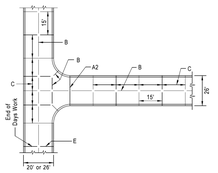
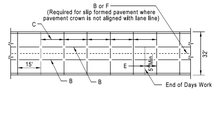
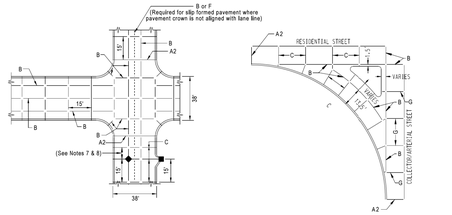
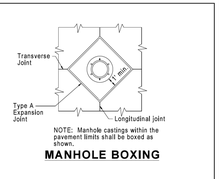
TYPICAL CONCRETE PAVEMENT JOINT LAYOUT FOR RESIDENTIAL STREETS









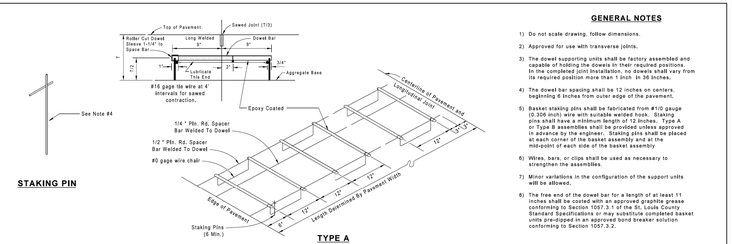
NOTE: Manhole castings within the pavement limits shall be boxed as shown.

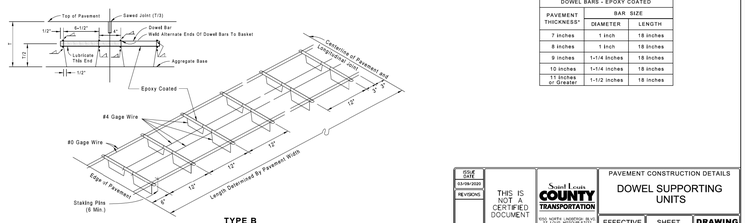
MANHOLE BOXING

GENERAL NOTES

1) Do not scale drawing, follow dimensions.
2) The joint layouts shown correspond with the Department's standard typical sections. The actual locations of longitudinal construction joints shall be set to align with the lane lines of the approved construction plan.
3) Joint layout within intersections shall be adjusted as necessary to accomodate the intersection channelization details in the approved construction plan.
4) Construction joints and tie bars associated with curb construction may be omitted when curb is poured monolithic with pavement.
5) For joint and bar requirements refer to the "Pavement Construction Details - Joints" (Standard Drawing C502.13) and "Pavement Construction Details - Curbs" (Standard Drawing C502.14). Note that the width and location may change the type of joint required.
6) Transverse or longitudinal construction joints in slip formed pavements may be made with a groover or tool, if such device has been approved in advance by the Department.
7) When a joint falls within 5ft. of, or contacts inlets, manholes, or other structures, shorten one or more panels either side of opening to permit joint to fall on round structures and at or between corners of rectangular structures.
8) All street inlets shall be separated from the pavement and curb by expansion joint material extending completely through curb and slab. Manhole casting within the pavement limits shall be boxed as shown.

GOVE DATE	THIS IS NOT A CERTIFIED DOCUMENT	Saint Louis COUNTY TRANSPORTATION (1122 NORTH LINDBERGH BLVD ST. LOUIS, MISSOURI 63132)	PAVEMENT CONSTRUCTION DETAILS		
03/06/2020			CONCRETE PAVEMENT JOINT LAYOUT RESIDENTIAL STREETS		
REVISIONS			EFFECTIVE 05/01/2020	SHEET 1 OF 1	DRAWING C502.01



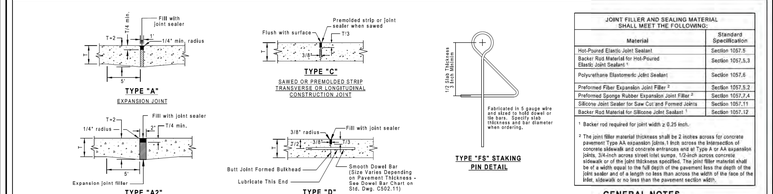


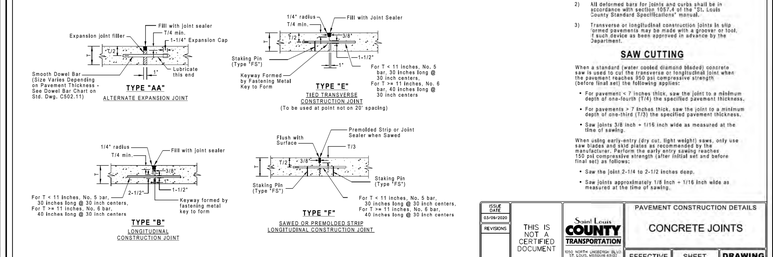
GENERAL NOTES

1) Do not scale drawing, follow dimensions.
2) Approved for use with transverse joints.
3) The dowel supporting units shall be factory assembled and capable of holding the dowels in their required positions. In the completed joint installation, no dowels shall vary from its required position more than 1 inch in 36 inches.
4) The dowel bar spacing shall be 12 inches on centers, beginning 6 inches from outer edge of the pavement.
5) Basket staking pins shall be fabricated from #10 gauge (0.306 inch) wire with suitable welded hook. Staking pins shall have a minimum length of 12 inches. Type A or Type B assemblies shall be provided unless approved in advance by the engineer. Staking pins shall be placed at each corner of the basket assembly and at the mid-point of each side of the basket assembly
6) Wires, bars, or clips shall be used as necessary to strengthen the assemblies.
7) Minor variations in the configuration of the support units will be allowed.
8) The free end of the dowel bar for a length of at least 11 inches shall be painted with a bright yellow asphalt grease conforming to Section 1057.3.1 of the St. Louis County Standard Specifications or may substitute completed basket units pre-doped in an approved bond breaker solution conforming to Section 1057.3.2.

DOWEL BARS - EPOXY COATED		
PAVEMENT THICKNESS*	BAR SIZE DIAMETER	LENGTH
7 inches	1 inch	18 inches
8 inches	1 inch	18 inches
9 inches	1-1/4 inches	18 inches
10 inches	1-1/4 inches	18 inches
11 inches or Greater	1-1/2 inches	18 inches

GOVE DATE	THIS IS NOT A CERTIFIED DOCUMENT	Saint Louis COUNTY TRANSPORTATION (1122 NORTH LINDBERGH BLVD ST. LOUIS, MISSOURI 63132)	PAVEMENT CONSTRUCTION DETAILS		
03/06/2020			DOWEL SUPPORTING UNITS		
REVISIONS			EFFECTIVE 05/01/2020	SHEET 1 OF 1	DRAWING C502.11





JOINT FILLER AND SEALING MATERIAL SHALL MEET THE FOLLOWING:	
Material	Standard Specification
Hot-Poured Elastic Joint Sealant	Section 1057.6
Backer Rod Material for Hot-Poured Elastic Joint Sealant [1]	Section 1057.5.3
Polyurethane Elastomeric Joint Sealant	Section 1057.6
Preformed Fiber Expansion Joint Filler [2]	Section 1057.5.2
Preformed Sponge Rubber Expansion Joint Filler [2]	Section 1057.7.4
Silicone Joint Sealer for Saw Cut and Formed Joints	Section 1057.11
Backer Rod Material for Silicone Joint Sealant [1]	Section 1057.12

[1] Backer rod required for joint width ≥ 0.25 inch.

[2] The joint filler material thickness shall be 2 inches across for concrete pavement Type AA expansion joints, 1 inch across the intersection of concrete sidewalk and concrete entrances and at Type A or AA expansion joints, 3/4-inch across street inlet sumps, 1/2-inch across concrete sidewalk or of the joint thickness specified. The joint filler material shall be of a width equal to the full depth of the pavement less the depth of the joint sealer and of a length no less than across the width of the face of the inlet, sidewalk or no less than the pavement section width.

GENERAL NOTES

1) Do not scale drawing, follow dimensions.
2) All deformed bars for joints and curbs shall be in accordance with section 1057.4 of the "St. Louis County Standard Specifications" manual.
3) Transverse or longitudinal construction joints in slip formed pavements may be made with a groover or tool, if such device as been approved in advance by the Department.

SAW CUTTING

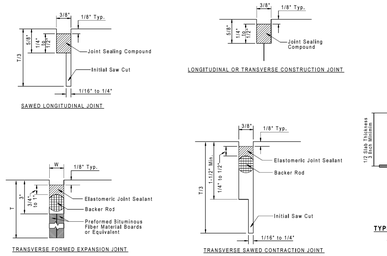
When a standard (water cooled diamond bladed) concrete saw is used to cut the transverse or longitudinal joint when the pavement reaches 950 psi compressive strength (before final set) the following applies:

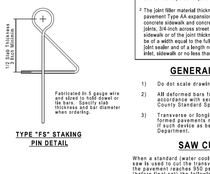
- For pavements < 7 inches thick, saw the joint to a minimum depth of one-fourth (T/4) the specified pavement thickness.
- For pavements > 7 inches thick, saw the joint to a minimum depth of one-third (T/3) the specified pavement thickness.
- Saw joints 3/8 inch + 1/16 inch wide as measured at the time of sawing.

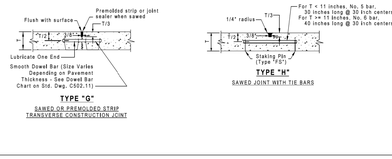
When using early-entry (dry cut, light weight) saws, only use saw blades and blade plates as recommended by the manufacturer. Perform the early-entry sawing reaches 150 psi compressive strength (after initial set and before final set) as follows:

- Saw the joint 2-1/4 to 2-1/2 inches deep.
- Saw joints approximately 1/8 inch + 1/16 inch wide as measured at the time of sawing.

GOVE DATE	THIS IS NOT A CERTIFIED DOCUMENT	Saint Louis COUNTY TRANSPORTATION (1122 NORTH LINDBERGH BLVD ST. LOUIS, MISSOURI 63132)	PAVEMENT CONSTRUCTION DETAILS		
03/06/2020			CONCRETE JOINTS		
REVISIONS			EFFECTIVE 05/01/2020	SHEET 1 OF 2	DRAWING C502.13



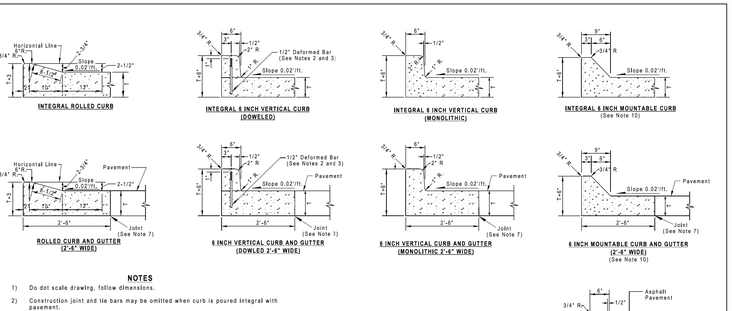




GENERAL NOTES

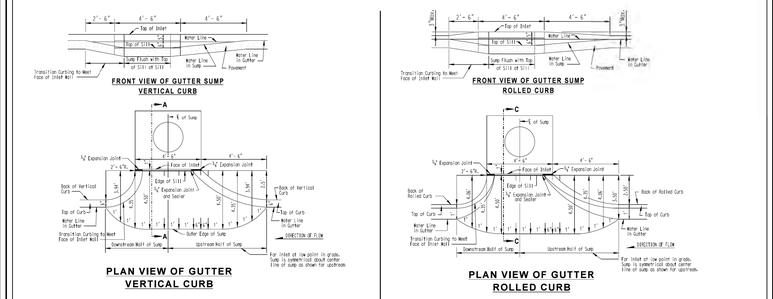
1) Do not scale drawing, follow dimensions.
2) The joint layouts shown correspond with the Department's standard typical sections. The actual locations of longitudinal construction joints shall be set to align with the lane lines of the approved construction plan.
3) Joint layout within intersections shall be adjusted as necessary to accomodate the intersection channelization details in the approved construction plan.
4) Construction joints and tie bars associated with curb construction may be omitted when curb is poured monolithic with pavement.
5) For joint and bar requirements refer to the "Pavement Construction Details - Joints" (Standard Drawing C502.13) and "Pavement Construction Details - Curbs" (Standard Drawing C502.14). Note that the width and location may change the type of joint required.
6) Transverse or longitudinal construction joints in slip formed pavements may be made with a groover or tool, if such device has been approved in advance by the Department.
7) When a joint falls within 5ft. of, or contacts inlets, manholes, or other structures, shorten one or more panels either side of opening to permit joint to fall on round structures and at or between corners of rectangular structures.
8) All street inlets shall be separated from the pavement and curb by expansion joint material extending completely through curb and slab. Manhole casting within the pavement limits shall be boxed as shown.

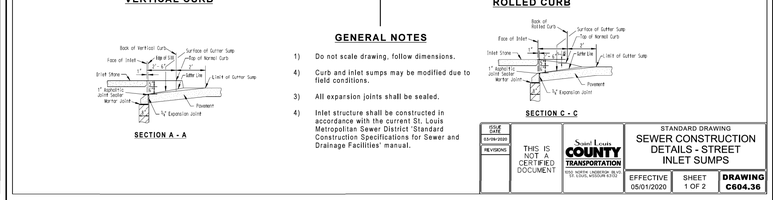
GOVE DATE	THIS IS NOT A CERTIFIED DOCUMENT	Saint Louis COUNTY TRANSPORTATION (1122 NORTH LINDBERGH BLVD ST. LOUIS, MISSOURI 63132)	PAVEMENT CONSTRUCTION DETAILS		
03/06/2020			CONCRETE JOINTS		
REVISIONS			EFFECTIVE 05/01/2020	SHEET 2 OF 2	DRAWING C502.13



NOTES

1) Do dot scale drawing, follow dimensions.
2) Construction joint and tie bars may be omitted when curb is poured integral with pavement.
3) Length of the tie bars shall be equal to the thickness of pavement plus the height of curb less 3 inches. Tie bars shall be placed at 24 inch centers.
4) All deformed bars for joints and curbs shall be in accordance with section 1057.4 of the "St. Louis County Standard Specifications" manual.
5) Transverse or longitudinal construction joints in slip formed pavements may be made with a groover or tool, if such device as been approved in advance by the Department.
6) Certain streets will be required to overlay the gutter with 2 inched of asphalt as directed by the Department. Curb height shall be adjusted to maintain the standard curb height. Asphalt overlay type to be determined by the Department.
7) Type "B" joint required for concrete pavement.
8) If the Contractor elects to construct concrete pavement by slip-form methods in accordance with Section 502.17, the width of the aggregate base shown on the plans shall be increased to provide a 3-foot width outside the edge of the pavement being placed.
9) Type "S" curb shall only be used where repair of existing Type "S" curb is required, and only with Departmental approval.
10) 6" mountable curb shall only be used where repair of existing 6" mountable curb is required. Use of 6" mountable curb for other applications requires Departmental approval.

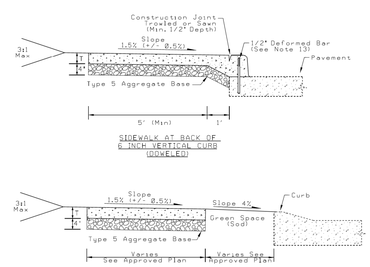


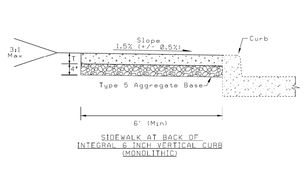


GENERAL NOTES

1) Do not scale drawing, follow dimensions.
4) Curb and inlet sumps may be modified due to field conditions.
3) All expansion joints shall be sealed.
4) Inlet structure shall be constructed in accordance with the current St. Louis Metropolitan Sewer District Standard Construction Specifications for Sewer and Drainage Facilities' manual.

GOVE DATE	THIS IS NOT A CERTIFIED DOCUMENT	Saint Louis COUNTY TRANSPORTATION (1122 NORTH LINDBERGH BLVD ST. LOUIS, MISSOURI 63132)	STANDARD DRAWING		
03/06/2020			SEWER CONSTRUCTION DETAILS - STREET INLET SUMPS		
REVISIONS			EFFECTIVE 05/01/2020	SHEET 1 OF 2	DRAWING C604.36





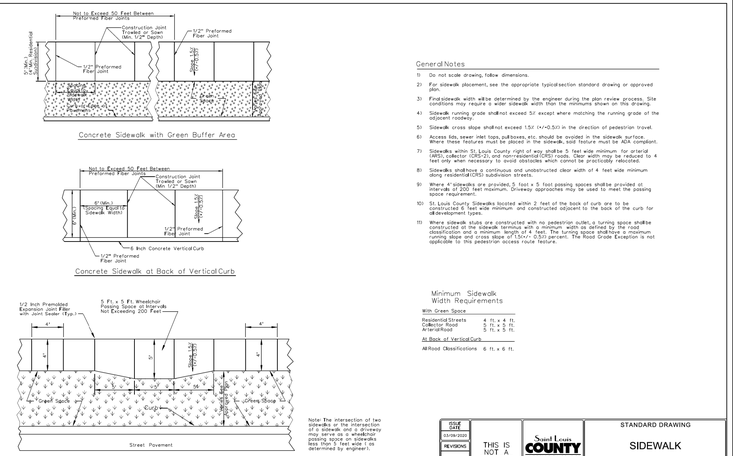
Minimum Sidewalk Width Requirements	
With Green Space	
Residential Streets	4 ft. x 4 ft.
Collector Road	5 ft. x 5 ft.
Arterial/Road	5 ft. x 5 ft.
At Back of Vertical Curb	
All Road Classifications	6 ft. x 6 ft.

Minimum Sidewalk Concrete Thickness Requirements	
Location	Thickness (T)
Adjacent to Driveway	Match Drive Thickness
Adjacent to Inlet Where Inlet Is Part of The Pedestrian Route	7"
Through Driveway Approach	Match Drive Thickness
Through Intersection	Match Pavement Thickness
All Other Locations	4"

General Notes

1) Do not scale drawing, follow dimensions.
2) For sidewalk placement, see the appropriate typical section standard drawing or approved plan.
3) Curb and joint dimensions shown in Pavement Construction Details for "Concrete Curb Details".
4) Final sidewalk width will be determined by the engineer during the plan review process. Site conditions may require a wider sidewalk width than the minimums shown on this drawing.
5) Sidewalk running grade shall not exceed 5% except where matching the running grade of the adjacent roadway.
6) Sidewalk cross slope shall not exceed 1.5% (+/-0.5%) in the direction of pedestrian travel.
7) Access lids, sewer inlet tops, pullboxes, etc. should be avoided in the sidewalk surface. Where these features must be placed in the sidewalk, said feature must be ADA compliant.
8) Sidewalks within St. Louis County right of way shall be 5 feet wide minimum for arterial (ARD), collector (CRD-2), and non-residential (CRD) roads. Clear width may be reduced to 4 feet only when necessary to avoid obstacles which cannot be practically relocated.
9) Sidewalks shall have a continuous and unobstructed clear width of 4 feet wide minimum along residential (CRD) subdivision streets.
10) Where 4' sidewalks are provided, 5 foot x 5 foot passing spaces shall be provided at intervals of 200 feet maximum. Driveway approaches may be used to meet the passing space requirement.
11) St. Louis County Sidewalks located within 2 feet of the back of curb are to be constructed 6 feet wide minimum and constructed adjacent to the back of the curb for all development types.
12) Where sidewalk stubs are constructed with no pedestrian outlet, a turning space shall be constructed on the sidewalk terminus with a minimum width as defined by the road classification and a minimum length of 4 feet. The turning space shall have a maximum running slope and cross slope of 1.5%(+/- 0.5%) percent. The Road Grade Exception is not applicable to this pedestrian access route feature.
13) Length of the tie bar shall be equal to the thickness of pavement plus the height of curb less 2 inches. Tie bars shall be placed at 24" centers.

GOVE DATE	THIS IS NOT A CERTIFIED DOCUMENT	Saint Louis COUNTY TRANSPORTATION (1122 NORTH LINDBERGH BLVD ST. LOUIS, MISSOURI 63132)	STANDARD DRAWING		
03/06/2020			SIDEWALK		
REVISIONS			EFFECTIVE 05/01/2020	SHEET 1 OF 3	DRAWING C608.43



General Notes

1) Do not scale drawing, follow dimensions.
2) For sidewalk placement, see the appropriate typical section standard drawing or approved plan.
3) Final sidewalk width will be determined by the engineer during the plan review process. Site conditions may require a wider sidewalk width than the minimums shown on this drawing.
4) Sidewalk running grade shall not exceed 5% except where matching the running grade of the adjacent roadway.
5) Sidewalk cross slope shall not exceed 1.5% (+/-0.5%) in the direction of pedestrian travel.
6) Access lids, sewer inlet tops, pullboxes, etc. should be avoided in the sidewalk surface. Where these features must be placed in the sidewalk, said feature must be ADA compliant.
7) Sidewalks within St. Louis County right of way shall be 5 feet wide minimum for arterial (ARD), collector (CRD-2), and non-residential (CRD) roads. Clear width may be reduced to 4 feet only when necessary to avoid obstacles which cannot be practically relocated.
8) Sidewalks shall have a continuous and unobstructed clear width of 4 feet wide minimum along residential (CRD) subdivision streets.
9) Where 4' sidewalks are provided, 5 foot x 5 foot passing spaces shall be provided at intervals of 200 feet maximum. Driveway approaches may be used to meet the passing space requirement.
10) St. Louis County Sidewalks located within 2 feet of the back of curb are to be constructed 6 feet wide minimum and constructed adjacent to the back of the curb for all development types.
11) Where sidewalk stubs are constructed with no pedestrian outlet, a turning space shall be constructed on the sidewalk terminus with a minimum width as defined by the road classification and a minimum length of 4 feet. The turning space shall have a maximum running slope and cross slope of 1.5%(+/- 0.5%) percent. The Road Grade Exception is not applicable to this pedestrian access route feature.

Note: The intersection of two sidewalks or the intersection of a sidewalk and a driveway may serve as a wheelchair passing space on sidewalks 5 feet wide or wider, if so determined by engineer.

Minimum Sidewalk Width Requirements	
With Green Space	
Residential Streets	4 ft. x 4 ft.
Collector Road	5 ft. x 5 ft.
Arterial/Road	5 ft. x 5 ft.
At Back of Vertical Curb	
All Road Classifications	6 ft. x 6 ft.

GOVE DATE	THIS IS NOT A CERTIFIED DOCUMENT	Saint Louis COUNTY TRANSPORTATION (1122 NORTH LINDBERGH BLVD ST. LOUIS, MISSOURI 63132)	STANDARD DRAWING		
03/06/2020			SIDEWALK		
REVISIONS			EFFECTIVE 05/01/2020	SHEET 2 OF 3	DRAWING C608.43

GENERAL NOTES

1. ALL NON-REINFORCED CONCRETE SHALL BE 4,000 PSI AT 28 DAYS.

O'fallon Planning and Development Division File No.: 21-002817 | Approved: July 2, 2021

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Authority #203

STATE OF MISSOURI
RYAN LEE HOLMES
NUMBER PE-2017018988
PROFESSIONAL ENGINEER
10-12-22
RYAN L. HOLMES
Professional Engineer
PE-2017018988

THE VILLAS AT ARAGON

VETERANS MEMORIAL PARKWAY
O'FALLON, MO 63366

CONSTRUCTION DETAILS: SHEET 1

Parcel ID: 2-056C-S028-00-0001.10	Design By: RLH
Permit No. GR22-000001	Drawn By: RLH
Volz Project # 22649	Checked By: RLH

10-12-22

C22.0