

STANDARD TRENCH RESTORATION NOTES:

1. UNLESS OTHERWISE EXEMPTED IN CCC 12.20A.070.F, A WRITTEN UTILITY PERMIT SHALL BE REQUIRED FOR EACH CONSTRUCTION ACTIVITY WITHIN EXISTING COUNTY ROAD RIGHT-OF-WAY TO INSTALL, MOVE OR REPAIR A UTILITY INCLUDING PRIVATE LINES. NO WORK MAY COMMENCE PRIOR TO PERMIT APPROVAL BY THE COUNTY. OFF-SITE UTILITY CONSTRUCTION WORK THAT IS BEING DONE UNDER A GENERAL DEVELOPMENT PERMIT WILL REQUIRE A SEPARATE UTILITY PERMIT. SEE CCC 13.12A AND 12.20A FOR UTILITY PERMIT REQUIREMENTS.
2. BEFORE ANY CONSTRUCTION WORK WITHIN THE RIGHT-OF-WAY MAY COMMENCE, A SURETY BOND (OR OTHER INSTRUMENT ACCEPTABLE TO THE COUNTY) IN AN AMOUNT REQUIRED BY THE COUNTY, BUT NOT LESS THAN \$1,000, WRITTEN BY A SURETY COMPANY AUTHORIZED TO DO BUSINESS IN WASHINGTON, MAY BE REQUIRED BY THE COUNTY TO INSURE COMPLETION OF CONSTRUCTION, INCLUDING RESTORATION OF SURFACING, SLOPES, SLOPE TREATMENT, TOPSOIL, LANDSCAPE TREATMENT, DRAINAGE FACILITIES AND CLEANUP OF RIGHT-OF-WAY FOR A PERIOD ENDING NOT MORE THAN 2 YEARS AFTER DATE OF COMPLETION. SEE CCC 12.20A.070.C(2).
3. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) AND SHALL COMPLY WITH THE CURRENT EDITION, EXCEPT WHERE OTHERWISE NOTED IN CCC 12.20A, AND THESE STANDARD PLANS.
4. THE RIGHT-OF-WAY RESTORATION SHALL CONFORM TO COUNTY STANDARDS AND POLICIES AND APPLICABLE STATE AND FEDERAL LAWS, OR THE WORK SHALL BE REJECTED. THE COST ASSOCIATED WITH ALL WORK AND MATERIALS NECESSARY TO OBTAIN COMPLIANCE SHALL BE THE RESPONSIBILITY OF THE PERMIT APPLICANT.
5. UNDERGROUND UTILITY INSTALLATION SHALL CONFORM TO CCC 12.20A.080.F, AND SHALL PROVIDE FOR RESTORATION OF THE PAVEMENT, PAVED SHOULDERS, CURBS AND GUTTERS, AND SIDEWALKS IN ACCORDANCE WITH CCC 12.20A.120, UNLESS OTHERWISE MODIFIED BY THE UTILITY PERMIT.
6. TRENCH BACKFILL AND RESURFACING SHALL BE AS SHOWN IN THE STANDARD DETAILS, UNLESS MODIFIED BY THE UTILITY PERMIT. SURFACING DEPTHS AND PAVING LIMITS SHOWN IN THE STANDARD PLANS ARE MINIMUMS AND MAY BE INCREASED BY THE COUNTY ENGINEER TO MEET TRAFFIC LOADINGS OR SITE CONDITIONS.
7. THE FINAL PAVEMENT PATCH SHALL BE COMPLETED AT THE FIRST POSSIBLE OPPORTUNITY, AND NOT TO EXCEED THIRTY (30) DAYS AFTER FIRST OPENING THE TRENCH. THIS TIME FRAME MAY BE ADJUSTED IF DELAYS ARE DUE TO INCLEMENT WEATHER, OR OTHER ADVERSE CONDITIONS. HOWEVER, DELAYING OF FINAL PATCH OR OVERLAY WORK IS ALLOWABLE ONLY WHEN APPROVED BY THE COUNTY ENGINEER. THE COUNTY ENGINEER MAY DEEM IT NECESSARY TO COMPLETE THE WORK WITHIN THIRTY (30) DAYS TIME FRAME AND NOT ALLOW ANY TIME EXTENSION. IF THIS OCCURS, THE CONTRACTOR SHALL PERFORM THE NECESSARY WORK AS DIRECTED BY THE ENGINEER.
8. WHEN TRENCHING WITHIN THE ROADWAY SHOULDERS, THE SHOULDER SHALL BE RESTORED AS SHOWN IN STANDARD DETAIL U5.
9. IT IS THE COUNTY'S BASIC POLICY THAT NO PAVEMENTS SHALL BE CUT FOR A PERIOD OF FIVE (5) YEARS AFTER THE PAVEMENT HAS BEEN CONSTRUCTED, OVERLAID OR SEAL-COATED AND THAT CUTTING OF ANY PAVED ROAD IS DISCOURAGED. UNTRENCHED CONSTRUCTION METHODS MUST BE EXPLORED ON ALL PAVED ROAD CROSSINGS REGARDLESS OF CONDITION OF THE ROAD PAVEMENT. A CURRENT LIST OF ROAD SEGMENTS AFFECTED BY THIS PROHIBITION CAN BE SUPPLIED UPON REQUEST.
10. WHEN ROADWAY SURFACES ARE WINDOWED AND POTHOLED, AND WHERE URBAN ARTERIALS OR RURAL COLLECTORS MUST BE TRANSVERSELY TRENCHED, CONTROL DENSITY FILL (CDF) SHALL BE USED FOR THE TOP 3 FEET OF THE BACKFILL (SEE CCC 12.20A.080.K,L). WHEN EMPLOYING CDF, CARE MUST BE TAKEN TO ASSURE PIPE LOADING CAPACITY IS NOT EXCEEDED.
11. AS A CONDITION OF CCC 12.20A, IT IS THE RESPONSIBILITY OF THE PERMIT APPLICANT TO PROVIDE 24 HOUR NOTIFICATION PRIOR TO COMMENCING PROPOSED CONSTRUCTION ACTIVITIES WITHIN THE LIMITS OF THE COUNTY RIGHT-OF-WAY. FAILURE TO COMPLY SHALL RESULT IN THE DISCONTINUING OF THE PERMITTED CONSTRUCTION ACTIVITY FOR A PERIOD OF AT LEAST 24 HOURS.
12. FINAL RESTORATION SHALL BE COMPLETED IN A MANNER THAT PROVIDES THE AREA OF CONSTRUCTION TO BE RESTORED IN AN EQUALLY AS GOOD OR BETTER CONDITION THAN THE EXISTING CONDITION OF THE COUNTY RIGHT-OF-WAY.

NO.	REVISIONS	DATE	BY

DWG: UGN.DWG

PAGE 1 OF 2



Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

STANDARD TRENCH RESTORATION AND
GRADING NOTES

Peter Capon
COUNTY ENGINEER

APPROVED

5/23/08
DATE

STANDARD
UGN
DETAIL
DESIGNED
DRAWN
DATE 05/23/08

STANDARD TRENCH RESTORATION NOTES (CONT.):

13. CONTROL DENSITY FILL (CDF) SHALL CONSIST OF A MIXTURE OF PORTLAND CEMENT, FLY ASH, AGGREGATE, WATER AND ADMIXTURES PROPORTIONED TO PROVIDE A NON-SEGREGATING, NON-SETTLING FILL PRODUCING UNCONFINED COMPRESSIVE 28 DAY STRENGTHS FROM 50 PSI TO A MAXIMUM OF 150 PSI.
- a.) THE CONTROL DENSITY FILL (CDF) MIX DESIGN SHALL BE FROM AN APPROVED SOURCE.
 - b.) THE CONTRACTOR SHALL SUBMIT THE MIX DESIGN ONE WEEK MINIMUM PRIOR TO INTENDED USE FOR REVIEW AND APPROVAL. ALTERNATIVELY THE CONTRACTOR MAY PROVIDE THE SUPPLIER AND MIX NUMBER IF THE CDF MIX HAS BEEN APPROVED WITHIN THE PREVIOUS 12 MONTHS.
 - c.) THE CONTRACTOR WILL PROVIDE BATCH WEIGHTS SHOWING THE AMOUNTS OF ALL INGREDIENTS IN THE MIX, BATCH TIME, AND THE TOTAL AMOUNT OF THE BATCH.
 - d.) CONTROL DENSITY FILL SHALL BE PERFORMANCE BASED AND MEET THE FOLLOWING CRITERIA:
 - THE CDF MIXTURE SHALL BE FLOWABLE NON-SEGREGATING AND SELF LEVELING
 - CAN NOT BE PAVED ON UNTIL APPROVED BY CLARK COUNTY
 - TYPE F FLYASH: 200 LBS MINIMUM PER CUBIC YARD
 - TYPE I OR II CEMENT: 50 LBS MINIMUM PER CUBIC YARD
 - SETTLING SHALL BE LESS THAN 1/8" PER FOOT DEPTH
 - SHALL BE MACHINE DIGABLE UNLESS NOTED OTHERWISE
 - FINE AGGREGATE (LESS THAN 3/8") SHALL BE USED UNLESS OTHERWISE APPROVED
 - CONCRETE UNIT WEIGHT SHALL BE 100 PCF MINIMUM
 - e.) CDF SHALL NOT BE PLACED ON FROZEN GROUND. CDF PATCHING, MIXING AND PLACING MAY BE STARTED IF WEATHER CONDITIONS ARE FAVORABLE, WHEN THE TEMPERATURE IS AT 34-DEGREES F AND RISING. AT THE TIME OF PLACEMENT, CDF MUST HAVE A TEMPERATURE OF AT LEAST 40-DEGREES F. MIXING AND PLACING SHALL STOP WHEN THE TEMPERATURE IS 38-DEGREES F OR LESS AND FALLING. EACH FILLING STAGE SHALL BE AS CONTINUOUS AN OPERATION AS POSSIBLE.
 - f.) TRENCH SECTION TO BE FILLED WITH CDF SHALL BE CONTAINED AT EITHER END OF THE TRENCH SECTION BY BULKHEADS OR EARTH FILL.
 - g.) DURING CDF CURE TIME CONTRACTOR SHALL INSTALLED STEEL PLATES OR OTHER PROTECTIVE DEVICES WHICH WILL ALLOW FOR THE PASSAGE AND SAFETY OF TRAFFIC WITH NO LOAD TRANSFERRED TO THE CDF.
 - h.) CONTRACTOR SHALL ALLOW FOR A MINIMUM 48 HOUR CURE TIME FOR CDF PRIOR TO PLACING ASPHALT.
 - i.) 36-INCH DEPTH OF CDF MAY BE REDUCED IF CONFLICTING WITH PIPE ZONE BACKFILL.

STANDARD GRADING NOTES:

1. IF EARLY GRADING ACTIVITY IS APPROVED, IT IS TO BE PERFORMED AT APPLICANTS RISK.
2. FILL/GRADING SHALL BE PERFORMED IN COMPLIANCE WITH APPENDIX J OF THE INTERNATIONAL BUILDING CODE (IBC).
3. ALL SUBGRADE UNDER PAVED SURFACES, CURBS, BUILDINGS, FOOTINGS, SLABS AND CONCRETE WALKS SHALL BE COMPACTED TO 95% OF MAXIMUM RELATIVE DENSITY OR AS SPECIFIED BY THE PROJECT GEOTECHNICAL ENGINEER. WHERE FILLING IS REQUIRED, THE FILL MATERIAL SHALL BE PLACED IN 8" LIFTS WITH EACH LIFT BEING COMPACTED TO 95% OF MAXIMUM RELATIVE DENSITY OF THE FILL MATERIAL BEFORE THE NEXT LIFT OR FINISHED SURFACE IS PLACED. WHERE FILLING IS REQUIRED OUTSIDE THE ABOVE-MENTIONED STRUCTURAL AREAS, COMPACTION REQUIREMENTS SHALL BE 90% OF MAXIMUM RELATIVE DENSITY. PROJECT GEOTECHNICAL ENGINEER SHALL SUBMIT COMPACTION TEST RESULTS TO COUNTY INSPECTOR FOR PROPER CERTIFICATION OF FILL PLACEMENT.
4. UNDER WET WEATHER CONDITIONS (OCT - APR) SUBGRADE THAT CAN NOT MEET COMPACTION MAY REQUIRE ADDITIONAL TESTING TO DETERMINE THE DEPTH OF OVER EXCAVATION, ADDITIONAL AGGREGATE AND GEOTEXTILE TO BE INSTALLED. UPON INSPECTION OF THE SUBGRADE, THE COUNTY INSPECTOR MAY REQUEST A GEOTECHNICAL ENGINEER TO SUBMIT AN ALTERNATE WET WEATHER STREET SECTION FOR REVIEW AND APPROVAL BY ENGINEERING SERVICES.

DWG: UGN.DWG

PAGE 2 OF 2

NO.	REVISIONS	DATE	BY



Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

STANDARD TRENCH RESTORATION, AND
GRADING NOTES

Peter Capon
APPROVED
COUNTY ENGINEER

5/23/08
DATE

STANDARD
UGN
DETAIL
DESIGNED
DRAWN
DATE 05/23/08

OPEN CUT UTILITY TRENCH BACKFILL DETAIL (COLLECTOR OR ARTERIAL)

SURFACING:

1. ALL A.C.P. SHALL BE SAW CUT TO PROVIDE A STRAIGHT, CLEAN EDGE PRIOR TO PAVING.
2. THE CUT LINE SHALL BE ONE CONTINUOUS STRAIGHT LINE FROM THE OUTER EXCAVATION LIMITS OF MANHOLE, VALVE BOX, ETC. TO MANHOLE, VALVE BOX, ETC.
3. PAVE WITH AN 0.5 FT. MINIMUM COMPACTED DEPTH HMA CLASS, OR MATCH EXISTING OR DESIGN SECTION, WHICHEVER IS GREATER.
4. LIFTS FOR HMA CLASS SHALL BE 0.15 FT. MINIMUM AND 0.35 FT. MAXIMUM FOR NON-SURFACE LIFTS (0.25' MAXIMUM FOR SURFACE LIFT); THE TEMPERATURE SHALL BE 250 DEGREE MINIMUM, 350 DEGREE MAXIMUM, COMPACTED TO 92% OF THE THEORETICAL MAXIMUM LIFTS.
5. ALL JOINTS SHALL BE TACKED, SEALED AND SANDED.
6. TRENCH SHALL BE PLATED UNTIL PAVED.
7. FOR LONGITUDINAL INSTALLATION, FULL LANE WIDTH INCLUDING TURN LANES RESTORATION SHALL BE REQUIRED OR AS DIRECTED BY CLARK COUNTY. FOR TRANSVERSE INSTALLATION REFER TO SURFACING RESTORATION OF STANDARD PLAN U6. SEE SECTION 12.20A.120.C.
8. PAVEMENT MAY BE REJECTED IF IT DOES NOT MEET THESE STANDARDS.

BASE COURSE:

1. 0.80 FT. MINIMUM DEPTH (1-1/4" MINUS) C.S.B.C. (WSDOT APPROVED MATERIAL).
2. COMPACTED TO 95% OF MAXIMUM DENSITY PER T99. SEE TRENCH ZONE.
3. EQUIVALENT DEPTH OF A.T.B. MAY BE SUBSTITUTED.
4. FOR TRANSVERSE OR DIAGONAL TRENCHES IN EXISTING ROADWAY PAVEMENT, CDF WILL BE USED FROM THE BOTTOM OF FULL PAVEMENT SECTION TO A MAXIMUM CDF SECTION OF 3 FEET OR TO 6" ABOVE THE TOP OF THE PIPE, WHICH EVER IS LESS. SEE NOTE 13 OF STD. DETAIL UGN OF THIS MANUAL.

TRENCH ZONE:

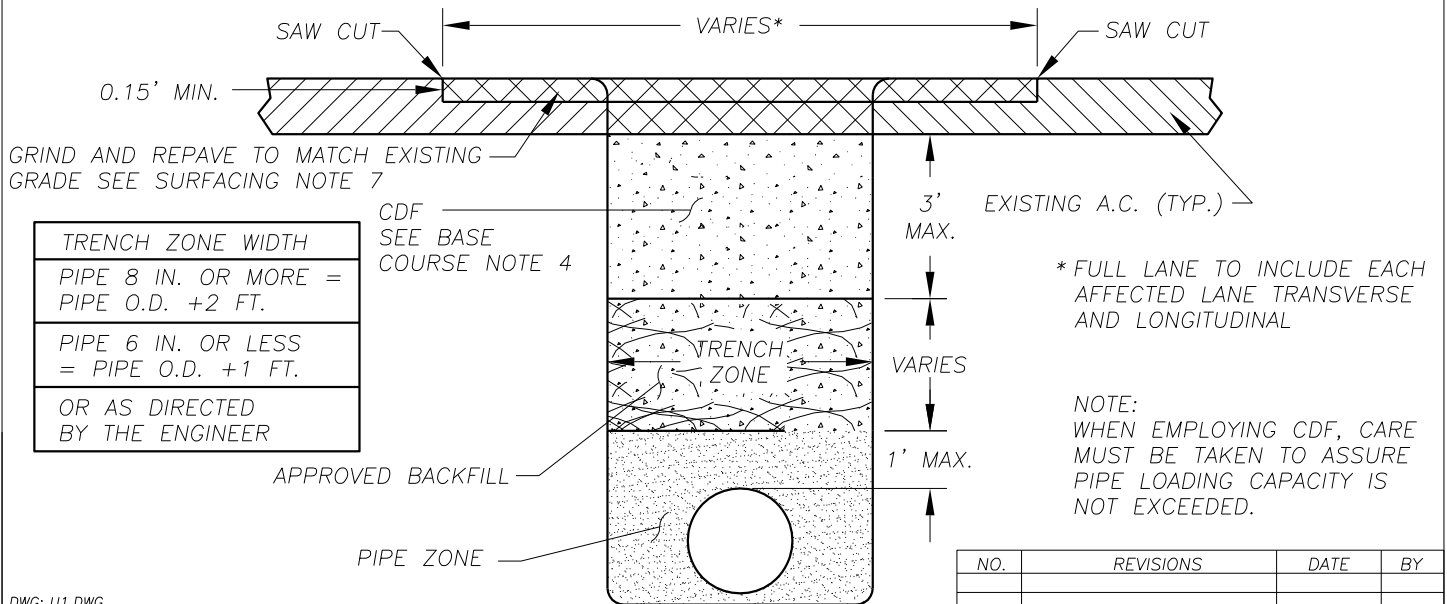
1. GRANULAR BACKFILL AS APPROVED BY LOCAL AGENCY OR WSDOT SPECIFICATIONS FOR GRANULAR BACKFILL. COMPACTED TO 95% OF MAXIMUM DENSITY IN THE TRENCH ZONE USING METHOD C COMPACTION AS PER SECTION 2-03.3(14)C.
2. NATIVE MATERIAL MAY BE USED IF APPROVED PRIOR TO CONSTRUCTION BY CLARK COUNTY.
3. TRENCH ZONE WIDTH -- SEE BELOW.

PIPE ZONE:

1. PIPE ZONE MATERIAL AS SPECIFIED BY UTILITY OWNER, AND SHALL CONFORM TO SECTION 9-03.12(3) WSDOT SPECS.
2. 1.0 FT. MAX. FROM TOP OF THE PIPE. 6" FROM TOP OF PIPE WHEN CDF BACKFILL USED.

CONDITIONS:

1. A COPY OF THE PERMIT AND REQUIREMENTS SHALL BE ON THE JOB SITE AT ALL TIMES.
2. THE PERMIT HOLDER SHALL BE RESPONSIBLE FOR ALL RESTORATION AND MAINTENANCE OF DITCHES, SHOULDERS, DRIVEWAYS, LANDSCAPING, ETC.
3. CALL CLARK COUNTY AT 397-2446 TWENTY-FOUR HOURS PRIOR TO COMMENCING WORK.



DWG: U1.DWG



**Department of
Public Works**
CLARK COUNTY
 WASHINGTON
 proud past, promising future

**OPEN CUT UTILITY TRENCH BACKFILL
COLLECTOR OR ARTERIAL ROADWAY**

Peter Capen
 COUNTY ENGINEER

APPROVED

5/23/08
 DATE

STANDARD
U1
 DETAIL
 DESIGNED
 DRAWN
 DATE 05/23/08

OPEN CUT UTILITY TRENCH BACKFILL DETAIL (COLLECTOR OR ARTERIAL) ALTERNATE

SURFACING:

1. ALL A.C.P. SHALL BE SAWCUT TO PROVIDE A STRAIGHT, CLEAN EDGE PRIOR TO PAVING.
2. THE CUT LINE SHALL BE ONE CONTINUOUS STRAIGHT LINE FROM THE OUTER EXCAVATION LIMITS OF MANHOLE, VALVE BOX, ETC. TO MANHOLE, VALVE BOX, ETC.
3. PAVE WITH 0.5 FT. MINIMUM COMPACTED DEPTH HMA CLASS, OR MATCH EXISTING OR DESIGN SECTION, WHICHEVER IS GREATER.
4. LIFTS FOR HMA CLASS SHALL BE 0.15 FT. MINIMUM AND 0.35 FT. MAXIMUM FOR NON-SURFACE LIFTS (0.25' MAXIMUM FOR SURFACE LIFT); THE TEMPERATURE SHALL BE 250 DEGREE MINIMUM, 350 DEGREE MAXIMUM, COMPACTED TO 92% OF THE THEORETICAL MAXIMUM.
5. ALL JOINTS SHALL BE TACKED, SEALED AND SANDED.
6. TRENCH SHALL BE PLATED UNTIL PAVED.
7. FOR LONGITUDINAL INSTALLATION, FULL LANE WIDTH INCLUDING TURN LANES RESTORATION SHALL BE REQUIRED OR AS DIRECTED BY CLARK COUNTY. FOR TRANSVERSE INSTALLATION REFER TO SURFACING RESTORATION OF DETAIL U6. SEE SECTION 12.20A.120.C.

TRENCH ZONE:

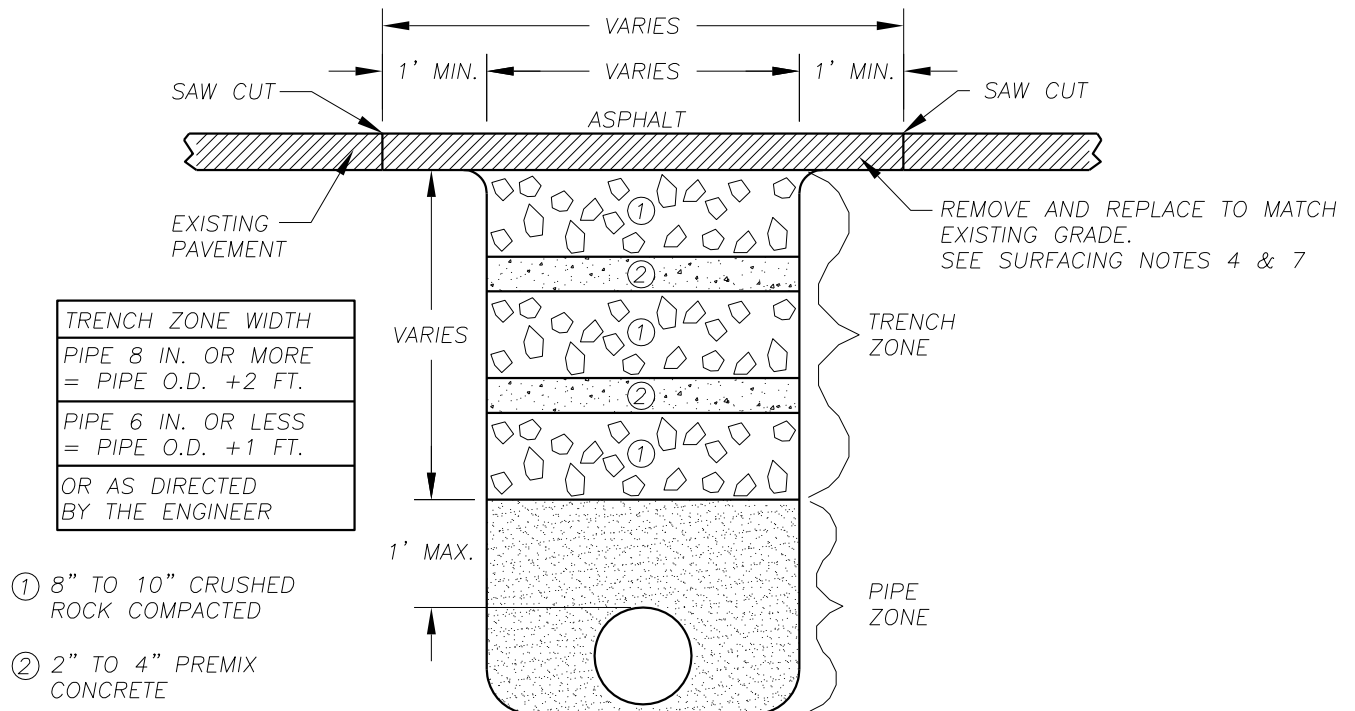
1. GRANULAR BACKFILL AS APPROVED BY LOCAL AGENCY OR WSDOT SPECIFICATIONS FOR GRANULAR BACKFILL. COMPACTED TO 95% OF MAXIMUM DENSITY PER T99 IN THE TRENCH ZONE USING METHOD C COMPACTION AS PER WSDOT SECTION 2-03.3 (14)C.
2. PREMIX CONCRETE SHALL MEET OR EXCEED THE REQUIREMENTS OF WSDOT 2-09.3 (1) E.
3. TRENCH ZONE WIDTH -- SEE BELOW.

PIPE ZONE:

1. PIPE ZONE MATERIAL AS SPECIFIED BY UTILITY OWNER, AND SHALL CONFORM TO SECTION 9-03.12(3) WSDOT SPECS.
2. 1.0 FT. MAX. FROM TOP OF THE PIPE.

CONDITIONS:

1. A COPY OF THE PERMIT AND REQUIREMENTS SHALL BE ON THE JOB SITE AT ALL TIMES.
2. THE PERMIT HOLDER SHALL BE RESPONSIBLE FOR ALL RESTORATION AND MAINTENANCE OF DITCHES, SHOULDERS, DRIVEWAYS, LANDSCAPING, ETC.
3. CALL CLARK COUNTY AT 397-2446 TWENTY-FOUR HOURS PRIOR TO COMMENCING WORK.



NO.	REVISIONS	DATE	BY

DWG: U2.DWG

<p>Department of Public Works CLARK COUNTY WASHINGTON proud past, promising future</p>	<p>OPEN CUT UTILITY TRENCH BACKFILL COLLECTOR OR ARTERIAL ROADWAY (ALTERNATE)</p> <p style="text-align: right;">APPROVED</p> <p style="text-align: center;"><i>Peter Capen</i> COUNTY ENGINEER</p>	<p>STANDARD U2 DETAIL</p>
	<p>5/23/08 DATE</p>	<p>DESIGNED DRAWN DATE 05/23/08</p>

OPEN CUT UTILITY TRENCH BACKFILL DETAIL (RESIDENTIAL)

SURFACING:

1. ALL A.C.P. SHALL BE SAW CUT TO PROVIDE A STRAIGHT, CLEAN EDGE PRIOR TO PAVING.
2. THE CUT LINE SHALL BE ONE CONTINUOUS STRAIGHT LINE FROM THE OUTER EXCAVATION LIMITS OF MANHOLE, VALVE BOX, ETC. TO MANHOLE, VALVE BOX, ETC.
3. PAVE WITH AN 0.35 FT. MINIMUM COMPACTED DEPTH HMA CLASS OR MATCH EXISTING, WHICHEVER IS GREATER.
4. LIFTS FOR HMA CLASS SHALL BE AN 0.15 FT. MINIMUM AND 0.35 FT. MAXIMUM FOR NON-SURFACE LIFTS (0.25' MAXIMUM FOR SURFACE LIFT); THE TEMPERATURE SHALL BE 250 DEGREE MINIMUM, 350 DEGREE MAXIMUM, COMPACTED TO THE SATISFACTION OF THE ENGINEER.
5. ALL JOINTS SHALL BE TACKED, SEALED AND SANDED.
6. WHEN SURFACING EXISTS ON BOTH SIDES OF THE TRENCH, NEW A.C.P. WILL BE A MINIMUM OF 40" WIDE.
7. TRENCH SHALL BE PLATED UNTIL PAVED.

TOP COURSE:

1. 0.20 FT. MINIMUM DEPTH (5/8" MINUS) C.S.T.C. (WSDOT APPROVED MATERIAL).
2. COMPACTED TO 95% OF MAXIMUM DENSITY. SEE TRENCH ZONE.
3. EQUIVALENT DEPTH OF A.T.B. MAY BE SUBSTITUTED.

BASE COURSE:

1. 0.80 FT. MINIMUM DEPTH (1-1/4" MINUS) C.S.B.C. (WSDOT APPROVED MATERIAL).
2. COMPACTED TO 95% OF MAXIMUM DENSITY. SEE TRENCH ZONE.
3. EQUIVALENT DEPTH OF A.T.B. MAY BE SUBSTITUTED.

TRENCH ZONE:

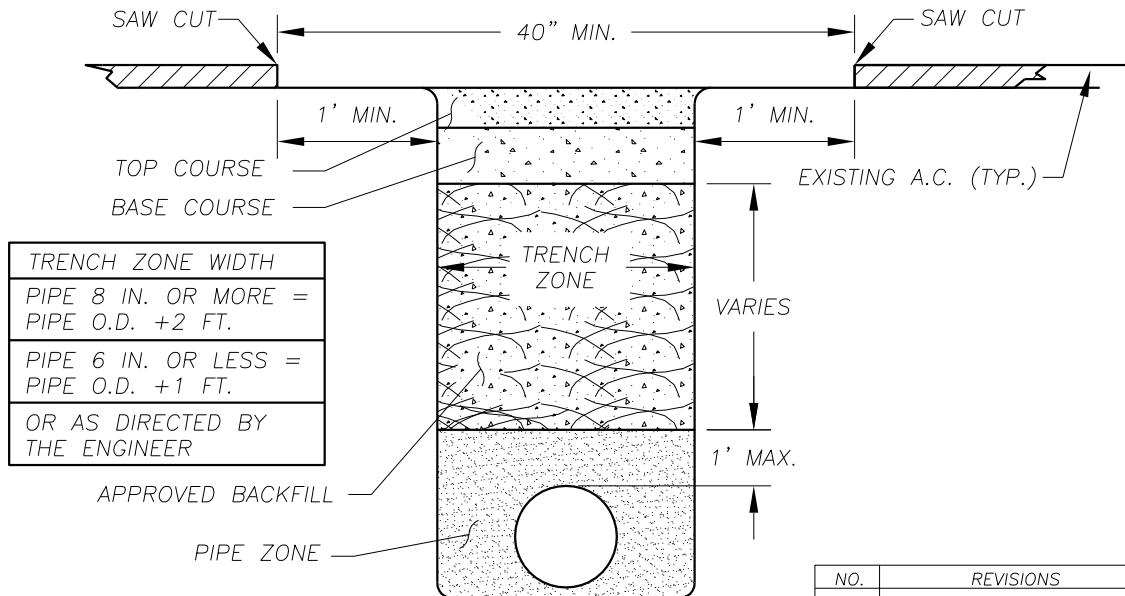
1. GRANULAR BACKFILL AS APPROVED BY LOCAL AGENCY OR WSDOT SPECIFICATIONS FOR GRANULAR BACKFILL. COMPACTED TO 95% OF MAXIMUM DENSITY IN THE TRENCH ZONE USING METHOD C COMPACTION AS PER SECTION 2-03.3 (14)C.
2. NATIVE MATERIAL MAY BE USED IF APPROVED PRIOR TO CONSTRUCTION BY CLARK COUNTY.
3. TRENCH ZONE WIDTH -- SEE BELOW.

PIPE ZONE:

1. PIPE ZONE MATERIAL AS SPECIFIED BY UTILITY OWNER, AND SHALL CONFORM TO SECTION 9-03.12(3) WSDOT SPECS.
2. 1.0 FT. MAX. FROM TOP OF THE PIPE.

CONDITIONS:

1. A COPY OF THE PERMIT AND REQUIREMENTS SHALL BE ON THE JOB SITE AT ALL TIMES.
2. THE PERMIT HOLDER SHALL BE RESPONSIBLE FOR ALL RESTORATION AND MAINTENANCE OF DITCHES, SHOULDERS, DRIVEWAYS, LANDSCAPING, ECT.
3. ALL PAVEMENT CUTS, AT A MIN. BE TEMP PATCHED @ THE END OF EACH DAY W/PERM PATCH TO BE DONE ON THE 1ST SUITABLE DAY.
4. WORK SHALL BE DONE IN A TIMELY MANNER TO MINIMIZE THE IMPACT TO THE PUBLIC.
5. CALL CLARK COUNTY AT 397-2446 TWENTY-FOUR HOURS PRIOR TO COMMENCING WORK.



NO.	REVISIONS	DATE	BY

DWG: U3.DWG



**Department of
Public Works**
CLARK COUNTY
 WASHINGTON
proud past, promising future

**OPEN CUT UTILITY TRENCH BACKFILL
RESIDENTIAL ROADWAY**

Peter Capen
 COUNTY ENGINEER

APPROVED

5/23/08
 DATE

STANDARD

U3

DETAIL

DESIGNED
 DRAWN
 DATE 05/23/08

CONCRETE ROADWAY

CEMENT CONCRETE PAVEMENT:

1. EARLY STRENGTH (3-DAY) CEMENT CONCRETE PAVEMENT PER WSDOT STANDARD SPECIFICATIONS SECTION 5-05.
2. DOWELED CONSTRUCTION JOINTS AS PER CURRENT WSDOT STANDARD PLANS.
3. CONTRACTION JOINTS TO BE SAWED AS PER CURRENT WSDOT STANDARD PLANS.
4. MATCH EXISTING DEPTH (D=MINIMUM OF 6"), FINISH TEXTURE, AND COLOR.
5. FULL PANEL RESTORATION REQUIRED, OR AS DIRECTED BY CLARK COUNTY.

TRENCH ZONE:

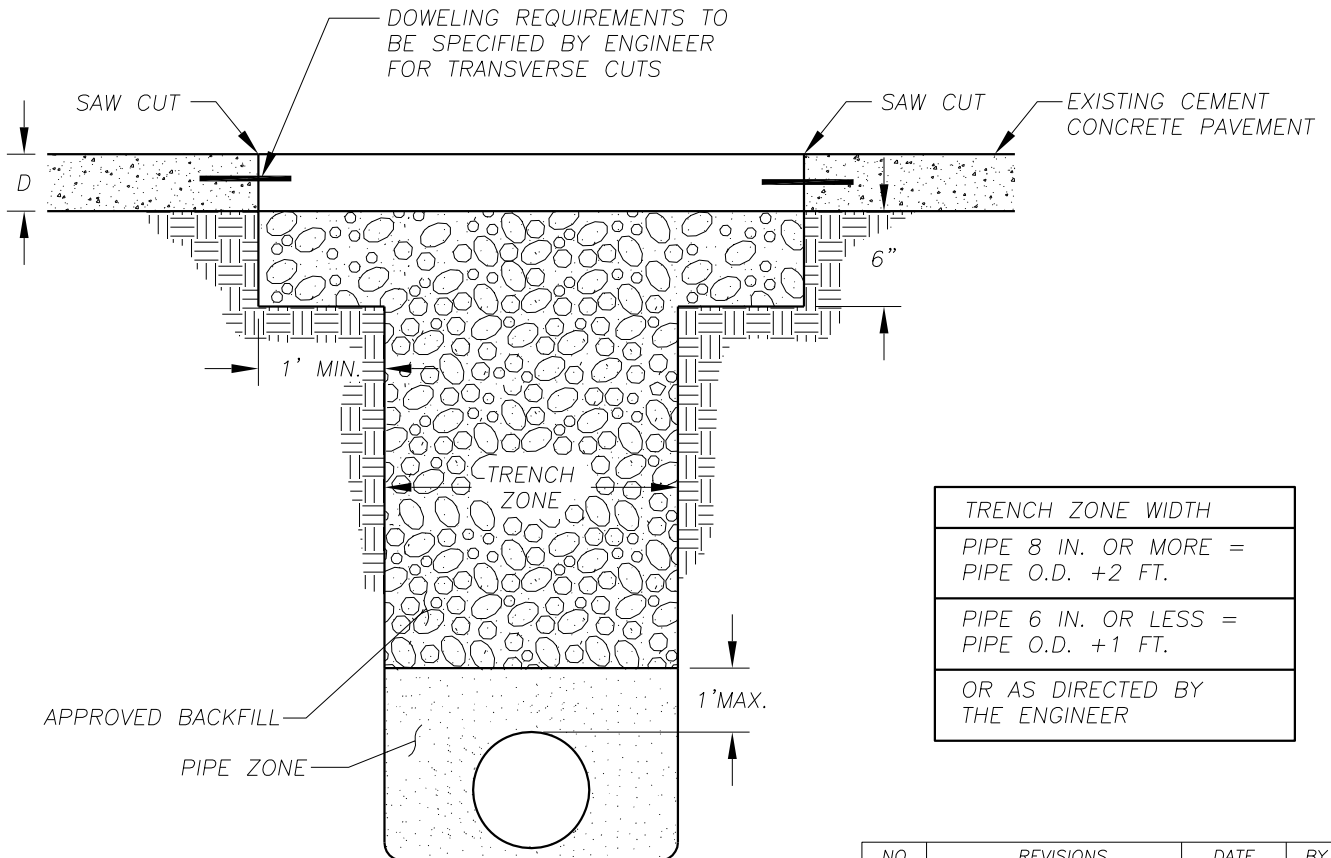
1. GRANULAR BACKFILL AS APPROVED BY LOCAL AGENCY OR WSDOT SPECIFICATIONS FOR GRANULAR BACKFILL. COMPACTED TO 95% OF MAXIMUM DENSITY IN THE TRENCH ZONE USING METHOD C COMPACTION AS PER SECTION 2-03.3 (14)C.
2. NATIVE MATERIAL MAY BE USED IF APPROVED PRIOR TO CONSTRUCTION BY CLARK COUNTY.
3. TRENCH ZONE WIDTH -- SEE BELOW.

PIPE ZONE:

1. PIPE ZONE MATERIAL AS SPECIFIED BY UTILITY OWNER, AND SHALL CONFORM TO SECTION 9-03.12(3) WSDOT SPECS.
2. 1.0 FT. MAX. FROM TOP OF THE PIPE.

CONDITIONS:

1. A COPY OF THE PERMIT AND REQUIREMENTS SHALL BE ON THE JOB SITE AT ALL TIMES.
2. THE PERMIT HOLDER SHALL BE RESPONSIBLE FOR ALL RESTORATION AND MAINTENANCE OF DITCHES, SHOULDERS, DRIVEWAYS, LANDSCAPING, ETC.
3. CALL CLARK COUNTY AT 397-2446 TWENTY-FOUR HOURS PRIOR TO COMMENCING WORK.



NO.	REVISIONS	DATE	BY

DWG: U4.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
proud past, promising future

CONCRETE ROADWAY

Peter Capen
 COUNTY ENGINEER

APPROVED

5/23/08
 DATE

STANDARD
U4
 DETAIL
 DESIGNED
 DRAWN
 DATE 05/23/08

ROADWAY SHOULDER INCLUDES LAWN AND LANDSCAPE

SHOULDER ROCK:

1. 0.50 FT. MINIMUM DEPTH (1 1/4" MINUS) CRUSHED ROCK. (CLARK COUNTY APPROVED MATERIAL).
2. COMPACTED TO 95% OF MAXIMUM DENSITY. SEE TRENCH ZONE.
3. ROCK SHALL EXTEND FROM E.O.P. TO THE BACK OF TRENCH AT APPROX. .05 FT./FT. SLOPE.

LAWN & LANDSCAPE AREAS:

1. A COUNTY APPROVED TOP SOIL SHALL BE PLACED 0.50 FT. IN DEPTH.
2. AREA TO BE RESTORED TO MATCH EXISTING.

TRENCH ZONE:

WHERE THE DISTANCE FROM E.O.T. TO E.O.P. IS LESS THAN OR EQUAL TO THE DEPTH OF THE TRENCH; THESE CONDITIONS SHALL APPLY:

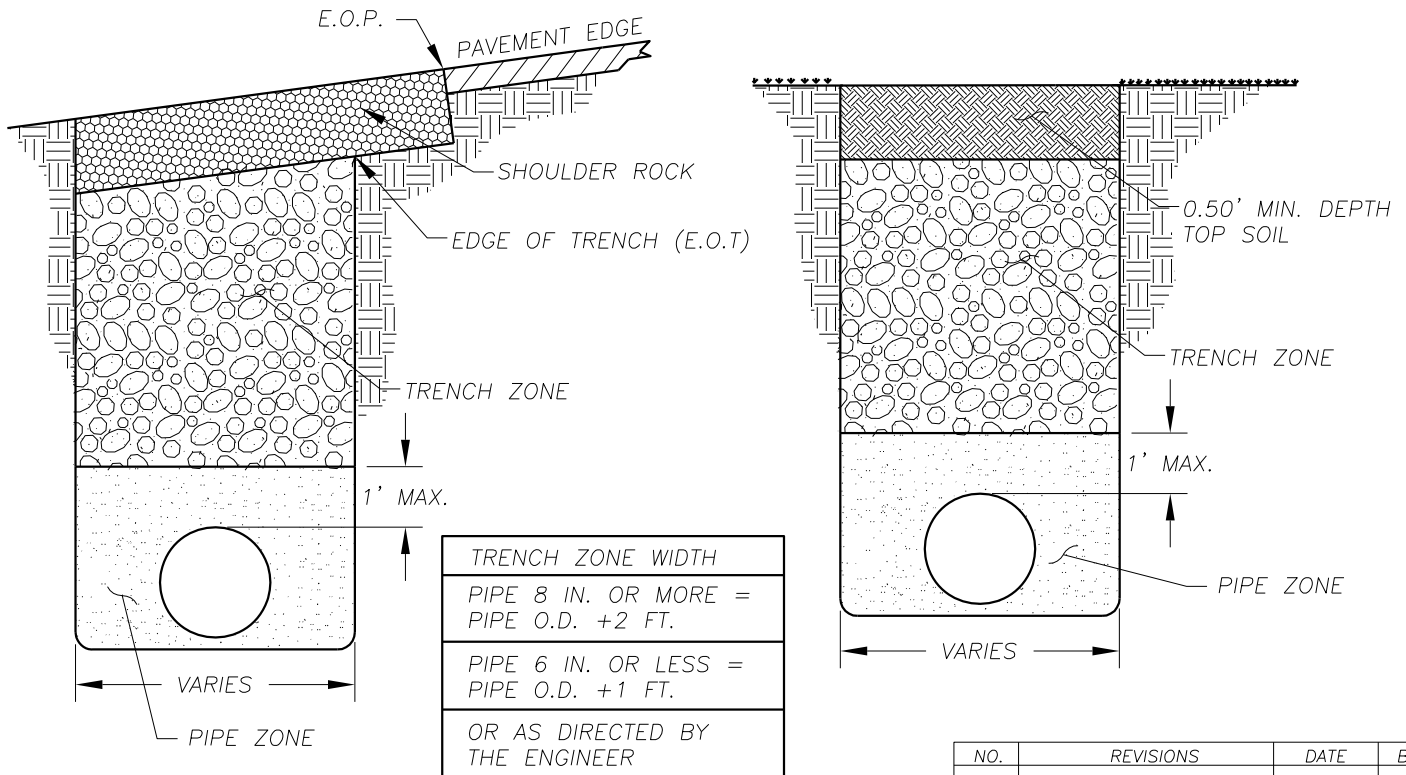
1. GRANULAR BACKFILL AS APPROVED BY LOCAL AGENCY OR WSDOT SPECIFICATIONS FOR GRANULAR BACKFILL. COMPACTED TO 95% OF MAXIMUM DENSITY IN THE TRENCH ZONE USING METHOD C COMPACTION AS PER SECTION 2-03.3 (14)C.
2. NATIVE MATERIAL MAY BE USED IF APPROVED PRIOR TO CONSTRUCTION.
3. TRENCH ZONE WIDTH -- SEE BELOW.
4. SHOULDER ROCK AND LANDSCAPED SECTIONS AS APPLICABLE.

PIPE ZONE:

1. PIPE ZONE MATERIAL AS SPECIFIED BY UTILITY OWNER, AND SHALL CONFORM TO SECTION 9-03.12(3) WSDOT SPECS.
2. 1.0 FT. MAX. FROM TOP OF THE PIPE.

CONDITIONS:

1. A COPY OF THE PERMIT AND REQUIREMENTS SHALL BE ON THE JOB SITE AT ALL TIMES.
2. THE PERMIT HOLDER SHALL BE RESPONSIBLE FOR ALL RESTORATION AND MAINTENANCE OF DITCHES, SHOULDERS, DRIVEWAYS, LANDSCAPING, ETC.
3. CALL CLARK COUNTY AT 397-2446 TWENTY-FOUR HOURS PRIOR TO COMMENCING WORK.



NO.	REVISIONS	DATE	BY

DWG: U5.DWG



Department of
Public Works
CLARK COUNTY
WASHINGTON

c o u n t y o f c l a r k w a s h i n g t o n

ROADWAY SHOULDER
INCLUDES LAWN AND LANDSCAPE

APPROVED

Peter Capen
COUNTY ENGINEER

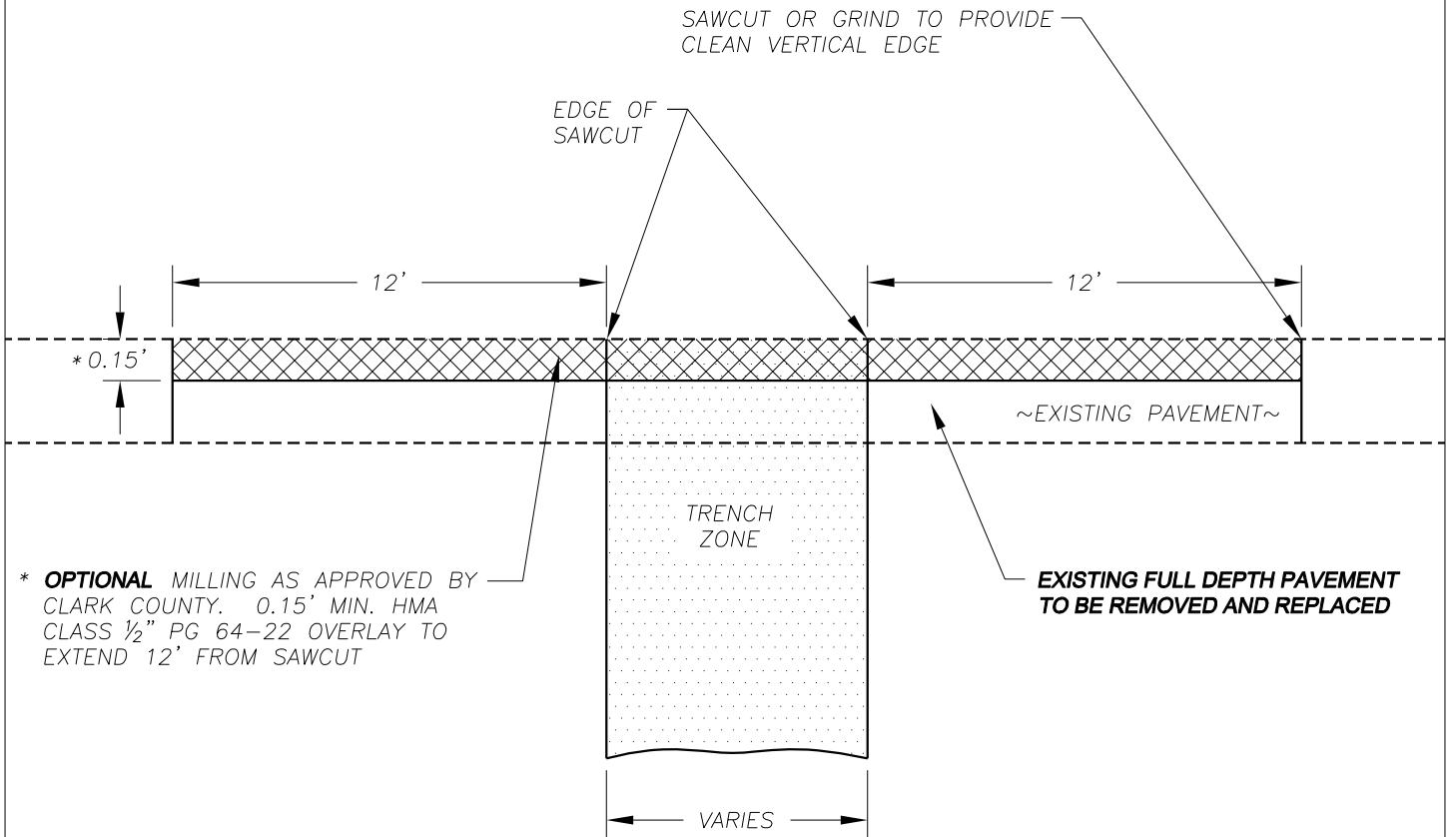
5/23/08
DATE

STANDARD

U5

DETAIL

DESIGNED
DRAWN
DATE 05/23/08



* **OPTIONAL** MILLING AS APPROVED BY CLARK COUNTY. 0.15' MIN. HMA CLASS 1/2" PG 64-22 OVERLAY TO EXTEND 12' FROM SAWCUT

EXISTING FULL DEPTH PAVEMENT TO BE REMOVED AND REPLACED

NOTE:

THIS DETAIL IS TO BE USED ON **URBAN ARTERIALS, RURAL COLLECTORS, AND/OR WHEN THE EXISTING ROADWAY IS LESS THAN 5 YEARS OLD** FOR PAVEMENT SURFACE RECONSTRUCTION.

SEE APPROPRIATE DETAIL (U1 OR U3) FOR TRENCH ZONE RECONSTRUCTION REQUIREMENTS.

EXISTING ASPHALT CONCRETE PAVEMENT SHALL BE REMOVED AND REPLACED WITHIN THE LIMITS OF THE WORK, UNLESS OTHERWISE DIRECTED.

PLACEMENT OF ASPHALT CONCRETE PAVEMENT SHALL BE COMPLETED WITH A SUITABLE PAVING MACHINE OR AS DIRECTED BY CLARK COUNTY.

THE COMPLETED SURFACE OF THE WEARING COURSE SHALL MEET THE SURFACE SMOOTHNESS CRITERIA OF SECTION 5-04.3(13) OF THE WSDOT STANDARD SPECIFICATIONS (M41-10).

NO.	REVISIONS	DATE	BY

DWG: U6.DWG



Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

PAVEMENT RECONSTRUCTION
FOR SURFACE OR TRANSVERSE CUTS

Peter Capen
COUNTY ENGINEER

APPROVED

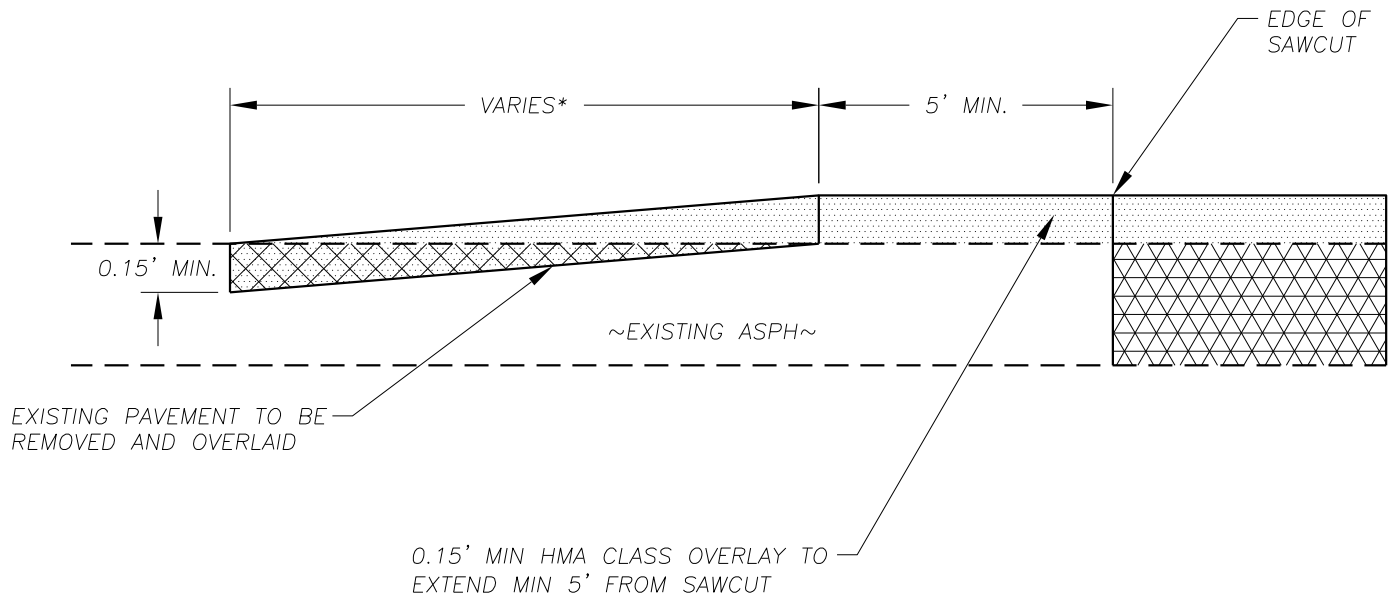
5/23/08
DATE

STANDARD

U6

DETAIL

DESIGNED
DRAWN
DATE 05/23/08



* LENGTH VARIES TO MAKE SMOOTH
TRANSITION TO EXISTING ROAD GRADE.
(MINIMUM 15 FEET).

TO BE USED AS AN ALTERNATIVE IN LIEU OF
FULL LANE REMOVAL AND REPLACEMENT WHEN
APPROVED BY CLARK COUNTY.

NO.	REVISIONS	DATE	BY

DWG: U7.DWG



Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

Peter Capen
COUNTY ENGINEER

BUTT JOINT PLANING
AND OVERLAY

APPROVED

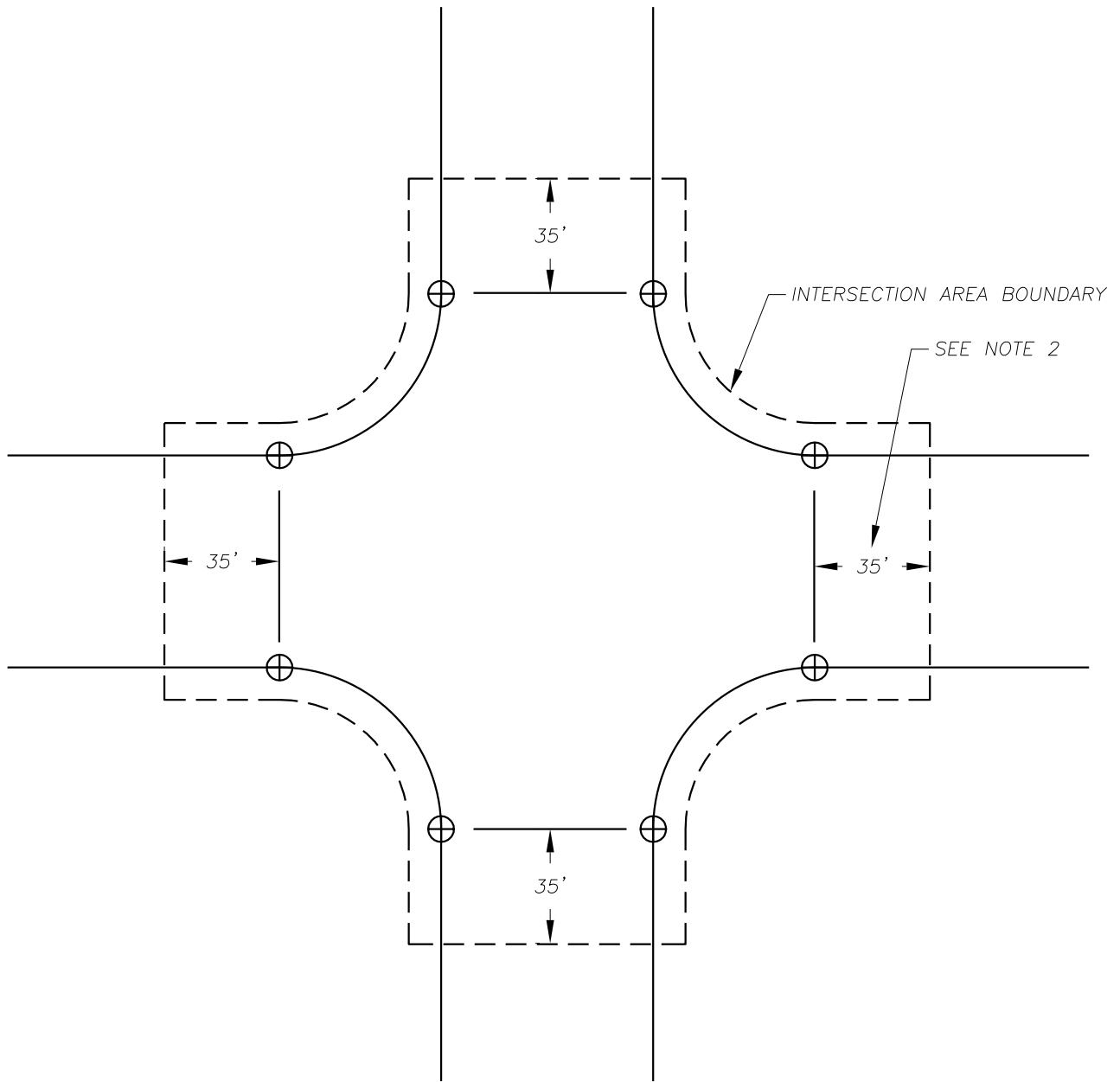
5/23/08
DATE

STANDARD

U7

DETAIL

DESIGNED
DRAWN
DATE 05/23/08



⊕ LEGEND
CURB RETURN (TYP.)

NOTE:

1. ANY OVERLAY WHICH IS REQUIRED AS A PART OF THE RESTORATION OF A UTILITY CUT WITHIN THE INTERSECTION AREA BOUNDARY WILL PROVIDE FOR COMPLETE COVERAGE OF THE AFFECTED INTERSECTION AREA.
2. TRANSVERSE CROSSING WITHIN THIS 35' ZONE, AND ONLY AT THE DISCRETION OF COUNTY ENGINEER, MAY APPLY STD. PLAN U6 AS ALTERNATE TO FULL INTERSECTION OVERLAY.
3. SEE NOTE 6 ON STD. DETAIL UGN (SHEET 3 OF 3) FOR LOOP REPLACEMENT REQUIREMENTS.

NO.	REVISIONS	DATE	BY

DWG: U8.DWG



Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

INTERSECTION OVERLAY
FOR ALL ROAD INTERSECTIONS

Peter Capen
COUNTY ENGINEER

APPROVED

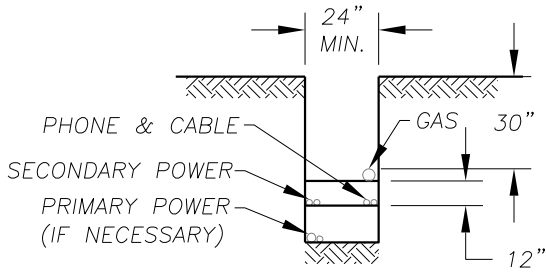
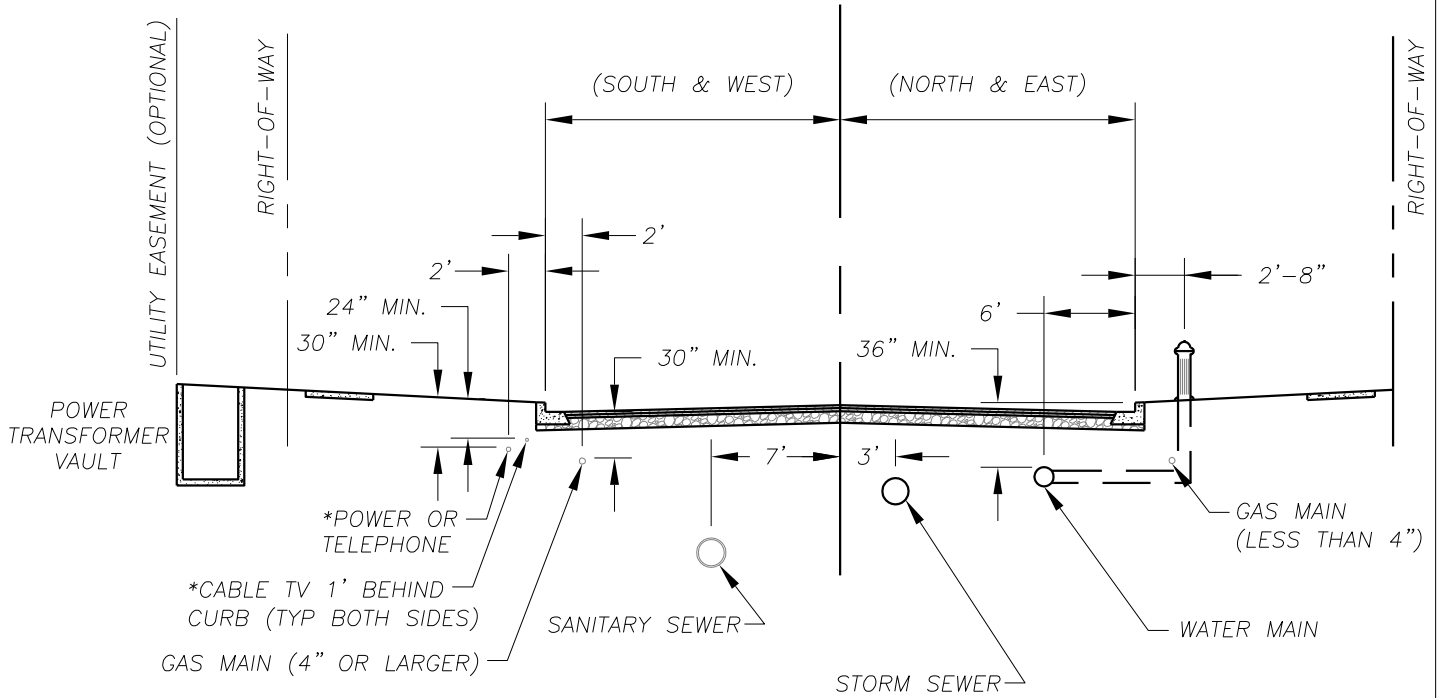
5/23/08
DATE

STANDARD

U8

DETAIL

DESIGNED
DRAWN
DATE 05/23/08



*JOINT TRENCH DETAIL (OPTIONAL)

NOTE:

- * IF SIX FOOT UTILITY EASEMENT IS PRESENT ALONG PROPERTY FRONTAGE, PLACEMENT SHALL BE AT BACK OF SIDEWALK WITHIN UTILITY EASEMENT.
- * ALTERNATE LOCATIONS CONSIDERED ONLY TO SALVAGE CORE ROADWAY, OR TO AVOID SUBSTANTIAL CONFLICT WITH EXISTING UTILITIES.
- * MANHOLES CONES TO BE ROTATED TO KEEP MANHOLE COVER LOCATED OUTSIDE OF WHEEL PATH.
- * GAS VALVES ARE TO BE LOCATED 2' MIN. FROM FACE OF CURB.

NO.	REVISIONS	DATE	BY

DWG: U9.DWG



Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

UTILITY PLACEMENT

Peter Capen
COUNTY ENGINEER

APPROVED

5/23/08
DATE

STANDARD
U9
DETAIL
DESIGNED
DRAWN
DATE 05/23/08

CONSTRUCTION NOTES

CURB RAMPS

(APPLIES TO F2-F8 UNLESS OTHERWISE NOTED)

- R1 EACH CURB RAMP MUST BE DESIGNED FOR ITS LOCATION TO MEET THE PROPOSED DESIGN OR EXISTING TOPOGRAPHICAL AND PHYSICAL CONSTRAINTS, AND THE REQUIREMENTS FOR CURB RAMP SLOPE, CROSS SLOPE, LANDINGS AND CONNECTION TO THE STREET. CURB AND SIDEWALK RAMPS WILL BE DESIGNED IN ACCORDANCE WITH THE INFORMATION PROVIDED AND CURRENT ADA REQUIREMENTS. RAMPS SHALL BE DESIGNED SO NOT TO CAUSE WATER TO POND. THE RAMPS WILL BE DETAILED ON THE PLANS. THE EXACT LOCATION OF THE CURB RAMPS WILL BE SHOWN ON THE PLANS.
- R2 WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
- R3 DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS, OR OTHER APPURTENANCES IN ANY PART OF THE CURB RAMP OR LANDING.
- R4 SEE CONTRACT OR APPROVED PLANS FOR THE CURB DESIGN SPECIFIED. SEE STANDARD DETAIL F18 FOR CURB, CURB AND GUTTER, DEPRESSED CURB AND GUTTER, AND PEDESTRIAN CURB DETAILS.
- R5 SEE STANDARD DETAIL F12 FOR CEMENT CONCRETE SIDEWALK DETAILS. SEE CONTRACT PLANS FOR WIDTH AND PLACEMENT OF SIDEWALK.
- R6 THE CURB RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15-FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE AS FLAT AS FEASIBLE.
- R7 CURB RAMPS, LANDINGS, AND FLARES SHALL RECEIVE BROOM FINISH AND SHALL BE POURED SEPARATELY FROM SIDEWALK.
- R8 PEDESTRIAN CURB MAY BE OMITTED IF THE GROUND SURFACE AT THE BACK OF THE CURB RAMP AND/OR LANDING WILL BE AT THE SAME ELEVATION AS THE CURB RAMP OR LANDING AND THERE WILL BE NO MATERIAL TO RETAIN. (DOES NOT APPLY TO F4)
- R9 CONCRETE SHALL BE CLASS 3000 MIN.
- R10 SEE STANDARD DETAIL F31 FOR JOINT DETAILS.

- SURFACE
- CONSTRUCTION
- CONTROL
- EXPANSION

- R11 FLARE LENGTH 3-FOOT MINIMUM UNLESS OBSTRUCTION, THEN LENGTH VARIES NOT TO EXCEED 10% SLOPE. (APPLIES TO F4 ONLY)
- R12 WHEN TWO PERPENDICULAR CURB RAMPS ARE USED ON A SINGLE RETURN THE FLARES SHALL HAVE A MINIMUM 3-FOOT SEPARATION BETWEEN THEM AND CURB HEIGHT CAN BE REDUCED FROM 6" TO 3". (APPLIES TO F4 ONLY)


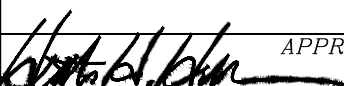
DRIVEWAYS

(APPLIES TO F14-F17A UNLESS OTHERWISE NOTED)

- D1 CEMENT CONCRETE APPROACHES SHALL BE CLASS 4000 MINIMUM WITH MEDIUM BROOM FINISH PARALLEL TO DRIVEWAY CENTERLINE.
- D2 SIDEWALK RAMP AREA TO BE SLOPED AT 8.3% MAX, UNLESS STREET GRADE WOULD CREATE A TRANSITION LENGTH GREATER THAN 15- FEET, THEN THE MAXIMUM LENGTH OF 15- FEET GOVERNS SLOPE.
- D3 A MINIMUM 4-FOOT WIDE ACCESSIBLE ROUTE SHALL BE MAINTAINED IN ALL PEDESTRIAN ACCESSIBLE AREAS. CONTROL JOINTS SHALL BE PLACED ALONG SIDEWALKS IN ACCORD WITH SIDEWALK DETAIL. ALL JOINTS SHALL BE CLEANED AND EDGED.
- D4 ALL JOINTS SHALL BE FINISHED WITH 3/8"-1/2" RADIUS EDGE UNLESS OTHERWISE NOTED. DRIVEWAYS EXCEEDING 15- FEET IN TOTAL WIDTH SHALL HAVE ADDITIONAL LONGITUDINAL JOINTS AS DIRECTED. CONTROL JOINT SPACING SHALL NOT EXCEED 15- FEET.
- D5 MINIMUM 3- INCH DEPTH OF CRUSHED SURFACING BASE COURSE COMPACTED TO 95% OF MAX DRY DENSITY.
- D6 THE SUBGRADE SHALL BE COMPACTED TO 95% OF MAX DRY DENSITY.
- D7 MAXIMUM 2% CROSS SLOPE ACROSS PEDESTRIAN CROSSING.
- D8 SEE STD. DETAIL F31 FOR CONCRETE JOINTS.
- D9 CURB TO BE BRUSHED FINISHED. ALL EXISTING EDGES SHALL BE SAWCUT.
- D10 DRIVEWAY SHALL HAVE A 1/2- INCH MAXIMUM VERTICAL LIP ACROSS APPROACH AT GUTTER LINE.
- D11 WHEN SPECIFIED, COMMERCIAL DRIVEWAY REQUIRES REINFORCING STEEL (6"x6" 10 GA WIRE MESH ON 2" CONCRETE DOBBIES) MINIMUM 3- INCH COVER. CONCRETE SHALL BE 8- INCH THICK MINIMUM.

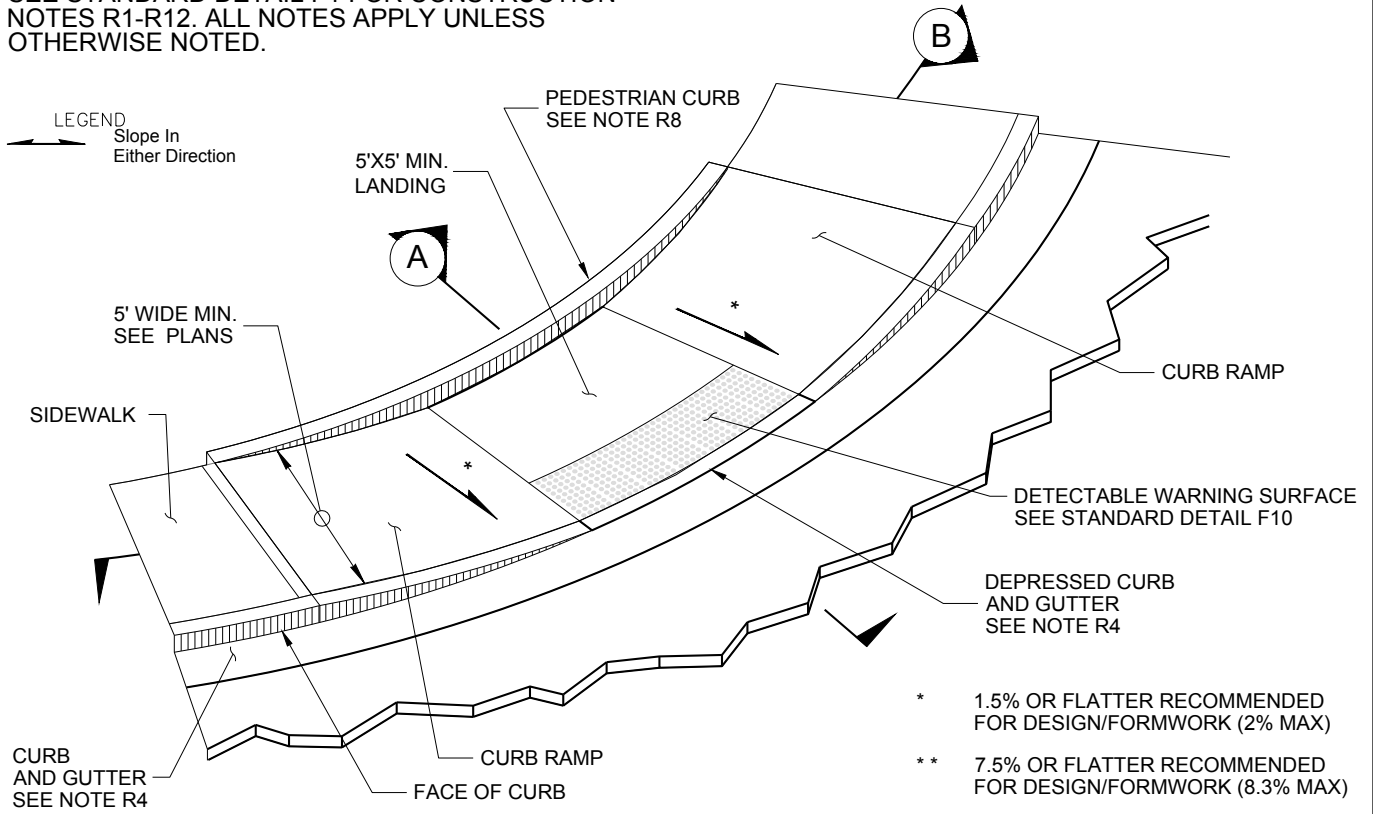
NO.	REVISIONS	DATE	BY

DWG: F1.DWG

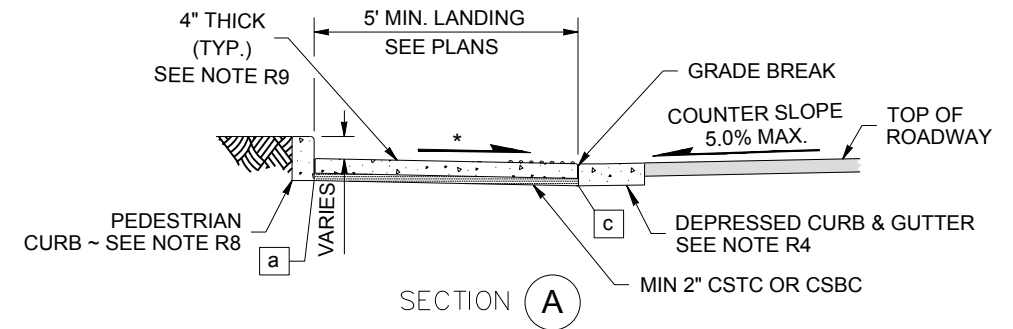
	Department of Public Works CLARK COUNTY WASHINGTON proud past, promising future	CURB RAMP & DRIVEWAY CONSTRUCTION NOTES  APPROVED COUNTY ENGINEER	STANDARD
	01/26/16 DATE	F1 DETAIL DESIGNED DRAWN DATE 01/26/16	

SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES R1-R12. ALL NOTES APPLY UNLESS OTHERWISE NOTED.

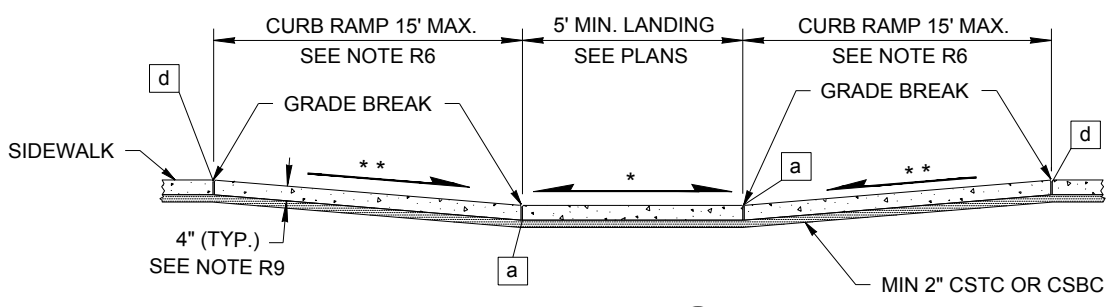
LEGEND
Slope In
Either Direction



ISOMETRIC VIEW



SECTION A



SECTION B

NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F2.DWG



Department of Public Works
CLARK COUNTY WASHINGTON
proud past, promising future

PARALLEL CURB RAMP - TYPE A

[Signature] APPROVED

COUNTY ENGINEER

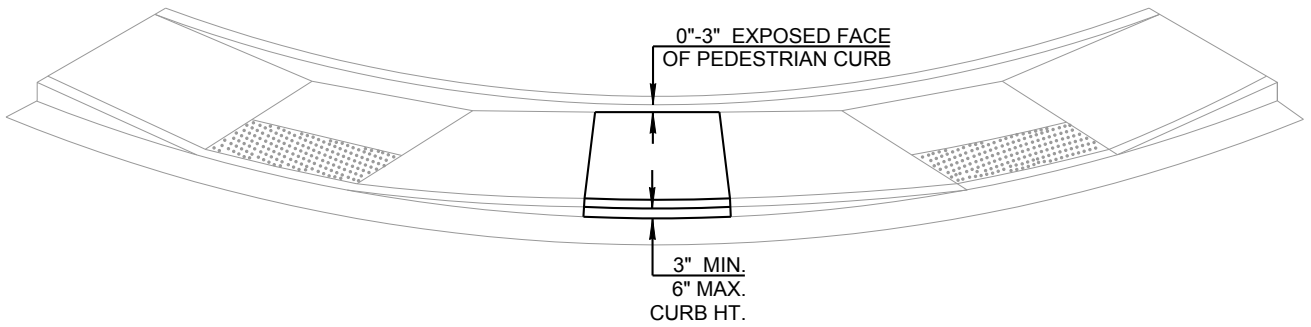
01/26/16
DATE

STANDARD
F2
DETAIL
DESIGNED
DRAWN
DATE 01/26/16

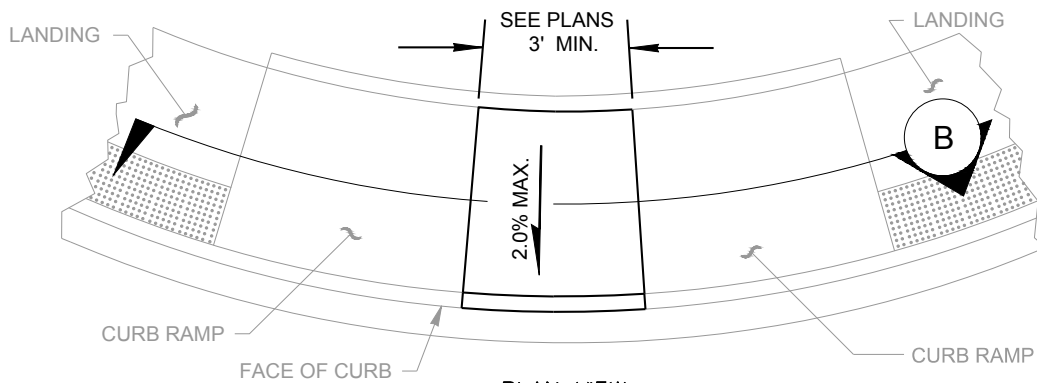
DUAL PARALLEL CURB RAMPS

NOTES:

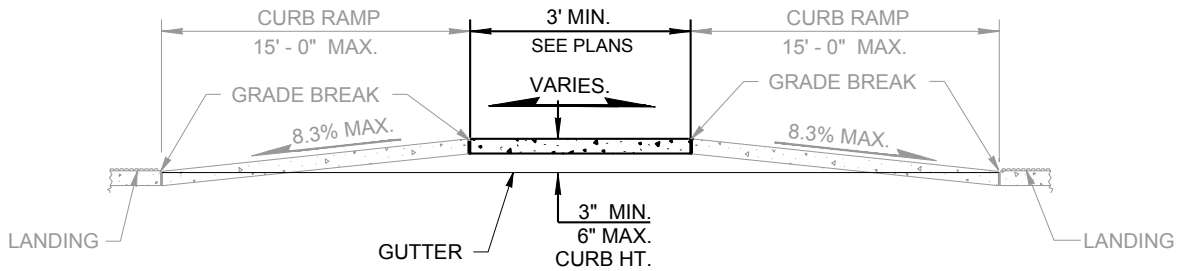
1. WHEN CONSTRUCTING TWO PARALLEL RAMPS ON A SINGLE RETURN THERE SHALL BE A MINIMUM 3' SPACE BETWEEN THE TOP OF RAMPS.
2. THE CURB HEIGHT CAN BE REDUCED FROM 6" TO 3" TO MAINTAIN ADA COMPLIANT RAMPS AND ACCOMMODATE THE 3' SPACE.
3. ALL OTHER CONSTRUCTION NOTES FROM STANDARD DETAIL F1 SHALL APPLY.



ISOMETRIC VIEW



PLAN VIEW



SECTION B

NO.	REVISIONS	DATE	BY

DWG: F2A.DWG



Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future


DUAL PARALLEL CURB RAMPS

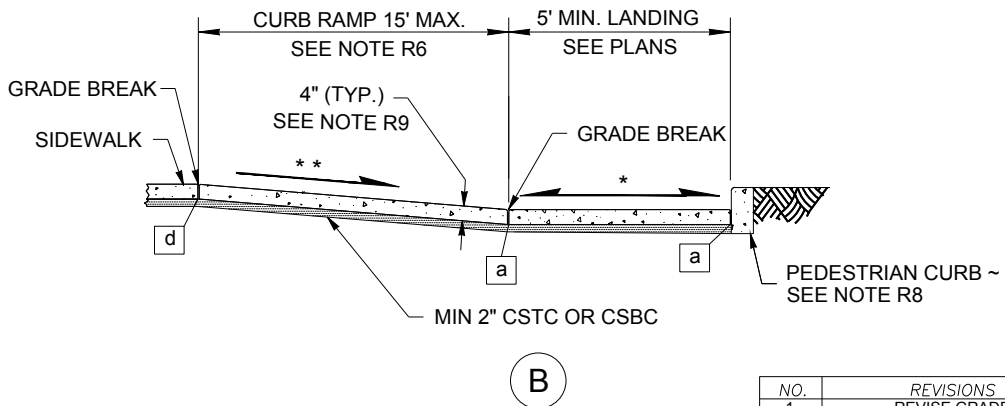
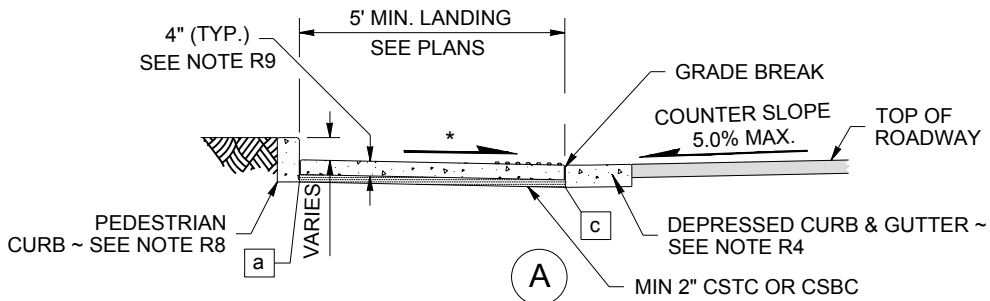
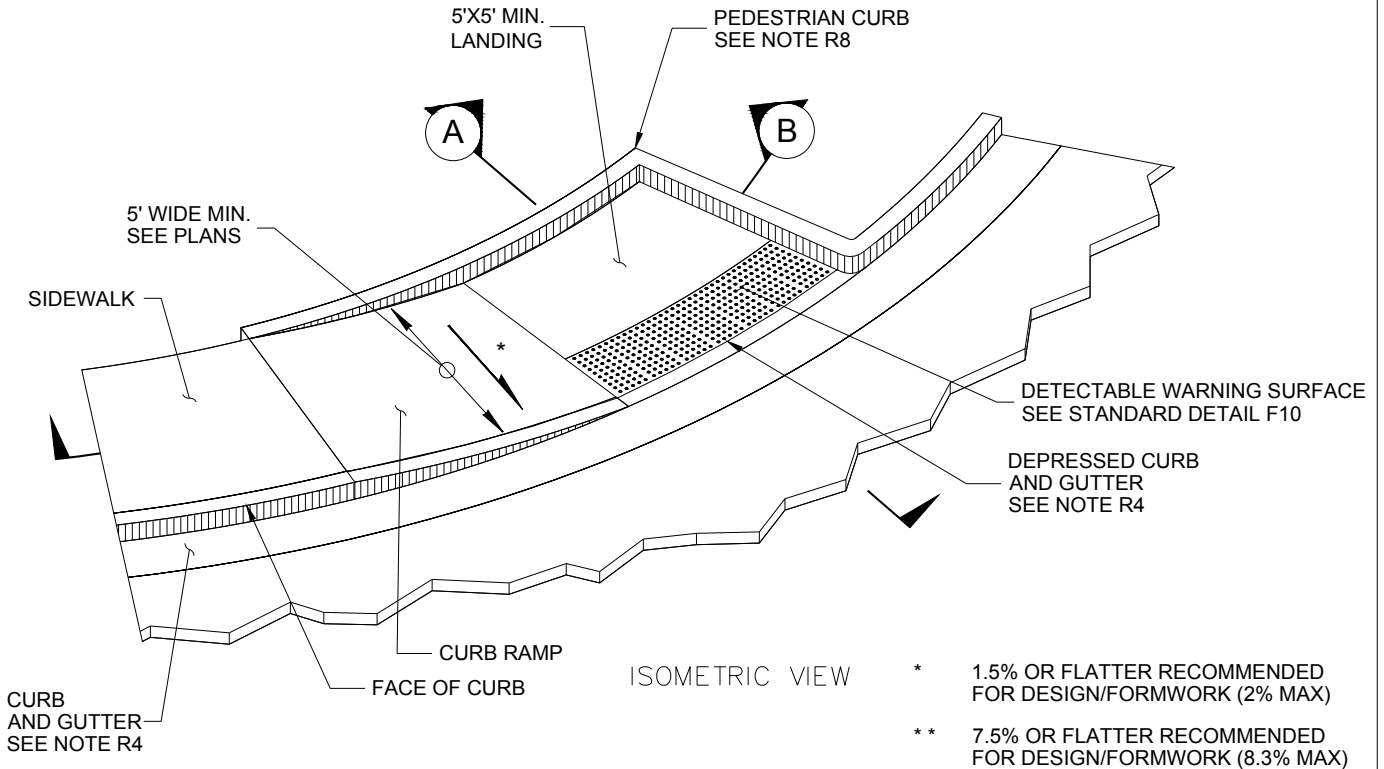
[Signature]
APPROVED
COUNTY ENGINEER

01/26/16
DATE

STANDARD
F2a
DETAIL
DESIGNED
DRAWN
DATE 01/26/16

SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES R1-R12. ALL NOTES APPLY UNLESS OTHERWISE NOTED.

LEGEND
 Slope In Either Direction



NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F3.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

PARALLEL CURB RAMP - TYPE B

[Signature] APPROVED

COUNTY ENGINEER

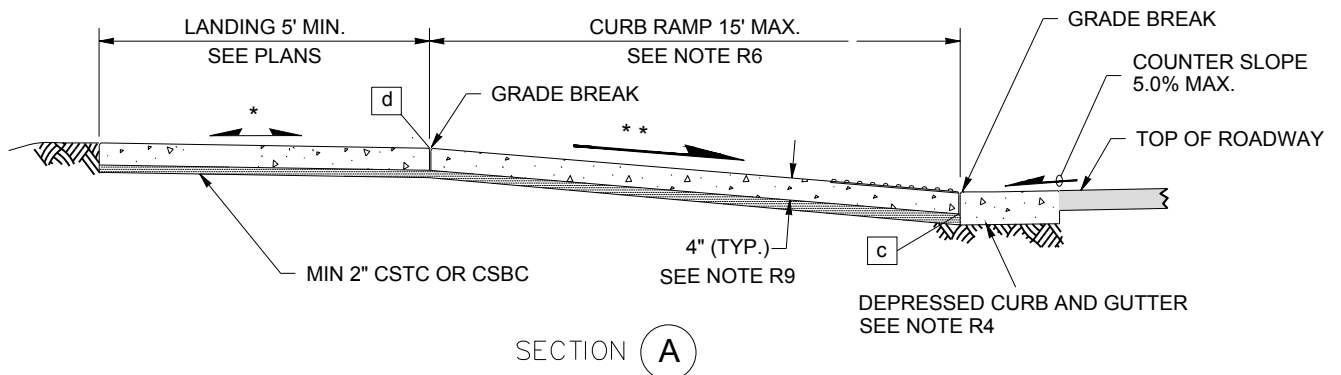
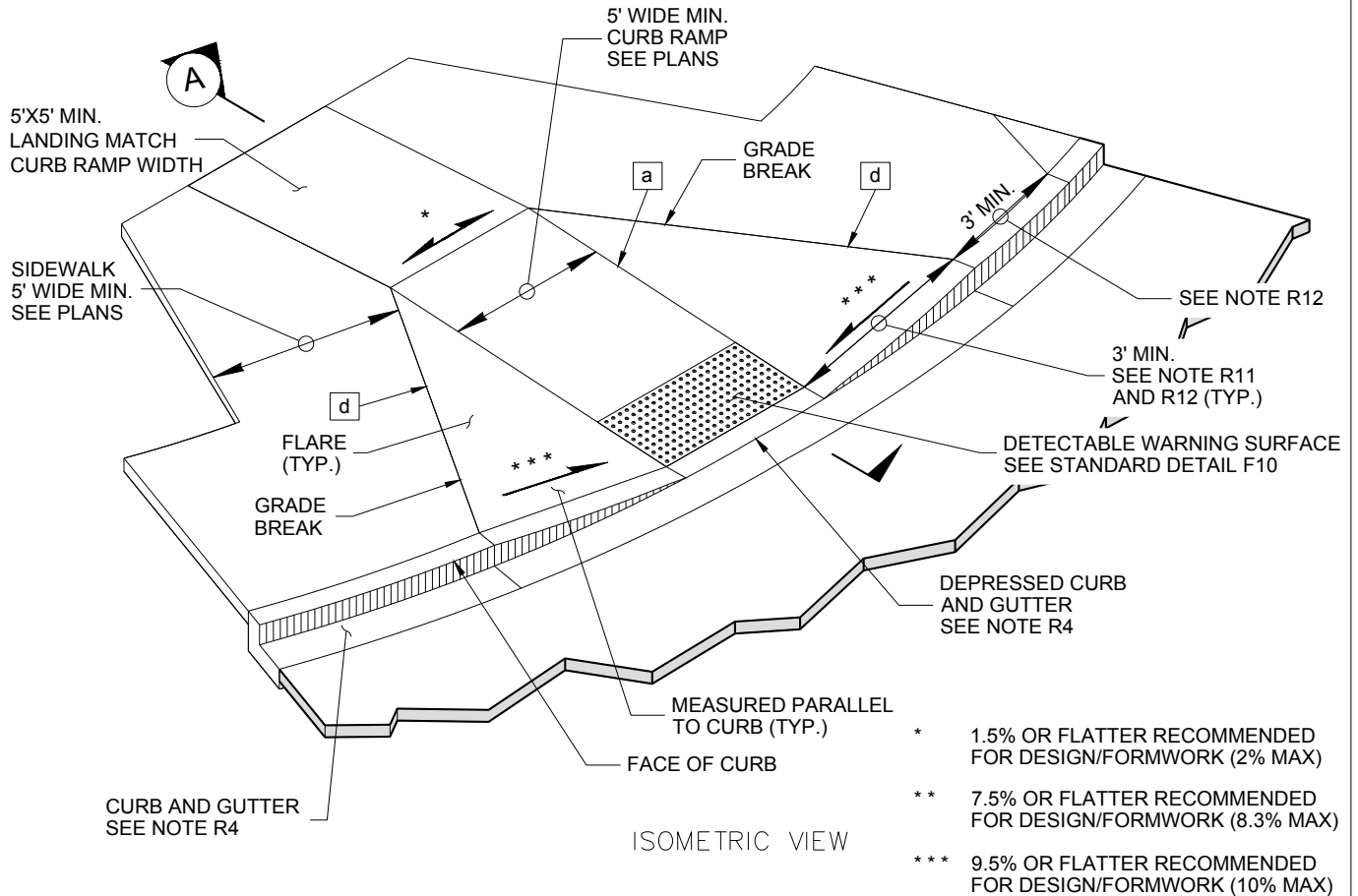
01/26/16
 DATE

STANDARD
F3
DETAIL
DESIGNED
DRAWN
DATE 01/26/16

SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES R1-R12. ALL NOTES APPLY UNLESS OTHERWISE NOTED.

LEGEND

 Slope In Either Direction



NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F4.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

PERPENDICULAR CURB RAMP - TYPE A

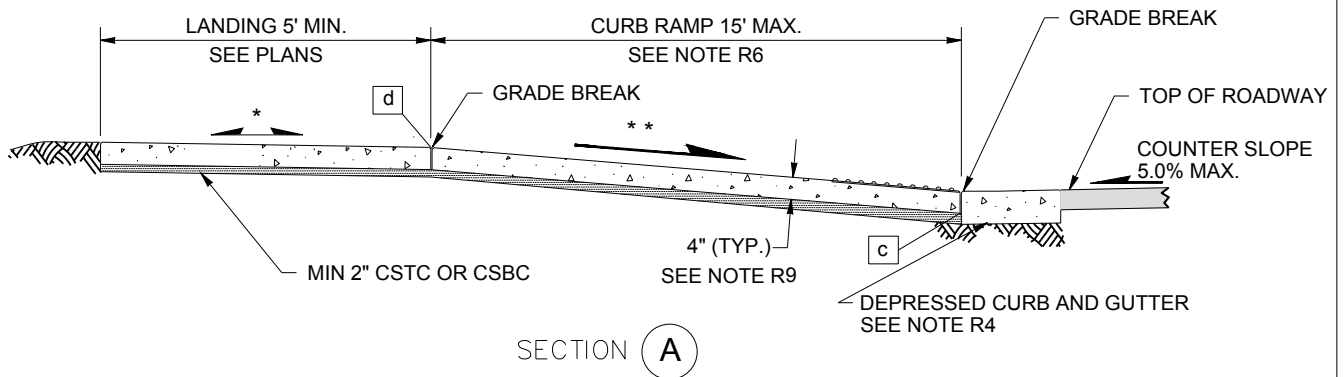
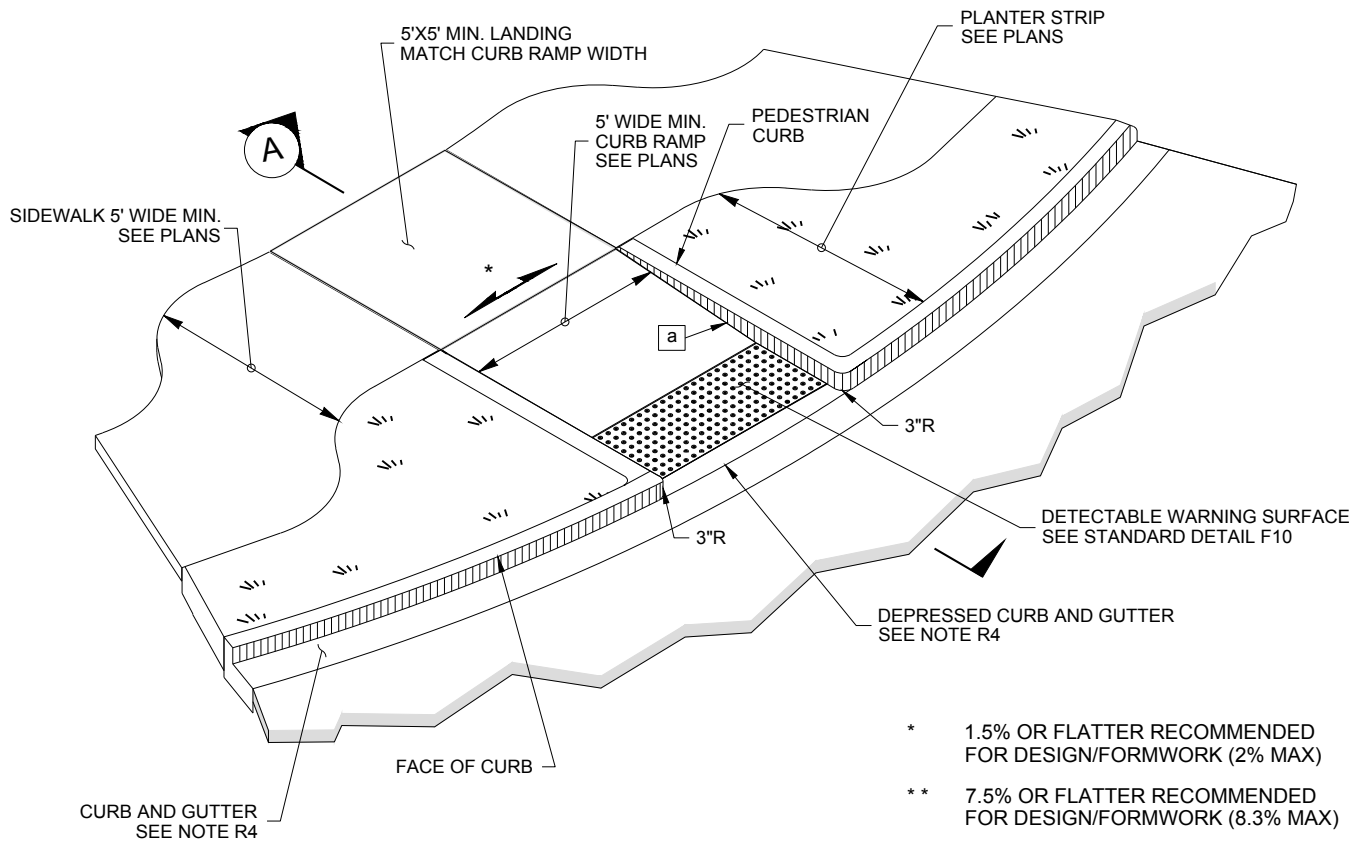
[Signature]
 APPROVED
 COUNTY ENGINEER

01/26/16
 DATE

STANDARD
F4
 DETAIL
 DESIGNED
 DRAWN
 DATE 01/26/16

SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES R1-R12. ALL NOTES APPLY UNLESS OTHERWISE NOTED.

LEGEND
 Slope In Either Direction



NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F5.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

PERPENDICULAR CURB RAMP - TYPE B

[Signature]
 APPROVED
 COUNTY ENGINEER

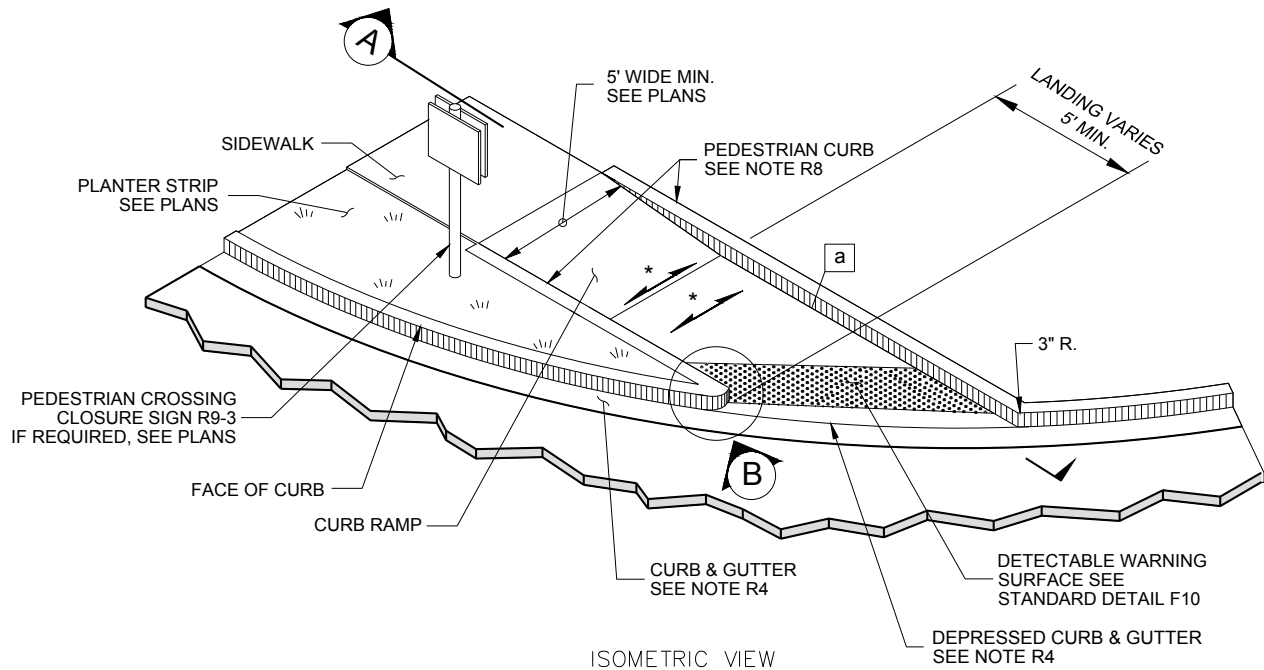
01/26/16
 DATE

STANDARD
F5
 DETAIL
 DESIGNED
 DRAWN
 DATE 01/26/16

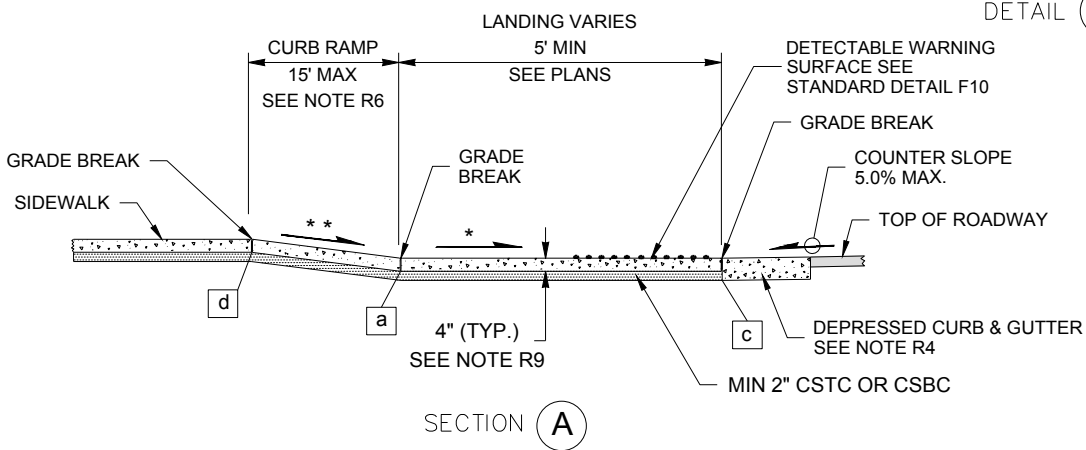
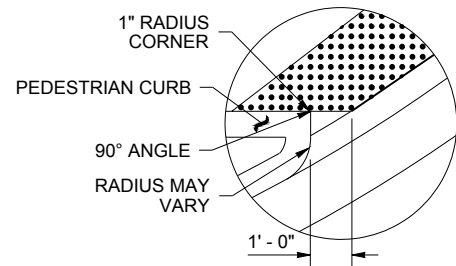
SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES R1-R12. ALL NOTES APPLY UNLESS OTHERWISE NOTED.

LEGEND

Slope In Either Direction



- * 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX)



NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F6.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

SINGLE DIRECTION CURB RAMP - TYPE A
 (WARNING SURFACE ON LANDING)

[Signature]
 APPROVED
 COUNTY ENGINEER

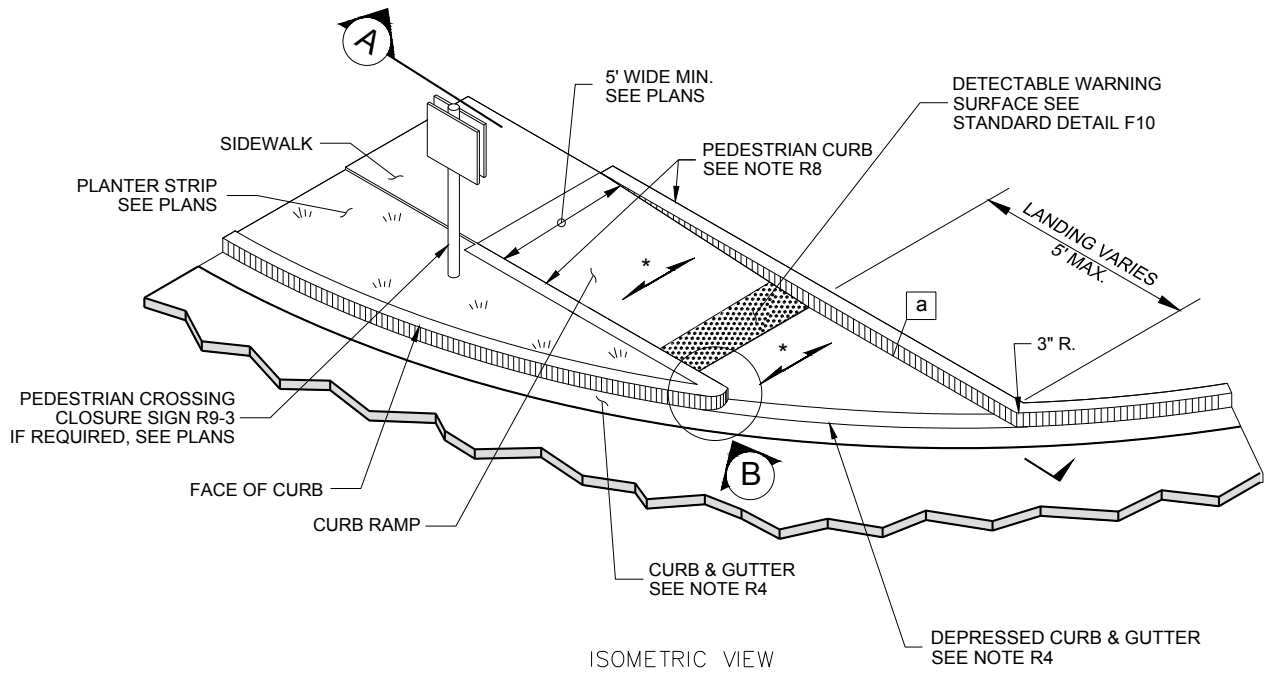
01/26/16
 DATE

STANDARD
F6
 DETAIL
 DESIGNED
 DRAWN
 DATE 01/26/16

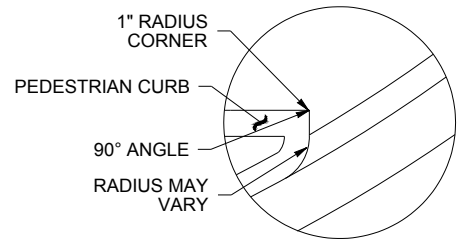
SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES R1-R12. ALL NOTES APPLY UNLESS OTHERWISE NOTED.

LEGEND

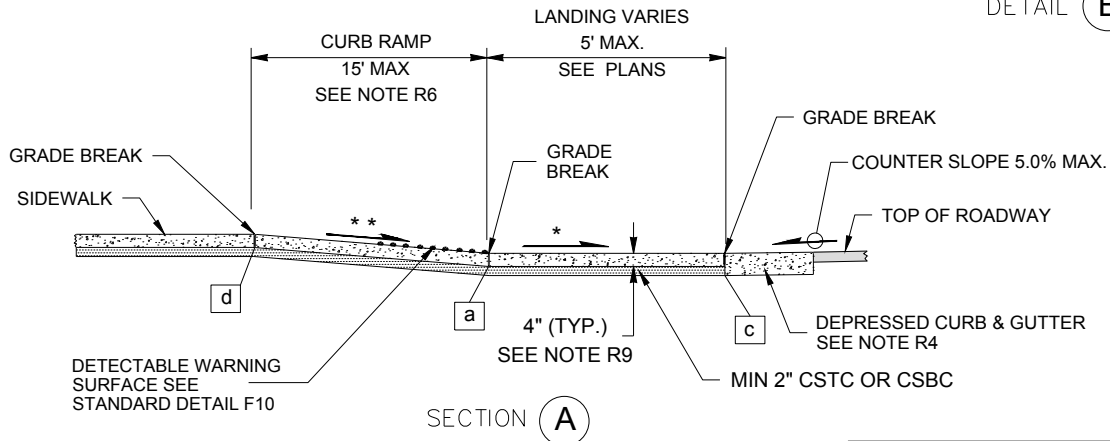
Slope In Either Direction



- * 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX)



DETAIL (B)



NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F6.DWG



Department of Public Works
CLARK COUNTY WASHINGTON
proud past, promising future

SINGLE DIRECTION CURB RAMP - TYPE B
(WARNING SURFACE ON CURB RAMP)

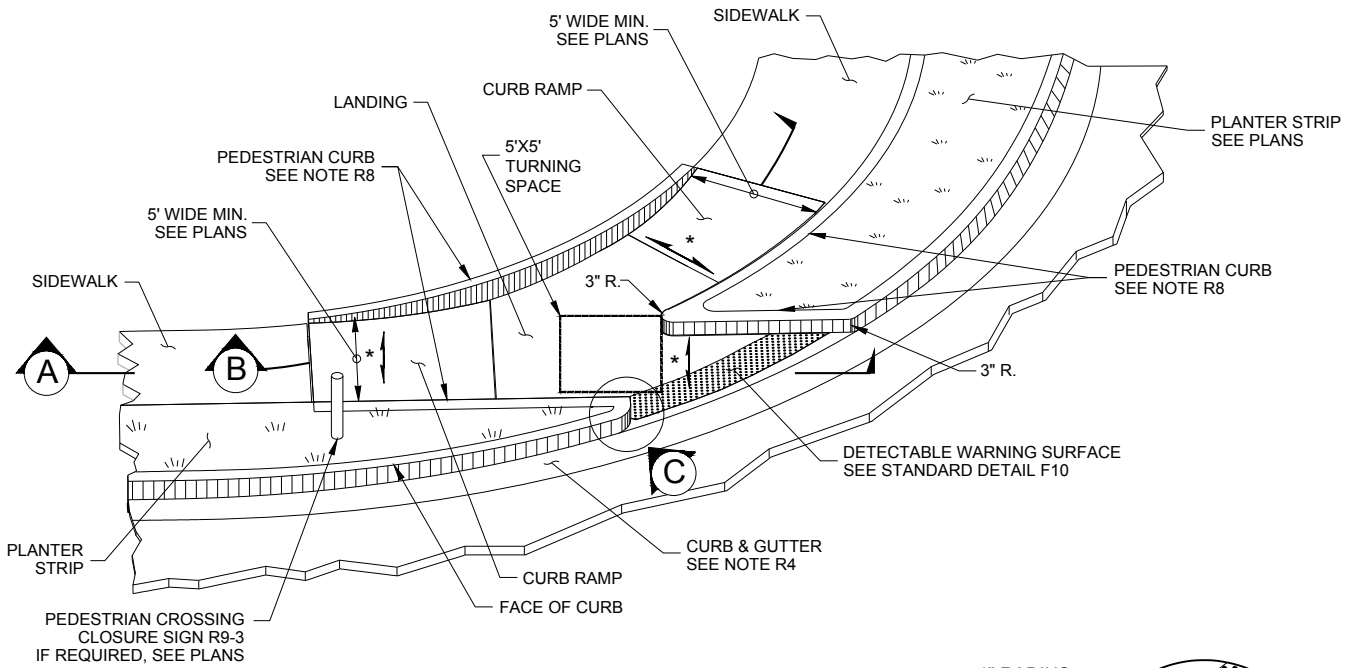
[Signature]
APPROVED
COUNTY ENGINEER

01/26/16
DATE

STANDARD
F6a
DETAIL
DESIGNED
DRAWN
DATE 01/26/16

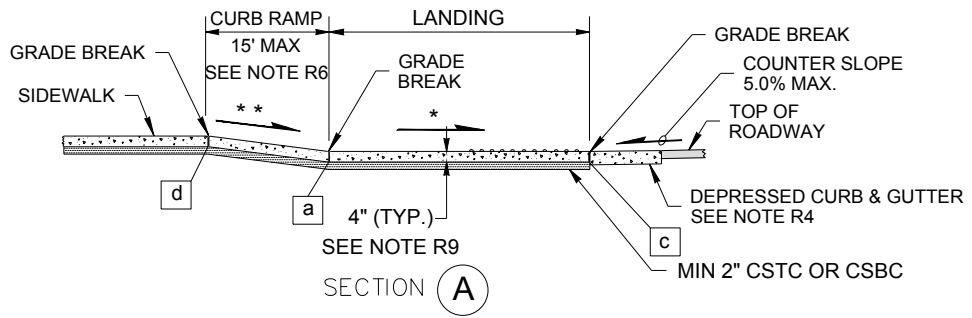
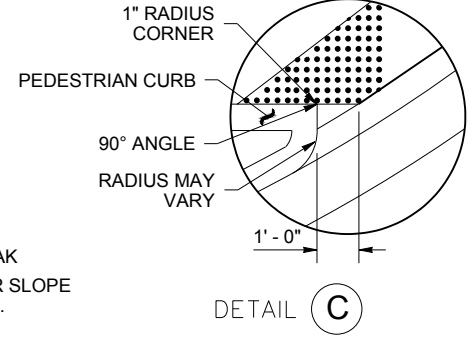
SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES R1-R12. ALL NOTES APPLY UNLESS OTHERWISE NOTED.

LEGEND
 Slope In Either Direction

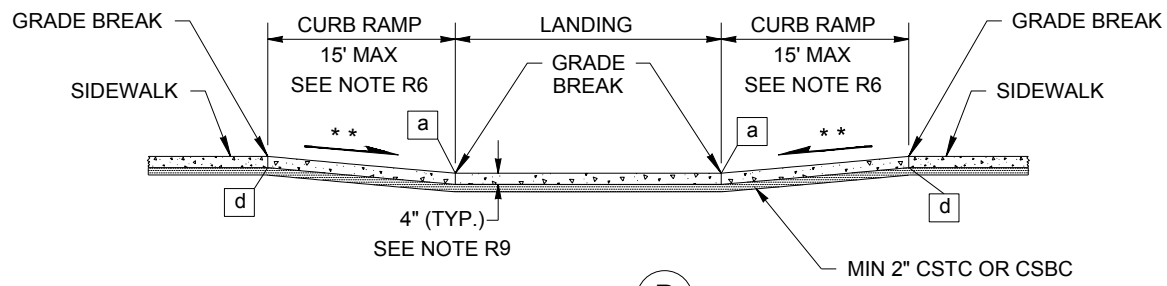


ISOMETRIC VIEW

- * 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX)



SECTION A



SECTION B

NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F7.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

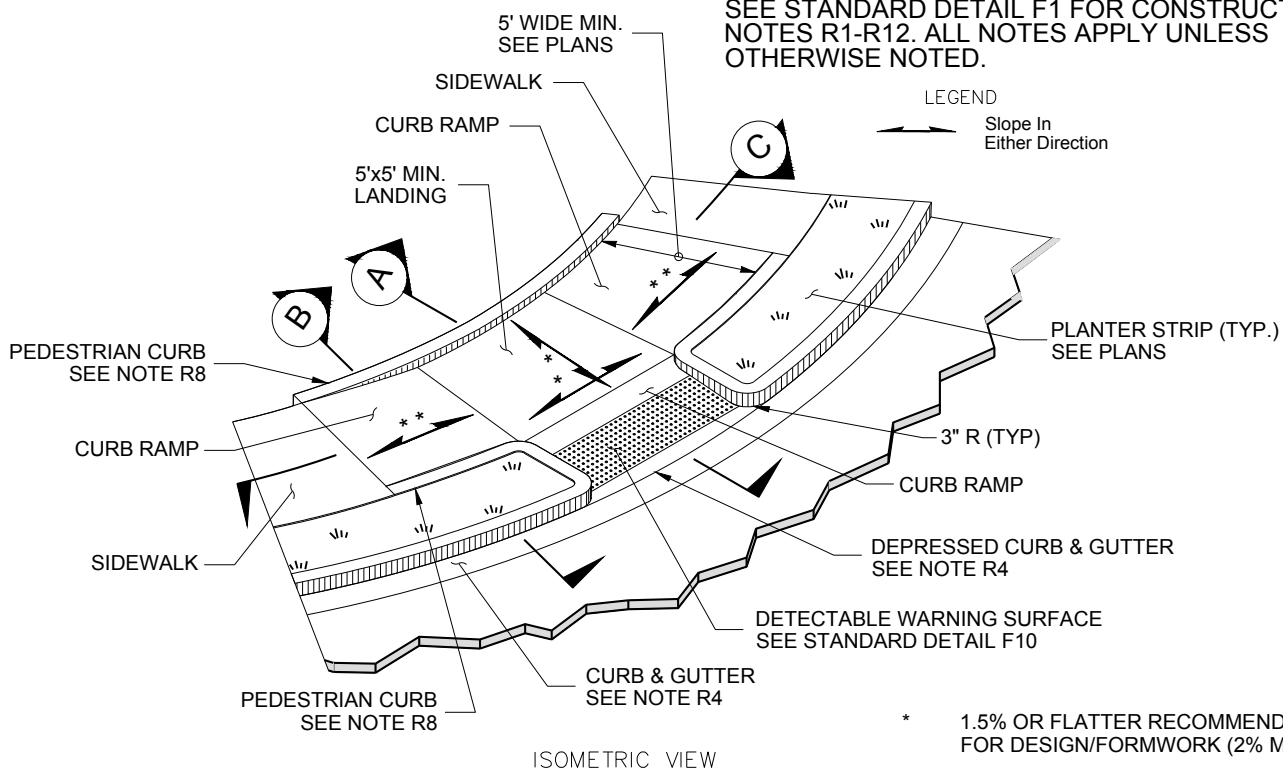
SINGLE DIRECTION CURB RAMP - TYPE C

[Signature] APPROVED
 COUNTY ENGINEER

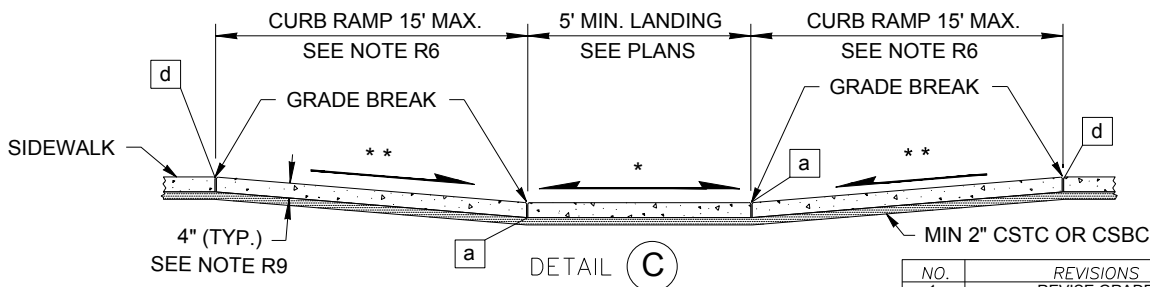
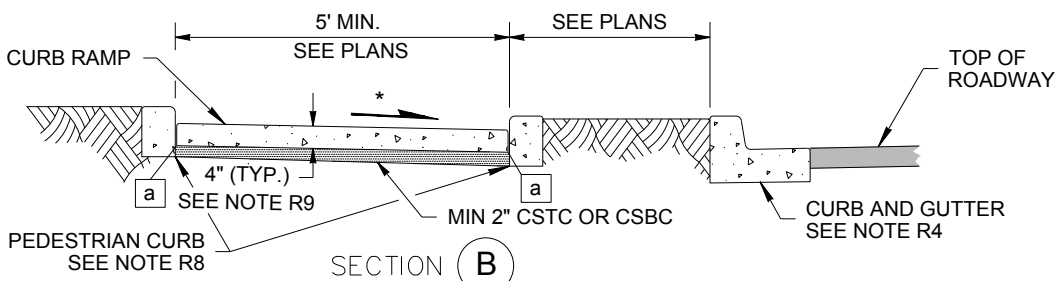
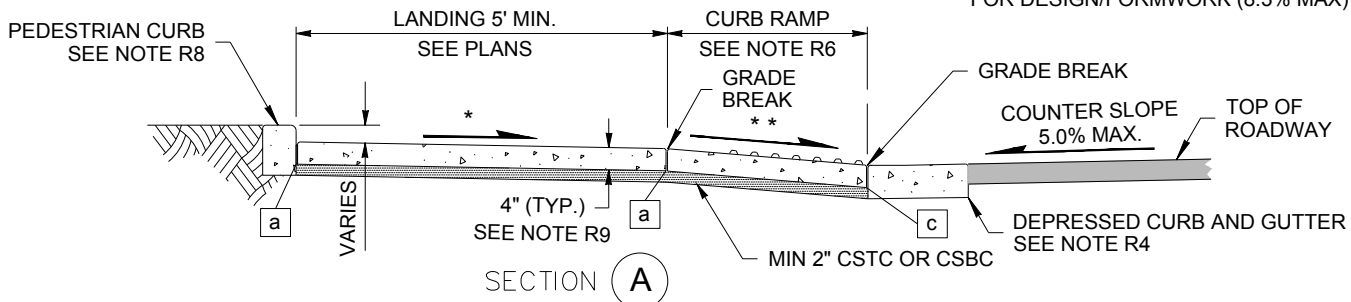
01/26/16
 DATE

STANDARD
F7
 DETAIL
 DESIGNED
 DRAWN
 DATE 01/26/16

SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES R1-R12. ALL NOTES APPLY UNLESS OTHERWISE NOTED.



- * 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX)



NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F8.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

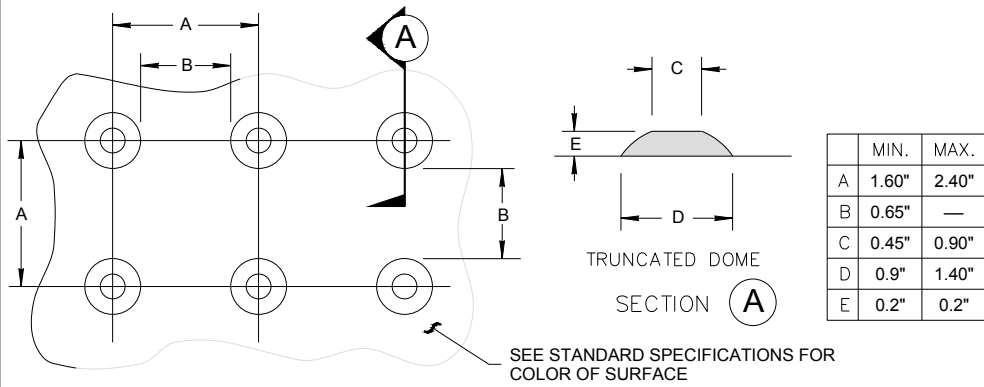
COMBINATION CURB RAMP

APPROVED

[Signature]
 COUNTY ENGINEER

01/26/16
 DATE

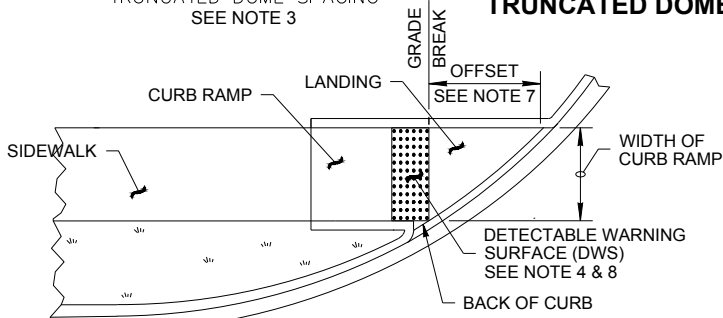
STANDARD
F8
DETAIL
DESIGNED
DRAWN
DATE 01/26/16



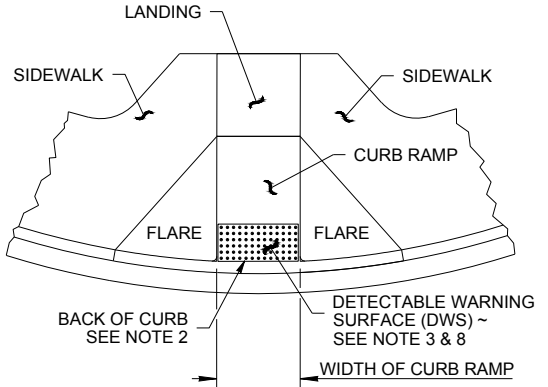
SEE STANDARD SPECIFICATIONS FOR COLOR OF SURFACE

TRUNCATED DOME SPACING
SEE NOTE 3

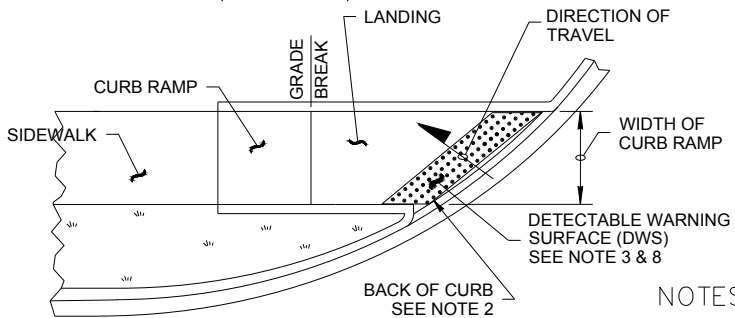
TRUNCATED DOME DETAILS



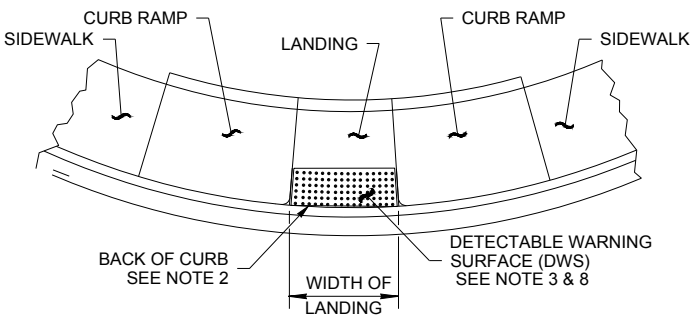
SINGLE DIRECTION CURB RAMP
(BOTH ENDS OF THE BOTTOM GRADE ARE \leq 5 FT. FROM BACK OF CURB)
(SEE NOTE 7)



PERPENDICULAR CURB RAMP
(SEE NOTE 6)



SINGLE DIRECTION CURB RAMP
(ONE OR BOTH ENDS OF THE BOTTOM GRADE BREAK ARE $>$ 5 FT. FROM BACK OF CURB)
(SEE NOTE 7)



PARALLEL CURB RAMP
(SEE NOTE 6)

NOTES

1. The Detectable Warning Surface (DWS) shall extend the full width of the curb ramp (exclusive of flares) or the landing.
2. The Detectable Warning Surface (DWS) shall be placed at the back of the curb, with the two leading corners of the DWS panel placed adjacent to the back of the curb, and with no more than a 2 inch gap between the DWS and the back of the curb measured at the center of the DWS panel.
3. The rows of truncated domes shall be aligned to be perpendicular to the grade break at the back of curb.
4. The rows of truncated domes shall be aligned to be parallel to the direction of travel.
5. If curb and gutter are not present, such as a shared-use path connection, the Detectable Warning Surface shall be placed at the pavement edge.
6. See **CLARK COUNTY STANDARD DETAILS** for sidewalk and curb ramp details.
7. When the grade break between the curb ramp and the landing is less than or equal to 5 ft. from the back of curb at all points, place the Detectable Warning Surface on the bottom of the curb ramp.
8. Detectable Warning Surface shall extend a minimum 2' in the direction of pedestrian travel.

NO.	REVISIONS	DATE	BY
1	Added Note #8	2/10/16	BK
2	Modify Notes	5/1/17	bk

DWG: F10.DWG



Department of Public Works
CLARK COUNTY WASHINGTON
proud past, promising future

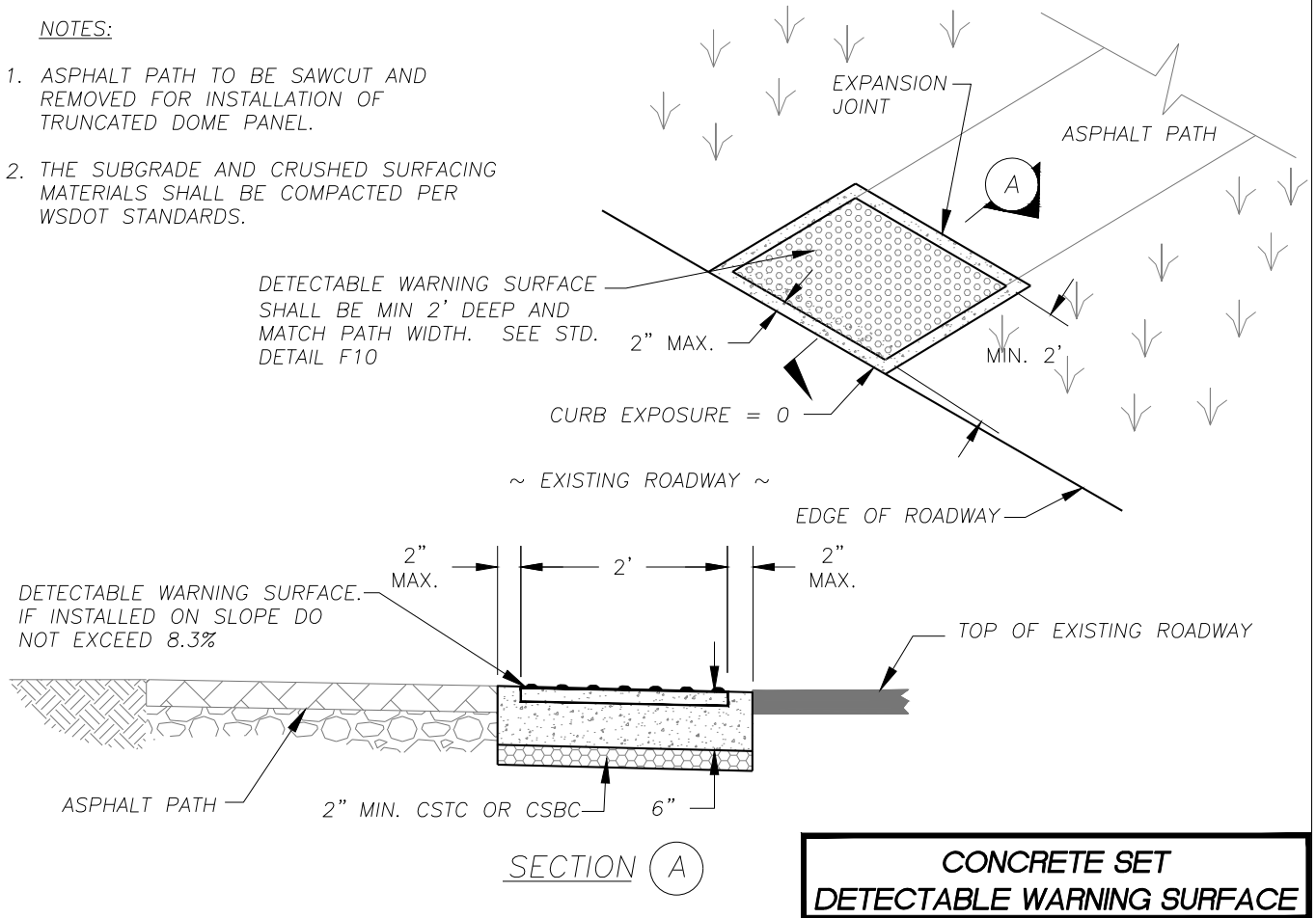
DETECTABLE WARNING SURFACE
APPROVED
COUNTY ENGINEER

STANDARD
F10
DETAIL
DESIGNED
DRAWN
DATE 01/26/16

01/26/16
DATE

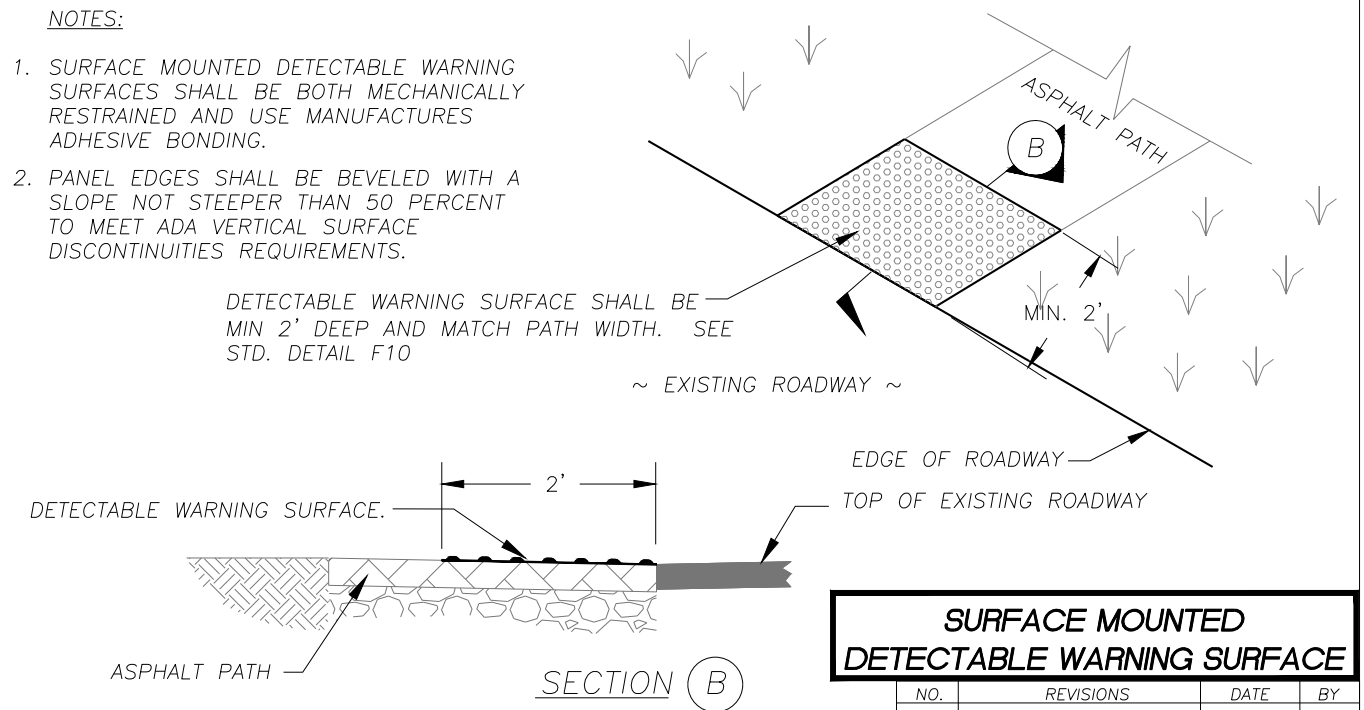
NOTES:

1. ASPHALT PATH TO BE SAWCUT AND REMOVED FOR INSTALLATION OF TRUNCATED DOME PANEL.
2. THE SUBGRADE AND CRUSHED SURFACING MATERIALS SHALL BE COMPACTED PER WSDOT STANDARDS.



NOTES:

1. SURFACE MOUNTED DETECTABLE WARNING SURFACES SHALL BE BOTH MECHANICALLY RESTRAINED AND USE MANUFACTURERS ADHESIVE BONDING.
2. PANEL EDGES SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 50 PERCENT TO MEET ADA VERTICAL SURFACE DISCONTINUITIES REQUIREMENTS.



DWG: F11.DWG



Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

DETECTABLE WARNING SURFACE ON ASPHALT PATH
INSTALLATION METHODS

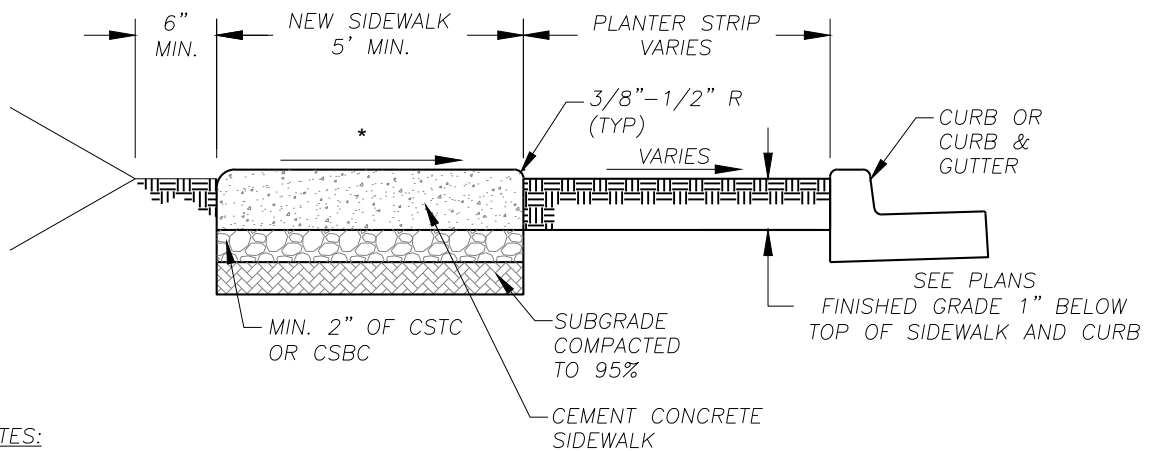
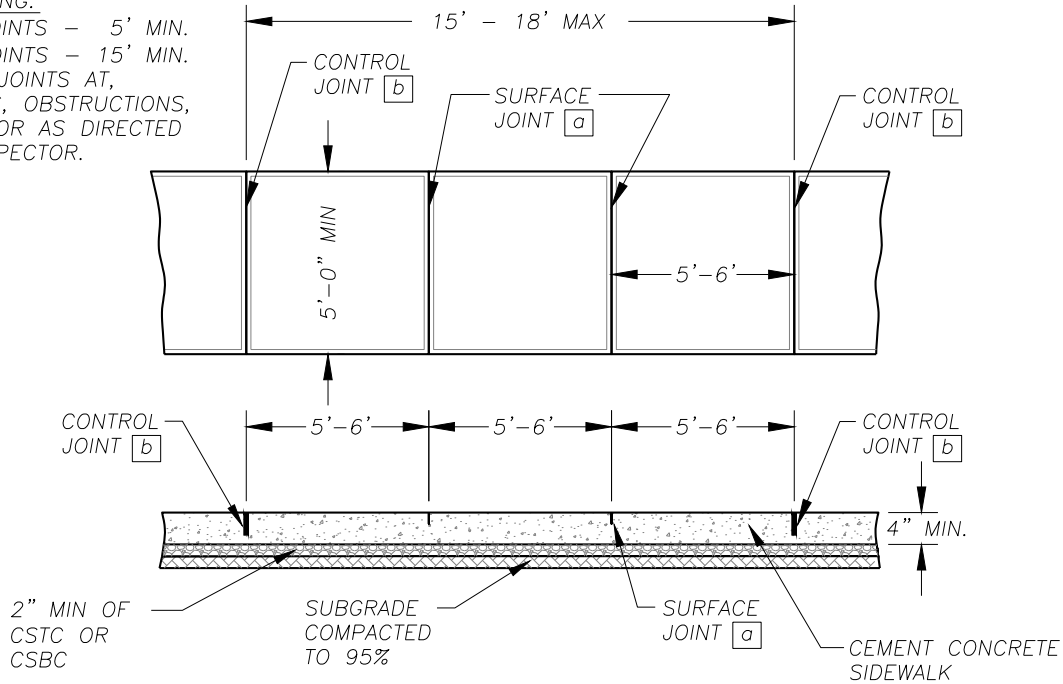
[Signature]
APPROVED
COUNTY ENGINEER

01/26/16
DATE

NO.	REVISIONS	DATE	BY

STANDARD
F11
DETAIL
DESIGNED
DRAWN
DATE 01/26/16

JOINT SPACING:
 SURFACE JOINTS - 5' MIN.
 CONTROL JOINTS - 15' MIN.
 EXPANSION JOINTS AT,
 STRUCTURES, OBSTRUCTIONS,
 DRIVEWAYS OR AS DIRECTED
 BY THE INSPECTOR.



NOTES:

1. CONCRETE SHALL BE CLASS 3000 MIN.
2. FINISH SHALL BE MEDIUM BROOM PERPENDICULAR TO PEDESTRIAN TRAFFIC UNLESS OTHERWISE DIRECTED.
3. 3" MIN WIDE SMOOTH FINISH BORDER AROUND EACH SIDEWALK PANEL.
4. THE SUBGRADE AND CRUSHED SURFACING MATERIALS SHALL BE COMPACTED TO 95% OF MAX. DRY DENSITY.
5. SEE STD. DETAIL F31 FOR CONCRETE JOINTS.
6. OBSTRUCTIONS (IE UTILITY POLES, SIGN SUPPORTS, TREES, FIRE HYDRANTS, MAILBOXES, ETC.) SHALL NOT REDUCE SIDEWALK WIDTH AND MINIMUM PEDESTRIAN ACCESSIBLE ROUTE TO LESS THAN 4 FEET.
7. GRATINGS, ACCESS COVERS, JUNCTION BOXES, CABLE VAULTS, PULL BOXES, AND OTHER APPURTENANCES WITHIN THE SIDEWALK MUST HAVE SLIP RESISTANCE SURFACE, BE FLUSH WITH THE SURFACE, AND MATCH GRADE OF THE SIDEWALK.

NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F12.DWG



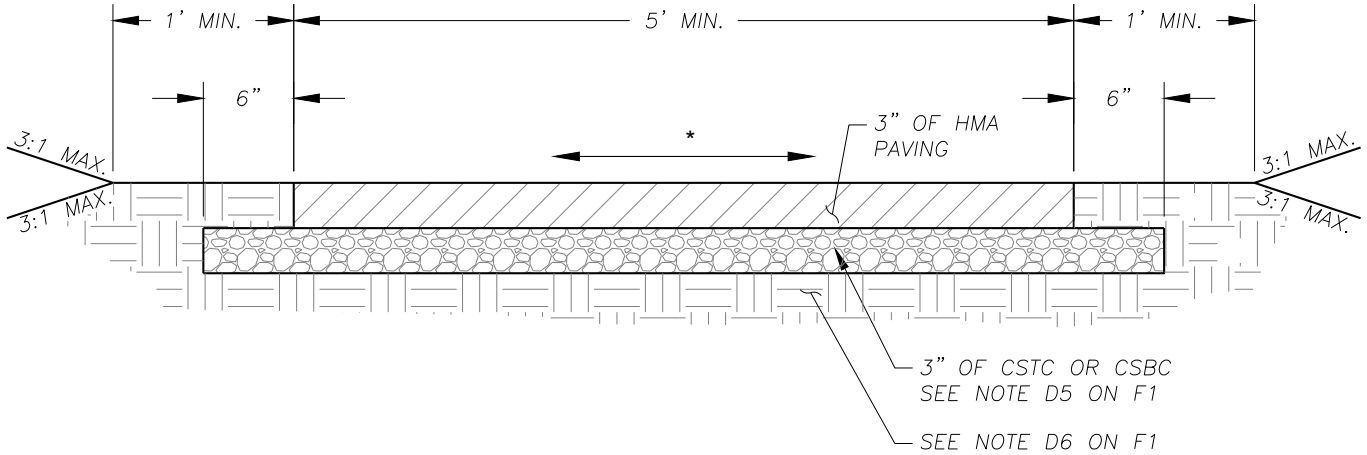
Department of
 Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

CEMENT CONCRETE SIDEWALK DETAIL

[Signature]
 APPROVED
 COUNTY ENGINEER

01/26/16
 DATE

STANDARD
F12
 DETAIL
 DESIGNED
 DRAWN
 DATE 01/26/16



* 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX)

DWG: F12a.DWG

NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK



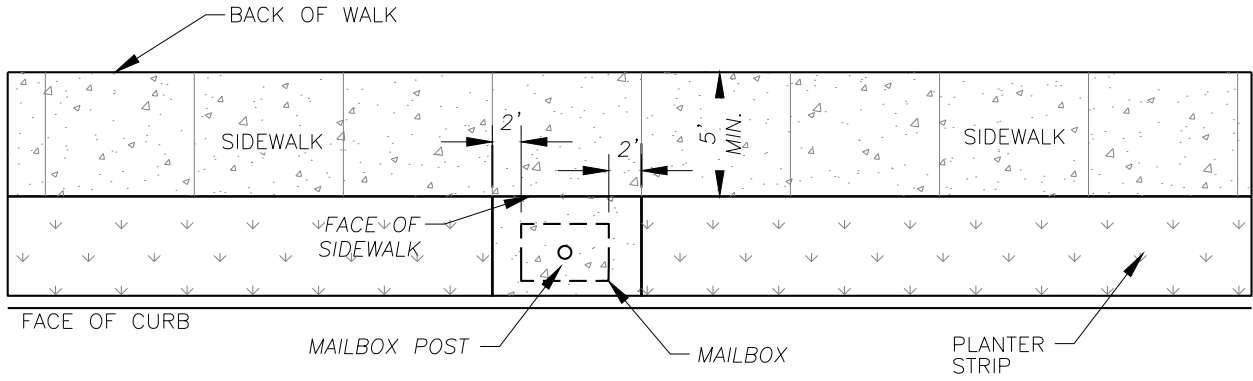
Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

ASPHALT PATH/WALKWAY

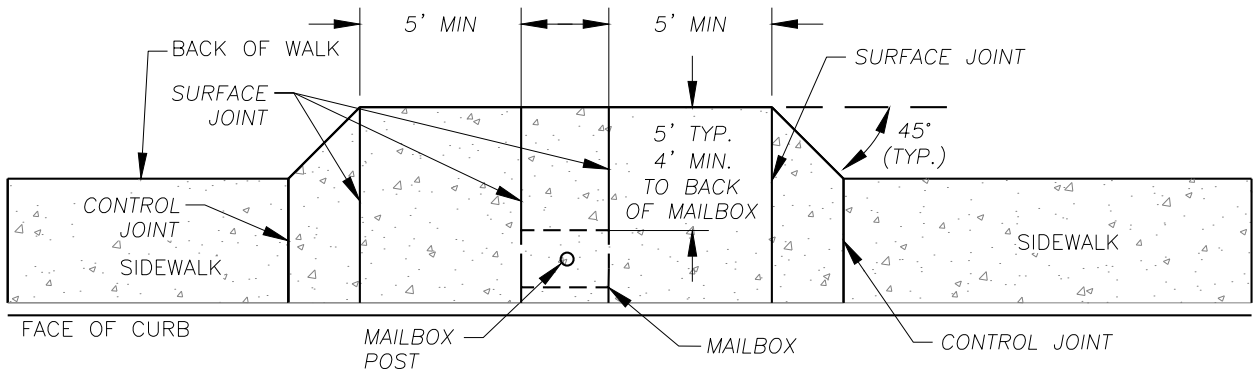
[Signature]
APPROVED
COUNTY ENGINEER

01/26/16
DATE

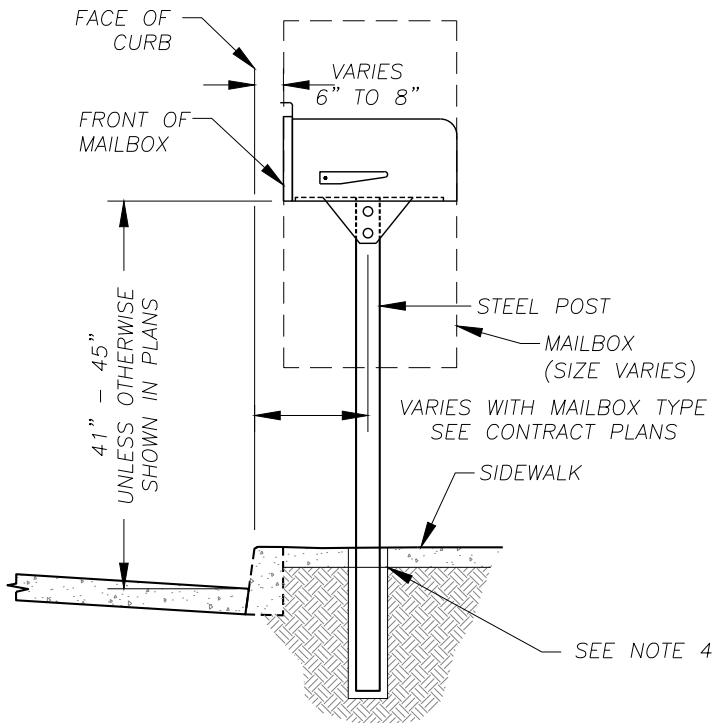
STANDARD
F12a
DETAIL
DESIGNED
DRAWN
DATE 01/26/16



MAILBOX IN PLANTER STRIP



MAILBOX IN SIDEWALK



NOTES:

1. SEE WSDOT STANDARD PLAN No. H-70.10-XX TO H-70.20-X FOR MAILBOX, POST (STEEL), BRACKET AND OTHER INSTALLATION DETAILS.
2. MAILBOXES MUST BE POSTMASTER APPROVED.
3. LOCATION OF MAILBOXES ARE SUBJECT TO APPROVAL BY CLARK COUNTY FOR ACCESS AND SIGHT DISTANCE REQUIREMENTS.
4. INSTALL 8" DIA PVC SLEEVE CENTERED ON POST OR FILL VOID AROUND POST WITH NON-SHRINK GROUT WHEN SET IN SIDEWALK.
5. EXTEND SIDEWALK JOINTS THROUGH WIDENED SIDEWALK SECTION.

NO.	REVISIONS	DATE	BY

DWG: F13.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

TYPICAL MAILBOX PLACEMENT

[Signature]
 COUNTY ENGINEER

APPROVED

01/26/16
 DATE

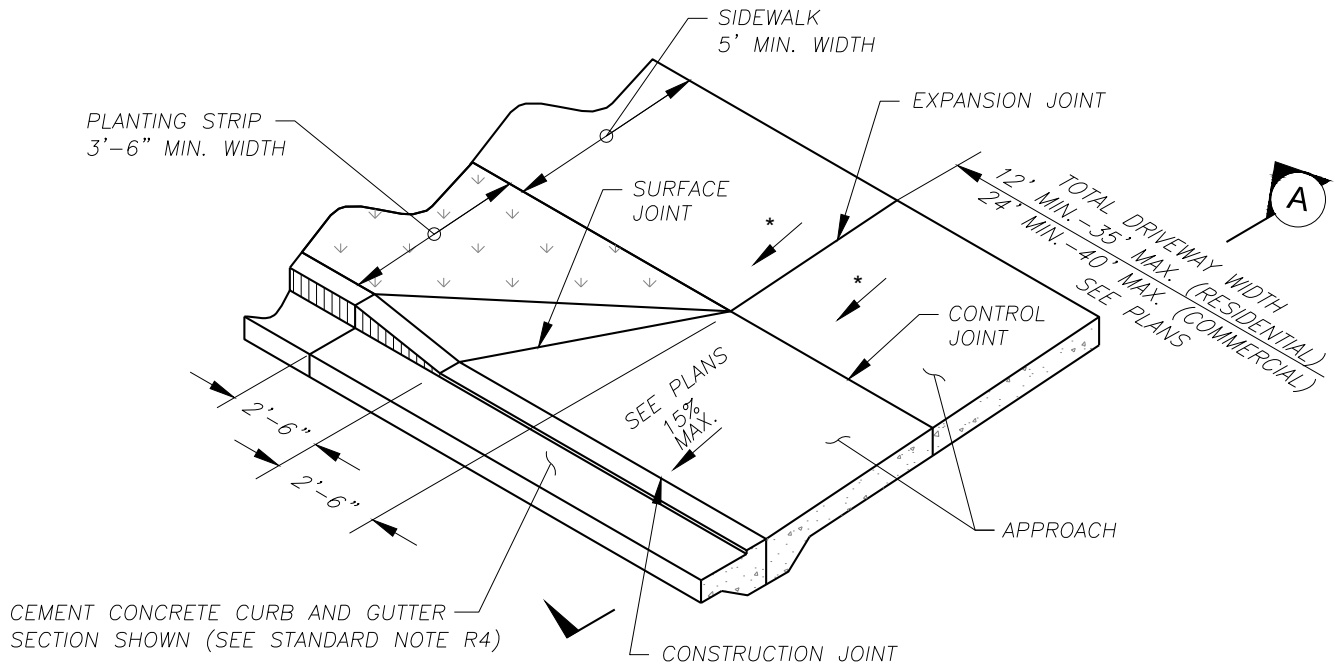
STANDARD

F13

DETAIL

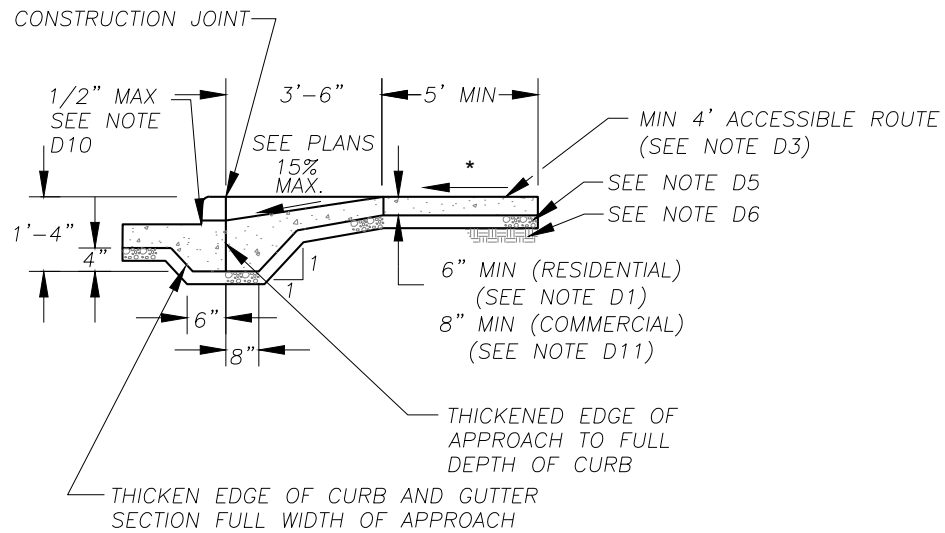
DESIGNED
 DRAWN
 DATE 01/26/16

SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES D1-D11. ALL NOTES APPLY UNLESS OTHERWISE NOTED.



HALF ISOMETRIC

* 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX)



SECTION A-A

NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F14.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

CEMENT CONCRETE APPROACH
 TYPE 1 - DETACHED SIDEWALK

[Signature]
 COUNTY ENGINEER

APPROVED

01/26/16
 DATE

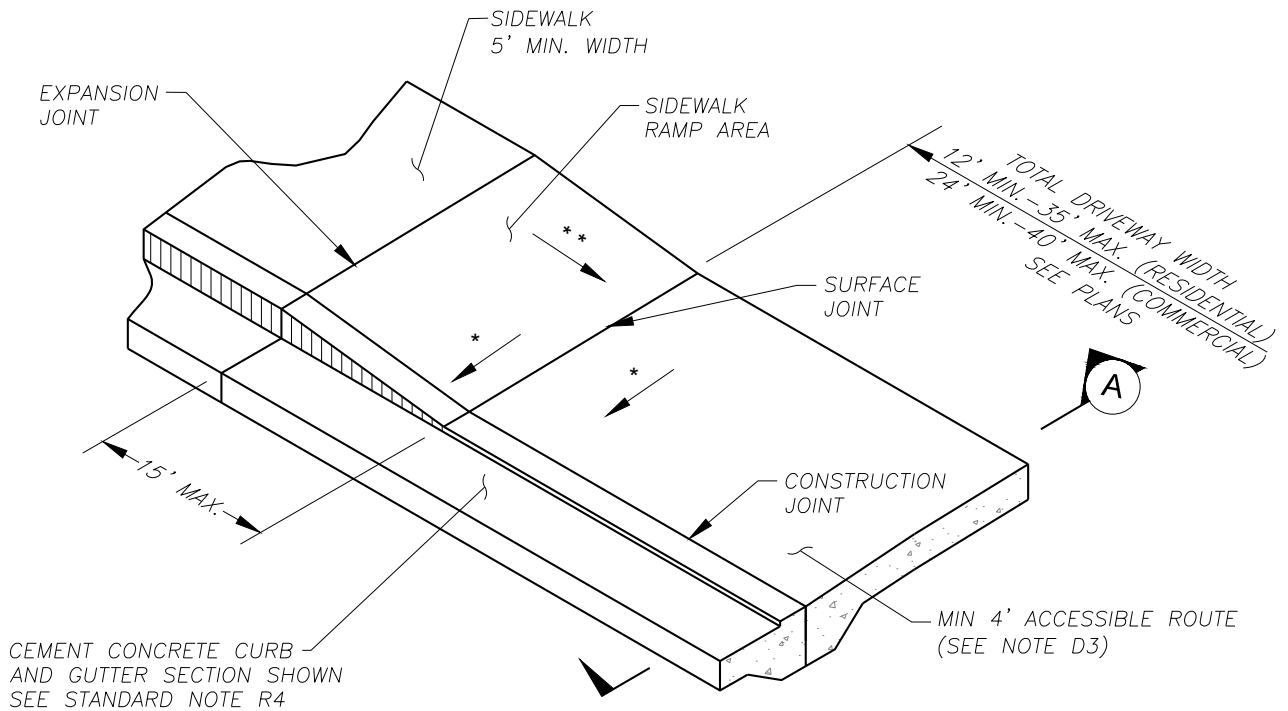
STANDARD

F14

DETAIL

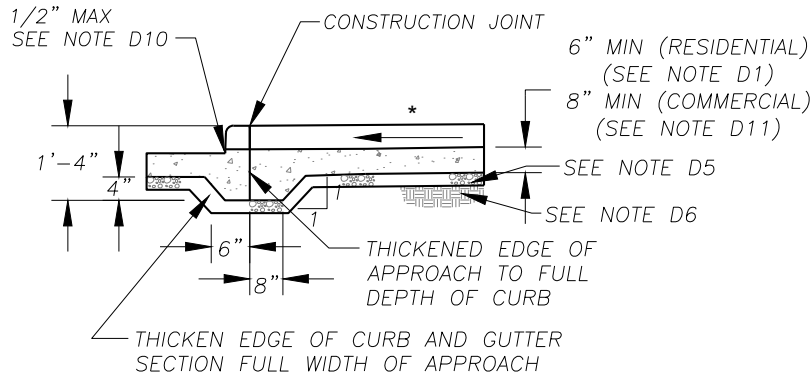
DESIGNED
 DRAWN
 DATE 01/26/16

SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES D1-D11. ALL NOTES APPLY UNLESS OTHERWISE NOTED.



HALF ISOMETRIC

- * 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX)



SECTION A-A

NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F15.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

CEMENT CONCRETE APPROACH
 TYPE 2 - ATTACHED SIDEWALK

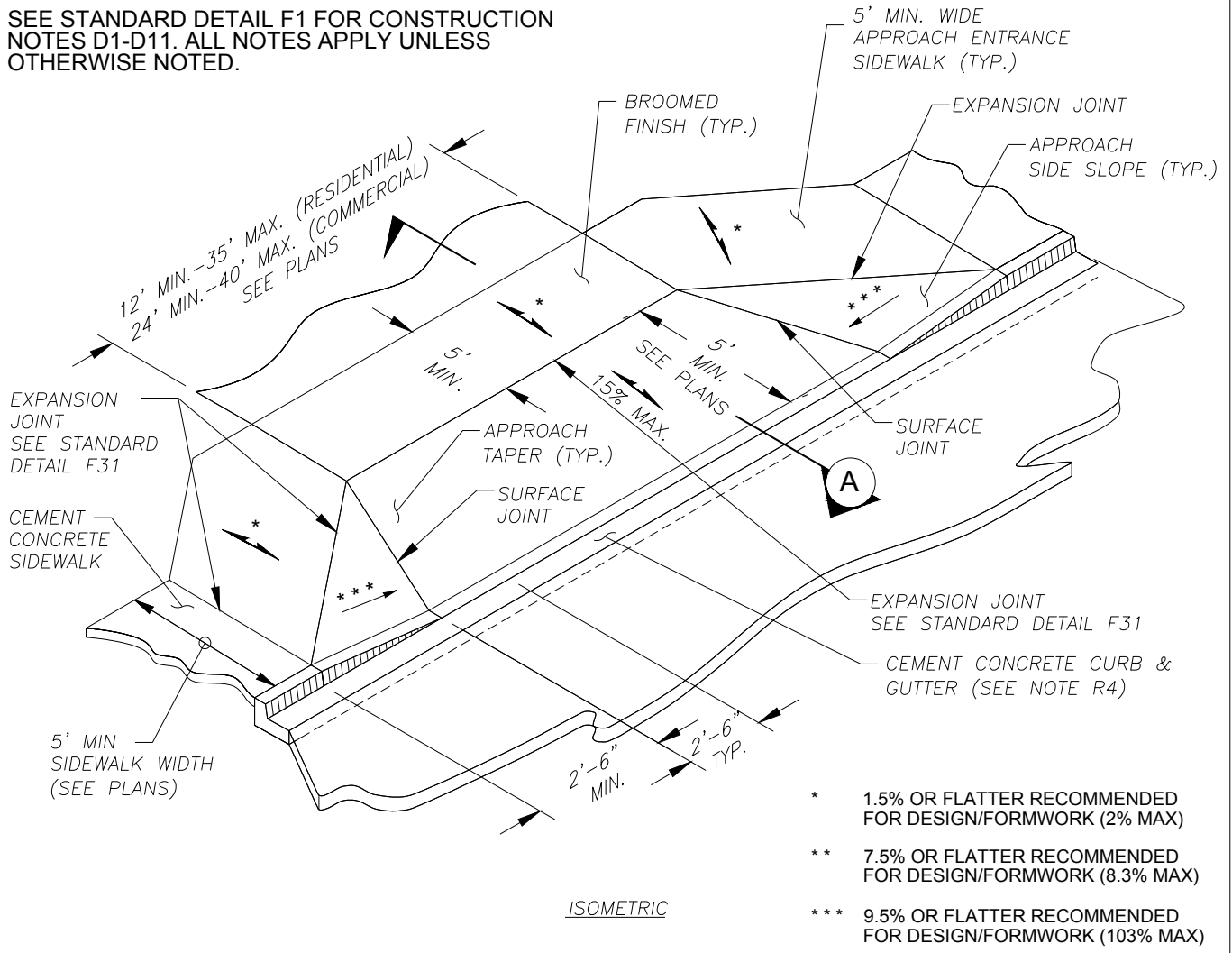
[Signature]
 COUNTY ENGINEER

APPROVED

01/26/16
 DATE

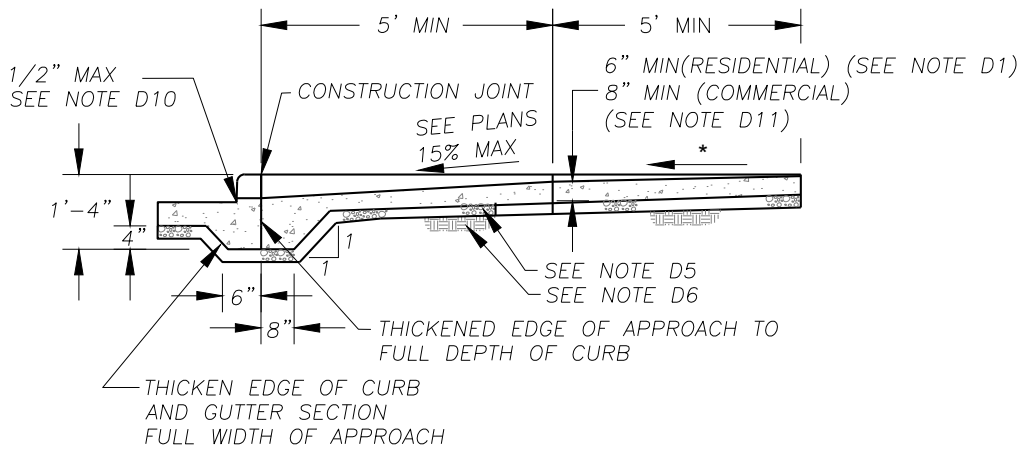
STANDARD
F15
 DETAIL
 DESIGNED
 DRAWN
 DATE 01/26/16

SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES D1-D11. ALL NOTES APPLY UNLESS OTHERWISE NOTED.



ISOMETRIC

- * 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX)
- *** 9.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (103% MAX)



SECTION A-A

NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F16.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

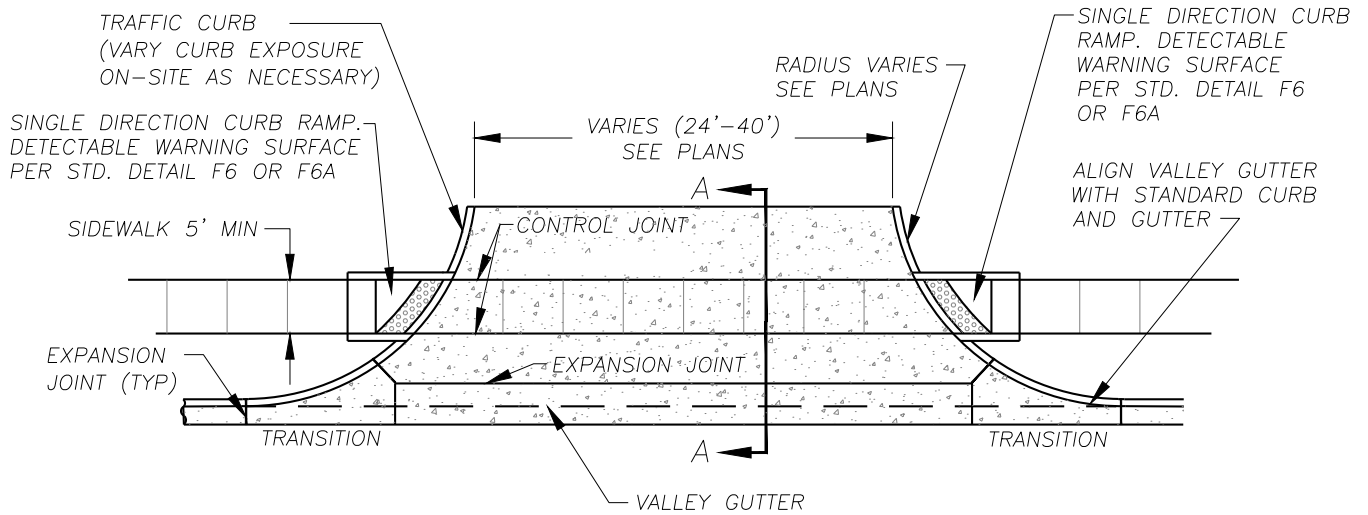
CEMENT CONCRETE APPROACH
 MODIFIED TYPE 2 - ATTACHED SIDEWALK

[Signature]
 APPROVED
 COUNTY ENGINEER

01/26/16
 DATE

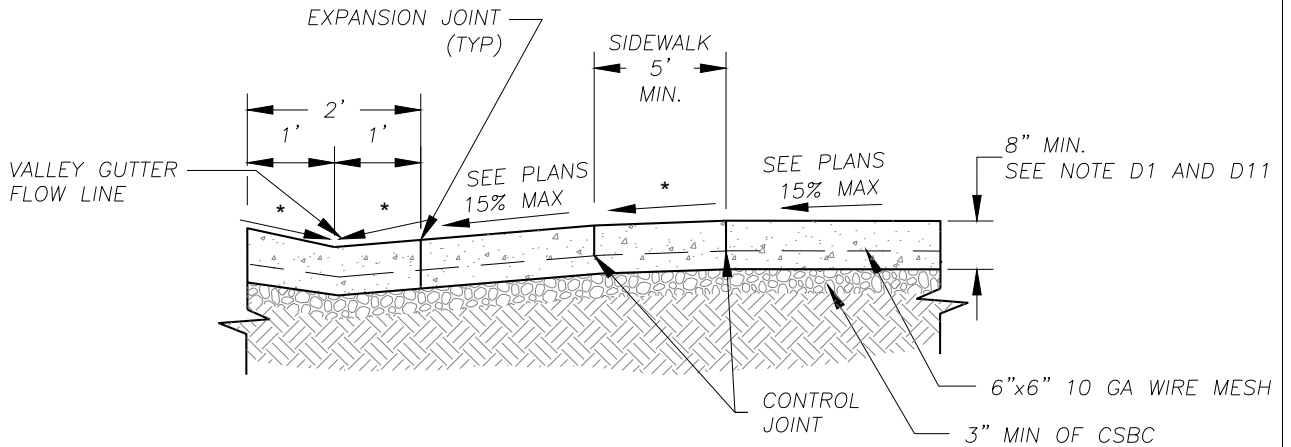
STANDARD
F16
 DETAIL
 DESIGNED
 DRAWN
 DATE 01/26/16

SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES D1-D11. ALL NOTES APPLY UNLESS OTHERWISE NOTED.



PLAN VIEW

* 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX)



SECTION "A-A"

DWG: F17.DWG

NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

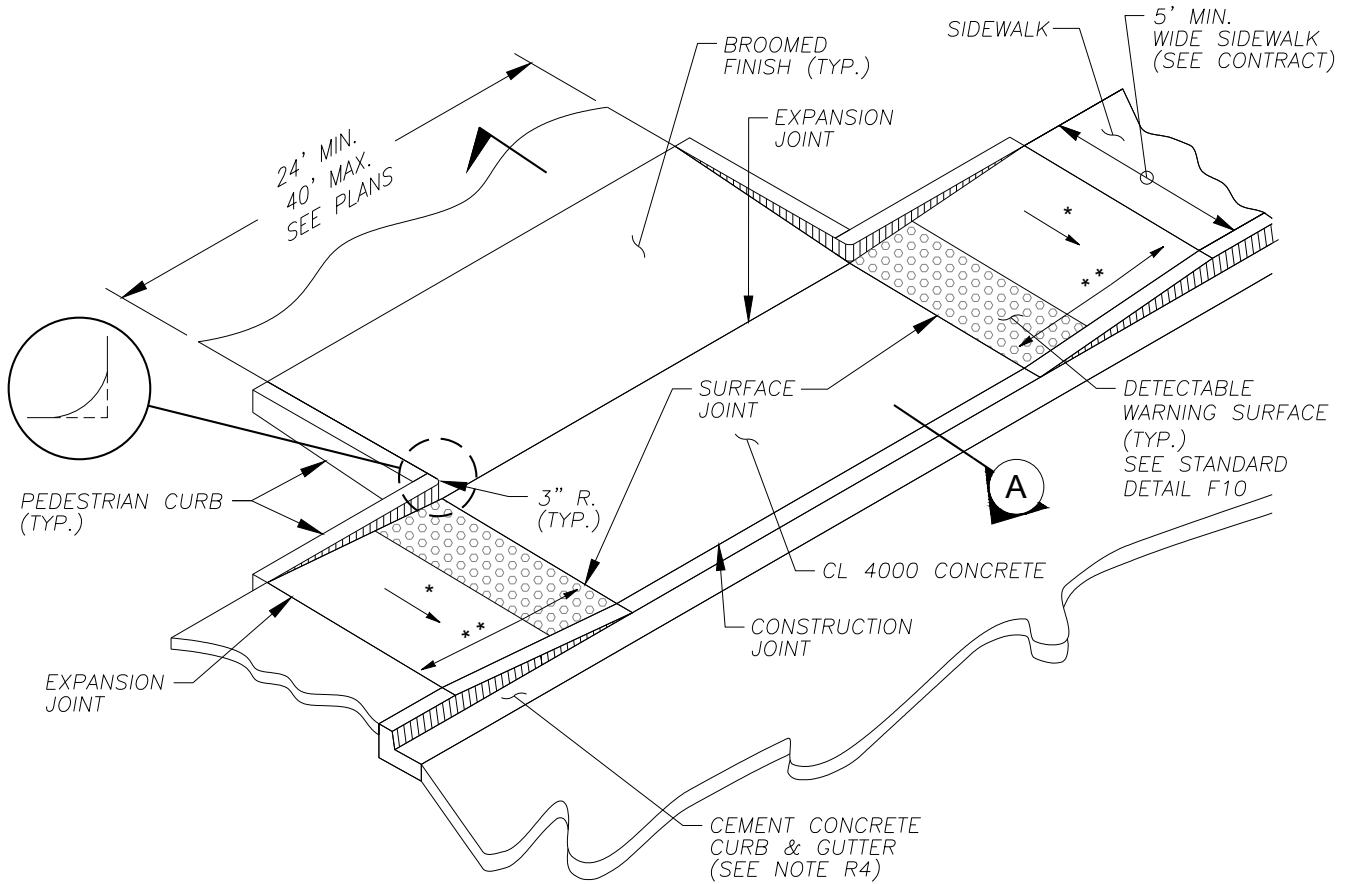
COMMERCIAL CEMENT CONCRETE APPROACH - DETACHED SIDEWALK

[Signature]
 APPROVED
 COUNTY ENGINEER

01/26/16
 DATE

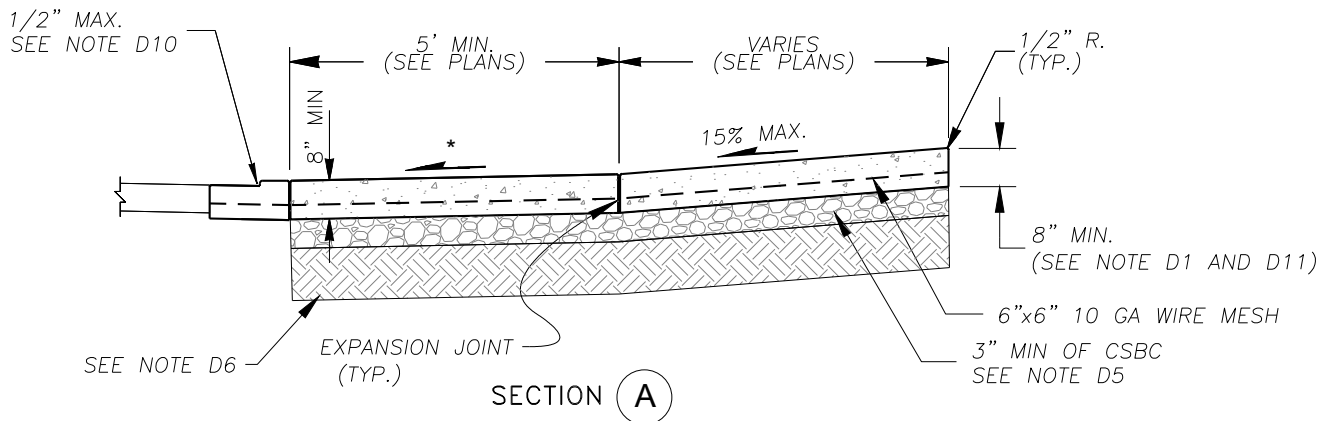
STANDARD
F17
 DETAIL
 DESIGNED
 DRAWN
 DATE 01/26/16

SEE STANDARD DETAIL F1 FOR CONSTRUCTION NOTES D1-D11. ALL NOTES APPLY UNLESS OTHERWISE NOTED.



ISOMETRIC VIEW

- * 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX)



SECTION A

NO.	REVISIONS	DATE	BY
1	REVISE GRADES	5-1-17	BK

DWG: F17A.DWG



Department of Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

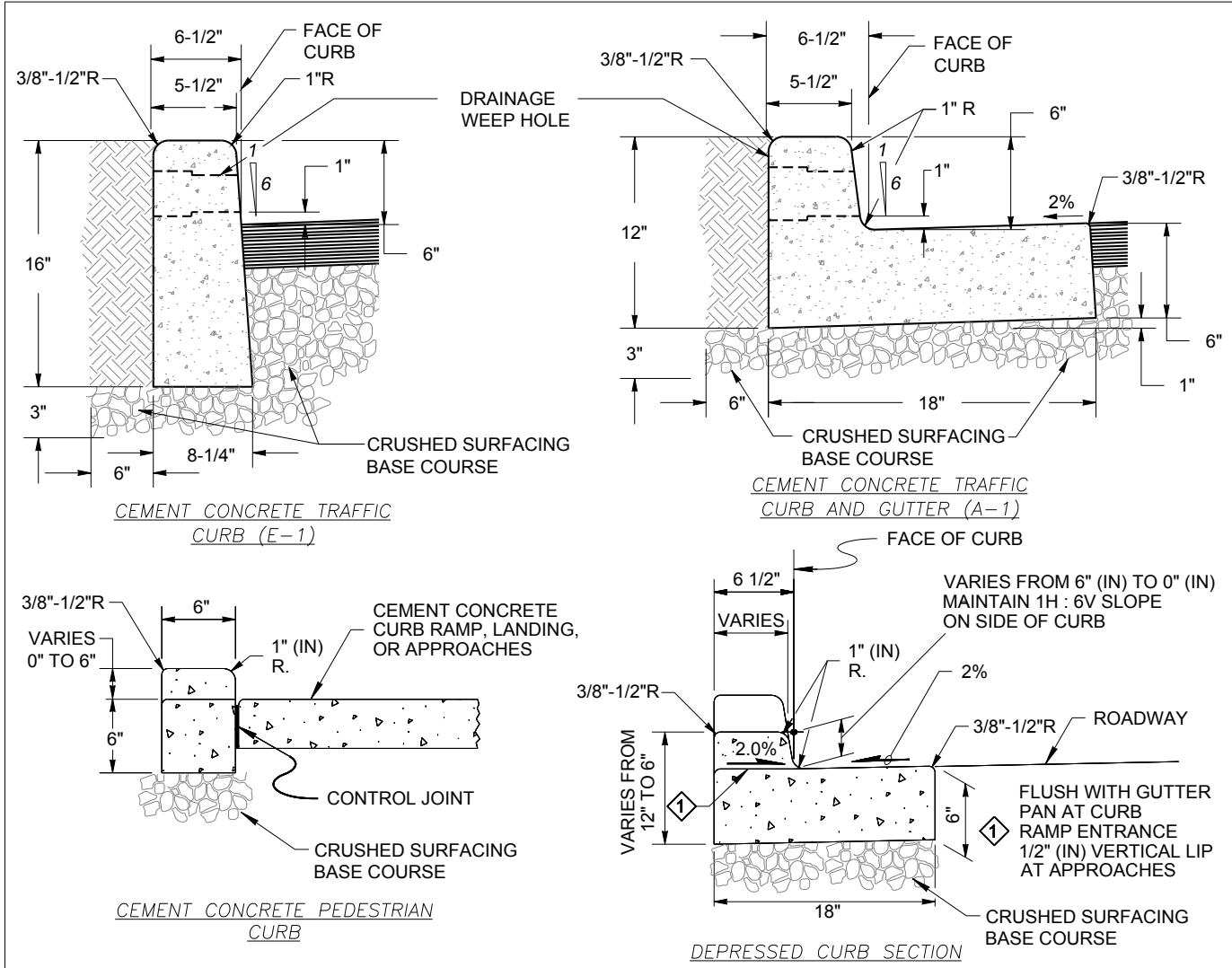
COMMERCIAL CEMENT CONCRETE APPROACH - ATTACHED SIDEWALK

[Signature]
 COUNTY ENGINEER

APPROVED

01/26/16
 DATE

STANDARD
F17a
 DETAIL
 DESIGNED
 DRAWN
 DATE 01/26/16



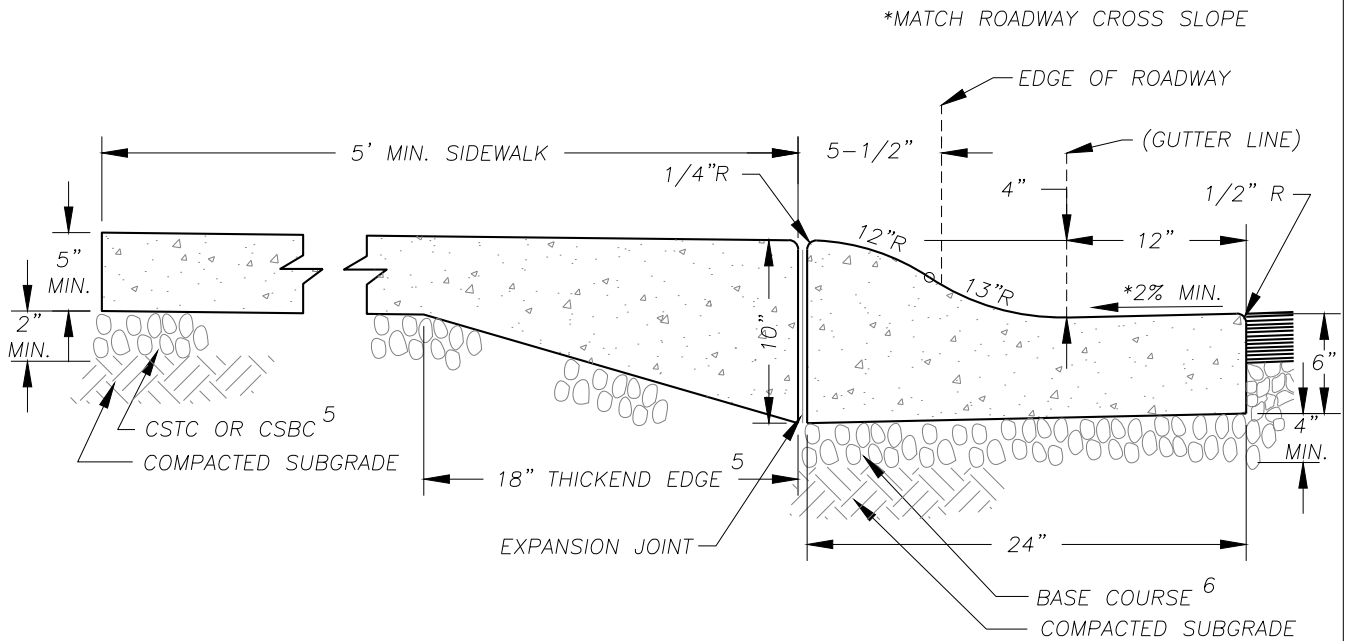
NOTES

1. CONCRETE SHALL BE CLASS 3000 MIN.
2. CURBS ADJACENT TO PAVEMENT OR SIDEWALK TO HAVE EXPANSION AND/OR CONTROL JOINTS TO MATCH EXISTING PATTERNS.
3. EXPANSION JOINTS TO BE PROVIDED AT THE BEGINNING AND END OF CURB RETURNS, ALL CHANGES IN DIRECTION, COLD JOINTS WITH EXISTING CURB, DRAINAGE STRUCTURES, AND DRIVEWAYS. SEE STD. DETAIL F31 FOR JOINTS.
4. CONTROL JOINTS TO BE PLACED AT 15' MAXIMUM SPACING. SEE STD. DETAIL F31.
5. CRUSHED SURFACING BASE COURSE SHALL BE TO SUBGRADE OF STREET SECTION OR MIN. 3" THICK, WHICHEVER IS GREATER, AND SHALL EXTEND 6" BEHIND BACK OF CURB. THE SUBGRADE AND CRUSHED SURFACING MATERIALS SHALL BE COMPACTED TO 95% MAX DRY DENSITY.
6. DRAINAGE WEEP HOLES TO BE 3" I.D. PLASTIC PIPE WITH COUPLING. FINISH PIPE END FLUSH WITH FACE OF CURB.
7. DRAINAGE WEEP HOLES THROUGH EXISTING CURBS SHALL BE CORE DRILLED.
8. CURB TO BE BRUSH FINISHED. WHEN POURING NEW CURBS ADJACENT TO EXISTING, ALL EXISTING EDGES SHALL BE SAWCUT.

NO.	REVISIONS	DATE	BY

DWG: F18.DWG

<p>Department of Public Works CLARK COUNTY WASHINGTON proud past, promising future</p>	<p>CONCRETE CURBS</p> <p><i>[Signature]</i> APPROVED COUNTY ENGINEER</p>	<p>STANDARD F18 DETAIL</p>
	<p>01/26/16 DATE</p>	<p>DESIGNED DRAWN DATE 01/26/16</p>



CONCRETE ROLL CURB & GUTTER

NOTES:

1. CONCRETE SHALL BE 3000 PSI MIN. (CLASS 3000) 3 1/2" SLUMP (MAX.).
2. CURBS ADJACENT TO PAVEMENT OR SIDEWALK TO HAVE EXPANSION AND/OR CONTRACTION JOINTS TO MATCH EXISTING PATTERNS.
3. EXPANSION JOINTS TO BE PROVIDED AT THE BEGINNING AND END OF CURB RETURNS, ALL CHANGES IN DIRECTION, COLD JOINTS WITH EXISTING CURB, DRAINAGE STRUCTURES AND DRIVEWAYS. SEE STD. DETAIL F31.
4. CONTROL JOINT TO BE PLACED AT 15' MAXIMUM SPACING. SEE STD. DETAIL F31.
5. THICKENED EDGE SIDEWALK SHALL BE PLACED ON 2" (MIN.) CSTC OR CSBC SUBGRADE AND BASE COURSE COMPACTED TO 95% MAX. DRY DENSITY.
6. BASE COURSE UNDER ROLL CURB & GUTTER SHALL BE TO SUBGRADE OF STREET SECTION OR 4 INCHES, WHICHEVER IS GREATER, AND SHALL EXTEND 6" BEHIND THE CURB.
7. CURB TO BE BRUSH FINISHED. ALL EXISTING EDGES SHALL BE SAWCUT.
8. USE OF ROLL CURB & GUTTER WITH COMMERCIAL DRIVEWAYS WILL REQUIRE REINFORCING STEEL (6"x6"x10 GA. WIRE MESH) MIN. 3" COVER.
9. SEE STD. DETAIL F31 FOR CONCRETE JOINTS.

NO.	REVISIONS	DATE	BY

DWG: F18b.DWG



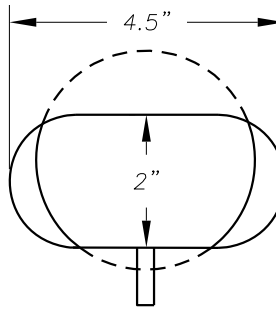
Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

CONCRETE ROLL CURB AND GUTTER

[Signature]
APPROVED
COUNTY ENGINEER

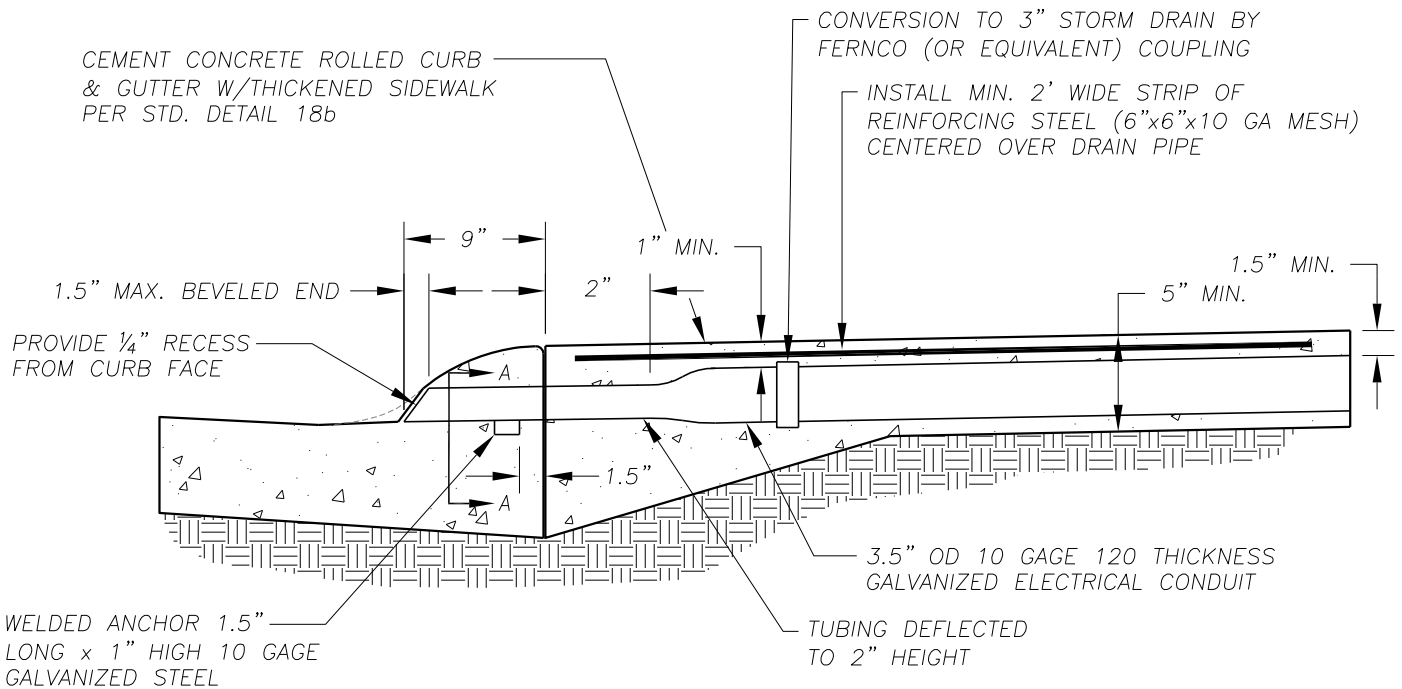
01/26/16
DATE

STANDARD
F18b
DETAIL
DESIGNED
DRAWN
DATE 01/26/16



GRIND FOR SMOOTH EDGE
PROVIDE 1/4" RECESS
FROM CURB FACE

SECTION A - A



CEMENT CONCRETE ROLLED CURB
& GUTTER W/THICKENED SIDEWALK
PER STD. DETAIL 18b

CONVERSION TO 3" STORM DRAIN BY
FERNCO (OR EQUIVALENT) COUPLING

INSTALL MIN. 2' WIDE STRIP OF
REINFORCING STEEL (6"x6"x10 GA MESH)
CENTERED OVER DRAIN PIPE

PROVIDE 1/4" RECESS
FROM CURB FACE

WELDED ANCHOR 1.5"
LONG x 1" HIGH 10 GAGE
GALVANIZED STEEL

3.5" OD 10 GAGE 120 THICKNESS
GALVANIZED ELECTRICAL CONDUIT

TUBING DEFLECTED
TO 2" HEIGHT

NO.	REVISIONS	DATE	BY

DWG: F18c.DWG



Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

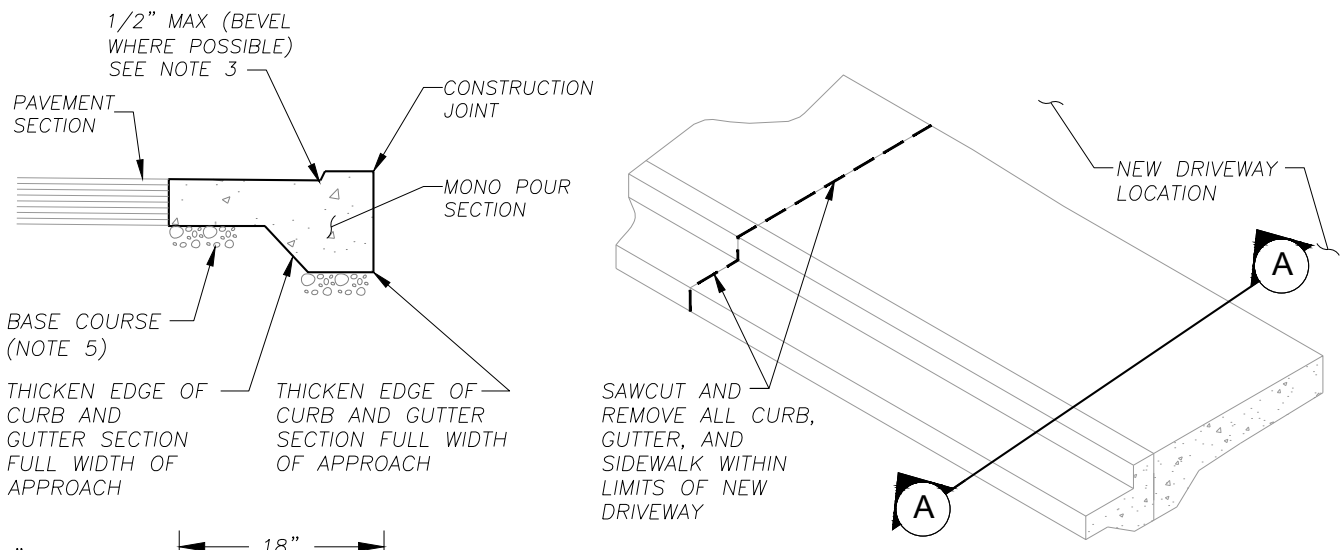
ROOF AND FOOTING DRAIN THROUGH
CEMENT CONCRETE ROLL CURB AND GUTTER

Peter Capen
COUNTY ENGINEER

APPROVED

5/23/08
DATE

STANDARD
F18c
DETAIL
DESIGNED
DRAWN
DATE 05/23/08



1/2" MAX (BEVEL WHERE POSSIBLE) SEE NOTE 3

PAVEMENT SECTION

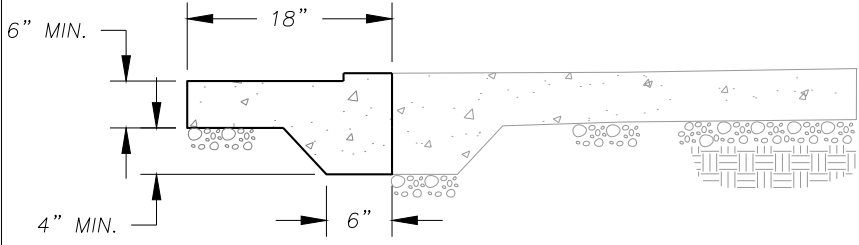
CONSTRUCTION JOINT

MONO POUR SECTION

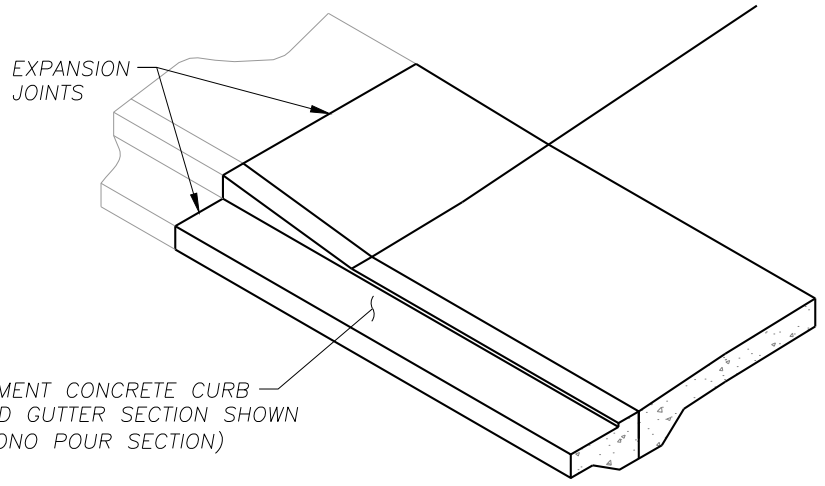
BASE COURSE (NOTE 5)

THICKEN EDGE OF CURB AND GUTTER SECTION FULL WIDTH OF APPROACH

THICKEN EDGE OF CURB AND GUTTER SECTION FULL WIDTH OF APPROACH



SECTION A-A



HALF ISOMETRIC

NOTES:

1. CONCRETE SHALL BE CLASS 3000 MIN.
2. CURB TO BE BRUSHED FINISHED. ALL EXISTING EDGES SHALL BE SAWCUT.
3. 1/2" VERTICAL LIP ACROSS APPROACH.
4. SUBGRADE SHALL BE COMPACTED TO 95% MAX DRY DENSITY.
5. MIN. 3" DEPTH CSBC, COMPACTED TO 95% OF MAX. DRY DENSITY.
6. SEE STD. DETAIL F31 FOR CONCRETE JOINTS.

NO.	REVISIONS	DATE	BY

DWG: F18d.DWG



Department of Public Works
CLARK COUNTY WASHINGTON
 proud past, promising future

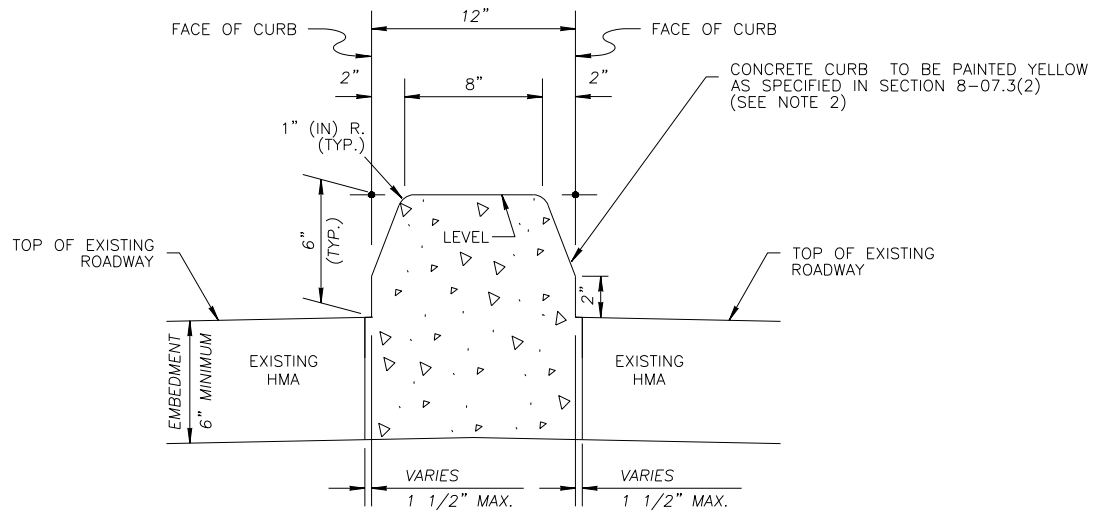
CONCRETE DRIVEWAY CUT DETAIL

APPROVED

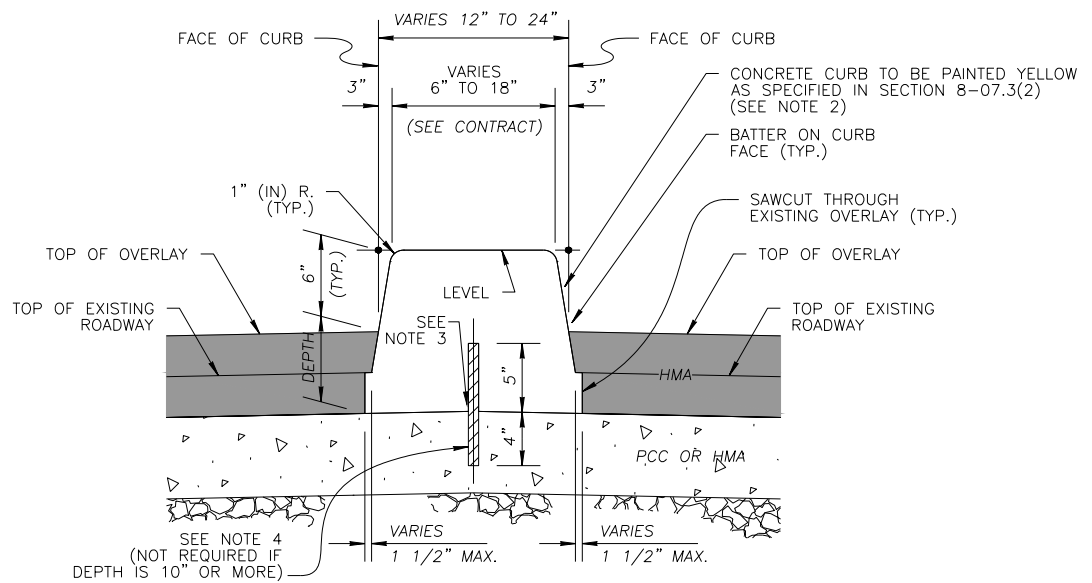
[Signature]
 COUNTY ENGINEER

DATE 01/26/16

STANDARD
F18d
DETAIL
DESIGNED
DRAWN
DATE 01/26/16



CROSS SECTION
 DUAL-FACED CEMENT CONC. TRAFFIC CURB
TYPE 1
 (PREFERRED)



CROSS SECTION
 DUAL-FACED CEMENT CONC. TRAFFIC CURB
TYPE 2

NOTES:

1. CONCRETE CURB SHALL CONFORM TO SECTION 8-04.3(1) OF WSDOT STANDARD SPECIFICATIONS.
2. THE COLOR OF CURBING, RPM AND TUBULAR MARKER TO BE BASED UPON THE DIRECTION OF TRAFFIC FLOW PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. DRILL 3/4" (IN) DIAMETER HOLE IN THE PCC PAVEMENT.
4. RESIN BONDED ANCHORS (#4 STEEL REINFORCING BAR @ 18" (IN) O.C.), ONLY TO BE INSTALLED IN TYPICAL SLOPED NOSING WHEN A 2 INCH MINIMUM COVER CAN BE PROVIDED.

NO.	REVISIONS	DATE	BY

DWG: F19a.DWG



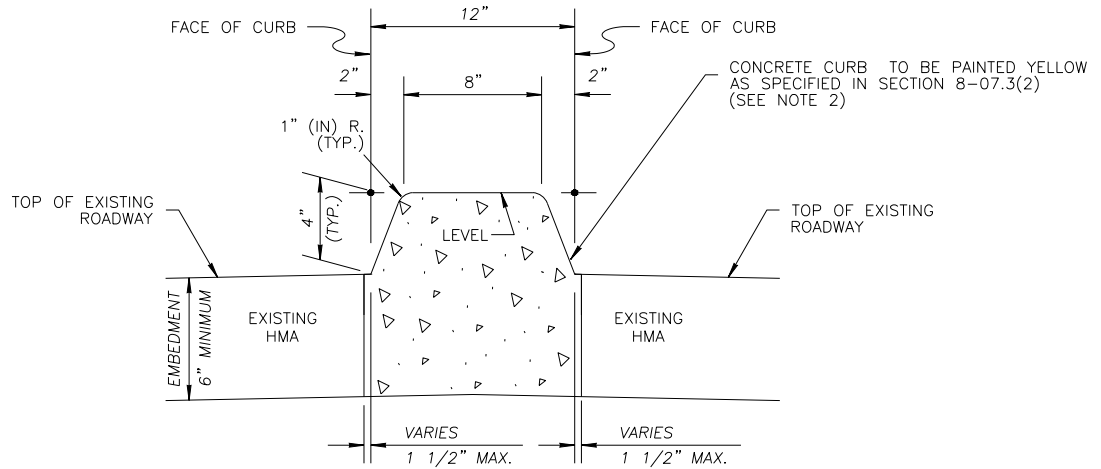
Department of
 Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

MEDIAN CURBING
 SHEET 1 OF 4

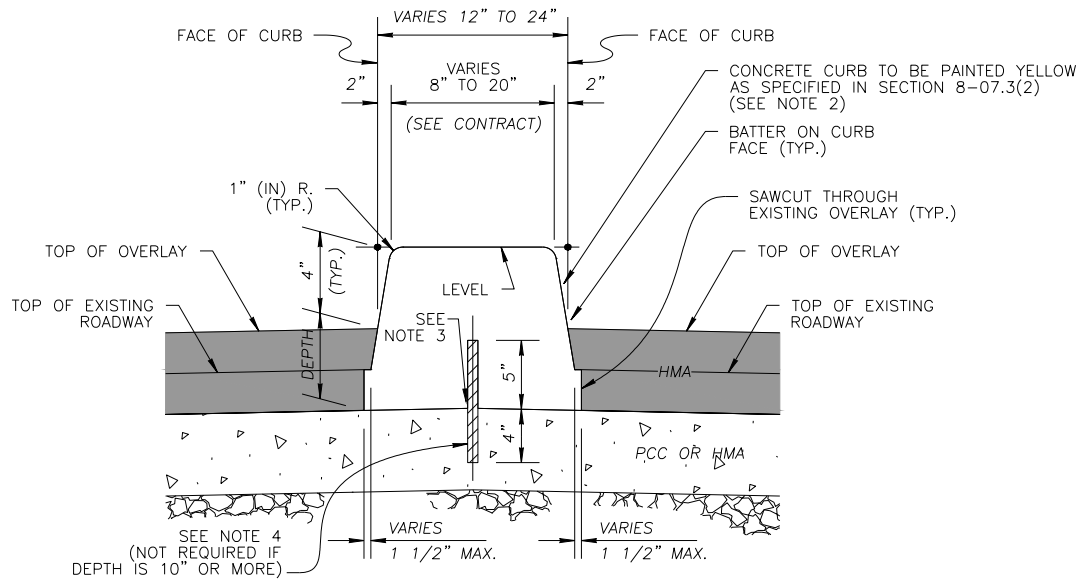
[Signature]
 APPROVED
 COUNTY ENGINEER

STANDARD
F19a
 DETAIL
 DESIGNED
 DRAWN
 DATE 10/03/16

DATE
09/20/16



CROSS SECTION
 DUAL-FACED CEMENT CONC. TRAFFIC CURB
TYPE 1
 (PREFERRED)



CROSS SECTION
 DUAL-FACED CEMENT CONC. TRAFFIC CURB
TYPE 2

NO.	REVISIONS	DATE	BY

DWG: F19a.DWG

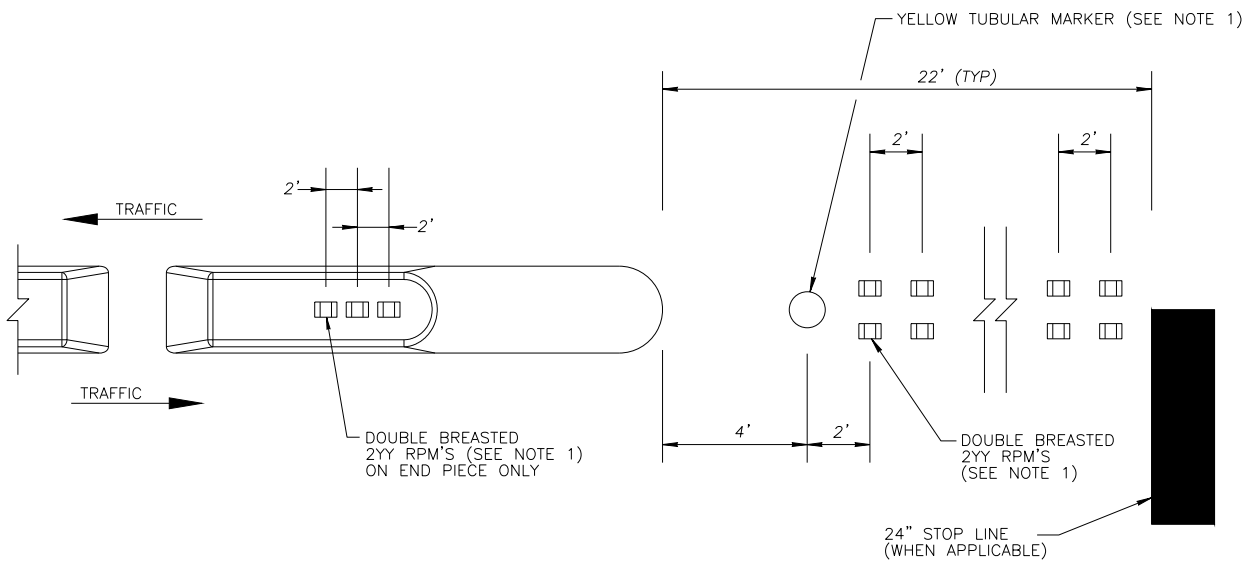


Department of
 Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

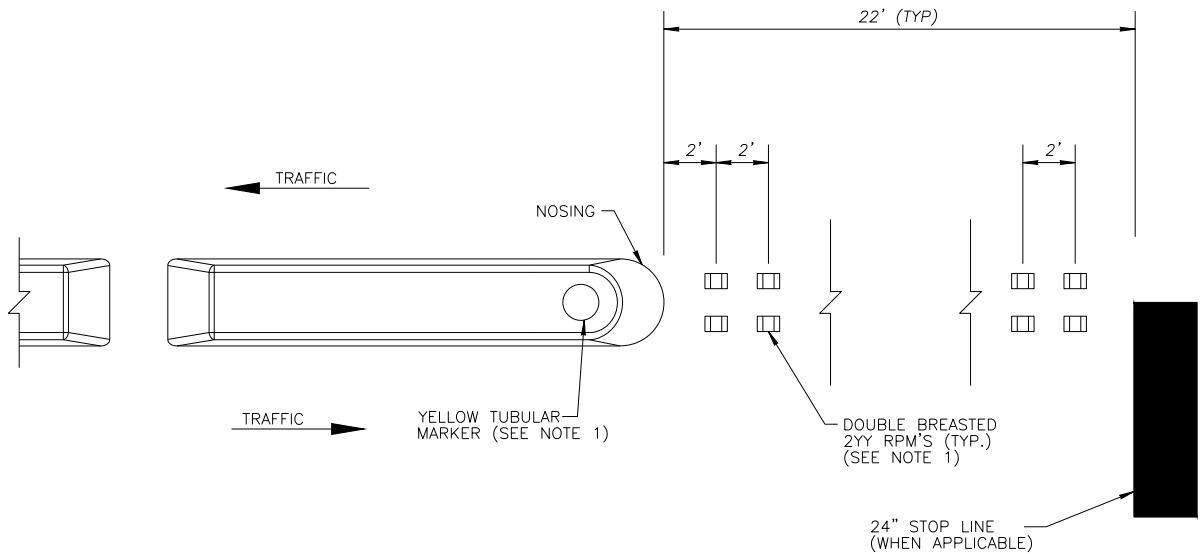
MEDIAN CURBING
 SHEET 2 OF 4
 APPROVED
[Signature]
 COUNTY ENGINEER

STANDARD
F19b
 DETAIL
 DESIGNED
 DRAWN
 DATE 10/03/16

09/20/16
 DATE



PLAN VIEW FOR TYPICAL



PLAN VIEW FOR ALTERNATE

NOTES:

1. THE COLOR OF CURBING, RPM AND TUBULAR MARKER TO BE BASED UPON THE DIRECTION OF TRAFFIC FLOW PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

DWG: F19a.DWG

NO.	REVISIONS	DATE	BY



Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

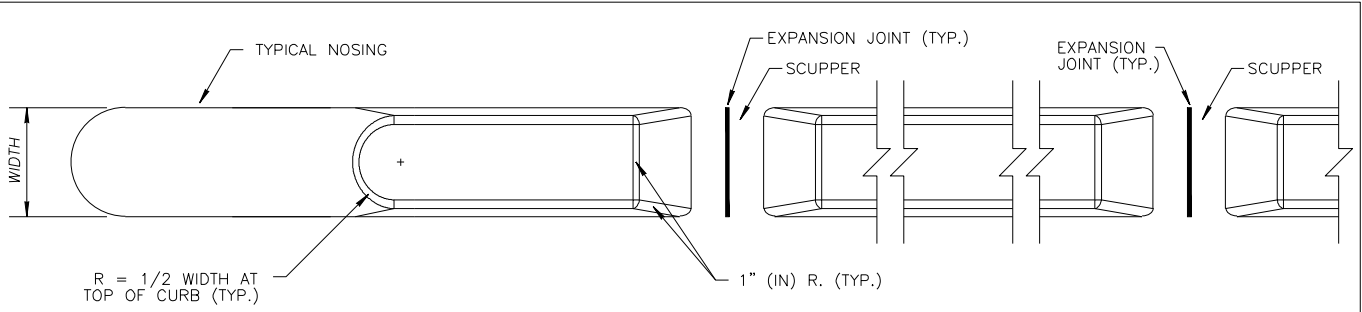
MEDIAN CURBING
SHEET 4 OF 4

APPROVED

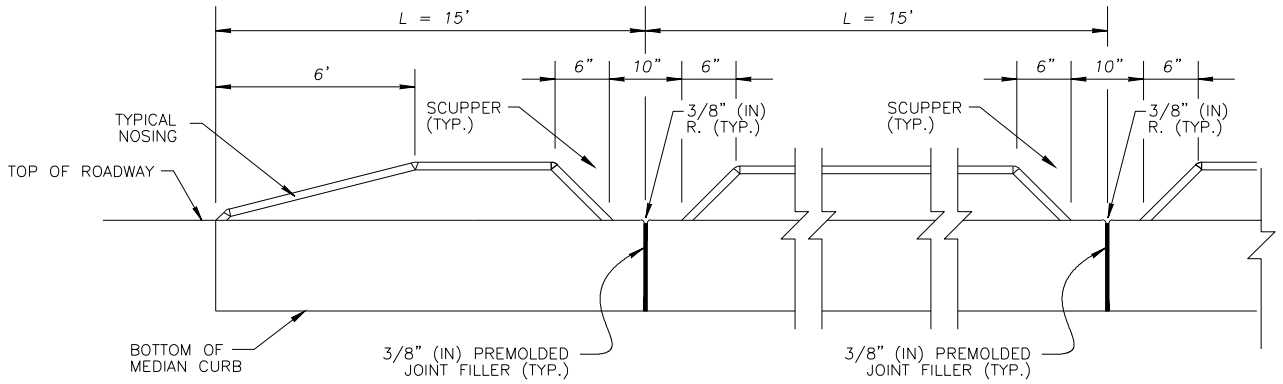
[Signature]
COUNTY ENGINEER

09/20/16
DATE

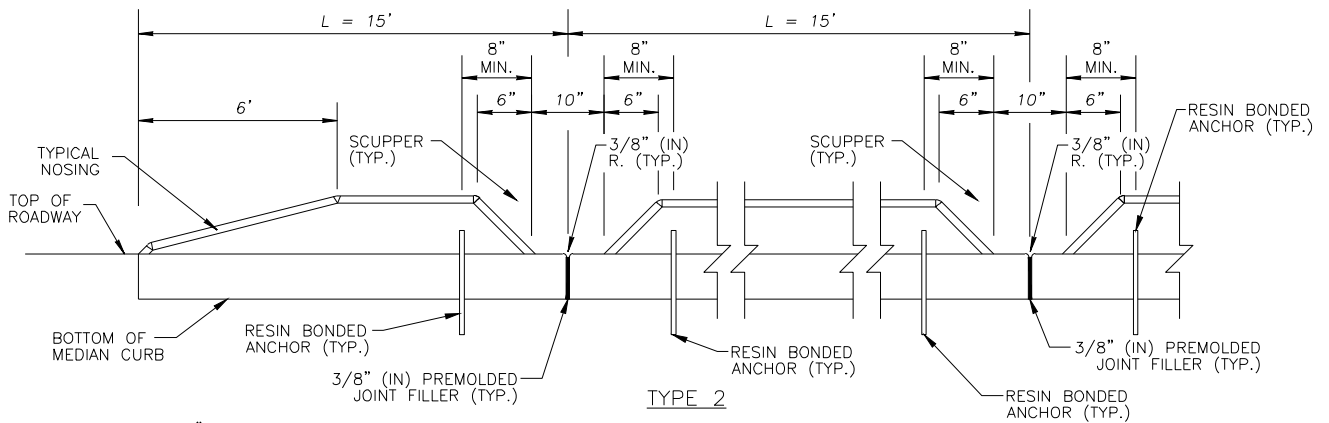
STANDARD
F19d
DETAIL
DESIGNED
DRAWN
DATE 10/03/16



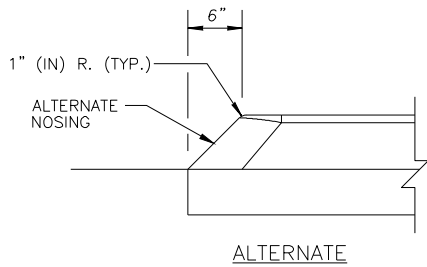
PLAN



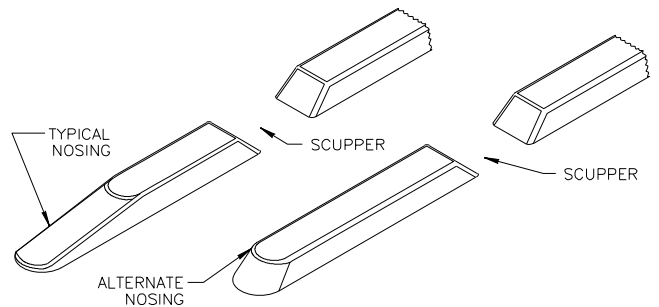
TYPE 1



TYPE 2



ALTERNATE



ISOMETRIC

NOTE:

1. CONCRETE CURB SHALL CONFORM TO SECTION 8-04.3(1) OF WSDOT STANDARD SPECIFICATIONS.

DWG: F19a.DWG

NO.	REVISIONS	DATE	BY
1	ADJUST SPACING	08/08/18	MG



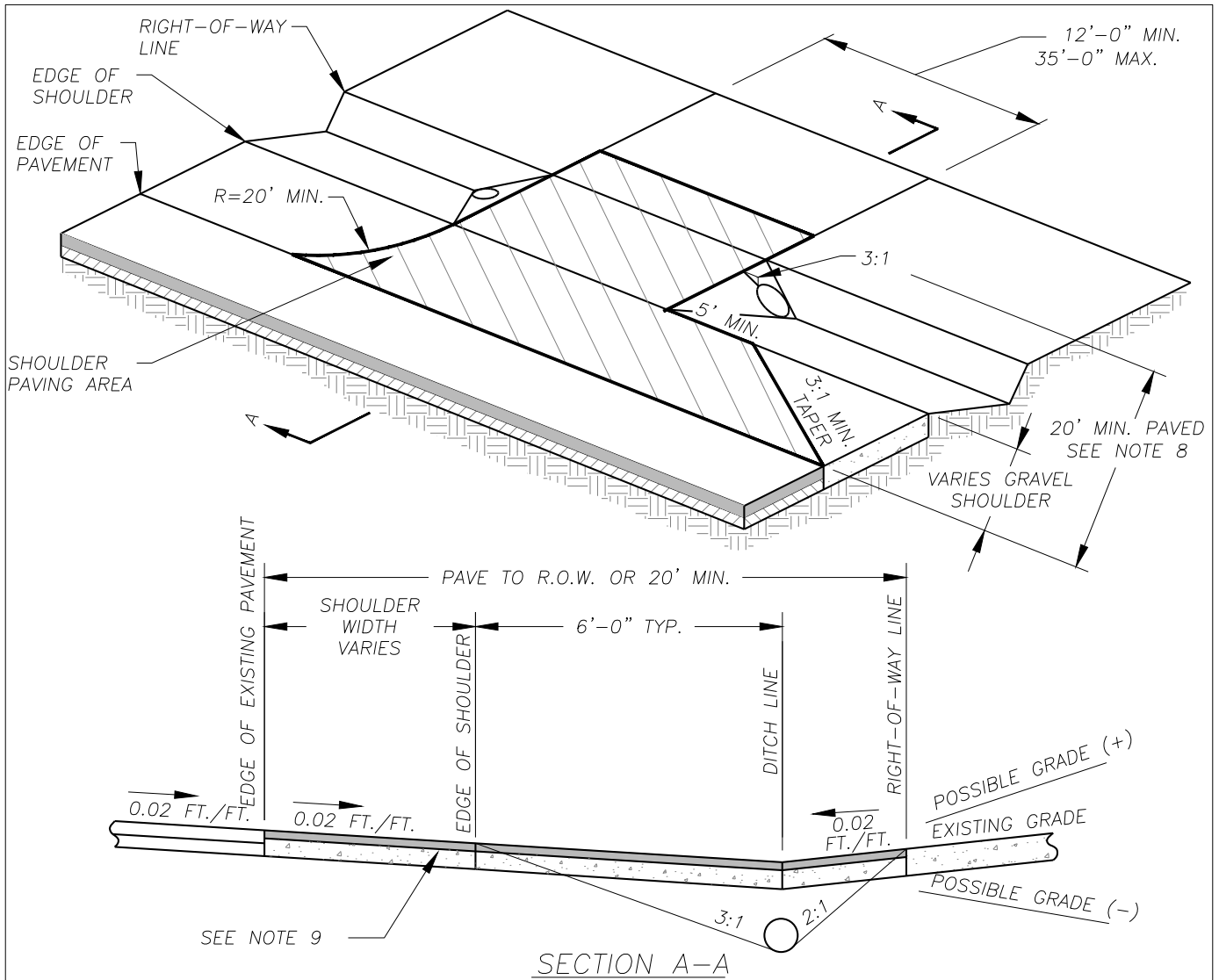
Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

MEDIAN CURBING
SHEET 3 OF 4

[Signature]
APPROVED
COUNTY ENGINEER

STANDARD
F19c
DETAIL
DESIGNED
DRAWN
DATE 10/03/16

09/20/16
DATE



SECTION A-A

NOTES:

1. PIPE SHALL BE:
 - A. SIZED TO CONVEY COMPUTED STORM WATER RUNOFF, AND
 - B. MIN. 12" DIAM., AND
 - C. EQUAL TO OR LARGER THAN EXISTING PIPES WITHIN 500' UPSTREAM.
2. EXPOSED PIPE ENDS SHALL BE BEVELED TO MATCH THE SLOPE FACE AND PROJECT NO MORE THAN 2" BEYOND SLOPE SURFACE. PROJECTING HEADWALLS ARE NOT ACCEPTABLE.
3. CONCRETE PIPE SHALL HAVE MIN. COVER OF 6" TO FINISH GRADE. ALL OTHER TYPES OF PIPE SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATION.
4. PIPE SHALL BE INSTALLED IN A STRAIGHT UNIFORM ALIGNMENT AT A MIN. 0.5% SLOPE (0.5 FT. PER 100 FT.).
5. PIPE MAY BE OMITTED IF THERE IS POSITIVE DRAINAGE AWAY FROM DRIVEWAY AND DRIVEWAY DOES NOT BLOCK NATURAL FLOW.
6. DRIVEWAY SLOPE SHALL MATCH TO BACK EDGE OF SHOULDER, BUT SHOULDER SLOPE AND EDGE OF SHOULDER SHALL NOT BE ALTERED AS A RESULT OF DRIVEWAY CONSTRUCTION.
7. PAVED DRIVEWAYS SHALL BE PAVED THROUGH RIGHT-OF-WAY WITH A.C., B.S.T., OR HMA EQUIVALENT BUT NOT P.C.C.
8. GRAVEL DRIVEWAYS SHALL BE PAVED BETWEEN THE EDGE OF PAVEMENT AND R/W OR 20' FROM THE EDGE OF ROAD, WHICH EVER IS GREATER. SEE CCC 40.350.030(B)(7)(c).
9. THE PAVING SECTION SHALL BE STRUCTURALLY EQUIVALENT TO THE GRAVEL ROAD SECTION.
10. SEE CCC 40.350.030(B)(4), ACCESS MANAGEMENT.

NO.	REVISIONS	DATE	BY

DWG: F20.DWG



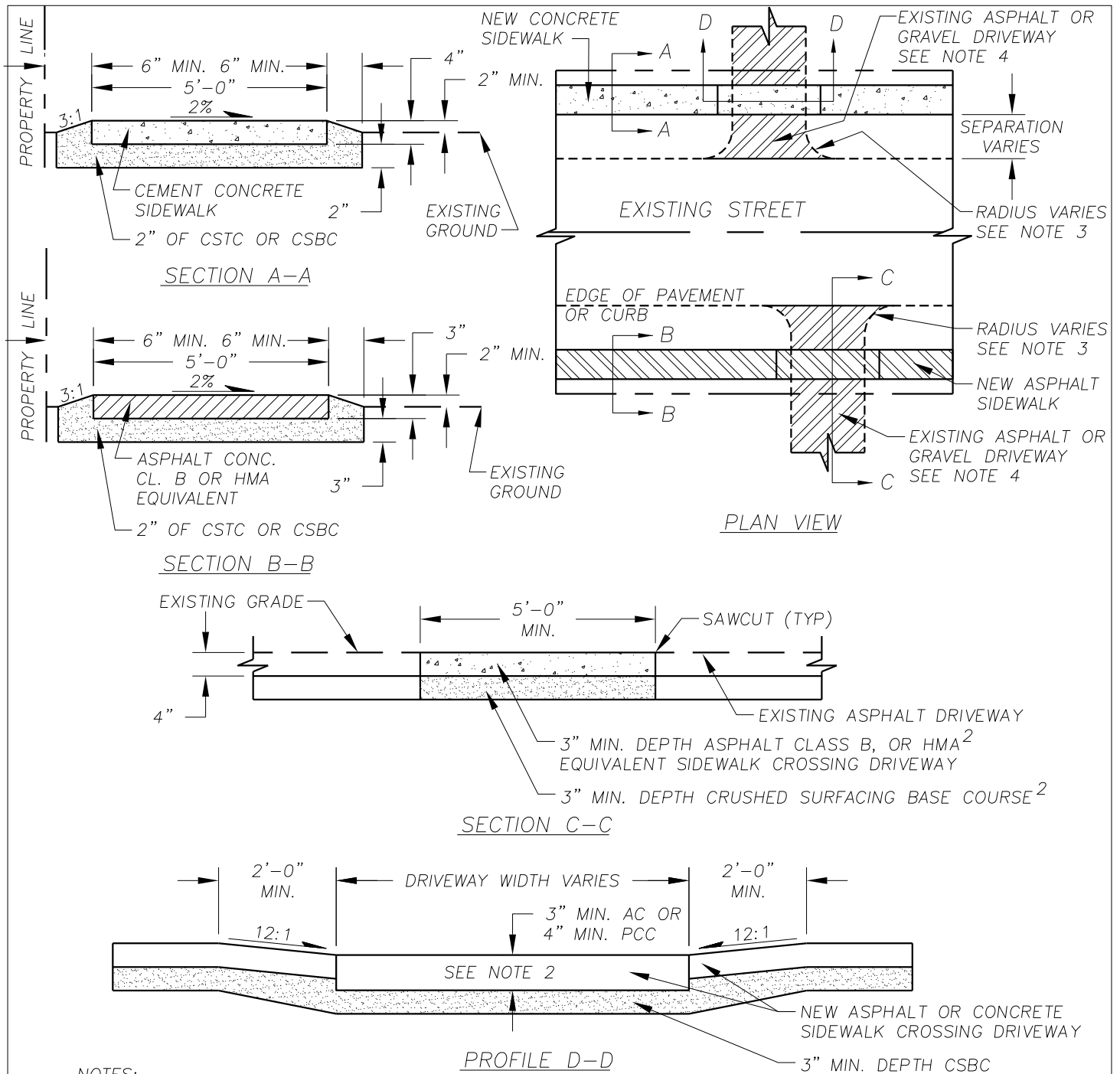
Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

SHOULDER AND DITCH SECTION
RURAL DRIVEWAY

[Signature]
APPROVED
COUNTY ENGINEER

01/26/16
DATE

STANDARD
F20
DETAIL
DESIGNED
DRAWN
DATE 01/26/16



NOTES:

1. THE CONCRETE WALKWAY IS TO BE CONSTRUCTED PER STD. DETAIL F12.
2. THE WALKWAY SECTION TO BE INSTALLED ACROSS EXISTING AND/OR PROPOSED ROADS IS TO MATCH THE EXISTING ROAD SECTION OR MEET THE COUNTY TRANSPORTATION STANDARDS, WHICHEVER IS GREATER.
3. FOR REQUIRED RADIUS SEE TABLES CCC 40.350.030-2 THROUGH 6.
4. SEE SECTION CCC 40.350.030(B)(7)(c), PAVING OF INTERSECTING AREA.
5. SEE SECTION CCC 40.350.030(B)(4), ACCESS MANAGEMENT.
6. WHEN WALKWAY USE IS FOR NEIGHBORHOOD CIRCULATION AND ACCESS BETWEEN ROADS, THE REQUIRED WIDTH MAY VARY TO A MAXIMUM OF 10 FEET.

NO.	REVISIONS	DATE	BY

DWG: F21.DWG



Department of
 Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

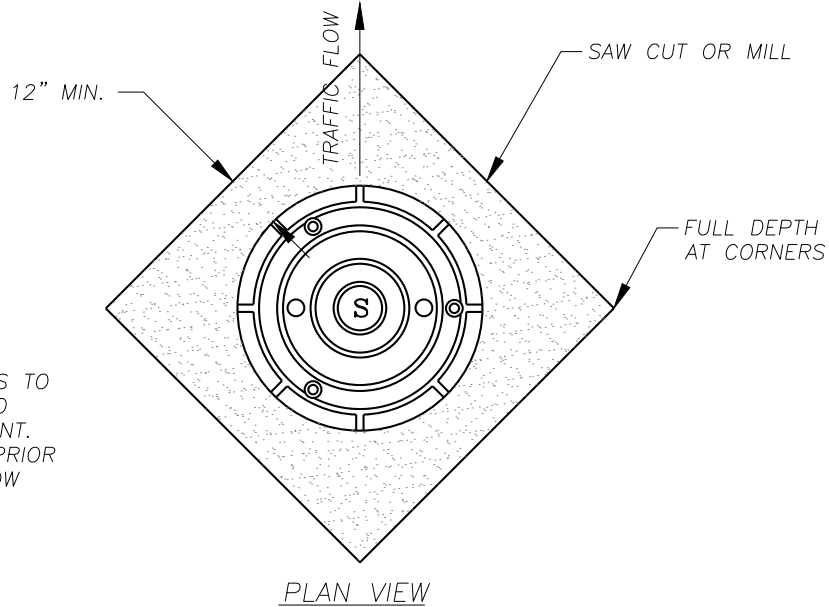
SEPARATED WALKWAY
 (NEIGHBORHOOD CIRCULATION)

Peter Capen
 COUNTY ENGINEER

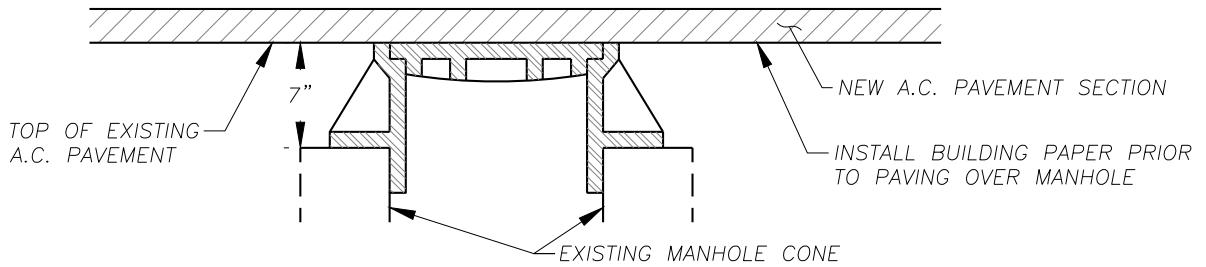
APPROVED

5/23/08
 DATE

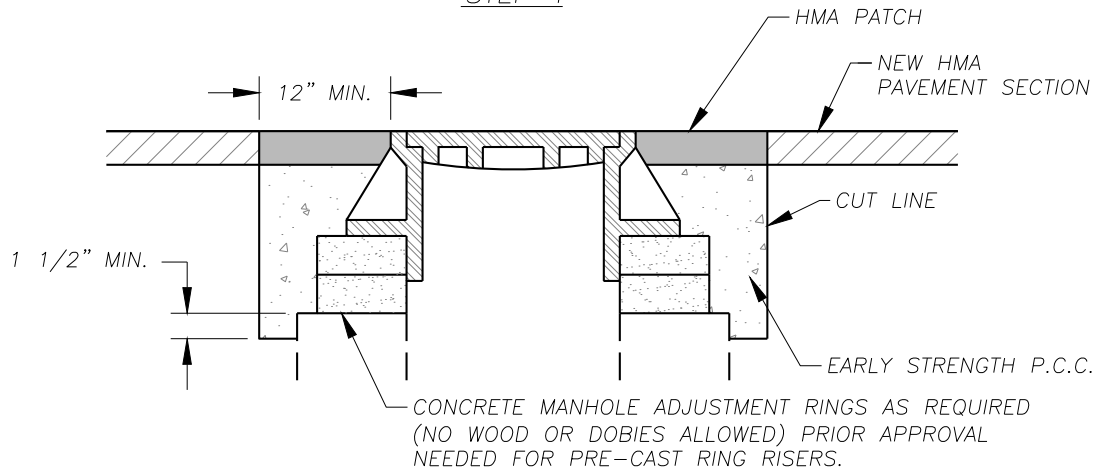
STANDARD
F21
 DETAIL
 DESIGNED
 DRAWN
 DATE 05/23/08



NOTE:
 RAISE ALL STRUCTURES TO
 FINAL GRADE PRIOR TO
 FINAL LIFT OF PAVEMENT.
 IF UNABLE TO RAISE PRIOR
 TO FINAL LIFT, FOLLOW
 STEPS BELOW.



STEP 1



STEPS 2,3,4 & 5

- STEP 1 COVER EXISTING MANHOLE WITH BUILDING PAPER AND CONSTRUCT HMA PAVEMENT PER WSDOT SPEC. 5-04.3 OVER TOP OF MANHOLE.
- STEP 2 SAW CUT AND REMOVE PAVEMENT AROUND MANHOLE 12" MIN. FROM MANHOLE FRAME.
- STEP 3 RAISE MANHOLE FRAME AND COVER USING CONCRETE RINGS AND COUNTY APPROVED MECHANICAL ADJUSTMENT DEVICES TO FINISH GRADE MATCHING PROFILE AND CROSS SLOPE.
- STEP 4 BACKFILL WITH EARLY STRENGTH P.C.C. AND HMA TO DEPTHS AS DIRECTED.
- STEP 5 APPLY SAND SEAL ON SURFACE AND SURFACE JOINT.

NO.	REVISIONS	DATE	BY

DWG: F27.DWG



Department of
 Public Works
CLARK COUNTY
 WASHINGTON
 proud past, promising future

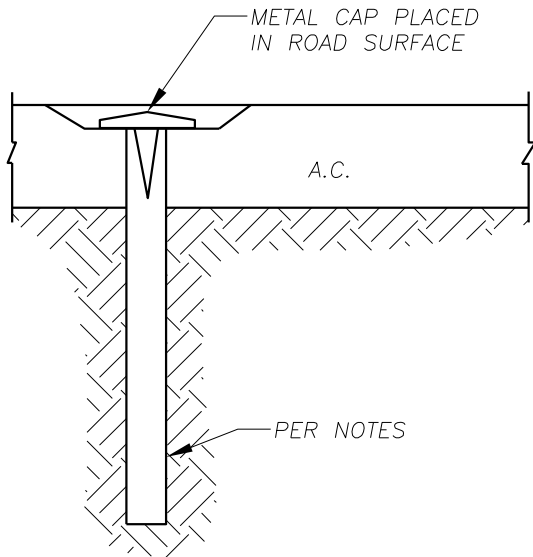
MANHOLE ADJUSTMENT

[Signature]
 APPROVED
 COUNTY ENGINEER

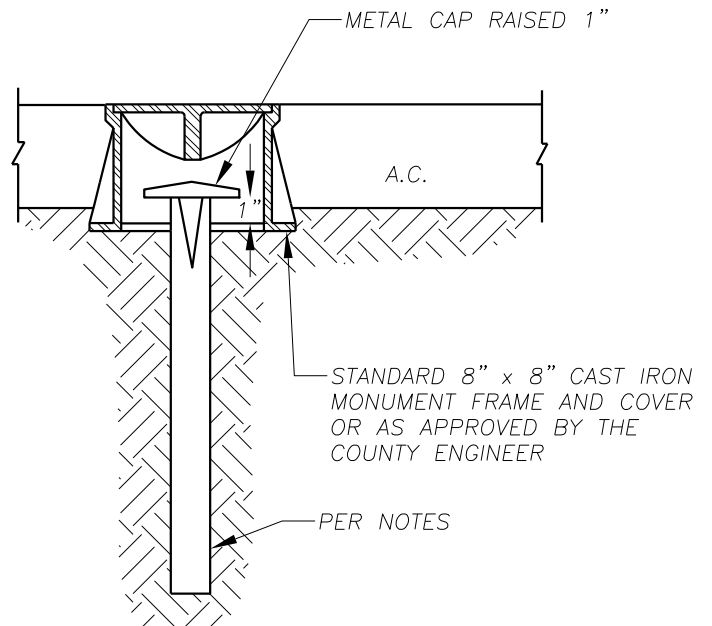
01/26/16
 DATE

STANDARD
F27
 DETAIL
 DESIGNED
 DRAWN
 DATE 01/26/16

FOR USE AT POINTS
OF TANGENCY



FOR USE IN INTERSECTIONS



NOTES:

1. ALL MONUMENTS SHALL USE EITHER 5/8" DIAMETER x 30" LONG IRON ROD OR 3/4" DIAMETER x 30" LONG IRON PIPE.
2. ALL MONUMENTS SHALL BE IN ACCORDANCE WITH WAC 196-29-110 AND 332-120-060, AND MEET THE REQUIREMENTS OF THE RCW 58.17.240, 58.09.120 AND 58.09.130.

NO.	REVISIONS	DATE	BY

DWG: F28.DWG



Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

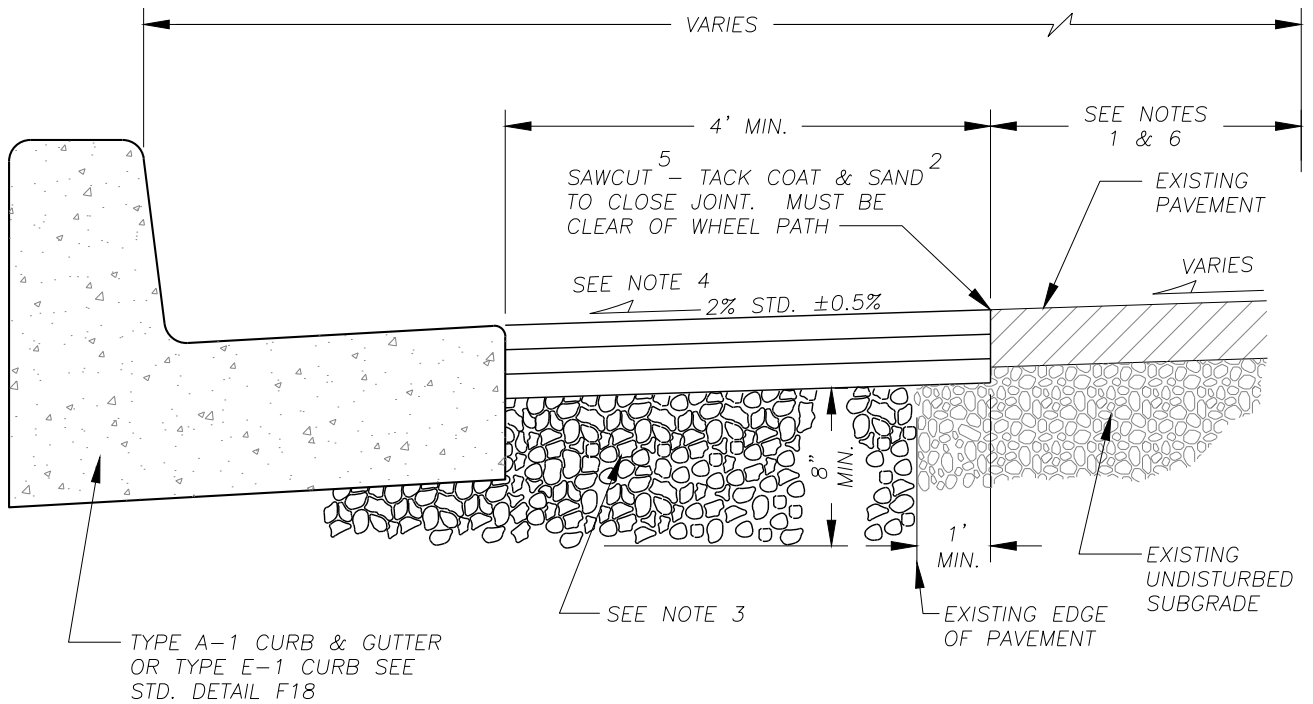
CENTERLINE MONUMENTS

Peter Capen
COUNTY ENGINEER

APPROVED

5/23/08
DATE

STANDARD
F28
DETAIL
DESIGNED
DRAWN
DATE 05/23/08



NOTES:

1. WHERE FRONTAGE IMPROVEMENTS ARE REQUIRED, THE COUNTY WILL PERFORM PAVEMENT DEFLECTION TESTING TO DETERMINE THE EXTENT OF IMPROVEMENTS. SEE CCC 40.350.030(B)(5) FRONTAGE ROADS/IMPROVEMENTS.
2. THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE SAWCUT TO PROVIDE A STRAIGHT, CLEAN EDGE. A TACK COAT SHALL BE APPLIED PER THE STANDARD SPECIFICATIONS. ALL JOINTS SHALL BE SEALED AND SANDED.
3. DEPTH OF ASPHALT CONCRETE PAVEMENT AND BASE ROCK OF THE RESTORED ROAD SECTION TO BE PER TYPICAL ROADWAY SECTION AS SHOWN IN THE TRANSPORTATION STANDARD DRAWINGS 1 THROUGH 27, OR AS APPROVED BY REVIEWING AUTHORITY. COMPACT SUBGRADE AND CRUSHED AGGREGATE TO 95% OF MAXIMUM DRY DENSITY.
4. MATCH EXISTING PAVEMENT SLOPE. ROADWAY SLOPE OUTSIDE LISTED RANGE ALLOWED WITH APPROVAL FOR FRONTAGE/MATCHING SITUATIONS.
5. SAWCUT AND REMOVE ANY EXISTING FAILING ASPHALT CONCRETE PAVEMENT.
6. SAWCUT, REMOVE AND RESTORE A MINIMUM OF 1' TO A MAXIMUM HALF STREET WIDTH OF THE EXISTING ROAD SECTION.
7. PAVE WITH MINIMUM OF 0.35 ft. MINIMUM COMPACTED DEPTH HMA, OR MATCH EXISTING OR DESIGN SECTION WHICHEVER IS GREATER.
8. LIFTS FOR HMA SHALL BE INSTALLED AT 0.15 ft. MINIMUM AND 0.35 ft. MAXIMUM FOR NON-SURFACE LIFTS, AND 0.25 ft. MAXIMUM FOR THE FINAL SURFACE LIFT. THE TEMPERATURE SHALL BE 250 DEGREE MINIMUM AND 350 DEGREE MAXIMUM, AND COMPACTED TO 92% OF THEORETICAL MAXIMUM.

NO.	REVISIONS	DATE	BY

DWG: F30.DWG



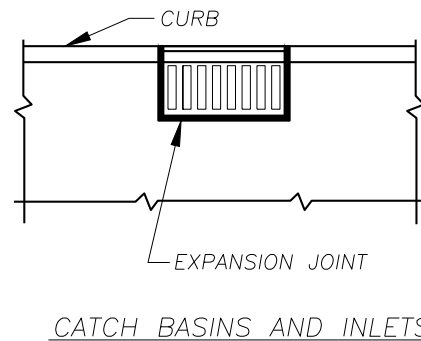
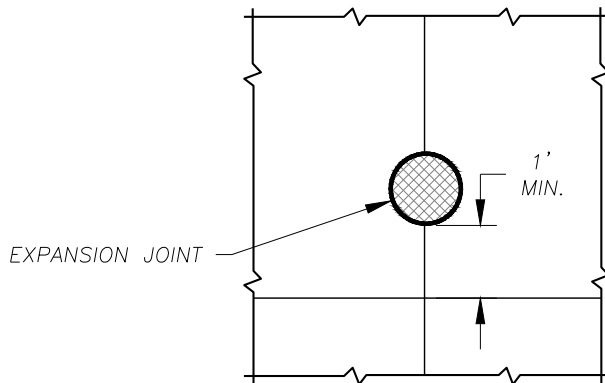
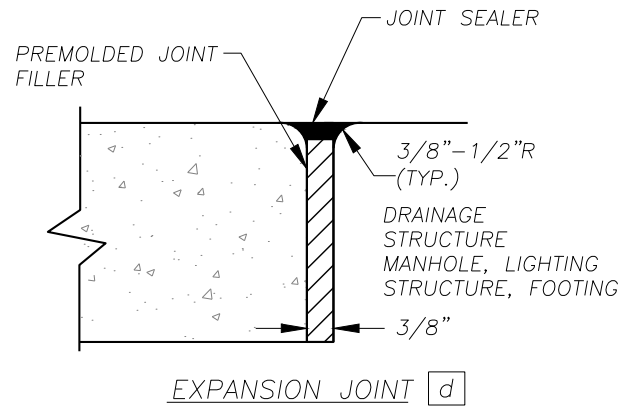
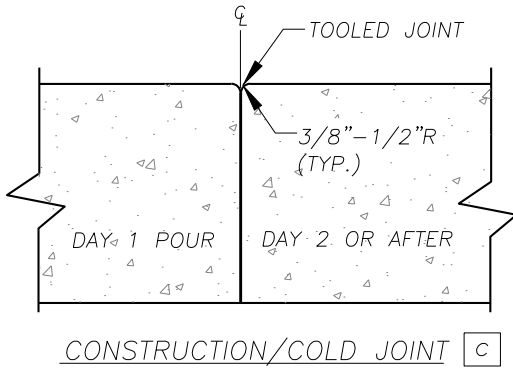
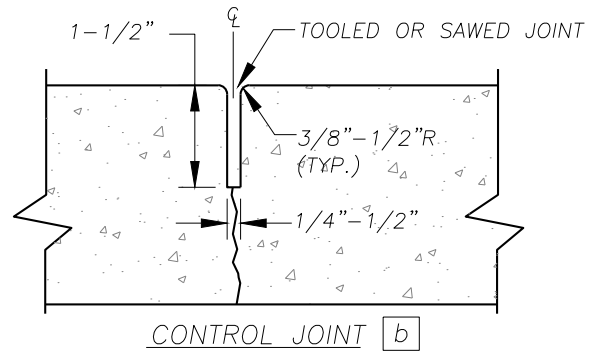
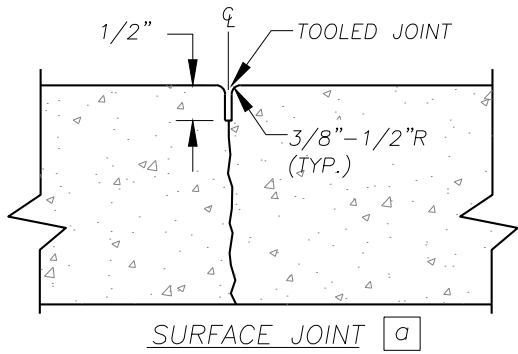
Department of
Public Works
CLARK COUNTY
WASHINGTON
proud past, promising future

PAVEMENT WIDENING
(FRONTAGE IMPROVEMENTS)

APPROVED
[Signature]
COUNTY ENGINEER

01/26/16
DATE

STANDARD
F30
DETAIL
DESIGNED
DRAWN
DATE 01/26/16



NOTES:

- CONTROL JOINTS MAY BE USED IN PLACE OF SURFACE JOINTS.
- CONSTRUCTION/COLD JOINTS MAY BE USED IN PLACE OF CONTROL JOINTS.
- EXPANSION JOINTS MAY BE USED IN PLACE OF CONSTRUCTION/COLD JOINTS.
- ALL JOINTS AND EDGES SHALL BE FINISHED WITH 3/8" TO 1/2" RADIUS EDGER (3" SMOOTH EACH SIDE).
- PARALLEL JOINTS SHALL BE SEPARATED BY A MINIMUM OF 2'.
- FINISHED SURFACE SHALL BE FLUSH ACROSS ALL JOINTS AND GRADE BREAKS.

NO.	REVISIONS	DATE	BY

DWG: F31.DWG



Department of Public Works
CLARK COUNTY WASHINGTON
proud past, promising future

CONCRETE JOINTS
[Signature]
APPROVED
01/26/16
DATE
COUNTY ENGINEER

STANDARD
F31
DETAIL
DRAWN
DATE 01/26/16