

**CITY OF NEWBERG COUNCIL AGENDA
AUGUST 15, 2011
7:00 P.M. MEETING
PUBLIC SAFETY BUILDING TRAINING ROOM (401 EAST THIRD STREET)**

Mission Statement

The City of Newberg serves its citizens, promotes safety, and maintains a healthy community.

Vision Statement

Newberg will cultivate a healthy, safe environment where citizens can work, play and grow in a friendly, dynamic and diverse community valuing partnerships and opportunity.

I. CALL MEETING TO ORDER

II. ROLL CALL

III. PLEDGE OF ALLEGIANCE

IV. CITY MANAGER'S REPORT

V. PUBLIC COMMENTS

(30 minutes maximum, which may be extended at the Mayor's discretion, with an opportunity to speak for no more than 5 minutes per speaker allowed)

VI. CONSENT CALENDAR

1. Consider a motion approving **Resolution No. 2011-2962** designating authorized signatures for City of Newberg financial matters. (Pgs. 3-5)
2. Consider a motion approving **Resolution No. 2011-2966** authorizing the city manager to enter into a contract amendment with Mortenson Construction for the construction of urgent repairs at the Waste Water Treatment Plant. (Pgs. 7-15)
3. Consider a motion approving July 18, 2011, City Council minutes. (Pgs. 17-22)

VII. PUBLIC HEARINGS

Consider a motion approving **Ordinance No. 2011-2746** amending the Development Code pertaining to lot coverage standards. (Pgs. 23-43)

The Mayor reserves the right to change the order of items to be considered by the Council at their meeting. No new items will be heard after 11:00 p.m., unless approved by the Council.

VIII. NEW BUSINESS

Consider a motion approving **Resolution No. 2011-2965** directing staff to establish a bicycle program. (Pgs. 45-94)

IX. COUNCIL BUSINESS

X. ADJOURNMENT

ACCOMMODATION OF PHYSICAL IMPAIRMENTS: In order to accommodate persons with physical impairments, please notify the City Recorder's office of any special physical or language accommodations you may need as far in advance of the meeting as possible and no later than 48 hours prior to the meeting. To request these arrangements, please contact the City Recorder at (503) 537-1283. For TTY services please call (503) 554-7793

Council accepts comments on agenda items during the meeting. Fill out a form identifying the item you wish to speak on prior to the agenda item beginning and turn it into the City Recorder. The exception is land use hearings, which requires a specific public hearing process. The City Council asks written testimony be submitted to the City Recorder before 5:00 p.m. on the preceding Thursday. Written testimony submitted after that will be brought before the Council on the night of the meeting for consideration and a vote to accept or not accept it into the record.

The Mayor reserves the right to change the order of items to be considered by the Council at their meeting. No new items will be heard after 11:00 p.m., unless approved by the Council.

REQUEST FOR COUNCIL ACTION

DATE ACTION REQUESTED: August 1, 2011

Order ___ No.	Ordinance ___ No.	Resolution <u>XX</u> No. 2011-2962	Motion ___	Information ___
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SUBJECT: Authorized signers

Contact Person (Preparer) for this
Motion: Janelle Nordyke, Finance Director
Dept.: Finance
File No.:

RECOMMENDATION:

Adopt **Resolution No. 2011-2962** designating authorized signatures for the City of Newberg.

EXECUTIVE SUMMARY:

The City Council adopted Resolution No. 1996-2005 listing authorized signatures. The City Council adopted Resolution No. 2005-2594 to update the listing of authorized signatures by position title. However, Resolution No. 2005-2594 did not address authorized signatures for other investments outside the Local Government Investment Pool, as allowed in the City's Investment Policy.

Also, Resolution No. 2005-2594 did not address authorized signatures for additional services that may be needed from various financial institutions, such as the need for off-site storage of backup tapes of the city's electronic data, which has made it necessary for the city to open up a safety deposit box.

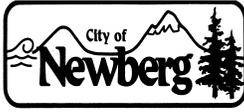
Therefore, the city needs to update its resolution.

FISCAL IMPACT:

None

STRATEGIC ASSESSMENT:

It is important to have an updated list of authorized signers to sign on behalf of the City of Newberg for designated purposes.



RESOLUTION No. 2011-2962

A RESOLUTION DESIGNATING AUTHORIZED SIGNATURES FOR THE CITY OF NEWBERG

RECITALS:

1. The City of Newberg maintains accounts at various financial institutions and the Oregon Local Government Investment Pool.
2. Periodically, the City of Newberg makes short term investments to maximize interest earnings.
3. Periodically, the City of Newberg receives donations, bequests, or other gifts which require the signature of an authorized signer.
4. Periodically, the City of Newberg may wish to sign up for additional services with various financial institutions which require the signature of an authorized signer.

THE CITY OF NEWBERG RESOLVES AS FOLLOWS:

1. Persons filling the following positions are authorized to sign on behalf of the City of Newberg for the designated purpose specified below:

Bank Accounts: Mayor, city manager, finance director, and/or assistant finance director

Oregon State

Investment Pool: City manager, finance director, assistant finance director, financial analyst, and/or payroll clerk

Other Investments: City manager, finance director, assistant finance director, and/or financial analyst

Safety Deposit Box: Finance director, assistant finance director, IT director, and/or IT technicians

Gifts, Bequests, and

Donations: Mayor and city manager

Federal Surplus: City manager, finance director, chief of police, fire chief, public works director, and/or public works maintenance superintendent

2. The finance director is responsible to maintain current signature records.

➤ **EFFECTIVE DATE** of this resolution is the day after the adoption date, which is: August 2, 2011.

ADOPTED by the City Council of the City of Newberg, Oregon, this 1st day of August, 2011.

Norma I. Alley, City Recorder

ATTEST by the Mayor this 4th day of August, 2011.

Bob Andrews, Mayor

LEGISLATIVE HISTORY

By and through _____ Committee at ____ / ____ / ____ meeting. Or, None.
(committee name) (date) (check if applicable)

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REQUEST FOR COUNCIL ACTION

DATE ACTION REQUESTED: August 15, 2011

Order ___ No.	Ordinance ___ No.	Resolution <u>XX</u> No. 2011-2966	Motion ___	Information ___
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SUBJECT: A resolution authorizing the City Manager to negotiate and enter into a Guaranteed Maximum Price Amendment for the construction of the Urgent Repairs at the WWTP with Mortenson Construction, in accordance with their contract with the City.

Contact Person (Preparer) for this Motion: Dain Eichel, Public Works Director
Dept.: Public Works Department - Engineering
File No.:

RECOMMENDATION:

Adopt **Resolution No. 2011-2966**, authorizing the City Manager to negotiate and enter into a Guaranteed Maximum Price Amendment for the construction of the Urgent Repairs at the Waste Water Treatment Plant (WWTP) with Mortenson Construction, in accordance with their contract with the City.

EXECUTIVE SUMMARY:

In December of 2009, City Council authorized the city manager to enter into a contract with Mortenson Construction to provide preconstruction services for the Wastewater Treatment Plant (WWTP) Repair, Renovation and Expansion Project. As part of that project, urgent repair items were identified as needing to be completed to maintain operation of the WWTP. On April 4, 2011, City Council approved a resolution issuing a task order to HDR Engineering to provide design services for those urgent repairs. Specifically, the oxidation ditch motor and drives need to be replaced and the pavement surrounding the oxidation ditches is in very poor condition.

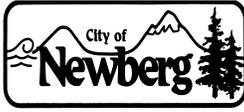
The City staff and its consultants (HDR Engineering) have monitored the procurement/bidding process that Mortenson personnel have used to competitively bid the sub-contract work to fully construct the project. Additionally, the City and HDR have closely reviewed the self-performance portion of the work that Mortenson is planning to execute. The total negotiated GMP Amendment is \$226,198.00.

FISCAL IMPACT:

This project is budgeted in the 2011/12 Capital Improvement Program Budget under account number 36.5150.706401 and funds are available through the original \$11.4 Million Clean Water State Revolving Loan Fund as approved by the Oregon Department of Environmental Quality (DEQ). Furthermore, this is part of the budgeted \$7.795 Million that the rate review committee has accounted for in their latest rate increase

STRATEGIC ASSESSMENT:

The urgent repairs are necessary for the maintenance and continued operation of the WWTP and the award of this contract is in conformance with the existing CM/GC contract.



RESOLUTION No. 2011-2966

A RESOLUTION AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND ENTER INTO A GUARANTEED MAXIMUM PRICE AMENDMENT FOR THE CONSTRUCTION OF URGENT REPAIRS AT THE WASTEWATER TREATMENT PLANT (WWTP) WITH MORTENSON CONSTRUCTION IN ACCORDANCE WITH THEIR CONTRACT WITH THE CITY

RECITALS:

1. In December of 2009, City Council approved Resolution No. 2009-2876 authorizing the city manager to enter into a contract with Mortenson Construction to provide preconstruction services for the Wastewater Treatment Plant (WWTP) Repair, Renovation and Expansion Project.
2. On April 4, 2011, City Council approved Resolution No. 2011-2941 issuing a task order to HDR Engineering to provide design services for select urgent repairs at the WWTP. Specifically, the oxidation ditch motor and drives need to be replaced and the pavement surrounding the oxidation ditches is in very poor condition. The existing oxidation ditches have locations where paving around the perimeter of the ditches is cracking and failing. There is a risk that if the paving is left in its current condition, water seepage could undermine the ditches themselves.
3. The city staff and its consultants (HDR Engineering) have monitored the procurement/bidding process that Mortenson personnel have used to competitively bid the sub-contract work to fully construct the project. Additionally, the city and HDR have closely reviewed the self-performance portion of the work that Mortenson is planning to execute.
4. The City of Newberg and its Construction Manager/General Contractor (CM/GC), Mortenson Construction, have solicited a sub-contract package for the construction of the Waste Water Treatment Plant Urgent Repairs Project and negotiated the CM/GC self-performance portion of the work.
5. Based on those efforts the total construction contract value for the CM/GC Guaranteed Maximum Price Amendment is \$226,198.00.

THE CITY OF NEWBERG RESOLVES AS FOLLOWS:

The City Council, acting as Contract Review Board for the city, does hereby authorize the city manager to negotiate and award a CM/GC Guaranteed Maximum Price Amendment to Mortenson Construction for the WWTP Urgent Repairs Project for \$226,198.00 as outlined in the contractor bid attached as Exhibit "A", which is hereby attached and by this reference incorporated.

➤ **EFFECTIVE DATE** of this resolution is the day after the adoption date, which is: August 16, 2011.

ADOPTED by the City Council of the City of Newberg, Oregon, this 15th day of August 2011.

Norma I. Alley, City Recorder

ATTEST by the Mayor this 18th day of August 2011.

Bob Andrews, Mayor

LEGISLATIVE HISTORY

By and through _____ Committee at ____ / ____ / ____ meeting. Or, X None.
(committee name) *(date)* *(check if applicable)*

City of Newberg
Wastewater Treatment Plant Improvements
Misc. Repairs Early Package Oxidation Ditches Urgent Repairs
 Newberg, Oregon



GMP Estimate Summary

Estimate Date: July 22, 2011

<i>Bid Packages</i>	<i>Total Cost</i>
101 Sitework	\$ 23,445
200 Self Perform Package	\$ 160,965
Subtotal Direct Construction Cost	
CM/GC Construction Contingencies 4%	\$ 7,376
Owner Contingencies 5%	\$ 9,221
CM/GC Guaranteed Maximum Price (GMP)	\$ 201,007
CM/GC Builders Risk Insurance 0.0415%	\$ 94
CM/GC General Conditions	\$ 14,531
Subtotal	\$ 215,632
CM/GC Construction Fee (incl Insurance and P/P Bond) 4.9%	\$ 10,566
Total Guaranteed Construction Cost (GCC)	\$ 226,198

Notes: Construction Estimate Only - Design/Engineering, FF&E, Permits, Test/Inspection and Other Development Costs are by others

Exhibit "A"
To Resolution No. 2011-2966

City of Newberg Wastewater Treatment Plant Improvements

Misc. Repairs Early Package Oxidation Ditches Urgent Repairs
Newberg, Oregon



Estimate Date: July 22, 2011
Bidder

Bid Pack	Description	Bid Selected	Other Bids	Delta to Low Bid	
101	Sitework	\$ 23,445	\$ 27,265 \$ 38,100 \$ 43,190 No Bid	\$ 3,820 \$ 14,655 \$ 19,745 -	Kodiak Pacific Interiaken, Inc. Coffman Excavation The Saunders Company McDonald Excavating
200	Aerator Motor / Reducer Repair	\$ 159,040			Mortenson
	Allowance for Machine Work to Bearing Housings or Shaft Journals.	\$ 1,925			
		<u>\$ 160,965</u>			

City of Newberg Wastewater Treatment Plant Improvements
Misc. Repairs Early Package Oxidation Ditches Urgent Repairs
Newberg, Oregon



**Self Perform Scope Summary:
Aerator Motor / Reducer Repair**

<u>Specification</u>	<u>Description</u>	<u>Value</u>	<u>Comments</u>
M-01	Steel Supply	\$ 2,859	Newberg Steel (local)
M-01	Rebuild Motors	\$ 11,123	S&W Electric Works, Inc. (local)
M-01	Labor & Welding	\$ 20,860	JH Kelly
M-01	Electrical	\$ 6,945	GPEC (local)
M-01	Machine Existing Hub	\$ 2,888	River City Machine
M-01	Gear Box Reducer Supply	\$ 69,615	Motion Industries
M-01	Paints And Protective Coatings	\$ 12,250	Fine Painting & Allied Services (MBE)
	Subtotal Direct Costs	\$ 126,540	
	SP General Conditions	\$ 20,720	
	SP Fee) 8% \$ 11,781	
	Total Self Perform Package	\$ 159,040	

Exhibit "A"

To Resolution No. 2011-2966

General Conditions

	Code	Description	Quantity	UM	Unit Cost	Total Cost
July 22, 2011		City of Nowberg Wastewater Treatment Plant: Repair, Renovation and Expansion Misc. Repairs Early Package Oxidation Ditches Urgent Repairs				
		GENERAL REQUIREMENTS ESTIMATE				
		Cost Management Detail				
	01 SPECIFIED GENERAL CONDITIONS					
	01 10 01 - PAY ITEM 001 - FINANCING, BONDS, INSURANCE					
	01010.000	***GENERAL PROJECT INFORMATION***				
	01010.101	DURATION - TO SUBSTANTIAL	4.5	MO		
	01010.104	PROPOSED DURATION - WKS	12	WKS		
	01010.105	PROPOSED DURATION - CAL DAYS	0	FYI		
	01010.110	JOBSITE OFFICE DURATION	0	FYI		
	** Total 01 10 01 - PAY ITEM 001 - FINANCING, BONDS, INSURANCE					
	01 10 02 - PAY ITEM 002 - TAXES					
	01020.106	BLDRS RISK INS (SEE SUMMARY SHEET)	0	FYI	0	0
	01020.108	GNL LIABILITY (WITH FEE)	0	THS	0	0
	01020.110	PERFORMANCE BOND (WITH FEE)	0	THS	0	0
	01060.810	PERSONAL PROPERTY TAXES - OFFICE FF&E (NOT REQ'D)	0	EA	0	0
	** Total 01 10 02 - PAY ITEM 002 - TAXES					
	01 10 03 - PAY ITEM 003 - PROFESSIONAL SERVICES					
	01080.020	TRAFFIC CONTROL PLAN (NOT REQ'D)	0	LS	0	0
	01080.200	COMMISSIONING AGENT (BY OWNER/DESIGNER/STAFF/SUBS)	0	FYI	0	0
	01090.600	PUBLIC RELATIONS SUPPORT (NOT REQ'D)	0	LS	0	0
	01090.602	NEIGHBORHOOD BBO/INFO SESSIONS (NOT REQ'D)	0	EA	0	0
	** Total 01 10 03 - PAY ITEM 003 - PROFESSIONAL SERVICES					
	01 10 04 - PAY ITEM 004 - PERMITS & FEES					
	01110.050	BOLI (LABOR AND INDUSTRIES) FEES	0	LS	0	0
	01110.180	BUSINESS LICENSES (W/ FEE PER EXHIBIT D OF CONTRACT)	0	FYI	0	0
	01110.200	BUILDING PERMIT (BY OWNER)	0	FYI	0	0
	01110.210	MEP PERMITS (W/ COST OF WORK)	0	FYI	0	0
	01110.600	SIDEWALK PERMIT (BY OWNER)	0	FYI	0	0
	01110.700	STREET USE PERMIT (BY OWNER)	0	FYI	0	0
	01120.000	ODOT PERMITS (BY OWNER)	0	FYI	0	0
	01130.200	UTILITY FEES (BY OWNER)	0	FYI	0	0
	** Total 01 10 04 - PAY ITEM 004 - PERMITS & FEES					
	01 10 05 - PAY ITEM 005 - CONSTRUCTION SERVICES & MISC.					
	01090.810	3D/4D MODELING (COST OF WORK)	0	FYI	0	0
	01090.810	COORDINATION & LAYOUT DRWGS (COST OF WORK)	0	FYI	0	0
	01150.200	LAYOUT - STRUCT (COST OF WORK)	0	FYI	0	0
	01150.700	LAYOUT - INTERIOR (NOT REQ'D)	0	FYI	0	0
	01150.702	LAYOUT - SITE (COST OF WORK)	0	FYI	0	0
	01150.790	REG SURVEY (NOT REQ'D)	0	FYI	0	0
	01170.202	PHOTOS - DIGITAL CAMERA / SUPPLIES (NOT REQ'D)	0	LS	0	0
	01170.208	AERIAL PHOTOS (NOT REQ'D)	0	FYI	0	0
	01170.600	I.D. BADGES (NOT REQ'D)	0	FYI	0	0
	01180.000	VIDEO TAPING (NOT REQ'D)	0	FYI	0	0
	** Total 01 10 05 - PAY ITEM 005 - CONSTRUCTION SERVICES & MISC.					
	01 10 06 - PAY ITEM 006 - ON-SITE PERSONNEL					
	01200.010	PROJECT MANAGER	80	HR	112	8960
	01300.800	ADMINISTRATIVE ASSISTANT	8	HR	36	288
	** Total 01 10 06 - PAY ITEM 006 - ON-SITE PERSONNEL					
	01 10 07 - PAY ITEM 007 - OFF-SITE PERSONNEL					
	01100.005	SCHEDULE SET-UP (W/ STAFF AND PRECON)	8	HR	97	776
	01300.200	CONSTRUCTION EXEC	20	HR	140	2800
	01300.550	GROUP MEP SPECIALIST	0	HR	97	0
	** Total 01 10 07 - PAY ITEM 007 - OFF-SITE PERSONNEL					
	01 10 09 - PAY ITEM 009 - RELOCATION, TRAVEL					
	01350.200	RELOCATION, TRAVEL (W/ FEE PER CONTRACT EXHIBIT D)	0	LS	0	0
	01380.450	TEAM MEMBER RELATIONS (NOT REQ'D)	0	FYI	0	0
	** Total 01 10 09 - PAY ITEM 009 - RELOCATION, TRAVEL					
	01 10 10 - PAY ITEM 010 - FIELD OFFICE EXPENSES					
	01400.000	FIELD FURNITURE / FIXTURES (NOT REQ'D)	0	LS	0	0
	01400.010	OWNER FIELD OFFICE FURNITURE / FIXTURES (NOT REQ'D)	0	LS	0	0
	01400.800	FIELD OFFICE EQUIPMENT (NOT REQ'D)	0	EA	0	0
	01430.200	FIELD OFFICE SUPPLIES (NOT REQ'D)	1	LS	250	250
	01430.600	PRINTING - SHOP DRAWINGS (NOT REQ'D)	0	LS	0	0
	01430.801	PURCHASE DRAWINGS & SPECS (BY OWNER)	0	LS	0	0
	01430.800	TRADE PACKAGE ADVERTISEMENT AND BID PACKAGES (NOT REQ'D)	0	EA	0	0
	01440.000	POSTAGE / OVERNIGHT MAIL	1	LS	100	100
	** Total 01 10 10 - PAY ITEM 010 - FIELD OFFICE EXPENSES					
	01 10 11 - PAY ITEM 011 - TEMPORARY FACILITIES					
	01450.200	PROJECT OFFICE (NOT REQ'D)	0	FYI	0	0
	01450.210	PROJECT OFFICE - RENOVATIONS (NOT REQ'D)	0	FYI	0	0
	01450.220	OWNER JOBSITE OFFICE (NOT REQ'D)	0	FYI	0	0
	01460.400	TOOL TRAILER (NOT REQ'D)	0	MO	0	0
	01460.404	TEMPORARY LOCKUP AREAS (NOT REQ'D)	0	LS	0	0
	01470.200	TREE PROTECTION (NOT REQ'D)	0	FYI	0	0
	01540.400	PROJECT SIGN (NOT REQ'D)	0	EA	0	0
	01540.800	TEMPORARY PROTECTION (NOT REQ'D)	0	SF	0	0
	** Total 01 10 11 - PAY ITEM 011 - TEMPORARY FACILITIES					
	01 10 12 - PAY ITEM 012 - MOVING & TRANSPORTATION					
	01570.600	RECEIVE OWNER FURNISHED EQUIPMENT (NOT REQ'D)	0	HR	0	0
	** Total 01 10 12 - PAY ITEM 012 - MOVING & TRANSPORTATION					
	01 10 13 - PAY ITEM 013 - CONSTRUCTION UTILITIES					
	01590.600	ELECTRICAL SERVICE - TRANSFER SERVICE TO CM/GC - BY OWNER	0	FYI	0	0
	01590.601	POWER COMPANY CHARGES - CONSTRUCTION POWER - BY OWNER	0	FYI	0	0
	01600.400	UTILITY HOOK-UP- OFFICE TRANSFER SERVICE TO CM/GC - BY OWNER	0	LS	0	0
	01600.410	ELECTRICAL ENERGY - CONSTRUCTION POWER - BY OWNER	0	FYI	0	0
	01600.600	CELL PHONES	0.47	MO	155	72
	01600.800	PROJECT PHONE BILL - LOCAL LINES FOR EMERGENCY AND FAX (NOT REQ'D)	0	MO	0	0
	01600.911	LARGE FORMAT B/W LASER PRINTER - ALL IN ONE (NOT REQ'D)	0	MO	0	0
	01620.000	PROJECT PHONE SYSTEM (PHONE LICENSING) (NOT REQ'D)	0	EA	0	0
	01620.010	PROJECT PHONE SYSTEM - 2 LINE PHONE SYSTEM - FAX & 911 SERVICE (NOT REQ'D)	0	LS	0	0
	01620.020	PROJECT PHONE SYSTEM - VOIP PHONES AND HARDWARE (NOT REQ'D)	0	LS	0	0
	01620.040	OFFICE PHONE & DATA WIRING (NOT REQ'D)	0	LS	0	0

Exhibit "A"
To Resolution No. 2011-2966

General Conditions

	01620.400	CONSTRUCTION WATER - BY OWNER	0 FYI	0	0
	01620.800	DRINKING WATER (NOT REQ'D)	0 MO	0	0
	01630.600	FIELD OFFICE UTILITIES USAGE CHARGES (WATER/SEWER/NAT GAS) - BY OWNER	0 FYI	0	0
	** Total 01 10 13 - PAY ITEM 013 - CONSTRUCTION UTILITIES				
01 10 15 - PAY ITEM 015 - CONSTRUCTION EQUIPMENT					72
	01720.800	EQUIPMENT RENTAL (CMIGC ONLY - FIRE EXT, ETC)	1 LS	300	300
	** Total 01 10 15 - PAY ITEM 015 - CONSTRUCTION EQUIPMENT				
01 10 16 - PAY ITEM 016 - QUALITY					300
	01850.200	***TESTING LABORATORY - THIRD PARTY TESTING BY OWNER***	0 LS	0	0
	** Total 01 10 16 - PAY ITEM 016 - QUALITY				
01 10 17 - PAY ITEM 017 - SAFETY					0
	01870.600	SAFETY EQUIPMENT / FIRST AID (VISITORS/STAFF PPE AND FIRST AID KIT)	1 LS	75	75
	01870.700	SAFETY TRAINING (NOT REQ'D)	0 LS	0	0
	01880.490	TRUCK BEACONS (NOT REQ'D)	0 EA	0	0
	01880.800	TEMPORARY SIGNAGE (NOT REQ'D)	0 LS	0	0
	** Total 01 10 17 - PAY ITEM 017 - SAFETY				
01 10 19 - PAY ITEM 019 - PROJECT START-UP / CLOSE-OUT					75
	01930.200	CERTIFICATE OF OCCUPANCY (BY OWNER)	0 LS	0	0
	01930.600	AS-BUILT / RECORD DRAWINGS	1 LS	100	100
	01930.700	RECORD STORAGE / RETENTION	239 DLRS	0.25	60
	01940.000	O & M MANUALS	1 LS	50	50
	01940.400	TESTING SERVICES (BY OWNER)	0 LS	0	0
	01940.500	FS' SERVICES - TSD (Transition to Stabilized Occupancy) (NOT REQ'D)	0 LS	0	0
	01940.800	TRAINING (COST OF WORK)	1 LS	0	0
	01950.200	WARRANTY MANAGEMENT (2 YEAR)	1 LS	150	150
	** Total 01 10 19 - PAY ITEM 019 - PROJECT START-UP / CLOSE-OUT				
02 SITE SERVICES					360
	** Total 01 SPECIFIED GENERAL CONDITIONS				
					13621
01 10 05 - PAY ITEM 005 - CONSTRUCTION SERVICES & MISC.					0
	01150.792	REG SURVEY - VERIFY PROPERTY LINES AND CONTROL (NOT REQ'D)	0 HR	0	0
	01150.795	REG SURVEY - ASPHALT REPAIR AREAS (NOT REQ'D)	0 HR	0	0
	** Total 01 10 05 - PAY ITEM 005 - CONSTRUCTION SERVICES & MISC.				
01 10 11 - PAY ITEM 011 - TEMPORARY FACILITIES					0
	01450.212	PROJECT OFFICE - YARD MAINTENANCE (NOT REQ'D)	0 MO	0	0
	01470.600	TEMPORARY FENCING (NOT REQ'D)	0 LF	0	0
	01470.601	TEMPORARY FENCE - GATES - PUMP STATION/OFFICE AREA (NOT REQ'D)	0 EA	0	0
	01470.602	MAINTAIN TEMPORARY (NOT REQ'D)	0 FYI	0	0
	01500.000	TEMPORARY LADDERS (NOT REQ'D)	0 EA	0	0
	** Total 01 10 11 - PAY ITEM 011 - TEMPORARY FACILITIES				
01 10 13 - PAY ITEM 013 - CONSTRUCTION UTILITIES					0
	01592.600	TEMP POWER/LIGHTING EQUIP (NOT REQ'D)	0	0	0
	01592.650	TEMP POWER/LIGHTING EQUIP (NOT REQ'D)	0 LS	0	0
	01592.660	TEMP POWER/LIGHTING EQUIP - RENTAL (NOT REQ'D)	0 MO	0	0
	01592.670	TEMP POWER/LIGHTING EQUIP (NOT REQ'D)	0 HR	0	0
	01630.200	SANITATION UNITS (1 UNIT) COMBINATION UNITS	3 MO	105	315
	** Total 01 10 13 - PAY ITEM 013 - CONSTRUCTION UTILITIES				
01 10 15 - PAY ITEM 015 - CONSTRUCTION EQUIPMENT					315
	01752.600	FORKLIFT, TELEHANDLER (COST OF WORK)	0 MO	0	0
	01780.803	FORKLIFT E.O.E. (COST OF WORK)	0 MO	0	0
	01790.200	EQUIPMENT REPAIR (15% OF RENTAL) (COST OF WORK)	0 DLRS	0	0
	** Total 01 10 15 - PAY ITEM 015 - CONSTRUCTION EQUIPMENT				
01 10 17 - PAY ITEM 017 - SAFETY					0
	01880.421	WOOD RAILS / BARRICADES (NOT REQ'D)	0 LF	0	0
	01880.428	MAINTAIN BARRICADES (NOT REQ'D)	0 HR	0	0
	01880.470	FLAG POWER LINES (NOT REQ'D)	0 LS	0	0
	** Total 01 10 17 - PAY ITEM 017 - SAFETY				
01 10 18 - PAY ITEM 018 - CLEAN UP					0
	01900.492	DUMPSTER 30 CY - OPEN	1 LOAD	595	595
	** Total 01 10 18 - PAY ITEM 018 - CLEAN UP				
	* Total 02 SITE SERVICES				
					910
03 SELF PERFORM WORK GENERAL CONDITIONS					0
01 10 01 - PAY ITEM 001 - FINANCING, BONDS, INSURANCE					0
	01010.303	***SELF PERFORM WORK PKG INFORMATION***			
	01010.305	AERATOR REPAIRS - MONTHS	3 MO		
	01010.306	AERATOR DURATION - WEEKS	12 WKS		
	01010.307	PROPOSED DURATION - WORKING DAYS	26 WDAYS		
	01010.310	JOBSITE OFFICE DURATION	0 FYI		
	** Total 01 10 01 - PAY ITEM 001 - FINANCING, BONDS, INSURANCE				
01 10 05 - PAY ITEM 005 - CONSTRUCTION SERVICES & MISC.					0
	01150.600	LAYOUT - STRUCTURES AND SITE (NOT REQ'D)	0 HR	0	0
	** Total 01 10 05 - PAY ITEM 005 - CONSTRUCTION SERVICES & MISC.				
01 10 06 - PAY ITEM 006 - ON-SITE PERSONNEL					0
	01210.200	SUPERINTENDENT	192 HR	98	18816
	01250.900	INTEGRATED CONST COORDINATOR (NOT REQ'D)	0 HR	0	0
	** Total 01 10 06 - PAY ITEM 006 - ON-SITE PERSONNEL				
01 10 12 - PAY ITEM 012 - MOVING & TRANSPORTATION					18816
	01580.000	TRUCKING - EQUIPMENT FACILITY - TRIPS AT 10 HOURS (NOT REQ'D)	0 HR	0	0
	** Total 01 10 12 - PAY ITEM 012 - MOVING & TRANSPORTATION				
01 10 13 - PAY ITEM 013 - CONSTRUCTION UTILITIES					0
	01600.600	CELL PHONES	1.12 MO	155	173
	** Total 01 10 13 - PAY ITEM 013 - CONSTRUCTION UTILITIES				
01 10 14 - PAY ITEM 014 - HEATING & VENTILATION					173
	01650.100	***SUMMER WORK - TEMP HEAT NOT REQ'D***	0 MO	0	0
	** Total 01 10 14 - PAY ITEM 014 - HEATING & VENTILATION				
01 10 15 - PAY ITEM 015 - CONSTRUCTION EQUIPMENT					0
	01723.801	EQUIPMENT RENTAL (20% OF RAW LABOR) (COST OF WORK)	0 DLRS	0.3	0
	01780.400	PICKUP (SUPT)	1.12 MO	890	1105
	01780.405	AUTO ALLOW (PM) W/ BILLING RATES	0 DLRS	990	0
	01780.600	EQUIPMENT OPERATING EXPENSE	1.19 MO	400	476
	01780.803	FORKLIFT E.O.E. (COST OF WORK)	0 DLRS	0	0
	01790.805	PICKUP E.O.E.	1 DLRS	150	150
	01790.200	EQUIPMENT REPAIR (COST OF WORK)	0 DLRS	0.15	0
	01790.601	SMALL TOOLS & CONSUMABLES (COST OF WORK)	0 DLRS	0.08	0
	** Total 01 10 15 - PAY ITEM 015 - CONSTRUCTION EQUIPMENT				
01 10 16 - PAY ITEM 016 - QUALITY					1731
	01840.000	TESTING CONCRETE (BY OWNER)	0 FYI	0	0
	** Total 01 10 16 - PAY ITEM 016 - QUALITY				
01 10 17 - PAY ITEM 017 - SAFETY					0
	01850.001	ESTIMATED WORKERS (NOT REQ'D)	0 EA	0	0

Exhibit "A"
To Resolution No. 2011-2966

General Conditions

	01850.800	SUBSTANCE ABUSE TESTING (NOT REQ'D)	0 EA	0	0
	01860.100	EMPLOYEE ORIENTATION (NOT REQ'D)	0 EA	0	0
	01860.200	FLAGGER (NOT REQ'D)	0 HR	0	0
	01870.600	SAFETY EQUIPMENT / FIRST AID (NOT REQ'D)	0 HR	0	0
	01870.603	SAFETY EQUIPMENT PREMIUM - ENCLOSED SPACES (NOT REQ'D)	0 LS	0	0
	01870.703	SAFETY TRAINING - CONFINED SPACE (NOT REQ'D)	0 HR	0	0
	01870.800	SAFETY PROGRAM/INCENTIVES (NOT REQ'D)	0 MO	0	0
	01880.480	REBAR PROTECTION (NOT REQ'D)	0 LF	0	0
	** Total 01 10 17 - PAY ITEM 017 - SAFETY				0
01 10 18 - PAY ITEM 018 - CLEAN UP					
	01900.003	PERIODIC CLEAN UP (NOT REQ'D)	0 HR	0	0
	** Total 01 10 18 - PAY ITEM 018 - CLEAN UP				0
	* Total 03 SELF PERFORM WORK GENERAL CONDITIONS				20720
TOTAL ESTIMATE					\$ 35,251

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REQUEST FOR COUNCIL ACTION

DATE ACTION REQUESTED: August 15, 2011

Order ___ Ordinance ___ Resolution ___ Motion XX Information ___
No. No. No.

SUBJECT: Approve the July 18, 2011, City Council Meeting minutes.

Contact Person (Preparer) for this Motion: Norma Alley, City Recorder
Dept.: Administration

RECOMMENDATION:

Approve the July 18, 2011, City Council minutes for preservation and permanent retention in the City's historical records.

EXECUTIVE SUMMARY:

The City of Newberg City Council held a public meeting and minutes were recorded in text. In accordance to Oregon State Records Management law, the City of Newberg must preserve these minutes in hard copy form for permanent retention.

FISCAL IMPACT:

None.

STRATEGIC ASSESSMENT:

None.

**CITY OF NEWBERG CITY COUNCIL MINUTES
JULY 18, 2011
7:00 P.M. MEETING
PUBLIC SAFETY BUILDING TRAINING ROOM (401 EAST THIRD STREET)**

A work session was held prior to the meeting. Executive Session pursuant to ORS 192.660(2)(f) to consider information or records that are exempt by law from public inspection and ORS 192.660(2)(h) to consult with counsel concerning the legal rights and duties of a public body with regard to current litigation or litigation likely to be filed. No action was taken and no decisions were made.

I. CALL MEETING TO ORDER

Mayor Bob Andrews called the meeting to order at 7:23 PM.

II. ROLL CALL

Members

Present:	Mayor Bob Andrews	Denise Bacon	Ryan Howard	Stephen McKinney
	Bart Rierson	Marc Shelton	Wade Witherspoon	

Staff

Present:	Daniel Danicic, City Manager	Terrence Mahr, City Attorney
	Barton Brierley, Planning and Building Director	Jessica Nunley, Assistant Planner
	Norma I. Alley, City Recorder	Jennifer Nelson, Minutes Recorder

Others

Present: Josi Fettig, Lee Does, and Sid Friedman

III. PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was performed.

IV. SPECIAL PRESENTATION

Presentation of the "If I Were Mayor..." Contest First Place Winners.

Mayor Andrews announced the winners, shared the winning selections, and presented the awards certificates for the attending winner. Miss Josi Fettig was present to accept her certificate and she presented her winning PowerPoint slideshow.

V. CITY MANAGER'S REPORT

Mr. Daniel Danicic, city manager, reported on the success of the Special Olympics this past weekend and announced the upcoming Newberg Old Fashioned Festival (NOFF) Parade and League of Oregon Cities (LOC) Conference for those interested in attending. He announced the new prescription drug bin is in the Public Safety Building (PSB) foyer and forty pounds has already been collected in the last two weeks. He also spoke of the labor trends report for May and although the unemployment rate is down to 9.3% it is still very high and it will be a while before a full recovery is made in Yamhill County. He said he is still working on a report about the changes to the City Hall hours of operation.

VI. PUBLIC COMMENTS

None.

VII. CONSENT CALENDAR

1. Consider a motion approving **Resolution No. 2011-2952** ratifying the Collective Bargaining Agreement for July 1, 2007–June 30, 2011 with the Newberg-Dundee Public Safety Association.

This item was removed from the Consent Calendar.

2. Consider a motion approving **Resolution No. 2011-2960** approving the 2011/2012 Visitor Information Center Marketing and Business Plan.

MOTION: Rierson/Shelton approving the Consent Calendar including **Resolution No. 2011-2960**. (7 Yes/0 No) Motion carried.

VIII. PUBLIC HEARINGS

1. Consider a motion approving **Ordinance No. 2011-2744** amending the Newberg Development Code Civic Corridor Sign Code.

TIME – 7:44 PM

Mayor Andrews called for any conflicts of interest or abstentions; none appeared.

Mr. Barton Brierley, Planning and Building Director, presented the staff report including a PowerPoint slideshow (see official meeting record for full report).

Mayor Andrews asked if the Newberg Bicycle Shoppe, Wine County Antiques Mall, and the Oregon First Community Credit Union signs are all grandfathered in. Staff said yes, because they are on historic buildings.

Councilor Stephen McKinney spoke of the language referring to copper, bronze, and other metals; he asked if silver or stainless steel, like the City's lettering, are compliant because they are raised letters. Staff said yes the City would meet code because the individual letters are raised.

Mayor Andrews opened and closed the public testimony; no citizens appeared. Staff recommended adoption.

MOTION: Rierson/Shelton approving the final adoption of **Ordinance No. 2011-2744** by the first reading. (7 Yes/0 No) Motion carried.

Councilor McKinney said he only had concerns initially for not allowing internal lighting sources. Staff replied there can be internal illuminated signs in the civic corridor. Councilor McKinney said he did not see anything addressing this in the C-3 standards. Staff referred to page twenty and if more than 30% of face is light, then it would be docked two points and need to make up for that somewhere else. Mayor Andrews asked if these are conditions in addition to what is in the C-3 standards. Staff said yes.

MOTION: Rierson/Witherspoon approving **Ordinance No. 2011-2744** amending the Newberg Development Code Civic Corridor Sign Code, read by title only. (7 Yes/0 No) Motion carried.

2. Consider a motion approving **Ordinance No. 2011-2745** amending the Newberg Development Code pertaining to annexation procedures.

TIME – 8:05 PM

Mayor Andrews called for any conflicts of interest or abstentions; none appeared.

Mr. Barton Brierley, planning and building director, presented the staff report including a PowerPoint slideshow (see official meeting record for full report).

Councilor McKinney asked how many of these kinds of properties do we have in the city limits. Staff replied there are five and there may be more in the future.

Councilor Rierson asked if a land owner was to initiate an annexation process and they found out they were batched with something that might jeopardize their chances of winning could they separate themselves. Staff stated they could withdraw their application up to the City Council hearing and separate to not be grouped together and then they could re-apply through the regular process to be considered individually.

Councilor Shelton asked if the three to ten years annexation requirements are done at the hearing stage that the city would set, on the ballot, or both. Staff said the current code is applied at the time of annexation and dates could be set to remove an item by a specific date; annexations could be delayed for one to ten years. The intent was to be a compromise at the State level for property owners with island properties to give them additional time to meet requirements within three to ten years because they may potentially be required to connect.

Mayor Andrews opened and closed the public testimony; no citizens appeared. Staff recommended adoption.

MOTION: Shelton/McKinney considering final approval of **Ordinance No. 2011-2745** in the first reading (7 Yes/0 No) Motion carried.

MOTION: Shelton/McKinney approving **Ordinance No. 2011-2745** amending the Newberg Development Code pertaining to annexation procedures, read by title only. (7 Yes/0 No) Motion carried.

IX. CONTINUED BUSINESS

Consider a motion approving **Ordinance No. 2011-2740** amending the Urban Growth Boundary, revising the Economic Opportunities Analysis, amending the Comprehensive Plan Map and text, and amending the Transportation System Plan.

TIME – 8:28 PM

Mayor Andrews introduced the legislative hearing held over from last time for deliberation to give an opportunity for rebuttal to communications received earlier that were submitted by City staff.

Councilor Ryan Howard mentioned he had a conversation with Ms. Pat Haight about her being in general opposition to this, but he will base his decision on the record.

MOTION: Shelton/Rierson approving **Ordinance No. 2011-2740** amending the Urban Growth Boundary, revising the Economic Opportunities Analysis, amending the Comprehensive Plan Map and text, and amending the Transportation System Plan, read by title only.

Councilor Shelton thanked City staff for the work done and thanked volunteers for committing their time and resources to be active participants in this process; he said this speaks highly of staff and the City's interest in making good land use decisions as well as looking at the economic development; he felt both need to go together for a healthy community. He spoke of the letter from the land owner who has the majority of the one-hundred twenty buildable acres supporting this plan.

Councilor Howard said he was on the fence for while on this matter and there was a lot to consider. He would be inclined to defer to planning to what they consider are requirements for land, but felt it would be an injustice

to the people to go against all parties. If he had to pick an area to build, the area we have identified would be where he would choose to do this, but he did not know if he agreed with the projections. He is not against an industrial zone and is generally in favor of the expansion when needed, but he did not know if this entire area is needed as imminently as staff is requesting. He would vote in opposition, not because he would not support another industrial plan, but because he does have concerns with the projections as presented.

Councilor Denise Bacon agreed with Councilor Howard on some of his points but she will vote yes because we are not taking the land to use now. It can be as it is until it is annexed. She does not find the argument to be true that no one will farm the land because of this land use action and does not see that happening, so she is comfortable voting yes.

VOTE: Approving **Ordinance No. 2011-2740.** (6 Yes/1 No [Howard]) Motion carried.

X. COUNCIL BUSINESS

A presentation from Councilor Ryan Howard on a bike plan project.

TIME – 8:36 PM

Councilor Howard presented a report including a PowerPoint slideshow on the bike plan project to prepare for the August 15, 2011, meeting (see official meeting record for full report). Discussions followed regarding this being a proposal for allowing alternative transportation and not preventing motorists, improving the quality of life by making things safer and more livable, planning the routes out to concur with regional efforts, police involvement with the bicyclist community and ensuring an educational component goes along with this

Mr. Terrence Mahr, city attorney, provided an update on the law enforcement collective bargaining agreement being removed from the Consent Calendar and the need for finalizing the language before approval.

Mayor Andrews offered appreciation and congratulations from the board members and State games organizers for the Special Olympics on a successful event.

Councilor McKinney referred to the decision made to approve the Habitat for Humanity partitioning/alley issue with **Order No. 2011-0031**. He said they discussed making the alley a one-way but neglected to get into the motion on how to follow up with this.

Councilor Wade Witherspoon agreed and reminded everyone he said he would only vote yes if there would be considerations made concerning making this a one-way and allowing the Traffic Safety Commission (TSC) to look at the issue.

Councilor McKinney added he had a conversation with Mr. Paul Chiu, senior engineer, and staff representative for the TSC; he said he would be a lot more comfortable with Council making the executive decision for an overlay, rather than working it in later.

Mr. Danicic replied it ought to be a public discussion allowing the neighbors to weigh in and the TSC is the right body for this because they can make a limited decision with public noticing.

MOTION: Witherspoon/McKinney to direct the Traffic Safety Commission to consider the alley located at 803 E. Ninth Street to be a one-way vs. a two-way. (7 Yes/0 No) Motion carried.

Mr. Mahr discussed Mr. Hank Grum's Initiative Petition ballot measure and a competing measure. He passed a memorandum around as follow up to the previous discussions and explained they have until next council

meeting to make a decision regarding this matter (see official meeting record for full report). Discussions followed regarding legal costs associated with this, approving those costs by double majority vs. single majority, and varying election dates allowed to address this.

XI. ADJOURNMENT

The meeting adjourned at 10:24 PM.

ADOPTED by the Newberg City Council this 15th day of August, 2011.

Norma I. Alley, City Recorder

ATTEST by the Mayor this 18th day of August, 2011.

Bob Andrews, Mayor

REQUEST FOR COUNCIL ACTION

DATE ACTION REQUESTED: August 15, 2011

Order ___ **Ordinance** XX **Resolution** ___ **Motion** ___ **Information** ___
No. **No. 2011-2746** **No.**

SUBJECT: Development Code amendment to lot coverage standards

**Contact Person (Preparer) for this Motion: Barton Brierley, AICP
 Dept.: Planning and Building
 File No.: DCA-11-005**

HEARING TYPE: **LEGISLATIVE** **QUASI-JUDICIAL** **NOT APPLICABLE**

RECOMMENDATION:

Adopt **Ordinance No. 2011-2746**, amending the Newberg Development Code lot coverage standards to:

1. Increase the percentage of a lot that can be covered by buildings in the R-1 zone from 30 percent to 40 percent if all buildings are single story.
2. Exclude small accessory buildings from the calculation of lot coverage.
3. Exclude non-residential uses in residential zones from needing to meet the lot coverage standards.
4. Add definitions and purpose statements.
5. Allow additional parking coverage on a lot if pervious paving materials are used.

EXECUTIVE SUMMARY:

1. **Project origin and process.** At the May Planning Commission hearing, Doug Lanz appeared before the Commission and requested a change to allow an increase in the percent lot coverage in the R-1 Zone. The Commission asked Mr. Lanz to work with staff to prepare a draft for their consideration. At the June Planning Commission meeting, the Planning Commission initiated the amendment. The Commission then held a hearing on July 14, 2011, and recommended approval of the changes.

2. **Current lot coverage standards.**

The current maximum lot coverage is as follows:

Zone	Maximum Lot Coverage (Buildings)	Maximum Parking Coverage	Maximum Combined Coverage (Buildings + Parking)
R-1	30%	30%	60%
R-2, R-P	50%	30%	60%
R-3, AR	50%	30%	70%

3. **Purpose for lot coverage standards**

The amendment would adopt the following as purposes for the changes:

- a. Control storm drainage. The more land that is covered by impervious surfaces, the less that can absorb rainwater, and thus the more need for storm water control facilities. Note that the current

proposal would modify the amount of the lot that could be covered by a *building*, but would not modify the total amount of the lot that could be covered by impervious surfaces. Also note that the City is currently undergoing a thorough review of storm water standards in an effort to control runoff and meet state and federal storm drainage standards. These may result in additional requirements for storm drainage control.

b. Provide for outdoor living area on a lot. By limiting the amount of lot coverage, the development code effectively requires that some of the lot be retained for lawns, gardens, backyard barbeque areas, and other recreational activities.

c. Limit development density to that appropriate for the zone. We often speak of “density” in terms of the number of dwelling units per acre of land. For the casual observer, “density” also refers to the look and feel of a neighborhood. A neighborhood with large, two story homes built to minimum setbacks will feel more dense than one with smaller, single story homes with greater setbacks, even if number of dwellings per acre is less. Limiting lot coverage limits the total bulk of building allowed on a lot.

4. Discussion of proposal

The amendments would do the following:

a. **Increase the percentage of a lot that can be covered by buildings in the R-1 zone from 30 percent to 40 percent if all buildings are single story.** This would allow larger single story homes on a lot, but limit two story homes to the current 30 percent coverage maximum.

b. **Exclude small accessory buildings from the calculation of lot coverage.** The proposal would buildings that do not require building permits from the lot coverage calculations. These include one-story sheds under 200 square feet.

c. **Exclude non-residential uses in residential zones from needing to meet the lot coverage standards.** The proposal would exclude schools, churches, and other non-residential uses in residential zones from having to meet the lot coverage standards.

d. **Add definitions and purpose statements.** The proposal would add more clear definitions of lot coverage, and modify the figure in the code.

e. **Allow additional parking coverage on a lot if pervious paving materials are used.** The proposal would count ½ the paved area as parking coverage if pervious paving materials are used. For example, 1,000 square feet of grasscrete would count the same as 500 square feet of asphalt when calculating parking coverage maximums.

FISCAL IMPACT: No direct impacts.

STRATEGIC ASSESSMENT: The City recently changed the minimum lot size in the R-1 zone. The proposed amendments will increase the amount of indoor living area allowed on lots. Since the total combined lot and parking coverage standards remain the same, there would be no impact on storm water runoff. Since the proposal is limited to single story buildings, overall development bulk is consistent with the objectives of the R-1 zone.

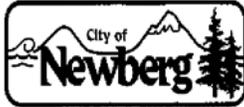
ATTACHMENTS:

Ordinance 2011-2746 with

Exhibit A: Development Code Amendment

Exhibit B: Findings

1. Planning Commission Resolution 2011-294 (exhibits by reference)
2. Minutes from July 14, 2011 Planning Commission hearing
3. Submittal from Doug Lanz



ORDINANCE No. 2011-2746

AN ORDINANCE AMENDING THE NEWBERG DEVELOPMENT CODE'S LOT COVERAGE STANDARDS

RECITALS:

1. Lot coverage standards help control storm drainage, provide for outdoor living areas on lots, and limit the bulk of development to that appropriate for the zone.
2. Newberg recently amended the Development Code to modify the minimum lot size allowed in the R-1 zone. The changes made no change in the maximum building coverage standards.
3. Allowing additional lot coverage for single story residences in the R-1 zone, without increasing the total combined parking and lot coverage standards, would allow additional indoor living areas on lots, and still not increase storm water impacts or increase the bulk of development allowed.
4. The Planning Commission recommends that small accessory buildings and non-residential uses should be exempt from needing to meet the lot coverage standards.
5. The Newberg Planning Commission initiated a Development Code amendment, held a hearing on July 14, 2011, and recommended the City Council adopt the proposed amendments.
6. The City Council held a hearing on August 15, 2011 to consider the proposed amendments.
7. The Code of Newberg is amended and shown in Exhibit "A." Exhibit "A" is hereby attached and by this reference incorporated.

THE CITY OF NEWBERG ORDAINS AS FOLLOWS:

1. The Code of Newberg is amended and shown in Exhibit "A," which is attached. Exhibit "A" is hereby adopted and by this reference incorporated.
2. The findings shown in Exhibit "B" are hereby adopted and by this reference incorporated.

➤ **EFFECTIVE DATE** of this ordinance is 30 days after the adoption date, which is: September 14, 2011.

ADOPTED by the City Council of the City of Newberg, Oregon, this 15th day of August, 2011, by the following votes: **AYE:** **NAY:** **ABSENT:** **ABSTAIN:**

Norma I. Alley, City Recorder

ATTEST by the Mayor this 18th day of August, 2011.

Bob Andrews, Mayor

LEGISLATIVE HISTORY

By and through Newberg Planning Commission at 7 / 14 / 2011 meeting. Or, None.
(committee name) *(date)* *(check if applicable)*

**Exhibit “A” to Ordinance 2011-2746
Newberg Development Code Lot Coverage Amendments**

Note: Existing text is shown in regular font.
Added text is shown in double-underline
Deleted text is shown in ~~strikethrough~~.

Section 1. Newberg Development Code Section 15.405.040 shall be amended as follows:

15.405.040 Lot coverage and parking coverage requirements.

A. Purpose. The lot coverage and parking coverage requirements below are intended to:

1. Limit the amount of impervious surface and storm drain runoff on residential lots.
2. Provide open space and recreational space on the same lot for occupants of that lot.
3. Limit the bulk of residential development to that appropriate in the applicable zone.

~~A. For all buildings and uses the following shall mean the maximum permitted lot coverage, maximum coverage of public or private parking areas or carports, and/or combined maximum lot and parking combined coverage required in the various districts expressed in percentage of the area of the lot or development site in which district such coverage is permitted or required (see Appendix A, Figure 4).~~

B. Residential uses in residential zones shall meet the following maximum lot coverage and parking coverage standards. See the definitions in NMC 15.05.030 and Appendix A, Figure 4.

1. Maximum Lot Coverage.

- a. R-1 : 30 percent, or 40 percent if all structures on the lot are one-story.
- b. R-2 and RP: 50 percent.
- c. AR and R-3: 50 percent.

2. Maximum Parking Coverage. ~~Maximum coverage for parking lots, aisles and access, and parking structures, where 50 percent or more of the perimeter of such structure is open on its sides:~~ R-1 , R-2, R-3, and RP: 30 percent.

3. Combined Maximum Lot and Parking ~~Area~~ Coverage.

- a. R-1 , R-2 and RP: 60 percent.
- b. R-3: 70 percent.

B.C. All other districts and uses not listed in subsection (A) of this section shall not be limited as to lot coverage and parking ~~area~~ coverage except as otherwise required by this code.

Section 2. The definitions in Newberg Development Code Section 15.05.030 shall be amended as follows:

“Accessory Structure, Exempt” means a structure for which a permit is not required by the applicable building code, and which may or may not be subject to standards of this code. Until amended, this includes, but is not limited to, the following structures accessory to single family and two-family dwellings:

1. Nonhabitable one-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 200 square feet and a height of 10 feet measured from the finished floor level to the average height of the roof surface,
2. Prefabricated swimming pools where the pool walls are entirely above grade, excluding barriers subject to building permit requirements.
3. Swings and other playground equipment.
4. Patio and porch covers not over 200 square feet and supported by an exterior building wall.
5. Porches and decks, where the floor or deck is not more than 30 inches above adjacent grade at any point and where in the case of a covered porch, the covered portion of the porch does not come closer than 3 feet to property lines.
6. Frame-covered nonhabitable accessory buildings not more than 500 square feet in area, one story in height and not closer than 3 feet to a property line, where the structure is composed of a rigid framework that supports a fabric membrane.

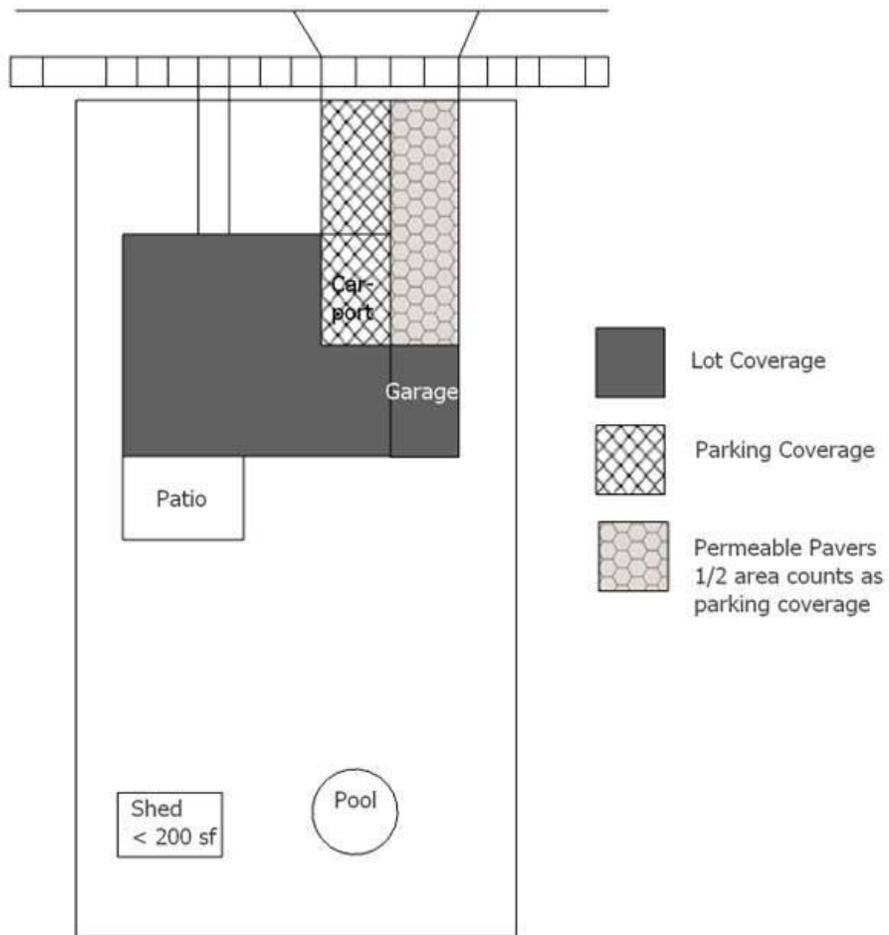
Exempt Accessory Structure. See **“Accessory Structure, Exempt.”**

“Lot coverage” means that portion of a lot which, when viewed directly from above, would be covered by a building, or any part of a building, except any area covered by a structure where 50 percent or more of the perimeter of such structure is open from grade, or any exempt accessory structure. (See also Appendix A, Figure 4.)

“Parking coverage” means that portion of a lot covered by parking lots, aisles and access, and parking structures, where 50 percent or more of the perimeter of such structure is open on its sides. It includes one-half the area covered by approved pervious paving materials such as grasscrete, permeable asphalt, or permeable pavers.

Section 3. Appendix A, Figure 4 shall be replaced with the following figure.

Figure 4. Lot Coverage and Parking Coverage



**Exhibit “B” to Ordinance 2011-2746
Findings**

NEWBERG COMPREHENSIVE PLAN POLICIES

RECREATION POLICY G.2. *To provide adequate recreational resources and opportunities for the citizens of the community and visitors.*

Finding: The amendments would continue to allow areas on lots for private recreation by limiting lot coverage to no more than 40 percent, and retaining the combined parking and lot coverage maximum percentage at 60 percent.

URBAN DESIGN GOAL J.1: *To maintain and improve the natural beauty and visual character of the City.*

Finding: The amendment retains the visual character of R-1 areas by limiting the lot coverage of two-story buildings to 30 percent, while allowing 40 percent lot coverage for one story buildings.

RESIDENTIAL LAND USE PLAN CLASSIFICATIONS III.2

Residential land is divided into three categories. Density rather than housing type is generally the most important development criteria used to classify residential areas. Mobile home parks and mobile home subdivisions are permitted outright in the medium density residential zone. Manufactured homes on individual single family lots are permitted. (As amended by Ord. 2380, 6-6-94).

The following is a summary of the three residential land use categories:

a. Low Density Residential (LDR)

The objective of this designation is to provide a wide range of housing types and styles, while allowing for an overall density of up to 4.4 units per acre.

*Typical housing types will include single-family attached and detached housing. Clustered housing areas within Planned Unit Developments or condominiums **must include adequate open areas to maintain the low overall density of this classification.***

Services shall include improved streets, underground utilities (except electrical transmission lines), street lighting, sidewalks, and in some cases, bikeways.

Finding: The amendments would continue to require 40% total open area on a lot in the R-1 zone, allowing open space, outdoor recreational use, and an overall low density.

PLANNING COMMISSION RESOLUTION NO. 2011-294

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF NEWBERG
RECOMMENDING THE CITY COUNCIL ADOPT AMENDMENTS TO THE NEWBERG
DEVELOPMENT CODE REGARDING LOT COVERAGE**

RECITALS:

1. Newberg recently amended the Development Code to modify the minimum lot size allowed in the R-1 Zone. The changes made no change in the maximum building coverage standards.
2. The Planning Commission believes it would be appropriate to allow additional lot coverage for single story residences in the R-1 Zone.
3. The Commission would like to exempt small accessory buildings and non-residential uses from needing to meet the lot coverage standards.
4. The Commission held a hearing on July 14, 2011, considered testimony, and deliberated.

NOW THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Newberg that it recommends that the City Council adopt the amendment to the Newberg Development Code and Newberg Comprehensive Plan as shown in Exhibit A.

This recommendation is based on the findings shown in Exhibit B and on testimony.

Adopted by the Newberg Planning Commission this 14th day of July, 2011.

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 2 (Bliss, Stahr)

ATTEST:

Karen Beville
Planning Commission Secretary

Philip D Smith
Planning Commission Chair

Exhibit A: Development Code Text Amendments

Exhibit B: Findings

PLANNING COMMISSION MINUTES
July 14, 2011
7 p.m. Regular Meeting
Newberg Public Safety Building
401 E. Third Street

TO BE APPROVED AT THE AUGUST 11, 2011 PLANNING COMMISSION MEETING

I. ROLL CALL:

Present: Philip Smith, Chair Thomas Barnes, Vice Chair
Lon Wall Allyn Edwards
Art Smith
Kale Rogers, Student PC (arrived 7:08 p.m.)

Absent: Gary Bliss (excused) Cathy Stuhr (excused)

Staff Present: Barton Brierley, Building & Planning Director
Steve Olson, Associate Planner
DawnKaren Bevill, Minutes Recorder

II. OPEN MEETING:

Chair Smith opened the meeting at 7:00 p.m. and asked for roll call.

III. CONSENT CALENDAR:

Vice Chair Smith entertained a motion to accept the minutes of the June 9, 2011 meeting.

MOTION #1: Art Smith/Edwards approve the minutes from the Planning Commission Meeting of June 9, 2011. (5 Yes/ 0 No/ 2 Absent [Bliss, Stuhr]) Motion carried.

IV. COMMUNICATIONS FROM THE FLOOR:

None.

V. LEGISLATIVE PUBLIC HEARINGS:

APPLICANT: City of Newberg
REQUEST: Amend the Newberg Development Code definitions and requirements for manufactured dwellings, and create a new manufactured dwelling district.
FILE NO. DCA-11-001 **RESOLUTION NO.:** 2011-293
CRITERIA: 15.302.030(C)

Opening of the Hearing:

Chair Smith opened the hearing and asked for the staff report.

Barton Brierley gave the staff report and the Manufactured Housing PowerPoint presentation.

What the Amendments Do:

Create a manufactured dwelling district where only manufactured housing is allowed (does not apply to anywhere on the map at this point)

Adopt state definitions for manufactured housing.

Update, reorganize, and resolve inconsistencies

Purpose of Amendments:

Encourage creation of new areas for manufactured housing

Clean up existing rules regarding manufactured housing to match state law and current practices

New R-4 Manufactured Housing District

New zone that allows:

Manufactured homes on individual lots (single or double wide)

Mobile home parks

Manufactured dwelling parks

Manufactured dwelling subdivisions

Not tied to any specific site at this time

Updates to Meet State Laws:

RVs allowed in manufactured dwelling or mobile home park indefinitely.

Clear and objective standards applied to manufactured housing.

Other Updates:

Current codes mix recreational vehicles and mobile home rules. Changes clearly separate them.

Mobile Home Park "license" no longer required.

Manufactured homes in manufactured dwelling subdivision need not be owner occupied

Conflicts removed (Mobile home park Type I vs. Type II)

Rules updated allowing temporary placement of an RV or manufactured dwelling during home construction.

Staff Recommendation:

Staff recommends adoption of Resolution 2011-293, recommending that the City Council adopt the proposed amendments.

Questions:

Commissioner Wall asked if the City has an actual RV definition. Barton Brierley referred to the definition on page 15 of the meeting packet; *"The unit shall be identified as a recreational vehicle by the manufacturer and meet applicable federal standards for construction."* Commissioner Wall is concerned with that definition, as it is broad and does not factor in condition.

Chair Smith asked staff if recreational vehicles must be allowed as dwellings that take up a space in a park. Mr. Brierley replied that a manufactured dwelling space can be occupied by a manufactured home, mobile home, or recreational vehicle. State law does not allow the local government to prohibit RVs in manufactured dwelling spaces. You cannot require a certain age for mobile homes in a mobile home park but he is unsure about recreational vehicles.

Commissioner Barnes stated an RV would not be allowed to take up a space in most manufactured home parks because it is private property, and the park management would not allow it. Mr. Brierley stated the

park can set rules to not allow RVs but the City code cannot prohibit the RVs. Commissioner Barnes asked if the existing manufactured home parks in the City could apply for a zone change to the R-4 zone. Mr. Brierley replied, yes the park owner could apply.

Chair Smith asked why the word “district” is used instead of R-4 zone. Mr. Brierley explained that all the zones in the code are referred to as a district.

Kale Rogers asked what percentage of lot coverage the R-4 zone falls under. Mr. Brierley explained that the R-4 zone would not have a coverage limit as currently proposed. Commissioner Barnes stated there is 60% coverage (structures and parking) in existing mobile home parks.

Chair Smith opened public testimony.

Undecided:

Rene Garoutte lives in Springbrook Estates. She asked why a park would want to change to an R-4 zone and, if the zone change was approved, would that increase or decrease the property taxes. Commissioner Smith replied that the reason the city is considering creating an R-4 zone is because the Taskforce on Affordable Housing recognized manufactured housing as an important source of affordable housing in the City which should be encouraged. They thought having a zone specifically designed to encourage manufactured housing would help to increase and maintain this kind of housing in the City. Mr. Brierley stated that if the park wanted to be zoned R-4 they would need to apply and go through the normal zone change process. Only the County Tax Assessor could answer the property tax question, but he does not believe their taxes will be affected. Commissioner Barnes stated the taxes are on the home and not on the land. Mr. Brierley explained it could facilitate long-term maintenance of the park, which would provide some stability to the area.

Chair Smith closed public testimony.

Deliberation:

Commissioner Edwards stated the age of an RV is not the concern but instead the safety and functionality of the vehicle or the unit.

Chair Smith does not think specifying lot coverage for manufactured home parks is needed due to the density and design of the typical park. On the matter of dilapidated housing or recreational vehicles, he believes it would be difficult to write a rule and suggested passing this resolution as currently written and see if difficulties arise in the future.

Commissioner Edwards agreed that concerns about vehicle condition and lot coverage could be addressed if needed in the future. He is in favor of the resolution.

MOTION #2: Barnes/Wall moved to approve Planning Commission Resolution No. 2011-293. (5 Yes/ 0 No/ 2 Absent [Bliss, Stuhr]) Motion carried.

APPLICANT: City of Newberg
REQUEST: Amend the Newberg Development Code lot coverage limit in the R-1 zone from 30% to 40% for one story homes, and modify lot coverage requirements.
FILE NO: DCA-11-001 **RESOLUTION NO.:** 2011-294

CRITERIA: 15.302.030(C)**Opening of the hearing:**

Chair Smith opened the hearing and asked for the staff report.
Barton Brierley gave the staff report and PowerPoint presentation.

Proposal:

Add definitions and purpose statements for lot coverage.
Exclude small accessory buildings from lot coverage calculations.
Allow additional parking coverage if permeable paving materials are used.
Increase the lot coverage in R-1 from 30% to 40% for single story residences.
Exclude non-residential uses from needing to meet lot coverage standards.

Purpose for Lot Coverage Standards:

Control Storm Drainage
Provide for Outdoor Living Area on a Lot
Limit Development Density to that Appropriate for the Zone

The purpose for lot coverage standards is:

Control Storm Drainage (combined lot/parking coverage left at 60%)
Provide for Outdoor Living Area on a Lot
Limit Development Density

Application to Non-residential uses:

No longer applies to non-residential uses

Staff Recommendation:

Staff recommends the adoption of Resolution 2011-294, recommending that the City Council adopt the proposed amendments.

Questions:

Commissioner Wall asked if there is a mechanism to apply for a variance for greater lot coverage. Mr. Brierley replied yes, there are two basic processes. An adjustment is an administrative process and limits the increase to 2%; this is fairly inexpensive. A variance procedure is for increases of more than 2%. Up to 100% can be increased in a variance if justified.

Commissioner Edwards pointed out a grammar correction on page 45, Discussion of proposal (b); *"The proposal would "exclude" buildings..."* Commissioner Edwards asked for clarification regarding frame-covered nonhabitable accessory buildings. Mr. Brierley explained that refers to a building that is covered by a tarp, and the definition comes directly from the building code. No building permit is needed if the structure is not more than 500 square feet.

Chair Smith stated this is the first time the Planning Commission will vote on a resolution to change the City Code based on the initiative of a citizen. He thanked Mr. Doug Lanz, Managing Partner for the Terrace Heights Subdivision and Northwest Classic Custom Homes, for bringing his concerns to the City.

MOTION #3: Art Smith/Barnes moved to approve Planning Commission Resolution No. 2011-294. (5 Yes/ 0 No/ 2 Absent [Bliss, Stuhr]) Motion carried.

VI. ITEMS FROM STAFF:

Correspondence:

Barton Brierley stated that a letter from Mr. Leonard Rydell was submitted to the City Council in response to the appeal of the Planning Commission's decision to approve the Habitat for Humanity partition on Ninth Street. The City Council could not view the letter, since it was new evidence and the appeal hearing was a record hearing. Mr. Rydell understood the letter could not be given to the City Council but asked if it could be given to the Planning Commission to read and take into account when making future decisions.

Update on Council items:

The City Council upheld the Planning Commission decision on the Habitat for Humanity appeal. On July 18, 2011 the City Council will be hearing the Civic Corridor Sign Standards, the Annexation standard changes, and the South Industrial UGB Amendment (at the point of deliberation).

The next Planning Commission Meeting is scheduled on Thursday, August 11, 2011.

VII. ITEMS FROM COMMISSIONERS:

Commissioner Barnes invited the Planning Commission to attend the opening of the Chehalem Kayak Launch on July 23, 2011 from 2:00 – 4:00 p.m.

VIII. ADJOURN:

Chair Smith adjourned the meeting at 8:20 p.m.

Approved by the Planning Commission on this 11th day of August, 2011.

AYES:**NO:****ABSENT:****ABSTAIN:**

Planning Recording Secretary

Planning Commission Chair

Pacific Northwest Land Development inc.

Oregon City, Oregon

To: City of Newberg, Oregon

Planning Commission

Dear Commission Members;

We are writing to you at the request of the commission chair to explain our position on the need to change the current residential lot building coverage code of 30%. This letter focuses on single level homes only. We feel along with others in the city that the 30% lot coverage is too restrictive for a single level home. As we look at different examples of the 30% coverage you will see that it is economically unfeasible to build a new single level home in the city of Newberg due to this code.

As you are all aware we are living in very difficult times for building new single family homes. But we feel that Newberg as a unique opportunity for growth in new homes, based on your location and appeal to a certain segment of people that want to live in your city. I am speaking of people who are retired or close to retirement. These folks are looking to your city for its quiet appeal and friendly atmosphere. They are looking for high quality homes that offer modern living on a single level, with large gathering areas within the home for family and friends. Most are moderate to high income folks, looking for more luxury and efficiency in their home. As this may well be their last home. And that is very good business for the city of Newberg to have these people living in your city.

Most of these folks have raised their families and are now empty nesters. They have different needs in housing than do younger couples with children. Most have had the typical two story homes and are now looking for a different living style that is designed to meet current and future needs. They are looking for more living area in a single level home without staircases that may pose a problem to them down the road. They also want larger garages as many have a couple of vehicles and they may want work space in the garage. They may also want a small out building or shed for their yard. What they are not looking for, are large yards to maintain. As many travel and don't want the upkeep of a large yard. And this is not just for the empty nesters but for others as well. People's living styles are changing the single level home on smaller lot sizes is becoming more and more desirable to all groups for living ease and resale value.

As you will see by the exhibits that are attached; we can easily achieve this by simply increasing the buildable lot coverage from its current 30% to a more desirable 40%. As you will notice we are not asking for extreme lot coverage, but common sense lot coverage.

Exhibit "A" '5000 square foot lot' a single level home with a small two stall garage of 400 square feet. (20'x20' smaller than is commonly built). You will see that the largest living space area that can be built is only 1100 square feet. There is no way that a builder can build this home effectively due to the fact that the square foot cost would be over \$100.00 per square foot to build. The reason is that. Kitchens and baths tend to be the most expensive rooms in a house, costing over \$180.00 a square foot and up. In order to spread that cost through the house, we need other square footage (typically: bedrooms and living areas which cost less than \$40.00 a square foot) to balance that cost out. It should also be noted that the owner of this home would not even be able to place a small 8'x8' shed on the property; as that would put them over the current 30% lot coverage. With a change in lot coverage to 40% the house could now be built to 1600 square feet making the price per square foot much more feasible and the house much more desirable to live in.

Exhibit “B” ‘5000 square foot lot’ a single level home with a larger garage of 520 square feet (still undersized for a three stall garage, (22’x24’=528). You can see that the largest living area that can be built is only 980 square feet. A home of this size would never get built by any builder. It is both cost prohibited as well as totally unpractical to build in any modern market. No out buildings (shed) of any kind can be placed on this property at the current code coverage of 30%. But by changing the code to 40% lot coverage we can now build a 1480 square foot home with the garage. And now we have a nice little starter home, that fits the lot well and offers buyers a much improved value on the square foot cost to build as we are spreading the cost of the kitchens and baths across the house.

Exhibit “C” ‘7500 square foot lot’ a single level home with a small 400 square foot two stall garage. With the larger lot size, a 20’x20’ garage would never be built. Most garages are at least 22’ wide and at least 20’ to 23’ deep especially when you factor in the placement of a furnace and hot water heater that will be in the garage taking up space. With the additional cost of the land factored in and only being able to produce a house of 1847 square feet of living space, it would be very expensive to build this home under the current code. Most people that want a little larger single level home want it for the ability to spread the rooms out for more convenient living. They are factoring in their lifestyle as well as their future needs. This is a section of home building that we are very familiar with. As you can see there is still a large area of unused land on this property. We feel that a more balanced approach should be taken to these moderately sized homes. Most people who are looking for this style of home have already down sized from larger two story homes and are looking for the more living space with open floor plans, that are now being offered. They want less yard to care for and more outdoor living space, as is proven out in current trends for outdoor kitchens and fireplaces in the market. Gone are the days of large oversized master bedrooms and multi living areas. The new and future trends point to smaller bedrooms and having home offices to work from. Along with one central living area that is open to other parts of the home. Being able to have guests come and stay comfortably at your home.

Exhibit “D” ‘7500 square foot lot’ a single level home with a larger two stall plus garage. It should be noted that all of the these garages we are showing you are all very undersized to what the market is asking for. If we increased the garage size to what the current market size is in new housing it would make the house living space even smaller. As you can see the house is not in proportion to the lot size or building envelope.

We thank you for taking a look at this matter council members. We are asking for the change of lot coverage from 30% to 40% lot coverage. We strongly believe that this is needed in both the market place and for the future of your city.

Sincerely yours

Douglas Lanz

Pacific Northwest Land Development

LOT COVERAGE

LOT AREA: 5,000 SQ. FT.
FOOTPRINT: 1,500 SQ. FT.

PERCENTAGE: 30%

LIVING AREA REMAINING (single story): 1,100 SQ. FT.

LIVING AREA @ 40% COVERAGE WOULD BE: 1,600 SQ. FT.

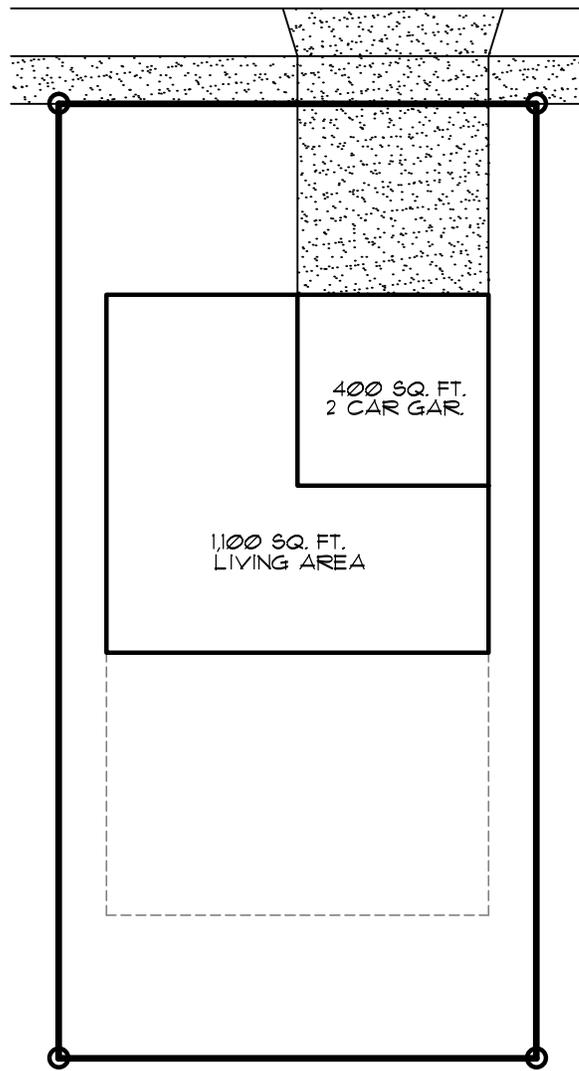


EXHIBIT "A"



LOT COVERAGE

LOT AREA: 5,000 SQ. FT.
FOOTPRINT: 1,500 SQ. FT.

PERCENTAGE: 30%

LIVING AREA REMAINING (single story): 980 SQ. FT.

LIVING AREA @ 40% COVERAGE WOULD BE: 1,480 SQ. FT.

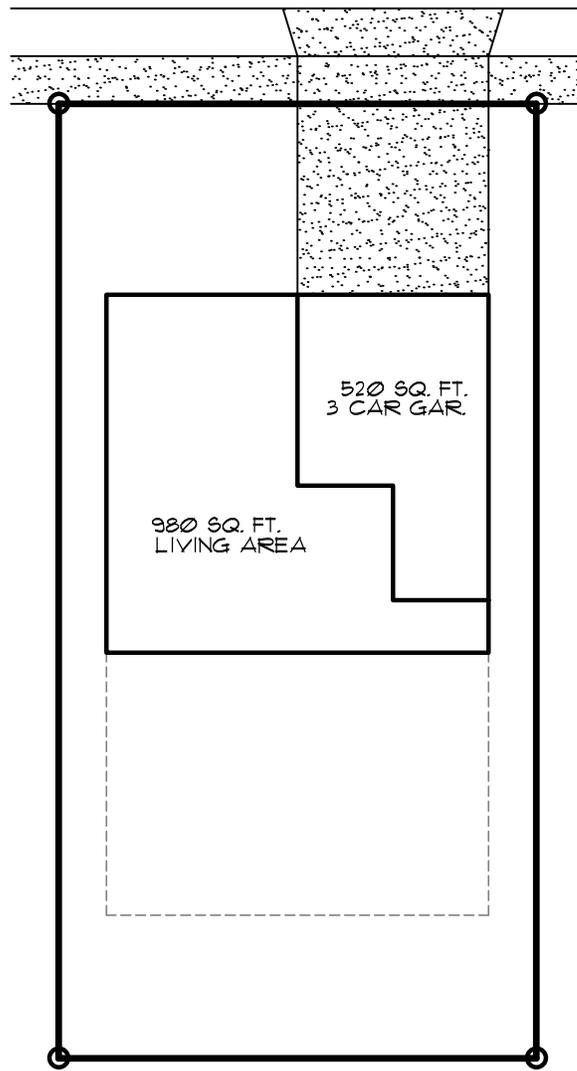


EXHIBIT "B"



LOT COVERAGE

LOT AREA: 7,500 SQ. FT.
FOOTPRINT: 2,250 SQ. FT.

PERCENTAGE: 30%

LIVING AREA REMAINING (single story): 1,847 SQ. FT.

LIVING AREA @ 40% COVERAGE WOULD BE: 2,600 SQ. FT.

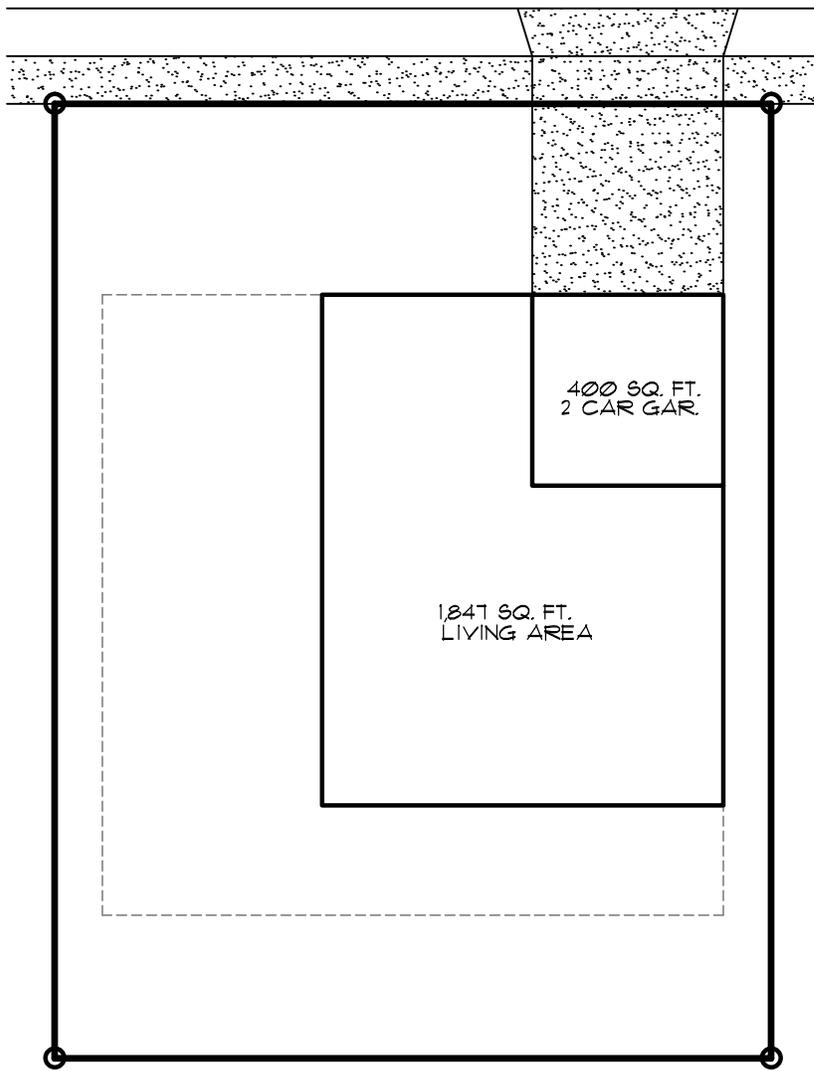


EXHIBIT "C"



LOT COVERAGE

LOT AREA: 7,500 SQ. FT.
FOOTPRINT: 2,250 SQ. FT.

PERCENTAGE: 30%

LIVING AREA REMAINING (single story): 1,727 SQ. FT.

LIVING AREA @ 40% COVERAGE WOULD BE: 2,480 SQ. FT.

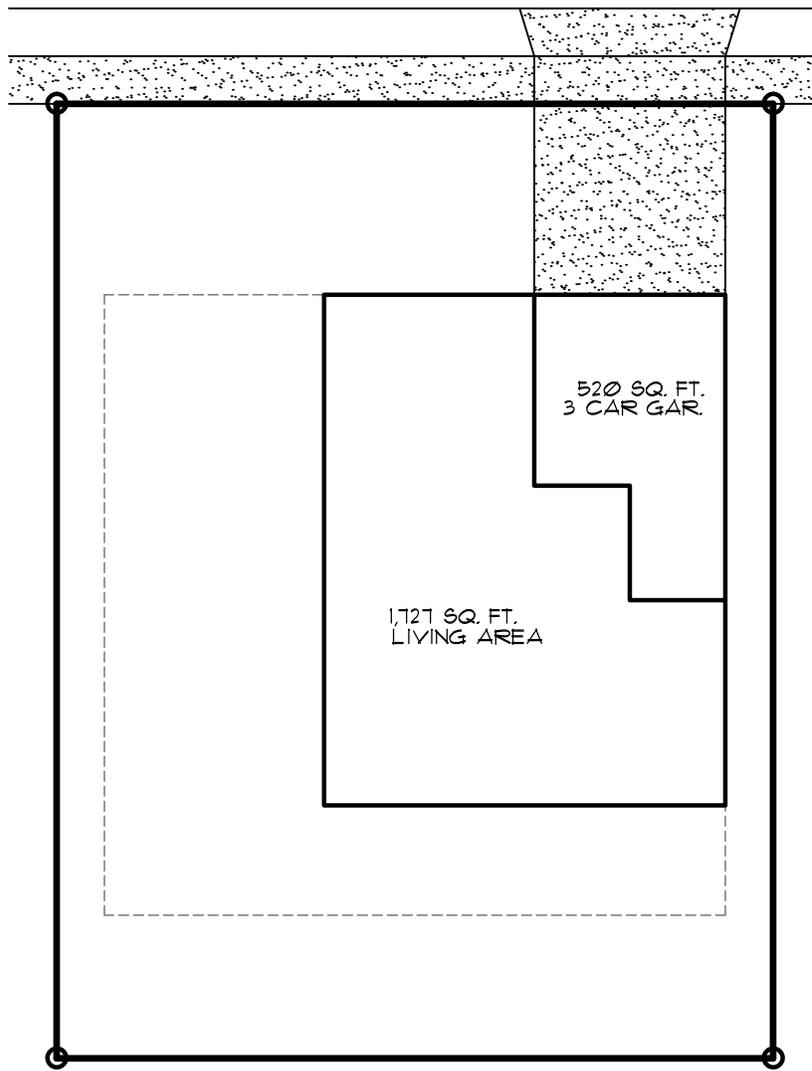


EXHIBIT "D"



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REQUEST FOR COUNCIL ACTION

DATE ACTION REQUESTED: August 15, 2011

Order ___ No.	Ordinance ___ No.	Resolution <u>XX</u> No. 2011-2965	Motion ___	Information ___
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SUBJECT: A Resolution directing staff to establish a bicycle program that will include marked and signed bicycle routes, printed maps, and a bicycle rack cost sharing program.

Contact Person (Preparer) for this
Motion: Jessica Nunley, AICP
Dept.: Planning & Building
File No.: G-11-004

RECOMMENDATION:

Adopt **Resolution No. 2011-2965** directing staff to establish a comprehensive bicycle program that will include marked and signed bicycle routes, printed maps, and a bicycle rack cost sharing program.

EXECUTIVE SUMMARY:

Background

The City Council adopted the Newberg ADA/Pedestrian/Bike Route Improvement Plan (the Plan) in June 2007 by Resolution No. 2007-2718 to guide future city investments in its alternative transportation infrastructure. The Plan explains the benefit to the city and citizens of developing and enhancing bicycle and pedestrian routes throughout the city:

The Plan is designed to take Newberg's bicycle and pedestrian system to the next level: to help develop a comprehensive bicyclist and pedestrian system that enhances and increases the city's walkability to the extent that all people will feel safe walking, to increase connections to destinations throughout the city, and to increase the number of children who walk and bike to school.

Walking and bicycling are healthy, efficient, low cost modes of travel, available to nearly everyone. Walking is the most basic form of transportation. Almost everyone is a pedestrian at some point in the day, as walking is often the quickest way to accomplish short trips in urban areas. Pedestrians also include persons using wheelchairs and other forms of mobility devices. Bicycling is the most energy efficient form of transportation today. A car will only travel 280 feet on the number of calories that a bicyclist needs to travel three miles.

Walking and bicycling help communities develop and maintain "livable communities;" making neighborhoods safer and friendlier; and reducing transportation related environmental impacts, mobile emissions, and noise. They provide transportation system flexibility by providing alternative mobility options, particularly in combination with transit systems, to people of all ages and abilities. There is also growing interest in encouraging walking and bicycling as a means for improving public health. Planners and city leaders are encouraged to create more walkable and bikeable communities that promote healthier lifestyles.

Walking and bicycling are important to the health of all those living and working in Newberg, not just to those doing the walking or cycling. People choosing to ride or walk rather than drive are typically replacing short automobile trips, which contribute disproportionately high amounts of pollutant emissions. Since bicycling and walking contribute no pollution, require no external energy source, and use land efficiently, they effectively move people from one place to another with minimal environmental impacts.

Bicycling and walking can also help alleviate congestion and stressed transportation systems. Nationally, the number of vehicle miles traveled (VMT), rates of car ownership, and trips have continued to grow, which has increasingly stressed transportation systems (primarily roadways) and contributed to congestion (NPTS, 2003).

Bicycling and walking require less space and infrastructure when compared to automobile facilities. Improvements made for bicyclists often result in better conditions for other transportation users as well. For instance, paved shoulders, wide curb lanes, and bicycle lanes not only provide improved conditions for bicyclists, but also often contribute to safer conditions for motorists and a reduction in roadway maintenance costs as well.

Walking and bicycling are also good choices for families. A bicycle enables a young person to explore her neighborhood, visit places without being driven by her parents, and experience the freedom of personal decision-making. More trips by bicycle and on foot mean fewer trips by car. In turn, this means less traffic congestion around schools and in the community, and less time spent by parents driving kids around.

Bicycling and walking create opportunities to speak to neighbors and put more “eyes on the street” to discourage crime and violence. It is no accident that communities with high levels of walking and bicycling have low crime rates and are generally attractive and friendly places to live.

The extent of bicycling and walking in a community has been described as a barometer of how well that community is advancing its citizens’ quality of life. Streets that are busy with bicyclists and walkers are considered to be environments that work at a human scale, and foster a heightened sense of neighborhood and community.

Proposed Bicycle Program

Resolution No. 2011-2965 would direct staff to establish a bicycle program that would implement the city’s ADA/Pedestrian/Bike Route Improvement Plan. The bicycle program would kick off with completion of a designated bicycle route as shown in Attachment 2 that would include the placement of shared lane markings (also called “sharrows”; terms may be used interchangeably throughout this report) on the roadway, wayfinding signs along the route to destinations within the city, a printed bicycle route map, and purchase of 10 bicycle parking racks to establish a bicycle rack cost sharing program with local businesses. The proposed bicycle route follows routes identified by the Plan as being critical on-street routes.

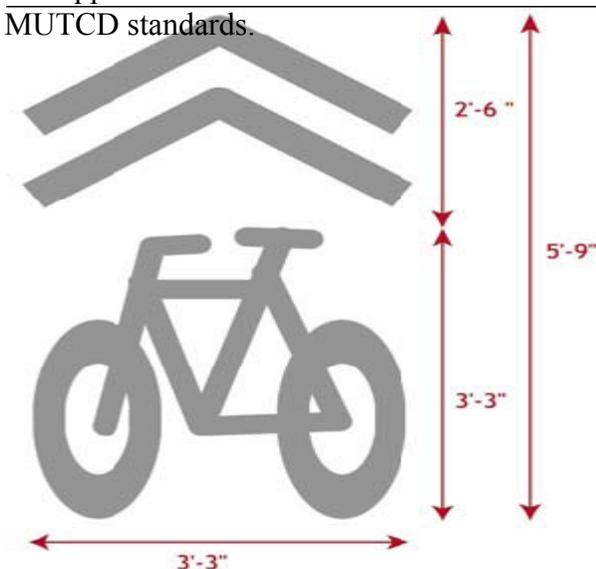
The Plan talks about shared roadways and the types of treatments needed to designate them as bicycle routes:

Typically the most common type of bikeway, shared roadways are streets with relatively low traffic volumes and posted speeds that enable cyclists and motorists to share the same travel lanes. These streets usually have two travel lanes with or without adjacent on-street parking.

Shared roadways that incorporate treatments to accommodate cyclists are often called “bicycle boulevards.” Bicycle boulevards are developed through a combination of traffic calming measures and other streetscape treatments, and are intended to slow vehicle traffic while facilitating safe and convenient bicycle travel. Appropriate treatments depend on several factors including traffic volumes, vehicle and bicycle circulation patterns, street connectivity, street width, physical constraints, and other parameters. Most streets could be provided relatively inexpensive treatments like new signage, pavement markings, striping and signal improvements to facilitate bicyclists’

mobility and safety. Other potential treatments include curb extensions, medians, on-street parking delineation and other features that can be implemented at reasonable cost and are compatible with snow plowing and emergency vehicle accessibility. It should be noted that many bicycle boulevard treatments can also benefit pedestrians. Curb extensions, for instance, can reduce vehicle speeds on a street by creating a visual “pinch point” for motorists. They also improve the pedestrian environment by shortening the pedestrian crossing distance.

The proposed bicycle program would start off by using wayfinding signage and pavement markings to facilitate designation of the proposed route. According to the Plan, “Some communities use high-visibility pavement markings to delineate specifically where bicyclists should operate within the travel lane. These markings, known as “sharrows,” are often used on streets where dedicated bicycle lanes are desirable but are not possible due to physical or other constraints. Sharrows are placed strategically in the travel lane to alert motorists of bicycle traffic, while also encouraging cyclists to ride at an appropriate distance from the “door zone” of adjacent parked cars.” The Manual on Uniform Traffic Control Devices (MUTCD) has a chapter on Traffic Control for Bicycle Facilities that specifies the appropriate placement of shared lane markings to keep bicyclists clear of the open doors of a parked vehicle. The picture at left illustrates the size and appearance of a standard sharrow. Sharrows will be placed along the route in accordance with the MUTCD standards.



In many cases, bicyclists ride on the sidewalk when they don't feel safe riding in the street with vehicle traffic. Placement of shared lane markings in the travel lane show bicyclists where they should be riding and also illustrate to motorists that they should expect to see and share the lane with bicyclists, increasing safety for all users. According to a study completed by the U.S. Department of Transportation, Federal Highway Administration, “Sharrows can be used in a variety of situations, and increased use should enhance motorist awareness of bicyclists or the possibility of bicyclists in the traffic stream. Results indicate that sharrows increased operating space for bicyclists. Sharrows have reduced sidewalk riding not only in the current study but also in a previous study in Gainesville, FL.”¹ Therefore, while sidewalk riding may not end completely, having a

Sharrows

designated place to ride can go a long way toward making bicyclists feel safe on the roadway.

The Plan also discusses wayfinding signs in detail:

Bicycle wayfinding signs should be installed along Newberg's bicycle boulevards and other cycling routes. Placing signs throughout the city indicating to bicyclists their direction of travel, location of destinations, and the time/distance to those destinations will increase users' comfort and accessibility to the bicycle system. Wayfinding signs also visually cue motorists that they are driving along a bicycle route and should correspondingly use caution. Signs are typically placed at key locations leading to and along bicycle routes, including where multiple routes intersect. Note that too many road signs tend to clutter the right-of-way, and it is recommended that these signs be posted at a level most visible to bicyclists and pedestrians, rather than per vehicle signage standards. Care also needs to be taken that any signs are posted at the proper location and

¹ TechBrief, *Evaluation of Shared Lane Markings*, U.S. Department of Transportation, Federal Highway Administration (October 2010).

orientation to be visible to bicyclists.

Wayfinding signs and bicycle maps help encourage residents to ride their bikes in addition to helping bicyclists and pedestrians get to where they want to go within the city. The initial bicycle route would have wayfinding signs strategically placed at key locations to point the way to destinations within the city such as parks, schools, downtown, the library, and others. Wayfinding signage can also encourage drivers to get out of their cars and get to local destinations on foot or by bicycle. Drivers often overestimate how far away local shops are in their neighborhoods, discouraging them from considering walking or bicycling. Wayfinding signage helps let everyone know that their destinations are within reach. The picture on the right is an example of a wayfinding sign that may be used along the route.



Example Wayfinding Sign

Along the same lines, bicycle maps are an important component of encouraging biking by illustrating designated routes throughout the city. As more routes are designated, the bicycle map will be updated to reflect connectivity throughout the city. Bicycle maps can be a good way to promote tourism as well, by letting tourists know that bicycle routes are available in the city if they want to bring their bikes or rent bikes while they are here. Many bicycle maps incorporate an educational component by having a section on the back of the map reminding bicyclists of the appropriate hand signals while riding, the appropriate way to wear helmets, or by listing applicable rules of the road; staff can incorporate similar things into the Newberg bicycle route map.



Current Rack Design Used by City

In order to further encourage bicycle ridership in the community, the city should encourage placement of bicycle racks at more businesses throughout the community. In December 2005, the Council adopted Resolution No. 2005-2606 which adopted design guidelines for streetscape amenities in the downtown area. One of the identified streetscape amenities was bicycle racks. The picture to the left identifies the bicycle rack design currently used by the city in the downtown area. Staff proposes that as part of the overall bicycle program, the city implement a bicycle rack cost sharing program with businesses throughout the city, using the currently approved rack design. There are many other cities currently operating similar programs, and it would be an easy way to get businesses on board and increase ridership to their facilities. A simple way to implement such a program would be to purchase a stock of bicycle racks, collaborate with the Newberg Downtown Coalition and advertise to local businesses, and then cost share with businesses by having the city provide the rack and having the business pay for installation and maintenance.

Because the Plan identifies critical routes for bicyclists and pedestrians, it may work well to identify critical ADA improvements along the routes that need to be completed and do some of them at the same time as the bicycle route is upgraded.

FISCAL IMPACT:

There will be an upfront cost to establishing the bicycle program, in the form of painting shared lane

markings (“sharrows”) on the roadways, purchasing and installation of wayfinding signs, printing maps, and purchasing bicycle racks. The table below shows the estimated costs, including labor, of each of these components.

Component	Number	Estimated Cost
Sharrows (Thermoplastic bicycle symbol. Posted along route according to the MUTCD manual)	100	\$20,000.00
Wayfinding Signs – to be posted at strategic points to direct cyclists to points of interest (schools, parks, downtown, etc)	8	\$2,400.00
Printing		\$1,000.00
Bicycle Racks	10	\$3,500.00
Contingency		\$3,100.00
Total		\$30,000.00

The initial funding for the bicycle program for this fiscal year is proposed to come from the Street Fund Contingency. Therefore, budget line item 02-5120-538105 Sidewalk Intersections/ADA/Bikeway would increase by \$30,000.00 and budget line item 02-9180-800000 Contingency would decrease by \$30,000.00, which will leave \$155,406.00 in the Contingency Fund.

Because the bicycle program is meant to be ongoing and to implement the Plan over time, staff will create a prioritized list of future route improvements to be included on the capital projects list for future years. The prioritized list will be based on information on the critical routes already included in the Plan. Thus, this funding request to kick-off the program will be a one-time request, and future projects will be included in each year’s budget process starting with the next fiscal year.

STRATEGIC ASSESSMENT:

Several ADA and sidewalk improvements have been completed over the past few years since adoption of the Plan, but bicycle route improvements have been minimal. The proposed bicycle program would establish an ongoing program to implement the policies and recommended improvements in the Plan. As route improvements are included on the capital projects list in the future, ADA improvements can be included so that each route improvement is comprehensive and in line with the vision of the Plan. Establishment of the bicycle program helps create an ongoing mechanism to implement the Plan and ensure adequate investment in ADA, bicycle, and pedestrian infrastructure.

The City Council recently adopted new mission and vision statements:

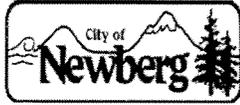
Mission Statement: “The City of Newberg serves its citizens, promotes safety, and maintains a healthy community.”

Vision Statement: “Newberg will cultivate a healthy, safe environment where citizens can work, play and grow in a friendly, dynamic and diverse community valuing partnerships and opportunity.”

Both of the statements address the issue of healthy communities. By establishing a bicycle program, the City Council would be promoting Newberg as a healthy community by providing ways to encourage bicycling and walking as appropriate modes of transportation.

Attachments:

1. Resolution No. 2007-2718
2. Proposed Pilot Bike Route
3. Map III-1 from the Newberg ADA/Pedestrian/Bike Route Improvement Plan (Primary Critical Routes)
4. MUTCD Manual, Part 9 – Traffic Control for Bicycle Facilities, 2009 Edition
5. TechBrief, *Evaluation of Shared Lane Markings*, U.S. Department of Transportation, Federal Highway Administration (October 2010)
6. Examples of bicycle rack cost sharing programs
7. Newberg ADA/Pedestrian/Bike Route Improvement Plan (by reference) – found at the following link:
http://www.newbergoregon.gov/sites/default/files/9C.%20Newberg%20ADA%20Plan%20June%202007_FINAL.pdf



RESOLUTION No. 2007-2718

**A RESOLUTION ADOPTING THE NEWBERG
ADA/PEDESTRIAN/BIKE ROUTE IMPROVEMENT PLAN TO
GUIDE FUTURE CITY INVESTMENTS IN ITS ALTERNATIVE
TRANSPORTATION INFRASTRUCTURE**

RECITALS:

1. On May 17, 2005, the Newberg City Council passed Resolution No. 2005-2578, expressing the City's support in the submission of a grant application to the State of Oregon's Transportation Growth Management Program to fund the development of a Newberg ADA/Pedestrian/Bike Route Improvement Plan. That grant request was approved and \$55,000 in grant funds were allocated for the proposed project. The grant funds were used to hire a consultant (Alta Planning and Design) to assist with the development of the plan.
2. To comply with a requirement of the grant contract, the City's previous Mayor, Bob Stewart, appointed a Task Force to assist with the development of the proposed plan. The Task Force consisted of 10 citizens, many representing community organizations with a clear interest in the development of the plan. The Task Force has met over the last year approximately each two months.
3. The purpose of the proposed plan (Exhibit A) is to provide a guide to the City to create an improved alternative transportation infrastructure that will provide for more direct, convenient, and safe bicycle, wheelchair, and pedestrian travel between key community destinations. To achieve this goal, the plan includes the following information:
 - An evaluation of current planning documents pertaining to pedestrian/bike/ ADA accessible routes within the city.
 - An overview of federal, state and local standards and regulations applicable to subject facilities.
 - Identification of critical pedestrian/bike/ADA accessible routes throughout the city, including a prioritization of primary critical routes.
 - A field inventory of critical route conditions and improvement needs.
 - A planning-level cost estimates for route improvements.
 - Identification and matching of specific funding sources for primary critical route improvements, both existing internal city resources and outside funding sources.
 - Development of ADA spot improvement program.
 - Description of design guidelines for route facility improvements.
 - Description of programs that encourage the use of alternative transportation.
4. On June 4, 2007, the City Council held a worksession regarding the subject plan. Notice of the worksession was placed in the *Newberg Graphic* on May 19, 2007 and posted in four public locations on May 16, 2007.

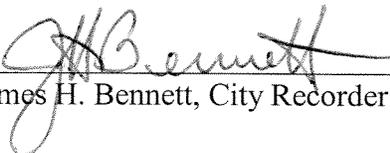
5. On June 18, 2007, the City Council held a public hearing regarding the subject plan. Notice of the public hearing was placed in the *Newberg Graphic* on June 2, 2007 and posted in four public locations on May 30, 2007.

THE CITY OF NEWBERG RESOLVES AS FOLLOWS:

The Newberg ADA/Pedestrian/Bike Route Improvement Plan is hereby adopted to guide future city investments in its alternative transportation infrastructure.

- **EFFECTIVE DATE** of this resolution is the day after the adoption date, which is: June 19, 2007.

ADOPTED by the City Council of the City of Newberg, Oregon, this 18th day of June, 2007.


James H. Bennett, City Recorder

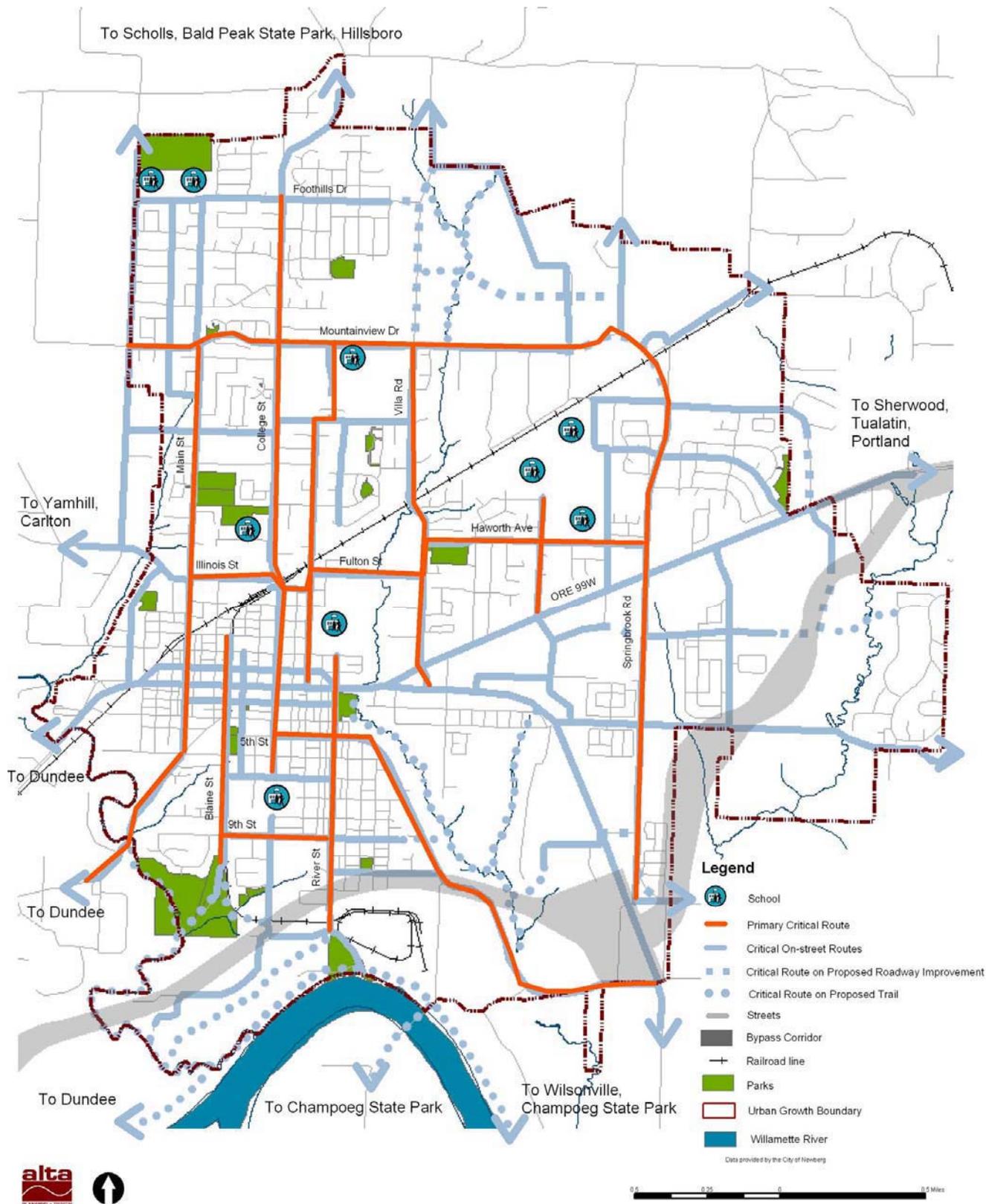
ATTEST by the Mayor this 21st day of June, 2007.


Bob Andrews, Mayor

LEGISLATIVE HISTORY

By and through the ADA/Pedestrian/Bike Route Improvement Plan Task Force at May 29, 2007 meeting.

Map III-1. Primary Critical Routes



PART 9

TRAFFIC CONTROL FOR BICYCLE FACILITIES

CHAPTER 9A. GENERAL

Section 9A.01 Requirements for Bicyclist Traffic Control Devices

Support:

- 01 General information and definitions concerning traffic control devices are found in Part 1.

Section 9A.02 Scope

Support:

- 01 Part 9 covers signs, pavement markings, and highway traffic signals specifically related to bicycle operation on both roadways and shared-use paths.

Guidance:

- 02 *Parts 1, 2, 3, and 4 should be reviewed for general provisions, signs, pavement markings, and signals.*

Standard:

- 03 **The absence of a marked bicycle lane or any of the other traffic control devices discussed in this Chapter on a particular roadway shall not be construed to mean that bicyclists are not permitted to travel on that roadway.**

Section 9A.03 Definitions Relating to Bicycles

Support:

- 01 Definitions and acronyms pertaining to Part 9 are provided in Sections 1A.13 and 1A.14.

Section 9A.04 Maintenance

Guidance:

- 01 *All signs, signals, and markings, including those on bicycle facilities, should be properly maintained to command respect from both the motorist and the bicyclist. When installing signs and markings on bicycle facilities, an agency should be designated to maintain these devices.*

Section 9A.05 Relation to Other Documents

Support:

- 01 “The Uniform Vehicle Code and Model Traffic Ordinance” published by the National Committee on Uniform Traffic Laws and Ordinances (see Section 1A.11) has provisions for bicycles and is the basis for the traffic control devices included in this Manual.
- 02 Informational documents used during the development of the signing and marking recommendations in Part 9 include the following:
- A. “Guide for Development of Bicycle Facilities,” which is available from the American Association of State Highway and Transportation Officials (see Page i for the address); and
 - B. State and local government design guides.
- 03 Other publications that relate to the application of traffic control devices in general are listed in Section 1A.11.

Section 9A.06 Placement Authority

Support:

- 01 Section 1A.08 contains information regarding placement authority for traffic control devices.

Section 9A.07 Meaning of Standard, Guidance, Option, and Support

Support:

- 01 The introduction to this Manual contains information regarding the meaning of the headings Standard, Guidance, Option, and Support, and the use of the words “shall,” “should,” and “may.”

Section 9A.08 Colors

Support:

- 01 Section 1A.12 contains information regarding the color codes.

CHAPTER 9B. SIGNS

Section 9B.01 Application and Placement of Signs

Standard:

- 01 **Bicycle signs shall be standard in shape, legend, and color.**
- 02 **All signs shall be retroreflectorized for use on bikeways, including shared-use paths and bicycle lane facilities.**
- 03 **Where signs serve both bicyclists and other road users, vertical mounting height and lateral placement shall be as provided in Part 2.**
- 04 **Where used on a shared-use path, no portion of a sign or its support shall be placed less than 2 feet laterally from the near edge of the path, or less than 8 feet vertically over the entire width of the shared-use path (see Figure 9B-1).**
- 05 **Mounting height for post-mounted signs on shared-use paths shall be a minimum of 4 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the path surface (see Figure 9B-1).**

Guidance:

- 06 *Signs for the exclusive use of bicyclists should be located so that other road users are not confused by them.*
- 07 *The clearance for overhead signs on shared-use paths should be adjusted when appropriate to accommodate path users requiring more clearance, such as equestrians, or typical maintenance or emergency vehicles.*

Section 9B.02 Design of Bicycle Signs

Standard:

- 01 **If the sign or plaque applies to motorists and bicyclists, then the size shall be as shown for conventional roads in Tables 2B-1, 2C-2, or 2D-1.**
- 02 **The minimum sign and plaque sizes for shared-use paths shall be those shown in Table 9B-1, and shall be used only for signs and plaques installed specifically for bicycle traffic applications. The minimum sign and plaque sizes for bicycle facilities shall not be used for signs or plaques that are placed in a location that would have any application to other vehicles.**

Option:

- 03 Larger size signs and plaques may be used on bicycle facilities when appropriate (see Section 2A.11).

Figure 9B-1. Sign Placement on Shared-Use Paths

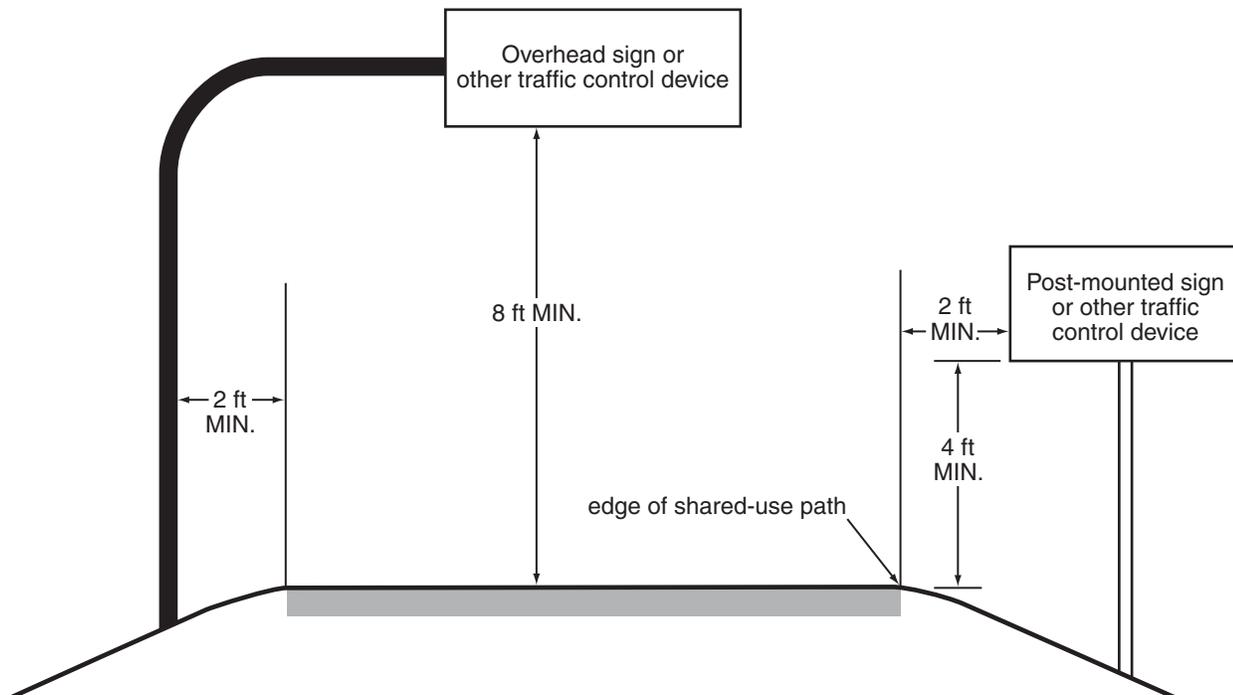


Table 9B-1. Bicycle Facility Sign and Plaque Minimum Sizes (Sheet 1 of 2)

Sign or Plaque	Sign Designation	Section	Shared-Use Path	Roadway
Stop	R1-1	2B.05, 9B.03	18 x 18	30 x 30
Yield	R1-2	2B.08, 9B.03	18 x 18 x 18	30 x 30 x 30
Bike Lane	R3-17	9B.04	—	24 x 18
Bike Lane (plaques)	R3-17aP, R3-17bP	9B.04	—	24 x 8
Movement Restriction	R4-1,2,3,7,16	2B.28,29,30,32; 9B.14	12 x 18	18 x 24
Begin Right Turn Lane Yield to Bikes	R4-4	9B.05	—	36 x 30
Bicycles May Use Full Lane	R4-11	9B.06	—	30 x 30
Bicycle Wrong Way	R5-1b	9B.07	12 x 18	12 x 18
No Motor Vehicles	R5-3	9B.08	24 x 24	24 x 24
No Bicycles	R5-6	9B.09	18 x 18	24 x 24
No Parking Bike Lane	R7-9,9a	9B.10	—	12 x 18
No Pedestrians	R9-3	9B.09	18 x 18	18 x 18
Ride With Traffic (plaque)	R9-3cP	9B.07	12 x 12	12 x 12
Bicycle Regulatory	R9-5,6	9B.11	12 x 18	12 x 18
Shared-Use Path Restriction	R9-7	9B.12	12 x 18	—
No Skaters	R9-13	9B.09	18 x 18	18 x 18
No Equestrians	R9-14	9B.09	18 x 18	18 x 18
Push Button for Green Light	R10-4	9B.11	9 x 12	9 x 12
To Request Green Wait on Symbol	R10-22	9B.13	12 x 18	12 x 18
Bike Push Button for Green Light	R10-24	9B.11	9 x 15	9 x 15
Push Button to Turn On Warning Lights	R10-25	9B.11	9 x 12	9 x 12
Bike Push Button for Green Light (arrow)	R10-26	9B.11	9 x 15	9 x 15
Grade Crossing (Crossbuck)	R15-1	8B.03, 9B.14	24 x 4.5	48 x 9
Number of Tracks (plaque)	R15-2P	8B.03, 9B.14	13.5 x 9	27 x 18
Look	R15-8	8B.17, 9B.14	18 x 9	36 x 18
Turn and Curve Warning	W1-1,2,3,4,5	2C.04, 9B.15	18 x 18	24 x 24
Arrow Warning	W1-6,7	2C.12, 2C.47, 9B.15	24 x 12	36 x 18
Intersection Warning	W2-1,2,3,4,5	2C.46, 9B.16	18 x 18	24 x 24
Stop, Yield, Signal Ahead	W3-1,2,3	2C.36, 9B.19	18 x 18	30 x 30
Narrow Bridge	W5-2	2C.20, 9B.19	18 x 18	30 x 30
Path Narrows	W5-4a	9B.19	18 x 18	—
Hill	W7-5	9B.19	18 x 18	30 x 30
Bump or Dip	W8-1,2	2C.28, 9B.17	18 x 18	24 x 24
Pavement Ends	W8-3	2C.30, 9B.17	18 x 18	30 x 30
Bicycle Surface Condition	W8-10	9B.17	18 x 18	30 x 30
Slippery When Wet (plaque)	W8-10P	9B.17	12 x 9	12 x 9
Grade Crossing Advance Warning	W10-1	8B.06, 9B.19	24 Dia.	36 Dia.
No Train Horn (plaque)	W10-9P	8B.21, 9B.19	18 x 12	30 x 24
Skewed Crossing	W10-12	8B.25, 9B.19	18 x 18	36 x 36
Bicycle Warning	W11-1	9B.18	18 x 18	24 x 24
Pedestrian Crossing	W11-2	2C.50, 9B.19	18 x 18	24 x 24
Combination Bike and Ped Crossing	W11-15	9B.18	18 x 18	30 x 30
Trail Crossing (plaque)	W11-15P	9B.18	18 x 12	24 x 18
Low Clearance	W12-2	2C.27, 9B.19	18 x 18	30 x 30
Playground	W15-1	2C.51, 9B.19	18 x 18	24 x 24
Share the Road (plaque)	W16-1P	2C.60, 9B.19	—	18 x 24

Table 9B-1. Bicycle Facility Sign and Plaque Minimum Sizes (Sheet 2 of 2)

Sign or Plaque	Sign Designation	Section	Shared-Use Path	Roadway
XX Feet (plaque)	W16-2P	2C.55, 9B.18	18 x 12	24 x 18
XX Ft (plaque)	W16-2aP	2C.55, 9B.18	18 x 9	24 x 12
Diagonal Arrow (plaque)	W16-7P	9B.18	—	24 x 12
Ahead (plaque)	W16-9P	9B.18	—	24 x 12
Destination (1 line)	D1-1, D1-1a	2D.37, 9B.20	varies x 6	varies x 18
Bicycle Destination (1 line)	D1-1b, D1-1c	9B.20	varies x 6	varies x 6
Destination (2 lines)	D1-2, D1-2a	2D.37, 9B.20	varies x 12	varies x 30
Bicycle Destination (2 lines)	D1-2b, D1-2c	9B.20	varies x 12	varies x 12
Destination (3 lines)	D1-3, D1-3a	2D.37, 9B.20	varies x 18	varies x 42
Bicycle Destination (3 lines)	D1-3b, D1-3c	9B.20	varies x 18	varies x 18
Street Name	D3-1	2D.43, 9B.20	varies x 6	varies x 8
Bicycle Parking Area	D4-3	9B.23	12 x 18	12 x 18
Reference Location (1-digit)	D10-1	2H.02, 9B.24	6 x 12	10 x 18
Intermediate Reference Location (1-digit)	D10-1a	2H.02, 9B.24	6 x 18	10 x 27
Reference Location (2-digit)	D10-2	2H.02, 9B.24	6 x 18	10 x 27
Intermediate Reference Location (2-digit)	D10-2a	2H.02, 9B.24	6 x 24	10 x 36
Reference Location (3-digit)	D10-3	2H.02, 9B.24	6 x 24	10 x 36
Intermediate Reference Location (3-digit)	D10-3a	2H.02, 9B.24	6 x 30	10 x 48
Bike Route	D11-1, D11-1c	9B.20	24 x 18	24 x 18
Bicycles Permitted	D11-1a	9B.25	18 x 18	—
Bike Route (plaque)	D11-1bP	9B.25	18 x 6	—
Pedestrians Permitted	D11-2	9B.25	18 x 18	—
Skaters Permitted	D11-3	9B.25	18 x 18	—
Equestrians Permitted	D11-4	9B.25	18 x 18	—
Bicycle Route	M1-8, M1-8a	9B.21	12 x 18	18 x 24
U.S. Bicycle Route	M1-9	9B.21	12 x 18	18 x 24
Bicycle Route Auxiliary Signs	M2-1; M3-1,2,3,4; M4-1,1a,2,3,5,6,7,7a,8,14	9B.22	12 x 6	12 x 6
Bicycle Route Arrow Signs	M5-1,2; M6-1,2,3,4,5,6,7	9B.22	12 x 9	12 x 9
Type 3 Object Markers	OM3-L,C,R	2C.63, 9B.26	6 x 18	12 x 36

Notes: 1. Larger signs may be used when appropriate
2. Dimensions are shown in inches and are shown as width x height

Guidance:

04 *Except for size, the design of signs and plaques for bicycle facilities should be identical to that provided in this Manual for signs and plaques for streets and highways.*

Support:

05 Uniformity in design of bicycle signs and plaques includes shape, color, symbols, arrows, wording, lettering, and illumination or retroreflectorization.

Section 9B.03 STOP and YIELD Signs (R1-1, R1-2)**Standard:**

01 **STOP (R1-1) signs (see Figure 9B-2) shall be installed on shared-use paths at points where bicyclists are required to stop.**

02 **YIELD (R1-2) signs (see Figure 9B-2) shall be installed on shared-use paths at points where bicyclists have an adequate view of conflicting traffic as they approach the sign, and where bicyclists are required to yield the right-of-way to that conflicting traffic.**

Figure 9B-2. Regulatory Signs and Plaques for Bicycle Facilities



R1-1



R1-2



R3-17



R3-17aP



R3-17bP



R4-1



R4-2



R4-3



R4-4



R4-7



R4-11



R4-16



R5-1b



R9-3cP



R5-3



R5-6



R7-9



R7-9a



R9-3



R9-5



R9-6



R9-7



R9-13



R9-14



R10-4



R10-22



R10-24



R10-25



R10-26



R15-1



R15-2P



R15-8

Option:

03 A 30 x 30-inch STOP sign or a 36 x 36 x 36-inch YIELD sign may be used on shared-use paths for added emphasis.

Guidance:

04 *Where conditions require path users, but not roadway users, to stop or yield, the STOP or YIELD sign should be placed or shielded so that it is not readily visible to road users.*

05 *When placement of STOP or YIELD signs is considered, priority at a shared-use path/roadway intersection should be assigned with consideration of the following:*

- A. *Relative speeds of shared-use path and roadway users,*
- B. *Relative volumes of shared-use path and roadway traffic, and*
- C. *Relative importance of shared-use path and roadway.*

06 *Speed should not be the sole factor used to determine priority, as it is sometimes appropriate to give priority to a high-volume shared-use path crossing a low-volume street, or to a regional shared-use path crossing a minor collector street.*

07 *When priority is assigned, the least restrictive control that is appropriate should be placed on the lower priority approaches. STOP signs should not be used where YIELD signs would be acceptable.*

Section 9B.04 Bike Lane Signs and Plaques (R3-17, R3-17aP, R3-17bP)

Standard:

01 **The BIKE LANE (R3-17) sign and the R3-17aP and R3-17bP plaques (see Figure 9B-2) shall be used only in conjunction with marked bicycle lanes as described in Section 9C.04.**

Guidance:

02 *If used, Bike Lane signs and plaques should be used in advance of the upstream end of the bicycle lane, at the downstream end of the bicycle lane, and at periodic intervals along the bicycle lane as determined by engineering judgment based on prevailing speed of bicycle and other traffic, block length, distances from adjacent intersections, and other considerations.*

Section 9B.05 BEGIN RIGHT TURN LANE YIELD TO BIKES Sign (R4-4)

Option:

01 Where motor vehicles entering an exclusive right-turn lane must weave across bicycle traffic in bicycle lanes, the BEGIN RIGHT TURN LANE YIELD TO BIKES (R4-4) sign (see Figure 9B-2) may be used to inform both the motorist and the bicyclist of this weaving maneuver (see Figures 9C-1, 9C-4, and 9C-5).

Guidance:

02 *The R4-4 sign should not be used when bicyclists need to move left because of a right-turn lane drop situation.*

Section 9B.06 Bicycles May Use Full Lane Sign (R4-11)

Option:

01 The Bicycles May Use Full Lane (R4-11) sign (see Figure 9B-2) may be used on roadways where no bicycle lanes or adjacent shoulders usable by bicyclists are present and where travel lanes are too narrow for bicyclists and motor vehicles to operate side by side.

02 The Bicycles May Use Full Lane sign may be used in locations where it is important to inform road users that bicyclists might occupy the travel lane.

03 Section 9C.07 describes a Shared Lane Marking that may be used in addition to or instead of the Bicycles May Use Full Lane sign to inform road users that bicyclists might occupy the travel lane.

Support:

04 The Uniform Vehicle Code (UVC) defines a “substandard width lane” as a “lane that is too narrow for a bicycle and a vehicle to travel safely side by side within the same lane.”

Section 9B.07 Bicycle WRONG WAY Sign and RIDE WITH TRAFFIC Plaque (R5-1b, R9-3cP)

Option:

01 The Bicycle WRONG WAY (R5-1b) sign and RIDE WITH TRAFFIC (R9-3cP) plaque (see Figure 9B-2) may be placed facing wrong-way bicycle traffic, such as on the left side of a roadway.

02 This sign and plaque may be mounted back-to-back with other signs to minimize visibility to other traffic.

Guidance:

- 03 *The RIDE WITH TRAFFIC plaque should be used only in conjunction with the Bicycle WRONG WAY sign, and should be mounted directly below the Bicycle WRONG WAY sign.*

Section 9B.08 NO MOTOR VEHICLES Sign (R5-3)

Option:

- 01 The NO MOTOR VEHICLES (R5-3) sign (see Figure 9B-2) may be installed at the entrance to a shared-use path.

Section 9B.09 Selective Exclusion Signs

Option:

- 01 Selective Exclusion signs (see Figure 9B-2) may be installed at the entrance to a roadway or facility to notify road or facility users that designated types of traffic are excluded from using the roadway or facility.

Standard:

- 02 **If used, Selective Exclusion signs shall clearly indicate the type of traffic that is excluded.**

Support:

- 03 Typical exclusion messages include:
- A. No Bicycles (R5-6),
 - B. No Pedestrians (R9-3),
 - C. No Skaters (R9-13), and
 - D. No Equestrians (R9-14).

Option:

- 04 Where bicyclists, pedestrians, and motor-driven cycles are all prohibited, it may be more desirable to use the R5-10a word message sign that is described in Section 2B.39.

Section 9B.10 No Parking Bike Lane Signs (R7-9, R7-9a)

Standard:

- 01 **If the installation of signs is necessary to restrict parking, standing, or stopping in a bicycle lane, appropriate signs as described in Sections 2B.46 through 2B.48, or the No Parking Bike Lane (R7-9 or R7-9a) signs (see Figure 9B-2) shall be installed.**

Section 9B.11 Bicycle Regulatory Signs (R9-5, R9-6, R10-4, R10-24, R10-25, and R10-26)

Option:

- 01 The R9-5 sign (see Figure 9B-2) may be used where the crossing of a street by bicyclists is controlled by pedestrian signal indications.
- 02 Where it is not intended for bicyclists to be controlled by pedestrian signal indications, the R10-4, R10-24, or R10-26 sign (see Figure 9B-2 and Section 2B.52) may be used.

Guidance:

- 03 *If used, the R9-5, R10-4, R10-24, or R10-26 signs should be installed near the edge of the sidewalk in the vicinity of where bicyclists will be crossing the street.*

Option:

- 04 If bicyclists are crossing a roadway where In-Roadway Warning Lights (see Section 4N.02) or other warning lights or beacons have been provided, the R10-25 sign (see Figure 9B-2) may be used.
- 05 The R9-6 sign (see Figure 9B-2) may be used where a bicyclist is required to cross or share a facility used by pedestrians and is required to yield to the pedestrians.

Section 9B.12 Shared-Use Path Restriction Sign (R9-7)

Option:

- 01 The Shared-Use Path Restriction (R9-7) sign (see Figure 9B-2) may be installed to supplement a solid white pavement marking line (see Section 9C.03) on facilities that are to be shared by pedestrians and bicyclists in order to provide a separate designated pavement area for each mode of travel. The symbols may be switched as appropriate.

Guidance:

- 02 *If two-way operation is permitted on the facility for pedestrians and/or bicyclists, the designated pavement area that is provided for each two-way mode of travel should be wide enough to accommodate both directions of travel for that mode.*

Section 9B.13 Bicycle Signal Actuation Sign (R10-22)

Option:

- 01 The Bicycle Signal Actuation (R10-22) sign (see Figure 9B-2) may be installed at signalized intersections where markings are used to indicate the location where a bicyclist is to be positioned to actuate the signal (see Section 9C.05).

Guidance:

- 02 *If the Bicycle Signal Actuation sign is installed, it should be placed at the roadside adjacent to the marking to emphasize the connection between the marking and the sign.*

Section 9B.14 Other Regulatory Signs

Option:

- 01 Other regulatory signs described in Chapter 2B may be installed on bicycle facilities as appropriate.

Section 9B.15 Turn or Curve Warning Signs (W1 Series)*Guidance:*

- 01 *To warn bicyclists of unexpected changes in shared-use path direction, appropriate turn or curve (W1-1 through W1-7) signs (see Figure 9B-3) should be used.*
- 02 *The W1-1 through W1-5 signs should be installed at least 50 feet in advance of the beginning of the change of alignment.*

Section 9B.16 Intersection Warning Signs (W2 Series)

Option:

- 01 Intersection Warning (W2-1 through W2-5) signs (see Figure 9B-3) may be used on a roadway, street, or shared-use path in advance of an intersection to indicate the presence of an intersection and the possibility of turning or entering traffic.

Guidance:

- 02 *When engineering judgment determines that the visibility of the intersection is limited on the shared-use path approach, Intersection Warning signs should be used.*
- 03 *Intersection Warning signs should not be used where the shared-use path approach to the intersection is controlled by a STOP sign, a YIELD sign, or a traffic control signal.*

Section 9B.17 Bicycle Surface Condition Warning Sign (W8-10)

Option:

- 01 The Bicycle Surface Condition Warning (W8-10) sign (see Figure 9B-3) may be installed where roadway or shared-use path conditions could cause a bicyclist to lose control of the bicycle.
- 02 Signs warning of other conditions that might be of concern to bicyclists, including BUMP (W8-1), DIP (W8-2), PAVEMENT ENDS (W8-3), and any other word message that describes conditions that are of concern to bicyclists, may also be used.
- 03 A supplemental plaque may be used to clarify the specific type of surface condition.

Section 9B.18 Bicycle Warning and Combined Bicycle/Pedestrian Signs (W11-1 and W11-15)

Support:

- 01 The Bicycle Warning (W11-1) sign (see Figure 9B-3) alerts the road user to unexpected entries into the roadway by bicyclists, and other crossing activities that might cause conflicts. These conflicts might be relatively confined, or might occur randomly over a segment of roadway.

Option:

- 02 The combined Bicycle/Pedestrian (W11-15) sign (see Figure 9B-3) may be used where both bicyclists and pedestrians might be crossing the roadway, such as at an intersection with a shared-use path. A TRAIL X-ING (W11-15P) supplemental plaque (see Figure 9B-3) may be mounted below the W11-15 sign.
- 03 A supplemental plaque with the legend AHEAD or XX FEET may be used with the Bicycle Warning or combined Bicycle/Pedestrian sign.

Guidance:

- 04 *If used in advance of a specific crossing point, the Bicycle Warning or combined Bicycle/Pedestrian sign should be placed at a distance in advance of the crossing location that conforms with the guidance given in Table 2C-4.*

Standard:

05 **Bicycle Warning and combined Bicycle/Pedestrian signs, when used at the location of the crossing, shall be supplemented with a diagonal downward pointing arrow (W16-7P) plaque (see Figure 9B-3) to show the location of the crossing.**

Option:

06 A fluorescent yellow-green background color with a black legend and border may be used for Bicycle Warning and combined Bicycle/Pedestrian signs and supplemental plaques.

Guidance:

07 *When the fluorescent yellow-green background color is used, a systematic approach featuring one background color within a zone or area should be used. The mixing of standard yellow and fluorescent yellow-green backgrounds within a zone or area should be avoided.*

Section 9B.19 Other Bicycle Warning Signs

Option:

01 Other bicycle warning signs (see Figure 9B-3) such as PATH NARROWS (W5-4a) and Hill (W7-5) may be installed on shared-use paths to warn bicyclists of conditions not readily apparent.

02 In situations where there is a need to warn motorists to watch for bicyclists traveling along the highway, the SHARE THE ROAD (W16-1P) plaque (see Figure 9B-3) may be used in conjunction with the W11-1 sign.

Guidance:

03 *If used, other advance bicycle warning signs should be installed at least 50 feet in advance of the beginning of the condition.*

04 *Where temporary traffic control zones are present on bikeways, appropriate signs from Part 6 should be used.*

Option:

05 Other warning signs described in Chapter 2C may be installed on bicycle facilities as appropriate.

Section 9B.20 Bicycle Guide Signs (D1-1b, D1-1c, D1-2b, D1-2c, D1-3b, D1-3c, D11-1, D11-1c)

Option:

01 Bike Route Guide (D11-1) signs (see Figure 9B-4) may be provided along designated bicycle routes to inform bicyclists of bicycle route direction changes and to confirm route direction, distance, and destination.

02 If used, Bike Route Guide signs may be repeated at regular intervals so that bicyclists entering from side streets will have an opportunity to know that they are on a bicycle route. Similar guide signing may be used for shared roadways with intermediate signs placed for bicyclist guidance.

03 Alternative Bike Route Guide (D11-1c) signs may be used to provide information on route direction, destination, and/or route name in place of the "BIKE ROUTE" wording on the D11-1 sign (see Figures 9B-4 and 9B-6).

04 Destination (D1-1, D1-1a) signs, Street Name (D3) signs, or Bicycle Destination (D1-1b, D1-1c, D1-2b, D1-2c, D1-3b, D1-3c) signs (see Figure 9B-4) may be installed to provide direction, destination, and distance information as needed for bicycle travel. If several destinations are to be shown at a single location, they may be placed on a single sign with an arrow (and the distance, if desired) for each name. If more than one destination lies in the same direction, a single arrow may be used for the destinations.

Guidance:

05 *Adequate separation should be made between any destination or group of destinations in one direction and those in other directions by suitable design of the arrow, spacing of lines of legend, heavy lines entirely across the sign, or separate signs.*

Standard:

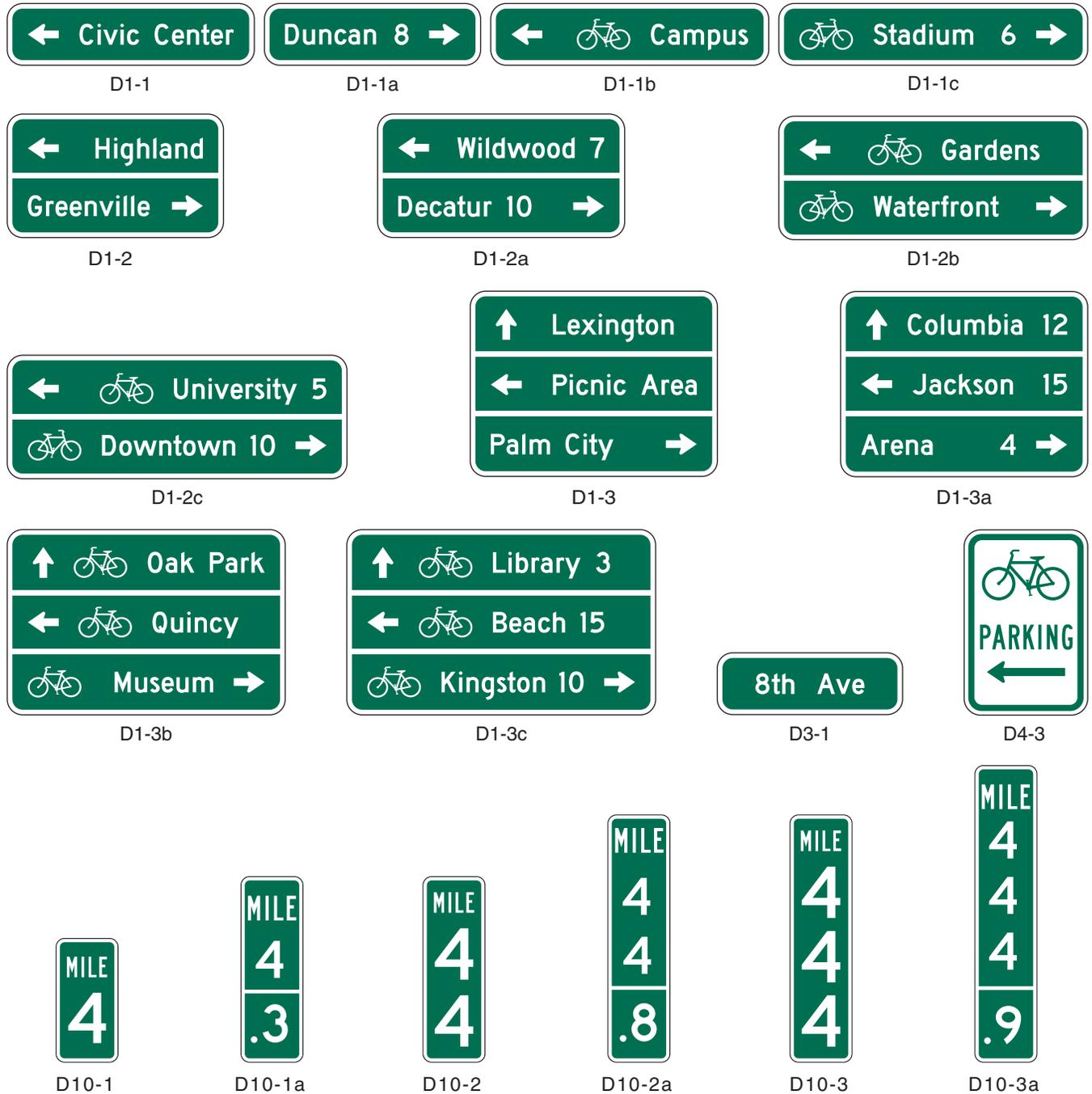
06 **An arrow pointing to the right, if used, shall be at the extreme right-hand side of the sign. An arrow pointing left or up, if used, shall be at the extreme left-hand side of the sign. The distance numerals, if used, shall be placed to the right of the destination names.**

07 **On Bicycle Destination signs, a bicycle symbol shall be placed next to each destination or group of destinations. If an arrow is at the extreme left, the bicycle symbol shall be placed to the right of the respective arrow.**

Guidance:

08 *Unless a sloping arrow will convey a clearer indication of the direction to be followed, the directional arrows should be horizontal or vertical.*

Figure 9B-4. Guide Signs and Plaques for Bicycle Facilities (Sheet 1 of 2)

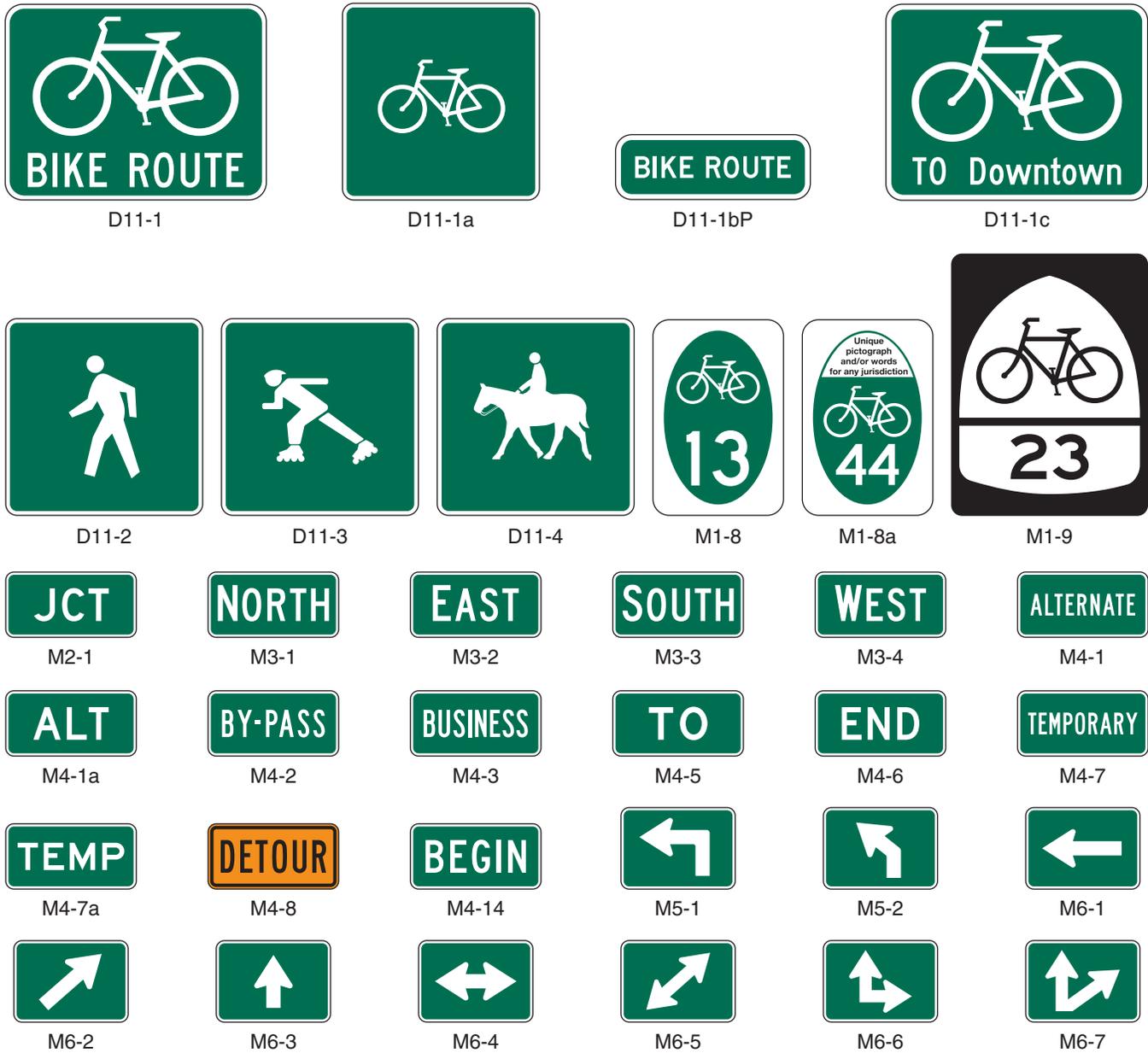


- 09 *The bicycle symbol should be to the left of the destination legend.*
- 10 *If several individual name signs are assembled into a group, all signs in the assembly should have the same horizontal width.*
- 11 *Because of their smaller size, Bicycle Destination signs should not be used as a substitute for vehicular destination signs when the message is also intended to be seen by motorists.*

Support:

- 12 Figure 9B-5 shows an example of the signing for the beginning and end of a designated bicycle route on a shared-use path. Figure 9B-6 shows an example of signing for an on-roadway bicycle route. Figure 9B-7 shows examples of signing and markings for a shared-use path crossing.

Figure 9B-4. Guide Signs and Plaques for Bicycle Facilities (Sheet 2 of 2)



Section 9B.21 Bicycle Route Signs (M1-8, M1-8a, M1-9)

Option:

01 To establish a unique identification (route designation) for a State or local bicycle route, the Bicycle Route (M1-8, M1-8a) sign (see Figure 9B-4) may be used.

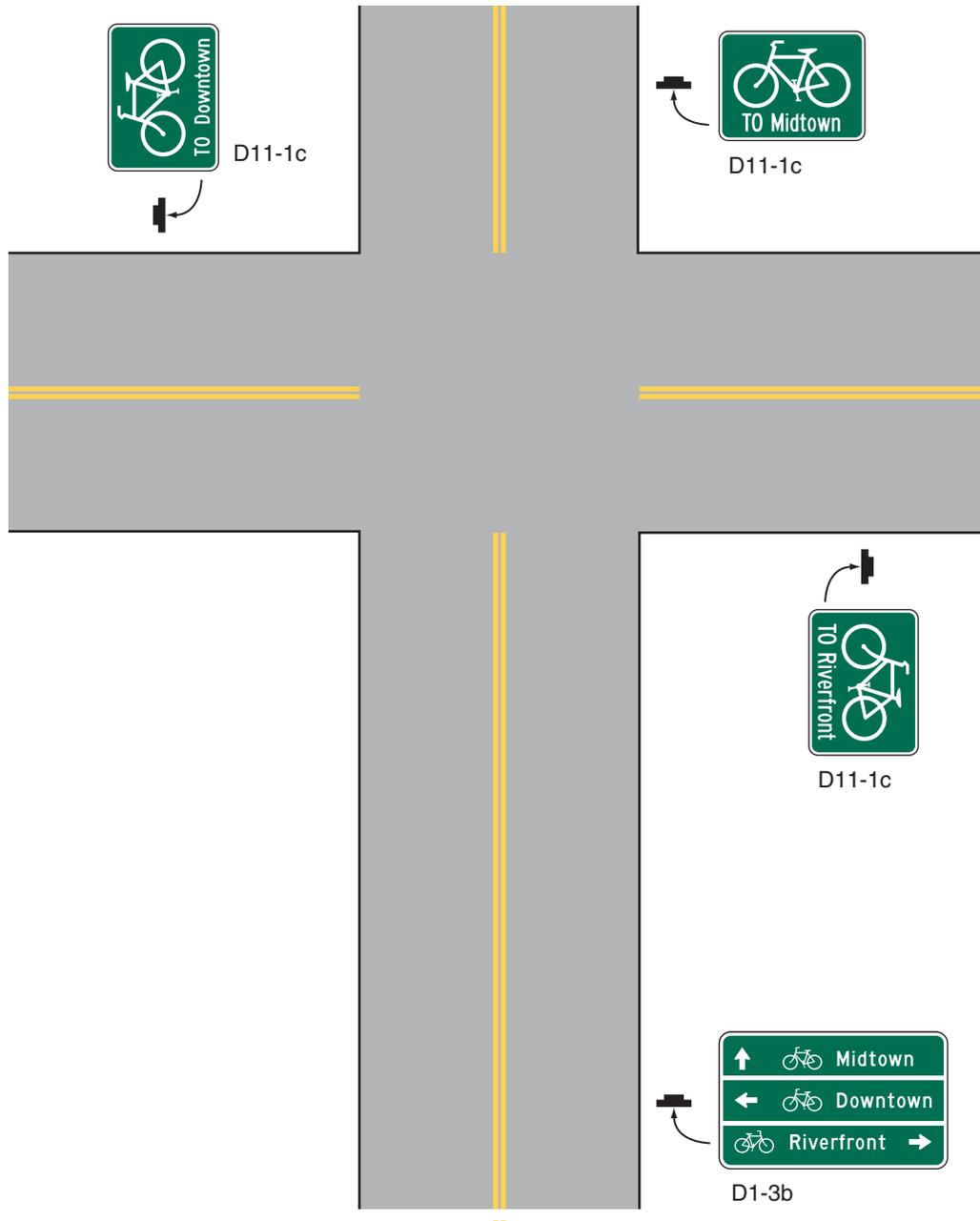
Standard:

02 The Bicycle Route (M1-8) sign shall contain a route designation and shall have a green background with a retroreflectorized white legend and border. The Bicycle Route (M1-8a) sign shall contain the same information as the M1-8 sign and in addition shall include a pictograph or words that are associated with the route or with the agency that has jurisdiction over the route.

Guidance:

03 *Bicycle routes, which might be a combination of various types of bikeways, should establish a continuous routing.*

Figure 9B-6. Example of Bicycle Guide Signing



Section 9B.22 Bicycle Route Sign Auxiliary Plaques

Option:

01 Auxiliary plaques may be used in conjunction with Bike Route Guide signs, Bicycle Route signs, or U.S. Bicycle Route signs as needed.

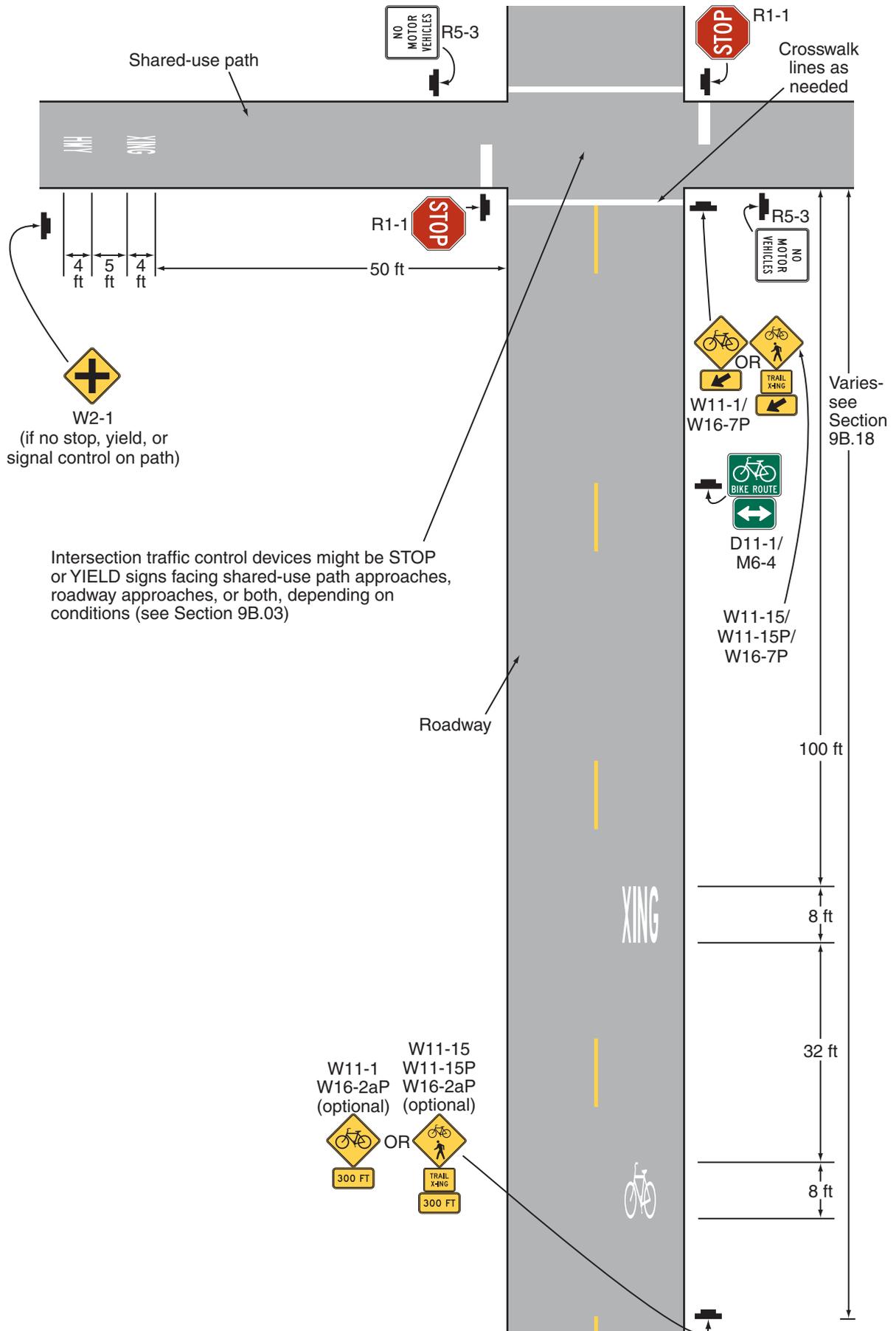
Guidance:

02 *If used, Junction (M2-1), Cardinal Direction (M3 series), and Alternative Route (M4 series) auxiliary plaques (see Figure 9B-4) should be mounted above the appropriate Bike Route Guide signs, Bicycle Route signs, or U.S. Bicycle Route signs.*

03 *If used, Advance Turn Arrow (M5 series) and Directional Arrow (M6 series) auxiliary plaques (see Figure 9B-4) should be mounted below the appropriate Bike Route Guide sign, Bicycle Route sign, or U.S. Bicycle Route sign.*

04 *Except for the M4-8 plaque, all route sign auxiliary plaques should match the color combination of the route sign that they supplement.*

Figure 9B-7. Examples of Signing and Markings for a Shared-Use Path Crossing



Intersection traffic control devices might be STOP or YIELD signs facing shared-use path approaches, roadway approaches, or both, depending on conditions (see Section 9B.03)

05 *Route sign auxiliary plaques carrying word legends that are used on bicycle routes should have a minimum size of 12 x 6 inches. Route sign auxiliary plaques carrying arrow symbols that are used on bicycle routes should have a minimum size of 12 x 9 inches.*

Option:

06 With route signs of larger sizes, auxiliary plaques may be suitably enlarged, but not such that they exceed the width of the route sign.

07 A route sign and any auxiliary plaques used with it may be combined on a single sign.

08 Destination (D1-1b and D1-1c) signs (see Figure 9B-4) may be mounted below Bike Route Guide signs, Bicycle Route signs, or U.S. Bicycle Route signs to furnish additional information, such as directional changes in the route, or intermittent distance and destination information.

Section 9B.23 Bicycle Parking Area Sign (D4-3)

Option:

01 *The Bicycle Parking Area (D4-3) sign (see Figure 9B-4) may be installed where it is desirable to show the direction to a designated bicycle parking area. The arrow may be reversed as appropriate.*

Standard:

02 **The legend and border of the Bicycle Parking Area sign shall be green on a retroreflectorized white background.**

Section 9B.24 Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)

Support:

01 There are two types of reference location signs:

- A. Reference Location (D10-1, 2, and 3) signs show an integer distance point along a shared-use path; and
- B. Intermediate Reference Location (D10-1a, 2a, and 3a) signs also show a decimal between integer distance points along a shared-use path.

Option:

02 Reference Location (D10-1 to D10-3) signs (see Figure 9B-4) may be installed along any section of a shared-use path to assist users in estimating their progress, to provide a means for identifying the location of emergency incidents and crashes, and to aid in maintenance and servicing.

03 To augment the reference location sign system, Intermediate Reference Location (D10-1a to D10-3a) signs (see Figure 9B-4), which show the tenth of a mile with a decimal point, may be installed at one tenth of a mile intervals, or at some other regular spacing.

Standard:

04 **If Intermediate Reference Location (D10-1a to D10-3a) signs are used to augment the reference location sign system, the reference location sign at the integer mile point shall display a decimal point and a zero numeral.**

05 **If placed on shared-use paths, reference location signs shall contain 4.5-inch white numerals on a green background that is at least 6 inches wide with a white border. The signs shall contain the word MILE in 2.25-inch white letters.**

06 **Reference location signs shall have a minimum mounting height of 2 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the shared-use path, and shall not be governed by the mounting height requirements prescribed in Section 9B.01.**

Option:

07 Reference location signs may be installed on one side of the shared-use path only and may be installed back-to-back.

08 If a reference location sign cannot be installed in the correct location, it may be moved in either direction as much as 50 feet.

Guidance:

09 *If a reference location sign cannot be placed within 50 feet of the correct location, it should be omitted.*

10 *Zero distance should begin at the south and west terminus points of shared-use paths.*

Support:

11 Section 2H.05 contains additional information regarding reference location signs.

Section 9B.25 Mode-Specific Guide Signs for Shared-Use Paths (D11-1a, D11-2, D11-3, D11-4)

Option:

- 01 Where separate pathways are provided for different types of users, Mode-Specific Guide (D11-1a, D11-2, D11-3, D11-4) signs (see Figure 9B-4) may be used to guide different types of users to the traveled way that is intended for their respective modes.
- 02 Mode-Specific Guide signs may be installed at the entrance to shared-use paths where the signed mode(s) are permitted or encouraged, and periodically along these facilities as needed.
- 03 The Bicycles Permitted (D11-1a) sign, when combined with the BIKE ROUTE supplemental plaque (D11-1bP), may be substituted for the D11-1 Bicycle Route Guide sign on paths and shared roadways.
- 04 When some, but not all, non-motorized user types are encouraged or permitted on a shared-use path, Mode-Specific Guide signs may be placed in combination with each other, and in combination with signs (see Section 9B.09) that prohibit travel by particular modes.

Support:

- 05 Figure 9B-8 shows an example of signing where separate pathways are provided for different non-motorized user types.

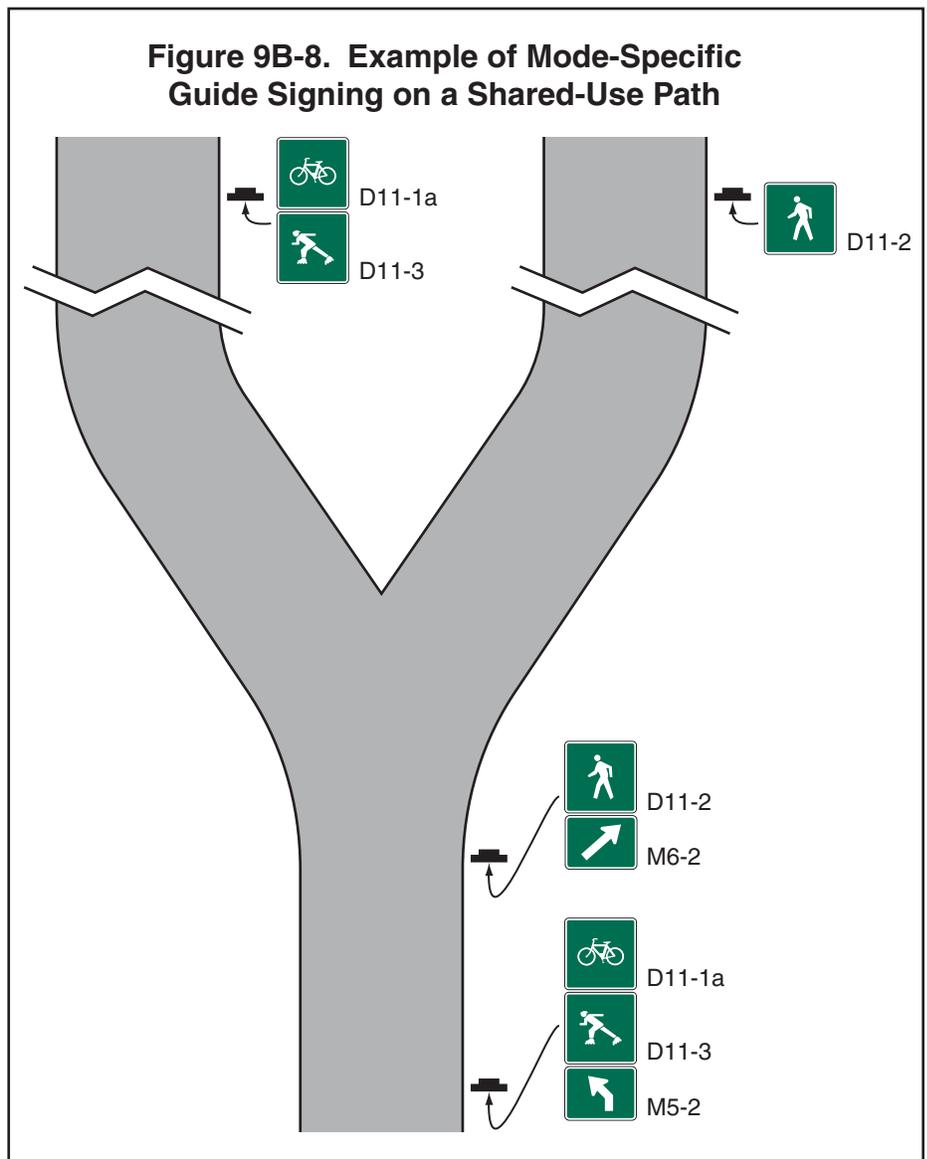
Section 9B.26 Object Markers

Option:

- 01 Fixed objects adjacent to shared-use paths may be marked with Type 1, Type 2, or Type 3 object markers (see Figure 9B-3) such as those described in Section 2C.63. If the object marker is not intended to also be seen by motorists, a smaller version of the Type 3 object marker may be used (see Table 9B-1).

Standard:

- 02 **Obstructions in the traveled way of a shared-use path shall be marked with retroreflectorized material or appropriate object markers.**
- 03 **All object markers shall be retroreflective.**
- 04 **On Type 3 object markers, the alternating black and retroreflective yellow stripes shall be sloped down at an angle of 45 degrees toward the side on which traffic is to pass the obstruction.**



CHAPTER 9C. MARKINGS

Section 9C.01 Functions of Markings

Support:

- 01 Markings indicate the separation of the lanes for road users, assist the bicyclist by indicating assigned travel paths, indicate correct position for traffic control signal actuation, and provide advance information for turning and crossing maneuvers.

Section 9C.02 General Principles

Guidance:

- 01 *Bikeway design guides (see Section 9A.05) should be used when designing markings for bicycle facilities.*

Standard:

- 02 **Markings used on bikeways shall be retroreflectORIZED.**

Guidance:

- 03 *Pavement marking word messages, symbols, and/or arrows should be used in bikeways where appropriate. Consideration should be given to selecting pavement marking materials that will minimize loss of traction for bicycles under wet conditions.*

Standard:

- 04 **The colors, width of lines, patterns of lines, symbols, and arrows used for marking bicycle facilities shall be as defined in Sections 3A.05, 3A.06, and 3B.20.**

Support:

- 05 Figures 9B-7 and 9C-1 through 9C-9 show examples of the application of lines, word messages, symbols, and arrows on designated bikeways.

Option:

- 06 A dotted line may be used to define a specific path for a bicyclist crossing an intersection (see Figure 9C-1) as described in Sections 3A.06 and 3B.08.

Section 9C.03 Marking Patterns and Colors on Shared-Use Paths

Option:

- 01 Where shared-use paths are of sufficient width to designate two minimum width lanes, a solid yellow line may be used to separate the two directions of travel where passing is not permitted, and a broken yellow line may be used where passing is permitted (see Figure 9C-2).

Guidance:

- 02 *Broken lines used on shared-use paths should have the usual 1-to-3 segment-to-gap ratio. A nominal 3-foot segment with a 9-foot gap should be used.*
- 03 *If conditions make it desirable to separate two directions of travel on shared-use paths at particular locations, a solid yellow line should be used to indicate no passing and no traveling to the left of the line.*
- 04 *Markings as shown in Figure 9C-2 should be used at the location of obstructions in the center of the path, including vertical elements intended to physically prevent unauthorized motor vehicles from entering the path.*

Option:

- 05 A solid white line may be used on shared-use paths to separate different types of users. The R9-7 sign (see Section 9B.12) may be used to supplement the solid white line.
- 06 Smaller size letters and symbols may be used on shared-use paths. Where arrows are needed on shared-use paths, half-size layouts of the arrows may be used (see Section 3B.20).

Section 9C.04 Markings For Bicycle Lanes

Support:

- 01 Pavement markings designate that portion of the roadway for preferential use by bicyclists. Markings inform all road users of the restricted nature of the bicycle lane.

Standard:

- 02 **Longitudinal pavement markings shall be used to define bicycle lanes.**

Guidance:

- 03 *If used, bicycle lane word, symbol, and/or arrow markings (see Figure 9C-3) should be placed at the beginning of a bicycle lane and at periodic intervals along the bicycle lane based on engineering judgment.*

Figure 9C-1. Example of Intersection Pavement Markings—Designated Bicycle Lane with Left-Turn Area, Heavy Turn Volumes, Parking, One-Way Traffic, or Divided Highway

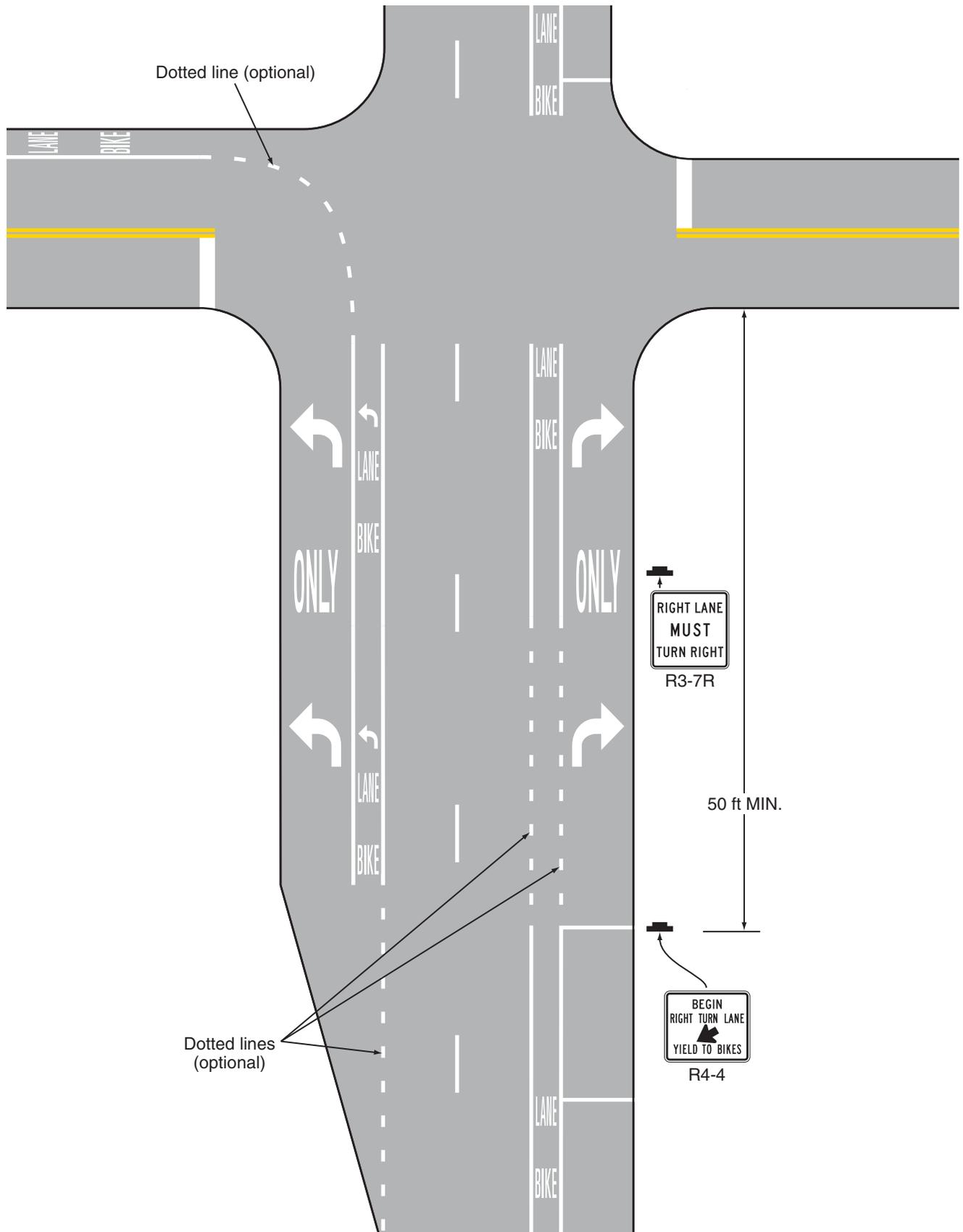
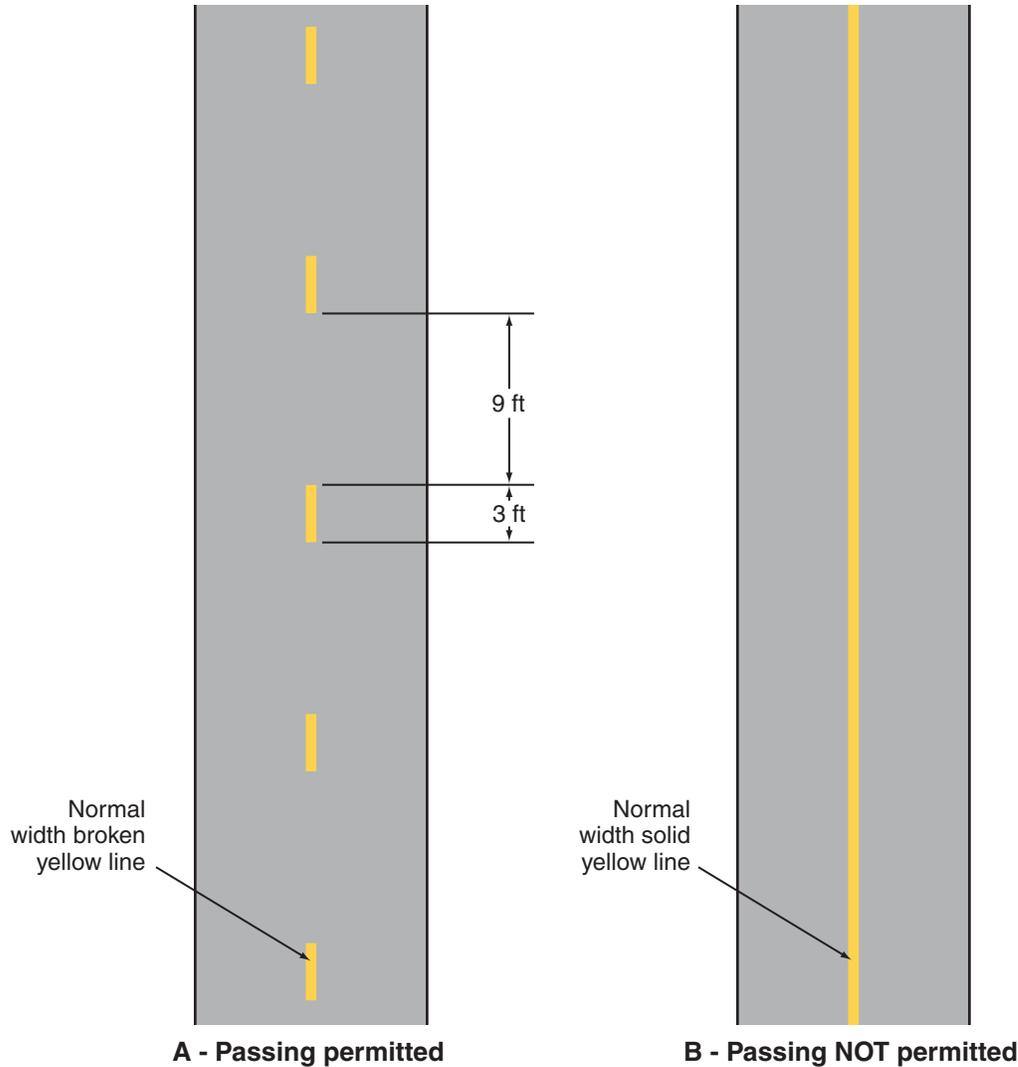


Figure 9C-2. Examples of Center Line Markings for Shared-Use Paths



Standard:

04 **If the bicycle lane symbol marking is used in conjunction with word or arrow messages, it shall precede them.**

Option:

05 If the word, symbol, and/or arrow pavement markings shown in Figure 9C-3 are used, Bike Lane signs (see Section 9B.04) may also be used, but to avoid overuse of the signs not necessarily adjacent to every set of pavement markings.

Standard:

06 **A through bicycle lane shall not be positioned to the right of a right turn only lane or to the left of a left turn only lane.**

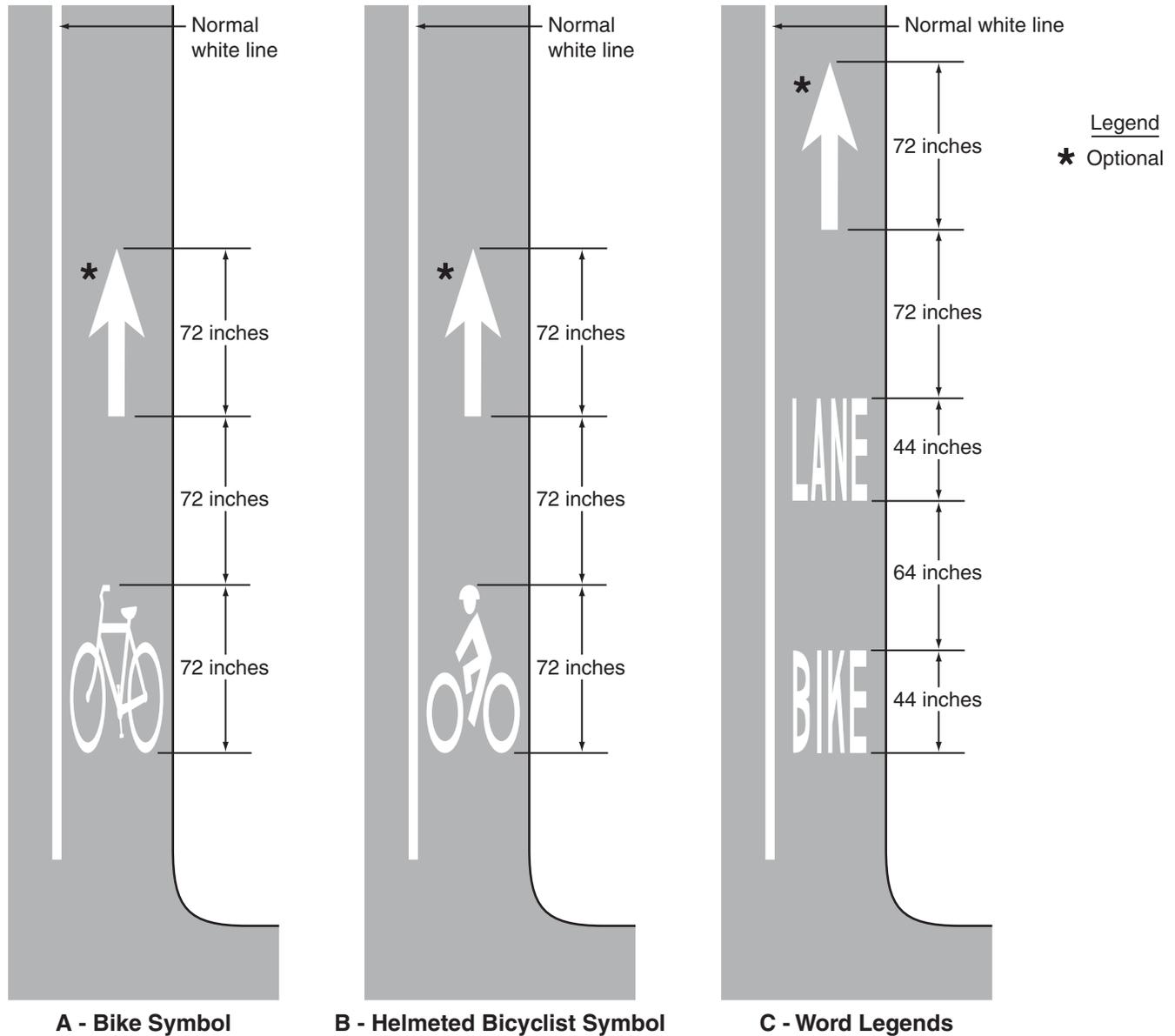
Support:

07 A bicyclist continuing straight through an intersection from the right of a right-turn lane or from the left of a left-turn lane would be inconsistent with normal traffic behavior and would violate the expectations of right- or left-turning motorists.

Guidance:

08 *When the right through lane is dropped to become a right turn only lane, the bicycle lane markings should stop at least 100 feet before the beginning of the right-turn lane. Through bicycle lane markings should resume to the left of the right turn only lane.*

Figure 9C-3. Word, Symbol, and Arrow Pavement Markings for Bicycle Lanes



09 *An optional through-right turn lane next to a right turn only lane should not be used where there is a through bicycle lane. If a capacity analysis indicates the need for an optional through-right turn lane, the bicycle lane should be discontinued at the intersection approach.*

10 *Posts or raised pavement markers should not be used to separate bicycle lanes from adjacent travel lanes.*
Support:

11 *Using raised devices creates a collision potential for bicyclists by placing fixed objects immediately adjacent to the travel path of the bicyclist. In addition, raised devices can prevent vehicles turning right from merging with the bicycle lane, which is the preferred method for making the right turn. Raised devices used to define a bicycle lane can also cause problems in cleaning and maintaining the bicycle lane.*

Standard:

12 **Bicycle lanes shall not be provided on the circular roadway of a roundabout.**

Guidance:

13 *Bicycle lane markings should stop at least 100 feet before the crosswalk, or if no crosswalk is provided, at least 100 feet before the yield line, or if no yield line is provided, then at least 100 feet before the edge of the circulatory roadway.*

Support:

- 14 Examples of bicycle lane markings at right-turn lanes are shown in Figures 9C-1, 9C-4, and 9C-5. Examples of pavement markings for bicycle lanes on a two-way street are shown in Figure 9C-6. Pavement word message, symbol, and arrow markings for bicycle lanes are shown in Figure 9C-3.

Section 9C.05 Bicycle Detector Symbol**Option:**

- 01 A symbol (see Figure 9C-7) may be placed on the pavement indicating the optimum position for a bicyclist to actuate the signal.
- 02 An R10-22 sign (see Section 9B.13 and Figure 9B-2) may be installed to supplement the pavement marking.

Section 9C.06 Pavement Markings for Obstructions**Guidance:**

- 01 *In roadway situations where it is not practical to eliminate a drain grate or other roadway obstruction that is inappropriate for bicycle travel, white markings applied as shown in Figure 9C-8 should be used to guide bicyclists around the condition.*

Section 9C.07 Shared Lane Marking**Option:**

- 01 The Shared Lane Marking shown in Figure 9C-9 may be used to:
- A. Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicyclist's impacting the open door of a parked vehicle,
 - B. Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane,
 - C. Alert road users of the lateral location bicyclists are likely to occupy within the traveled way,
 - D. Encourage safe passing of bicyclists by motorists, and
 - E. Reduce the incidence of wrong-way bicycling.

Guidance:

- 02 *The Shared Lane Marking should not be placed on roadways that have a speed limit above 35 mph.*

Standard:

- 03 **Shared Lane Markings shall not be used on shoulders or in designated bicycle lanes.**

Guidance:

- 04 *If used in a shared lane with on-street parallel parking, Shared Lane Markings should be placed so that the centers of the markings are at least 11 feet from the face of the curb, or from the edge of the pavement where there is no curb.*
- 05 *If used on a street without on-street parking that has an outside travel lane that is less than 14 feet wide, the centers of the Shared Lane Markings should be at least 4 feet from the face of the curb, or from the edge of the pavement where there is no curb.*
- 06 *If used, the Shared Lane Marking should be placed immediately after an intersection and spaced at intervals not greater than 250 feet thereafter.*

Option:

- 07 Section 9B.06 describes a Bicycles May Use Full Lane sign that may be used in addition to or instead of the Shared Lane Marking to inform road users that bicyclists might occupy the travel lane.

Figure 9C-4. Example of Bicycle Lane Treatment at a Right Turn Only Lane

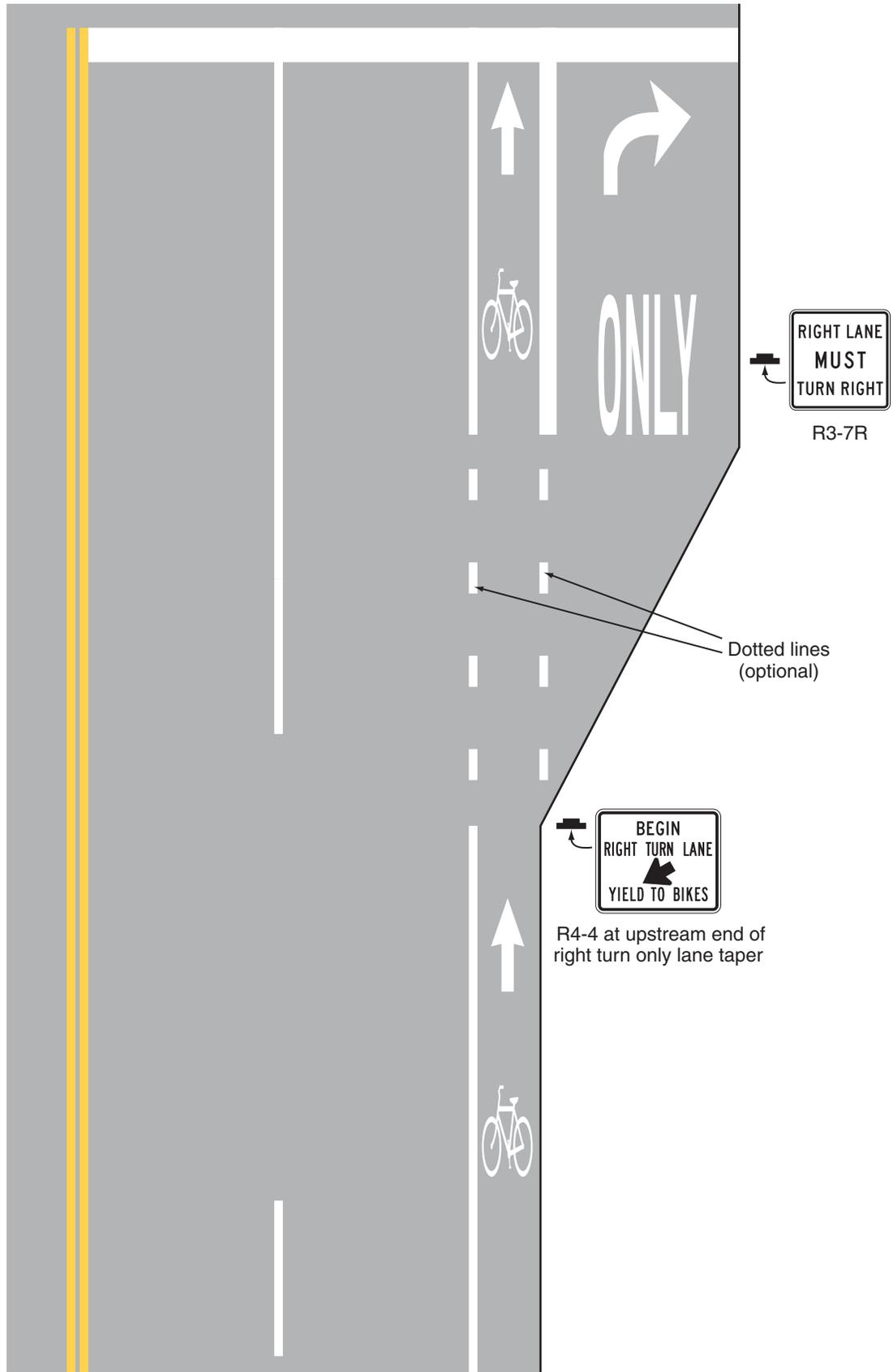


Figure 9C-5. Example of Bicycle Lane Treatment at Parking Lane into a Right Turn Only Lane

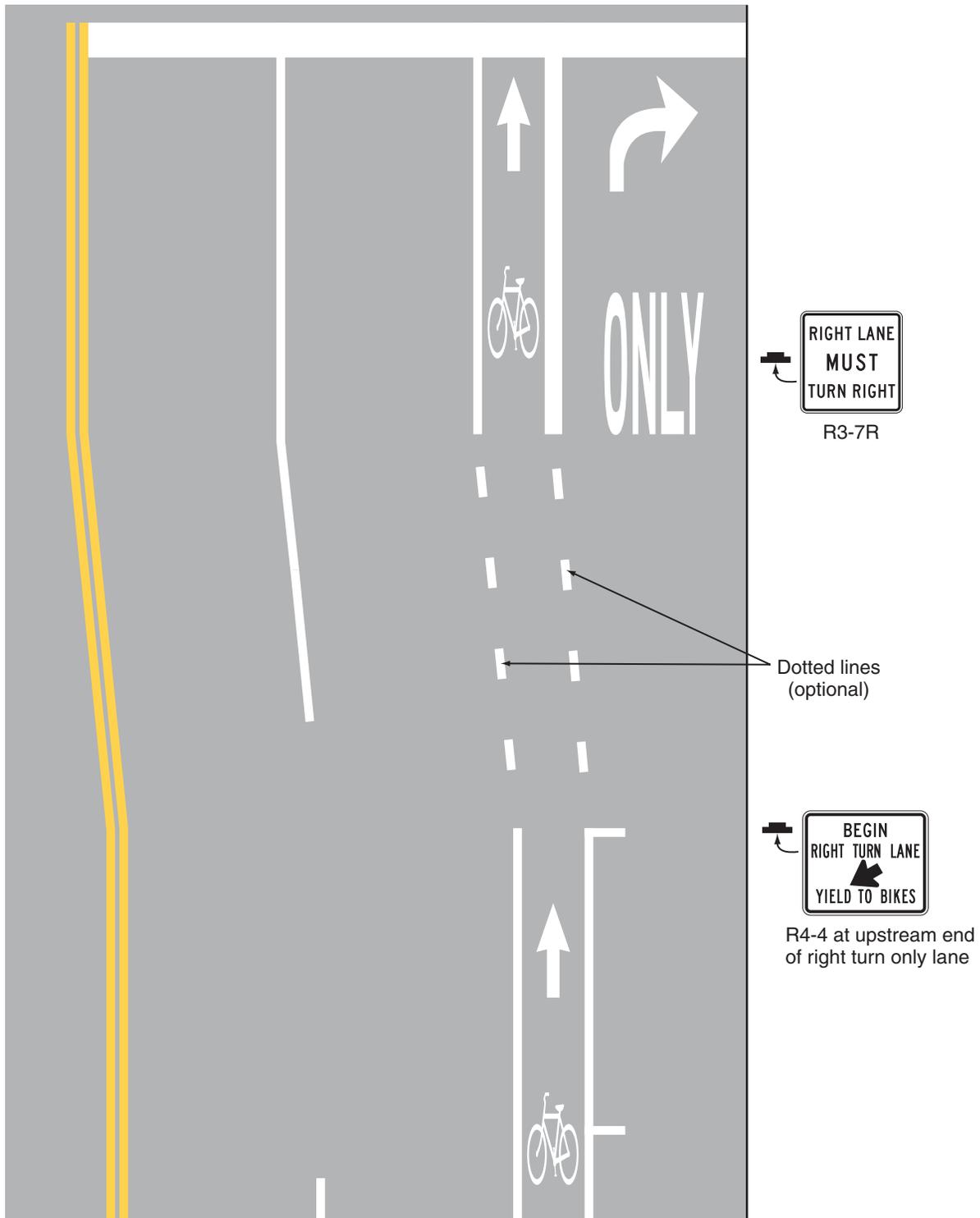


Figure 9C-6. Example of Pavement Markings for Bicycle Lanes on a Two-Way Street

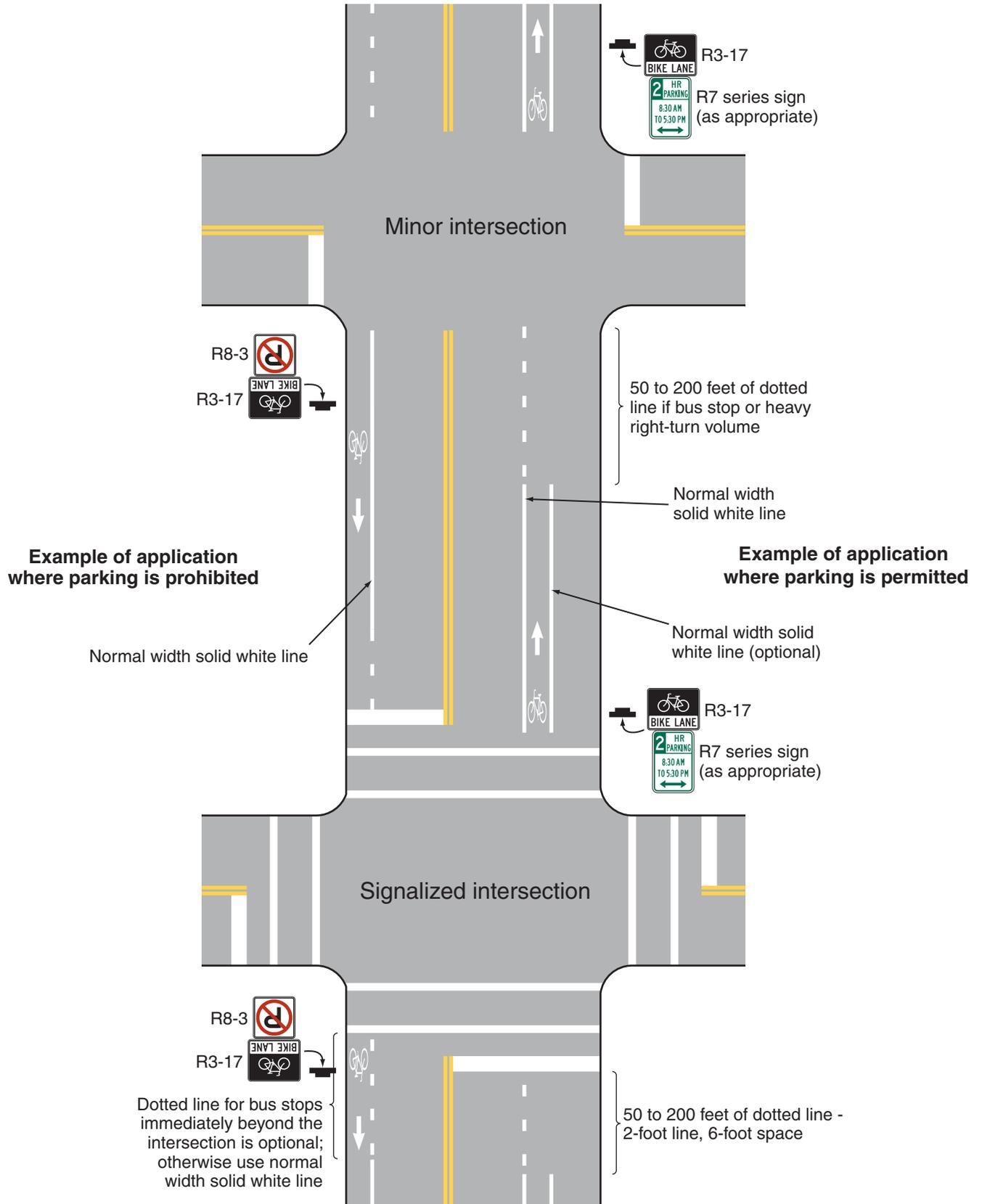


Figure 9C-7. Bicycle Detector Pavement Marking

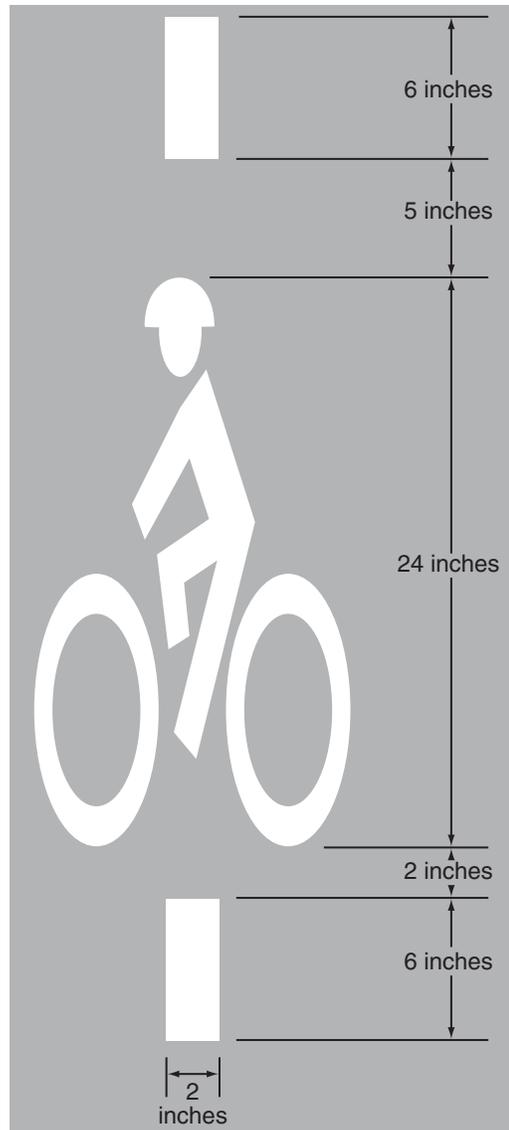
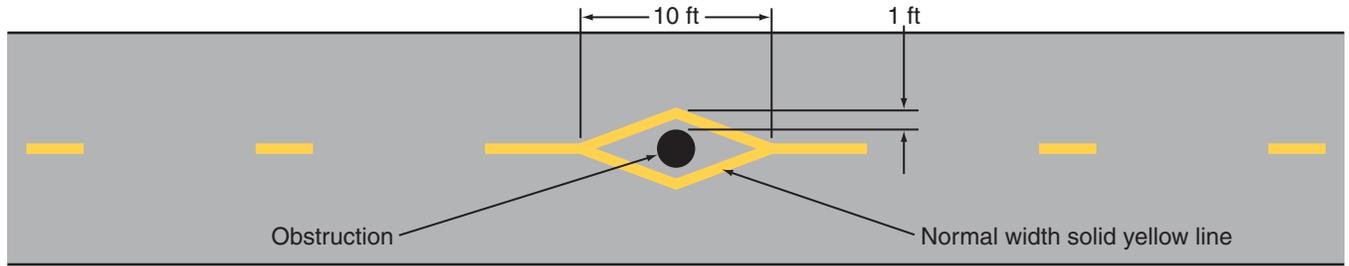
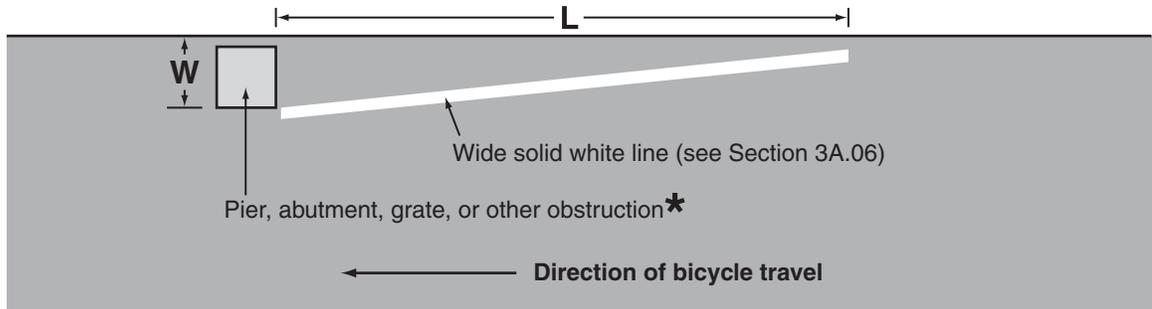


Figure 9C-8. Examples of Obstruction Pavement Markings



A - Obstruction within the path

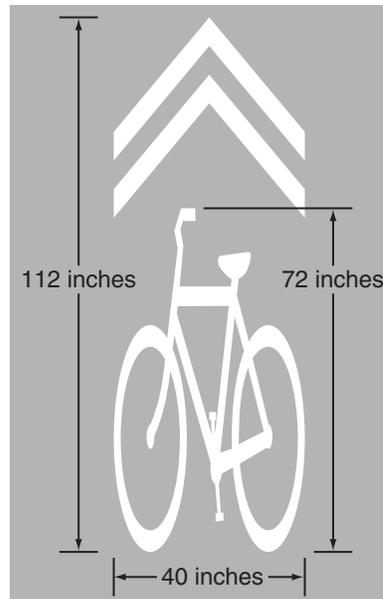


B - Obstruction at edge of path or roadway

$L = WS$, where W is the offset in feet and S is bicycle approach speed in mph

* Provide an additional foot of offset for a raised obstruction and use the formula $L = (W+1) S$ for the taper length

Figure 9C-9. Shared Lane Marking



CHAPTER 9D. SIGNALS

Section 9D.01 Application

Support:

01 Part 4 contains information regarding signal warrants and other requirements relating to signal installations.

Option:

02 For purposes of signal warrant evaluation, bicyclists may be counted as either vehicles or pedestrians.

Section 9D.02 Signal Operations for Bicycles

Standard:

01 At installations where visibility-limited signal faces are used, signal faces shall be adjusted so bicyclists for whom the indications are intended can see the signal indications. If the visibility-limited signal faces cannot be aimed to serve the bicyclist, then separate signal faces shall be provided for the bicyclist.

02 On bikeways, signal timing and actuation shall be reviewed and adjusted to consider the needs of bicyclists.

TECHBRIEF



Pedestrian and Bicycle Safety



U.S. Department of Transportation
Federal Highway Administration

Research, Development, and
 Technology

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Evaluation of Shared Lane Markings

FHWA Publication No.: FHWA-HRT-10-044

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This document is a technical summary of the Federal Highway Administration report, *Evaluation of Shared Lane Markings*, FHWA-HRT-10-041.

Objective

Shared lane markings help convey to motorists and bicyclists that they must share the roads on which they operate. The markings create improved conditions by clarifying where bicyclists are expected to ride and by notifying motorists to expect bicyclists on the road. Figure 1 illustrates a generic sharrow as it appears in the 2009 version of the *Manual on Uniform Traffic Control Devices* (MUTCD).⁽¹⁾ The present study was sponsored by the Federal Highway Administration (FHWA), and its purpose was to evaluate the impact of several uses of shared lane pavement markings, specifically the sharrow design, on operational and safety measures for bicyclists and motorists. Experiments were conducted in Cambridge, MA; Chapel Hill, NC; and Seattle, WA. This TechBrief provides a summary of the findings from the research, and the corresponding main technical report (FHWA-HRT-10-041) provides additional details.⁽²⁾

Background

In 2008, the National Committee on Uniform Traffic Control Devices recommended the inclusion of shared lane markings in the next version of the MUTCD.^(3,1) That recommendation was made with limited research conducted only on an 11-ft spacing from the center of the shared lane marking to the curb to prevent a bicyclist from striking an opening door of a parked motor vehicle (i.e., a dooring crash).⁽⁴⁾ The 2009 edition of the MUTCD includes a provision for shared lane markings with guidance that the markings should be placed at least 11 ft from the curb face or the edge of the pavement on a street with parallel parking. On streets with

no parking and an outside lane less than 14 ft wide, the centers of the shared lane markings should be placed at least 4 ft from the curb or edge of the pavement.⁽¹⁾

Many cities and States have started implementing shared lane markings to encourage the safe coexistence of bicyclists and motorists. However, few localities have formally evaluated the impact of these markings on safety or operations. Given the opportunity to study shared lane markings, the Highway Safety Research Center (HSRC) decided to conduct a broad-based study. The following hypotheses were explored for sharrows by HSRC:

- The markings may help indicate a preferred path of travel and thereby improve bicyclist positioning relative to parked motor vehicles when riding in shared lanes with on-street parking.
- The markings may help improve spacing or operations when motorists pass bicyclists on streets both with and without parking.
- The markings may help improve bicyclist positioning relative to the curb or other hazards along the roadway edge, including unsafe drain grates or uneven pavement.
- The markings could be used where bicyclists need to take control of the lane, such as on a section of steep downgrade where they need more operating space and where there is inadequate width to provide a sufficiently wide bicycle lane. They could also be used in a shared lane situation or in a narrow lane situation where bicyclists need to move away from the door zone or other hazards.
- The markings may reduce bicyclist wrong-way and sidewalk riding, which can cause collisions.

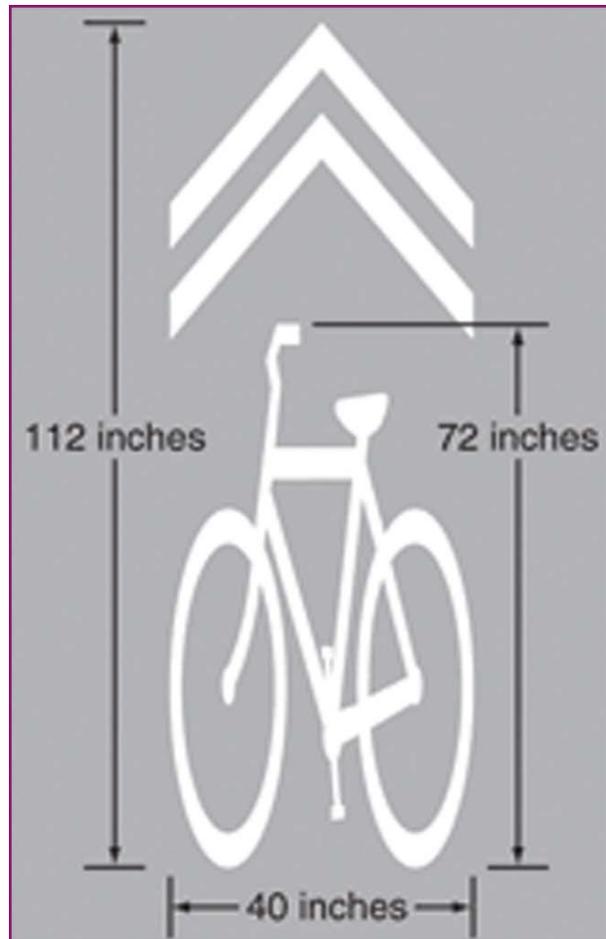


Figure 1. Generic version of a sharrow.

- The markings may increase the distance from motor vehicles in the travel lane to parked motor vehicles or to the curb in the absence of bicyclists, providing more operating space for bicyclists.

Separate evaluations were conducted in three U.S. cities. In Cambridge, MA, there was interest in experimenting with the placement of sharrows 10 ft from the curb to prevent dooring from parked motor vehicles. In Chapel Hill, NC, sharrows were placed on a busy five-lane corridor with wide outside lanes and no street parking. In Seattle, WA, sharrows were placed in the center of the lane on a downhill portion of a busy bicycle commuting street. Prior to

the sharrows, a 5-ft bicycle lane was added to the uphill portion of the street, and the center line of the street was shifted.

Methodology

The experimental design was to collect data of bicycles and motor vehicles operating in the traffic stream before and after installation of the shared lane markings. While it would have been desirable to have used an experimental design with comparison data, no adequate comparison sites were available. This is often the case in bicycle safety studies where slight differences in traffic flow, grade, pavement surface, or some other variable can greatly influence outcomes related to the bicyclists. One way to possibly obtain a comparison site is to install a treatment on part of a route and to use the remainder as a comparison. However, when a community is installing a treatment, almost invariably, the intention is to install the treatment along the entire route where the cross section is continuous.

Local staff collected videotape data before and after sharrow placement. The bicycle was the basic unit of analysis. A number of measures of effectiveness and other attributes were examined. Videotape coding was performed to obtain information about the bicyclist and to examine the operations of bicycles and motor vehicles when a motorist was following or passing a bicyclist. In Cambridge, MA, and Seattle, WA, events related to the presence of parked motor vehicles were also examined, such as existing open doors and near dooring events, as well as motorists pulling into or out of parking spaces.

The following spacing data were also obtained from images extracted from the videotapes:

- Distance between bicycles and parked motor vehicles (tire to tire).
- Distance between bicycles and the curb at the edge of the road (tire to curb) where there was no parking.
- Distance between bicycles and passing motor vehicles (tire to tire).
- Distance between motor vehicles in the travel lane and parked motor vehicles (tire to tire) or the curb (tire to curb) when no bicycles were present.

Chi-square tests were used to examine the distributions of variables before and after placement of the shared lane markings. Analysis of variance models were used to study the effect of shared lane markings on spacing and other performance measures. In these models, the independent variables included site characteristics, type of treatment, and a dummy variable indicating whether it was a before or after condition. The sign and significance of the coefficient of this dummy variable were used to assess the effectiveness of the markings. None of the data were combined across sites because of differences in the uses of the shared lane markings in each city.

Cambridge, MA, Experiment

Cambridge, MA, has many street cross sections where the recommended 11-ft spacing from the curb would not be feasible. The sharrows were placed 10 ft from the curb for about 2,500 ft on Massachusetts Avenue, which is a 4-lane divided street with approximately 29,000 vehicles per day, parallel parking on both sides, and a speed limit of 30 mi/h. Figure 2 shows a view of Massachusetts Avenue before sharrows were placed on the street. The intent was to determine whether the sharrows would improve spacing of bicycles and motor vehicles and also help prevent dooring.



Figure 2. Massachusetts Avenue condition in the before period.

Results pertaining to the interaction of bicycles and motor vehicles included the following changes from before to after:

- A total of 94 percent of the bicyclists rode over the shared lane marking.
- The percentage of bicyclists who took the lane decreased from 13 to 8 percent.
- The percentage of avoidance maneuvers (i.e., changing speed or direction to avoid another party) decreased from 76 to 37 percent.
- The percentage of bicyclists who yielded (i.e., gave way to a motorist) decreased from 23 to 7 percent.
- The percentage of motorists who yielded (i.e., gave way to a bicyclist) increased from 5 to 9.5 percent.
- The percentage of motorists who made no change while following a bicyclist increased from 44 to 65 percent.

Results pertaining to the spacing of bicycles and motor vehicles in the *presence* of a following motor vehicle in the after period included the following:

- The distance from a bicyclist riding beside a parked motor vehicle increased from 40.1 to 42.3 inches when both directions were combined and increased

from 37.4 to 41.5 inches for the inbound direction.

- Outbound spacing was 42.7 inches in the before period and 43.1 inches in the after period.
- The percentage of bicyclists who rode within 40 inches (i.e., near the door zone) of parked motor vehicles decreased. Most of the effect was in the inbound direction with a decrease from 58 to 41 percent. Comparable outbound values were 44 percent in the before period and 38 percent in the after period.
- The percentage of bicyclists who rode within 30 inches (i.e., within the door zone) remained unchanged at 13 percent.

Results pertaining to the spacing of bicycles and motor vehicles in the *absence* of a following motor vehicle in the after period included the following:

- The change in distance between a bicyclist and a parked motor vehicle was negligible (approximately 45 inches before and after).
- The percentage of bicyclists who rode within 40 inches of parked motor vehicles increased from 37.5 to 45 percent, although this may reflect the high percentage of bicyclists who rode over the sharrows.
- When motorists drove past parked motor vehicles in the absence of bicycles in the after period, the spacing increased 16 inches (from 77.4 to 93.6 inches) in the inbound direction, 12 inches (from 84.5 to 96.5 inches) in the outbound direction, and 14 inches (from 80.9 to 95.0 inches) combined.

Overall results from Cambridge, MA, indicate the following:

- A total of 94 percent of bicyclists rode over the sharrows.

- There was more operating space for bicycles as motor vehicle spacing from parked motor vehicles increased.
- A number of variables related to the operations of bicycles and motor vehicles showed positive effects.
- Placement of the sharrows 10 ft from the curb (instead of 11 ft) was not a problem.

Chapel Hill, NC, Experiment

The sharrows were placed 43.5 inches from the curb along Martin Luther King, Jr. Boulevard (MLK) for 1.25 mi. MLK has a 5-lane cross section (4 travel lanes and a center two-way left turn lane) with no parking, 27,000 vehicles per day, a speed limit of 35 mi/h, and periodic sunken drain grates next to the curb. There was a 3 to 4 percent grade where the videotape data were collected. The street had previously been resurfaced, and the outside lanes were marked nominally as 15-ft-wide lanes. The spacing of bicycles and motor vehicles from the curb and in situations where motorists passed bicyclists was of primary interest. Figure 3 shows MLK in the before period.

Results pertaining to the interaction of bicycles and motor vehicles included the following changes from the before period to the after period:

- A total of 91 percent of the bicyclists rode over the sharrows—97 percent in the downhill direction and 88 percent in the uphill direction. Bicyclists riding uphill traveled slower and tended to ride closer to the curb.
- The percentage of motorists who made no movement to change lanes when overtaking a bicyclist increased from 24 to 32 percent.
- There was no difference in the proportion of bicyclists riding near the curb



Figure 3. MLK in the before period.

(approximately 98 percent) or taking the lane (approximately 2 percent).

- The percentage of avoidance maneuvers decreased from 81 to 71 percent.
- The percentage of motorists staying in the lane when following bicyclists increased from 20 to 29 percent.
- There was no change in the percentage of bicyclists or motorists who yielded.

Results pertaining to the spacing of bicycles and motor vehicles included the following:

- In the presence of a following motor vehicle in the after period, bicyclists rode closer to the curb after the sharrows by about 2.5 inches (40.1 to 37.7 inches). The effect was more pronounced downhill (4.6 inches closer) versus uphill (2.9 inches closer). Similar to Cambridge, MA, this was likely a reflection of bicyclists tracking over the sharrows.
- There were slight increases in the percentages of bicyclists who rode within 30 and 40 inches of the curb. The percentage within 30 inches increased from 12.5 to 15 percent downhill and 47.3 to 50.5 percent uphill.
- When motorists passed bicyclists in the after period, there was a small decrease

in the passing distance overall from 82 to 79 inches. In the downhill direction, motorists passed 7 inches closer to bicycles (from 84.7 to 77.7 inches). There was no change in the uphill direction (from 80.0 to 81.1 inches).

- The percentage of passing motor vehicles within 50 inches showed only small and insignificant differences (from 2.0 to 2.6 percent).
- When the distance of the right front tires of motor vehicles from the curb in the absence of bicycles was examined in the after period, the spacing increased 8.3 inches in the uphill direction (from 64.4 to 72.7 inches), 4.7 inches in the downhill direction (from 76.6 to 81.3 inches), and 7 inches overall (from 70.5 to 77.0 inches).
- The percentages of motor vehicles within 50 and 60 inches of the curb were also significantly lower in the after period. The effect was most pronounced in the uphill direction (from 16 to 4 percent within 50 inches and from 46 to 17 percent within 60 inches).
- Bicyclist sidewalk riding significantly decreased from 43 percent in the before period to 23 percent in the after period. In the downhill direction, sidewalk riding decreased from 39 to 10 percent, with no significant change in the uphill direction.
- Wrong-way riding by bicyclists was 11 percent in the before period and 8 percent in the after period (nonsignificant change).

Overall results from Chapel Hill, NC, indicate the following:

- A total of 91 percent of bicyclists tracked over the sharrows and rode at a safe

distance from the edge of curb with more of an effect in the downhill direction.

- Motorists moved away from the sharrows, providing more operating space for bicyclists.
- A number of variables related to the operations of bicycles and motor vehicles showed positive effects.
- Bicyclist sidewalk riding decreased in the downhill direction.
- There was no change in the percentage of bicyclist wrong-way riding.

Seattle, WA, Experiment

Sharrows were placed in the center of the lane 12.25 ft from the curb on a downhill section of Fremont Street, which is a 2-lane street that has a speed limit of 30 mi/h, 10,000 vehicles per day, 3.6 percent grade, and parking on both sides of the street. The placement was meant to encourage bicyclists to take the lane while traveling downhill. Data were collected in two additional periods following the before period. The centerline of the street was repositioned to allow a 5-ft bicycle lane and parking line to be installed on the uphill section of the street (after period 1). Sharrows were then added in the downhill direction (after period 2) since there was not enough width for bicycle lanes on both sides of the streets. Figure 4 shows a section of Fremont Street in the before period.

Results pertaining to the interaction of bicycles and motor vehicles included the following changes from the before period to the after period:

- There was no difference in the safety of the manner in which motorists were following and passing bicyclists. Overall, 97 percent of these maneuvers were considered to be performed safely.



Figure 4. Fremont Street in the before period.

- A total of 15 percent of the bicyclists rode over the sharrow during the after period 2.
- A significantly higher percentage (51 versus 28 percent) of bicyclists shifted toward the center of the lane and took the lane during after period 1 when the lane was narrowed to accommodate the addition of the bicycle lane in the uphill direction.
- The percentage of bicyclists who yielded (i.e., changed direction or speed to give way to a motor vehicle) decreased from 3.3 percent in the before period to 2.8 percent in after period 1 and 0.7 percent in after period 2.
- The percentage of motorists who yielded (i.e., changed direction or speed to give way to a bicycle) decreased from 13 percent in the before period to 6.5 percent in after period 1 and 5 percent in after period 2.

Results pertaining to the spacing of bicycles and motor vehicles included the following:

- In the absence of following motor vehicles, the average spacing between bicycles and parked motor vehicles did not significantly change across periods

(45.8 inches in the before period, 47.5 inches in after period 1, and 44.5 inches in after period 2).

- The percentage of bicyclist spacing values within 30 inches (i.e., within the door zone) increased from about 6 percent in the before period to about 12 percent in the two after periods.
- The percentage of bicyclist spacing values within 40 inches increased from 36 percent in the before period to 39 percent in after period 1 and 44 percent in after period 2 (nonsignificant change).
- When motorists drove past parked motor vehicles in the absence of bicycles in both after periods, the average spacing decreased about 18 inches due to the change in the roadway configuration (the lane had been narrowed by 2.5 ft).

Overall results from Seattle, WA, indicate the following:

- Sharrow placement alone did not seem to result in an increase in the percentage of bicyclists taking the lane.
- Bicyclists were already riding out of the door zone in the before period and stayed in this location in both after periods. Sharrows had previously been installed 11 ft from the curb next to parked cars over a 2,000-ft, four-lane section of Fremont Street leading into the section studied in the current project.
- It is possible that narrowing the travel lanes and adding the uphill bike lane had more of an effect on operations and spacing than the addition of sharrows.
- The bicyclists riding in the street seemed experienced and showed that it was not necessary to ride in the middle of the lane to control the lane.

Conclusions

Sharrows can be used in a variety of situations, and increased use should enhance motorist awareness of bicyclists or the possibility of bicyclists in the traffic stream. Results indicate that sharrows increased operating space for bicyclists. Sharrows have reduced sidewalk riding not only in the current study but also in a previous study in Gainesville, FL.⁽⁵⁾ As communities continue to experiment with various uses of sharrows, it is recommended that researchers continue to create similar trials in other locations and traffic settings and then evaluate and report those experiments so that more data can be examined and guidance to users improved.

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Researchers—This study was performed by William Hunter, Libby Thomas, Raghavan Srinivasan, and Carol Martell of the Highway Safety Research Center of the University of North Carolina.

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Key Words—Shared lane markings, Sharrows, and Bicycles.

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"Bike Bike" racks at a public building

Bicycle Hitches in Downtown Minneapolis



Swerve Racks at the University of Minnesota

Neighborhood Bike Rack 50/50 Cost Share Program

Interested businesses, community centers, and organizations within the City of Minneapolis are encouraged to participate in this unique program to promote bicycling.

Bicyclists are also encouraged to help the City of Minneapolis identify locations to put new bicycle racks.

The City of Minneapolis will participate in half of the cost of the bicycle rack and half the cost of installation for eligible locations.

All styles shown are eligible for the 50/50 cost share program.

Applicants can choose between several standard colors, galvanized steel (silver), or stainless steel.



Hoop Racks at LRT Station

For more information contact:
Minneapolis Public Works
350 South 5th Street—Room 233
Minneapolis, MN 55415-1314
612-673-2411

Wave Racks at a community school



Bike Rack Cost Share Program

Does your business need a bike rack? GetAbout Columbia has a Bicycle Rack Cost Share Program in which business owners may request that the City of Columbia provide bicycle racks to them for public use. The City provides the bike rack and the business installs the rack for public use.

Here's how it works:

1. Call the GetAbout Columbia staff at (573) 874-7250 to see if your business qualifies.
2. A staff member will visit your location to help you choose a good spot for the new rack.
3. Business partners are responsible for installation and maintenance.
4. Patrons enjoy a safe and easy place to park their bike.

Please call (573) 874-7250 for more information.

<http://www.gocolumbiamo.com/PublicWorks/GetAboutColumbia/Biking/BikeRackCostShareProgram.php>

*Columbia, MO

Bike Rack Cost Share Program



Installing bike racks is a great way to encourage customers, clients and employees to bike to your business. Here are some reasons why:

Physically active employees entail lower health care costs.

Bike racks increase accessibility to your location and widen your potential customer base.

“Informally” parked bikes along signposts may appear cluttered or haphazard. Installing bike racks can improve the appearance of your business.

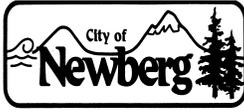
Adding bicycle racks is a simple yet visible statement of commitment to sustaining the environment and encouraging healthy behavior.

Own a business, non-profit, apartment complex, or other private building? South Windsor Walk and Wheel Ways has a plan to install public bicycle racks at private enterprises throughout the town. The program involves a 50/50 cost share at eligible locations. In addition, funds are available to install bike racks for public facilities such as schools, libraries and parks.

Please contact us at swwandww@cox.net, for more information about installing municipal bike racks at your location. Or visit us at www.swwww.org

<http://www.swwww.org/>

Windsor, CT



RESOLUTION No. 2011-2965

A RESOLUTION DIRECTING STAFF TO ESTABLISH A COMPREHENSIVE BICYCLE PROGRAM THAT WILL INCLUDE MARKED AND SIGNED BICYCLE ROUTES, PRINTED MAPS, AND A BICYCLE RACK COST SHARING PROGRAM

RECITALS:

1. On June 21, 2007, the City Council adopted Resolution No. 2007-2718 adopting the Newberg ADA/Pedestrian/Bike Route Improvement Plan to guide future city investments in its alternative transportation infrastructure.
2. ADA and sidewalk improvements have been completed since Plan adoption in 2007; however, bicycle route infrastructure improvements have been minimal. Establishment of the bicycle program helps create an ongoing mechanism to implement the Plan and ensure adequate investment in ADA, bicycle, and pedestrian infrastructure over time.
3. The bicycle program would establish an ongoing program to implement the policies and recommended improvements in the Plan. The bicycle program will consist of identifying, prioritizing, and completing bicycle route improvements over time, printed bicycle route maps, and creation of a bicycle rack cost sharing program with local businesses.

THE CITY OF NEWBERG RESOLVES AS FOLLOWS:

1. Staff is directed to establish a comprehensive bicycle program that will include marked and signed bicycle routes, printed bicycle route maps, and a bicycle rack cost sharing program.
2. The initial funding of \$30,000.00 to establish the bicycle program for fiscal year 2011-2012 is approved to come from the Street Fund Contingency. Budget line item 02-5120-538105 Sidewalk Intersections/ADA/Bikeway will increase by \$30,000.00 and budget line item 02-9180-800000 Contingency will decrease by \$30,000.00

➤ **EFFECTIVE DATE** of this resolution is the day after the adoption date, which is: August 16, 2011.

ADOPTED by the City Council of the City of Newberg, Oregon, this 15th day of August, 2011.

Norma I. Alley, City Recorder

ATTEST by the Mayor this 18th day of August, 2011.

Bob Andrews, Mayor