TABLE OF CONTENTS

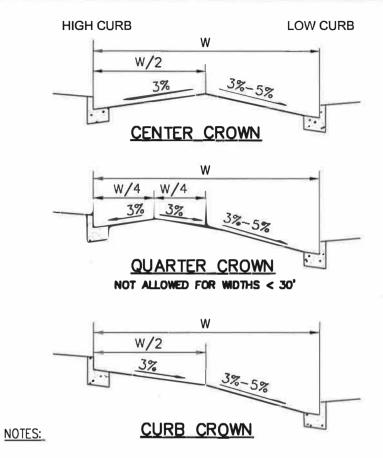
CITY OF SPOKANE STANDARD PLANS – SECTION W

X-###	=	Revised Standard Plan
*** X-###	=	New Standard Plan

Back to Main TOC

<u>Plan No.</u>	<u>Plan Title</u>	<u>Current Plan Date</u>
W-101	Roadway Crowns	1/09
W-101A	Pavement Sections	
W-102	Roadway Excavation – Payment Limits	4/12
W-103	Alley Section	4/12
W-104	Alley Return - Adjacent Sidewalk	
W-105	Alley Return – Separated Sidewalk	
W-106	Gutter Details for Catch Basin Type 2	4/04
W-107	Asphalt Concrete Thickened Edge	
W-108	Asphalt Patches	4/12
W-108A	Asphalt Patches with Subgrade Failure	4/24
W-109	Concrete Patches	4/24
W-110	See Std. Plan A-4	
W-111	See Std. Plan A-5	
W-112	See Std. Plan A-6	
W-113	See Std. Plan A-7	
W-114	Cul-de-sacs - Public Streets and Alleys	5/07
W-115	Cul-de-sacs – Public and Private Streets	4/21
W-116	Traffic Island/Median Traffic Circle Layout	4/24

WIDTH	HIGH CURB TO	HIGH CURB TO C/L ROAD: ELEV DIFF (FT)			HIGH TO LOW CURB: MAX ELEV DIFF (FT)		
(FT)	1/4 CROWN: ELEV DIFF (FT)	CF CTR	ROWN TY	PE CURB	CF CTR	ROWN TYP	E CURB
30	-0.275	-0.050	-0.50	-0.950	-0.300	-0.750	-1.200
32	-0.260	-0.020	-0.50	-0.980	-0.320	-0.800	-1.280
36	-0.230	+0.040	-0.50	-1.040	-0.360	-0.900	-1.440
40	-0.200	+0.100	-0.50	-1.100	-0.400	-1.000	-1.600
44	-0.170	+0.160	-0.50	-1.160	-0.440	-1.100	-1.760
48	-0.140	+0.220	-0.50	-1.220	-0.480	-1.200	-1.920
54	-0.095	+0.310	-0.50	-1.310	-0.540	-1.350	-2.160
58	-0.065	+0.370	-0.50	-1.370	-0.580	-1.450	-2.320
60	-0.050	+0.400	-0.50	-1.400	-0.600	-1.500	-2.400
70	-0.025	+0.550	-0.50	-1.550	-0.700	-1.750	-2.800
75	-0.0625	+0.625	-0.50	-1.625	-0.75	-1.875	-3.000



- 1. SEE STD PLAN W-101A FOR PAVEMENT SECTION REQ'MTS.
- 2. SEE STD PLAN F-102B FOR SIDEWALK SECTION REQ'MTS.
- 3. THE CURB/GUTTER SECTION SHALL BE ROTATED TO MATCH THE ROADWAY TRANSVERSE SLOPE. SEE STD PLAN F-106.
- 4. TABLE VALUES MAY BE INTERPOLATED FOR ADD'NL ROADWAY WIDTHS.

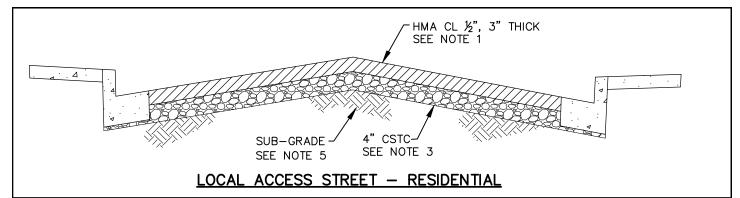
STANDARD

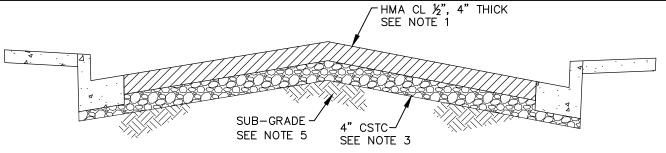
PLAN No.

W - 101

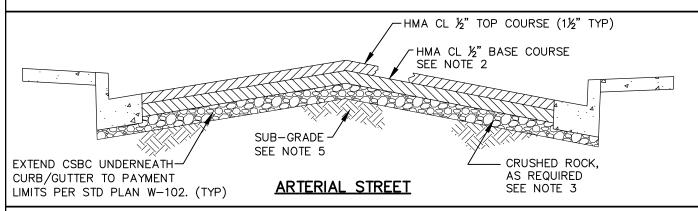
5. TABLE VALUES REPRESENT A 0.5 FT CURB EXPOSURE.

APPROVED BY	ADOPTED: 12/1998 REVISED: 01/2009 SUPERSEDES: 1/2008	ROADWAY CROWNS
PRINCIPAL ENGINEER, DESIGN GARY S. NELSON, P.E.	CHECKED BY:JAG SCALE:NTS DWG/REV. BY:DGB/SRM	ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON





<u> ACCESS STREET - COMMERCIAL</u>



NOTES:

- 1. THE CITY ENGINEERING SERVICES DEPT MAY REQUIRE A PAVEMENT DESIGN FOR LOCAL ACCESS STREETS PER DESIGN STANDARD 3.10.
- 2. ARTERIAL STREETS REQUIRE A PAVEMENT DESIGN PER DESIGN STANDARD 3.10-2. THE TOTAL MINIMUM ALLOWABLE MATERIAL THICKNESS WILL BE 5" OF HMA AND 7" OF CSBC EVEN WHEN PAVEMENT DESIGN CALCULATIONS YIELD LESSER VALUES OF HMA OR CSBC.
- 3. PROVIDE 6" MIN CRUSHED ROCK ATOP A SOLID ROCK SUB-GRADE. CSTC MAY BE SUBSTITUTED FOR CSBC, BUT NO ADDITIONAL PAYMENT WILL BE MADE FOR SUBSTITUTION, AS FOLLOWS:
- IF CRUSHED SECTION DEPTH IS GREATER THAN 6" OR MORE, THE ALLOWABLE CSTC THICKNESS IS THE TOP 50% OF SECTION.
- IF CRUSHED SECTION DEPTH IS LESS THAN 6", THE ALLOWABLE CSTC THICKNESS IS 100% OF SECTION.
 IF CRUSHED SECTION DEPTH IS OVER ASPHALT GRINDINGS, THE ALLOWABLE CSTC THICKNESS IS THE TOP 50% OF SECTION OR A 2" MIN, WHICHEVER IS GREATER.
- 4. FOR LOCAL ACCESS STREETS USE HMA CL 1/2", 3" THICK WHICH MAY BE PLACED IN ONE LIFT. A 4" THICKNESS SHALL BE PLACED IN TWO 2-INCH LIFTS.

RLB/MLD

5. IF UNSUITABLE SUB-GRADE IS PRESENT REFER TO COS DESIGN STANDARDS SECTION 3.10.

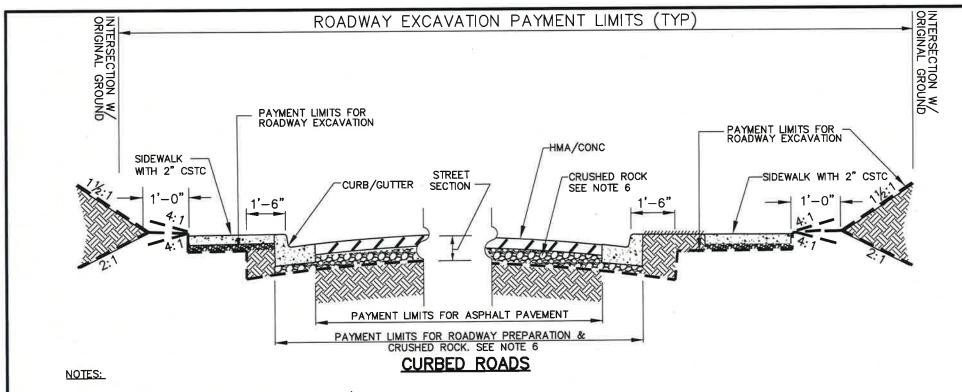
DAN BULLER, P.E. REVISED BY:

ADOPTED: 04/2025 REVISED: SUPERSEDES: 04/2024 CHECKED BY: JAG SCALE: NTS

PAVEMENT SECTIONS

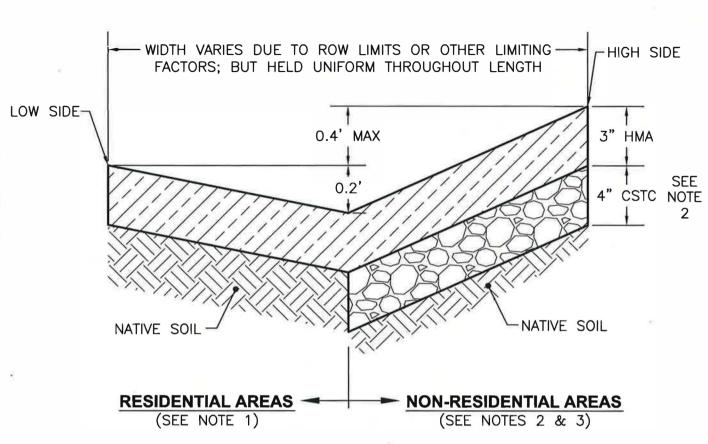
ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. W-101A



- 1. SEE STD PLAN F-102B FOR SIDEWALK SECTION REQ'MTS.
- 2. SEE STD PLAN F-106 FOR CURB/GUTTER REQ'MTS. PROVIDE COMPACTED CRUSHED ROCK UNDERNEATH CURB/GUTTER TO THE PAYMENT LIMITS AS SHOWN. CRUSHED ROCK THICKNESS UNDERNEATH CURB/GUTTER IS DEPENDENT UPON THE STREET SECTION THICKNESS.
- 3. SEE STD PLAN W-101 FOR ROADWAY CROWN REQ'MTS.
- 4. SEE STD PLAN W-101A FOR PAVEMENT SECTION REQ'MTS.
- 5. 4:1 MAX SLOPES ARE DESIRABLE WHEN ADJACENT TO A DEVELOPED LOT.
- 6. PROVIDE 6" MIN OF CRUSHED ROCK ATOP A SOLID ROCK SUB-GRADE. CSTC MAY BE SUBSTITUTED FOR CSBC, BUT NO ADDITIONAL PAYMENT WILL BE MADE FOR SUBSTITUTION, AS FOLLOWS:
- IF CRUSHED SECTION DEPTH IS 6" OR MORE, THE ALLOWABLE CSTC THICKNESS IS THE TOP 50% OF SECTION.
- IF CRUSHED SECTION DEPTH IS LESS THAN 6", THE ALLOWABLE CSTC THICKNESS IS 100% OF SECTION.
- IF CRUSHED SECTION DEPTH IS OVER ASPHALT GRINDINGS, THE ALLOWABLE CSTC THICKNESS IS THE TOP 50% OF SECTION OR A 2" MIN, WHICHEVER
 IS GREATER.

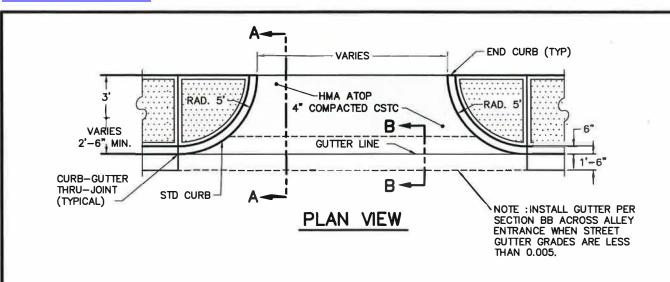
APPROVED BY	ADOPTED:09/1993		N
19 Nelson	CHECKED BY: JAG SCALE: NTS DWG/REV. BY: SRM	ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON	STANDARD PLAN No. W-102

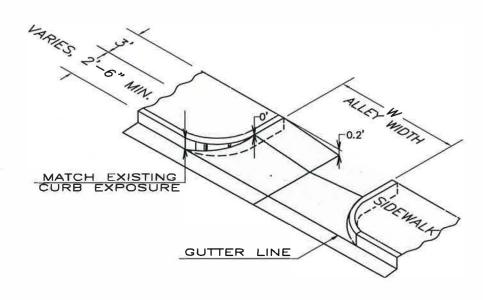


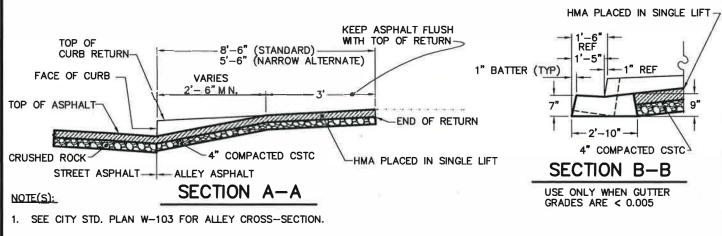
NOTES:

- 1. ALLEY SECTION FOR RESIDENTIAL AREAS: 3" HOT MIX ASPHALT (HMA), CLASS 1/2", OVER NATIVE SOIL.
- 2. ALLEY SECTION FOR NON-RESIDENTIAL AREAS: 3" HOT MIX ASPHALT (HMA), CLASS $\frac{1}{2}$ ", OVER 4" COMPACTED CRUSHED SURFACING TOP COURSE.
- 3. PROVIDE 6" MIN CRUSHED ROCK ATOP A SOLID ROCK SUB-GRADE. CSTC MAY BE SUBSTITUTED FOR CSBC PER RESTRICTIONS BELOW, BUT NO ADDITIONAL PAYMENT WILL BE MADE FOR SUBSTITUTION:
 - IF CRUSHED SECTION DEPTH IS 6" OR MORE, THE ALLOWABLE CSTC THICKNESS IS THE TOP 50% OF SECTION.
 - IF CRUSHED SECTION DEPTH IS LESS THAN 6", THE ALLOWABLE CSTC THICKNESS IS 100% OF SECTION.
 - IF CRUSHED SECTION DEPTH IS OVER ASPHALT GRINDINGS, THE ALLOWABLE CSTC THICKNESS IS THE TOP 50% OF SECTION OR A 2" MIN, WHICHEVER IS GREATER.

APPROVED BY	ADOPTED: 02/1986 REVISED: 04/2012 SUPERSEDES: 09/2010	ALLEY SECTION	
PRINCIPAL ENGINEER, DESIGN GARY S. NELSON, P.E.	CHECKED BY: JAG SCALE: NTS DWG/REV. BY: RLB/SRM	ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON	STANDARD PLAN No. W-103







2. SEE CITY STD. PLAN W-102 FOR CRUSHED ROCK REQ'MTS FOR STREETS.

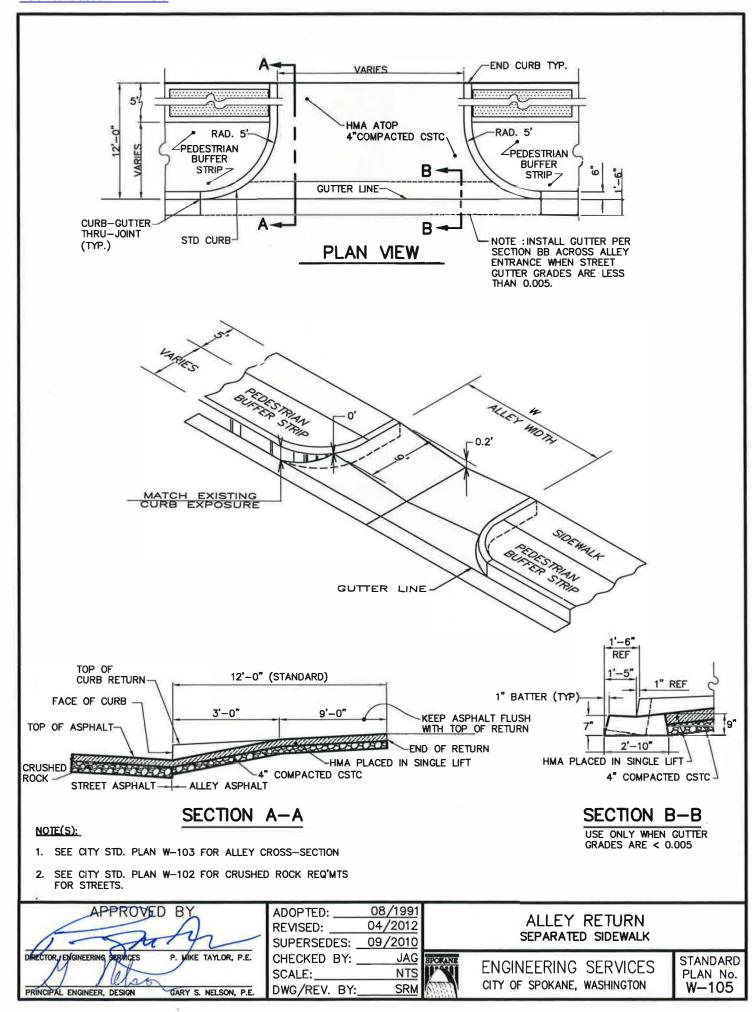
APPROVI	TO BY
15- Va	the
DIRECTOR, ENGINEERING SERVICES	P. MIKE TAYLOR, P.E.
A leson	1
PRINCIPAL ENGINEER, DESIGN	GARY S. NELSON, P.E.

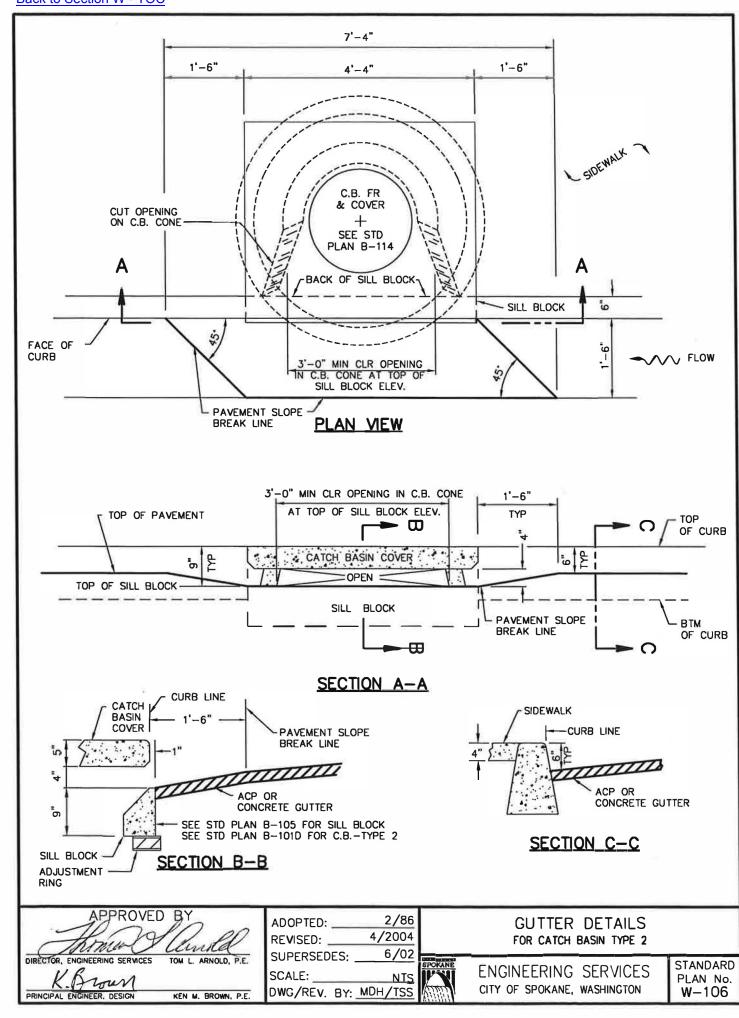
BX	ADOPTED:	08/1991
41	REVISED:	04/2012
747	SUPERSEDES:	09/2010
P. MIKE TAYLOR, P.E.	CHECKED BY:	JAG
	SCALE:	NTS
GARY S. NELSON, P.E.	DWG/REV. BY:	DGB/SRM

ALLEY RETURN ADJACENT SIDEWALK

ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON

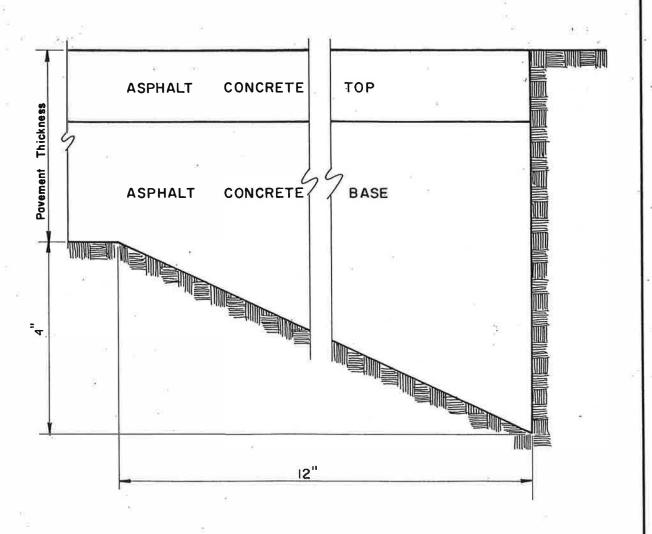
STANDARD PLAN No. W-104



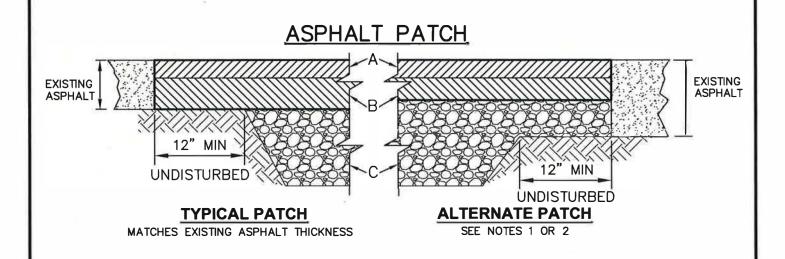


NOTE:

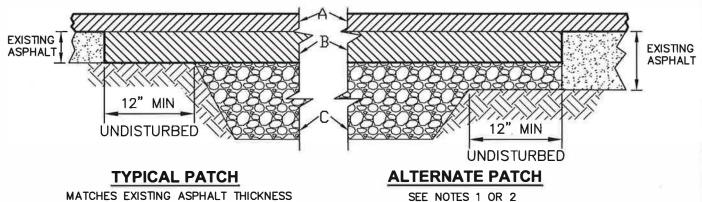
THICKENED EDGE TO BE TURNED UP WHERE UNDERCUTTING OF FENCES AND BUILDINGS OCCUR, WHERE CALLED FOR ON PLANS OR AS DIRECTED BY THE ENGINEER.



	SCALE _ NONE ADOPTED _2-86	THICKENED EDGE	
CH. DES. ENGR. Jany May	REVISED	DEPT. OF PUBLIC WORKS ENGR. DIVISION SPOKANE, WN.	STANDARD PLAN No. W-107



ASPHALT PATCH W/ OVERLAY



MATCHES EXISTING ASPHALT THICKNESS

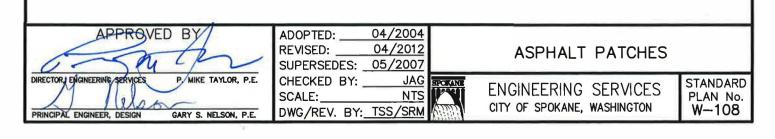
PATCH SECTION:

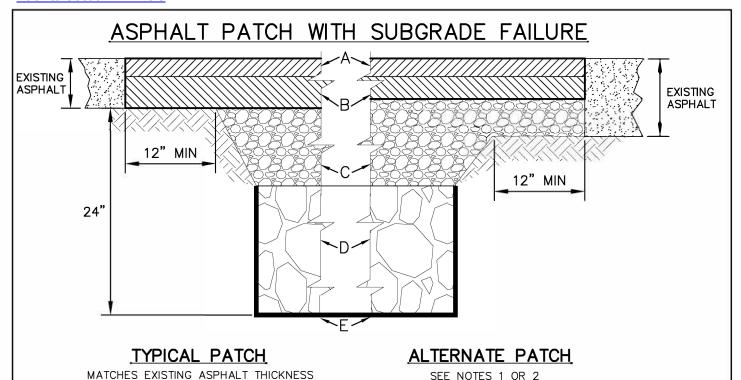
- A. TOP COURSE: 1.5" MIN TO 2" MAX THICKNESS. SEE STD PLAN W-101A FOR ASPHALT CLASS & THICKNESS REQ'MTS.
- B. BASE COURSE: SEE STD PLAN W-101A FOR ASPHALT CLASS & THICKNESS REQ'MTS.
- C. AGGREGATE: MATCH EXISTING AGGREGATE THICKNESS OR USE A MIN 4" THICKNESS, WHICHEVER IS GREATER. PROVIDE 6" MIN CRUSHED ROCK ATOP A SOLID ROCK SUB-GRADE. SEE CITY STD. PLAN W-102 FOR

CRUSHED ROCK REQ'MTS.

NOTES:

- 1. ARTERIAL STREETS: PATCH SHALL MATCH EXISTING PAVEMENT THICKNESS WHEN PAVEMENT IS 8" OR LESS. WHEN EXISTING PAVEMENT THICKNESS EXCEEDS 8". A REDUCTION OF THE PATCH THICKNESS MAY BE ALLOWED TO AN 8" MIN, IF A PAVEMENT DESIGN IS PERFORMED BY A LICENSED ENGINEER & APPROVED BY THE CITY ENGINEER.
- 2. LOCAL ACCESS STREETS: PATCH SHALL MATCH EXISTING PAVEMENT THICKNESS WHEN PAVEMENT IS 4" OR LESS. WHEN EXISTING PAVEMENT THICKNESS EXCEEDS 4", A REDUCTION OF THE PATCH THICKNESS MAY BE ALLOWED TO A 4" MIN, IF A PAVEMENT DESIGN IS PERFORMED BY A LICENSED ENGINEER & APPROVED BY THE CITY ENGINEER.
- 3. SEE CITY OF SPOKANE PAVEMENT CUT POLICY FOR ADD'NL REQ'MTS.





PATCH SECTION:

A. HMA CL 1/2" TOP COURSE: 1.5" MIN TO 3" MAX THICKNESS. SEE STD PLAN W-101A FOR THICKNESS

REQUIREMENTS.

B. HMA CL 1/2" BASE COURSE: SEE STD PLAN W-101A FOR THICKNESS REQUIREMENTS.

C. AGGREGATE: MATCH EXISTING AGGREGATE THICKNESS OR USE A MIN 4" THICKNESS, WHICHEVER

IS GREATER, PROVIDE 6" CRUSHED ROCK ATOP A SOLID ROCK SUB-GRADE, SEE

CITY STD. PLAN W-102 FOR CRUSHED ROCK REQ'MTS.

D. STRUCTURAL FILL: GRAVEL BORROW MEETING THE REQUIREMENTS OF WSDOT 9-03.14(1) OR WELL

GRADED 6" MINUS CRUSHED ROCK, PARTIALLY CRUSHED ROCK, SHOT ROCK OR NATURALLY OCCURING GRANULAR MATERIAL IF APPROVED BY THE ENGINEER.

E. GEOTEXTILE: GEOTEXTILE FABRIC CONFORMING TO WSDOT 9-33 SHALL BE USED TO PROVIDE

SEPARATION BETWEEN UNSUITABLE SOIL AND BALLAST (SEE NOTE 3).

NOTES:_

1. ARTERIAL STREETS: PATCH SHALL MATCH EXISTING PAVEMENT THICKNESS WHEN PAVEMENT IS 8" OR

LESS.WHEN EXISTING PAVEMENT THICKNESS EXCEEDS 8", A REDUCTION OF THE PATCH THICKNESS MAY BE ALLOWED TO AN 8" MIN, IF A PAVEMENT DESIGN IS PERFORMED BY A LICENSED ENGINEER & APPROVED BY THE CITY ENGINEER.

PATCH SHALL MATCH EXISTING PAVEMENT THICKNESS WHEN PAVEMENT IS 4" OR 2. LOCAL ACCESS STREETS:

LESS. WHEN EXISTING PAVEMENT THICKNESS EXCEEDS 4", A REDUCTION OF THE PATCH THICKNESS MAY BE ALLOWED TO A 4" MIN, IF A PAVEMENT DESIGN IS PERFORMED BY A LICENSED ENGINEER & APPROVED BY THE CITY ENGINEER.

- 3. WHERE SETTLEMENT HAS OCCURED, SOIL SHALL BE OVEREXCAVATED TO FIRM BEARING OR TO A DEPTH OF 2 FEET, WHICHEVER IS LESS & BE REPLACED WITH STRUCTURAL FILL COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY BASED ON AASHTO T-180 OR AS PER WSDOT 2-03.3(14). FABRIC MAY BE REQUIRED BETWEEN THE BALLAST & THE CRUSHED ROCK AS DIRECTED BY THE ENGINEER.
- 4. SEE CITY OF SPOKANE PAVEMENT CUT POLICY FOR ADD'NL REQ'MTS.
- 5. IF UNSUITABLE SUB-GRADE IS PRESENT REFER TO COS DESIGN STANDARDS SECTION 3.10.

PROVED BY DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E. SCALE: DWG/REV. BY: GAH/SRM

ADOPTED: 04/2024 REVISED: SUPERSEDES: 04/2012 CHECKED BY: NTS

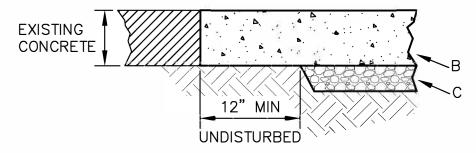
ASPHALT PATCHES WITH SUBGRADE FAILURE



ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. W-108A

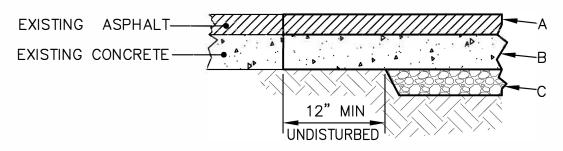
CONCRETE PATCH



TYPICAL PATCH

MATCHES EXISTING CONCRETE THICKNESS

CONCRETE PATCH W/ OVERLAY



TYPICAL PATCH

MATCHES EXISTING HMA/CONCRETE THICKNESS

PATCH SECTION:_

HOT MIX ASPHALT (HMA) CLASS 1/2", MATCH EXISTING THICKNESS. A. ASPHALT COURSE:

SEE GENERAL SPECIAL PROVISIONS (GSP) SECTION 5-01.3. B. CONCRETE COURSE:

C. AGGREGATE: MATCH EXISTING AGGREGATE THICKNESS OR USE A MIN 2" THICKNESS,

WHICHEVER IS GREATER. PROVIDE 6" MIN CRUSHED ROCK ATOP A SOLID ROCK SUB-GRADE. SEE CITY STD. PLAN W-102 FOR CRUSHED

ROCK REQUIREMENTS.

NOTES:_

- 1. PATCH SHALL MATCH EXISTING PAVEMENT THICKNESS. WHEN EXISTING PAVEMENT THICKNESS IS EXCESSIVE AS DETERMINED BY THE CITY ENGINEER, A REDUCTION OF THE PATCH THICKNESS MAY BE ALLOWED, IF A PAVEMENT DESIGN IS PERFORMED BY A LICENSED ENGINEER & APPROVED BY THE PRINCIPAL DESIGN ENGINEER.
- 2. SEE CITY OF SPOKANE PAVEMENT CUT POLICY FOR ADDITIONAL REQUIREMENTS.

DWG/REV. BY: TSS/RLB

ADOPTED: 04/2024 REVISED: SUPERSEDES: _04/2012

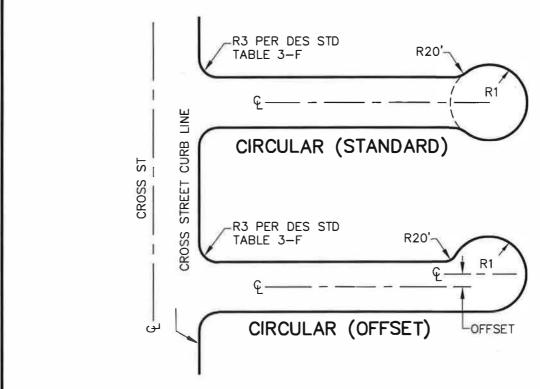
CHECKED BY: __ JAG SPOKANE SCALE: NTS



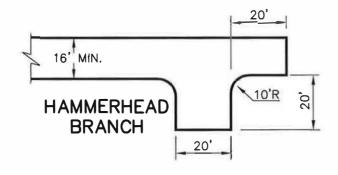
CONCRETE PATCHES

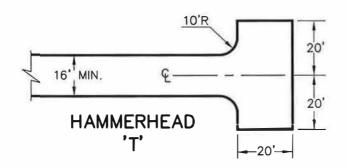
ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. W-109



LOCAL ACCESS DEAD END STREETS





NOTES:

- R1 = 50' MINIMUM FOR CURB RADIUS PLUS THE RADIUS OF A CENTER ISLAND, IF USED.
- 2. MINIMUM ROW RADIUS FOR THE BULB SHALL BE 56' PLUS THE RADIUS OF A CENTER ISLAND, IF USED.
- MINIMUM ROW RADIUS FOR THE BULB SHALL BE 51' IF THE SIDEWALK IS LOCATED ON AN EASEMENT.
- LOCAL ACCESS STANDARDS APPLY FOR ALL CUL-DE-SACS.
- 5. CUL-DE-SACS SHALL BE DESIGNED TO DRAIN OUT TO THE ADJACENT STREET. TWO PERCENT MINIMUM GRADES SHALL BE PROVIDED AT ALL PLACES ALONG THE GUTTER LINES.

RESIDENTIAL DEAD END ALLEYS

SRM

DIRECTOR, ENGINEERING SERVICES TOM L. ARNOLD, P.E.

PRINCIPAL ENGINEER, DESIGN GARY S. NELSON, P.E.

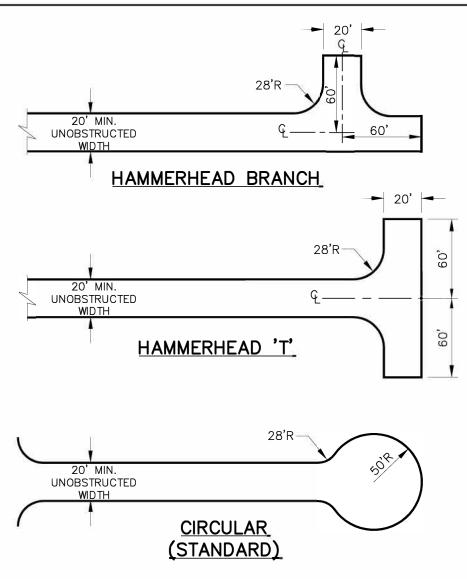
ADOPTED: 05/2007
REVISED: SUPERSEDES: _____
CHECKED BY: JAG
SCALE: NTS

DWG/REV. BY:

CUL-DE-SACS
PUBLI CSTREETS AND ALLEYS

ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON

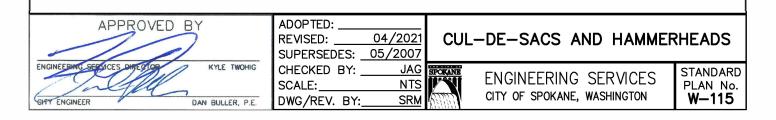
STANDARD PLAN No. W-114

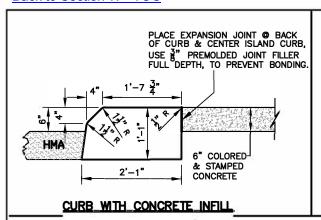


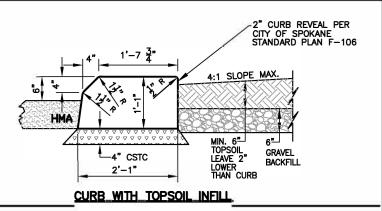
NOTES:_

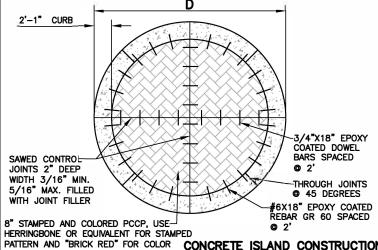
- 1. STREETS 28' WIDE OR LESS REQUIRE "NO PARKING" ON BOTH SIDES. STREETS GREATER THAN 28' & LESS THAN 36' WIDE REQUIRE "NO PARKING" ON ONE SIDE. STREETS 36' WIDE OR GREATER ARE ALLOWED PARKING ON BOTH SIDES.
- 2. MAXIMUM STREET SLOPE IS 10%.
- 3. MAXIMUM DEAD END LENGTH WITHOUT A TURN AROUND IS 150'.
- 4. FIRE TRUCKS MUST BE CAPABLE OF ACCESSING WITHIN 150' OF ANY POINT AROUND THE FIRST FLOOR OF ANY BUILDING.
- 5. ACCESS STREETS SHALL BE OF ALL-WEATHER SURFACE.

FIRE UTILITY/WASTE WATER MAINTENANCE ACCESS FOR PUBLIC AND PRIVATE STREETS

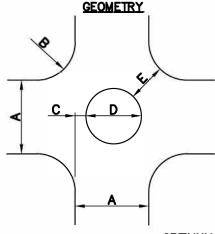








CONCRETE ISLAND CONSTRUCTION



NOTE	<u>optimum_cri</u>	TERIA.
BALANCE "C" AND "E" DIMENSIONS FOR ALL LEGS OF THE INTERSECTION.	C OFFSET DISTANCE 5.5' 5.0' 4.5' 4.0' 3.5' OR LESS	E OPENING WIDTH 16'MIN. 17'± 18'± 19'± 20'+
	3.5° OR LESS	20'+

l	DIMENSIONS					
J	A STREET WIDTH	B CURB RETURN RADIUS	C OFFSET DISTANCE	D CIRCLE DIAMETER	E OPENING WIDTH	
	20'	<15' 15' 18' 20' 25'	RECONSTR 5.5', 5.0', 4.5', 4.0'	UCT CURBS 9' 10', 11', 12'	16'+ 17'+ 18'- 19'+	
	24'	<12' 12' 15' 20' 25'	RECONSTR 5.5', 5.0', 4.5', 3.5'	UCT CURBS 13', 14', 15', 17'	16' 17'- 18'+ 19'+	
	25'	<12' 12' 15' 18' 20', 25'	RECONSTR 5.5', 5.0', 4.5', 4.5', 3.5'	UCT CURBS 14', 15', 16', 16', 18'	16'+ 17'- 18'- 18'+ 20'+	
	30'	10' 12' 15' 18' 20' 25'	5.0°, 5.0°, 5.0°, 4.0°,	19' 20' 20' 21' 22' 24'	16'+ 17'- 17'+ 18'+ 19'+	
	32'	10' 12' 15' 18' 20' 25'	5.5°, 5.0°, 5.0°, 5.0°, 5.0°, 6.0°,	21', 22', 23', 24', 24', 27'	16'+ 17'- 18'- 19'- 19'+ 20'	
	36'	10' 12' 15' 18' 20' 25'	0.00 5.50 5.50 5.50 5.50 5.50 5.50	26, 26, 27, 28, 29, 33,	17'- 17'+ 18'+ 19'+ 20'- 20'	
	40'	10' 12' 15' 18' 20' 25'	5.0', 4.5', 4.0', 3.5, 3.0', 1.0'	30', 31', 32', 33', 34', 38'	17'+ 18'+ 19'- 20'- 20'	

PPROVED BY DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

ADOPTED: 04/2024 REVISED: 03/2015 SUPERSEDES: _ CHECKED BY: GTO NTS SCALE: **BDH** DWG/REV. BY:

TRAFFIC ISLAND / MEDIAN TRAFFIC CIRCLE LAYOUT



ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. W - 116