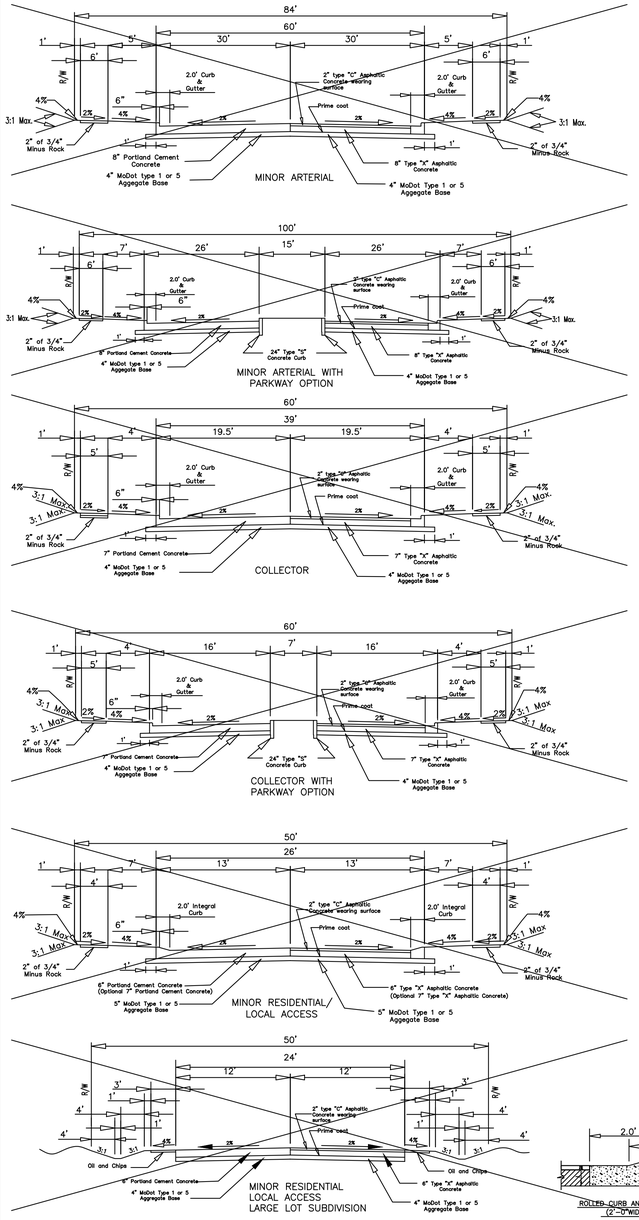
# FOR TYPICAL PAVEMENT SECTION SEE HEET DTL-11




| | 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* |

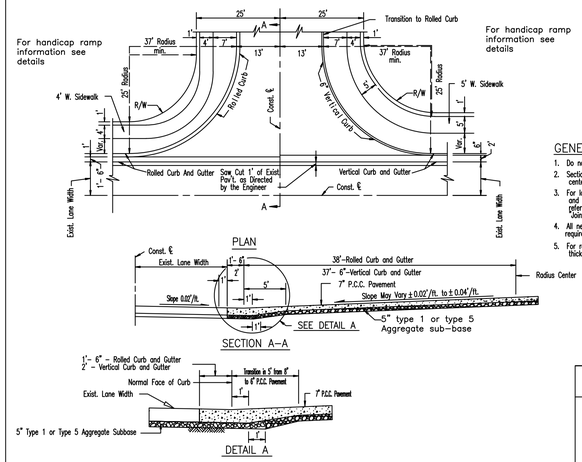
Notes: * = Can be varied with City Engineer's approval
** = Detail to match minor residential street with wider pavement
– these requirements may be varied by other City ordinances
– these standards are minimum standards
– Parkway options can be provided as indicated above

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

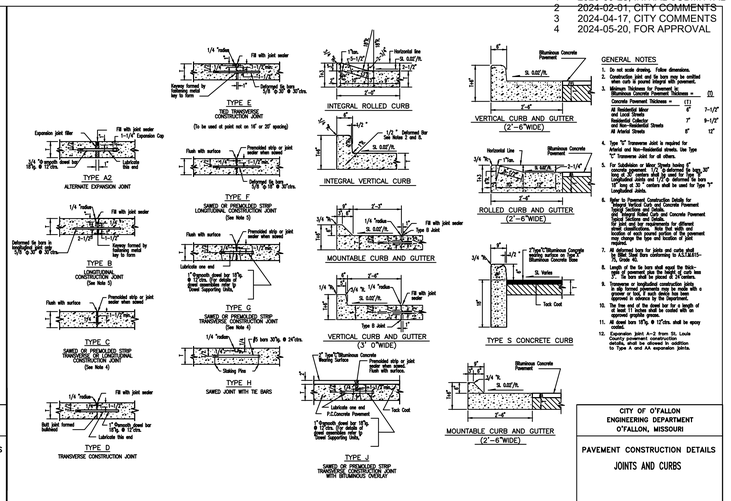
1. Do not scale drawing. Follow dimensions.
2. Sections are symmetrical about construction centerline.
3. For longitudinal and transverse joints, dowel and tie bar requirements and curb dimensions refer to the Pavement Construction Details for Joints and Curbs.
4. All necessary pavement markings shall 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

ISSUE REMARKS/DATE

1 2023-09-28, INITIAL SUBMITTAL
2 2024-02-01, CITY COMMENTS
3 2024-04-17, CITY COMMENTS
4 2024-05-20, FOR APPROVAL




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:

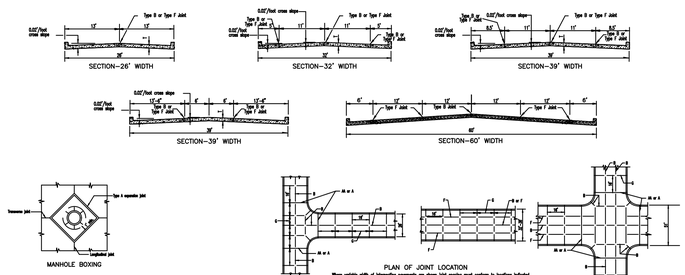
| | |
|---|---|
| Aluminous Concrete Pavement Thickness = | (1) |
| Concrete Pavement Thickness = | (1) |
| All Residential Minor and Local Streets | 7"-1/2" |
| Residential Collector Streets | 7" 9-1/2" |
| All Arterial Streets | 8" 12" |

4. Type "X" 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 37' or less of pavement, use a 5" long x 30" deep x 1" diameter dowel bar at 30" o.c. in the longitudinal joint and 1/2" o. deformed tie bars 30" 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.
7. Refer to Integral Rolled Curb and Concrete Pavement Typical Sections and Details.
8. Refer to Pavement Construction Details for additional modifications. Note that width and location of each paved portion of the pavement shall change the type and location of joint required.
9. Tie deformed bars for joints and curbs shall be 30" long at 30" centers unless shown otherwise.
10. Length of tie bs bars shall equal the thickness + 3" in bars and be placed 30 in centers.
11. Transverse or longitudinal construction joints in slip formed pavements may be made with a "Dry Cut" joint if approved by the Engineer. Approval is advance by the Department.
12. The time out of the dowel bar for a length of 6" on each end of the dowel bar coated with an approved bond breaker.
13. All dowel bars 18"Lg @ 12"ctrs. shall be epoxy coated.
14. Expansion joint A–2 from St. Louis County Standard Specifications, shall not be allowed 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 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 inlet. 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.

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–1751–60T |
| 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 |

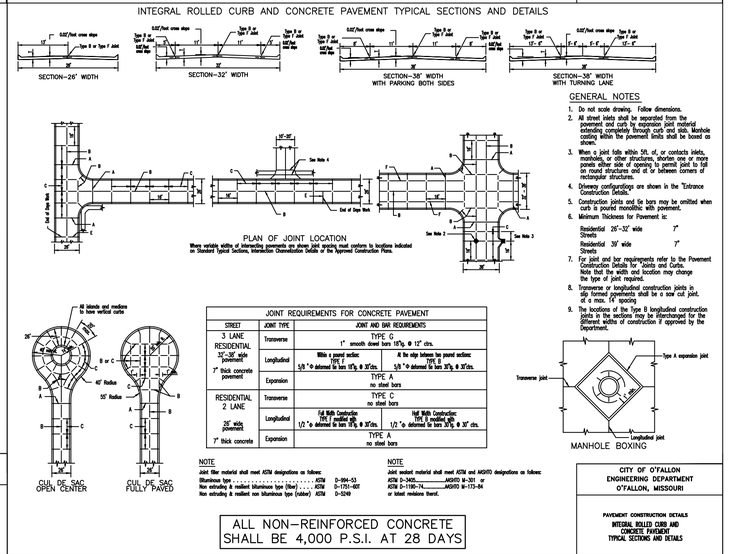
or latest revisions thereof.

| JOINT REQUIREMENTS FOR CONCRETE PAVEMENT | | |
|---|---|---|
| STREET | JOINT TYPE | JOINT AND BAR REQUIREMENTS |
| All Arterial, Non-Residential | Transverse | TYPE C 1" smooth dowel bars 18"lg. @ 12" ctrs. |
| 32'–50' wide pavement | Longitudinal | Within a paved section: TYPE F 5/8 "o deformed tie bars 18"lg. @ 30" ctrs. At the edge between two paved sections: TYPE G 5/8 "o 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

## 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 inlet. 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 | Within a paved section: TYPE F 5/8 "o deformed tie bars 18"lg. @ 30"ctrs. At the edge between two paved sections: TYPE G 5/8 "o 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 F modified JOINT 1/2 "o deformed tie bars 18"lg. @ 30"ctrs. Half Width Construction: TYPE G modified JOINT 1/2 "o 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–1751–60T |
| Non extruding & resilient non bituminous type (rubber) ASTM | D–5249 |

NOTE
Joint sealant material shall meet ASTM and AASHTO designations as follows:

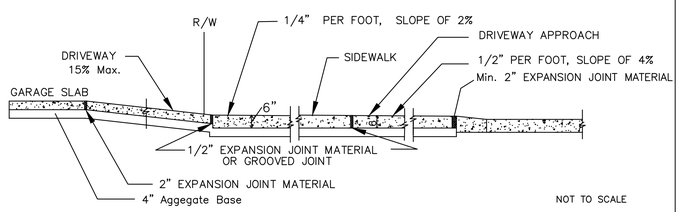
| | |
|---|---|
| ASTM D–3405 | AASHTO M–301 or |
| ASTM D–1190–74 | AASHTO M–173–84 |

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




NOT TO SCALE

NOTES:

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

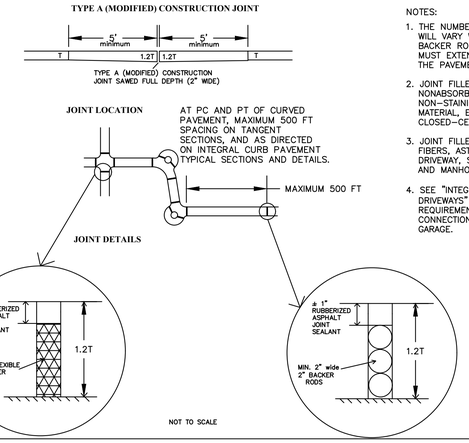
2- All driveway approaches constructed in conjunction with sidewalk shall give the appearance that the sidewalk is continuous. That portion of the driveway approach that doubles as a sidewalk shall have a one-fourth (1/4) inch per foot cross slope the same as the abutting sidewalk.

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




NOT TO SCALE

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*

PROJECT TITLE

*HARVEST AT HOPEWELL*
O'Fallon, Missouri
*O'FALLON PHASE 1B*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Corporate Certificate of Authority #001348



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

Date: 05-20-2024
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: 05-20-2024
Job No. 20-09-327

Page No.
DTL-9
IMP

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


Drawing name: V:\2000\327 Highway N Assemblage\Drawings\Engineering\Improvements\0327 IMP DETAILS.dwg Plotted on: May 20, 2024 - 10:25am Plotted by: jluetkenhaus