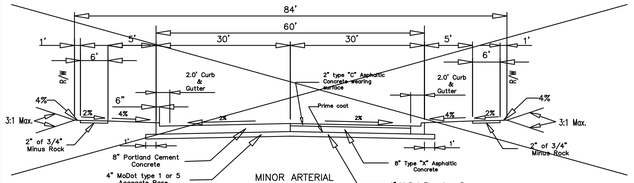
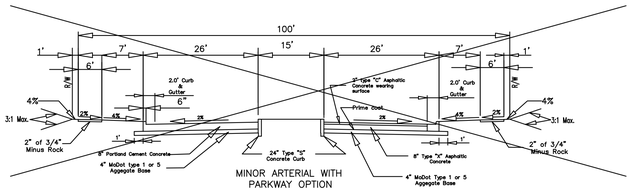
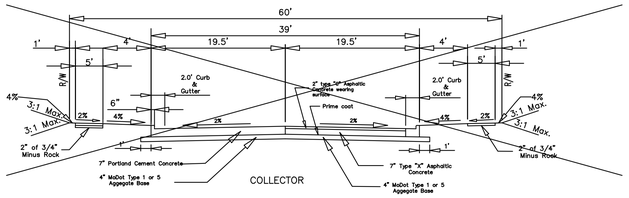
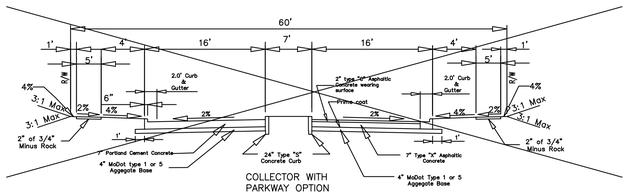
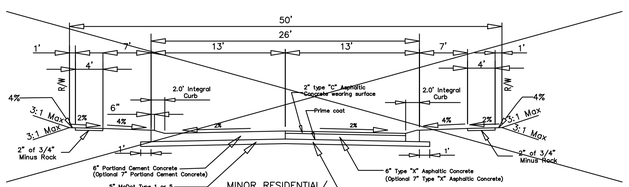
FOR TYPICAL PAVEMENT SECTION SEE HEET DTL-11

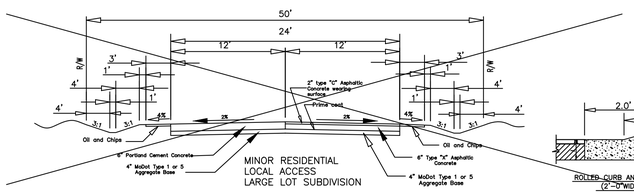


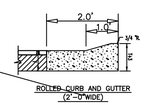












	ROW Width	Pavement Width	Lane Width	No. of Drive Lanes	Utility Easement	Design Speed
Minor Arterial	84	60	12	5	10	40
Collector	60	39	12	3	10	35
Residential Collector	56	32**	N/A	2	10	25
Minor Residential Local Access	50	26	N/A	2	10	25*

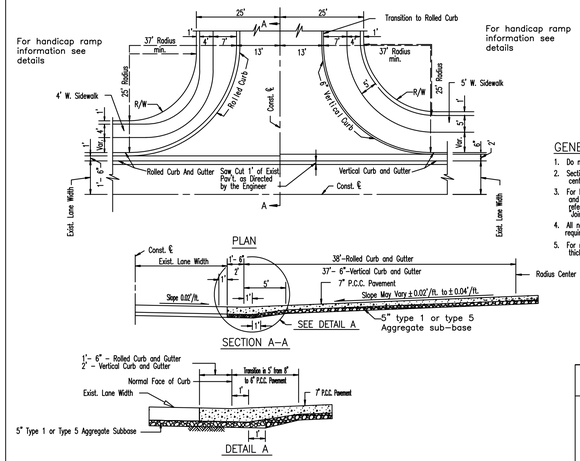
Notes: * = Can be varied with City Engineer's approval
** = Detail to match minor residential street with wider pavement
– these requirements may be varied by other City ordinances
– these standards are minimum standards
– Parkway options can be provided as indicated above

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

RESIDENTIAL STREETS SHALL BE A MINIMUM OF 6" P.C. CONCRETE OVER 4" ROCK BASE ON COMPACTED SUBGRADE PER ORDINANCE NUMBER 4875.

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

Typical Pavement Design
SECTION NO. 405.370



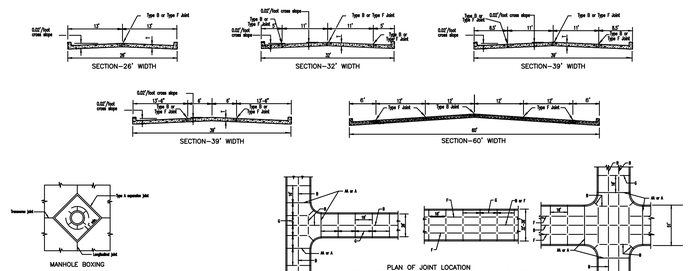
GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. Sections are symmetrical about construction centerline.
3. For longitudinal and transverse joints, dowel and tie bar requirements and curb dimensions refer to the Pavement Construction Details for Joints and Curbs.
4. All necessary pavement markings shall be as required by City of O'Fallon.
5. For roadway cross slope, pavement types and thickness refer to "Standard Typical Sections."

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

PAVEMENT CONSTRUCTION DETAILS
STANDARD RESIDENTIAL STREET ENTRANCE

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:

	PAVEMENT (T)
All Non-Residential Streets	7"
All Arterial Streets	8"

7. Refer to "Pavement Construction Details"Joints and Curbs"for joint and bar requirements. Note that the width and location of each several portion of the pavement may change the type and location of joints required.
8. The locations of the Type B and Type I longitudinal construction joints in the sections may be interchanged for the different widths of construction if approved by the Department.
9. All 1"ϕ smooth dowel bars 18"lg. @ 12"ctrs. shall be epoxy coated.

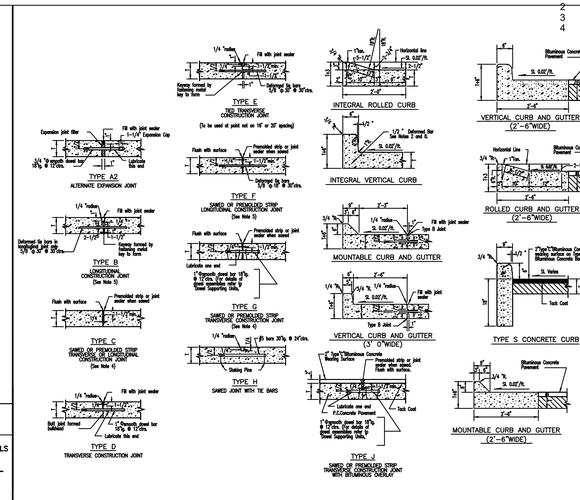
NOTE
Joint filler material shall meet ASTM designations as follows:
Bituminous type . . . . . ASTM D-994-52
Non extruding & resilient non bituminous type (cork) . . . ASTM D-1751-68T
Non extruding & resilient non bituminous type (rubber) ASTM D-5249

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-173-84
or latest revisions thereof.

JOINT REQUIREMENTS FOR CONCRETE PAVEMENT		
STREET	JOINT TYPE	JOINT AND BAR REQUIREMENTS
All Arterial, Non-Residential	Transverse	TYPE C 1"ϕ smooth dowel bars 18"lg. @ 12" ctrs.
36'-50' wide pavement	Longitudinal	While a poured section: TYPE I 5/8 "ϕ deformed tie bars 18"lg. @ 30" ctrs. At the strip between two poured sections: TYPE A 5/8 "ϕ deformed tie bars 30"lg. @ 30" ctrs.
7"-8" thick concrete	Expansion	TYPE A or Type A Modified

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. Construction joint and tie bars may be omitted when curb is poured integral with pavement.
3. Minimum Thickness for Pavement is:

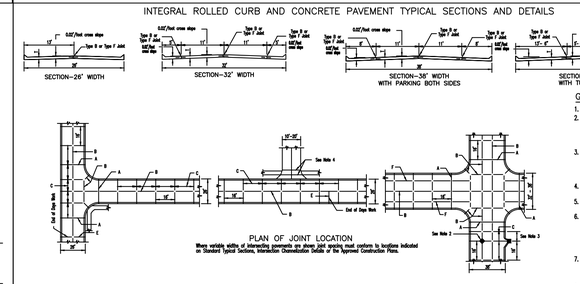
	PAVEMENT (T)
Bituminous Concrete Pavement Thickness =	(1)
Concrete Pavement Thickness =	(2)
All Residential Minor and Local Streets	6" 7-1/2"
Residential Collector Streets	7" 9-1/2"
All Arterial Streets	8" 12"

4. Type "I" transverse joint is required for Arterial and Non-Residential streets. Use Type "C" transverse joint for all others.
5. For Subdivision or Minor Streets having a Longitudinal grade of 3% or less, a Type "F" Longitudinal joint is required to be placed at the Longitudinal joint and "J" is deleted. Tie bars 36" long at 30 " centers shall be used for Type "F" Longitudinal joints.
6. Refer to Pavement Construction Details for "Integral Vertical Curb and Concrete Pavement Typical Sections and Details" for "Integral Rolled Curb and Concrete Pavement Typical Sections and Details".
7. Refer to Pavement Construction for different street classifications. Note that width and location of each several portion of the pavement may change the type and location of joint required.
8. All dowelled bars for joints and curbs shall be 1"ϕ smooth bars conforming to ASTM-615-Gr. 60.
9. Length of tie bs bars shall equal the thickness "T" of bars and be placed @ 24"centers.
10. Transverse or longitudinal construction joints in slip formed pavements may be made with a "Bulkhead" joint if the "Bulkhead" joint is approved in advance by the Department.
11. The bars out of the dowel bar for a length of 6" on each end shall be coated with an approved bond breaker.
12. All dowel bars 18"lg. @ 12"ctrs. shall be epoxy coated.
13. Expansion joint A–2 from St. Louis County Standard Specifications, if used locally, shall not exceed 50 centerline 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	7"
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.

JOINT REQUIREMENTS FOR CONCRETE PAVEMENT		
STREET	JOINT TYPE	JOINT AND BAR REQUIREMENTS
3 LANE RESIDENTIAL 32'–38' wide pavement 7" thick concrete pavement	Transverse	TYPE C 1" smooth dowel bars 18"lg. @ 12" ctrs.
	Longitudinal	While a poured section: TYPE I 5/8 "ϕ deformed tie bars 18"lg. @ 30"ctrs. At the strip between two poured sections: TYPE A 5/8 "ϕ deformed tie bars 30"lg. @ 30"ctrs.
	Expansion	TYPE A no steel bars
RESIDENTIAL 2 LANE 26' wide pavement 7" thick concrete	Transverse	TYPE C no steel bars
	Longitudinal	Full Width Construction: TYPE I modified with 1/2 "ϕ deformed tie bars 30"lg. @ 30"ctrs. Half Width Construction: TYPE I modified with 1/2 "ϕ deformed tie bars 30"lg. @ 30" ctrs.
	Expansion	TYPE A no steel bars

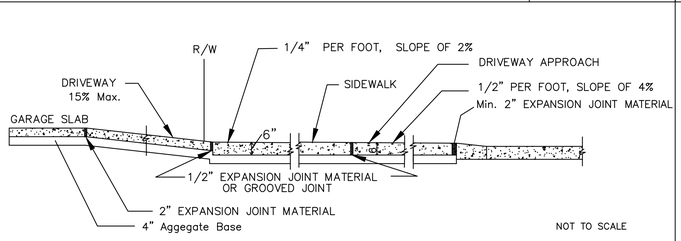
NOTE
Joint filler material shall meet ASTM designations as follows:
Bituminous type . . . . . ASTM D-994-53
Non extruding & resilient bituminous type (fiber) . . . ASTM D-1751-68T
Non extruding & resilient non bituminous type (rubber) ASTM D-5249

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-173-84
or latest revisions thereof.

ALL NON–REINFORCED CONCRETE SHALL BE 4,000 P.S.I. AT 28 DAYS

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

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



NOTES:

1- All driveway entrances shall be six (6) inches P.C.C. in depth from the curb to the property line.

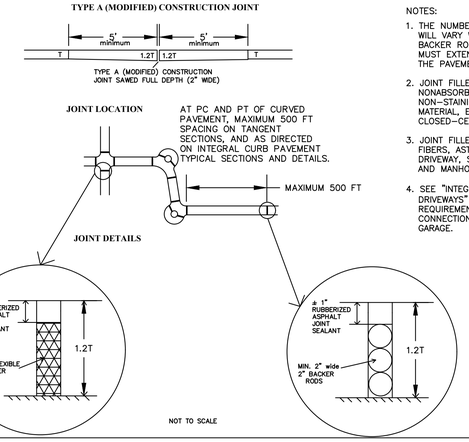
2- All driveway approaches constructed in conjunction with sidewalk shall give the appearance that the sidewalk is continuous. That portion of the driveway approach that doubles as a sidewalk shall have a one-fourth (1/4) inch per foot cross slope the same as the abutting sidewalk.

3- A two (2) inch expansion joint is required between the street and driveway approach. One (1) additional two (2) inch expansion joint is required between the garage floor and the termination of the driveway.

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

Integral Curb Detail "B" at Driveway
SECTION NO. 505.080

TYPE A (MODIFIED) CONSTRUCTION JOINT



NOTES:

1. THE NUMBER OF BACKER RODS REQUIRED WILL VARY WITH THE PAVEMENT THICKNESS. BACKER RODS AND FLEXIBLE FOAM FILLER MUST EXTEND THROUGH THE FULL DEPTH OF THE PAVEMENT.
2. JOINT FILLER SHALL BE A FLEXIBLE, NONABSORBENT, NON–GASSING, NON–STAINING, NON–SHRINKING MATERIAL, EXTRUDED FROM A CLOSED–CELL POLYMER, ASTM D–5249.
3. JOINT FILLER COMPOSED OF CELLULAR FIBERS, ASTM D–1751, MAY BE USED AT DRIVEWAY, SIDEWALK, AND SEWER INLET AND MANHOLE LOCATIONS.
4. SEE "INTEGRAL CURB DETAIL "B" AT DRIVEWAYS" FOR EXPANSION JOINT REQUIREMENTS AT DRIVEWAY CONNECTIONS TO THE STREET AND THE GARAGE.

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

PAVEMENT CONSTRUCTION DETAIL

CONCRETE NOTE:
ALL NON-REINFORCED CONCRETE SHALL BE 4,000 PSI AT 28 DAYS

ISSUE REMARKS/DATE

1 2024-08-13, INITIAL SUBMITTAL CITY PH.2
2 2024-11-08, REVISED PER CITY COMMENTS
3 2024-01-03, REVISED PER CITY COMMENTS
4 2024-02-04, REVISED PER CITY COMMENTS

PROJECT TITLE

HARVEST AT HOPEWELL
O'Fallon, Missouri
OFALLON PHASE 2

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

The Professional Engineer's seal and signature affixed to this document indicates that the document was prepared by or under the direct supervision of the undersigned Professional Engineer and that the undersigned Professional Engineer shall not be considered responsible for any additions to, or alterations of, the original seal and signature for such plans, drawings or documents not bearing his/her seal and signature.

STATE OF MISSOURI
MICHAEL G. BOERDING
NUMBER E-28643
PROFESSIONAL ENGINEER

Date: 02-04-2025
Michael G. Boerding
License No. MO E-28643
Professional Engineer

HARVEST HOPEWELL, LLC
5091 New Baumgartner Road
St. Louis, Missouri 63129

PAVEMENT DETAILS

P+Z No.	21-004994
City No.	21-011444
Date:	02-04-2025
Job No.	20-09-327

Page No.

DTL-9

IMP

"FINAL PLAN" Approval Date: Dec. 16, 2021

Drawing name: V:\2009\327 Highway N Assemblage\Drawings\Engineering\Improvements\03271 IMP DETAILS.dwg Plotted on: Feb 04, 2025 - 9:27am Plotted by: jluekenhaus