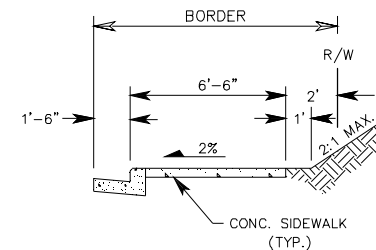


GENERAL NOTES

1. PAVEMENT MAY BE ASPHALT CONCRETE OR PORTLAND CEMENT CONCRETE AS DETERMINED BY THE COUNTY ENGINEER.
2. PAVEMENT, CRUSHED SURFACING TOP COURSE AND CRUSHED SURFACING BASE COURSE THICKNESSES SHALL BE DETERMINED BY TRAFFIC LOADS AND SOIL VALUES.
3. DITCH SLOPES AND SIDE SLOPES SHALL BE NO STEEPER THAN RATIOS SHOWN UNLESS RECOMMENDED BY A SOILS REPORT AND APPROVED BY THE COUNTY ENGINEER.
EXCAVATION SLOPES HIGHER THAN 8' SHALL BE DETERMINED BY SOILS TESTING.
4. "W" SHALL BE SHOWN ON CONSTRUCTION PLANS.
5. WHERE LEFT-TURN LANES ARE REQUIRED, M=12' WHEN MEDIAN IS PAINTED.
WHEN RAISED MEDIAN WITH TYPE M CURB USED M=14' OTHERWISE M=0
6. SHALL BE USED ONLY WHERE APPROVED BY THE COUNTY ENGINEER.
7. IF PLANTING STRIPS ARE USED AS A BIOFILTRATION SWALE, THE WIDTH SHALL BE 10' MIN.
8. REFER TO CLEAR ZONE SECTION FOR LOCATION OF RIGID OBJECTS.
9. WHEN RAISED MEDIANS ARE CONTINUOUS BETWEEN INTERSECTIONS, (W-M)/2 SHALL NOT BE LESS THAN 18 1/2 FEET.



CONTIGUOUS SIDEWALK
SEE NOTE 6

SIDEWALK

WIDTH'S	
ROAD TYPE	"SW"
RESIDENTIAL ACCESS	5' MIN
OTHER	6' MIN

4	1/00	CP	JSH	WAJ	AMENDED NOTE 5, ADDED NOTE 9
3	5/98	CP	JSH	WAJ	ADDED SIDEWALK TABLE
2	12/94	JB	JSH	RCH	ADDED NOTES 7,8&9 & CONTIGUOUS SIDEWALK DETAIL
1	5/94	JB	JSH	RCH	BORDER DIM & CHANGED NOTE 5 & EASEMENT WIDTH
NO. DATE BY CKD. APPR.					REVISION

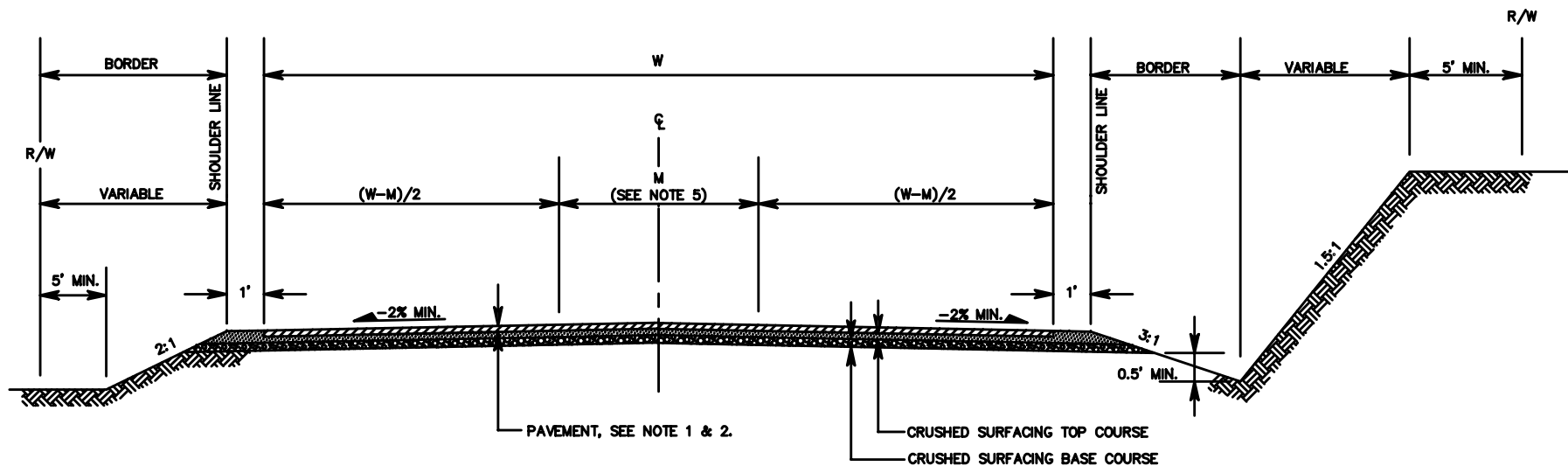
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 456-3600

APPROVED:
COUNTY ENGINEER
DATE: _____



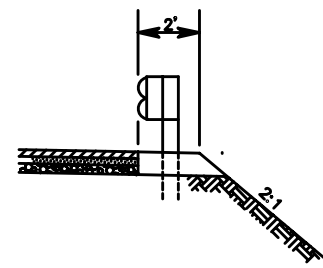
STANDARD
ROADWAY SECTION - CURBED

STD-A1DWG
SHEET
A-1



GENERAL NOTES

1. PAVEMENT MAY BE ASPHALT CONCRETE OR PORTLAND CEMENT CONCRETE AS DETERMINED BY THE COUNTY ENGINEER.
2. PAVEMENT, CRUSHED SURFACING TOP COURSE AND CRUSHED SURFACING BASE COURSE THICKNESSES SHALL BE DETERMINED BY TRAFFIC LOADS AND SOIL VALUES.
3. DITCH SLOPES AND SIDE SLOPES SHALL BE NO STEEPER THAN RATIOS SHOWN UNLESS RECOMMENDED BY A SOILS REPORT AND APPROVED BY THE COUNTY ENGINEER.
EXCAVATION SLOPES HIGHER THAN 8' SHALL BE DETERMINED BY SOILS TESTING.
4. "W" SHALL BE SHOWN ON CONSTRUCTION PLANS.
5. WHERE LEFT TURN LANES ARE REQUIRED M=14', OTHERWISE M=0.



WIDENING FOR BARRIER

NO.	DATE	BY	CHKD.	APPR.	REVISION
1	5/94	JB	JSH	RCH	BORDER DIMENSION CHANGED NOTE 5 GRAVEL SHOULDER

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99200 456-3600

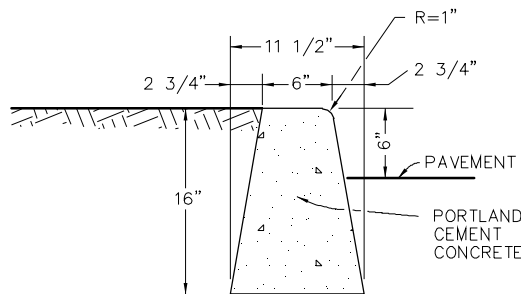
APPROVED:
COUNTY ENGINEER
DATE: 02/08/00



STANDARD
ROADWAY SECTION - SHOULDERS

SD-21.000

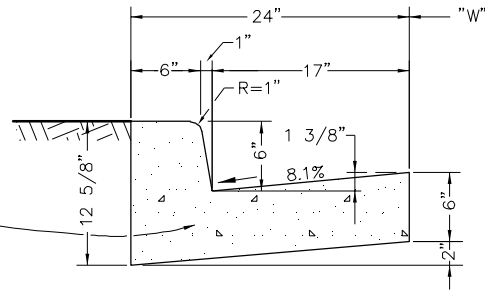
SHEET
A-2



TYPE "A"

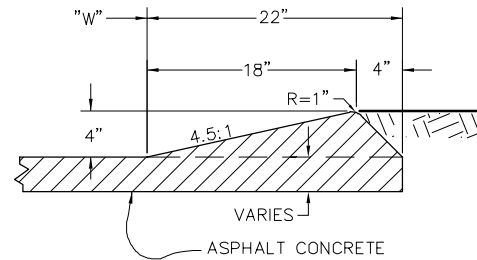
QUANTITY = 0.036025 C.Y. / L.F.

SEE NOTE 6



TYPE "B"

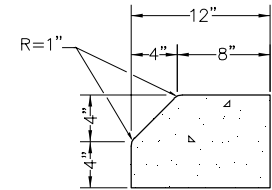
QUANTITY = 0.047657 C.Y. / L.F.



TYPE "C"

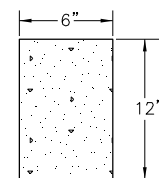
QUANTITY = 0.023123 TONS / L.F.

SEE NOTE 6



TYPE "M"

QUANTITY = 0.022633 C.Y. / L.F.

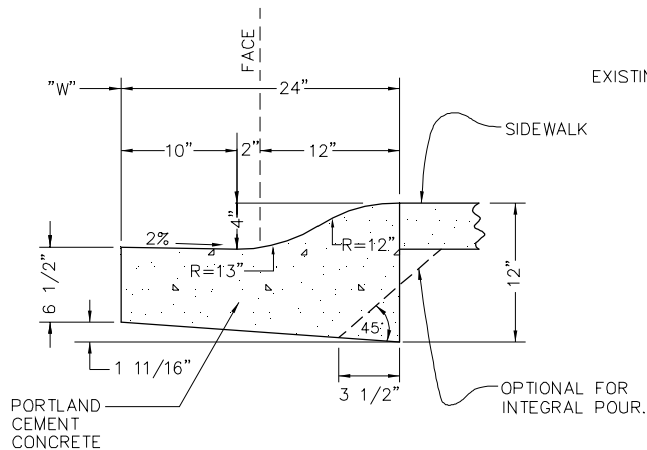


TYPE "S"

QUANTITY = 0.018519 C.Y. / L.F.

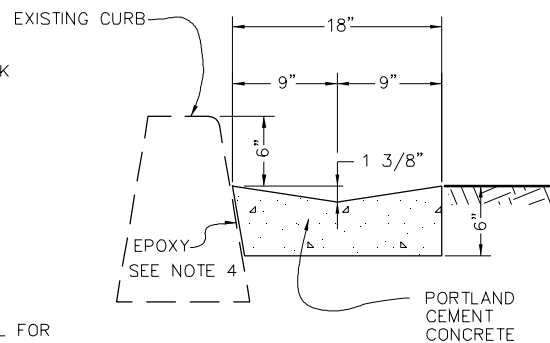
GENERAL NOTES

1. PORTLAND CEMENT CONCRETE SHALL BE CLASS 3000 CONFORMING TO THE STANDARD SPECIFICATIONS.
2. WEAKENED PLANE JOINTS FOR PORTLAND CEMENT CONCRETE SHALL BE PLACED AT 15' INTERVALS.
3. 3/8" EXPANSION JOINTS IN PORTLAND CEMENT CONCRETE SHALL BE PLACED AT CURB RETURNS.
4. EPOXY CEMENT SHALL BE APPLIED AT A 10-15 MIL THICKNESS AND SHALL CONFORM TO THE REQUIREMENTS OF SECTION 9-26 OF THE STANDARD SPECIFICATIONS.
5. THE FINISH SHALL BE STEEL TROWELLED TO PROVIDE A DENSE, SMOOTH REFLECTIVE FINISH.
6. TO BE USED ONLY IN SPECIAL CASES WITH APPROVAL OF THE COUNTY ENGINEER.
7. CURBS SHALL HAVE A LIGHT BROOMED FINISH. GUTTERS SHALL BE FINISHED WITH A STEEL TROWEL.



TYPE "R"

QUANTITY = 0.052259 C.Y. / L.F.



CONCRETE GUTTER

QUANTITY = 0.0244149 C.Y. / L.F.

3	5/00	CP	JSH	SDS	NOTE 5 AMENDED TO REMOVE TRINITY WHITE CEMENT
2	12/94	JB	GSN	RCH	"W" DIMENSION ADDED TO CURB SECTIONS.
1	1/93	JB	GSN	RCH	DIMENSION CORRECTION - TYPE "R" CURB
NO.	DATE	BY	CHKD.	APPR.	REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 477-3600

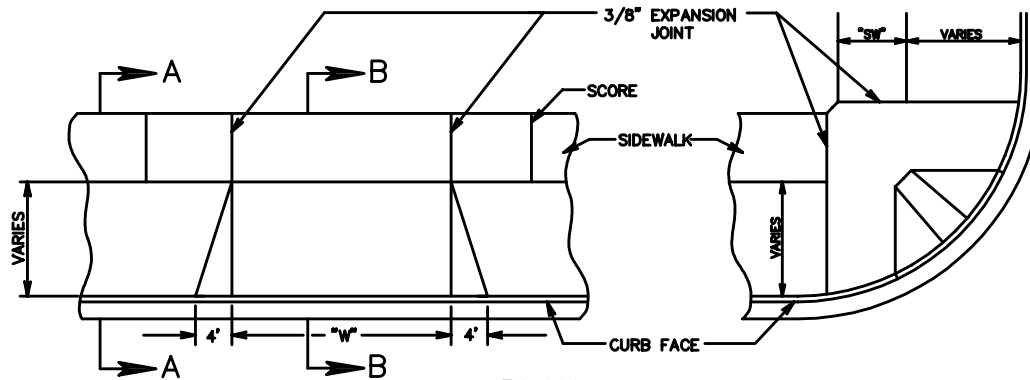
APPROVED:
COUNTY ENGINEER
DATE: _____



— STANDARD —
CURBS & GUTTERS

STD-A03.DWG

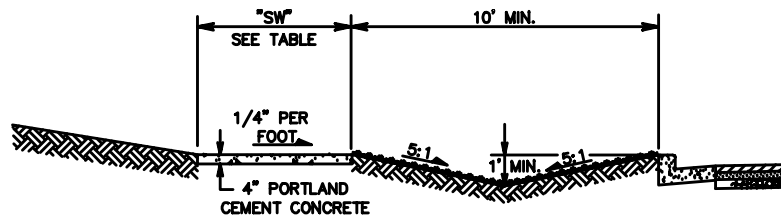
SHEET
A-3



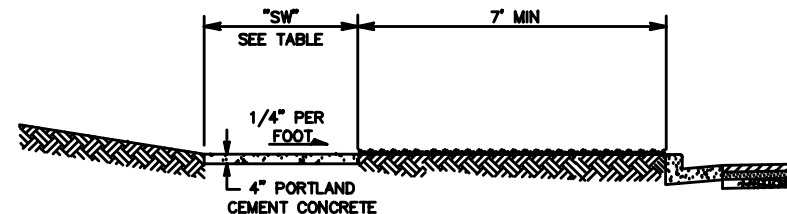
PLAN

GENERAL NOTES

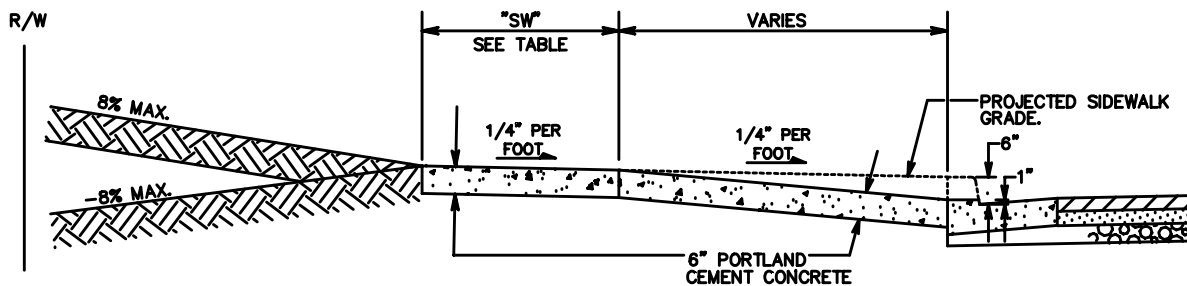
1. EXPANSION JOINT MATERIAL SHALL BE PLACED IN THE CENTER OF ALL DRIVEWAYS OVER 20' IN WIDTH.
2. EXPANSION JOINT REQUIRED IF POUR INCLUDES ADDITIONAL DRIVEWAY AREA.
3. CONCRETE FOR DRIVEWAYS SHALL BE CLASS 3000 AIR ENTRAINED.
4. ALL EXTERNAL EDGES TO BE TROWELLED WITH 1/4" RADIUS EDGER.
5. SIDEWALK TO BE SCORED EVERY 5'. 3/8" EXPANSION JOINT TO BE INSTALLED EACH SIDE OF A CURB RETURN AND AT LOCATIONS WHERE SIDEWALK INTERSECTS OTHER SIDEWALKS, DRIVEWAYS AND CURBS.
6. THE WIDTH OF COMMERCIAL DRIVEWAYS MAY BE WIDER THAN SHOWN, IF APPROVED BY THE COUNTY ENGINEER.
7. SEE SHEET A-5 (WHEEL CHAIR RAMPS)
8. SEE SHEET A-7 (CEMENT CONCRETE APPROACHES)



SECTION A-A
(DRAINAGE SWALE)



SECTION A-A
(PLANTER STRIP)



SECTION B-B

DIMENSION TABLE

TYPE	DISTANCES	
	MIN.	MAX.
COMM.	16'	40'
RES.	16'	30'

SIDEWALK

ROAD TYPE	WIDTH'S	
	"SW"	"W"
RESIDENTIAL ACCESS	5' MIN	
OTHER	6' MIN	

NO.	DATE	BY	CHKD.	APPR.	REVISION
1	12/93	JB	GLW	TRCH	REVISED SECTION B-B / NOTES 7 & 8

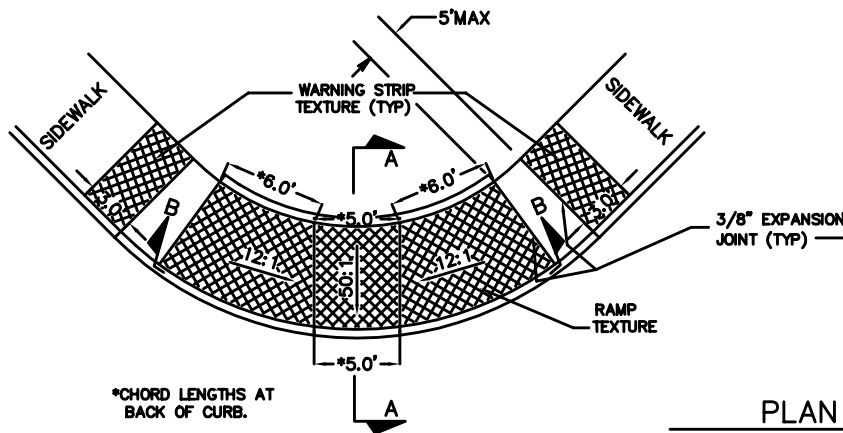
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99280 450-3600

APPROVED:
COUNTY ENGINEER
DATE: 12/18/93

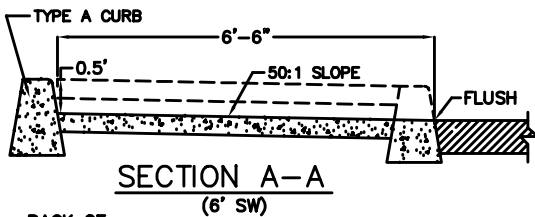


STANDARD
URBAN DRIVEWAYS - SEPARATED SIDEWALKS

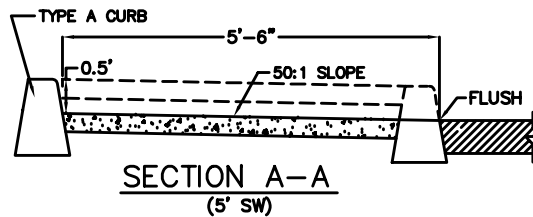
SHEET
A-4



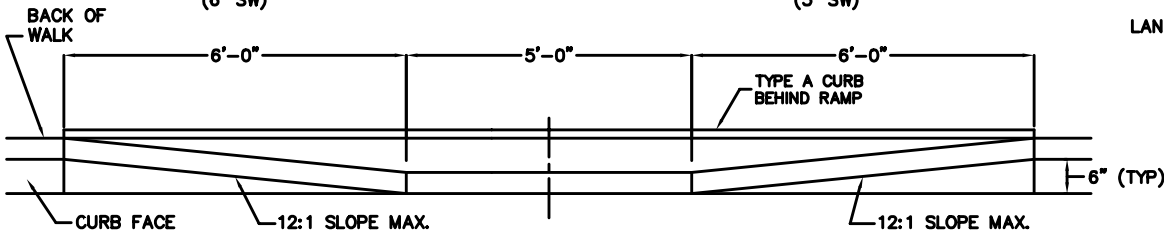
DESIGN "A"



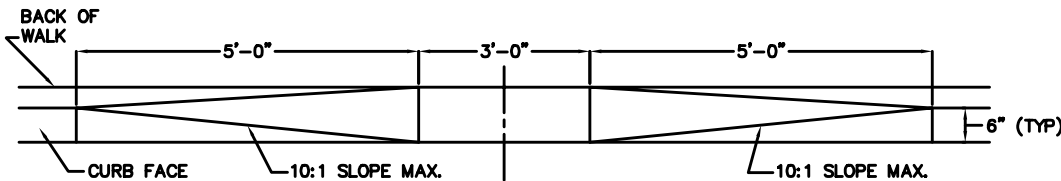
SECTION A-A
(6' SW)



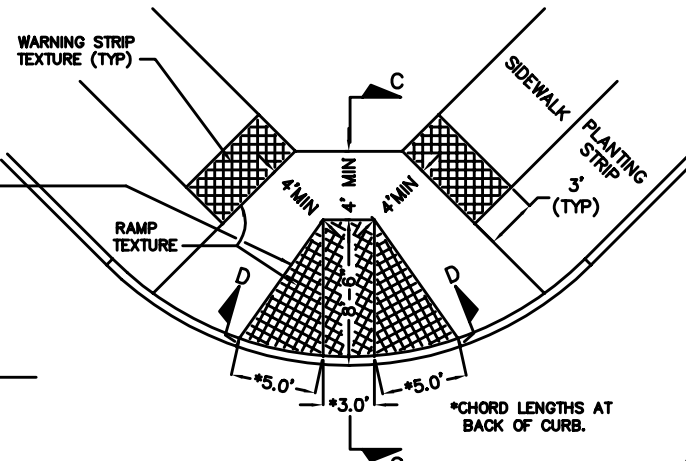
SECTION A-A
(5' SW)



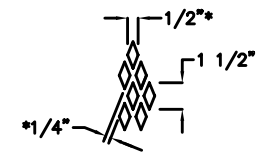
SECTION B-B



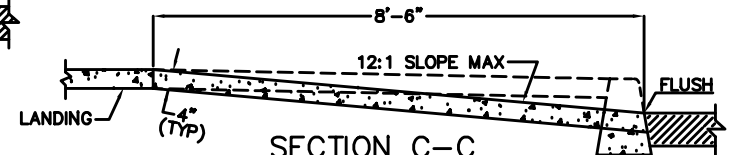
SECTION D-D



DESIGN "B"



RAMP TEXTURE
DETAIL
*NOMINAL DIMENSIONS



SECTION C-C
GENERAL NOTES

1. DRAINAGE INLETS SHALL BE OUTSIDE THE WHEELCHAIR RAMP.
2. RAMP TEXTURING IS TO BE DONE WITH AN EXPANDED METAL GRID PLACED AND REMOVED FROM WET CONCRETE TO LEAVE A DIAMOND PATTERN AS SHOWN. THE LONG AXIS OF THE DIAMOND PATTERN SHALL BE 1/8" DEEP AND 1/4" WIDE.
3. CURB RAMP DESIGN A OR B SHALL BE SPECIFIED IN THE CONTRACT PLANS OR SPECIAL PROVISIONS.
4. CURB RAMPS SHALL BE POURED INTEGRALLY WITH SIDEWALK AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES, EXCEPT AT THE SIDE ADJACENT TO THE ROADWAY.
5. WHERE CONSTRUCTED ON STRAIGHT CURB, DESIGN "A" DIMENSIONS REMAIN THE SAME AS SHOWN.
6. TOP OF CURB ELEVATIONS SHOWN ON PLANS ARE PROJECTED TOP OF CURB ELEVATIONS THROUGH CURB RAMP AREA.
7. PAYMENT FOR TYPE "A" CURB IS INCIDENTAL TO THE SIDEWALK PAY ITEM.



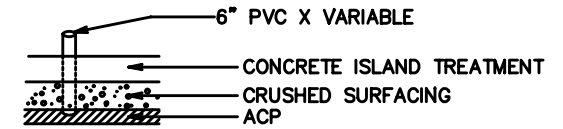
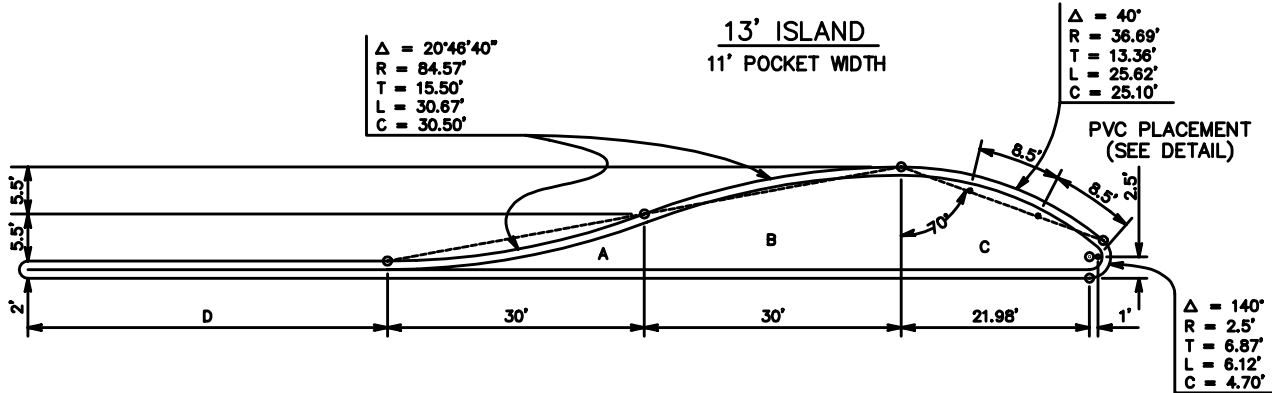
3	13/98	ICP	IKM	JAH	ADDED DIMENSION DESIGN A/SECTION C-C
2	13/98	ICP	IKM	JAH	ADDED NOTE 7 AMENDED NOTES 3,4
1	11/94	JB	GLW	IGSN	NEW WHEELCHAIR RAMP DESIGN A & B
NO. DATE BY CHKD. APPR.					REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99200 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

STANDARD
CURB RAMP

SHEET
A-5
PLOT DATE: 3/25/98

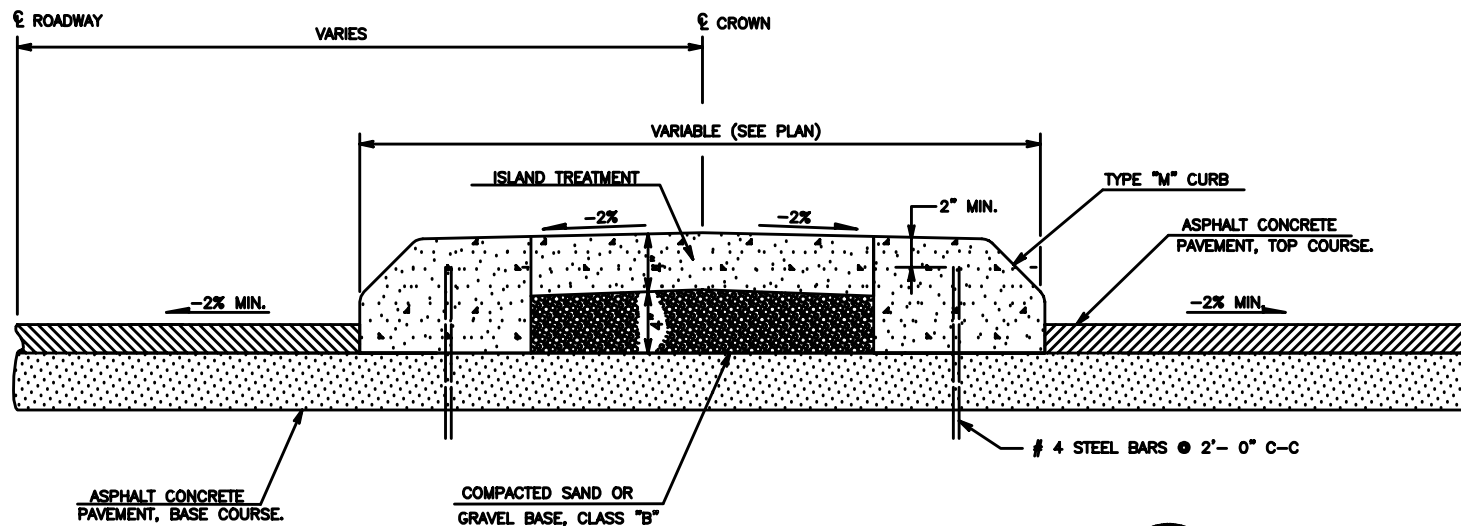


P.V.C. PLACEMENT DETAIL

AREA TABLE		A	B	C	TOTAL
TOTAL AREA	FT ²	114.27	335.74	244.73	694.74
CURB AREA	FT ²	58.71	62.63	52.14	173.48
TREATMENT AREA	FT ²	55.56	273.11	192.59	521.26
CURB(OUTER EDGE)	L.F.	60.67	60.67	53.72	175.06

GENERAL NOTES

- CONSTRUCTION OF ISLAND TREATMENT SHALL CONFORM TO SECTION 8-04 OF THE STANDARD SPECIFICATIONS
- EXPOSED CURB SURFACES SHALL BE STEEL TROWELLED TO PROVIDE A DENSE, SMOOTH, REFLECTIVE FINISH. THE CONCRETE SLAB SHALL HAVE A BROOMED FINISH.
- ISLAND NOSES SHALL BE DOWELED TO THE PAVEMENT IN AT LEAST TWO PLACES.
- "D" SHALL BE SHOWN ON CONST. PLANS.
- DEVIATION FROM THE STANDARD ISLAND DIMENSIONS MUST BE APPROVED BY THE TRAFFIC ENGINEER.



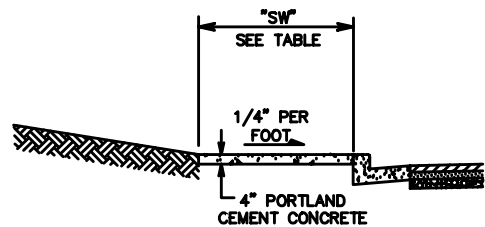
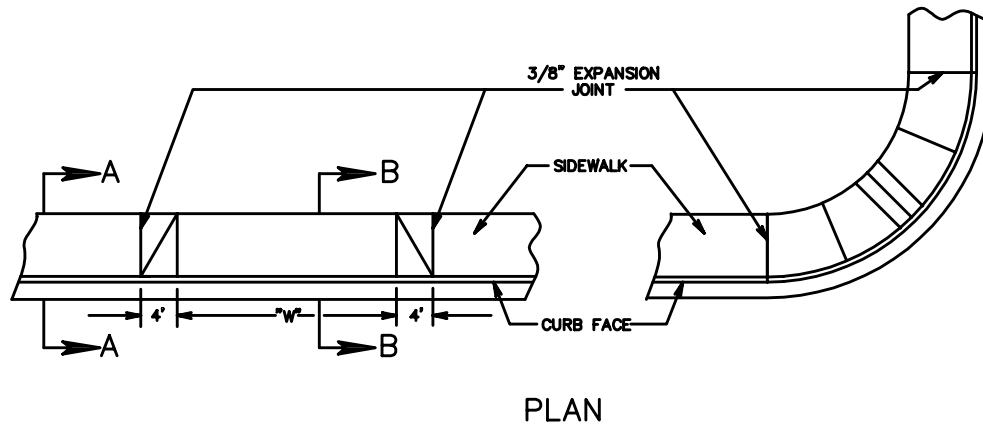
1	3/98	CP/KGM	JSH	AMENDED NOTE 1
NO.	DATE	BY	CHKD.	APPR.

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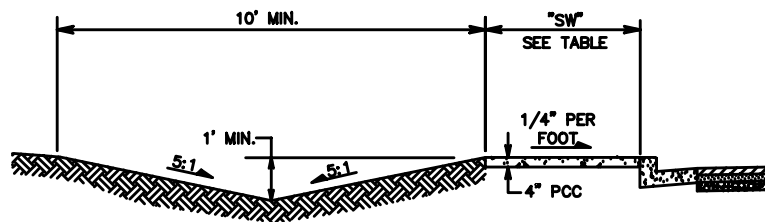
APPROVED:
COUNTY ENGINEER
DATE: _____

STANDARD
TRAFFIC ISLAND

SHEET
A-6



SECTION A-A



SECTION A-A
(DRAINAGE SWALE)

DIMENSION TABLE

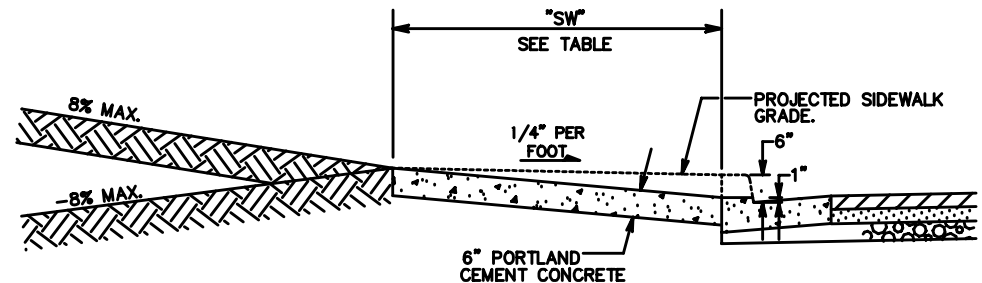
TYPE	DISTANCES	
	MIN.	MAX.
COMM.	16'	40'
RES.	16'	30'

SIDEWALK

ROAD TYPE	WIDTH'S	
	MIN.	MAX.
RESIDENTIAL ACCESS	5'	MIN
OTHER	6'	MIN

GENERAL NOTES

1. EXPANSION JOINT MATERIAL SHALL BE PLACED IN THE CENTER OF ALL DRIVEWAY APPROACHES OVER 20' IN WIDTH.
2. EXPANSION JOINT REQUIRED IF POUR INCLUDES ADDITIONAL DRIVEWAY AREA.
3. CONCRETE FOR DRIVEWAYS SHALL BE CLASS 3000 AIR ENTRAINED.
4. ALL EXTERNAL EDGES TO BE TROWELLED WITH 1/4" RADIUS EDGER.
5. SIDEWALK TO BE SCORED EVERY 5'.
3/8" EXPANSION JOINT TO BE INSTALLED EACH SIDE OF A CURB RETURN AND AT LOCATIONS WHERE SIDEWALK INTERSECTS OTHER SIDEWALKS, DRIVEWAYS AND CURBS.
6. THE COUNTY ENGINEER MAY REQUIRE A WIDER SIDEWALK THAN MINIMUM, WHERE PEDESTRIAN TRAFFIC VOLUMES INDICATE IT IS WARRANTED.
7. SEE SHEET A-5. (WHEEL CHAIR RAMPS)
8. CEMENT CONCRETE APPROACHES SHALL BE CONSTRUCTED AT ALL CURB DROP LOCATIONS TO INSURE STORMWATER FLOW ALONG GUTTER LINE REGARDLESS OF SIDEWALK CONSTRUCTION.



SECTION B-B

2	3/98	CP	KGM	JSH	AMENDED NOTE 1
1	12/94	JB	GLW	TRCH	REVISED SECTION B-B / NOTES 7 & 8
NO. DATE BY CHKD. T APPR.					REVISION

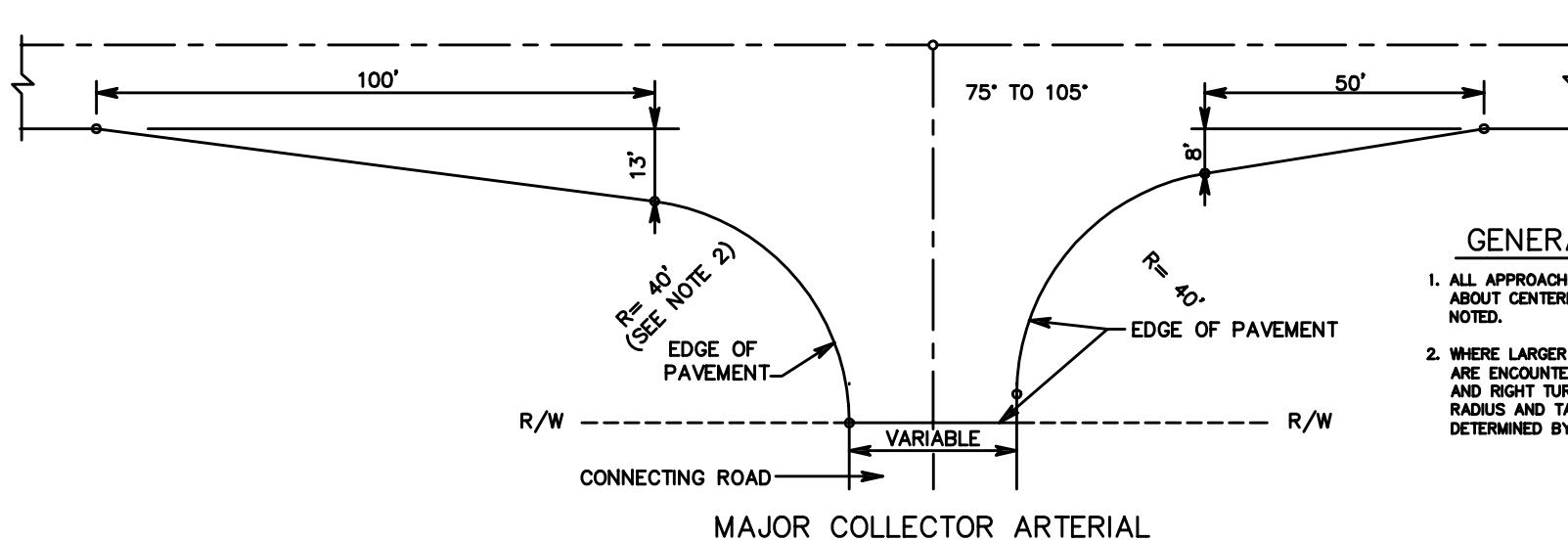
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____



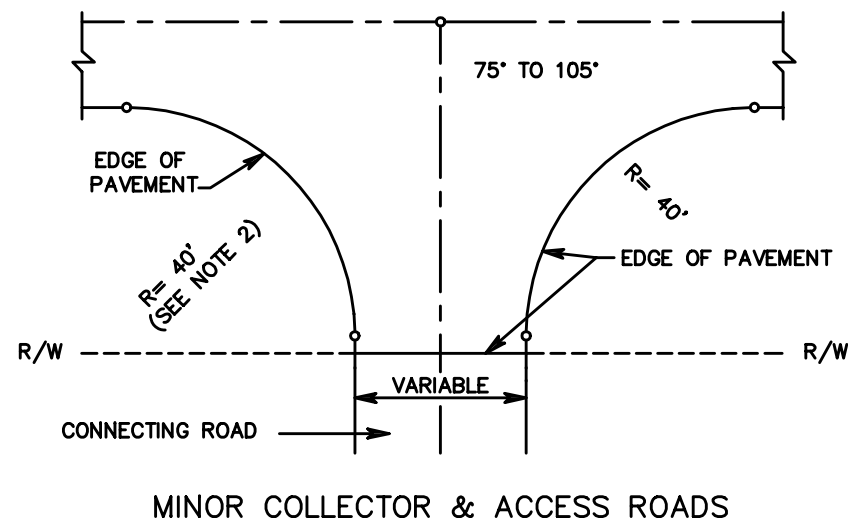
STANDARD
CEMENT CONCRETE APPROACHES

SHEET
A-7



GENERAL NOTES

1. ALL APPROACHES ARE SYMMETRICAL ABOUT CENTERLINE UNLESS OTHERWISE NOTED.
2. WHERE LARGER TRUCK TURNING MOVEMENTS ARE ENCOUNTERED LARGER RETURN RADII AND RIGHT TURN TAPERS MAY BE REQUIRED. RADIUS AND TAPERS SHALL BE DETERMINED BY THE COUNTY ENGINEER.



1	3/98	CP	JSH	JSH	REMOVED RURAL DRIVEWAY AND NOTE
NO.	DATE	BY	CHKD.	APPR.	REVISION

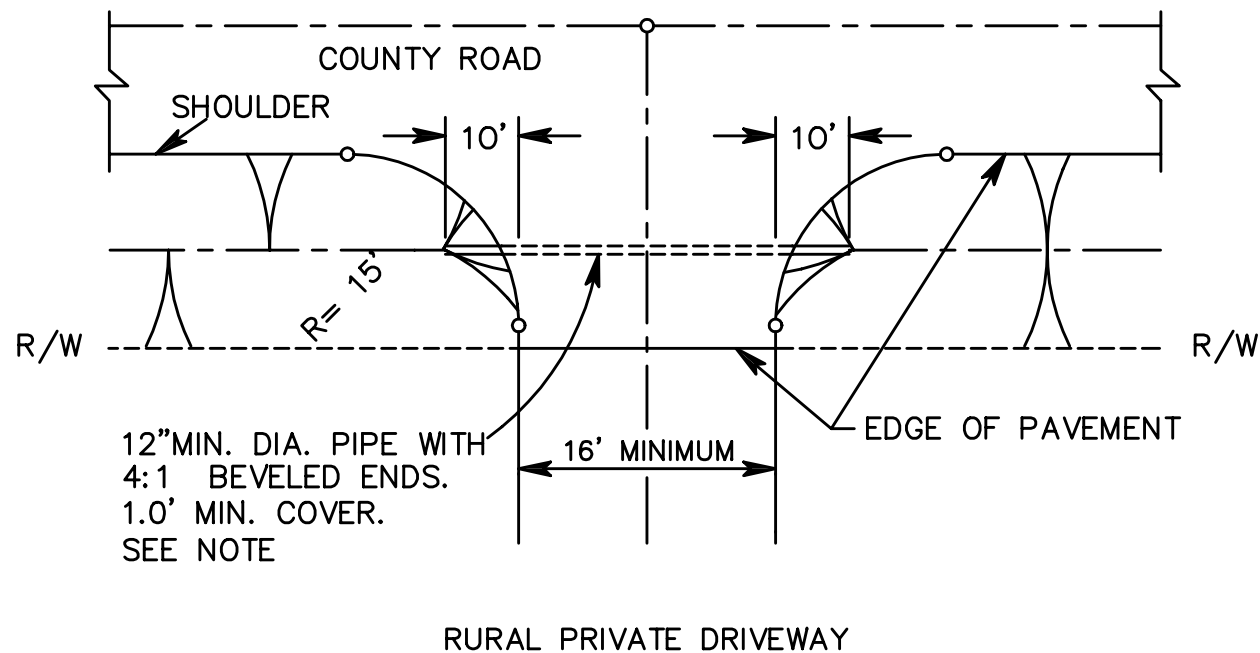
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99206 456-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

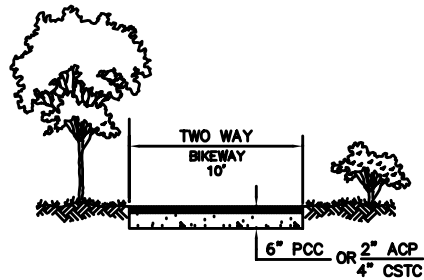


STANDARD
RURAL ROAD APPROACHES

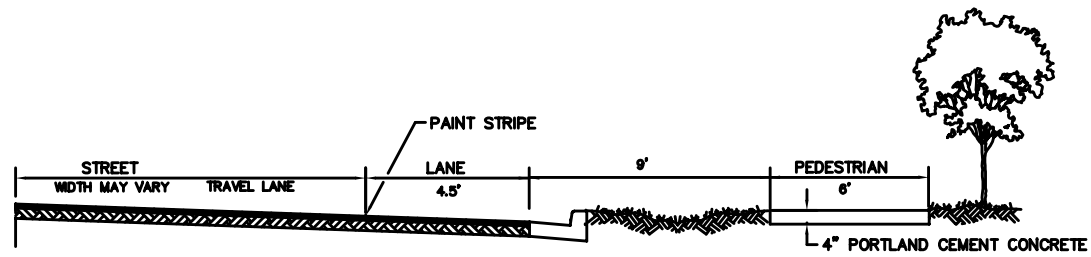
SHEET
A-8



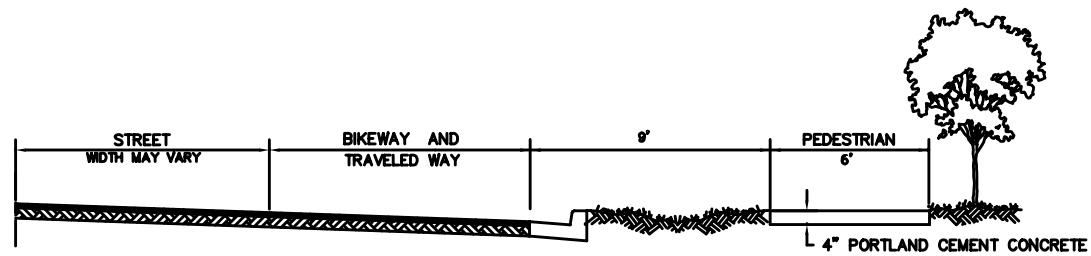
THE DRAINAGE PIPE SHALL HAVE A MINIMUM DIAMETER OF 12 ". LARGER PIPES MAY BE REQUIRED BY THE COUNTY ENGINEER WHERE LARGER FLOWS OCCUR



SHARED USE PATHWAY



BIKE LANE



BIKE ROUTE

NOTE: SIGNING FOR BIKEWAYS
SHALL BE CONSISTENT WITH
THE MANUAL OF UNIFORM
TRAFFIC CONTROL DEVICES



2.	2/98	CP	SDS	JSH	
1.	1/95	FP	GLW	ICSN	
	NO.	DATE	BY	CHKD.	APP.

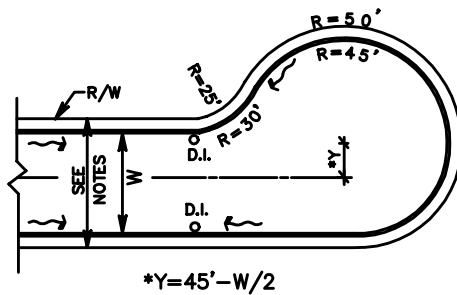
NOTE FOR SIGNING
SEPARATED PATHS
REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE:

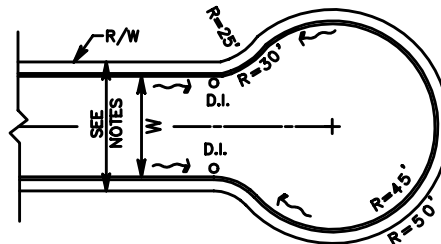
STANDARD
BIKE WAYS & PEDESTRIAN PATHS

SHEET
A-9

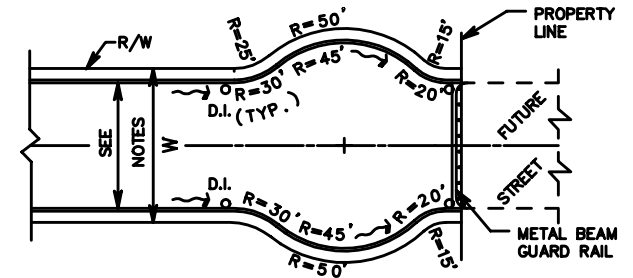


$$*Y = 45' - W/2$$

OFFSET CUL-DE-SAC



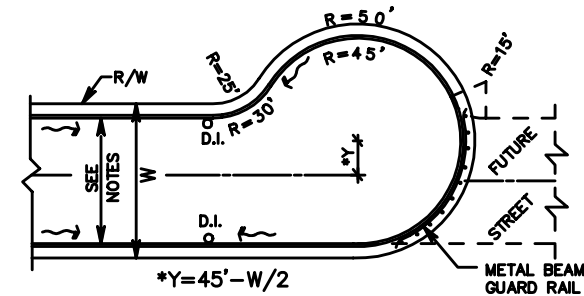
FULL CUL-DE-SAC



TEMPORARY FULL CUL-DE-SAC

GENERAL NOTES

1. THE DRAINAGE INLETS (D.I.) SHOWN ON THIS SHEET ARE REQUIRED ONLY WHEN THE STREET SLOPES TOWARD THE CUL-DE-SAC.
2. THE WIDTH OF RIGHT-OF- WAY AND THE CURB TO CURB STREET DIMENSIONS SHALL BE SPECIFIED BY THE COUNTY ENGINEERS OFFICE.
3. MINIMUM CURB GRADES ON CUL-DE-SACS SHALL BE 1%.
4. TEMPORARY CUL-DE-SAC WILL BE MARKED BY INSTALLATION OF GUARD RAIL OR OTHER PHYSICAL BARRIER AS APPROVED BY THE COUNTY ENGINEER WITH "END OF ROADWAY", SIGN W16-1.



TEMPORARY OFFSET CUL-DE-SAC

1	12/1/97	CP	JSH	WAJ	
NO.	DATE	BY	CHKD.	APPR.	

DRAWING TITLE
REVISION

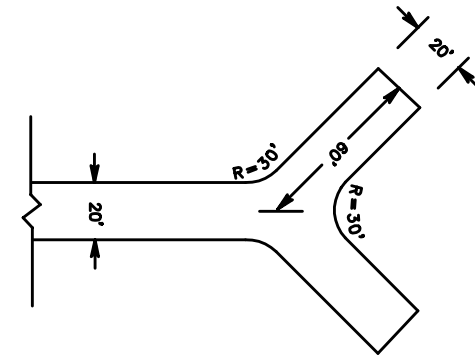
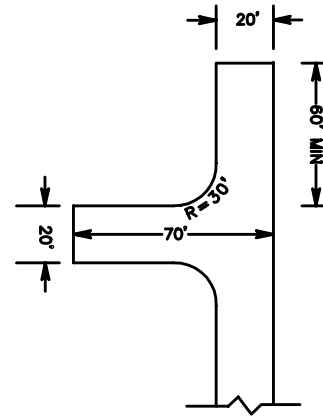
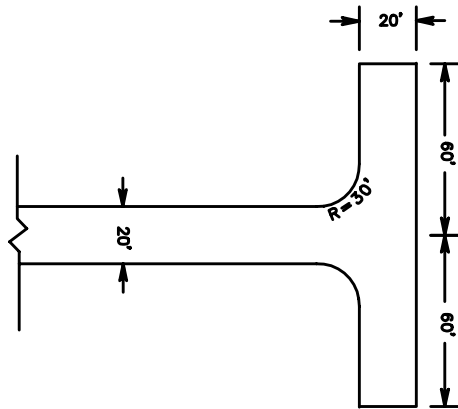
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE:



STANDARD
CUL-DE-SACS-PUBLIC ROADS

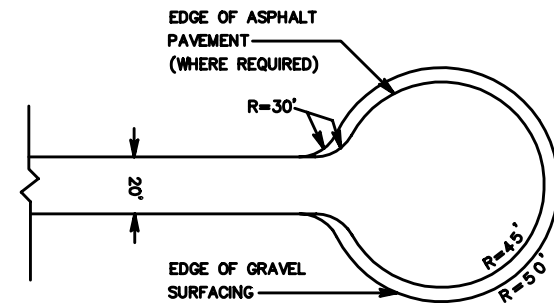
SHEET
A-10



ALTERNATE TURN-AROUNDS

NOTE

ALTERNATE TURN-AROUNDS MAY BE USED WHEN THE TERRAIN PRECLUDES THE USE OF STANDARD CUL-DE-SAC



STANDARD CUL-DE-SAC

NO.	DATE	BY	CHKD.	APPR.	REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99206 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

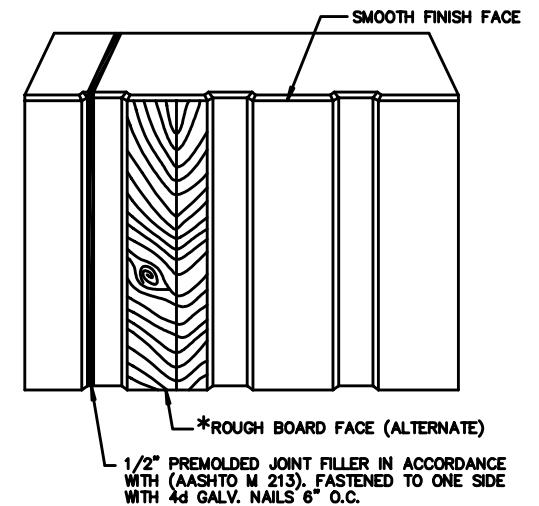
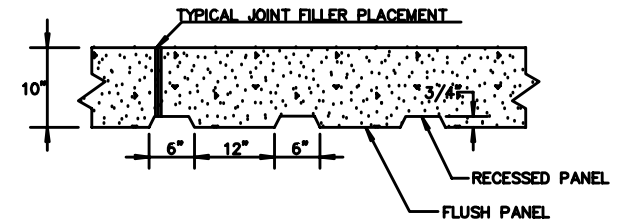
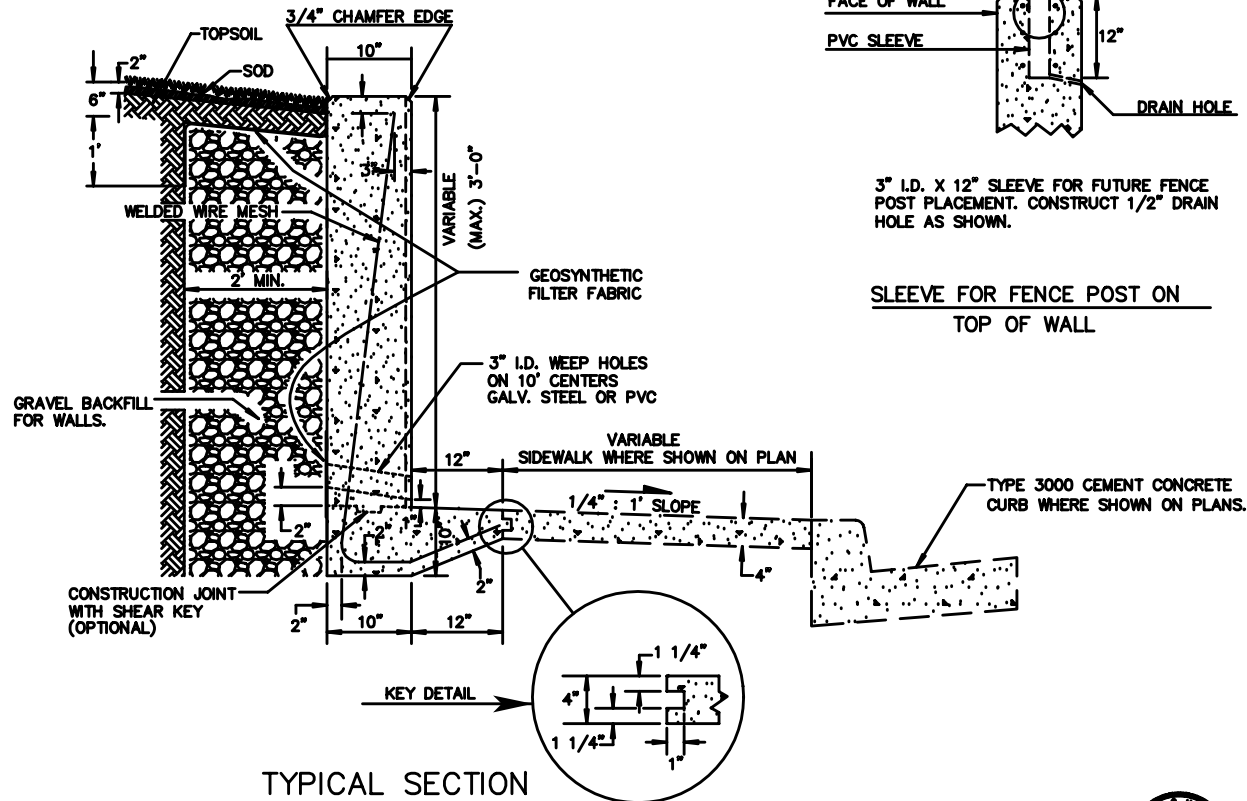


STANDARD
CUL-DE-SACS-PRIVATE ROADS

SHEET
A-10a

GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS 3000.
2. 1/2" PREMOLDED JOINT FILLER IN WALL AT MAXIMUM 25' CENTERS. JOINT SHALL OCCUR AT PANEL EDGE AND CONTINUE TRANSVERSELY THROUGH SIDEWALK.
3. REINFORCING SHALL BE A CURTAIN OF 4"x4" - W4/W4 WELDED WIRE MESH.
4. CLASS 1 SURFACE TREATMENT ON ALL EXPOSED WALL SURFACES.
5. ALL BACKFILL BEHIND WALL SHALL BE FREE DRAINING GRANULAR MATERIAL.
6. SLEEVES FOR FENCE POSTS SHALL BE CENTERED AS DIRECTED BY THE ENGINEER.
7. THIS WALL IS DESIGNED TO BE USED WITH A LEVEL BACKFILL AND NO SURCHARGE.



ALTERNATE FACE TREATMENT TO BE CONSTRUCTED WHERE DESIGNATED IN SPECIAL PROVISIONS.

* ROUGH BOARD FORM—FINISHED SURFACE OF FLUSH PANEL IS TO SIMULATE THE GRAIN OF ROUGH BOARDS. USE FORM LINER.

1	6/94	JB	GSN	IRCH	NOTE #7, FILTER BLANKET & REBAR DETAIL
NO.	DATE	BY	CHKD.	APPR.	REVISION

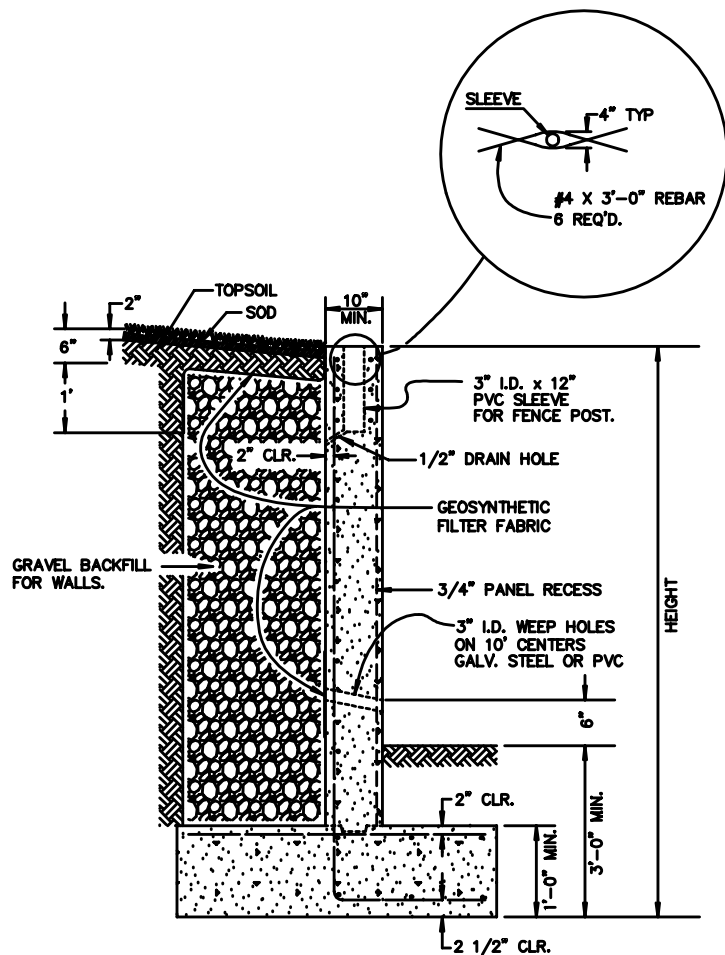
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____



== STANDARD ==
SIDEWALK RETAINING WALL

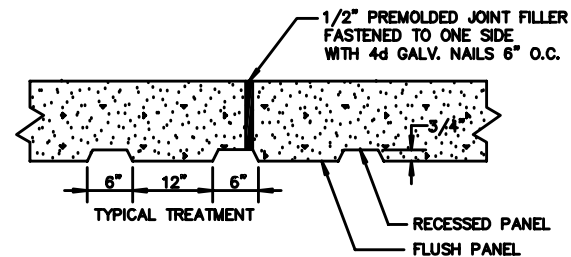
SHEET
A-11



TYPICAL SECTION

GENERAL NOTES

1. ALL CONCRETE CLASS 4000.
2. ALL EDGES TO BE 3/4" CHAMFER.
3. CONCRETE THICKNESS, STRUCTURAL DETAILS, SIZE AND NUMBER OF REINFORCEMENT SHALL BE DETERMINED BY ENGINEER.
4. 1/2" PREMOLDED JOINT FILLER IN WALL AT MAXIMUM 25' CENTERS. JOINT SHALL OCCUR AT PANEL EDGE AND CONTINUE TRANSVERSELY THROUGH SIDEWALK.



FACE TREATMENT ON WALL

NO.	DATE	BY	CHKD.	APPR.	REVISION
1	6/94	JB	GSN	RCH	FILTER BALNKET & REBAR BENDING DETAIL

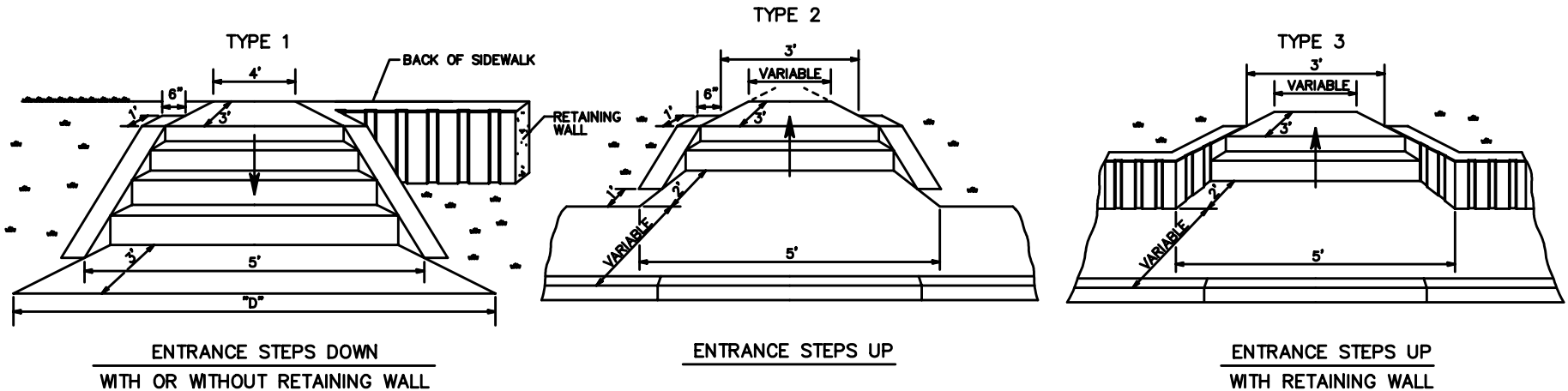
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99280 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

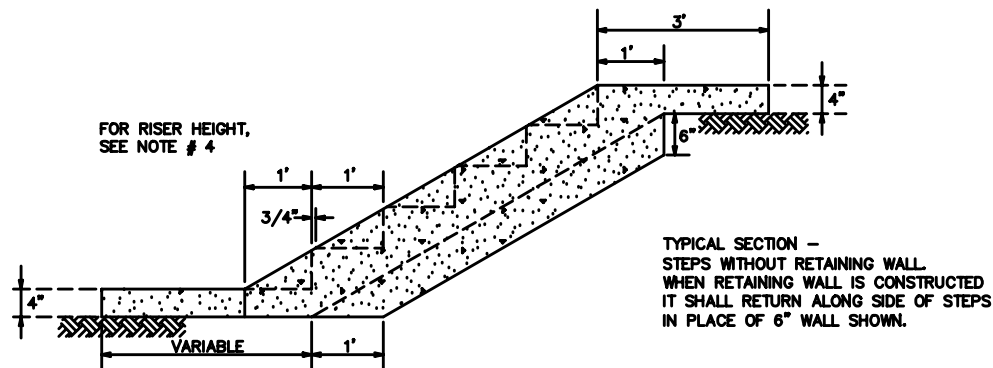


STANDARD
RETAINING WALL

SHEET
A-12



NOTE : WIDTH "D" THIS IS VARIABLE TO MEET THE WIDTH OF THE ENTRANCE WALK TO BE JOINED. IF NO WALK EXISTS THIS WIDTH IS TO BE 5 FEET.



GENERAL NOTES

1. PORTLAND CEMENT CONCRETE SHALL BE CLASS 3000 CONFORMING TO THE STANDARD SPECIFICATIONS.
2. ALL EXPOSED EDGES TO BE FINISHED WITH 3/4" RADIUS.
3. TREADS SHALL PITCH DOWN AND OUT 1/4" AND SHALL NOT TRAP WATER.
4. RISERS SHALL HAVE A MINIMUM 5" AND MAXIMUM 8" HEIGHT AND ALL SHALL BE EQUAL AT ANY ONE LOCATION.
5. NUMBER OF STEPS WILL VARY TO MEET THE GRADE OF PROPERTY BEING SERVED.
6. VARIATIONS IN DIMENSIONS MAY BE MADE ON SITE BY THE ENGINEER TO SATISFY PARTICULAR CONDITIONS.

NO.	DATE	BY	CHKD.	APPR.	REVISION

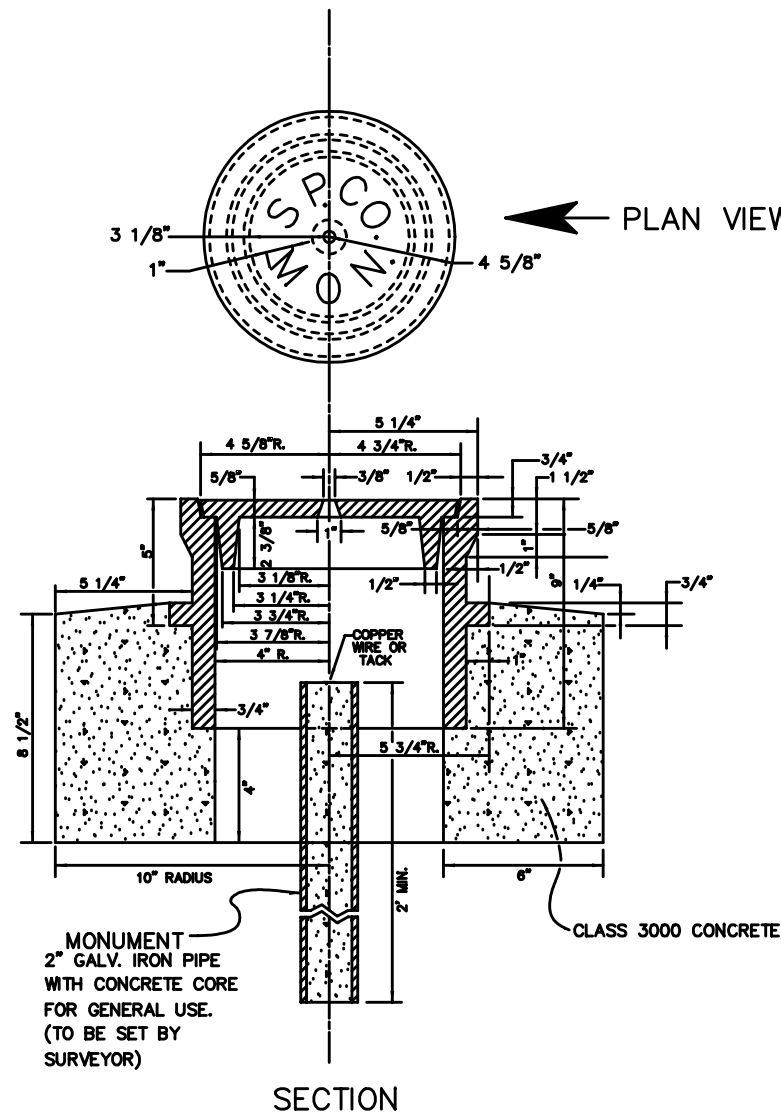
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____



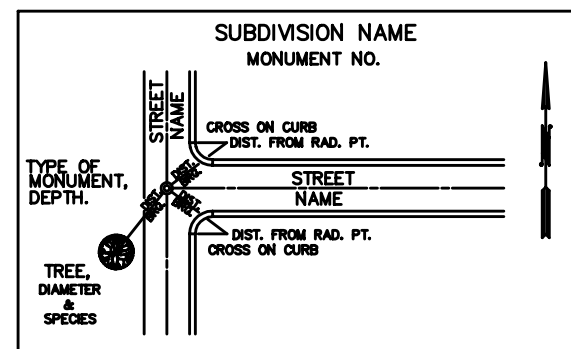
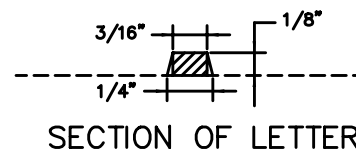
== STANDARD ==
ENTRANCE STEPS TO ABUTTING PROPERTIES

SHEET
A-13



GENERAL NOTES

1. THE CASTINGS SHALL BE GREY IRON CASTINGS, AASHTO DESIGNATION M-105, CLASS 30B. THE COVER AND SEAT SHALL BE MACHINED SO AS TO HAVE CONTACT AROUND THE ENTIRE CIRCUMFERENCE AND FULL WIDTH OF BEARING SURFACE.
2. WHEN THE MONUMENT CASE AND COVER ARE PLACED IN CEMENT CONCRETE PAVEMENT THE CONCRETE BASE IS NOT NEEDED.
3. A RECORD OF REFERENCES TO SURVEY POINTS SHALL BE SUBMITTED TO THE COUNTY ENGINEERS OFFICE AS SHOWN ON SAMPLE.



1	3/98	CP/KGM	JSH	
NO.	DATE	BY	CHKD.	APPR.

AMENDED NOTE 1
REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

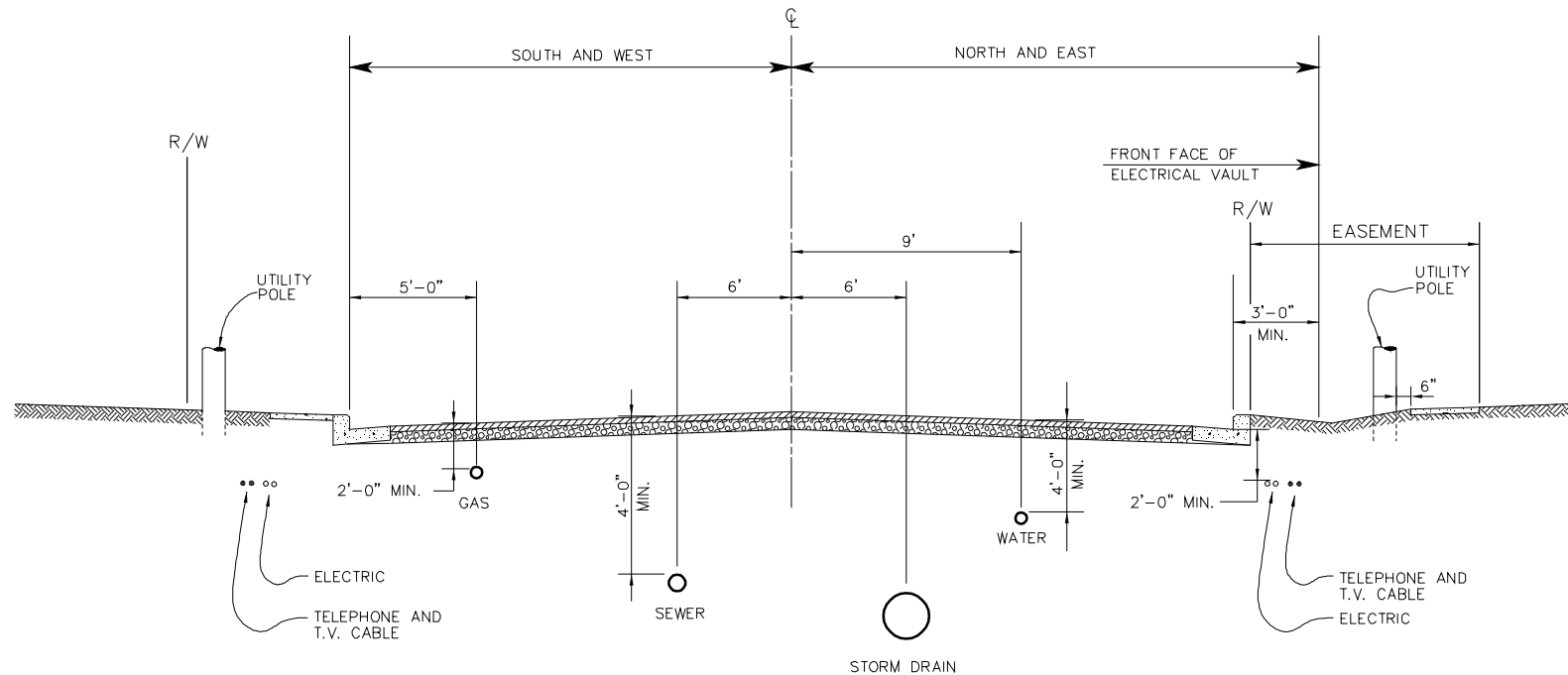


STANDARD
MONUMENT CASE & COVER

SHEET
A-14

GENERAL NOTES

1. THIS PLAN SHOWS NORMAL LOCATIONS FOR ALL UTILITY INSTALLATIONS.
2. LOCATIONS OF EXISTING UTILITIES MUST BE FIELD LOCATED WITH THEIR RESPECTIVE OWNERS BEFORE MAKING NEW CONNECTIONS.
3. TELEPHONE PEDESTAL SHALL BE LOCATED JUST INSIDE R/W LINE.



2	12/99	CP	JSH	WAJ	CHANGED TITLE TO CURBED ROAD
1	5/94	JB	JSH	RCH	R/W & UTILITY POLE LOCATION @ SWALE SIDE
NO.	DATE	BY	CHKD.	APPR.	REVISION

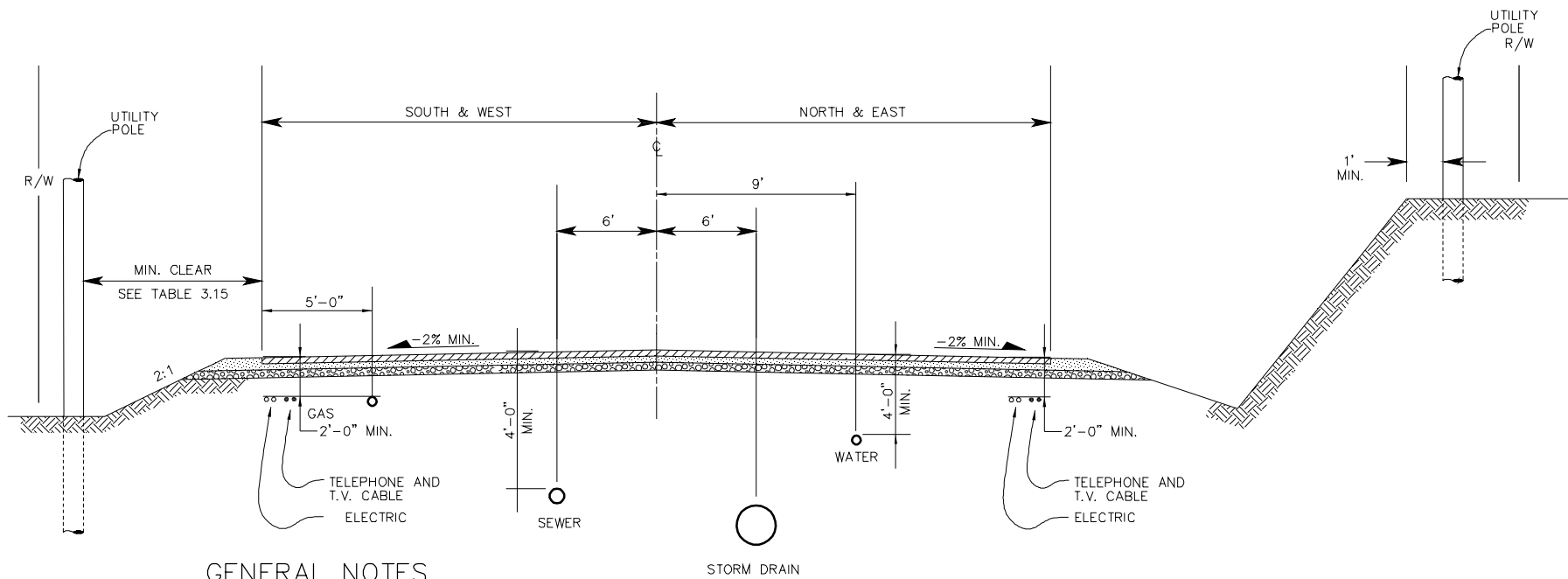
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 477-3600

APPROVED:
COUNTY ENGINEER
DATE: _____



— STANDARD —
UTILITY LOCATIONS - CURBED ROAD

SPO-A15.DWG
SHEET
A-15



GENERAL NOTES

1. THIS PLAN SHOWS NORMAL LOCATIONS FOR ALL UTILITY INSTALLATIONS.
2. LOCATIONS OF EXISTING UTILITIES MUST BE FIELD LOCATED WITH THEIR RESPECTIVE OWNERS BEFORE MAKING NEW CONNECTIONS.
3. TELEPHONE PEDESTAL SHALL BE LOCATED JUST INSIDE R/W LINE.

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 456-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

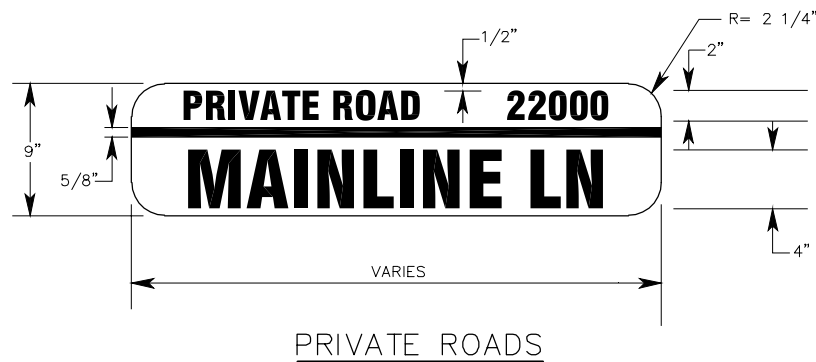
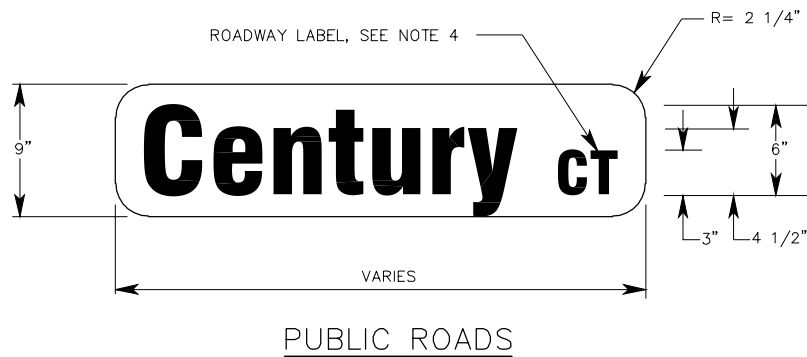
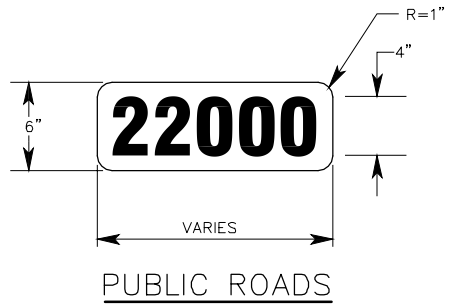


STANDARD
UTILITY LOCATIONS - SHOULDERED ROAD

SPD-A15a.DWG

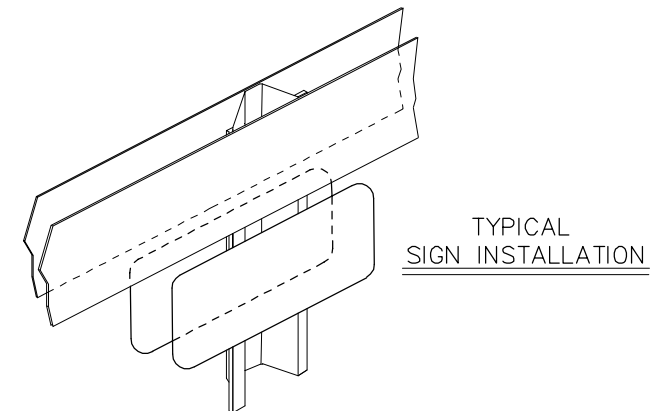
SHEET
A-15a

NO.	DATE	BY	CHKD.	APPR.	REVISION



GENERAL NOTES

1. SIGNS SHALL MEET SPECIFICATIONS FOR FLAT PLATE ALUMINUM, 0.08" THICK, ALODINE 1200 OR EQUAL.
2. THE SIGN SURFACE SHALL BE WHITE LETTERS ON A GREEN BACKGROUND. WHITE LETTERS AND GREEN BACKGROUND SHALL BE ENGINEER GRADE RETROREFLECTIVE SHEETING
3. LETTERS SHALL BE A BLOCK TYPE FONT.
4. THE ROADWAY LABEL MAY BE OMITTED FOR "STREET", "ROAD", AND "AVENUE". ALL OTHER ROADWAYS SHALL INCLUDE THE ABBREVIATED LABEL (I.E. - COURT - CT. DRIVE - DR. ETC.) ROADWAY LABEL SHALL BE UPPER CASE
5. SIGN INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF THE M.U.T.C.D.



3	3/98	CP	KGM	JSH	REDESIGN SIGNS
2	3/98	CP	KGM	JSH	ELIMINATE RURAL DESIGNATION
1	3/98	CP	KGM	JSH	AMEND NOTES 2,3,4 ADD NOTE 5
NO.	DATE	BY	CHKD.	APPR.	REVISION

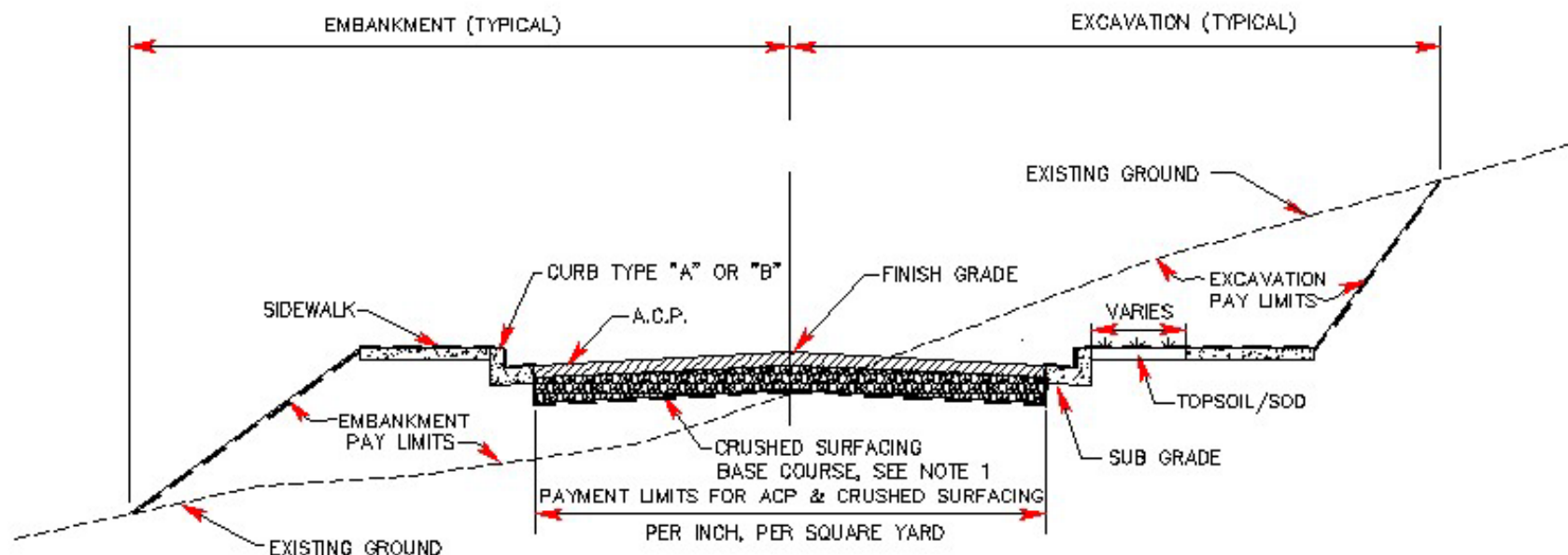
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 477-3600

APPROVED:
COUNTY ENGINEER
DATE: _____



STANDARD
STREET NAME SIGNS

STD-A16.DWG
SHEET
A-16



STANDARD BID ITEMS:

ASPHALT CONCRETE PAVEMENT CL. ___ - ___' DEPTH, PER SQ.YD.
 CRUSHED SURFACING BASE COURSE- PER CUBIC YD.
 CRUSHED SURFACING TOP COURSE- PER CUBIC YD.
 CEMENT CONCRETE SIDEWALK, PER SQ. YD.
 CEMENT CONCRETE CURB TYPE __, PER LF.
 ROADWAY EXCAVATION INCL. HAUL, PER C.Y.
 EMBANKMENT COMPACTION, PER C.Y.
 TOPSOIL TYPE A, PER C.Y.
 SOD INSTALLATION, PER SQ.YD.

GENERAL NOTES

1. IF MEASURED BY C.Y. MEASUREMENT WILL BE MADE COMPACTED IN PLACE AS PER TYPICAL SECTION.

NO.	DATE	BY	CHKD.	APPR.	REVISION

SPOKANE COUNTY
 DEPARTMENT OF PUBLIC WORKS
 SPOKANE, WA. 99201 477-3600

APPROVED:
 COUNTY ENGINEER
 DATE: _____

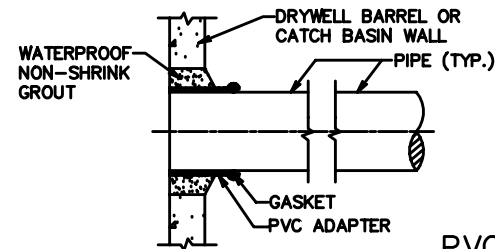


— STANDARD —
 ROADWAY CONSTRUCTION PAYMENT LIMITS

370-1078
 SHEET
 A-18

GENERAL NOTES

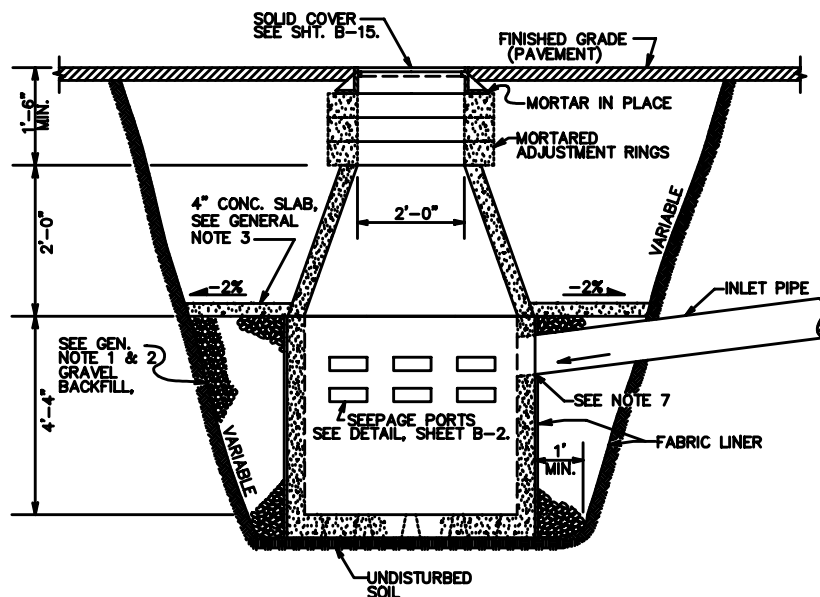
- △ 1. GRAVEL BACKFILL QUANTITY FOR DRYWELLS :
TYPE "A" - 30 CUBIC YARDS MINIMUM / 42 TONS.
TYPE "B" - 40 CUBIC YARDS MINIMUM / 56 TONS.
OR AS SPECIFIED ON ROAD PLANS.
- △ 2. SPECIAL BACKFILL MATERIAL FOR DRYWELLS SHALL CONSIST OF WASHED GRAVEL GRADED FROM 1" TO 3" WITH A MAXIMUM OF 5% PASSING THE U.S. No. 200 SCREEN, AS MEASURED BY WEIGHT. A MAXIMUM OF 10% OF THE AGGREGATE, AS MEASURED BY WEIGHT, MAY BE CRUSHED OR FRACTURED ROCK. THE REMAINING 90% SHALL BE NATURALLY OCCURRING UNFRACTURED MATERIAL.
3. CONCRETE SLAB SHALL BE CLASS 3000 CONCRETE.
4. SEE STANDARD PLANS SHEETS B-2 AND B-3 FOR PRECAST CONCRETE DETAILS.
5. ADJUSTMENT BLOCKS SHALL BE CEMENT CONCRETE.
6. PRECAST RISER MAY BE USED IN COMBINATION WITH OR IN LIEU OF ADJUSTING BLOCKS.
7. WHEN PVC PIPE IS USED A PVC ADAPTER SHALL BE INSTALLED.
8. PIPES SHALL BE GROUTED INTO DRYWELLS.



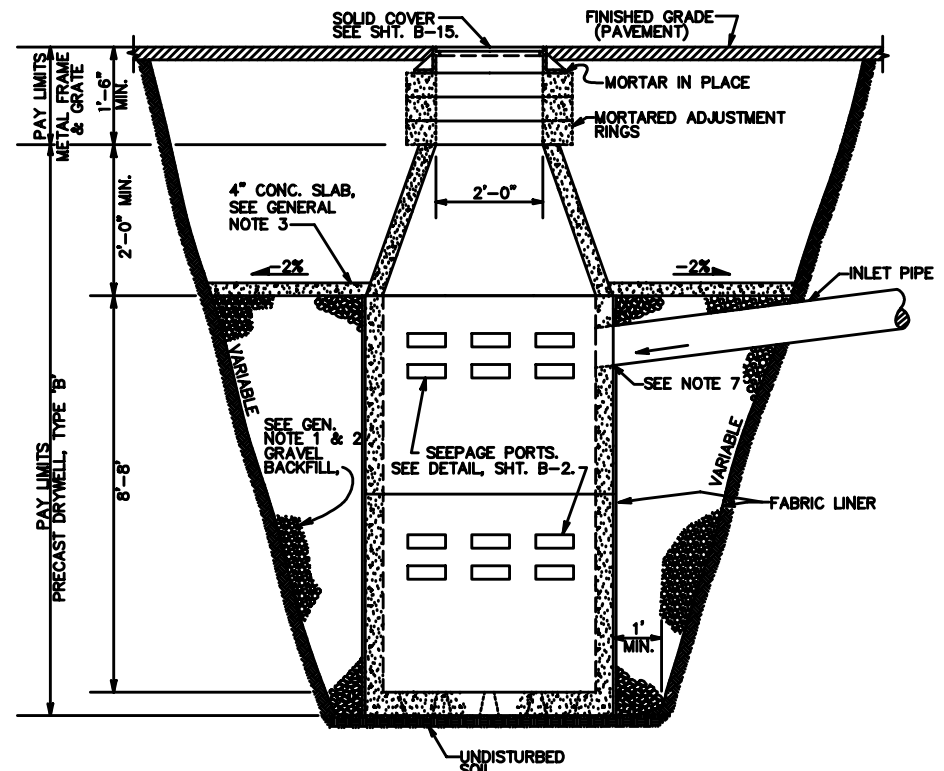
NOTE:

PVC PIPE ADAPTERS AND GASKET MAY VARY IN SHAPE AND SIZE AS ILLUSTRATED IN DETAIL BY ACCEPTABLE ALTERNATE IN ACCORDANCE WITH A.S.T.M.-C-428.

PVC ADAPTER (SAND COLLAR)



DRYWELL - TYPE 'A'



DRYWELL - TYPE 'B'

9/93	JB	CSN	TRCH	SPECIAL BACKFILL NOTE ADDED
5/93	JB	CSN	TRCH	CHANGED GRAVEL BACKFILL QUANTITIES
NO.	DATE	BY	CHKD.	APPR.

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

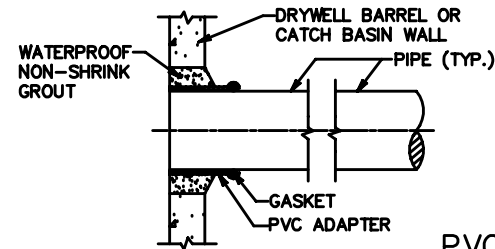


STANDARD
PRECAST DRYWELLS

SHEET
B-1

GENERAL NOTES

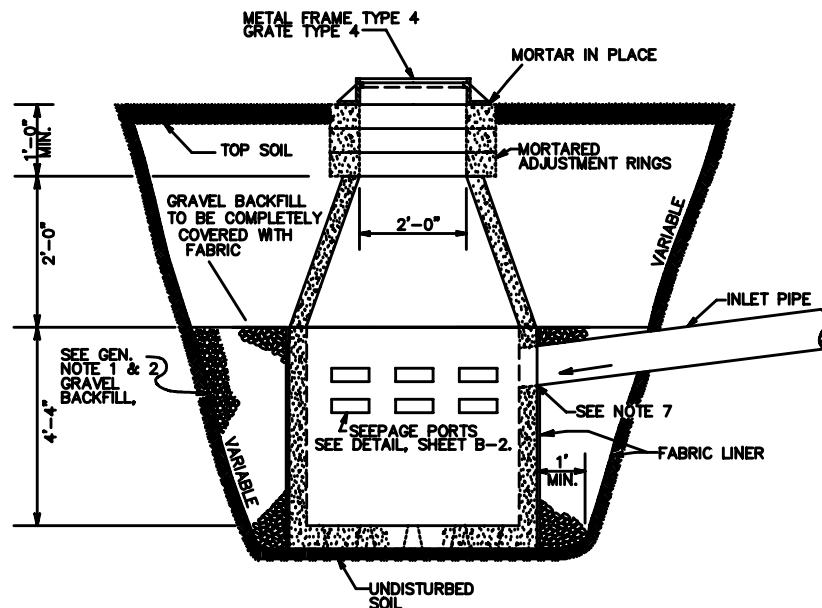
1. GRAVEL BACKFILL QUANTITY FOR DRYWELLS :
TYPE "A" - 30 CUBIC YARDS MINIMUM / 42 TONS.
TYPE "B" - 40 CUBIC YARDS MINIMUM / 56 TONS.
OR AS SPECIFIED ON ROAD PLANS.
2. SPECIAL BACKFILL MATERIAL FOR DRYWELLS SHALL CONSIST OF WASHED GRAVEL GRADED FROM 1" TO 3" WITH A MAXIMUM OF 5% PASSING THE U.S. No. 200 SCREEN, AS MEASURED BY WEIGHT. A MAXIMUM OF 10% OF THE AGGREGATE, AS MEASURED BY WEIGHT, MAY BE CRUSHED OR FRACTURED ROCK. THE REMAINING 90% SHALL BE NATURALLY OCCURRING UNFRACTURED MATERIAL.
3. FABRIC SHALL BE MODERATE SURVIVABILITY AS OUTLINED IN STANDARD SPECIFICATIONS 9-33
4. SEE STANDARD PLANS SHEETS B-2 AND B-3 FOR PRECAST CONCRETE DETAILS.
5. ADJUSTMENT BLOCKS SHALL BE CEMENT CONCRETE.
6. PRECAST RISER MAY BE USED IN COMBINATION WITH OR IN LIEU OF ADJUSTING BLOCKS.
7. WHEN PVC PIPE IS USED A PVC ADAPTER SHALL BE INSTALLED.
8. PIPES SHALL BE GROUTED INTO DRYWELLS.



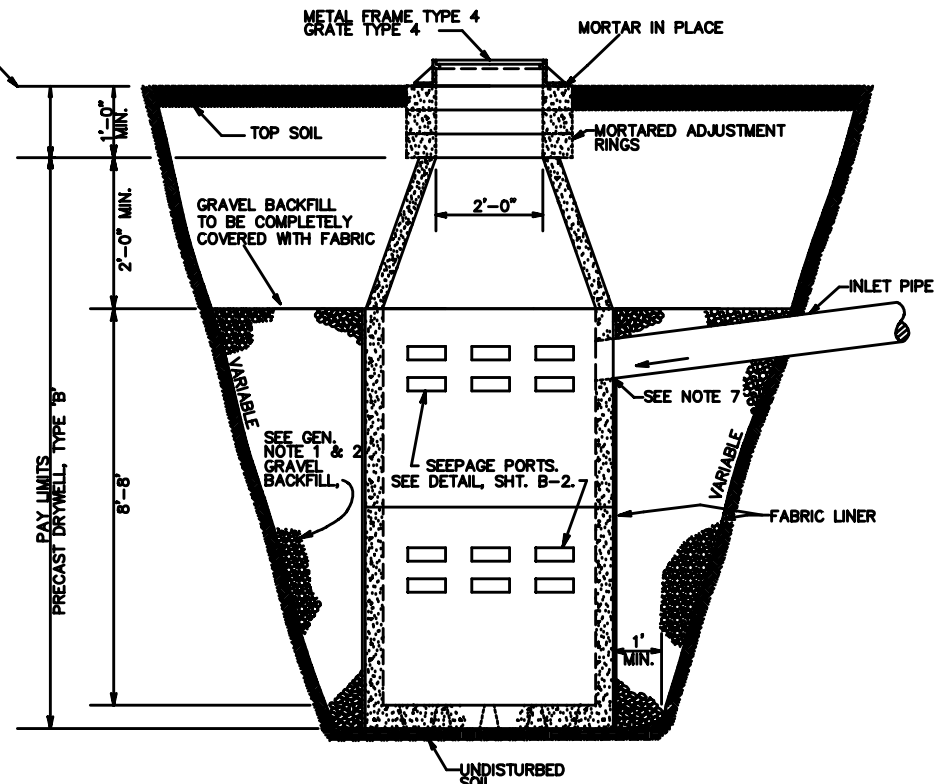
NOTE:

PVC PIPE ADAPTERS AND GASKET MAY VARY IN SHAPE AND SIZE AS ILLUSTRATED IN DETAIL BY ACCEPTABLE ALTERNATE IN ACCORDANCE WITH A.S.T.M.-C-428.

PVC ADAPTER (SAND COLLAR)



DRYWELL - TYPE 'A' SWALE



DRYWELL - TYPE 'B' SWALE

NO.	DATE	BY	CHKD.	APPR.	REVISION

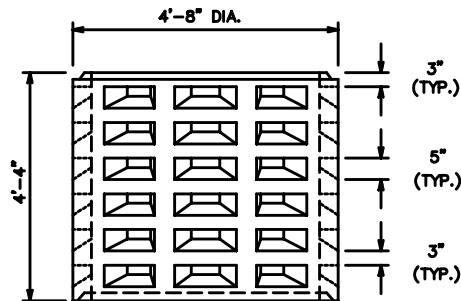
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

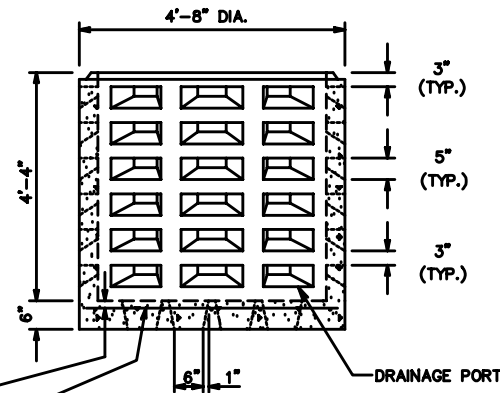


STANDARD
PRECAST DRYWELLS PLACED IN SWALES

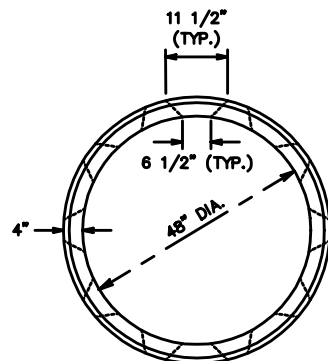
SHEET
B-1a



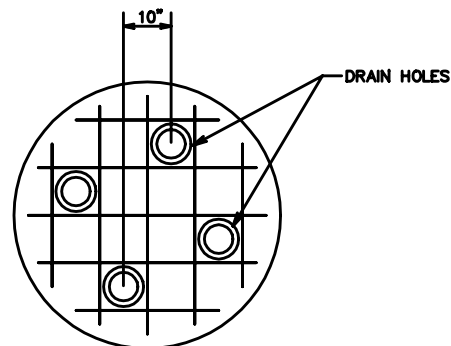
DRYWELL BARREL
(ELEVATION)



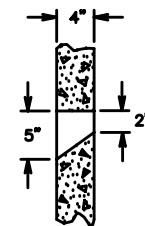
DRYWELL BASE
(ELEVATION)



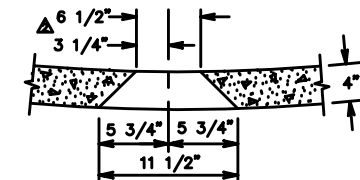
DRYWELL BARREL
(PLAN)



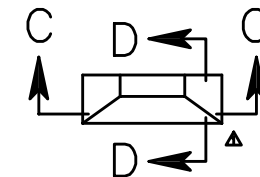
BASE DRAIN HOLE DETAIL
(PLAN)



SECTION D-D



SECTION C-C



DRAINAGE PORT

GENERAL NOTES

1. CONCRETE DRYWELL ITEMS SHALL BE CONSTRUCTED WITH THE BARRELS AND CONES REINFORCED WITH 0.12 SQ. IN. STEEL GRADE 40, PER LINEAL FOOT OF WALL.
2. TOLERANCE OF DIMENSIONS FOR DRAINAGE PORTS SHALL BE $\pm 1/2$ ".
3. EACH BARREL SECTION SHALL A MINIMUM OF 6 ROWS OF DRAINAGE PORTS VERTICALLY AND A MINIMUM OF 10 DRAINAGE PORTS AROUND THE CIRCUMFERENCE OF THE BARREL.

NO.	DATE	BY	CHKD.	APPR.	REVISION
1	8-93	J.B.	CSN	R.C.H.	DRAINAGE PORT DIMENSION UPDATE
2	5-93	J.B.	GLW	R.C.H.	DRAINAGE PORT DETAIL ORIENTATION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 456-3600

APPROVED:
COUNTY ENGINEER
DATE: 02/08/00



STANDARD
PRECAST DRYWELL DETAILS

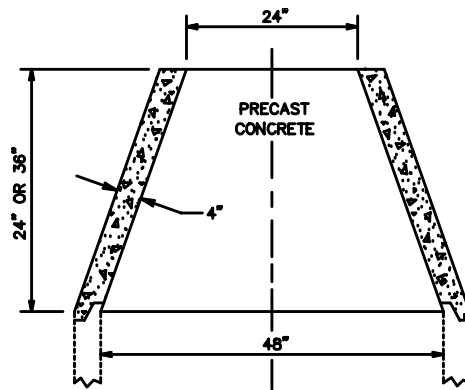
SD-02/00

SHEET

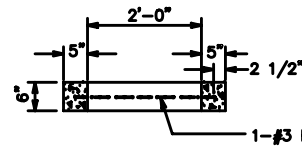
B-2

GENERAL NOTES

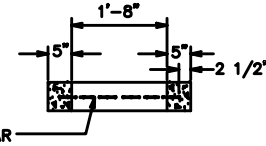
1. CONCRETE ITEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.



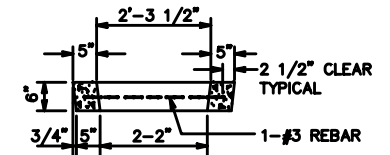
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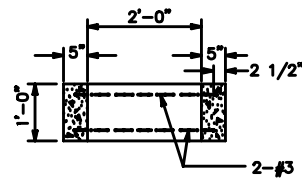
SECTION E-E



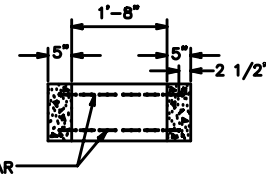
SECTION F-F



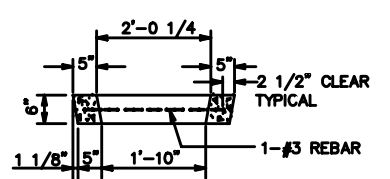
SECTION C-C



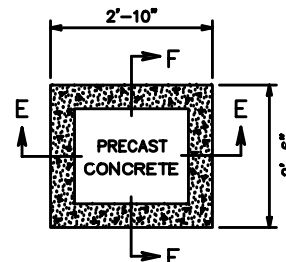
SECTION E-E



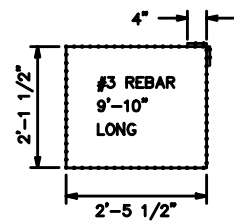
SECTION F-F



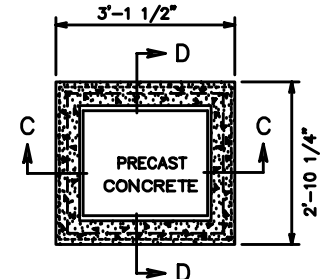
SECTION D-D



RISER, TYPE 1



BENDING



RISER, TYPE 2

NO.	DATE	BY	CHKD.	APPR.	REVISION
1	4/98	CP/KGM	JSH		ERASED SECTION LABEL ON RISER, TYPE 1

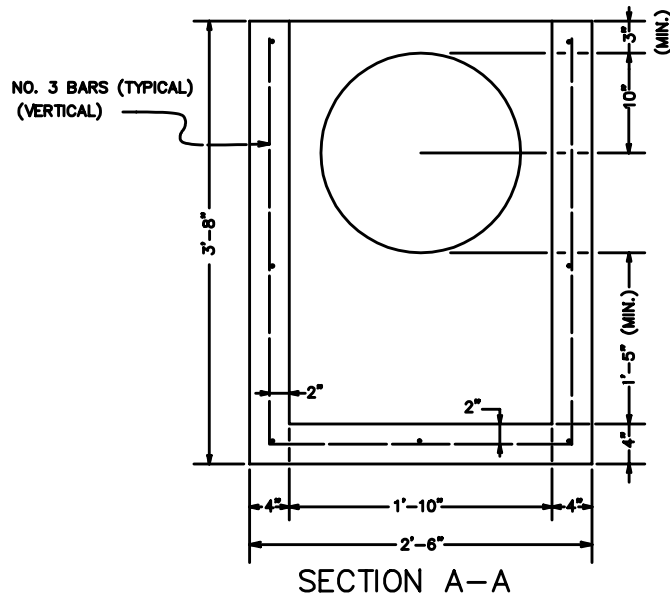
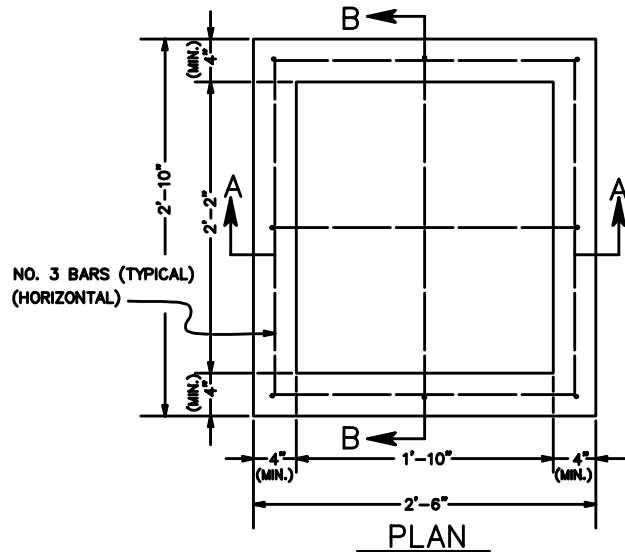
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99280 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____



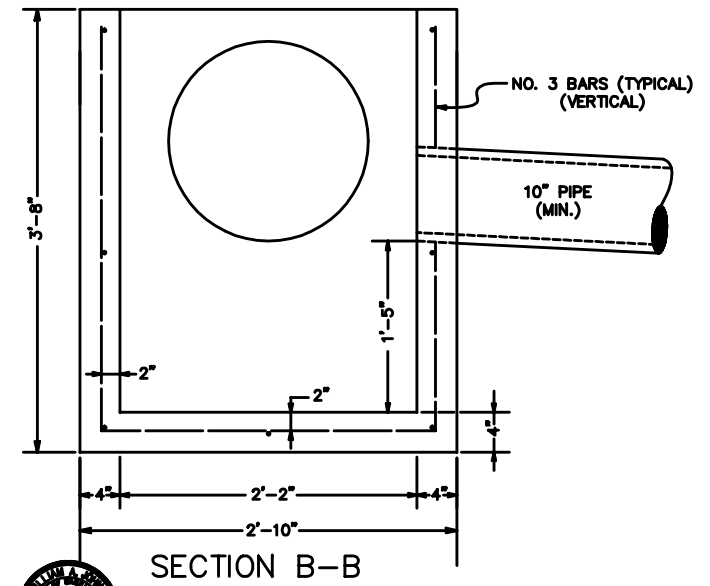
STANDARD
PRECAST DRYWELL & INLET DETAILS

SHEET
B-3



GENERAL NOTES

1. CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. AS AN ACCEPTABLE ALTERNATE TO REBAR, WELDED WIRE FABRIC HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A 497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN THE KNOCKOUTS.
3. PRECAST BASINS SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
4. KNOCKOUTS SHALL BE ON ALL 4 SIDES WITH MAXIMUM DIAMETER OF 20". KNOCKOUTS SHALL BE ROUND. PIPE SHALL BE INSTALLED IN FACTORY SUPPLIED KNOCKOUTS.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS CATCH BASIN WALL THICKNESS.
6. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
7. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.
8. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT.
9. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
10. WHEN PVC PIPE IS USED, A PVC ADAPTER SHALL BE INSTALLED.
11. PVC ADAPTER SHALL BE GROUTED INTO CATCH BASIN.



3	13/98	ICPKM	JSH	10" DIMENSION FOR RADIUS OF OPENING
2	11/93	JBGLW	TRC.H	CHANGED TITLE TO CATCH BASIN TYPE 1
1	5/93	JBGLW	TRC.H	MAXIMUM DEPTH NOTE # 6
NO. DATE BY TCKD. JAPPR. REVISION				

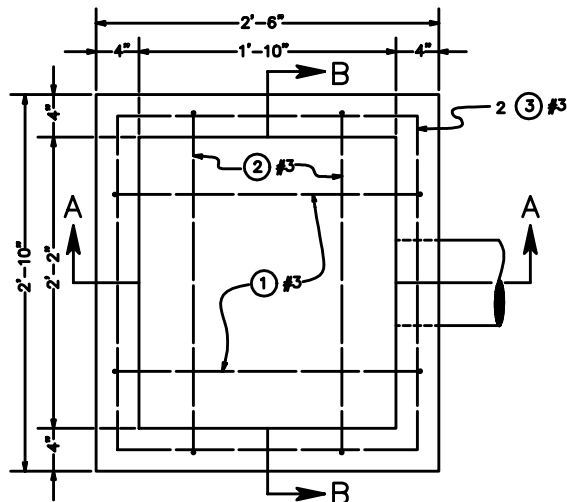
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____



STANDARD
CATCH BASIN TYPE 1

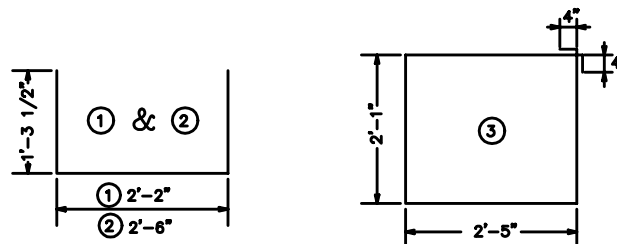
SHEET
B-4



PLAN

MARK	LOCATION	NO.	SIZE	LENGTH
(1)	BOTTOM SLAB & SIDEWALLS	2	3	4'-9"
(2)	BOTTOM SLAB & SIDEWALLS	2	3	5'-1"
(3)	SIDEWALLS	2	3	9'-8"

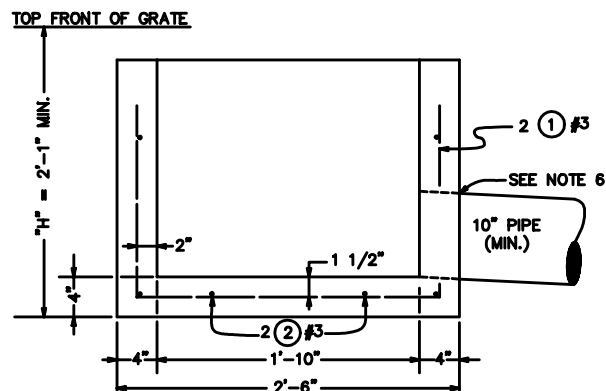
BAR LIST



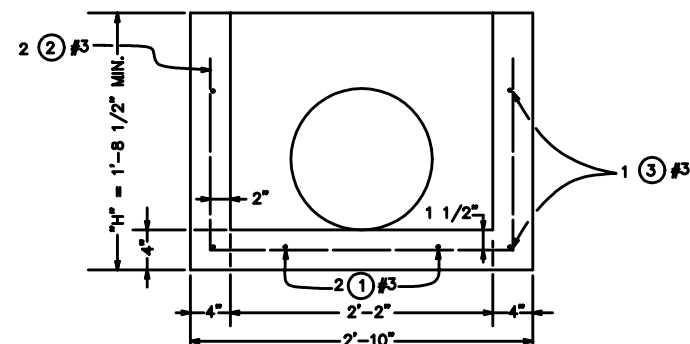
BENDING DIAGRAM

GENERAL NOTES

1. CONCRETE INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. REINFORCING STEEL SHALL BE GRADE 40 OR GRADE 60.
3. CONCRETE INLETS SHALL BE SET ON A COMPACTED OR UNDISTURBED LEVEL FOUNDATION.
4. AS AN ACCEPTABLE ALTERNATE TO REBAR, WELDED WIRE FABRIC HAVING A MINIMUM AREA OF .12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A 497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN THE KNOCKOUTS.
5. "H" SHALL BE SHOWN ON CONSTRUCTION PLANS.
6. WHEN PVC PIPE IS USED, A SAND COLLAR SHALL BE INSTALLED.
7. INLET PIPE SHALL BE GROUTED INTO CONCRETE INLET.
8. KNOCKOUTS SHALL BE ON ALL 4 SIDES WITH MAXIMUM DIAMETER OF 17". KNOCKOUTS SHALL BE ROUND. PIPE SHALL BE INSTALLED IN FACTORY SUPPLIED KNOCKOUTS.



SECTION A-A



SECTION B-B

PRECAST UNIT



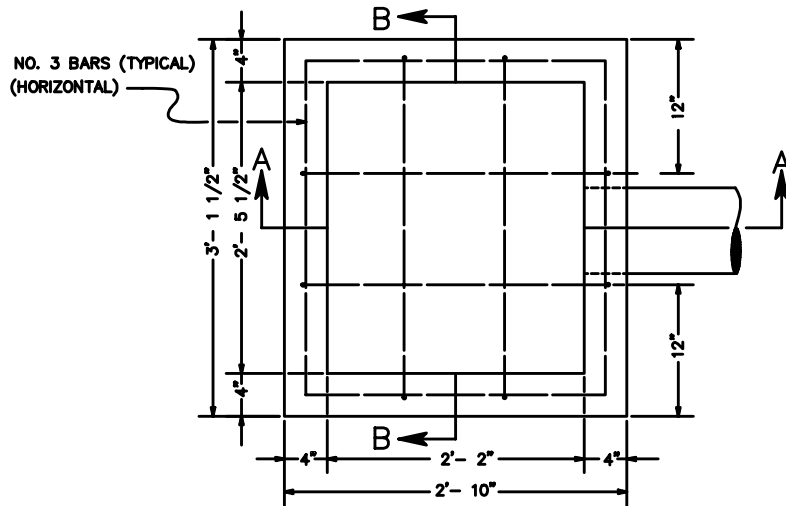
NO.	DATE	BY	CHKD.	APPR.	REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99200 456-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

STANDARD
CONCRETE INLET TYPE 1

SHEET
B-5

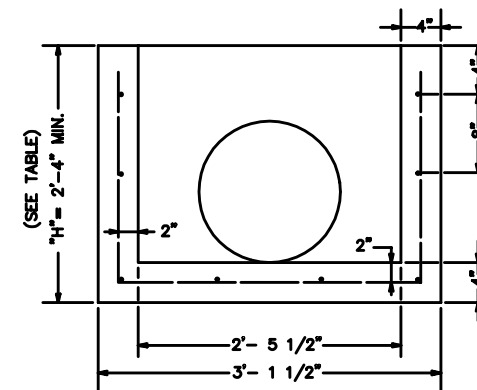
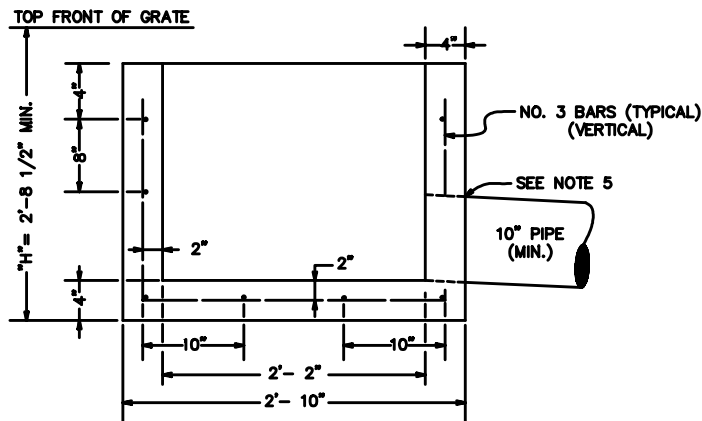


TABLE

PIPE DIAMETER	"H"
10"	2'-4"
12"	2'-5 1/2"
15"	2'-9"
18"	3'-0"
21"	3'-3"
24"	3'-6"

GENERAL NOTES

1. CONCRETE INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. CONCRETE INLETS SHALL BE SET ON A LEVEL, COMPACTED FOUNDATION.
3. AS AN ACCEPTABLE ALTERNATE TO REBAR, WELDED WIRE FABRIC HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A 497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN THE KNOCKOUTS.
4. "H" SHALL BE SHOWN ON CONSTRUCTION PLANS.
5. WHEN PVC PIPE IS USED, A SAND COLLAR SHALL BE INSTALLED.
6. INLET PIPE SHALL BE GROUTED INTO CONCRETE INLET.



SECTION B-B

NO.	DATE	BY	CHKD.	APPR.	REVISION

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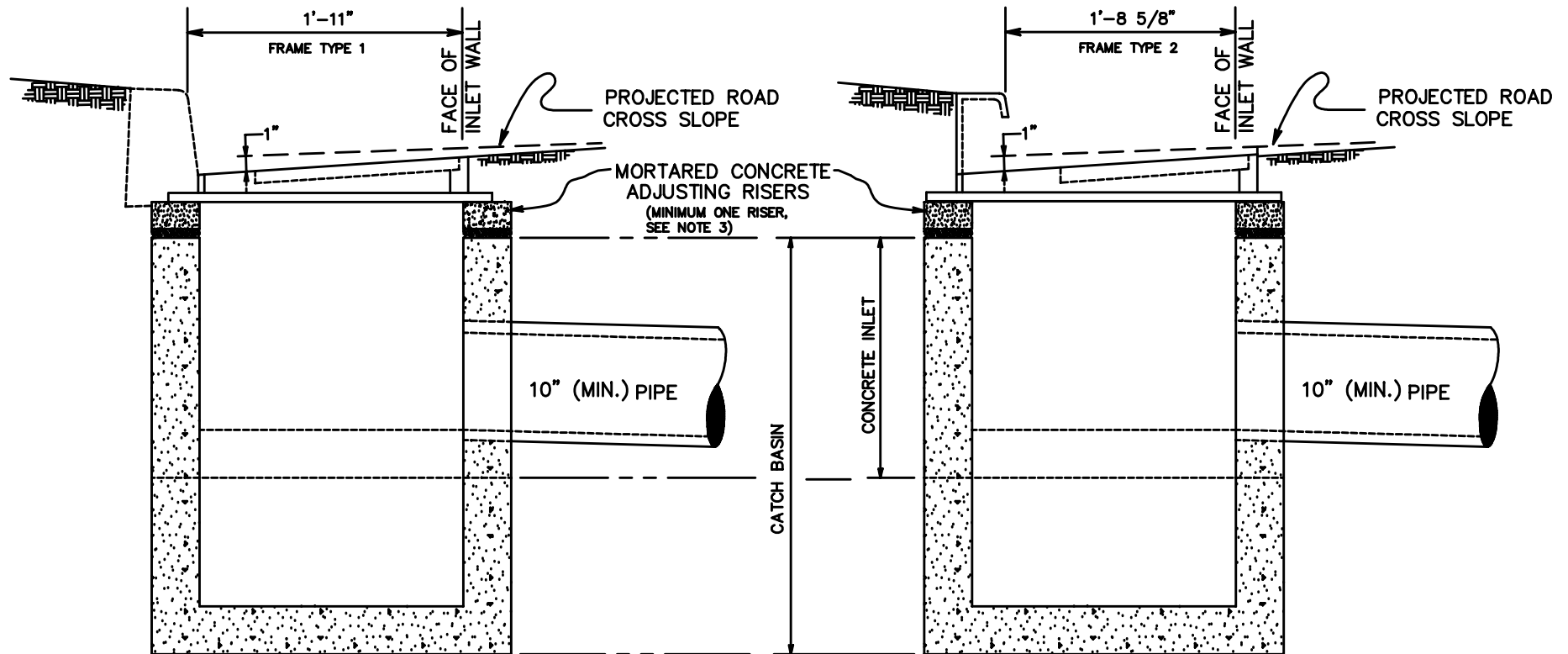
APPROVED:
COUNTY ENGINEER
DATE: _____

STANDARD
CONCRETE INLET TYPE 2

SHEET
B-6

GENERAL NOTES

1. THE TOP OF GRATE SHALL BE INSTALLED 1" LOWER THAN THE PROJECTED GUTTER GRADE.
2. THE PRECAST CONCRETE INLET SHALL BE PLACED ON THE SAME GRADE AS THE CURB.
3. RISER TYPE 2 TO BE USED WITH CATCH BASIN.



CATCH BASIN & INLET TYPE 1

CATCH BASIN & INLET TYPE 2



NO.	DATE	BY	CHKD.	APPR.	REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 456-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

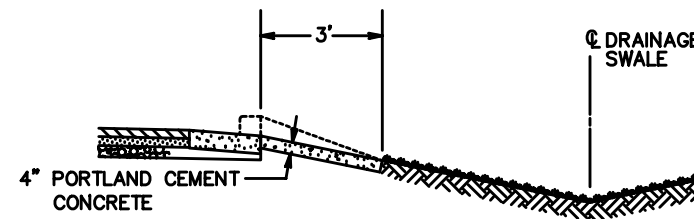
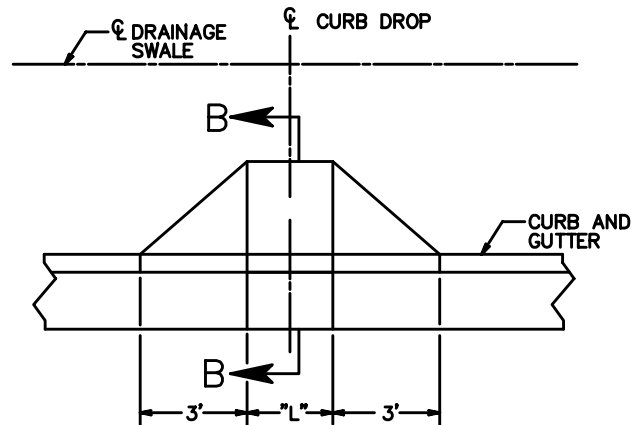
STANDARD
CATCH BASIN & INLET INSTALLATION

STD-97346

SHEET
B-7

GENERAL NOTES

1. CURB INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. TOP SURFACE TO BE BROOM FINISHED.
3. ALL EXTERNAL EDGES NOT LABELED SHALL BE TROWELLED WITH 1/4" RADIUS EDGER.
4. DIMENSION "L" SHALL BE SHOWN ON THE PLANS.



SECTION B-B

CURB INLET TYPE 1



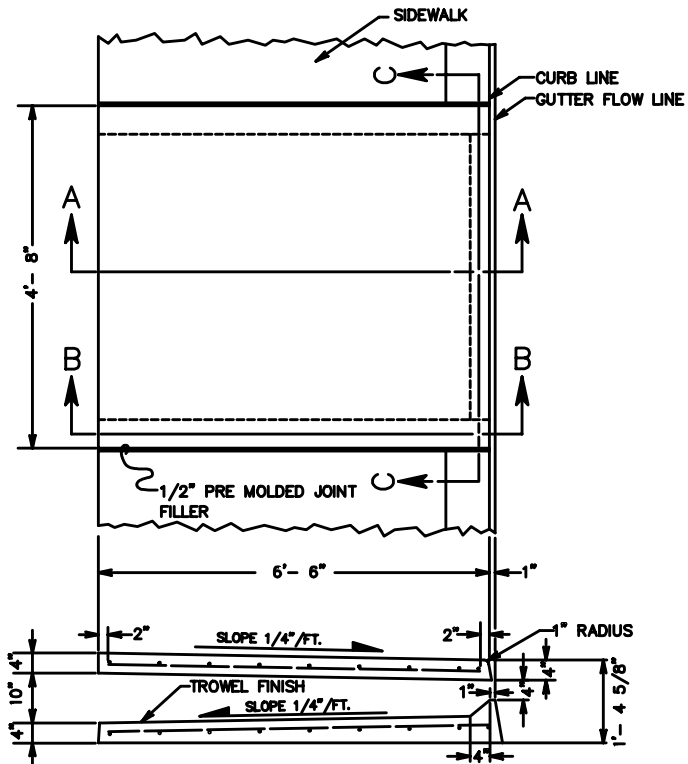
1	3/98	CP/KGM/JSH	ADD LINE FROM CURB TO SWALE
NO.	DATE	BY	CHKD. J. APPR.
			REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99200 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

STANDARD
CURB INLET TYPE 1

SHEET
B-8

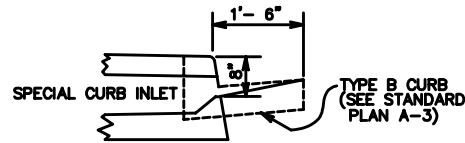


SECTION A-A



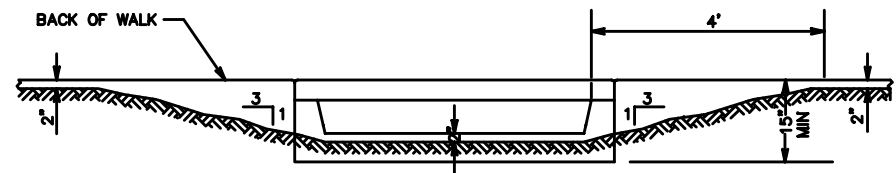
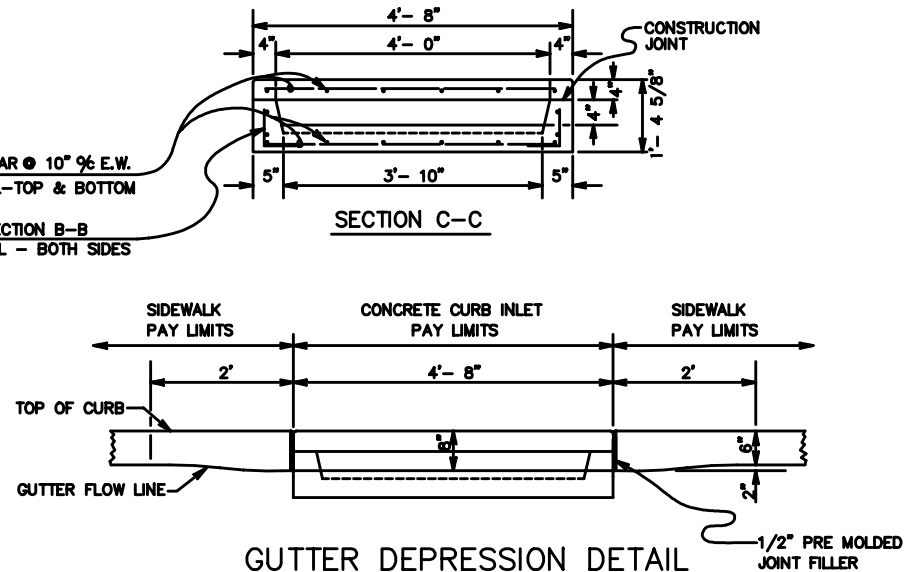
SECTION B-B
REBAR PLACEMENT

SPECIAL CURB INLET



#4 REBAR @ 10" 9/16 E.W.
TYPICAL-TOP & BOTTOM
SEE SECTION B-B
TYPICAL - BOTH SIDES

SECTION C-C



OUTLET SWALE GRADING DETAIL

GENERAL NOTES

1. CURB INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. TOP SURFACE TO BE BROOM FINISHED.
3. ALL EXTERNAL EDGES NOT LABELED SHALL BE TROWELLED WITH 1/4" RADIUS EDGER.

3	3/98	CP	KGM	JSH	AMEND TEXT BACK OF WALK
2	3/98	CP	KGM	JSH	DIMENSION MINIMUM DEPTH OF SWALE/WIDTH OF SLOPE
1	18/94	JR	GLN	IRCH	DETAIL CURB INLET AS A TWO PRICE UNIT
NO. DATE BY CHKD. J. APPR.					REVISION

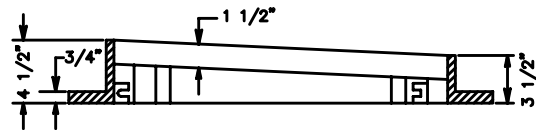
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DEPARTMENT OF PUBLIC WORKS
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APPROVED:
COUNTY ENGINEER
DATE: _____

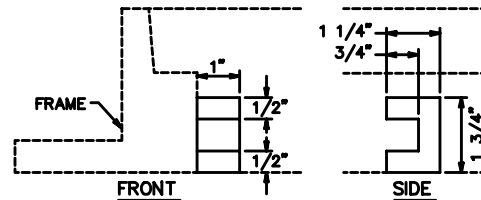


STANDARD
CURB INLET TYPE 2

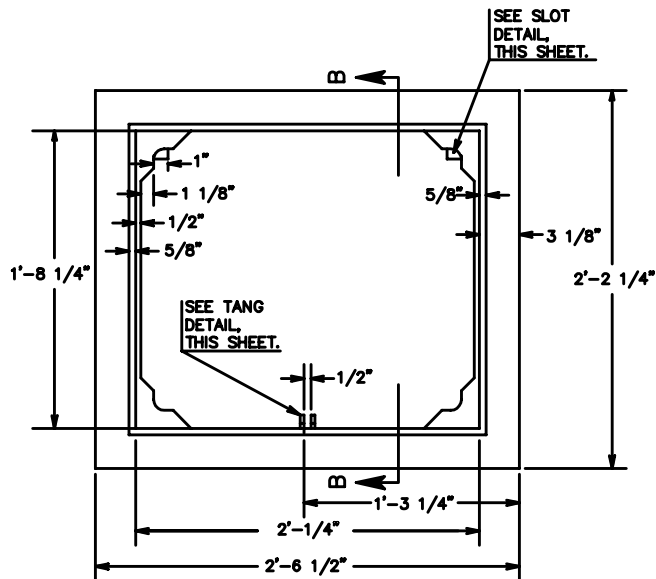
SHEET
B-9



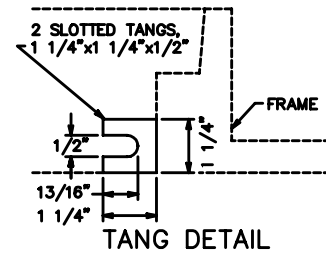
SECTION B-B



SLOT DETAIL



FRAME - TYPE 1



TANG DETAIL

GENERAL NOTES

1. FRAME SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48-90, GRADE 30. THE GRATE SHALL BE DUCTILE IRON CONFORMING TO A.S.T.M. A536-84, GRADE 80-55-06.
2. USE WITH CATCH BASIN AND CONCRETE INLET TYPE 1, SEE STD. PLAN SHEETS B-4, 5 & 7.
3. FIT TOLERANCE SHALL BE $1/8" \pm$.
4. WELDING IS NOT PERMITTED.
5. GRATE GUARD REQUIRED. SEE SHEET B-17.
6. FOR GRATE DETAIL SEE STD. PLAN, SHEET B-12.

1	12/94	JB	GSN	IRCH	CORRECTED DIM. ON FRAME SECTION B-B
NO.	DATE	BY	CHKD.	APPR.	REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99208 456-3600

APPROVED:
COUNTY ENGINEER
DATE: 12/14/94



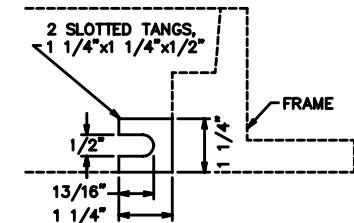
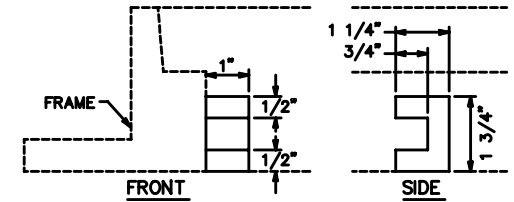
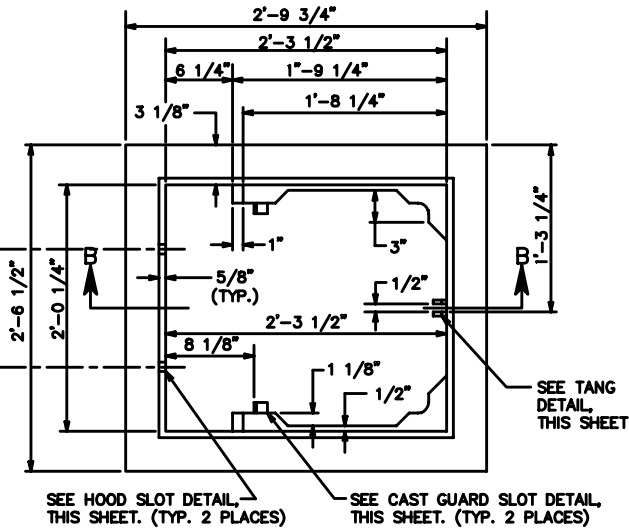
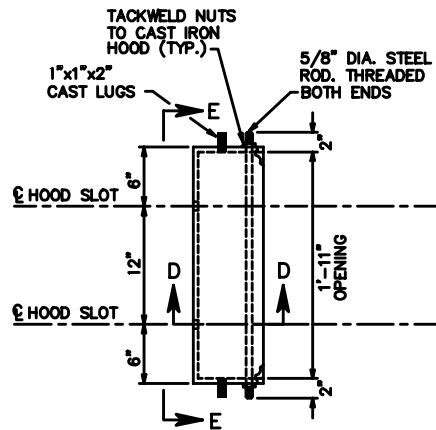
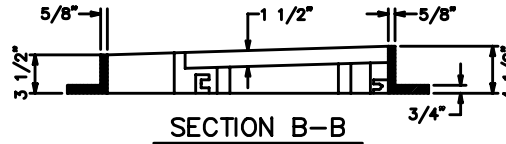
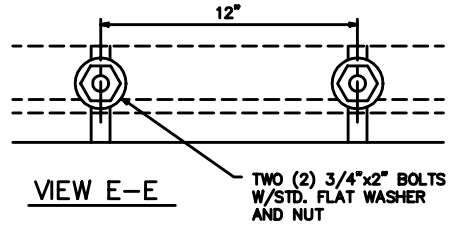
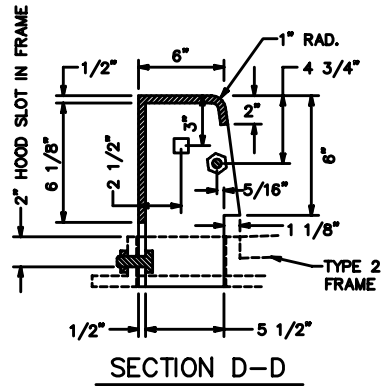
STANDARD
METAL FRAME, TYPE 1

SD-910.010

SHEET
B-10

GENERAL NOTES

1. FRAME SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48-90, GRADE 30. THE GRATE SHALL BE DUCTILE IRON CONFORMING TO A.S.T.M. A536-84, GRADE 80-55-06.
2. BOLTS AND ROD SHALL CONFORM TO A.S.T.M. DESIGNATION A307, GRADE A.
3. USE WITH CATCH BASIN AND CONCRETE INLET TYPE 2, SEE STD. PLAN SHEETS B-4,6 & 7.
4. FIT TOLERANCE SHALL BE $1/8"$ ±.
5. FOR GRATE DETAILS SEE STD. PLAN, SHEET B-13 OR B-14.
6. GRATE GUARD REQUIRED. SEE SHEET B-17.

HOOD

FRAME – TYPE 2



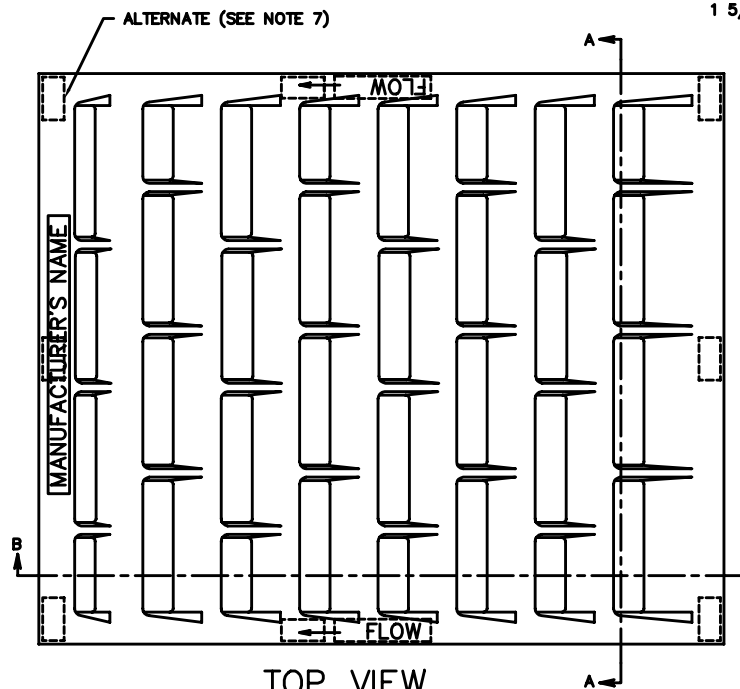
APPROVED:
COUNTY ENGINEER
DATE: _____

== STANDARD ==
METAL FRAME, TYPE 2

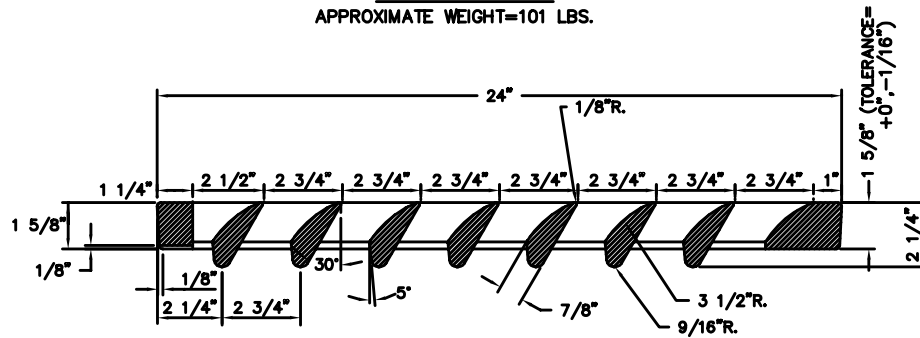
104-201,374

SHEET
B-11

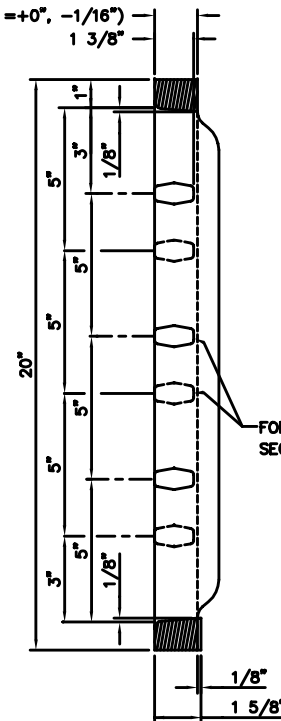
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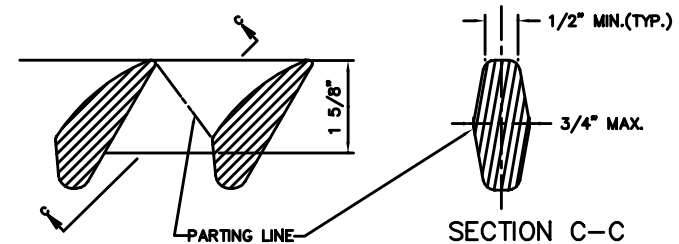
TOP VIEW
APPROXIMATE WEIGHT=101 LBS.



SECTION B-B



SECTION A-A



VANE DETAIL

GENERAL NOTES

1. THE NAME OF THE MANUFACTURER AND DIRECTION OF FLOW SHALL BE EMBOSSED ON THE TOP SURFACE OF EACH GRATE. LETTERING TO BE RECESSED 1/16\".
2. FRAME SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48-90, GRADE 30. THE GRATE SHALL BE DUCTILE IRON CONFORMING TO A.S.T.M. A536-84 GRADE 80-55-06.
3. DIMENSIONS SHALL HAVE $\pm 1/16$ \" TOLERANCE, EXCEPT AS NOTED.
4. EDGES SHALL HAVE 1/8\" RADIUS, 1/8\" CHAMFER OR COMPLETE DEBURRING.
5. THE FRAME SHALL BE MANUFACTURED IN ACCORDANCE WITH STANDARD PLAN B-10.
6. WELDING IS NOT PERMITTED.
7. AS AN ALTERNATE, 8 PADS 1 1/2\" X 3/4\" X 1/8\", INTEGRALLY CAST WITH THE GRATE, MAY BE USED.

NO.	DATE	BY	CHKD.	APPR.	REVISION

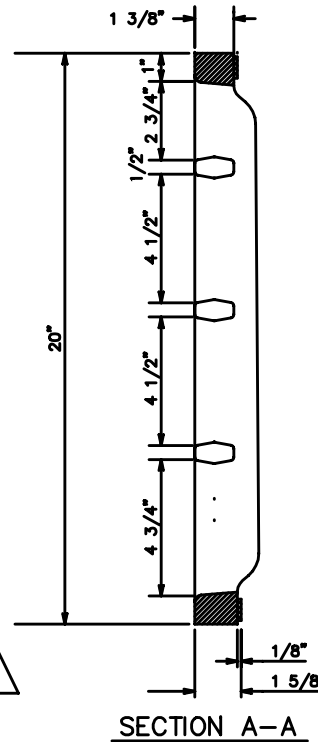
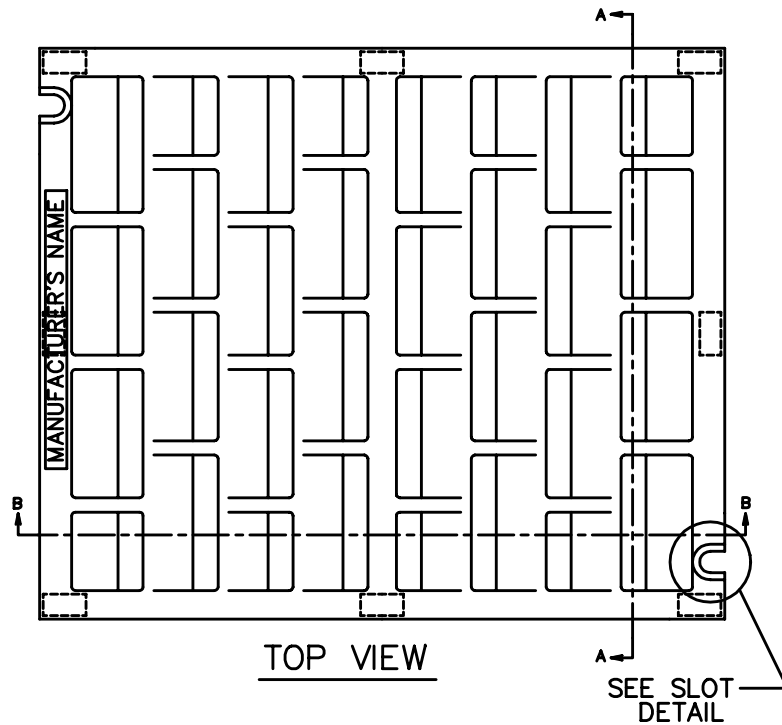
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COUNTY ENGINEER
DATE: _____



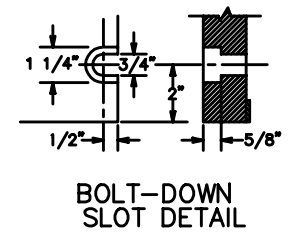
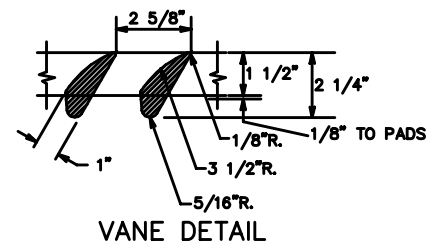
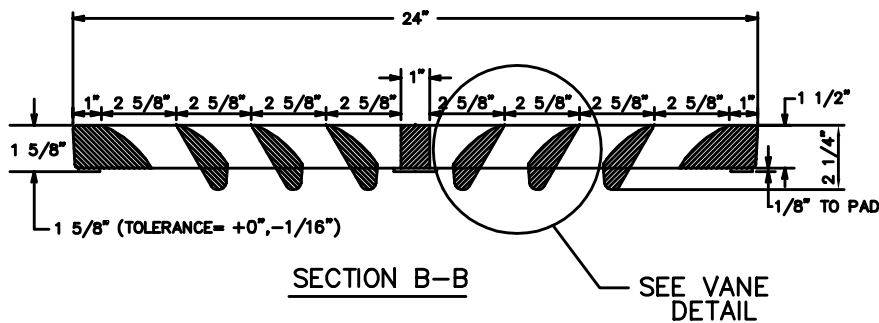
STANDARD
METAL GRATE TYPE 1

SHEET
B-12



GENERAL NOTES

1. THE NAME OF THE MANUFACTURER AND THE DIRECTION OF FLOW SHALL BE EMBOSSED ON THE TOP SURFACE OF EACH GRATE. LETTERING TO BE RESESSED 1/16".
2. FRAME SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48-90, GRADE 30. THE GRATE SHALL BE DUCTILE IRON CONFORMING TO A.S.T.M. A536-84 GRADE 80-55-06.
3. DIMENSIONS SHALL HAVE $\pm 1/16"$ TOLERANCE, EXCEPT AS NOTED.
4. EDGES SHALL HAVE 1/8" RADIUS, 1/8" CHAMFER OR COMPLETE DEBURRING.
5. THE FRAME SHALL BE MANUFACTURED IN ACCORDANCE WITH STANDARD PLAN B-11.
6. WELDING IS NOT PERMITTED.



NO.	DATE	BY	CHKD.	APPR.	REVISION

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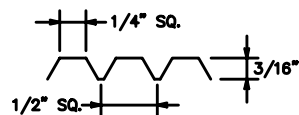
APPROVED:
COUNTY ENGINEER
DATE: _____



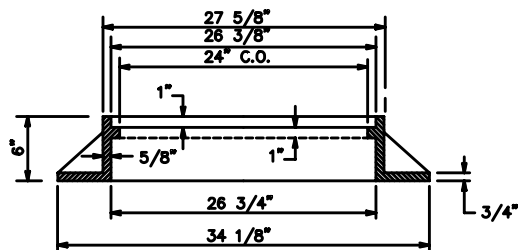
STANDARD
METAL GRATE TYPE 3

SD-202-00

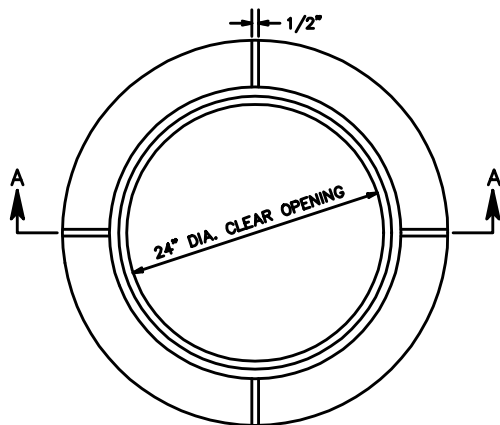
SHEET
B-14



COVER SKID DESIGN DETAIL

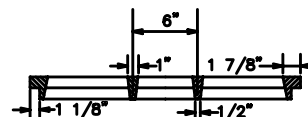


SECTION A-A

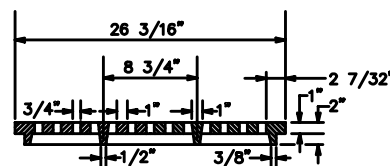


MIN. WEIGHT 168 LBS.

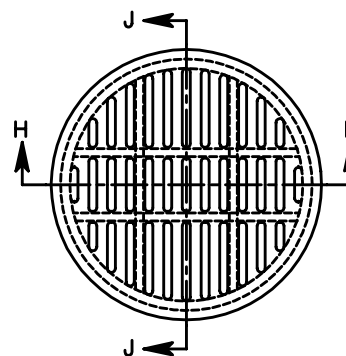
FRAME - TYPE 4



SECTION J-J



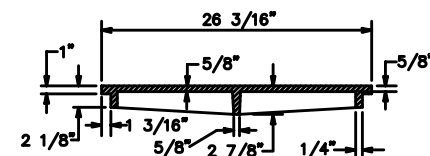
SECTION H-H



GRATE - TYPE 4

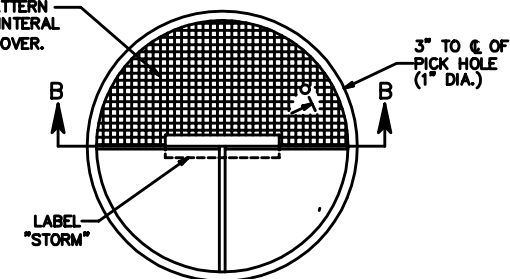
GENERAL NOTES

1. FRAME SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48-90, GRADE 30. THE GRATE SHALL BE DUCTILE IRON CONFORMING TO A.S.T.M. A536-84, CLASS 80-55-06.
2. METAL FRAME AND GRATE TYPE 4 SHALL ONLY BE USED WHERE SHOWN ON THE CONSTRUCTION PLANS. IT SHALL NOT BE USED AT A CURB LINE.
3. DRAINAGE SLOTS SHALL BE PLACED PARALLEL TO THE DIRECTION OF FLOW.
5. FIT TOLERANCE SHALL BE $1/8'' \pm$.
6. WELDING IS NOT PERMITTED.



SECTION B-B

NON-SKID PATTERN
TO BE CAST INTERNAL
ON TOP OF COVER.



SOLID COVER

MIN. WEIGHT 118 LBS.



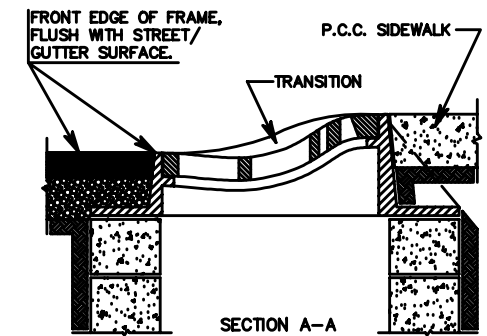
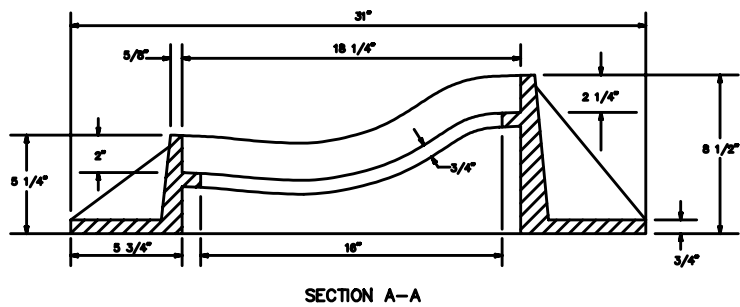
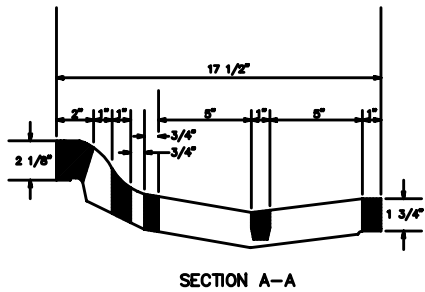
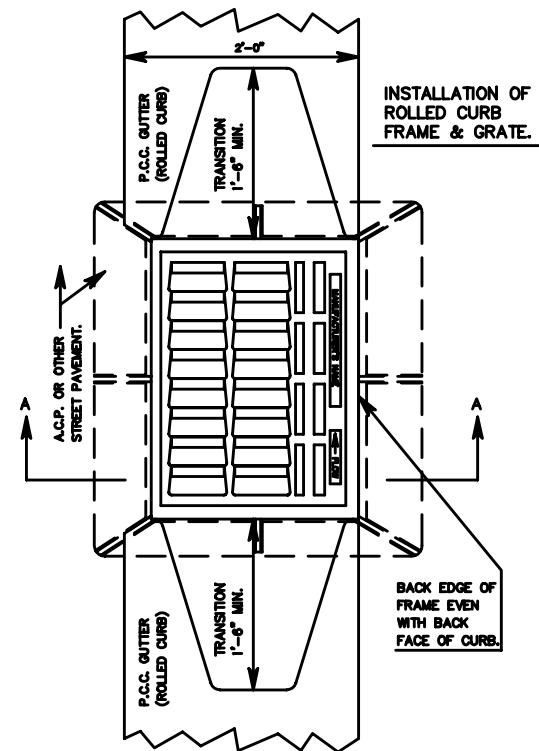
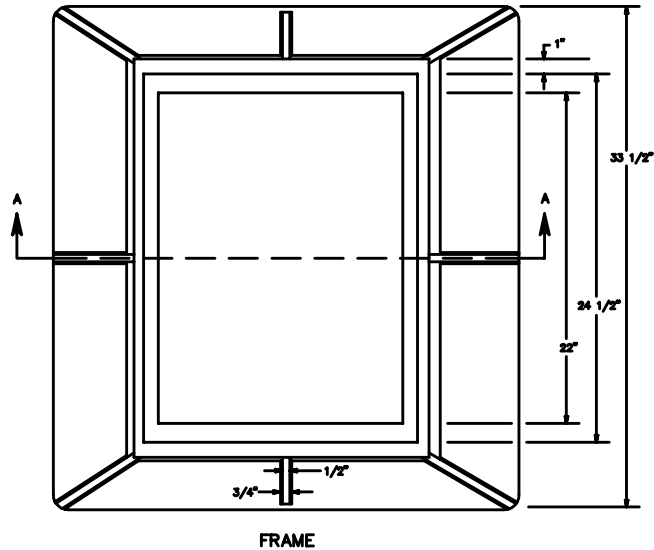
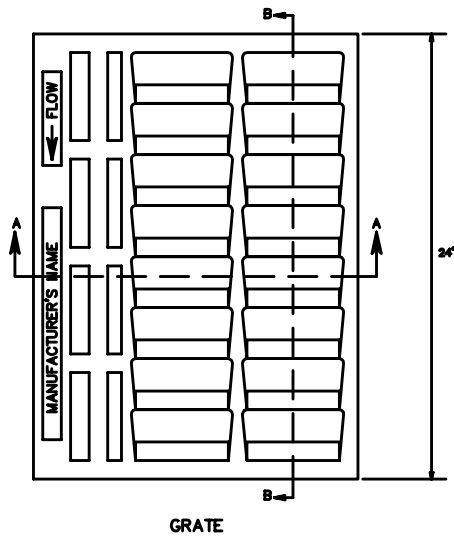
1	3/98	CP/KGM/JSH	TYPE 4 FRAME AND GRATE
NO.	DATE	BY	CHKD. APPR.
			REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

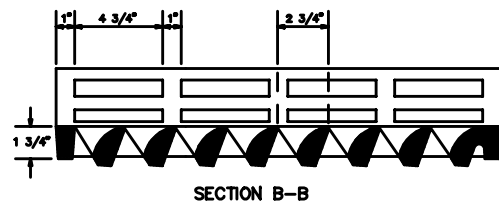
STANDARD
METAL FRAME, GRATE & SOLID COVER - TYPE 4

SHEET
B-15



GENERAL NOTES

1. THE NAME OF THE MANUFACTURER AND THE DIRECTION OF FLOW SHALL BE EMBOSSED ON THE TOP SURFACE OF EACH GRATE. LETTERING TO BE RESESSED 1/16".
2. FRAME SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48-90, GRADE 30. THE GRATE SHALL BE DUCTIL IRON CONFORMING TO A.S.T.M. A536-84 GRADE 80-55-06.
3. DIMENSIONS SHALL HAVE $\pm 1/16"$ TOLERANCE, EXCEPT AS NOTED.
4. EDGES SHALL HAVE 1/8" RADIUS, 1/8" CHAMFER OR COMPLETE DEBURRING.
5. GRATE SHALL BE MANUFACTURED FOR EITHER LEFT OR RIGHT FLOW.
6. GRATES PLACED IN A SUMP CONDITION SHALL BE BI-DIRECTIONAL FLOW. (SEE SECTION B-B ON SHEET B-14)
7. WELDING IS NOT PERMITTED.



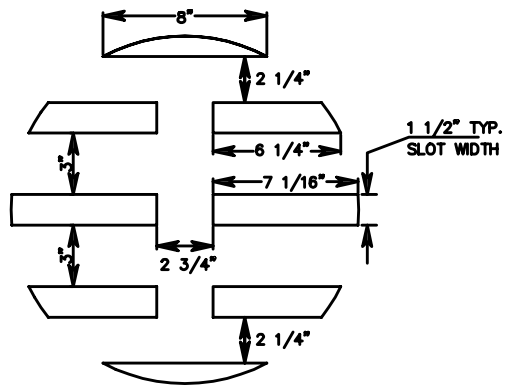
NO.	DATE	BY	CHKD.	APPR.	REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99200 456-3500

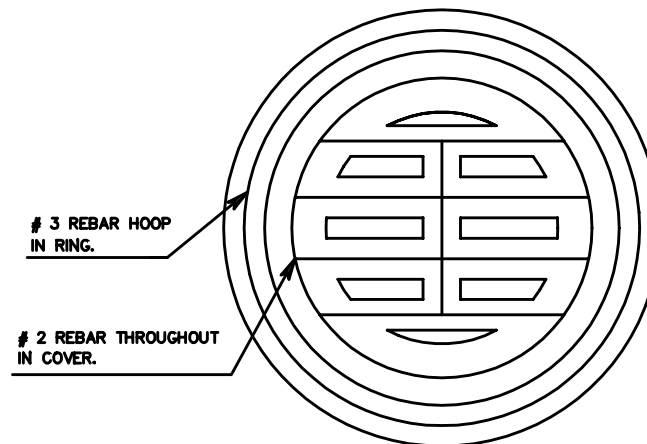
APPROVED:
COUNTY ENGINEER
DATE: _____

STANDARD
METAL FRAME & GRATE TYPE 5

SHEET
B-16



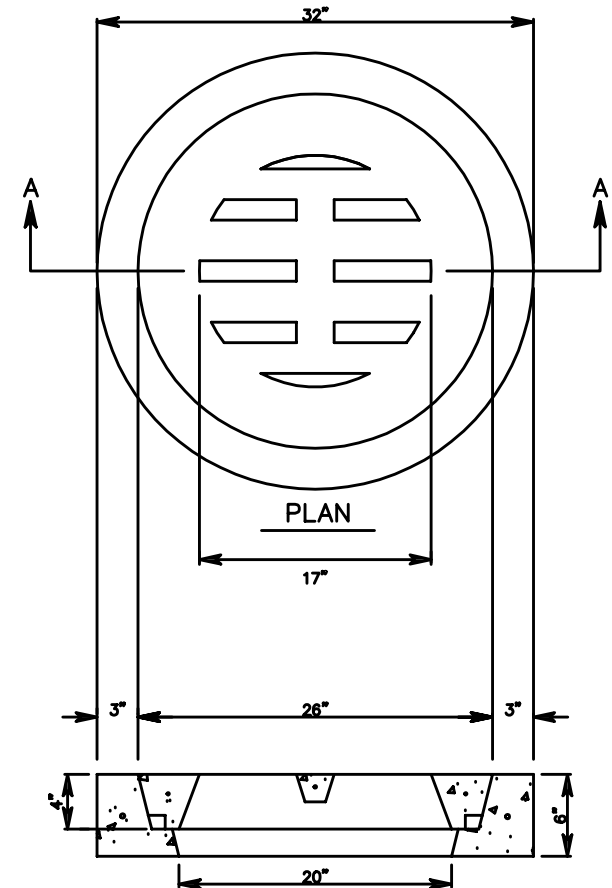
SLOT SPACING



REBAR PLACEMENT

GENERAL NOTES

1. LID SHALL ONLY BE USED IN GRASSED PERCOLATION AREAS ON PRIVATE PROPERTY.
2. 4500 P.S.I. AIR ENTRAINED CONCRETE SHALL BE USED.



SECTION A-A

NO.	DATE	BY	CHKD.	APPR.	REVISION
1	3/98	CP/KGM	JSH		

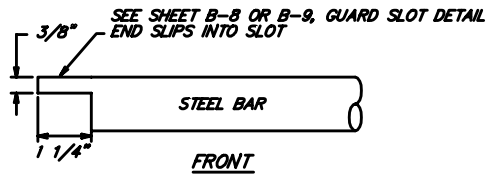
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99208 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

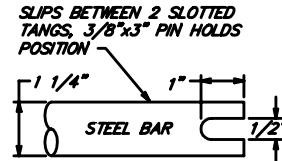


STANDARD
CONCRETE SLOTTED COVER W/RING

STD-204A-2002
SHEET
B-16a



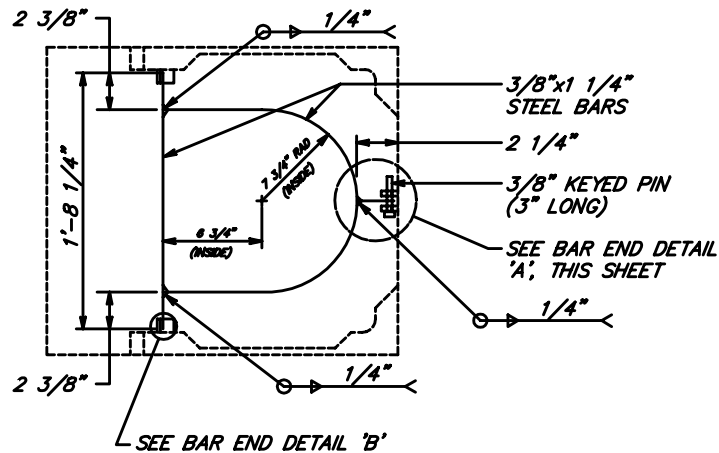
BAR END DETAIL 'B'



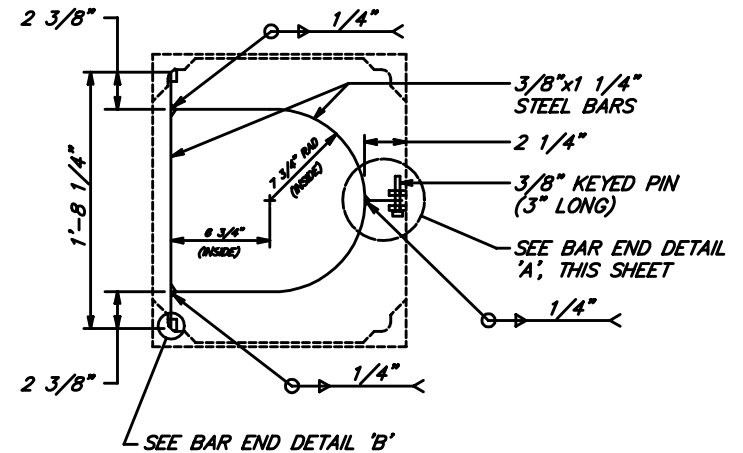
BAR END DETAIL 'A'

GENERAL NOTES

1. GRATE GUARD SHALL BE USED ON ALL TYPE 1 AND TYPE 2 FRAMES.
2. WELDS ON GRATE GUARD SHALL BE CONTINUOUS WELDS.
3. STEEL IN GRATE GUARD SHALL CONFORM WITH AASHTO M 183.
4. WELDS, WELDING PROCEDURES, AND WELDING MATERIALS SHALL CONFORM TO STANDARD SPECIFICATIONS FOR WELDING ISSUED BY THE AMERICAN WELDING SOCIETY.



TYPE 2 FRAME



TYPE 1 FRAME

GRATE GUARD

NO.	DATE	BY	CHKD.	APPR.	REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____



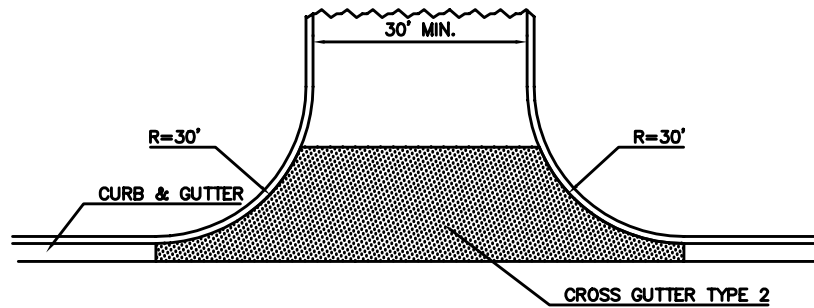
STANDARD
GRATE GUARD

SD-27.000

SHEET
B-17

GENERAL NOTES

1. THE GUTTER DEPRESSION SHALL BE CONSTRUCTED OF ASPHALT CONCRETE WHERE NO CONCRETE GUTTER IS SPECIFIED. A.C. THICKNESS SHALL BE THE SAME AS SPECIFIED FOR THE ROAD.
2. PORTLAND CEMENT CONCRETE SHALL BE CLASS 3000.



HIGH VOLUME DRIVEWAY APPROACH



NO.	DATE	BY	CHKD.	APPR.

REVISION

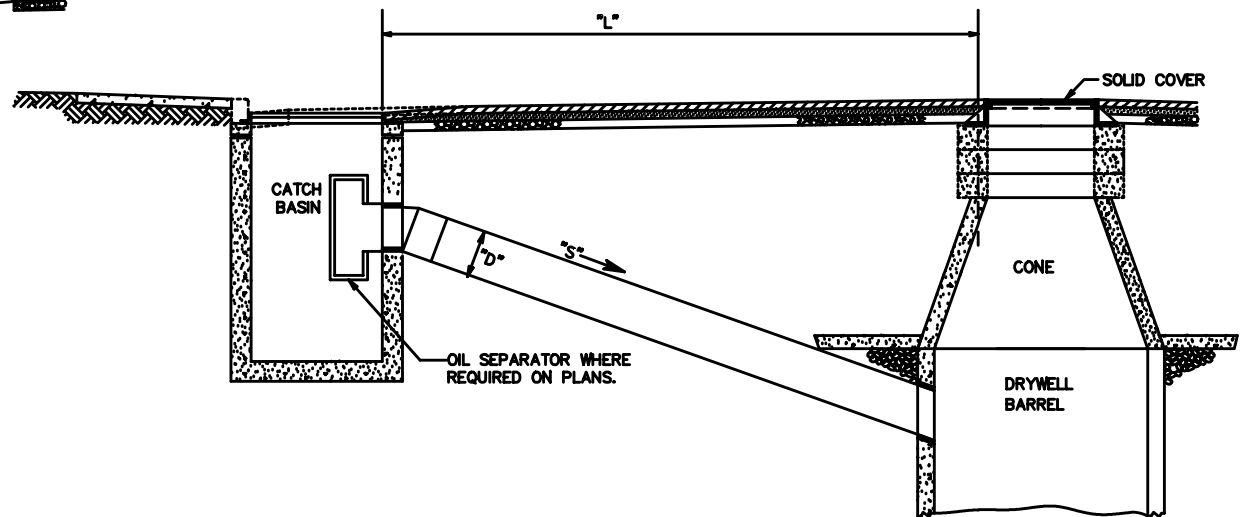
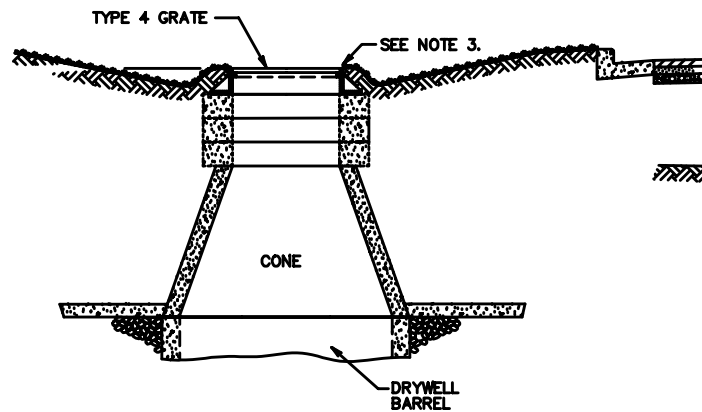
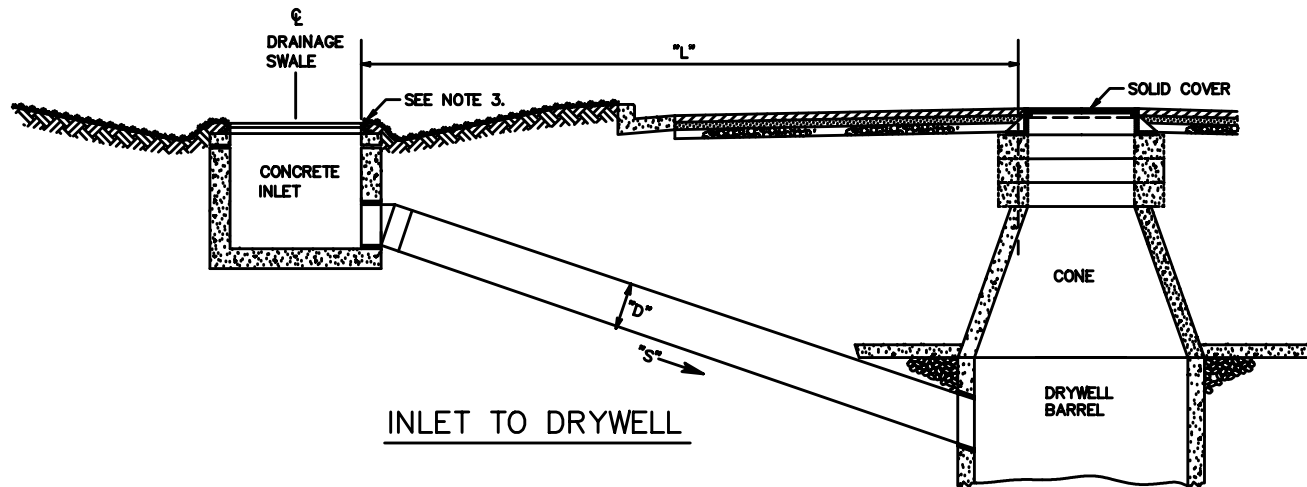
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99200 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____

EXPIRE 12/31/20

== STANDARD ==
HIGH VOLUME DRIVEWAY APPROACH

SHEET
B-18A



GENERAL NOTES

1. WHERE SPECIFIED ON THE PLANS, A SOLID COVER SHALL BE USED IN LIEU OF A GRATE.
2. "D" SHALL BE A MINIMUM OF 10". "L", "S", AND "D" SHALL BE SHOWN ON PLANS.
3. INLET SHALL BE RAISED 6" ABOVE THE FLOWLINE OF THE DRAINAGE SWALE UNLESS OTHERWISE SHOWN ON THE PLANS.
4. DRYWELLS PLACED IN ROADWAY SHALL BE PLACED IN CENTER ON TRAFFIC LANE, A MINIMUM OF 15' FROM CATCH BASIN OR INLET.
5. WHEN PVC PIPE IS USED, A PVC ADAPTER SHALL BE INSTALLED.
6. PVC ADAPTERS SHALL BE GROUTED INTO INLETS, CATCH BASINS & DRYWELLS.
7. PVC PIPE INSTALLED UNDER ROADWAY SHALL HAVE 2" MINIMUM COVER.
8. ELBOWS UP TO 45° MAY BE USED FOR CONNECTION AT CATCH BASINS & INLETS.

CATCH BASIN TO DRYWELL

1	3/98	CP/KGM	JSH	AMENDED GRATE TYPE
NO.	DATE	BY	CHKD.	APPR.
				REVISION

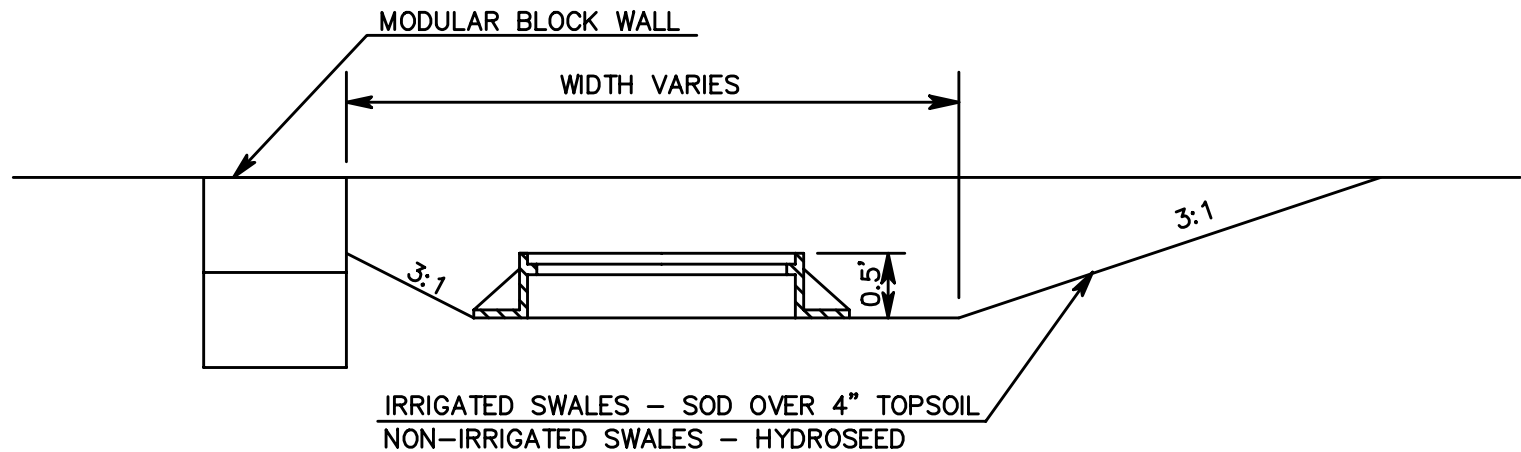
SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99260 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____



STANDARD
INLET INSTALLATIONS

SHEET
B-19



SWALE SECTION WITH MODULAR BLOCK WALL

NO.	DATE	BY	CHKD.	APPR.	REVISION

SPOKANE COUNTY
DEPARTMENT OF PUBLIC WORKS
SPOKANE, WA. 99200 450-3600

APPROVED:
COUNTY ENGINEER
DATE: _____



STANDARD
SWALE WITH MODULAR BLOCK WALL

800-1200

SHEET
B-20