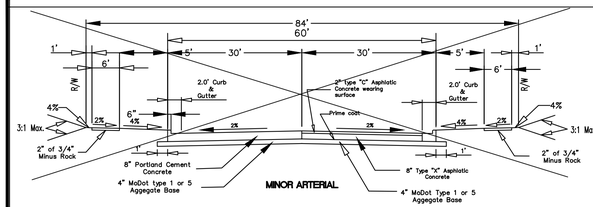
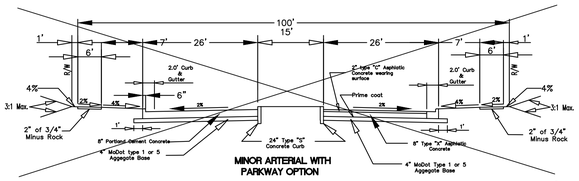
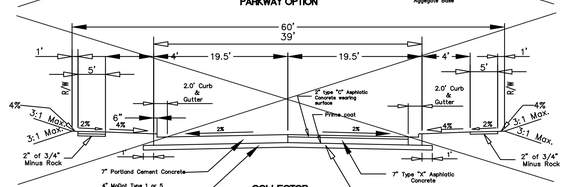


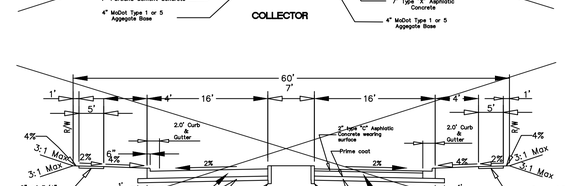
MINOR ARTERIAL



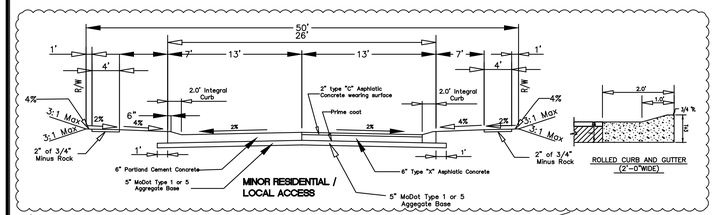
MINOR ARTERIAL WITH PARKWAY OPTION



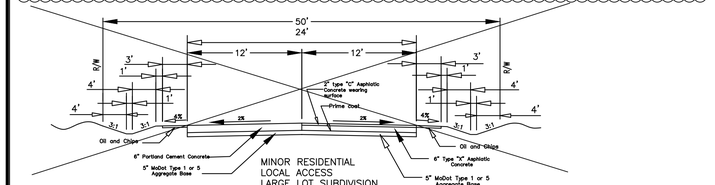
COLLECTOR



COLLECTOR WITH PARKWAY OPTION



MINOR RESIDENTIAL / LOCAL ACCESS



MINOR RESIDENTIAL LOCAL ACCESS LARGE LOT SUBDIVISION

	ROW Width	Pavement Width	Lane Width	No. of Drive Lanes	Utility Easement	Design Speed
Minor Arterial	84	60	12	5	10	40
Collector	60	39	12	3	10	35
Residential Collector	56	32**	N/A	2	10	25
Minor Residential Local Access	50	26	N/A	2	10	25*

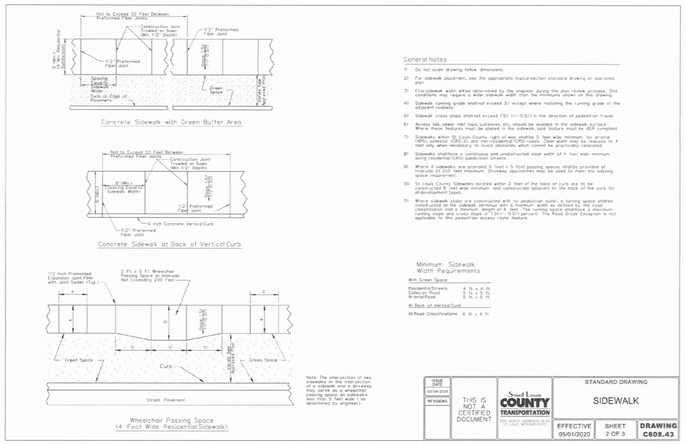
Notes: * = Can be varied with City Engineer's approval
** = Detail to match minor residential street with wider pavement
– these requirements may be varied by other City ordinances
– these standards are minimum standards
– Parkway options can be provided as indicated above

Designer will provide roadway cross section and joint locations in a seperate detail drawing.

NOTE:
- ALL NON REINFORCED CONCRETE SHALL BE 4,000 p.s.i. AT 28 DAYS
- THE ASPHALT SURFACE SHALL BE COMPACTED TO 98% MAXIMUM DENSITY

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

Typical Pavement Design
SECTION NO. 405.370



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 than the minimum width shown on the drawings.
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 5% (1/ 0.5) in the direction of pedestrian travel.
6) Access lids, sewer inlet tops, curbboxes, 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 and collector roadways and non-commercial/non-industrial. Clear width may be reduced to 4 feet to avoid obstructions such as mailboxes, utility poles, trees, and fire hydrants.
8) Sidewalks shall have a continuous and unobstructed clear width of 4 feet wide minimum along residential (OR) subdivision streets.
9) Where 4' sidewalks are provided, 5 feet 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 pedestrian safety.
11) Where sidewalk chutes are constructed with no pedestrian buffer, a barrier space shall be constructed at the sidewalk terminus with a minimum width as defined by the road classification. Barrier spaces shall be 2 feet wide for A and AA roadways. The barrier space, running slope and cross slope of 1.5%+/- (0.5%) percent. The Road Grade Exception is not applicable to this pedestrian access route feature.

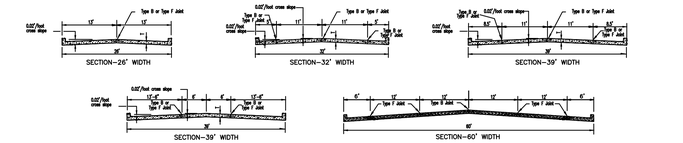
Minimum Sidewalk Width Requirements

With Green Space	
Residential Streets	4 ft. x 4 ft.
Collector Streets	5 ft. x 5 ft.
Arterial Streets	5 ft. x 5 ft.
No Back of Vertical Curb	
All Road Classifications	6 ft. x 6 ft.

Note: The intersection of two sidewalks or the intersection of a sidewalk and a driveway shall have a passing space or passing space on sidewalks less than 5 feet wide is as determined by engineer.

ISSUE DATE	THIS IS NOT A CERTIFIED DOCUMENT	Saint Louis COUNTY TRANSPORTATION	STANDARD DRAWING
03/09/2020			SIDEWALK
REVISIONS			
			EFFECTIVE 05/01/2020 | SHEET 2 OF 3 | DRAWING C608.43

INTEGRAL VERTICAL CURB AND CONCRETE JOINT DETAILS



GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. 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.
3. 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.
4. Driveway configurations are shown in the "Entrance Construction Details."
5. Construction joints and tie bars may be omitted when curb is poured monolithic with pavement.
6. Minimum Thickness for Pavement is:

Residential 26'–32' wide Streets	6"
Residential 39' wide Streets	7"

7. For joint and bar requirements refer to the Pavement Construction Details for Joints and Curbs. Note that the width and location may change the type of joint required.
8. Transverse or longitudinal construction joints in slip formed pavements shall be a saw cut joint, at a max. 14' spacing
9. The locations of the Type B longitudinal construction joints in the sections may be interchanged for the different widths of construction if approved by the Department.

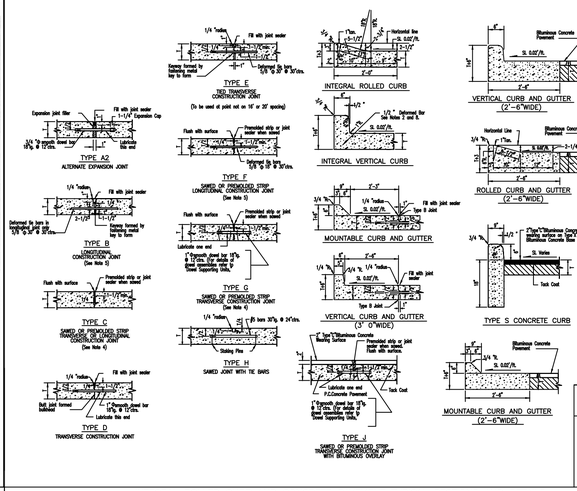
STREET	JOINT TYPE	JOINT AND BAR REQUIREMENTS
All Arterial, Non-Residential	Transverse	TYPE C 1" smooth dowel bars 18"o.c. @ 12" ctrs.
26'–31' wide pavement	Longitudinal	Within 4 paved section: TYPE F 5/8 " ø deformed tie bars 18"o.c. @ 30"ctrs. / At the edge between two paved sections: TYPE E 5/8 " ø deformed tie bars 30"o.c. @ 30"ctrs.
7"–8" thick concrete	Expansion	TYPE A or Type A Modified

NOTE
Joint filler material shall meet ASTM designations as follows:
Bituminous type ..... ASTM D-994-53
Non extruding & resilient bituminous type (fiber) ..... ASTM D-1751-52T
Non extruding & resilient non bituminous type (rubber) ASTM D-5249

NOTE
Joint sealant material shall meet ASTM and AASHTO designations as follows:
ASTM D-3405.....AASHTO M-301 or
ASTM D-1190-74.....AASHTO M-173-64
or latest revisions thereof.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

PAVEMENT CONSTRUCTION DETAILS
INTEGRAL VERTICAL CURB AND CONCRETE PAVEMENT TYPICAL SECTIONS AND DETAILS



GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. 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.
3. Minimum Thickness for Pavement is:

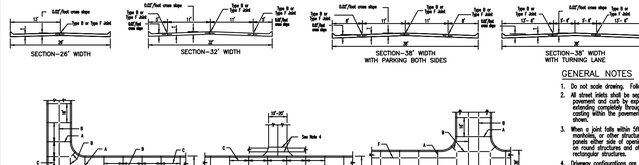
Residential Minor and Local Streets	6"
Residential Collector Streets and Non-Residential Streets	7"
All Arterial Streets	8"

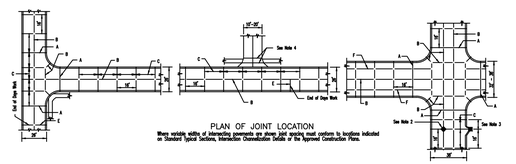
4. Type "T" Transverse Joint is required for Arterial and Non-Residential streets. See Type "A" Transverse Joint for all others.
5. For Subdivision or Minor Streets backing of concrete pavement: Fill to elevation of top of curb with compacted earth or granular material. Earth and 1'-0" of Bituminous Base 18" long at 30 " centers shall be used for Type "A" Longitudinal Joints.
6. Refer to Pavement Construction Details for Integral Vertical Curb and Concrete Pavement and Rolled Curb and Concrete Pavement Typical Sections and Details.
7. Type and bar requirements for different pavement types and thickness of each paved section of the pavement may change the type and location of joint required.
8. Transverse bars for joints and curbs shall be Billet Steel Bars conforming to A.S.T.M.615-54, Grade 40.
9. Length of the tie bars and spacing for joints and curbs shall be as shown on the plans. All bars shall be placed at 0 0' centers.
10. Transverse or longitudinal construction joints in slip formed pavements may be made with a groover or tool. A max. 14' spacing between joints shall be used for saw cut joints.
11. The top end of the dowel bar for a length of at least 11" adjacent shall be coated with an approved greaseless grease.
12. All dowel bars 18"o. ø 12"ctrs. shall be epoxy coated.
13. Expansion joint A-2 from St. Louis County pavement construction details may be used in addition to Type A and AA expansion joints.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

PAVEMENT CONSTRUCTION DETAILS
JOINTS AND CURBS

INTEGRAL ROLLED CURB AND CONCRETE PAVEMENT TYPICAL SECTIONS AND DETAILS



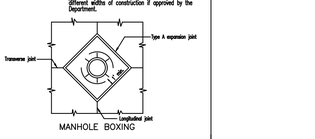


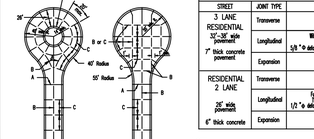
GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. 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.
3. 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.
4. Driveway configurations are shown in the "Entrance Construction Details."
5. Construction joints and tie bars may be omitted when curb is poured monolithic with pavement.
6. Minimum Thickness for Pavement is:

Residential 26'–32' wide Streets	6"
Residential 36' wide Streets	7"

7. For joint and bar requirements refer to the Pavement Construction Details for Joints and Curbs. Note that the width and location may change the type of joint required.
8. Transverse or longitudinal construction joints in slip formed pavements shall be a saw cut joint, at a max. 14' spacing
9. The locations of the Type B longitudinal construction joints in the sections may be interchanged for the different widths of construction if approved by the Department.





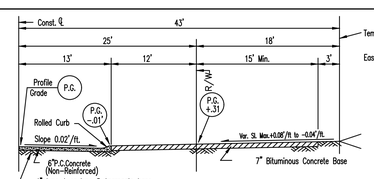
JOINT REQUIREMENTS FOR CONCRETE PAVEMENT		
STREET	JOINT TYPE	JOINT AND BAR REQUIREMENTS
3 LANE RESIDENTIAL 32'–35' wide pavement 7" thick concrete pavement	Transverse	TYPE C 1" smooth dowel bars 18"o. ø 12" ctrs.
	Longitudinal	Within a paved section: TYPE F 5/8 " ø deformed tie bars 18"o. ø 30"ctrs. / At the edge between two paved sections: TYPE E 5/8 " ø deformed tie bars 30"o. ø 30"ctrs.
	Expansion	TYPE A no steel bars
RESIDENTIAL 2 LANE 28' wide pavement 6" thick concrete	Transverse	TYPE C no steel bars
	Longitudinal	Full Width Construction: TYPE F modified with 1/2 " ø deformed tie bars 18"o. ø 30"ctrs. / Half Width Construction: TYPE F modified with 1/2 " ø deformed tie bars 18"o. ø 30" ctrs.
	Expansion	TYPE A no steel bars

NOTE
Joint filler material shall meet ASTM designations as follows:
Bituminous type ..... ASTM D-994-53
Non extruding & resilient bituminous type (fiber) ..... ASTM D-1751-52T
Non extruding & resilient non bituminous type (rubber) ASTM D-5249

NOTE
Joint sealant material shall meet ASTM and AASHTO designations as follows:
ASTM D-3405.....AASHTO M-301 or
ASTM D-1190-74.....AASHTO M-173-64
or latest revisions thereof.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

PAVEMENT CONSTRUCTION DETAILS
INTEGRAL ROLLED CURB AND CONCRETE PAVEMENT TYPICAL SECTIONS AND DETAILS

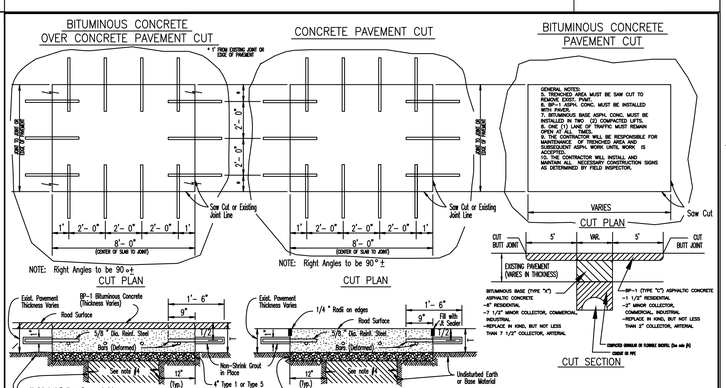


GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. For longitudinal and transverse joints, dowel and tie bar requirements and curb dimensions not shown refer to the Pavement Construction Details for Joints and Curbs.
3. All necessary pavement markings shall be as required by City of O'fallon.
4. For roadway cross slopes, pavement types and thickness refer to "Standard Typical Sections.
5. Permits will not be issued for building construction on lots abutting a temporary turnaround unless and until the turnaround is actually constructed.
6. The removal of the temporary turnaround surface, the restoration of the disturbed ground, and the extension of any sidewalk shall be the responsibility of the party(ies) that will be extending the street.
7. Other temporary turn around types can be considered depending on type and dimensions
8. Stub streets over two hundred fifty (250) feet shall have a minimum temporary turnaround pavement radius of forty (40) feet, covered by a temporary turnaround easement to remain until the road is extended and platted. In lieu of turnarounds, the Planning and Zoning Commission may approve a "T" or "Y" shaped paved space on streets which are less than two hundred fifty (250) feet in length and are planned to be extended in the future.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

PAVEMENT CONSTRUCTION DETAILS
RESIDENTIAL TEMPORARY TURNAROUND



GENERAL NOTES

1. If a permit is issued to replace the existing asphaltic concrete pavement with full depth bituminous concrete pavement and concrete pavement is found under the existing asphaltic concrete pavement, the applicant will be required to follow the Detail for Bituminous Concrete over Concrete Pavement Cut. The applicant will use Concrete or equivalent to replace the existing concrete and use 4" Type 1 or Type 5 Aggregate over Granular Backfill or Pugmill as a subbase. Concrete sets up in approximately 4 hours at which time the BP-1 Bituminous Concrete Overlay can be applied to the base course.
2. If Bituminous Concrete over Concrete Pavement or Concrete Pavement is broken before specifying the pavement full concrete slab replacement will be required.
3. Minimum Thickness for Pavement Replacement is:

	CONCRETE (1)	BITUMINOUS (1)
All Residential Minor and Local Streets	6"	7 1/2"
Residential Collector, All County and Non-Residential Streets	7"	9 1/2 "
All Arterial Streets	8"	12"

Pavement replacement will require 4" Type 1 or type 5 Aggregate Base Course, Granular Backfill and those will be compacted by mechanical tamping methods in lifts no greater than 6 inches.
4. If the excavations are made by the open cutting method, the top twelve inches of granular backfill will be placed over exposed facilities and controlled low strength material (CLSM) aka flowable fill will fill the hole within eight inches of the pavement surface to concrete pavement. Place a 6 mil plastic membrane placed between the rock base and the CLSM to prevent the material from bleeding into the rock base, the remaining eight inches will be filled with CLSM having a twenty eight day minimum strength, four thousand psi concrete mix.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

DETAILS OF TEMPORARY OPENINGS IN ROADWAY PAVEMENT

ISSUE REMARKS/DATE

1	INITIAL SUBMITTAL 04-27-2020
2	20201001 Rev Per City/Duckett/PWSD#2
3	20201020 Rev per City Comments
4	20201106 Rev Per City Comments

PROJECT TITLE

AMBERLEIGH
O'FALLON, MISSOURI

THE STERLING CO.
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph 314-487-0440 Fax 314-487-8944
www.sterling-eng-sur.com
Corporate Certificate of Authority #001348

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STATE OF MISSOURI
JASON D HOWELL
NUMBER PE-2007002801
PROFESSIONAL ENGINEER

Date: 11-06-2020
Jason D Howell
License No. PE 2007002801
Professional Engineer

LOMBARDO HOMES OF ST. LOUIS, LLC
2299 TECHNOLOGY DRIVE, SUITE 150
O'FALLON, MISSOURI 63368
Ph. 636-265-2710
Fax 636-695-3195

PAVEMENT DETAILS

P+Z No. 20-000028
City No. 20-003192
Date: Nov. 6, 2020
Job No. 14-04-136

Page No.
6.5
IMP

"FINAL PLAN" Approval Date: March 27, 2020

Drawing name: V:\14\04136 Dohr Ct Hopewell Rd\Drawings\Engineering\Grading-SWPPP\PZG Amberleigh.dwg Plotted on: Aug 27, 2021 - 11:54am Plotted by: jdhowell