN

STREET SIGNAGE /
LIGHT POLE LOCATIONS

PLATE
R10

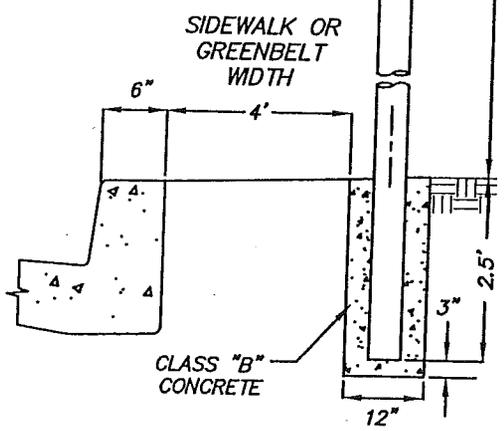
STANDARD STREET SIGN
 (REFLECTIVE HIGH INTENSITY
 GRADE WITH GRAFFITI-PROOF
 FILM) SAME LOCATION WITH OR
 WITHOUT STOP SIGN (SEE
 PLATE R10, R12)



STANDARD R-1 STOP SIGN
 30" X 30" REFLECTIVE HIGH
 INTENSITY GRADE WITH
 GRAFFITI-PROOF FILM

2" I.D. STD
 GALVANIZED PIPE
 POST

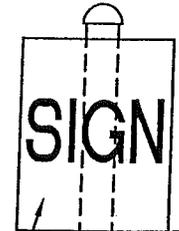
7'-0" WITH OR WITHOUT STOP SIGN



SIGN DETAIL (A)

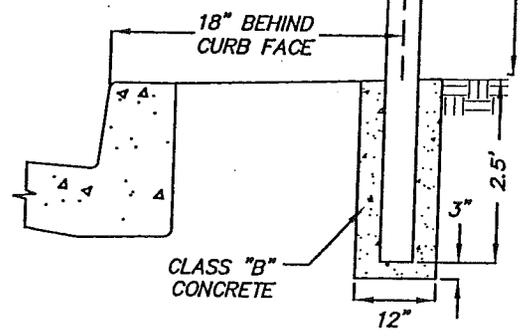
4' SIDEWALK
 SIGN SHALL BE BEHIND THE SIDEWALK

GENERAL INFORMATION SIGN
 (REFLECTIVE HIGH INTENSITY
 GRADE WITH GRAFFITI-PROOF
 FILM - TYPE, SIZE AND
 SPACING PER APPROVED PLANS)



2" I.D. STD
 GALVANIZED PIPE
 POST

7'-0"



SIGN DETAIL (B)

5' SIDEWALK
 SIGN SHALL BE 18" BEHIND CURB FACE

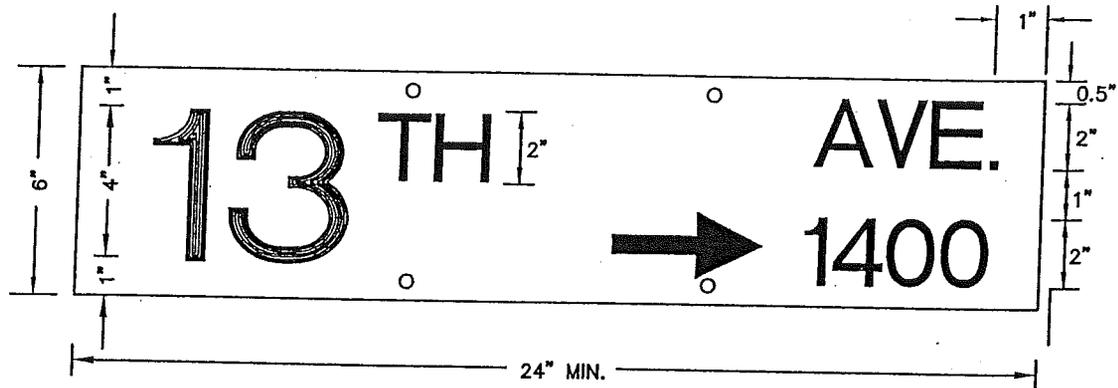
OLUTION # 02-43

CITY OF ARVIN

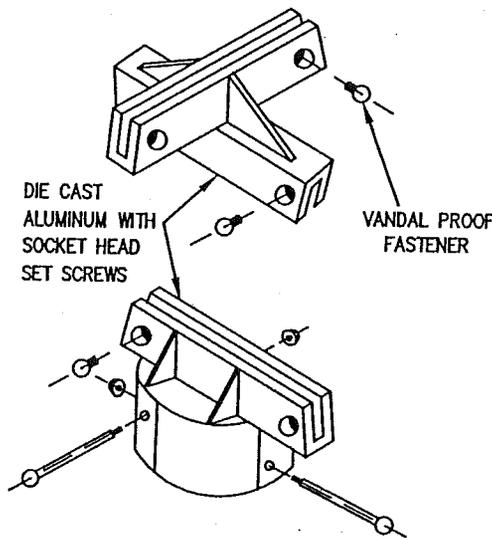
Harold J. [Signature]
 CITY ENGINEER

STREET SIGNAGE

PLATE
R11



DETAIL OF SIGN PLATE



DETAIL OF FITTINGS FOR PIPE MOUNTINGS

NOTES:

1. SIGNS PROVIDED SHALL BE ACCOMPANIED BY A CERTIFICATE TO SHOW COMPLIANCE WITH CITY STANDARD.
2. SIGN PLATES TO BE MADE OF 0.125" ALUMINUM PLATE, CUT TO DIMENSIONS SPECIFIED.
3. PLATES SHALL HAVE REFLECTIVE HIGH INTENSITY GRADE WITH GRAFFITI-PROOF FILM - GREEN BACKGROUND W/SILVER COPY
4. FORMAT SHALL BE HAWKINS-HAWKINS CO., INC. SM-C12 OR PRIOR APPROVED EQUAL IN WRITING.
5. MOUNTS FOR PLATES SHALL BE HAWKINS-HAWKINS CO., INC. VANDAL-PROOF (HD) VP 90° CROSSPIECE V-14F-(HD) VP-105(90) AND PIPE CAP V14F-(HD) VP-107(2C) TO FIT A 2" I.D. PIPE OR APPROVED EQUAL.
6. INSTALL TWO 5/16" X 3.5" BOLTS THROUGH PIPE CAP AND PIPE. USE HAWKINS-HAWKINS CO. VANDAL PROOF NUT M2G-VP 56N OR APPROVED EQUAL.
7. SPECIAL DESIGN VANDAL-PROOF FASTENER V14F-(HD) VP-12 PT KNURLED HEAD, 0.5" LENGTH, NOMINAL OR PRIOR APPROVED EQUAL SHALL BE USED.
8. SIGNS FACING TRAFFIC ON ARTERIAL AND MAJOR COLLECTORS SHALL BE METRO SIZE (8" X 30" MIN.) WITH 5" CAPS.

SOLUTION # 02-43

CITY OF ARVIN

Harold J. [Signature]
CITY ENGINEER

STREET SIGN
RESIDENTIAL

PLATE

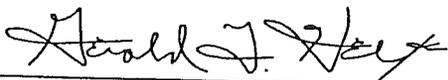
R12

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO SECTION 86 OF THE "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, BUSINESS AND TRANSPORTATION AGENCY, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION, AND THESE SPECIAL PROVISIONS.
2. LUMINAIRE SHALL BE COBRA HEAD TYPE, HIGH PRESSURE SODIUM-VAPOR WITH TYPE IV PHOTOELECTRIC CELL AND A BALLAST WHICH PROVIDES 55 VOLTS TO THE BULB. TYPE IV REFRACTOR SHALL BE USED AT INTERSECTIONS, AND A TYPE II TWO-WAY SHALL BE USED AT MID-BLOCK LOCATIONS. LENS SHALL BE GLASS OR POLYCARBONATE PLASTIC. BULB SHALL BE 6,000 LUMENS ON LOCAL STREETS AND 9,500 LUMENS ON COLLECTOR/ARTERIAL STREETS, SUBJECT TO INCREASE BY DIRECTION OF CITY STAFF.
3. PULL BOX SHALL BE A SIZE 3-1/2 AND SHALL BE LOCATED WITHIN 5' OF THE STREET LIGHT AND BE INSTALLED FLUSH WITH THE SIDEWALK. GRAVEL (0.75" MAX.) SHALL BE PLACED UNDER THE PULL BOX FOR DRAINAGE (SEE DETAIL ON R13). PULL BOX COVER SHALL BE MARKED TO IDENTIFY IT AS STREET LIGHTING, PULL BOX MAY BE PRECAST CONCRETE OR PLASTIC.
4. WIRING FROM THE UTILITY COMPANY SERVICE BOX AT THE BASE OF THE POLE SHALL BE #10 MIN. SOLID OR STRANDED COPPER. THE UTILITY COMPANY SHALL BE NOTIFIED PRIOR TO, AND A REPRESENTATIVE SHALL BE PRESENT DURING ANY WORK WITHIN THE UTILITY COMPANY'S SERVICE BOX. WIRING FROM THE PULL BOX TO THE LUMINAIRE SHALL BE #12 MIN. SOLID OR STRANDED COPPER. VOLTAGE DROP FROM THE UTILITY COMPANY SERVICE BOX TO THE LUMINAIRE SHALL NOT EXCEED 5%. VOLTAGE AT THE UTILITY COMPANY SERVICE BOX SHALL BE 120V (240V MAY BE USED IN CERTAIN CIRCUMSTANCES SUBJECT TO THE APPROVAL OF THE CITY ENGINEER). GROUNDING WIRE FROM THE LUMINAIRE TO THE GROUNDING ROD SHALL BE #8 BARE COPPER. AN IN-LINE FUSE IN THE UNGROUNDED CONDUCTOR OR CONDUCTORS ONLY AND A 0.5" ϕ x 8' LONG COPPER OR COPPER CLAD GROUNDING ROD SHALL BE LOCATED IN THE PULL BOX.
5. SPLICES IN THE PULL BOX SHALL BE TAPED AND WATERPROOFED WITH AN APPROVED ELECTRICAL COATING.
6. CONDUIT SHALL BE A 1.5" MINIMUM DIAMETER SCHEDULE 40 RIGID NON-METALLIC CONDUIT CONFORMING TO UL STANDARD UL 651. CABLE IN CONDUIT (C.I.C) MAY BE USED. CONDUIT SHALL HAVE A MINIMUM COVER OF 18". SMALLER CONDUIT MAY BE USED WHERE THE TYPE OF POLE WILL NOT ACCEPT 1.5" CONDUIT, SUBJECT TO APPROVAL OF THE CITY ENGINEER.
7. ALL CONCRETE SHALL BE CLASS "A".
8. THESE ARE MINIMUM STANDARDS. OTHER ALTERNATIVES TO BE APPROVED BY THE PLANNING DIRECTOR.
9. STANDARD PLATE R15 IS TO BE USED ON LOCAL STREETS IN RESIDENTIAL ZONES ONLY. STANDARD PLATE R13 IS TO BE USED FOR ALL OTHER STREETS, EXCEPT IN THE HISTORICAL DISTRICT. ALL LIGHTING MUST BE APPROVED BY THE PLANNING DIRECTOR.
10. ALL UNDERGROUND ELECTRICAL WIRE SHALL BE PLACED IN CONDUIT.

SOLUTION # 02-43

CITY OF ARVIN

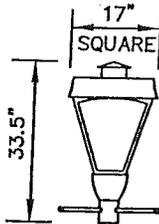
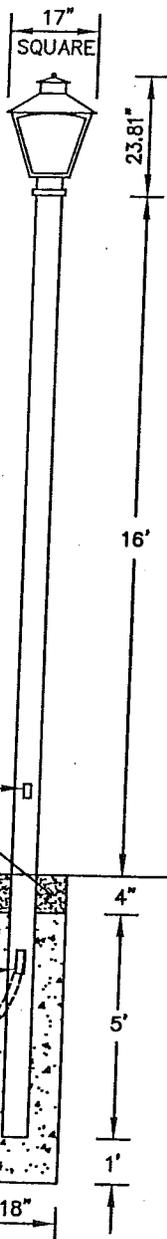

CITY ENGINEER

**STREET LIGHTS
GENERAL NOTES**

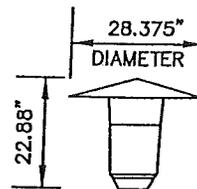
PLATE

R14

REVISED: NOV. 2002 SHT. 1 OF 1



MC-ED. CO. TRADITIONAIRE

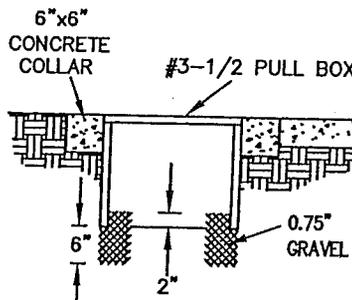


MC-ED. CO. STYLEKING

SODIUM LUMINAIRES

MFR.	CAT. NO.	TYPE
MCGRAW EDISON CO.	UTR3293-12ORV-BK	TRADITIONAIRE
MCGRAW EDISON CO.	UTS4193-12ORV-BK	STYLEKING
AMERICAN ELECTRIC	24T-57063-8	AMERICAN REVOLUTION

THESE ARE MINIMUM STANDARDS, OTHER ALTERNATIVES TO BE APPROVED BY THE PLANNING DIRECTOR.



PULL-BOX DETAIL

NOTES:

1. STREET LIGHT IS TO BE PLACED BEHIND THE SIDEWALK IF THE SIDEWALK IS LESS THAN OR EQUAL TO 5' WIDE. THE STREET LIGHT IS TO BE PLACED 12" BEHIND THE CURB FACE IF THE SIDEWALK IS GREATER THAN 5' WIDE.
2. LUMINAIRE SHALL BE POST TOP TYPE, HIGH PRESSURE SODIUM-VAPOR WITH TYPE IV PHOTOELECTRIC CELL AND BALLAST WHICH PROVIDES 55 VOLTS TO THE BULB. A TYPE III REFRACTOR SHALL BE USED. REFRACTORS/PANELS SHALL BE POLYCARBONATE PLASTIC. BULB SHALL BE 6,000 LUMEN FOR LOCAL STREETS.
3. PULL BOX SHALL BE SIZE 3-1/2 AND SHALL BE LOCATED WITHIN 5' OF THE STREET LIGHT AND BE INSTALLED FLUSH WITH THE SIDEWALK. GRAVEL (0.75" MAX.) SHALL BE PLACED UNDER THE PULL BOX FOR DRAINAGE. PULL BOX COVER SHALL BE MARKED TO IDENTIFY IT AS STREET LIGHTING. PULL BOX MAY BE PRECAST CONCRETE OR PLASTIC.
4. WIRING FROM THE UTILITY COMPANY SERVICE BOX AT THE BASE OF THE POLE SHALL BE #10 MIN. SOLID OR STRANDED COPPER. THE UTILITY COMPANY SHALL BE NOTIFIED PRIOR TO WORK SUCH THAT A REPRESENTATIVE SHALL BE PRESENT DURING ANY WORK WITHIN THE UTILITY COMPANY'S SERVICE BOX. WIRING FROM THE PULL BOX TO THE LUMINAIRE SHALL BE #12 MIN. SOLID OR STRANDED COPPER. VOLTAGE DROP FROM THE UTILITY COMPANY SERVICE BOX SHALL NOT EXCEED 5%. VOLTAGE AT THE UTILITY COMPANY SERVICE BOX SHALL BE 120V (240V MAY BE USED IN CERTAIN CIRCUMSTANCES SUBJECT TO APPROVAL OF THE CITY ENGINEER). GROUNDING WIRE FROM THE LUMINAIRE TO THE GROUNDING ROD SHALL BE #8 BARE COPPER. AN IN-LINE FUSE IN THE UN-GROUNDED CONDUCTOR(S) ONLY AND A 0.5" Φ x 8' LONG COPPER OR COPPER CLAD GROUNDING ROD SHALL BE LOCATED IN THE PULL BOX.
5. SPLICES IN THE PULL BOX SHALL BE TAPED AND WATERPROOFED WITH AN APPROVED ELECTRICAL COATING.
6. ALL POSTS TO BE SUITABLE FOR MOUNTING POST TOP LUMINAIRES WITH 3" I.D. (\pm 0.125") SLIPFITTER.
7. ALL CONCRETE SHALL BE CLASS "A".

PRESTRESSED CONCRETE POST
 CENTRECON SER-5T-123
 (3.5" x 6.69" x 20.42')
 OR EQUAL APPROVED BY
 CITY ENGINEER AND
 PLANNING DIRECTOR.

8. STANDARD PLATE R15 IS TO BE USED ONLY FOR LOCAL STREETS IN RESIDENTIAL ZONES. LIGHTING MUST BE APPROVED BY THE PLANNING DIRECTOR.

SOLUTION # 02-43

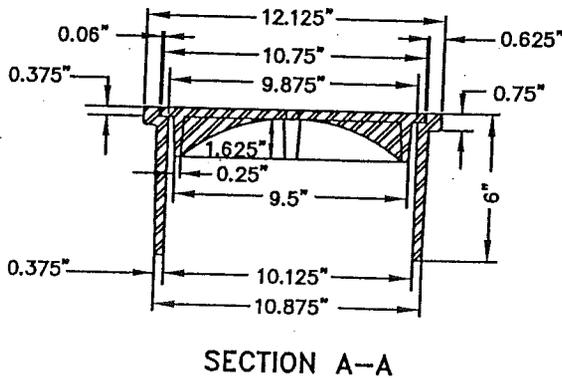
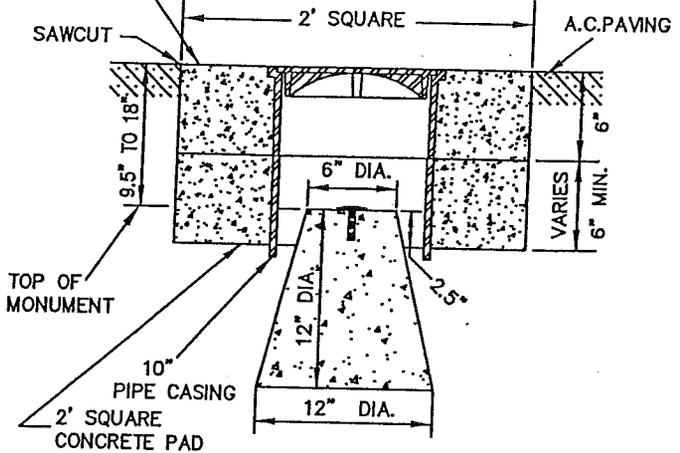
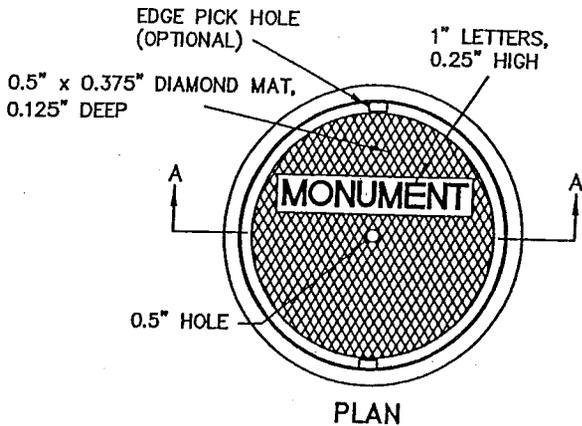
Harold J. [Signature]
 CITY ENGINEER

CITY OF ARVIN

**STREET LIGHT
 POST TYPE**

PLATE
R15

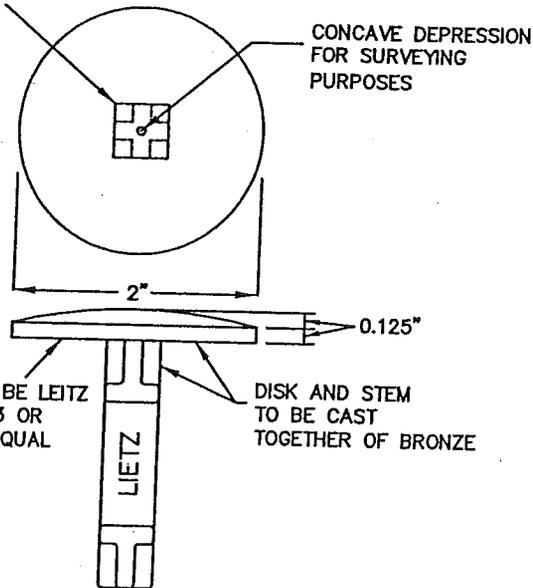
CLASS "A" SLAB NOT TO BE POURED UNTIL PAVING IS IN PLACE. SLAB AND LID TO BE 0.125" TO 0.25" BELOW NEW PAVING



NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.
2. CASTINGS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR GREY-IRON CASTINGS, SERIAL DESIGNATION ASTM: (LATEST) A48, CLASS NO. 30B
3. ALL FRAMES AND COVERS SHALL BE TOUGH, GREY CAST IRON, FREE FROM WARPS, CRACKS, SWELLS, AND COLD SHEET, AND SHALL HAVE A WORKMANLIKE FINISH.
4. THE SEATS OF FRAMES AND BEARING FACES OF THE COVERS SHALL BE MACHINED FOR A SMOOTH, NON-ROCKING FIT BETWEEN THE TWO CASTINGS.
5. CASTING SHALL BE THOROUGHLY CLEANED AND DIPPED TWICE IN A PREPARATION OF ASPHALT OR COAL TAR AND OIL APPLIED AT 300° F TO FORM A FIRM AND TENACIOUS SEAL.
6. CONCRETE SHALL BE CURED WITH A WHITE PIGMENTED CURING COMPOUND COMPLYING WITH SECTION 90-7.01B OF STANDARD SPECIFICATIONS.
7. THE SURFACE SHALL BE FINISHED TO GRADE, TROWELED SMOOTH, AND GIVEN A LIGHT BROOM FINISH.
8. ALL CONCRETE USED SHALL BE CLASS "A".
9. THE NAME OF THE MANUFACTURING COMPANY SHALL BE ON THE UNDERSIDE OF THE COVER.
10. PIPE CASING SHALL BE 10" I.D. STEEL OR AS DIRECTED BY THE CITY ENGINEER.

STAMP DISK WITH R.C.E. OR L.S. NUMBER



DOME HEAD DISK DETAIL

RESOLUTION # 02-43

CITY OF ARVIN

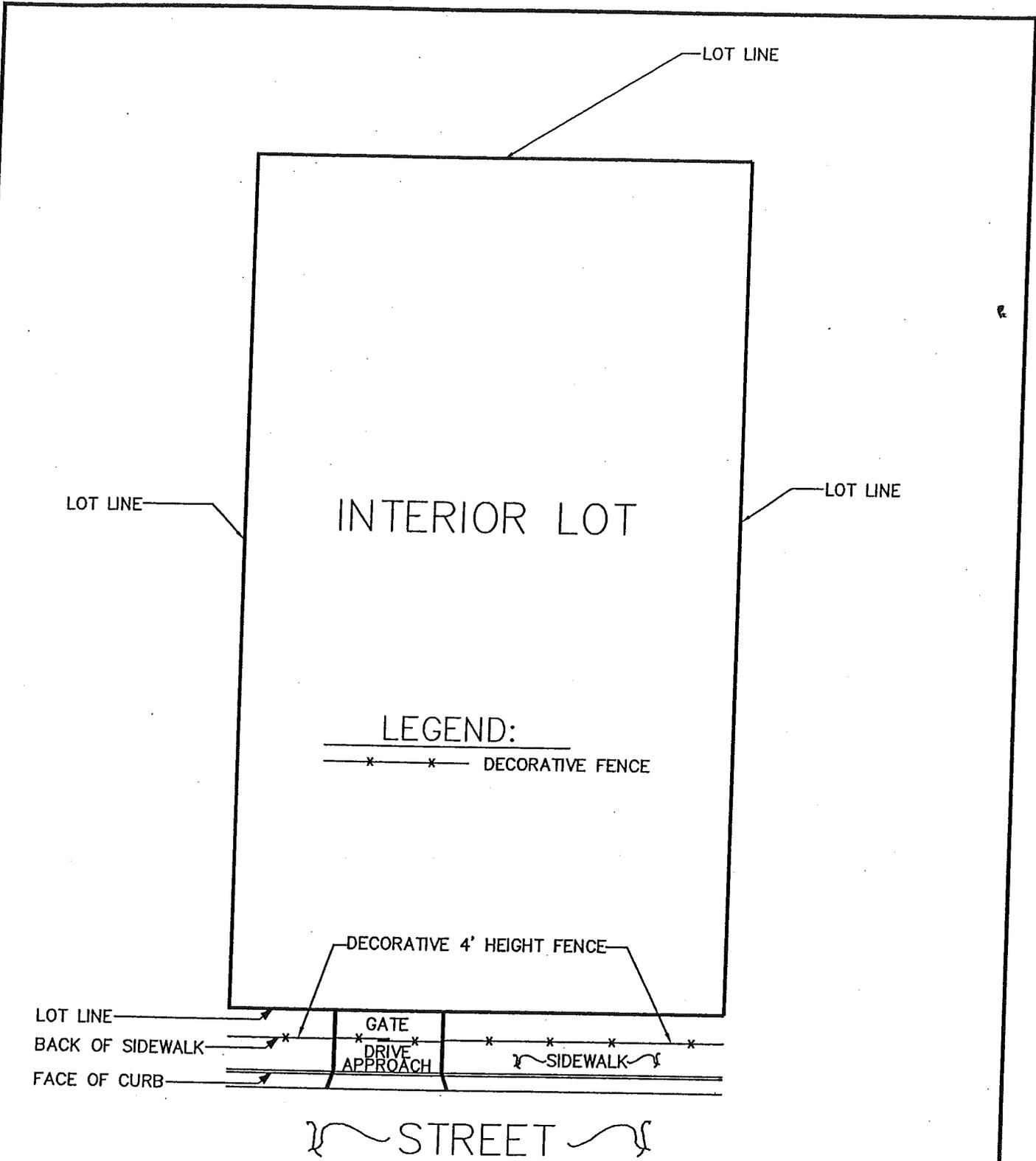
Harold J. Wiley
CITY ENGINEER

SURVEY MONUMENT

PLATE

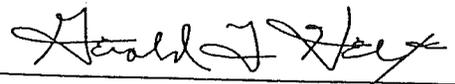
R16

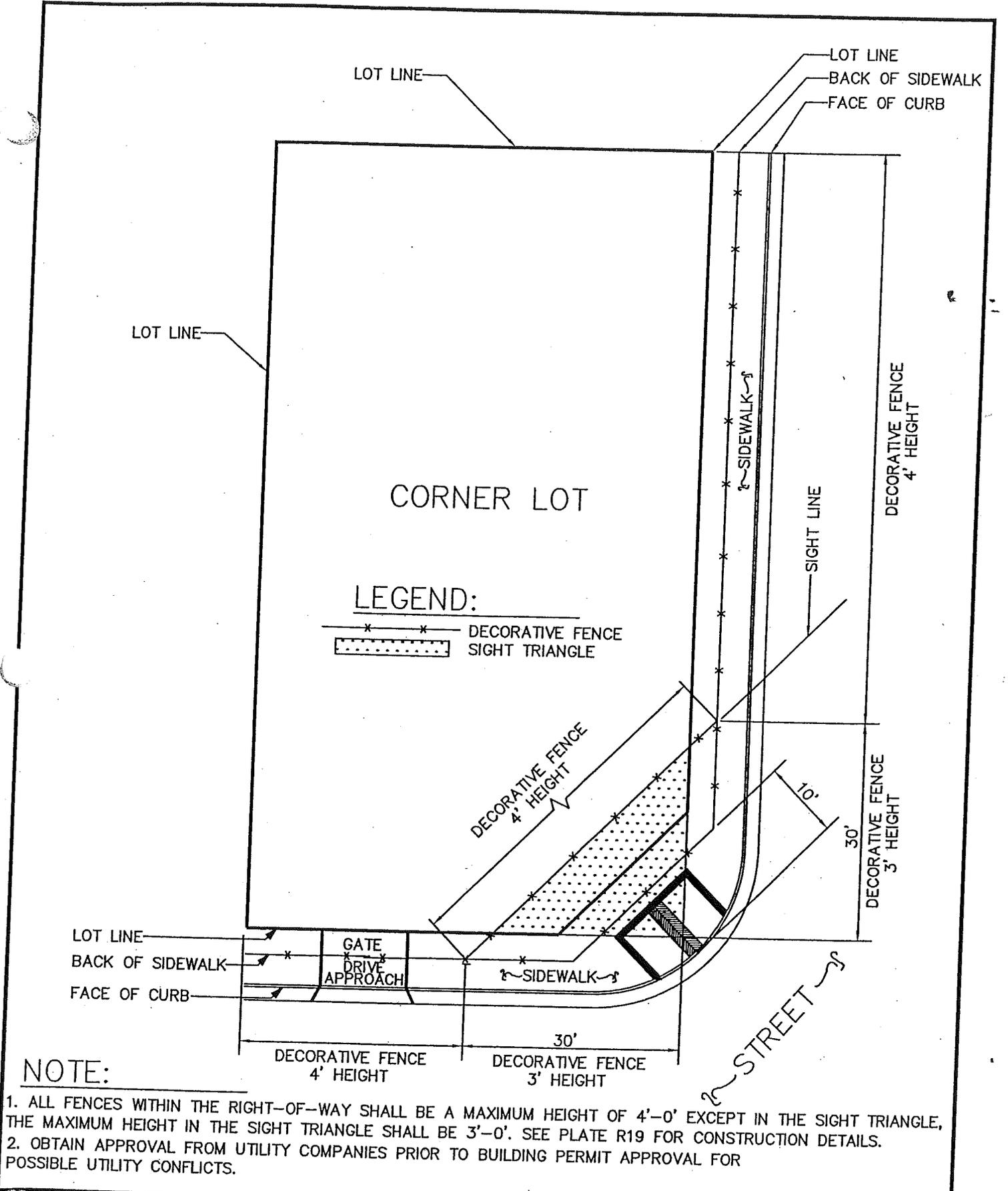
REVISED: NOV. 2002 SHT. 1 OF 1



NOTE:

1. ALL FENCES WITHIN THE RIGHT OF WAY AT INTERIOR LOT SHALL BE A MAXIMUM HEIGHT OF 4'-0'. SEE PLATE R19 FOR CONSTRUCTION DETAILS.
2. OBTAIN APPROVAL FROM UTILITY COMPANIES PRIOR TO BUILDING PERMIT APPROVAL FOR POSSIBLE UTILITY CONFLICTS.

SOLUTION # 02-43	CITY OF ARVIN	
 CITY ENGINEER	INTERIOR LOT-DECORATIVE FENCE IN ROAD RIGHT OF WAY	PLATE R17
REVISED: NOV. 2002 SHT. 1 OF 1		



NOTE:

1. ALL FENCES WITHIN THE RIGHT-OF-WAY SHALL BE A MAXIMUM HEIGHT OF 4'-0" EXCEPT IN THE SIGHT TRIANGLE, THE MAXIMUM HEIGHT IN THE SIGHT TRIANGLE SHALL BE 3'-0". SEE PLATE R19 FOR CONSTRUCTION DETAILS.
2. OBTAIN APPROVAL FROM UTILITY COMPANIES PRIOR TO BUILDING PERMIT APPROVAL FOR POSSIBLE UTILITY CONFLICTS.

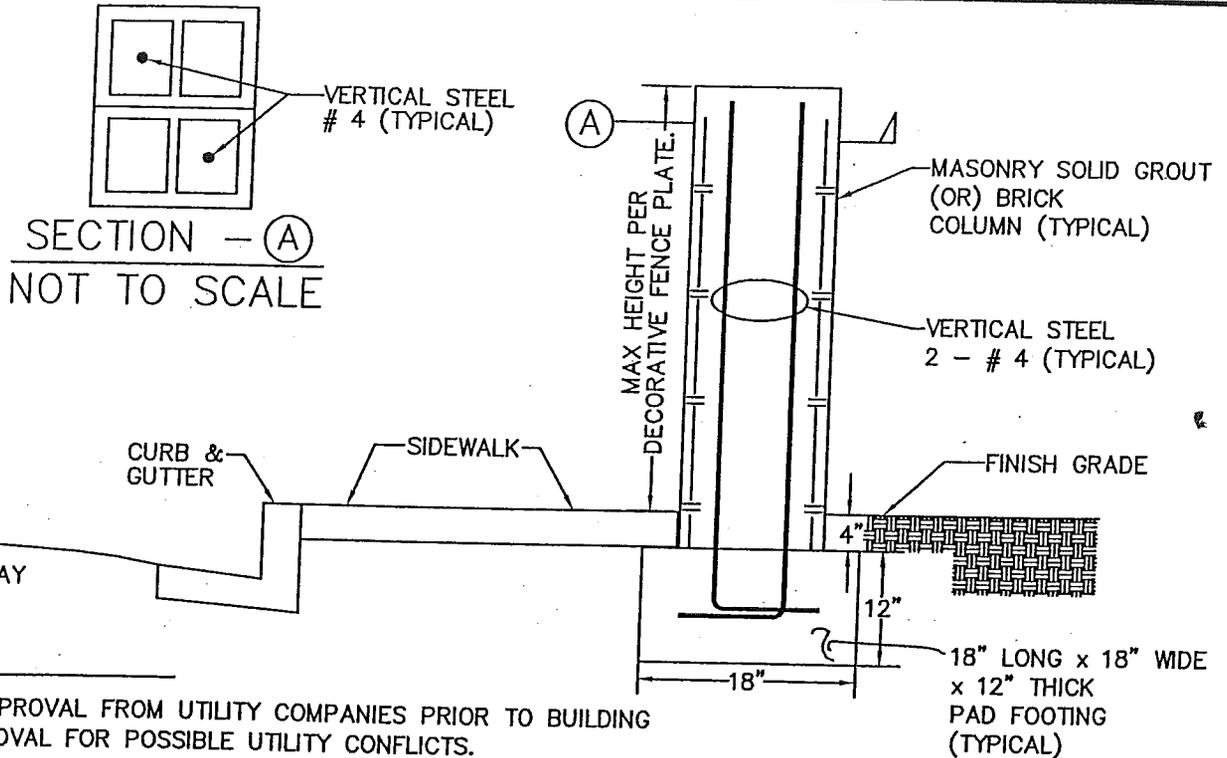
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CITY OF ARVIN

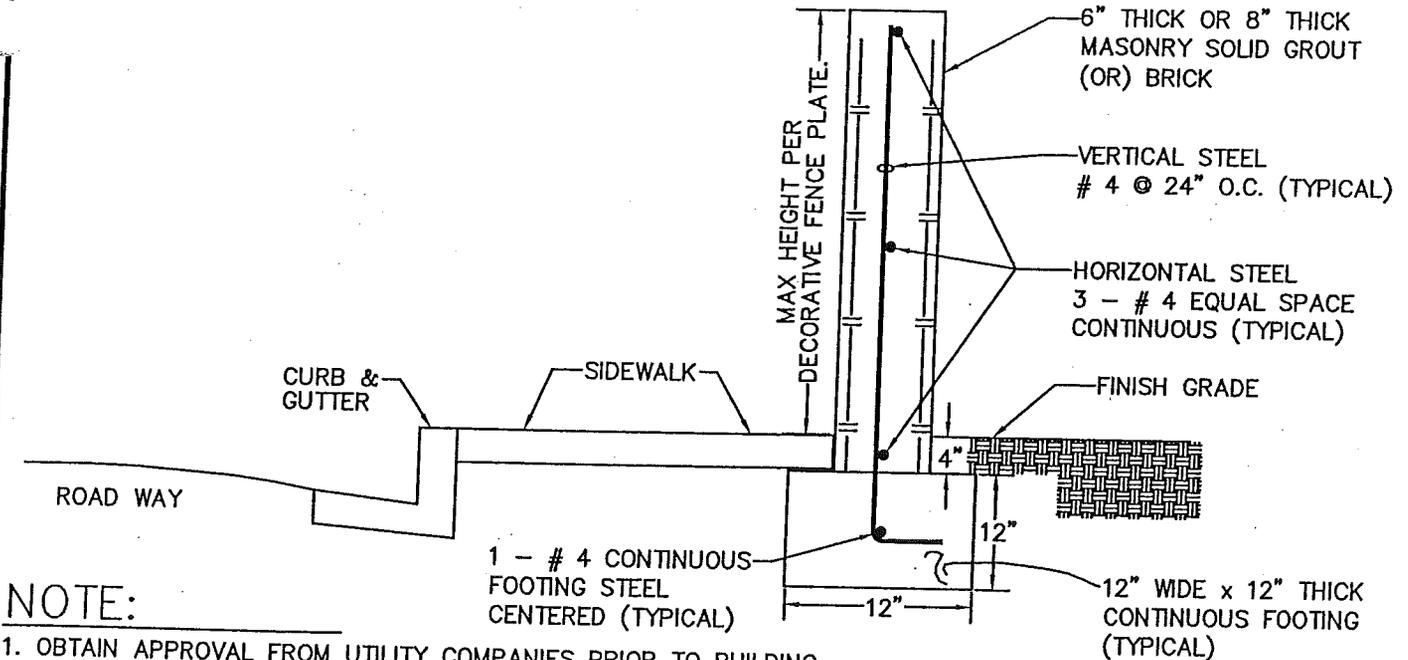
Harold J. [Signature]
CITY ENGINEER

CORNER LOT-DECORATIVE
FENCE IN ROAD RIGHT OF WAY

PLATE
R18



COLUMN ONLY
NOT TO SCALE



CONTINUOUS WALL ONLY
NOT TO SCALE

SOLUTION # 02-43

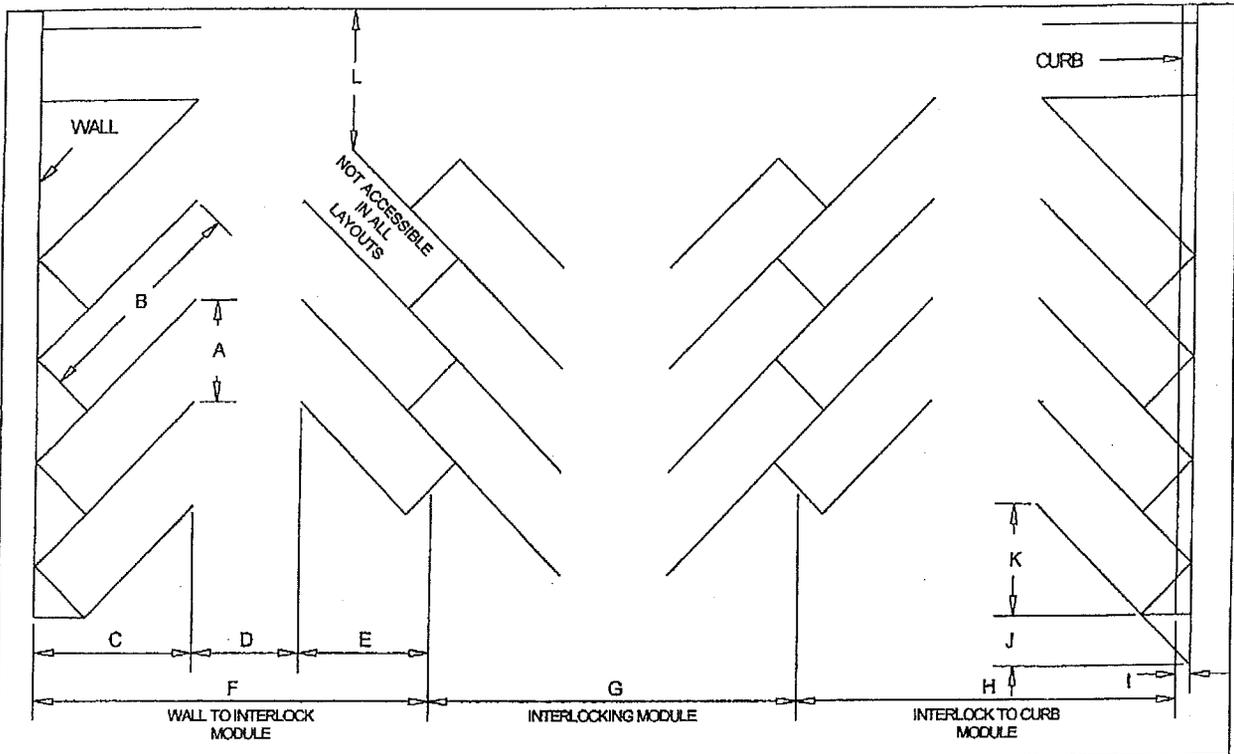
CITY OF ARVIN

Harold J. [Signature]
CITY ENGINEER

DECORATIVE WALL
CONSTRUCTION DETAILS

PLATE
R19

REVISED: NOV. 2002 SHT. 1 OF 1

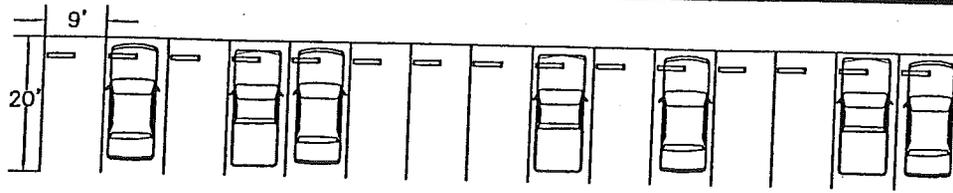


PARKING ANGLE & STALL WIDTH	STALL WIDTH PARALLEL TO AISLE (A)	STALL LENGTH OF LINE (B)	STALL DEPTH PERPENDICULAR TO WALL (C)	AISLE WIDTH (D)	STALL DEPTH TO INTERLOCK (E)	MODULES				BUMPER OVERHANG (I)	OFFSET (J)	SETBACK (K)	CROSS-AISLE ONE-WAY (L)	CROSS-AISLE TWO-WAY (L)
						WALL TO INTERLOCK (F)	INTERLOCK TO INTERLOCK (G)	INTERLOCK TO CURB FACE (H)	WALL TO WALL (2C+D)					
45°														
9.0'	12.7'	27.0'	19.1'	12.7'	15.9'	47.7'	44.5'	45.9'	50.9'	1.8'	6.4'	12.7'	14.0'	24.0'
9.5'	13.5'	27.5'	19.4'	11.7'	16.1'	47.2'	43.9'	45.5'	50.5'	1.8'	6.7'	12.7'	14.0'	24.0'
10.0'	14.1'	28.0'	19.8'	11.7'	16.3'	47.8'	44.2'	46.0'	51.3'	1.8'	7.1'	12.7'	14.0'	24.0'
60°														
9.0'	10.4'	23.2'	20.1'	16.9'	17.8'	54.8'	52.5'	52.6'	57.1'	2.2'	2.6'	9.0'	14.0'	24.0'
9.5'	11.0'	23.5'	20.3'	15.9'	18.0'	54.2'	51.8'	52.0'	56.5'	2.2'	2.7'	9.0'	14.0'	24.0'
10.0'	11.5'	23.8'	20.6'	15.9'	18.1'	54.5'	52.0'	52.4'	57.1'	2.2'	2.9'	9.0'	14.0'	24.0'
75°														
9.0'	9.3'	20.4'	19.7'	24.0'	18.5'	62.2'	61.1'	59.9'	63.4'	2.4'	0.6'	4.7'	14.0'	24.0'
9.5'	9.8'	20.6'	19.8'	23.0'	18.6'	61.4'	60.2'	59.0'	62.6'	2.4'	0.6'	4.7'	14.0'	24.0'
10.0'	10.4'	20.7'	20.0'	23.0'	18.7'	61.6'	60.3'	59.2'	63.0'	2.4'	0.6'	4.7'	14.0'	24.0'
90°														
9.0'	9.0'	18.0'	18.0'	25.0'	18.0'	61.0'	61.0'	58.5'	61.0'	2.5'	0.0'	0.0'	14.0'	24.0'
9.5'	9.5'	18.0'	18.0'	25.0'	18.0'	61.0'	61.0'	58.5'	61.0'	2.5'	0.0'	0.0'	14.0'	24.0'
10.0'	10.0'	18.0'	18.0'	25.0'	18.0'	61.0'	61.0'	58.5'	61.0'	2.5'	0.0'	0.0'	14.0'	24.0'

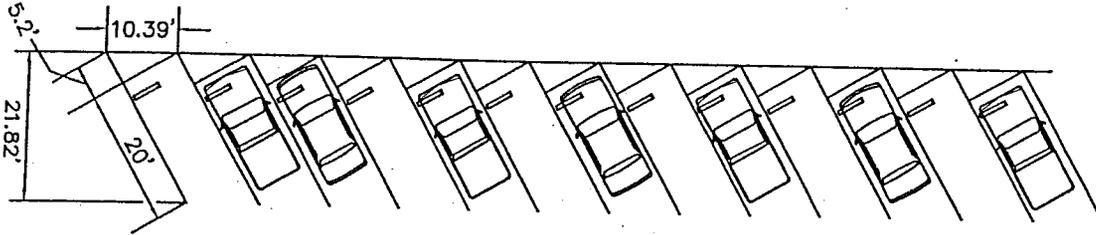
NOTES

- 1] MARKINGS IN PARKING LOTS SHALL BE PAINTED WITH WHITE TRAFFIC LINE PAINT (RAPID DRY WATER BORNE) THAT MEETS CURRENT CALTRANS STANDARDS FOR HIGHWAY MARKINGS, EXCEPT FOR MARKINGS DENOTING HANDICAP PARKING SPACES WHICH SHALL BE BLUE IN COLOR. SEE HANDICAP PARKING DETAIL.
- 2] MINIMUM 2-WAY DRIVE AISLE WIDTHS SHALL BE 24' UNLESS BACKING WIDTH GOVERNS (SEE NOTE 3).
- 3] AISLE WIDTH (D) IS MINIMUM 1-WAY AISLE WIDTH REQUIRED FOR BACKING PURPOSES.
- 4] PARALLEL STALL LENGTH = 18'+4' = 22'

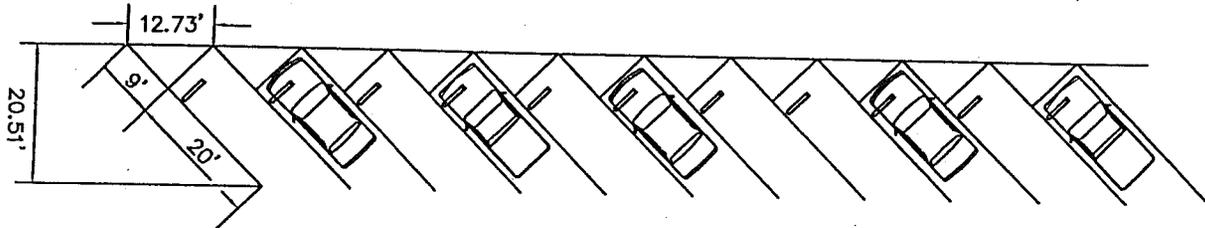
Approved by Planning Commission: 9-20-90	STANDARD PARKING SPACE DIMENSIONS	DATE 07/97
		DRAWN BJD/GEG
APPROVED CITY ENGINEER	CITY OF BAKERSFIELD CALIFORNIA	CHECKED
		SCALE NTS
	PUBLIC WORKS DEPARTMENT	SHEET NO. T-10



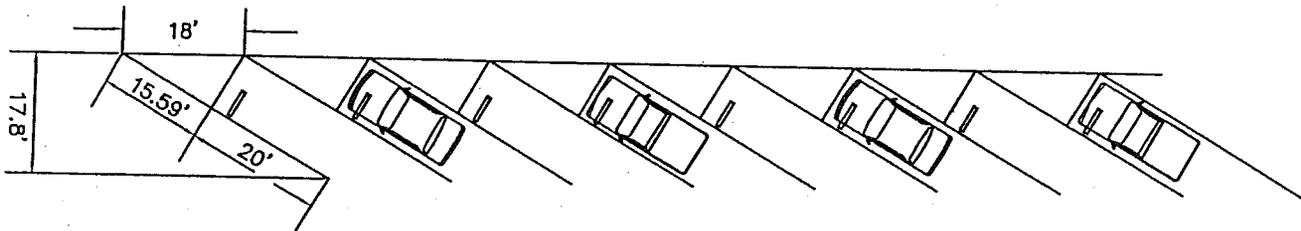
90 DEGREE PARKING



60 DEGREE PARKING



45 DEGREE PARKING

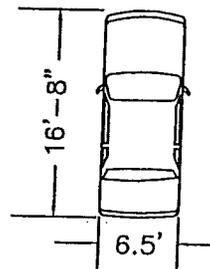


30 DEGREE PARKING

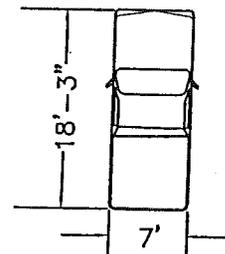
NOTE:

1. PARKING STALL DIMENSIONS ARE 9' WIDE BY 20' IN LENGTH (TYPICAL)
2. SEE R21 FOR PARKING BUMPER DETAIL

TYPICAL DIMENSIONS FOR MID SIZE CAR



TYPICAL DIMENSIONS FOR FULL SIZE TRUCK



NOT TO SCALE

OLUTION # 02-43

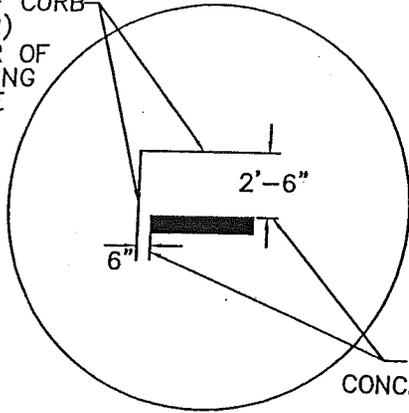
Harold J. Vay
CITY ENGINEER

CITY OF ARVIN

PARKING LOT LAYOUT

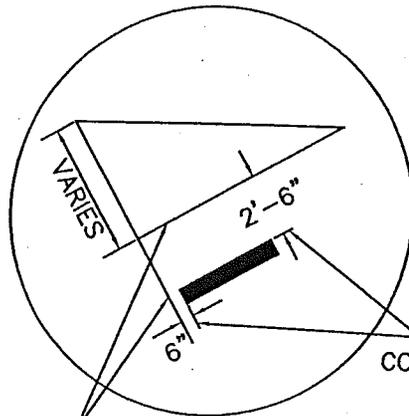
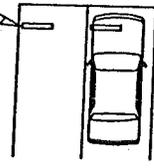
PLATE
R20

FACE OF CURB
(OR)
CENTER OF
STRIPING
LINE



EDGE OF
CONCRETE BUMPER

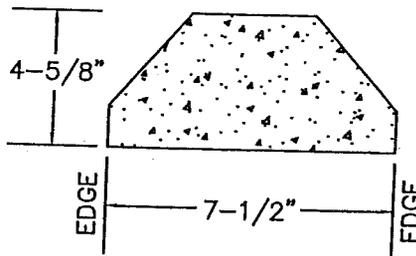
90 DEGREE PARKING



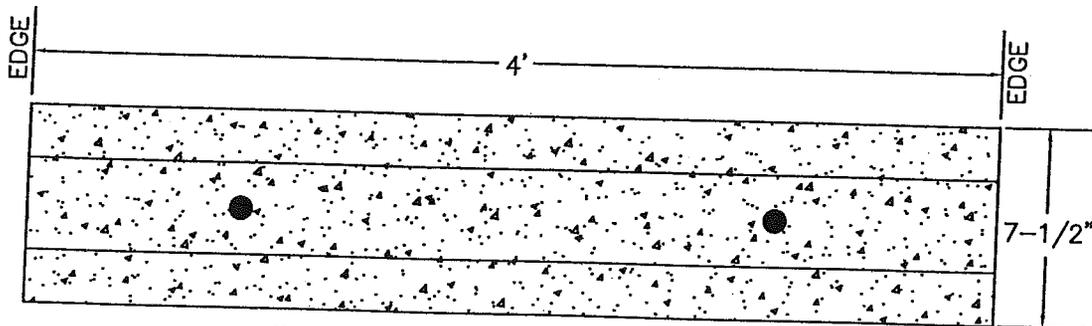
EDGE OF
CONCRETE BUMPER

ANGLE PARKING

FACE OF CURB
(OR)
CENTER OF
STRIPING
LINE



END VIEW/ N.T.S.



PLAN VIEW/ N.T.S.

NOTE: SECURED WITH # 5 REBAR, 12" INTO GRADE (TYPICAL)

RESOLUTION # 02-43

CITY OF ARVIN

Harold J. Vay

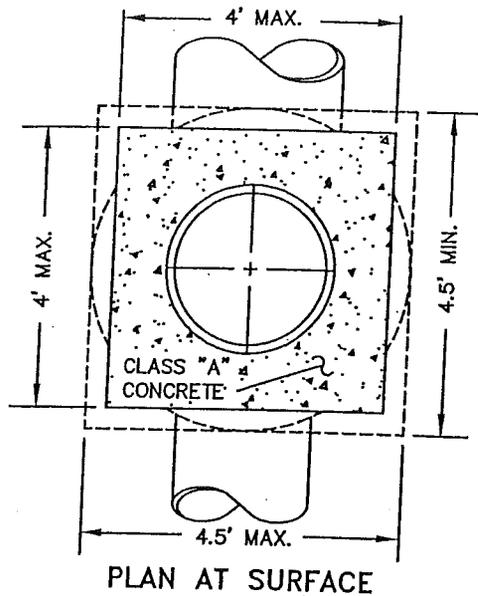
CITY ENGINEER

PARKING BUMPER DETAIL

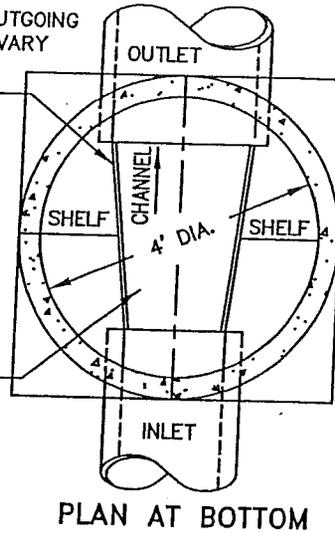
PLATE

R21

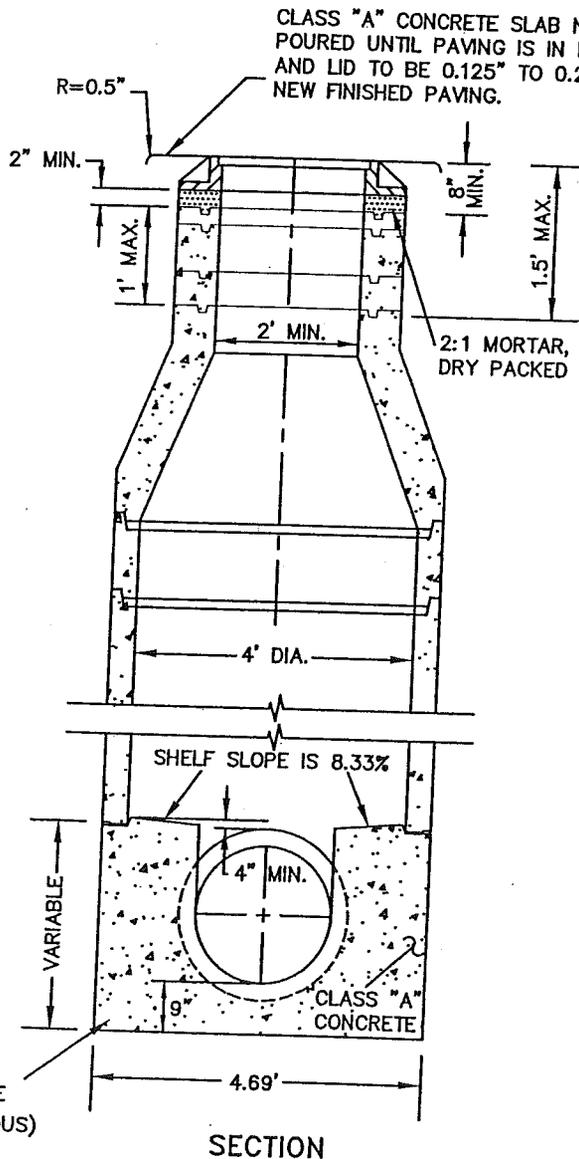
REVISED: NOV. 2002 SHT 1 OF 1



WHERE INCOMING AND OUTGOING SEWERS IN A MANHOLE VARY IN SIZE, EXTEND LOWER HALVES OF SEWERS 8" BEYOND INSIDE OF WALL SHAPE TRANSITION CHANNEL BETWEEN ENDS OF LOWER HALVES OF PIPES.



WHERE INCOMING AND OUTGOING SEWERS IN A MANHOLE AREA OF THE SAME DIAMETER, THE TOP HALF OF PIPE SHALL ONLY BE REMOVED BETWEEN WALLS AND THE BROKEN EDGES SHALL BE PLASTERED SMOOTH WITH CEMENT MORTAR.



NOTES:

1. ALL CONCRETE USED SHALL BE CLASS "A".
2. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.
3. ALL UNLINED MANHOLE JOINTS SHALL BE FILLED WITH KENT SEAL OR APPROVED BLACK MASTIC EQUAL. INSIDE OF MANHOLES MUST BE MORTARED AND NEATLY RAKED OR WIPED ON INSIDE OF PIPE.
4. PRECAST REINFORCED MANHOLE SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF ASTM C-478, CURRENT EDITION.
5. ALL SEWER MANHOLES SHALL BE LINED WITH "T-LOCK" OR APPROVED EQUAL.
6. CONCRETE PAD SHALL BE CURED WITH A WHITE PIGMENTED CURING COMPOUND AS PER SECTION 90-7.01B OF THE STANDARD SPECIFICATIONS.
7. SEE STANDARD PLATE S2 FOR FRAME AND COVER DETAILS.
8. ALL CHANNELS SHALL BE SMOOTH FINISHED WITH STEEL TROWEL. SHELF SHALL BE BROOM FINISHED FOR SLIP RESISTANCE.

OLUTION # 02-43

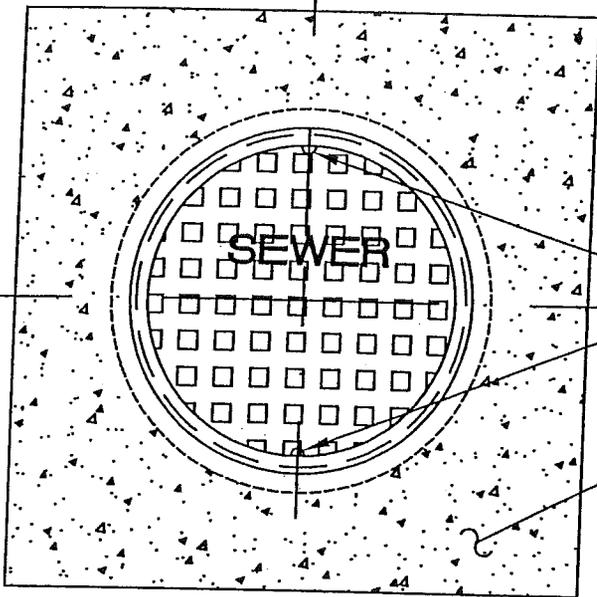
Harold J. [Signature]
CITY ENGINEER

CITY OF ARVIN

MANHOLE TYPE "A"

PLATE

S1



PLAN

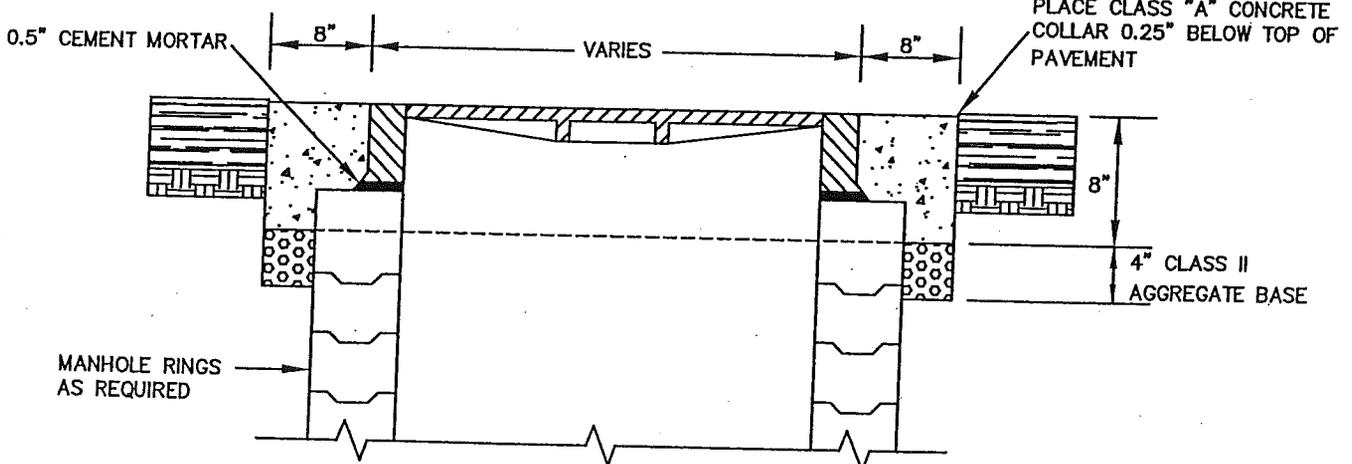
MANHOLE FRAME AND COVER

36" DIA. - ALHAMBRA FOUNDRY NO.A-1251-4
OR APPROVED EQUAL

24" DIA. - ALHAMBRA FOUNDRY NO.A-1254
OR APPROVED EQUAL

LETTERING SHALL BE 2.5" RAISED LETTERS
PROVIDE AT LEAST ONE PICKHOLE IN COVER

CLASS "A" CONCRETE COLLAR



SECTION

SOLUTION # 02-43

CITY OF ARVIN

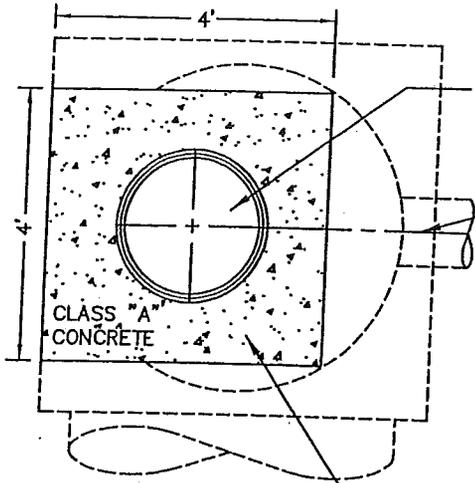
Donald J. Wiley
CITY ENGINEER

MANHOLE FRAME
AND COVER

PLATE

S2

REVISED: NOV. 2002 SHT 1 OF 1

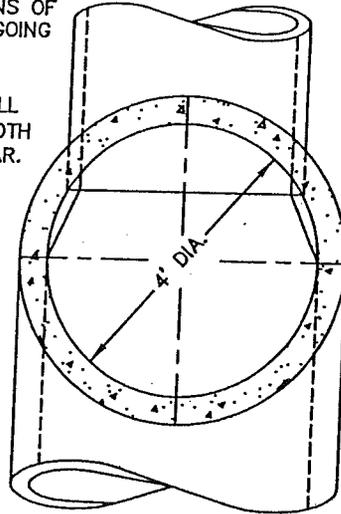


SEE STANDARD PLATE S2 FOR FRAME AND COVER DETAILS

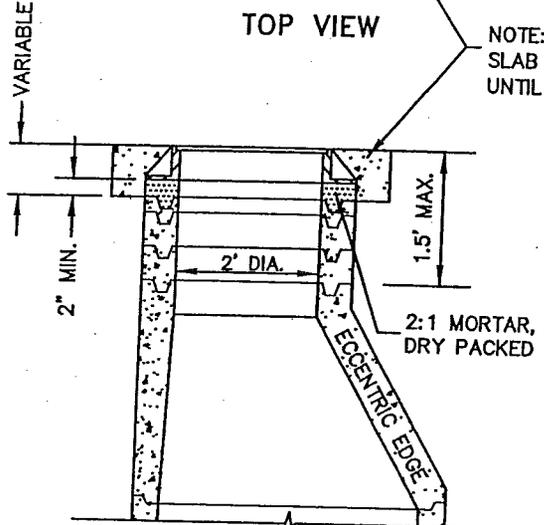
THE UPPER PORTIONS OF INCOMING AND OUTGOING SEWERS SHALL BE REMOVED AND THE BROKEN EDGES SHALL BE PLASTERED SMOOTH WITH CEMENT MORTAR.

TOP VIEW

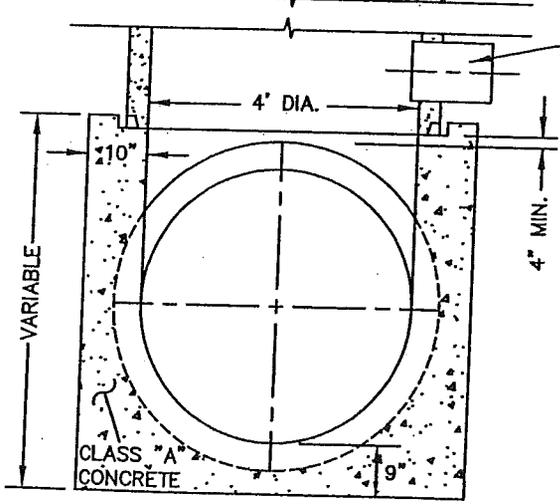
NOTE: CLASS "A" CONCRETE SLAB NOT TO BE POURED UNTIL PAVING IS IN PLACE.



SECTION



PIPE DIAMETER VARIES



MANHOLE SECTION

NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.
2. ALL UNLINED MANHOLE JOINTS SHALL BE FILLED WITH KENT SEAL OR APPROVED BLACK MASTIC EQUAL. INSIDE OF MANHOLES MUST BE MORTARED AND NEATLY RAKED WIPED ON INSIDE OF PIPE.
3. PRECAST REINFORCED MANHOLE SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF ASTM C-478, CURRENT EDITION.
4. ALL SEWER MANHOLES SHALL BE LINED WITH "T-LOCK" OR APPROVED EQUAL.
5. CONCRETE PAD SHALL BE CURED WITH A WHITE PIGMENTED CURING COMPOUND AS PER SECTION 90-7.01 B OF THE STANDARD SPECIFICATIONS.
6. SEE STANDARD PLATE S2 FOR FRAME AND COVER DETAILS.
7. ALL CHANNELS SHALL BE SMOOTH FINISHED WITH STEEL TROWEL. SHELF SHALL BE BROOM FINISHED FOR SLIP RESISTANCE.

SOLUTION # 02-43

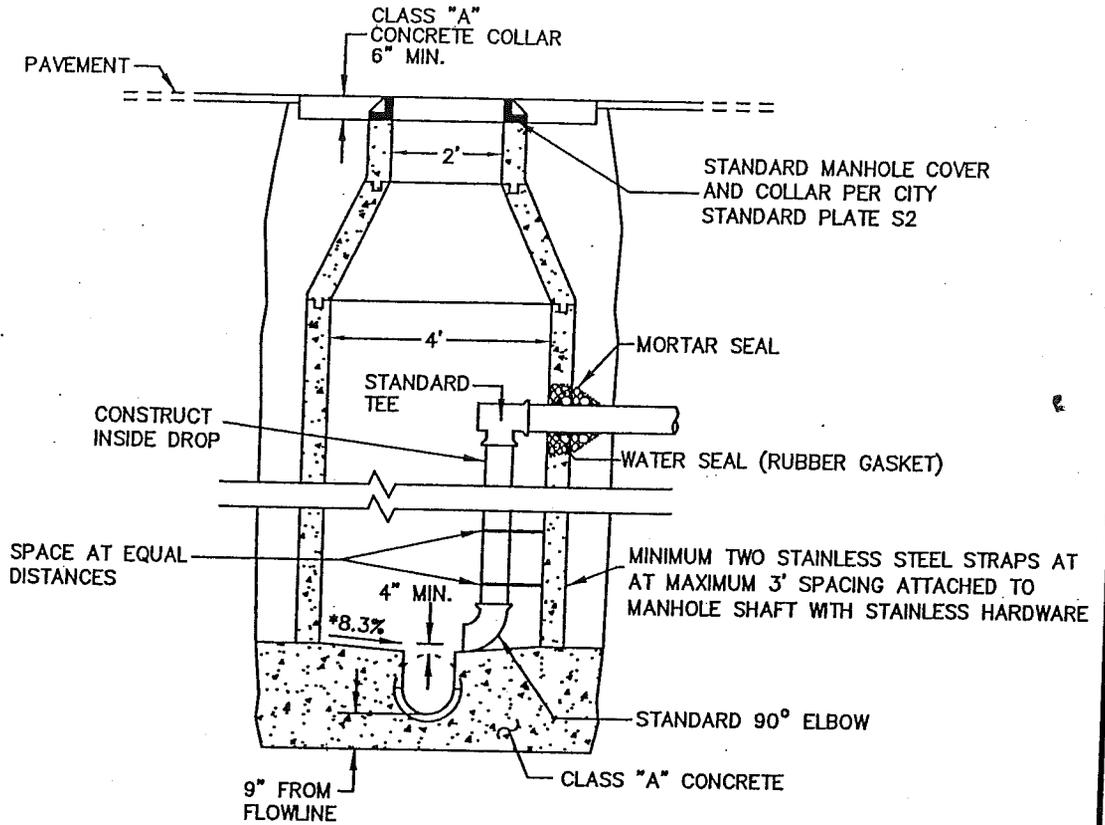
CITY OF ARVIN

Handwritten Signature
CITY ENGINEER

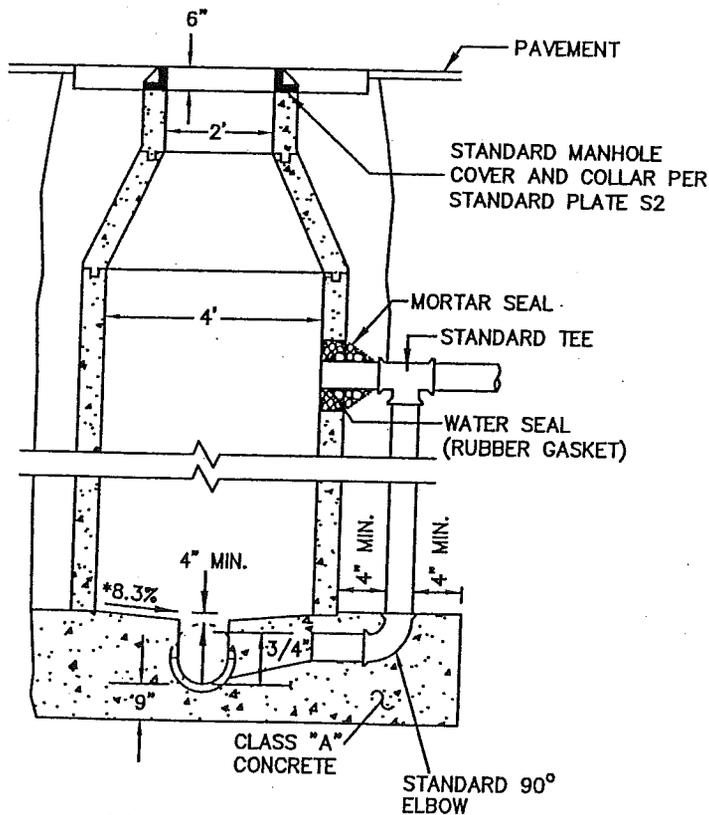
MANHOLE TYPE "B"

PLATE
S3

REVISED: NOV. 2002 SHT 1 OF 1



INSIDE DROP



OUTSIDE DROP

NOTES:

1. ALL WORK SHALL CONFORM TO THE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.
 2. DROP MANHOLES WILL ONLY BE ALLOWED WITH THE APPROVAL OF THE CITY ENGINEER.
 3. PRECAST REINFORCED MANHOLE SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH PROVISIONS OF ASTM C-478, CURRENT EDITION.
 4. DROP MANHOLE IS ONLY ALLOWED IF DROP DISTANCE IS 30" OR GREATER.
- * MAXIMUM SLOPE ALLOWED INSIDE MANHOLE.

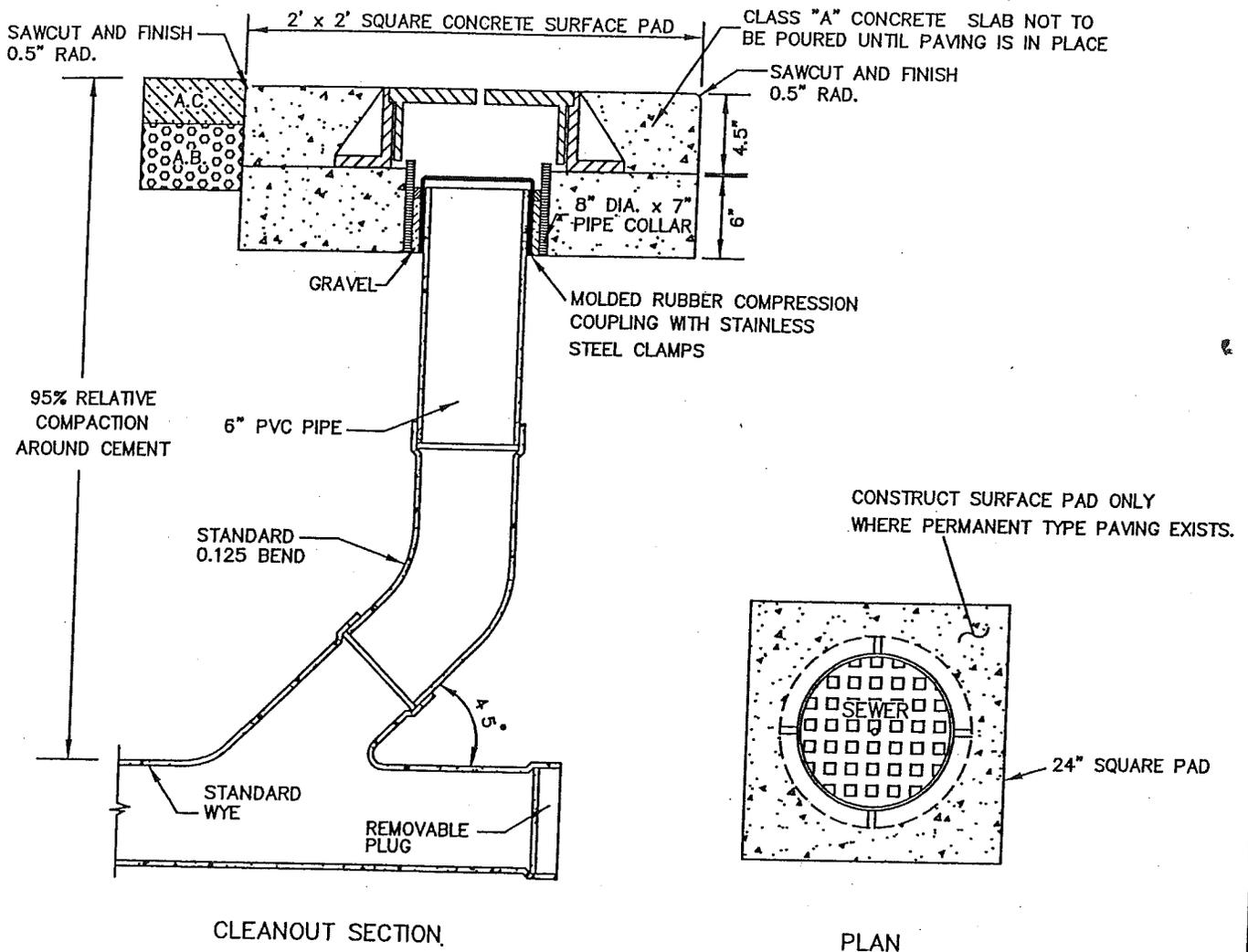
SOLUTION # 02-43

Harold J. [Signature]
CITY ENGINEER

CITY OF ARVIN

DROP MANHOLE

PLATE
S4



NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", CURRENT EDITION.
2. PIPE MATERIAL SHALL MEET PVC SEWER GRADE SDR35.
3. ALL CONCRETE SHALL BE CLASS "A".
4. CONCRETE SHALL HAVE NO ADDITIVES UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE CITY ENGINEER.
5. TOP OF SLAB SHALL BE TROWELED SMOOTH AND GIVEN A LIGHT BROOM FINISH.
6. 95% RELATIVE COMPACTION IS REQUIRED AT CONSTRUCTION AREA.
7. FILL CAVITY BETWEEN PIPE AND COLLAR WITH GRAVEL TO WITHIN 0.5" OF TOP OF PIPE. CAULK REMAINING 0.5" WITH APPROVED MASTIC TO TOP OF PIPE FOR WATER TIGHT SEAL.
8. COLLAR SHALL BE VCP, ABS OR PVC PIPE.
9. FINISHED CLASS "A" CONCRETE SLAB TO BE 0.125" MIN. AND 0.25" MAX BELOW FINISHED PAVING SURFACE.

SOLUTION # 02-43

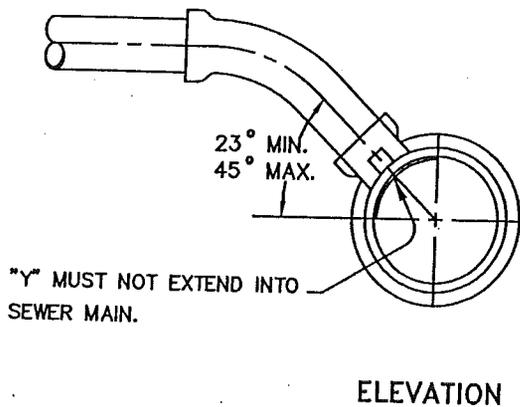
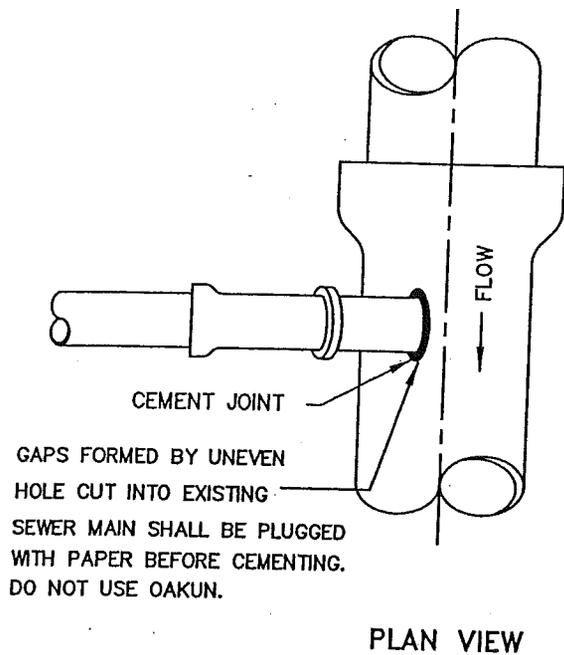
Harold J. Wiley
CITY ENGINEER

CITY OF ARVIN

EIGHT INCH (8")
CLEANOUT

PLATE
S5

REVISED: NOV. 2002 SHT. 1 OF 1



NOTES:

1. FOR PIPES 6" TO 12" IN DIAMETER, A LICENSED CONTRACTOR WHO HAS THE PROPER EQUIPMENT AND PERMITS IS CONSIDERED AN APPROVED AGENT AND MAY CORE INTO THE CITY'S LINES OR REMOVE A SECTION AND CONSTRUCT A WYE OR TEE. FOR PIPES 15" OR LARGER, A MANHOLE MUST BE CONSTRUCTED WHERE CORINGS ARE MADE. THE CITY INSPECTOR MUST OBSERVE THE INSTALLATION OF SADDLES TO CORES.
2. VITRIFIED CLAY PIPE SADDLES SHALL BE EXTRA STRENGTH CLAY PIPE AND SHALL CONFORM TO THE REQUIREMENTS OF THE WEST COAST STANDARDS OF THE CLAY PIPE INSTITUTE.
3. VCP SADDLES MAY HAVE EITHER LUGS OR COLLARS.
4. THE BELL SHALL BE TRUE, CIRCULAR AND CONCENTRIC WITH THE BORE OF THE PIPE AND SHALL BE SCORED ON THE INSIDE OF ITS ENTIRE DEPTH.
5. OPENINGS IN EXISTING SEWER SHALL BE MADE ONLY LARGE ENOUGH TO ADMIT ALL OF SADDLE FITTING. LUGS OR COLLARS NOT RESTING ON PIPE SHALL BE BLOCKED UP AND SEALED WITH EPOXY GLUE.
6. ALL INSTALLATIONS SHALL BE INSPECTED BY PUBLIC WORKS DEPARTMENT OF THE CITY PRIOR TO BACKFILL.
7. FOR PVC AND ABS PIPE, FITTINGS SHALL BE INJECTION MOLDED AND SHALL BE INSTALLED IN LINE ON NEW PIPELINES; CUT-IN FITTINGS ARE NOT PERMITTED ON NEW SUBDIVISIONS OR NEW MAIN LINES.
8. PVC OR ABS SADDLES SHALL BE RUBBER GASKETED AND SHALL BE FASTENED BY STAINLESS STEEL BANDS.

SOLUTION # 02-43

CITY OF ARVIN

Harold J. [Signature]
CITY ENGINEER

SEWER PIPE CONNECTION

PLATE
S6

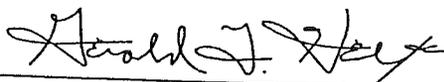
REVISED: NOV. 2002 SHT. 1 OF 1

SEWER DESIGN STANDARDS

- A. SIZE – MINIMUM SEWER MAIN SIZE SHALL BE 8" INSIDE DIAMETER.
AVERAGE DAILY FLOW – SINGLE FAMILY RESIDENCE = 350 GPD; MOBILE HOMES AND APARTMENTS = 250 GPD.
OTHER USES BASED ON FIXTURE UNITS CONNECTED OR OTHER METHOD ACCEPTABLE TO THE CITY ENGINEER.
- B. PEAK FLOW – FOR SEWER CAPACITY DESIGN = 1.8 TIMES AVERAGE DAILY FLOW.
- C. DEPTH OF FLOW FOR SEWER CAPACITY DESIGN = 1/2 FULL.
- D. VELOCITY OF FLOW – SLOPE SO THAT MINIMUM VELOCITY = 2 FPS .
- E. MAXIMUM SLOPE – SLOPE SO THAT VELOCITY DOES NOT EXCEED 10 FPS .
- F. ALL FLOW CALCULATIONS SHALL BE BASED ON MANNING'S "N" OF 0.011 FOR PVC AND 0.013 FOR ALL OTHER PIPE.
- G. MANHOLES – PROVIDE AT ALL MAIN LINE SEWER INTERSECTIONS AND ALL CHANGES IN ALIGNMENT OR GRADE.
MAXIMUM DISTANCE BETWEEN MANHOLES = 300 FEET. (GREATER DISTANCES MAY BE APPROVED AT THE DISCRETION OF THE CITY ENGINEER) PROVIDE 0.1 FEET DROP THROUGH MANHOLE WHEN ANGLE IN SEWER IS GREATER THAN 45°. MATCH PIPE TOPS WHERE SIZE CHANGES. WHEN INVERT ELEVATIONS ARE GREATER THAN 30", PROVIDE DROP MANHOLE CONNECTION.
- H. ALIGNMENT – SEWER LINES SHALL BE ON STRAIGHT ALIGNMENT AND GRADE BETWEEN MANHOLES, AND GRADE VERIFIED WITH A STRING LINE IN THE TRENCH. CURVED SEWERS SHALL BE ALLOWED ONLY WHEN THEIR NECESSITY IS DEMONSTRATED AND THE DESIGN IS APPROVED BY THE CITY ENGINEER.
- I. COVER – MINIMUM = 3 FEET IN STREETS WITH SURCHARGE LOADS AND 3 FEET IN EASEMENTS WITH NON SURCHARGE LOADS.
- J. LOCATION – SEWERS ARE USUALLY PLACED IN STREET AREA 5 FEET OFF CENTERLINE BUT NOT CLOSER THAN 2 FEET TO LIP OF GUTTER AND NOT UNDER SIDEWALK. ALL OTHER UTILITIES (EXCEPT WATER) ARE TO BE CLEARED BY 6" VERTICALLY (MIN.). IN ALLEY AREAS, SEWERS SHALL BE LOCATED 4 FEET FROM THE ALLEY INVERT TO PREVENT INFILTRATION.
- K. SEPARATION – SEWER AND WATER MAIN HORIZONTAL SEPARATION SHALL BE A MINIMUM OF 10 FEET. WATER AND SEWER MAINS SHALL BE LAID IN SEPARATE TRENCHES WITH THE WATER MAIN AT A HIGHER ELEVATION. WHEN WATER AND SEWER MAINS CROSS, THE BOTTOM OF THE WATER MAIN SHALL BE 12" MIN. ABOVE THE TOP OF THE SEWER MAIN.
- L. SEWER EASEMENTS – ALLOWED ONLY WHEN NO OTHER LOCATION IS FEASIBLE. EASEMENTS SHALL: BE GRANTED TO THE CITY ON THE FINAL MAP; BE A MINIMUM OF 15 FEET WIDE AND WIDER WHERE TERRAIN DEPTH, ACCESS, CLEARANCE, ETC., DICTATES; INCLUDE THE RIGHT OF ACCESS OVER ADJOINING PROPERTY FOR MAINTENANCE, REPLACEMENT AND OPERATION; NOT ALLOW PERMANENT STRUCTURES EXCEPT FENCES.
- M. BUILDING SEWER LATERALS – MIN. SIZE = 4" INSIDE DIA., OR AS GOVERNED BY THE UNIFORM PLUMBING CODE. LATERALS SHALL BE RUN TO PROPERTY LINE AND PLUGGED AND LOCATION MARKED UNLESS THEY ARE TO BE IMMEDIATELY CONNECTED TO A BUILDING SEWER. MIN. SLOPE = 1/4" PER FOOT. MIN. COVER IN STREET ROW = 3.0 FEET.
- N. MATERIALS – THE CONTRACTOR SHALL SUPPLY CERTIFICATES AND TESTS AS REQUIRED TO ASSURE THE DEPARTMENT OF PUBLIC WORKS THAT THE MATERIAL SUPPLIED MEETS THESE REQUIREMENTS. ALL PIPE AND FITTINGS SHALL BE STAMPED WITH THE MANUFACTURER'S TRADE NAME AND THE STRENGTH AND CLASS OF PIPE.
- O. PLASTIC SEWER PIPE – PLASTIC SEWER PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATIONS D3034 FOR SDR 35, WITH INTEGRAL WALL BELL AND SPIGOT JOINTS AND ELASTOMERIC GASKET JOINTS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

RESOLUTION # 02-43

CITY OF ARVIN


CITY ENGINEER

SEWER DESIGN STANDARDS

PLATE

S7-A

REVISED: NOV. 2002 SHT. 1 OF 1

SEWER DESIGN STANDARDS (CONT.)

P. SPECIAL EQUIPMENT AND STRUCTURES – PUMP STATIONS, PRESSURE LINES, INVERTED SIPHONS (SAGS), ETC., SHALL BE APPROVED BY THE CITY ENGINEER.

Q. TESTING – ALL NEWLY INSTALLED SEWERS SHALL BE TESTED USING EITHER THE HYDROSTATIC, INFILTRATION OR AIR METHOD. THE DEVELOPER OR CONTRACTOR SHALL SUPPLY ALL EQUIPMENT, LABOR AND MATERIAL AND SHALL PERFORM ALL TESTS TO THE REQUIREMENTS AND SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS. PRIOR TO TESTING THE MAIN SHALL BE "BALLED" FROM MANHOLE TO MANHOLE WITH A SEWER SCRUBBING BALL OF A TYPE AND SIZE APPROVED BY THE CITY ENGINEER.

1. HYDROSTATIC – EACH SECTION OF A SANITARY SEWER, BETWEEN TWO SUCCESSIVE STRUCTURES, SHALL BE TESTED BY CLOSING THE LOWER END OF THE SEWER TO BE TESTED AND THE INLET SEWER OF THE UPPER STRUCTURE WITH PLUGS OR STOPPERS, AND FILLING THE PIPE OR STRUCTURES WITH WATER TO A POINT ONE FOOT ABOVE THE SOFFIT OF THE SEWER IN THE UPPER STRUCTURE OR TO ONE FOOT ABOVE THE TOP OF THE LATERALS, WHICHEVER IS HIGHER. THIS HEAD SHALL BE MAINTAINED A MINIMUM OF ONE HOUR. IF DURING THAT PERIOD THE LEAKAGE DOES NOT EXCEED THE RATE OF THREE GALLONS PER HOUR PER INCH OF DIAMETER PER 1,000 FEET OF PIPE, THEN THE SEWER WOULD BE CONSIDERED SATISFACTORILY TESTED.

2. INFILTRATION TEST – IF EXCESSIVE GROUND WATER IS ENCOUNTERED, THE UPPER STRUCTURE SHALL BE CLOSED SUFFICIENTLY TO PREVENT THE ENTRANCE OF WATER, AND PUMPING OF GROUND WATER SHALL BE DISCONTINUED FOR AT LEAST 3 DAYS AFTER WHICH THE SECTION SHALL BE TESTED FOR INFILTRATION. THE INFILTRATION SHALL NOT EXCEED THREE GALLONS PER HOUR PER INCH OF DIAMETER PER 1,000 FEET OF MAIN LINE SEWER BEING TESTED AND DOES NOT INCLUDE THE LENGTH OF HOUSE LATERAL ENTERING THAT SECTION. ALL TESTS MUST BE COMPLETE BEFORE STREET OR TRENCH IS RESURFACED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

3. AIR TEST – AIR TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS PROJECTS, CURRENT EDITION.

SEWER DESIGN GRADES FT/FT		
PIPE SIZE	OTHER THAN PVC MINIMUM GRADES	PVC MINIMUM GRADES
6"	0.0050	0.004
8"	0.0035	0.003
10"	0.0025	0.002
12"	0.0020	0.0015
15"	0.0015	0.0011
18"	0.0011	0.0010

RESOLUTION # 02-43

CITY OF ARVIN

PLATE

Herald J. Key

CITY ENGINEER

SEWER DESIGN STANDARDS

S7-B

REVISED: NOV. 2002 SHT. 1 OF 1