

T:\9295 - Medford Bike Event\Design\DWG\9295TTCP.dwg 4/4/2022 11:22 AM EDT

EVENT MANAGEMENT PLANS

PLAN OF

MYSTIC VALLEY PARKWAY AND SUMMER STREET

IN THE CITY/TOWN OF

MEDFORD & ARLINGTON

MIDDLESEX COUNTY

THE COMMONWEALTH OF MASSACHUSETTS

FIRST SUBMITTAL

TRAFFIC MANAGEMENT NOTES

- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS, UNLESS SUPERCEDED BY THESE PLANS.
- ALL SIGN LEGENDS, BORDERS AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
- TEMPORARY WARNING SIGNS AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF THE EVENT.
- TEMPORARY WARNING SIGNS, BARRICADES AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR THE AASHTO 2009 OR 2016 "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- MAXIMUM SPACING OF TRAFFIC DEVICES ARE SHOWN ON THE PLANS.
- MINIMUM LANE WIDTH IS TO BE 11 FEET. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CONES.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD TEMPORARY SIGN SUPPORTS.

SUGGESTED WORK ZONE WARNING SIGN SPACING

Road Type	Distance Between Signs**		
	A	B	C
LOCAL OR LOW VOLUME ROADWAYS*	350	350	350
MOST OTHER ROADWAYS*	500	500	500
EXPRESSWAY/FREEWAY*	1,000	1,500	2,640

* SPEED CATEGORY TO BE DETERMINED BY HIGHWAY AGENCY. DISTANCES ARE SHOWN IN FEET.

** THE COLUMN HEADINGS A, B, AND C ARE THE DIMENSIONS SHOWN IN THE DETAIL/TYPICAL SETUP FIGURES. THE A DIMENSION IS THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN. THE B DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS. THE C DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS. (THE "THIRD" SIGN IS THE FIRST ONE TYPICALLY ENCOUNTERED BY A DRIVER APPROACHING A TEMPORARY TRAFFIC CONTROL (TTC) ZONE.)







THE "THIRD" SIGN ABOVE IS TYPICALLY REFERRED TO AS AN "ADVANCED WARNING" SIGN ON THE TTCP SETUPS. THESE ADVANCED WARNING SIGNS ARE LOCATED PRIOR TO THE PROJECT LIMITS ON ALL APPROACHES (i.e. THE W20-1 SERIES (ROAD WORK XX FT) SIGNS), AND USUALLY REMAIN FOR THE DURATION OF THE PROJECT. ADDITIONAL SIGNS (i.e. "RIGHT LANE CLOSED 1 MILE" AND "LEFT LANE CLOSED 1 MILE") HAVE BEEN SHOWN IN SOME FIGURES AS EXAMPLES OF REINFORCEMENT SIGN PLACEMENT BUT ARE USED IN RARE OCCASIONS.

THE FIRST AND SECOND WARNING SIGNS ABOVE ARE REFERENCED TO AS THE OPERATIONAL (DAY-TO-DAY) WORK ZONE SIGNS AND MAY BE MOVED DEPENDING ON WHERE THE SPECIFIC ROADWAY WORK FOR THAT DAY IS LOCATED.

MA-R2-10a SIGNS SHALL BE PLACED BETWEEN THE SECOND AND THIRD SIGNS AS DESCRIBED ABOVE.

MA-R2-10a, MA-R2-10e, AND W20-1 SERIES SIGNS ARE TO BE INCLUDED ON ALL DETAILS/TYPICAL SETUPS.

TEMPORARY SIGN SUMMARY

IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCH)			COLOR			POST TYPE & NUMBER PER SIGN	AREA PER SIGN
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	RTE. MKR. ARROW	BACK- GROUND	LEGEND	BORDER		
W3-4	36"	36"		SEE FHWA STANDARD HIGHWAY SIGNS 2004 EDITION			FLUOR- ESCENT ORANGE	BLACK	BLACK	TEMP STAND (1)	9.00
W5-1	36"	36"		SEE FHWA STANDARD HIGHWAY SIGNS 2004 EDITION			FLUOR- ESCENT ORANGE	BLACK	BLACK	TEMP STAND (1)	9.00
MA-W20-7B	36"	36"		SEE FHWA STANDARD HIGHWAY SIGNS 2004 EDITION			FLUOR- ESCENT ORANGE	BLACK	BLACK	TEMP STAND (1)	9.00
W11-1	36"	36"		SEE FHWA STANDARD HIGHWAY SIGNS 2004 EDITION			YELLOW	BLACK	BLACK	TEMP STAND (1)	9.00
W16-1	18"	24"		SEE FHWA STANDARD HIGHWAY SIGNS 2004 EDITION			YELLOW	BLACK	BLACK	MOUNT WITH W11-1	3.00
W21-5a	36"	36"		SEE FHWA STANDARD HIGHWAY SIGNS 2004 EDITION			FLUOR- ESCENT ORANGE	BLACK	BLACK	TEMP STAND (1)	9.00

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES

Type of Taper	Taper Length (L)*
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5L
SHOULDER TAPER	AT LEAST 0.33L
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FT MIN, 100 FT MAXIMUM
DOWNSTREAM TAPER	50 FT MIN, 100 FT MAX PER LANE

FORMULAS FOR DETERMINING TAPER LENGTHS

Speed Limit (S)	Taper Length (L) Feet
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	$L = WS$

WHERE: L = TAPER LENGTH IN FEET
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH

PROJECT TITLE

Memorial Bike Event

Medford/Arlington,
Massachusetts

PREPARED FOR

Massachusetts
Bicycle Coalition

Boston,
Massachusetts

VA Vanasse &
Associates inc
Transportation Engineers & Planners

35 N.E. BUSINESS CENTER DRIVE
ANDOVER, MA 01810-1071
TEL: (978) 474-8800
www.rdva.com

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DRAWN BY	DAD/IJS
CHECKED BY	SMB
DATE	APRIL 4, 2022
SCALE	N.T.S.

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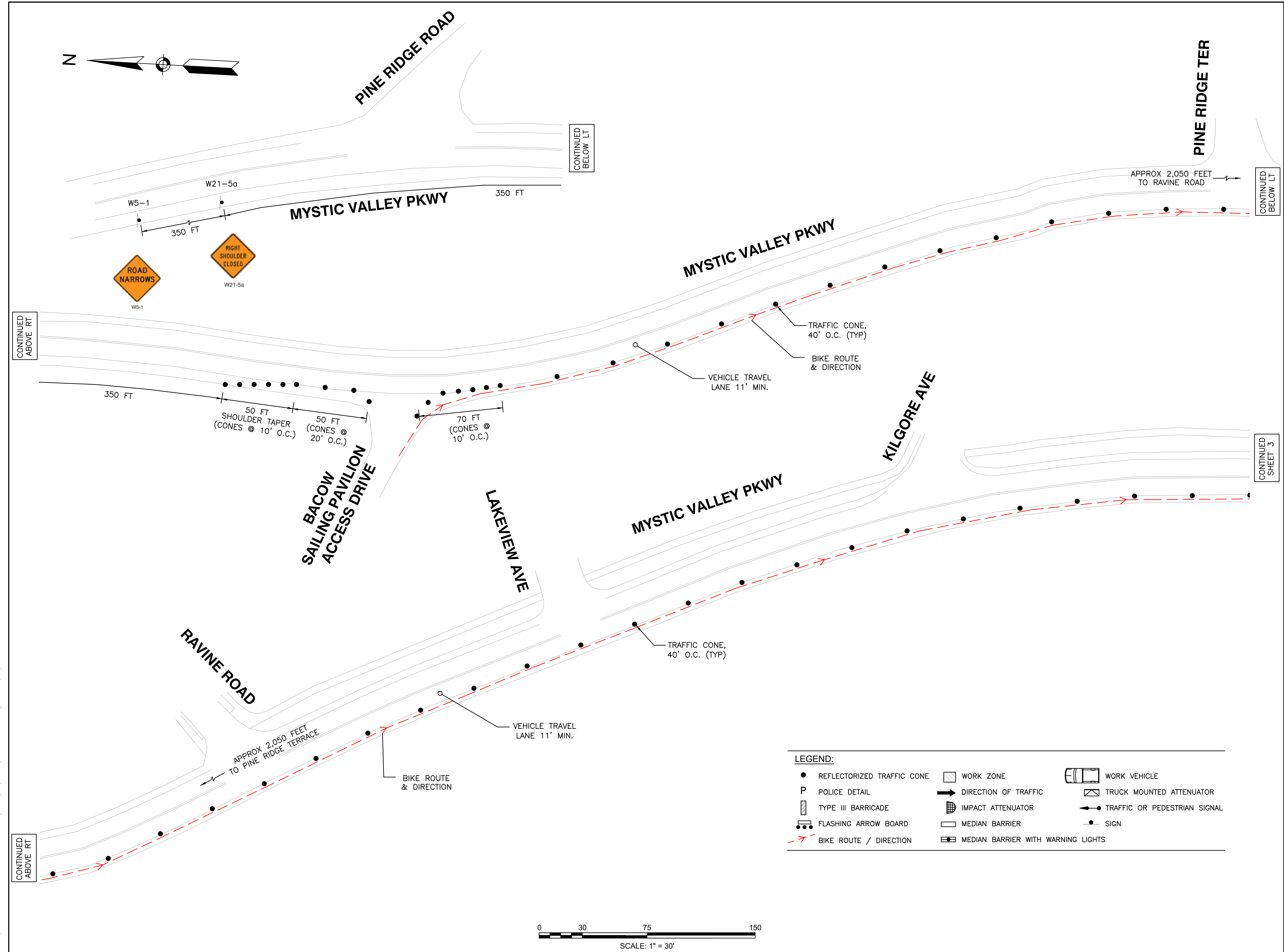
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DRAWING TITLE

Title, General Notes,
& Sign Summary

SHEET 1 OF 9	DRAWING NUMBER
JOB NO. 9295	1
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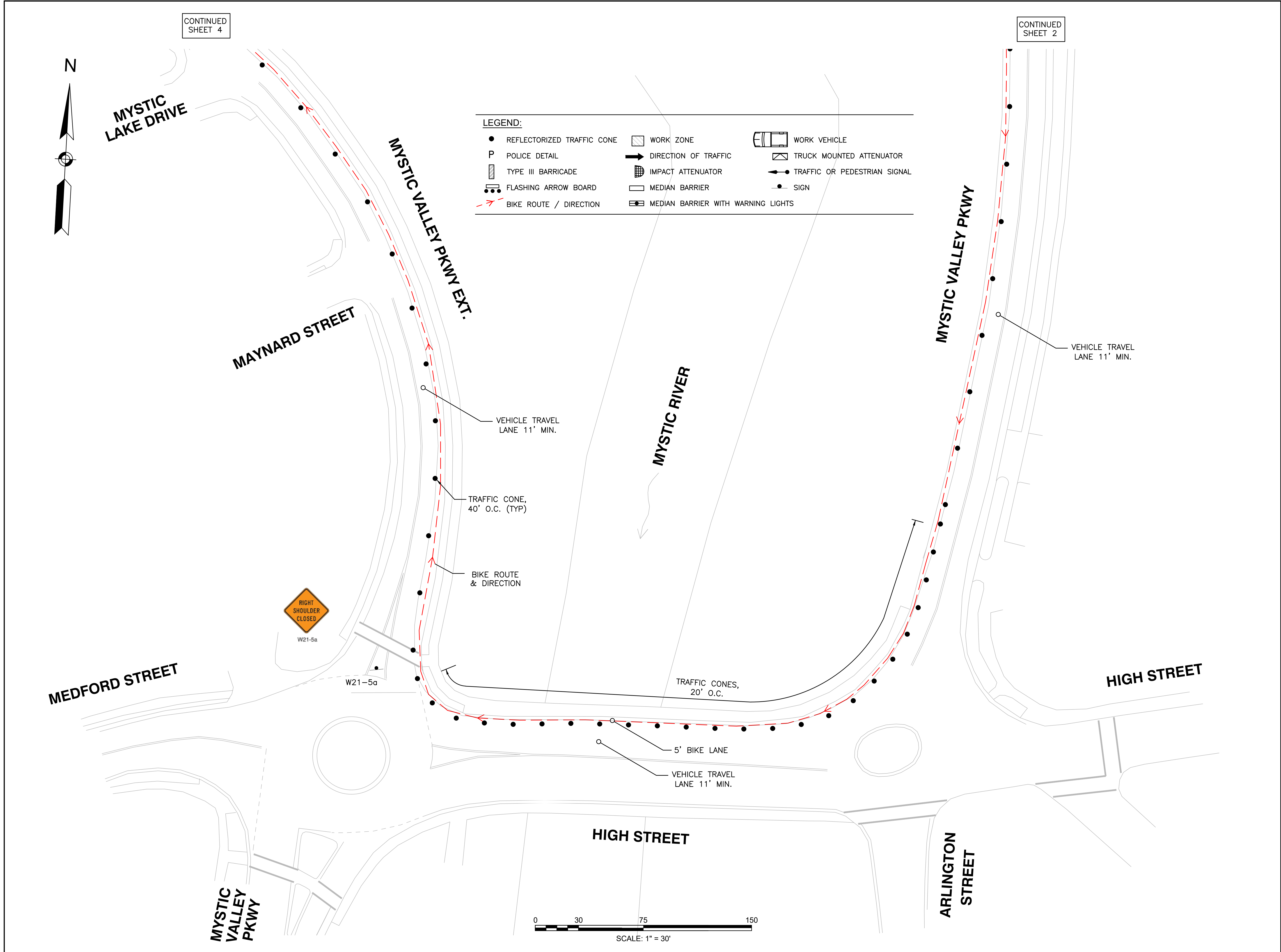
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SHEET 2 OF 9	DRAWING NUMBER
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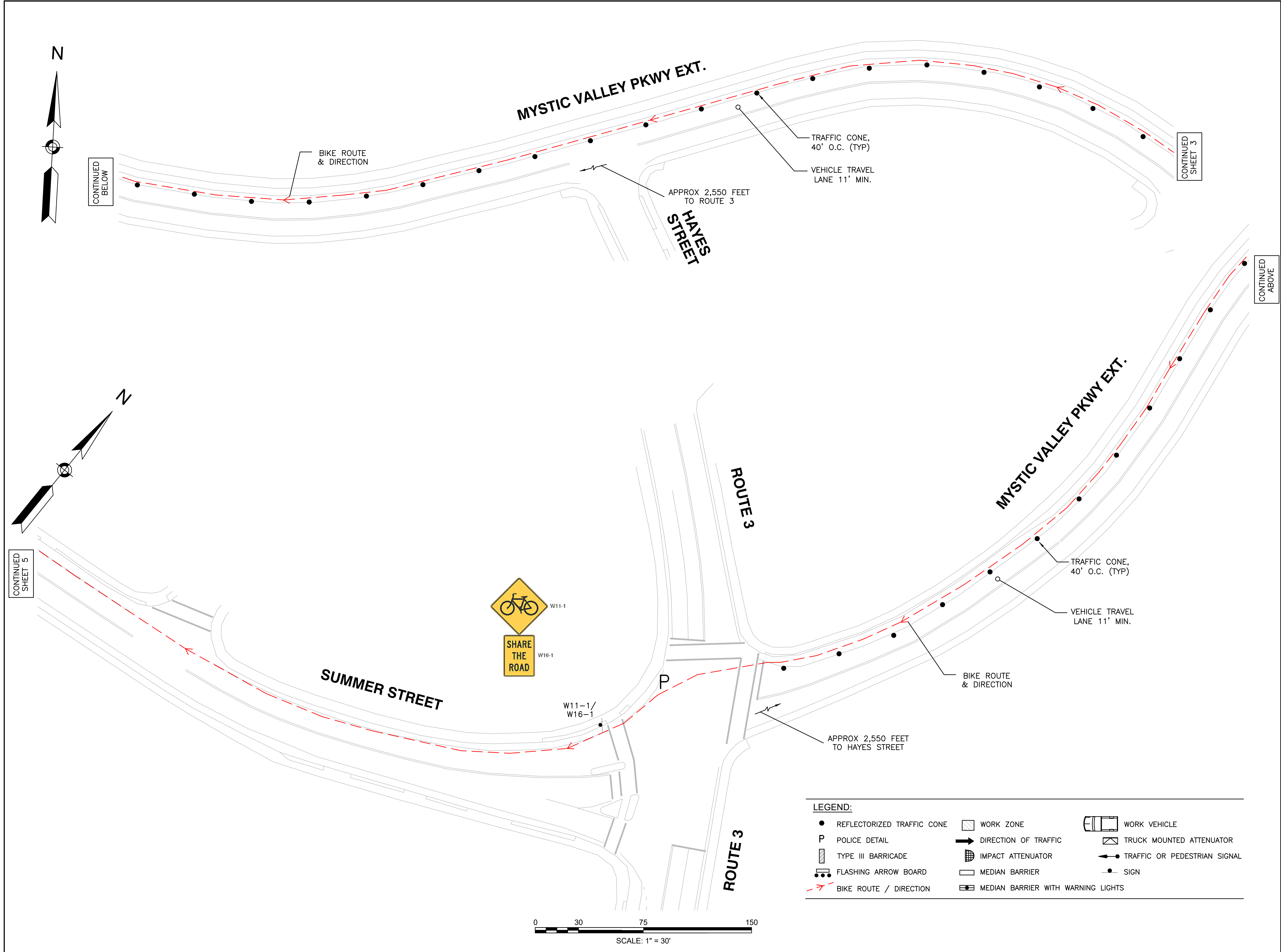
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SHEET 3 OF 9	DRAWING NUMBER
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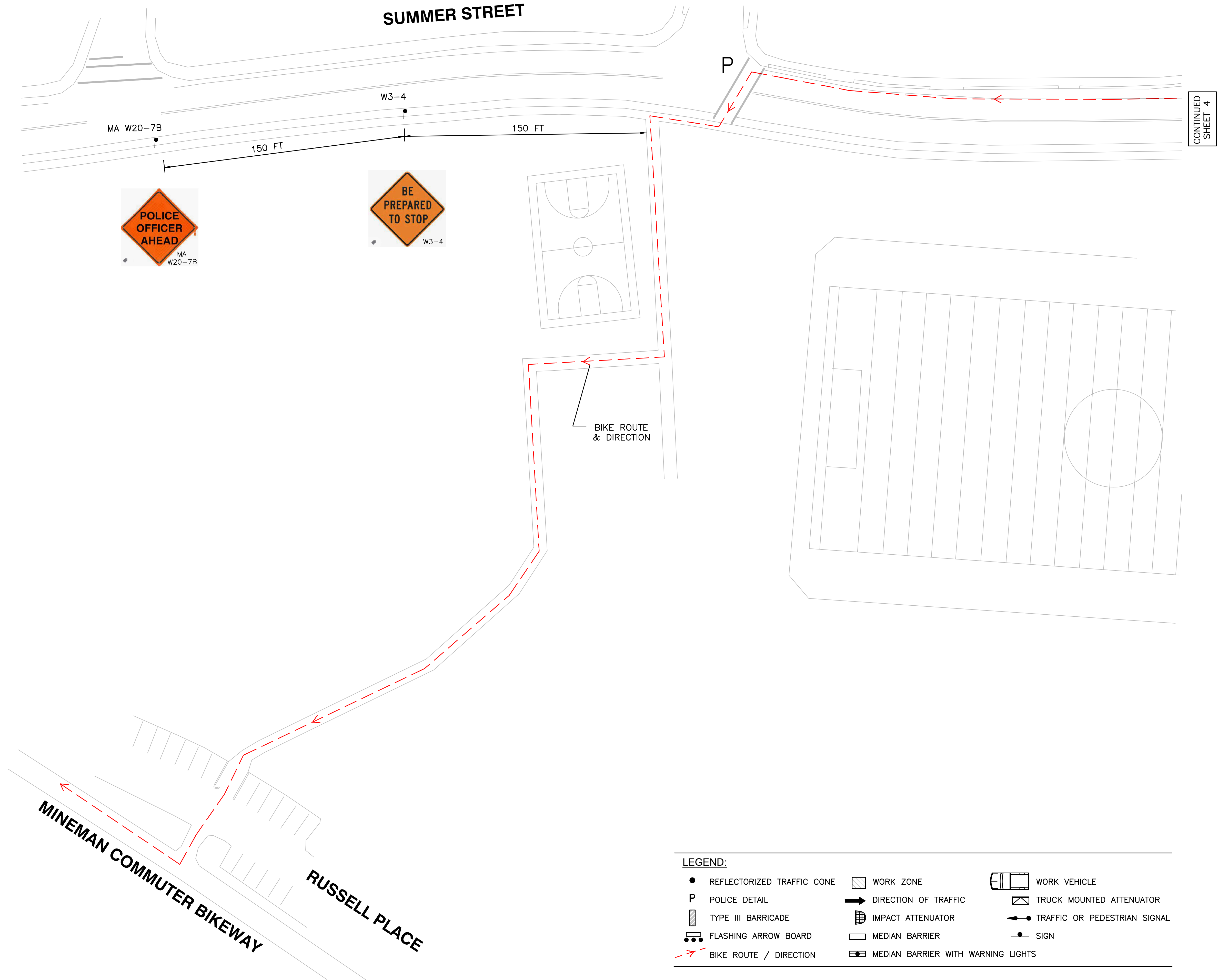
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SHEET 4 OF 9	DRAWING NUMBER 4
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LEGEND:		
● REFLECTORIZED TRAFFIC CONE	▨ WORK ZONE	🚚 WORK VEHICLE
P POLICE DETAIL	➡ DIRECTION OF TRAFFIC	🚚 TRUCK MOUNTED ATTENUATOR
▨ TYPE III BARRICADE	🚧 IMPACT ATTENUATOR	⬅️ TRAFFIC OR PEDESTRIAN SIGNAL
⚡ FLASHING ARROW BOARD	▭ MEDIAN BARRIER	● SIGN
➡ BIKE ROUTE / DIRECTION	🚧 MEDIAN BARRIER WITH WARNING LIGHTS	

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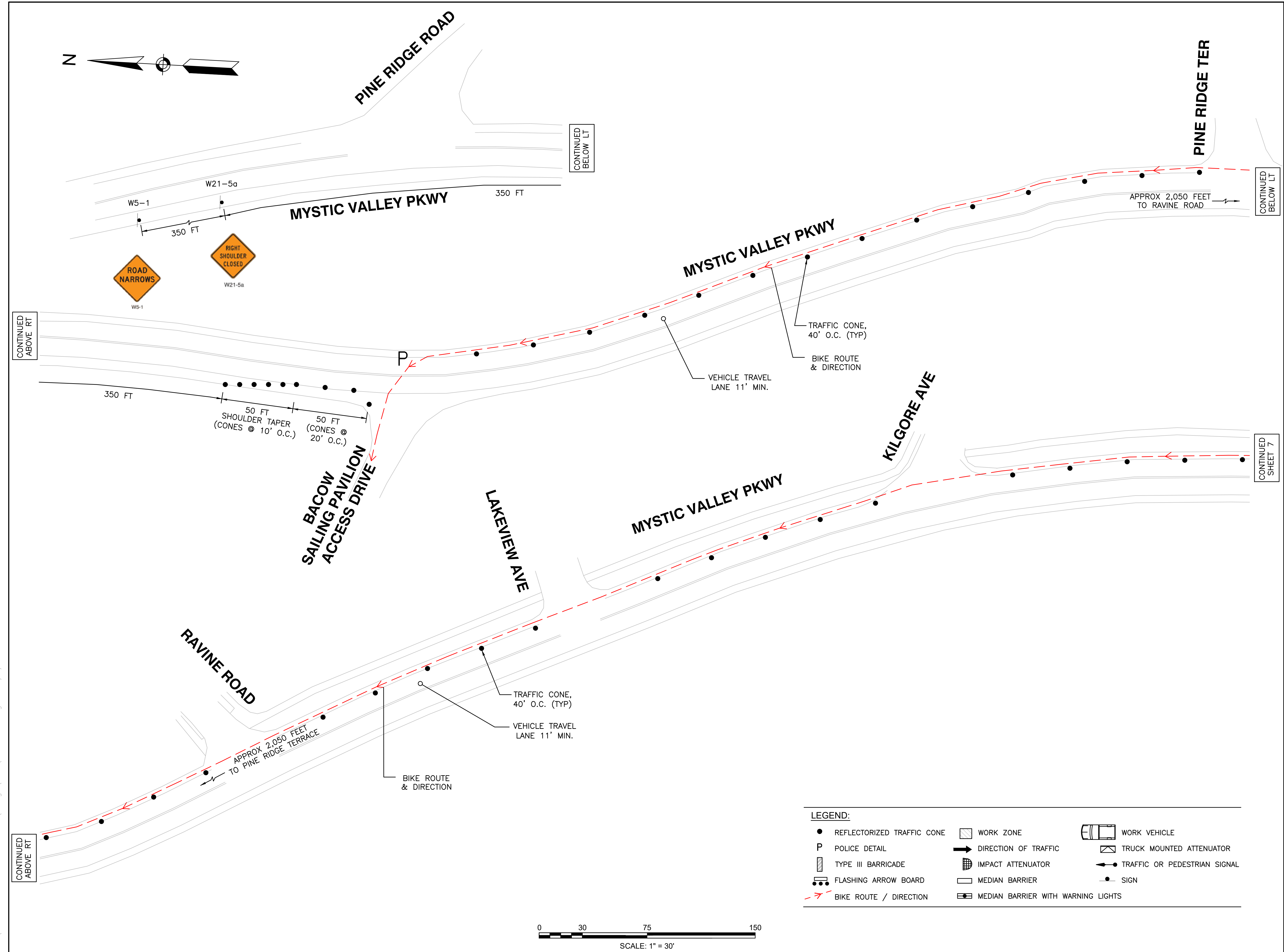
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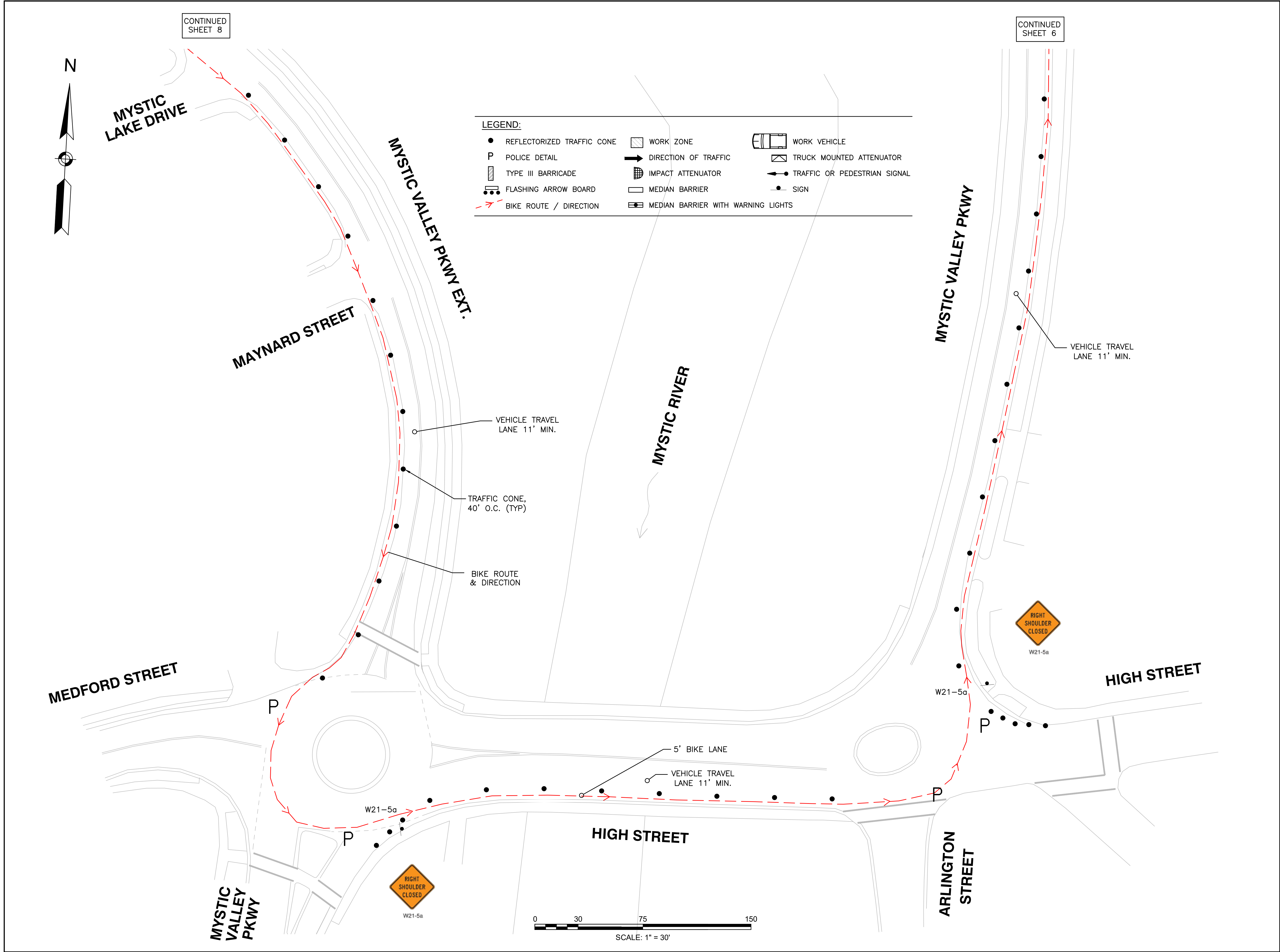
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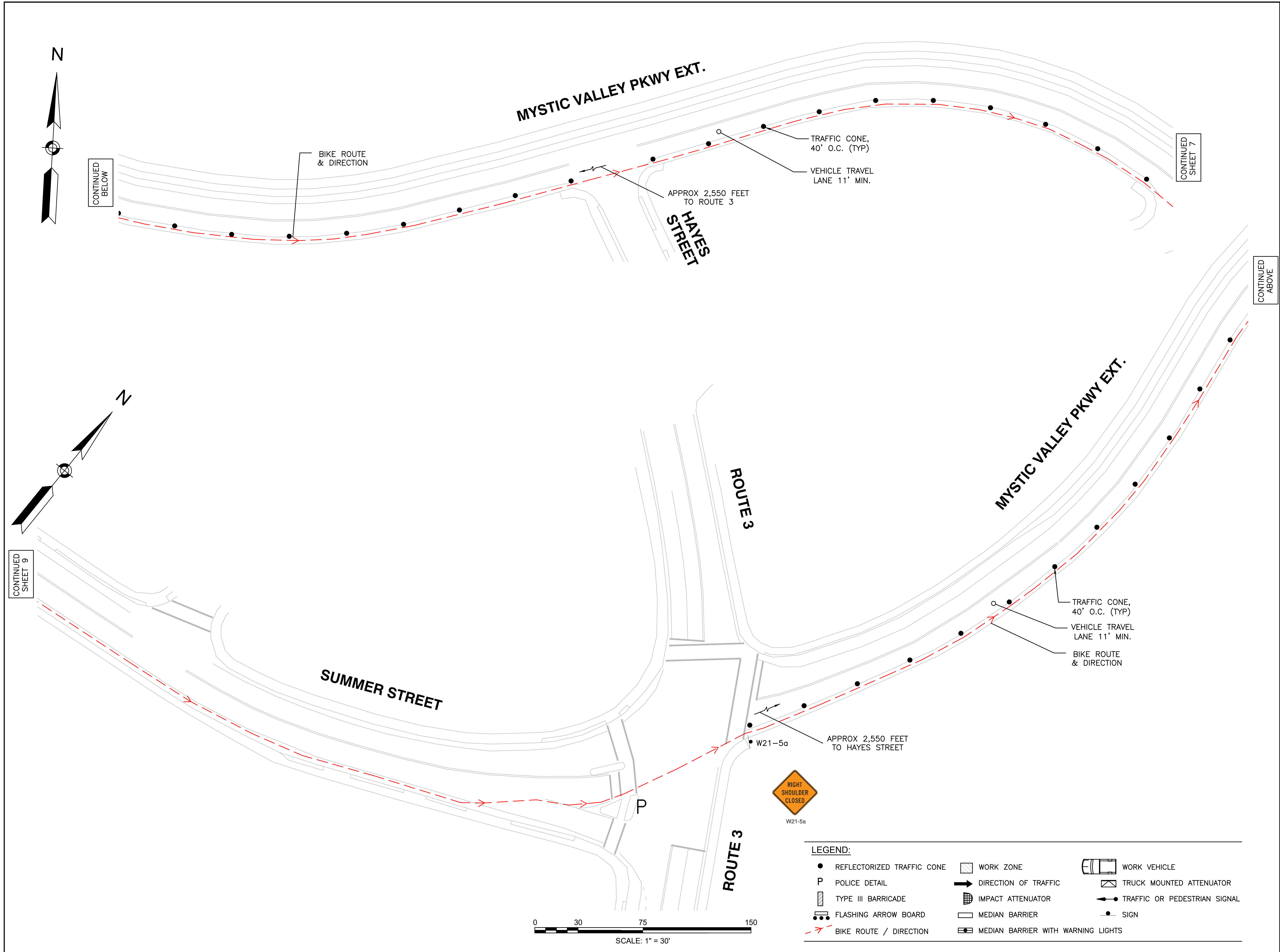
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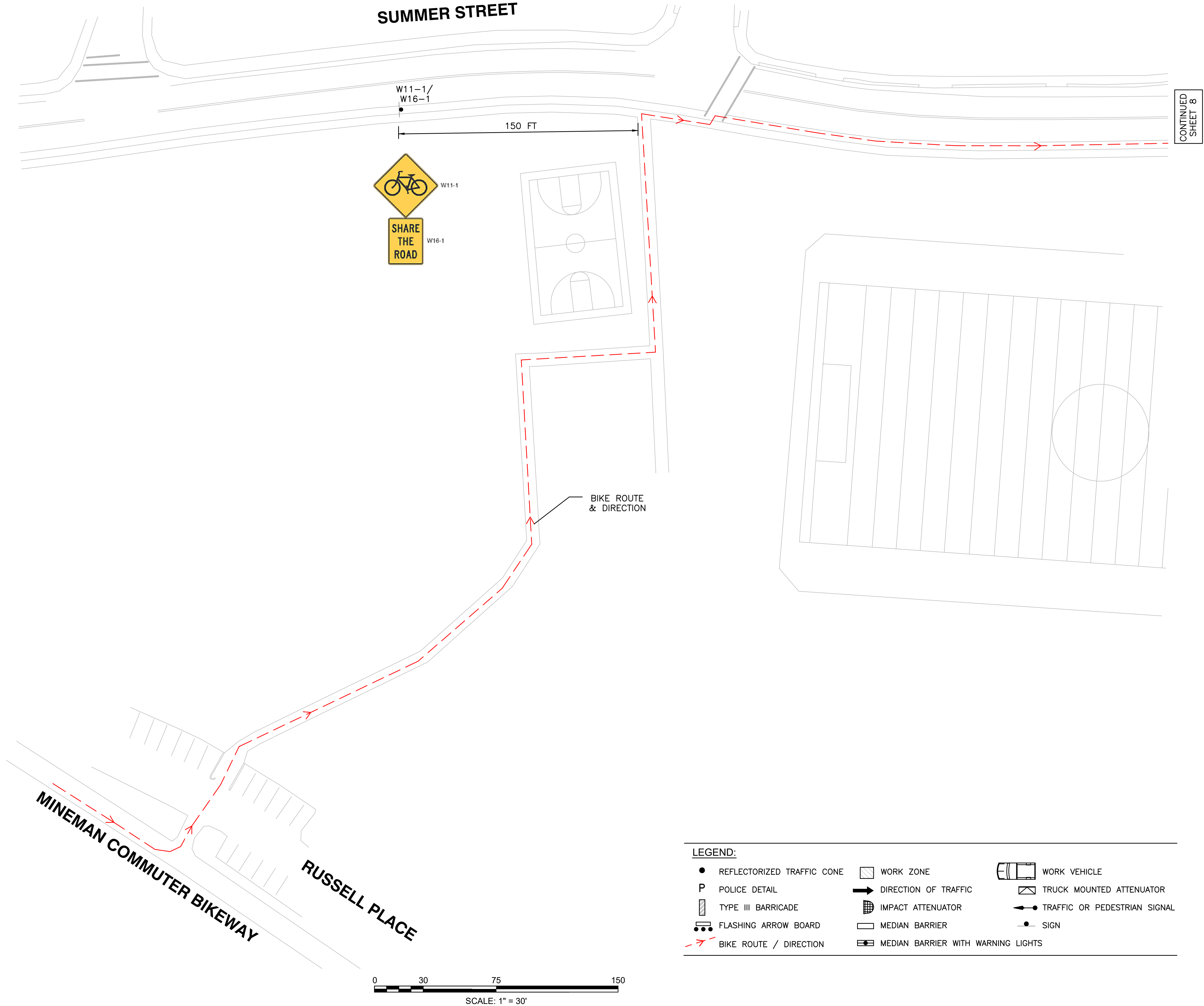
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