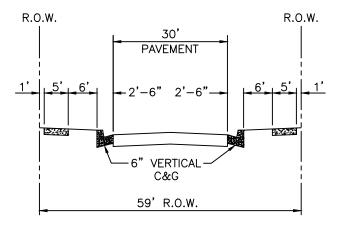


- PARKING ALLOWED ON BOTH SIDES OF STREET
- UTILIZED IN SINGLE FAMILY RESIDENTIAL AREAS

# LOCAL W/ ATTACHED WALK

TO BE USED ONLY WITH WRITTEN PERMISSION FROM THE CITY ENGINEER



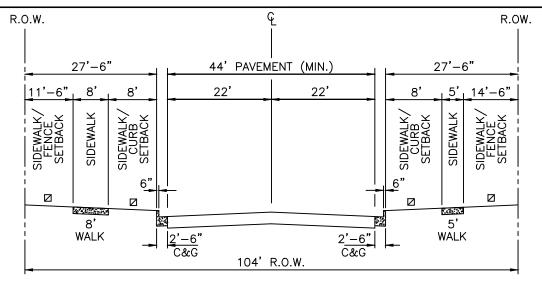
- PARKING ALLOWED ON BOTH SIDES OF STREET
- UTILIZED IN SINGLE FAMILY RESIDENTIAL AREAS

LOCAL W/ DETACHED WALK



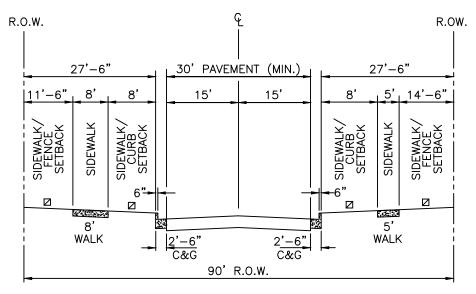
CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 LOCAL
TYPICAL SECTIONS

DATE: MARCH 2022



- PROVIDE WIDENING AT INTERSECTIONS FOR LEFT TURN LANES AND DECEL LANES RIGHT-OF -WAY WIDTH TO BE INCREASED TO 105' IN THESE AREAS.
- NO PARKING ALLOWED
- UTILIZED IN AREAS WHERE THERE IS LIMITED ACCESS AND PROJECTED TRAFFIC VOLUMES ARE GREATER THAN 7,000 VEHICLES PER DAY.
- ${\Bbb Z}$  MIN., 4:1 MAX. RETAINING WALLS TO ENSURE MAX. PERMITTED SLOPE BEHIND BACK OF SIDEWALK SHALL BE LOCATED ON PRIVATE PROPERTY.

### MAJOR COLLECTOR



- PARKING ALLOWED
- UTILIZED IN INDUSTRIAL, COMMERCIAL, MULTI-FAMILY, AND SINGLE-FAMILY RESIDENTIAL AREAS WHERE ON-STREET PARKING IS REQUIRED.
- 2% MIN., 4:1 MAX. RETAINING WALLS TO ENSURE MAX. PERMITTED SLOPE BEHIND BACK OF SIDEWALK SHALL BE LOCATED ON PRIVATE PROPERTY.

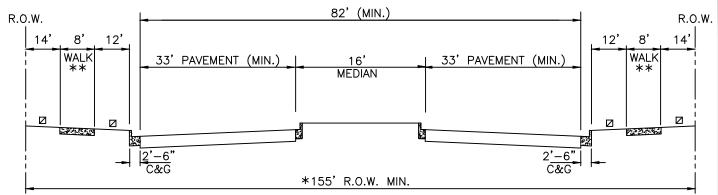
#### MINOR COLLECTOR



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 MAJOR & MINOR COLLECTORS

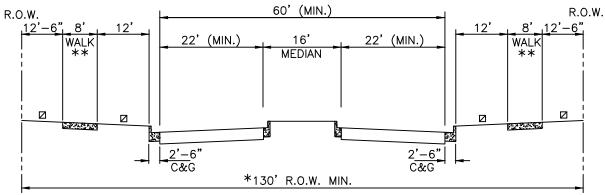
TYPICAL SECTIONS

DATE: MARCH 2022



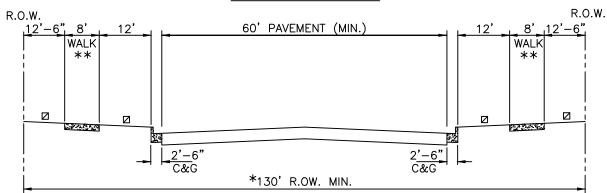
- NO PARKING ALLOWED.
- PROVIDE ACCEL/DECEL LANES AT INTERSECTIONS.
- PROVIDE ACCEL./DECEL. LANES AND DOUBLE TURN LANES AT MAJOR INTERSECTIONS AS NECESSARY.
- \*● AT MAJOR INTERSECTIONS THE R.O.W. WIDTH SHALL BE 188'.
- \*\* 10' OR 12' PATH WHEN DIRECTED BY THE CITY ENGINEER.

# MAJOR ARTERIAL



- NO PARKING ALLOWED.
- PROVIDE DECEL LANES AT INTERSECTIONS.
- ▶ PROVIDE DECEL. LANES AND DOUBLE LEFT TURN LANES AT MAJOR INTERSECTIONS AS NECESSARY.
- \* AT MAJOR INTERSECTIONS THE R.O.W. WIDTH SHALL BE 163'.
- \*\* 10' OR 12' PATH WHEN DIRECTED BY THE CITY ENGINEER.

## MAJOR ARTERIAL

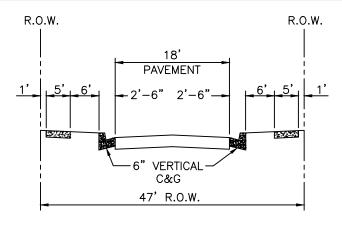


- NO PARKING ALLOWED.
- MINOR ARTERIAL
- MEDIAN MAY BE PAINTED OR CURBED.
- \* AT MAJOR INTERSECTIONS THE R.O.W. WIDTH SHALL BE 163'.
- \*\* 10' OR 12' PATH WHEN DIRECTED BY THE CITY ENGINEER.
- ☑ 2% MIN., 4:1 MAX. RETAINING WALLS TO ENSURE MAX. PERMITTED SLOPE BEHIND BACK OF SIDEWALK SHALL BE LOCATED ON PRIVATE PROPERTY.

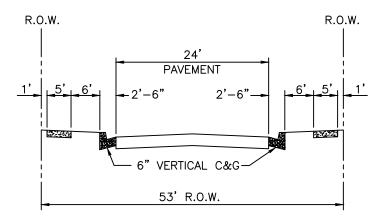


CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 MAJOR AND MINOR ARTERIAL TYPICAL SECTIONS

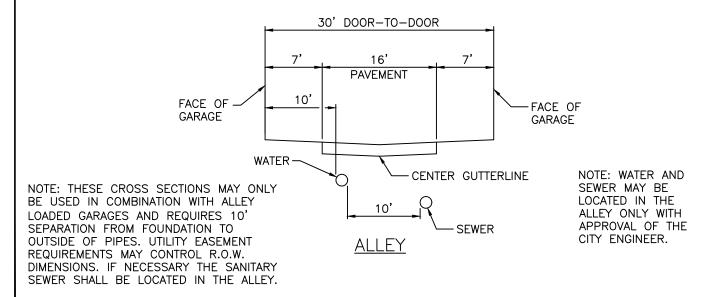
DATE: MARCH 2022



# ONE-WAY STREET WITH PARKING ON ONE SIDE



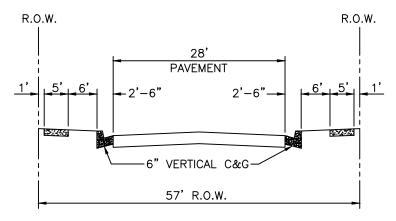
# ONE-WAY STREET WITH PARKING ON BOTH SIDES OR TWO-WAY STREET WITH PARKING ON ONE SIDE



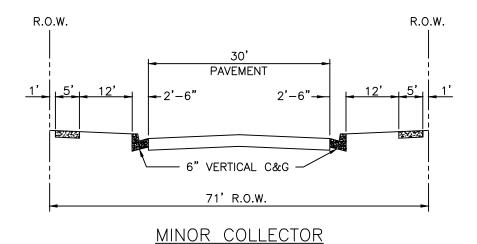


CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 TMUND
TYPICAL SECTIONS

DATE: MARCH 2022



# TWO-WAY STREET WITH PARKING ON BOTH SIDES

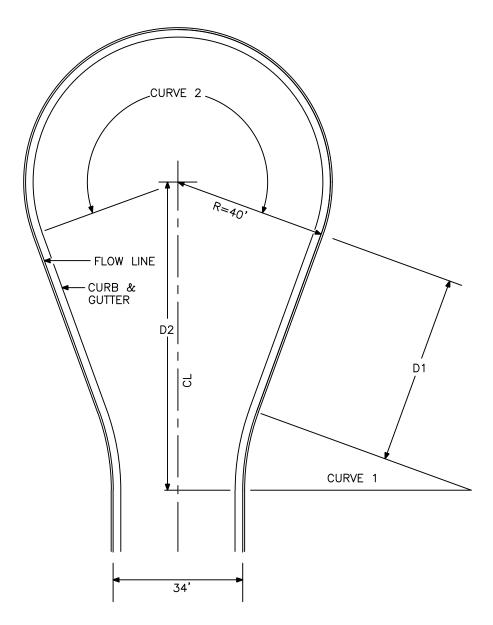


NOTE: THESE CROSS SECTIONS MAY ONLY BE USED IN COMBINATION WITH ALLEY LOADED GARAGES AND REQUIRES 10' SEPARATION OF SEWER OF WATER. UTILITY EASEMENT REQUIREMENTS MAY CONTROL R.O.W. DIMENSIONS. IF NECESSARY THE SANITARY SEWER SHALL BE LOCATED IN THE ALLEY.



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 TMUND
TYPICAL SECTIONS

DATE: MARCH 2022



CURVE 1				CURVE 2			
	CURB			^	CURB		
	R	L	Т	$\triangle$	R	L	
20°00'00"	60.0	20.94	10.58'	220°00'00"	40.0'	153.59	
STREET WIDTH		D1		D2			
34		49.61'		80.82'			

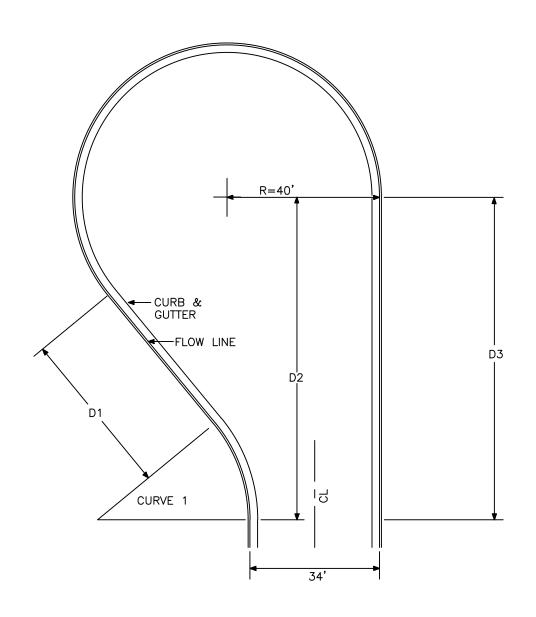
### NOTES:

- 1. ADDITIONAL CURB RAMPS MAY BE REQUIRED AT THE DIRECTION OF THE CITY ENGINEER.
- 2. THE STREET GRADE SHALL NOT DRAIN TOWARD THE CUL-DE-SAC. DRAINAGE SHALL BE AWAY FROM THE CUL-DE-SAC.



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 CUL-DE-SACS
DETAIL

DATE: MARCH 2022



	CURVE 1					
		CURB				
STREET WIDTH		R	L	Т		
34	39°26'57"	40.0	27.54	14.34'		
D1	D2		D3			
43.72'	84.59	)'	84.59'			

#### NOTE:

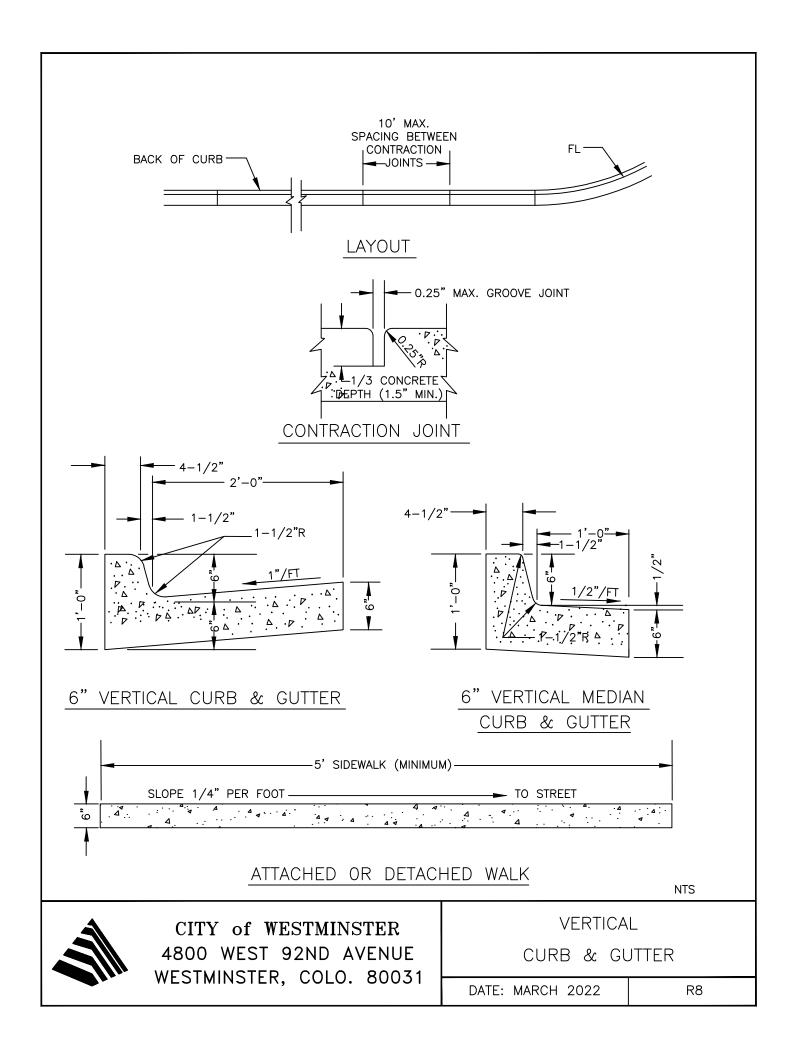
- 1. ADDITIONAL CURB RAMPS MAY BE REQUIRED AT THE DIRECTION OF
- THE CITY ENGINEER.

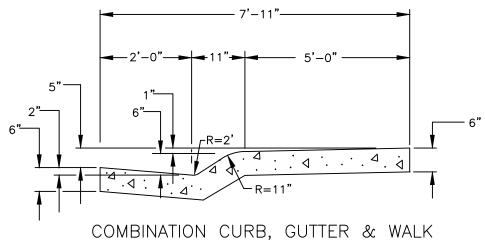
  2. THE STREET GRADE SHALL NOT DRAIN TOWARD THE CUL—DE—SAC. DRAINAGE SHALL BE AWAY FROM THE CUL—DE—SAC.



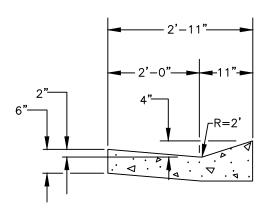
CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 CUL-DE-SACS **DETAIL** 

DATE: MARCH 2022





COMBINATION CURB, GUTTER & WALK STANDARD SECTION



4" MOUNTABLE CURB & GUTTER

NTS



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 COMBINATION CURB, GUTTER & WALK

DATE: MARCH 2022

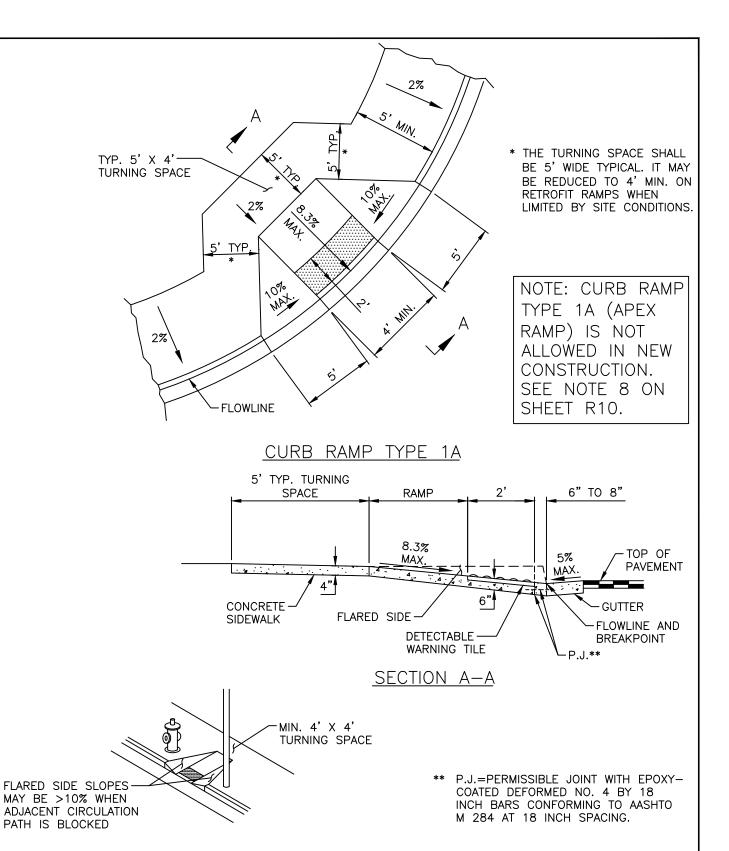
#### CURB RAMP GENERAL NOTES:

- 1. THE DETECTABLE WARNINGS SHALL BE INSTALLED AT SIDEWALK TO STREET TRANSITIONS. THEY SHALL HAVE A TRUNCATED DOME SURFACE. THE DOMES SHALL BE IN A SQUARE GRID PATTERN AND ALIGNED WITH PEDESTRIAN TRAFFIC.
- 2. ALL DETECTABLE WARNING SURFACES SHALL START A MINIMUM OF 6 INCHES FROM THE FLOWLINE OF THE CURB AND NOT BE MORE THAN A MAXIMUM OF 8 INCHES FROM ANY POINT ON THE FLOWLINE OF THE CURB, WITH EXCEPTION FOR TYPES 1B MODIFIED, 3B MODIFIED AND 4B MODIFIED CURB RAMPS AS THIS DIMENSION MAY BE GREATER THAN 8 INCHES ON ONE SIDE OF THE RADIUS.
- 3. REFER TO SECTION 6.20.00 AND SECTION 6.75.00 OF THE CITY STANDARDS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON TRUNCATED DOMES.
- 4. THE RAMP SLOPE AND DETECTABLE WARNING SURFACE SHALL BE 8.3% OR FLATTER.
- 5. TOLERANCE LIMITS ON THE RAMP RUNNING SLOPE AND FLARED SIDE SLOPES SHALL BE +0.5% MAXIMUM. THOSE EXCEEDING THE MAXIMUM TOLERANCE WILL NOT BE ACCEPTED.
- 6. THE MINIMUM WIDTH FOR SIDEWALK IS 5 FEET. TURNING SPACE AREAS REQUIRED ON TYPE 1A AND 1B CURB RAMPS MAY BE REDUCED TO 4' ON RETROFIT RAMPS IF SITE CONDITIONS DO NOT ALLOW 5'.
- 7. DRAINAGE STRUCTURES, TRAFFIC SIGNAL EQUIPMENT OR OTHER OBSTRUCTIONS SHALL NOT BE INSTALLED IN THE CURB RAMP OR TURNING SPACE AREAS.
- 8. IF THE PLACEMENT OF THE PEDESTRIAN PUSH BUTTON ON A TRAFFIC SIGNAL POLE WILL NOT BE WITHIN EASY REACH (10 INCHES OR LESS AND UNOBSTRUCTED) OF ALL PEDESTRIANS (IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT), THEN A SEPARATE PEDESTRIAN PUSH BUTTON POST ASSEMBLY (PPBPA) SHALL BE INSTALLED WITHIN ADA REACH RANGES. THE PPBPA SHALL MEET THE PROVISIONS FOUND IN THE "PEDESTRIAN DETECTORS" SECTION OF THE MUTCD.
- 9. DIAGONAL CURB RAMPS (ON THE APEX) ARE NOT PREFERRED IN NEW CONSTRUCTION. A SINGLE DIAGONAL CURB RAMP (ON THE APEX) WILL ONLY BE PERMITTED DURING RECONSTRUCTION OR ALTERATION WHERE PHYSICAL OR SITE CONSTRAINTS PREVENT TWO CURB RAMPS FROM BEING INSTALLED.
- 10. CURB RAMPS (EXCLUDING FLARED SIDES OR BLENDED TRANSITIONS) SHALL BE WHOLLY CONTAINED WITHIN THE WIDTH OF THE CROSSWALK AND/OR THE PEDESTRIAN STREET CROSSING THEY SERVE.
- 11. ALL CURB RAMP JOINTS AND GRADE BREAKS SHALL BE FLUSH (0"  $\pm \frac{1}{8}$ "). THE JOINT BETWEEN THE ROADWAY SURFACE AND GUTTER PAN SHALL BE FLUSH.
- 12. THE CONTRACTOR SHALL VERIFY REMOVAL LIMITS ARE SUFFICIENT TO PROVIDE POSITIVE DRAINAGE, MAINTAIN EXISTING DRAINAGE PATTERNS, AND AVOID PONDING IN THE FINAL CONFIGURATION.
- 13. TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF THE CURB, THE RAMP LENGTH SHALL NOT EXCEED 15 FEET. ADJUST THE RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT TECHNICALLY FEASIBLE.
- 14. THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 13.33%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, TURNING SPACE, OR BLENDED TRANSITION SHALL NOT EXCEED 5.0%.
- 15. FLARED SIDE SLOPES MAY EXCEED 10% ONLY WHERE THEY ABUT A NON-WALKABLE SURFACE OR THE ADJACENT CIRCULATION PATH IS BLOCKED.



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 CURB RAMP GENERAL NOTES

DATE: MARCH 2022



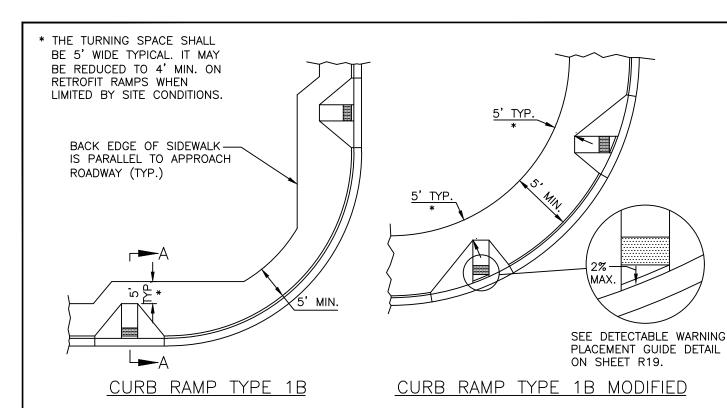
STEEP FLARED SIDE SLOPES

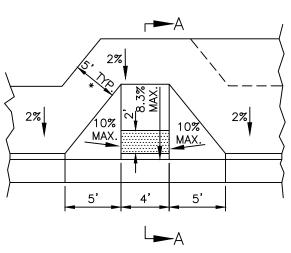
NOT TO SCALE



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 CURB RAMP TYPE 1A

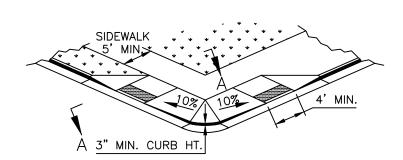
DATE: MARCH 2022





CURB RAMP TYPE 1B DETAIL

MAY BE USED IN MID-BLOCK CROSSINGS



CURB RAMP TYPE 1B OR 3B REDUCED CURB HEIGHT

SEE SHEET R11 FOR SECTION A-A

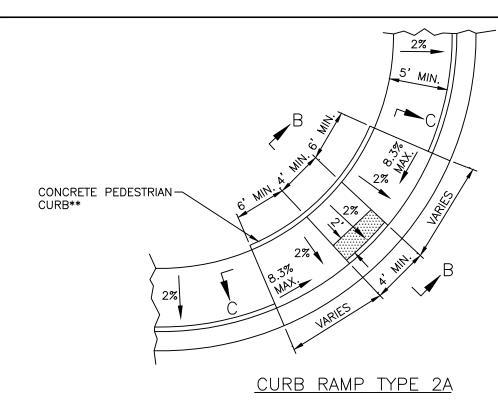
NOT TO SCALE



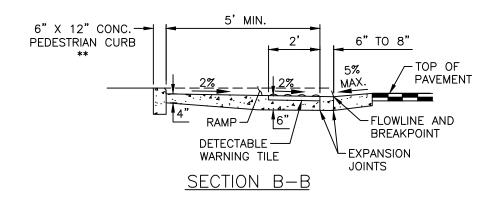
CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031

CURB RAMP TYPE 1B

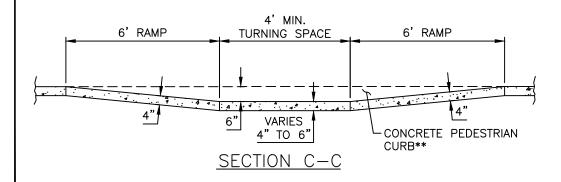
DATE: MARCH 2022



NOTE: CURB RAMP TYPE 2A (APEX RAMP) IS NOT ALLOWED IN NEW CONSTRUCTION. SEE NOTE 8 ON SHEET R10.



\*\* THE PEDESTRIAN CURB MAY BE OMITTED IF THE GROUND SURFACE AT THE BACK OF THE CURB RAMP OR LANDING IS THE SAME ELEVATION AS THE CURB RAMP OR LANDING AND THERE IS NO MATERIAL TO RETAIN.

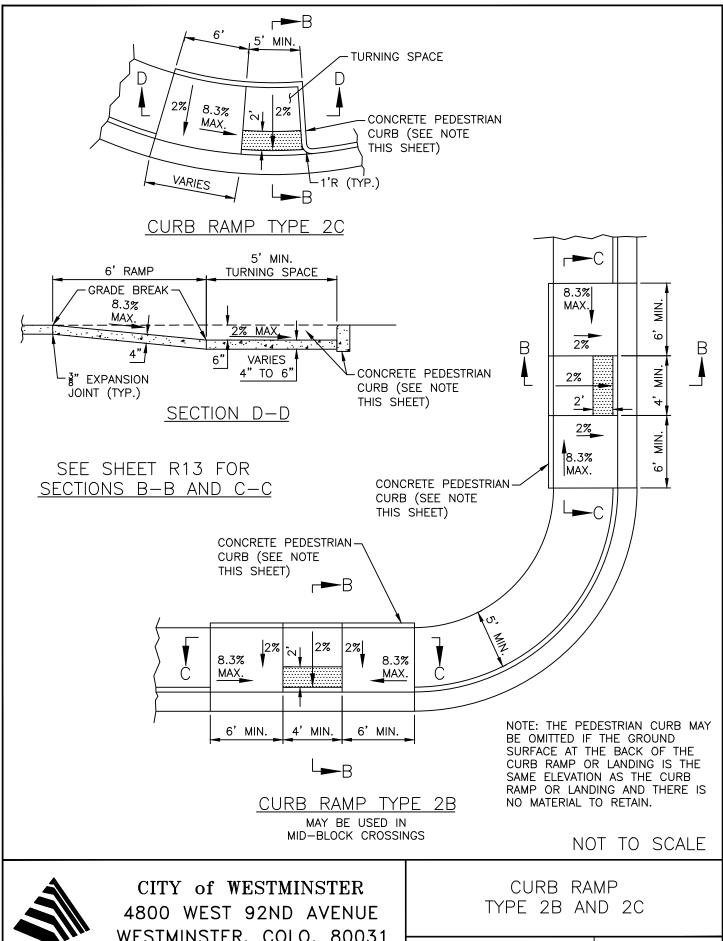


NOT TO SCALE



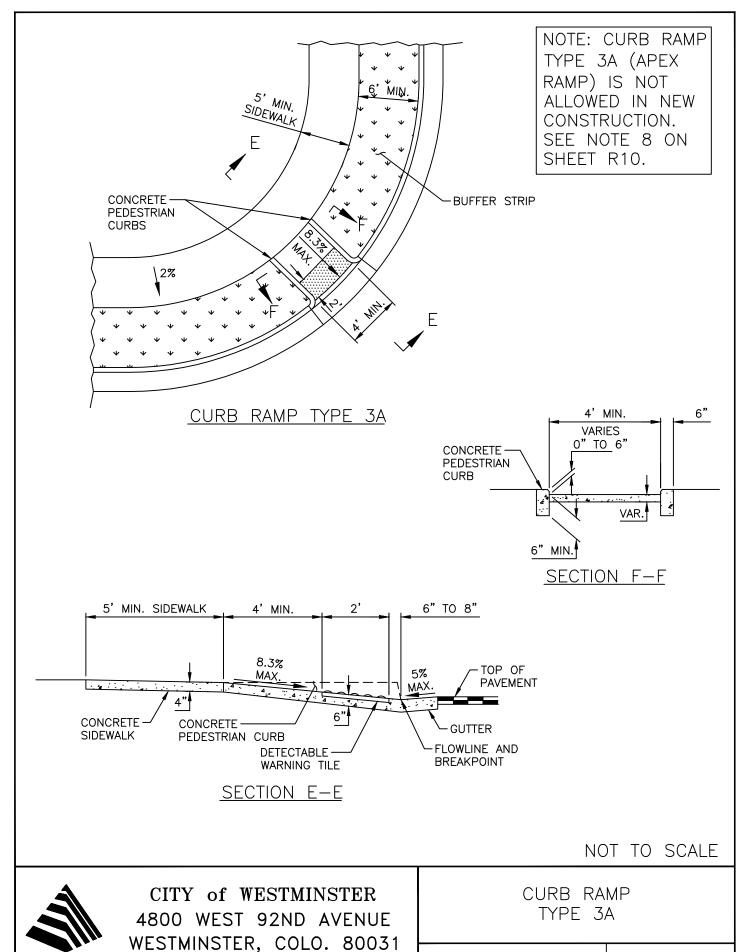
CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 CURB RAMP TYPE 2A

DATE: MARCH 2022

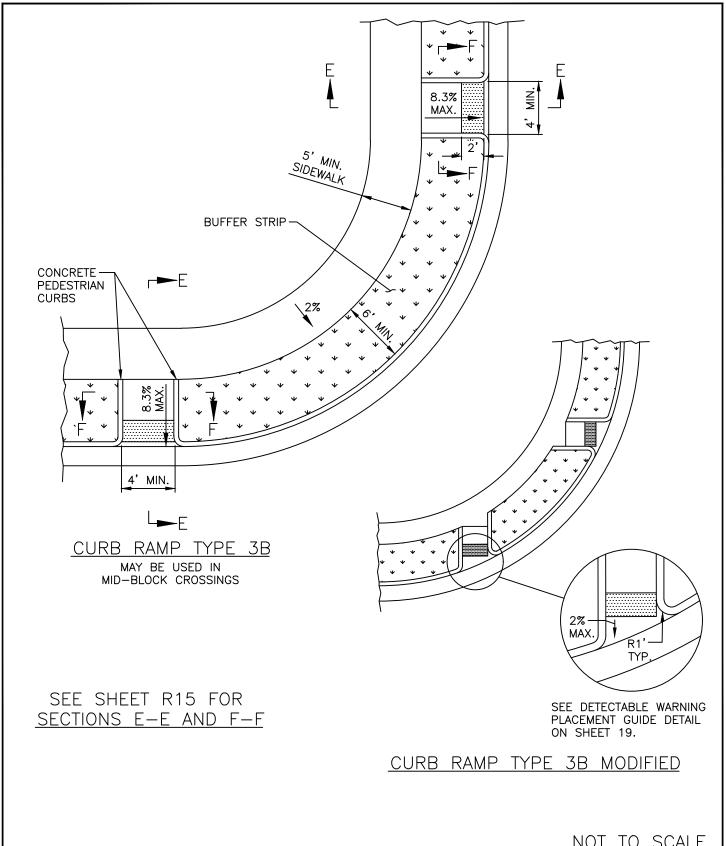


WESTMINSTER, COLO. 80031

DATE: MARCH 2022



DATE: MARCH 2022 R15

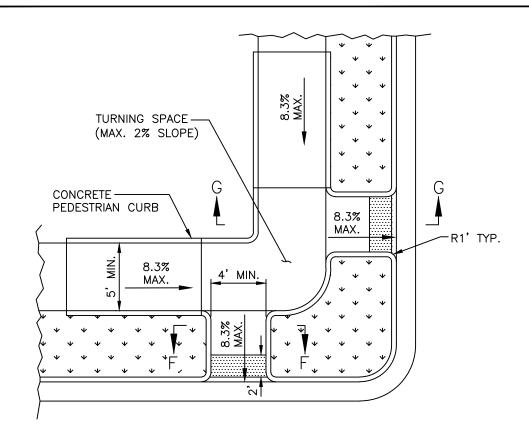


NOT TO SCALE



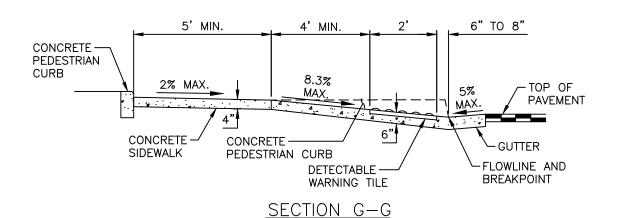
CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 CURB RAMP TYPE 3B

DATE: MARCH 2022



# CURB RAMP TYPE 3C (COMBINATION)

# SEE SHEET R15 FOR SECTION F-F



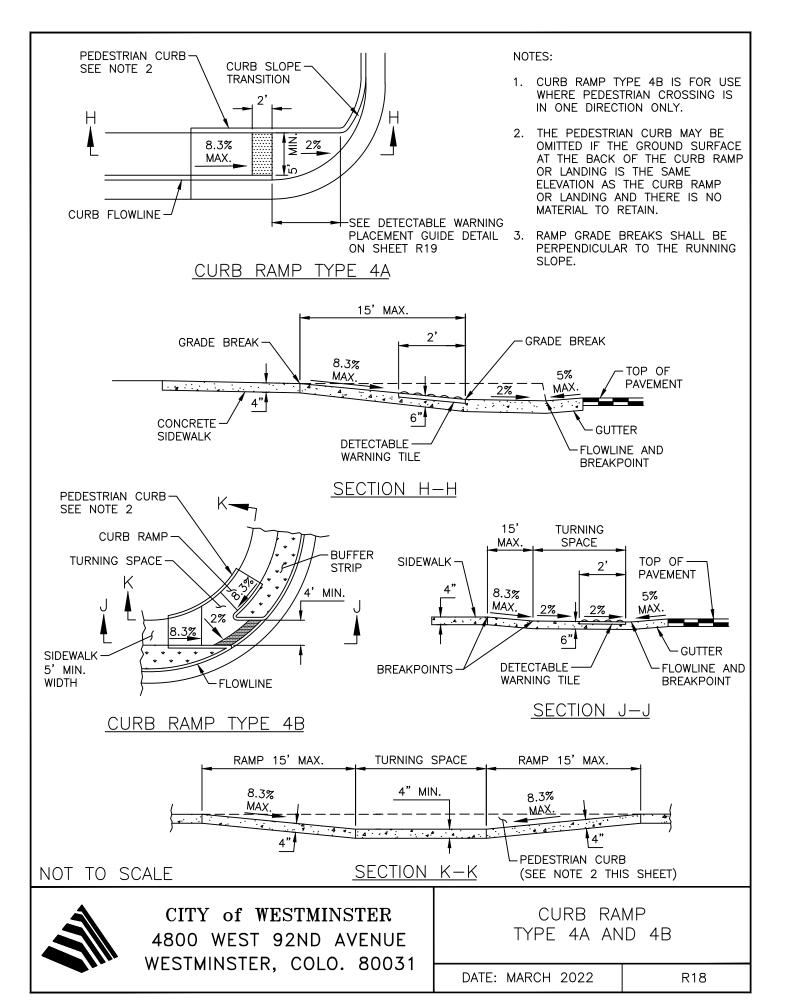
NOT TO SCALE

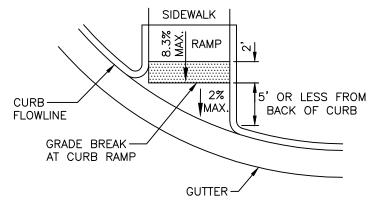


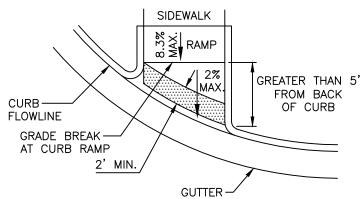
CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031

CURB RAMP TYPE 3C

DATE: MARCH 2022



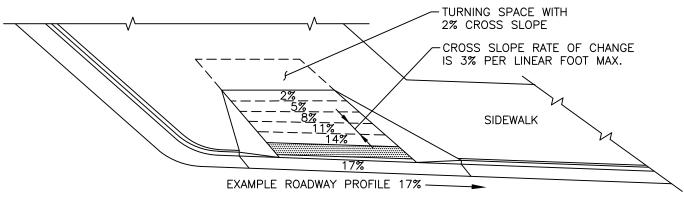




#### NOTES:

- THE DETECTABLE WARNING TILE SHALL BE EMBEDDED IN THE CONCRETE CURB RAMP WHILE CONCRETE IS PLASTIC.
- 2. THE DETECTABLE WARNING TILE TO BE USED SHALL MEET REQUIREMENTS OF WESTMINSTER STANDARDS AND SPECIFICATIONS SECTION 6.75.
- WHEN THE DETECTABLE WARNING TILE IS CUT, GRIND OFF THE REMAINING PORTION OF ANY CUT DOMES. SEAL ALL CUT PANEL EDGES WITH A SEALANT TO PREVENT WATER DAMAGE.
- 4. THE DETECTABLE WARNING SURFACE SHALL SPAN THE ENTIRE WIDTH OF THE RAMP. IF CONDITIONS DO NOT ALLOW THE ENTIRE SPAN, THE DETECTABLE WARNING SURFACE SPAN SHALL NOT BE MORE THAN 2 INCHES AWAY FROM EACH SIDE OF RAMP.
- 5. TRUNCATED DOME PAVER BRICKS SHALL BE USED ONLY ON DOWNTOWN STYLE CURB RAMPS AND ONLY WITH THE APPROVAL OF THE CITY ENGINEER. TRUNCATED DOME DIMENSIONS SHALL MEET THE REQUIREMENTS OF SECTION 6.75.07(C).

# DETECTABLE WARNING PLACEMENT GUIDE



# RAMP CROSS SLOPE TRANSITION TO ROADWAY PROFILE (APPLICABLE TO ALL CURB RAMP TYPES)

CURB RAMP CROSS SLOPES AND TURNING SPACES SHALL BE:

- A. 2% MAX. WHEN A YIELD OR STOP CONTROL IS PRESENT.
- B. PERMITTED TO EQUAL THE ROADWAY GRADE WHEN THERE IS NO YIELD OR STOP CONTROL, WHEN A TRAFFIC SIGNAL IS PRESENT, OR AT A MIDBLOCK CROSSING LOCATION.

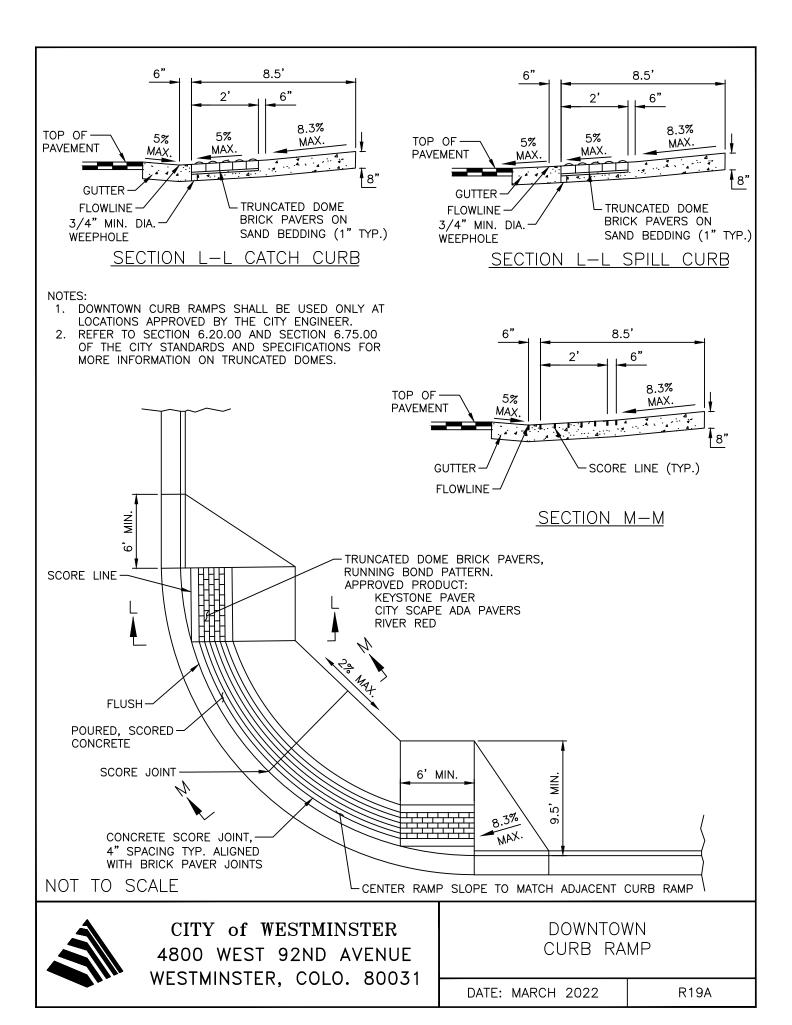
NOT TO SCALE

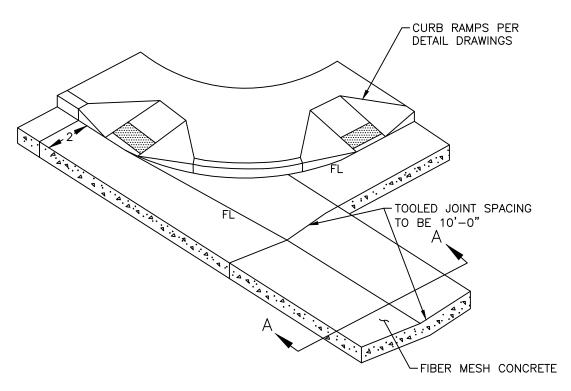


CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031

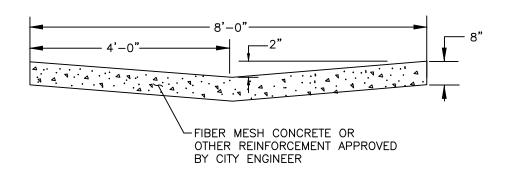
CURB RAMP
MISCELLANEOUS DETAILS

DATE: MARCH 2022





CURB, GUTTER & WALK



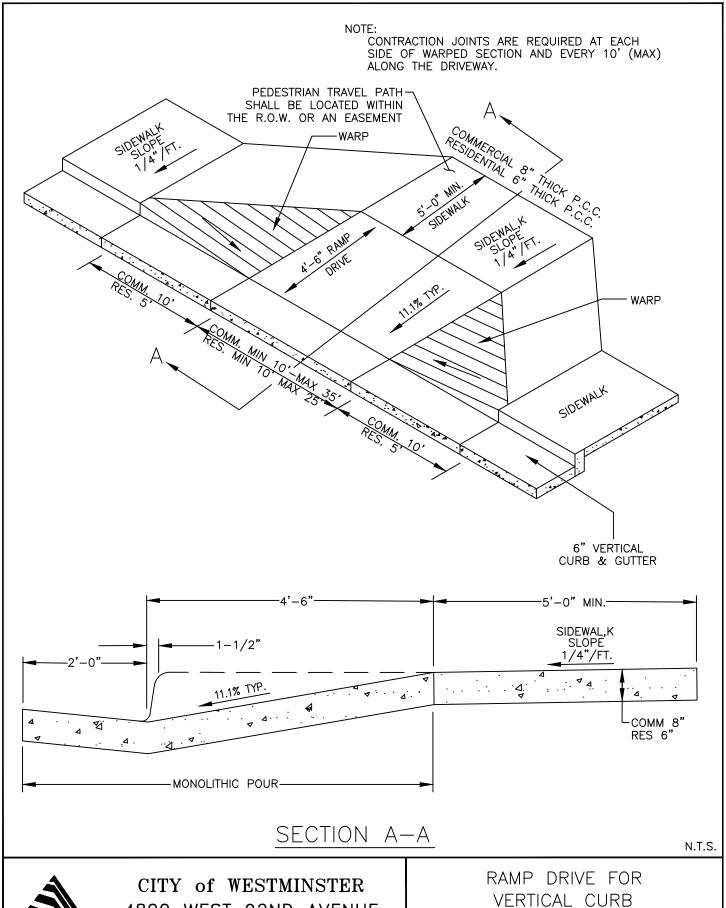
SECTION A-A

N.T.S.



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 CURB RAMP WITH CROSS PAN BARRIER CURB

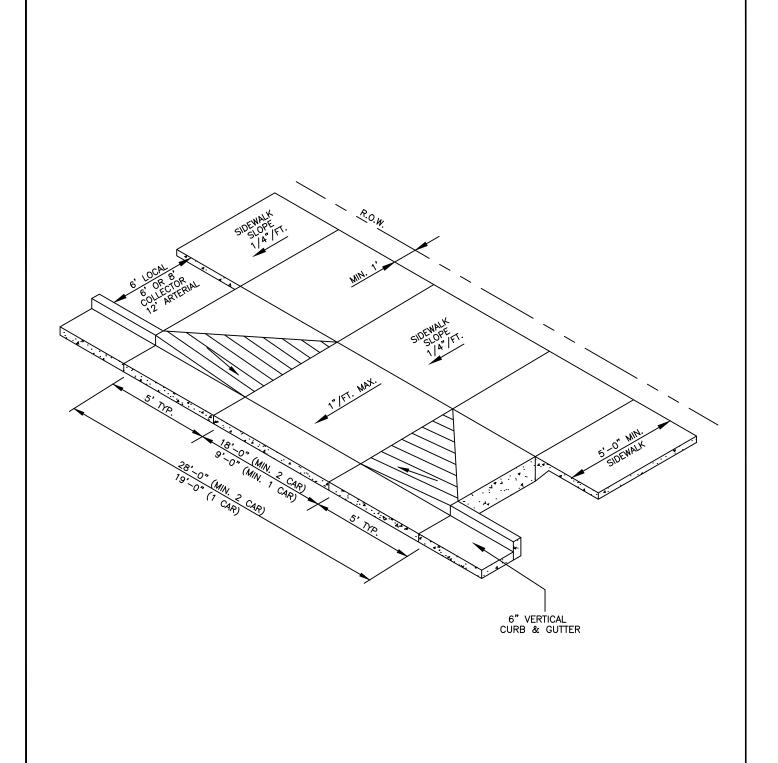
DATE: MARCH 2022





4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 ATTACHED WALK

DATE: MARCH 2022

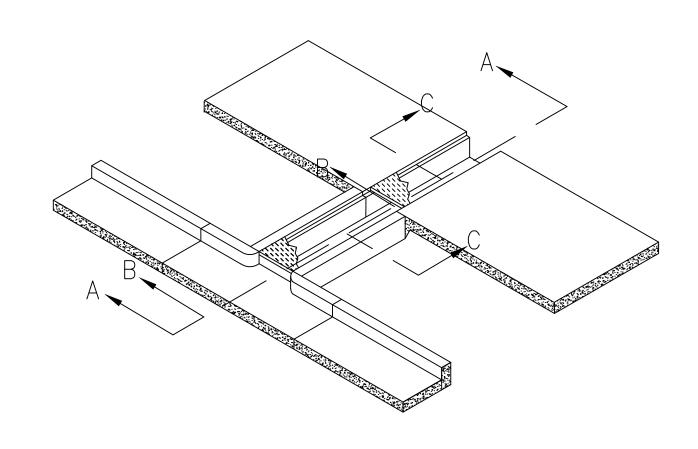


N.T.S.

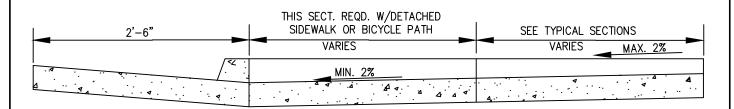


CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 RAMP DRIVE FOR VERTICAL CURB & DETACHED WALK

DATE: MARCH 2022



# CHASE DRAIN



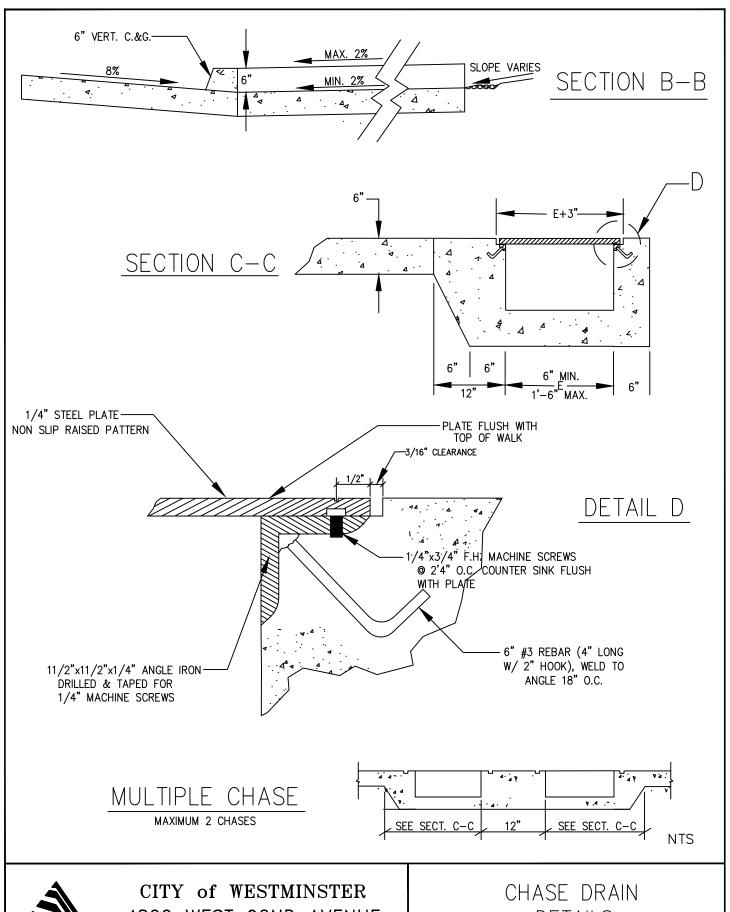
# SECTION A-A

N.T.S.



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 STANDARD SIDEWALK CHASE DETAIL

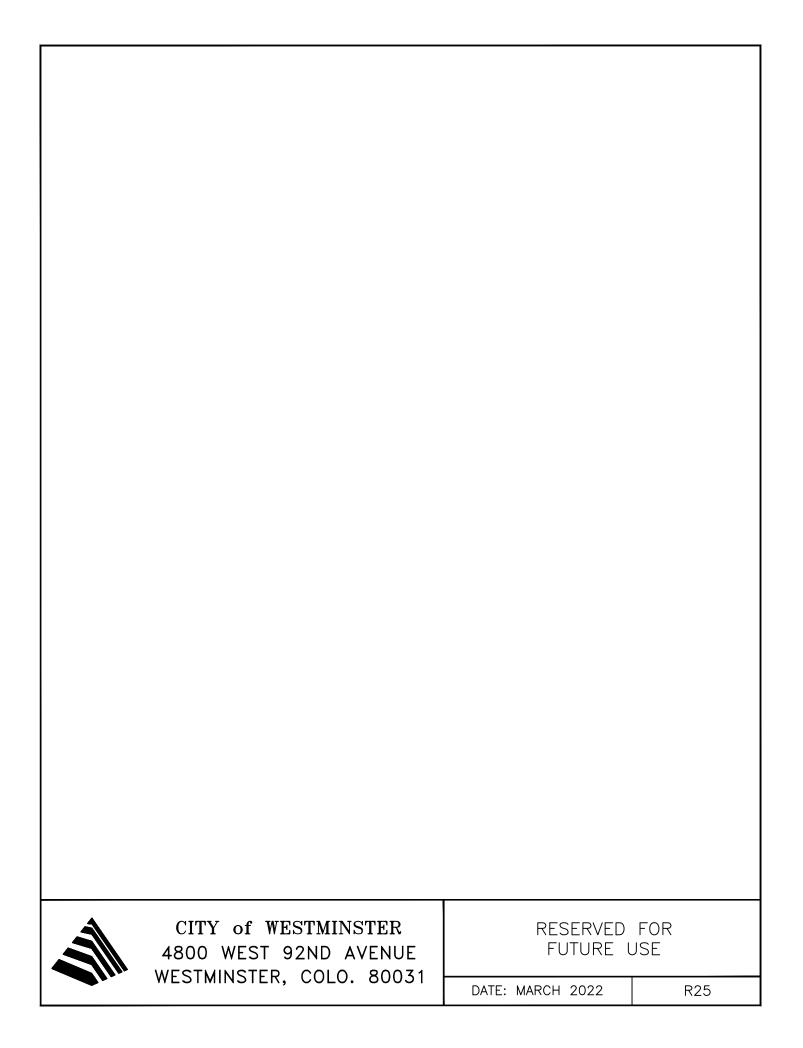
DATE: MARCH 2022

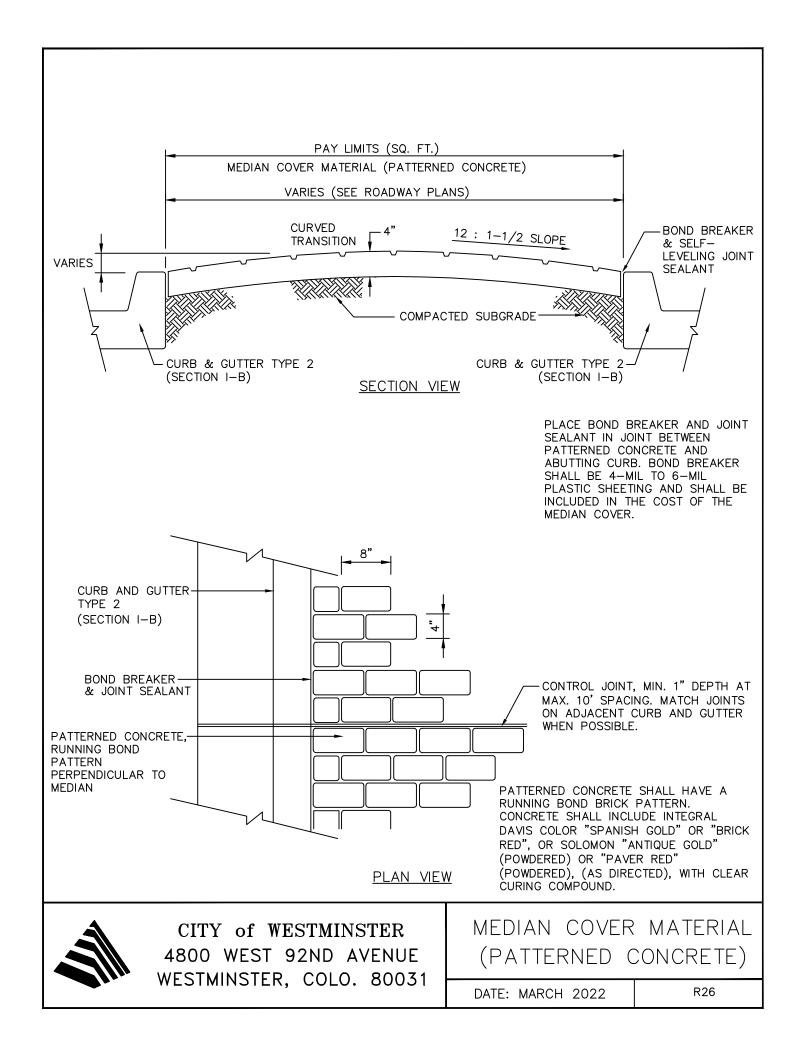


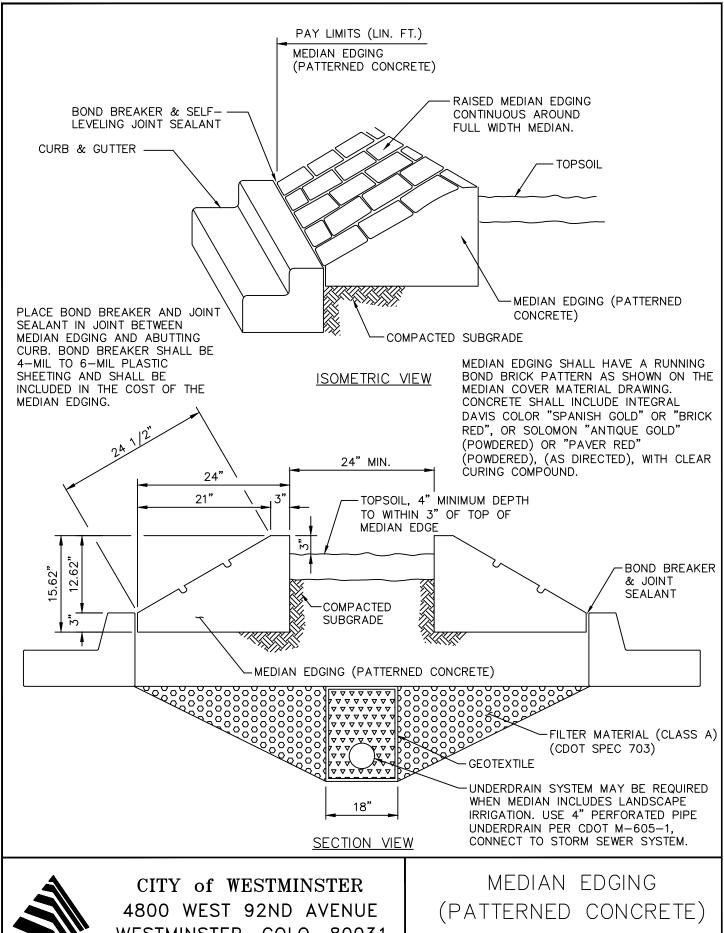


4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 **DETAILS** 

DATE: MARCH 2022



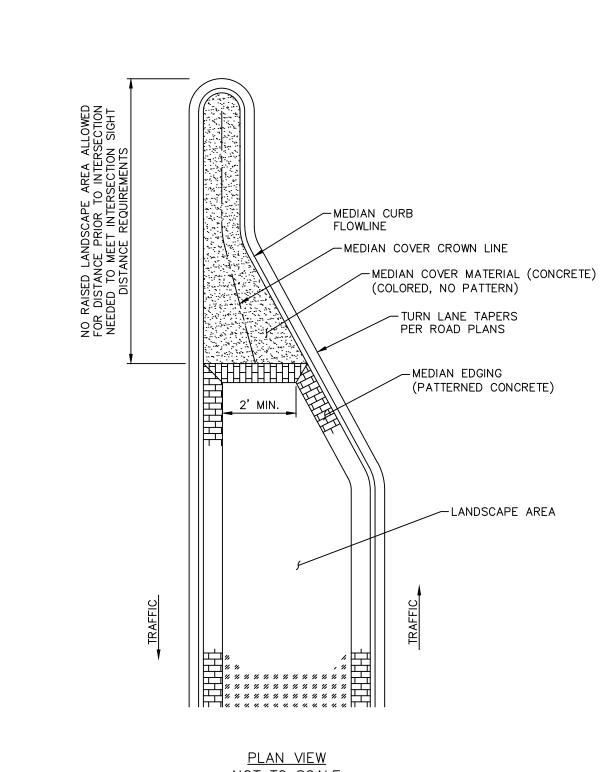






WESTMINSTER, COLO. 80031

DATE: MARCH 2022

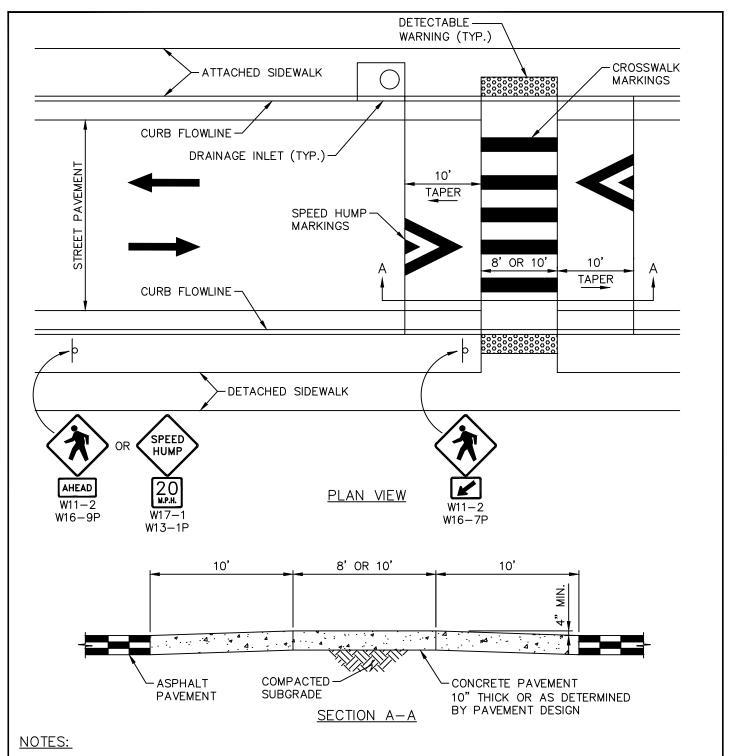


NOT TO SCALE



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 MEDIAN COVER TRANSITIONS

DATE: MARCH 2022



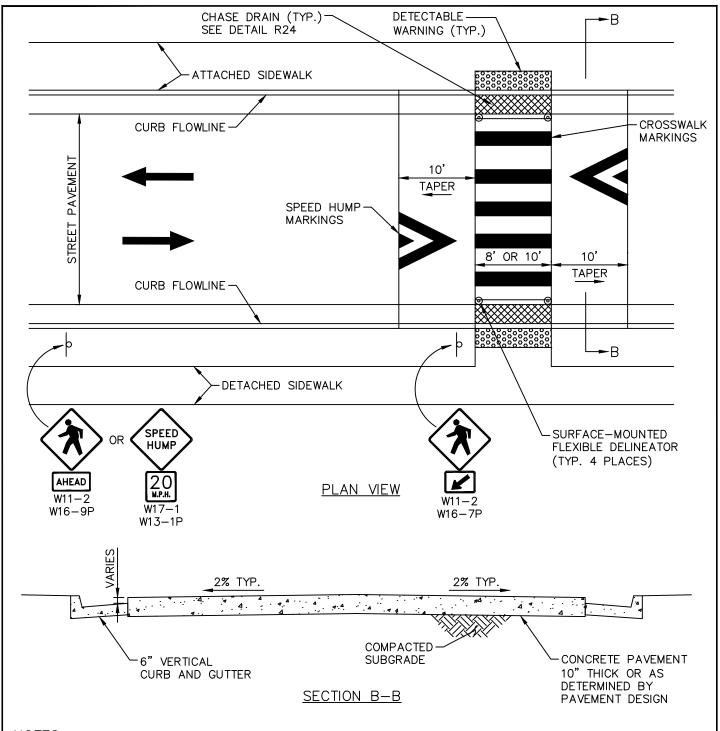
- 1. IF STORM SEWER IS PRESENT, INLETS MAY BE INSTALLED IF REQUIRED FOR DRAINAGE ON THE UPHILL SIDE OF THE RAISED CROSSWALK.
- 2. RAISED CROSSWALK SHALL UTILIZE SIGNAGE, SPEED HUMP MARKINGS AND CROSSWALK MARKINGS PER THE MUTCD.

NOT TO SCALE



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 RAISED PEDESTRIAN CROSSWALK

DATE: MARCH 2022



#### NOTES:

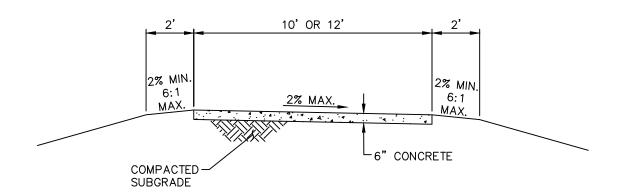
- 1. IF STORM SEWER IS NOT PRESENT, CHASE DRAINS MY BE UTILIZED IF REQUIRED FOR DRAINAGE.
- 2. RAISED CROSSWALK SHALL UTILIZE SIGNAGE, SPEED HUMP MARKINGS AND CROSSWALK MARKINGS PER THE MUTCD.

NOT TO SCALE



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 RAISED PEDESTRIAN CROSSWALK WITH CHASE

DATE: MARCH 2022



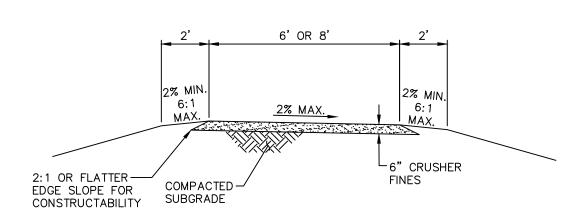
# SHARED USE PATHS TYPICAL SECTION

NOT TO SCALE

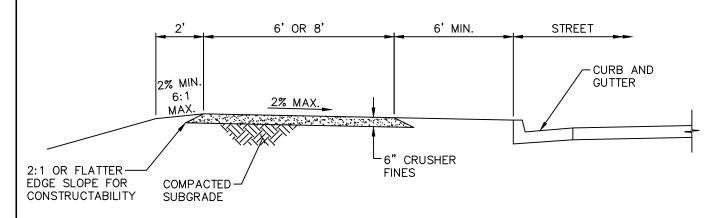


CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 CONCRETE SHARED
USE PATHS

DATE: MARCH 2022



## CRUSHER FINES TRAIL TYPICAL SECTION



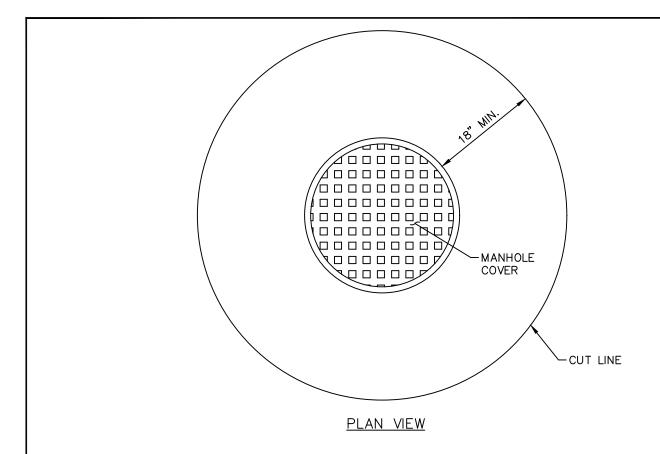
## CRUSHER FINES SIDEPATH TYPICAL SECTION

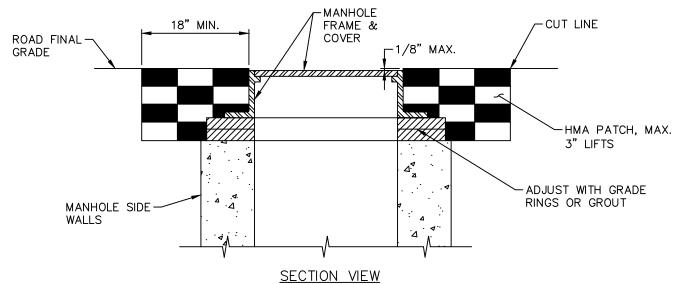
NOT TO SCALE



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 CRUSHER FINES
TRAILS

DATE: MARCH 2022





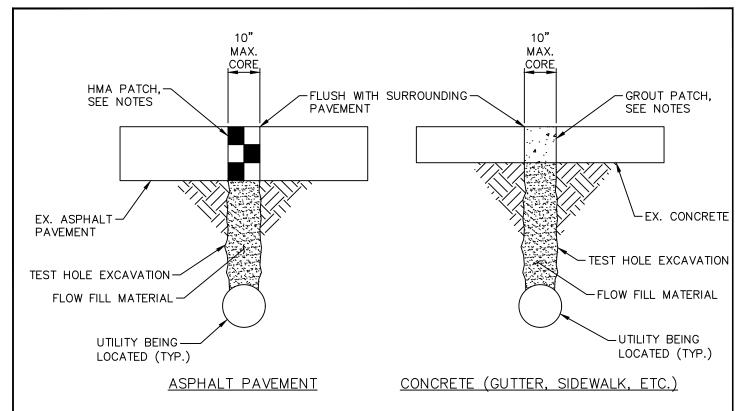
### **NOTES:**

- 1. MANHOLE COVERS SHALL BE ADJUSTED TO BE 1/8" MAX. BELOW FINAL GRADE OF ROAD.
- 2. FINAL MANHOLE ADJUSTMENTS SHALL MATCH GRADE AND CROSS SLOPE OF ROAD AND NO PART OF THE MANHOLE SHALL BE HIGHER THAN THE ROAD SURFACE.
- 3. VALVE BOXES SHALL BE ADJUSTED WITH EACH LAYER OF PAVING.



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 MANHOLE ADJUSTMENT

DATE: MARCH 2022



#### SECTION VIEW

#### NOTES:

- 1. UTILITY TEST HOLES ("POTHOLES") SHALL BE LOCATED OUTSIDE OF TRAFFIC LANE WHEEL PATHS.
- WHEN POSSIBLE, TEST HOLES SHALL BE LOCATED UNDER EXISTING PAVEMENT MARKINGS AND SUCH MARKING REPLACED IN KIND AT THE COMPLETION OF THE REPAIR TO CAMOUFLAGE THE PAVEMENT DISTURBANCE.
- 3. ALL TEST HOLES IN PAVED SURFACES SHALL BE CORED WITH A CIRCULAR CORING SAW WITH A 10" MAX. DIAMETER. THE PLUG SHALL BE CAREFULLY REMOVED WITHOUT CAUSING DAMAGE.
- 4. EXCAVATIONS FOR TEST HOLES SHALL BE BACKFILLED WITH FLOW FILL MATERIAL. NATIVE MATERIAL REMOVED SHALL NOT BE USED TO BACKFILL THE EXCAVATION.
- 5. THE REMOVED PAVEMENT SHALL BE REPLACED BY ONE OF THE FOLLOWING METHODS, AS DIRECTED BY THE CITY REPRESENTATIVE:
- 5.1. ASPHALT SURFACE: PATCHED WITH HOT MIX ASPHALT OF SIMILAR AGGREGATE SIZE TO THE SURROUNDING PAVEMENT AND COMPACTED IN MAXIMUM 3" LIFTS WITH A COMPACTOR CAPABLE OF FITTING INTO THE CORE HOLE SUCH THAT THE SURFACE IS FLUSH WITH THE SURROUNDING PAVEMENT. AT THE CITY REPRESENTATIVE'S DISCRETION, LOCALIZED INFRARED TREATMENT MAY BE REQUIRED TO BLEND THE TOP MAT OF THE ASPHALT TOGETHER. REGARDLESS OF THE EXISTING PAVEMENT THICKNESS, HMA PATCHING REPAIRS SHALL PROVIDE A MINIMUM THICKNESS OF:
- 5.1.1. ARTERIAL STREET: 9"
- 5.1.2. COLLECTOR STREET: 7"
- 5.1.3. LOCAL STREET: 5'
- 5.2. CONCRETE: THE FULL DEPTH SECTION OR THE TOP 3" OF PAVEMENT OF THE REMOVED ORIGINAL CORE SHALL BE REPLACED AND GROUTED WITH A HIGH STRENGTH, QUICK SET EPOXY OR MORTAR, AS APPROVED BY THE CITY REPRESENTATIVE, SUCH THAT THE SURFACE IS FLUSH WITH THE SURROUNDING PAVEMENT.



CITY of WESTMINSTER 4800 WEST 92ND AVENUE WESTMINSTER, COLO. 80031 UTILITY TEST HOLE RFPAIR

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