CHAPTER 11 – STANDARD PLANS

Standard Plans **Last Updated**

Roads/Streets

Stormwater

Traffic

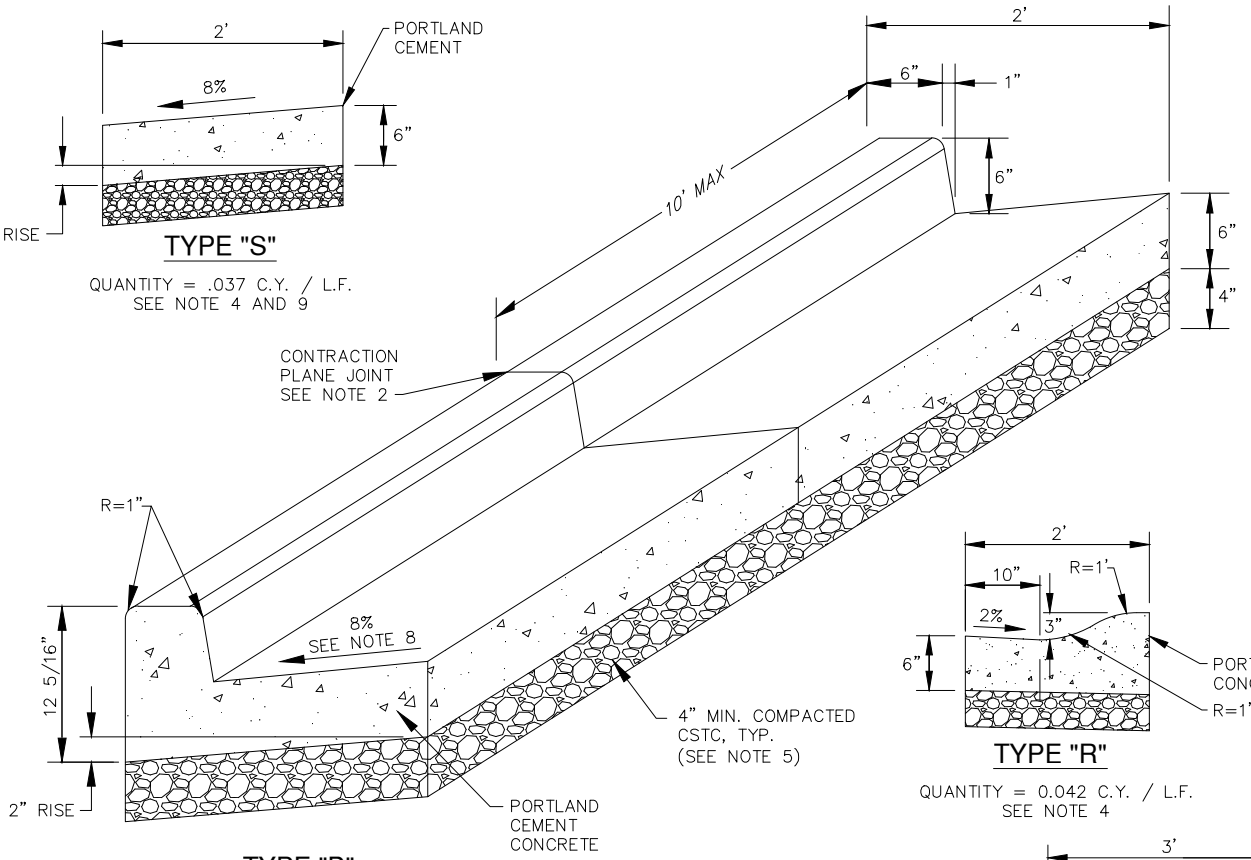
Utilities

GENERAL NOTES

1. PORTLAND CEMENT CONCRETE SHALL BE COMMERCIAL CONCRETE PER WSDOT 6-02.3(2)B.
2. CONTRACTION PLANE JOINTS FOR PORTLAND CEMENT CONCRETE SHALL BE PLACED AT 2 TIMES SIDEWALK WIDTH OR 10' MAX. AND SHALL MATCH SCORES IN SIDEWALK WHERE APPLICABLE.
3. 3/8" EXPANSION MATERIAL SHALL BE PLACED AT ALL CURB RETURNS AND AT ANY STRUCTURE. MAXIMUM 100' SPACING. EXPANSION JOINT SHALL EXTEND THE FULL CONCRETE DEPTH.
4. TO BE USED ONLY IN SPECIAL CASES WITH APPROVAL OF THE DEVELOPMENT SERVICES MANAGER.
5. SUBGRADE UNDER CURB COMPACTED TO 95%.
6. 4" MINIMUM CSTC UNDER ALL CURBS COMPACTED TO 95%.
7. TRANSITION CURB END TO GROUND LEVEL BY SLOPING TOP OF CURB @ 6H:IV.
8. FOR "SPILL" CURB APPLICATIONS, GUTTER SHALL SLOPE AWAY FROM CURB AT 2%.
9. PROVIDE TYPE 1 INLETS AT LOW POINTS SIMILAR TO STD. PLAN S-110 AND SPOKANE REGIONAL STORMWATER MANUAL.
10. TO BE USED ONLY AT PEDESTRIAN CURB RAMPS AND LANDINGS.
11. ALL BROKEN, CRACKED, HEAVED, AND SUNKEN CURB SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.

TYPE "S"

QUANTITY = .037 C.Y. / L.F.
SEE NOTE 4 AND 9



TYPE "B"

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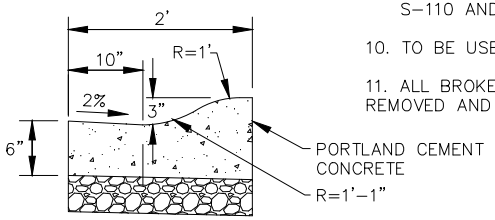

TYPE "R"

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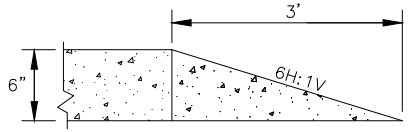
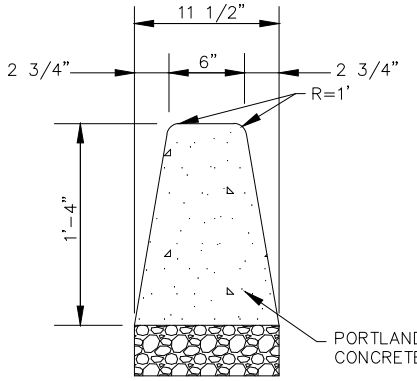
SEE NOTE 4



CURB TERMINATION

SEE NOTE 7



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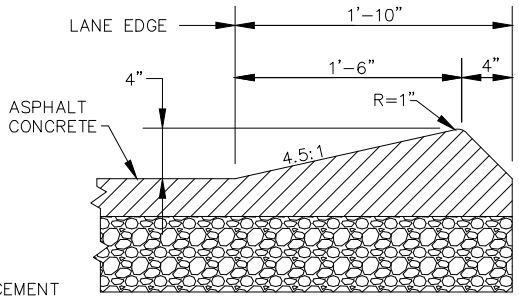
SEE NOTE 4



TYPE "C"

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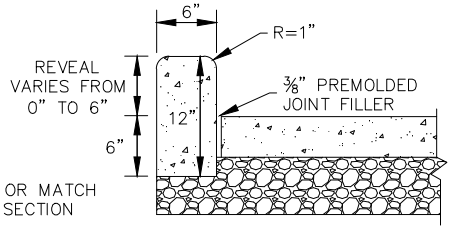
SEE NOTE 4



PEDESTRIAN RAMP CURB

SEE NOTE 10

APPROVED BY:

WILLIAM S. HELBIG, P.E.
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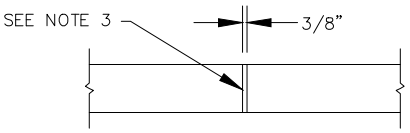
CITY OF Spokane Valley

CURBING

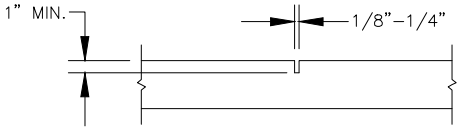
STANDARD PLAN NO. R-102

GENERAL NOTES

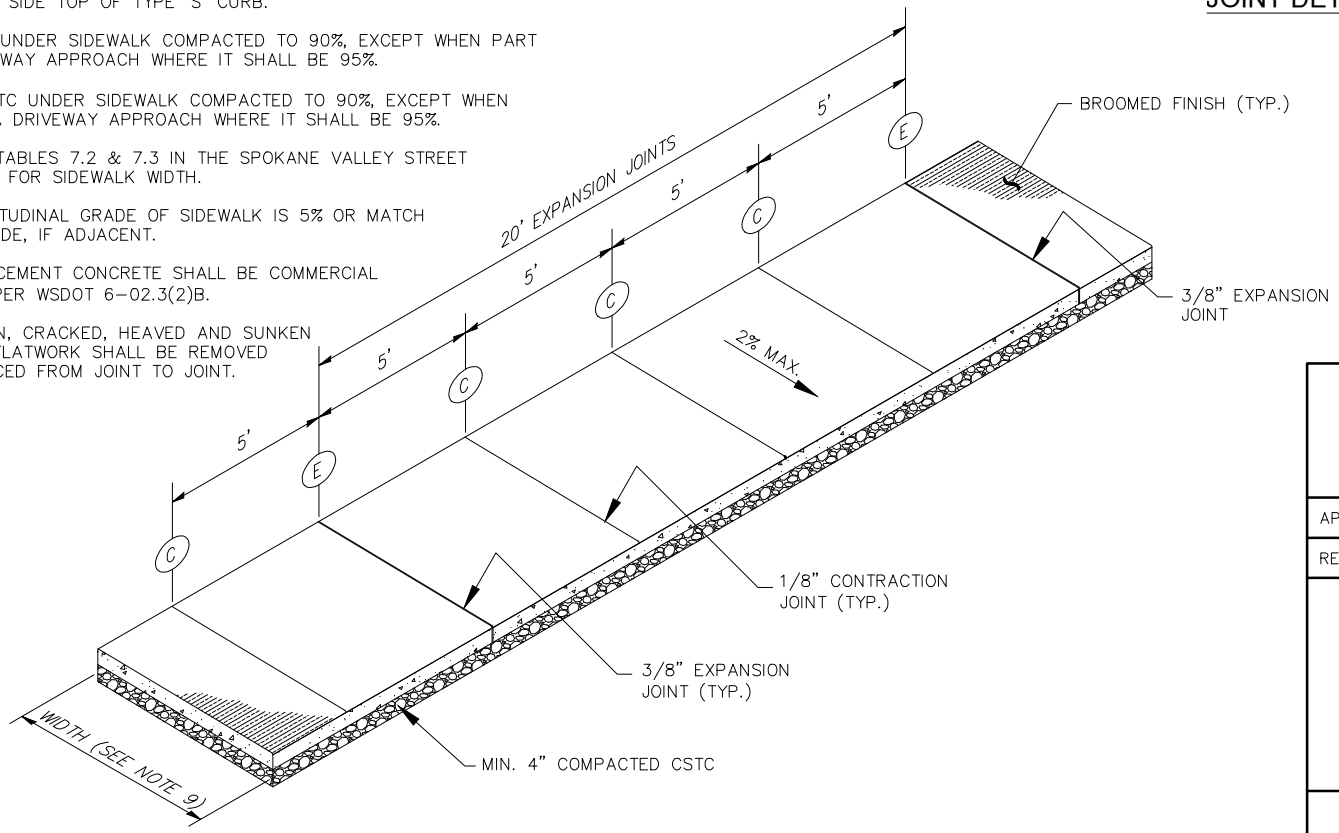
1. CONTRACTION JOINTS SHALL BE PLACED EVERY 5' AND MATCH CURB JOINTS WHEN ADJACENT TO CURB.
2. 3/8" EXPANSION JOINTS SHALL BE PLACED EVERY 20' WITH FELT EXPANSION MATERIAL EXTENDING THE FULL SIDEWALK DEPTH.
3. 3/8" EXPANSION MATERIAL IS REQUIRED BETWEEN A DRIVEWAY SLAB AND THE SIDEWALK. IT IS ALSO REQUIRED BETWEEN THE SIDEWALK AND THE DRIVEWAY APPROACH. EXPANSION MATERIAL SHALL EXTEND THE FULL DEPTH OF THE SIDEWALK.
4. SIDEWALK SHALL SLOPE TOWARDS THE CURB AT 1% TO 2% MAX.
5. SIDEWALK SHALL BE 4" THICK EXCEPT WHEN PART OF A DRIVEWAY WHERE IT SHALL BE 6" THICK.
6. STREET SIDE TOP OF WALK SHALL BE LEVEL WITH TOP OF CURB. WHERE TYPE 'S' CURBING IS USED WITH SEPARATED SIDEWALKS AND SWALES, THE STREET SIDE TOP OF WALK SHALL BE SET LEVEL WITH THE STREET SIDE TOP OF TYPE 'S' CURB.
7. SUBGRADE UNDER SIDEWALK COMPACTED TO 90%, EXCEPT WHEN PART OF A DRIVEWAY APPROACH WHERE IT SHALL BE 95%.
8. 4" MIN. CSTC UNDER SIDEWALK COMPACTED TO 90%, EXCEPT WHEN PART OF A DRIVEWAY APPROACH WHERE IT SHALL BE 95%.
9. REFER TO TABLES 7.2 & 7.3 IN THE SPOKANE VALLEY STREET STANDARDS FOR SIDEWALK WIDTH.
10. MAX. LONGITUDINAL GRADE OF SIDEWALK IS 5% OR MATCH STREET GRADE, IF ADJACENT.
11. PORTLAND CEMENT CONCRETE SHALL BE COMMERCIAL CONCRETE PER WSDOT 6-02.3(2)B.
12. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE FLATWORK SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.



Ⓔ EXPANSION JOINT DETAIL



Ⓒ CONTRACTION JOINT DETAIL



JOINT AND FINISH DETAIL

APPROVED BY:

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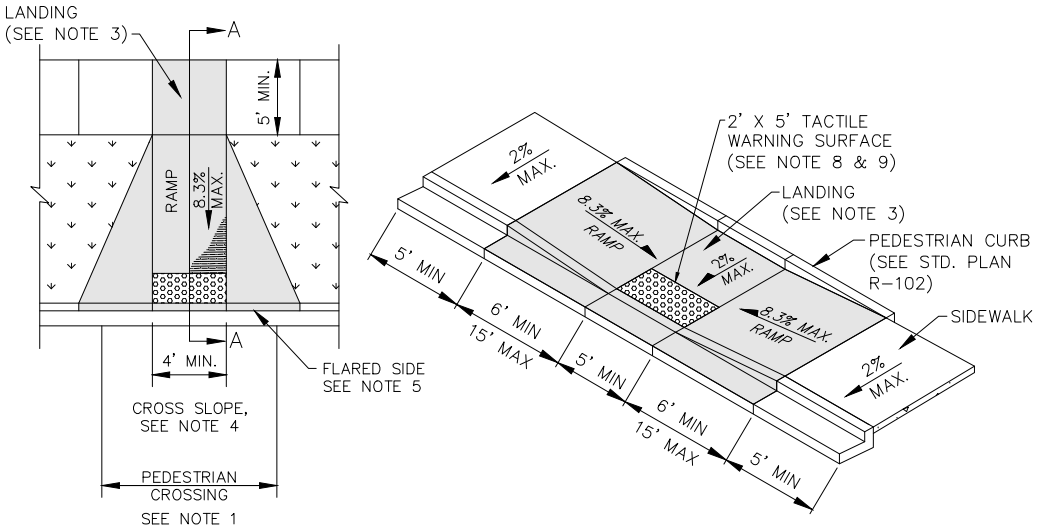
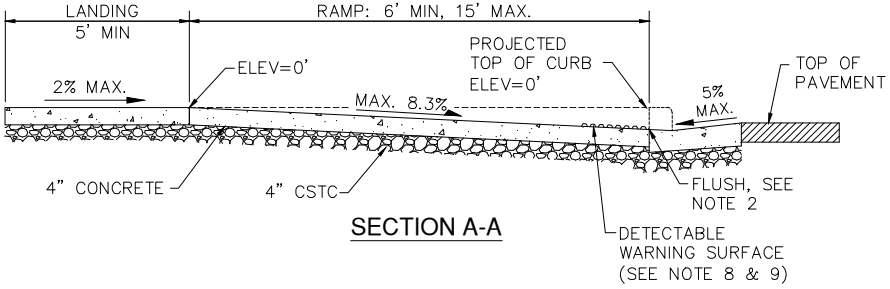
CITY OF Spokane Valley®

SIDEWALK

STANDARD PLAN NO. R-103



MID-STREET RAMPS



SECTION A-A

GENERAL NOTES

1. THE LONGITUDINAL SLOPE OF THE CROSSWALK (MARKED OR UNMARKED) SHALL NOT EXCEED 5%. THE CROSS SLOPE SHALL BE 2% MAXIMUM UNLESS CONTAINED IN A STREET WITHOUT YIELD OR STOP CONTROL, THEN MAXIMUM CROSS SLOPE IS 5%.
2. VERTICAL SURFACE DISCONTINUITIES SHALL BE 0.5" MAXIMUM. VERTICAL SURFACE DISCONTINUITIES BETWEEN 0.25"–0.50" SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 2:1.
3. LONGITUDINAL AND CROSS SLOPE OF LANDINGS SHOULD BE BETWEEN 0.5–2%. THE MAXIMUM SLOPE PERPENDICULAR TO THE DIRECTION OF TRAVEL SHALL BE 2%.
4. THE LONGITUDINAL SLOPE OF THE CURB RAMP SHALL BE 0.5% MIN. THE MAXIMUM LONGITUDINAL SLOPE SHALL BE 8.33% BUT THE RAMP LENGTH SHALL NOT BE REQUIRED TO EXCEED 15 FEET. MAXIMUM CROSS SLOPE SHALL BE 2% UNLESS THE RAMP IS NOT LOCATED AT THE INTERSECTION. THE CROSS SLOPE FOR MID–STREET RAMPS SHALL MATCH THE LONGITUDINAL GRADE OF THE STREET.
5. FLARED SIDE SLOPES SHALL NOT EXCEED 10%, MEASURED PARALLEL TO THE CURB LINE BUT SHALL NOT BE REQUIRED TO EXCEED 15'.
6. GRADE BREAKS SHALL NOT BE ALLOWED ON THE SURFACE OF CURB RAMPS OR LANDINGS. GRADE BREAKS SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
7. MAXIMUM SLOPES ARE STRICTLY ENFORCED. EXCEEDING THE MAXIMUM SLOPES WILL REQUIRE REMOVAL AND RECONSTRUCTION.
8. TACTILE WARNING SURFACES SHALL BE FEDERAL YELLOW, CAST IN PLACE DETECTABLE UNITS AS MANUFACTURED BY ARMOR TILE TACTILE SYSTEMS, OR AN APPROVED EQUAL. TRUNCATED DOME SIZE AND SPACING SHALL COMPLY WITH THE US ACCESS BOARD ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT–OF–WAY (SECTION R305). TACTILE WARNINGS SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS.
9. TACTILE WARNING SURFACES SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE RAMP.
10. DRAINAGE STRUCTURES, JUNCTIONS BOXES, OR OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN FRONT OF RAMPS.
11. PORTLAND CEMENT CONCRETE SHALL BE COMMERCIAL CONCRETE PER WSDOT 6–02.3(2)B.
12. CURB RAMPS AND RELATED INFRASTRUCTURE SHALL CONFORM WITH ALL CURRENT A.D.A. GUIDELINES.
13. SUBGRADE AND 4" CSTC UNDER RAMP SHALL BE COMPACTED TO 90%.
14. ALL BROKEN, CRACKED, HEAVED, AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.

ADA REQUIREMENTS			
	RECOMMENDED	MINIMUM	MAXIMUM
FLARED SIDE SLOPE (%)	8.33	0.5	10
FLARED SIDE LENGTH (FT)	6	5	15
RAMP SLOPE (%)	7	0.5	8.33
RAMP CROSS SLOPE (%)	1	0.5	2
RAMP LENGTH (FT)	7	6	15
RAMP WIDTH (FT)	4	4	-
LANDING WIDTH (FT)	5	4–5*	
LANDING SLOPE (%)	1	0.5	2
GUTTER SLOPE (%)	4	2	5
CHANGE IN LEVEL (IN)	FLUSH		0.5", SEE NOTE 2

*5' MIN. FOR MID–STREET RAMPS WITH ADJACENT SIDEWALK.

APPROVED BY:

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CITY ENGINEER

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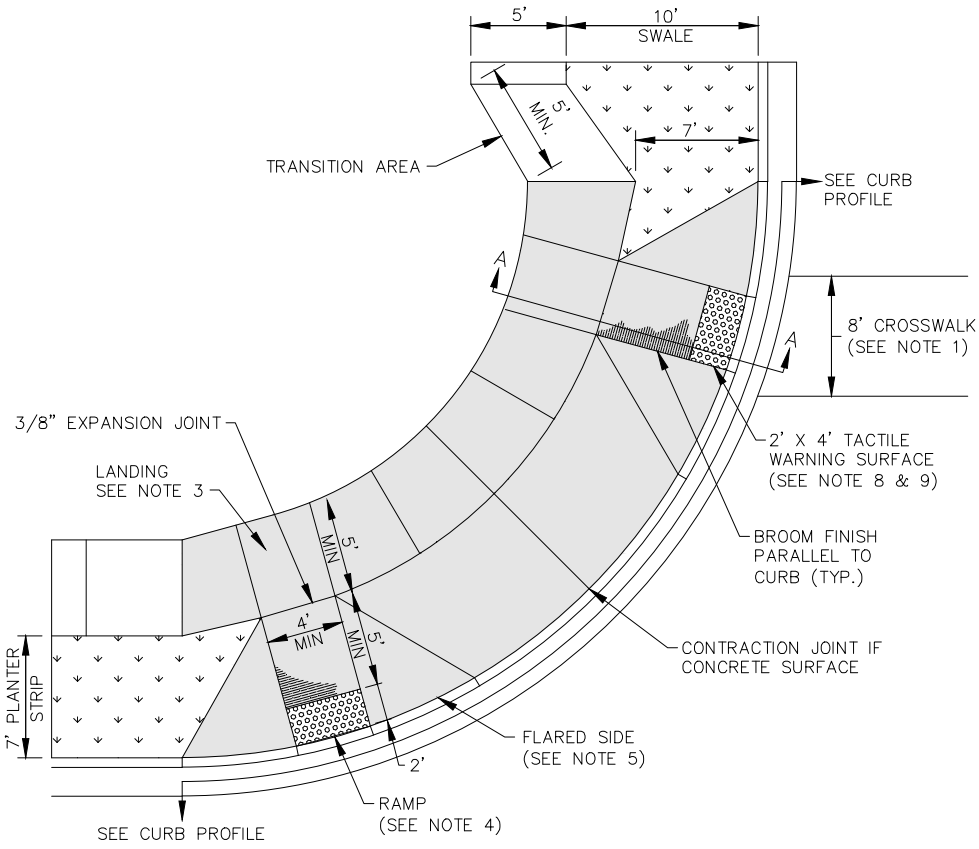
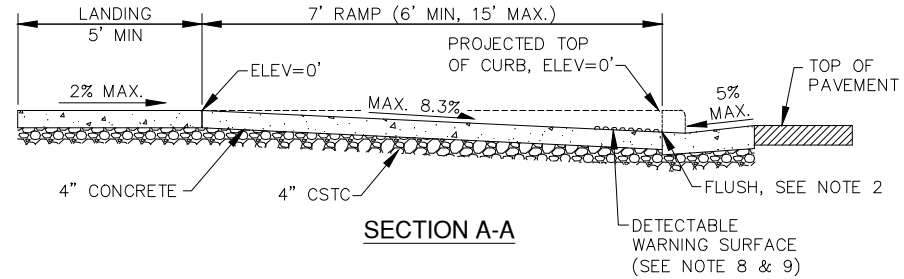
CITY OF Spokane Valley®

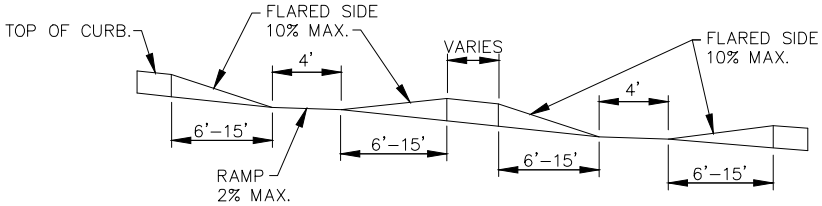
MID-STREET PEDESTRIAN RAMP

STANDARD PLAN NO. R-104





SECTION A-A



CURB PROFILE

GENERAL NOTES

1. THE LONGITUDINAL SLOPE OF THE CROSSWALK (MARKED OR UNMARKED) SHALL NOT EXCEED 5%. THE CROSS SLOPE SHALL BE 2% MAXIMUM UNLESS CONTAINED IN A STREET WITHOUT YIELD OR STOP CONTROL, THEN MAXIMUM CROSS SLOPE IS 5%.
2. VERTICAL SURFACE DISCONTINUITIES SHALL BE 0.5" MAXIMUM. VERTICAL SURFACE DISCONTINUITIES BETWEEN 0.25"–0.50" SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 2:1.
3. MINIMUM 4' BY 5' LANDING. LONGITUDINAL AND CROSS SLOPE SHOULD BE BETWEEN 0.5–2%. THE MAXIMUM SLOPE PERPENDICULAR TO THE DIRECTION OF TRAVEL SHALL BE 2%.
4. THE LONGITUDINAL SLOPE OF THE CURB RAMP SHALL BE 0.5% MIN. THE MAXIMUM LONGITUDINAL SLOPE SHALL BE 8.33% BUT THE RAMP LENGTH SHALL NOT BE REQUIRED TO EXCEED 15 FEET. MAXIMUM CROSS SLOPE SHALL BE 2% UNLESS THE RAMP IS NOT LOCATED AT THE INTERSECTION. THE CROSS SLOPE FOR MID–STREET RAMPS SHALL MATCH THE LONGITUDINAL GRADE OF THE STREET.
5. FLARED SIDE SLOPES SHALL NOT EXCEED 10%, MEASURED PARALLEL TO THE CURB LINE BUT SHALL NOT BE REQUIRED TO EXCEED 15'.
6. GRADE BREAKS SHALL NOT BE ALLOWED ON THE SURFACE OF CURB RAMPS OR LANDINGS. GRADE BREAKS SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
7. MAXIMUM SLOPES ARE STRICTLY ENFORCED. EXCEEDING THE MAXIMUM SLOPES WILL REQUIRE REMOVAL AND RECONSTRUCTION.
8. TACTILE WARNING SURFACES SHALL BE FEDERAL YELLOW, CAST IN PLACE DETECTABLE UNITS AS MANUFACTURED BY ARMOR TILE TACTILE SYSTEMS, OR AN APPROVED EQUAL. TRUNCATED DOME SIZE AND SPACING SHALL COMPLY WITH THE US ACCESS BOARD ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT–OF–WAY (SECTION R305). TACTILE WARNINGS SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS.
9. TACTILE WARNING SURFACES SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE RAMP.
10. DRAINAGE STRUCTURES, JUNCTIONS BOXES, OR OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN FRONT OF RAMPS.
11. PORTLAND CEMENT CONCRETE SHALL BE COMMERCIAL CONCRETE PER WSDOT 6–02.3(2)B.
12. CURB RAMPS AND RELATED INFRASTRUCTURE SHALL CONFORM WITH ALL CURRENT A.D.A. GUIDELINES.
13. SUBGRADE AND 4" CSTC UNDER RAMP SHALL BE COMPACTED TO 90%.
14. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED FROM JOINT TO JOINT.

ADA REQUIREMENTS			
	RECOMMENDED	MINIMUM	MAXIMUM
FLARED SIDE SLOPE (%)	8.33	0.5	10
FLARED SIDE LENGTH (FT)	6	5	15
RAMP SLOPE (%)	7	0.5	8.33
RAMP CROSS SLOPE (%)	1	0.5	2
RAMP LENGTH (FT)	7	6	15
RAMP WIDTH (FT)	4	4	-
LANDING WIDTH (FT)	5	4	-
LANDING SLOPE (%)	1	0.5	2
GUTTER SLOPE (%)	4	2	5
CHANGE IN LEVEL (IN)	FLUSH		0.5", SEE NOTE 2

APPROVED BY:

WILLIAM S. HELBIG, P.E.
CITY ENGINEER

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CITY OF Spokane Valley®

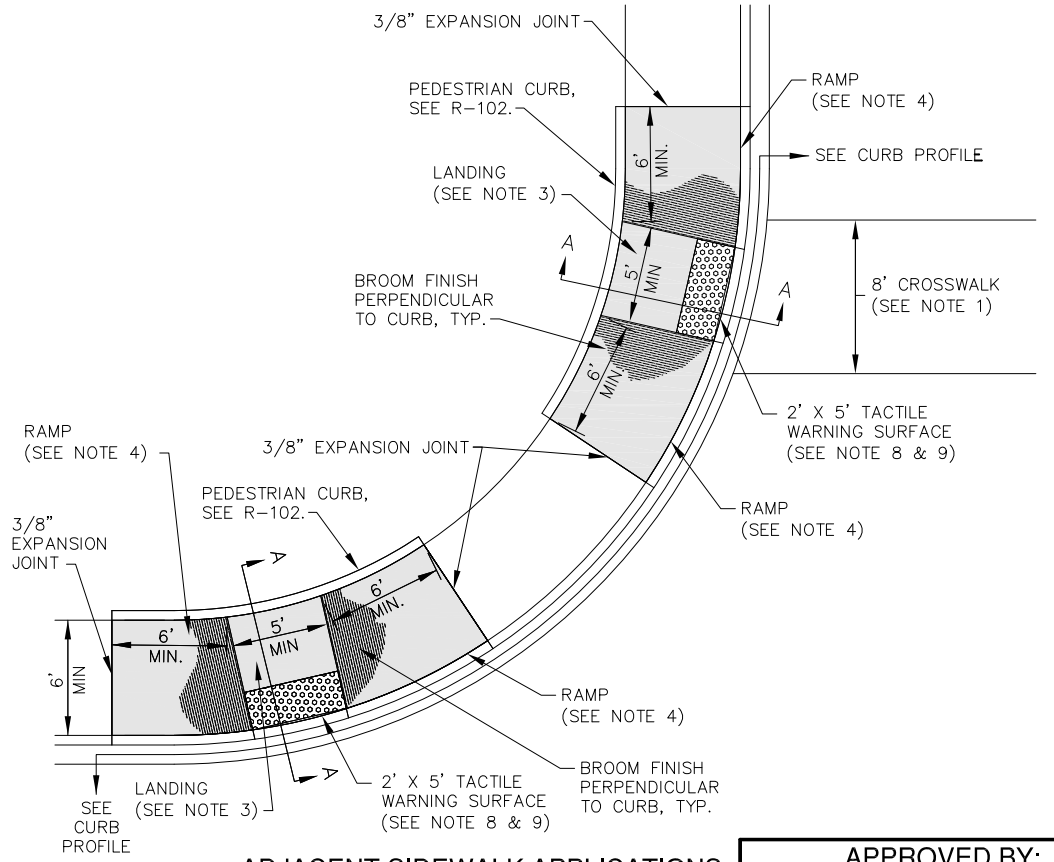
PEDESTRIAN RAMP SEPARATED SIDEWALK

STANDARD PLAN NO.
R-105

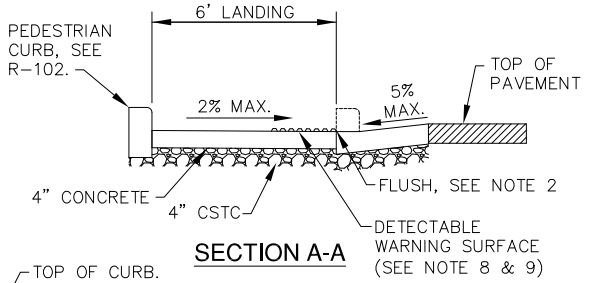
ADA REQUIREMENTS			
	RECOMMENDED	MINIMUM	MAXIMUM
FLARED SIDE SLOPE (%)	8.33	0.5	10
FLARED SIDE LENGTH (FT)	6	5	15
RAMP SLOPE (%)	7	0.5	8.33
RAMP CROSS SLOPE (%)	1	0.5	2
RAMP LENGTH (FT)	7	6	15
RAMP WIDTH (FT)	4	4	-
LANDING WIDTH (FT)	5	5	
LANDING SLOPE (%)	1	0.5	2
GUTTER SLOPE (%)	4	2	5
CHANGE IN LEVEL (IN)	FLUSH		0.5", SEE NOTE 2

GENERAL NOTES

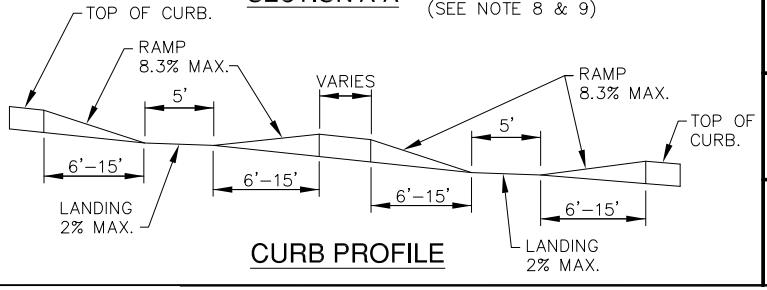
1. THE LONGITUDINAL SLOPE OF THE CROSSWALK (MARKED OR UNMARKED) SHALL NOT EXCEED 5%. THE CROSS SLOPE SHALL BE 2% MAXIMUM UNLESS CONTAINED IN A STREET WITHOUT YIELD OR STOP CONTROL, THEN MAXIMUM CROSS SLOPE IS 5%.
2. VERTICAL SURFACE DISCONTINUITIES SHALL BE 0.5" MAXIMUM. VERTICAL SURFACE DISCONTINUITIES BETWEEN 0.25"–0.50" SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 2:1.
3. MINIMUM 4' BY 5' LANDING. LONGITUDINAL AND CROSS SLOPE SHOULD BE BETWEEN 0.5–2%. THE MAXIMUM SLOPE PERPENDICULAR TO THE DIRECTION OF TRAVEL SHALL BE 2%.
4. THE LONGITUDINAL SLOPE OF THE CURB RAMP SHALL BE 0.5% MIN. THE MAXIMUM LONGITUDINAL SLOPE SHALL BE 8.33% BUT THE RAMP LENGTH SHALL NOT BE REQUIRED TO EXCEED 15 FEET. MAXIMUM CROSS SLOPE SHALL BE 2% UNLESS THE RAMP IS NOT LOCATED AT THE INTERSECTION. THE CROSS SLOPE FOR MID STREET RAMPS SHALL MATCH THE LONGITUDINAL GRADE OF THE STREET.
5. FLARED SIDE SLOPES SHALL NOT EXCEED 10%, MEASURED PARALLEL TO THE CURB LINE BUT SHALL NOT BE REQUIRED TO EXCEED 15'.
6. GRADE BREAKS SHALL NOT BE ALLOWED ON THE SURFACE OF CURB RAMPS OR LANDINGS. GRADE BREAKS SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
7. MAXIMUM SLOPES ARE STRICTLY ENFORCED. EXCEEDING THE MAXIMUM SLOPES WILL REQUIRE REMOVAL AND RECONSTRUCTION.
8. TACTILE WARNING SURFACES SHALL BE FEDERAL YELLOW, CAST IN PLACE DETECTABLE UNITS AS MANUFACTURED BY ARMOR TILE TACTILE SYSTEMS, OR AN APPROVED EQUAL. TRUNCATED DOME SIZE AND SPACING SHALL COMPLY WITH THE US ACCESS BOARD ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT–OF–WAY (SECTION R305). TACTILE WARNINGS SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS.
9. TACTILE WARNING SURFACES SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE RAMP.
10. DRAINAGE STRUCTURES, JUNCTIONS BOXES, OR OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN FRONT OF RAMPS.
11. PORTLAND CEMENT CONCRETE SHALL BE COMMERCIAL CONCRETE PER WSDOT 6–02.3(2)B.
12. CURB RAMPS AND RELATED INFRASTRUCTURE SHALL CONFORM WITH ALL CURRENT A.D.A. GUIDELINES.
13. SUBGRADE AND 4" CSTC UNDER RAMP SHALL BE COMPACTED TO 90%.
14. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.



ADJACENT SIDEWALK APPLICATIONS



SECTION A-A



CURB PROFILE

APPROVED BY:

WILLIAM S. HELBIG, P.E.
CITY ENGINEER

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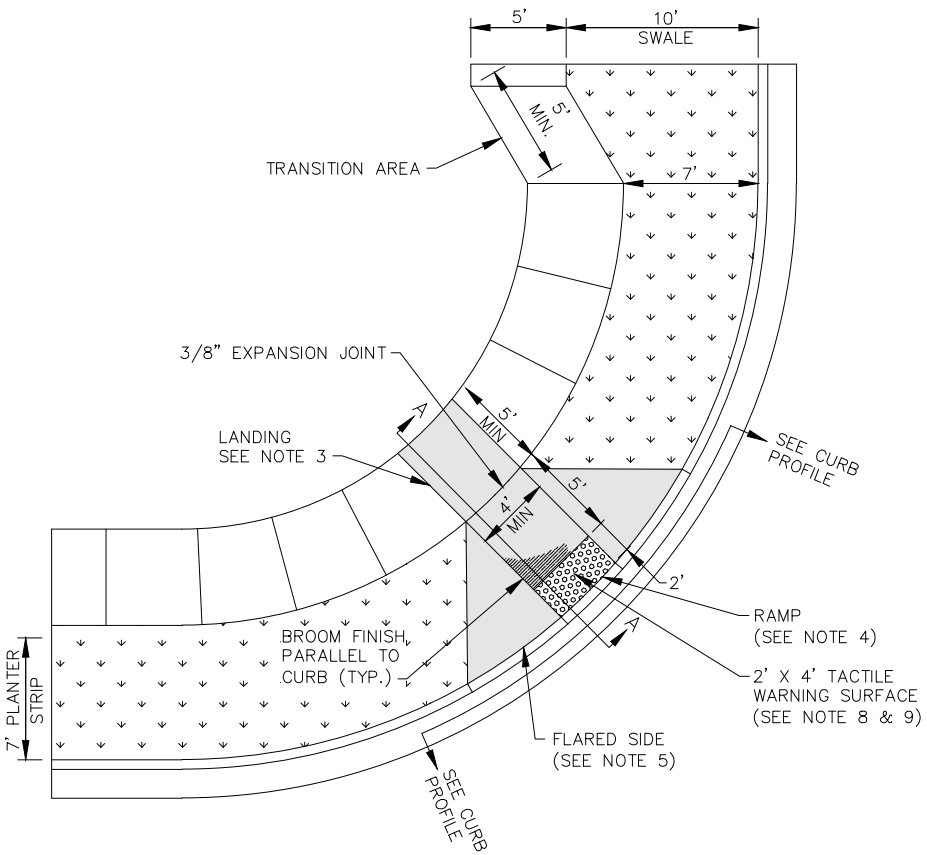
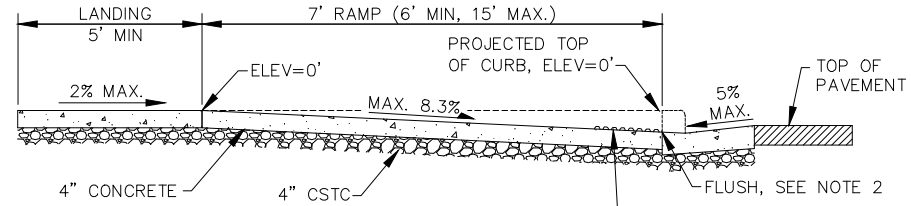
CITY OF Spokane Valley

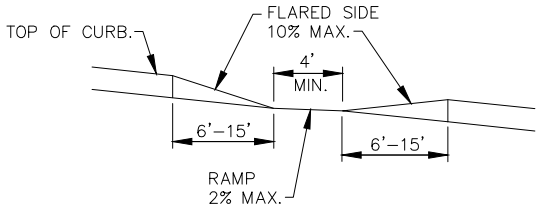
PEDESTRIAN RAMP ADJACENT SIDEWALK

STANDARD PLAN NO. R-106





SECTION A-A



CURB PROFILE

GENERAL NOTES

1. THE LONGITUDINAL SLOPE OF THE CROSSWALK (MARKED OR UNMARKED) SHALL NOT EXCEED 5%. THE CROSS SLOPE SHALL BE 2% MAXIMUM UNLESS CONTAINED IN A STREET WITHOUT YIELD OR STOP CONTROL, THEN MAXIMUM CROSS SLOPE IS 5%.
2. VERTICAL SURFACE DISCONTINUITIES SHALL BE 0.5" MAXIMUM. VERTICAL SURFACE DISCONTINUITIES BETWEEN 0.25"–0.50" SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 2:1.
3. MINIMUM 4' BY 5' LANDING. LONGITUDINAL AND CROSS SLOPE SHOULD BE BETWEEN 0.5–2%. THE MAXIMUM SLOPE PERPENDICULAR TO THE DIRECTION OF TRAVEL SHALL BE 2%.
4. THE LONGITUDINAL SLOPE OF THE CURB RAMP SHALL BE 0.5% MIN. THE MAXIMUM LONGITUDINAL SLOPE SHALL BE 8.33% BUT THE RAMP LENGTH SHALL NOT BE REQUIRED TO EXCEED 15 FEET. MAXIMUM CROSS SLOPE SHALL BE 2% UNLESS THE RAMP IS NOT LOCATED AT THE INTERSECTION.
5. FLARED SIDE SLOPES SHALL NOT EXCEED 10%, MEASURED PARALLEL TO THE CURB LINE BUT SHALL NOT BE REQUIRED TO EXCEED 15'.
6. GRADE BREAKS SHALL NOT BE ALLOWED ON THE SURFACE OF CURB RAMPS OR LANDINGS. GRADE BREAKS SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
7. MAXIMUM SLOPES ARE STRICTLY ENFORCED. EXCEEDING THE MAXIMUM SLOPES WILL REQUIRE REMOVAL AND RECONSTRUCTION.
8. TACTILE WARNING SURFACES SHALL BE FEDERAL YELLOW, CAST IN PLACE DETECTABLE UNITS AS MANUFACTURED BY ARMOR TILE TACTILE SYSTEMS, OR AN APPROVED EQUAL. TRUNCATED DOME SIZE AND SPACING SHALL COMPLY WITH THE US ACCESS BOARD ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT–OF–WAY (SECTION R305). TACTILE WARNINGS SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS.
9. TACTILE WARNING SURFACES SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE RAMP.
10. DRAINAGE STRUCTURES, JUNCTIONS BOXES, OR OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN FRONT OF RAMPS.
11. PORTLAND CEMENT CONCRETE SHALL BE COMMERCIAL CONCRETE PER WSDOT 6–02.3(2)B.
12. CURB RAMPS AND RELATED INFRASTRUCTURE SHALL CONFORM WITH ALL CURRENT A.D.A. GUIDELINES.
13. THIS RAMP STYLE SHALL BE USED FOR LOCAL ACCESSU STREETS ONLY.
14. SUBGRADE AND 4" CSTC UNDER RAMP SHALL BE COMPACTED TO 90%.
15. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.

ADA REQUIREMENTS			
	RECOMMENDED	MINIMUM	MAXIMUM
FLARED SIDE SLOPE (%)	8.33	0.5	10
FLARED SIDE LENGTH (FT)	6	5	15
RAMP SLOPE (%)	7	0.5	8.33
RAMP CROSS SLOPE (%)	1	0.5	2
RAMP LENGTH (FT)	7	6	15
RAMP WIDTH (FT)	4	4	-
LANDING WIDTH (FT)	5	4	
LANDING SLOPE (%)	1	0.5	2
GUTTER SLOPE (%)	4	2	5
CHANGE IN LEVEL (IN)	FLUSH		0.5", SEE NOTE 2

APPROVED BY:

WILLIAM S. HELBIG, P.E.
CITY ENGINEER

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CITY OF Spokane Valley®

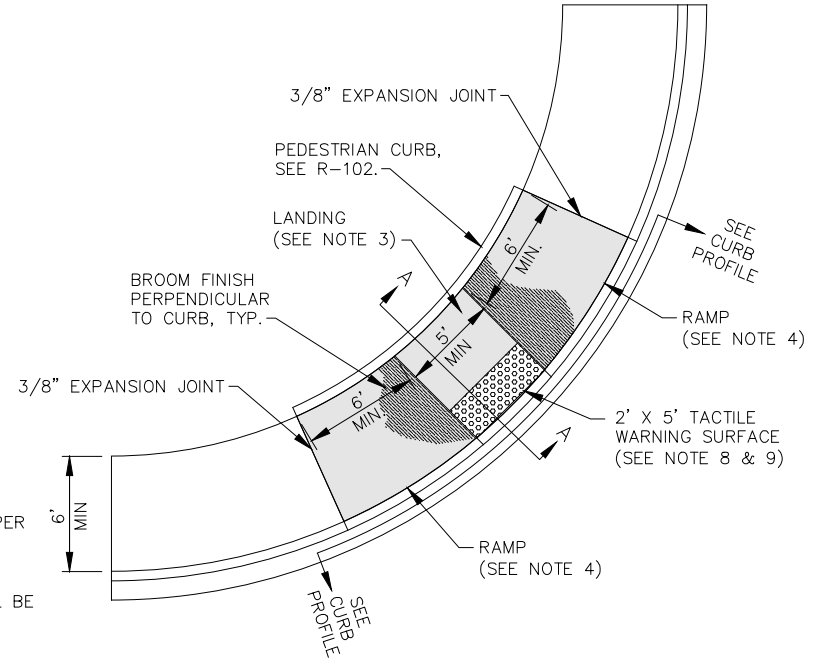
PEDESTRIAN RAMP SEPARATED SIDEWALK (LOCAL ACCESS STREETS ONLY)

STANDARD PLAN NO.
R-107

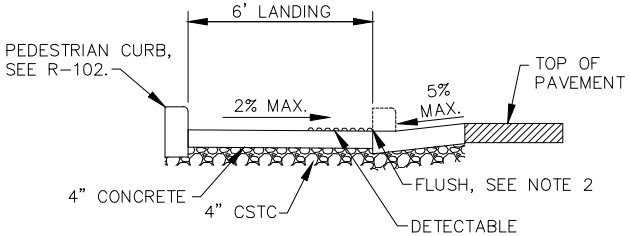
ADA REQUIREMENTS			
	RECOMMENDED	MINIMUM	MAXIMUM
RAMP SLOPE (%)	7	0.5	8.33
RAMP CROSS SLOPE (%)	1	0.5	2
RAMP LENGTH (FT)	7	6	15
RAMP WIDTH (FT)	6	6	-
LANDING WIDTH (FT)	5	5	
LANDING SLOPE (%)	1	0.5	2
GUTTER SLOPE (%)	4	2	5
CHANGE IN LEVEL (IN)	FLUSH		0.5", SEE NOTE 2

GENERAL NOTES

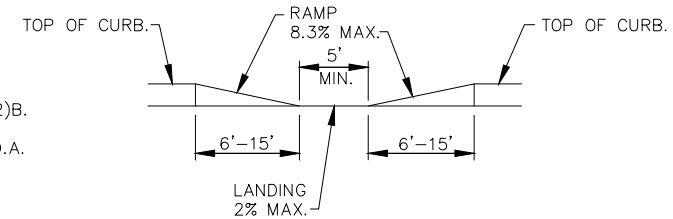
1. THE LONGITUDINAL SLOPE OF THE CROSSWALK (MARKED OR UNMARKED) SHALL NOT EXCEED 5%. THE CROSS SLOPE SHALL BE 2% MAXIMUM UNLESS CONTAINED IN A STREET WITHOUT YIELD OR STOP CONTROL, THEN MAXIMUM CROSS SLOPE IS 5%.
2. VERTICAL SURFACE DISCONTINUITIES SHALL BE 0.5" MAXIMUM. VERTICAL SURFACE DISCONTINUITIES BETWEEN 0.25"–0.50" SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 2:1.
3. MINIMUM 4' BY 5' LANDING. LONGITUDINAL AND CROSS SLOPE SHOULD BE BETWEEN 0.5–2%. THE MAXIMUM SLOPE PERPENDICULAR TO THE DIRECTION OF TRAVEL SHALL BE 2%.
4. THE LONGITUDINAL SLOPE OF THE CURB RAMP SHALL BE 0.5% MIN. THE MAXIMUM LONGITUDINAL SLOPE SHALL BE 8.33% BUT THE RAMP LENGTH SHALL NOT BE REQUIRED TO EXCEED 15 FEET. MAXIMUM CROSS SLOPE SHALL BE 2% UNLESS THE RAMP IS NOT LOCATED AT THE INTERSECTION. THE CROSS SLOPE FOR MID STREET RAMPS SHALL MATCH THE LONGITUDINAL GRADE OF THE STREET.
5. FLARED SIDE SLOPES SHALL NOT EXCEED 10%, MEASURED PARALLEL TO THE CURB LINE BUT SHALL NOT BE REQUIRED TO EXCEED 15'.
6. GRADE BREAKS SHALL NOT BE ALLOWED ON THE SURFACE OF CURB RAMPS OR LANDINGS. GRADE BREAKS SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
7. MAXIMUM SLOPES ARE STRICTLY ENFORCED. EXCEEDING THE MAXIMUM SLOPES WILL REQUIRE REMOVAL AND RECONSTRUCTION.
8. TACTILE WARNING SURFACES SHALL BE FEDERAL YELLOW, CAST IN PLACE DETECTABLE UNITS AS MANUFACTURED BY ARMOR TILE TACTILE SYSTEMS, OR AN APPROVED EQUAL. TRUNCATED DOME SIZE AND SPACING SHALL COMPLY WITH THE US ACCESS BOARD ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT–OF–WAY (SECTION R305). TACTILE WARNINGS SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS.
9. TACTILE WARNING SURFACES SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE RAMP.
10. DRAINAGE STRUCTURES, JUNCTIONS BOXES, OR OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN FRONT OF RAMPS.
11. PORTLAND CEMENT CONCRETE SHALL BE COMMERCIAL CONCRETE PER WSDOT 6–02.3(2)B.
12. CURB RAMPS AND RELATED INFRASTRUCTURE SHALL CONFORM WITH ALL CURRENT A.D.A. GUIDELINES.
13. THIS RAMP STYLE SHALL BE USED AT LOCAL ACCESS STREETS ONLY.
14. SUBGRADE AND 4" CSTC UNDER RAMP SHALL BE COMPACTED TO 90%.
15. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.



ADJACENT SIDEWALK APPLICATIONS



SECTION A-A



CURB PROFILE

APPROVED BY:

WILLIAM S. HELBIG, P.E.
CITY ENGINEER

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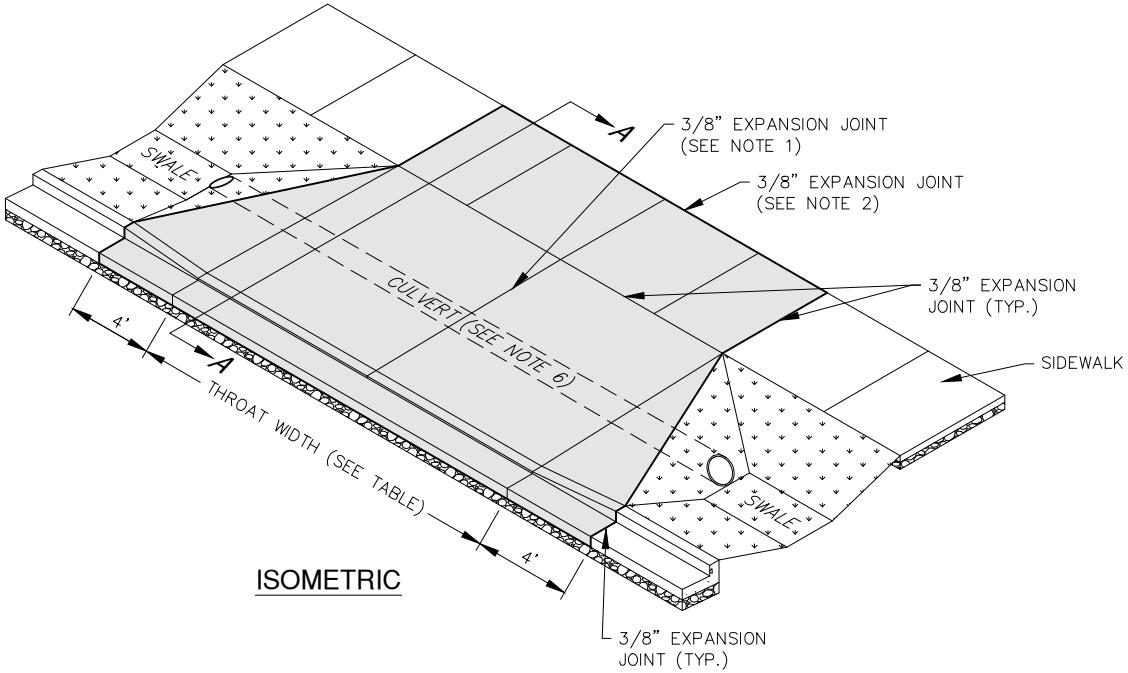
CITY OF Spokane Valley®

PEDESTRIAN RAMP
ADJACENT SIDEWALK
(LOCAL ACCESS STREETS ONLY)

STANDARD PLAN NO.
R-108



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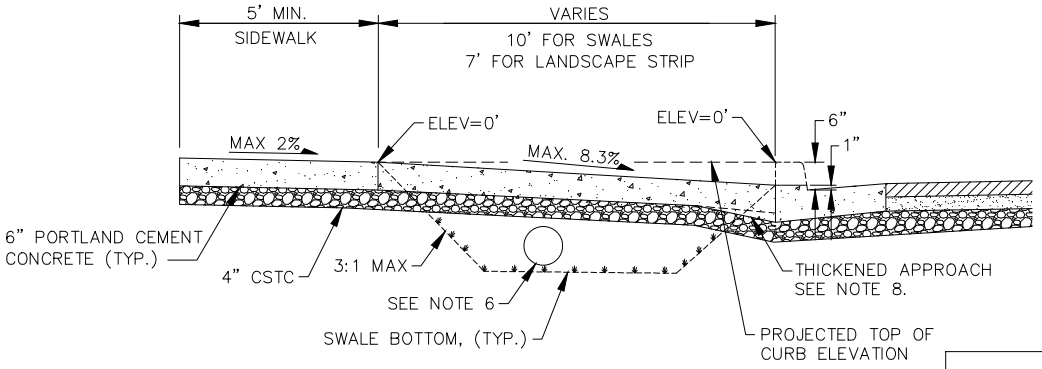

SECTION A-A

GENERAL NOTES

1. EXPANSION JOINT MATERIAL SHALL BE PLACED IN THE CENTER OF ALL DRIVEWAYS OVER 20' IN WIDTH.
2. EXPANSION JOINT REQUIRED AT BACK OF WALK IF CONCRETE DRIVEWAY EXTENDS BEYOND BACK OF WALK.
3. PORTLAND CEMENT CONCRETE SHALL BE PER WSDOT 8-06.3.
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 AT LOCATIONS WHERE SIDEWALK INTERSECTS OTHER SIDEWALKS AND DRIVEWAYS.
6. FOR ROADSIDE SWALE APPLICATIONS, INSTALL 8" D.I. CULVERT UNDER APPROACH PER SPOKANE REGIONAL STORMWATER MANUAL. ENDS SHALL BE BEVELED TO MATCH SWALE SLOPE.
7. MIN. 4" THICK COMPACTED CSTC LAYER UNDER DRIVE APPROACH.
8. FIRST 2' OF DRIVE APPROACH (AT CURB SIDE) SHALL BE THICKENED TO MATCH BOTTOM OF CURB.
9. SUBGRADE AND 4" CSTC UNDER APPROACH AND SIDEWALK SHALL BE COMPACTED TO 95%.
10. EXISTING SIDEWALK AT NEW APPROACHES SHALL BE REMOVED AND REPLACED WITH 6" THICK CONCRETE OVER 4" CSTC COMPACTED TO 95%.
11. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.

DESIGN CRITERIA

	RESIDENTIAL	COMMERCIAL
DISTANCE FROM CURB RETURN	15' MIN.	75' MIN.
THROAT WIDTH	16' MIN.*, 30' MAX.	30' MIN. 40' MAX.
SETBACK FROM SIDE PROPERTY LINE AT R.O.W.	5' MIN.	5' MIN.
SETBACK FROM SIDE PROPERTY LINE	2' MIN.	2' MIN.

*24' MIN. IF DRIVEWAY LENGTH IS OVER 75' LONG, SEE R-117

APPROVED BY:

WILLIAM S. HELBIG, P.E.
CITY ENGINEER

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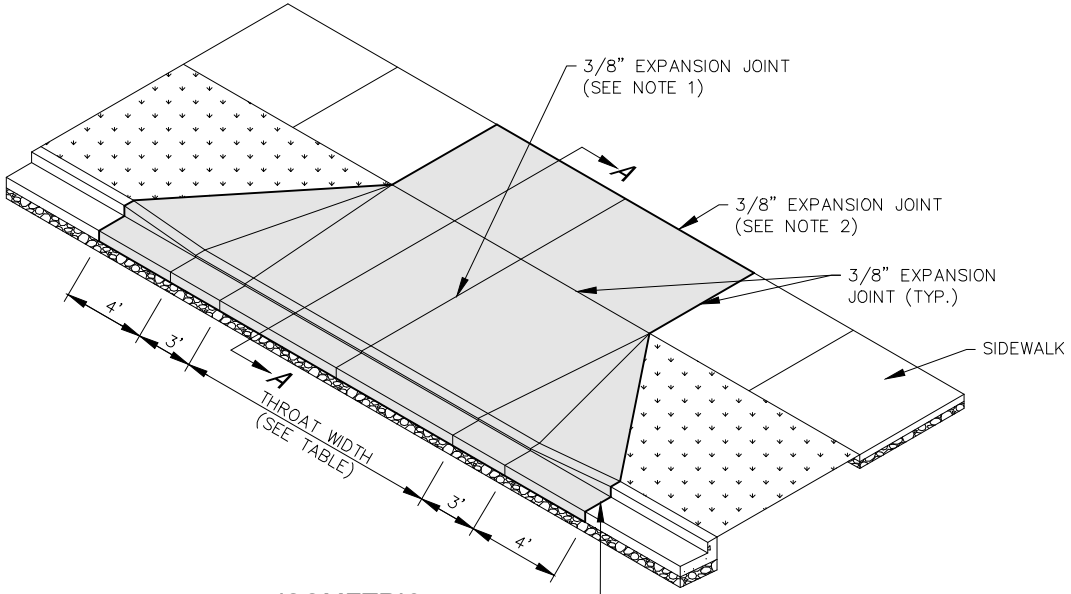
CITY OF Spokane Valley®

TYPE I
CONCRETE APPROAC
SEPARATED SIDE AL

STANDARD PLAN NO.
R-110



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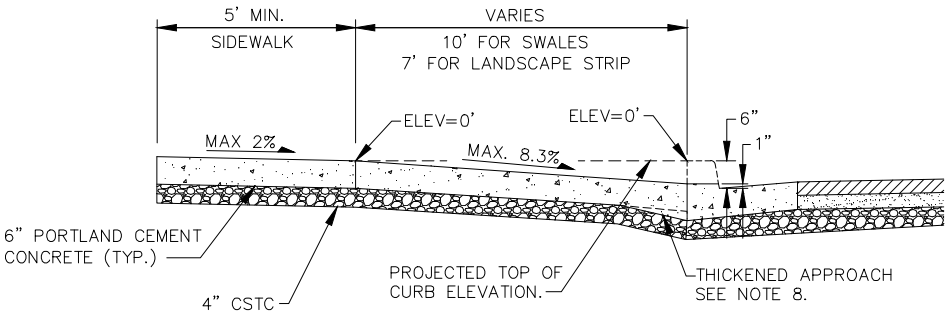

SECTION A-A

GENERAL NOTES

1. EXPANSION JOINT MATERIAL SHALL BE PLACED IN THE CENTER OF ALL DRIVEWAYS OVER 20' IN WIDTH.
2. EXPANSION JOINT REQUIRED AT BACK OF WALK IF CONCRETE DRIVEWAY EXTENDS BEYOND BACK OF WALK.
3. PORTLAND CEMENT CONCRETE SHALL BE PER WSDOT 8-06.3.
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 AT LOCATIONS WHERE SIDEWALK INTERSECTS OTHER SIDEWALKS AND DRIVEWAYS.
6. FOR ROADSIDE SWALE APPLICATIONS, INSTALL 8" D.I. CULVERT UNDER APPROACH PER SPOKANE REGIONAL STORMWATER MANUAL. ENDS SHALL BE BEVELED TO MATCH SWALE SLOPE. SEE STD. PLAN R-110.
7. MIN. 4" THICK COMPACTED CSTC LAYER UNDER DRIVE APPROACH.
8. FIRST 2' OF DRIVE APPROACH (AT CURB SIDE) SHALL BE THICKENED TO MATCH BOTTOM OF CURB.
9. SUBGRADE AND 4" CSTC UNDER APPROACH AND SIDEWALK SHALL BE COMPACTED TO 95%.
10. EXISTING SIDEWALK AT NEW APPROACHES SHALL BE REMOVED AND REPLACED WITH 6" THICK CONCRETE OVER 4" CSTC COMPACTED TO 95%.
11. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.

DESIGN CRITERIA

	RESIDENTIAL	COMMERCIAL
DISTANCE FROM CURB RETURN	15' MIN.	75' MIN.
THROAT WIDTH	16' MIN.*, 30' MAX.	30' MIN. 40' MAX.
SETBACK FROM SIDE PROPERTY LINE AT R.O.W.	5' MIN.	5' MIN.
SETBACK FROM SIDE PROPERTY LINE	2' MIN.	2' MIN.

*24' MIN. WIDTH IF DRIVEWAY LENGTH IS OVER 75', SEE R-117

APPROVED BY:

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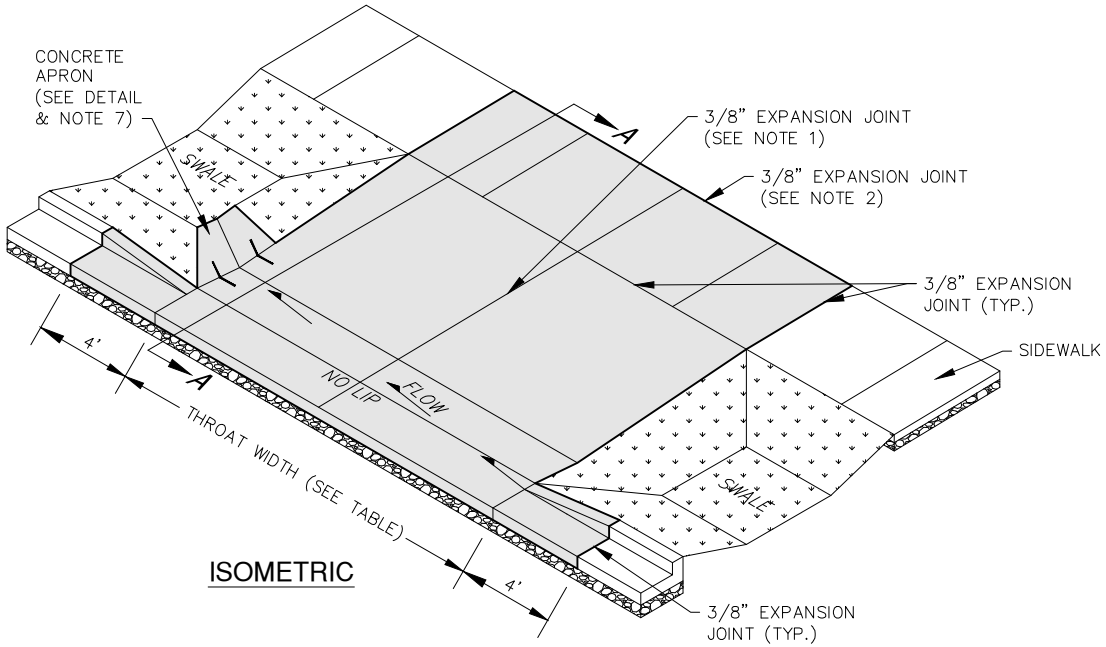
CITY OF Spokane Valley®

TYPE II CONCRETE APPROACH SEPARATED SIDEWALK

STANDARD PLAN NO. R-111



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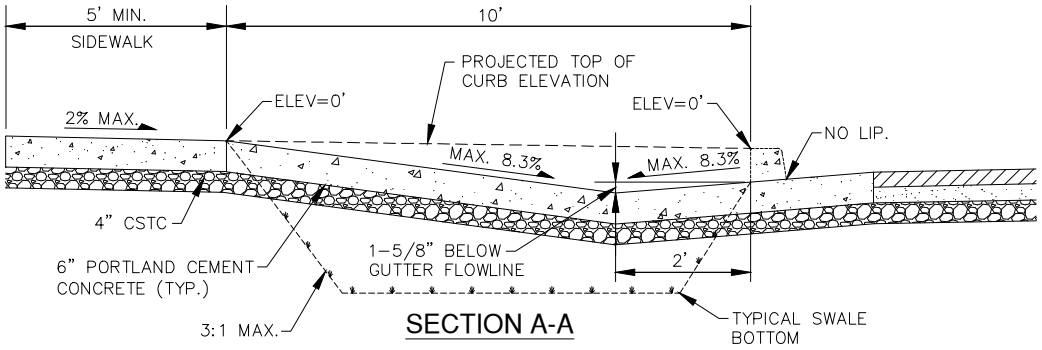
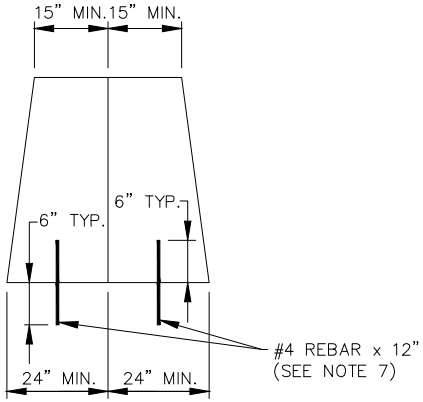


SECTION A-A

GENERAL NOTES

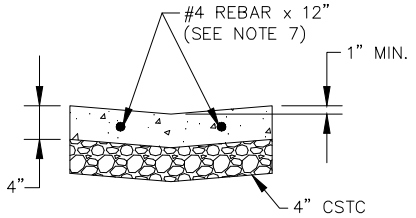
1. 3/8" EXPANSION JOINT MATERIAL SHALL BE PLACED IN THE CENTER OF ALL DRIVEWAYS OVER 20' IN WIDTH.
2. EXPANSION JOINT REQUIRED AT BACK OF WALK IF CONCRETE DRIVEWAY EXTENDS BEYOND BACK OF WALK.
3. PORTLAND CEMENT CONCRETE SHALL BE PER WSDOT 8-06.3.
4. ALL EXTERNAL EDGES TO BE TROWELLED WITH 1/4" RADIUS EDGER.
5. SIDEWALK TO BE SCORED EVERY 5'. 3/8" EXPANSION JOINT TO BE INSTALLED AT LOCATIONS WHERE SIDEWALK INTERSECTS OTHER SIDEWALKS AND DRIVEWAYS.
6. MIN. 4" THICK COMPACTED CSTC LAYER UNDER DRIVE APPROACH.
7. APRON SHALL EXTEND TO SWALE BOTTOM AND BE SECURED TO DRIVE APPROACH WITH TWO #4 REBARS x 12" LONG, EMBEDDED 6" EACH WAY.
8. SUBGRADE AND 4" CSTC UNDER APPROACH AND SIDEWALK SHALL BE COMPACTED TO 95%.
9. EXISTING SIDEWALK AT NEW APPROACHES SHALL BE REMOVED AND REPLACED WITH 6" THICK CONCRETE OVER 4" CSTC COMPACTED TO 95%.
10. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.



DESIGN CRITERIA

	RESIDENTIAL	COMMERCIAL
DISTANCE FROM CURB RETURN	15' MIN.	75' MIN.
THROAT WIDTH	16' MIN.*, 30' MAX.	30' MIN. 40' MAX.
SETBACK FROM SIDE PROPERTY LINE AT R.O.W.	5' MIN.	5' MIN.
SETBACK FROM SIDE PROPERTY LINE	2' MIN.	2' MIN.

*24' MIN. WIDTH IF DRIVEWAY LENGTH IS OVER 75', SEE R-117



APRON DETAIL

APPROVED BY:

WILLIAM S. HELBIG, P.E.
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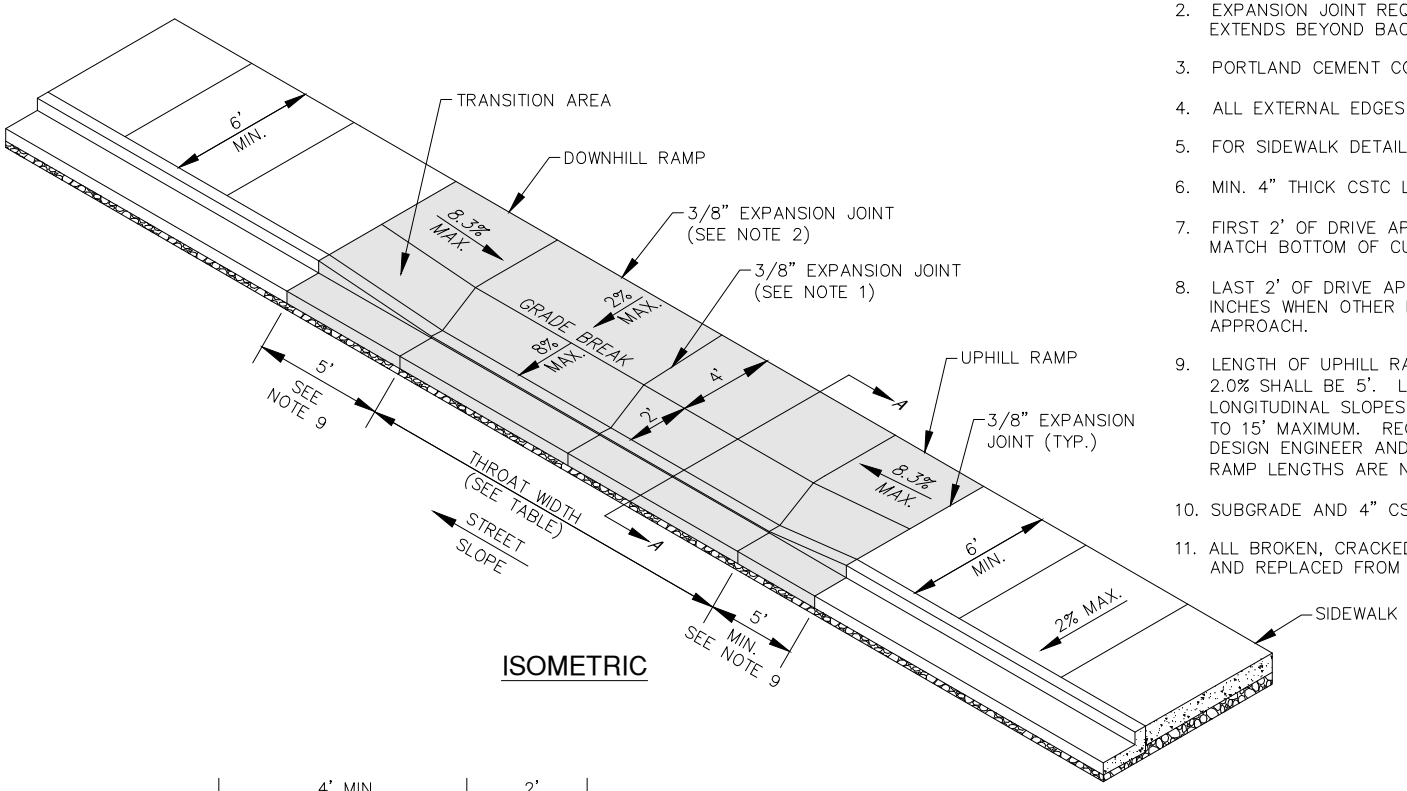
CITY OF Spokane Valley®

DRIVEWAY APPROACH SWALE INLET

STANDARD PLAN NO. R-112

GENERAL NOTES

1. 3/8" EXPANSION JOINT MATERIAL SHALL BE PLACED IN THE CENTER OF ALL DRIVEWAYS OVER 20' IN WIDTH.
2. EXPANSION JOINT REQUIRED AT BACK OF WALK IF CONCRETE DRIVEWAY EXTENDS BEYOND BACK OF WALK.
3. PORTLAND CEMENT CONCRETE SHALL BE PER WSDOT 8-06.3.
4. ALL EXTERNAL EDGES TO BE TROWELLED WITH 1/4" RADIUS EDGER.
5. FOR SIDEWALK DETAIL, SEE R-103.
6. MIN. 4" THICK CSTC LAYER UNDER DRIVE APPROACH.
7. FIRST 2' OF DRIVE APPROACH (AT CURB SIDE) SHALL BE THICKENED TO MATCH BOTTOM OF CURB.
8. LAST 2' OF DRIVE APPROACH (HOUSE SIDE) WILL BE THICKENED 2 EXTRA INCHES WHEN OTHER HARD SURFACES ARE NOT PROPOSED ADJACENT TO THE APPROACH.
9. LENGTH OF UPHILL RAMP FOR STREETS WITH LONGITUDINAL SLOPES LESS THAN 2.0% SHALL BE 5'. LENGTH OF UPHILL RAMP FOR STREETS WITH LONGITUDINAL SLOPES BETWEEN 2.0% AND 6.3% WILL VARY FROM 5' MINIMUM TO 15' MAXIMUM. REQUIRED UPHILL RAMP LENGTHS SHALL BE DETERMINED BY DESIGN ENGINEER AND SHALL HAVE A MAXIMUM SLOPE OF 8.3%. DOWNHILL RAMP LENGTHS ARE NOT REQUIRED TO EXCEED 5'.
10. SUBGRADE AND 4" CSTC UNDER APPROACH SHALL BE COMPACTED TO 95%.
11. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.



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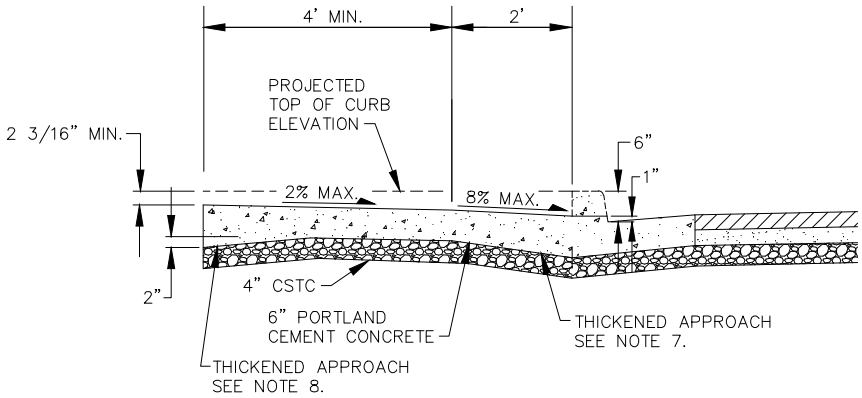

SECTION A-A

DESIGN CRITERIA

	RESIDENTIAL	COMMERCIAL
DISTANCE FROM CURB RETURN	15' MIN.	75' MIN.
THROAT WIDTH	16' MIN.*, 30' MAX.	30' MIN. 40' MAX.
SETBACK FROM SIDE PROPERTY LINE AT R.O.W.	5' MIN.	5' MIN.
SETBACK FROM SIDE PROPERTY LINE	2' MIN.	2' MIN.

*24' MIN. WIDTH IF DRIVEWAY LENGTH IS OVER 75', SEE R-117

APPROVED BY:

WILLIAM S. HELBIG, P.E.
CITY ENGINEER

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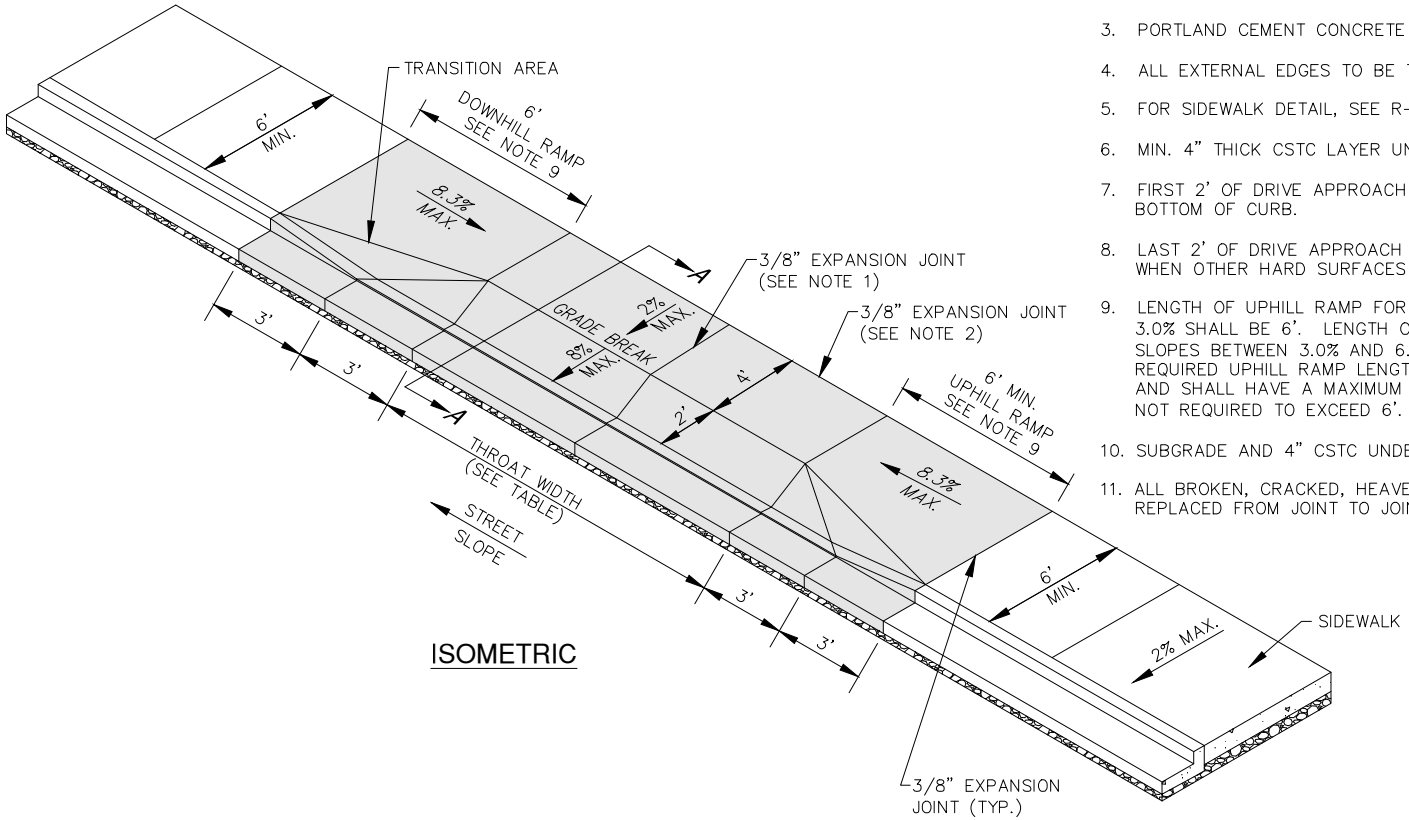
CITY OF Spokane Valley®

RESIDENTIAL CONCRETE APPROACH ADJACENT SIDEWALK

STANDARD PLAN NO. R-113

GENERAL NOTES

1. 3/8" EXPANSION JOINT MATERIAL SHALL BE PLACED IN THE CENTER OF ALL DRIVEWAYS OVER 20' IN WIDTH.
2. EXPANSION JOINT REQUIRED AT BACK OF WALK IF CONCRETE DRIVEWAY EXTENDS BEYOND BACK OF WALK.
3. PORTLAND CEMENT CONCRETE SHALL BE PER WSDOT 8-06.3.
4. ALL EXTERNAL EDGES TO BE TROWELLED WITH 1/4" RADIUS EDGER.
5. FOR SIDEWALK DETAIL, SEE R-103.
6. MIN. 4" THICK CSTC LAYER UNDER DRIVE APPROACH.
7. FIRST 2' OF DRIVE APPROACH (AT CURB SIDE) SHALL BE THICKENED TO MATCH BOTTOM OF CURB.
8. LAST 2' OF DRIVE APPROACH (HOUSE SIDE) WILL BE THICKENED 2 EXTRA INCHES WHEN OTHER HARD SURFACES ARE NOT PROPOSED ADJACENT TO THE APPROACH.
9. LENGTH OF UPHILL RAMP FOR STREETS WITH LONGITUDINAL SLOPES LESS THAN 3.0% SHALL BE 6'. LENGTH OF UPHILL RAMP FOR STREETS WITH LONGITUDINAL SLOPES BETWEEN 3.0% AND 6.3% WILL VARY FROM 6' MINIMUM TO 15' MAXIMUM. REQUIRED UPHILL RAMP LENGTHS SHALL BE DETERMINED BY DESIGN ENGINEER AND SHALL HAVE A MAXIMUM SLOPE OF 8.3%. DOWNHILL RAMP LENGTHS ARE NOT REQUIRED TO EXCEED 6'.
10. SUBGRADE AND 4" CSTC UNDER APPROACH SHALL BE COMPACTED TO 95%.
11. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.



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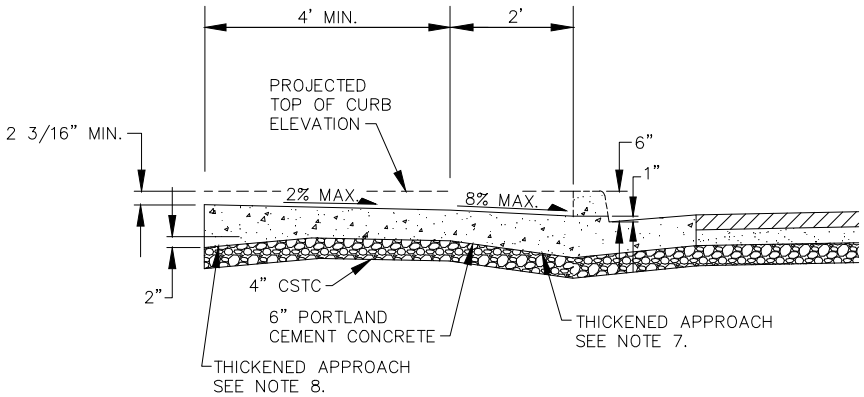

SECTION A-A

DESIGN CRITERIA

	RESIDENTIAL	COMMERCIAL
DISTANCE FROM CURB RETURN	15' MIN.	75' MIN.
THROAT WIDTH	16' MIN.*, 30' MAX.	30' MIN. 40' MAX.
SETBACK FROM SIDE PROPERTY LINE AT R.O.W.	5' MIN.	5' MIN.
SETBACK FROM SIDE PROPERTY LINE	2' MIN.	2' MIN.

*24' MIN. WIDTH IF DRIVEWAY LENGTH IS OVER 75', SEE R-117

APPROVED BY:

WILLIAM S. HELBIG, P.E.
CITY ENGINEER

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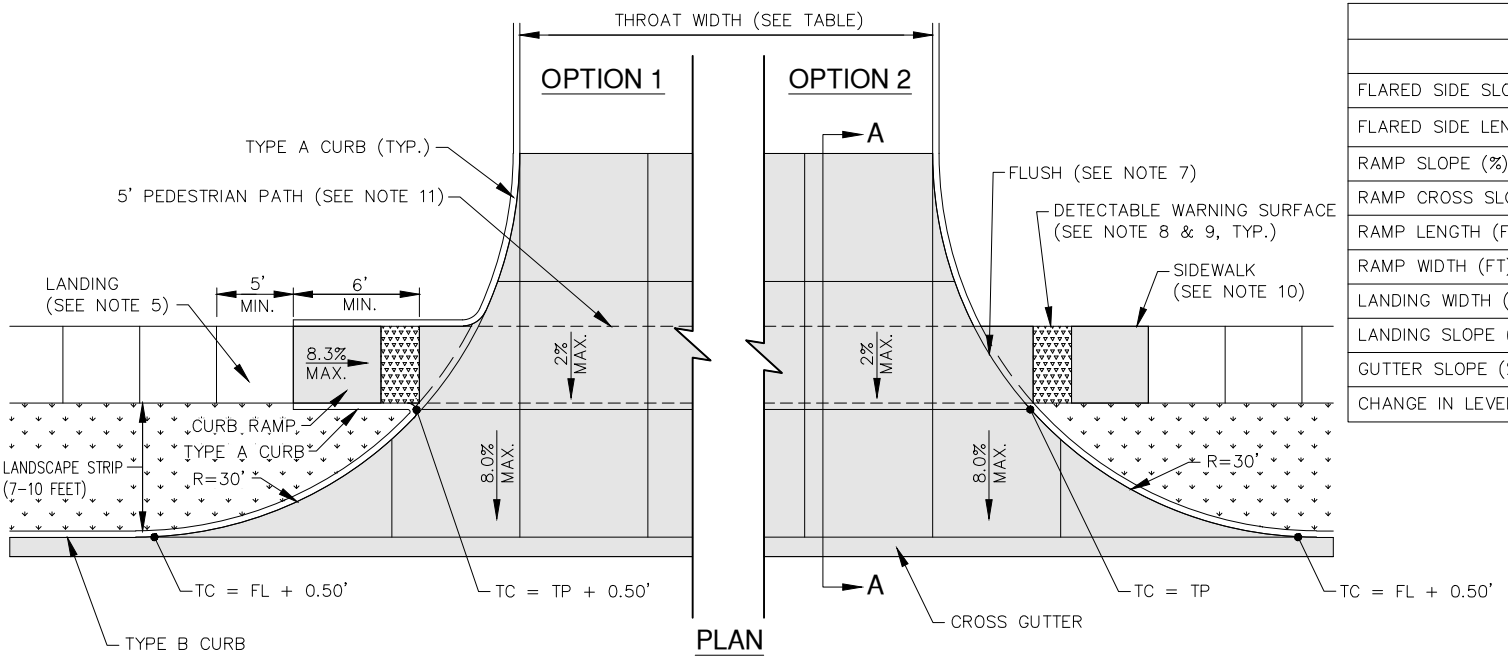
CITY OF Spokane Valley®

COMMERCIAL CONCRETE APPROACH ADJACENT SIDEWALK

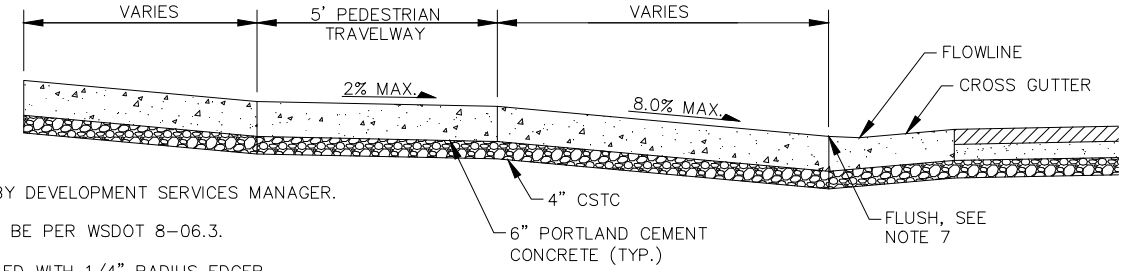
STANDARD PLAN NO. R-114



PLAN

ADA REQUIREMENTS			
	RECOMMENDED	MINIMUM	MAXIMUM
FLARED SIDE SLOPE (%)	-	-	-
FLARED SIDE LENGTH (FT)	-	-	-
RAMP SLOPE (%)	7	0.5	8.33
RAMP CROSS SLOPE (%)	1	0.5	2
RAMP LENGTH (FT)	7	6	15
RAMP WIDTH (FT)	5	4	-
LANDING WIDTH (FT)	5	4	-
LANDING SLOPE (%)	1	0.5	2
GUTTER SLOPE (%)	4	2	8
CHANGE IN LEVEL (IN)	FLUSH		0.5", SEE NOTE 2

TC = TOP OF CURB
TP = TOP OF PAVEMENT
FL = FLOW LINE



SECTION A-A

GENERAL NOTES

1. ONLY TO BE USED WITH APPROVAL BY DEVELOPMENT SERVICES MANAGER.
2. CONCRETE PORTLAND CEMENT SHALL BE PER WSDOT 8-06.3.
3. ALL EXTERNAL EDGES TO BE TROWELED WITH 1/4" RADIUS EDGER.
4. 4" MIN. CSTC AND SUBGRADE UNDER SIDEWALK COMPACTED TO 95%.
5. LANDING LONGITUDINAL AND CROSS SLOPE SHALL BE MAX. 2%.
6. MAXIMUM SLOPES ARE STRICTLY ENFORCED. EXCEEDING MAXIMUM SLOPES WILL REQUIRE REMOVAL AND RECONSTRUCTION.
7. VERTICAL SURFACE DISCONTINUITIES SHALL BE 0.5" MAXIMUM. VERTICAL SURFACE DISCONTINUITIES BETWEEN 0.25"-0.5" SHALL BE BEVELED WITH A SLOPE 2:1 MAX.
8. TACTILE WARNING SURFACES SHALL BE FEDERAL YELLOW, CAST IN PLACE DETECTABLE UNITS AS MANUFACTURED BY ARMOR TILE TACTILE SYSTEMS, OR AN APPROVED EQUAL. TRUNCATED DOME SIZE AND SPACING SHALL COMPLY WITH THE US ACCESS BOARD ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY (SECTION R305). TACTILE WARNINGS SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS.
9. TACTILE WARNING SURFACES SHALL BE 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE RAMP. TACTILE WARNING SURFACES SHALL EXTEND TO BACK OF CURB WHEN RAMPS ARE PART OF LARGE RADIUS CURB RETURNS AND POSITIONED PERPENDICULAR TO DIRECTION OF TRAFFIC.
10. SIDEWALK LONGITUDINAL SLOPE MATCHES STREET LONGITUDINAL SLOPE.
11. PEDESTRIAN PATH SHALL MEET ALL CURRENT ADA GUIDELINES.
12. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.

DESIGN CRITERIA

	COMMERCIAL
DISTANCE FROM CURB RETURN	75' MIN.
THROAT WIDTH	30' MIN. 40' MAX.
SETBACK FROM SIDE PROPERTY LINE AT R.O.W.	5' MIN.
SETBACK FROM SIDE PROPERTY LINE	2' MIN.

APPROVED BY:

WILLIAM S. HELBIG, P.E.
CITY ENGINEER

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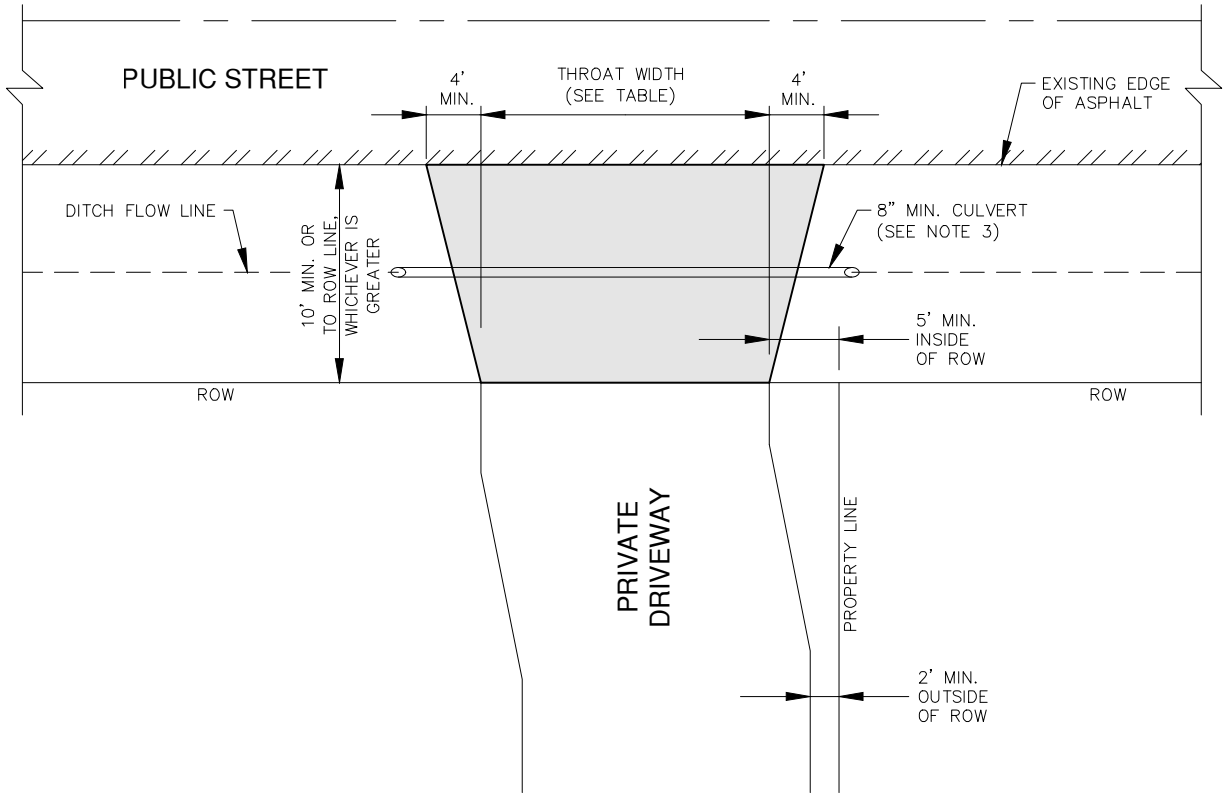
CITY OF Spokane Valley®

HIGH VOLUME CONCRETE APPROACH

STANDARD PLAN NO.
R-115



PLAN

GENERAL NOTES

1. ONLY TO BE USED IN APPLICATIONS WHERE CURB IS NEITHER EXISTING OR REQUIRED.
2. SHALL BE CONSTRUCTED OF MIN. 3" HMA OVER 6" CSTC OR 6" CONCRETE OVER 4" CSTC. CONCRETE SHALL BE PER WSDOT 8-06.3.
3. FOR ROADSIDE SWALE AND DITCH APPLICATIONS, INSTALL 8" D.I. CULVERT UNDER APPROACH PER SPOKANE REGIONAL STORMWATER MANUAL. ENDS SHALL BE BEVELED TO MATCH SWALE SLOPE.
4. SUBGRADE UNDER APPROACH SHALL BE COMPACTED TO 95%.
5. WHEN THE APPROACH IS CONSTRUCTED OF CONCRETE, ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.

DESIGN CRITERIA

	RESIDENTIAL	COMMERCIAL
DISTANCE FROM CURB RETURN	15' MIN.	75' MIN.
THROAT WIDTH	16' MIN.*, 30' MAX.	30' MIN. 40' MAX.
SETBACK FROM SIDE PROPERTY LINE AT ROW	5' MIN.	5' MIN.
SETBACK FROM SIDE PROPERTY LINE	2' MIN.	2' MIN.

*24' MIN. WIDTH IF DRIVEWAY LENGTH IS OVER 75', SEE R-117

APPROVED BY:

WILLIAM S. HELBIG, P.E.
CITY ENGINEER

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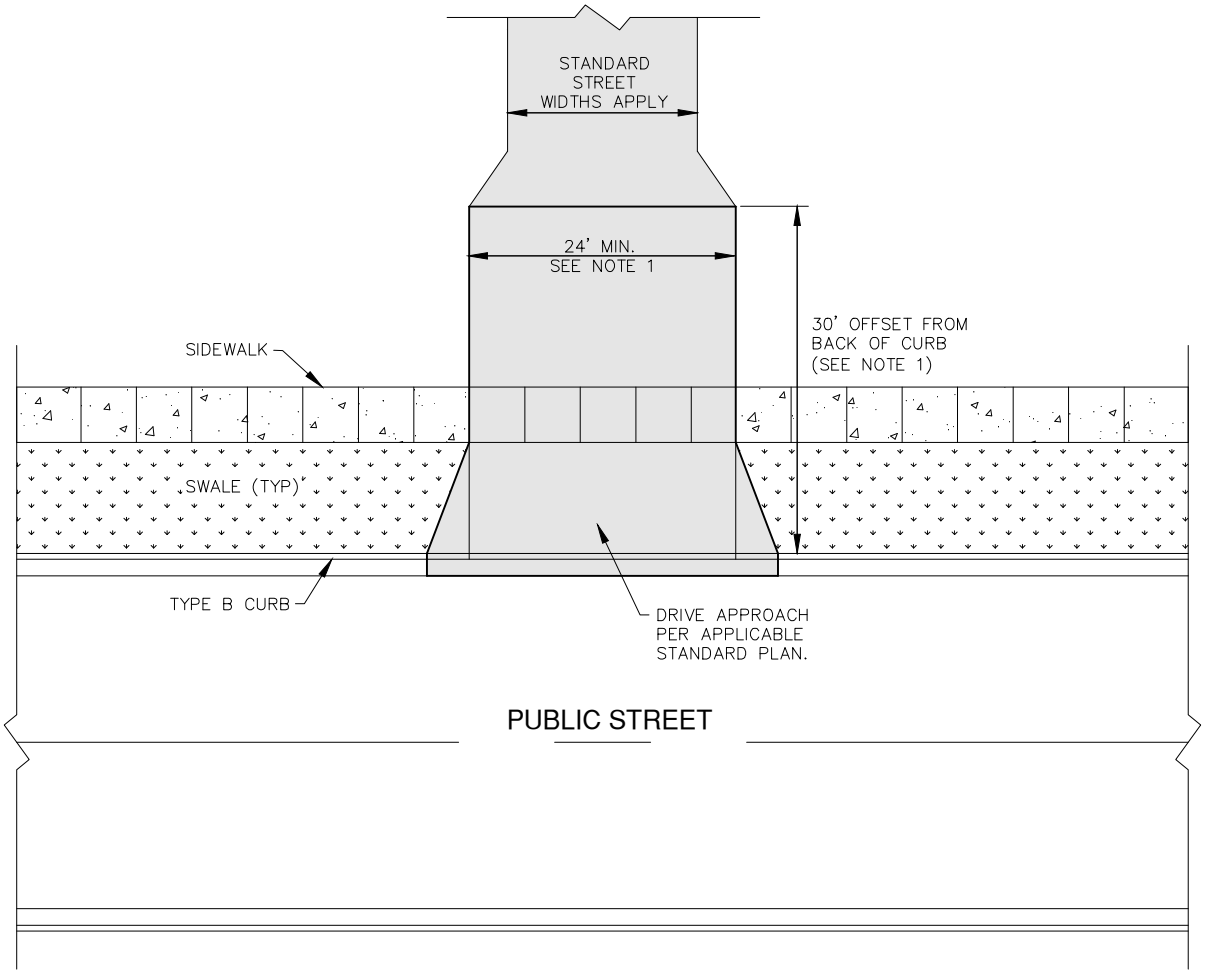
RURAL APPROACH

STANDARD PLAN NO. R-116



GENERAL NOTES

1. FOR PRIVATE DRIVEWAYS OR PRIVATE STREETS EXCEEDING 75' IN LENGTH, THE FIRST 30' FROM BACK OF CURB SHALL HAVE A MIN. 24' WIDE TRAVELWAY WHEN REQUIRED BY SPOKANE VALLEY FIRE DEPARTMENT. WIDTH BEYOND FIRST 30' SHALL BE IN CONFORMANCE WITH APPLICABLE STREET STANDARDS.

APPROVED BY:

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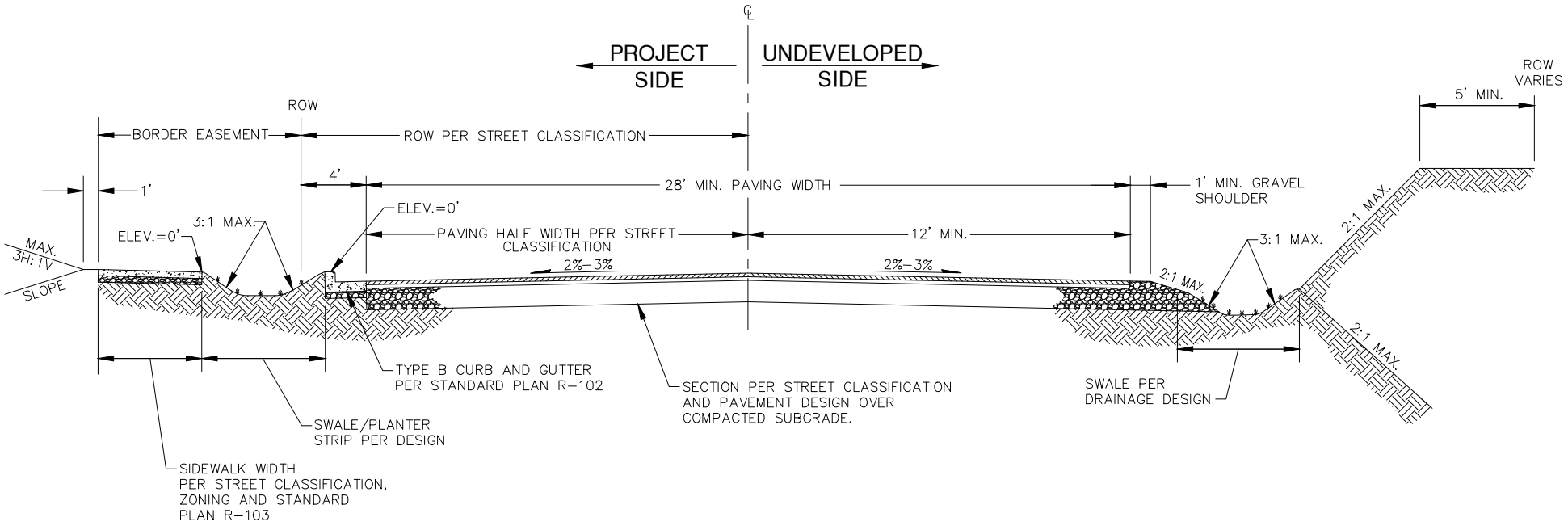
EMERGENCY ACCESS FOR PRIVATE STREETS OVER 75' LONG FROM CURB

STANDARD PLAN NO.
R-117



GENERAL NOTES

1. RIGHT–OF–WAY WIDTHS AND EASEMENTS SHOWN ARE MINIMUM REQUIREMENTS FOR NEW STREETS. MEASUREMENTS MAY NEED TO BE ADJUSTED TO MATCH EXISTING FACILITIES.
2. PAVED WIDTH IS MEASURED FROM EDGE OF GUTTER.
3. COMPACTION/TESTING REQUIREMENTS PER CHAPTER 9.

APPROVED BY:

GABE GALLINGER, P.E.
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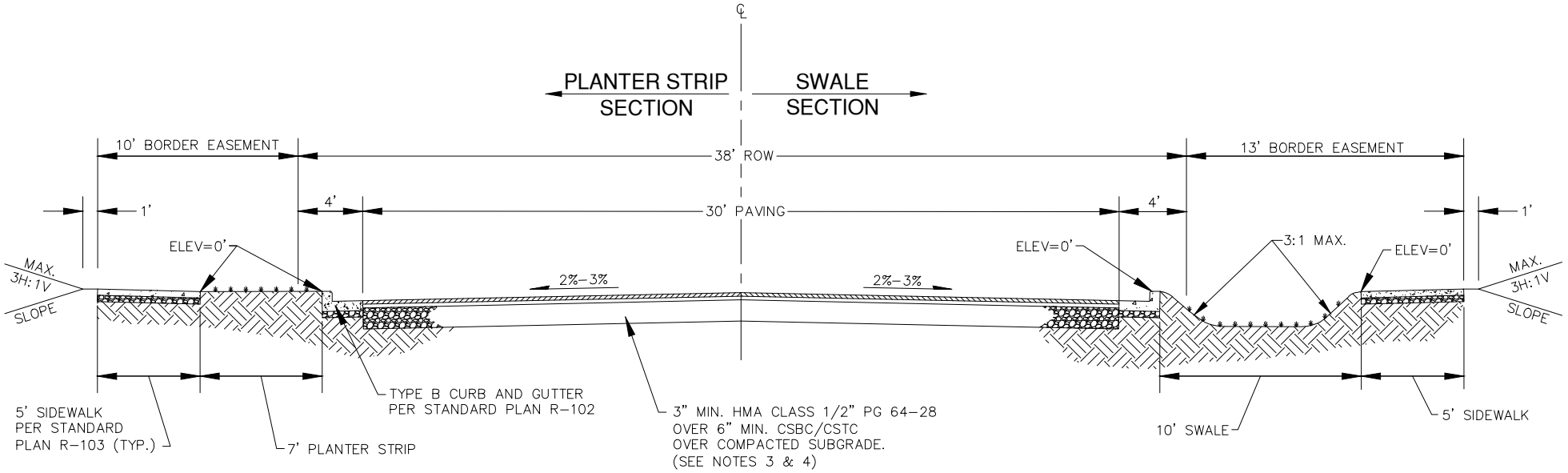
CITY OF Spokane Valley®

TYPICAL STREET SECTION HALF STREET

STANDARD PLAN NO. R-119



GENERAL NOTES

1. RIGHT–OF–WAY WIDTHS AND EASEMENTS SHOWN ARE MINIMUM REQUIREMENTS FOR NEW STREETS. MEASUREMENTS MAY NEED TO BE ADJUSTED TO MATCH EXISTING FACILITIES.
2. PAVED WIDTH IS MEASURED FROM EDGE OF GUTTER.
3. STREET SECTION MAY BE INCREASED BASED ON GEOTECHNICAL EVALUATION AND PAVEMENT DESIGN.
4. COMPACTION AND TESTING REQUIREMENTS PER CHAPTER 9.

APPROVED BY:

GABE GALLINGER, P.E.
DEVELOPMENT SERVICES MANAGER

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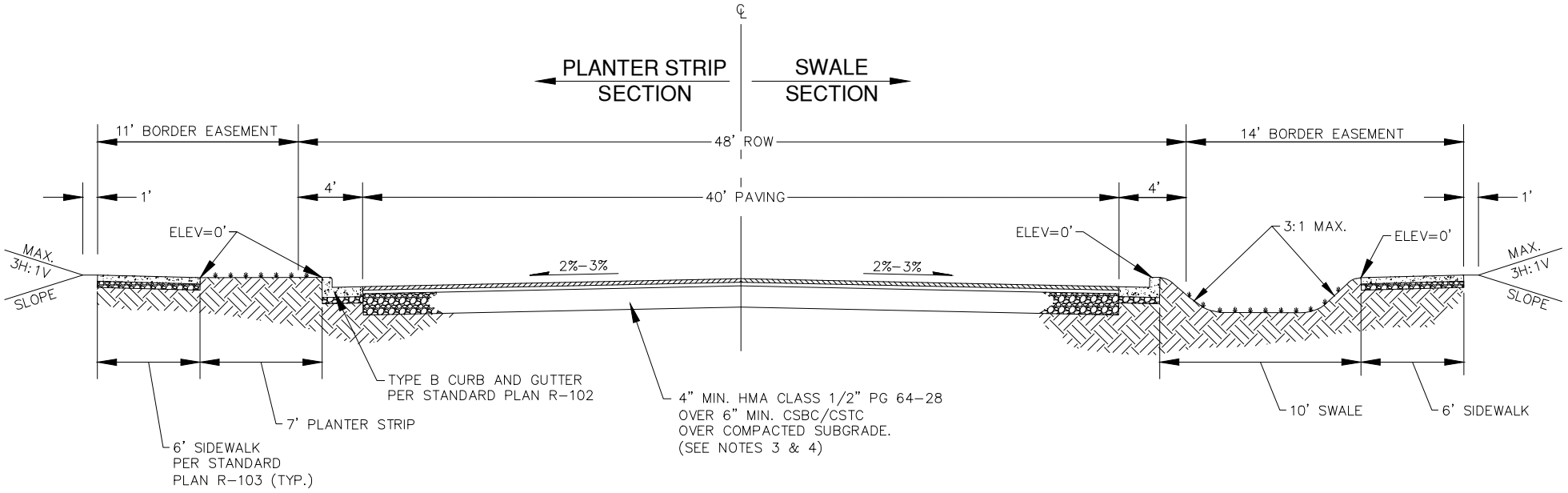
CITY OF Spokane Valley®

TYPICAL STREET SECTION LOCAL RESIDENTIAL

STANDARD PLAN NO. R-120



GENERAL NOTES

1. RIGHT–OF–WAY WIDTHS AND EASEMENTS SHOWN ARE MINIMUM REQUIREMENTS FOR NEW STREETS. MEASUREMENTS MAY NEED TO BE ADJUSTED TO MATCH EXISTING FACILITIES.
2. PAVED WIDTH IS MEASURED FROM EDGE OF GUTTER.
3. STREET SECTION MAY BE INCREASED BASED ON GEOTECHNICAL EVALUATION AND PAVEMENT DESIGN.
4. COMPACTION AND TESTING REQUIREMENTS PER CHAPTER 9.

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GABE GALLINGER, P.E.
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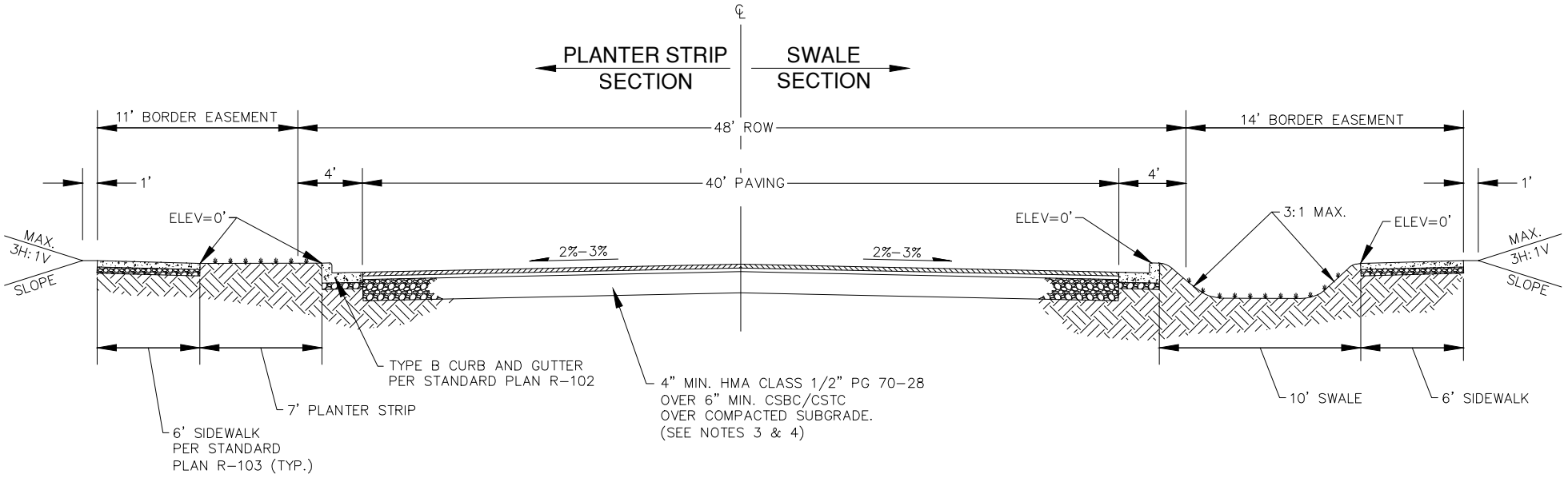
CITY OF Spokane Valley®

TYPICAL STREET SECTION LOCAL COMMERCIAL

STANDARD PLAN NO. R-121



GENERAL NOTES

1. RIGHT-OF-WAY WIDTHS AND EASEMENTS SHOWN ARE MINIMUM REQUIREMENTS FOR NEW STREETS. MEASUREMENTS MAY NEED TO BE ADJUSTED TO MATCH EXISTING FACILITIES.
2. PAVED WIDTH IS MEASURED FROM EDGE OF GUTTER.
3. STREET SECTION MAY BE INCREASED BASED ON GEOTECHNICAL EVALUATION AND PAVEMENT DESIGN.
4. COMPACTION AND TESTING REQUIREMENTS PER CHAPTER 9.
5. IN RESIDENTIAL AREAS, SIDEWALK WIDTH MAY BE 5'.

APPROVED BY:

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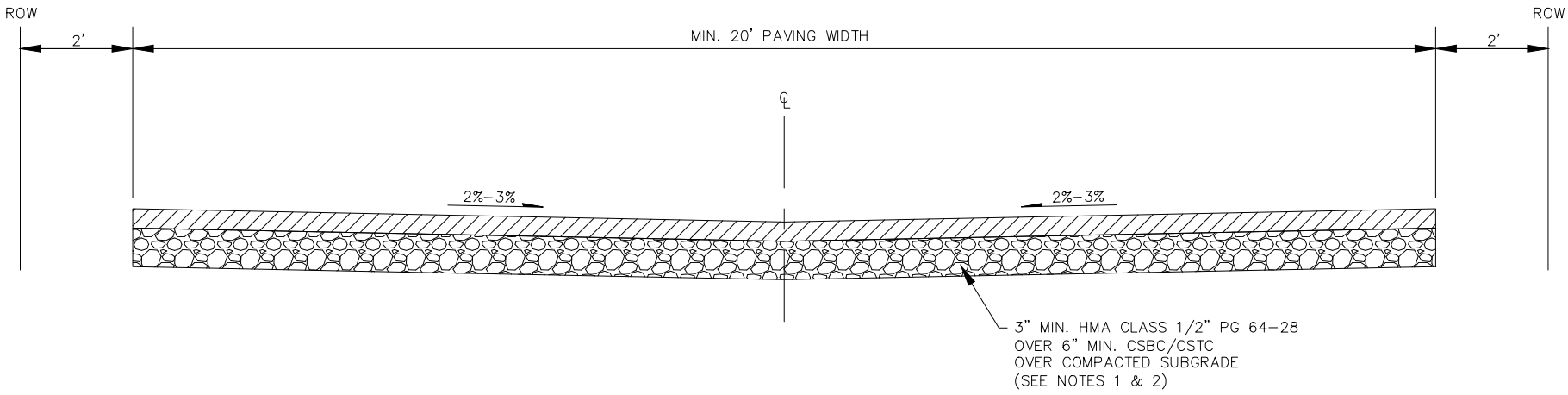
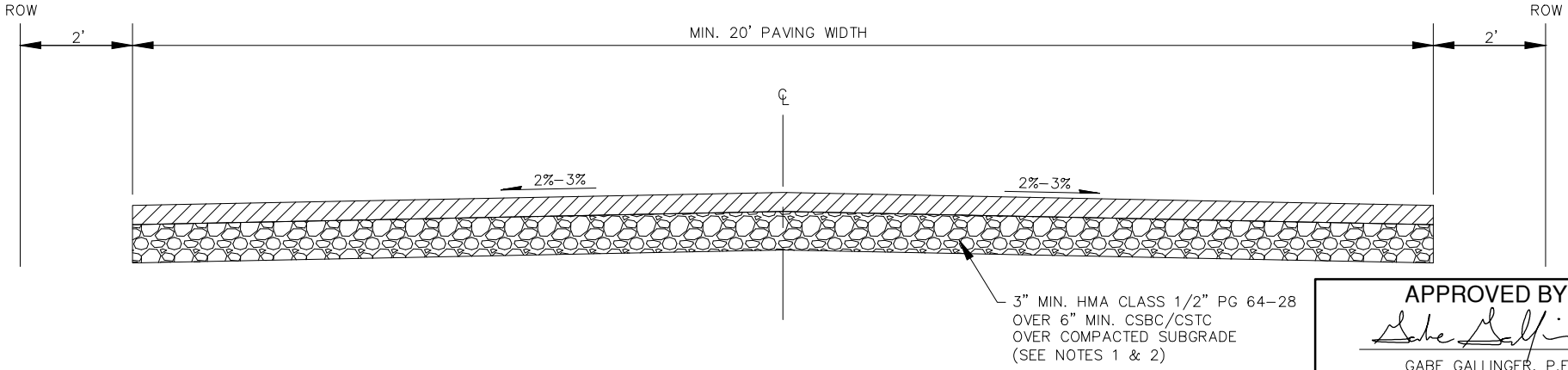
CITY OF Spokane Valley®

TYPICAL STREET SECTION COLLECTOR

STANDARD PLAN NO. R-122





GENERAL NOTES

1. ALLEY SECTION MAY BE INCREASED BASED ON GEOTECHNICAL EVALUATION AND PAVEMENT DESIGN.
2. COMPACTION AND TESTING REQUIREMENTS PER CHAPETER 9.
3. STORMWATER TREATMENT AND STORAGE SHALL BE PROVIDED PER SPOKANE REGIONAL STORMWATER MANUAL.

APPROVED BY:

GABE GALLINGER, P.E.
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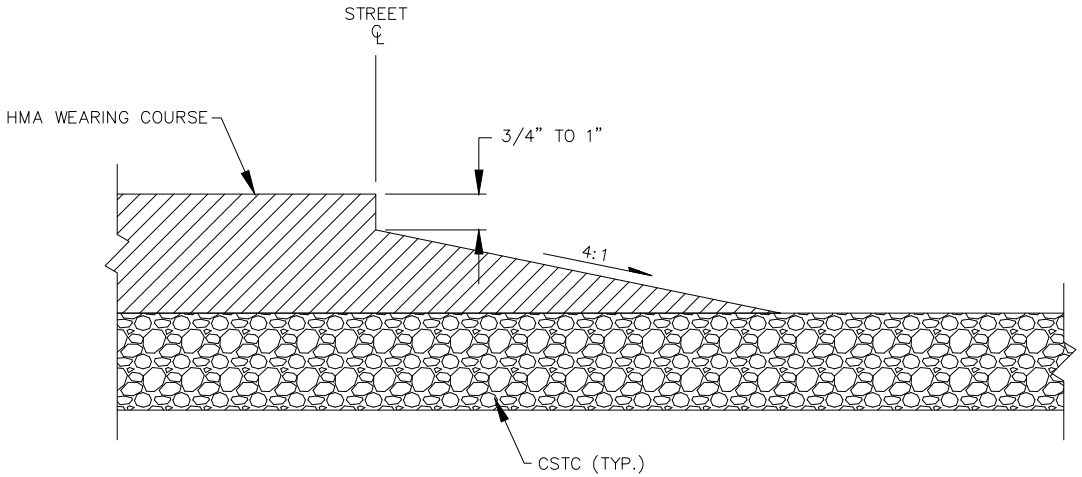
TYPICAL ALLEY SECTION

STANDARD PLAN NO.
R-125



GENERAL NOTES

1. THE LONGITUDINAL JOINT SHALL BE A CONTINUOUS STEP WEDGE LOCATED ON CENTERLINE OF ROADWAY.
2. THE SLOPED PORTION OF THE WEDGE JOINT SHALL BE UNIFORMLY COMPACTED.
3. THE WEDGE JOINT SHALL RECEIVE AN APPLICATION OF JOINT ADHESIVE WITHIN 24 HRS OF PLACEMENT OF THE ABUTTING PAVEMENT.
4. ALL OTHER LONGITUDINAL JOINTS SHALL BE HOT LAP JOINTS, CONSTRUCTED BY USE OF MULTIPLE PAVERS.
5. ONLY ONE COLD LONGITUDINAL JOINT WILL BE ALLOWED IN WEARING COURSE.

APPROVED BY:

GABE GALLINGER, P.E.
DEVELOPMENT SERVICES MANAGER

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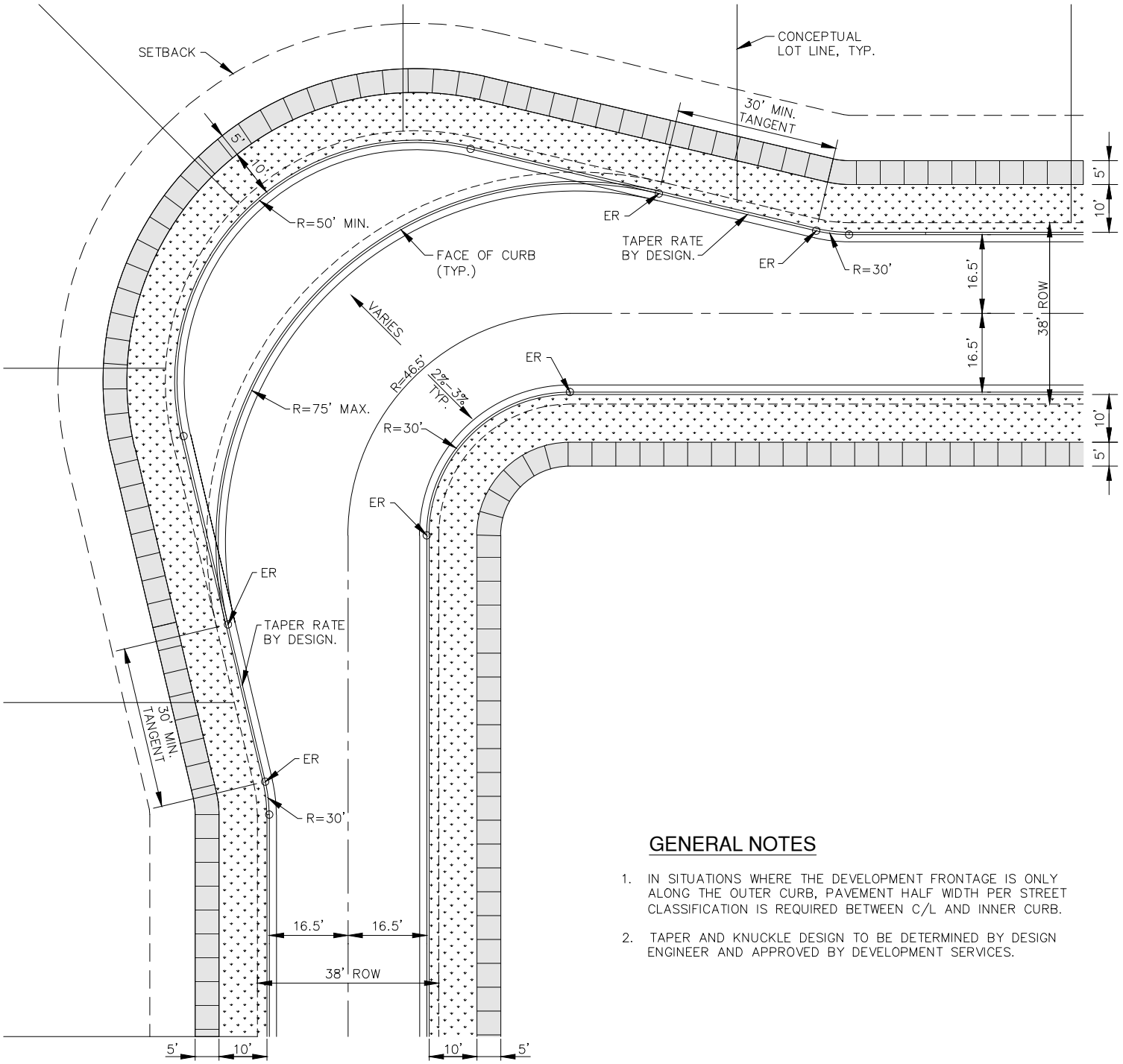
LONGITUDINAL STEP WEDGE COLD JOINT

STANDARD PLAN NO.
R-127



GENERAL NOTES

1. IN SITUATIONS WHERE THE DEVELOPMENT FRONTAGE IS ONLY ALONG THE OUTER CURB, PAVEMENT HALF WIDTH PER STREET CLASSIFICATION IS REQUIRED BETWEEN C/L AND INNER CURB.
2. TAPER AND KNUCKLE DESIGN TO BE DETERMINED BY DESIGN ENGINEER AND APPROVED BY DEVELOPMENT SERVICES.

APPROVED BY:

GABE GALLINGER, P.E.
DEVELOPMENT SERVICES MANAGER

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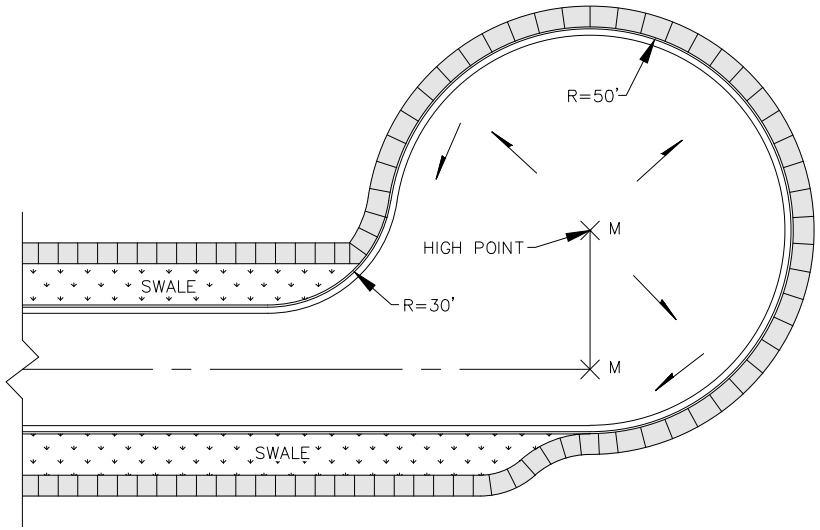
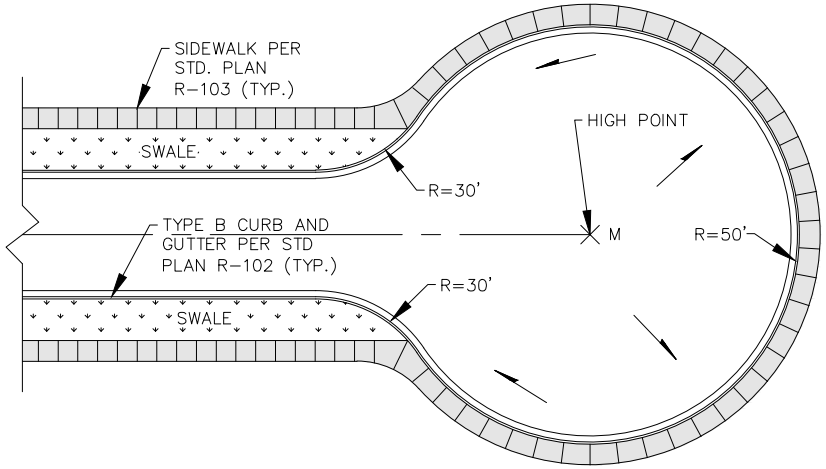
TYPE I KNUCKLE FOR LOCAL ACCESS STREETS

STANDARD PLAN NO. R-129



OFFSET CUL-DE-SAC



TYPICAL CUL-DE-SAC

GENERAL NOTES

1. ADA RAMPS WILL BE INSTALLED BEFORE THE ER IF THE SIDEWALK IS NOT INSTALLED AROUND CUL-DE-SAC.
2. SIDEWALK AROUND BULB IS OPTIONAL, IF PROVIDED, SIDEWALK SHALL BE ADJACENT TO THE CURB AROUND THE CUL-DE-SAC RADIUS AND HAVE A MINIMUM 6' WIDTH.
3. RADIUS SHOWN IS TO FACE OF CURB.
4. THE WIDTH OF RIGHT-OF-WAY AND THE STREET DIMENSIONS SHALL CONFORM TO THE CLASSIFIED STREET SECTION.
5. MINIMUM CURB GRADES ON CUL-DE-SACS SHALL BE 1%.
6. M=MONUMENT LOCATIONS, ER=END RETURN, SI=STREET INTERSECTION.
7. PUBLIC STREETS W/ STUB ENDS ARE LIMITED TO 600' MEASURED FROM THE SI TO THE ER OF THE CUL-DE-SAC OR THE TERMINUS OF THE TRAVELWAY.
8. NON-MOTORIZED PATHS (7.5.11) TO ADJACENT ARTERIALS OR PUBLIC FACILITIES, SUCH AS SCHOOLS/PARKS MAY BE REQUIRED AT THE DEAD-END OF THE STREET TO SHORTEN WALKING DISTANCES.

APPROVED BY:

GABE GALLINGER, P.E.
DEVELOPMENT SERVICES MANAGER

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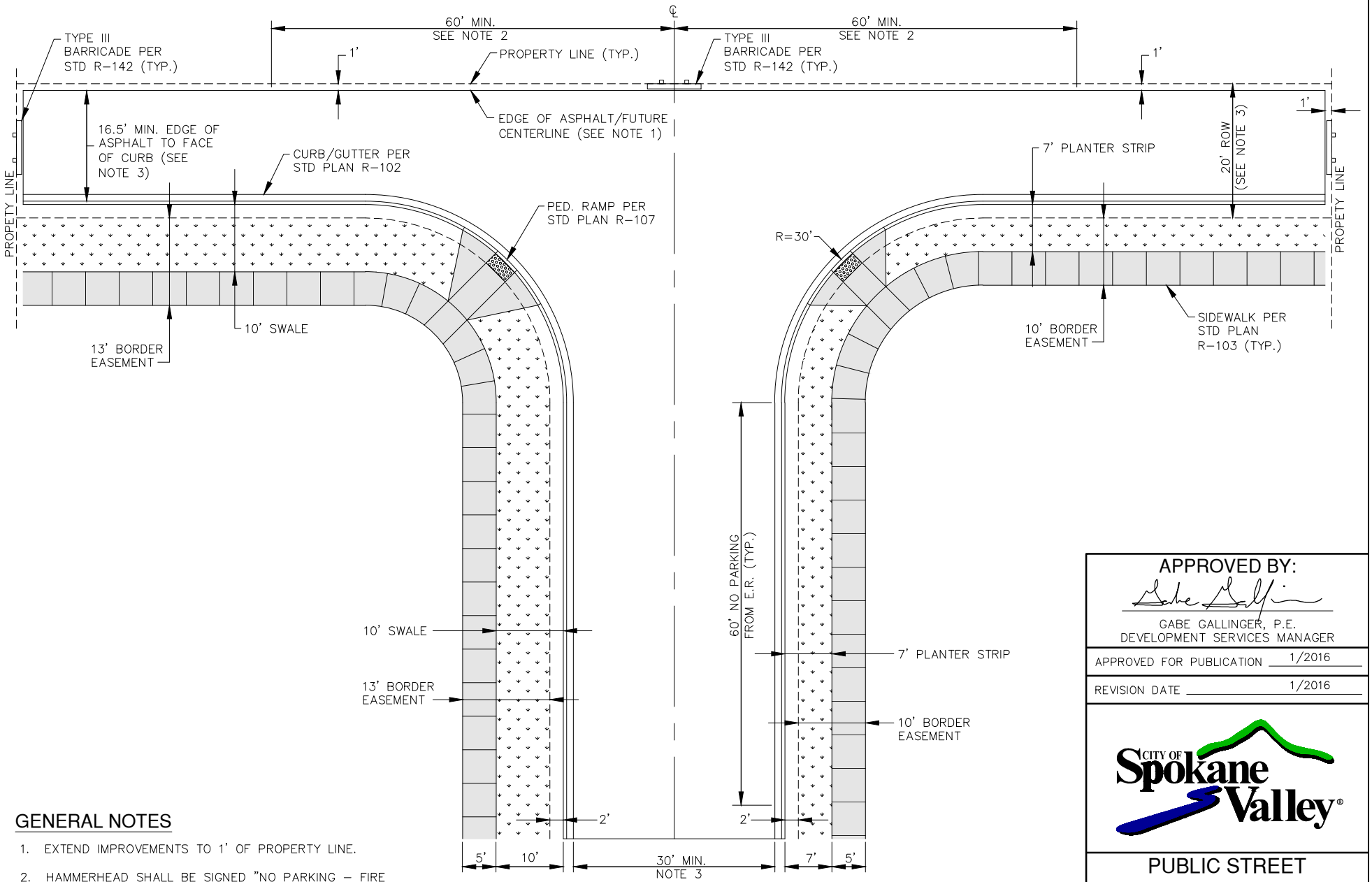
CITY OF Spokane Valley

CUL-DE-SAC
PUBLIC STREET

STANDARD PLAN NO.
R-130



GENERAL NOTES

1. EXTEND IMPROVEMENTS TO 1' OF PROPERTY LINE.
2. HAMMERHEAD SHALL BE SIGNED "NO PARKING – FIRE LANE" AS REQUIRED BY THE FIRE DEPARTMENT.
3. STREET WIDTH MAY BE WIDER DEPENDING ON STREET CONFIGURATION.
4. ROW AND BORDER EASEMENT TO EXTEND TO PLAT BOUNDARY/PROPERTY LINE.

APPROVED BY:

GABE GALLINGER, P.E.
DEVELOPMENT SERVICES MANAGER

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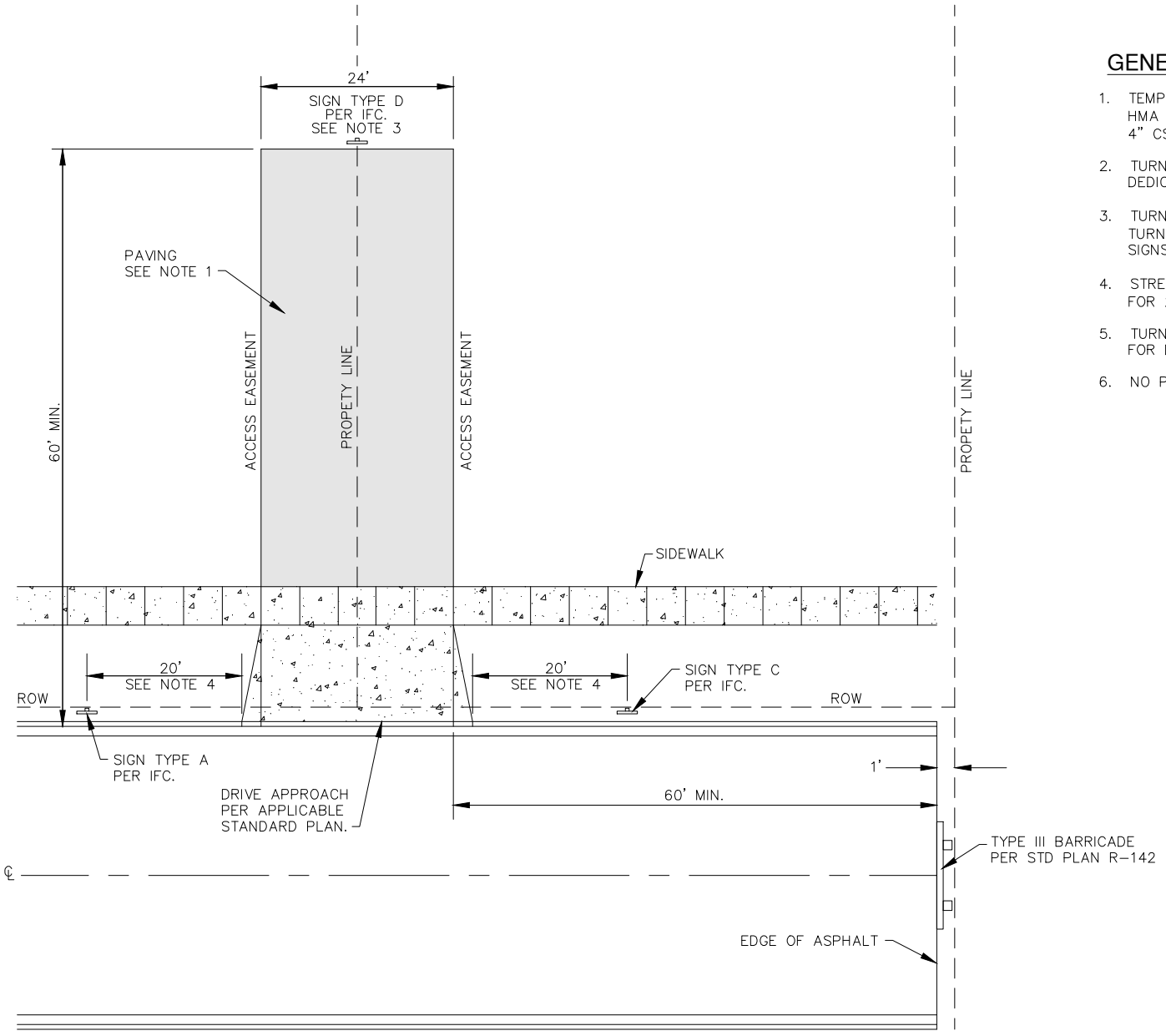
CITY OF Spokane Valley®

PUBLIC STREET TURNAROUND FUTURE INTERSECTION

STANDARD PLAN NO.
R-131



GENERAL NOTES

1. TEMPORARY TURNAROUND ASPHALT SHALL BE MIN. 2" HMA OVER 6" COMPACTED CSTC OR 6" CONCRETE OVER 4" CSTC.
2. TURNAROUND TO BE WITHIN PUBLIC ACCESS EASEMENT DEDICATED TO THE CITY OF SPOKANE VALLEY.
3. TURNAROUND TO BE SIGNED "PUBLIC STREET TURNAROUND", OR AS REQUIRED BY FIRE DEPARTMENT. SIGNS SHALL BE PER IFC.
4. STREET SHALL BE SIGNED "NO PARKING – FIRE LANE" FOR 20' ADJACENT TO DRIVE APPROACH.
5. TURNAROUND IS NOT TO BE USED AS A DRIVEWAY OR FOR DRIVEWAY ACCESS.
6. NO PARKING SIGNS SHALL BE PER IFC.

APPROVED BY:

GABE GALLINGER, P.E.
DEVELOPMENT SERVICES MANAGER

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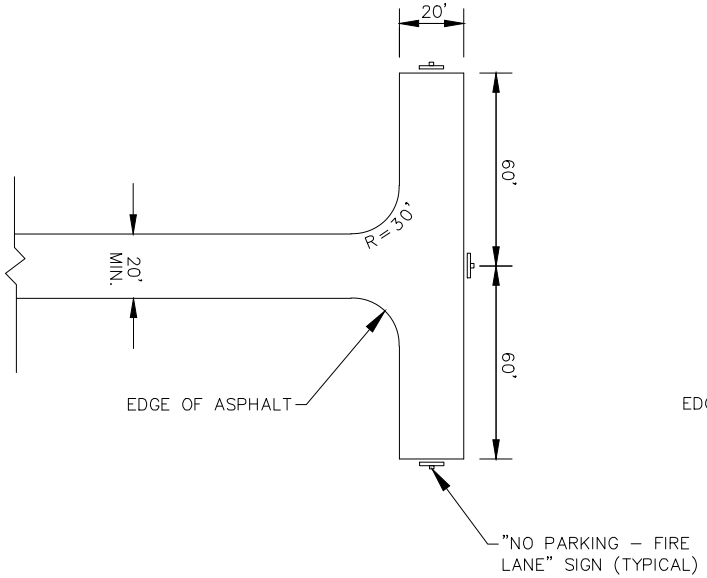
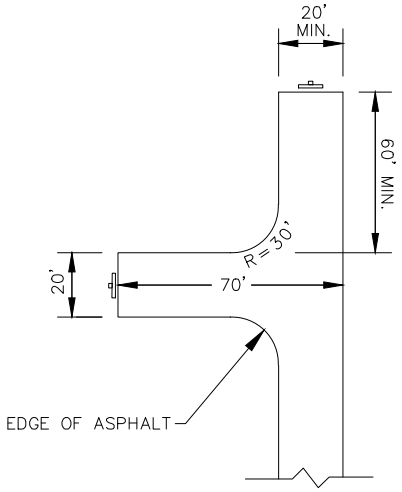
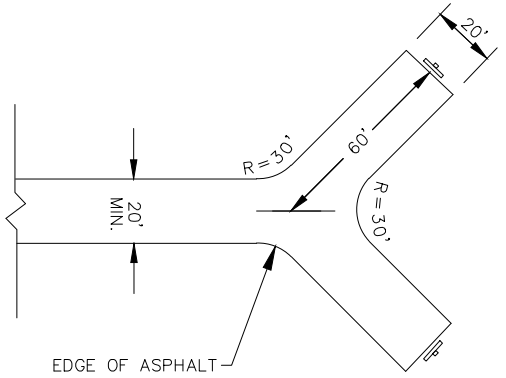
CITY OF Spokane Valley®

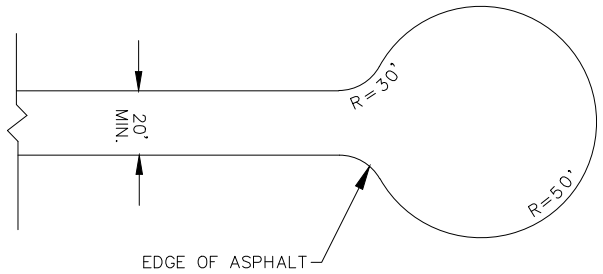
PUBLIC STREET TEMPORARY TURNAROUND

STANDARD PLAN NO.
R-132









GENERAL NOTES

1. CUL–DE–SAC IS THE PREFERRED OPTION.
2. TURNAROUND HAMMERHEAD SHALL BE SIGNED "NO PARKING – FIRE LANE" IN LOCATIONS SHOWN.
3. ALL ASPHALT EDGES SHALL BE MIN. 2' FROM PROPERTY LINES.
4. ONE LOT ACCESS IS ALLOWED PER HAMMERHEAD LEG.

APPROVED BY:

GABE GALLINGER, P.E.
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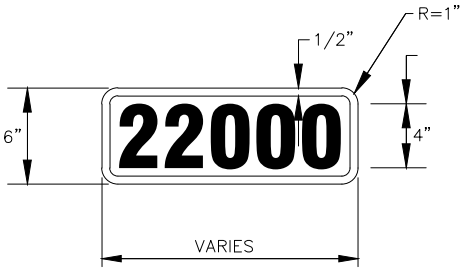
CITY OF Spokane Valley®

PRIVATE STREET AND DRIVEWAY TURNAROUNDS

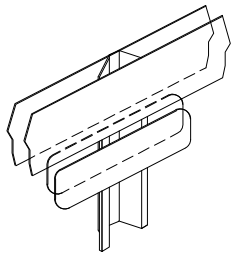
STANDARD PLAN NO.
R-133

GENERAL NOTES

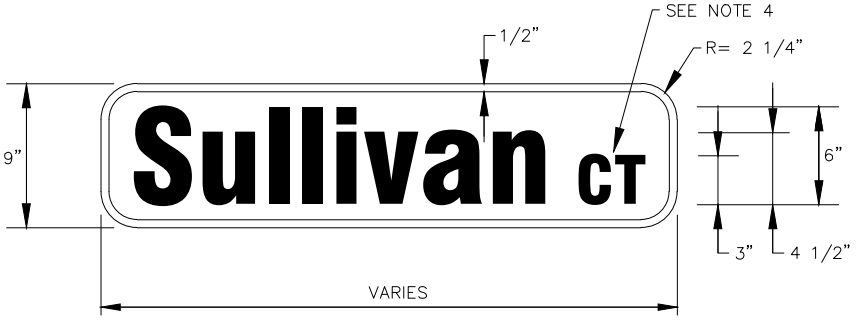
1. THIS STANDARD PLAN IS TO BE USED AT ALL ARTERIAL/ARTERIAL, ARTERIAL/LOCAL, AND ARTERIAL/PRIVATE INTERSECTIONS.
2. SIGNS SHALL MEET SPECIFICATIONS FOR FLAT PLATE ALUMINUM, 0.08" THICK, ALODINE 1200 OR EQUAL.
3. THE SIGN SURFACE SHALL BE WHITE LETTERS ON A GREEN BACKGROUND. WHITE LETTERS AND GREEN BACKGROUND SHALL BE HIGH INTENSITY RETROREFLECTIVE SHEETING.
4. LETTERS SHALL BE A BLOCK TYPE FONT.
5. THE ROADWAY LABEL MAY BE OMITTED FOR "STREET", "ROAD", AND "AVENUE". ALL OTHER ROADWAYS SHALL INCLUDE THE ABBREVIATED LABEL (IE: COURT – CT., DRIVE – DR., ETC.) ROADWAY LABELS SHALL BE UPPERCASE.
6. SIGN INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF THE M.U.T.C.D.



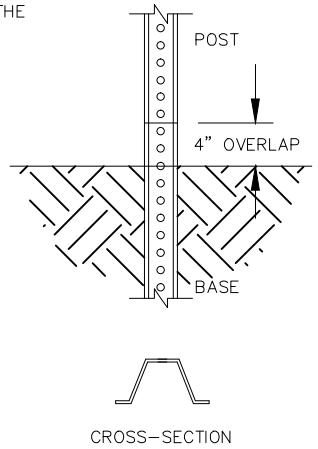
PUBLIC STREETS

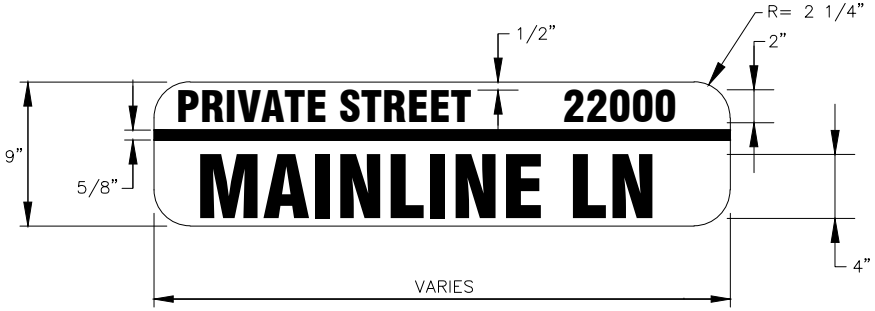


TYPICAL
SIGN INSTALLATION

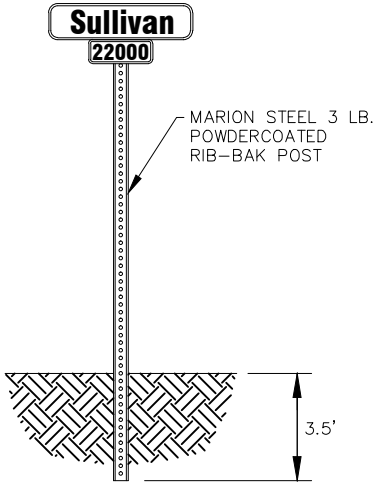


PUBLIC STREETS





PRIVATE STREETS



SAFE SIGN
SUPPORT SYSTEMS

APPROVED BY:

GABE GALLINGER, P.E.
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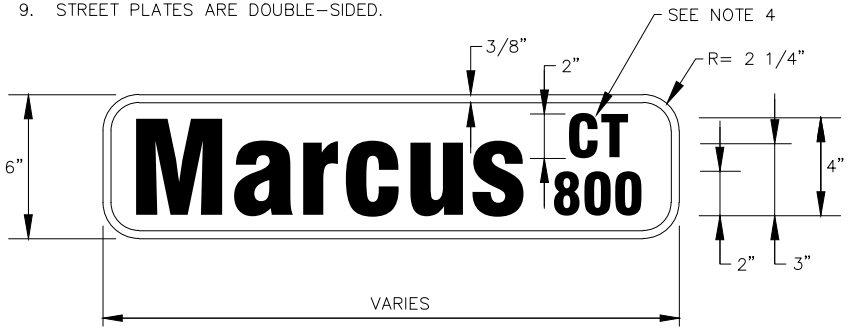
CITY OF Spokane Valley®

STREET SIGNS
ARTERIAL INTERSECTIONS

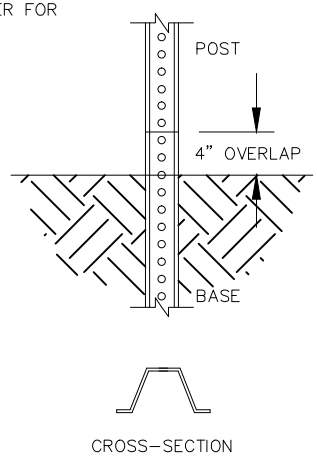
STANDARD PLAN NO.
R-140

GENERAL NOTES

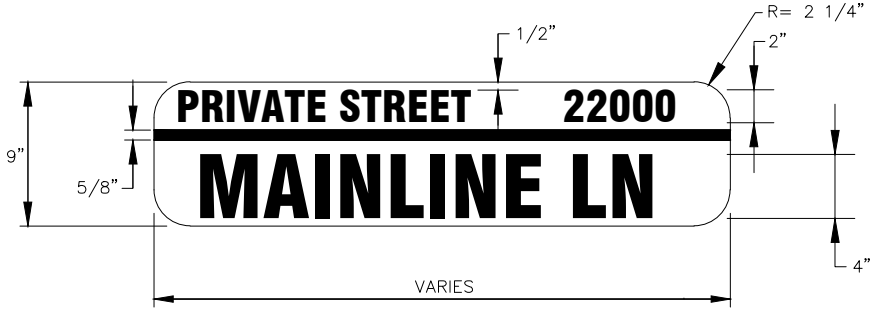
1. THIS STANDARD PLAN IS TO BE USED AT ALL LOCAL/LOCAL AND LOCAL/PRIVATE INTERSECTIONS.
2. SIGNS SHALL MEET SPECIFICATIONS FOR FLAT PLATE ALUMINUM, 0.08" THICK, ALODINE 1200 OR EQUAL.
3. THE SIGN SURFACE SHALL BE WHITE LETTERS ON A GREEN BACKGROUND. WHITE LETTERS AND GREEN BACKGROUND SHALL BE HIGH INTENSITY RETROREFLECTIVE SHEETING.
4. LETTERS SHALL BE A BLOCK TYPE FONT.
5. THE ROADWAY LABEL MAY BE OMITTED FOR "STREET", "ROAD", AND "AVENUE". ALL OTHER ROADWAYS SHALL INCLUDE THE ABBREVIATED LABEL (IE: COURT – CT., DRIVE – DR., ETC.) ROADWAY LABELS SHALL BE UPPERCASE. ROADWAY LABEL SHALL BE CENTERED ABOVE BLOCK NUMBER.
6. SIGN INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF THE M.U.T.C.D.
7. ATTACH STREET PLATES TO U–CHANNEL SIGN POST USING A 90° CAP WITH A 5.25" TO 5.50" RECEIVER FOR FLAT PLATES.
8. ATTACH SIGNS USING A 90° CROSSPIECE WITH A 5.25" TO 5.50" RECEIVER FOR FLAT PLATES.
9. STREET PLATES ARE DOUBLE–SIDED.



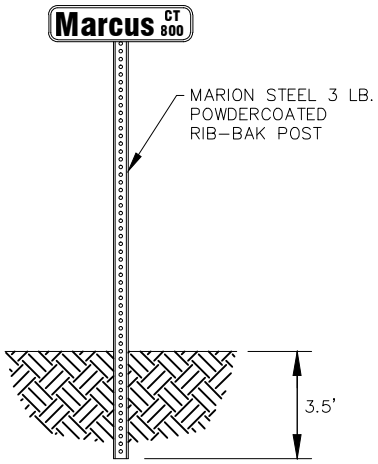
PUBLIC STREETS



CROSS–SECTION



PRIVATE STREETS



SAFE SIGN
SUPPORT SYSTEMS

APPROVED BY:

GABE GALLINGER, P.E.
DEVELOPMENT SERVICES MANAGER

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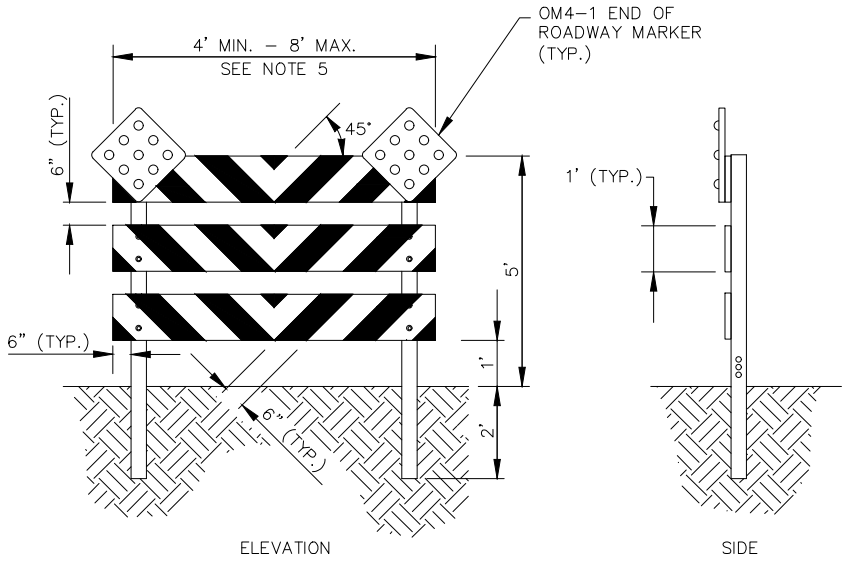
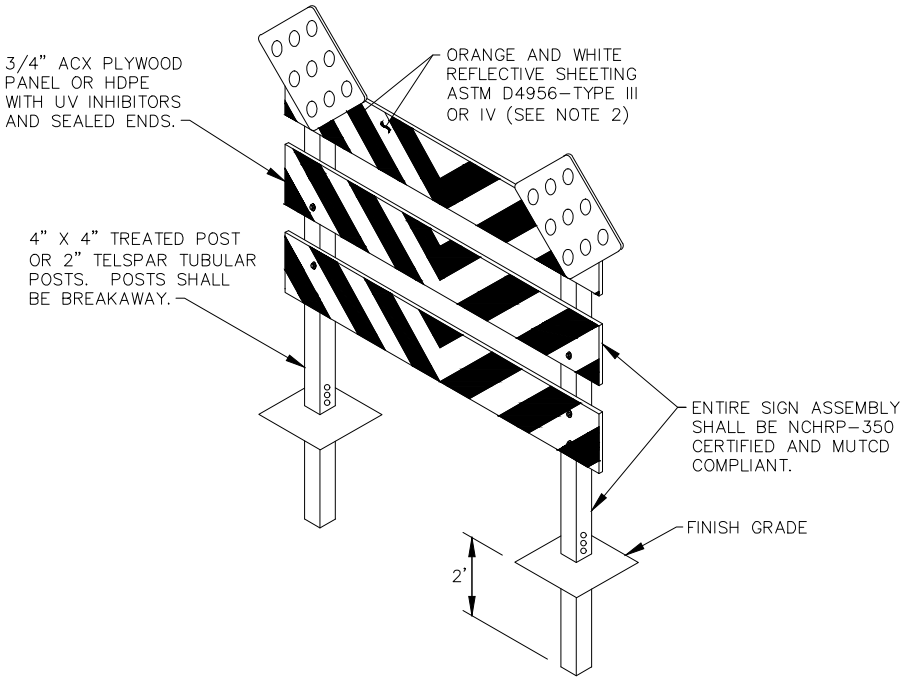
CITY OF Spokane Valley®

STREET SIGNS
LOCAL INTERSECTIONS

STANDARD PLAN NO.
R-141



TYPE III BARRICADE



ISOMETRIC VIEW

FUTURE CONNECTION SIGN DETAILS

SEE NOTE 4

GENERAL NOTES

1. ALL FASTENERS SHALL BE ZINC PLATED, GALVANIZED OR STAINLESS STEEL. ALL STEEL ANGLE AND TUBULAR STEEL SHALL BE HOT-ROLLED, HIGH CARBON STEEL, PAINTED OR GALVANIZED.
2. STRIPES ON BARRACADE RAILS SHALL BE ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPS (SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TOWARDS THE CENTER.
3. WHEN A SIGN IS MOUNTED ON THE BARRACADE, IT SHALL BE SECURELY BOLTED TO AT LEAST TWO PLYWOOD PANELS. THE TOP OF THE SIGN SHALL NOT BE HIGHER THAN THE TOP PANEL OF THE BARRACADE.
4. FUTURE CONNECTION SIGN SHALL BE MOUNTED ON BARRICADE WHEN REQUIRED BY THE CITY.
5. THE BARRICADE WIDTH SHALL COVER AT LEAST 50% OF THE ROAD WIDTH WITH GAPS NO LARGER THAN 4 FEET BETWEEN BARRICADES.

APPROVED BY:

WILLIAM S. HELBIG, P.E.
CITY ENGINEER

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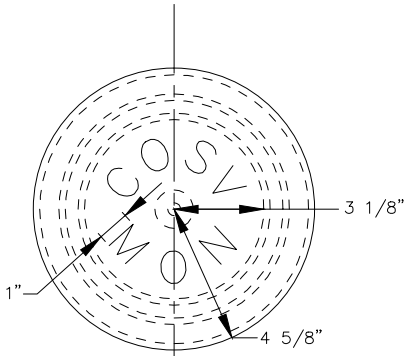
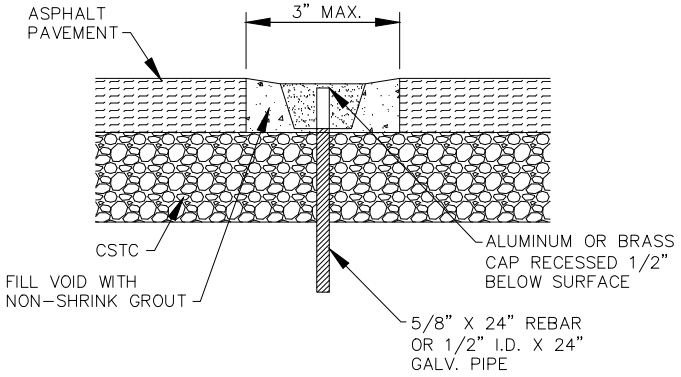
CITY OF Spokane Valley®

TYPE III BARRICADE

STANDARD PLAN NO. R-142

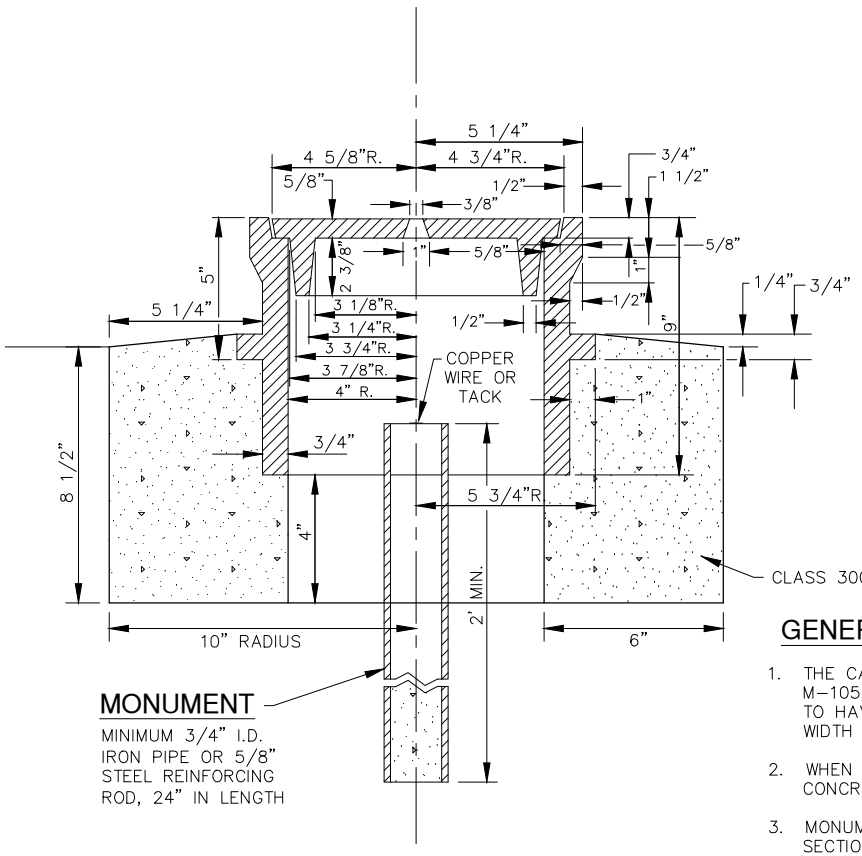


PLAN VIEW OF COVER



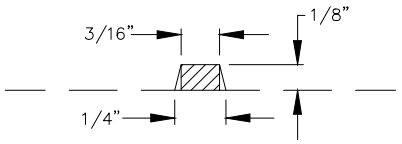
MONUMENT TYPE II

SEE NOTE 4



MONUMENT TYPE I

SEE NOTE 3



SECTION OF LETTER

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. MONUMENT TYPE I TO BE USED FOR PLACING NEW OR REPLACEMENT OF SECTION CORNERS, QUARTER CORNERS, CLOSING CORNERS, WITNESS CORNERS, AND MEANDER CORNERS.
4. MONUMENT TYPE II TO BE USED FOR NEW OR REPLACEMENT OF ROAD INTERSECTION POINTS, ROAD CENTERLINE ANGLE POINTS, AND CURVE POINTS.
5. REFER TO SECTION 7.5.15.2 FOR ADDITIONAL DETAILS.

APPROVED BY:

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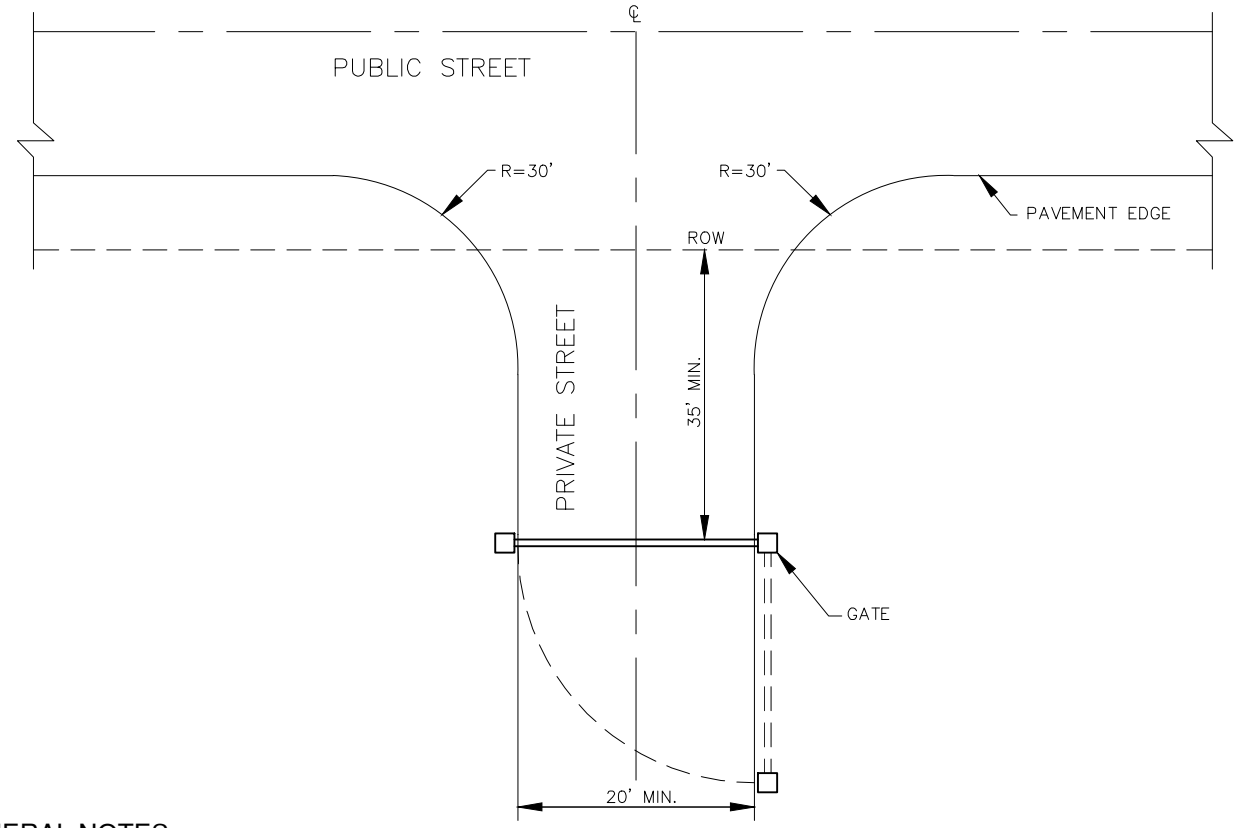
CITY OF Spokane Valley

SURVEY MONUMENTS

STANDARD PLAN NO. R-145



PLAN

GENERAL NOTES

TEMPORARY ACCESS RESTRICTIONS DURING CONSTRUCTION

1. TEMPORARY GATES ON REQUIRED FIRE LANE ACCESS ROADWAYS MAY BE PROVIDED WITH A CHAIN AND LOCK. THE CHAIN LINK WILL BE SEVERED IN THE EVENT OF NEEDED USE BY THE FIRE DEPARTMENT.

PERMANENT ACCESS RESTRICTING GATES

2. CLEAR UNOBSTRUCTED MINIMUM ACCESS WIDTH OF AUTOMATIC GATES SHALL BE 20' ON A SINGLE GATED ROADWAY WHEN FULLY OPENED; OR 14' ON EACH SIDE OF A DIVIDED ENTRY GATED ROADWAY WHEN FULLY OPENED. GATES SHALL BE DESIGNED TO REMAIN FULLY OPEN ONCE ACTIVATED BY THE FIRE DEPARTMENT AND UNTIL CLOSED BY THE FIRE DEPARTMENT (UNLESS STAFFED 24 HOURS/DAY, 365 DAYS/YEAR).
3. SWINGING GATES SHALL SWING INWARDS AWAY FROM THE PUBLIC STREET AND SHALL NOT INTERFERE WITH MINIMUM EMERGENCY VEHICLE TURNING RADIUS.
4. PERMANENT AUTOMATIC UNATTENDED GATES ON REQUIRED FIRE LANE ACCESS ROADWAYS SHALL BE PROVIDED WITH A KNOX KEY SWITCH UNLESS PROVIDED WITH AN OPTICOM COMPATIBLE STROBE ACTIVATED OPENING DEVICE.
5. ANY FAILURES OF REQUIRED GATE SWITCHES SHALL RESULT IN THE REQUIREMENT THAT THE GATE REMAIN IN THE OPEN POSITION UNTIL REPAIRS ARE COMPLETED.
6. ELECTRICALLY OPERATED GATES SHALL BE MANUALLY OPERABLE IN THE EVENT OF POWER FAILURE UNLESS SUPPLIED WITH BACKUP EMERGENCY POWER.
7. IN THE EVENT A GATE FAILS TO OPERATE, REQUIRING THE FIRE DEPARTMENT TO FORCE THE GATE OPEN FOR ACCESS, THE FIRE DEPARTMENT SHALL NOT BE RESPONSIBLE FOR DAMAGE CAUSED BY OPENING THE GATE.
8. PLANS AND SPECIFICATIONS OF GATE ASSEMBLY AND LOCATION SHALL BE SUBMITTED FOR REVIEW, APPROVAL, AND INSPECTION PRIOR TO CONSTRUCTION. IN THE EVENT THAT A CONFLICT EXISTS IN ACCESS REQUIREMENTS WITH CITY OF SPOKANE VALLEY, THE MORE RESTRICTIVE REQUIREMENT SHALL PREVAIL. GATES SHALL BE APPROVED BY THE FIRE DEPARTMENT AND THE CITY OF SPOKANE VALLEY.
9. FINAL APPROVAL OF A GATE IS CONTINGENT ON FIRE DEPARTMENT TESTING AND ACCEPTANCE. FIRE MARSHAL WILL ARRANGE FOR EMERGENCY APPARATUS TESTING PRIOR TO APPROVAL.

APPROVED BY:

GABE GALLINGER, P.E.
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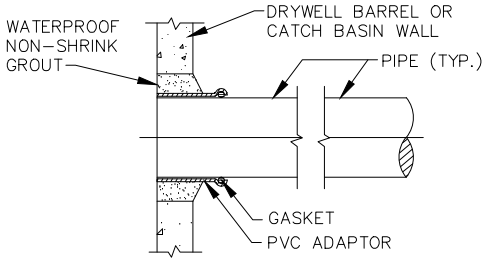
CITY OF Spokane Valley®

GATED ACCESS REQUIREMENTS

STANDARD PLAN NO. R-150

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 STREET PLANS.
2. GRAVEL BACKFILL FOR DRYWELLS SHALL BE WASHED DRAIN ROCK CONFORMING TO WSDOT STANDARD SPEC. 9-03.12(5).
3. FABRIC SHALL BE MODERATE SURVIVABILITY AS OUTLINED IN WSDOT STANDARD SPEC. 9-33.2(1). FABRIC SHALL NOT BE WRAPPED AROUND DRYWELL BARRELS OR PLACED ON THE BOTTOM OF THE BARREL.
4. SEE STANDARD PLANS S-103 TO S-105 FOR PRECAST CONCRETE DETAILS.
5. PRECAST MORTARED ADJUSTMENT RINGS SHALL BE USED IN LIEU OF ADJUSTING BLOCKS.
6. WHEN PVC PIPE IS USED, A PVC ADAPTER SHALL BE INSTALLED WHEN INLET PIPE IS IN THE CONE SECTION.
7. PIPES SHALL BE GROUTED INTO DRYWELLS.
8. GRAVEL BACKFILL TO BE COMPLETELY COVERED WITH FABRIC.

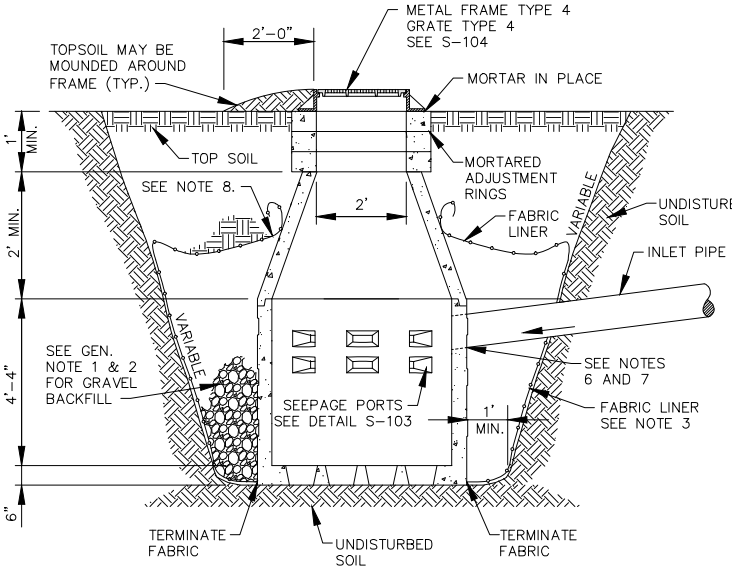


PVC ADAPTER

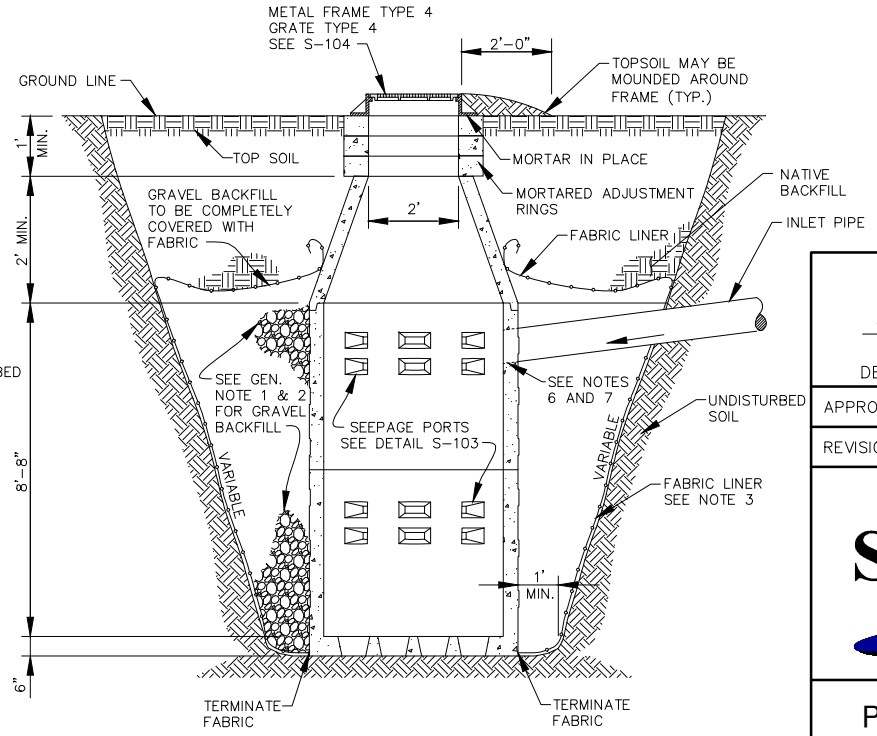
USE WHEN INLET PIPE IS IN THE CONE SECTION.

NOTE

PVC PIPE ADAPTERS AND GASKET MAY VARY IN SHAPE AND SIZE, AND SHALL MEET ASTM D-303H-78 SDR35 SPECIFICATIONS.



DRYWELL - TYPE 'A' WITH SWALE



DRYWELL - TYPE 'B' WITH SWALE

APPROVED BY:

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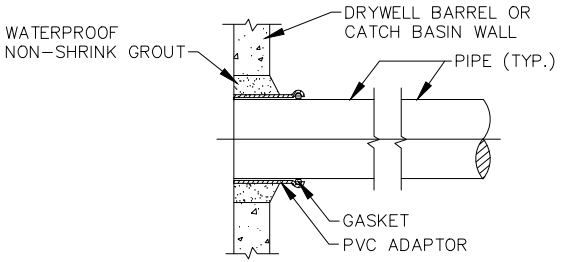
CITY OF Spokane Valley®

PRECAST DRYWELLS PLACED IN SWALE

STANDARD PLAN NO. S-101

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 STREET PLANS.
2. GRAVEL BACKFILL FOR DRYWELLS SHALL BE WASHED DRAIN ROCK CONFORMING TO WSDOT STANDARD SPEC. 9-03.12(5).
3. FABRIC SHALL BE MODERATE SURVIVABILITY AS OUTLINED IN WSDOT STANDARD SPEC. 9-33.2(1). FABRIC SHALL NOT BE WRAPPED AROUND DRYWELL BARRELS OR PLACED ON THE BOTTOM OF THE BARREL.
4. CONCRETE SLAB SHALL BE CLASS 3000 CONCRETE.
5. SEE STANDARD PLANS S-103 TO S-105 FOR PRECAST CONCRETE DETAILS.
6. PRECAST MORTARED ADJUSTMENT RINGS SHALL BE USED IN LIEU OF ADJUSTING BLOCKS.
7. WHEN PVC PIPE IS USED, A PVC ADAPTER SHALL BE INSTALLED WHEN INLET PIPE IS IN THE CONE SECTION.
8. PIPES SHALL BE GROUTED INTO DRYWELLS.
9. GRAVEL BACKFILL TO BE COMPLETELY COVERED WITH FABRIC.
10. MATERIAL COMPACTION SHALL MEET WSDOT STANDARD SPEC. 2-03.3(14)C, METHOD B.
11. SET DRYWELL FRAME PER STD. PLAN S-106.

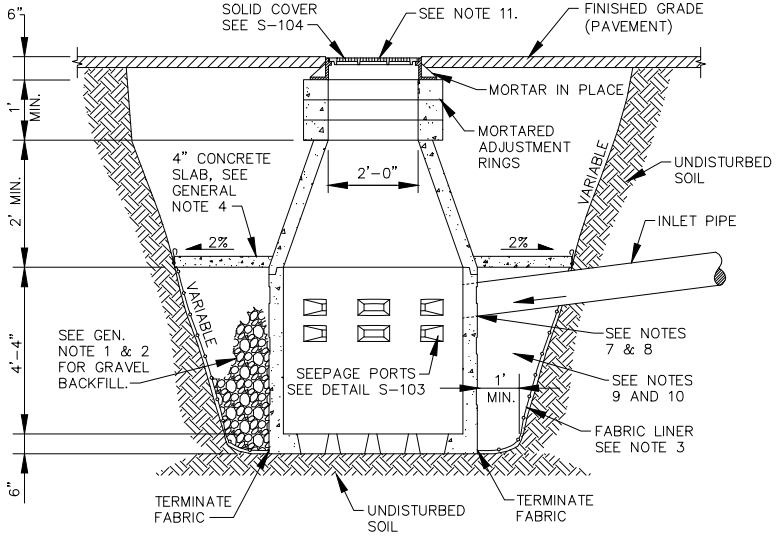


PVC ADAPTER

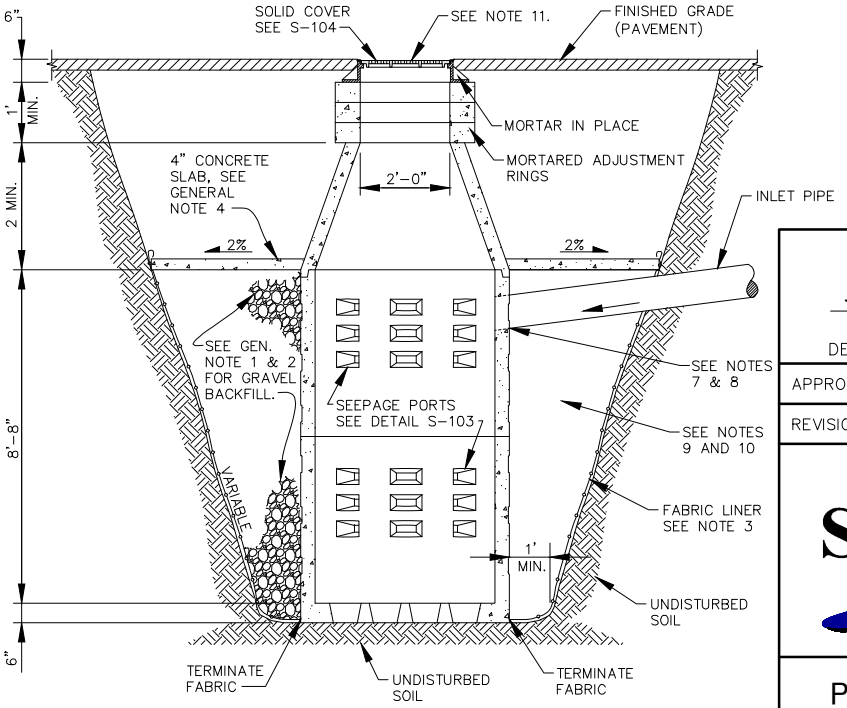
USE WHEN INLET PIPE IS IN THE CONE SECTION.

NOTE

PVC PIPE ADAPTERS AND GASKET MAY VARY IN SHAPE AND SIZE, AND SHALL MEET ASTM D-303H-78 SDR35 SPECIFICATIONS.



DRYWELL - TYPE 'A'



DRYWELL - TYPE 'B'

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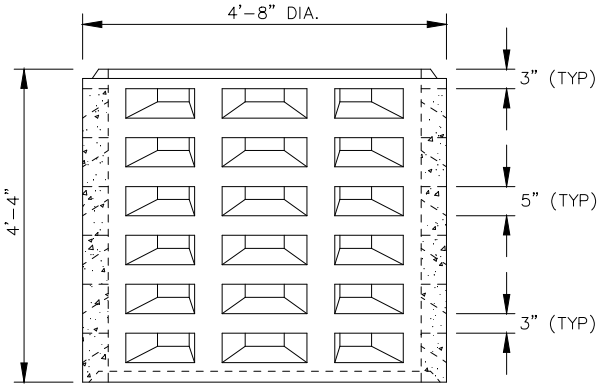
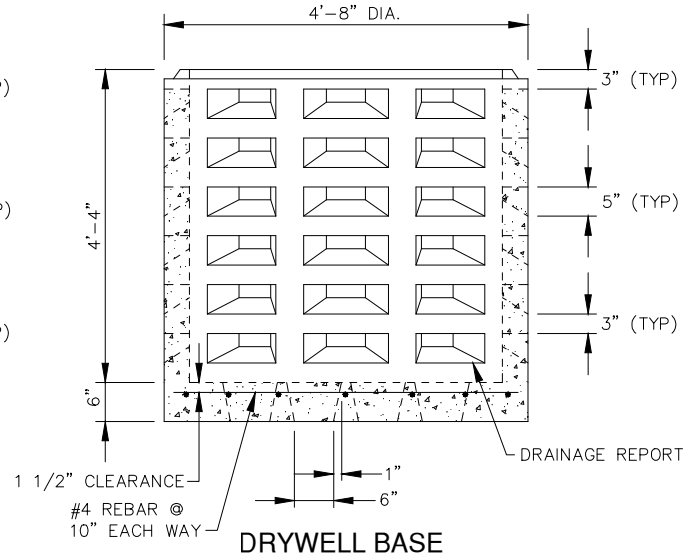
CITY OF Spokane Valley

PRECAST DRYWELLS PLACED IN ASPHALT

STANDARD PLAN NO. S-102



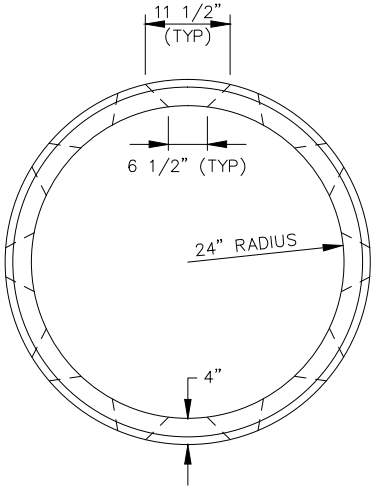
DRYWELL BARREL
(ELEVATION)



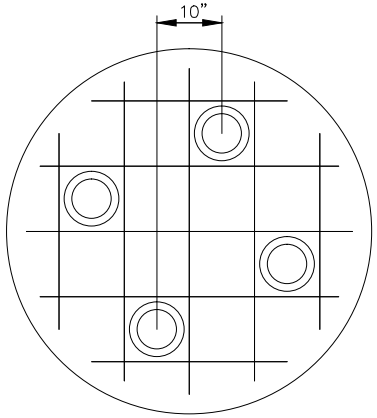
DRYWELL BASE
(ELEVATION)

GENERAL NOTES

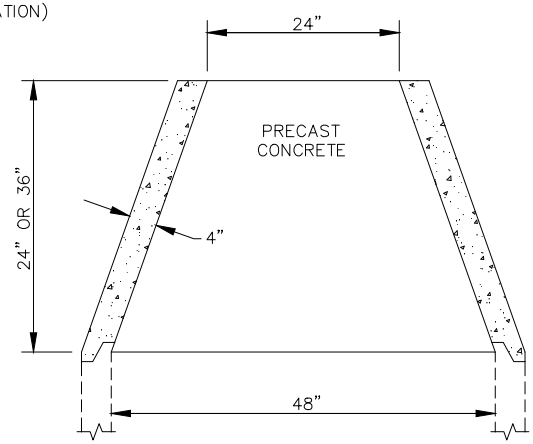
1. CONCRETE DRYWELL ITEMS SHALL BE CONSTRUCTED WITH THE BARRELS AND CONES REINFORCED WITH 0.12 SQ. IN. STEEL GRADE 40, PER LINEAL FOOT OF WALL.
2. TOLERANCE OF DIMENSIONS FOR DRAINAGE PORTS SHALL BE ±1/2".
3. EACH BARREL SECTION SHALL HAVE A MINIMUM OF 6 ROWS OF DRAINAGE PORTS VERTICALLY AND A MINIMUM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



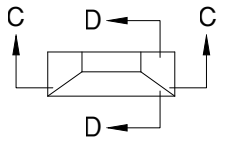
DRYWELL BARREL
(PLAN)



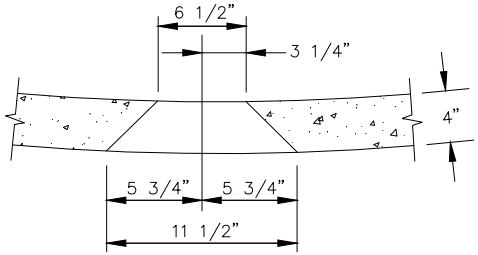
BASE DRAIN HOLE DETAIL
(PLAN)



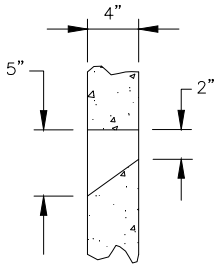
CONCENTRIC CONE



DRAINAGE PORT



SECTION C-C



SECTION D-D

APPROVED BY:

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DEVELOPMENT SERVICES MANAGER

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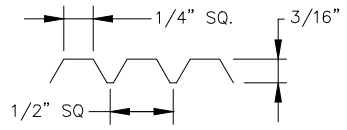
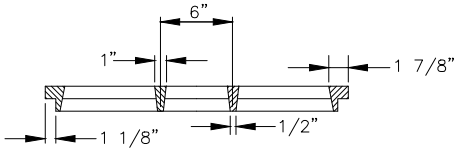
CITY OF Spokane Valley®

DRYWELL DETAILS

STANDARD PLAN NO.
S-103



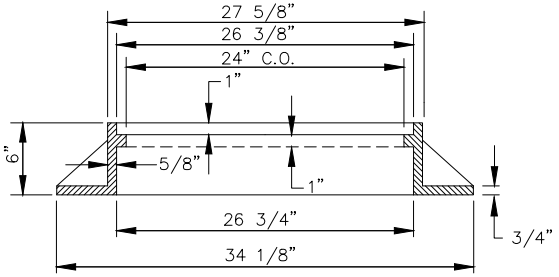
COVER SKID DESIGN DETAIL



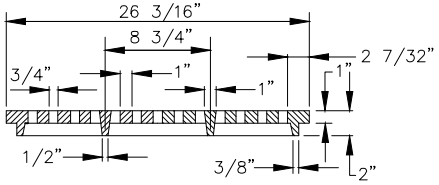
SECTION J-J

GENERAL NOTES

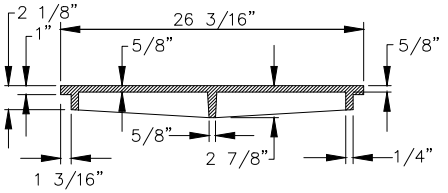
1. FRAME SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48-90, GRADE 30. THE GRATE SHALL BE DUCTILE IRON CONFORMING TO A.S.T.M. A536-84, CLASS 80-55-06.
2. METAL FRAME AND GRATE TYPE 4 SHALL ONLY BE USED WHERE SHOWN ON THE CONSTRUCTION PLANS. IT SHALL NOT BE USED AT A CURB LINE.
3. DRAINAGE SLOTS SHALL BE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



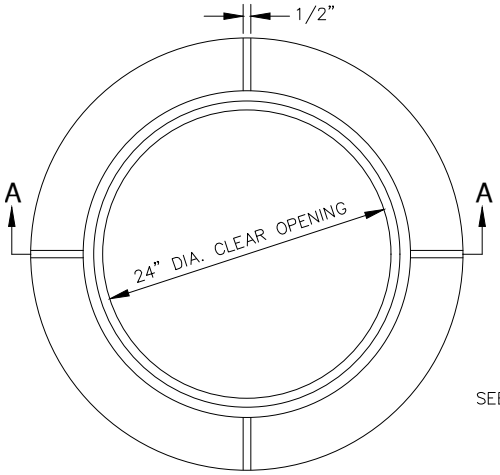
SECTION A-A



SECTION H-H

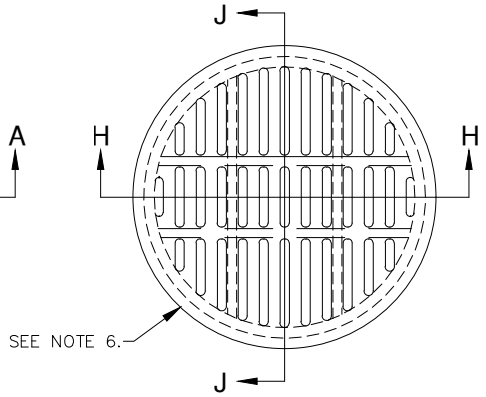


SECTION B-B

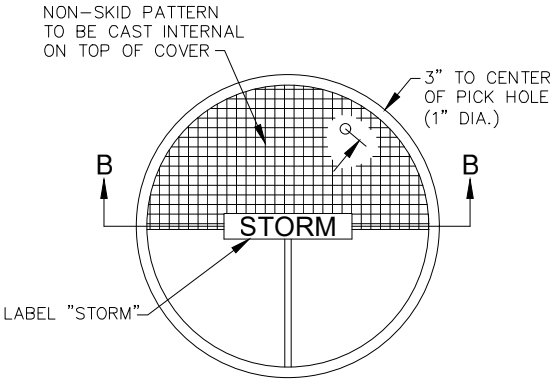


FRAME - TYPE 4

MIN. WEIGHT 168 LBS.



GRATE - TYPE 4



SOLID COVER

MIN. WEIGHT 118 LBS.

APPROVED BY:

WILLIAM S. HELBIG, P.E.
CITY ENGINEER

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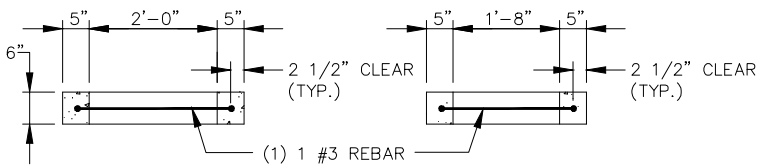
CITY OF Spokane Valley®

DRYWELL FRAME AND GRATES

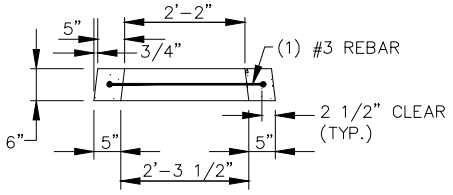
STANDARD PLAN NO. S-104

GENERAL NOTES

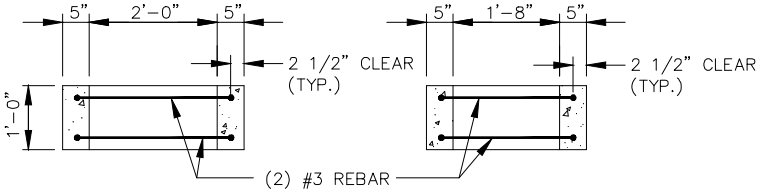
1. CONCRETE ITEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478 (AASHTO M199) & ASTM C-890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.



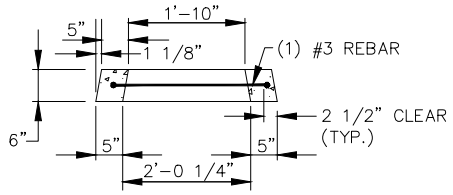
SECTION E-E SECTION F-F



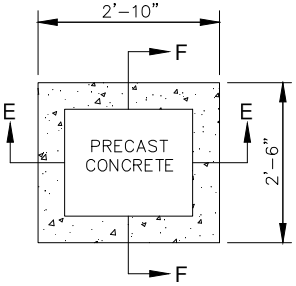
SECTION C-C



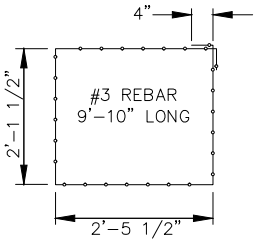
SECTION E-E SECTION F-F



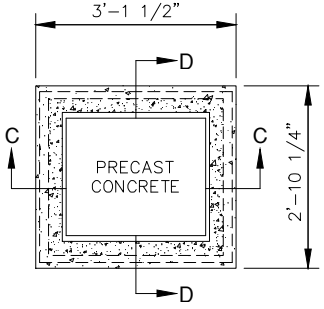
SECTION D-D



RISER, TYPE 1



BENDING



RISER, TYPE 2

APPROVED BY:

GABE GALLINGER, P.E.
DEVELOPMENT SERVICES MANAGER

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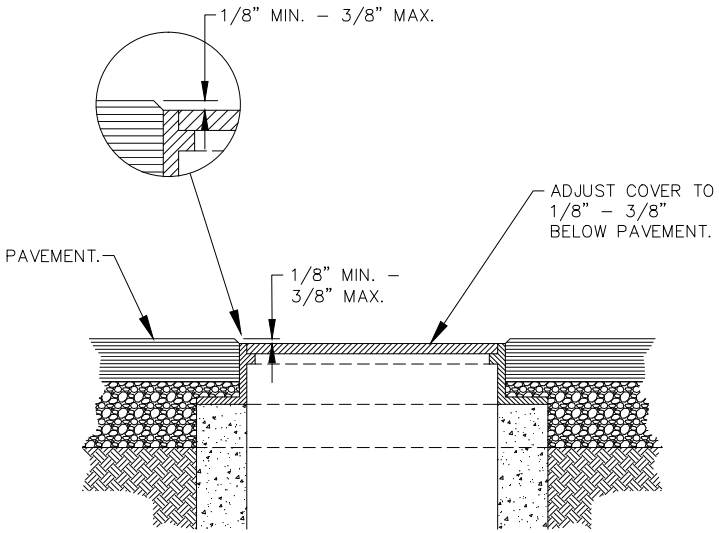
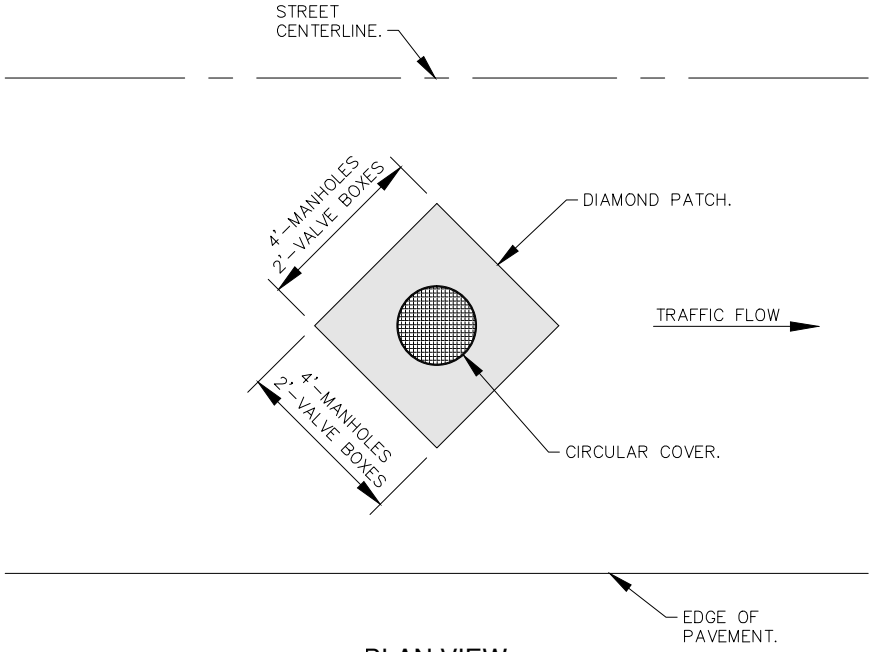
CITY OF Spokane Valley®

PRECAST RISER DETAILS

STANDARD PLAN NO. S-105



SECTION



PLAN VIEW

GENERAL NOTES

1. UTILITY COVERS SUCH AS FRAMES, GRATES AND LIDS FOR SEWER MANHOLES, STORM WATER MANHOLES AND CATCH BASINS, WATER VALVE BOXES, GAS VALVE BOXES, COMMUNICATION AND POWER VAULTS, MONUMENT CASES, PULL BOXES AND JUNCTION BOXES IN THE TRAVELED WAY SHALL BE ADJUSTED PRIOR TO PAVING SO THAT UPON COMPLETION OF PAVING THE RIM ELEVATIONS WILL BE 1/8 INCH MIN. TO 3/8 INCHES MAX. BELOW THE SURROUNDING FINAL PAVEMENT.

2. CATCH BASIN INLETS, SET IN OR ADJACENT TO CURBING, SHALL BE SET 1/2 INCH BELOW GUTTER GRADE PER STD. PLAN S–117.

3. ANY CONSTRUCTION ACTIVITIES AROUND EXISTING UTILITY COVERS WITHIN THE TRAVELED WAY, SUCH AS SEWER TAPS, SHALL CAUSE THE UTILITY COVERS TO BE ADJUSTED SUCH THAT ALL PORTIONS OF THE RIMS WILL BE 1/8 INCH TO 3/8 INCHES BELOW THE SURROUNDING PAVEMENT.

4. THE REQUIRED ELEVATION DIFFERENCE BETWEEN THE PAVEMENT AND UTILITY COVER SHALL BE MEASURED FROM THE BOTTOM OF A 10–FOOT LONG STRAIGHT EDGE TO THE TOP OF THE FRAME. THE STRAIGHT EDGE SHALL BE SET OVER THE FRAME IN THE DIRECTION OF TRAVEL.

5. FOR POST–PAVE ADJUSTMENTS TO MANHOLES AND VALVE BOXES, THE PAVEMENT PATCH SHALL BE A "DIAMOND PATCH", 4–FOOT SQUARE FOR MANHOLES AND 2–FOOT SQUARE FOR VALVE BOXES. FOR NON–CIRCULAR UTILITY COVERS, COORDINATE WITH THE RIGHT–OF–WAY INSPECTOR.

6. UTILITY COVERS LOCATED WITHIN PEDESTRIAN ACCESS ROUTES SHALL CONFORM WITH ALL CURRENT A.D.A. GUIDELINES.

APPROVED BY:

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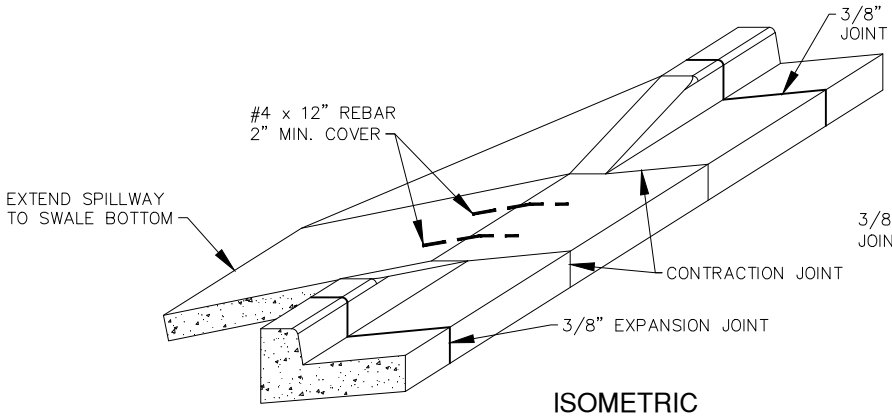
UTILITY COVER ADJUSTMENT DETAIL

STANDARD PLAN NO. S-106

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. WIDTH TO BE DETERMINED BY DESIGN ENGINEER.
5. CONCRETE SPILLWAY SHALL EXTEND TO SWALE BOTTOM.



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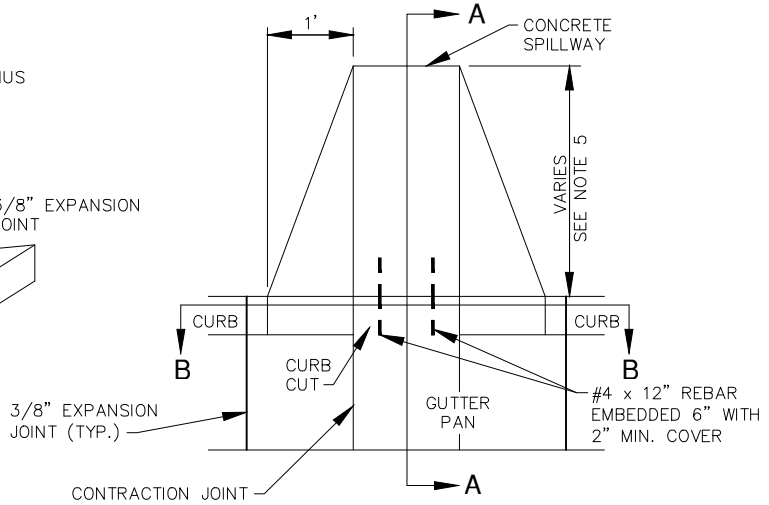
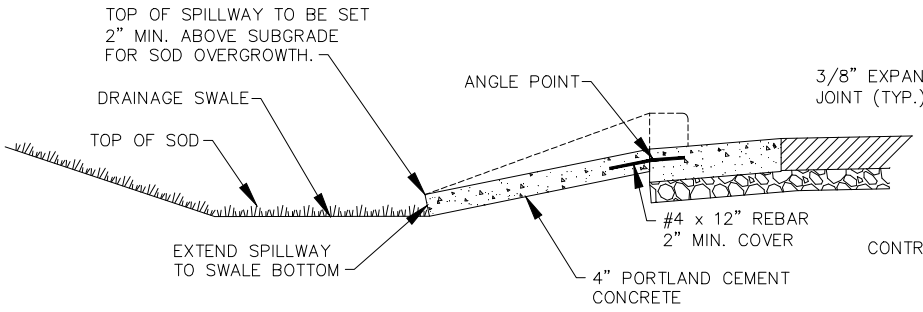
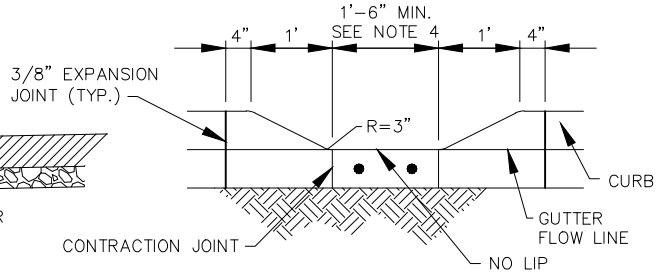


TOP VIEW



SECTION A-A



SECTION B-B

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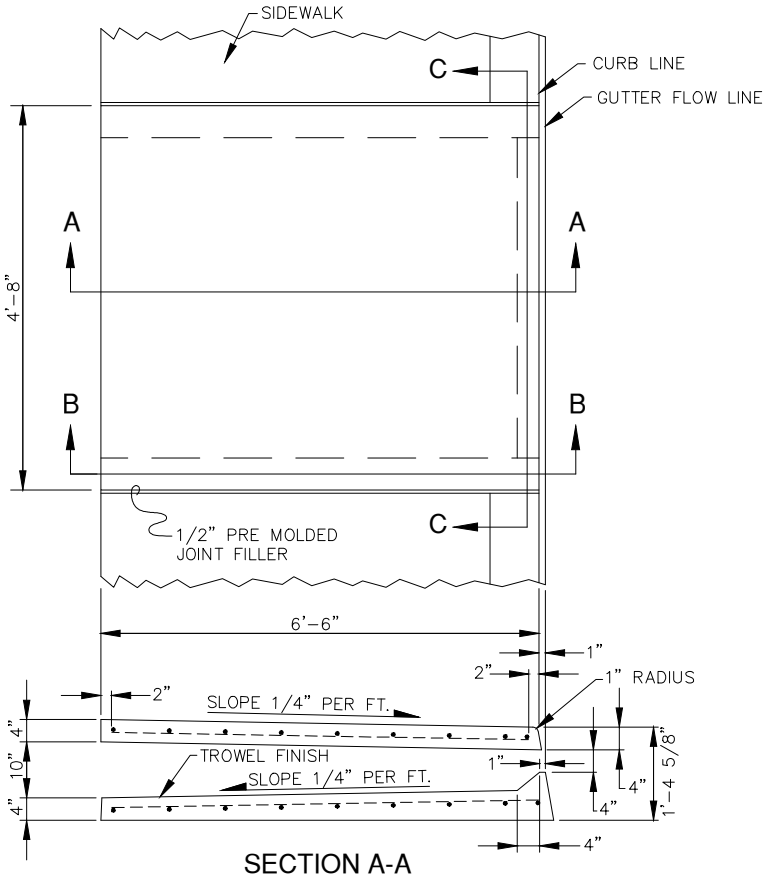
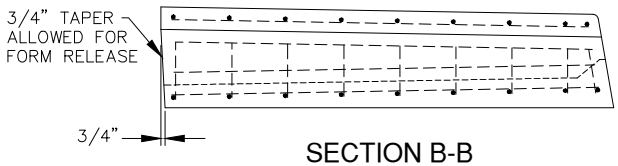
CITY OF Spokane Valley

CURB INLET
TYPE 1

STANDARD PLAN NO.
S-110

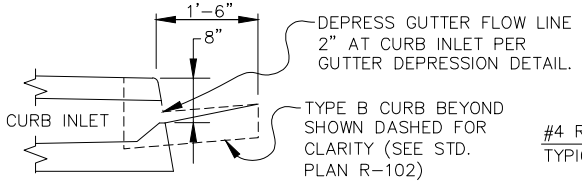


SECTION A-A

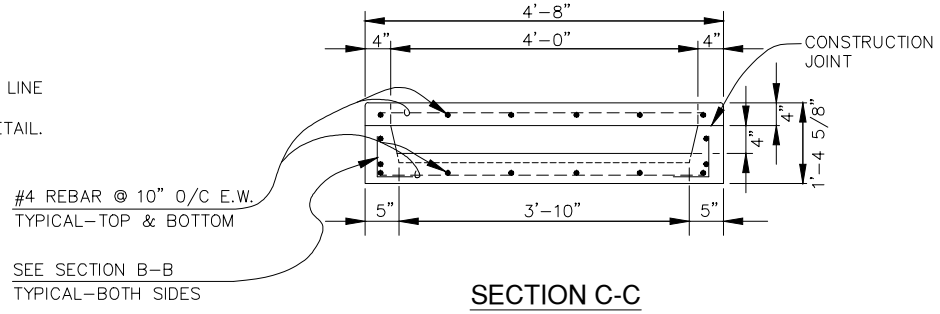


SECTION B-B

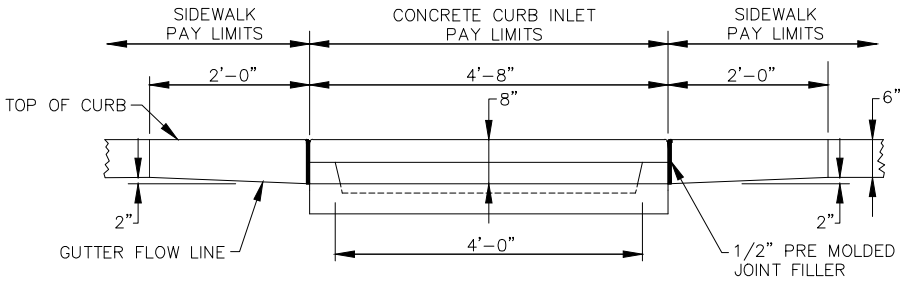
REBAR PLACEMENT



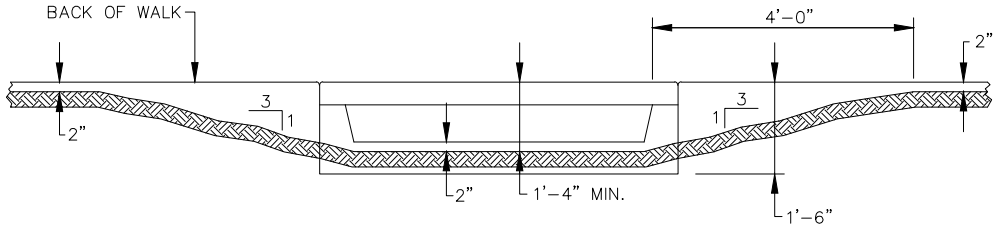
CURB INLET



SECTION C-C



GUTTER DEPRESSION DETAIL



OUTLET SWALE GRADING DETAIL

GENERAL NOTES

1. PRECAST CURB INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478 (AASHTO M-199) & ASTM C-890.
2. TOP SURFACE TO BE BROOM FINISHED.
3. ALL EXTERNAL EDGES NOT LABELED SHALL BE TROWELLED WITH 1/4" RADIUS EDGER.

APPROVED BY:

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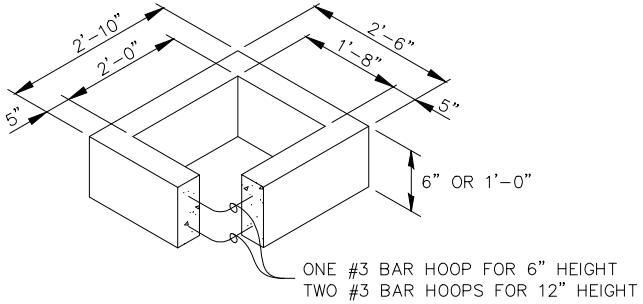
CITY OF Spokane Valley

CURB INLET TYPE 2

STANDARD PLAN NO. S-111



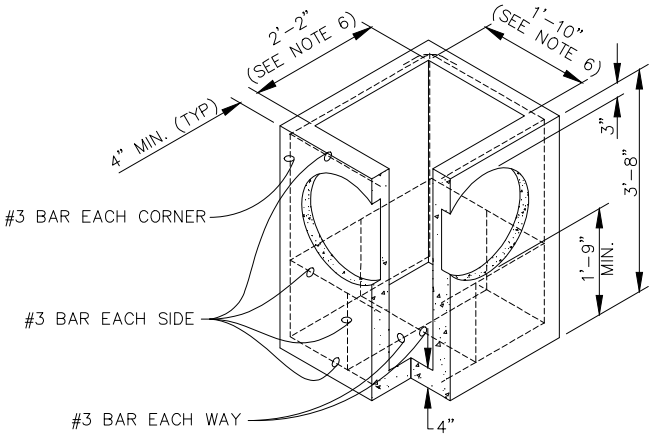
RECTANGULAR ADJUSTMENT SECTION

PIPE ALLOWANCES	
PIPE DIAMETER	MAXIMUM INSIDE DIAMETER
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP* (STD. SPEC. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. 9-05.12(2))	15"

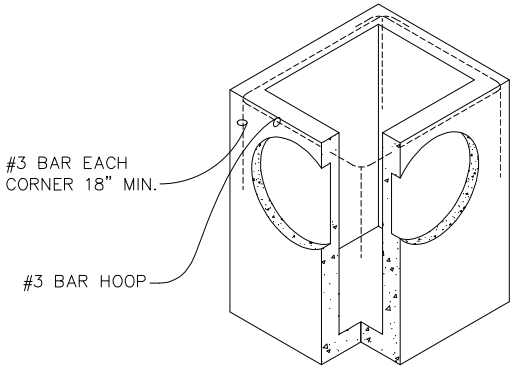
*CORRUGATED POLYETHYLENE STORM SEWER PIPE

GENERAL NOTES

1. AS ACCEPTABLE ALTERNATIVES TO THE REBAR SHOWN IN THE PRECAST BASE SECTION, FIBERS (PLACED ACCORDING TO THE STANDARD SPECIFICATIONS), OR WIRE MESH HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT SHALL BE USED WITH THE MINIMUM REQUIRED REBAR SHOWN IN THE ALTERNATE PRECAST BASE SECTION. WIRE MESH SHALL NOT BE PLACED IN THE KNOCKOUTS.
2. THE KNOCKOUT DIAMETER SHALL NOT BE GREATER THAN 1'-8". KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH JOINT MORTAR IN ACCORDANCE WITH STANDARD SPECIFICATION 9-04.3.
3. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE LOWEST PIPE INVERT SHALL BE 5'.
4. THE FRAME AND GRATE MAY BE INSTALLED WITH THE FLANGE UP OR DOWN. THE FRAME MAY BE CAST INTO THE ADJUSTMENT SECTION.
5. THE PRECAST BASE SECTION MAY HAVE A ROUNDED FLOOR, AND THE WALLS MAY BE SLOPED AT A RATE OF 1:24 OR STEEPER.
6. THE OPENING SHALL BE MEASURED AT THE TOP OF THE PRECAST BASE SECTION.
7. ALL PICKUP HOLES SHALL BE GROUTED FULL AFTER THE BASIN HAS BEEN PLACED.



PRECAST BASE SECTION



ALTERNATIVE PRECAST BASE SECTION

SEE NOTE 1

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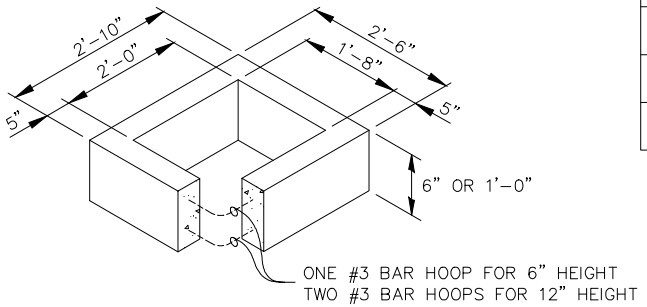
CITY OF Spokane Valley®

CATCH BASIN TYPE 1

STANDARD PLAN NO. S-112



RECTANGULAR ADJUSTMENT SECTION

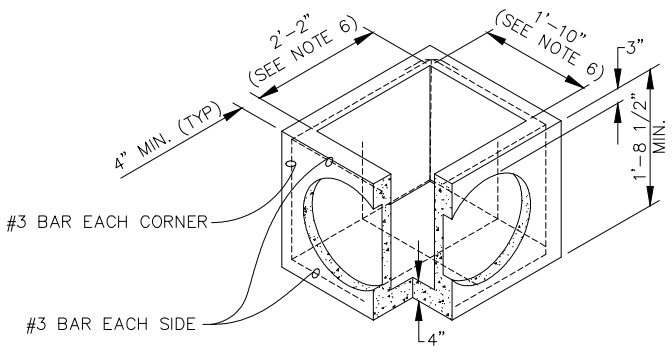
SEE STANDARD PLAN S-105

PIPE ALLOWANCES	
PIPE DIAMETER	MAXIMUM INSIDE DIAMETER
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP* (STD. SPEC. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. 9-05.12(2))	15"

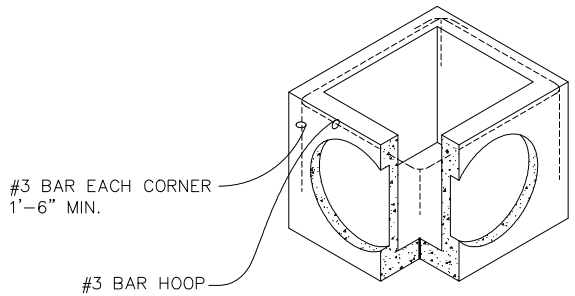
*CORRUGATED POLYETHYLENE STORM SEWER PIPE

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. REINFORCED STEEL SHALL BE GRADE 40 OR 60.
3. CONCRETE INLETS SHALL BE SET ON A COMPACTED OR UNDISTURBED LEVEL FOUNDATION.
4. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. 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.
5. WHEN PVC PIPE IS USED, A SAND COLLAR SHALL BE INSTALLED.
6. INLET PIPE SHALL BE GROUTED INTO CONCRETE INLET WITH WATERPROOF NON-SHRINK GROUT.
7. KNOCKOUTS SHALL BE ON ALL 4 SIDES WITH MAX. DIAMETER OF 1'-5". KNOCKOUTS SHALL BE ROUND. PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS.



PRECAST BASE SECTION



ALTERNATIVE PRECAST BASE SECTION

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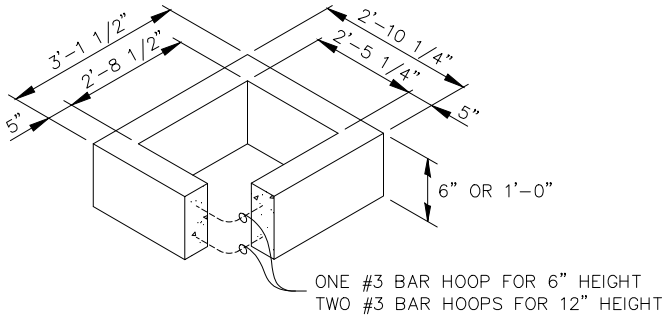
CONCRETE INLET TYPE 1

STANDARD PLAN NO. S-113



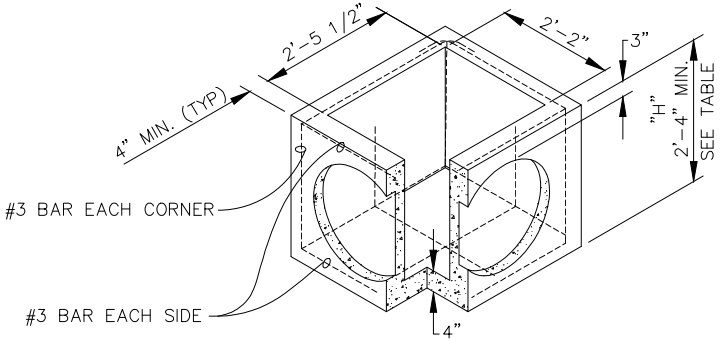
RECTANGULAR ADJUSTMENT SECTION

RISER TYPE II (S-105)

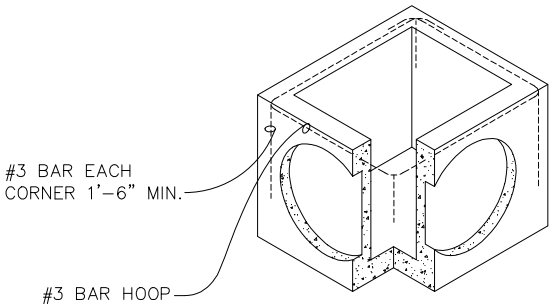
TABLE	
PIPE DIAMETER	"H"
10"	2'-4"
12"	2'-5 1/2"
15"	2'-9"
18"	3'-0"

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. REINFORCED STEEL SHALL BE GRADE 40 OR 60.
3. CONCRETE INLETS SHALL BE SET ON A COMPACTED OR UNDISTURBED LEVEL FOUNDATION.
4. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. 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.
5. WHEN PVC PIPE IS USED, A SAND COLLAR SHALL BE INSTALLED.
6. INLET PIPE SHALL BE GROUTED INTO CONCRETE INLET WITH WATERPROOF NON-SHRINK GROUT.
7. KNOCKOUTS SHALL BE ON ALL 4 SIDES WITH MAX. DIAMETER OF 1'-9". KNOCKOUTS SHALL BE ROUND. PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS.



PRECAST BASE SECTION



ALTERNATIVE PRECAST BASE SECTION

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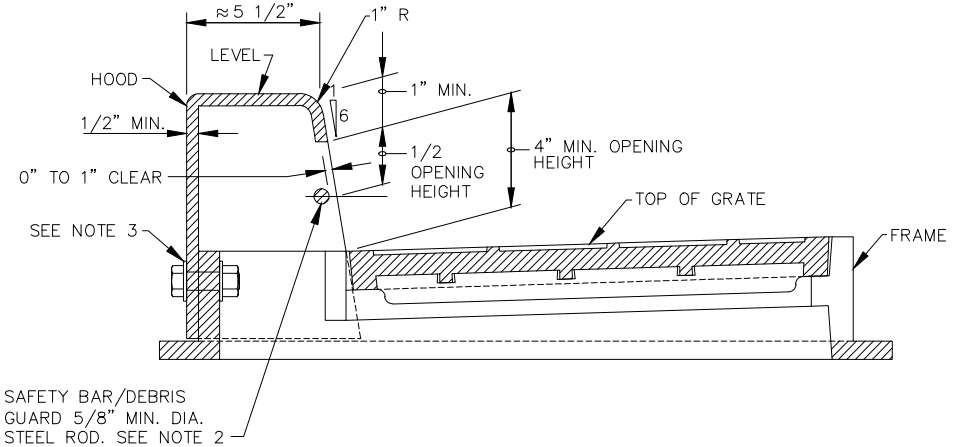
CONCRETE INLET TYPE 2

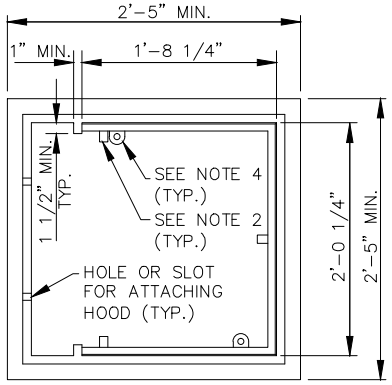
STANDARD PLAN NO. S-114



DETAIL SECITON A

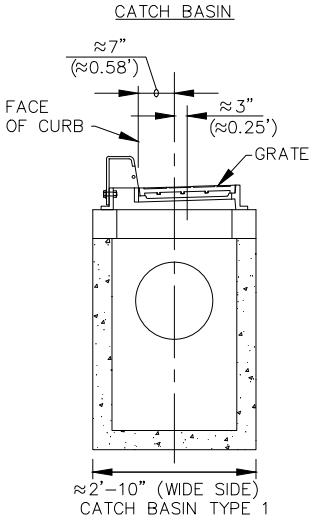
GENERAL NOTES

1. THE ASYMMETRY OF THE COMBINATION INLET SHALL BE CONSIDERED WHEN CALCULATING THE OFFSET DISTANCE FOR THE CATCH BASIN.
2. THE DIMENSIONS OF THE FRAME AND HOOD MAY VARY SLIGHTLY AMONG DIFFERENT MANUFACTURERS. THE FRAME MAY HAVE CAST FEATURES INTENDED TO SUPPORT A GRATE GUARD. HOOD UNITS SHALL MOUNT OUTSIDE OF THE FRAME. THE METHODS FOR FASTENING THE SAFETY BAR/DEBRIS GUARD ROD TO THE HOOD MAY VARY. THE HOOD MAY INCLUDE CASTING LUGS. THE TOP OF THE HOOD MAY BE CAST WITH A PATTERN.
3. ATTACH THE HOOD TO THE FRAME WITH TWO 3/4" X 2" HEX HEAD BOLTS, NUTS, AND OVERSIZE WASHERS. THE WASHERS SHALL HAVE DIAMETERS ADEQUATE TO ASSURE FULL BEARING ACROSS THE SLOTS.
4. WHEN BOLT-DOWN GRATES ARE SPECIFIED IN THE CONTRACT, PROVIDE TWO HOLES IN THE FRAME THAT ARE VERTICALLY ALIGNED WITH THE GRATE SLOTS. TAP EACH HOLE TO ACCEPT A 5/8" X 11 NC X 2" ALLEN HEAD CAP SCREW. LOCATION OF BOLT-DOWN HOLES VARIES AMONG DIFFERENT MANUFACTURERS.
5. ONLY DUCTILE IRON VANED GRATES SHALL BE USED. SEE STANDARD PLANS S-121 AND S-122.
6. THIS PLAN IS INTENDED TO SHOW THE INSTALLATION DETAILS OF A MANUFACTURED PRODUCT. IT IS NOT THE INTENT OF THIS PLAN TO SHOW THE SPECIFIC DETAILS NECESSARY TO FABRICATE THE CASTINGS SHOWN ON THIS DRAWING.
7. THE TOP OF GRATE SHALL BE INSTALLED 1/2" LOWER THAN THE PROJECTED GUTTER GRADE.



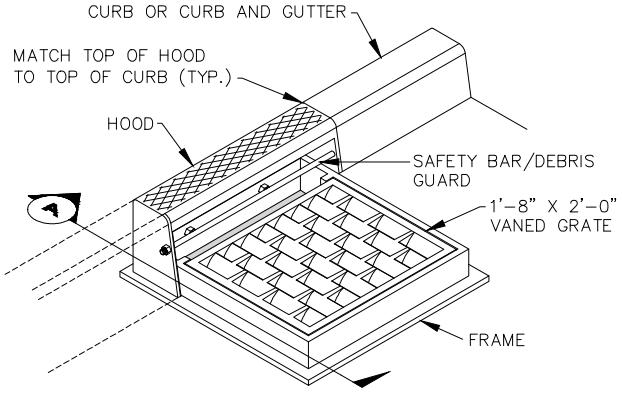
FRAME DETAIL

TOP VIEW



SECTION A

SEE NOTE 1



ISOMETRIC VIEW

COMBINATION INLET

FRAME, HOOD AND VANED GRATE

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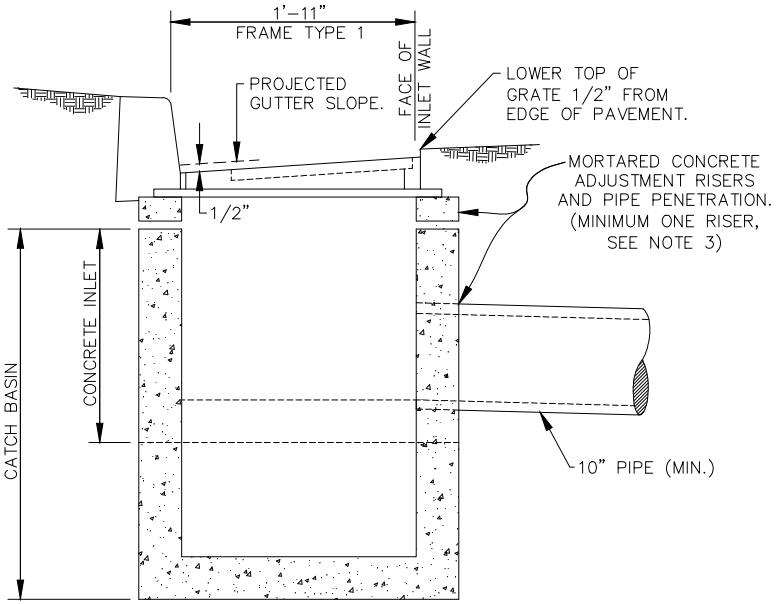
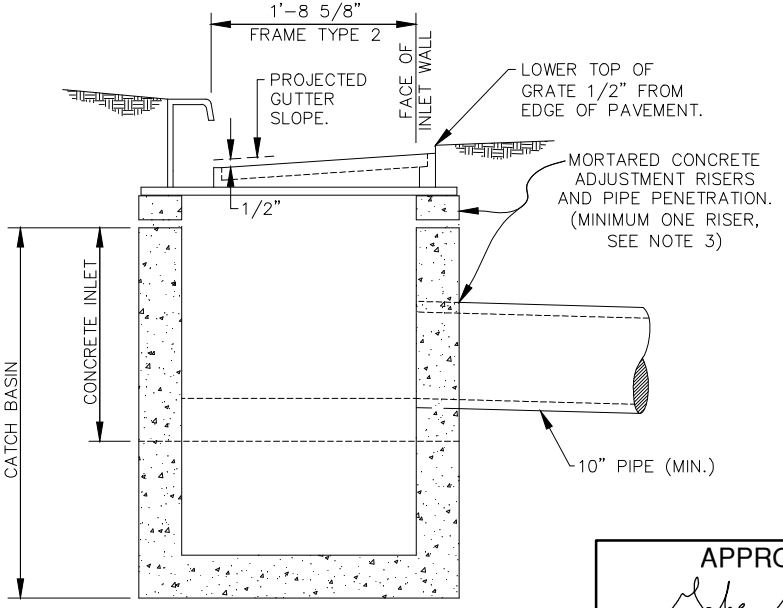
COMBINATION INLET

STANDARD PLAN NO.
S-115



CATCH BASIN & INLET
TYPE 1



CATCH BASIN & INLET
TYPE 2

GENERAL NOTES

1. THE TOP OF GRATE SHALL BE INSTALLED 1/2" LOWER THAN THE EDGE OF PAVEMENT AND 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.

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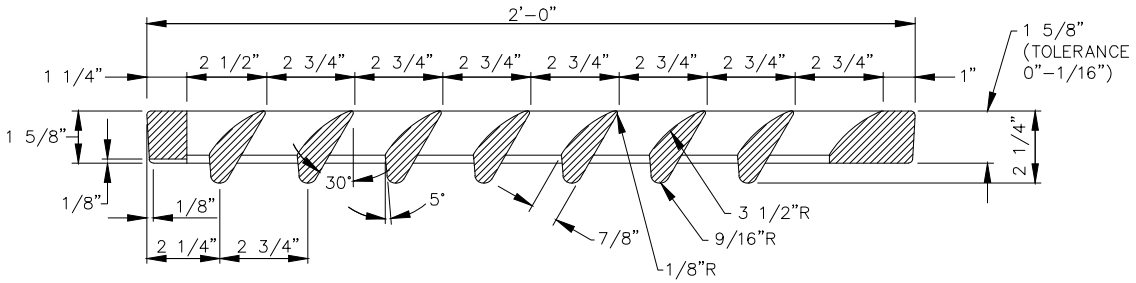
CATCH BASIN &
INLET INSTALLATION

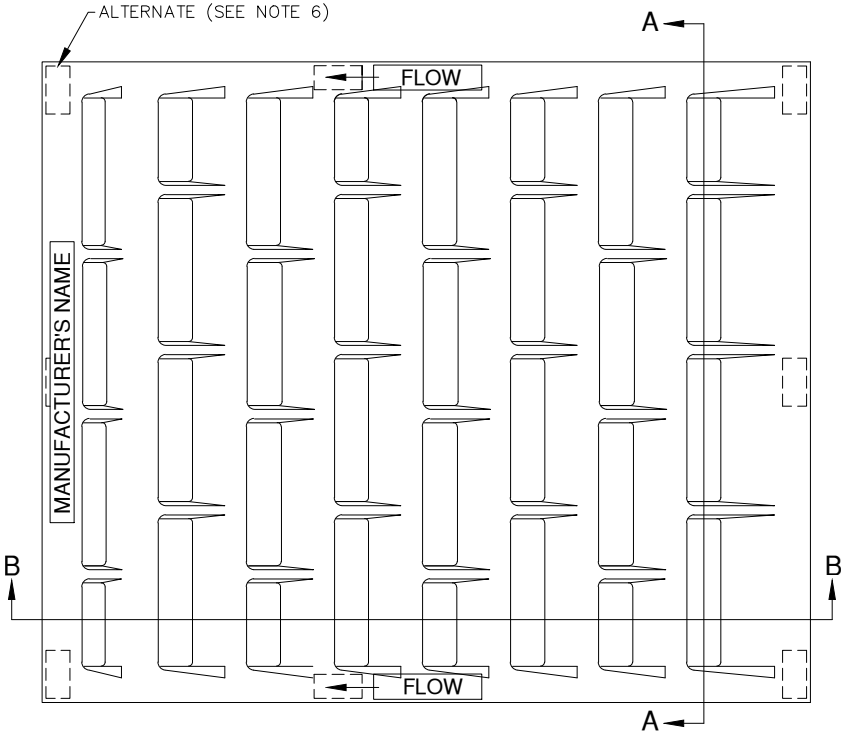
STANDARD PLAN NO.
S-117



SECTION B-B

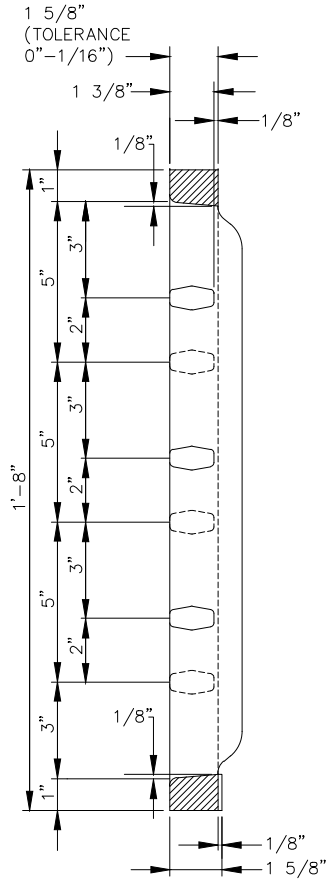
GENERAL NOTES

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, AND GRATE SHALL BE DUCTILE IRON. BOTH SHALL CONFORM TO AASHTO M-306.
3. DIMENSIONS SHALL HAVE ±1/16" TOLERANCE, EXCEPT AS NOTED.
4. EDGES SHALL HAVE 1/8" RADIUS, 1/8" CHAMFER OR COMPLETE DEBURRING.
5. WELDING IS NOT PERMITTED.
6. AS AN ALTERNATE, 8 PADS 1 1/2" X 3/4" X 1/8", INTEGRALLY CAST WITH THE GRATE, MAY BE USED.



PLAN VIEW

APPROXIMATE WEIGHT-101 LBS.



SECTION A-A

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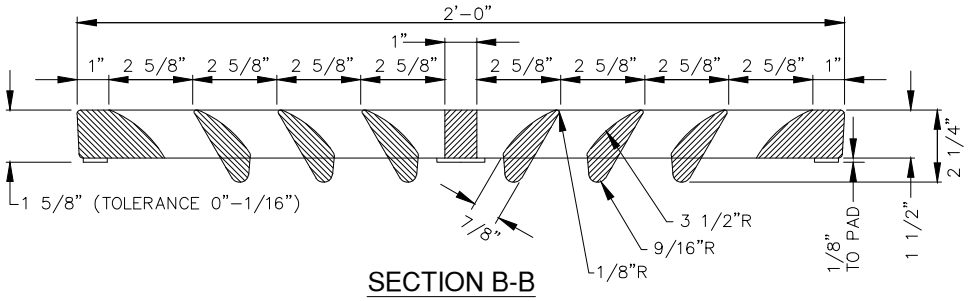
METAL GRATE
TYPE 1 (BYPASS)

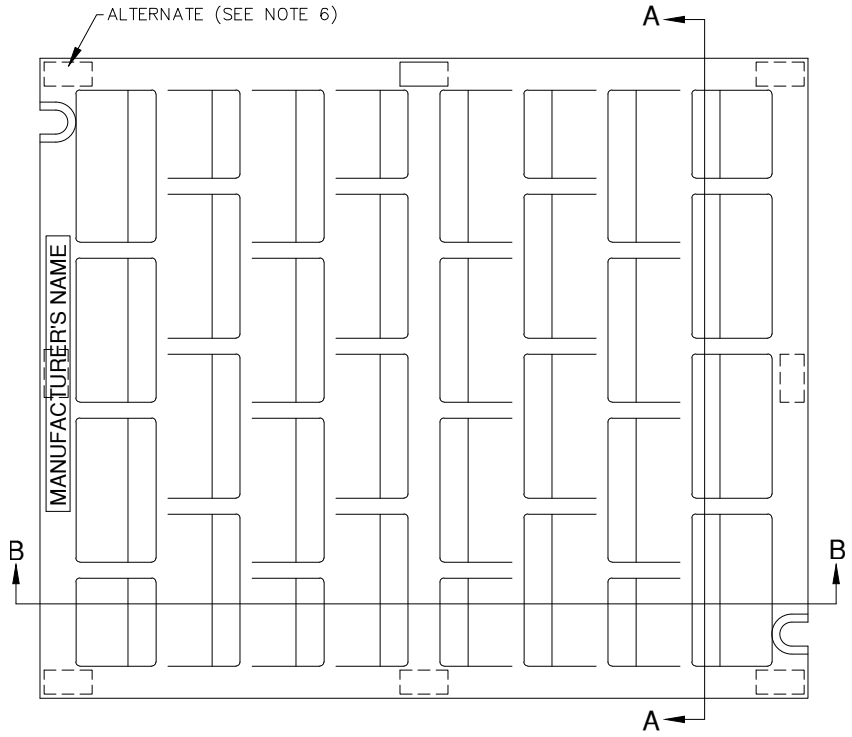
STANDARD PLAN NO.
S-121



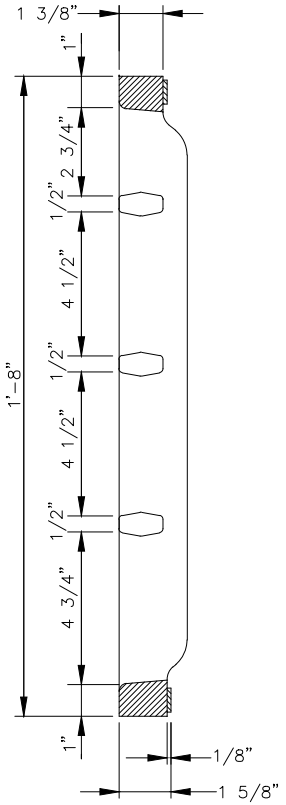
SECTION B-B

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, AND GRATE SHALL BE DUCTILE IRON. BOTH SHALL CONFORM TO AASHTO M-306.
3. DIMENSIONS SHALL HAVE ±1/16" TOLERANCE, EXCEPT AS NOTED.
4. EDGES SHALL HAVE 1/8" RADIUS, 1/8" CHAMFER OR COMPLETE DEBURRING.
5. WELDING IS NOT PERMITTED.
6. AS AN ALTERNATE, 8 PADS 1 1/2" X 3/4" X 1/8", INTEGRALLY CAST WITH THE GRATE, MAY BE USED.



PLAN VIEW



SECTION A-A

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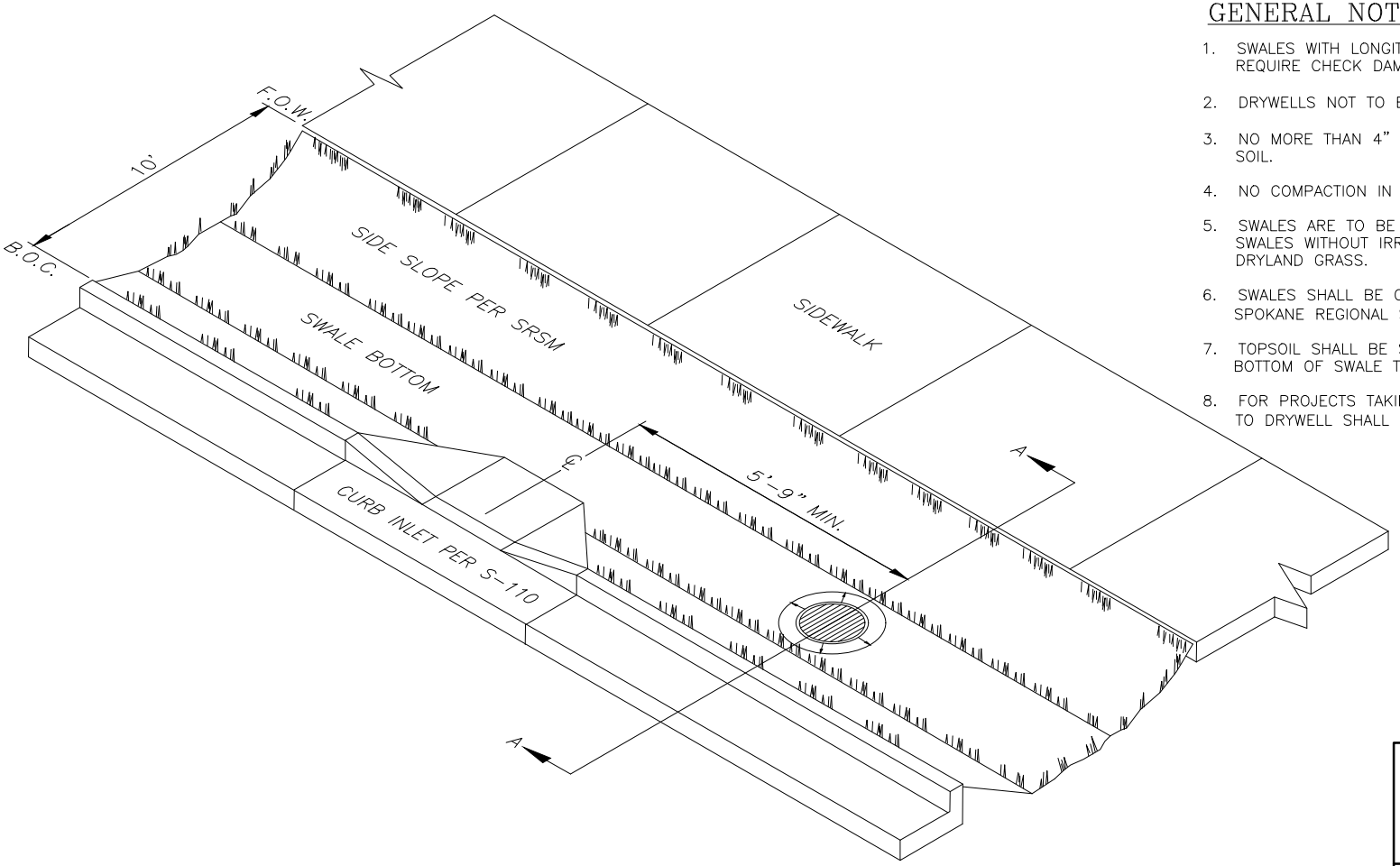
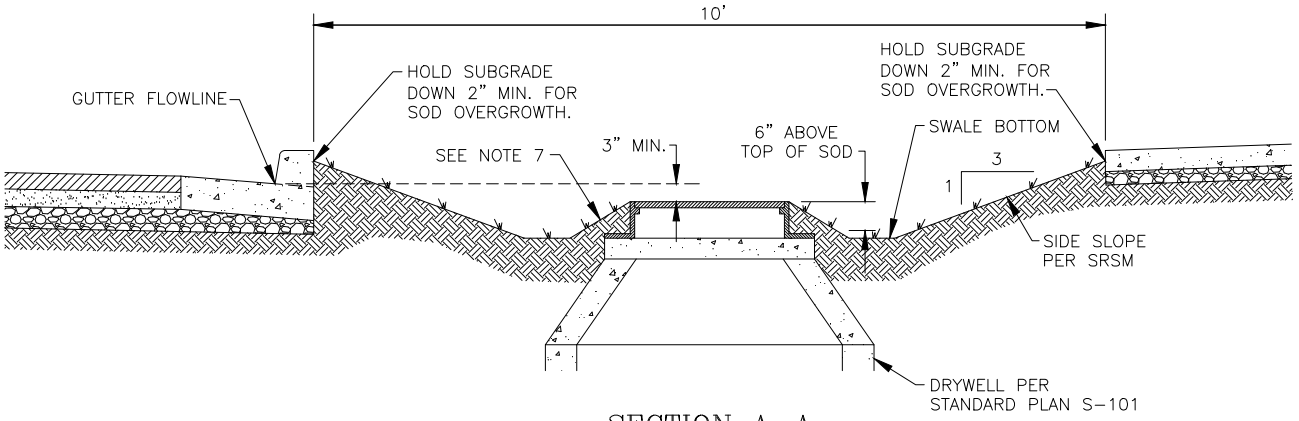
METAL GRATE TYPE 3 (SUMP)

STANDARD PLAN NO. S-122



GENERAL NOTES:

1. SWALES WITH LONGITUDINAL SLOPE GREATER THAN 1% REQUIRE CHECK DAMS.
2. DRYWELLS NOT TO BE WITHIN 5'-9" OF INLET CENTERLINE.
3. NO MORE THAN 4" OF TOPSOIL OVER UNCOMPACTED NATIVE SOIL.
4. NO COMPACTION IN SWALE BOTTOM.
5. SWALES ARE TO BE GRASSED AND IRRIGATED AS NECESSARY. SWALES WITHOUT IRRIGATION SHALL HAVE DROUGHT-TOLERANT DRYLAND GRASS.
6. SWALES SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE SPOKANE REGIONAL STORMWATER MANUAL (SRSM).
7. TOPSOIL SHALL BE SLOPED AROUND DRYWELL FRAME FROM BOTTOM OF SWALE TO TOP OF FRAME AT 3:1 MAXIMUM SLOPE.
8. FOR PROJECTS TAKING PUBLIC ROAD RUNOFF, FRAME INLET TO DRYWELL SHALL HAVE BOLTED "LOCKING" TYPE GRATE.



SECTION A-A

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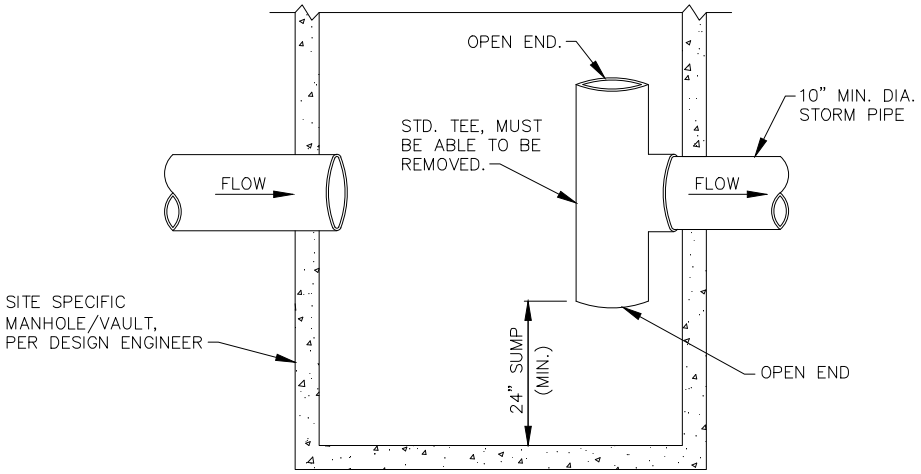
ROADSIDE SWALES

STANDARD PLAN NO. S-130



SPILL CONTROL SEPARATOR

GENERAL NOTES:

1. SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE SPOKANE REGIONAL STORMWATER MANUAL.

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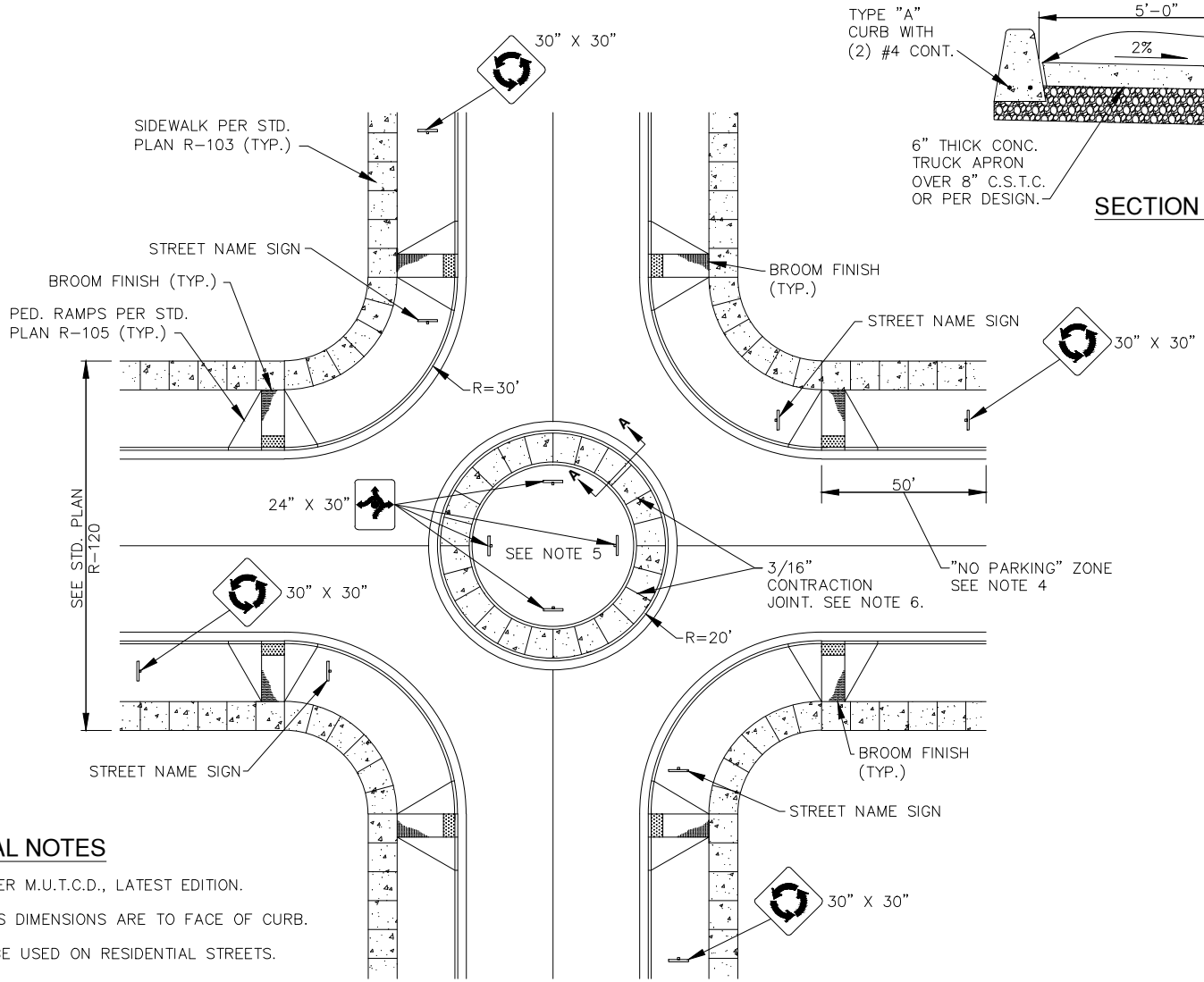
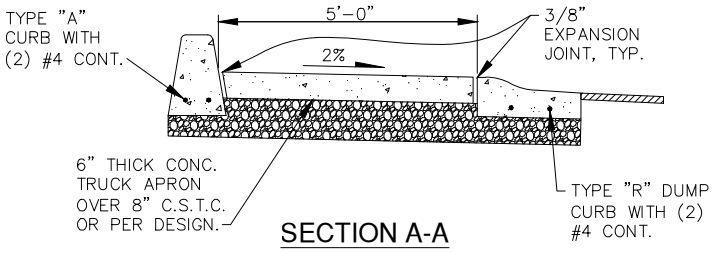
SPILL CONTROL SEPARATOR

STANDARD PLAN NO. S-140





SECTION A-A

GENERAL NOTES

1. SIGNAGE PER M.U.T.C.D., LATEST EDITION.
2. ALL RADIUS DIMENSIONS ARE TO FACE OF CURB.
3. ONLY TO BE USED ON RESIDENTIAL STREETS.
4. 50' NO PARKING ZONE APPLIES TO EACH LEG OF INTERSECTION, BOTH SIDES OF STREET. R7-1 SIGNS WITH DOUBLE ARROWS PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)
5. CENTER ISLAND LANDSCAPING TO BE PLACED IN CONFORMANCE WITH APPLICABLE S.V.M.C. REQUIREMENTS.
6. CONTRACTOR SHALL PLACE #5 TIE BAR x 30" LONG @ 24" O.C. CENTERED UNDER EACH CONTRACTION JOINT AT SLAB MID-DEPTH.

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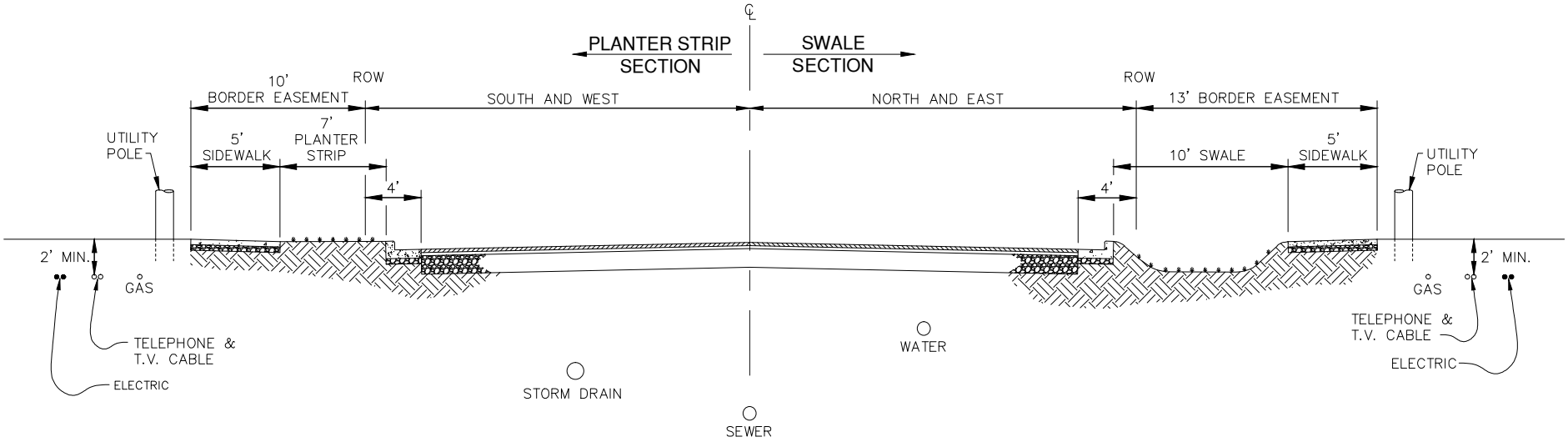
TRAFFIC CIRCLE

STANDARD PLAN NO. T-101



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. UTILITY DEPTHS TO BE DETERMINED BY RESPECTIVE AGENCY AND/OR PROVIDER. MINIMUM UTILITY DEPTH BELOW FINISH GRADE SHALL BE 24 INCHES.
4. UNDERGROUND WARNING TAPE SHALL BE PLACED A MINIMUM OF 12 INCHES ABOVE ALL UTILITIES.

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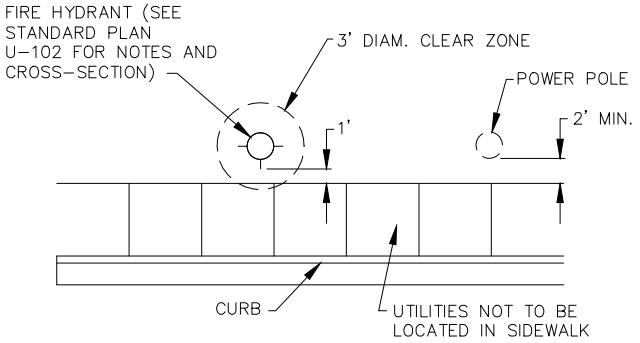
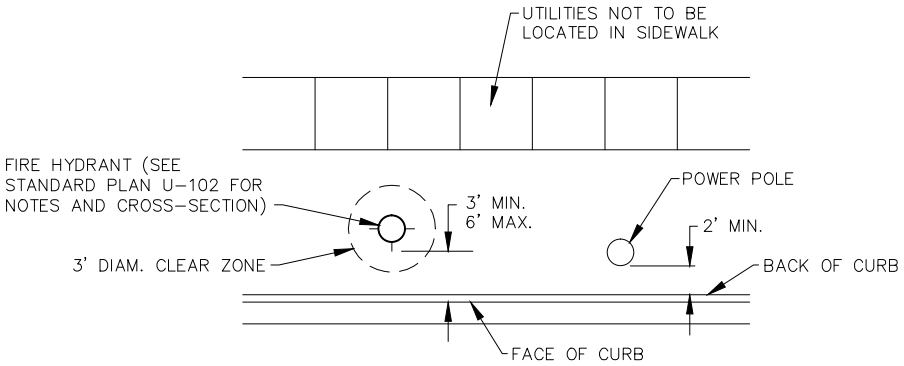
UTILITY LOCATION DETAIL

STANDARD PLAN NO. U-100



STREETS WITH ADJACENT SIDEWALK



STREETS WITH SEPARATED SIDEWALK

GENERAL NOTES

1. WHENEVER POSSIBLE, HYDRANTS SHALL BE LOCATED NEAR INTERSECTIONS.
2. PLACEMENT TO MEET ALL APPLICABLE CLEAR ZONE REQUIREMENTS.
3. THE PREFERRED LOCATION OF POWER POLES FOR NEW STREETS WITH SEPARATED SIDEWALK IS BEHIND THE SIDEWALK; HOWEVER, IF THE POWER POLE IS INSTALLED WITHIN THE PLANTER STRIP, THEN THE FACE OF POWER POLE SHALL BE SET 2' MIN. FROM BACK OF CURB.

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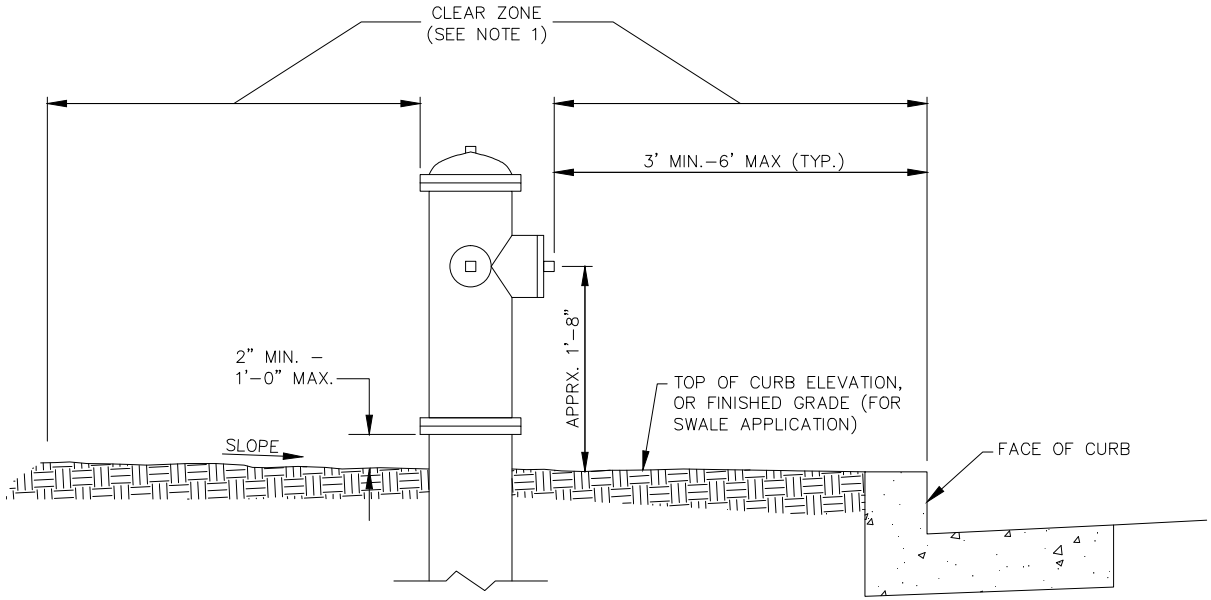
ABOVE GROUND UTILITY LOCATIONS

STANDARD PLAN NO. U-101



HYDRANT ELEVATION

GENERAL NOTES

1. HYDRANTS SHALL STAND PLUMB. THE TRAFFIC BREAKAWAY FLANGE IS TO BE SET WITHIN 2" AT THE FINISHED CURB/GRADE ELEVATION WITH THE LOWEST OUTLET OF THE HYDRANT NO LESS THAN 20" ABOVE THE CURB GRADE. THERE SHALL BE A CLEAR AREA AROUND THE HYDRANT OF NOT LESS THAN 36" AS MEASURED FROM THE OUTSIDE EDGE OF THE BARREL OR OUTLET PORTS, WHICHEVER IS GREATER. HYDRANTS SHALL BE A MINIMUM OF 36" FROM THE FACE OF CURB AND NO MORE THAN 72" FROM THE FACE OF CURB.
2. HYDRANTS SHALL BE LOCATED AT ROADWAY INTERSECTIONS WHENEVER POSSIBLE.
3. ALL FIRE HYDRANTS SHALL HAVE A MINIMUM OF THREE OUTLETS, ONE 4–1/2 INCH INSIDE DIAMETER OUTLET AND TWO 2–1/2 INCH INSIDE DIAMETER OUTLETS. THREADS ON ALL OUTLETS SHALL BE NATIONAL STANDARD THREAD (NST).
4. THE 4–1/2 INCH PORT SHALL FACE THE STREET. WHERE THE STREET CANNOT BE CLEARLY DEFINED (SUCH AS PARKING LOTS) THE PORT SHALL FACE THE MOST LIKELY ROUTE OF APPROACH (E.G., FIRE LANE) AND LOCATION OF THE FIRE APPARATUS WHILE PUMPING, AS DETERMINED BY SPOKANE VALLEY FIRE DEPARTMENT.
5. HYDRANT COLORS SHALL BE AS FOLLOWS:
   I. CHROME YELLOW – HYDRANTS OWNED BY DISTRICTS
   II. RED – PRIVATELY OWNED HYDRANTS
6. CLEAR ZONE SHALL BE FREE OF ALL OBSTRUCTIONS, INCLUDING BOLLARDS, FENCING, TREES, AND SHRUBS.

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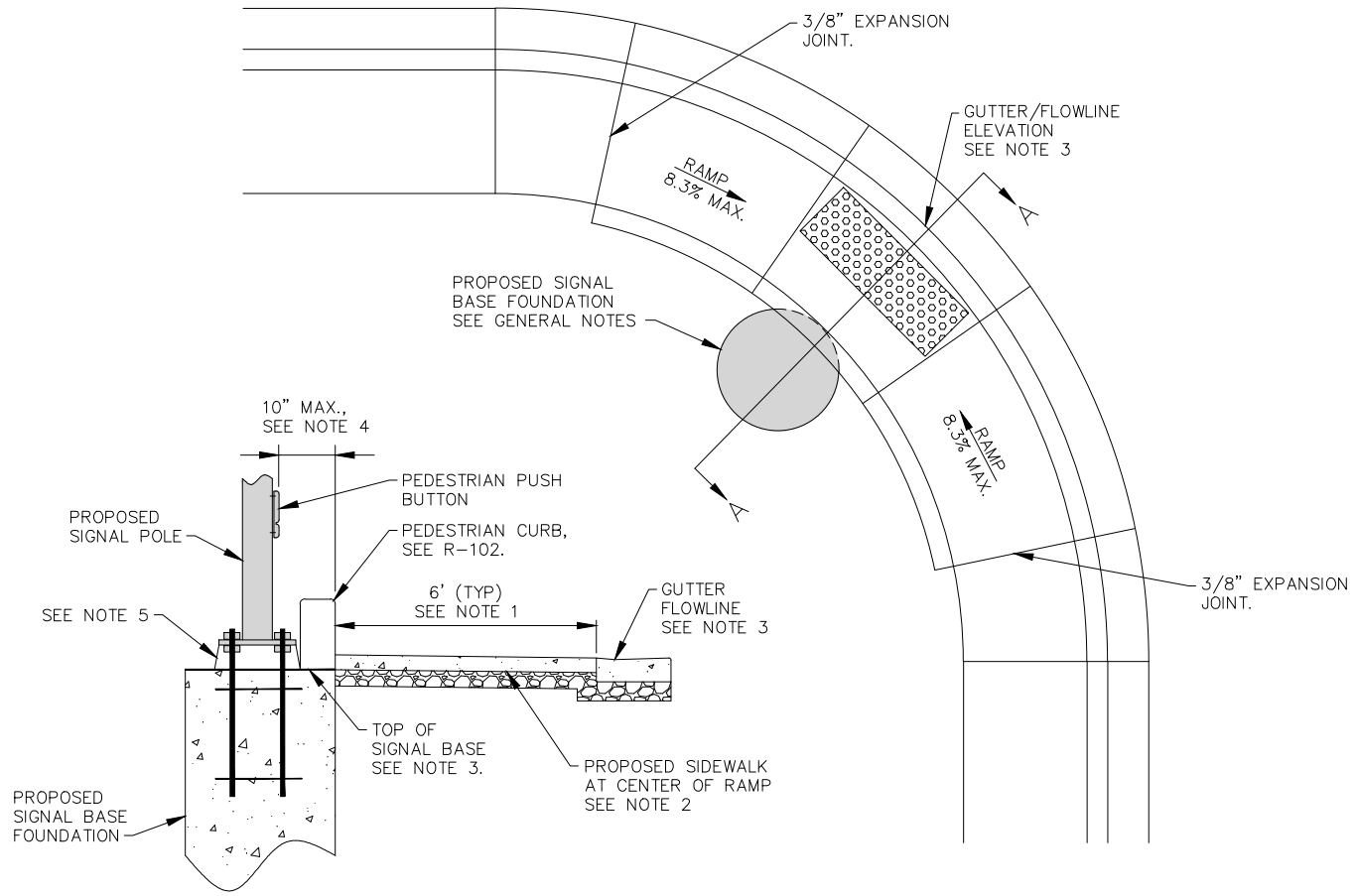
FIRE DEPARTMENT HYDRANT REQUIREMENTS

STANDARD PLAN NO.
U-102



SECTION A-A

CONSTRUCTION NOTES

1. DUE TO VARIOUS RAMP STYLES AND CONFIGURATIONS, THE HORIZONTAL DISTANCE FROM FACE OF CURB TO SIGNAL POLE MAY VARY.
2. CROSS SLOPE IS 1.5% ± 0.5%, 2% MAX. SIDEWALK SHALL NOT EXCEED ADA STANDARDS.
3. SIDEWALK CONFIGURATIONS MAY DIFFER. ALWAYS USE GUTTER/FLOWLINE AT CENTER OF RAMP TO DETERMINE SIGNAL BASE HEIGHT. TOP OF SIGNAL BASE FOUNDATION SHALL BE SET 3" BELOW THE GUTTER FLOWLINE ELEVATION.
4. PEDESTRIAN PUSH BUTTON SHALL NOT BE MORE THAN 10 HORIZONTAL INCHES FROM CLEAR EDGE OF RAMP, PEDESTRIAN WALL, OR OTHER OBSTRUCTIONS.
5. PROVIDE A MIN. 1" CLEAR SPACE BELOW LOWER ADJUSTING NUT.
6. SEE STANDARD PLAN R-104 AND R-105 FOR INDIVIDUAL RAMP SPECIFICATIONS.

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SIGNAL POLE BASE AT CURB RAMP

STANDARD PLAN NO. U-103