CITY OF WILLARD

BOARD OF ALDERS REGULAR MEETING

April 13, 2026 at 6:00 PM

Willard City Hall, 224 W. Jackson St., Willard, MO

AGENDA

Update Posted on April 10, 2026, at 1:00 p.m.

The tentative agenda of this meeting includes:

PLEDGE OF ALLEGIANCE

CALL THE MEETING TO ORDER

1. **ROLL CALL**
2. **AGENDA AMENDMENTS/APPROVAL OF AGENDA**
3. **CONSENT AGENDA:**

   "A Consent Agenda allows the Board of Aldermen to consider and approve routine items of business without discussion. Any member of the Board of Aldermen, the City Staff or the Public may request removal of any item from the Consent Agenda and request that it be considered under the Regular Agenda if discussion or debate of the item is desired. Items not removed from the Consent Agenda will stand approved upon motion by any Board member, second and unanimous vote to "approve the Consent Agenda as published or modified."

   - **3A. BOARD OF ALDERS REGULAR MEETING MINUTES 3/23/2026**
   - **3B. BOARD ATTENDANCE REPORT**
   - **3C. PREVIOUS MONTH, CURRENT MONTH OUTSTANDING INVOICES, CHECKS AND PAID DRAFT INVOICES**
4. **CITIZEN INPUT**
5. **PROJECT MANAGER REPORT**
   - **5A. SANITARY SEWER UPDATE (7 MIN)**
6. **PUBLIC HEARING**
   - **6A. ACTIVE TRANSPORTATION PLAN PUBLIC HEARING**
7. **RESOLUTIONS**
8. **ORDINANCES**
   - **8A. AN ORDINANCE ADDING SECTION 400.405 – AGRICULTURAL RESIDENT (AR) DISTRICT TO THE MUNICIPAL CODE OF THE CITY OF WILLARD MISSOURI. (FIRST AND SECOND READ) (5 MIN)**
   - **8B. AN ORDINANCE OF THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, MISSOURI, ACCEPTING A BID FROM B&H FOR TRASH WASTE COLLECTION SERVICES AND AUTHORIZING THE MAYOR TO EXECUTE RELATED AGREEMENTS. (FIRST AND SECOND READ) (5 MIN)**
   - **8C. AN ORDINANCE OF THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, MISSOURI, ACCEPTING A BID FROM GFL ENVIRONMENTAL, INC. FOR RECYCLING**

COLLECTION SERVICES AND AUTHORIZING THE MAYOR TO EXECUTE RELATED AGREEMENTS. (FIRST AND SECOND READ) (5 MIN)

8D. AN ORDINANCE APPROVING THE ACTIVE TRANSPORTATION PLAN AND ADDING IT TO THE WILLARD COMPREHENSIVE PLAN OF THE CITY OF WILLARD MISSOURI. (SECOND READ) (3 MIN)

8E. AN ORDINANCE AMENDING SECTION 705.100, APPLICATION FOR WATER SERVICES – DEPOSIT – AUTHORITY OF CITY TREASURER, OF THE MUNICIPAL CODE OF THE CITY OF WILLARD, MISSOURI, RELATING TO WATER SERVICE APPLICATIONS AND CUSTOMER DEPOSITS. (FIRST AND SECOND READ) (5 MINS)

9. **CITY ADMINISTRATOR REMARKS**
10. **DISCUSSION**

    10A. DISCUSSION IT SOFTWARE, SERVICES.
11. **NEW BUSINESS**
12. **UNFINISHED BUSINESS**
13. **RECESS OPEN SESSION**
14. **OPEN CLOSED SESSION PURSUANT TO RSMO SECTION 610.021 (1) LEGAL (2) REAL ESTATE (12) SEALED BIDS**
15. **CALL THE MEETING TO ORDER**
16. **ROLL CALL**
17. **CLOSE THE CLOSED SESSION AND RECONVENE THE OPEN SESSION**
18. **ADJOURN MEETING**

If you have special needs which require accommodation, please notify personnel at the City Hall. Representatives of the news media may obtain copies of this notice by contacting the City Clerk at 417-742-5302.

Courtney Myers, City Clerk

CITY OF WILLARD

BOARD OF ALDERS REGULAR MEETING

March 23, 2026 at 6:00 PM

Willard City Hall, 224 W. Jackson St., Willard, MO

MINUTES

Staff Present: City Administrator Wesley Young, City Attorney Holly Dodge, City Clerk Courtney Myers, Chief Financial Officer Genia Mount, Planning and Zoning Director Mike Ruesch, Public Works Trevor Hoffman, Justin Robinson, Shane Fox, Court Clerk Terry Forshee, Project Manager Steve Bodenhamer, and Police Officer JD Landon

Citizens Present: Dana Kimmons, Steve Cobb

PLEDGE OF ALLEGIANCE

Mayor Smith led the Pledge of Allegiance.

CALL THE MEETING TO ORDER

Mayor Smith called the meeting to order at 6:00 pm and asked the City Clerk to conduct the roll call.

ROLL CALL

City Clerk Courtney Myers conducted the roll call.

Present: Mayor Troy Smith, Casey Biellier, Jeremy Hill, David Keene, Joyce Lancaster, Rachel Mathison (6:03) Absent: Carol Wilson

Courtney Myers confirmed that a quorum was present.

2. AGENDA AMENDMENTS/APPROVAL OF AGENDA

City Administrator advised that Department Head reports on the consent agenda will be addressed during the Presentation section of the agenda.

Mayor Smith asked for a motion to approve the agenda, Motion was made by Alder Biellier and seconded by Alder Hill, Motion carried with a 5-0 vote. Voting Aye: Alders Biellier, Hill, Keene, Lancaster and Mathison.

3. CONSENT AGENDA:

"A Consent Agenda allows the Board of Aldermen to consider and approve routine items of business without discussion. Any member of the Board of Aldermen, the City Staff or the Public may request removal of any item from the Consent Agenda and request that it be considered under the Regular Agenda if discussion or debate of the item is desired. Items not removed from the Consent Agenda will stand approved upon motion by any Board member, second and unanimous vote to "approve the Consent Agenda as published or modified."

A. 03-09-2026 BOARD OF ALDERS MEETING MINUTES

B. QUARTERLY DEPARTMENT HEAD REPORTS

Department Head reports being addressed during the Presentation section of the agenda.

C. FINANCIAL REPORTS

PREVIOUS MONTH FINANCIAL SUMMARIES AND STATEMENTS

PREVIOUS MONTH PLUS CURRENT MONTH'S OUTSTANDING INVOICES, CHECKS AND DRAFT PAID INVOICES

PREVIOUS MONTH CHECK REGISTER

PREVIOUS MONTH UTILITIES ADJUSTMENT REPORT

Mayor Smith asked for a motion to approve the agenda, Motion was made by Alder Biellier and seconded by Alder Hill, Motion carried with a 5-0 vote. Voting Aye: Alders Biellier, Hill, Keene, Lancaster and Mathison.

4. CITIZEN INPUT

None

5. PRESENTATION

A. AGRICULTURAL ISSUES (HIGH SCHOOL) TEAM - TOPIC ELECTRONIC EAR TAGS (15 MIN)

The Highschool AG students gave an outstanding presentation on EID tags and answered questions.

B. QUARTERLY DEPARTMENT HEAD REPORTS

Department Head reports from the following departments, Chief of Police, Courts, Public Works, Chief Financial Officer, Planning and Zoning, and Parks

6. MEADOWS WATER TOWER STATUS

A. MEADOWS WATER TOWER (TREVOR HOFFMAN) PRESENT PROPOSED DESIGN

Trevor Hoffman presented a couple of visual options on the new look of the water tower for the City of Willard. Painting starts in June 2026.

7. SANTARY SEWER UPDATE (7MIN)

A. SANITARY SEWER UPDATE (7MIN)

Project Manager Steve Bodenhamer updated on the Meadows and 94-lift station progress.

8. PUBLIC HEARING FOR

A. RESOLUTION OF THE WILLARD PLANNING AND ZONING BOARD APPROVING AN ORDINANCE AMENDING SECTION 400.405 – AGRICULTURAL RESIDENT DISTRICT TO THE MUNICIPAL CODE OF THE CITY OF WILLARD MISSOURI.

Planning and Zoning Director Mike Ruesch advised this was a resolution set before the P&Z Board to approve and Ordinance to amend section 400.405. Citizen Steve Cobb added he would vote this in.

9. APPOINTMENT TO FILL VACANCY ON THE PARK BOARD

A. APPOINTMENT TO SERVE THE REMAINDER OF CRAIG BAIRDS' TERM ON THE PARK BOARD FOLLOWING HIS RESIGNATION, THROUGH APRIL 2028

Mayor Smith recommended the Board of Alders appoint Ian Powers to complete the Park Board term filling the vacancy following Craig Bairds' resignation. Motion to appoint Ian Powers was made Alder Biellier and seconded by Alder Mathison. Motion carried with a 5-0 vote Voting Aye: Alders Biellier, Hill, Keene, Lancaster and Mathison.

10. ORDINANCES

A. AN ORDINANCE ADDING SECTION 400.991 – ADMINISTRATIVE SUBDIVISION TO THE MUNICIPAL CODE OF THE CITY OF WILLARD MISSOURI.

Mayor Smith asked for a motion to approve the First Read of the ordinance. Motion to approve a First Read was made by Alder Biellier and seconded by Alder Hill. Motion carried with a 5-0 vote Voting Aye: Alders Biellier, Hill, Keene, Lancaster and Mathison.

Motion to continue to a Second Read was made by Alder Biellier and seconded by Alder Keene. Motion carried with a 5-0 vote Voting Aye: Alders Biellier, Hill, Keene, Lancaster and Mathison.

Mayor Smith asked the clerk to read the ordinance for a second time. Motion to approve the Second Read was made by Alder Keene and seconded by Alder Hill. Motion carried/ordinance approved with a 5-0 vote. Voting Aye: Alders Biellier, Hill, Keene, Lancaster, and Mathison.

11. CITY ADMINISTRATOR REMARKS

None

12. NEW BUSINESS

A. TRASH SERVICE BID

Chief Financial Officer Genia Mount reported on the bids received from GFL, B&H, and Republic Services for trash and recycling services. The Board expressed favor toward a combined approach utilizing GFL for recycling and B&H for trash services, B&H will provide trash service to the City at no charge for Freedom Fest. CFO Genia Mount will work on final contracts for the proposed agreements.

13. UNFINISHED BUSINESS

None

14. ADJOURN MEETING

Motion was made to adjourn the meeting by Alder Keene and seconded by Alder Biellier. Motion carried with a 5-0 vote. Voting Aye: Alders Biellier, Hill, Keene, Lancaster, and Mathison.

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Courtney Myers, City Clerk

2026 BOARD ATTENDANCE REPORT

ATTENDED: Y	ABSENT: N								
NAME:	1/12/2026	1/29/2026	2/9/2026	2/23/2026	3/4/2026	3/9/2026	3/23/2026	4/13/2026	4/27/2026
MAYOR TROY SMITH	Y	N	Y	Y	Y	Y	Y		
CASEY BIELLIER	Y	Y	Y	Y	Y	Y	Y		
JEREMY HILL	Y	Y	N	Y	Y	N	Y		
DAVID KEENE (MPT)	Y	Y	Y	Y	Y	Y	Y		
JOYCE LANCASTER	Y	Y	Y	N	Y	Y	Y		
RACHEL MATHISON	N	Y	Y	Y	Y	Y	Y		
CAROL WILSON	Y	Y	Y	Y	N	Y	N		

NAME:	5/11/2026	5/25/2026	6/13/2026	6/22/2026	7/13/2026	7/27/2026	8/10/2026	8/24/2026	
MAYOR TROY SMITH		HOLIDAY							
CASEY BIELLIER		HOLIDAY							
JEREMY HILL		HOLIDAY							
DAVID KEENE (MPT)		HOLIDAY							
JOYCE LANCASTER		HOLIDAY							
RACHEL MATHISON		HOLIDAY							
CAROL WILSON		HOLIDAY							

NAME:	9/14/2026	9/28/2026	10/12/2026	10/26/2026	11/9/2026	11/23/2026	12/14/2026	12/28/2026	
MAYOR TROY SMITH									
CASEY BIELLIER									
JEREMY HILL									
DAVID KEENE (MPT)									
JOYCE LANCASTER									
RACHEL MATHISON									
CAROL WILSON									

City of Willard, MO

Expense Approval R...

By Vendor Name

Post Dates 3/21/2026 - 4/9/2026

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
Vendor: REP425 - ALLIED SERVICES LLC					
ALLIED SERVICES LLC	008044670	03/31/2026	TRASH EXP-ALL	10-100-62000	145.83
ALLIED SERVICES LLC	008044670	03/31/2026	TRASH EXP-ALL	10-200-62000	97.35
ALLIED SERVICES LLC	008044670	03/31/2026	TRASH EXP-ALL	20-600-62000	331.04
ALLIED SERVICES LLC	008044670	03/31/2026	TRASH EXP-ALL	20-700-62000	331.04
ALLIED SERVICES LLC	008044670	03/31/2026	TRASH EXP-ALL	30-800-62300	1,073.49
ALLIED SERVICES LLC	008046184	03/31/2026	RECYCLE CENTER - S	20-700-57200	219.69
			Vendor REP425 - ALLIED SERVICES LLC Total:		**2,198.44**
Vendor: ACS100 - AMAZON CAPITAL SERVICES INC					
AMAZON CAPITAL SERVICES I	CR73	03/23/2026	WALL PANELS, WALL CLOCK FOR BOARDROOM - GEN	10-100-50130	157.78
AMAZON CAPITAL SERVICES I	4MXN	03/25/2026	REFUND FOR RETRND ITEM - GEN	10-100-50130	-118.99
AMAZON CAPITAL SERVICES I	4HQ7	03/30/2026	OUTDOOR RAIN GAUGES, 9VLT BATTERIES - S	20-700-50130	44.06
AMAZON CAPITAL SERVICES I	G6H4	03/30/2026	DUCT TAPE, SHP RAGS, PARTY SUPPLIES - PKS	30-800-50170	85.73
AMAZON CAPITAL SERVICES I	G6H4	03/30/2026	DUCT TAPE, SHP RAGS, PARTY SUPPLIES - PKS	30-800-50500	62.87
AMAZON CAPITAL SERVICES I	JPXC	03/30/2026	WALL PANELS FOR CITY HALL - GEN	10-100-50130	197.96
			Vendor ACS100 - AMAZON CAPITAL SERVICES INC Total:		**429.41**
Vendor: AEI100 - AXON ENTERPRISES INC					
AXON ENTERPRISES INC	434310	03/31/2026	(3) SPARE CARTRDG BATTERY PCKS FOR TASERS - LAW	10-200-50130	310.50
			Vendor AEI100 - AXON ENTERPRISES INC Total:		**310.50**
Vendor: CRC200 - BIG BEAR SHREDDING					
BIG BEAR SHREDDING	52766	04/06/2026	SHREDDING FEES - GEN	10-100-56400	74.52
			Vendor CRC200 - BIG BEAR SHREDDING Total:		**74.52**
Vendor: CFS100 - CANON FINANCIAL SERVICES INC					
CANON FINANCIAL SERVICES I	42930472	03/26/2026	COPIER LEASE - PW	10-300-55850	12.91
CANON FINANCIAL SERVICES I	42930472	03/26/2026	COPIER LEASE - PW	20-600-55850	25.83
CANON FINANCIAL SERVICES I	42930472	03/26/2026	COPIER LEASE - PW	20-700-55850	25.83
			Vendor CFS100 - CANON FINANCIAL SERVICES INC Total:		**64.57**
Vendor: COMMGN - COMMERCE CREDIT CARD SERVICES					
COMMERCE CREDIT CARD SE	3-18-26 DIGIKEY	03/24/2026	DIGIKEY- VS-15EWL06FN-M3GI-ND- SHP SPLY-STS/W/S	10-300-52000	2.23
COMMERCE CREDIT CARD SE	3-18-26 DIGIKEY	03/24/2026	DIGIKEY- VS-15EWL06FN-M3GI-ND- SHP SPLY-STS/W/S	20-600-52000	4.47
COMMERCE CREDIT CARD SE	3-18-26 DIGIKEY	03/24/2026	DIGIKEY- VS-15EWL06FN-M3GI-ND- SHP SPLY-STS/W/S	20-700-52000	4.46
COMMERCE CREDIT CARD SE	89547	03/24/2026	LOWES DRYWL,TEXTURE,SCRWS,BITS-CTY HALL REMDL-GEN	10-100-50130	106.32
COMMERCE CREDIT CARD SE	94136	03/25/2026	LOWES CIRCUIT MAIN BREAKR MTR COMBO-JCKSN P	30-800-95100	239.00
COMMERCE CREDIT CARD SE	26860705	03/26/2026	SAMS CONCESSIONS - PKS	30-800-50200	183.94
COMMERCE CREDIT CARD SE	14239V	03/27/2026	CROWN POWER KUBOTA TRACTOR REPAIR - PKS	30-800-71000	77.58
COMMERCE CREDIT CARD SE	3-30-26 HOME DEPOT	03/30/2026	REFUND OF SALES TAX - PKS	30-800-95100	-54.05
COMMERCE CREDIT CARD SE	84219	03/30/2026	LOWES LCKNUTS,GROUND CLMPS,ADPTRS JCKSN PRK-PK	30-800-95100	55.86
COMMERCE CREDIT CARD SE	3-31-26	03/31/2026	ANGELS MEXICAN MEAL CONFRNC RUESCH/CRAWFORD-P&D	10-400-56950	20.66

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
COMMERCE CREDIT CARD SE	86432	03/31/2026	LOWES CONDUIT,CPLNGS,PRIMR,PVC CEMNT JCKSN PRK-PKS	30-800-95100	315.46
COMMERCE CREDIT CARD SE	4-2-26	04/02/2026	H. TOADS MEAL CONFRNC RUESCH/CRAWFORD - P&D	10-400-56950	23.44
COMMERCE CREDIT CARD SE	4-2-26 EBAY	04/02/2026	EBAY EXHAUST FAN & INDSTRL MTR 94 LFT STATION	20-700-51000	278.11
COMMERCE CREDIT CARD SE	266560	04/03/2026	CAMDEN ON THE LAKE ROOM CONF M. RUESCH - P&D	10-400-56950	416.25
COMMERCE CREDIT CARD SE	266561	04/03/2026	CAMDEN ON THE LAKE ROOM CONF S. CRAWFORD - P&D	10-400-56950	416.25
COMMERCE CREDIT CARD SE	4-3-26	04/03/2026	ELEC PANEL RETURND FOR FULL CREDIT - PKS	30-800-95100	-357.56
COMMERCE CREDIT CARD SE	82279	04/07/2026	LOWES NEUTRL LUG,GROUND BARS,TEXTURE,TOTE- P&D/GE	10-100-50130	59.94
COMMERCE CREDIT CARD SE	82279	04/07/2026	LOWES NEUTRL LUG,GROUND BARS,TEXTURE,TOTE- P&D/GE	10-400-50130	65.62
			Vendor COMMGN - COMMERCE CREDIT CARD SERVICES Total:		**1,857.98**
Vendor: CON170 - CONCO COMPANIES					
CONCO COMPANIES	7002427614	03/28/2026	5/8" COMM STONE - WTR LEAK REPAIR - W	20-600-51000	73.10
CONCO COMPANIES	7002427663	03/28/2026	1" DIRTY BASE - WTR LEAK REPAIR ON ALLEN - W	20-600-51000	84.16
CONCO COMPANIES	7002430863	03/31/2026	5/8" COMM STONE- PERSHING ST WTR LEAK - W	20-600-51000	68.50
			Vendor CON170 - CONCO COMPANIES Total:		**225.76**
Vendor: GNC100 - GENERAL CODE INC					
GENERAL CODE INC	45874	03/31/2026	SUPPLEMENT STATUTORY UPDATES - GEN	10-100-50700	840.00
			Vendor GNC100 - GENERAL CODE INC Total:		**840.00**
Vendor: GCO100 - GOVCONNECTIONS INC					
GOVCONNECTIONS INC	77484892	03/31/2026	ACROBAT PRO TEAM LICENSES-GEN	10-100-57400	1,007.12
			Vendor GCO100 - GOVCONNECTIONS INC Total:		**1,007.12**
Vendor: HDE100 - HAHN DEBOEF LLC					
HAHN DEBOEF LLC	42729	04/01/2026	GOVT RELATIONS SERVICES MONTHLY RETAINER FEE - S	20-700-56400	5,000.00
			Vendor HDE100 - HAHN DEBOEF LLC Total:		**5,000.00**
Vendor: HAR160 - HARRY COOPER SUPPLY COMPANY INC					
HARRY COOPER SUPPLY COM	S5103978.001	03/23/2026	WATER HEATER REC CENTER - PKS	30-800-50500	56.61
HARRY COOPER SUPPLY COM	S5089029.001	03/24/2026	NEW INFRASTRUCTURE WATER SUPPLIES - W	20-600-51025	21,975.30
			Vendor HAR160 - HARRY COOPER SUPPLY COMPANY INC Total:		**22,031.91**
Vendor: HAY150 - HAYNES EQUIPMENT COMPANY INC					
HAYNES EQUIPMENT COMPA	29783H	03/31/2026	PYXIS ST SERIES CLEAN SOLUTION- SEWER I & I - S	20-700-51050	131.56
			Vendor HAY150 - HAYNES EQUIPMENT COMPANY INC Total:		**131.56**
Vendor: JAT200 - J & A TRAFFIC PRODUCTS LLC					
J & A TRAFFIC PRODUCTS LLC	41821	03/25/2026	12" X 36" LFT BRIDGE MKR, MISC SIGNS - STS	10-300-50130	1,041.74
			Vendor JAT200 - J & A TRAFFIC PRODUCTS LLC Total:		**1,041.74**
Vendor: LML100 - LAUBER AND ASSOCIATES MUNICIPAL LAW LLC					
LAUBER AND ASSOCIATES MU	33094	03/31/2026	CITY ATTY FEES - ALL	10-100-56400	4,737.20
LAUBER AND ASSOCIATES MU	33094	03/31/2026	CITY ATTY FEES - ALL	10-200-56200	451.50
LAUBER AND ASSOCIATES MU	33094	03/31/2026	CITY ATTY FEES - ALL	10-400-56400	2,974.10
LAUBER AND ASSOCIATES MU	33094	03/31/2026	CITY ATTY FEES - ALL	20-600-56400	649.35
LAUBER AND ASSOCIATES MU	33094	03/31/2026	CITY ATTY FEES - ALL	30-800-56400	406.35
LAUBER AND ASSOCIATES MU	33095	03/31/2026	CITY PROSECUTOR FEES - LAW	10-200-56200	4,264.50
LAUBER AND ASSOCIATES MU	33096	03/31/2026	SPECIAL COUNSEL - ECON DE	10-450-56400	1,976.00

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
LAUBER AND ASSOCIATES MU	OVERPMT ON ACCT	03/31/2026	PMT ERROR ON CK 51874, THIS IS THE OVERPMT AMT	10-100-56400	-247.50
LAUBER AND ASSOCIATES MU	OVERPMT ON ACCT	03/31/2026	PMT ERROR ON CK 51874, THIS IS THE OVERPMT AMT	10-400-56400	-990.00
			Vendor LML100 - LAUBER AND ASSOCIATES MUNICIPAL LAW LLC Total:		**14,221.50**
Vendor: LEG250 - LEGALSHIELD					
LEGALSHIELD	3-25-26	03/25/2026	GROUP INS MCCLAIN & SHIPLEY-LAW	10-200-93000	29.90
			Vendor LEG250 - LEGALSHIELD Total:		**29.90**
Vendor: EMP210 - LIBERTY UTILITIES-EMPIRE DISTRICT					
LIBERTY UTILITIES-EMPIRE DIS	3-24-26 220 JCKSN 3	03/24/2026	ELECTRICAL 220 W JACKSON 3 - PKS	30-800-62300	27.08
LIBERTY UTILITIES-EMPIRE DIS	3-24-26 220 JCKSN 4	03/24/2026	ELECTRICAL 220 W JACKSON 4 - PKS	30-800-62300	27.08
LIBERTY UTILITIES-EMPIRE DIS	3-24-26 222 JCKSN ACCT END	03/24/2026	ELEC UTIL 222 W JACKSON ACCT# END 2511 - PKS	30-800-62300	27.20
LIBERTY UTILITIES-EMPIRE DIS	3-27-26 3636	03/27/2026	ELECTRIC UTILITIES 3636 N FR 101 - S	20-700-62000	44.39
			Vendor EMP210 - LIBERTY UTILITIES-EMPIRE DISTRICT Total:		**125.75**
Vendor: LOW505 - LOWE'S CREDIT SERVICES					
LOWE'S CREDIT SERVICES	85774	03/23/2026	2-GAL BUCKET, 10OZ NO DRIP HEAVY DUTY- S	20-700-50130	26.66
LOWE'S CREDIT SERVICES	86617	03/31/2026	SPARK LIGHTER - S	20-700-51000	4.26
LOWE'S CREDIT SERVICES	971480	03/31/2026	TRAILER JACK - S	20-700-52000	47.22
			Vendor LOW505 - LOWE'S CREDIT SERVICES Total:		**78.14**
Vendor: MAR150 - MARMIC FIRE & SAFETY INC					
MARMIC FIRE & SAFETY INC	D602182	03/24/2026	FIRE SAFETY INSPECTION COMM BUILDING - PKS	30-800-56500	166.46
MARMIC FIRE & SAFETY INC	D602184	03/26/2026	ANNUAL FIRE INSPECTION CITY HALL - GEN	10-100-56500	377.49
			Vendor MAR150 - MARMIC FIRE & SAFETY INC Total:		**543.95**
Vendor: MATM100 - MATERIALS MANAGEMENT					
MATERIALS MANAGEMENT	7002425568	03/21/2026	TOPSOIL - STREET SPLY - STS	10-300-50130	330.00
			Vendor MATM100 - MATERIALS MANAGEMENT Total:		**330.00**
Vendor: MEM100 - MISSOURI EMPLOYERS MUTUAL INS CO					
MISSOURI EMPLOYERS MUTU	300860749	04/01/2026	WORK COMP INS - GEN/PW/PKS	10-100-56000	2,411.43
MISSOURI EMPLOYERS MUTU	300860749	04/01/2026	WORK COMP INS - GEN/PW/PKS	20-600-56000	769.61
MISSOURI EMPLOYERS MUTU	300860749	04/01/2026	WORK COMP INS - GEN/PW/PKS	20-700-56000	769.61
MISSOURI EMPLOYERS MUTU	300860749	04/01/2026	WORK COMP INS - GEN/PW/PKS	30-800-56000	1,180.06
			Vendor MEM100 - MISSOURI EMPLOYERS MUTUAL INS CO Total:		**5,130.71**
Vendor: MOC100 - MISSOURI ONE CALL SYSTEM INC					
MISSOURI ONE CALL SYSTEM I	6030322	03/31/2026	LOCATE SERVICES - W/S	20-600-56400	105.97
MISSOURI ONE CALL SYSTEM I	6030322	03/31/2026	LOCATE SERVICES - W/S	20-700-56400	105.98
			Vendor MOC100 - MISSOURI ONE CALL SYSTEM INC Total:		**211.95**
Vendor: OIS160 - ONLINE INFORMATION SERVICES INC					
ONLINE INFORMATION SERVI	1380148	03/31/2026	UTIL EXCHG REPORT-W/S	20-600-56400	37.00
ONLINE INFORMATION SERVI	1380148	03/31/2026	UTIL EXCHG REPORT-W/S	20-700-56400	37.00
			Vendor OIS160 - ONLINE INFORMATION SERVICES INC Total:		**74.00**
Vendor: LIN200 - ROTA L. STONEHOUSE					
ROTA L. STONEHOUSE	032826	03/28/2026	DATA COMPILATION - CT/LAW/PW	10-200-56200	30.00
ROTA L. STONEHOUSE	032826	03/28/2026	DATA COMPILATION - CT/LAW/PW	10-250-56400	30.00

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
ROTA L. STONEHOUSE	032826	03/28/2026	DATA COMPILATION - CT/LAW/PW	20-700-56400	30.00
			Vendor LIN200 - ROTA L. STONEHOUSE Total:		**90.00**
Vendor: SPS150 - SCHENDEL PEST SERVICES					
SCHENDEL PEST SERVICES	1044074	03/27/2026	PEST CONTROL-ALL	10-100-50130	25.00
SCHENDEL PEST SERVICES	1044074	03/27/2026	PEST CONTROL-ALL	10-200-50130	35.00
SCHENDEL PEST SERVICES	1044074	03/27/2026	PEST CONTROL-ALL	10-250-50600	5.00
SCHENDEL PEST SERVICES	1044074	03/27/2026	PEST CONTROL-ALL	10-300-50130	10.00
SCHENDEL PEST SERVICES	1044074	03/27/2026	PEST CONTROL-ALL	10-400-50130	5.00
SCHENDEL PEST SERVICES	1044074	03/27/2026	PEST CONTROL-ALL	20-600-50130	30.00
SCHENDEL PEST SERVICES	1044074	03/27/2026	PEST CONTROL-ALL	20-700-50130	30.00
SCHENDEL PEST SERVICES	1044074	03/27/2026	PEST CONTROL-ALL	30-800-50130	40.00
			Vendor SPS150 - SCHENDEL PEST SERVICES Total:		**180.00**
Vendor: SCU425 - SCURLOCK INDUSTRIES OF SPRINGFIELD INC					
SCURLOCK INDUSTRIES OF SP	0046744	03/24/2026	MANHOLE ADJUSTMENT RING - S	20-700-51000	44.00
			Vendor SCU425 - SCURLOCK INDUSTRIES OF SPRINGFIELD INC Total:		**44.00**
Vendor: SOMO100 - SOMO INC					
SOMO INC	4097 /1	03/31/2026	STRAW BALE - WTR REPAIR CLEAN UP- W	20-600-51000	24.00
			Vendor SOMO100 - SOMO INC Total:		**24.00**
Vendor: SPR275 - SPRINGFIELD WINWATER WORKS CO					
SPRINGFIELD WINWATER WO	349474 01	03/24/2026	6 PRO RING FINISH, 6 PRO-RING GRADE- W	20-600-51000	911.56
SPRINGFIELD WINWATER WO	348193 01	03/27/2026	995100002 14" CENTER PIN KIT FOR 14" HYMAX CPL-W	20-600-51000	192.00
SPRINGFIELD WINWATER WO	349602 01	03/27/2026	229-066307 FC COLLAR LEAK CLMP - W	20-600-51000	481.68
			Vendor SPR275 - SPRINGFIELD WINWATER WORKS CO Total:		**1,585.24**
Vendor: SPR200 - SPRINGFIELD-GREENE COUNTY HEALTH DEPARTMENT					
SPRINGFIELD-GREENE COUNT	040626	04/06/2026	WATER SAMPLE TESTING - W	20-600-50200	286.00
			Vendor SPR200 - SPRINGFIELD-GREENE COUNTY HEALTH DEPARTMENT Total:		**286.00**
Vendor: SQB100 - SQUIBB MEDIA LLC					
SQUIBB MEDIA LLC	1353	03/25/2026	MEET ANNOUNCMNT BRD OF ALDRMN - GEN	10-100-55200	52.45
			Vendor SQB100 - SQUIBB MEDIA LLC Total:		**52.45**
Vendor: STA500 - STAPLES					
STAPLES	6059386373	03/26/2026	BATH TISSUE - GEN	10-100-50550	69.15
			Vendor STA500 - STAPLES Total:		**69.15**
Vendor: TDE100 - THE DAILY EVENTS					
THE DAILY EVENTS	260408	04/03/2026	MEETNG NOTICES BOA AND P&Z COMM - GEN/P&D	10-100-55200	47.50
THE DAILY EVENTS	260408	04/03/2026	MEETNG NOTICES BOA AND P&Z COMM - GEN/P&D	10-400-55200	47.50
			Vendor TDE100 - THE DAILY EVENTS Total:		**95.00**
Vendor: TYL100 - TYLER TECHNOLOGIES INC					
TYLER TECHNOLOGIES INC	025-548854	03/31/2026	UTIL BILLING NOTIFICATIONS-W/S	20-600-57400	89.15
TYLER TECHNOLOGIES INC	025-548854	03/31/2026	UTIL BILLING NOTIFICATIONS-W/S	20-700-57400	89.15
			Vendor TYL100 - TYLER TECHNOLOGIES INC Total:		**178.30**
Vendor: WLU100 - VALVOLINE EXPRESS CARE					
VALVOLINE EXPRESS CARE	022108	03/30/2026	BRAKES '23 DODGE DURANGO #4 - LAW	10-200-75000	461.99
VALVOLINE EXPRESS CARE	3-30-26	03/30/2026	OIL CHNG, TIRE ROTATE #4 - LAW	10-200-75000	121.97
			Vendor WLU100 - VALVOLINE EXPRESS CARE Total:		**583.96**

Expense Approval Report 1 — **Post Dates: 3/21 – 3/26**

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
Vendor: VDS100 - VDS VISION LLC					
VDS VISION LLC	1627	04/01/2026	IT SERVICES-ALL	10-100-56400	288.00
VDS VISION LLC	1627	04/01/2026	IT SERVICES-ALL	10-200-56200	144.00
VDS VISION LLC	1627	04/01/2026	IT SERVICES-ALL	10-250-56400	36.00
VDS VISION LLC	1627	04/01/2026	IT SERVICES-ALL	10-300-56400	36.00
VDS VISION LLC	1627	04/01/2026	IT SERVICES-ALL	10-400-56400	72.00
VDS VISION LLC	1627	04/01/2026	IT SERVICES-ALL	20-600-56400	288.00
VDS VISION LLC	1627	04/01/2026	IT SERVICES-ALL	20-700-56400	288.00
VDS VISION LLC	1627	04/01/2026	IT SERVICES-ALL	30-800-56400	288.00
				Vendor VDS100 - VDS VISION LLC Total:	**1,440.00**
Vendor: AMK100 - VESTIS					
VESTIS	4170421238	03/23/2026	PW DEPARTMENT UNIFORM SERVICE - STS/W/S	10-300-92500	7.92
VESTIS	4170421238	03/23/2026	PW DEPARTMENT UNIFORM SERVICE - STS/W/S	20-600-92500	15.85
VESTIS	4170421238	03/23/2026	PW DEPARTMENT UNIFORM SERVICE - STS/W/S	20-700-92500	15.85
VESTIS	4170422774	03/30/2026	PW DEPARTMENT UNIFORM SERVICE - STS / W / S	10-300-92500	7.92
VESTIS	4170422774	03/30/2026	PW DEPARTMENT UNIFORM SERVICE - STS / W / S	20-600-92500	15.85
VESTIS	4170422774	03/30/2026	PW DEPARTMENT UNIFORM SERVICE - STS / W / S	20-700-92500	15.85
				Vendor AMK100 - VESTIS Total:	**79.24**
Vendor: WHB100 - WELHENER HB WALL AWNING					
WELHENER HB WALL AWNIN	BALANCE	04/02/2026	BALANCE DUE REPLCMNT SHADES FOR AQUATIC CTR - PKS	30-800-95100	5,830.00
				Vendor WHB100 - WELHENER HB WALL AWNING Total:	**5,830.00**
Vendor: WRI110 - WEX BANK					
WEX BANK	111386036	03/23/2026	VEH AND EQUIP FUEL-LAW/PKS/STS/W/S/P&D	10-200-75000	2,595.76
WEX BANK	111386036	03/23/2026	VEH AND EQUIP FUEL-LAW/PKS/STS/W/S/P&D	10-300-70000	449.99
WEX BANK	111386036	03/23/2026	VEH AND EQUIP FUEL-LAW/PKS/STS/W/S/P&D	10-400-70000	421.14
WEX BANK	111386036	03/23/2026	VEH AND EQUIP FUEL-LAW/PKS/STS/W/S/P&D	20-600-75000	899.98
WEX BANK	111386036	03/23/2026	VEH AND EQUIP FUEL-LAW/PKS/STS/W/S/P&D	20-700-75000	899.98
WEX BANK	111386036	03/23/2026	VEH AND EQUIP FUEL-LAW/PKS/STS/W/S/P&D	30-800-71000	487.36
				Vendor WRI110 - WEX BANK Total:	**5,754.21**
Vendor: WHE100 - WHEELER METALS INC					
WHEELER METALS INC	382380	03/30/2026	ANGLE 2X2X1/8 4FT, 1X16 GA SQ TUBE 4FT- S	20-700-51000	20.00
				Vendor WHE100 - WHEELER METALS INC Total:	**20.00**
Vendor: WIL295 - WILLARD CHAMBER OF COMMERCE					
WILLARD CHAMBER OF COM	3-29-26	03/29/2026	2026 MEMBER DUES - PKS	30-800-55800	180.00
				Vendor WIL295 - WILLARD CHAMBER OF COMMERCE Total:	**180.00**
Vendor: WTV100 - WILLARD HOME CENTER LLC					
WILLARD HOME CENTER LLC	D140131	03/23/2026	SEALNT, ELBOW, NIPPLES REC CTR - PKS	30-800-50500	20.08
WILLARD HOME CENTER LLC	D140177	03/24/2026	60# READY-MIX W/GRAVEL -	20-600-51000	8.98
WILLARD HOME CENTER LLC	D140179	03/24/2026	ADAPTRS,COUPLNGS,SWEEP ELBWS JCKSN ST PRK ELEC-PK	30-800-95100	66.16
WILLARD HOME CENTER LLC	D140214	03/25/2026	25LB KY 31 GRASS SEED - 607 MAIN LANDSCAPE -STS	10-300-50200	76.49
WILLARD HOME CENTER LLC	D140277	03/26/2026	PICK MATTOCK 2.5LB - S	20-700-52000	28.79

Expense Approval Report 1 **Post Dates: 3/21 - 6**

Vendor Name	Payable Number	Post Date	Description (Item)	Account Number	Amount
WILLARD HOME CENTER LLC	D138082	03/30/2026	ANCHORNG ADHESIVE,COUPLER NUTS, BOLTS/NUTS-PKS	30-800-51000	51.65
WILLARD HOME CENTER LLC	D138471	03/30/2026	10" SPADE EXT, TAPER COUNTERSINK-TRACTOR REPR- PKS	30-800-71000	22.48
WILLARD HOME CENTER LLC	D140589	03/31/2026	1/8" STL/ZINC QK LNK, 175' BLU HANDY CHN-S	20-700-51000	5.72
WILLARD HOME CENTER LLC	D140622	03/31/2026	25LB KY 31 GRASS SEED- WTR REPAIR CLEAN UP - W	20-600-51000	76.49
			Vendor WTV100 - WILLARD HOME CENTER LLC Total:		**356.84**
			Grand Total:		**72,807.80**

Fund Summary

Fund	Expense Amount
10 - GENERAL FUND	26,267.83
20 - WATER AND SEWER FUND	35,981.08
30 - PARKS FUND	10,558.89
Grand Total:	**72,807.80**

Account Summary

Account Number	Account Name	Expense Amount
10-100-50130	SUPPLIES-GEN	428.01
10-100-50550	SUPPLIES CUSTODIAL-GE	69.15
10-100-50700	SUPPLIES OFFICE-GEN	840.00
10-100-55200	ADVERTISING EXPENSE-	99.95
10-100-56000	INSURANCE-GEN	2,411.43
10-100-56400	PROFESSIONAL FEES-GE	4,852.22
10-100-56500	SAFETY PROGRAM-GEN	377.49
10-100-57400	EQUIPMENT/SOFTWARE	1,007.12
10-100-62000	UTILITIES ELECTRIC-GEN	145.83
10-200-50130	SUPPLIES-LAW	345.50
10-200-56200	LEGAL EXPENSE-LAW	4,890.00
10-200-62000	UTILITIES ELECTRIC-LAW	97.35
10-200-75000	VEHICLE LEASE-LAW	3,179.72
10-200-93000	GROUP INSURANCE	29.90
10-250-50600	MISCELLANEOUS EXPEN	5.00
10-250-56400	PROFESSIONAL-COURT	66.00
10-300-50130	SUPPLIES-STREETS	1,381.74
10-300-50200	LANDSCAPING-STREETS	76.49
10-300-52000	SUPPLIES SMALL EQUIP	2.23
10-300-55850	EQUIPMENT RENTAL-ST	12.91
10-300-56400	PROFESSIONAL-STREETS	36.00
10-300-70000	VEHICLE EXPENSE FUEL-	449.99
10-300-92500	UNIFORMS-STREETS	15.84
10-400-50130	SUPPLIES-P&D	70.62
10-400-55200	ADVERTISING-P&D	47.50
10-400-56400	PROFESSIONAL-P&D	2,056.10
10-400-56950	TRAINING & EDUCATION	876.60
10-400-70000	VEHICLE EXPENSE FUEL-	421.14
10-450-56400	PROFESSIONAL - ECO DE	1,976.00
20-600-50130	SUPPLIES-WATER	30.00
20-600-50200	LABORATORY FEES-WAT	286.00
20-600-51000	REPAIRS AND MAINTEN	1,920.47
20-600-51025	NEW INFRASTRUCTURE	21,975.30
20-600-52000	SUPPLIES SMALL EQUIP	4.47
20-600-55850	EQUIPMENT RENTAL-WA	25.83
20-600-56000	INSURANCE-WATER	769.61
20-600-56400	PROFESSIONAL-WATER	1,080.32
20-600-57400	EQUIPMENT/SOFTWARE	89.15
20-600-62000	UTILITIES ELECTRIC-WAT	331.04
20-600-75000	VEHICLE LEASE-WATER	899.98
20-600-92500	UNIFORMS-WATER	31.70
20-700-50130	SUPPLIES-SEWER	100.72
20-700-51000	REPAIRS AND MAINTEN	352.09
20-700-51050	I&I EXPENSE-SEWER	131.56
20-700-52000	SUPPLIES SMALL EQUIP	80.47
20-700-55850	EQUIPMENT RENTAL-SE	25.83
20-700-56000	INSURANCE-SEWER	769.61
20-700-56400	PROFESSIONAL-SEWER	5,460.98
20-700-57200	RECYCLE CENTER EXPEN	219.69
20-700-57400	EQUIPMENT/SOFTWARE	89.15

Account Summary

Account Number	Account Name	Expense Amount
20-700-62000	UTILITIES ELECTRIC-SEW	375.43
20-700-75000	VEHICLE LEASE-SEWER	899.98
20-700-92500	UNIFORMS-SEWER	31.70
30-800-50130	SUPPLIES GENERAL-PKS	40.00
30-800-50170	SUPPLIES SPECIAL ACTIV	85.73
30-800-50200	CONCESSIONS-PKS	183.94
30-800-50500	BUILDING MAINTENANC	139.56
30-800-51000	REPAIRS AND MAINTEN	51.65
30-800-55800	DUES AND SUBSCRIPTIO	180.00
30-800-56000	INSURANCE-PKS	1,180.06
30-800-56400	PROFESSIONAL-PKS	694.35
30-800-56500	SAFETY PROGRAM-PKS	166.46
30-800-62300	UTILITIES OTHER-PKS	1,154.85
30-800-71000	VEHICLE REPAIR & MAIN	587.42
30-800-95100	CAPITAL ASSET EXP-PKS	6,094.87
	Grand Total:	**72,807.80**

Project Account Summary

Project Account Key	Expense Amount
None	72,807.80
Grand Total:	**72,807.80**

BOARD OF ALDERS MEETING

TO: The Board of Alders

FROM: Steve Bodenhamer

SUBJECT:

SANITARY SEWER UPDATE (7 MIN)

CITY OF WILLARD

INTERNAL MEMORANDUM

DATE: April 13, 2026

TO: Mayor Smith and BOA

FROM: S. D. Bodenhamer

RE: Sanitary Sewer Project Status

COMMUNITY FUNDING PARTNERSHIP (94 Lift Station and Force Main)

Status of components:

- Construction
    - Young's General Contracting has installed approximately 2000 feet of 18-inch HDPE pipe along the north end of Old Willard Road. Progress has resumed at a faster pace following delivery of additional pipe handling equipment and the return of warmer temperatures for fusing of the HDPE pipe sections.
- Finance
    - We have received approval and funds availability of partial reimbursement request # 5 from the USEPA in the amount of $770,327. .

- Abatement Order on Consent (AOC) with the Missouri Department of Natural Resources (MDNR).
    - MDNR issued the fully executed document March 19.

MEADOWS CONNECTION TO CITY OF SPRINGFIELD

Status of components:

- Construction
    - JD Wallace Contracting has installed approximately 1000 feet of 15-inch PVC gravity main. Progress has slowed considerably since the contractor has encountered rock pinnacles, requiring considerable breaking with a hydraulic hammer. The decision has been made to blast the rock pinnacle. JD Wallace has begun drilling for blasting and is finalizing their blasting plans and has provided additional insurance, plans also include the placement of geophones to record the resulting shock waves.

COMBINED FINANCING

We continue working with Piper Sander to secure Certificates of Participation (COP) to finance the City's obligations for both the 94 Lift Station Upgrade and Force Main Replacement and the Meadows Regionalization Trunk Sewer projects.

- The City received a bond rating of A+ from Standard and Poor's. This is a good rating for a municipality of our size.

- The Certificates of Deposit were offered at 5% interest for the first ten years and 5.25% interest for the remaining 10 years on April 7, with orders totaling $3,905,000 with only $3,355,000 being offered (14% over availability) which reflects confidence in the market regarding the city.
- The 5% interest rate is a good rate for Certificates of Participation, given the current turmoil in the financial markets due to current geopolitical events.
- Required signatures for the final documentation are being acquired.
- Closing of the sale of the Certificates of Participation will occur on April 15. At that time the outstanding balance of $1,012,910 of short-term lease purchase financing with O'Bannon Bank will be paid off.
- The annual debt service requirement for the Certificates of Participation ranges approximately from $269,000 to $273,000 for 20 years.
- This completes our financing requirements for the 94 Lift Station Upgrade and Force Main Replacement and the Meadows Regionalization Trunk Sewer projects.

BOARD OF ALDERS MEETING

TO: The Board of Alders

FROM: P & Z

SUBJECT:

ACTIVE TRANSPORTATION PLAN PUBLIC HEARING

AFFIDAVIT OF PUBLICATION

Date: 03-25-2026

STATE OF MISSOURI)
COUNTY OF GREENE) ss.

I, Ryan Squibb, being duly sworn according to law, state that I am the Publisher of the *Greene County Commonwealth*, a weekly newspaper of general circulation in the County of Greene, State of Missouri, where located; which newspaper has been admitted to the Post Office as periodical class matter in the City of Ash Grove, Missouri, the city of publication; which newspaper has been published regularly and consecutively for a period of more than three years and has a list of bona fide subscribers, voluntarily engaged as such who have paid or agreed to pay a stated price for a subscription for a definite period of time, and that such newspaper has complied with the provisions of Section 493.050, Revised Statutes of Missouri 2000, and Section 59.310, Revised Statutes of Missouri 2000. The affixed notice appeared in said newspaper in the following issues:

1st Insertion: Vol. 149 No. 38, 25th day of March, 2026
2nd Insertion: Vol. ____ No. ____, _____ day of _____, 2026
3rd Insertion: Vol. ____ No. ____, _____ day of _____, 2026
4th Insertion: Vol. ____ No. ____, _____ day of _____, 2026
5th Insertion: Vol. ____ No. ____, _____ day of _____, 2026
6th Insertion: Vol. ____ No. ____, _____ day of _____, 2026

Ryan Squibb, Publisher

Subscribed and sworn to before me on this 25th day of March, 2026.

Patti J. McBride, Notary Public

My commission expires December 21, 2027

Publication fee $52.45 #1353

PATTI J MCBRIDE My Commission Expires 12-21-2027 NOTARY SEAL Lawrence County Commission # 11520030 NOTARY PUBLIC - STATE OF MISSOURI

PUBLIC NOTICE

Notice is hereby given that the Willard Board of Alders shall meet on April 13, 2026, at 6:00 p.m. to conduct a public hearing to adopt the Active Transportation Plan. The Commission will take public comments at this meeting. If you are unable to attend the meetings, you are welcome to send any comments in support of, in opposition to, or general inquiries regarding this request for the proposed zone change to Mike Ruesch, Director of Planning and Development at:

City of Willard
P.O. Box 187
Willard, MO 65781
(417) 742-5310
planning@cityofwillard.org

If you have special needs, which require accommodation, please notify City personnel at City Hall. Accommodations will be made for your needs. Representatives of the news media may obtain copies of this notice by contacting the City Clerk at (417) 742-5302.

_____ **#C-1353-3-25-1tc**

BOARD OF ALDERS MEETING

TO: The Board of Alders

FROM: P & Z

SUBJECT:

AN ORDINANCE ADDING SECTION 400.405 – AGRICULTURAL RESIDENT (AR) DISTRICT TO THE MUNICIPAL CODE OF THE CITY OF WILLARD MISSOURI.

Bill Number: 26-11 **Ordinance Number: 260413A**

AN ORDINANCE ADDING SECTION 400.405 – AGRICULTURAL RESIDENT (AR) DISTRICT TO THE MUNICIPAL CODE OF THE CITY OF WILLARD MISSOURI.

WHEREAS, after City Staff consideration, and review of the proposed regulations, the City of Willard desires to create a new zoning district, for the City of Willard, Missouri; and

WHEREAS, the Board of Aldermen is authorized by **Section 79.110** of the Revised Statutes of Missouri to enact ordinances expedient for the good government of the City of Willard and to benefit the trade, commerce, and health of Willard inhabitants and guests; and

WHEREAS, the Board of Aldermen is authorized by **Section 79.450, RSMo**. to make all ordinances, not inconsistent with the laws of the state, expedient for maintaining peace, good government, and welfare of the City and its trade and commerce; and

WHEREAS, the Board of Aldermen finds it must balance in zoning regulations to benefit the trade, commerce, and health of the Willard inhabitants and guests, and provide regulations that are expedient for maintaining the peace, good government and, welfare of the City and its trade and commerce; and

WHEREAS, it is the desire of the Willard Planning and Zoning Commission and the Willard Board of Aldermen to have zoning regulations and the City of Willard Land Development Regulations in the Municipal Code of the City of Willard, Missouri, that are clear and concise for understanding and interpretation; and

WHEREAS, the language of this code has been submitted to the Willard Planning and Zoning Commission with proper notice, which, after conducting a public hearing on the same, has recommended the Board of Aldermen amend the City of Willard Land Development Regulations in the Municipal Code of the City of Willard, Missouri as provided herein; and

WHEREAS, a public hearing was held by the Willard Planning and Zoning Commission at City Hall in Willard, Missouri at 6:00 PM on March 17th, 2026; and

WHEREAS, the Willard Planning and Zoning Commission has recommended approval of the request; and

WHEREAS, a Public Hearing was held by the Board of Aldermen at City Hall in Willard, Missouri at 6:00 PM on March 23rd, 2026; and

WHEREAS, the Board of Aldermen has determined the amendments to the Municipal Code of the City of Willard, Missouri are reasonable and necessary; and

WHEREAS, the Board of Aldermen wish to revise Chapter 400, Land Use to add a zoning district of Agricultural Resident zone in Section 400.405 within the City; and

WHEREAS, the Board of Aldermen has conducted a public hearing on this matter in compliance with **Chapter 89 RSMo.**

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, MISSOURI, AS FOLLOWS:

Section 1: It is the intention of the Board of Aldermen and it is hereby ordained that the provisions of this ordinance shall become and be made a part of the Municipal Code of the City of Willard, Missouri, and the sections of this ordinance may be renumbered to accomplish such intention.

Section 2: That Title IV - Land Use, Article V – Zoning District Regulations of the Municipal Code of the City of Willard, Missouri is hereby amended to add Section 400.405 – Agricultural Resident to read as follows:

ARTICLE 400.405 AR - AGRICULTURAL RESIDENT DISTRICT

This district is intended to preserve the predominant rural character of the land while allowing certain non-agricultural uses.

A. Allowed Uses

1. Single-family detached dwellings.
2. The use of accessory buildings in a rural setting.
3. Park/Recreation
4. Animal Service (veterinary only)
5. Horticultural services
6. Nurseries for trees, plants, and shrubs including retail sale when grown on the premises
7. Any greenhouse or any building in which farm animals are kept shall be a distance not less than two hundred (200) feet from any dwelling other than a farm dwelling and from any lot in any residential district
8. Accessory uses customary to and incidental to permitted agricultural uses and including roadside stands offering for sale only agricultural products produced on the premises.
9. This district provides residential areas where property owners can maintain a limited number of farm animals but not including commercial poultry farms, hog farms, feedlots or other confined animal feeding operations as defined in this section..
10. Hunting and Fishing, unless prohibited by other ordinances and laws.
11. Private non-commercial recreational areas, including country clubs, swimming pools and golf courses, forests, and wildlife preserves.

B. Special regulations for areas which possess certain environmental and/or physical characteristics may be imposed

These characteristics include but are not limited to:

1. Recharge area for important springs.
2. Faults and other areas of discrete groundwater recharge.
3. Caves and sink holes.
4. Municipal watershed.
5. Forest cover.
6. Easily erodible soils; and
7. Proximity to streams or lakes.

C. Only three (3) parcels may be created by Administrative Subdivision from the parent tract rezoned from another District. Other parcels may be created by platting as regulated by the City Subdivision Regulations.

D. ***Minimum Lot Size, Bulk And Open Space Requirements.***

a. **Minimum Lot Area - 5 Acres**

	Minimum Lot Width
Single Family Dwellings	150 Feet
All other Permitted Uses	200 Feet
Minimum Lot Depth	140 Feet
Maximum Building Height	30 Feet
Setbacks	
Front Yard	50 Feet
Rear yard	50 Feet
Side Yard	25 Feet

In addition, no structure may be erected closer to the center line of an existing or planned street than as prescribed below.

Roadway Setbacks	
Street Classification	**Required Setback from Right-of-way Center Line**
Freeway	150 feet plus required yard setback

Roadway Setbacks	
Expressway	65 feet plus the required yard setback
Primary Arterial	55 feet plus the required yard setback
Secondary Arterial	40 feet plus the required yard setback
Collector	35 feet plus the required yard setback
Commercial/Industrial	30 feet plus the required yard setback
Residential Local	25 feet plus the required yard setback
Highway Access Road	20 feet plus the required yard setback

E. Accessory Uses

1. Home occupations as permitted pursuant to Article **VI**, Section **400.540**.
2. Temporary buildings for uses incidental to construction work;
    a. Which buildings shall be removed upon completion or abandonment of the construction work.

F. **Conditional Uses Requiring Board of Zoning Adjustment Authorization**

1. Certain non-conforming uses may be located within the district by written permission by the Board of Aldermen after written notice to all landowners within one hundred eighty-five (185) feet of the proposed use, followed by a public hearing; provided, that in the Board of Aldermen's judgment, such use will not seriously injure the appropriate use of neighboring property and will conform to the general intent and purpose of this Chapter, and, further provided that such use shall comply with the height, area and other regulations of the district in which they may be located, as well as any additional restrictions as may be ordered

2. Public utility structures or uses, subject to the provisions.

3. Schools, structures and properties of recreational, cultural, administrative, or public service type,

churches and other places of worship, including parish houses and Sunday Schools;

a. On a minimum of three (3) acres of land, to provide sufficient land area for off-street parking, buffer yards, and proper site design to lessen possible adverse impacts on adjoining properties; but
b. Excluding overnight shelters and temporary outdoor revivals.

4. Cemeteries adjacent to or in extension of existing cemeteries, subject to the provisions set by the Board of Aldermen.
5. Day care homes, if not more than ten (10) children are kept, in addition to those residing on the premises, subject to State licensing requirements.

G. Specific Prohibitions

1. The filling or drainage of marsh or wetlands, removal of topsoil, stripping of natural vegetative cover, the creation of ponds or damming or relocating of any watercourse shall not be permitted unless duly permitted by Resource Management in accordance with Federal, State, and County regulations.
2. Removal of trees, forests, woods, or other significant stands of foliage and cover unless by an approved plan.
3. Quarrying, mining, or other excavation except as incidental to the construction of buildings to house permitted uses listed above.
4. Locating wastewater treatment systems closer than one hundred (100) feet from surface water or areas of discrete recharge to ground water sources.

H. Special Provisions

1. Location of wastewater treatment systems in those areas with environmental or physical constraints as described in the Statement of Intent of this Article shall only be installed after receiving approval from the Greene County Resource Management Department and the Greene County Health Department.
2. Stricter requirements for area and type of system may be imposed for water and wastewater systems if the Board of Aldermen find it necessary for the protection of the public health, safety, and welfare.
3. Alternate wastewater systems may be allowed in areas deemed inappropriate for conventional septic tank systems.

I. Private roads are allowed;

1. Provided that the private road shall be so described in the deeds; and

2. Further stated that the private roads will not be accepted or maintained by the City of Willard

3. Private roads shall have signs posted reading: “City Maintenance Ends.”

4. Private roads shall comply with the City of Willard Design Standards for Public Improvements as they apply to road construction.

5. Private road identification signs shall be blue in color, public road identification signs shall be green

J. Animal Regulations

Types of Permitted Animals

1. Large Animals: Horses, Cows,
2. Moderate Animals: Goats, Sheep, are permitted as defined in this section.
3. Small Animals: Chickens, Rabbits, Ducks, Geese, and Turkeys are allowed for egg or meat production.
4. Bees/Apiaries: Permitted for pollination and honey production.
5. Household Pets: Dogs, cats, and small animals.

K. Limitations and Requirements

The raising of animals must be for home use, consumption, or education (4H, FFA)
No commercial breeding or industrial farming shall be permitted. Minimum lot sizes of 5 acres are required for the AR zoning

1. Use and Acreage:
    a. Large animals shall be no more than 1 animal per 2 dedicated acres.
    b. Moderate animals shall be no more than 6 animals per 2 dedicated acres.
    c. Small animals shall be no more than 3 per acre of total land
        i. Keeping animal pens, cages, or structures clean and in good repair.
    d. All pasture shall be fenced and maintained.
    e. Regular removal of feces, soiled bedding, and maintenance of animals
    f. Prompt disposal of dead animals shall occur within 24 hours.
    g. Pigs and hogs are not permitted in the AR zoning
    h. Household pets including dogs and cats.
2. Setbacks: Stables, coops, hives and pastures shall be placed no less than 200 feet from neighboring structures

Section 3: This Ordinance shall be in full force and effect from and after the date of its passage by the Board of Aldermen and signature of the Mayor and attested to by the City Clerk.

Section 4: The provisions of this Ordinance are severable and if any provision hereof is declared invalid, unconstitutional or unenforceable, such determination shall not affect the validity of the remainder of this Ordinance.

Section 5: That the City Clerk is authorized by this Ordinance to correct any scrivener's errors identified within this Ordinance.

Read this first time on this 13th day of April, 2026.

Read, this second time, passed, and truly agreed to by the Board of Aldermen of the City of Willard, Missouri this 13th day of April, 2026.

_____

Troy Smith, Mayor

ATTEST:

_____

Courtney Myers, City Clerk

RESOLUTION NO. _____

RESOLUTION OF THE WILLARD PLANNING AND ZONING BOARD APPROVING AN ORDINANCE ADDING SECTION 400.405 – AGRICULTURAL RESIDENT DISTRICT TO THE MUNICIPAL CODE OF THE CITY OF WILLARD MISSOURI.

WHEREAS, after City Staff consideration, and review of the proposed regulations, the City of Willard desires to create a new zoning district, Agricultural Resident District, within the City of Willard, Missouri; and

WHEREAS, it is the desire of the Willard Planning and Zoning Commission to have zoning regulations and the City of Willard Land Development Regulations in the Municipal Code of the City of Willard, Missouri, that are clear and concise for understanding and interpretation; and

WHEREAS, the language of this proposed ordinance text has been submitted to the Willard Planning and Zoning Commission with proper notice, which, after conducting a public hearing on the same, does recommended the Board of Aldermen to amend the City of Willard Land Development Regulations in the Municipal Code of the City of Willard, Missouri as provided herein; and

WHEREAS, a public hearing was held by the Willard Planning and Zoning Commission at City Hall in Willard, Missouri at 6:00 PM on March 17, 2026; and

WHEREAS, the Willard Planning and Zoning Commission has determined the addition to the Municipal Code of the City of Willard, Missouri is reasonable and necessary; and

WHEREAS, the Willard Planning and Zoning Commission wish to revise Chapter 400, Land Use to add a zoning district of Agricultural Resident District in Section 400.405 within the City; and

WHEREAS, the Willard Planning and Zoning Commission has conducted a public hearing on this matter in compliance with Chapter 89 of the Revised Statutes of Missouri.

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING AND ZONING COMMISSION OF THE CITY OF WILLARD, MISSOURI, AS FOLLOWS:

Section 1: The Planning and Zoning Commission hereby recommends approval of the textual change to the City's Land Use Ordinances.

Section 2: The approval of the approved ordinance is attached and incorporated as if more fully set out in Exhibit 'A.

Section 3: This resolution shall be in full force and effect after its passage and approval.

ADOPTED, by the Planning and Zoning Commission of the City of Willard, Missouri, this 17 day of March, 2026.

_____

_____
Mariann Hill, Chairperson

ATTEST:

_____,
Valorie Simpson, Secretary

BOARD OF ALDERS MEETING

TO: The Board of Alders

FROM: Genia Mount

SUBJECT: TRASH WASTE SERVICE

AN ORDINANCE OF THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, MISSOURI, ACCEPTING A BID FROM B&H FOR TRASH WASTE COLLECTION SERVICES AND AUTHORIZING THE MAYOR TO EXECUTE RELATED AGREEMENTS

First Reading: 04/13/2026 Second Reading: 04/13/2026
Bill No: 26-12 Ordinance No:260413B

AN ORDINANCE OF THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, MISSOURI, ACCEPTING A BID FROM B&H FOR TRASH WASTE COLLECTION SERVICES AND AUTHORIZING THE MAYOR TO EXECUTE RELATED AGREEMENTS

WHEREAS, the City of Willard, Missouri ("City"), has a need for reliable and economical trash waste collection and removal services; and

WHEREAS, the City, in accordance with applicable laws and regulations, including Revised Missouri Statutes Section 34.040, issued a Request for Proposals seeking competitive bids from qualified vendors to provide trash waste collection services; and

WHEREAS, sealed bids were received and publicly opened in accordance with said requirements; and

WHEREAS, after careful review and evaluation of the proposals received, the City determined that the bid submitted by B&H ("B&H") is the most responsive and responsible and represents the best value and service to the City for trash waste collection services; and

WHEREAS, the City desires to enter into a service agreement with B&H for trash waste collection services under the terms and conditions set forth in the proposal.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, MISSOURI, AS FOLLOWS:

SECTION I: The bid submitted by B&H for trash waste collection services, as outlined in the proposal and specifications, is hereby accepted.

SECTION II: The Board of Aldermen hereby approves the service agreement with B&H in substantial conformity with the terms and conditions set forth in Exhibit 1, which is attached hereto and incorporated herein by reference as if fully set out. The Mayor, City Administrator, and other appropriate City officials are hereby authorized and directed to execute the agreement and any related documents, and to take all actions necessary, desirable, convenient, or appropriate to carry out the intent and purpose of this ordinance.

SECTION III: This ordinance shall be in full force and effect from and after its passage and approval.

Read two times and passed at a meeting of the Board of Aldermen of the City of Willard, Missouri, on the 13th day of April 2026.

APPROVED:

_____

Troy Smith, Mayor

ATTEST:

_____

Courtney Myers, City Clerk

AFFIDAVIT OF COMPLIANCE
RFP #08-2025GEN-Trash

To be submitted with Vendor's Proposal

X We DO NOT take exception to the RFP Documents/Requirements.
____We TAKE exception to the RFP Documents/Requirements as follows:

Specific exceptions are as follows:

I have carefully examined the Request for Proposal and agree to abide by all submitted pricing, delivery, terms and conditions of this Proposal unless otherwise stipulated herein.

Company Name B & H Trash

By Doug Patillo
Authorized Person's Signature

Doug Patillo
Print or type name and title of signer

Company Address 3481 N Farm Road 93
Willard, MO 65781

Telephone Number 417-987-4222
Fax Number N/A

Date 12/1/2025

ADDENDA

Bidder acknowledges receipt of the following addendum:

Addendum No. ___
Addendum No. ___
Addendum No. ___
Addendum No. ___
Addendum No. ___

Email Tinyrolloff@gmail.com

Federal Tax ID No. _____

RFP# 08-2025GEN-Trash

RETURN THIS PAGE

Fees for service	Monthly	Annual
TRASH		
Weekly Cart Pick Up (4 Carts) $16 per	$64.00	$768.00
Weekly Dumpster Pickup (3 Dumpsters) $125 per	$375.00	$4,500
Total	$439.00	$5268
Recycling		
Recycling City Hall Cart Pick up (1 Cart)	$No Bid	$ No Bid
Recycling Center Pick up	$No Bid	$ No Bid
Total	$No Bid	$ No Bid
Combined Services		
Discount for combining services	$No Bid	$ No Bid
Total price of combined services	$No Bid	$ No Bid
SPECIAL EVENTS		
Dumpster Rental Price as needed	$0	$0

For city clean up day, the only cost will be actual dump fees, of approx. $20-$50 per dump.

For Freedom fest, I will provide 10-15 carts & 2-3 dumpsters @ no cost & will pay for dump fees.

RETURN THIS PAGE

BOARD OF ALDERS MEETING

TO: The Board of Alders

FROM: Genia Mount

SUBJECT: RECYCLING SERVICE

AN ORDINANCE OF THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, MISSOURI, ACCEPTING A BID FROM GFL ENVIRONMENTAL, INC. FOR RECYCLING COLLECTION SERVICES AND AUTHORIZING THE MAYOR TO EXECUTE RELATED AGREEMENTS

First Reading: 04/13/2026 **Second Reading: 04/13/2026**
Bill No: 26-13 **Ordinance No: 260413C**

AN ORDINANCE OF THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, MISSOURI, ACCEPTING A BID FROM GFL ENVIRONMENTAL, INC. FOR RECYCLING COLLECTION SERVICES AND AUTHORIZING THE MAYOR TO EXECUTE RELATED AGREEMENTS

WHEREAS, the City of Willard, Missouri ("City"), has a need for reliable and economical recycling collection and removal services; and

WHEREAS, the City, in accordance with applicable laws and regulations, including Revised Missouri Statutes Section 34.040, issued a Request for Proposals seeking competitive bids from qualified vendors to provide recycling collection services; and

WHEREAS, sealed bids were received and publicly opened in accordance with said requirements; and

WHEREAS, after careful review and evaluation of the proposals received, the City determined that the bid submitted by GFL Environmental, Inc. ("GFL") is the most responsive and responsible and represents the best value and service to the City for recycling collection services; and

WHEREAS, the City desires to enter into a service agreement with GFL for recycling collection services under the terms and conditions set forth in the proposal.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, MISSOURI, AS FOLLOWS:

SECTION I: The bid submitted by GFL Environmental, Inc. for recycling collection services, as outlined in the proposal and specifications, is hereby accepted.

SECTION II: The Board of Aldermen hereby approves the service agreement with GFL Environmental, Inc., in substantial conformity with the terms and conditions set forth in Exhibit 1, which is attached hereto and incorporated herein by reference as if fully set out. The Mayor, City Administrator, and other appropriate City officials are hereby authorized and directed to execute the agreement and any related documents, and to take all actions necessary, desirable, convenient, or appropriate to carry out the intent and purpose of this ordinance.

SECTION III: This ordinance shall be in full force and effect from and after its passage and approval.

Read two times and passed at a meeting of the Board of Aldermen of the City of Willard, Missouri, on the 13th day of April 2026.

APPROVED:

_____
Troy Smith, Mayor

ATTEST:

_____
Courtney Myers, City Clerk

Chief Financial Officer

From: Riley Dandurand <rdandurand@gflenv.com>
Sent: Friday, April 10, 2026 11:26 AM
To: Chief Financial Officer
Subject: Recycle Center Location

*** THIS IS AN EXTERNAL E-MAIL ***
Good morning, Genia,

Thank you for taking the time to meet with us yesterday!

Based on the Recycle Center's location and what is on site, we recommend consolidating to a commingled MOR box. Typically, in our other cities, recycling centers are located next to City Hall so City Staff can monitor them and ensure people aren't using the location as a dumping ground for bulk items. So our concern is that if we place the (7) 8 yard recycling boxes, they aren't be slotted like the current ones, which prevents people from dropping their bulk items into the containers. Additionally, the 8 yards alone would not be enough container space without the MOR boxes and we believe the 8 yards would result in overages each week which would make it costly for the City. The lack of slots on our containers means people would likely drop bulk items—such as mattresses, couches, and even deer carcasses—into the containers at these locations. This would result in overages for the City, costing $125 per occurrence for the extra volume overloaded into the container. We have run into this issue in the past where people did not use these locations for their intended purpose, and it ended up becoming quite costly. We would not recommend using the 8-yard containers out at the Recycle Center.

With the MOR box, we would charge $150 per haul and $110 per ton for disposal. We estimate about 1 ton of recycling materials per haul (though it's typically less than 1 ton). Based on this estimate, I have provided a breakdown below of the pricing for weekly vs. bi-weekly hauls using a single MOR box.

For (1) one MOR box we would charge:

- $150 per haul
- $110 per ton on disposal

So, if the box is hauled bi-weekly it would be

- $324.75 for the hauls (4.33 weeks per month and for bi-weekly it would be 2.17 weeks per month)
- $220 for disposal (estimated 1 ton per haul)
- TOTAL: $544.75/month

If the box is hauled weekly it would be

- $649.50 for the hauls
- $440 for disposal (estimated 1 ton per haul)
- TOTAL: $1,089.50/month

We want to be forthcoming and ensure our service aligns with the City's recycling goals. Howe worry that the 8 yard containers at the Recycling Center will become a dumping ground for the City. The MOR boxes have smaller openings, making it harder for people to add bulk items and would help avoid the overages.

Please let me know if I can be of further assistance or if you have any questions!

Thank you,

8 Yard Slant Box



--

Riley Dandurand | Government Contracts Manager
GFL Environmental
2120 West Bennett St Springfield, MO 65807
| **C** (417) 380 7679 | rdandurand@gflenv.com | www.gflenv.com

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BOARD OF ALDERS MEETING

TO: The Board of Alders

FROM: P & Z
SUBJECT:

AN ORDINANCE APPROVING THE ACTIVE TRANSPORTATION PLAN AND ADDING IT TO THE WILLARD COMPREHENSIVE PLAN OF THE CITY OF WILLARD MISSOURI.

Bill Number: 26-14 **Ordinance Number: 260413D**

AN ORDINANCE APPROVING THE ACTIVE TRANSPORTATION PLAN AND ADDING IT TO THE WILLARD COMPREHENSIVE PLAN OF THE CITY OF WILLARD MISSOURI.

WHEREAS, the Board of Aldermen directed a study be done on active transportation and safety for the city of Willard MO, and

WHEREAS, the city of Willard partnered with **Lane-shift**, an active transportation consultant to coordinate the active transportation plan, and

WHEREAS, public involvement was critical in creating a plan that addressed Willards strengths and opportunities, and

WHEREAS, a steering committee was created of citizens, shareholders and staff to create a vision and jump start the creative process, and

WHEREAS, the Board of Aldermen directed a study be done on active transportation and safety for the city of Willard MO, and

WHEREAS, steering committee meetings were held in June, July, August, and November of 2025, and

WHEREAS, public meeting was held on November 11, 2025 and October 25, 2025 with significant public input, and

WHEREAS, the plan was constructed using information from meetings, online surveys, shareholder participation, engineering assessments, and other collaborative efforts, and

WHEREAS, after the staff review and consideration of the proposed plan, the City of Willard staff is excited to recommend the active transportation plan to the planning commission for review and discussion, and

WHEREAS, it is the desire of the Willard Planning and Zoning Commission to have regulations and vision documents that help with future direction of the City that are clear and concise for understanding and interpretation; and

WHEREAS, a public hearing was held by the Willard Planning and Zoning Commission at City Hall in Willard, Missouri at 6:00 PM on March 17, 2026; and

WHEREAS, the Willard Planning and Zoning Commission has determined the of the plan for the City of Willard, Missouri is reasonable and necessary; and

WHEREAS, the Willard Planning and Zoning Commission wish to advise that the plan be added to the Willard comprehensive plan and used as a directive document; and

WHEREAS, the Willard Planning and Zoning Commission has conducted a public hearing on this matter in compliance with Chapter 89 of the Revised Statutes of Missouri.

WHEREAS, the Willard Planning and Zoning Commission has recommended approval of the request; and

WHEREAS, a Public Hearing was held by the Board of Aldermen at City Hall in Willard, Missouri at 6:00 PM on March 23, 2026; and

WHEREAS, the Board of Aldermen has conducted a public hearing on this matter in compliance with Chapter 89 RSMo.

WHEREAS, the Board of Aldermen has determined the Active Transportation plan is reasonable and necessary; and

WHEREAS, the Board of Aldermen wish approve the Active Transportation plan for its use within the City; and

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, MISSOURI, AS FOLLOWS:

Section 1: It is the intention of the Board of Aldermen and it is hereby ordained that the provisions of this ordinance shall become and be made a part of the Comprehensive Plan of the City of Willard, Missouri, and the sections of this plan may be renumbered to accomplish such intention.

Section 2: That Comprehensive Plan of the City of Willard, Missouri is hereby amended to add a section Active Transportation read as follows:

Section 3: This Ordinance shall be in full force and effect from and after the date of its passage by the Board of Aldermen and signature of the Mayor and attested to by the City Clerk.

Section 4: The provisions of this Ordinance are severable and if any provision hereof is declared invalid, unconstitutional or unenforceable, such determination shall not affect the validity of the remainder of this Ordinance.

Section 5: That the City Clerk is authorized by this Ordinance to correct any scrivener's errors identified within this Ordinance.

Read, this first time on this 23 day of March_, 2026. and, this second time, passed, and truly agreed to by the Board of Aldermen of the City of Willard, Missouri this 13 day of April, 2026

Troy Smith, Mayor

ATTEST:

Courtney Myers, City Clerk

CITY OF WILLARD, MO

ACTIVE TRANSPORTATION DESIGN REFERENCE GUIDE

2026



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DESIGN GUIDELINES OVERVIEW



Active transportation infrastructure can take various forms, including bicycle lanes, shared-use paths, sidewalks, trails, and greenways. The core objective of this guidance is to offer the City of Willard residents a transportation network that is safe, well-connected, accessible, comfortable, and convenient. To achieve this, the guidance emphasizes the importance of implementing quality designs that work in harmony with other plans, policies, and standards set by the City of Willard. This guidance document focuses on three specific types of facilities. They are shared-use facilities and separated bicycle and pedestrian facilities. This document acknowledges that each active transportation project may have unique aspects, necessitating design adjustments or deviations from the standard guidelines. Therefore, it advocates for the application of context-sensitive solutions and professional engineering judgment in such cases. This design guidance establishes high expectations for the design and construction of active transportation infrastructure. These guidelines represent a compilation of recommendations from various state and national resources and are not intended to be a replacement for these documents. This document is a “quick reference guide” which is not intended to be an exhaustive list of all design considerations and details, and guidance shall not be considered a legal standard. Designers and the city should always consult the manuals and guidance outlined in the publications listed herein when finalizing and applying designs for any project.



Willard currently uses the Ozark Transportation Organization (OTO) design standards for their street design. Some of these design standards accommodate sidewalks and bike lanes, but there are no standards for shared-use paths, sidepaths, or bicycle boulevards. Guidance for these facilities in Willard is provided in this document along with additional guidance for sidewalks. These standard recommendations are found on pages 12-13, 37-38, and 54.

The design guidance summations included in these guidelines are included in color-coded boxes. These summations do not constitute the full guidance of any particularly-referenced publication. For more guidance, we recommend obtaining the full volumes of the reference for use in your planning process. [1]

These design guidelines were developed using research and guidance provided by multiple state and national sources including, but not limited to, the Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials (AASHTO), and the National Association of City Transportation Officials (NACTO). The collective work and publications developed by these respected entities are cited throughout the design guidelines. The publications cited in this document may vary in their recommendations regarding minimum design standards.

The following publications have been utilized in the development of these guidelines:

- AASHTO-Guide for the Development of Bicycle Facilities (2024)
- AASHTO-Guide for the Planning, Design, and Operations of Pedestrian Facilities (2021)
- FHWA-Small Town and Rural Multimodal Networks (2016)
- FHWA-Bikeway Selection Guide (2019)
- FHWA-Traffic Calming ePrimer
- FHWA-Separated Bike Lane Planning and Design Guide (2015)
- Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)- 11th edition (2023)
- Minnesota Department of Transportation-Bicycle Facility Design Manual (2020)
- NACTO-Urban Bikeway Design Guide (2025)
- NACTO-Urban Street Design Guide (2013)

[1] Publications cited in this document may be referenced or purchased at the following sites:

American Association of State Highway and Transportation Officials (AASHTO). "Guide for the Development of Bicycle Facilities." (2024): https://aashtojournal.transportation.org/aashto-releases-5th-edition-of-comprehensive-bicycle-guide/.

American Association of State Highway and Transportation Officials (AASHTO). "Guide for the Planning, Design, and Operations of Pedestrian Facilities, 2nd ed." (2021): https://store.transportation.org/Item/PublicationDetail?ID=4651.

Federal Highway Administration (FHWA). "Bikeway Selection Guide." (2019): https://highways.dot.gov/safety/pedestrian-bicyclist/bikeway-selection-guide.

Federal Highway Administration (FHWA). "Manual on Uniform Traffic Control Devices for Streets and Highway (MUTCHD) 11th Edition." (2023): https://mutcd.fhwa.dot.gov/kno_11th_Edition.htm.

Federal Highway Administration (FHWA). "Small Town and Rural Multimodal Networks." (2016): https://www.transportation.gov/grants/dot-navigator/small-town-and-rural-multimodal-networks.

Federal Highway Administration (FHWA). "Separated Bike Lane Planning and Design Guide." (2015): https://highways.dot.gov/safety/pedestrian-bicyclist/safety-tools/pg-69-71-separated-bike-lane-planning-and-design-guide.

Federal Highway Administration (FHWA). "Traffic Calming ePrimer." (2026): https://highways.dot.gov/safety/speed-management/traffic-calming-eprimer

Minnesota Department of Transportation (MnDOT). "Bicycle Facility Design Manual." (2024): https://www.dot.state.mn.us/bike/bicycle-facility-design-manual.html.

National Association of City Transportation Officials (NACTO). "Urban Street Design Guide." (2013): https://nacto.org/publication/urban-street-design-guide/.

National Association of City Transportation Officials (NACTO). "Urban Bikeway Design Guide." (2025): https://nacto.org/publication/urban-bikeway-design-guide/.

DESIGNING FOR VULNERABLE ROAD USERS



Section 11122(a)(2) states the definition of vulnerable road user is provided in 23 U.S. Code (U.S.C.) 148(a)(15), as follows:

"A nonmotorist-
a. with a fatality analysis reporting system [FARS] person attribute code that is included in the definition of the term "number of non-motorized fatalities" in section 490.205 of title 23, Code of Federal Regulations (or successor regulations); or

b. described in the term "number of non-motorized serious injuries" in that section.

This definition includes people walking, bicycling, using mobility aids (such as wheelchairs), or using most micromobility devices (whether motorized or not), but does not include motorcyclists. Throughout this plan, the phrase "people walking, biking, or rolling" is used to generally refer to vulnerable road users."

SHARED-USE FACILITIES

Shared-use facilities allow for and accommodate different types of users and are focused on creating safe and comfortable connections for bicycle riders, pedestrians, and people using mobility devices such as wheelchairs and electric mobility scooters. The design guidelines focus on the following types of shared-use facilities:

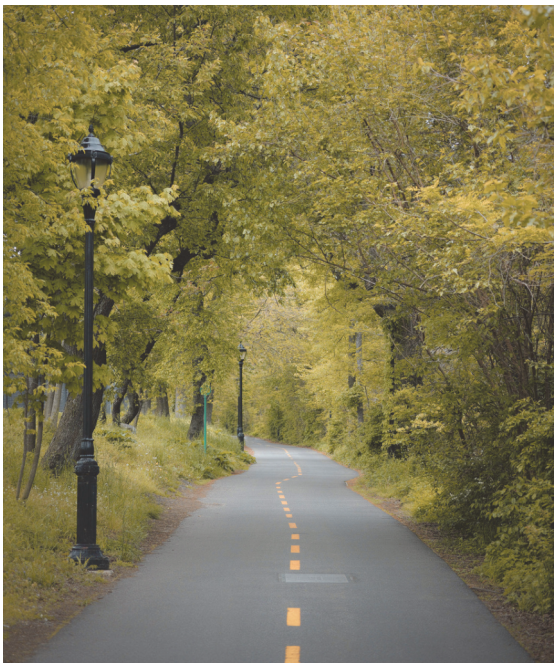
1 Shared-Use Paved Paths

Shared-use paved paths are pathways dedicated to pedestrians and bicycle riders, separated from motor vehicles and roadways, and often found in parklands accommodating both pedestrians and cyclists.



2 Sidepaths

Sidepaths are shared-use paved paths running parallel to a road, separated from motor vehicles by a barrier or buffer, and are for use by pedestrians and cyclists.



See pages 63-73 for design guidance for elements of pathway design and pages 75-79 for intersection and crossing design guidance specifically for pathways.

1 Shared-use Paved Paths

Shared-use paved paths can provide a travel network for non-motorized users to get to different places and make connections not along roadways. In addition to connecting different destinations, off-road shared-use paved paths can provide access to natural areas or for recreation.

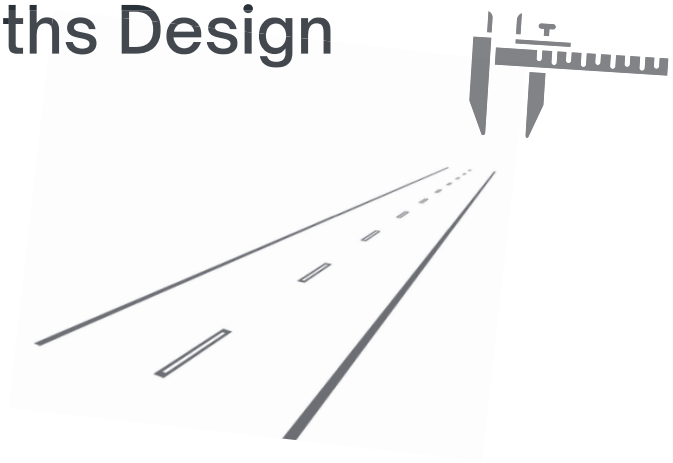


Typical Applications

- In natural areas and parks
- Shortcuts between cities or neighborhoods
- For recreation and transportation
- Surfaces can be concrete, asphalt, or other hard surfaces

Shared-Use Paved Paths Design

greenways/trails/paths



DESIGN GUIDANCE

AASHTO

GBF 6

Facility Widths

- A 10 ft wide path is the general minimum path width for two-directional shared use paths (6.4.3)
- An 11 ft width is the recommended minimum width to safely allow users to travel side-by-side (to allow for socializing when walking) and provide space for traffic traveling the opposite direction (6.4.3).
- FHWA provides the *Shared Use Path Level of Service Calculator* (SUP LOS), which can be used when determining appropriate widths (6.4.2).
- Paths less than the recommended width (8 ft minimum) should only be considered for low-traffic situations or short lengths where required because of physical constraints (6.4.3).
- Wider paths (over 12 ft) are useful:
  - to accommodate maintenance vehicles
  - on steep grades to allow for comfortable passing
  - through curves to provide more operating space
  - in heavy use situations with high concentrations of different user types
  - on regionally significant corridors (6.4.3).

Other Recommendations

- A 5 ft shoulder (2 ft minimum for short distances) should be maintained on each side of the path and kept clear of obstructions. Signs and vertical elements should be at least 2' from the path (6.6.1).

NACTO

UBDG 3.4

- Recommended width is between 11 ft (8 ft minimum) for low bicycle volume and 20 ft (15 ft minimum) for high bicycle volume. Minimum widths should only be used intermittently in constrained conditions along the path.
- The area alongside the path should be flush with the path and a lateral clearance of 2 ft (1 ft minimum when constrained) should be provided that is clear of obstructions.
- Separation of users improves safety and comfort when there is a high volume of pedestrians or bicycles and/or when the path is a main transportation corridor for bicycles.
- Highlight path crossings and prioritize the safe travel of path user over motorists.
- Striping (centerline and edge) and symbols on the pathway are optional
- Lighting is needed on all paths.

MUTCD

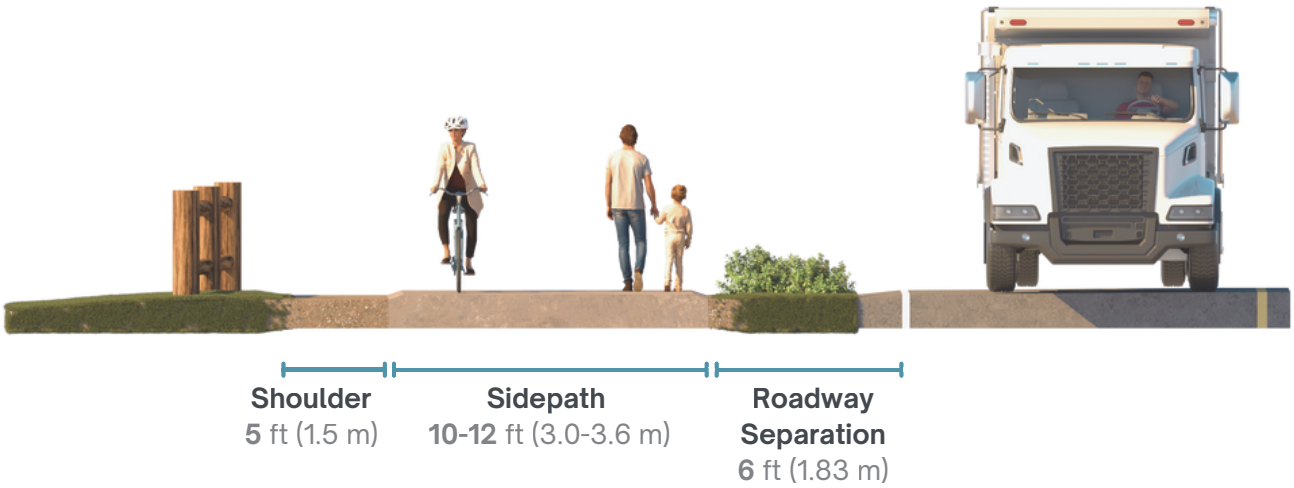
9E.13

- A solid center line may be used to separate two directions of travel where passing to the left of the line is not permitted

2 Sidepaths

Shared-use paved paths along roadways are often referred to as sidepaths. They are used by non-motorized users (bicyclists, pedestrians, joggers, wheelchairs, etc.) and provide a physically separated travel area from motorized traffic. The increased separation between motorized and non-motorized traffic provides a more comfortable experience for a wider variety of users. In areas of high speed and high traffic volume, increasing the space between the roadway and the sidepath is recommended to maintain a high comfort level for users. Crosswalk enhancements are also recommended with increased speed and traffic volume.

Another consideration in using sidepaths is reducing the risk of collisions, especially at intersections and driveways. This can be done by reducing the number of driveways, encouraging low-speed approaches at crossings, maintaining visibility to all users, and designing to increase awareness of all users. These designs may include elements like small roadway turning radii, using crosswalk markings through the pathway's crossing, raised crossings, and stop or yield markings on the roadway to discourage encroachment.



Typical Applications

- Total traffic lanes - 3 or more
- Along high-volume or high-speed roadways where increased separation is desired
- Where there is room in the right-of-way to accommodate
- Where volumes of pedestrians and bicyclists are relatively low
- Fill gaps in the network between other low-stress routes

Sidepath Design



DESIGN GUIDANCE

AASHTO

GBF 6 & 7

Facility Widths

- A 10 ft wide path is the general minimum path width for two-directional shared use paths (6.4.3)
- An 11 ft width is the recommended minimum width to safely allow users to travel side-by-side (to allow for socializing when walking) and provide space for traffic traveling the opposite direction (6.4.3).
- FHWA provides the *Shared Use Path Level of Service Calculator* (SUP LOS), which can be used when determining appropriate widths (6.4.2).
- Paths less than the recommended width (8 ft minimum) should only be considered for low-traffic situations or short lengths where required because of physical constraints (6.4.3).
- Wider paths (over 12 ft) are useful:
  - to accommodate maintenance vehicles
  - on steep grades to allow for comfortable passing
  - through curves to provide more operating space
  - in heavy use situations with high concentrations of different user types
  - on regionally significant corridors (6.4.3).

Other Recommendations

- A 5 ft shoulder (2 ft minimum for short distances) should be maintained on each side of the path and kept clear of obstructions. Signs and vertical elements should be at least 2' from the path (6.6.1).
- Pedestrians and bicyclists may be separated to improve comfort and safety (6.4.4)
- The recommended width of the street buffer is at least 6 ft measured from the white edge line or curb when no edge line is provided to the side path. Wider buffers are recommended when speeds are 35 mph or more or when approaching intersections or driveways. Vertical elements can be considered when the desired street buffer width is not available (7.4.1)

NACTO

UBDG 3.4

- Recommended width is between 11 ft (8 ft minimum) for low bicycle volume and 20 ft (15 ft minimum) for high bicycle volume. Minimum widths should only be used intermittently in constrained conditions along the path.
- The area alongside the path should be flush with the path and a lateral clearance of 2 ft (1 ft minimum when constrained) should be provided that is clear of obstructions.
- Separation of users improves safety and comfort when there is a high volume of pedestrians or bicycles and/or when the path is a main transportation corridor for bicycles.
- Highlight path crossings and prioritize the safe travel of path user over motorists.
- Striping (centerline and edge) and symbols on the pathway are optional
- Lighting is needed on all paths.

MUTCD

9E.13

- A solid center line may be used to separate two directions of travel where passing to the left of the line is not permitted

Laneshift Design Note:
When in public right-of-way and functioning as a sidewalk, sidepaths should be designed in accordance with PROWAG. Although the maximum slope of a shared-use path should be 5%, the grade should also generally match the grade of the adjacent roadway. When the roadway grade exceeds 5%, the shared-use path may match or be less than the roadway grade.

Shared-Use Facilities

Recommendations for Willard

1 Shared-Use Paved Paths

Shared-use paved paths can be located along roadways or in properties that are not adjacent to a street. These standards are for paved paths that are not adjacent to a roadway, but may cross roadways as needed.

Feature	Standard	Considerations
Width	12 feet Minimum	-
Location	In locations that are not inside the street right of way	-
Crossings	Evaluate safety and comfort at crossings (mid-block and intersections)	Some measures include: • RRFB or HAWK • Curb extensions • Raised crosswalks • Pedestrian refuge islands

2 Sidepaths

The current Ozark Transportation Organization (OTO) design standards do not include sidepaths in their current roadway designs. Many of the roadways include sidewalks, which can be modified to provide a sidepath by widening at least one of the sidewalks to 12 feet wide instead of the recommended OTO design standard sidewalk width. Additional right of way may be required on streets where sidepaths are planned to allow for the additional width that sidepaths (12 feet) have compared to sidewalks (6 feet).

Feature	Standard	Considerations
Width of Sidepath	12 feet Minimum	Additional ROW may be required to accommodate a 12' sidepath instead of a standard sidewalk.
Buffer width between roadway and sidepath	6 feet Minimum	The current OTO standard already provides a vegetative buffer between the roadway and the sidewalk, but doesn't specify the width. Additional width should be considered on high-speed roadways (over 35 MPH).
Location	Minimum of one side of the street	A sidepath should be on at least one side of the street. The Active Transportation Network Plan can be referenced to determine which side of the street has been recommended for sidepaths.
Crossings	Evaluate safety and comfort at crossings (mid-block and intersections)	Some measures include: • RRFB or HAWK • Curb extensions • Raised crosswalks • Pedestrian refuge islands

BICYCLE FACILITIES

Well-designed bicycle facilities not only encourage more cycling but also help individuals operate their bikes legally and predictably. This design guidance focuses on the following bicycle facilities, as outlined below:

1 Physically Separated Facilities

Separated Bike Lanes:
Separated bike lanes have horizontal and vertical separation from motor vehicles, distinct from pedestrian areas, enabling one-way or two-way travel.

2 Visually Separated Facilities

Conventional Bike Lanes:
Bike lanes designate an exclusive space for bicyclists through the use of pavement markings and signage. The bike lane is located adjacent to motor vehicle travel lanes and flows in the same direction as motor vehicle traffic. Bike lanes are typically on the right side of the street, between the adjacent travel lane and curb, road edge, or parking lane.

Buffered Bike Lanes:
Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.

Paved Shoulders:
Paved shoulders refer to extra pavement wide enough for bicycle use, located outside the travel lane and separated from motor vehicles by the roadway's edge line.

3 Mixed Traffic Facilities

Shared roadways are present in various settings, allowing cyclists to ride legally, including local neighborhood streets, urban streets, and suburban and rural highways. These roadways offer cyclists minimal to no physical separation from motor vehicles and are best suited for low-volume, low-speed roads. Shared roadways form the basis for many bicycle boulevards, but function as designated bicycle facilities only when properly designed.

Bicycle Boulevards:
Bicycle boulevards are streets with low motorized traffic volumes and speeds, designated and designed to prioritize bicycle travel. Bicycle Boulevards use signs, pavement markings, and speed and volume management measures to discourage through trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets.

See pages 63-73 for design guidance for elements of bike lane design and pages 80-85 for intersection and crossing design guidance specifically for bike lanes.

1 Physically Separated Facilities

Separated Bike Lane

A separated bike lane (SBL) is an exclusive bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. SBLs have different forms, but all share common elements—they provide space that is intended to be exclusively or primarily used for bicycles and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. In situations where on-street parking is allowed, SBLs are located on the curbside of the parking (in contrast to bike lanes). SBLs may be one-way or two-way and may be at the street, sidewalk, or intermediate level. NACTO refers to separated bike lanes as protected bike lanes.

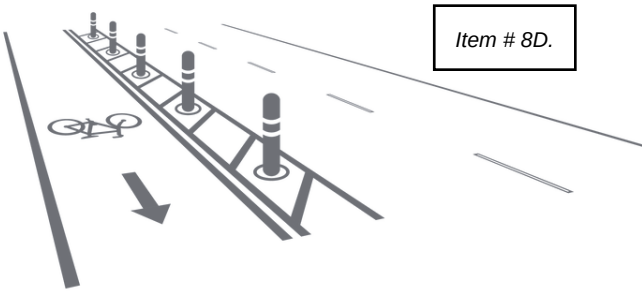
At sidewalk level, a curb or median separates them from motor traffic, while a buffer and/or different pavement colors/textures separate the SBL track from the sidewalk. If at street level, they can be separated from motor traffic by raised medians, on-street parking, or bollards. By separating people on bikes from motor traffic, SBL can offer a higher level of security than bike lanes and are attractive to a wider spectrum of the public.



Typical Applications

The separated bike lane zone offers a clear operating area for bicyclists. Because of the physical separation between the bike lane and the adjacent travel lanes, the design may be more sensitive to debris accumulation, maintenance access, and operating space impacts than conventional on-street bike lanes.

Separated or Protected Bike Lane Design



DESIGN GUIDANCE

AASHTO

GBF 7

Facility Widths

- The type of curb adjacent to the bike lane may require an additional shy distance, or small buffer of space, when considering lane widths (7.3.3 & 7.3.4).
- Bike lanes should be wide enough to accommodate anticipated bicycle volumes (7.3.4).
- The preferred minimum width of a one-way separated bike lane is 7.5 ft. This width allows for side-by-side riding or passing (7.3.4).
- The absolute minimum bike lane width is 5.5 ft without considering shy distance. At this width, bicyclists will not be able to pass slower users until there is a break in the facility and an opportunity to overtake (7.3.4).
- Two-way separated bike lanes should have a preferred minimum combined width of at least 11 ft, not including shy distances, to accommodate occasional passing (7.3.4). Given this total width, clear signs and markings should be provided so that the separated bike lane is not mistaken for an additional motor vehicle travel lane (7.9.6).

Additional Recommendations

- Determining on-way versus two-way operation requires analysis factors such as safety, connectivity, ease of access, available right-or-way, public feedback, curbside uses, intersection operations, feasibility, and other factors (7.2.3).
- Changes in bike lane elevation and horizontal alignment should be smooth and infrequent (7.2)
- The recommended width of a street buffer for separated bike lanes is at least 6 ft measured from the white edge line (7.4.1)
- Wider buffers are recommended on multilane roads with speeds greater than or equal to 35 mph and when approaching features such as transit or accessible on-street parking (7.4.1)
- A buffer of 4 ft minimum eliminates door zone conflicts. The buffer can be reduced to 2 ft but it will result in an overlap of door zone and bike lane (7.4.1)
- Smaller buffers can be used when vertical elements provide separation (7.4.1).
- Buffers are not needed in constrained conditions of streets with speeds 30 mph or less and flexible delineator posts on the white edge line (7.4.1)

NACTO

UBDG 3.3

Facility Widths

- Design for future volumes as the protection on this facility attract more users.
- Rideable width is the useable width of the bikeway. It doesn't include unrideable areas, gutter pans, and shy distances. It may extend into parts of the buffer that are rideable.
- Preferred rideable width of one-way protected bike lane is 8 to 12.5 ft (minimum is 6.5 to 7 ft).
- Preferred minimum rideable width of two-way protected bike lane is 13 ft (absolute min. of 8 ft).
- Consider maintenance vehicle access in determining width of the facility

Additional Recommendations

- Only recommended on street facility for All Ages & Abilities for streets with:
  - speeds of 25 mph or more
  - multiple travel lanes in each direction
  - vehicle volumes over 6,000 vehicles per day
- Include visibility zones approaching driveways and intersections and consider geometric changes to slow vehicular turns across protected bike lanes
- Bike lane symbols or work markings should be at the beginning of a bike lane, after major driveways, at intersections, and at least every 500 ft.
- Green surface treatment can be used to increase the conspicuity of bike lanes and crossings.
- Bike lane signs may be used at the start of a bike lane and can be used to supplement pavement markings along the bike lane.
- Avoid merging or mixing bike lanes and vehicular traffic at intersections.
- Two-way protected bike lanes require specific attention at intersections.
- Yellow dotted centerlines should be used along two-way bike lanes.
- Consider a modified two-way sign at T-intersections or major driveways to alert drivers to look both directions for bicycle traffic.

MUTCD

9E.07

- Buffer space shall be marked with solid longitudinal lines.
- BIKE LANE (R3-17) signs should be used to distinguish the bicycle lane

Laneshift Design Note:

A clear-through area of 10 ft (3.0 m) is beneficial for allowing snow plows and street sweepers to access the area.



1 Pedestrian Separation/Sidewalk Buffer:

Separation from pedestrians is particularly important when a separated bike lane is located immediately adjacent and is at the same level as a sidewalk.

- Design and construct separated bike lanes that are clearly distinct from the sidewalk. This is accomplished using a curb, separation buffer space (often landscaped), different pavement or other surface treatments, or detectable tactile guidance strips (AASHTO GBF 7.5). NACTO recommends the sidewalk buffer be a 2 ft area clearly not meant for pedestrians, and if that isn't available using tactile warning delineators along the sidewalk

2 Roadway Separation/Street Buffer:

The roadway separation is the vertical element between the bike lane and the adjacent roadway. The width of the separation will vary depending on the separation type. Street buffer guidance can be found in section 7.4 of AASHTO GBF and section 3.3.2 of NACTO UBDG.

- AASHTO recommends a street buffer of 6 ft wide to allow space for typical street design elements but also outlines instances that it can be wider or narrower (AASHTO GBF Section 7.4).
- A separation width of 3 ft (0.9 m) allows for various separation methods and provides space adjacent to a parking lane to accommodate door swing and passenger unloading.
- Constrained raised bike lanes can use a 1-2 ft street buffer with a 5-6 ft bike lane (NACTO UBDG 3.3).
- A minimum width roadway separation of 1 ft (0.3 m) may be possible with a mountable or vertical curb face.

Types of Roadway Separation for Separated Bike Lanes

Vertical elements are needed in the street buffer zone. They can be continuous (including poured medians or vehicle parking) intermittent (including flexible delineator posts, rigid bollards, parking stops, or planters) and provide a separation between bicycle and vehicular traffic. Buffer zones can also contain a mix of different separation types, such as flexible delineator posts in between parking stops.

Most retrofit projects use intermittent vertical elements, which can be designed to work with the existing drainage pattern of the roadway.

The type of vertical barrier used can also provide a visual cue to drivers that the roadway has a different character where they should drive more cautiously and at slower speeds.

NACTO recommends that more robust separation should be used where vehicles are more likely to enter the bike lanes, such as at intersections or on retail corridors.



Option 1: Flexible Delineator Posts/Rigid Bollards

AASHTO (GBF 7.4.2.4):

- Meet MUTCD requirements and specifications
- Require closer spacing
- For high-speed environments.

NACTO (UBDG 3.3):

- Buffer typically 2 ft wide, but minimum of 3 ft when speeds are over 25 mph.
- Space 10 to 40 ft apart, but space closer where high curbside demand or at intersections.



Option 2: Parking Stops

AASHTO (GBF 7.4.2.5):

- May need to be supplemented with flexible delineator posts to increase visibility.
- Require pavement markings to delineate the buffer zone.
- May not be appropriate for speeds over 35 mph.
- Should be secured to roadway.

NACTO (UBDG 3.3):

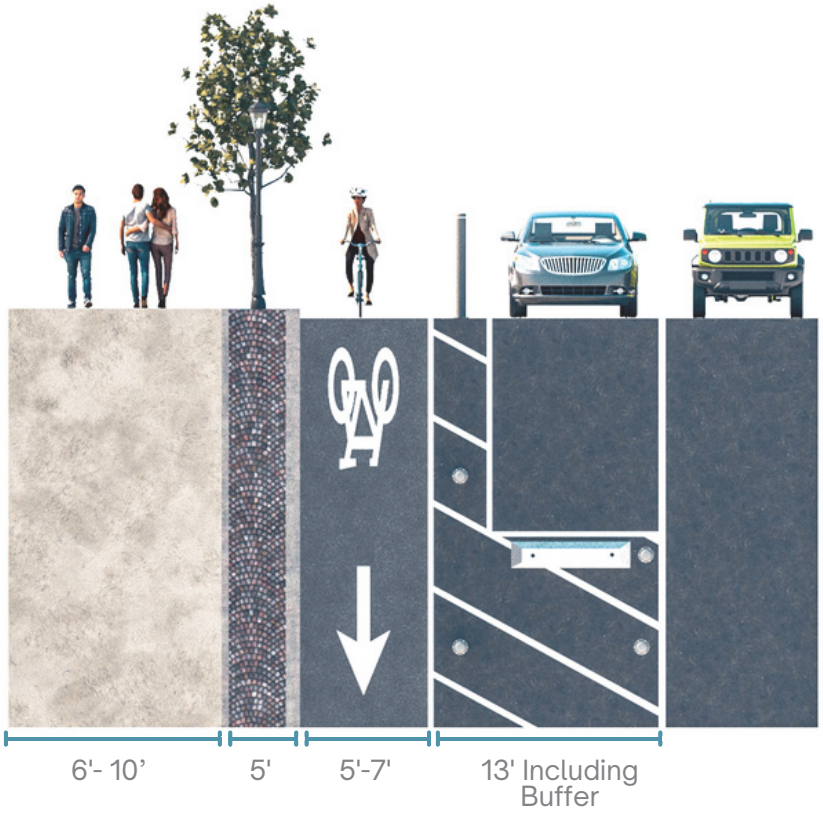
- Buffer typically 2 to 3 ft wide, but minimum of 3 ft when speeds are over 25 mph.
- Spacing is typically 5 to 20 ft apart.



Option 3: Planters

AASHTO (GBF 7.4.2.6):

- Require pavement markings to delineate the buffer zone.
- Should not obstruct sight-lines.
- Can effectively reduce motorist operating speeds.



Option 4: On-Street Parking

AASHTO (GBF 7.4.2.3):

- Require pavement markings to delineate the buffer zone.
- Additional vertical element should be used where parking demand is low.
- Door zone of 4 ft (2 ft minimum) should be provided.

NACTO (UBDG 3.3):

- Buffer width should be a minimum of 3 ft to accommodate the full swing of a vehicle door.
- Vertical elements can be installed 0.5 to 1 ft from the parking line.
- Parking lanes may be reduced to 7 ft wide to allow more space for the bikeway.



Option 5: Poured/Constructed Median

NACTO (UBDG 3.3):

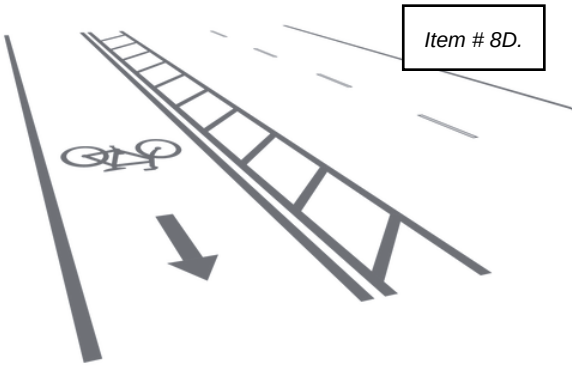
- Buffer width should be a minimum of 3 to 4 ft.
- Vertical elements or object markers should be used incorporated into the median at intersections to improve visibility.
- Need to consider drainage in the design to reduce water in the bikeway.

2 Visually Separated Facilities

Unlike physically separated facilities, visually separated facilities have no physical barrier between adjacent vehicle travel lanes and bike lanes. The paint is the delineator between bike lanes and vehicle travel lanes for visually separated facilities.

These facilities should be kept clear of debris and obstructions and should be a smooth rideable surface. Also, considerations regarding intersections, loading zones, on-street parking, and transit stops apply to these facilities as with physically separated bicycle facilities.





Buffered Bike Lane Design

Buffered bike lanes are conventional bike lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle lane and/or parking lane. As per MUTCD chapter 9, buffered bike lanes are required to have the bicycle lane symbol or word and/or chevron and arrow. This defines the lane to be used solely for bicyclists. A buffer is not required between the bike lane and parking, and a solid line may be used to separate them. However, if there is additional road width, a buffer between the parking and bike lane may be considered to reduce door zone conflicts or to narrow vehicle travel lanes to encourage slower vehicle speeds. The lane markings should be dashed in areas where traffic is meant to cross the bicycle lane.



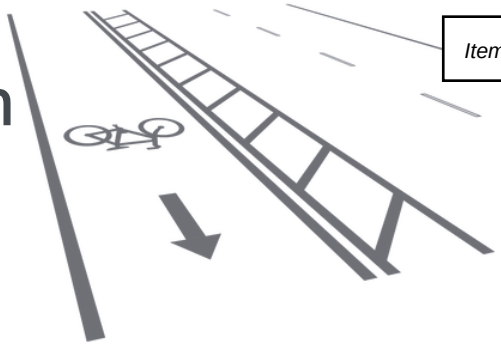
Buffered Bike Lane
without Parking

Typical Buffer Width: 3'

NACTO Buffer Minimum: 18"

MUTCD Recommendation:
If the buffer space is less than 2', NO chevron or diagonal striping may be applied. If the buffer space is 2'-3', chevron or diagonal marking SHOULD be used. If the buffer is greater than 3', then chevron or diagonal marking MUST be applied.

Buffered Bike Lane Design



DESIGN GUIDANCE

AASHTO

GBF 9

Facility Widths

- Gutters may be included in the bike lane width when the cross slope is less than 2%, they aren't narrow, they are smooth and rideable, and they don't present a crash hazard (9.4.1.2).
- Bike lane widths are measured by (9.4.1.2):
  - face of curb or edge of pavement to the center of the bike lane line.
- center of parking lane line to center of bike lane line.
- When bicycle lane widths are more than 7 ft it may look like a travel lane to motorists, so separated bike lanes or buffered bike lanes should be considered (9.4.1.3).
- Bike lane widths vary between 4 ft and 11 ft but depend on many factors. A minimum of 6.5 ft is needed for occasional passing and 8 ft or more is needed for side-by-side riding (9.4.1.3).
- Wider bike lanes and/or buffer lanes are beneficial when there are (9.4.1.3 & 9.5):
  - high traffic volumes and/or speeds
  - over 5 percent heavy vehicles
  - bike lanes adjacent to railings or barriers (require additional shy space)
  - speeds over 30 mph or 6,000 vehicles per day
  - high parking turnover

Additional Recommendations

- State laws and local ordinances vary on what motorist activity is allowed in bike lanes (9.4).
- Bike lanes are not designed to allow bicycle users to leave and enter them as needed (9.4).
- Require cleaning to keep clear of debris and should be a smooth rideable surface (9.4.1).
- Door zones for bike lanes next to bike lanes are important considerations (9.6).
- May be beneficial to use separated bike lanes at transit stops (9.7).
- Bicycle routes through intersections or driveways should be continuous and legible to all users (9.12).
- See section 9.12 for additional intersection design guidance.
- Buffers are desirable on streets with a posted speed >30 mph and >6,000 vehicles per day (9.5).

NACTO

UBDG 3.2

Facility Widths

- Preferred width is 6 to 7 ft to accommodate passing and riding side by side (4 ft minimum width).
- Bike lanes wider than 7 ft should have at least a 2 ft buffer and a protected bike lane should be considered to prevent use of the bike lane for parking or vehicular travel.
- Lanes narrower than 6 ft may not accommodate cargo bikes or larger devices.
- Two-way bike lanes should be 13 ft wide (9 ft minimum for short segments).

Additional Recommendations

- One way buffered bike lanes can be used on roadways with the following conditions:
  - vehicle speeds of less than or equal to 25 mph
  - single lane in each direction
  - less than or equal to 12,000 vehicles per day (for All Ages & Abilities: less than or equal to 6,000 vehicles per day and less than or equal to 600 vehicles in the peak hour)
  - low curbside demand
  - heavy vehicles are rare
  - lane blockages are unlikely
- Two-way buffered bike lanes can be used when streets are 25 mph or less and have 6,000 vehicles per day or less.
- Consider adding vertical elements of separation or traffic-calming measures
- Provide parking buffers of 3 ft for the door zone.
- Bike lanes along the curbside generally have 2 to 4 ft buffers between them and traffic.
- Bike lane words or markings should be used at the start of the bike lane, intersections, major driveways, and at least every 500 ft along the bike lane.
- Green surface treatments can be used the full length of the bike lane or at intersections and driveways.
- The buffer between the bike lane and vehicular traffic is marked by a solid white stripe on each side of the buffer edges. Diagonals or chevrons should be used in the buffer space if wider than 2 ft.
- Bike lane and no parking signs can be used along blocks as needed.
- Roadways should be designed in a way to limit speed (narrow lanes, raised crosswalks, medians, roundabouts, etc.)
- Avoid merging or mixing bike lanes and vehicular traffic at intersections and use dotted bike lane lines to continue them through intersections.

MUTCD

9E.06

- Buffer space shall be marked with solid white lines on both edges.

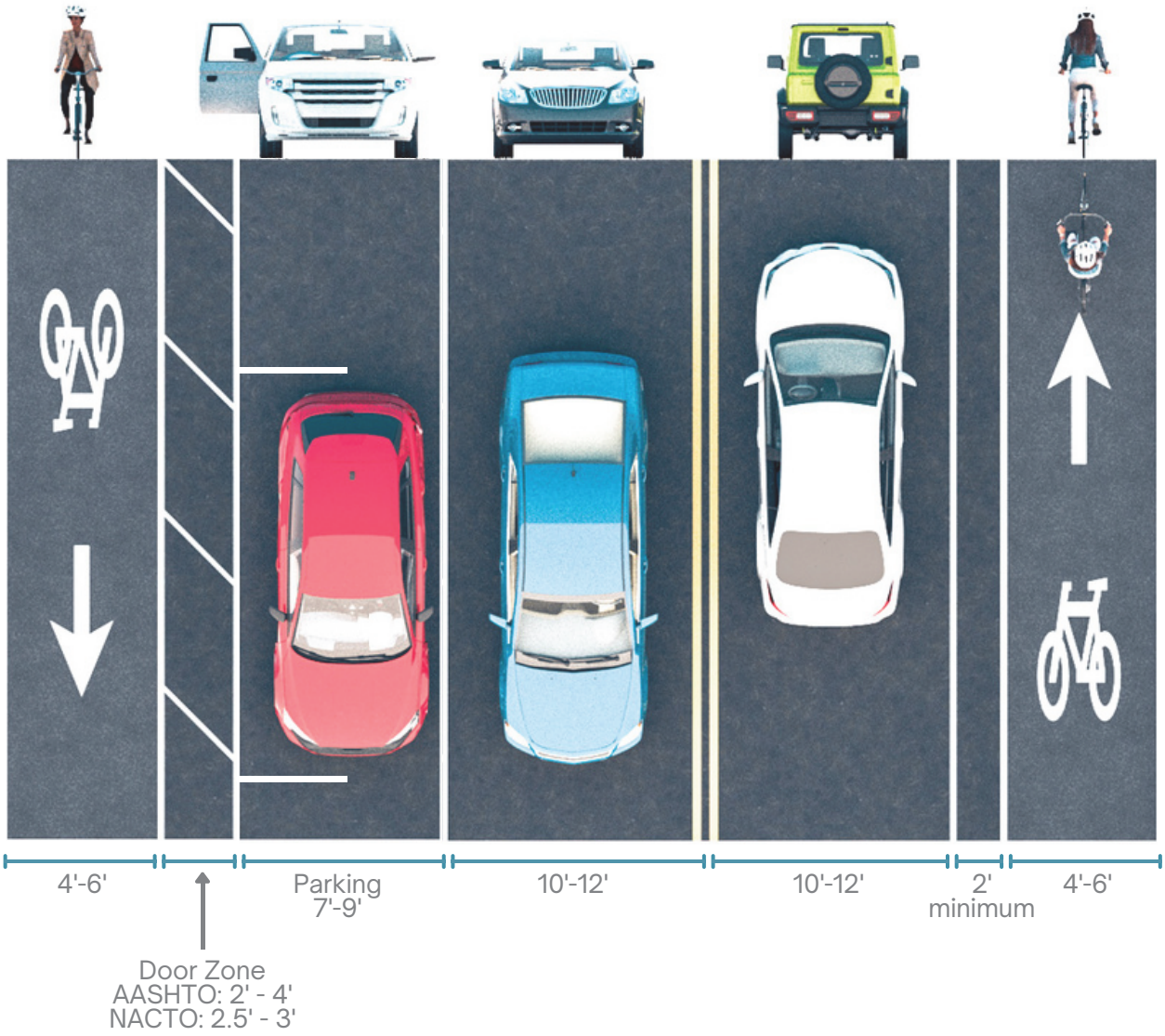
See pages 70-71 for design guidance for pavement markings for buffered bike lanes.

See page 64 for design guidance on bi-directional bikeways.

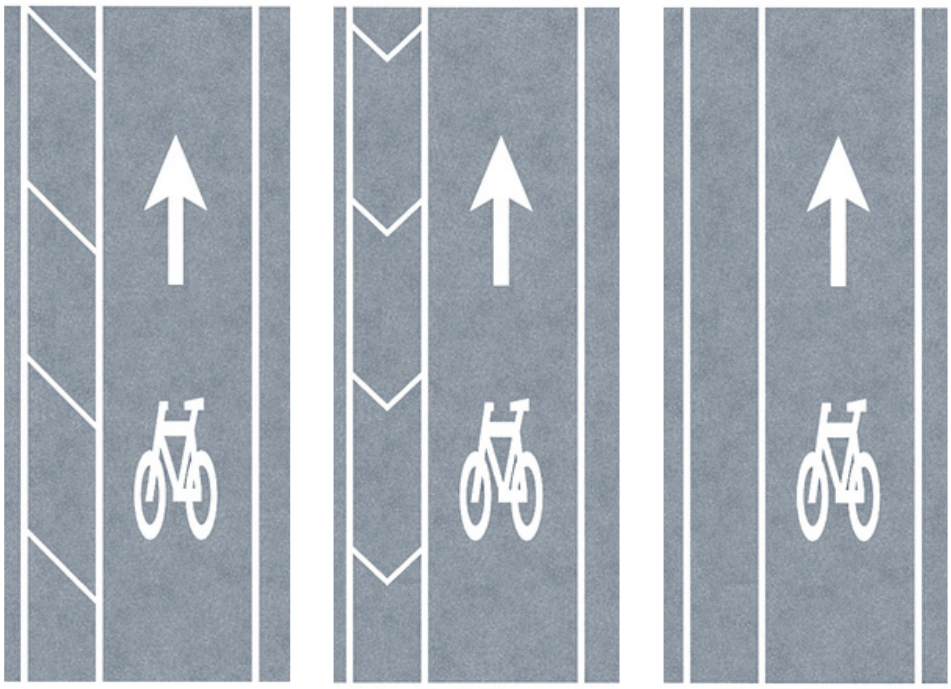


Visually Separated Bicycle Facility with Parking





Preferred Buffer Types



AASHTO: 2'-4'
NACTO: 2'-3'
MUTCD: 3' or more

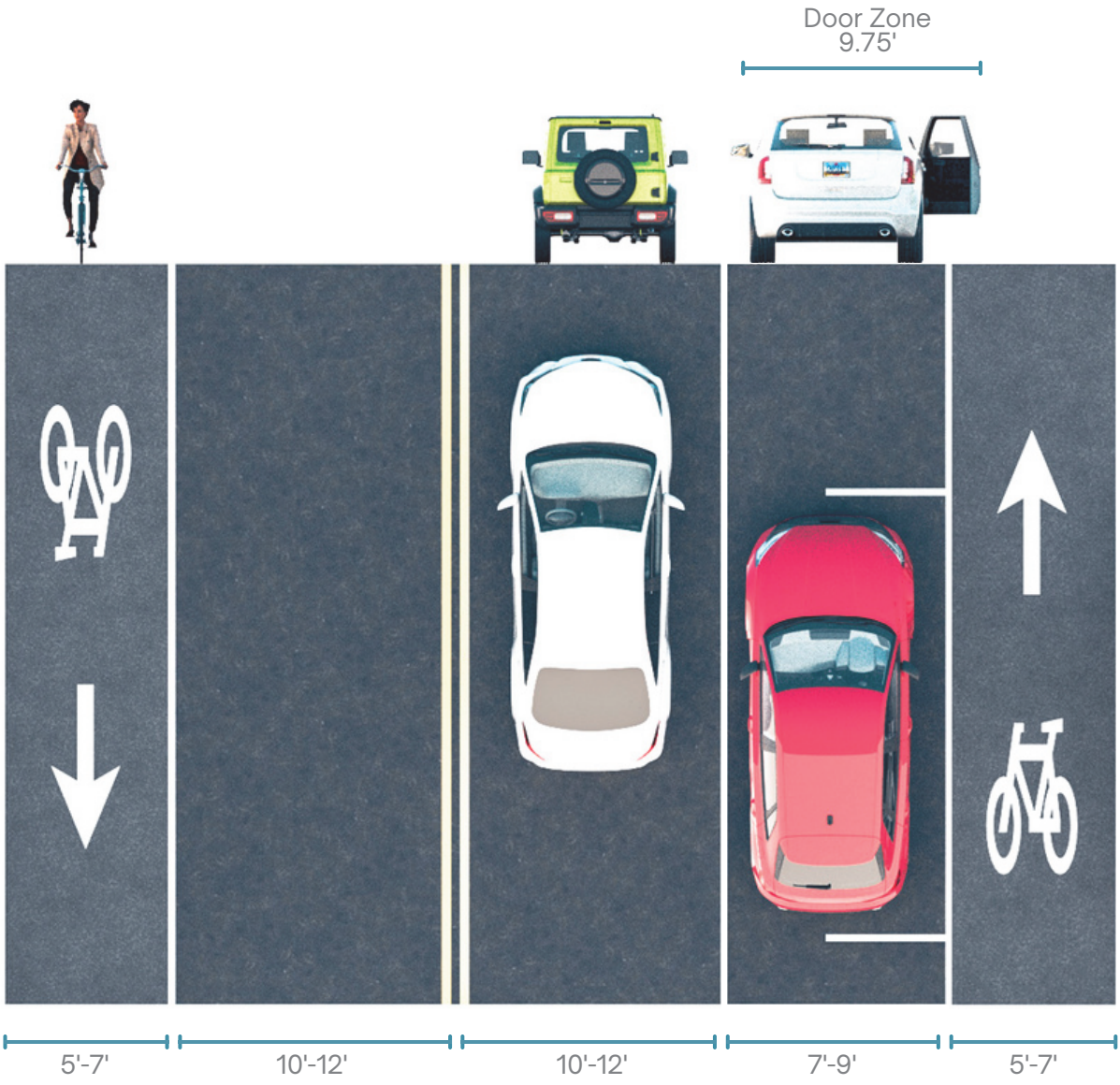
AASHTO: 4' or more
NACTO: 3' or more
MUTCD: 3' or more

<2'

Guidance on buffer markings is provided in AASHTO GBF 9.5, NACTO UBDG 3.2.4., and MUTCD 9E.06.

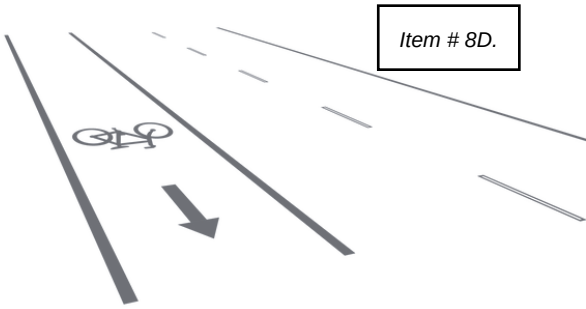
Conventional/Constrained Bike Lane Design

Conventional bike lanes provide an exclusive space for bicyclists on the roadway. These facilities can be located adjacent to both directions of vehicular traffic. Vehicular traffic is not allowed to travel in dedicated bike lanes unless temporarily to access parking, entering & exiting alleyways or driveways. Stopping, standing, and parking within a dedicated bike lane is prohibited.



- On streets with high traffic volume, regular truck traffic, high parking turnover, or speed limit > 30 mph, consider treatments that provide wider bike lanes or greater separation between bicycles and motor traffic.

Conventional/Constrained Bike Lane Design



DESIGN GUIDANCE

AASHTO

GBF 9

Facility Widths

- Gutters may be included in the bike lane width when the cross slope is less than 2%, they aren't narrow, they are smooth and rideable, and they don't present a crash hazard (9.4.1.2).
- Bike lane widths are measured by (9.4.1.2):
  - face of curb or edge of pavement to the center of the bike lane line.
  - center of parking lane line to center of bike lane line.
- When bicycle lane widths are more than 7 ft it may look like a travel lane to motorists, so separated bike lanes or buffered bike lanes should be considered (9.4.1.3).
- Bike lane widths vary between 4 ft and 11 ft but depend on many factors. A minimum of 6.5 ft is needed for occasional passing and 8 ft or more is needed for side-by-side riding (9.4.1.3).
- Wider bike lanes are beneficial when there are (9.4.1.3):
  - high traffic volumes and/or speeds
  - over 5 percent heavy vehicles
  - bike lanes adjacent to railings or barriers (require additional shy space)
  - speeds over 30 mph or 6,000 vehicles per day
  - high parking turnover

Additional Recommendations

- State laws and local ordinances vary on what motorist activity is allowed in bike lanes (9.4).
- Bike lanes are not designed to allow bicycle users to leave and enter them as needed (9.4).
- Require cleaning to keep clear of debris and should be a smooth rideable surface (9.4.1).
- Door zones next to bike lanes are important considerations (9.6).
- May be beneficial to use separated bike lanes at transit stops (9.7).
- Bicycle routes through intersections or driveways should be continuous and legible to all users (9.12).
- See section 9.12 for additional intersection design guidance.

NACTO

UBDG 3.2

Facility Widths

- Preferred width is 6 to 7 ft to accommodate passing and riding side by side (4 ft minimum width).
- Bike lanes wider than 7 ft should have at least a 2 ft buffer and a protected bike lane should be considered to prevent use of the bike lane for parking or vehicular travel.
- Lanes narrower than 6 ft may not accommodate cargo bikes or larger devices.
- Two-way bike lanes should be 13 ft wide (9 ft minimum for short segments).

Additional Recommendations

- One way buffered bike lanes can be used on roadways with the following conditions:
  - vehicle speeds of less than or equal to 25 mph
  - single lane in each direction
  - less than or equal to 12,000 vehicles per day (for All Ages & Abilities: less than or equal to 6,000 vehicles per day and less than or equal to 600 vehicles in the peak hour)
  - low curbside demand
  - heavy vehicles are rare
  - lane blockages are unlikely
- Two-way buffered bike lanes can be used when streets are 25 mph or less and have 6,000 vehicles per day or less.
- Consider adding vertical elements of separation or traffic-calming measures
- Provide parking buffers of 3 ft for the door zone.
- Bike lanes along the curbside generally have 2 to 4 ft buffers between them and traffic.
- Bike lane words or markings should be used at the start of the bike lane, intersections, major driveways, and at least every 500 ft along the bike lane.
- Green surface treatments can be used the full length of the bike lane or at intersections and driveways.
- The buffer between the bike lane and vehicular traffic is marked by a solid white stripe on each side of the buffer edges. Diagonals or chevrons should be used in the buffer space if wider than 2 ft.
- Bike lane and no parking signs can be used along blocks as needed.
- Roadways should be designed in a way to limit speed (narrow lanes, raised crosswalks, medians, roundabouts, etc.)
- Avoid merging or mixing bike lanes and vehicular traffic at intersections and use dotted bike lane lines to continue them through intersections.

MUTCD

9E.01

- Longitudinal pavement markings and bike lane symbols or word markings shall be used to define bike lanes.
- An established bike lane cannot also be an established shoulder.

See pages 70-71 for design guidance for pavement markings specifically for conventional bike lanes.

See page 64 for design guidance on bi-directional bikeways.



3 Mixed Traffic Facilities

Bicycle Boulevard/Shared Lanes/Shared Roadways

Bicycle boulevards are streets with low motorized traffic volumes and speeds, designated and designed to prioritize bicycle travel. Bicycle Boulevards use signs, pavement markings, and speed and volume management measures to discourage through trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets.

Low-traffic residential streets can be designated for bicycle use. Optimal street dynamics and design elements include but are not limited to the following:

- Traffic calming measures such as speed bumps, chicanes, or roundabouts.
- Bicycle-friendly intersections with features like bike boxes and signage.
- Neighborhood connectivity to provide direct routes to key destinations.
- Grid-patterned streets are well-suited as they provide alternative routes for vehicular traffic and minimize turns.
- Regular maintenance and enforcement to ensure compliance with traffic calming measures.

Well-designed bicycle facilities and implemented traffic calming measures to maintain low vehicle volumes and speeds have the potential to create an all ages and all abilities facility for bicycle riders. These traffic calming measures also improve safety for pedestrian movement. For additional information on traffic calming measures, see the section on Traffic Calming on pages 55-60.







Bike Boulevards/Shared Lanes/ Shared Roadways

DESIGN GUIDANCE

AASHTO

GBF 8 & 9

Recommendations

- Bike boulevards are preferable on roads with volumes of < 1,000 vehicles per day (3,000 vehicles per day maximum) and at or below 15 mph (25 mph maximum) (8.2.1).
- Traffic calming and traffic management treatments are key on bicycle boulevards (8.1). According to AASHTO, three key principles define bicycle boulevards:
  - manage vehicular volumes and speeds, which may require traffic calming (methods in section 8.4) or diversion strategies (methods in section 8.5) (8.2.1)
  - prioritized right-of-way at local street crossings that minimize the need for bicyclists to stop (8.2.2)
  - safe and convenient crossings at major streets that accommodate the slowest user (methods in sections 8.6 and 8.7). Additional crossing measures may be needed in crossings where there is not a traffic signal (8.2.3)
- Wayfinding signage and shared lane markings (sharrows) may be used to identify the bicycle boulevard route. Sharrows are generally placed in the center of the travel lane (8.3.1).
- BICYCLES MAY USE FULL LANE (R4-11) signs can be used where motorists may need to wait behind bicyclists or change lanes to pass at a safe distance (8.3.1.3).
- Speeds should be posted when they are lower along bicycle boulevards than the citywide local street speed limit. Advisory speed signs should also be posted as required with traffic calming design measures (8.3.2).
- Shared roadways are more compatible with good quality pavement without hazards, good sight distances, appropriate timing for signals at intersections, and roadway design that encourages lower speeds or lower traffic volumes (9.3).
- Traffic calming measures are most effective when used every 200 ft to 400 ft (8.4).
- Wide curb lanes are not recommended as a strategy for improving passing of bicyclists (9.3.2).

NACTO

UBDG 3.2

Recommendations

- Bike boulevards are appropriate for streets with speeds of less than 20 mph (25 mph maximum), have a single lane in the same direction, have up to 2,000 vehicles per day (3,000 vehicles per day maximum and 500 vehicles per day for All Ages & Abilities), and less than 150 vehicles in the peak hour (50 vehicles in peak hour for All Ages & Abilities).
- Travel in each direction for bicycles should be allowed.
- Shared lane markings should be placed in the center of the lane. They should be within 50 ft of the approach and receiving side of all intersections as well as every 100 ft to 250 ft midblock. When the bike boulevard route changes direction in an intersection, shared lane marking can be placed close together to help bicyclists navigate turns and identify the route.
- Traffic calming should be used to improve comfort levels by managing speeds and volumes of motorists.
- Centerlines should not be used mid-block and are optional at intersections.
- Additional design treatments to organize the roadway should be considered when two-way roads have 24 ft or more of roadway travel width and one-way roads have 15 ft or more of roadway travel width.
- When the roadway is too narrow to allow vehicles to pass bicyclists, speeds should be limited to 10-20 mph.
- Wayfinding signs should be used consistently through the city and can be identified with BIKE ROUTE (D11-1) signs.
- BICYCLES ALLOWED USE OF FULL LANE (R9-20) signs may be used.
- Intersections should prioritize bicycle traffic and maximize safety through geometric changes, traffic control devices, and/or bike lane protection.
- Contraflow bike lanes should be used on one-way streets to permit bicycle travel in both directions.

MUTCD

9E.09, 9E.10

- Shared lane markings shall not have green-colored pavement applied as a background

- Bicycle Facilities

Recommendations for Willard



1 & 2 Physically & Visually Separated Facilities

The Proposed Trails and Connectivity Plan does not include bike lanes, however bike lanes are listed in the OTO standards. The bike lanes identified in the OTO standards are 4’ wide and do not include a buffer. If the City of Willard determines to implement bike lanes at some point in the future, wider bike lanes and and the inclusion of buffers should be considered based on the vehicle speeds and volumes of the roadways. Additionally, vertical separation should be used on roadways with higher speeds and volumes. Accommodating this additional space for wider bike lanes and buffers could require a wider roadway and/or narrower vehicular travel lanes.

3 Mixed Traffic Facilities

The current OTO standards do not include bicycle boulevards in any facility design. Bicycle boulevards are used on roadways with low traffic volumes and speeds. Collector streets and arterials often have traffic speeds and volumes that are too great for safe and comfortable bicycle boulevards. As such, they are typically incorporated into local neighborhood streets. OTO does not have a street standard for local neighborhood streets.

Feature	Standard	Considerations
Speed of vehicular traffic	Maximum of 25 MPH	Traffic calming measures can be installed as needed to reduce vehicular speeds along bicycle boulevards.
Sharrows on roadway	Placed along route in the center of the travel lane at a maximum distance of 250 feet	Sharrows can be placed in intersections to show which direction the bicycle route is traveling.
Signage	Used to designate bicycle boulevard routes	Bike route signage is especially important for bicycle riders when the route changes, such as when it turns onto another roadway.
Intersection prioritization and protection	Evaluate comfort and safety at each intersection and implement measures as needed	Some measures include: • minimized stop signs along the bike route • Curb extensions • Raised crosswalks • Bike crossing islands

PEDESTRIAN FACILITIES

See page 54 for design guidance for pedestrian facilities specific to the City of Willard.

1 Sidewalks

Sidewalks are an essential element in a community as they are often the most readily accessible and cost-effective way to connect residents to destinations within the city.

2 Pedestrian Crossings

A walkable environment includes safe and frequent crossings. We will explore some aspects that should or can be included.

Pedestrian Refuge/Crossing Islands
Pedestrian islands reduce the exposure time for pedestrians or bicyclists at intersections and can also allow users to cross one direction of traffic at a time.

Marked Crossings
High-visibility marked crossings can be utilized at intersections or other locations where pedestrian traffic is anticipated to improve yielding behavior by drivers.

Curb Ramps
Curb ramps provide accessible pedestrian access between sidewalks and the street where there is a curb face or change in elevation.

3 Pedestrian Crossing Signals:

Pedestrian crossings and signals are crucial components of urban infrastructure designed to enhance the safety and convenience for pedestrians. Signals can be utilized at intersections or mid-block to warn motorists and bring additional attention to pedestrians. Signalized intersections are used frequently in cities nationwide; however, in the design guidance, two signals will be explored in greater detail.

Rectangular Rapid Flashing Beacon
RRFBs are manually or passively activated warning beacons alerting drivers to yield.

High-Intensity Activated Crosswalk Beacon (HAWK) or Pedestrian Hybrid Beacon (PHB)
HAWKs are hybrid signals that stop traffic on high-volume roadways.

4 Additional Pedestrian Safety Countermeasures

Curb Extensions
Curb extensions are an element that can physically narrow the roadway and create safer and shorter crossings for pedestrians.

Crosswalk Visibility Enhancements
Low visibility creates an unsafe environment at crossings.

Leading Pedestrian Interval (LPI)
LPIs give pedestrians advance time to enter crossings before the signal changes for motorists.

Most modes of transportation begin and end with a walk or roll. Well-designed and strategically placed sidewalks, pedestrian crossings, and signals can increase safety and comfort for the largest user group of any active transportation network. While sidewalks, pedestrian crossings, and signals are focused on moving pedestrians safely and comfortably, they also serve bicycle riders in most cases. Missouri laws state that bicycles are permitted to ride on the sidewalk in non-business districts and are required to yield to pedestrians. In Missouri bicycles are considered vehicles and people riding a bicycle have the same rights, duties, and responsibilities as vehicle drivers. However, at shared-use path crossings motorists are expected to stop whenever a person walking, running, or bicycling is using the crossing area.







1 Sidewalks

Sidewalk Considerations

Sidewalk widths will vary based on available ROW, street widths, and adjoining uses. Sidewalk widths should be based on the anticipated use and the surrounding amenities and uses. For example, a downtown sidewalk should have a greater width than a sidewalk located along a typical residential street. High-volume sidewalks will require additional width to allow for passing in various directions compared to lower-volume sidewalks.



1 Frontage Area
The area from the front door to the right of way but can also adjoin or abut buildings, front porches, stoops, lawns, or other landscaped areas. In downtown environments, this area can include outdoor retail signage, seating, awnings, or other intrusions within the right of way.

3 Amenity Area
This area is typically between the pedestrian area and the street. It is usually occupied by streetlights, signal boxes, benches, trash receptacles, trees or other landscaping, bike racks, and various stormwater control measures. These areas can create snow storage areas from cleared streets or sidewalks.

2 Pedestrian Area
This area typically comprises a sidewalk or shared-use path. It is the portion of the right of way meant for pedestrians to travel actively. The width should be set to accommodate the volume of pedestrian activities, which should include the passing of people both alone and in groups and the use of wheelchairs, strollers, or wagons.

Pedestrian Refuge/Crossing Islands

Crossing islands provide pedestrians with a refuge when using multistage crossings. These are typically found at mid-block crossings where pedestrians must cross the street away from an intersection. These can also be found in roundabouts, right turn lanes, or even in downtown areas where the crossing is unusually long or misaligned. Crossing islands have various designs and warrant an engineered solution. As traffic speed or the number of traffic lanes that must be crossed increases, crossings feel less safe for pedestrians entering the intersection. Pedestrian islands can be used to reduce the exposure time for pedestrians or bicyclists at intersections and can also allow pedestrians to cross one direction of traffic at a time. The FHWA has published considerations for pedestrian islands. These include that they should be considered in curbed sections of multilane roadways with a significant mix of pedestrian and vehicular traffic, where traffic volumes are over 9,000 vehicles per day and travel speeds are 35 mph or greater. Other design considerations include being at least 4 feet (preferably 8 feet) in width and an adequate length to accommodate the anticipated number of pedestrians waiting for traffic gaps before crossing.





Typical Applications

- In areas where vehicle speeds and volumes make pedestrian crossings prohibitive.
- Typically applied where three lanes of traffic or more diminish pedestrians' feelings of safety and comfort.

Design Guidance

Crossing Island Requirements:

- Should be in crossings that are 50 feet or more.
- Pedestrian refuge islands should be at least 6' in width, however, 8-10' feet is preferred.
- Mid-block crossings should have a “Z” configuration that forces pedestrians to face oncoming vehicular traffic.
- Raised concrete islands or some form of vehicular barrier is required to protect anyone using the crossing island. Vegetation and aesthetic treatments can be used if it doesn’t obscure visibility.
- Where a 6-foot wide median cannot be attained, a narrower raised median is still preferable to nothing. The minimum protected width is 6 feet, based on the length of a bicycle or a person pushing a stroller. The refuge is ideally 40 feet long.

Marked Crossings

Typical Applications

Marked crossings are not always necessary at intersections on streets with low volumes and speeds. However, they should be considered near schools, transit stops, hospitals, major public buildings, and parks regardless of traffic volumes and speeds.

Judgment should be used on the applicability and design of crossings, but generally, marked crossings should be used on multi-lane roads (over 2 lanes) when speeds are higher than 20 mph or when there are high traffic volumes (such as over 3,000 ADT). It should be noted that marked crosswalks, alone, do not always achieve a high level of safety. Additional safety measures are often needed to create traffic calming and increase safety at crossings.

Design Guidance

All legs of signalized intersections should be marked unless there is a section where pedestrians are prohibited from crossing.
Crossings should be placed to accommodate pedestrian desire lines. They should be at intersections but may be needed mid-block in high-traffic areas to encourage crosswalk use.
Markings should be highly visible.



Curb Ramps

Curb ramps are required anywhere the pedestrian travel-way crosses a vehicular or rail travel-way. This is enforced by Federal, State, and Local laws that protect pedestrians, bicyclists, and individuals with mobility disabilities. Curb ramps come in various sizes and shapes based on roadway design, grades, and drainage. At a minimum, curb ramp landings are typically 5 feet by 5 feet, with a max cross slope in all directions of 2%. Ramp and landing widths should reflect the width of the sidewalk. Flares along the ramp are required when the surfaces adjacent to the ramp are traversable. A barrier curb is usually used when adjacent to landscape or other amenities that make the space un-walkable.

Design Guidance

Ramp Requirements:

- Max slope – 1 : 12 or 8.33%
- Max slope of side flares – 1 : 10 or 10%
- Max cross slope – 2%
- Truncated domes are required at all curb ramps. This is to alert those with visual impairments that they are coming up to the street edge.
- Avoid using radial curb ramps as this could cause an individual with visual impairments to navigate the street outside of the painted crosswalk.



3 Pedestrian Crossing Signals

There are several types of pedestrian crossing signals. The most familiar and common are located at signalized intersections. Two additional signals, RRFBs, and HAWKs, are also used at pedestrian crossings. Pedestrian Signals are typically located at signalized intersections and allow time for pedestrians to cross the street safely and in the direction of normal traffic flow. Signals can also be used to cross islands. The issue with signals is that some individuals will cross against the direction of the signal, which can cause crashes or disrupt normal traffic flow, which can cause vehicles to rear-end another vehicle. Signal guidance and requirements are found in the MUTCD 11th Edition Chapter 4I.

Typical Requirements

- A signal must be timed to allow sufficient time for crossing the street
- Signals must have an audible sound to notify those with visual impairments that it is safe to cross
- Delay left turn movements to allow pedestrians to clear the crossing
- Adequate signage is needed to inform pedestrians how to use the signal
- Signal timing is typically 3.5 feet per second as a measurement of travel time

Types of Pedestrian Signal Activation:

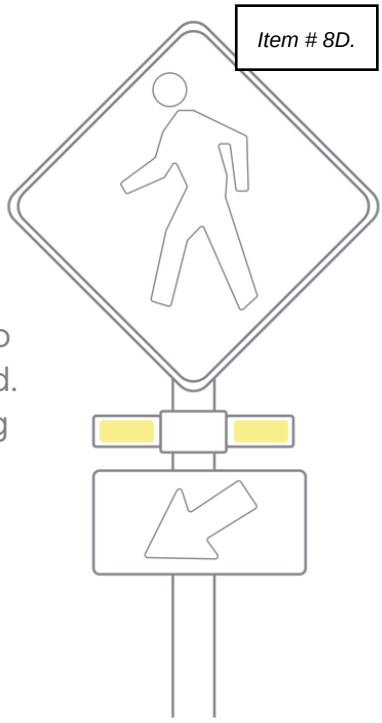
Option 1: Pedestrian Light Controlled

These crossings are controlled by pedestrian-operated signals. Pedestrians press a button to activate the traffic light, stopping vehicles and allowing pedestrians to cross. They are common in urban areas with significant pedestrian activity.

Option 2: Pedestrian User-Friendly Intelligent

These crossings use sensors to detect when pedestrians are waiting and when they have finished crossing. The lights adjust accordingly to ensure safe crossing times. They are typically found in urban areas, it is designed to be more responsive to pedestrian needs than pedestrian-actuated crossings.

Rectangular Rapid Flashing Beacon (RRFB)



RRFBs are warning beacons that can be installed at a crossing to alert drivers that a crosswalk is in use and that they need to yield. They are used in combination with the standard crossing warning signs and markings and can be used at mid-block crossings or intersections where a signal is not warranted. RRFBs can be activated manually or passively through detection.

Typical Applications

- Crosswalk visibility enhancements
- Pedestrian refuge island
- Advance STOP or YIELD markings and signs

Design Guidance

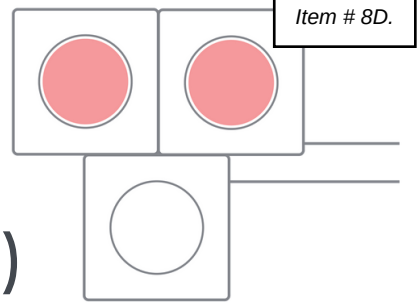
- Install RRFBs in the median rather than the far-side of the roadway if there is a pedestrian refuge or other type of median.
- Use solar-powered panels to eliminate the need for a power source.
- Reserve the use of RRFBs for locations with significant pedestrian safety issues, as over-use of RRFB treatments may diminish their effectiveness.
- A detailed study of actuation is recommended to provide a context-sensitive solution and avoid false signals, which could diminish effectiveness.
- See MUTCD 11th Edition Chapter 4L and Section 5.11.7 of AASHTO GBF for additional design requirements.



RRFB with Median and Pedestrian Refuge Island



High-Intensity Activated Crosswalk Beacon (HAWK) or Pedestrian Hybrid Beacon (PHB)



High-Intensity Activated Crosswalk Beacon (HAWK) is a hybrid signal that allows pedestrians and bicyclists to stop traffic from crossing high-volume roadways. This type of signal is usually located along long stretches of roadway where intersecting roads don't warrant a signal. The MUTCD recommends a minimum volume of pedestrians and bicyclists an hour for major arterial crossings or volumes exceeding 2,000 vehicles per hour. This type of crossing should be added for all crossings where other crossing controls have proven inadequate. Push button actuators should be placed conveniently for all users and abide by other ADA standards. Passive signal activations such as cameras, pavement loops/pucks, and infrared sensors may also be considered. See MUTCD 11th Edition Chapter 4J and Section 10.7 of AASHTO GBF for additional design requirements.

Typical Applications

- In general, HAWKs are used where it is difficult for pedestrians to cross a roadway, such as when gaps in traffic are insufficient or speed limits exceed 35 miles per hour.
- They are very effective at locations where three or more lanes will be crossed, or traffic volumes are above 9,000 annual average daily traffic.
- Installation of a HAWK must also include a marked crosswalk and pedestrian countdown signal.
- If a community is not already familiar with HAWKs, agencies should conduct appropriate education and outreach as part of implementation.



HAWK Crossing





4 Additional Pedestrian Safety Countermeasures

Curb Extensions

Curb extensions narrow the roadway both visually and physically. They improve pedestrian visibility by aligning them with parking lanes and also create shorter and safer crossings for pedestrians. The narrowing of the roadway and decrease in the curb radii also encourages slower turning speeds.

Typical Applications

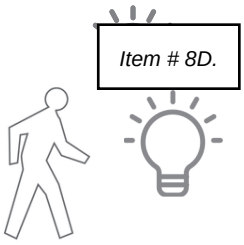
- In neighborhoods or low-speed streets where there are high numbers of pedestrians, and slower vehicle speeds are desired.
- Where on-street parking is present to increase pedestrian visibility.

Design Guidance

- Where curb extensions create drainage impacts, they can be designed as islands with a small 1 to 2-foot gap between the curbs or use a trench drain.
- Curb extensions should be at least as long as the width of the crosswalk.



Crosswalk Visibility Enhancements



Poor lighting conditions, obstructions such as parked cars, and horizontal or vertical roadway curvature can reduce visibility at crosswalks, contributing to safety issues. For multilane roadway crossings where vehicle volumes are in excess of 10,000 Average Annual Daily Traffic (AADT), a marked crosswalk alone is typically not sufficient. Under such conditions, more substantial crossing improvements could prevent an increase in pedestrian crash potential. According to FHWA, the following enhancements can be made to improve crosswalk visibility.

High-Visibility Crosswalks:

UP TO **40**% REDUCTION IN **PEDESTRIAN** CRASHES

High-visibility crosswalks use patterns (i.e., bar pairs, continental, ladder) that are visible to both the driver and pedestrian from farther away compared to traditional transverse line crosswalks. They should be considered at all midblock pedestrian crossings and uncontrolled intersections. Agencies should use materials such as inlay or thermoplastic tape instead of paint or brick for highly reflective crosswalk markings.

Improved Lighting:

UP TO **42**% REDUCTION IN **PEDESTRIAN** CRASHES

Crosswalk lighting should aim to illuminate with positive contrast to make it easier for a driver to identify the pedestrian visually. This involves carefully placing the luminaires in forward locations to avoid a silhouette effect of the pedestrian.

Enhanced Signing and Pavement Markings:

UP TO **25**% REDUCTION IN **PEDESTRIAN** CRASHES

On multilane roadways, agencies can use “YIELD HERE TO PEDESTRIANS” or “STOP HERE FOR PEDESTIANS” signs 20 to 50 feet in advance of a marked crosswalk to indicate where a driver should stop or yield to pedestrians, depending on State law. To supplement the signing, agencies can also install a STOP or YIELD bar (commonly referred to as ”shark’s teeth”) pavement markings.
In-street signings, such as ”STOP Here for Pedestrians“ or ”YIELD Here to Pedestrians, “ may be appropriate on roads with two- or three-lane roads where speed limits are 30 miles per hour or less.

Sources:
1. The Relative Effectiveness of Pedestrian Safety Countermeasures at Urban Intersections - Lessons from a New York City Experience (2012)
2. Handbook of Road Safety Measures (2004)
3. Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments, FHWA (2017).

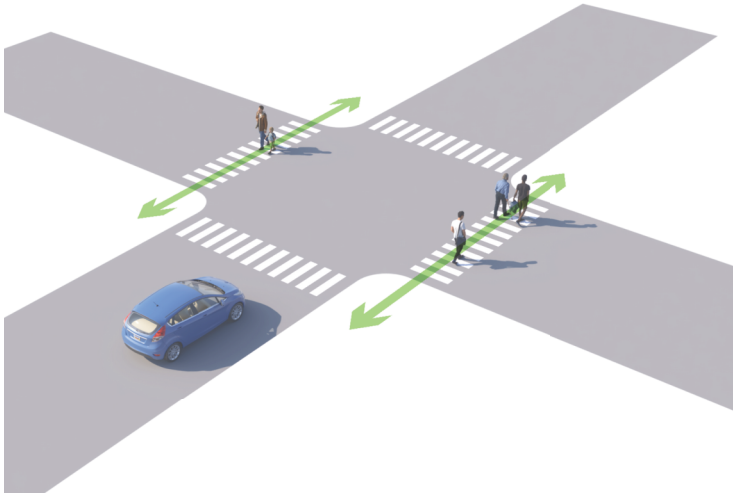
Leading Pedestrian Intervals

A leading pedestrian interval (LPI) allows pedestrians to enter the crosswalk at an intersection 3 to 7 seconds before vehicles are given a green indication. Pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn right or left.

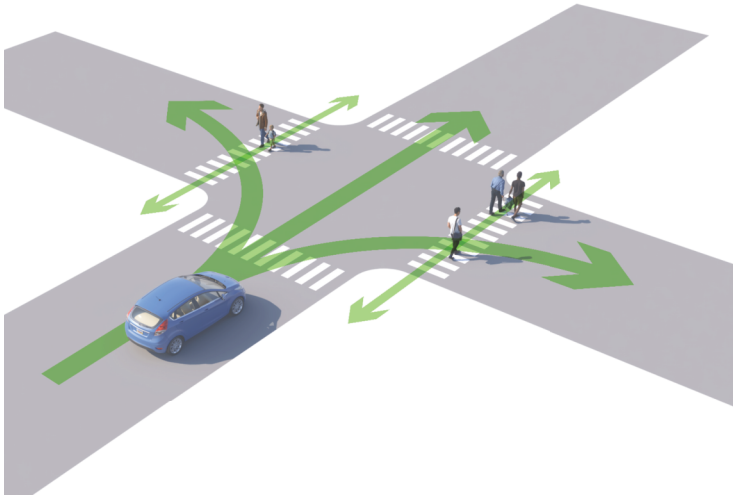
UP TO 13% REDUCTION IN PEDESTRIAN CRASHES AT INTERSECTIONS

LPIs provide the following benefits:

- Increased visibility of crossing pedestrians.
- Reduced conflicts between pedestrians and vehicles.
- Increased likelihood of motorists yielding to pedestrians.
- Enhanced safety for pedestrians who may be slower to start into the intersection.



Phase 1 (First 3-7 seconds):
Pedestrians are given a minimum 3 to 7 second head start entering the intersection. This is the pedestrian-only phase.



Phase 2 (After 3-7 seconds):
Through and turning traffic is given the green light. Turning traffic yields to pedestrians already in the crosswalk.

Sources
1. Manual on Uniform Traffic Control Devices, Section 4I.06. FHWA (2023).
2. Safety Evaluation of Protected Left-Turn Phasing and Leading Pedestrian Intervals on Pedestrian Safety, FHWA (2018)

Pedestrian Facilities

Recommendations for Willard

1 Sidewalks

The current OTO standards include sidewalks in most facility designs. Sidewalks should also be included on all local streets.

Feature	Standard	Considerations
Width of sidewalk	6 feet Minimum	The current OTO standard gives a range of minimum sidewalk widths. The recommendation of this design guidance is to use a 6' minimum sidewalk width.
Buffer width between roadway and sidewalk	6 feet Minimum	The current OTO standard already provides a vegetative buffer between the roadway and the sidewalk but doesn't specify the width. Additional width should be considered on high-speed roadways (over 35 MPH).
Location	Both sides of the street or on one side of the street when a sidepath is on the other side of the street	-
Crossings	Evaluate safety and comfort at crossings (mid-block and intersections)	Some measures include: • RRFB or HAWK • Curb extensions • Raised crosswalks • Pedestrian refuge islands

TRAFFIC CALMING

1. Vertical Treatments
2. Horizontal Treatments
3. Routing Restriction
4. Travel Lane Width Reduction

According to FHWA and Institute of Transportation Engineers (ITE), “The primary purpose of traffic calming is to support the livability and vitality of residential and commercial areas through improvements in non-motorist safety, mobility, and comfort. These objectives are typically achieved by reducing vehicle speeds or volumes on a single street or a street network. Traffic calming measures consist of horizontal, vertical, lane narrowing, roadside, and other features that use self-enforcing physical or psycho-perception means to produce desired effects.”

Traffic calming measures are used to alter driver behavior in a way that improves safety for all users, and often focuses on improving conditions for non-motorized street users. These measures not only increase safety by reducing vehicle speed and/or volume, but they can create a sense of place for communities.



1 Vertical Traffic Calming Treatments

Vertical treatments force drivers to slow down by creating a change in the height of the roadway. Extensive planning, design, and public outreach are needed prior to traffic calming elements being placed on the street. Designers should strive to design context-sensitive and appropriate solutions. Examples of vertical treatments include:

- Speed Hump
- Speed Cushion
- Speed Table
- Offset Speed Table
- Raised Crosswalk
- Raised Intersection

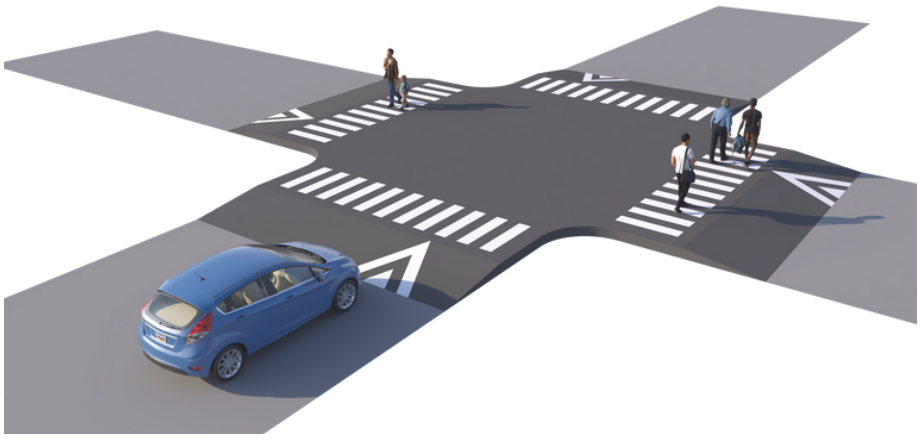
Typical Applications

Vertical speed control elements should be applied where the roadway's target speed cannot be achieved through the use of conventional traffic calming elements, such as medians, narrower roadways or lanes, curb extensions, enforcement, or lower speed limits.

Design Guidance

- Unless otherwise desired, vertical traffic calming should reduce a street's target speed to 20 mph or less (AASHTO GBF 8.4.3).
- Implementation may be carried out on a trial basis to gauge residents' support before finalizing the design. Temporary speed humps, tables, and cushions should be used with caution as they can diminish residents' opinions due to unappealing design and reduced functionality.
- Should allow bicycle riders and vehicle drivers to navigate with minimal discomfort at intended speeds and should be visible and marked when necessary.
- Additional guidance is found in Section 8.4.3 of AASHTO GBF and Section 3.1.2 of NACTO UBDG.

Raised Intersection



2 Horizontal Traffic Calming Treatments

Horizontal treatments create a horizontal shift or deflection in the roadway for drivers to navigate. This shift requires drivers to reduce their speed from what it would be if they were driving in a straight path. Extensive planning, design, and public outreach are needed before traffic calming elements are placed on the street. Designers should strive to design context-sensitive and appropriate solutions. Examples of horizontal treatment include:

- Lateral Shift
- Chicane, Neckdown, or Pinch Point
- Realigned Intersection
- Traffic Circle
- Roundabout
- Mini-roundabout
- Curb extensions

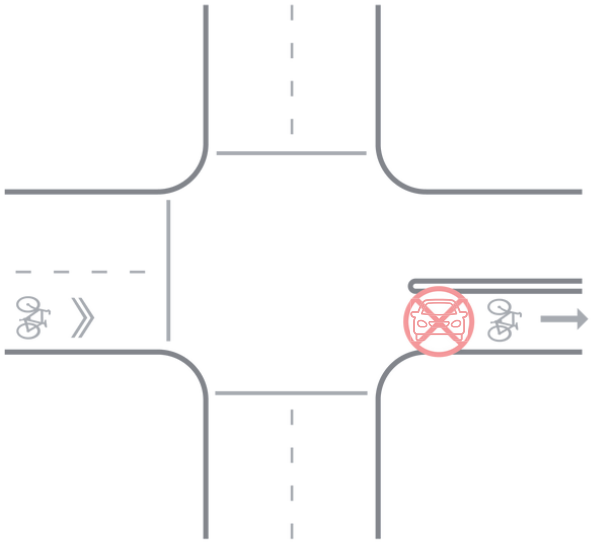
Design Guidance

- When using horizontal speed management treatments, a minimum clear width of 12 feet for travel shall be maintained.
- Space for bicycles to bypass horizontal treatments should be considered when the average daily vehicle volumes are greater than 2,000 vehicles per day (AASHTO GBF 8.4.2).
- Additional guidance is found in Section 8.4.2 of AASHTO GBF and Section 3.1.2 of NACTO UBDG.

Mini Roundabout



3 Routing Restriction



Routing restrictions are intended to eliminate some portions of cut-through traffic by preventing particular vehicle movements. Some routing restrictions can be created using paint on the roadway, but they are most effective when raised curbs or other physical barriers exist. Extensive planning, design, and public outreach are needed before traffic calming elements are placed on the street. Designers should strive to design context-sensitive and appropriate solutions. Examples of routing restrictions include:

- Diagonal Diverter
- Full Closure
- Half Closure
- Median Barrier
- Forced Turn Island

Typical Applications:

- Urban and suburban settings along roadways and at intersections.
- Where it is desired to reduce vehicle traffic along a particular route and an alternative route is available to through vehicular traffic, while preserving local access as necessary.

Design Guidance

- Where emergency vehicle access is still needing to be maintained, there should be breakaway or lockable bollards or gates.
- A gap or channel in the physical restrictions can allow at-grade access for bicyclist movements.
- It is important to consider where diverted traffic will go and what effect that will have.
- Each type of routing restriction has its own design requirements and should be designed with engineering principles and judgment.
- Need to maintain access to residences and businesses and divert vehicular traffic on through trips to other routes.
- Additional guidance is found in Section 8.5 of AASHTO GBF and Section 3.1.2 of NACTO UBDG.

4 Travel Lane Width Reduction/ Creating Enclosure

Reducing travel lane widths is an effective traffic-calming measure that can help slow down vehicle speeds and enhance safety for all road users. Here's how narrower travel lanes contribute to traffic calming and slowing traffic:

Physical Impact on Traffic Flow

Reduced Speed:
Studies have shown that reducing lane widths from 12 feet to 10 or 11 feet can result in lower vehicle speeds. The reduced width discourages speeding and promotes a more controlled driving pace.

Traffic Calming Effect:
Narrower lanes can create a natural traffic-calming effect, slowing down vehicles without the need for additional physical barriers like speed bumps.

Safety Improvements

Shorter Crossing Distances for Pedestrians:
Reducing lane widths can shorten the distance pedestrians need to cross, decreasing their exposure to moving vehicles and enhancing their safety.

Increased Buffer Zones:
Narrowing travel lanes can create space for wider shoulders, bike lanes, or buffer zones between travel lanes and sidewalks, providing additional safety for cyclists and pedestrians.

Enhanced Visibility:
Slower speeds and narrower lanes improve drivers' ability to see and react to pedestrians, bicyclists, and other vehicles, reducing the likelihood of accidents.

Space Reallocation

Bike Lanes and Sidewalks:
The space saved from narrowing travel lanes can be reallocated to create dedicated bike lanes and wider sidewalks or sidepaths, promoting active transportation and improving safety for non-motorized users.

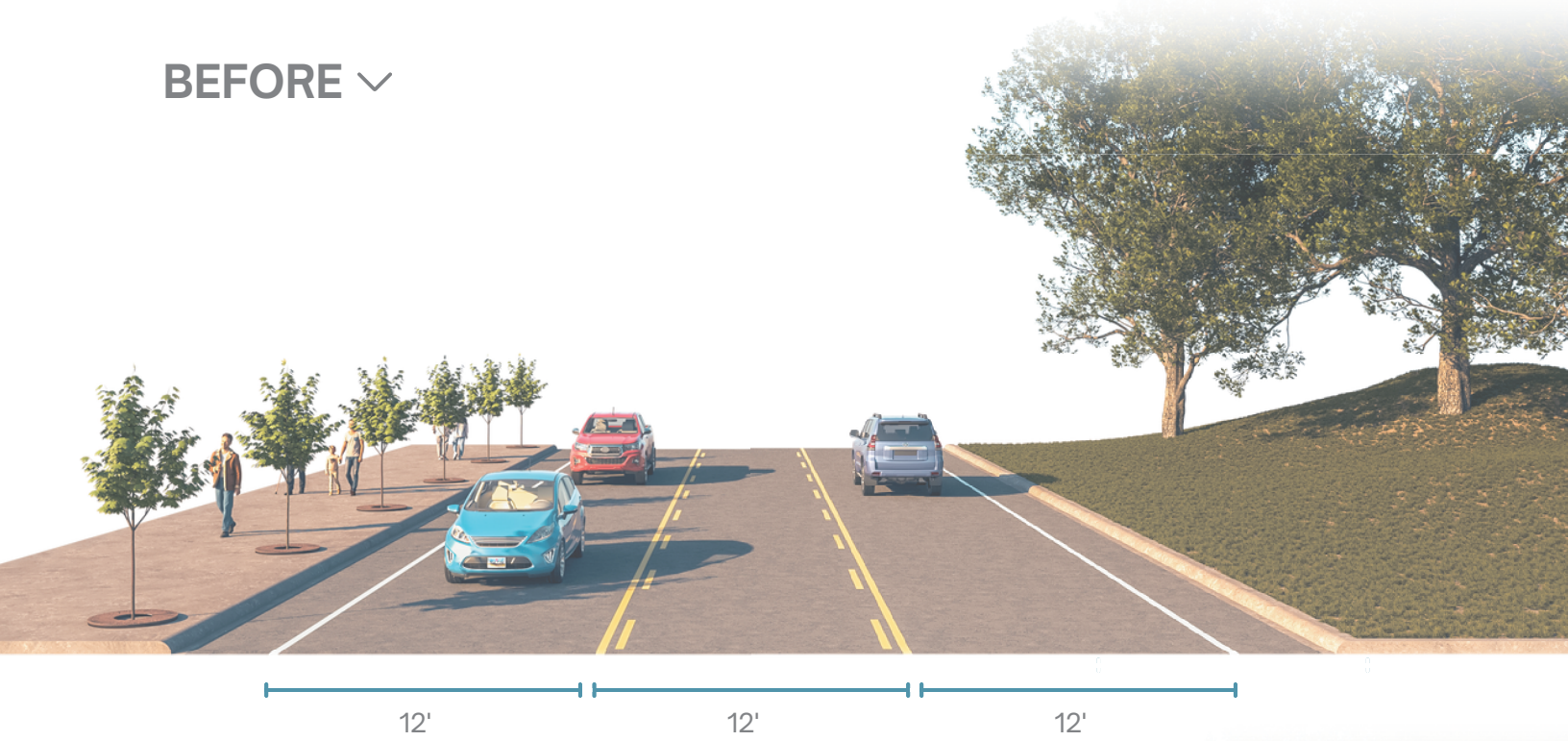
Landscaping and Buffer Zones:
Additional space can also be used for landscaping, street furniture, or buffer zones, enhancing the street's aesthetic appeal and providing physical barriers that further calm traffic.

Additional guidance is found in Section 8.4.1 of AASHTO GBF.

Design Guidance

- Reducing lane widths should involve careful attention to design and planning, coupled with extensive public engagement.

BEFORE



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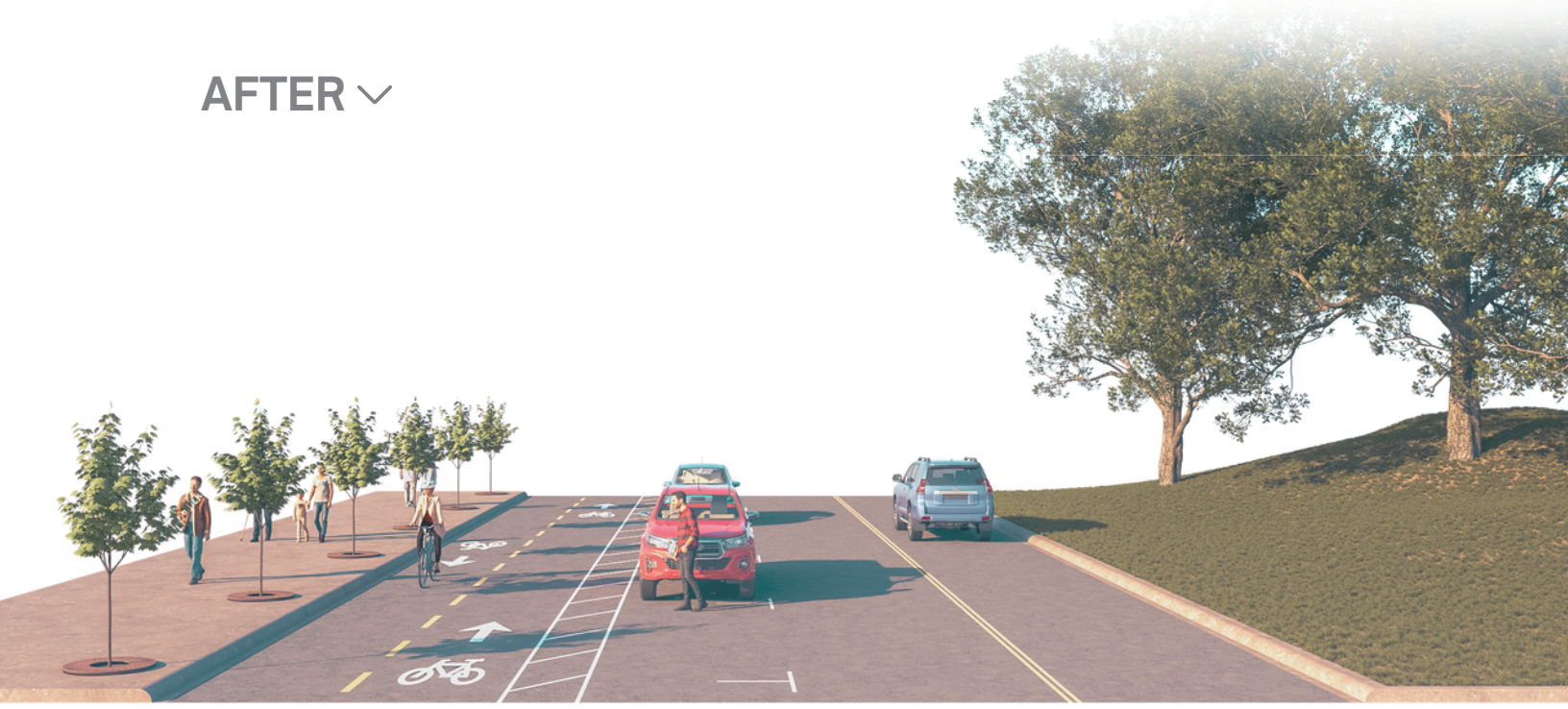
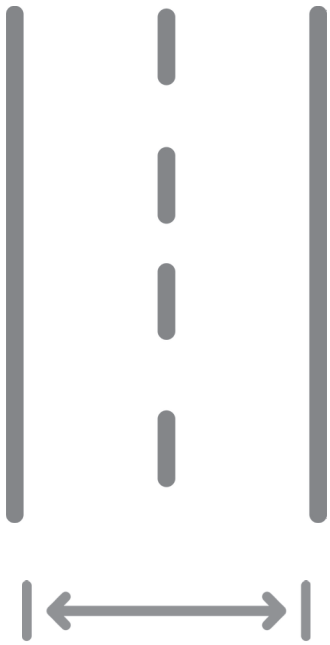


EVALUATING SURPLUS RIGHT-OF-WAY

Opportunities exist to evaluate the right-of-way (ROW) along corridors or sections of roadway to evaluate their current usage and whether there is an opportunity to alter their current use to provide better facilities for vulnerable road users while still providing sufficient service levels for motorists. Road reconfigurations provide a method of utilizing existing right of way and roadway width to increase safety and can often include additional facilities for other modes of travel, such as dedicated transit lanes, widened and enhanced sidewalks, and bike lanes.

According to FHWA, a Road Diet repositions pavement markings to better meet the needs of all road users. A classic Road Diet converts a four-lane undivided roadway to a three-lane roadway, but many other reconfigurations are used by States and local jurisdictions. For example, a road diet could convert the roadway space from five to three lanes, two to three lanes, or various lanes of a three-lane roadway. An agency could even use a Road Diet on a one-way street.



Resources such as the Road Diet Information Guide (FHWA) navigate to the appropriate application and implementation of road diets. Many factors should be considered when planning and designing a road reconfiguration, including extensive public outreach and traffic studies and the potential positive and negative effects on all stakeholders, including businesses, neighborhoods, vulnerable road users, and motorists.

GENERAL DESIGN GUIDANCE

The following pages provide guidance on various aspects of paths and general bike and mixed-use facilities. Many recommendations for these design elements are found in Chapter 5 of AASHTO GBF. The following pages include information on:

- Transitions between facility types
- Bi-Directional Bikeways
- Side Slopes
- Fence/Barrier Guidance
- Cross Slopes
- Stopping Sight Distance
- Grade
- Options to Mitigate Excessive Grades
- Surfaces
- Accessibility
- Vertical Alignment
- Drainage
- Design Speed
- Horizontal Alignment
- Pavement Markings
  - Pavement Markings for Buffered Bike Lanes
  - Pavement Markings for Conventional/Constrained Bike Lanes
- Signage
- Signage and Wayfinding & General Trail Signage Information



Transitions Between Facility Types:
Bicycle networks are composed of a variety of facilities (i.e. sidepaths, bike lanes, mixed traffic facilities, etc.) and each transition between facility types is unique and requires careful planning and design. A good transition zone will clearly indicate what users are required to do and maximize their safety and comfort.

One key design element for the transition between sidepaths and street level facilities is the design of the bicycle ramp. AASHTO GBF provides design guidance in Section 5.10.7.

A physical separation, such as poured curbs and medians in conjunction with pavement markings (i.e. arrow showing travel direction with a bike rider marking) can be helpful in providing clear direction to bicycle riders in advance of and during transitions between facility types. These can also be helpful at intersections to improve comfort and safety of bicycle riders by preventing the accidental mixing of bicycles and vehicles at the intersection.

Section 7.10 of the AASHTO GBF provide guidance and examples for a variety of transition types in different contexts. This guidance covers where ideal transition points are as well as more complicated transitions such as two-way bike lanes to one-way bike lanes and vice versa.

NACTO Section 3.1.4 covers their guidance for bike transitions. The guidance in this section covers lateral shifts for bikeways as well as bike ramps and vertical grade transitions. Other guidance for transitions can be found in the sections for each bike facility type.

Bi-Directional Bikeways:
Bicycle network routes should allow and prioritize bicycle travel in each direction. Bi-directional travel is typically easily accomplished with paths, however on-street facilities may require additional planning and design.

On-street bi-directional travel may be accomplished in a variety of ways. Some examples include:

- Bike lanes on each side of the roadway
- Two-way bike lanes - typically protected bike lanes that accommodate travel in each direction
- Contraflow bike lane - often a bike lane on the left side of the street for the opposite direction of travel on a one-way street

Signage to notify motorists can be considered when bi-directional bike traffic is present. This may be particularly beneficial at driveways to notify drivers that bicycles may be approaching from either direction.

Additional design guidance for two-way contraflow bike lanes can be found in NACTO UBDG and AASHTO GBF.





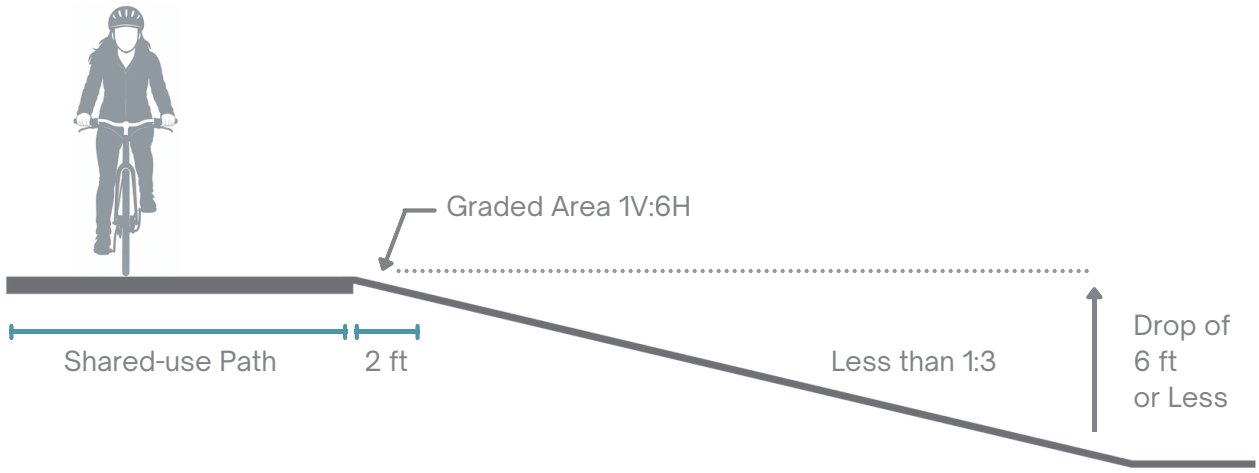
Side Slopes:
The shoulders of paths should be graded in a manner that provides a recoverable area for users who leave the path either intentionally or unintentionally. At a minimum, there should be a 2-foot-wide graded area with a maximum slope of 1V:6H. Ideally, the shoulder should be 5 feet wide, but the minimum 2 feet of clear shoulder at a maximum of 1V:6H slope should be maintained. See AASHTO GBF 6.6.1.1 for guidance.

In locations with a downhill slope greater than 1V:3H adjacent to the path, a wider shoulder (5 feet or more) with a 1V:6H slope should be considered before the top of the steeper slope. Conditions such as slope, the height of the drop, and conditions at the bottom of the drop should be considered in analyzing whether barriers such as fences, rails, or dense vegetation should be used to reduce risks to trail users.

A physical barrier or rails are recommended where a 5-foot wide recovery area cannot be maintained, and there are:

- slopes of 1V (vertical):3H (height) or steeper with a drop of 6 feet or greater,
- slopes of 1V:3H or steeper adjacent to a parallel body of water or other substantial obstacle,
- slopes of 1V:2H or steeper with a drop of 4 feet or greater, or
- slopes 1V:1H or steeper with a drop of 1 foot or greater.

Condition 1: Gentle side slope, no fence or additional graded area needed



Condition 2: Steep side slope, additional graded area provided

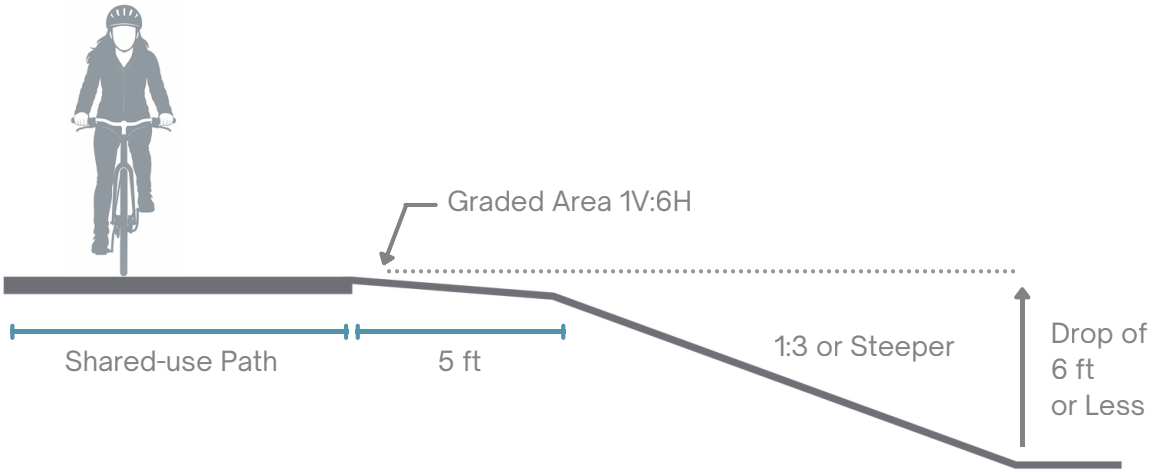
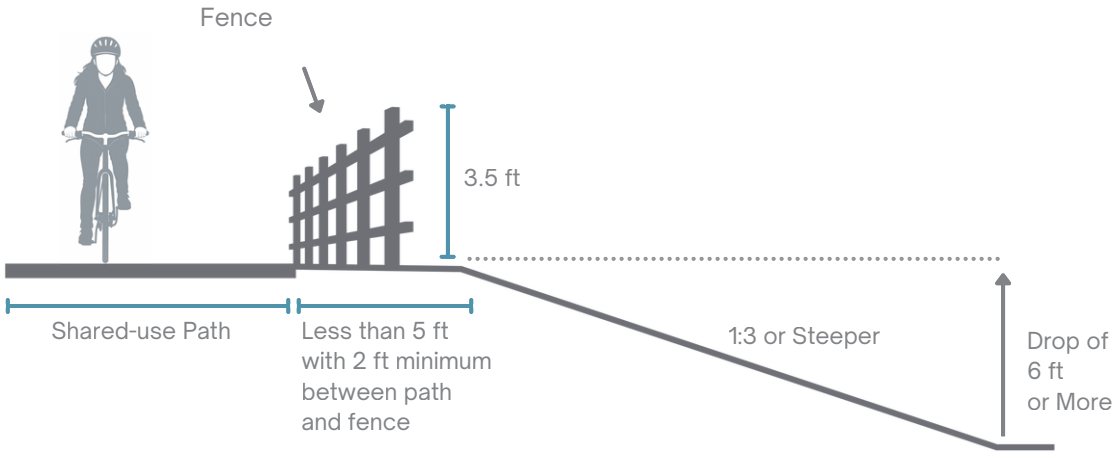


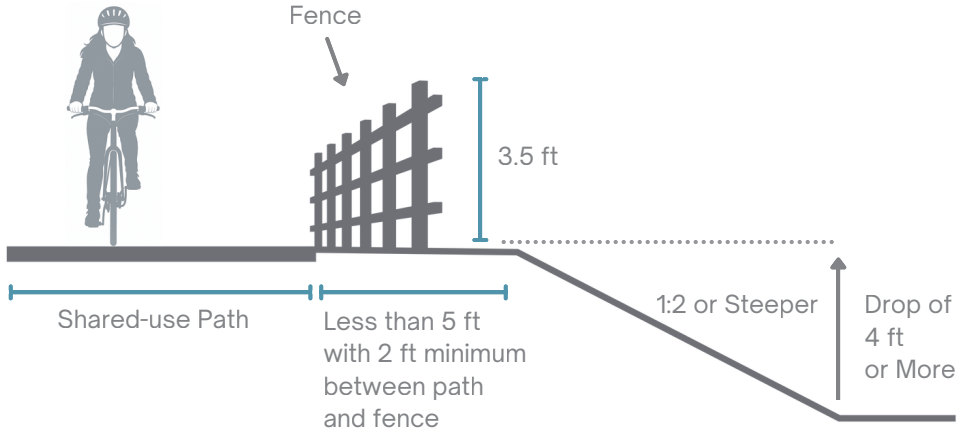
Image based off Bicycle Facility Design Manual, MNDOT



Fence/Barrier Guidance:

When barriers, such as fences, are used there should be a 2' clear area between the edge of the path and the barrier. Also, when fences or rails are adjacent to a path, rub rails should be used to prevent handlebars from getting caught. The images below also show some guidance for when fences or barriers are adjacent to slopes.





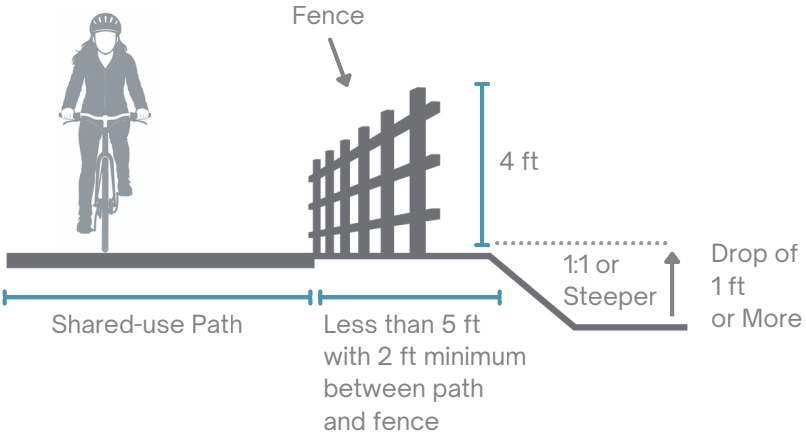


Image based off Bicycle Facility Design Manual, MNDOT

Cross Slopes:
The ideal cross slope for bike and pedestrian facilities is 1%-1.5%, as they are easier for people in wheelchairs to navigate while being able to convey drainage. Additionally, cross slopes should not exceed 2% to meet disability design requirements. See AASHTO GBF 5.6.3 for additional guidance.

Cross slopes should transition to connect to existing slopes to adjust to changes in slope or drainage, or sometimes to a horizontal curve. These transitions should be smooth and comfortable for users and have a minimum length of 5 feet per 1% change in cross slope.

Stopping Sight Distance:
Bicycle facility design should take into consideration stopping sight distance to ensure that there is time to react to unexpected conditions. Stopping sight distance calculations include variables such as reaction time, starting speed, the coefficient of friction between the path and the wheels, the grade of the path, and the braking ability of the user's equipment. Formulas for calculating stopping sight distance can be found in resources such as the 2024 AASHTO Bike Guide. Sight distance needs to be evaluated for vertical curves, as well as horizontal curves. In locations where there isn't adequate stopping sight distance for trail users, pavement markings such as a solid yellow center stripe indicating a "no passing" zone or curve warning signs should be considered. See AASHTO GBF 5.5 for additional guidance.

Grade:
Paths should have a maximum grade of 5%. Grades should be minimized on long stretches, as steep ascents and descents can be difficult and dangerous for many trail users. Pedestrian access standards must also be met with shared-use paved paths, which also limits maximum grades to 5%, except under certain circumstances which can be found on the U.S. Access Board website.

Grades of less than 0.5% should be avoided because they create challenges with stormwater conveyance. It is better to use small rolling hills that convey storm drainage to outlet locations.

The path material must also be considered, as grades steeper than 3% may be difficult for users when the path is unpaved.

Options to mitigate excessive grades include:

- When long grades must be used, provide an additional width of 4 to 6 feet to permit slower bicyclists to dismount and walk uphill and to provide more space for fast downhill riders.
- Use higher design speeds for horizontal and vertical alignments, stopping sight distance, and other geometric features.
- Install hill warning signs for bicyclists (W7-5 in the MUTCD) and alert users to the maximum percent grade on the downhill approach.
- Provide greater clearances on each side of the path and/or railings where appropriate.
- Provide resting areas and resting intervals with flatter grades.
- Use a series of short switchbacks with 4 to 6 feet of extra maneuvering space.
- Consider the use of advisory speed plaques.

See AASHTO GBF 6.6.4.1 for additional guidance.

Surfaces:
Paths can be either concrete or asphalt. Asphalt is the most common surface since it has the lowest initial cost. However, concrete paths have been proven to reduce maintenance costs over the long term and are more durable. When concrete is used, saw-cut concrete joints are recommended to improve users' experience.

Asphalt's advantages include that it has a lower initial construction cost, is softer and preferred by runners and walkers, and pavement markings are often more visible on asphalt over concrete due to a higher contrast.

A soil investigation should be performed and considered along with the expected loads (maintenance and emergency vehicle use should be considered) on the trail to determine the pavement section design for all paved paths.

Efforts should be made to ensure a smooth riding surface. When utility covers or drainage grates are required, they should be bicycle-compatible and flush with the pavement surface.

See AASHTO GBF 6.6.2 for additional guidance.

Accessibility:
Aspects such as the surface type, cross slope, and grade directly affect the accessibility of paths. Wheelchair users can most easily navigate hard surface paths with a cross slope of 1%. Slopes of paths should be 5% or less, and rest areas and rest intervals should be considered for long stretches of steep slopes.

Vertical Alignment:
The vertical alignment should provide users with a smooth and comfortable experience. It should also provide users with sight distances that allow them to pass other users safely. In flat areas, a gradually rolling vertical profile can help convey stormwater better than letting the area remain flat around the path.

See AASHTO GBF 6.6.4 for additional guidance.

Drainage:
Minimum cross slopes of 1 percent and longitudinal grades of 0.5% typically provide conditions for adequate drainage, and paths are typically sloped uniformly in one direction rather than crowning. The slope direction typically follows the natural terrain to avoid the need for channelized flow where possible. When needed, manhole covers and bicycle-compatible drainage grates should be located outside the bicycle/pedestrian facility.

See AASHTO GBF 6.6.6 for additional guidance.

Design Speed:
Design speeds should be selected and used for all pertinent features along a facility to provide continuity. Usually, the selected speed should be at least as high as the preferred speed of the fastest common user. This speed depends on many conditions, including the type of equipment being used, the purpose and length of the trip, the condition and grade of the path, wind conditions, and the number and type of other users. Design speeds for paths are typically reported in 2 mph increments and range from 12 mph to 30 mph. Most paths in flat areas have a design speed of 18 mph, but it varies depending on all the path conditions. In some areas, it may be desirable to lower speeds through geometric design, such as horizontal curves, to reduce the likelihood of crashes at conflict points.
See AASHTO GBF 6.5 for additional guidance.

Horizontal Alignment:
Most adult bicyclists lean while turning at corners to avoid falling. There are two methods for calculating the minimum radius of horizontal curvature for bicycles: using the “lean angle” or the superelevation method. These methods are outlined in resources such as the 2024 AASHTO Bike Guide. When the minimum radius of horizontal curvature cannot be achieved in the path design, warning signs or widened pavement through constrained corners can be used. See AASHTO GBF 6.6.3 for additional guidance.

Pavement Markings:
Pavement markings on bicycle and mixed use facilities can be used to indicate separation of lanes, provide guidance on assigned travel paths, and provide information in advance of turning and crossing maneuvers. They should be retroreflective and use materials that will minimize loss of traction under wet conditions.

On two-way facilities, a solid yellow centerline stripe may be used when passing is not advisable (due to sight distance concerns or heavy user volumes), and a broken yellow line may be used when passing is permitted.

In some areas of extremely heavy path volumes, pedestrians and wheeled users can be segregated using pavement markings. The markings and signage should clearly define what lane is used for bi-directional pedestrian use and also define lanes for each direction of bicycle traffic. The pedestrian only lane should be on the side of the path with a view when applicable. Bicycle specific marking requirements are found in Chapter 9E of the MUTCD 11th Edition and AASHTO GBF 6.6.9.

Additionally, pavement markings can be used at potential conflict points to prevent collisions between motorists and bicyclists/pedestrians. This can include stop bars at intersections as well as crosswalk markings across the intersection. It can also include markings on a path to warn users to yield and watch for vehicles.

Green pavement markings are often used for bicycle facilities and standards for their use can be found in Chapter 3H.06 of the MUTCD 11th Edition.

Pavement Markings for Buffered Bike Lanes:

- Bicycle lane word and/or symbol and arrow markings (MUTCD Figure 9E-1) shall be used to define the bike lane and designate that portion of the street for preferential use by bicyclists.
- The buffer shall be marked with 2 solid white lines. White lines on both edges of the buffer space indicate lanes where crossing is discouraged, though not prohibited (MUTCD 9E.06). For clarity, consider dashing the buffer boundary where cars are expected to cross at driveways.
- The buffer area shall have interior diagonal cross-hatching if it is between 2 ft and 4 ft wide or chevron markings if wider than 4 feet (AASHTO GBF 9.5).
- Consider separated bike lanes with vertical elements when space allows for buffers of 6 ft or more (AASHTO GBF 9.5).

Pavement Markings for Conventional/Constrained Bike Lanes

- Mark a bike lane line with a normal solid white line and a standard bike lane symbol marking (AASHTO GBF 9.4.2). The MUTCD 2023 Section 9E provides standards and guidance for applying these elements.
- Lane markings should remain solid and not dotted at the driveway crossing. The MUTCD does not recognize a driveway as an intersection (MUTCD 2023).
- Bicycle lane word and/or symbol and arrow markings (MUTCD Figure 9E-1) shall be used to define the bike lane and designate that portion of the street for preferential use by bicyclists. These markings shall be placed outside of the motor vehicle tread path at intersections, driveways, and merging areas in order to minimize wear from the motor vehicle path.
- A solid white lane line marking shall be used to separate motor vehicle travel lanes from the bike lane.
- A dotted lane line can be used in high conflict areas such as intersections where vehicles may be entering the bike lane and where transit vehicles will be frequently crossing the bike lane (AASHTO GBF 9.12.1).
- A through bike lane shall not be positioned to the right of a right-turn-only lane or to the left of a left turn-only lane (MUTCD 9E.02). A bike lane may be positioned to the right of a right-turn-only lane if split-phase signal timing is used (AASHTO GBF 9.12.3.7).
- Guidance for bike lane markings at intersections is provided in AASHTO GBF 9.12.
- Bike lane symbols should be placed within 50' of an intersection and then at intervals that are not more than every 250 feet in urban areas. Symbols may be needed more frequently depending on factors such as the frequency of driveways or turn lanes (AASHTO GBF 9.4.2).
- Bike lane symbols may be up to 1,000 feet apart in rural areas (AASHTO GBF 9.4.2).



Signage:
Signage can serve many purposes, and guidance for bike facility specific signage can be found in the 11th Edition of the MUTCD in Chapters 9B, 9C, and 9D.

Warning Signage:
Careful attention should be placed on warning signage. Warning signs can be used to notify of path narrowing, a crossing ahead, steep grades, etc. Guidance for warning signs can be found in Chapter 9C of the MUTCD 11th Edition.

Directional Signs:
Place directional signs at junctions and decision points to help users navigate the network. Use arrows or symbols to indicate where users should go to reach specific destinations or points of interest. Signs can also be used at mid-block crossings to notify users of what streets they are crossing as well as to notify drivers of the name of the trail they are crossing. Guidance for directional signage can be found in Chapter 9D of the MUTCD 11th Edition.

Signage and Wayfinding:
Knowing your location within an active transportation network is important for user security while enhancing the experience. An opportunity exists for the city to develop a comprehensive wayfinding and signage program for the active transportation network. A comprehensive wayfinding and signage plan can delve into the system's look, feel, and brand to create a unified approach to navigating on bike and foot. Essential elements of a wayfinding and signage plan are as follows:

Clear and Consistent Signage:
Ensure all signage is clear, easy to read, and consistent throughout the system. Use large fonts and high-contrast colors to make signs easily visible, even from a distance. Ensure that the signage has a consistent look and feel both in the physical structure of the sign and in the maps.

Distance Markers:
Install distance markers at regular intervals along routes to inform users of how far they have traveled and how far they have left to go. This information can be especially helpful for planning breaks and estimating travel time.

Emergency Information:
Include emergency contact information and instructions on what to do in case of an emergency on signage, especially for paths that aren't along roadways. This can include contact numbers for local emergency services, trail rules, and safety tips.

Trailhead Signage:
Provide clear signage at trailheads indicating the trail's name, difficulty level, length, and any important safety information. Trailhead signage should also include a map of the trail system with key landmarks and points of interest marked.

Trail Markers:
Install trail markers regularly along the trail to reassure users that they are on the right path. Depending on the terrain, these markers can be posts, blazes painted on trees, or other visible markers.







Trail Maps:
Provide trail maps at key locations such as trailheads, parking areas, and visitor centers. These maps should be easy to read and include information on trail difficulty, length, elevation gain, and points of interest.

Multilingual Signage:
If the trail system is frequented by users who speak different languages, consider providing multilingual signage to ensure that all users can understand important information.

Accessible Signage:
Ensure that signage is accessible to users with disabilities, including those who are visually impaired or have mobility impairments. Use braille, tactile markers, and wheelchair-accessible formats as needed.

Regular Maintenance and Updates:
Regularly inspect and maintain signage to ensure that it remains in good condition and continues to provide accurate information to users. Replace damaged or faded signs promptly to avoid confusion.

INTERSECTION DESIGN GUIDANCE

The following pages provide guidance on intersection design on bicycle and mixed-use facilities. The following information is provided:

Path Intersection and Crossing Design

- Intersection Design
- Mid-Block Crossing Design
- Driveway Intersections
- Minor Intersection Crossings
- Managing Bicycle Speed at Crossings
- Crossing Accessablitity

Bike Lane Intersection and Crossing Design

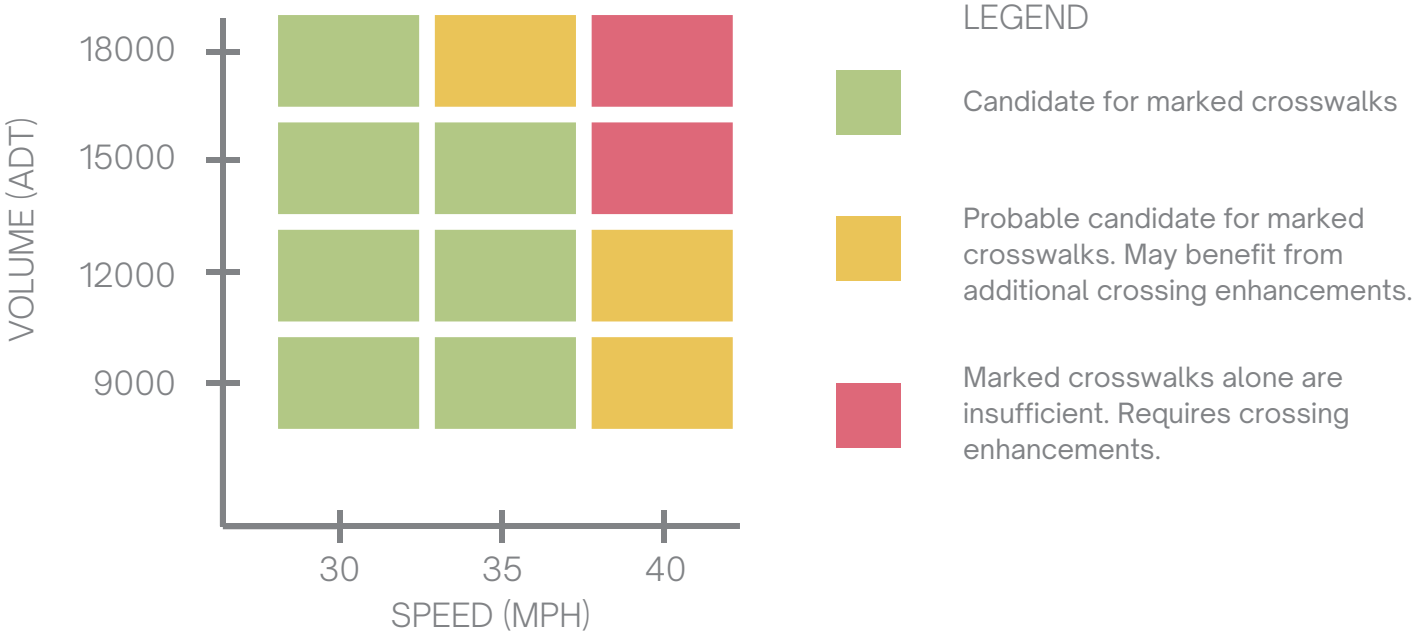
- Protected Intersection
- Key Intersection Elements
- Intersection Crossing Markings
- One-way Separated Bike Lane Driveway Crossings
- Two-way Separated Bike Lane Driveway Crossings
- Mixing Zones





Path Intersection and Crossing Design

People of all ages and abilities use shared paths for activities like walking and cycling. These paths often intersect with roadways, posing user challenges at these points. Crossing designs should minimize path users' exposure to traffic and minimize the speed differential where travel movements intersect.
Intersection crossing criteria should be established based on the slowest users, which are typically pedestrians and child bicyclists. When paths intersect roadways away from designated crossings, conflicts can arise between path users and road users. It is crucial to apply sound design principles for these midblock intersections, similar to regular road intersections. Inappropriate treatments at these crossings can lead to users' non-compliance. For instance, using stop signs where visibility is good may not be effective, whereas yield signs could match user behavior better. Conflicts may also arise at angled intersections, affecting sightlines between path and road users. Ideally, intersections should be close to a 90-degree angle to ensure good visibility and stopping distances for everyone. By incorporating these design principles, conflicts at path and roadway intersections can be reduced or prevented effectively. See AASHTO GBF 6.7 for additional guidance.



Source: Small Town and Rural Design Guide, FHWA

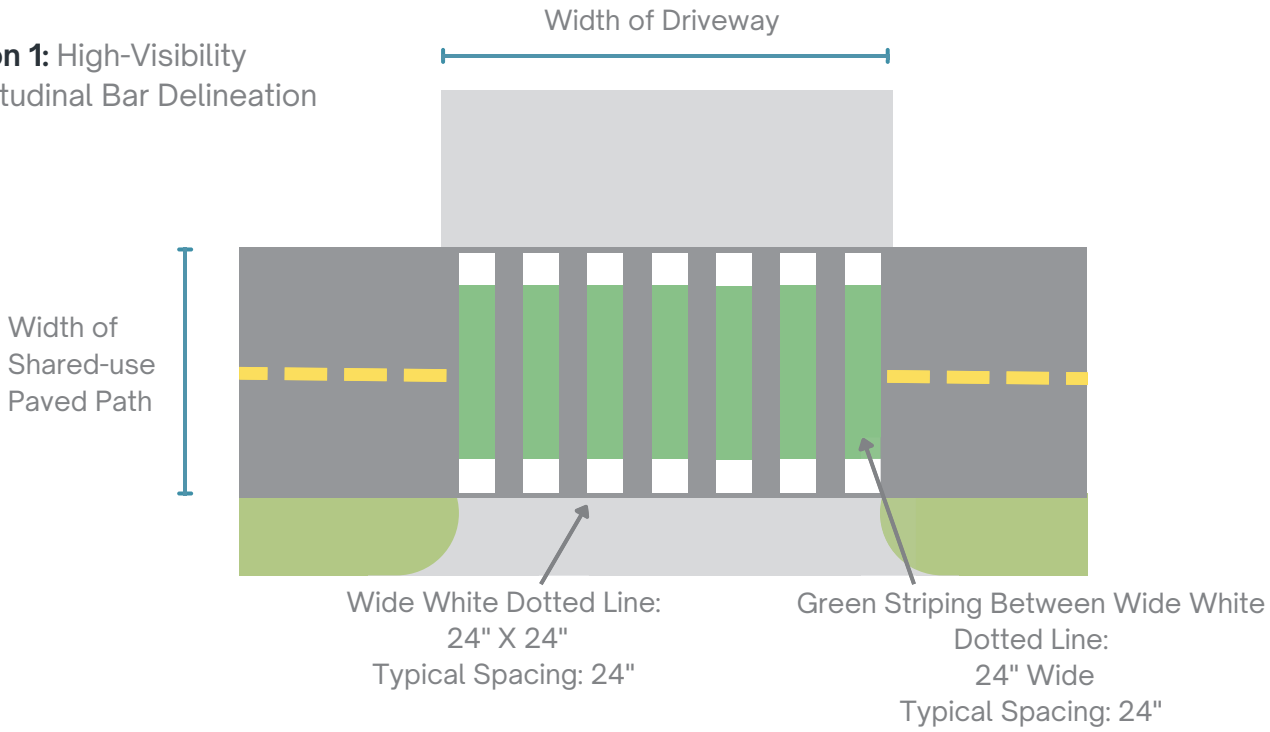
Intersection Design:
Intersection design for shared use paths requires careful attention to address potential conflicts. The design should be predictable and orderly to provide comfort and increase safety. Each intersection is unique and requires engineering judgment to determine the best treatment. Basic measures that can be used to reduce crash severity and frequency include reducing the speeds of path users and motorists, increasing the predictability of behavior, and limiting the amount of exposure at conflict points.

Mid-Block Crossing Design:
Mid-block crossings are similar to intersection design, and the same design principles apply. Many features can be considered, and some may be appropriate at different locations, but engineering judgment should be used to determine appropriate treatments based on the conditions at the crossing location. One principle that should be considered in the design is that it is safest at crossings for the path to be perpendicular to the roadway and provide the best lines of sight for path users and drivers.

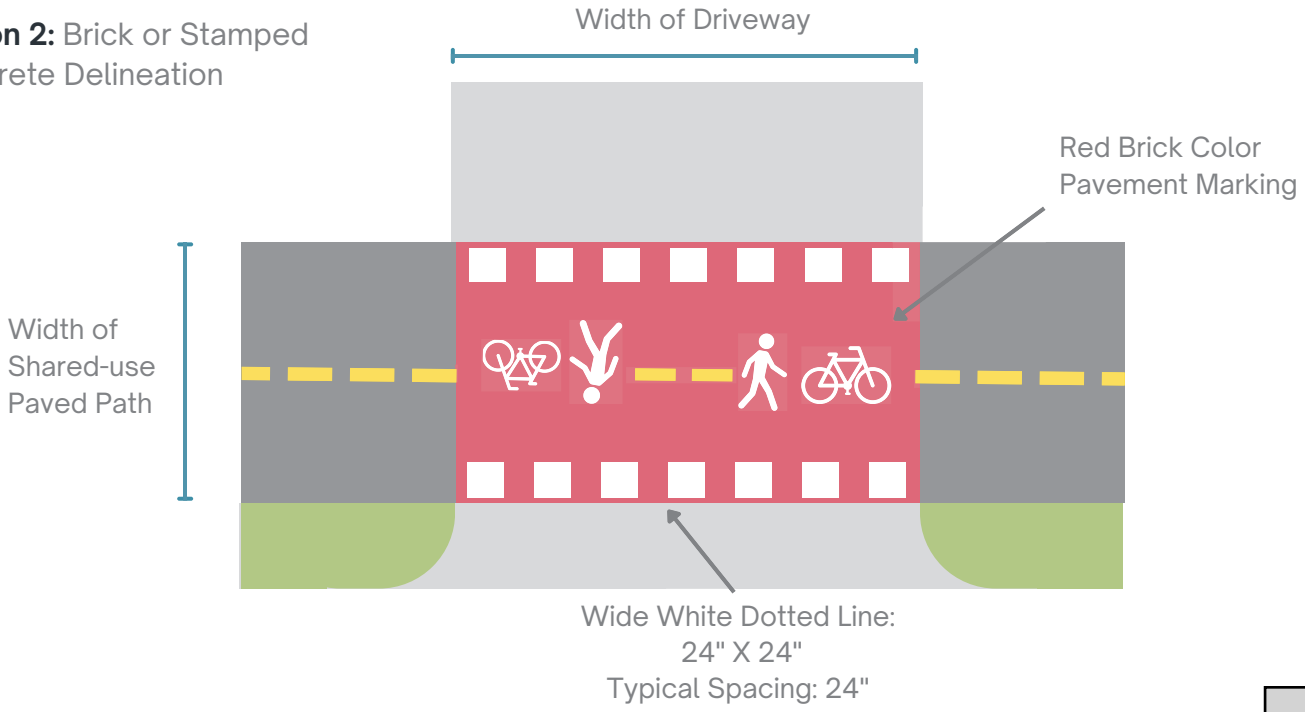


Driveway Intersections for Paths:
Pathways with a low density of driveways are the ideal condition. However, shared-use paths frequently must cross driveways and some design options help bring drivers' attention to the path and its users. One option is to continue the path surface across the driveway so it is clear that the path users have the right of way. Signs and pavement markings can also be used, as well as small corner radii, to encourage reduced speeds.

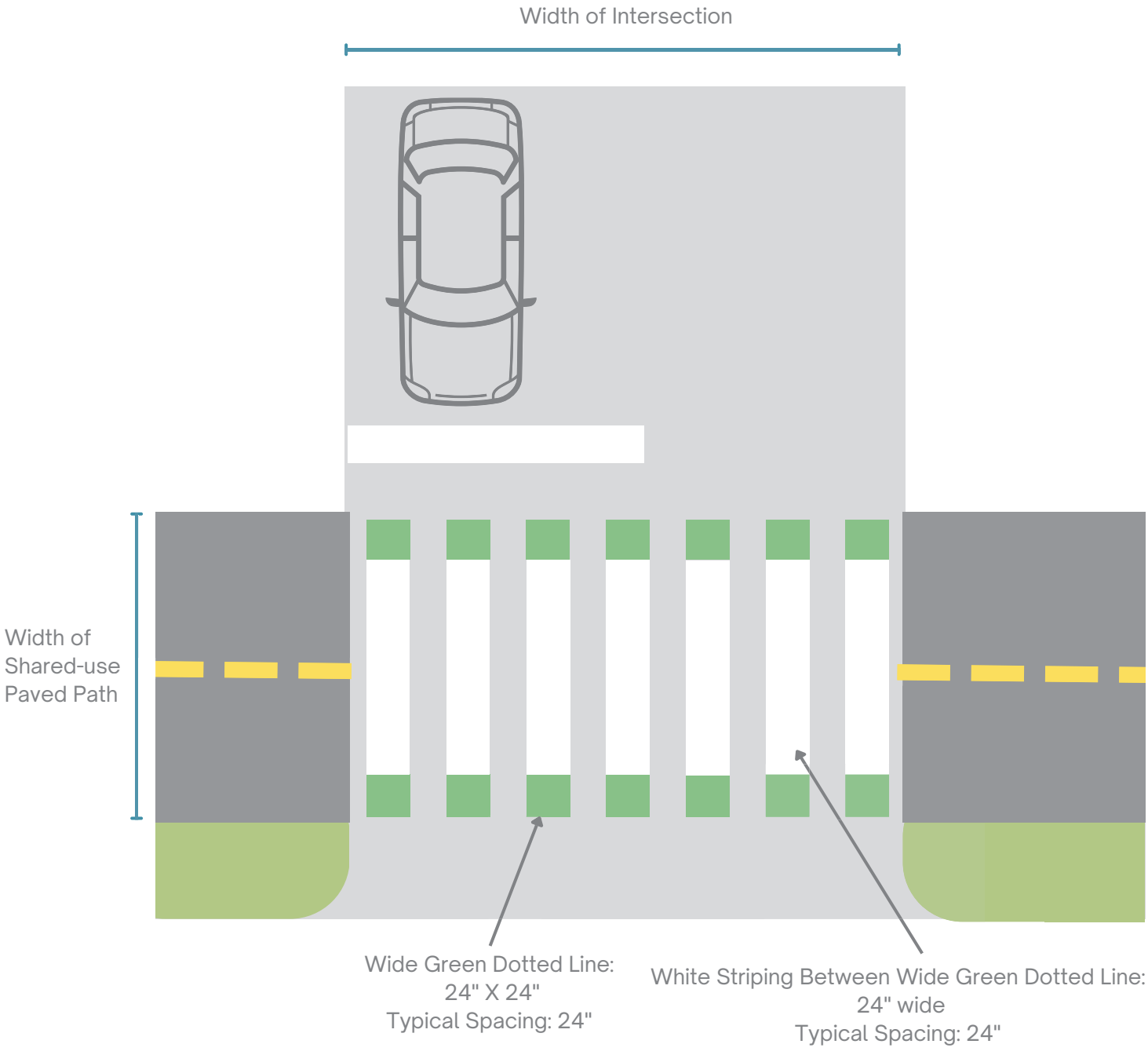
Option 1: High-Visibility Longitudinal Bar Delineation



Option 2: Brick or Stamped Concrete Delineation



Minor Intersection Crossings:
It is not always cost effective to continue shared-use paved paths over minor intersection crossings. In these cases, the intersection or road material can remain, and white high-visibility longitudinal bars are recommended to be painted in the crossing area to increase visibility for vehicle operators and vulnerable road users.



Managing Bicycle Speed at Crossings:
Design methods can be used to reduce shared path users' speeds at the approach of a street crossing. One such method is a chicane, which introduces horizontal curvature, to slow users before a crossing where they must yield, stop, or have limited sight distance. Chicanes should be placed in a location that allows users to navigate them and then be able to direct their attention to the intersection they are approaching.

Crossing Accessibility:
The transition between the shared use path and roadway should be smooth and accessible, and usable by individuals with disabilities. Ramps should be the full width of the side path and have detectable warning surfaces along the full width as well.



Bike Lanes Intersection and Crossing Design

Intersections and crossings are important considerations in designing safe and comfortable bike lanes. Due to vehicular traffic converging at intersections, strategic design is needed to mitigate risks. Ideally bike lanes and vehicular traffic will maintain their separation at intersections, but in constrained locations with low speeds “mixing zones”, or spaces where bicycle traffic is reintroduced to vehicular traffic, may be considered.

Protected Intersection:
Protected intersections use corner refuge islands, forward stop bars, and setback crossings to maintain the separation between cyclists and vehicles. These elements improve visibility and provide safe waiting areas for cyclists, making it easier for them to navigate the intersection. See AASHTO GBF 7.9.7 for additional guidance on protected intersections.



Key elements for intersection design are outlined in section 7.9 of AASHTO GBF and t include minimizing exposure to conflict and reducing speeds at potential conflict points. Another key factor is increasing visibility of the bicycle riders to motorists. These factors should be considered in intersection design, as well as minor intersection design and driveway crossings. Chapter 4 of NACTO UBDG also provides recommendations improving safety for intersection design.

Minimizing Exposure to Conflict

Pedestrian Islands

Islands reduce crossing distances and improve visibility by keeping the intersection clear. Wider islands support high volumes of people walking and biking, raising the intersection's capacity. In some cases, islands can reduce the signal time needed for pedestrians.

Bike Queue Area

People biking can wait ahead of the crosswalk for a green signal or a gap in traffic. This shortens crossing distances and accommodates the natural positioning of people biking. Bike detection is optional.

Corner Island

A corner island separates bikes from motor vehicles, prevents motor vehicles from encroaching on the bikeway, and creates a protected queuing area for people on bikes waiting to turn.

Motorist Waiting Zone

The space between the motor vehicle lane and the crossbike provides a place for motor vehicle drivers to wait before turning across the bike's path of travel.

Reducing Speeds

Compact Corners

Small turn radii force turning drivers to slow down. If there is no raised crossing, the corner radius is the primary method to reduce turn speed.

Raised Crossings

See "Increasing Visibility for more details

Increasing Visibility

Clear Sight Distance

A clear approach sightline gives drivers time to see and yield to people in the crossbike and gives people on bike or on foot time to see and react to turning cars.

No Stopping / No Standing Zone

Motor vehicle parking and stopping are prohibited on the approach to the intersection. This improves sight distance.

Bikeway Setback

The setback determines how much room will be available for drivers to wait and yield, and the angle at which they cross the bikeway. Larger setbacks provide better visibility and give people bicycling more time to notice and react to turning vehicles.

Markings

Markings provide conspicuity and directional guidance to bikes in the intersection. They are marked with dotted bicycle lane line extensions and may be supplemented with green color or bike symbols between these lines.

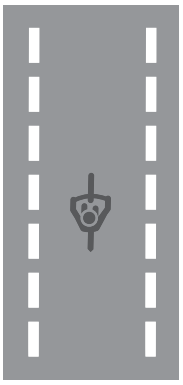
Raised Crossing

Raised crossings improve bicyclists' visibility and reduce the speed at which vehicles turn by bringing the vehicle crossing up to (or near) the sidewalk level. In addition, the raised crossing is a signal to turning cars that through-moving bikes and pedestrians have the right of way.

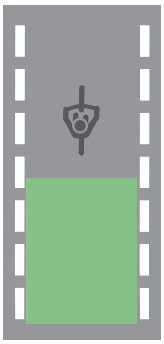
Intersection Crossing Markings:

Intersection crossing markings indicate the intended path of bicyclists. They guide bicyclists on a safe and direct path through intersections, including driveways and ramps. They provide a clear boundary between the paths of through bicyclists and either through or crossing motor vehicles in the adjacent lane. AASHTO GBF section 9.12 contains guidance for bicycle lanes at intersections and NACTO UBDG section 4.1.2 has guidance for crossings at intersections. MUTCD's standards for crosswalk markings are found in Chapter 3C and standards for bicycle specific crossings are found in Chapter 9E of the MUTCD 11th Edition. The following design elements should be considered based on existing intersection conditions:

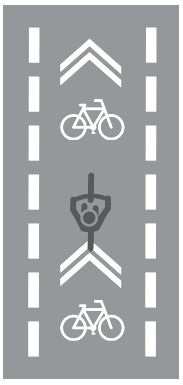
- Dotted lines should bind the bicycle space and should be white, skid-resistant, and retro-reflective (see MUTCD for requirements for dotted line extensions through intersections). Dotted lines should be used to delineate conflict areas within the bike lane and solid bicycle lane lines should be used immediately after the conflict area (AASHTO GBF 9.12.1).
- Colored pavement may be used for increased visibility within conflict areas or through the entire intersection (AASHTO GBF 9.12.1).
- Crossing lane width should match the position and width of the bike lane on each side of the intersection. Bike lanes should not be narrowed at street crossings.
- When two-way cycle tracks go through the intersection, markings should indicate the two-way traffic through the intersection.



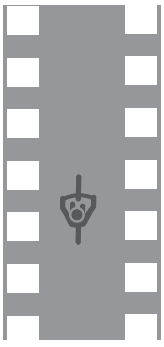
Dotted lines shall bind the bicycle crossing space. See MUTCD Sec. 38.08 for dotted line extensions through intersections. Stripping shall be a minimum of 6 inches adjacent to motor vehicle travel lanes and shall otherwise match the width and lateral positioning of leading bike lane striping, except when using wide white dotted line markings.



Colored pavement may be used for increased visibility within conflict areas or across entire intersections. Green colored pavement is experimental in the MUTCD.



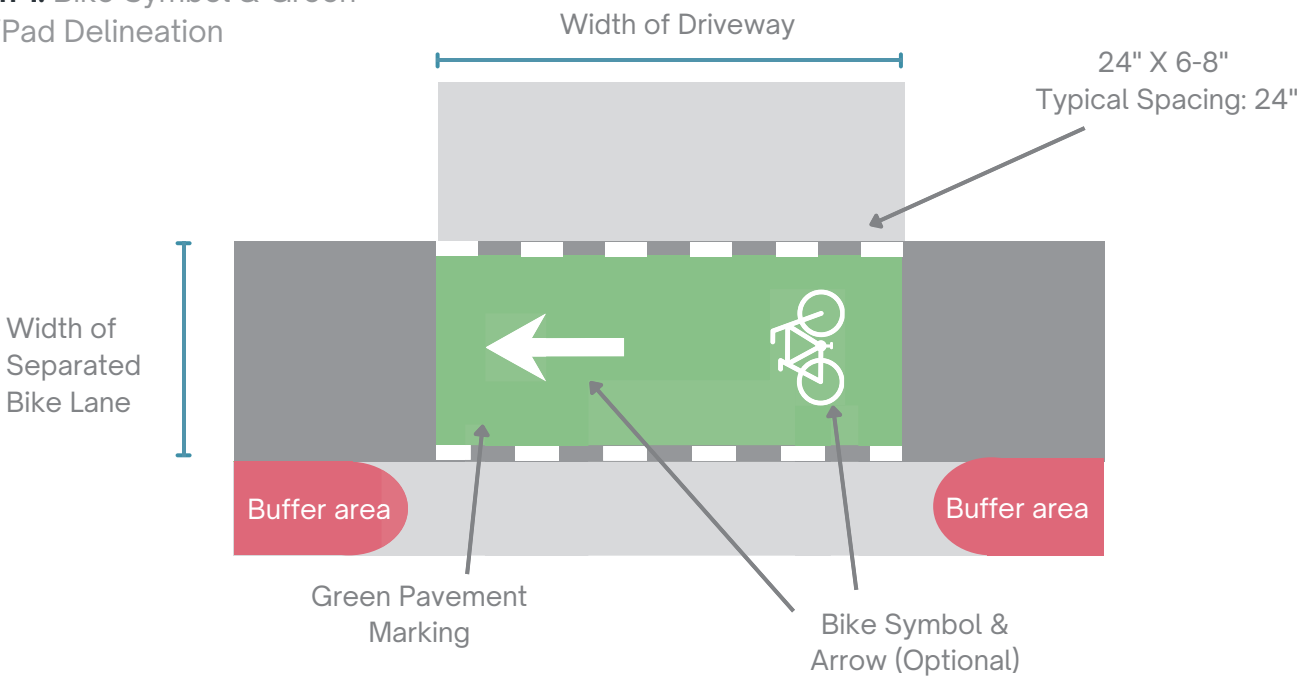
Shared lane markings (MUTCD Figure 9c-9) may be used for increased visibility within conflict areas or across entire intersections. Placement shall be in the middle of the moving lanes and close to crosswalks.



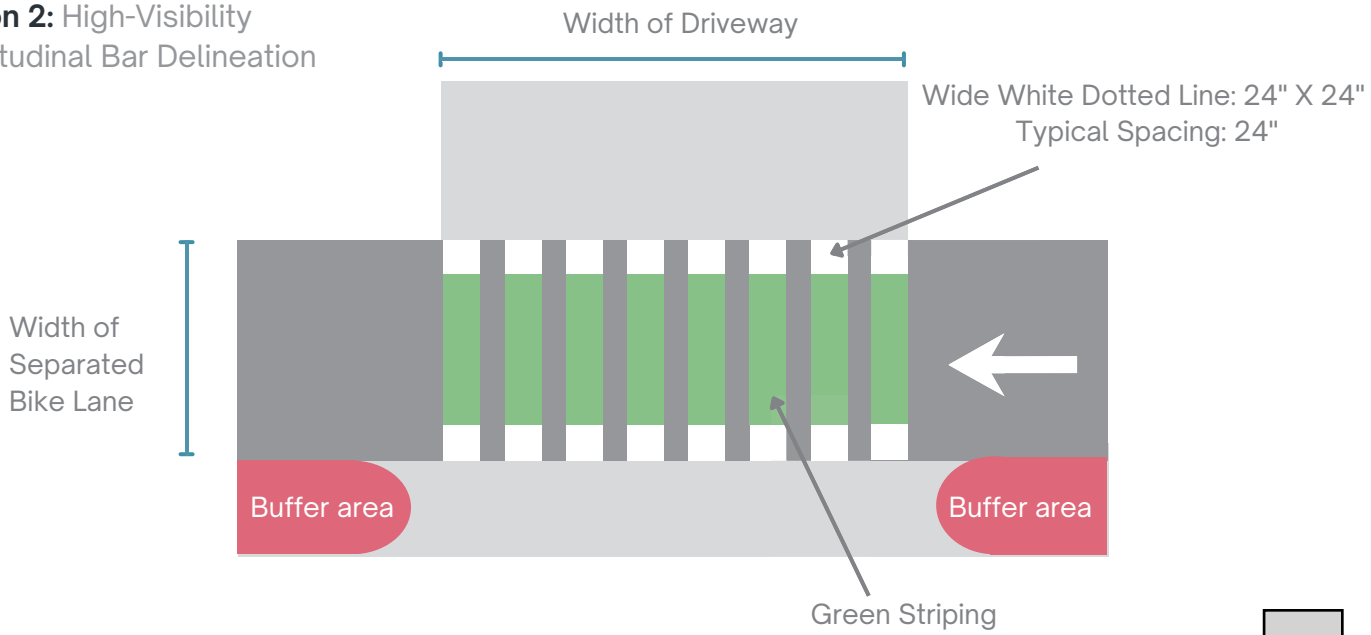
Wide dotted line markings (NACTO also refers to these as "Elephant's feet" markings) may be used as an alternative to dotted line extensions to increase visibility. If used, the markings should be 14-24 inches square, with equal distance spacing between markings. Markings should be positioned on the outside of the lane.

One-Way Separated Bike Lane Driveway Crossings:
Separated bike lanes (SBL) frequently cross driveways. Pavement markings and signage can help to increase visibility for bike riders in the SBL and help influence motorists to yield where applicable. The figures below show options for pavement markings which can help achieve these goals. Pavement markings can be applied as paint or as thermoplastic. Thermoplastic is a higher cost option however, it does have a longer useful life. Please reference MUTCD 11th edition and for full details and specifications for pavement markings (Chapter 9E.04) and regulatory signage Chapter 9B).

Option 1: Bike Symbol & Green Paint/Pad Delineation

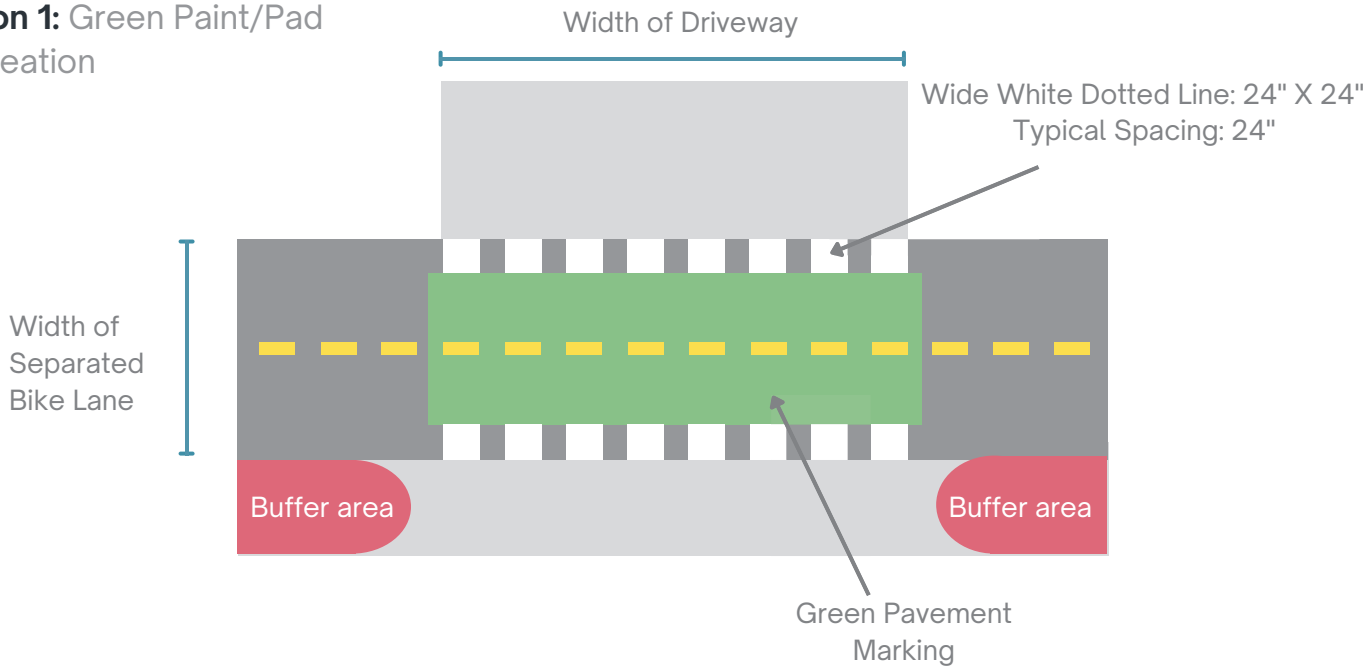


Option 2: High-Visibility Longitudinal Bar Delineation

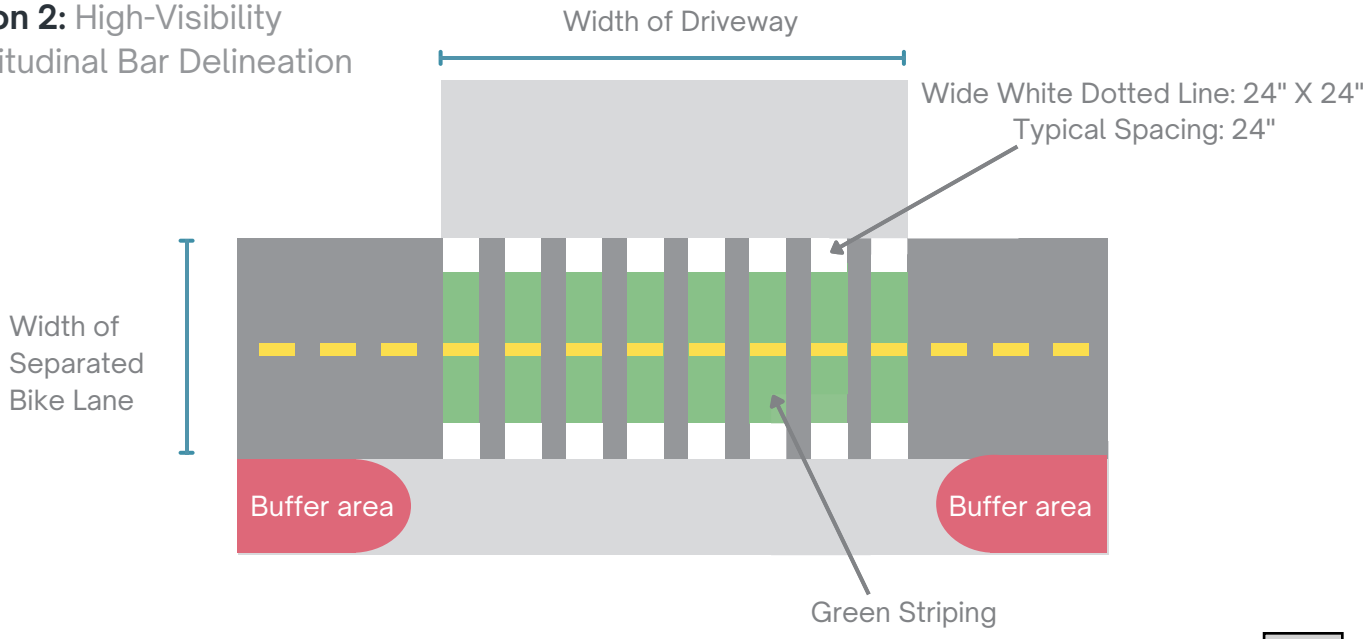


Two-Way Separated Bike Lane Driveway Crossings:
The figures below show options for pavement markings which can help achieve the goals outlined on the previous page but are for two-way separated bike lanes rather than one-way. Please reference MUTCD 11th edition and for full details and specifications for pavement markings (Chapter 9E.04) and regulatory signage Chapter 9B).

Option 1: Green Paint/Pad Delineation



Option 2: High-Visibility Longitudinal Bar Delineation



Mixing Zones:

Mixing zones are where a vehicular lane and bicycle lane cross paths and merge or switch lane placement. This typically occurs at intersections where the vehicular traffic has a dedicated right-turn lane. Mixing zones are only applicable on street segments with one-way separated bike lanes. Streets with speeds in excess of 35 mph may require deceleration lanes in advance of the mixing zone. See AASHTO GBF 7.9.9 for additional guidance on intersection design with mixing zones.

NACTO warns that mixing zones are not necessarily All Ages and Abilities bikeways as they don't provide the level of comfort needed for that designation. However, they are considered safer than having a bike lane in between travel lanes or dropping the bike lane altogether.

Mixing zones are recommended to be used only when:

- the bicycle lane is one-way in the same direction of traffic as motorists.
- speeds are 35 mph or less.
- it isn't possible to provide dedicated bicycle facilities at the intersection approach.

Mixing zones with a yielding area must have markings to indicate where motorists enter the shared space and shall yield. Shared lane markings and turn arrows must be provided where the mixing zone continues into the intersection and bicycles, and motorists continue to share space. Signage and markings should be used to inform users of the mixing zone and provide instructions for positioning in the lane. Standards for pavement markings at mixing zones can be found in Section 9E.02 and 9E.03 of the MUTCD 11th Edition.



CITY OF WILLARD, MO

ACTIVE TRANSPORTATION NETWORK PLAN

2026



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OVERVIEW



Active transportation is defined as transportation that is powered primarily by humans and includes walking, biking, rolling, and running. The strategic planning of an active transportation network within a city, region, and state has many benefits, including health, safety, and increased economic development. The network plan developed with the City of Willard focuses on the identification and prioritization of shared-use paved paths, sidepaths, on-street bicycle facilities, as well as strategic sidewalk connections. This plan is designed to complement and be an extension of the city's comprehensive plan and the integration of these facilities into the broader transportation system. Implementation of this plan can enhance how people move between origins and destinations by providing a convenient alternative for everyday travel.

Willard has the foundation for a well-connected, safe, and accessible active transportation network, with the Frisco Highline Trail serving as the core corridor linking neighborhoods to key destinations such as schools, retail, and restaurants located along Miller Road. However, Highway 160 and several arterial and collector roads currently present barriers to walking, riding, and rolling throughout Willard.

The purpose of the Willard, MO Active Transportation Network Plan is to develop an actionable plan that provides safe active transportation options throughout the City of Willard. A core tenet of the plan is to facilitate active transportation options for people of all ages and abilities.

This plan is not intended to replace the use of motorized vehicles, but rather to expand transportation options and encourage walking, biking, and rolling. This is achieved through proposed amenities and active transportation infrastructure for residents and visitors of Willard.

EXISTING CONDITIONS

About the Project Location



Willard, Missouri, was founded in 1884 as a railroad stop along the St. Louis–San Francisco Railroad. With the rail line extending north to Kansas City, Willard quickly became a key point in a growing transportation hub. The community was later incorporated in 1949, officially becoming the City of Willard.

Willard, Missouri, is located in southwest Missouri in Greene County and is part of the Springfield metropolitan statistical area. Positioned just five miles north of Interstate 44 (I-44) and the City of Springfield, Willard occupies a prime location for continued growth and development. Highway 160 (Hwy 160) bisects the community from northwest to southeast, creating opportunities for future development along this important corridor. Running parallel to Hwy 160 and Jackson Street, the Frisco Highline Trail is a 35-mile rail-to-trail route stretching from Springfield to Bolivar, Missouri, with the heart of Willard situated at mile marker 6.



Willard, MO in 2025

Willard has an estimated population of 6,418 *[American Community Survey (ACS) 2023, 5-year estimate*)] and has grown by 15% (*ACS 2018, 5-year estimate*) over the past five years. The median age is 30, and 34% of residents are under 18. Known for the high quality of its public schools, Willard continues to attract families seeking strong educational opportunities and affordable housing. Agriculture and an aggregate stone quarry are among the community's largest industries, while many residents commute to Springfield for employment. The median household income is $87,204, and the median value of an owner-occupied home is $204,300. (*Data source, ACS 2023, 5-year estimate).* On average, households in Willard spend about 28% of their income on transportation *(Housing & Transportation Index).* Developing a well-connected, comfortable active transportation network can help reduce these transportation costs by giving residents more opportunities to walk, bike, or roll to local destinations.

EXISTING ACTIVE TRANSPORTATION FACILITIES 2025



GUIDING PRINCIPLES

Project Purpose

In the early stages of the Willard Active Transportation Network Plan, six guiding principles were developed in collaboration with the steering committee. These principles were established to shape the planning process and guide project-related discussions. Throughout the process, they served as a consistent reference point, helping to ensure alignment across planning activities.

1 ADAPTABLE

The Willard Active Transportation Network Plan will be adaptable and relevant, facilitating accessibility for all members of the community.

2 CONNECTIVITY

The Willard Active Transportation Network Plan will form an interconnected system linking key destinations, creating a resilient community.

3 VISIONARY

The Willard Active Transportation Network Plan will be inviting and full of opportunity, transforming the community into a vibrant and connected destination.

4 ACCESSIBLE

The Willard Active Transportation Network Plan will be designed to serve all modes and be accessible to all users.

5 COMMUNITY FOCUSED

The Willard active transportation network plan will promote growth and forward movement by creating a beautiful, family-friendly space that fosters community and freedom.

6 SAFETY

The Willard Active Transportation Network Plan will offer improved conditions and access, ensuring a safe and secure environment for walking and biking.

STEERING COMMITTEE

A project steering committee was created to offer incremental feedback on the planning process, serve to oversee progress, help address obstacles, and monitor progress toward key milestones.

Meeting #1 — June 2025

During the kickoff meeting in June 2025, the steering committee created a project purpose statement and guiding principles to guide the Willard Active Transportation Network Plan.



June 2025 Steering Committee Meeting

Meeting #2 — July 2025

The guiding principles were finalized in the July 2025 meeting, and the steering committee also conducted a walk audit.



July 2025 Steering Committee Meeting



August 2025 Steering Committee Meeting



November 2025 Steering Committee Meeting, input on draft network plan

Meeting #3 — August 2025

The steering committee meeting in August 2025 helped sharpen the identified active transportation routes. The steering committee reviewed feedback that was received from the community at public input sessions and provided guidance on the network.

Meeting #4 — November 2025

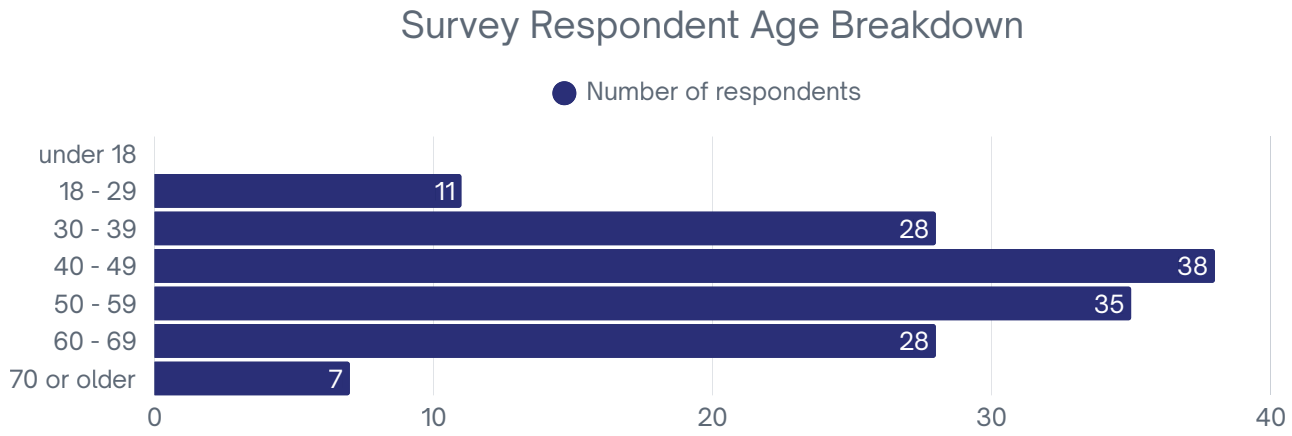
In November 2025, the steering committee was briefed on the results from both the public survey and the two public outreach sessions. The draft plans were also reviewed.

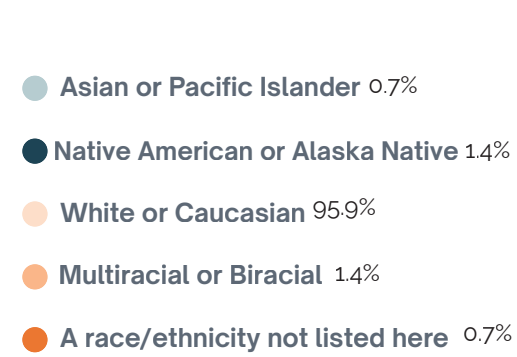
PUBLIC ENGAGEMENT

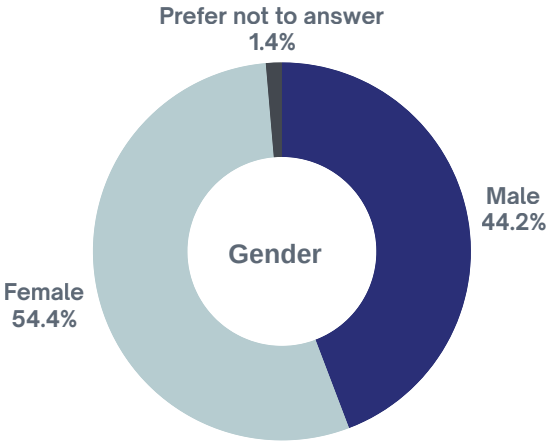
Online Community Survey

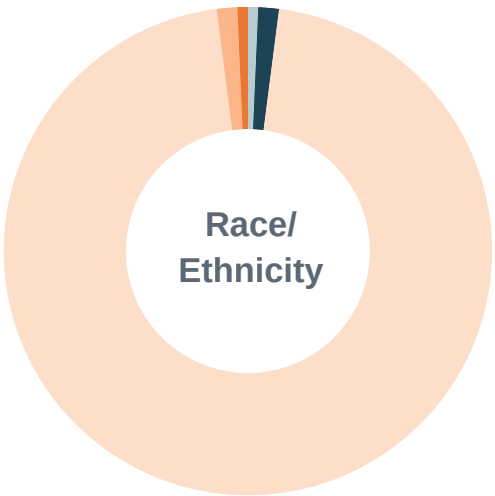
An online project survey was made available for the public during the planning process. The survey was designed to gather community feedback on usage, preferences, challenges, and desires for active transportation in Willard. The survey, comprised of 41 questions, *received 147 responses* from the community. The survey was made available between July 3 - November 11, 2025.

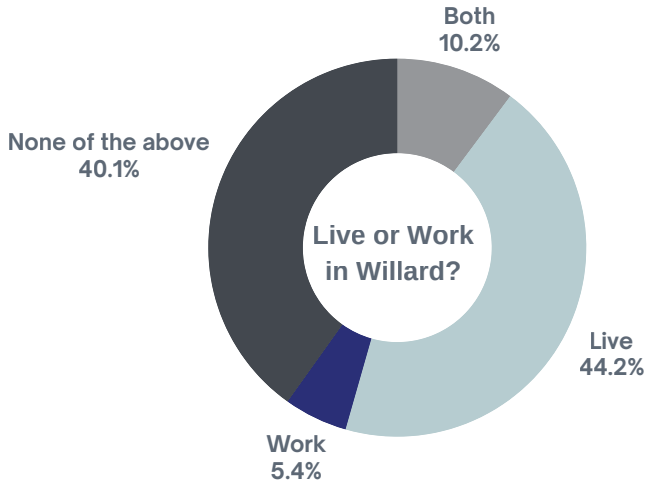
See Appendix B for the results of the online public survey.











Key Online Survey Insights

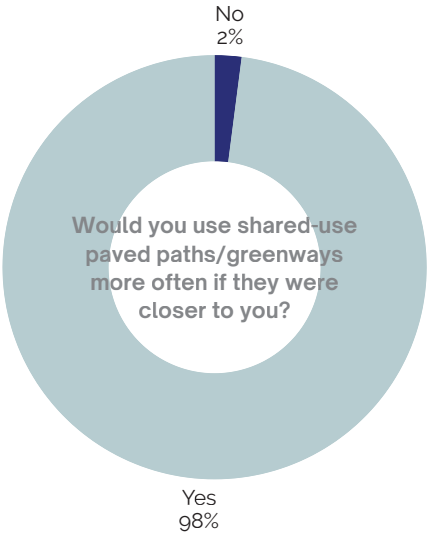
The survey results indicate that improving bicycling and walking conditions in Willard is a clear community priority. Over half of respondents (54%) stated that improving bicycle infrastructure is very important to them, while an even greater share (62%) expressed the same for walking conditions. Notably, 65% of respondents already walk in Willard, underscoring the importance of providing safe, comfortable, and accessible active transportation options.

Nearly all respondents (98%) reported that they would use shared-use paved paths or greenways more frequently if these facilities were located closer to them. In addition, 90% agreed with the statement, *"I support improving bicycle conditions within our community, whether I ride or not,"* demonstrating widespread public support for active transportation improvements.

Respondents identified that the most critical step to increasing walking and biking in the city is expanding the network of sidewalks, shared-use paths, and bike lanes. Factors such as exercise, health, and opportunities to spend time outdoors were cited as key factors that encourage a culture of physical activity within the community.

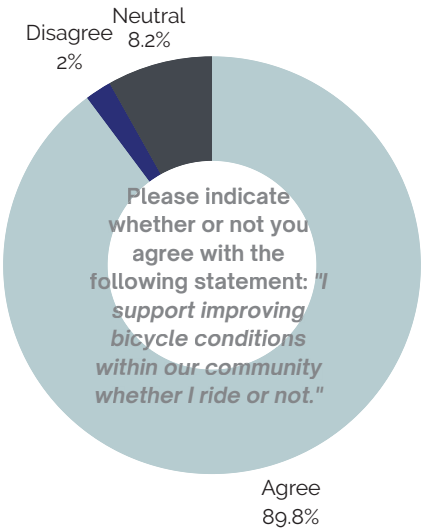
Top Three Factors Discouraging Biking and Walking in Gentry

1. **Lack of connected greenways, sidewalks, and bike lanes**
2. **Aggressive motorist behavior**
3. **Unsafe street crossings**



Top Three Amenities that are Most Important for Bike Riders and Pedestrians in Gentry

1. **Trail surfaces**
2. **Connection to other trails**
3. **Restrooms**



Public Input Sessions

During the planning process, two in-person public input sessions were conducted to highlight and promote awareness of the plan and to gain valuable community feedback. The first public session was held on August 29, 2025, at the Tiger Pride Night tailgate community event at Willard High School. The second session was held at the Willard Parks & Recreation Trunk or Treat event at the Frisco Highline Trailhead on October 25, 2025.

Attendance at both events was successful. Combined, approximately *230 individuals* participated in the public sessions through interactions with the proposed network map and guided exercises, such as placing stickers on feedback boards.

At each public input session, community members were invited to engage with preliminary network maps and place priority sticker dots on boards to indicate their top three choices for each topic. One board asked participants which bicycle and pedestrian example they would feel most comfortable using, while another asked about the destinations where they would most like to walk, bike, or roll, such as schools, workplaces, or parks.

See Appendix A for the results of the two public input sessions.

Community Feedback & Prioritization

Feedback from the interactive boards and preliminary maps showed that the community placed a strong emphasis on access to **schools**, which received the highest number of first-priority votes. Access to **parks** followed as a second priority, and **restaurants** received the most votes as a third priority. When asked about preferred bicycle and pedestrian examples, participants expressed the greatest comfort with shared-use paved paths and sidepaths “greenways”, followed by rural recreational roads, and then protected bike lanes.



August 2025 Public Input Session



October 2025 Public Input Session

Focus Groups Overview

Three focus group meetings were held in June 2025 with key stakeholders and organizations to share the planning process, highlight key objectives, surface opportunities/challenges, and ensure coordination related to active transportation in Willard. Focus groups consisted of the Willard Fire Department, Willard Public Schools, and Chamber of Commerce.

Challenges and Opportunities

Conversations at the public input sessions with steering committee members and with the focus groups helped bring to light key opportunities and challenges in Willard.

Key Opportunities:

Strong existing assets and conditions were identified as focus areas for improving the active transportation ecosystem. The existing assets and conditions included:

- T**he Frisco Highline Trail**- The trail is an intercity shared-use paved path that was identified as a potential backbone for building spur connections and downtown connections. There are also opportunities for regional events on the trail. An example is the Square to Square event that occurs on the Razorback Greenway in Northwest Arkansas.
- **The Mile 6 Brewery-** The brewery is identified as an existing popular destination that has the potential to be a hub for events, including group bike rides.
- **Close Proximity of Schools-** Many of the schools in Willard are within proximity to each other, providing the opportunity to make strategic connections that benefit connectivity to multiple schools.
- **Tunnels under Hwy 160**- The existing tunnel south of town, under Hwy 160 at FM 103, and the tunnel scheduled for construction at SH AB and SH 160 are key connections underneath a state highway that acts as a barrier for the safe movement of active transportation users.
- **Engaged Citizens-** The overwhelming participation and input received at the two public input sessions and the online survey demonstrate that the public is civically engaged in the process.
- **Influence Future Development-** Willard has the opportunity to adopt plans and revise ordinances ahead of major new and infill development that will create a safe and connected community for active transportation.



Pressing Challenges:

Community feedback also helped identify physical challenges in existing connectivity, to be addressed, including:

- **Unsafe Crossings at Schools** - Specifically noted were the intersection of Lester St. and Jackson St., which is the entrance to the High School, and on Farmer Rd. between Knight St. and Walnut Ln., where Willard Intermediate and Willard North Elementary Schools are located.
- **Disconnected City** - There was an emphasis on the bisection of the community by SH 160. Neighborhoods south and west of SH 160 do not have easy access to the core of the community, and those north of SH 160 do not have easy access to Apple Market or Miller Farm Park.
- **Sidewalk Connectivity Gaps** - The city is making great progress on constructing new sidewalks along Jackson St., although some gaps still exist. In addition, key sidewalk gaps on Main and South St. disconnect the core of Willard. South of town, there is a sidewalk gap from a large multi-family complex to the DG Market.
- **A Lack of Strategic Traffic Calming** - Unsafe speeds and limited pedestrian crossings on Jackson St., considered the gathering place of the community, was a common theme throughout the public input process. Lester St., Walnut Ln., and Miller Rd., where school-aged children walk to access popular destinations after school (Casey's and Sonic) were also highlighted. These are also roads that directly connect to schools, parks, and the rec center.



KEY NEXT STEPS

Key Steps within the next 90 days:

Actionable steps that can be taken within the next 90 days include:

- Adopt the Active Transportation Network Plan as an amendment to the Comprehensive Plan.
- Meet with city legal to discuss a path forward to update municipal codes, including categorizing updated codes into quick wins such as increasing sidewalk width, which aids in overall pedestrian comfort and safety.
- Identify and allocate funding that can be used as a 20% match for federally funded grants in the future.
- Identify local, regional, state, and federal funding sources.
- Find local Frisco Highline Trail champions to work with community organizers from Bolivar and Springfield to create a regional event on the trail. This can serve to highlight Downtown Willard and bring visitors through Willard. See the Square to Square ride as an example of a regional community bike ride https://razorbackgreenway.org/square-2-square/.

Key Mid-term Steps:

Key mid-term steps that will help build a safer transportation network for all ages and abilities include:

- Strategically plan to apply for a large federal discretionary grant, to include a project of significant impact.
- Adopt universal development codes that ensure private developers build sidewalks, sidepaths, and shared-use paved paths as adopted in the Active Transportation Network Plan for any new or infill projects.
- Work with Willard city departments such as Parks & Rec, Planning, Fire, and Police to create a “Travel With Care” safety campaign to bring awareness about “rules of the road” pertaining to pedestrians, people on bikes, and vehicles. See National Highway Transportation Safety marketing campaigns for open-source materials https://www.trafficsafetymarketing.gov/ and Travel With Care Tulsa as an example of a local safety campaign https://travelwithcaretulsa.com/.

Key Long-term Steps:

Key long-term steps that will help build a safer transportation network for all ages and abilities include:

- Consider allocating a specific amount of funding per year to plan, design, and implement the active transportation network.

PROPOSED TRAILS & CONNECTIVITY NETWORK



A successful Active Transportation Network Plan is context sensitive, meaning there is no one-size-fits-all solution for every street and intersection. The Willard Active Transportation Network Plan has identified various facility types to achieve its goals. For a successful active transportation system to function to its full potential, the following characteristics should be included in the design phase:

Safe

Pedestrians, people on bikes, and anyone not utilizing motorized vehicles on or adjacent to roadways are considered vulnerable road users. Vulnerable road users can be exposed to traffic and other variables that can leave them open to physical danger when moving about a city. The safety of vulnerable road users must be a primary goal of any active transportation plan. With safety as the primary goal, participation in riding bikes and walking can increase.

Comfortable

Prioritizing the comfort of an active transportation system for users of all ages and abilities can help encourage additional usage and increase the accessibility of the system. Focusing on reducing points of conflict, creating separation between vulnerable users and vehicles, and reducing unnecessary transitions are ways to increase the comfort level for a diverse number of users.

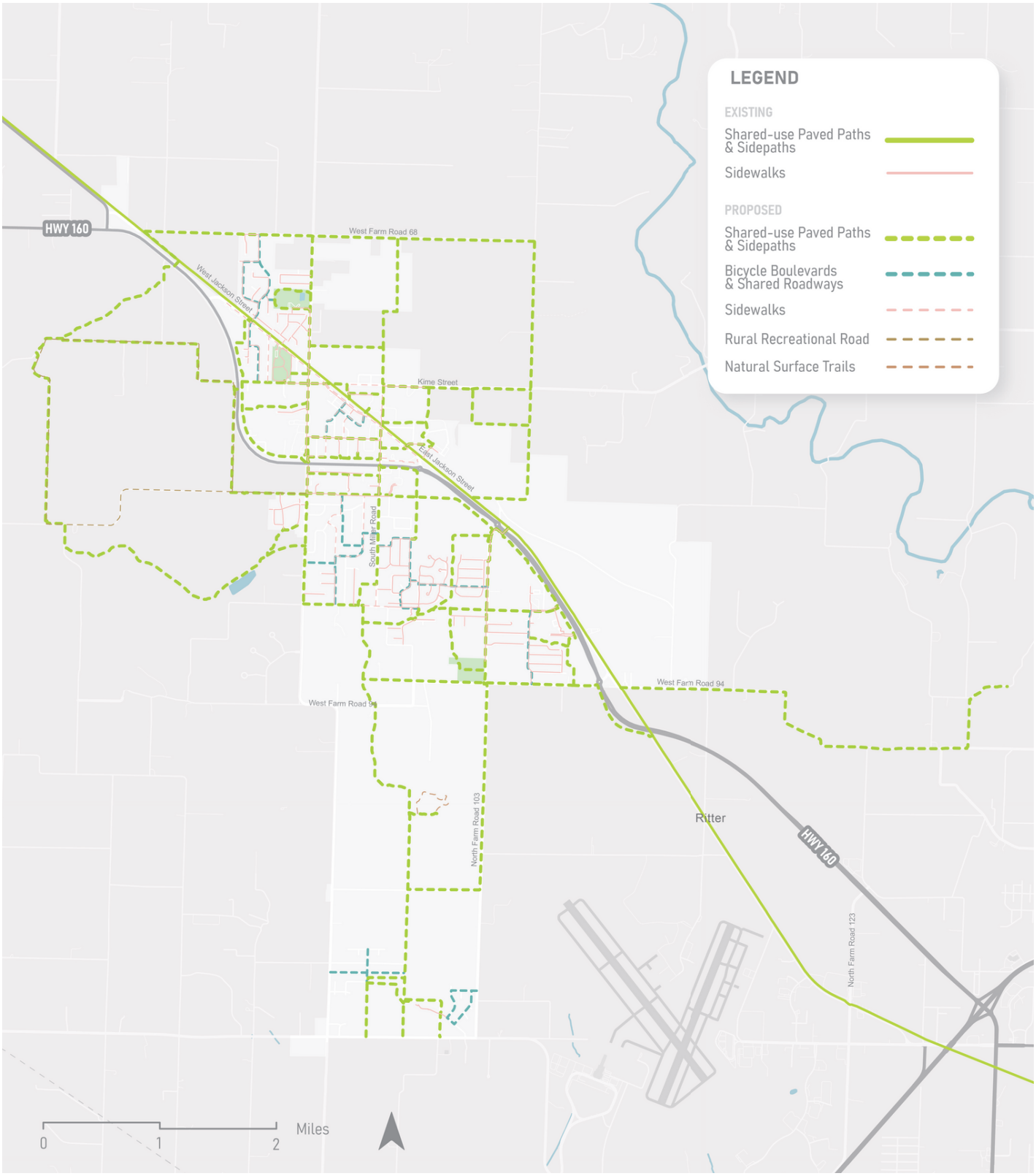
Connected

City residents and those who work or go to school in Willard require the ability to connect to useful destinations such as grocery stores, medical offices, schools, and parks. Developing a plan for infrastructure that ensures connectivity to these essential resources helps residents and visitors thrive and decreases dependence on vehicular travel.

After planning, the next steps are designing and implementing. For the public to view the infrastructure as a functioning piece of the transportation system, it needs to be connected to a defined origin and destination. In other words, each piece of the puzzle is dependent on the others for the full system to function. For example, a sidepath that is connected to a neighborhood but dead ends in an undeveloped field will not be used as intended; however, if the sidepath is connected to a commercial development, it becomes useful and will be used as designed.

OVERALL NETWORK

This map reflects proposed active transportation connectivity projects within the city of Willard. *For more information about Downtown Core Connectivity, see page 14.*



DOWNTOWN CORE CONNECTIVITY



PROPOSED INFRASTRUCTURE PRIORITIZATION

The prioritization is provided as a tool to guide the city's future investments in its trails and connectivity network. The prioritization of facilities listed below is intended to be used as a list of "recommendations" to pursue; however, the city can and may choose to pursue projects in any particular order, and that may fall outside of the prioritization list. All proposed projects, including shared-use paved paths, on-street infrastructure, and sidewalks, have been prioritized based on the following criteria.

1 Health and Safety

Three subcategories were considered under Health and Safety:

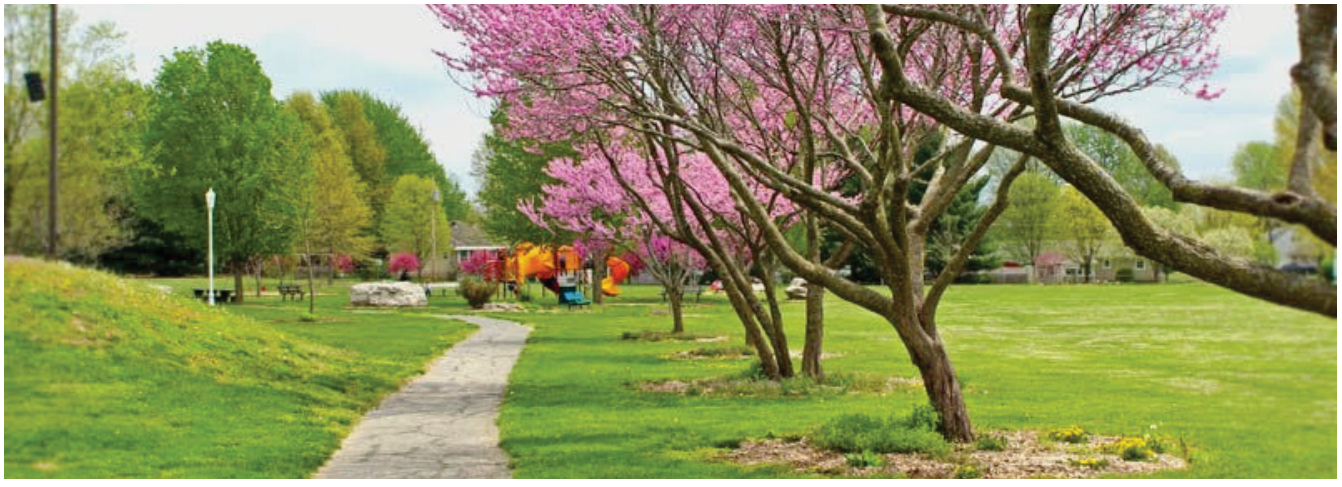
1. **Provides a safer crossing of SH 160**
   - 5 points = Intersects Hwy 160
   - 0 points = Does not intersect Hwy 160

2. **Percent of families at the Census Block Group level living below the poverty rate***
   - 5 points = >5.9% - ⩽10.2%
   - 3 points = >1.3% - ⩽5.9%
   - 1 point = 0% - ⩽1.3%

3. **Percent of school-age children living at or below the poverty level***
   - 5 points = >16.5% - ⩽24.5%
   - 3 points = >5.9% - ⩽16.5%
   - 1 point = 0% - ⩽5.9%

Source: https://data.census.gov/

As referenced on page 8 under pressing challenges, increasing the safety and comfort of bicycle and pedestrian crossings under or over SH 160 was a common theme during both the steering committee and public input sessions. Feeling safe and being safe when crossing higher volume, higher speed roadways and highways is a key factor influencing an individual's choice to walk, bike, roll, or run within a community. Increasing both real and perceived safety can facilitate an increase in usership of active transportation facilities and can have a positive effect on the health and safety of a community. Poverty rates were included under this category as there is a direct correlation between living in poverty and one's overall health and well-being. Creating safe and comfortable active transportation connections in these areas can decrease the barriers to a healthy future.



2 Connectivity

Five subcategories were considered under Connectivity.

1. **Access to open spaces and parks**
- 5 points = Direct access or serves as a segment of a route that provides direct connectivity to a park/open space(s)
- 4 points = Within 1/8 mile
- 3 points = Within 1/4 mile
- 2 points = Within 1/2 mile
- 1 point = Within 3/4 mile
- 0 points = Over 3/4 mile

2. **Access to grocery stores**
- 5 points = Direct access or serves as a segment of a route that provides direct connectivity to a grocery store(s)
- 4 points = Within 1/8 mile
- 3 points = Within 1/4 mile
- 2 points = Within 1/2 mile
- 1 point = Within 3/4 mile
- 0 points = Over 3/4 mile

3. Connectivity Gap Closure
- 5 points = high impact
- 3 points = medium impact
- 1 point = low impact

4. School walk accessibility analysis
- 5 points = Multiple schools within 1/4 mile or serves as a segment of a route that provides direct connectivity to a school(s)
- 4 points = One school within 1/4 mile
- 3 points = Multiple schools within 1/2 mile
- 2 points = One school within 1/2 mile
- 1 point = One school within 3/4 mile
- 0 points = Over 3/4 mile of a school

5. **Direct or enhances access to employment hubs/centers**
- 5 points = Direct access to identified employment hubs or serves as a segment of a route that provides direct connectivity to an employment center(s)
- 4 points = Within 1/8 mile
- 3 points = Within 1/4 mile
- 2 points = Within 1/2 mile
- 1 point = Within 3/4 mile
- 0 point = Over 3/4 mile of identified employment hubs/centers

At the two public input sessions, schools and parks were the top two destinations ranked as a 1st priority to which people would like to be able to walk, ride, and roll safely (see Appendix A); therefore, projects that create connections to these destinations were included in the criteria for prioritization. Although the grocery store and employment hubs/centers were not listed in the top priorities, they are considered essential destinations for a healthy community and so were added under the Connectivity Category. Connectivity gap closure was based on projects that would fill a gap for existing infrastructure, such as sidewalk gaps. These projects, once constructed, can make a large impact on the entire active transportation network.

The prioritization matrix considers the “Health and Safety” and “Connectivity” variables as described and generates a “cost-to-benefit priority score” value that is used to rank the projects. This value measures each project’s benefits relative to its cost, allowing for a balanced comparison of overall value.

The costs reflected in the following tables represent planning level cost estimates for various projects and facility types. Costs for each facility were assigned a cost score category based on the level of complexity to construct and include factors such as topography, right-of-way acquisition, utilities, and drainage. Cost estimates are to be used for planning purposes only, and each project will require full design and engineering to finalize a firm and detailed cost estimate.

TOP 10

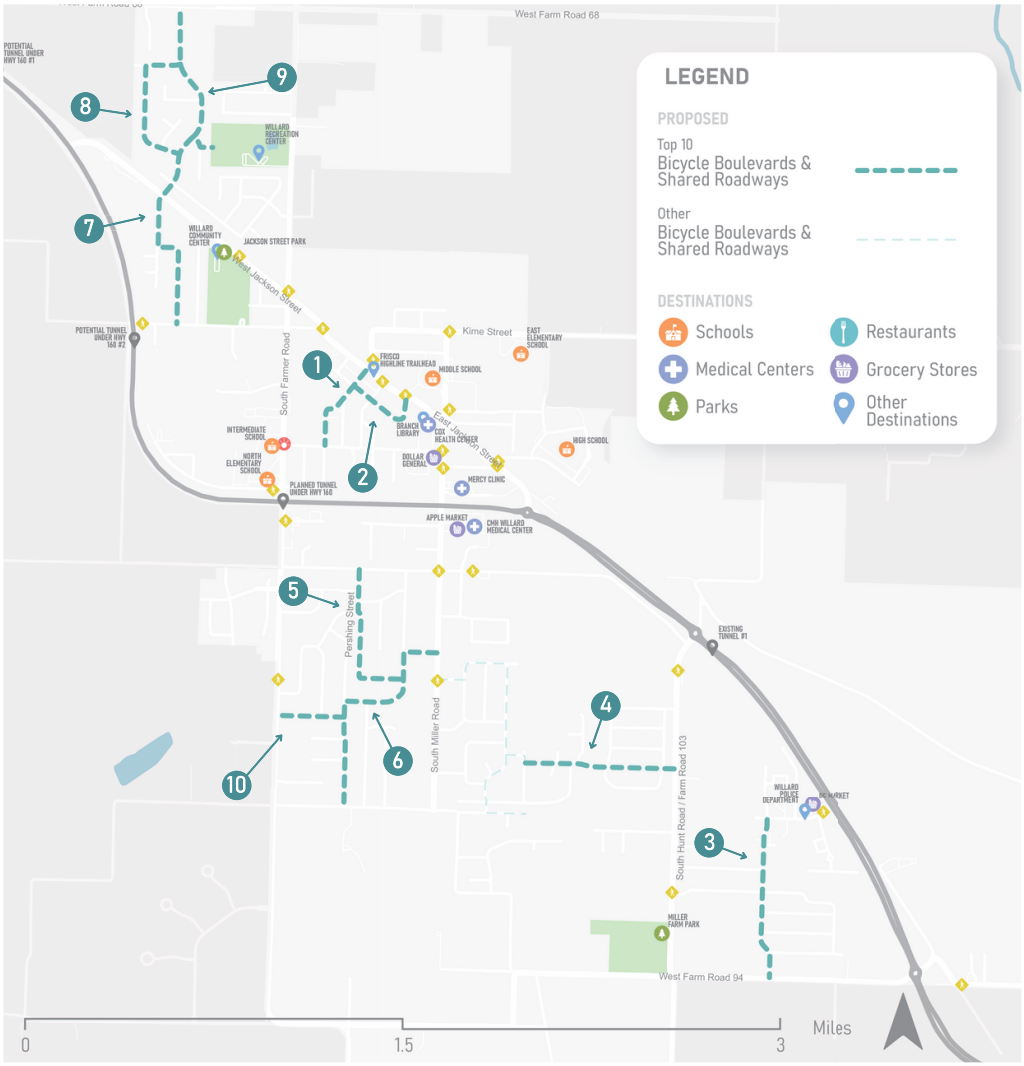
PROPOSED SHARED-USE PAVED PATHS & SIDEPATHS



Project ID	Project Alias	Planning Level Low Cost Estimate	Planning Level High Cost Estimate	Cost to Benefit Priority Score
1	Frisco Highline Trail Connector #1	$65,000	$75,000	285
2	Frisco Highline Trail to Highschool Connector	$214,000	$246,000	257
3	Lester St. Sidepath	$204,000	$235,000	247
4	Middle School Connector	$64,000	$74,000	243
5	Hughes Rd. Sidepath	$463,000	$532,000	234
6	Tiger Aly Sidepath	$308,000	$355,000	203
7	South St. Connector	$16,000	$18,000	191
8	Mill St. Sidepath	$245,000	$282,000	191
9	Wiley St. Sidepath	$822,000	$946,000	190
10	S Farmer St. Sidepath	$646,000	$743,000	184

TOP 10

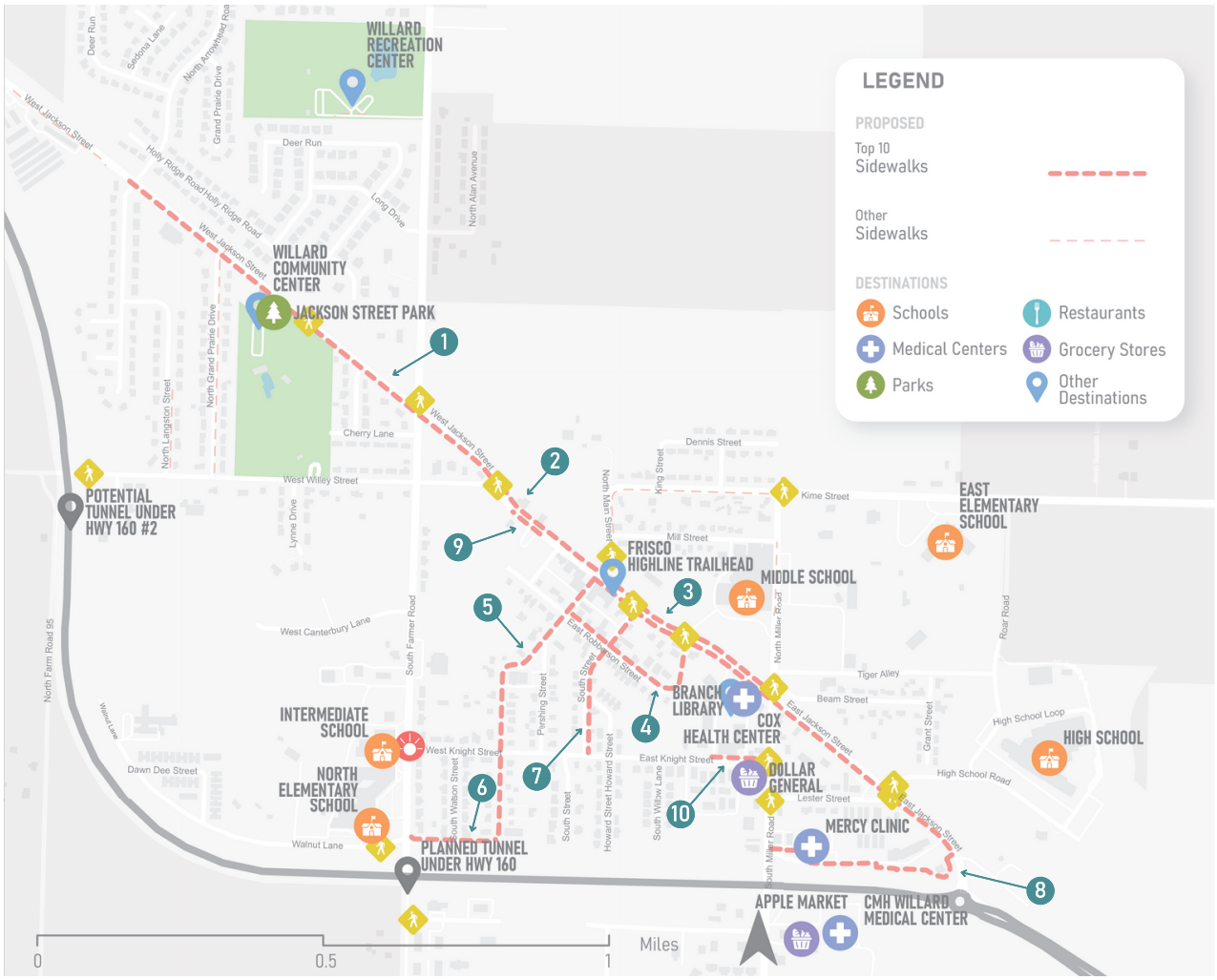
PROPOSED ON-STREET BICYCLE FACILITIES



It is recommended that streets should only be converted to a bicycle boulevard if the posted speed limit is 25 mph or less. A traffic study is strongly recommended on the conversion of any road to a mixed-traffic facility.

Project ID	Project Alias	Planning Level Low Cost Estimate	Planning Level High Cost Estimate	Cost to Benefit Priority Score
1	S Main Bicycle Boulevard	$179,000	$205,000	209
2	E Robberson St. & S Perryman St. Bicycle Boulevard	$155,000	$178,000	187
3	Megan Ln. Bicycle Boulevard	$311,000	$358,000	186
4	Osage Dr. Bicycle Boulevard #2	$291,000	$334,000	180
5	S Barwick Pl. Bicycle Boulevard	$296,000	$340,000	160
6	Pershing St. & John F Kennedy Dr. Bicycle Boulevard	$464,000	$534,000	160
7	Arrowhead Rd. Bicycle Boulevard South	$375,000	$432,000	159
8	Deer Run Bicycle Boulevard	$373,000	$429,000	149
9	Arrowhead Rd. Bicycle Boulevard North	$268,000	$309,000	137
10	Ridgeview Dr. Bicycle Boulevard	$127,000	$146,000	134

TOP 10 PROPOSED SIDEWALKS



Project ID	Project Alias	Planning Level Low Cost Estimate	Planning Level High Cost Estimate	Cost to Benefit Priority Score
1	W Jackson St. Sidewalk #2	$394,000	$454,000	297
2	E Jackson St. Sidewalk North	$288,000	$331,000	267
3	E Jackson St. Sidewalk South	$391,000	$449,000	267
4	E Robberson St. Sidewalk	$151,000	$174,000	257
5	S Main Sidewalk	$255,000	$293,000	245
6	Walnut Ln. Sidewalk West	$71,000	$82,000	233
7	South St. Sidewalk	$131,000	$151,000	233
8	Walnut Ln. Sidewalk East	$179,000	$206,000	213
9	Willard First Baptist Church Sidewalk	$29,000	$34,000	193
10	E Knight St. Sidewalk	$48,000	$56,000	191

KEY BIKE & PEDESTRIAN SAFETY IMPROVEMENTS

The following projects have been identified as high-priority connections that would deliver significant and immediate benefits if implemented by the City of Willard.



Project ID	Project Alias	Planning Level Low Cost Estimate	Planning Level High Cost Estimate
1	Lester St. & Jackson St. Safer Crossing	$240,000	$276,000
2	Improved Intersection Study at Miller Rd. and Walnut Ln.	TBD, pending study	
3	Willard Intermediate & North Elementary School SUPP	$831,000	$955,000
4	Completion of Jackson St. Downtown Improvements from Jefferson St to Perryman St. Refer to design by CJW.		
5	Miller Rd. Connectivity	$1,804,000	$2,074,000

POLICY RECOMMENDATIONS

Current City of Willard Municipal Codes and Comprehensive Plan - 2019

The project team reviewed the City of Willard Municipal Codes and Comprehensive Plan - 2019 with an emphasis on researching ordinances and language pertaining to active transportation users, planning, and implementation. The city has a solid foundation to build upon. The following are the most relevant recommended policy revisions, amendments, or changes the city may consider in support of active transportation within the community.

Policy Recommendations

Municipal Code	Language Specific to Active Transportation	Recommendations
Title III Traffic Code, Ch 300, 300.010 Definitions	Electric Bicycle	Consider moving the definitions of “Electric Bikes" to Section 375.010 "Bicycle and Motorized Bicycle-Defined" so that all definitions of bicycles are under the same chapter.
Title III Traffic Code, Ch 320, 320.030 General Speed Limit, Schedule I	Except where otherwise provided by signs erected pursuant to duly passed and approved ordinances, no person shall operate a vehicle on any street in the City in excess of thirty (30) miles per hour	Table I-A General Speed Limits lists several roads and subdivisions as 20 mph. Consider adding a blanket code that all residential streets are 20 mph.
Title III Traffic Code, Ch 345, 345.090 Distance To Be Maintained When Overtaking A Bicycle	The operator of a motor vehicle overtaking a bicycle proceeding in the same direction on the roadway, as defined in Section 300.010, shall leave a safe distance when passing the bicycle and shall maintain clearance until safely past the overtaken bicycle.	This code may be problematic. Section 300.010 does not define a "bicycle". It only defines e-bikes. Suggestion is to either add "bicycle" to definitions in Ch. 300.010 or move the definitions of "Electric Bicycles" to Section 375.010. "Safe distance" is subjective. Consider adding "3 feet" in place of "safe distance". In addition, this section aligns more with Ch. 375, Bicycles, Motorized Bicycles, and Electric Bikes
Title III Traffic Code, Ch 375 Bicycles, Motorized Bicycles, and Electric Bicycles		For this entire chapter, consider reviewing each section to ensure uniformity with language that includes "bicycle," "motorized bicycle," and "electric bicycle".

Municipal Code	Active Transportation Specific Language	Recommendations
Title III Traffic Code, Ch 375, 375.050 riding to Right- Required for Bicycles and Motorized Bicycles	Bicyclists may ride abreast when not impeding other vehicles.	Consider making this clearer and stating, "may ride two abreast".
Title IV Land Use, Article XV Required Public Improvements, Section 400.1320. Blocks.	B. Block lengths shall not exceed one thousand three hundred twenty (1,320) feet or be less than three hundred (300) feet, except under unusual conditions.	Consider adding requirements of midblock crossings on arterials and collectors if they are over 600' in length between intersections. (See Ft. Smith as an example- 27-503-13- A) An easement for utilities and pedestrians with a minimum width of 20 feet; or B) an easement reserved for pedestrian passage with a minimum width of 10 feet.
Title IV Land Use, Article XIV Plans, Plats and Other Required Information, 400.1160 Site Plan 1.i. and 2.i.	The general location and approximate dimensions of all vehicular and pedestrian circulation elements, including streets, driveways, entrances, curb cuts, parking and loading areas and sidewalks, including slope and gradient of vehicular elements.	Consider including “bicycle circulation”.
Title IV Land Use, Article XV Required Public Improvements, 400.1310	Sidewalks	Consider requiring sidewalks along two (2) sides of all streets, or one sidepath and one sidewalk, depending on the active transportation plan. This is also found under Article II, 405.150, and XVII Miscellaneous Regulations, Art II, 405.150
Title IV Land Use, Article XV Required Public Improvements, 400.1350	Easements may be required for the installation of utilities and stormwater improvements.	Consider including easements are also required for shared-use paved paths, sidepaths, and sidewalks.
Title IV Land Use, Section 405 Design Standards for	Local Streets shall be designed so as to	Suggestion is to add “motorized”. “Local streets shall be designed so as

Policy Recommendations

Municipal Code	Active Transportation Specific Language	Recommendations
Title IV Land Use, Section 405 Design Standards for Public Improvements, Art II, 405.120 G.	Permanent dead-end or cul-de-sacs shall be no longer than eight hundred (800) feet and shall provide at the closed end a paved turnaround...	Consider adding language that dead-end streets or cul-de-sacs will incorporate access for a connected active transportation for people riding, rolling, or walking.
Title IV Land Use, Section 405 Design Standards for Public Improvements, Art II, 405.150 B.1.	1. Sidewalks along minor streets shall be a minimum of five (5) feet wide; 2. Sidewalks along collector and arterial streets and in the vicinity of schools, recreation areas and other community facilities shall be a minimum of five (5) feet wide.	Consider increasing the minimum sidewalk width to six (6) feet wide. This allows two people to comfortably walk side by side.
Title IV Land Use, Art II, Ch 405.156 Linear Park Trails and Connections to Trails, B.1.a.	A trail is planned within a linear park as identified by the Willard Comprehensive Plan	Consider adding language that would include “and all future active transportation plans.”
Title IV Land Use, Article XV Required Public Improvements, Section 400.1320. Blocks.	B. Block lengths shall not exceed one thousand three hundred twenty (1,320) feet or be less than three hundred (300) feet, except under unusual conditions.	Consider adding requirements of midblock crossings on arterials and collectors if they are over 600 ft in length between intersections. (See Ft. Smith as an example- 27-503-13- A) An easement for utilities and pedestrians with a minimum width of 20 feet; or B) an easement reserved for pedestrian passage with a minimum width of 10 feet.
Title IV Land Use, Article XIV Plans, Plats and Other Required Information, 400.1160 Site Plan 1.i. and 2.i.	The general location and approximate dimensions of all vehicular and pedestrian circulation elements, including streets, driveways, entrances, curb cuts, parking and loading areas and sidewalks, including slope and gradient of vehicular elements.	Consider including “bicycle circulation”.
Title IV Land Use, Article XV Required Public Improvements, 400.1310	Sidewalks	Consider requiring sidewalks along two (2) sides of all streets, or one sidepath and one sidewalk, depending on the active transportation plan. This is also found under Article II, 405.150, and XVII Miscellaneous Regulations, Art II, 405.150

Municipal Codes- General Recommendations

For new and infill developments, if the City of Willard allows a fee in lieu of for sidewalks, sidepaths, or shared-use paved paths, the policies and guidelines should be clear and transparent. It should also be the exception and not the norm. The City of Houston has a good example of a fee in lieu of program. https://www.houstontx.gov/planning/Publications/docs-pdfs/Sidewalk-Regulations-English.pdf.

Requiring minimum parking spaces could hinder infill and increase the cost for private development. Consider removing parking minimums for retail spaces and office buildings. If safe and welcoming active transportation infrastructure is implemented, this could reduce some of the need and demand for parking spaces.

Consider adding language that requires bicycle racks for commercial, office, industrial, and multi-family developments. For example, requiring one (1) bike rack per multi-family development of 10 units or fewer, and one (1) additional bike rack per every additional 10 units. For industrial, office, and commercial, consider requiring one (1) bike rack for every 20 parking spaces. In addition, parking lots should include appropriately marked locations with racks for bicycle parking. (See Fort Smith, Arkansas, as an example for commercial parking. 27-601-2.B. See City of Madison, WI Off-Street Parking and Loading Standards. 28.141(4), Table 281-3) See *Essentials of Bike Parking* by the Association of Bicycle and Pedestrian Professionals for best practices and installation of bike racks.

Consider adding and updating the definition of micromobility. Factors to consider are speed, weight, watts, and/or width. For example, the use of a golf cart should not be allowed due to their speed and width. The International Transport Forum uses the characteristics of speed and weight to define types of micromobility. See Definition of Micromobility, p. 11, https://www.itf-oecd.org/sites/default/files/safer-micrombility-technical-report.pdf

Consider adding language that would define the type of micromobility vehicle that may use a sidepath, shared-use paved path, sidewalk or bike lane. See the City of Fayetteville Article XI Operation of Vehicles and Use of City Trails.
https://library.municode.com/ar/fayetteville/codes/code_of_ordinances?nodeId=CD_ORD_TITVIITRCO_CH71TRRU_ARTXIOPVEUSTR_71.170RETYVEALSHEPATR

Consider adding language that a developer may be required to construct a shared-use paved path/sidepath linkage or corridor or grant an easement approved in the Willard Active Transportation Network of the Comprehensive Plan. This should also be included for infill projects. Fayetteville, AR (Title XV- Unified Development Code, Chapter 166.04- Required Infrastructure Improvements, B(4)(k) has a model ordinance addressing this.

2019 Comprehensive Plan Recommendations

Comprehensive Plan	Active Transportation Specific Language	Recommendations
Transportation	Street Classifications, p.12	Consider updating typical sections to include updated standards and best practices for bicycle and pedestrian infrastructure.
Future Land Use	Categories, pp. 30-32	Under Parks and Open Spaces, trails are listed as an appropriate use. Consider adding shared-use paved paths as an appropriate use in additional land use categories.
Future Land Use	Goal 3: Manage the Environmental Impact of Willard's Growth, p.36. As Willard grows, efforts should be made to manage or reduce detrimental environmental effects.	Consider updating to add language that implementing and encouraging the use of active transportation will limit the environmental impacts of Willard's growth by reducing detrimental environmental effects.

Comprehensive Plan- General Recommendations
Future Land Use, Categories, p. 32- "Enhance and preserve the visual image of the City of Willard as viewed from Hwy 160." This purpose aligns with the active transportation culture and the welcoming environment of Willard. How does Willard want to convey that eco-tourists on the Frisco Line are welcome to stop and visit Willard instead of riding straight through? Are there safe crossings to get into town, wayfinding signage to places to eat? When people are on the trail, do they know when they have entered and exited the City of Willard on the trail?
Future Land Use, Goal 1: Utilize Land More Efficiently Within Willard- Including active transportation connections to both infill and new developments is a way to set a precedent for when strategic annexation occurs. Developers will see that the norm in the city is to provide safe, welcoming, and accessible transportation choices instead of relying on only one type of transportation.

APPENDIX A

Combined Results of Public Input Sessions 1 and 2

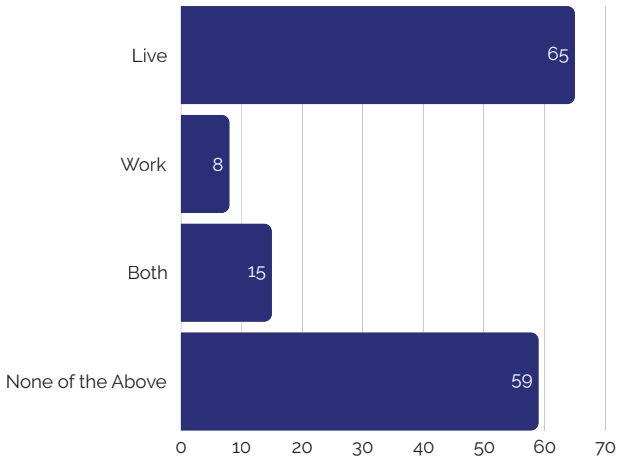
Facilities I would feel most comfortable using.	Green (1st)	Orange (2nd)	Pink (3rd)
Shared-use Paved Paths & Sidepaths "Greenways"	123	41	20
Rural Recreational Roads	30	68	37
Protected Bike Lanes	21	38	42
Revitalized Alleyway	14	19	29
Conventional Bike Lane	10	25	47
Bicycle Boulevard & Shared Roadway	6	7	19
TOTAL	**204**	**198**	**194**

Combined Results of Public Input Sessions 1 and 2

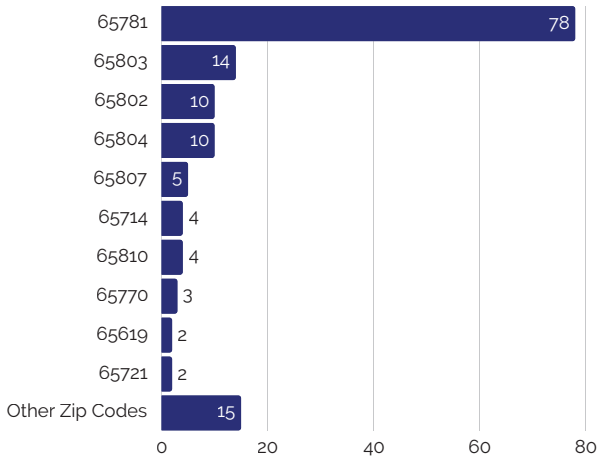
Places I would like to get to by walking, riding, or rolling.	Green (1st)	Orange (2nd)	Pink (3rd)
School	66	30	27
Park	59	40	19
Restaurant	26	32	30
Visit Friends or Family	22	12	33
Library	11	40	27
Grocery Store	16	25	31
Church	16	17	13
Medical	8	16	11
Shopping	7	17	29
Work	5	7	14
TOTAL	**236**	**236**	**234**

APPENDIX B Public Survey Results

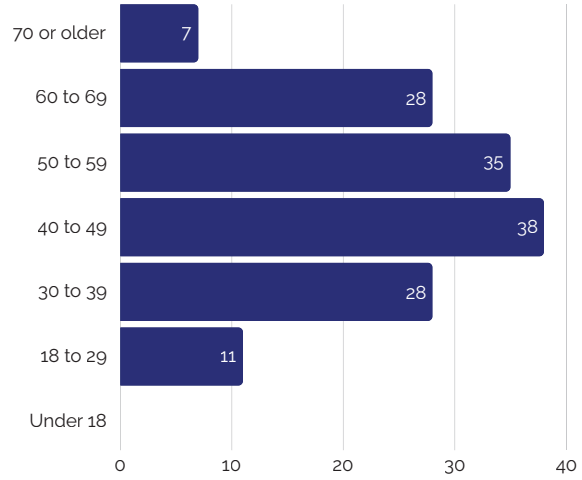
1. Do you live or work in Willard?



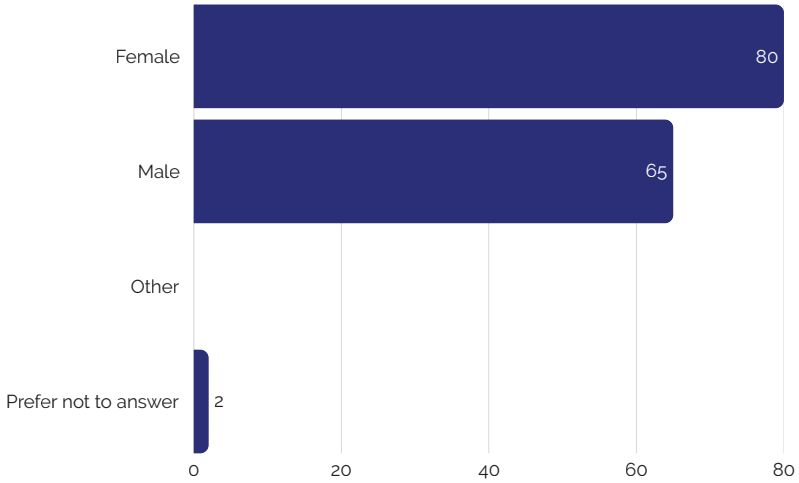
2. What is your zip code?



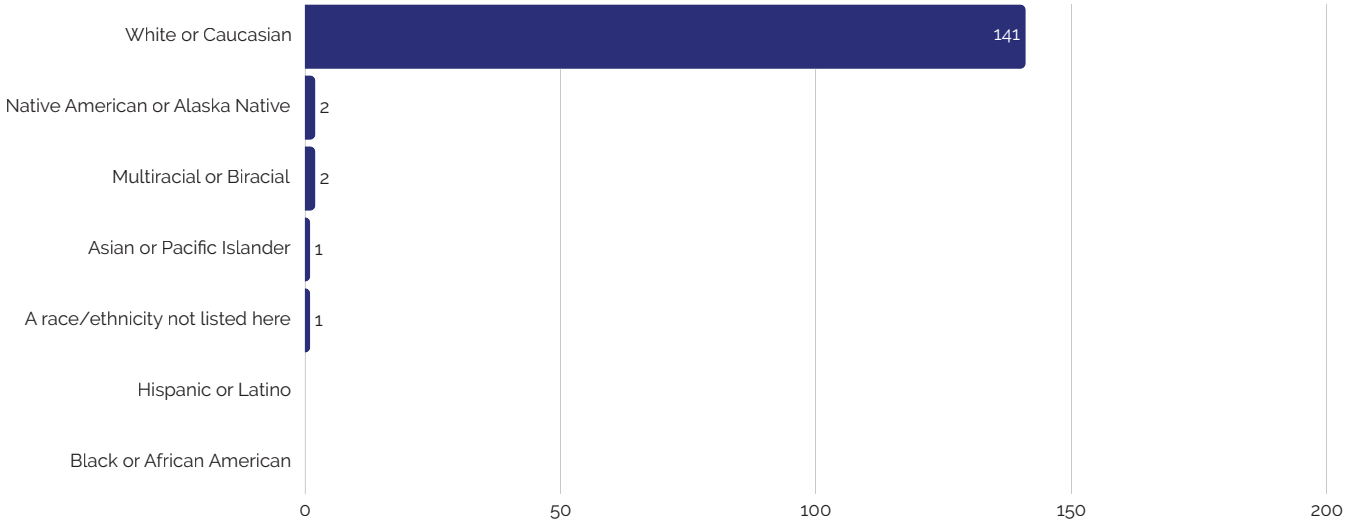
3. What is your age?



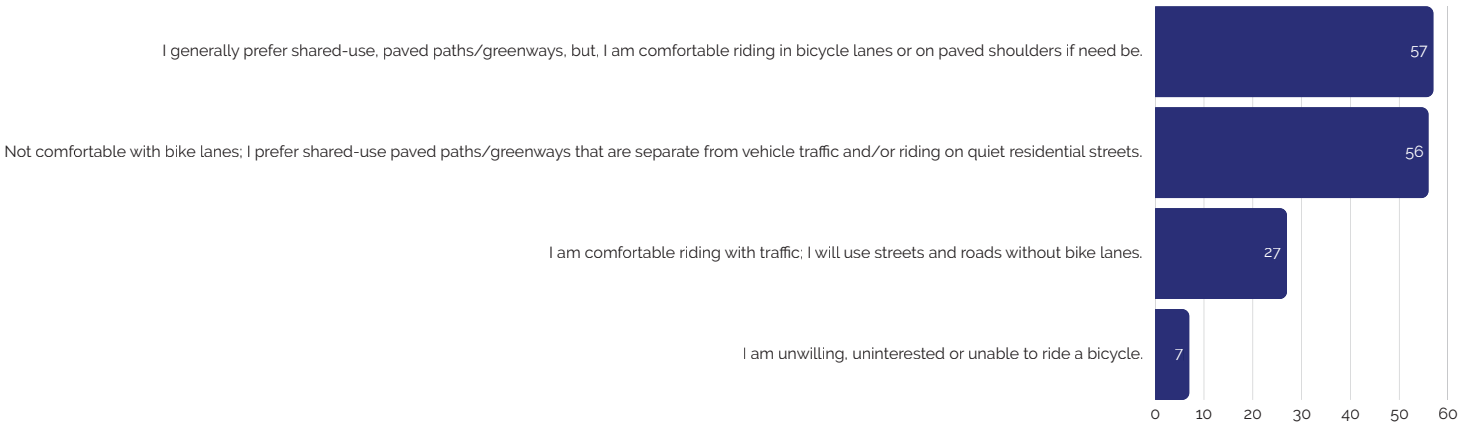
4. What is your gender?



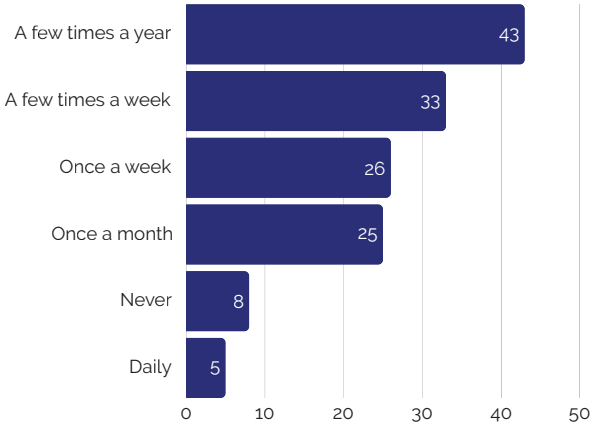
5. Which of the following best describes you?



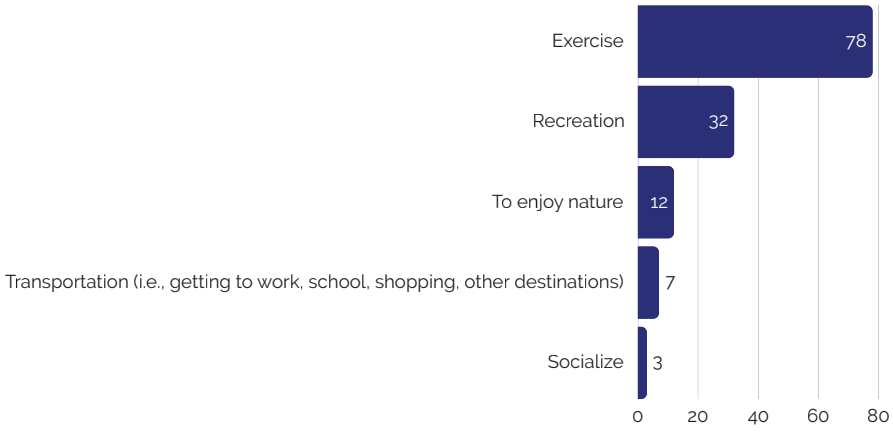
6. What is your bicycling level of comfort?



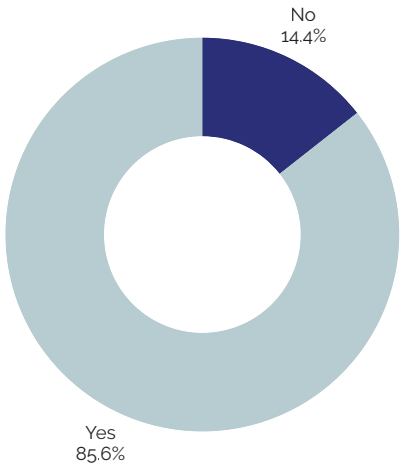
7. How often do you ride a bicycle within Willard?



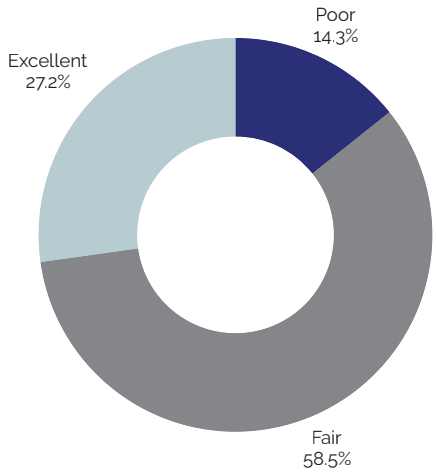
8. When you ride a bicycle in Willard, what are the primary purposes for riding? *(Number of times listed as #1 choice)*



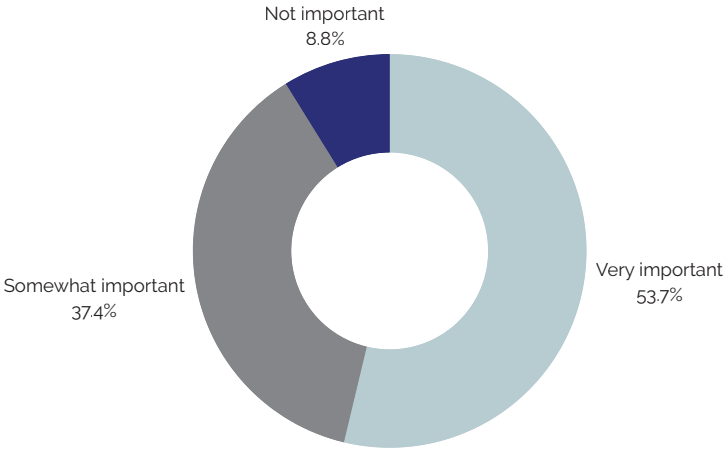
9. Do you feel safe and comfortable riding a bike in Willard?



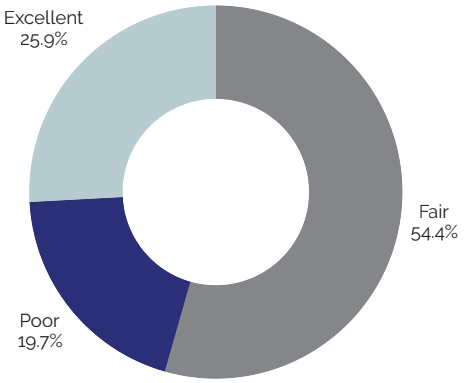
10. How do you rate present bicycling conditions in Willard?



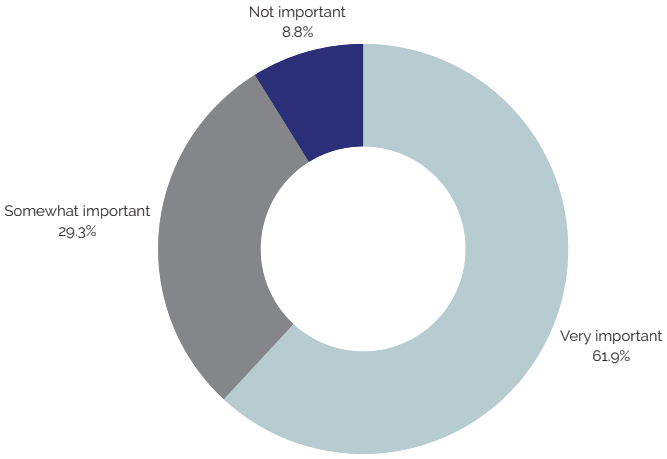
11. How important to you is improving bicycling conditions in Willard?



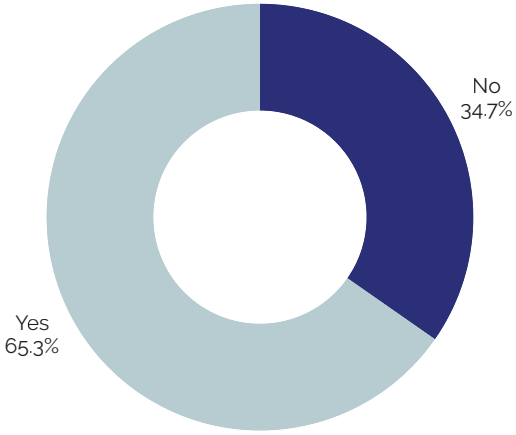
12. How do you rate present walking conditions in Willard?



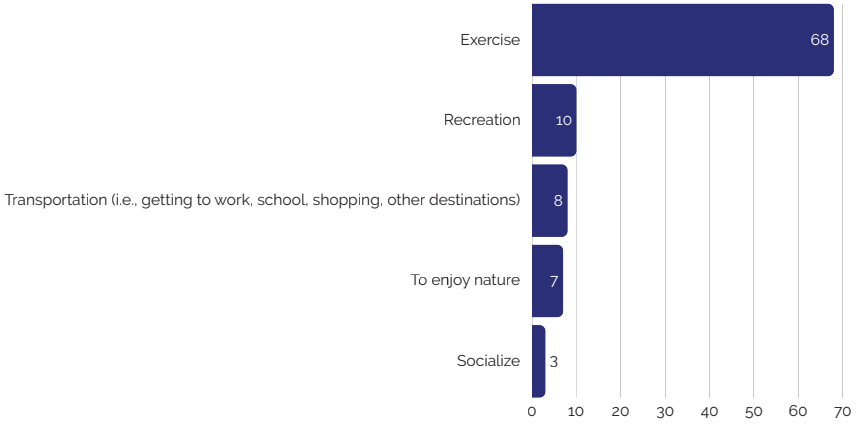
13. How important to you is improving walking conditions in Willard?



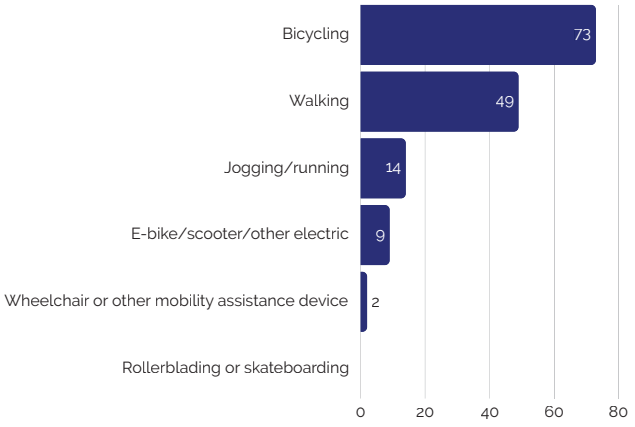
14. Do you walk in Willard?



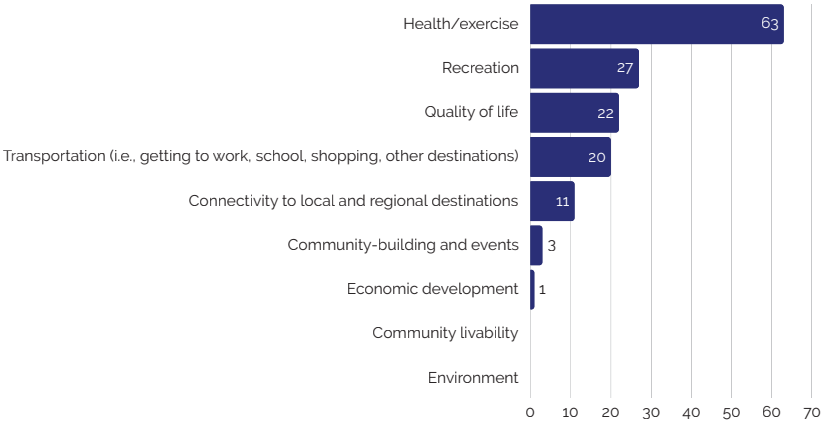
15. When you walk in Willard, what are the primary purposes for your trips? *(Number of times listed as #1 choice)*



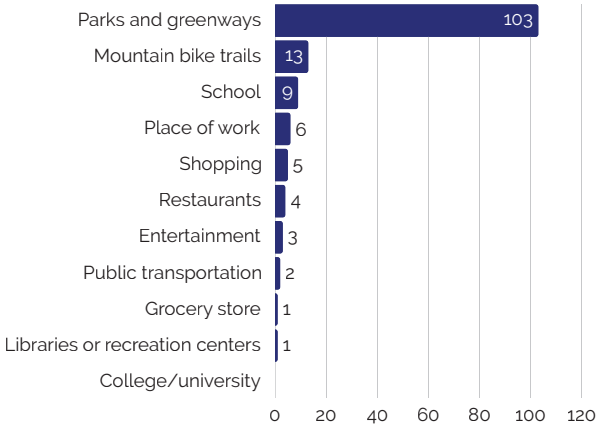
16. What are your preferred transportation modes when using a shared-use paved path/greenway? *(Number of times listed as #1 choice)*



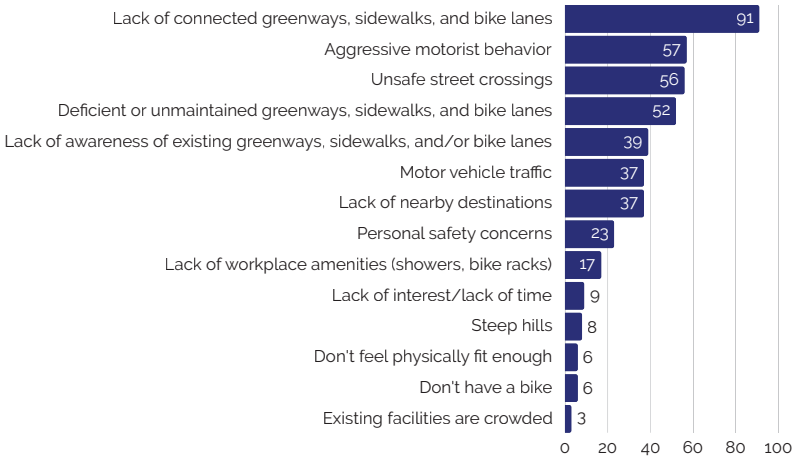
17. What do you consider to be the most important benefits and uses of a bicycle and pedestrian network in Willard? *(Number of times listed as #1 choice)*



18. *What destinations would you most like to be able to reach by bicycling or walking? (Number of times listed as #1 choice)*



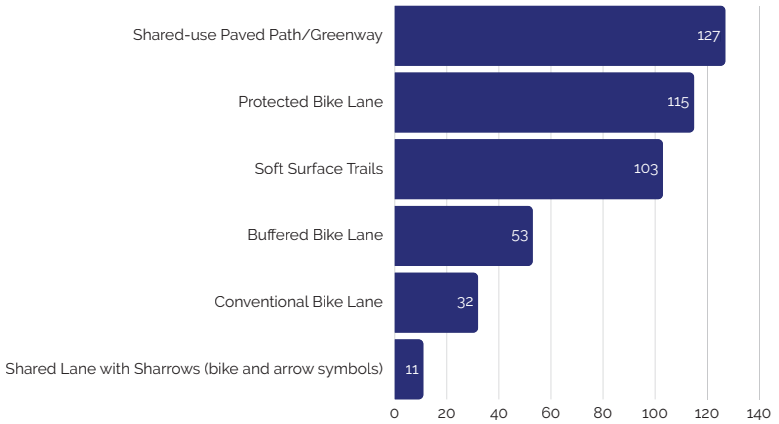
19. What are the top three factors that discourage bicycling or walking in Willard? *(multiple choice)*



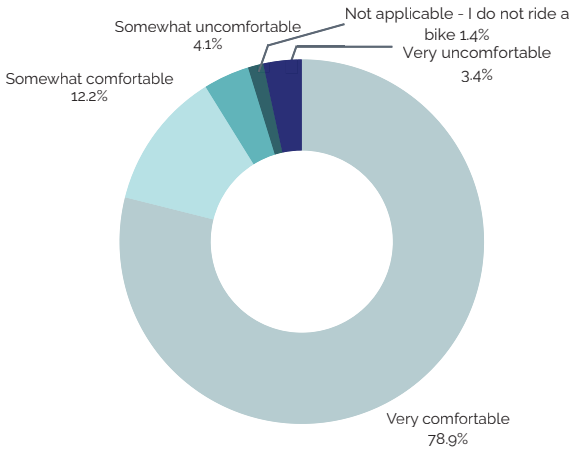
20. What are the top three factors that encourage bicycling or walking in Willard? *(multiple choice)*



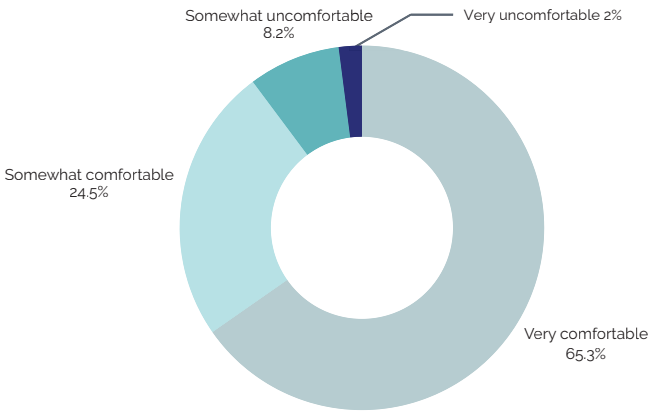
21. Which bicycle facilities do you prefer? *(multiple choice)*



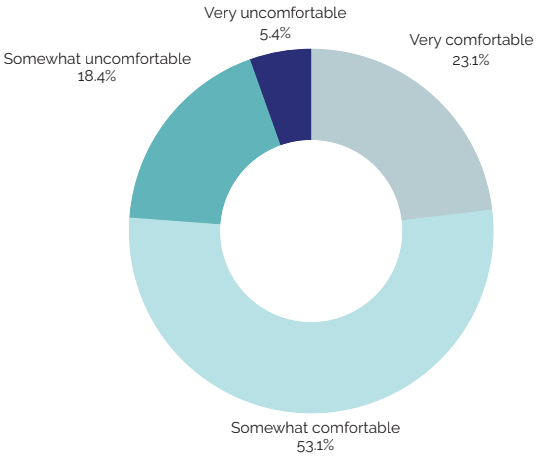
22. Please indicate your level of comfort while riding a bicycle on the following: *Shared-use paved path/greenway*



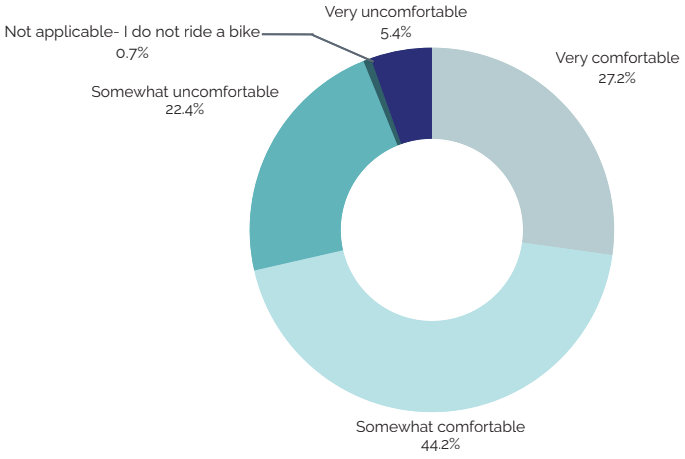
23. Please indicate your level of comfort while riding a bicycle on the following:
Protected bike lane



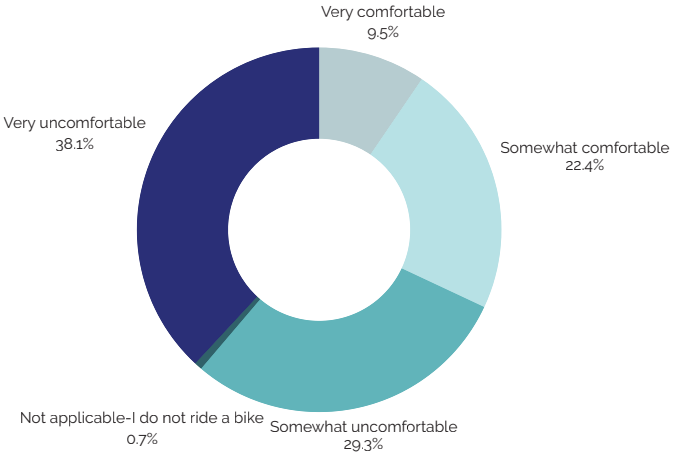
24. Please indicate your level of comfort w
riding a bicycle on the following:
Buffered bike lane



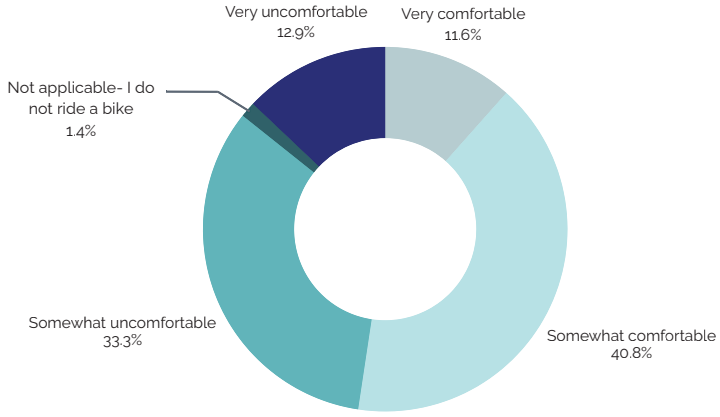
25. Please indicate your level of comfort while riding a bicycle on the following:
Quiet residential streets



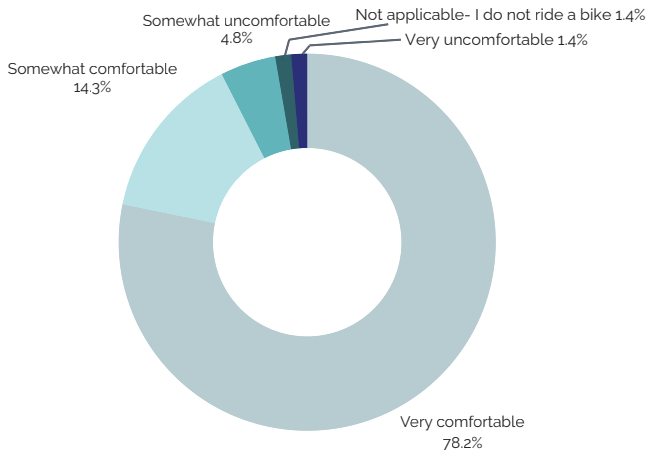
26. Please indicate your level of comfort while riding a bicycle on the following:
Shared lane with sharrows (bike and arrow symbols)



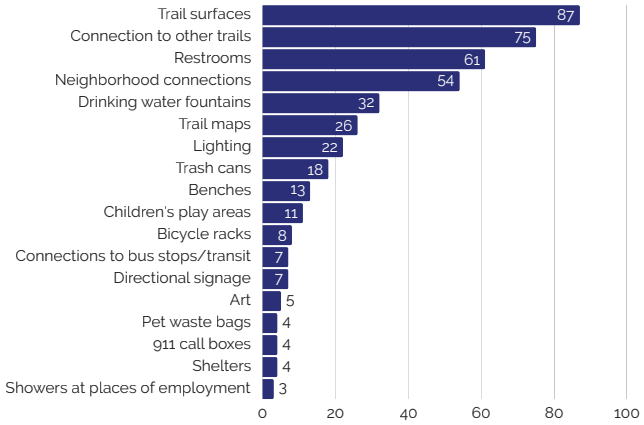
27. Please indicate your level of comfort while riding a bicycle on the following:
Conventional bike lane



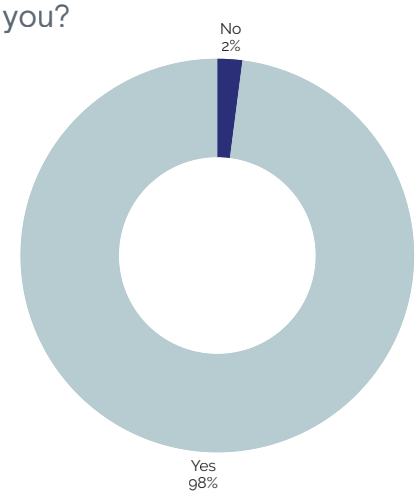
28. Please indicate your level of comfort while riding a bicycle on the following:
Soft surface trails



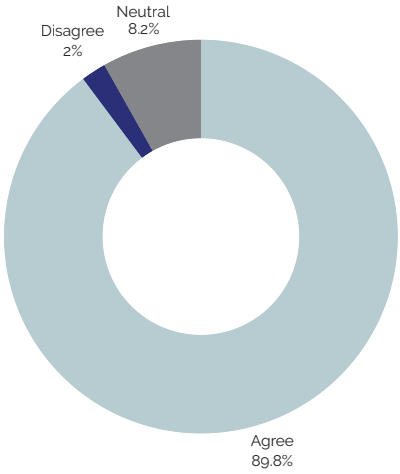
29. What are the top three amenities that are most important for bike riders and pedestrians in Willard? *(multiple choice)*



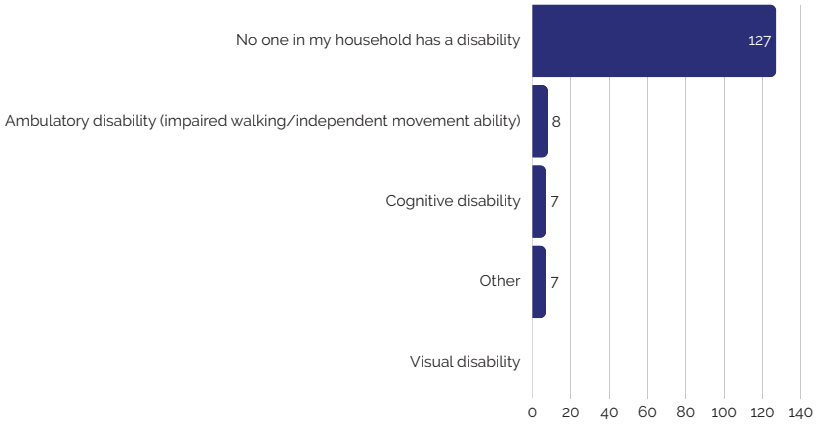
30. Would you use shared-use paved paths/greenways more often if they were closer to you?



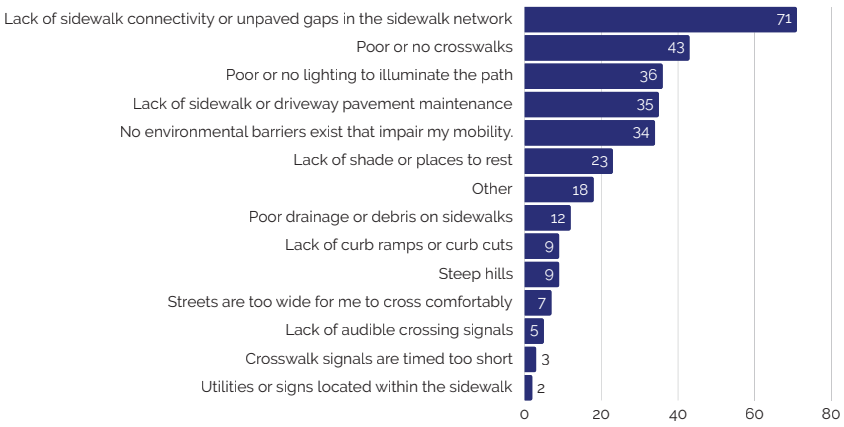
31. Please indicate whether or not you agree with the following statement: "I support improving bicycle conditions within our community whether I ride or not."



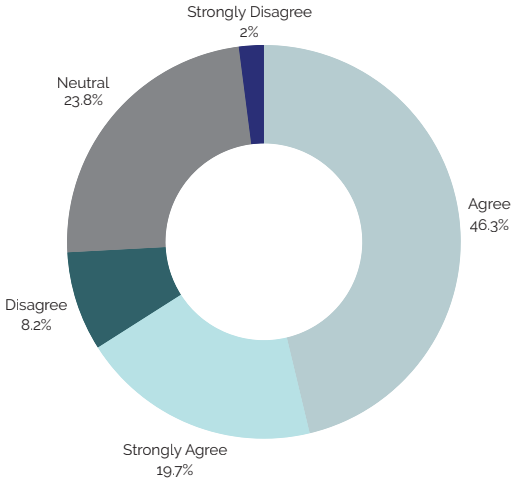
32. Do you or a member of your household have any of the following disabilities?



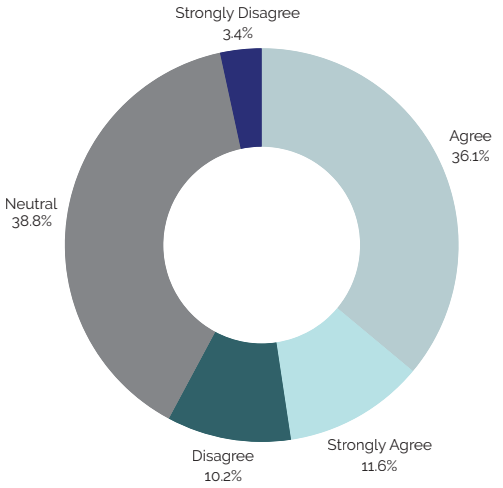
33. What barriers exist, if any, that impair your mobility on streets, roads, and sidewalks in Willard?



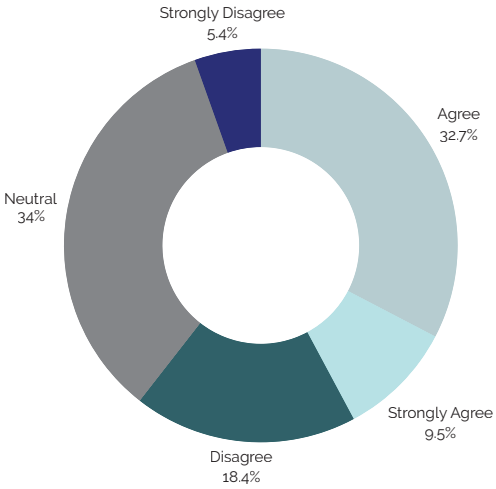
34. Willard has a bicycle and pedestrian culture that is welcoming to people of all ages and abilities.



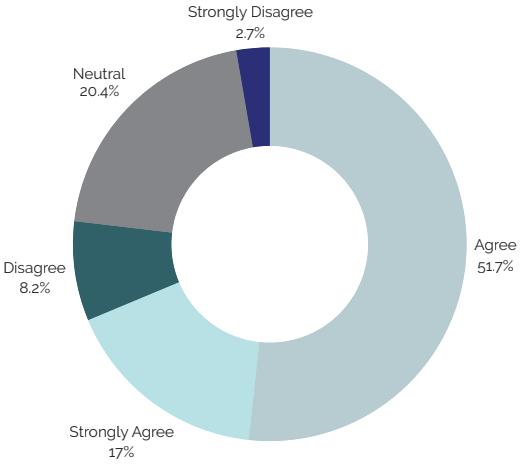
35. Willard has a bicycle and pedestrian culture that proactively pursues input and feedback from an array of voices within the community.



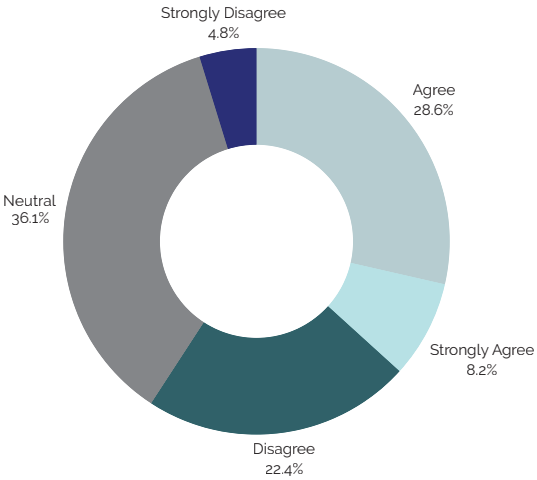
36. Willard has a bicycle and pedestrian culture that proactively encourages and supports biking and walking as a useful transportation method for trips to places like work and school.



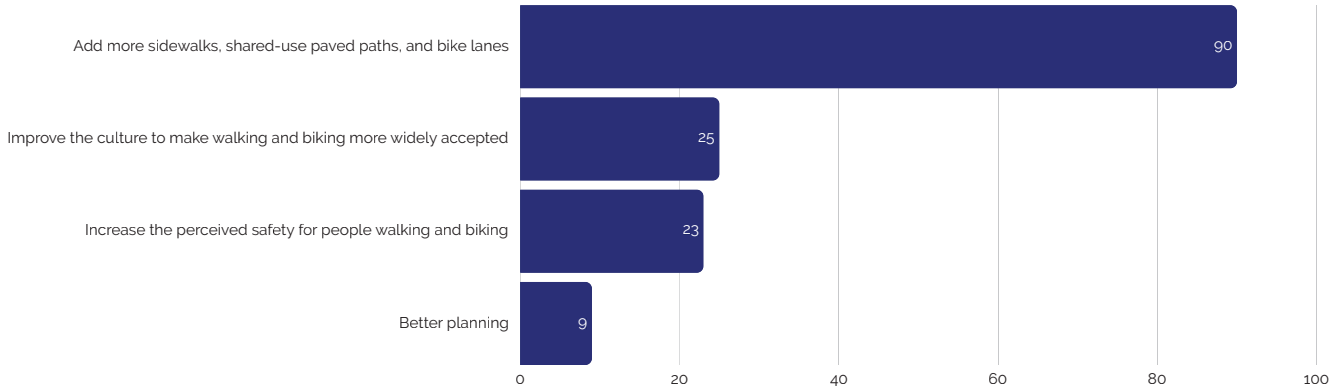
37. Willard has a bicycle and pedestrian culture that proactively encourages and supports biking and walking for recreation and fitness.



38. Willard has a safe, connected, and comfortable (low-stress and intuitive) bicycle and pedestrian network that is available for useful transportation and recreation.



39. What is the most critical step that Willard can take to help increase walking and biking in the city?



40. What are some of the biggest obstacles that Willard has in helping people bike, walk, or roll more frequently?

(Answers that stated "none", "N/A", etc., were omitted. Answers are unaltered.)

Do what you have to do to keep our small businesses alive! Lower rent, all that. Get good safe biking areas away from vehicle traffic. Design things with the safety of children and bikers in mind. Fix sidewalks and especially get the street lights fixed. There are two out on my street on Sarah Ct.
Aggressive motorists
More sidewalks in older and upcoming neighborhoods
I don't know...I just ride the Katy and I don't often ride into Willard unless the trail rides spends the night there...
Safe and accessible bike and walk paths/lanes
Lack of courage or the interest in evolving
Places to bike, walk or roll.
Prioritizing neighborhood connections and investment in pedestrian and bicycle realm.
Connectivity
Heat in July & August
Willard has deteriorating main artery/venous sidewalks, but lacks critical capillary sidewalks in high traffic neighborhoods.
Automobile centric population, believes bicycles belong on sidewalks, lack of driver attention, low connectivity for sidewalks
Keeping trails clear, trimming overhanging bushes
Need more trails.
Adding lanes. Connecting trails. Informing public
More trails
Some of your roads lack shoulders or bike lanes. Also, some maintenance is necessary on the greenways to remove underground roots that make the surface uneven.
Vehicles do not let Riders cross in cross walks
Need more side walks in the older neighborhoods to connect to schools and shopping!
lack of awareness
Financial funding
Lack of restroom facilities or stops along the way to take a break and grab a snack or have lunch
The town is separated by a highway
Street crossings without traffic control
Better intersections
education programs
No sidewalks, speeding reckless drivers
Lack of connections
Several roads without bike lanes or shoulders
I think you are doing well. But fixing potholes and trail damage quickly after storm, plus "bush whacking" trimming would be a few things. Restrooms, and a place to take "shelter" in a storm (even if it just an overhead roof) would encourage riding even in more inclement risky rainy wweather.
Even though the greenway trail is paved it is pretty rough.

Lack of community desire. If not for the Frisco Trail Willard has nothing going on this topic. Willard should endorse and promote the FHT and thus promote Willard to both residents and visitors.
Maintenance of the trails and surfaces.
Safer connections to parks and green spaces from south side of town to the north side
The more greenways, and connections to greenways from quiet residential streets, or protected bike lanes to those streets and greenway connections, the more people that will be able to utilize them to get to school/work/entertainment spots or for out and back recreation.
Connect the Frisco better with town
Not enough sidewalks and better trail connections
Vegetation overgrowth. Too narrow on the Frisco trail. Stressful for cyclists sharing trail with walkers, dog walkers and runners.
Sidewalks that randomly end
Connecting existing infrastructure to outlying neighborhoods
safe streets for biking to get to bike trails
Keep the trail repaired, overgrown and clean
Narrow streets barely have enough room for two cars passing, much less room for cyclists.
Lack of restrooms , poor lighting
Not enough sidewalks
Lack of connected greenways/shares use paths
Finances to make sidewalks and trails
Size and space
Connecting to attractive destinations. Springfield needs to connect the Frisco to their trail network. The State needs a bridge over highway 13 to connect Willard to Bolivar.
Being cool and fixing the trails
Paved surfaces
Not enough trails around the town
We use the Frisco Trail primarily for biking. The curb egresses need to be improved on most street crossings.
More trails
Narrow rodes. Not enough side walk
Personal safety
Dogs on trail north or town
Connected trails, sidewalks, and bike lanes
Complete lack of the Willard city government to take responsibility or accountability of tree and grass maintenance and management. It’s dangerous for people to ride due to low hanging branches and shrub growing from the sides. The un mowed grass makes street crossings unsafe and someone will get hurt it’s just a matter of time., ask the Katy trail folks about the effects of not mowing, it got a seven year old killed.
Trail Head parking
Would like the Frisco trail to be paved
I don't live in Willard. I only use the Greenway. I wouldn't feel comfortable exploring Willard off protected bike paths (roadways, lanes, etc)
Bicycle education
There is still a mindset that bikes need to stay on the trails and not share roads with cars.
Clean up frisco
Growing paths

Please connect with Springfield. It would be great if you guys could put a greenway trail on FR 94 that connects to the Ridder Springs. That would allow people who live in Willard to ride their bikes to Springfield for work. You might also encourage Springfield to complete the Grant Avenue Parkway to Lost Hill. That would build a regional connection between Willard and Springfield. It would allow Springfield citizens to ride their bikes from Sunshine Street to Lost Hill, over to FR 94, to get on the Frisco Trail to make it into Willard to enjoy restaurants and shops. Building connected communities is best for citizens.
More places to rest in the shade and fill the cracks in the pavement on the trail.
Money
Disconnect between city government and the cycling community. City officials should look for examples from other cities who are taking advantage of high quality trail systems.
Narrow and busy roads without sidewalks
We need a sidewalk in Hughes Rd! I would also love to see (or be made aware of) a paved walking/jogging trail at Miller Park.
Trim the bike trail more often so you don't have to dodge branches
Safety. We have an awesome trail to use, however, the motor vehicle crossings are unsafe. Motorists do not pay attention at crossings and feel they have the right of way. I use the trail daily, and almost daily, I stop at a crossing for multiple cars to pass before one stops and allows me to cross. Lighting would be helpful, too. The trail is very dark in the morning before sunrise and evening after sunset.
Bathrooms
Not enough protected bike lanes and lack of safe access from trail to businesses.
I know people who walk on Farm Road 94 that live on the city limit side. I'm surprised they haven't been hit yet. Sidewalks are needed.
Lack of adequate sidewalks around town, especially in busy pedestrian areas, for example, no sidewalks on Hughes Rd that connects several sub divisions and many side streets off of Hughes rd have sidewalks, but not Hughes Rd itself
Sidewalks
Bike riders are taking over the walking trails.
Do more than events for families-recreational in nature
Keep ditches and sides of road mowed. Can't see cars from around a lot of corners due to grass being so tall. This will also make Willard as a community look cleaner and more inviting. 160 through town especially. Animals that have been killed on the road are unpleasant to ride or walk by.
Lack of connection between areas
More trails or bikes routes
Connecting the west side of town to the east side. If you live west of West Bypass, there are little sidewalks or bike lanes to get to the schools or trail.
More trails
Need sidewalk from pheasant Lane up to the rec center. Walking or riding a bike and the road is very dangerous at that location. You have to walk in the road up to the rec center to be able to get to a sidewalk to get to town.
Seems like many people in Willard are just realizing that the Frisco Highline trail exists much less what a tremendous asset it is. Thank goodness for Ozark Greenways.
There is no safe or easy access to cross Hwy. 160 to get over to the trail for individuals and families living in the neighborhoods located around the police station. This is the main reason we don't use the trail very often.
Not enough trails
Accessibility
Safety
Have to use main roads versus sodewalks

Needs better ways to cross highway
Dogs are Loose all the time.
Texting and driving
US-160 (Olympian Blvd.) is a major highway barrier with few safe crossings.
Getting the public to collectively agree on somethong
Lighting for use after daylight
Bike lanes espesically on backroads to get to the trail
Aggressive / stupid drivers.
The trail is the only part that’s friendly to bikers. The rest of the city and outside area is very hazardous. I spent 17 years of my life growing up there.
Knowing where to park to use the trails
Lack of connected trail systems to go in different directions than Frisco (or get to it from other places).
Need more lights. Reduce sketchy areas of Willard. Police patrol more.
Aggressive motorists unaccepting of people on bikes
Already answered, but we need a much better, more connected sidewalk network throughout Willard. More so than anything needed for bikes at the moment.
Weather - we need an indoor walking track like republic has
Access or knowledge
Making sure drivers know where the bikers are
No sidewalk on Kime, Miller and Main St. Kime is very dangerous to walk but my only option to leave the house on a walk with my dog and kids.
160 is hard to get across. Few places to stop and get a drink or food.
The frisco is amazing for Willard but there needs to be better connections to it from other parts of town. Having to ride 1/2 a mile down 160 from bull's eye to get to farm road 91 isn’t fun. Maybe a spur from the frisco south into the neighborhoods south of 160 and AB
Poor street planning Poor street surface Narrow sidewalks Lack of sidewalks Poorly managed public works
People let their dogs roam without a leash. The concern over getting chased by a dog is what stops me from exercising alone in Willard. People here are irresponsible pet owners.
I have to drive anywhere to be able to walk, or cross the busiest street to get to the closest neighborhood. (I live off 94 and 101).
Crosswalk safety. Particularly the crosswalk at the high-school. There have many many close calls with people not seeing/paying attention while turing off Jackson to go to the high school. Lack of crosswalk and people speeding near them.
The lack of sidewalks near busy roads
Sidewalks not being fixed
Better crosswalks and better sidewalks to connect to the Frisco Trail
More sidewalks
Motor vehicles do not watch for bikes and pedestrians
Lack of sidewalks and connections to the Frisco trail.
Lack of sidewalks in neighborhoods to connect to trails and motor vehicle drivers speeding on residential streets
Crosswalks
Narrow streets with no shoulder, low visibility, and deep ditches
Money
Connectivity and adding recreation areas for people

41. Is there anything else you would like to tell us about walking, biking, and/or rolling in Willard?

(Answers that stated "none", "N/A", etc., were omitted. Answers are unaltered.)

No, it would be cool to have paths for biking away from vehicle traffic that would encourage exercise!
Focus on connections to the Frisco Highline Trail as the main artery, to downtown Willard, and focusing on connections to residential areas
Sidewalks require a lot of planning. They need planned to work with the existing topography, drainage, utilities etc. Just thinking one can just build a sidewalk from A to B without considering drainage, landscaping, etc leads to sidewalks that look like after-thoughts (e.g. New Melville) :).
I dont believe that biking is a main concern in willard. I feel like most residents are unable to walk to school from their neighborhood without walking on the side of a road or a street.
The greenways trail is great. would like to see more shared use connections, especially to parks, shopping areas, and residential areas, would like to see sidewalks on both sides of streets.
We enjoy running. Walking & biking on the trail frequently. Having trash cans handy would be helpful.
Love Frisco. Mile 7 is a great addition
I prefer riding in Willard over towns like Nixa, Republic, or Ozark
I love riding on the Frisco trail in Willard
Miller Road is too narrow , and there needs to be sidewalks so children can walk to school safely!
Please create safe passage to the Frisco trail. Please consider paving more of the trail.
Extend the pavement on the frisco
More connections please!
Love the Frisco
Thanks Willard! Thanks Bike Lovers and hikers/joggers and those who participate in maintaining the trails and culture. Much appreciated! Maybe a sign frequently saying "keep right, allow others to pass..notify passing on right" would help those not familiar with trail culture..
I walk or ride to stay as fit as I can. Also love seeing others walking and riding. Enjoy socializing with them.
Happy to see some interest on this topic from Willard.
No, we enjoy riding there very much.
Thanks!
I am a cyclist that uses the trail very frequently. I would be appreciative if any improvements to the trail. Especially widening the paved section to make it more comfortable for all. And somehow making the intersections more safe.
It's one of my favorite places to ride bikes
More bicycle signage would be helpful, and more connections via bike lanes to the Feisco
Thanks for offering a public restroom on the Frisco. Love Mile 6 Taproom.
Trim the trees on the Frisco on the paved section
The frisco is nice but it's the only trail in town
We love Willard! We appreciate the restrooms and picnic tables.
Please make more opportunities for the community to enjoy nature
Keep improving. Love it. The more connected the better.
There is not enough to do in Willard
The Frisco trail is great but going anywhere else by bike is not safe.
Don't add any trails or make any changes until you can properly maintain and manage what you're already responsible for.

Keep Frisco free of limbs and debris
I appreciate what we have and hope we can progress and encourage quality growth.
Extend sidewalks towards south side of town. Extend sidewalks down Miller to Hughes road and along AB to Hughes road. Hughes road also needs sidewalks. Thank you!
The cracks-gaps in paved areas make pushing stroller hard
Please prioritize a sidewalk on Hughes rd. There are dozens of pedestrians of various ages on the road (children, adults, elderly) with dogs and strollers, and people drive way too fast on that hilly road for there to not be sidewalks.
Stricter rules for bike riders. They need to follow the stop signs
Three cheers for the Frisco Highline Trail, Mike 6 Taproom, and all the fun activities at the trailhead!
Please add easier and safe access to the trail from the neighborhoods surrounding the police station
I hate biking with cars. They can not be trusted
Fun but highway is too fast paced
Please add more shared use path (11' or wider) connections between neighborhoods and the Frisco Highline Trail
Better sidewalks, designated own bike lane
The Frisco Trail is awesome but the city has been slow to adopt anything
Important to develop. Connect to other areas of there was an off shoot of the trail to Ritter springs/sac river. Would be huge.
If Frisco is the "Highway" there needs to be a system of interior trails to connect people and places around Willard to that highway without needing a car, public roads or sidewalks. If building more trails is not feasible, make dedicated paths with a strong emphasis on riding confidence in their safety. Its no secret there is a large presence of cyclist hatred when people are behind the wheel of a vehicle, so minimizing those friction points is key.
More street lights and to make people feel safe while walking in Willard. There are some rough looking areas
Thanks for sending the survey!
Sidewalks!
We need an indoor walking track like Republic has.
My neighborhood doesn’t have many sidewalks and requires pedestrians to walk on the road. Which in itself a problem but on Pershing street there are always cars on the road that you have to walk around making it even more dangerous.
The pump track idea is still a good one.
It’s past time for improvements
We need a skate park
Paving sidewalks along other roads in Willard. Particularly Jackson, opposite side of the trail.
Needs culture building, water fountains and restrooms
We need more sidewalks and connections available to the Frisco trail.

APPENDIX C Sources

1. The Housing and Transportation Affordability Index. (2025, November). Willard, Missouri Fact Sheet. https://htaindex.cnt.org/fact-sheets/?lat=37.304944&lng=-93.428258&focus=place&gid=14814#fs
2. U.S. Census Reporter. (2025, November). Willard, MO.
3. American Community Survey. (2025, November). https://data.census.gov/
4. Wikipedia. (2025, November). Willard, Missouri. https://en.wikipedia.org/wiki/Willard,_Missouri#History

Acknowledgments

Steering Committee

- Mike Ruesch, City of Willard, Director of Planning & Development
- Tammy Nephew, City of Willard, Planning Assistant

Members of the Steering Committee included representation from:

- City of Willard Parks & Recreation Department
- City of Willard Director of Public Works
- City of Willard City Administrator
- City of Willard Fire Department
- City of Willard Police Department
- Willard Public Schools
- Mid-Missouri Bank
- Ozark Greenways
- Ridewell Corporation
- Missouri State
- AMCE

A special acknowledgment and thank you to Willard residents and Greene County community members who provided invaluable local knowledge and experience that helped form the network plan.

CITY OF WILLARD, MISSOURI

RESOLUTION NO:

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WILLARD, MISSOURI, APPROVING THE ACTIVE TRANSPORTATION PORTION OF THE COMPREHENSIVE PLAN.

WHEREAS, the comprehensive plan does not specifically address Active Transportation and is in need of revision, and

WHEREAS, public engagement in the form of meetings, surveys and active community participation helped shape the active transportation document, and

WHEREAS, an active lifestyle has been proven to be beneficial ,

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING & ZONING COMMITTEE OF THE CITY OF WILLARD, MISSOURI, AS FOLLOWS:

WE APPROVE OF THE ACTIVE TRANSPORTATION PLAN AS DEFINED IN THE FOLLOWING DOCUMENTS

Dated: This the **17th day of February, 2026** by the Board of Aldermen of the City of Willard, Missouri.

_____

Marianne Hill – President

ATTEST

_____

Valorie Simpson-Secretary

BOARD OF ALDERS MEETING

TO: The Board of Alders

FROM: WATER SERVICE DEPOSITS

SUBJECT:

AN ORDINANCE AMENDING SECTION 705.100, APPLICATION FOR WATER SERVICES – DEPOSIT – AUTHORITY OF CITY TREASURER, OF THE MUNICIPAL CODE OF THE CITY OF WILLARD, MISSOURI, RELATING TO WATER SERVICE APPLICATIONS AND CUSTOMER DEPOSITS.

CITY OF WILLARD, MISSOURI
224 W. Jackson Street P.O. Box 187 Willard, MO 65781 417-742-3033 417-742-3080 Fax

Re: Amendment to Section 705.100 – Utility Deposit Policy

Background

Section 705.100 of the City Code currently requires a utility deposit of $100 for residential accounts and $200 for business accounts. Under the existing ordinance, deposits are retained by the City until the utility account is closed, at which time the deposit is applied to the final bill and any remaining balance refunded.

The proposed ordinance modifies this approach by allowing deposits to be credited to a customer's utility account after twelve (12) consecutive, timely, and complete payments. The amendment further defines a "timely and complete payment" as payment in full on or before the due date. The assessment of any late fee, service disconnection for nonpayment, or entry into a payment agreement for delinquent charges constitutes a break in the required consecutive payment history and results in the twelve-month period restarting.

If a customer does not meet the twelve-consecutive-payment requirement, the deposit continues to be retained until the requirement is satisfied or the account is closed whichever comes first.

Recommendation and Rationale

It is recommended that the City adopt a policy limiting the retention of utility deposits to no more than twelve (12) consecutive months of demonstrated good payment history.

The current practice of holding deposits indefinitely places the City in the position of maintaining customer funds longer than is operationally necessary. Industry practice generally recognizes the first year of service as the period during which payment reliability is established. After that point, continued retention of deposits provides diminishing financial protection while increasing administrative responsibility and customer friction.

The proposed ordinance strikes a more appropriate balance by:

- Incentivizing consistent, on-time payment behavior
- Establishing a clear and objective standard for deposit return
- Maintaining protection during the highest-risk period of service
- Reducing the City's long-term responsibility for holding customer funds

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This approach modernizes the City's policy while maintaining prudent financial safeguards.

Ordinance Options

Two versions of the ordinance are presented for consideration:

Option 1 — Standard Deposit Return Framework

- Establishes the 12-month performance-based return of deposits
- Includes clear definitions and reset provisions for payment performance
- Reflects a straightforward, administratively simple approach

Option 2 — Deposit Return with Letter of Credit Provision

- Includes all elements of Option 1
- Allows applicants to request a deposit waiver by providing verification from their most recent utility provider demonstrating at least twelve (12) months of satisfactory payment history
- Retains City discretion to require a deposit in cases involving prior adverse account history

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Water Board Recommendation

The Water Board reviewed the draft ordinance, before I drafted the letter of credit provision, and voted to recommend approval of that version as presented.

During discussion, a question was raised regarding whether the City should consider a letter of credit option similar to those used by other utilities. This prompted me to draft the alternative version including that provision for your consideration.

Board Options

1. **Approve as Written (Option 1)**
   Adopt the ordinance amendment as recommended by the Water Board.

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2. **Approve with Letter of Credit Provision (Option 2)**
   Adopt the ordinance amendment with the added flexibility for deposit waiver based on demonstrated payment history from another utility provider.
3. **Approve with Modifications**
   Provide direction for specific revisions prior to final adoption.
4. **Do Not Approve**
   Maintain the current ordinance language, resulting in deposits continuing to be retained until account closure.

Conclusion

Both options represent a meaningful improvement over the current policy of indefinite deposit retention. The decision before the Board is whether to adopt a straightforward performance-based return structure, to include an additional pathway for qualified applicants to avoid the deposit requirement altogether, or to continue current operations.

Please let me know if additional information, including delinquency trends or fiscal impacts, would be helpful prior to consideration.

Sincerely,

Wesley Young, MPA, CPM
City Administrator
City of Willard

CITY OF WILLARD, MISSOURI
Bill Number: 26-10 **Ordinance Number: 260413**

AN ORDINANCE AMENDING SECTION 705.100, APPLICATION FOR WATER SERVICES – DEPOSIT – AUTHORITY OF CITY TREASURER, OF THE MUNICIPAL CODE OF THE CITY OF WILLARD, MISSOURI, RELATING TO WATER SERVICE APPLICATIONS AND CUSTOMER DEPOSITS.

WHEREAS, the City of Willard maintains policies governing applications for water service and associated customer deposits; and

WHEREAS, the Board of Aldermen finds it appropriate to incentivize consistent, timely payment of utility bills while maintaining adequate security for unpaid balances; and

WHEREAS, the Board of Aldermen desire to adopt the code changes to reflect a more reasonable approach.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, MISSOURI, AS FOLLOWS:

Section 1: It is the intention of the Board of Aldermen and it is hereby ordained that the provisions of this ordinance shall become and be made a part of the Municipal Code of the City of Willard, Missouri, and the sections of this ordinance may be renumbered to accomplish such intention.

Section 2: That Section 705.100 of the Municipal Code of the City of Willard, Missouri is hereby repealed in its entirety and amended to read as follows:

Section 705.100 Application For Water Service — Deposit — Authority of City Treasurer

A. Application to have water turned on shall be made in writing to the Utility Clerk and shall contain an agreement by the applicant to abide by and accept all of the provisions of this Article as conditions governing the use of the City water supply by the applicant.

B. A deposit of one hundred dollars ($100.00) for non-business use and two hundred dollars ($200.00) for business use shall be paid with each such application. This sum shall be retained by the City as security to ensure payment of all charges due on the account.
C. If a customer makes twelve (12) consecutive, timely, and complete payments on the utility account following establishment of service, the deposit shall be credited

to the customer's utility account and shall be applied to future bills until exhausted.

1. For purposes of this Section, a "timely and complete payment" shall mean payment of the full amount due on or before the due date indicated on the utility bill. The assessment of any late fee, any service disconnection for nonpayment, or the customer's entry into a payment agreement shall constitute a break in the required consecutive payment history. Upon such break, the twelve (12) consecutive payment period shall restart.

2. If the customer does not satisfy the twelve (12) consecutive timely and complete payment requirement, the deposit shall continue to be retained by the City until such requirement is satisfied or the account is closed.

D. Upon closure of the account, the deposit shall be applied to the final bill. Any remaining balance of the deposit after satisfaction of all amounts due shall be refunded to the customer at the forwarding address provided.

E. The City may waive the required utility deposit upon receipt of satisfactory written verification from the applicant's most recent utility provider demonstrating that the applicant has maintained a minimum of twelve (12) consecutive months of timely payment history immediately preceding the date of application for service. Verification shall be from the utility provider serving the applicant at their most recent prior service address.

   Notwithstanding the foregoing, the City reserves the right to require a deposit if the applicant, or any member of the applicant's household, has a prior history of delinquent payment, service disconnection, or other adverse account activity with the City.

Section 3: This Ordinance shall be in full force and effect from and after the date of its passage by the Board of Aldermen and signature of the Mayor and attested to by the City Clerk.

Section 4: The provisions of this Ordinance are severable and if any provision hereof is declared invalid, unconstitutional or unenforceable, such determination shall not affect the validity of the remainder of this Ordinance.

Section 5: That the City Clerk is authorized by this Ordinance to correct any scrivener's errors identified within this Ordinance.

[Remainder left intentionally blank]

Read, this first time on this _____ day of _____, 2026.

Read, this second time, passed, and truly agreed to by the Board of Aldermen of the City of Willard, Missouri this _____day of _____, 2026.

_____

Mayor

ATTEST:

_____

City Clerk

CITY OF WILLARD, MISSOURI
Bill Number: 26-10 **Ordinance Number: 260413**

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Read, this first time on this _____ day of _____, 2026.

Read, this second time, passed, and truly agreed to by the Board of Aldermen of the City of Willard, Missouri this _____day of _____, 2026.

_____

Mayor

ATTEST:

_____

City Clerk