



**STANDARD CONTRACT DOCUMENTS
AND
TECHNICAL SPECIFICATIONS
FOR
UTILITY AND STREET CONSTRUCTION**

Revised August 2025

**CITY OF RAYMORE, MISSOURI
100 Municipal Circle Raymore, Missouri 64083
816-331-1852 (Telephone) 816-331-8067 (Fax)**

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SECTION 1000: GENERAL DESIGN STANDARDS

1001. General

These design standards are the minimum criteria for the design and construction of City of Raymore public streets. They reflect the current edition of Section 2200 from the Kansas City Metropolitan Chapter of the APWA Construction and Material Specifications.

1002. Pavement Design Pavement sections shall comply with subgrade preparation standards from Section 2201.3 of the APWA specification, which defines subgrade as a well-graded and compacted layer upon which subsequent courses are placed. Subgrade preparation involves fine grading and compacting to specified lines, grades, and density.

- Testing shall be performed by a third-party testing firm.
- **Results must be submitted to the City prior to curb or pavement installation.**
- **Any Final testing results shall be submitted prior to Acceptance by City Council.**

Pavement Design Summary Table (Concrete and asphalt thickness, cross slopes, design ESALs, axle loadings, traffic class, and widths per classification) All measurements are back of curb to back of curb.

Street Classification	Major Arterial	Minor Arterial	Collector	Residential	Commercial	Rural
Pavement Width	52 ft.	52 ft.	36-ft.	28ft.	36-48 ft.	24 ft.
Asphalt Roads (cross Slope 3%)						
Thickness	12 in.	11 in.	9 in.	6 in.	9 in.	11 in.
Concrete Roads (cross Slope 3%)						
Thickness	9 in.	9 in.	7 in.	6 in.	7 in.	N/A

1003. Subgrade Stabilization

- **Subgrade stabilization is required.**
- Stabilization options
 - 6" chemical base treated to a percentage recommended by an approved testing lab. (extended one foot beyond the back of the curb).
 - An approved Geogrid product, extended one foot beyond the back of curb
- All roads require 6" MoDOT Type 5 (or approved equal) aggregate base above the stabilized subgrade prior to concrete or asphalt installation.
- The aggregate base and asphalt layers shall be installed in accordance with APWA Sections 2202 and 2203

1004. Radius Design

- Cul-de-sac: Minimum radius to back of curb = 39' back of curb to back of curb
- Eyebrows: 50 ft radius with 39 ft back-of-curb minimum, variations require City Engineer approval

1005. Temporary Cul-De-Sacs/ Stub Roads

- Required for dead-end streets that are longer than one lot.
- 39' radius, 4" asphalt base + 2" asphalt surface on treated subgrade per section 1003.
- They are to be built the same as residential roads but do not need curbs unless they are necessary to make the stormwater system function correctly.
- Stub roads are to be limited to every extent possible.

1006. Grading and Geometric Design

Design per latest AASHTO guidelines as defined in APWA section 5200. Specific parameters are listed for each street classification: Arterials, Collectors, Residential, Commercial, Industrial, and Rural.

Divided Arterials:

Minimum width dual roadways right-of-way	120 ft
Maximum gradient	6%
Minimum sight distance on vertical curves (stop)	450 – 550 ft.
Minimum radii of horizontal curves	1200 ft.
Design speed	55 MPH

Arterials:

Single roadway right-of-way	80-100 ft
Maximum gradient	6%
Minimum sight distance on vertical curves (stop)	325-400 ft.
Design speed	45 MPH
Standard Detail:	St - 1

Collectors:

Minimum width right-of-way	60 ft
Maximum gradient	8%
Minimum radii of horizontal curves	450 ft.
Minimum sight distance on vertical curves (stop)	225-250 ft.
Design Speed	35 MPH
Standard Detail	St - 2

Residential Streets:

Minimum width right-of-way	50 ft.
Maximum gradient	10%
Minimum radii of horizontal curves	200 ft.
Minimum sight distance of vertical curves (stop)	150 ft.
Design speed	25 MPH
Standard Detail	St - 3

Industrial Streets:

Minimum width right-of-way	60 ft.
Maximum gradient	6%
Minimum sight distance of vertical curves (stop)	200 ft.
Minimum radii of horizontal curves	300 ft.
Design speed	30 MPH

Commercial Streets:

Minimum width right-of-way	60 ft.
Maximum gradient	6%
Minimum radii of horizontal curves	300 ft.
Minimum sight distance on vertical curves (stop)	200 ft.
Design Speed	30 MPH
Standard Detail	St - 2

Rural Roads:

Minimum width right-of-way	40 ft.
Maximum gradient	6%
Minimum radii of horizontal curves	300 ft.
Minimum sight distance on vertical curves (stop)	200 ft.
Design speed	30 MPH
Standard Detail	St - 4

- Minimum gradient = 1.0%
- Maximum gradient may exceed limits only with City Engineer approval
- Tangent between reverse curves: 50' (residential), 100' (others)
- Back-of-curb grading slope: 1/4" to 1/2" per 1'

1007. Streets Abutting Existing Roads

- Must meet AASHTO sight distance standards per APWA Section 5203.9
- Developers or Owners must reconstruct existing streets at their cost if sight distances are deficient per APWA Section 5203.10

1008. Private Streets

- Must meet all public street design and construction standards.
- Street Signs to be installed with White letters on Blue backing in accordance with MUTCD standards.
- Third Party testing to be conducted as if the road were public.

1009. Superelevation

- Required on curves based on design speed and radius per AASHTO guidelines referenced in Section 5200

1010. Intersections

- Crowns must match at center.

1011. Sidewalks

- Minimum 6' green space behind curb to the front face of the sidewalk within ROW. (refer to details 1-4).
- If installed at the back of the curb, the sidewalk must be widened to 6'.
- The sidewalk can be installed with less than a 6' greenspace with City's Approval
- Follow Section 2.00 (Materials), Section 3.00 (Installation), and Detail St-5 for ADA ramps.

SECTION 2000: MATERIALS

2001. Portland Cement Concrete Pavement

- **Concrete:** KCMMB-4K
- **Portland Cement:** ASTM C150, Type I or II
- **Coarse Aggregate:** Per approved mix
- **Fine Aggregate:** Per approved mix
- **Expansion Joint Material (1/2"):** Fiber based ASTM D1751 or Approved Equal
- **Joint Sealing Compound:** ASTM D3405
- **Reinforcing Steel:** ASTM A615
- **Welded Wire Fabric:** ASTM A185
- **Curing Compound:** ASTM C309 (or approved equal)

2002. Asphaltic Concrete Pavement

- **Base Material:** APWA (Section 2205) Type 5, 40% max recycled
- **Surface Course:** APWA (Section 2205), Type 5, comprised of virgin (non-recycled) asphalt materials
- **Coarse Aggregate:** APWA (Section 2205)
- **Fine Aggregate:** APWA (Section 2205)
- **Asphalt Cement:** APWA (Section 2205)
- **Tack Coat:** RC-70 or SS-1, evenly applied. APWA (Section 2204.3A)

2003. Curb and Gutter

- **Concrete:** KCMMB-4K
- **Portland Cement:** ASTM C150, Type I or II
- **Coarse Aggregate:** Per approved mix
- **Fine Aggregate:** Per approved mix
- **Dimension:** Standard Details St-6 through St-8
- **Expansion Joint Material (1/2"):** ASTM D1751
- **Joint Sealing Compound:** ASTM D3405
- **Curing Compound:** ASTM C309 Type 2 (white)
- **Dowels:** Three #5 Smooth Bars, epoxy coated or greased with caps

2004. Driveway Entrances, Sidewalks and Trails

- **Concrete:** KCMMB-4K
- **Portland Cement:** ASTM C150, Type I or II
- **Coarse Aggregate:** Per approved mix
- **Fine Aggregate:** Per approved mix
- **Dimension:** Standard Detail St-8
- **Expansion Joint Material (1/2"):** ASTM D1753
- **Joint Sealing Compound:** ASTM D3405
- **Curing Compound:** ASTM C309 Type 2 (white)
- **Dowels:** Three #5 Smooth Bars, epoxy coated or greased with caps

2005. Approved Chemical Base and Geogrid Products:

- Limestone Kiln Dust
- Quicklime
- Hydrated Lime
- Cement
- Tensar BX 1200, Triax TX140
- Mirafi BXG12, TerraGrid RX1200, BOSTD RX1200
- Others to be approved upon submission and review by the City Engineer.

SECTION 3000: INSTALLATION

3001. Portland Cement Concrete Pavement Construction shall conform to APWA Section 2208 with the following. A detailed pavement design is to be submitted to The City for approval if using PCCP:

- **Forms:** Shall not deviate more than 1/8 inch in 10 feet in any direction.
- **Reinforcing Steel:** Must be clean, correctly spaced and secured, lapped at least 40x the bar diameter. (#4 bar- 20", #5 bar- 25")
- **Reinforced Placement:** Longitudinal joints with 1/2" diameter bars at 24" centers; dowels in expansion/construction joints; welded wire fabric 2" below surface on chairs.
- **Dowel Bars:** Must be parallel to pavement surface and centerline, epoxy coated or greased and sleeved to allow 1" movement.
- **Joints:** Jointing plan to be submitted to the city for review and approval.

3002. Asphaltic Concrete Pavement Asphalt shall conform to APWA Section 2200 with the following:

- **Base Lifts:** 3" min, 4" max
- **Tack Coat:** 0.05 to 0.10 gal/SY of RC-70 or SS-1 between lifts, unless placed same day
- **Surface Course:** Max 2" per lift
- **Mix Temperature at Delivery:** 250°F–350°F
- **Minimum Ambient Temp:** 40°F and rising for base, 50°F and rising for surface
- **Placement Weather:** Not below 40°F or in wet/unfavorable weather as determined by the city.
- **Temperature between asphalt lifts:** 180°F and falling. Asphalt below 150°F will require tack oil to be applied. Asphalt exceeding 180°F will be required to naturally cool until the correct temperature is reached.

3003. Curb and Gutter

- **Curb Types:**
 - New construction on all roads: Type CG-1 (detail St-6).
 - Removal and replacement of old curb. CG-1 (detail St-6) or Modified CG-1 where applicable (detail ST-11).
- **Subgrade:** Must match road stabilization and be compacted following the specifications of section 1003.
- **Forms:** Steel/wood, cleaned/oiled, securely staked.
- **Joints:** Tooled/sawed per drawings; contraction joints at least 25% depth of slab.
- **Expansion Joints:**
 - Every 300' and/or as needed
 - At each end of a radius
 - At each side of a curb inlet throat

- **Placing Concrete:** On compacted/moist subgrade; internal vibration; form shape to spec.
- **Finish:** Float and brushed; excessive surface water will result in rejection.
- **Curing:**
 - **White Membrane:** Spray at 1 gal/150 SF. Recoat if damaged or rained on.
 - **Cold/Hot Weather:** Per MCIB Sections 10 & 11

3004. Driveway Entrances and Sidewalks

- **Sidewalks:** 4" thick min; KCMMB-4K; no steel
- **ADA Ramps:** 6" thick min; KCMMB-4K; no steel
- **Residential Drives:** 6" thick; KCMMB-4K; no steel; See ST-8
 - The cross-slope on residential driveways at the sidewalk/trail is required to be 2% or less.
- **Commercial Drives:** 8" thick; KCMMB-4K; no steel; See ST-8
 - The cross-slope on commercial driveways at the sidewalk/trail is required to be 2% or less.
- **Trails:** 6" KCMMB- 4K; no steel
- **Curbing:** No monolithic pours; pour separately
- **Base:** Compacted AB3 aggregate (or approved similar), **4 inches thick** for residential driveways, sidewalks and trails, **6 inches thick** for commercial driveways.
- **Curb Transitions:** Lower curbs at Commercial driveways for ADA access
- **Subgrade:** Top 6" compacted to 95% of Proctor (ASTM D698); remove unstable soil; fill and compact over-excavation with AB3 (or approved equal).
- **Expansion Joint:** At curb line, right of way line, property line and where sidewalks meet the driveway approach

SECTION 4000: MATERIAL TESTS AND CERTIFICATIONS OF COMPLIANCE

4001. Material Tests

Note: All required third-party testing will be scheduled and paid for by the developer/contractor. Reports must be submitted to the City of Raymore, prior to approval and acceptance.

4002. Subgrade (Sections 2201, 2202, 2203):

- Compaction testing must achieve a minimum of 95% of the maximum dry density in accordance with ASTM D698, if unstable areas are found, base rock shall be used to stabilize the area. (3X5 or Larger)
- Moisture and density shall be verified using a nuclear gauge.
- Stabilized soils tested for strength (unconfined compressive strength).
- Testing follows ASTM standards depending on stabilizing agent
- Roll Test Per APWA Section 2201.4-E
 - **If using geogrid, no roll test is required on subgrade**

4003. Aggregate Base (Section 2204):

- Gradation, moisture, and compaction tests (95% density per ASTM D698)
- Sampling per ASTM D75; sieve analysis per ASTM C136
- Roll Test Per APWA Section 2201.4-E

4004. Asphalt Pavement (Section 2205):

- Testing includes asphalt content, gradation, density (measured using nuclear gauges), and temperature.
- Laboratory analysis is performed on air voids, stability, and flow

4005. Concrete (Sections 2206 & 2207):

- Testing includes slump, air content, compressive strength, and temperature. To be taken once per day or as directed by City Inspector
- One set of strength cylinders shall be taken once per day or as directed by City Inspector

SECTION 5000: CONSTRUCTION METHODS FOR GRADING**5001. Finish Grading**

- Areas to be graded shall be cut or filled to within 0.04 feet of approved subgrade elevations

5002. Excavating

- Suitable material shall be reused as fill where feasible
- Unsuitable material (organic matter, soft clay, etc.) must be removed
- Tree stumps, masonry, and obstructions removed to 4 feet below subgrade
- Rock/shale requires 6" over-excavation below subgrade + formwork width
- Refill with suitable earth or granular material and compact

5003. Clearing and Grubbing

- Remove sod, shrubs, trees, vegetation, and debris within grading limits

5004. Fill

- Embankment area must be cleared and graded before fill placement
- No boulders >8" within 2 feet of subgrade
- Fill layers shall not exceed 8" of compacted thickness, fill layers will need to have compaction testing

5005. Moisture Content

- Moisture content must be uniform
- Must fall within -1% to +3% of specified optimum content

5006. Compaction in Fill Sections

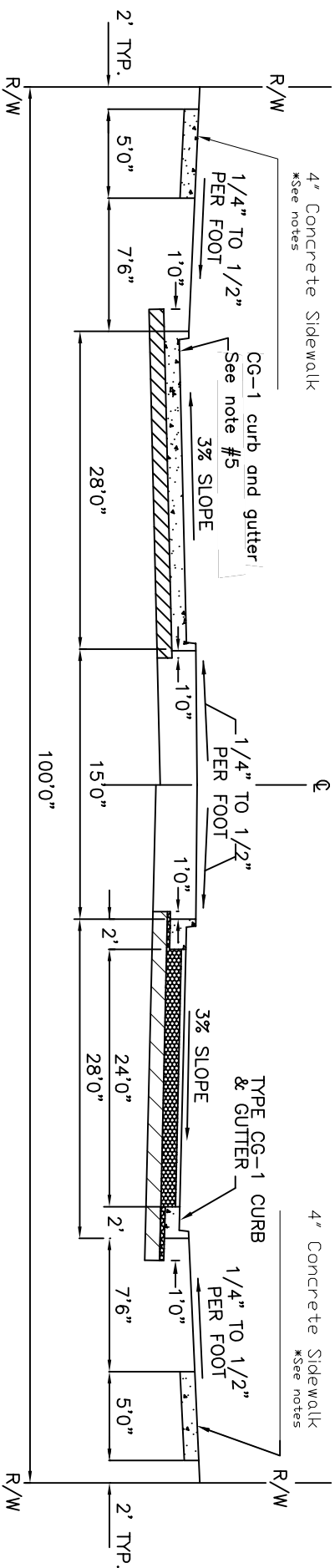
- Each fill layer compacted to 95% of Standard Proctor Density (ASTM D698)
- Sand/gravel to be rolled until no further consolidation is observed

5007. Compaction in Cut Sections

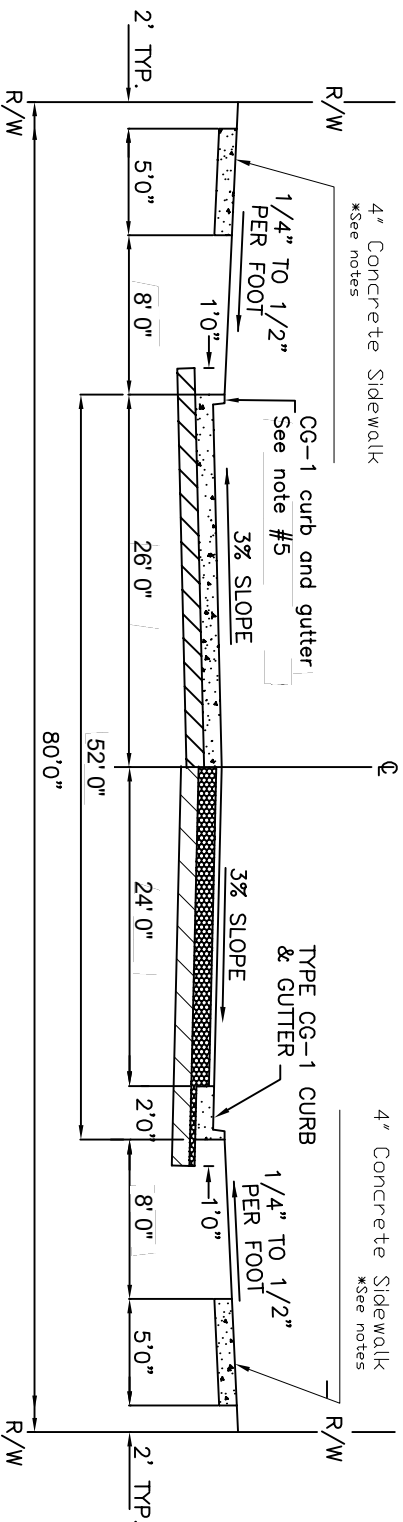
- Scarify and compact top 6" of cut sections to meet fill section specs

5008. Utility Backfill

- Under pavement/structures: Use flowable fill where access to rollers are restricted
 - Flowable fill design requires Engineer approval
 - Flowable fill or AB-3 required at all street crossings.
 - Backfill to be installed to level with dirt subgrade (below road profile).
 - Follow Detail St-9
- Other areas: Use finely divided excavated material free from debris, organics, frozen material, and stones >6"

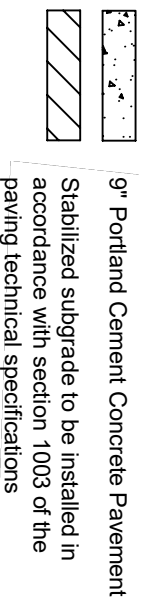


DUAL LANE 4-LANE

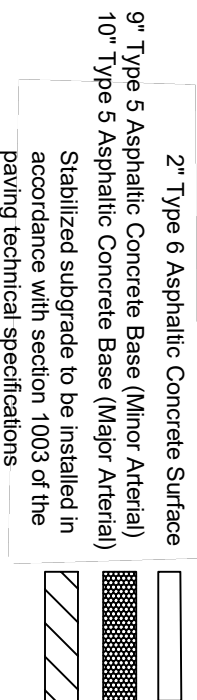


STANDARD 4-LANES

TYPE A CONSTRUCTION (Minimum Thickness)



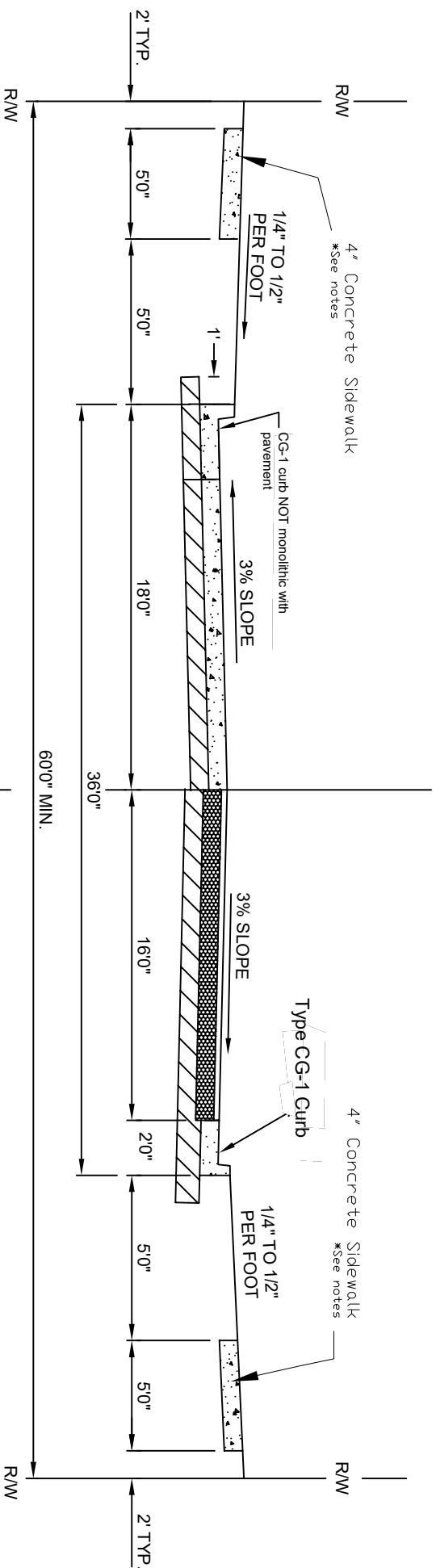
TYPE B CONSTRUCTION (Minimum Thickness)



Notes:

1. All curb, sidewalk, trail and Portland Cement pavement shall be KCMMB 4K concrete.
2. Sidewalk shall be placed on 4" of compacted AB3
3. Cross-slope on sidewalk shall not exceed 2%.
4. Curb & gutter shall NOT be poured monolithic with pavement.
5. Trails shall be constructed of 6" concrete placed on 4" of compacted AB3. Trails width shall be determined on a case by case basis

Engineering Department City of Raymore 100 Municipal Circle Raymore, MO 64083 816-331-1852 Fax 816-331-8067				CITY OF RAYMORE Major & Minor Arterial Streets			
DRAWN TS	DATE	SIZE A		FSCM NO.	DWG NO.	REV	
CHECKED DP		SCALE NONE			St - 1		
APPROVED Modified 7/23/25		SHEET 1		OF 1			



TYPE A CONSTRUCTION

(Minimum Thickness)

7" Portland Cement Concrete Pavement

Stabilized subgrade to be installed in accordance with section 1003 of the paving technical specifications

TYPE B CONSTRUCTION

(Minimum Thickness)

2" Type 5 Asphaltic Concrete Surface

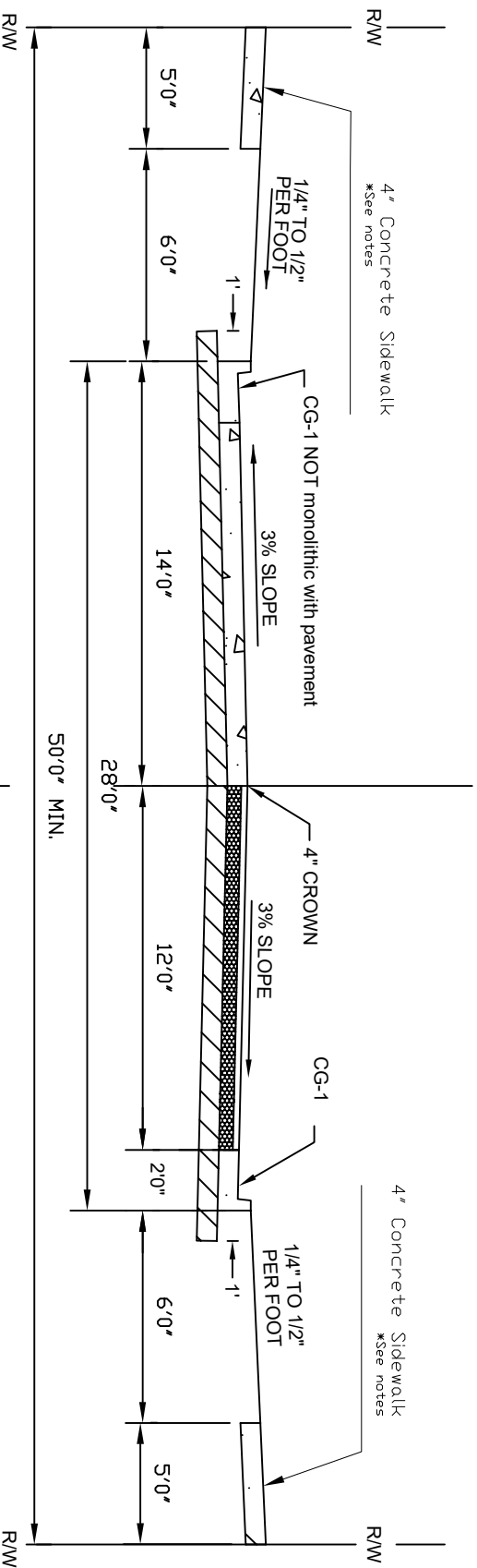
7" Type 5 Asphaltic Concrete Base

Stabilized subgrade to be installed in accordance with section 1003 of the paving technical specifications

Notes:

1. All curb, sidewalk, trail and Portland Cement pavement shall be KCMMB 4K concrete.
2. Sidewalk shall be placed on 4" of compacted AB3
3. Cross-slope on sidewalk shall not exceed 2%.
4. Curb & gutter shall NOT be poured monolithic with pavement.
5. Trails shall be constructed of 6" concrete placed on 4" of compacted AB3. Trails width shall be determined on a case by case basis

Engineering Department City of Raymore 100 Municipal Circle Raymore, MO 64083 816-331-1852 Fax 816-331-8067				CITY OF RAYMORE Collector / Commercial Street	
DRAWN TS		DATE		SIZE A	
CHECKED DP		FSCM NO.		DWG NO. St - 2	
APPROVED Modified 7/23/25		SCALE NONE		SHEET 1 of 1	



TYPE A CONSTRUCTION

(Minimum Thickness)



6" Portland Cement Concrete



Stabilized subgrade to be installed in accordance with section 1003 of the paving technical specifications

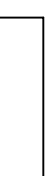
TYPE B CONSTRUCTION

(Minimum Thickness)

2" Type 5 Asphaltic Concrete Surface



4" Type 5 Asphaltic Concrete Base



Stabilized subgrade to be installed in accordance with section 1003 of the paving technical specifications

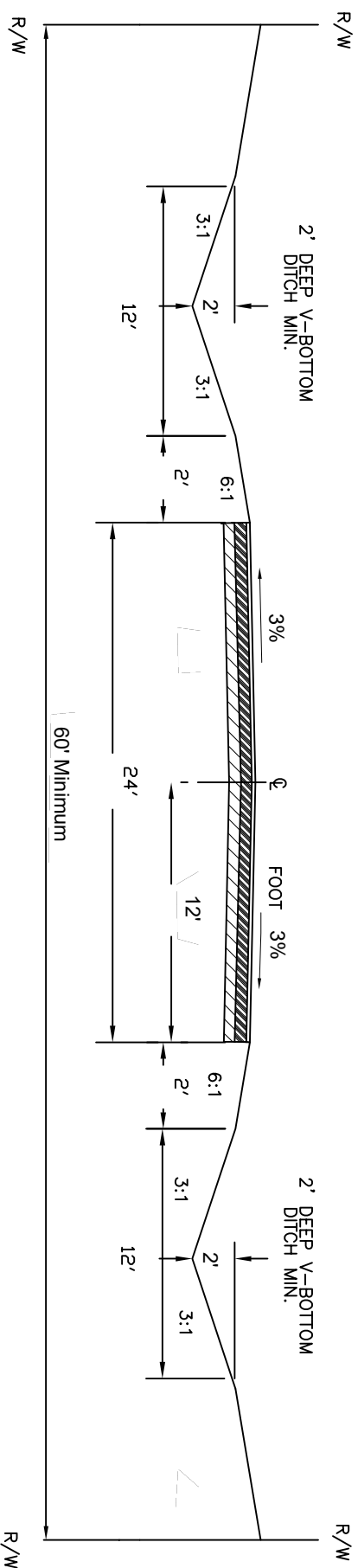


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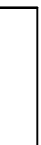
1. All curb, sidewalk, trail and Portland Cement pavement shall be KCMMB 4K concrete.
2. Sidewalk shall be placed on 4" of compacted AB3
3. Cross-slope on sidewalk shall not exceed 2%.
4. Curb & gutter shall NOT be poured monolithic with pavement.
5. Trails shall be constructed of 6" concrete placed on 4" of compacted AB3. Trails width shall be determined on a case by case basis

Engineering Department City of Raymore 100 Municipal Circle Raymore, MO 64083 816-331-1852 Fax 816-331-8067		DATE	
DRAWN TS		DATE	
CHECKED DP		DATE	
APPROVED Modified 7/23/25		DATE	

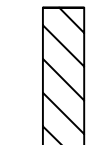
CITY OF RAYMORE			
Residential / Local Street			
SIZE A	FSCM NO.	DWG NO. St - 3	REV
SCALE NONE	SHEET 1	OF 1	1



TYPE A CONSTRUCTION _____ (Minimum Thickness)

 2" Type 5 Asphaltic Concrete Surface

 6" Type 5 Asphaltic Concrete Surface

 Stabilized subgrade to be installed in accordance with section 1003 of the paving technical specifications

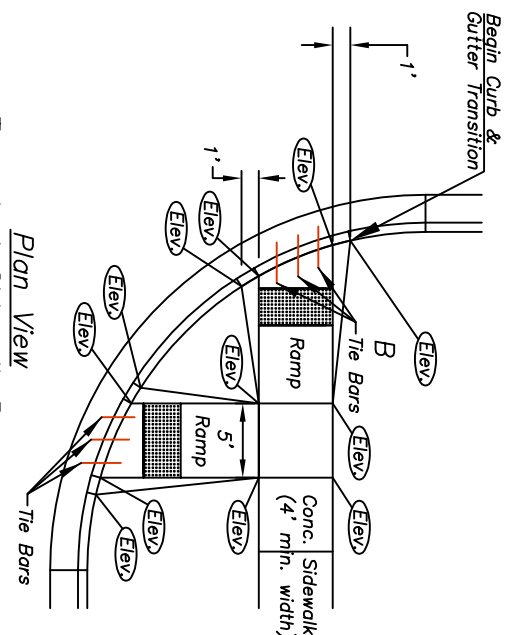
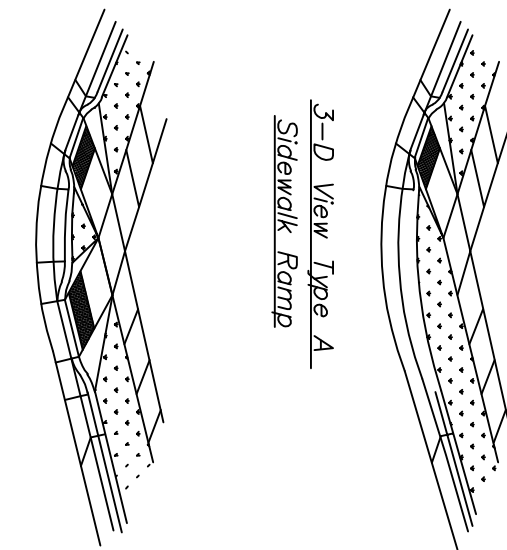
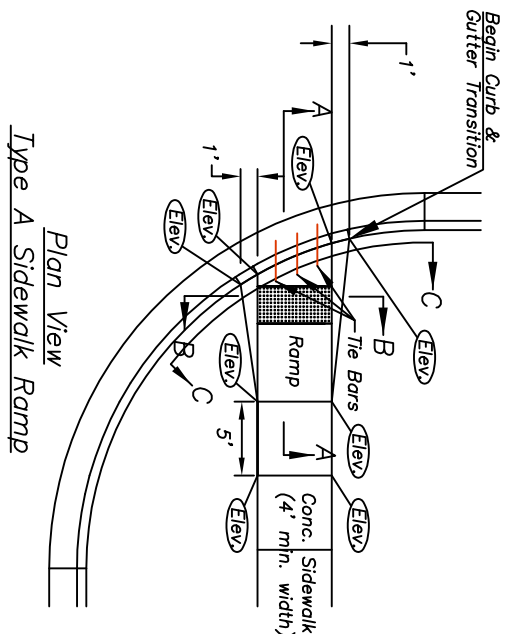
Engineering Department
City of Raymore
100 Municipal Circle
Raymore, MO 64083
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CITY OF RAYMORE

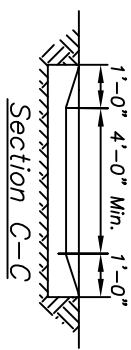
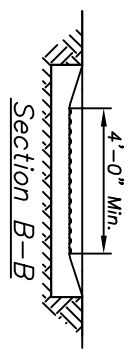
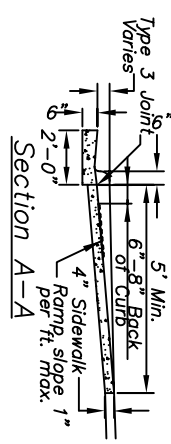
Rural Street

SIZE A	FSCM NO.	DWG NO. St - 4	REV
SCALE NONE		SHEET 1	OF 1



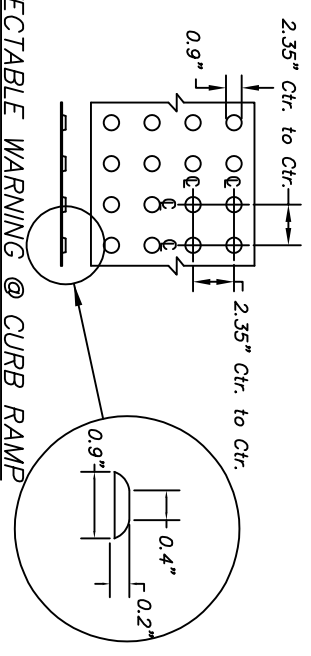
NOTES

1. Sidewalk ramp location determined from the intersection of the extension of back of sidewalk and back of curb and gutter.
2. Plan drawings shall include a table of elevations for all points labelled as (Elev.).
3. Key all construction joints or use tie bars #4 epoxy coated @ 12" o.c.
4. Longitudinal joint spacing to match width of sidewalk.
5. Isolation joints shall be placed where walk abuts driveways and similar structures, and 250' centers max.
6. Sidewalk Ramp shall be lengthened to provide ADA compliance slope but need not exceed 15'.
7. ADA maximum ramp slope = 1"/ft. ADA maximum cross slope = 2%.
8. Detectable warnings to comply with ADA requirements. ArmourCast panels or approved equal, brick pavers are not acceptable.

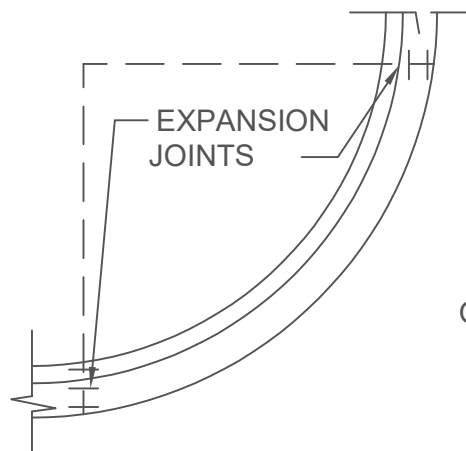
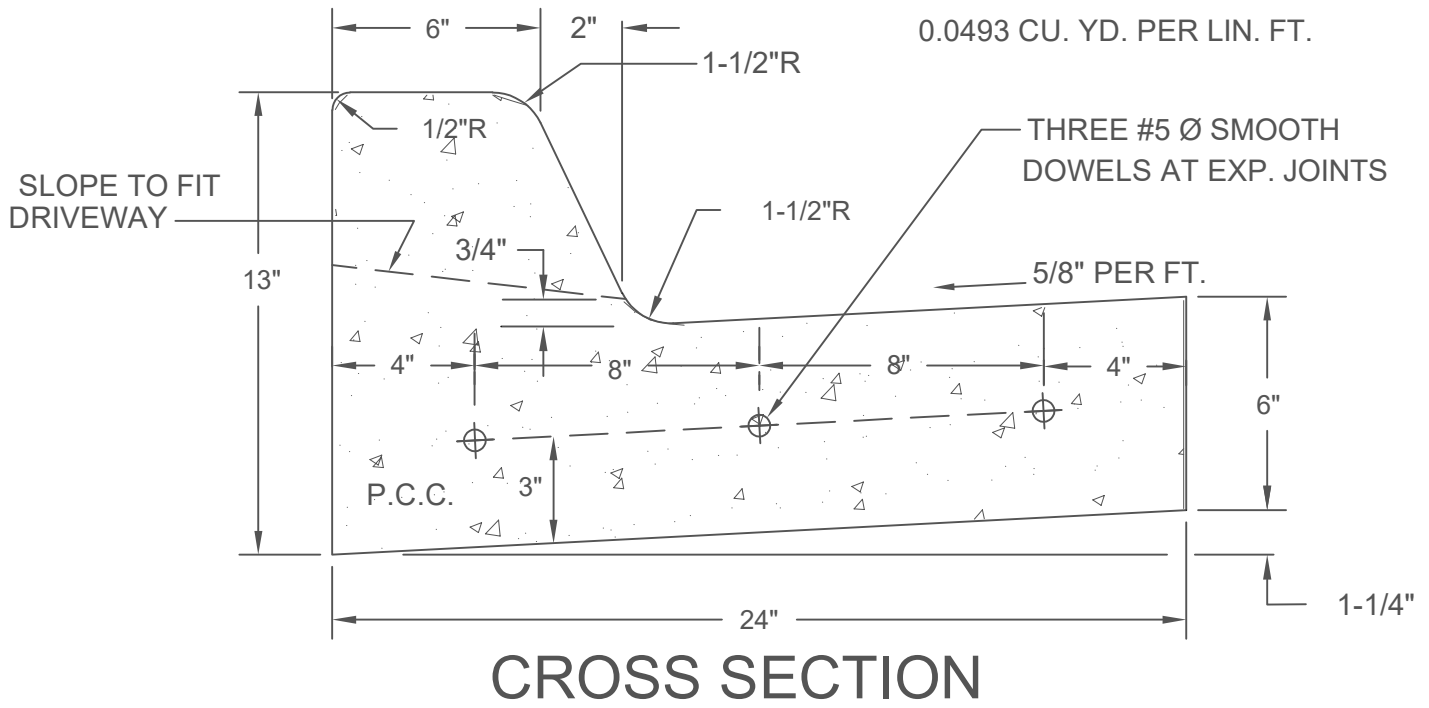


Note: Curb may vary with the type of curb required.

** Contractor shall Transition Curb and Gutter to Match Proposed Sidewalk Using Stringline, Straight Edge, etc. Projected from the R/W line. (Typical both Sides).



Engineering Department City of Raymore 100 Municipal Circle Raymore, MO 64083 816-331-1832 Fax 816-331-9067		CITY OF RAYMORE	
DRAWN Modified 2013	DATE	TYPE A AND A-1 HANDICAPPED ACCESS RAMPS	
CHECKED		SIZE A	FSOM NO.
APPROVED		SCALE NONE	DWG NO.
		SHEET 1 OF 1	



Notes:

1. 3/4" pre-molded, expansion joints with 2 foot steel dowels to be placed at radius points, vertical points of curvature, curb inlets and intermediate points not to exceed 300 feet. Dowels shall be smooth, greased and capped on one end or epoxy coated.
2. Contraction joints, 2 inches deep and spaced every 10 feet, shall be sawn as soon as curing permits.
3. All exposed concrete shall be sprayed with white cure as soon as finishing permits. Plastic sheeting is not an acceptable curing method.
4. KCMMB 4K concrete shall be used throughout.

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816-331-1852 Fax 816-331-8067

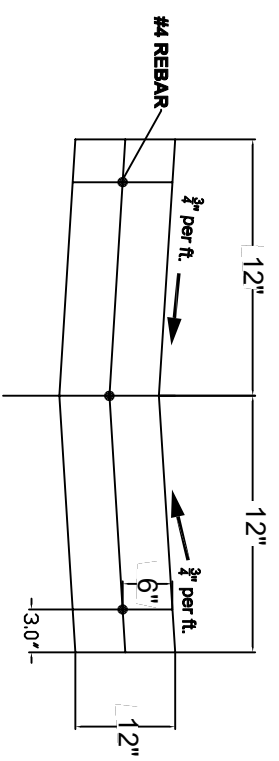
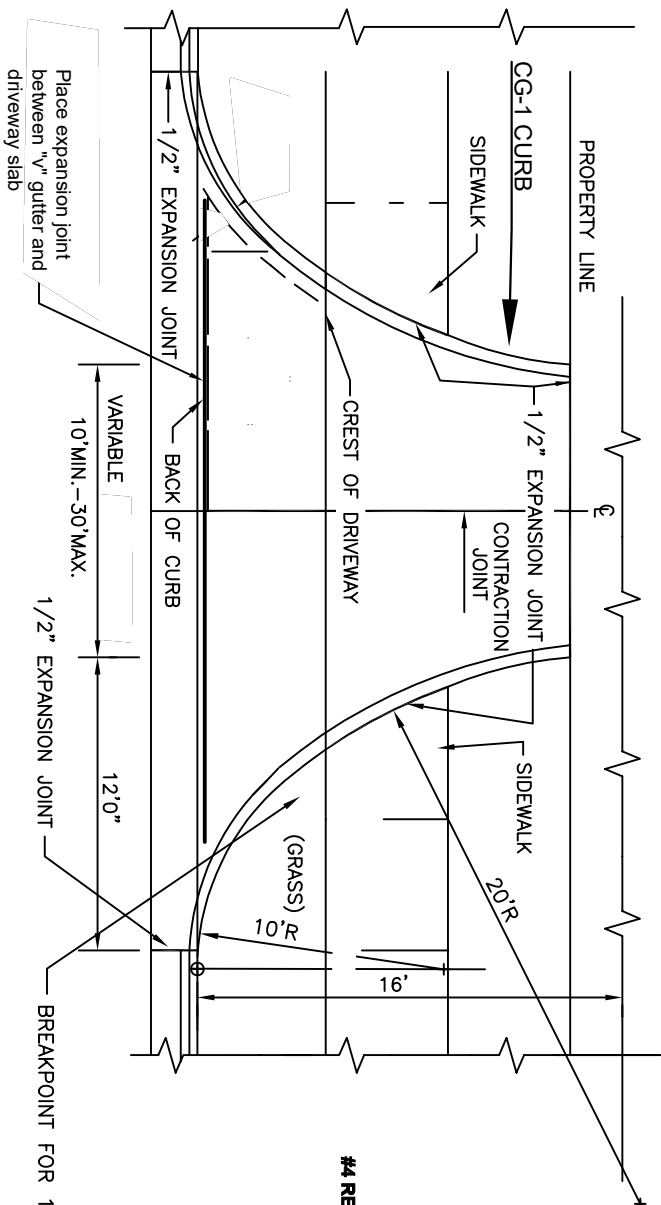
DRAWN TS	DATE
CHECKED DP	
APPROVED Modified 7/23/25	

CITY OF RAYMORE

STRAIGHT BACK
CURB & GUTTER (CG - 1)

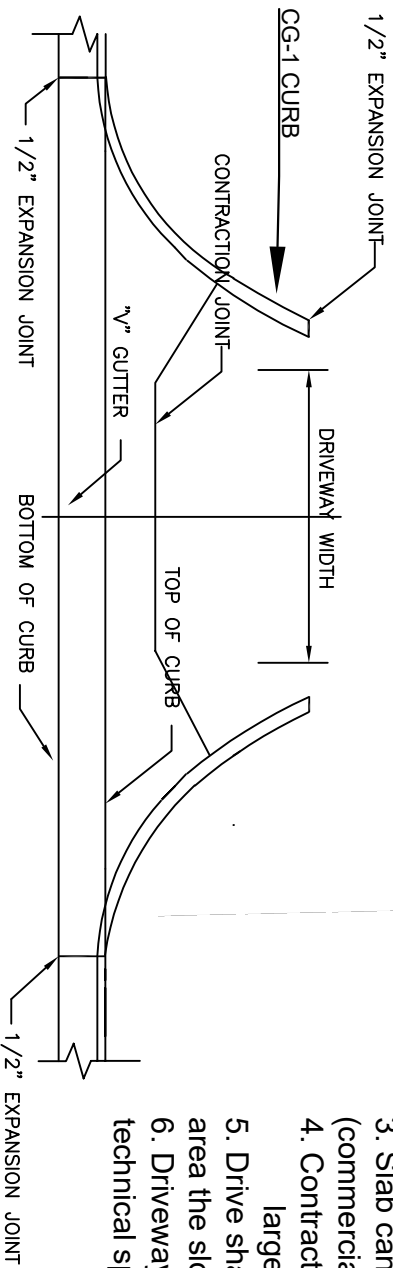
SIZE A	FSCM NO.	DWG NO. St - 6	REV
SCALE NONE	SHEET 1 OF 1		

Engineering Department City of Raymore 100 Municipal Circle Raymore, MO 64083 816-331-1852 Fax 816-331-8067		CITY OF RAYMORE STRAIGHT 7" CURB			
DRAWN TS	DATE				
CHECKED DP		SIZE A	FSCM NO.	DWG NO. St - 7	REV
APPROVED Modified 7/23/25		SCALE NONE		SHEET 1	OF 1

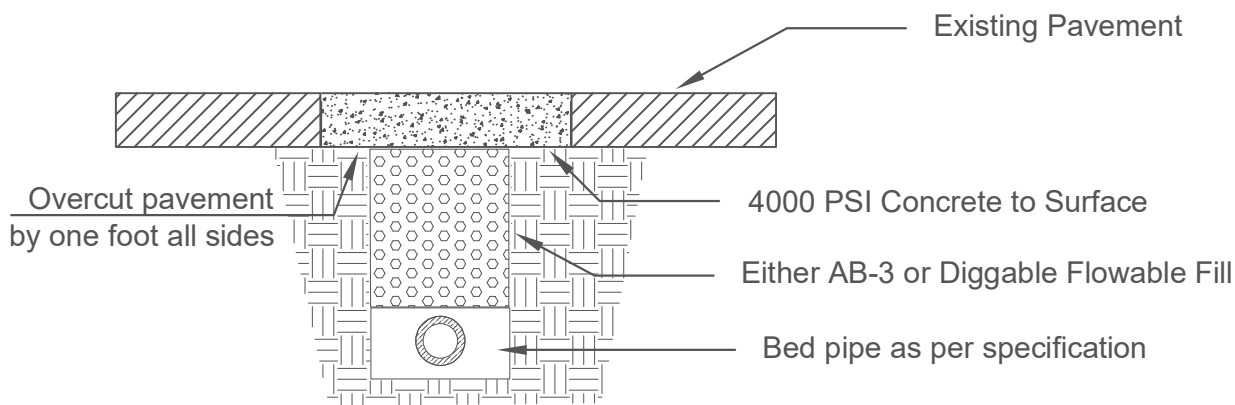


Notes:

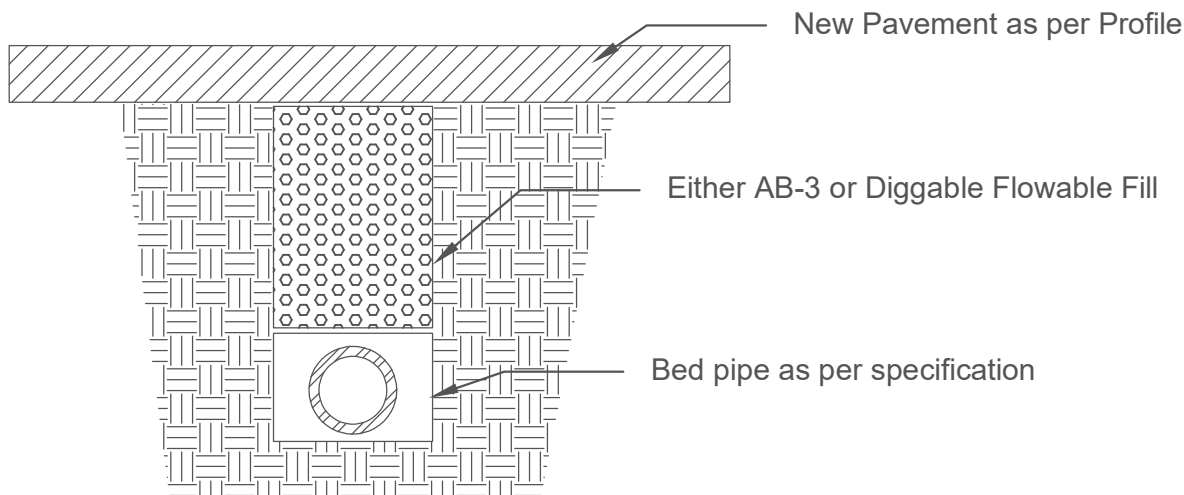
1. All concrete shall be a KCMMB 4K mix design.
2. Place expansion joint between CG-1 curb and driveway slab (not shown for clarity) in addition to locations shown in detail. No monolithic pours.
3. Slab can either be 8" thick with no reinforcing (commercial) or 6" thick with no reinforcing (residential).
4. Contraction joints shall be located so as to form no panel larger than 12' by 12'. Joints are to be sawn 2" deep.
5. Drive shall slope towards the curb, and thru the sidewalk area the slope shall not exceed 1/4" per foot.
6. Driveway slab shall be placed per section 3004 of the technical specifications.



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DRAWN Modified 2013				DATE			
CHECKED				SIZE FSCM NO. DWG NO.			
DESIGN				SCALE NONE SHEET 1 OF 1			
DRIVENWAYS (CONCRETE) COMMERCIAL & RESIDENTIAL				St - 8			
REV				REV			



Utility Installation In Existing Pavement (See note #5 below.)



Utility Installation Under New Pavement Construction

Notes:

1. AB-3 must be compacted in lifts to 95% maximum standard density and tested by an independent laboratory.
2. Bedding material shall extend above pipe a maximum of 12".
3. AB-3 or flowable fill shall extend 4 feet behind back of curb.
4. This detail covers all public and private utility construction in the Right of Way.
5. A pavement cut is to be done only to access existing utilities. New utilities/pipes shall be installed by horizontal drilling and encasement as per Standard Detail St - 13.

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TS

DATE

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DP

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Utility Trench Construction in Right of Way

SIZE

A

FSCM NO.

DWG NO.

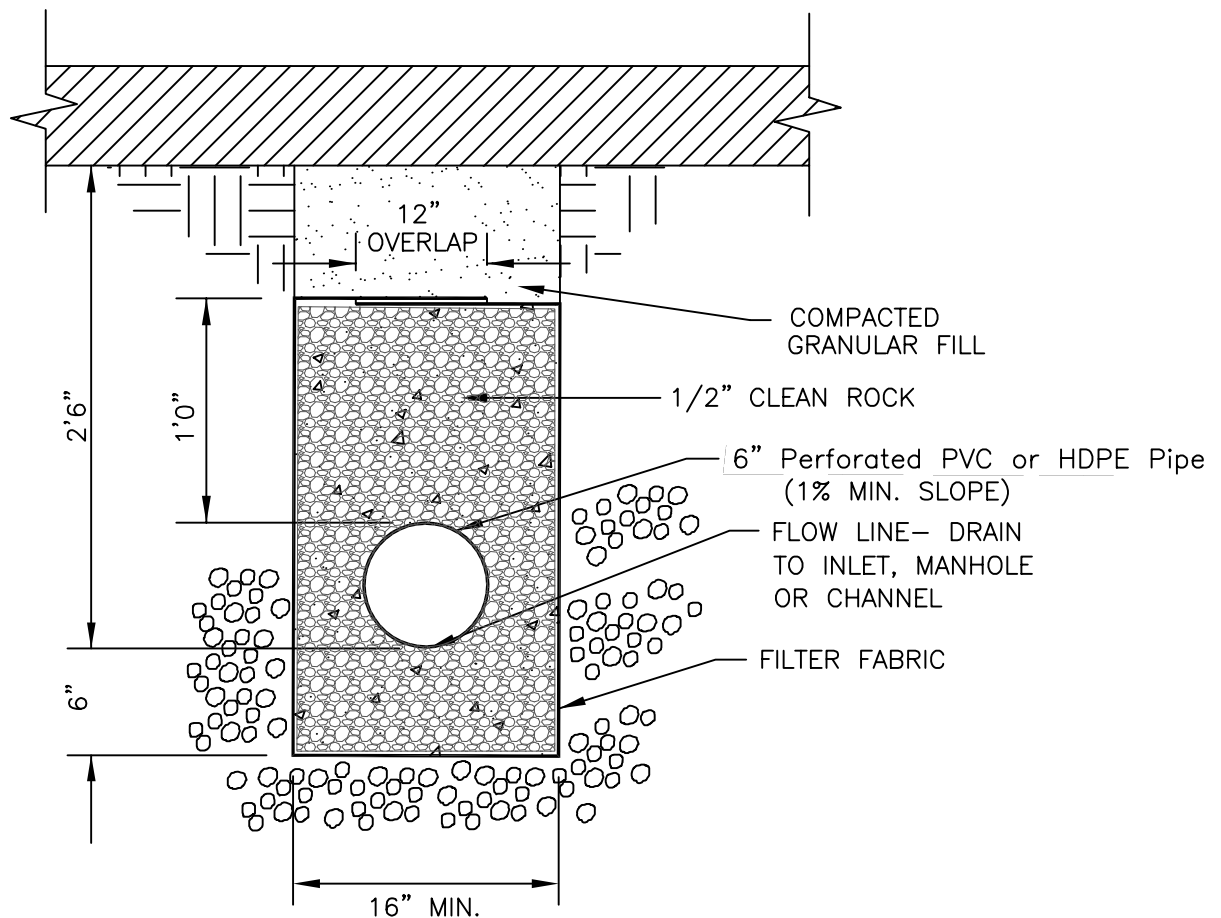
St - 9

REV

SCALE NONE

SHEET 1

OF



UNDERDRAIN DETAIL

SHOWN UNDER PAVEMENT

NOTE:

1. GRANULAR FILL TO BE CRUSHED STONE OR PEA GRAVEL WITH NO LESS THAN 95% PASSING 1/2" AND NOT LESS THAN 95% TO BE RETAINED ON A #4 SIEVE. FILL TO BE PLACED IN NOT MORE THAN 6" LAYERS AND COMPACTED.
2. FILTER FABRIC TO MEET AASHTO DESIGNATION M 288-90 CLASS A.

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DRAWN TS	DATE
CHECKED DP	
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CITY OF RAYMORE

UNDERDRAIN DETAIL

SIZE A	FSCM NO.	DWG NO. St - 10	REV
SCALE NONE		SHEET 1 OF 1	

Technical drawing of a concrete curb and gutter section. The curb is 11" high and 6 7/8" wide at the top. It has a 1/2"R corner at the top-left and a 1-1/2"R corner at the top-right. The gutter is 6" deep and 24" wide at the bottom. The gutter bottom has a 5/8" PER FT. slope. The gutter is reinforced with THREE #5 Ø SMOOTH DOWELS AT EXP. JOINTS. The concrete is labeled P.C.C. and the aggregate is shown as small triangles. The drawing includes dimensions for the curb, gutter, and reinforcement.

A schematic diagram of a curved pipe section. The pipe is shown as a thick curved line. Two points along the curve are marked with small circles and labeled 'EXPANSION JOINTS' with leader lines. A dashed line indicates the original straight position of the pipe, showing the deflection. A vertical line on the right is labeled 'H'.

OF EXPANSION JOINTS LOCATIONS

1. 3/4" pre-molded, expansion joints with 2 foot steel dowels to be placed at radius points, vertical points of curvature, curb inlets and intermediate points not to exceed 300 feet. Dowels shall be smooth, greased and capped on one end.
2. Contraction joints, 2 inches deep and spaced every 10 feet, shall be sawn as soon as curing permits.
3. All exposed concrete shall be sprayed with cure as soon as finishing permits. Plastic sheeting is not an acceptable curing method.
4. KCM MB 4K concrete shall be used throughout.

PLANNING & ENGINEERING 100 MUNICIPAL CIRCLE RAYMORE, MO 64083 (816)331-0488 FAX (816)331-8067		CITY OF RAYMORE			
DRAWN 07/28/25		DATE		CURB REPLACEMENT STRAIGHT BACK CURB & GUTTER	
CHECKED		SIZE A		FSCM NO.	
APPROVED		DWG NO. ST-11		REV	
		SCALE NONE		SHEET 1 OF 1	