State of Rhode Island
Department of Administration / Division of Purchases
One Capitol Hill, Providence, Rhode Island 02908-5855
Tel: (401) 574-8100 Fax: (401) 574-8387

ADDENDUM #3

RFP #7549840 **TITLE: STATEWIDE DRAINAGE ASSET INSPECTION AND INVENTORY**

SUBMISSION DEADLINE: **SEPTEMBER 25, 2015 – 1:00 P.M.**

1. QUESTIONS AND ANSWERS RESULTING FROM THE PRE-BID CONFERENCE HELD ON 9/2/15 ARE ATTACHED.
2. COST PROPOSAL FORM ATTACHED, WHICH SHOULD BE SUBMITTED IN A SEPARATELY SEALED ENVELOPE CLEARLY MARKED WITH RFP NUMBER AND COMPANY NAME.

Lisa Hill

Lisa Hill
Chief Buyer

RFP# 7549840: STATEWIDE DRAINAGE ASSET INSPECTION & INVENTORY
COST PROPOSAL FORM

Firm Name: _____

Contact Person: _____

Street Address: _____

Phone No.: _____

ITEM	QUANTITY	UNIT PRICE		TOTAL
1. INSPECT CATCH BASIN AND MANHOLE	25,000	$	per each	$
2. INSPECT OUTFALL AND PAVED WATERWAY	2,000	$	per each	$
3. INSPECT BMP/STU	100	$	per each	$
			TOTAL COST OF PROJECT:	$

Owner/President Signature: _____ Date: _____

NOTE: ALL COSTS SHALL BE LUMP SUM AND INCLUDE ALL LABOR, MATERIAL, EQUIPMENT AND DIRECT EXPENSES. THERE WILL BE NO ALLOWANCES FOR REIMBURSABLE EXPENSES SUCH AS MILEAGE, PRINTING, DELIVERIES, ETC. SUBMIT COST PROPOSAL IN A SEPARATELY SEALED ENVELOPE-MARKED AS SUCH

STATE OF RHODE ISLAND
RFP #7549840 (ADDENDUM 3)
Statewide Drainage Asset Inspection & Inventory
Responses to Questions Received

General Clarification

The intent of this project is to accurately depict the Department's drainage system and develop a maintenance schedule for each component. The catchbasin, manhole, pipe, outfall, and BMP inventory (will be provided by the Department when complete) shall be verified and updated as necessary, and all items shall be inspected for general condition and repair and maintenance needs. All data must be compatible with the Department's Maintenance Management System (VueWorks); all collected data becomes property of the Department.

DELETION:

On page 15 of 17 delete Section VI. Cost Proposal in it's entirety and replace with:

VI. COST PROPOSAL

Please provide unit prices for each item listed in the Cost Proposal Form. All unit prices shall include all labor, material, equipment, traffic control and direct expenses. No allowances for reimbursable expenses such as mileage, printing, deliveries, etc. **Cost Proposals Forms shall be submitted in a separate sealed envelope clearly marked Cost Proposal and shall be held by the Division of Purchases until technical evaluations are completed.**
(COST PROPOSAL FORM attached)

Question:

Please confirm that the bid will be selected based on evaluation and points (page 17) as opposed to "price alone" (page 2 and 7).

Answer:

Selection of the recommended respondent shall be based on the Evaluation Criteria set forth on page 17 of 17.

Question:

Confirm that the bid price will be "firm and fixed" (page 5) and not subject to a request by RIDOT for a "best and final offer" (page 12).

Answer:

Bid Price will be "firm and fixed".

Question:
Explain the DBE requirement and what is meant by "any bidder who does not intend to perform all of the work with its own forces, which can ignore the 10% DBE requirement.

Answer:
The Minority Business Enterprises requirement on page 9 of 17 states: "Any bidder who does not intend to perform all of the work with its own forces must recruit and engage minority/women business enterprises certified by the Division of Purchases, Minority Business Office ("MBEs") to perform at least 10% of the dollar value of the contract awarded pursuant to this solicitation." Therefore, if the respondent plans on using subs, the respondent must make an effort to reach out and hire MBE subs if available.

Question:
Confirm that the pre-bid conference was "non-mandatory."

Answer:
As stated on Solicitation Cover Sheet, page 1 of 17, the Pre-Bid Conference was NONMANDATORY.

Question:
Please provide an MSWord copy of the "Bidder Certification Cover Form."

Answer:
As stated on page 5 of 17: "The bidder must download, complete, sign, and submit the Bidder Certification Cover Form for this solicitation as the first document in the technical proposal. The bidder Certification Cover Form is downloadable with the solicitation from the Division of Purchases website by logging in as a RIVIP vendor and clicking on the applicable "Solicitation Number."

Question:
Are W-9 forms required for subcontractors as well as the prime contractor on a team?

Answer:
Only the firm submitting the bid, and who will be paid directly by the State, needs to submit a W-9.

Question:
What does RIDOT expect to see in the technical proposal? What does RIDOT expect to see in the appendices (e.g., resumes, qualifications, examples of previous work, references, etc.)?

Answer:
Please reference Section V - Technical Proposal (page 15 of 17) for proposal requirements.

Question:
Confirm that there will be no "bid surety" (page 6).
Answer:
There is no Bid Surety requirement for this project.

Question:
On p. 12 it is noted that a purpose of the project is to "...conduct an inspection of each catchbasin, manhole, outfall, and BMP;" however on p. 13 under the description of the Annual Inspections it is stated that "All assets captured in the in the MS4 Inventory (with the exception of outfalls and BMP's) shall be included in the inspection requirements." Please clarify which assets are to be inspected. If drainage manholes are to be inspected, does RIDOT have an estimate of the total number of manholes along State-maintained highways in Rhode Island, or is the 25,000 figure inclusive of both catch basins and manholes?
Answer:
Outfalls, BMPs, catch basins and manholes are included in the inspection requirements. For pipes general direction and size are included in inventory and inspection. The estimate of 25,000 structures includes manhole and catch basins.

Question:
Is traffic control included in price?
Answer:
Yes, traffic control is included in the price as incidental.

Question:
99% accuracy requirement, is this regarding number of structures and/or location of structures?
Answer:
The 99% accuracy requirement is for both the physical location of the structure (i.e. Structure coordinates shall be obtained by either a mapping-grade GPS unit (acceptable) or survey grade equipment (preferred)) and the actual drainage system components (i.e. 99% of all catchbasins, manholes, etc. shall be included in inventory).

Question:
Please clarify Federal MS4 vs. State MS4 General Permit requirements.
Answer:
Project work must, at a minimum, be compliant with current Rhode Island RIPDES MS4 permit requirements. Utilizing RIDOT-provided forms will fulfill expectations.

Question:
Traffic Restrictions – Can work be done at any time or restricted to non-rush hour, etc?
Answer:
RIDOT will not permit lane/shoulder closures on Interstates, Limited Access Highways, Principal Arterials or Ramps between 6AM to 9AM and between 3PM to 7PM. Reference attached Level 3 Transportation Management Plan.

Question:
Can RIDOT provide an estimate of the number of structures per road type ie. Interstate highway, secondary road etc. This will help determine traffic control costs.
Answer:
An inventory will be provided by start of Contract. At this time, RIDOT can only estimate that 70% of RIDOT roadway miles are within the RIPDES Urban/Densely Populated/Divided Highway permit area, where the majority of closed-drainage systems are likely to occur.

There are an estimated 1500 miles of RIDOT maintained roadways, including ramps. Based on FHWA HPMS Functional Class, here is an estimate of RIDOT Maintained Roadway miles.

GIS Data available from Rhode Island Geographic Information System at: *http://www.edc.uri.edu/rigis/data/data.aspx?ISO=transportation*

HPMS Functional Class		%
1, 2	Rural Principal Arterial	9
6 - 9	Rural	18
11-14	Urban Principal Arterial	50
16, 17, 19	Urban Minor Arterial	22

Question:
Is there a winter shutdown period associated with this project?
Answer:
There will be no formal winter shutdown period. Work can proceed as long as weather permits and is practical.

Question:
Provide copy of RIDOT sample Inspection Form.
Answer:
RIDOT Sample Inspection Forms are attached.

Question:
GAP Analysis clarification. Is this structural gap or financial gap?
Answer:
This is a structural gap.

Question:
Please provide a copy of RIDOT's repair/maintenance cost estimation form.
Answer:
RIDOT does not have a standard repair/maintenance cost estimation form. Please refer to last paragraph on page 13 of 17 for requirements of repair/maintenance cost estimation form.

Question:
Regarding annual inspections, page 13 states "all assets captured in the MS4 Inventory (with the exception of outfalls and BMPs) shall be included in the inspection requirements." Please confirm that Year 2 and Year 3 inspections will be limited to assessing repair and maintenance needs for catch basins only.
Answer:
As stated above, outfalls and BMPs are included in the inspection requirements. Year 2 and Year 3 inspections include assessing repair and maintenance needs for all assets.

Question:
In the description of the Development of an MS4 Inventory (p. 13, first paragraph), it is stated that the consultant shall perform three principal tasks in this effort: (1) assess RIDOT's inventory, (2) perform a gap analysis, and (3) assemble a supplemental electronic inventory of drainage assets. Please clarify what is required/desired of the consultant in completing each of the above.
Answer:
The assessment of RIDOT's inventory consists of completing the Inspection Forms for the structures. RIDOT expects the consultant to perform a structural gap analysis which would inform RIDOT of any structures found but not currently in RIDOT's inventory. The supplemental electronic inventory would consist of inputting the data from the gap analysis into RIDOT's inventory.

Question:
It is understood that the RIDOT has a current inventory of MS4 assets that the consultant is to assess, refine, and build upon. Please describe the nature and status of this inventory, including its current completeness and accuracy, format(s) of the current GIS dataset and/or MMS database), whether network/connectivity is included as part of the inventory, etc.

Answer:
Catchbasins/Manholes: The Department will have a complete inventory of catchbasins and manholes by start of contract. Data will be limited to location (lat/long), structure type (grate, inlet, etc), and photo. Inventory accuracy is estimated at 95+%. Inspection of each will include additional fields (please see Drainage Inspection Forms).
Outfalls: The Department has a GIS data layer of outfalls that include location, asset description, and inspection information. Estimated to be 90-95% complete for inventory; data accuracy is estimated at 80% -- data will need to be verified for each outfall.
Stormwater BMPs: The Department has a GIS data layer and an Access Database of stormwater BMPs that include location, asset description, and inspection information. Estimated to be 80-90% complete for inventory; data accuracy is estimated at 95%.
The intent is to get basic connectivity information for each drainage system. Identifying the ultimate outfall for each catchbasin/manhole and interconnections will suffice.

Question:
Please describe the visual ("drive by") data collection effort of the Department's drainage assets which was mentioned at the pre-bid (and is understood to be ongoing). Is the consultant expected to more accurately locate those assets collected through this visual data collection effort?

Answer:
Visual 'drive by' data is limited to location, basic description of asset type, and photo. Location provided is anticipated to be sufficiently accurate; additional information is expected (please see Drainage Inspection Forms)

Question:
Can the Department's current GIS dataset(s) of MS4 assets be made available to respondents to aid in estimation and the preparation of technical and cost proposals?

Answer:
RIDOT Maintained Roadways are currently listed on the RIGIS website at http://www.edc.uri.edu/rigis/data/data.aspx?ISO=transportation

Question:
Will the consultant be required to prepare Transportation Management Plans (TMPs) for the various inspection setups (different types of roadway, different locations – median vs. shoulder, etc.)?

Answer:
Yes, for each type of roadway.

Question:
Will the consultant be required to inventory and inspect those assets located along state roads on Block Island / New Shoreham?

Answer:
No.

Question:
Will RIDOT pay directly for local/state police details required to complete the field inspections along major roadways?

Answer:
Yes, RIDOT will pay directly for police details if determined necessary by the Resident Engineer.

Question:
Can you clarify the purpose of the inspection of the drainage system? Is it to verify the presence or absence of pollutants in the storm drainage system (i.e. sediment or other pollutants) or is it for condition assessment of the drainage system?

Answer:
Reference attached Inspection Forms.

Question:
On page 7 of the RFP, it states that successful bidders (and subconsultants) will be ineligible to submit bids in response to any solicitations for construction or consulting services that arise from, or relate to, the architectural and/or engineering services requested in this solicitation. Can you clarify what exactly this means? Does this mean a successful bidder cannot be involved in any future stormwater permit work with RIDOT (i.e. design work or TMDL analysis or SWMP evaluation work in the future)? Is there a time limit after which this exclusion would be lifted?

Answer:
The successful respondent will be ineligible to submit bids in response to any solicitations for construction or consultant services that arise from or relate to the architectural or engineering

services requested in this solicitation. Therefor the successful respondent would not be able to submit bids on work orders for repair and maintenance developed under this project.

Question:
The cost for Maintenance and Protection of traffic is a project component subject to great variability. Can RIDOT provide a basis for cost estimating (i.e. – number of rolling shoulder closures, number of shoulder closures, and number of lane closures)?
Answer:
RIDOT cannot provide a basis for cost estimating.

Question:
Will the selected consultant be expected to cross reference RIDOT plans to find all structures? If so, how many plans currently exist?
Answer:
RIDOT does not expect the consultant to cross reference RIDOT plans, that task will be at the discretion of the consultant.

Question:
The successful respondent shall prepare cost estimates for – repairs and/or maintenance of structures. Please clarify what the purpose is for the cost estimates? Are the cost estimates for the physical drainage structure repairs themselves or is it for maintenance of structures for the removal of pollutants (i.e. sediment or trash)?
Answer:
The costs estimates are for the physical drainage structure repairs and the maintenance of structures and for the maintenance of structures.

Question:
We understand that the successful bidder must provide data in a format consistent with "RIDOT's Maintenance Management System" (MMS). Please confirm that data collection will be limited to latitude/longitude, asset type, relative condition and two photos each year.
Answer:
Please see attached RIDOT-Drainage Inspection Forms. Please note: these forms are only representative of the data required, not the data submission format.

Question:
What platform is RIDOT using for MMS? What file types can be imported? Will RIDOT provide consultants with a copy of the MMS and the existing data so that it can be updated and returned to RIDOT?
Answer:
Database is SQL server; files must be Microsoft Access compatible; yes, RIDOT will provide existing data.

Inspection for Maintenance & Repair Needs
Catch Basins, Manholes, and Inlets

State Roadway: _____ **Route #:** _____ N S E W (Circle One) **Town:** _____ **Date:** _____

Inspectors: _____ **Drainage System No.:** _____ **GPS/Survey UNIT:** _____ **Last Rain Event:** _____

	Structure ID or GPS Coordinates	INLET Clogged / OUTLET Clogged: Vegetation, Trash, Sediment (leave empty if none)		Sediment IN BASIN: Sediment is within 6" of lowest visible pipe (✓ if Yes)	Sediment IN BASIN: % FULL (0%, 25%, 50%, 75%, 100%)	Contamination: Evidence of oil, gas, contaminants or other pollutants (✓ if Yes)	Flooding: Structure causes street flooding (✓ if Yes)	Dry Weather Discharge: Flowing water visible (✓ if Yes)	Interconnection: State / Municpal / Private	Overall condition: Good / Fair / Poor / Unsound	Maintenance Needed: Could not Access	Repair Needed: Repair Code	PHOTO: Photo ID
N:	41.69101	V, S		✓				✓	P	G		B	
W:	-71.27938	Comment:	Needs to be jetted; interconnection - house owner of 1234 Main St; last rain event > 1-week ago										
1	N:				%								
	W:	Comment:											
2	N:				%								
	W:	Comment:											
3	N:				%								
	W:	Comment:											
4	N:				%								
	W:	Comment:											
5	N:				%								
	W:	Comment:											
6	N:				%								
	W:	Comment:											

	Structure ID or GPS Coordinates	INLET Clogged	OUTLET Clogged	Sediment in BASIN		Contamination	Flooding	Dry Weather Discharge	Inter-connection	Overall Condition	Maintenance Needed	Repair Needed	PHOTO
		Vegetation, Trash, Sediment (leave empty if none)		Sediment is within 6" of lowest visible pipe (✓ if Yes)	% FULL (0%, 25%, 50%, 75%, 100%)	Evidence of oil, gas, contaminants or other pollutants (✓ if Yes)	Structure causes street flooding (✓ if Yes)	Flowing water visible (✓ if Yes)	State Municpal Private	Good Fair Poor Unsound	Could not Access	Repair Code	Photo ID
7	N:				%								
	W:	Comment:											
8	N:				%								
	W:	Comment:											
9	N:				%								
	W:	Comment:											
10	N:				%								
	W:	Comment:											

SYSTEM COMMENTS:

Repair Codes

A	Replace Surrounding Asphalt
B	Adjust Frame & Grate to Grade
C	Replace Median CB Grates w/RI Std 3.4.4M
D	Replace Broken CB Grate or MH Cover RI Std 6.3.0 or 6.2.1
E	Seal Gap Between Corbel Cone & Frame
F	Repoint Brick: Corbel Cone 5-10 layers of Bricks
G	Rebuild Corbel Cone 1-5 layers of Brick
H	Seal Cracks in Concrete Basin (± 1/2"wide)
I	Mortar and Seal Around Pipe End

Inspection for Maintenance & Repair Needs
Catch Basins, Manholes, and Inlets

State Roadway: *Hope St* Route #: *116* N (S) E W (Circle One) Town: *Bristol* Date: *9/12/2012*

Crew: *lorenzo/duck* Drainage System No.: *n/a* GPS UNIT: *Trimble 5800 Rover* Last Rain Event: *9/1/2012*

	Structure ID or GPS Coordinates	INLET Clogged	OUTLET Clogged	Sediment in BASIN		Contaminant or	Flooding	Dry Weather Discharge	Inter-connection	Overall Condition	Maintenance Needed	Repair Needed	PHOTO
		Vegetation, Trash, Sediment (leave empty if none)		Sediment is within 6" of lowest visible pipe (✓ if Yes)	% FULL (0%, 25%, 50%, 75%, 100%)	Evidence of oil, gas, contaminants or other pollutants (✓ if Yes)	Structure causes street flooding (✓ if Yes)	Flowing water visible (✓ if Yes)	State Municpal Private	Good Fair Poor Unsound	Could not Access Clean Basin Clean & Flush Pipes Immediate Attention	Repair Code	Photo ID
1	*41.68748*	T,V						✓	P	G	CB, CFP		*1*
	-71.27908	Comment:	*Needs to be jetted; interconnection - house owner of 1234 Main St; last rain event > 1-week ago*										
2	*41.68786*	T,V								G	CB, CFP	A	*2, 3*
	-71.27933	Comment:	*MUSHROOM GRATE*										
3	*41.68817*	V								G		C, D, F	*5*
	-71.27918	Comment:											
4	*41.68893*			✓	25%					F		B, F, I	*6*
	-71.27916	Comment:											
5	*41.68994*	T,V		✓	25%			✓	M	G		A, B, F	*8,9*
	-71.27938	Comment:	*INTERCONNECTS WITH BRISTOL*										
6	*41.69101*		T	✓						G	CFP	A, G	*10*
	-71.27938	Comment:	*NEEDS TO BE JETTED*										

SYSTEM COMMENTS:

System generally in good condition; needs stetco & jetting

Repair Codes

A	Replace Surrounding Asphalt
B	Adjust Frame & Grate to Grade
C	Replace Median CB Grates w/RI Std 3.4.4M
D	Replace Broken CB Grate or MH Cover RI Std 6.3.0 or
E	Seal Gap Between Corbel Cone & Frame
F	Repoint Brick: Corbel Cone 5-10 layers of Bricks
G	Rebuild Corbel Cone 1-5 layers of Brick
H	Seal Cracks in Concrete Basin {± 1/2"wide)
I	Mortar and Seal Around Pipe End

Inspection for Maintenance & Repair Needs
Catch Basins, Manholes, and Inlets

ONE DATASHEET SHOULD BE STARTED FOR EACH STREET

ONE DATASHEET SHOULD BE STARTED FOR EACH DATE

State Roadway:	**State Roadway** - Include Road Name & Route #
Town:	Rhode Island City Or Town
Date:	Date Of Inspection And Maintenance
Drainage System No.:	System Identification - Leave Blank If Unknown
Inspectors:	Person/People conducting inspection
Last Rain Event:	Date of last 0.10-inch rain event (find at www.wunderground.com)

Structure ID or GPS Coordinates	Provide Either Structure ID Or GPS Coordinates
INLET Clogged **OUTLET Clogged**	Write First Letter Of Vegetation, Trash, Sediment in each box if blockage is present; Leave Empty If No Blockage Exists
Sediment in BASIN	Check Box If Sediment Is Within 6" Of Lowest Pipe How Full Is The Basin With Sediment 0%, 25%, 50%, 75%,100% (Do Not Leave Empty)
Contamination	Check Box If There Is Evidence Of Oil, Gas, Contaminants, Or Other Pollutants
Flooding	Check Box If Structure Is Known To Cause Street Flooding
Dry Weather Discharge	Check Box If Flowing Water (Not Rain) Is Visible
Inter-connection	Write First Letter Of State, Municpal, Private To Describe If There Is A Non-Ridot Pipe Connected To Structure; Leave Empty If No Connection; Include Owner In Comment Section If Possible
Overall Condition	Write First Letter Of Good, Fair, Poor, Unsound To Describe Overall Condition Of Structure
Maintenance Needed	Write Maintenance Code to indicate Maintenance needed
Repair Needed	Write Repair Code to indicate Repair that is needed
Comment	Write In Any Comment About Structure *** **Include WHY could not access or needs Immediate Attention***
Photo	Photo ID number
System Comment	Write in any comment about entire system

Maintenance	
	Could not Access
CNA	Clean Basin
CB	Clean & Flush Pipes
CFP	Unsound / Needs Immediate Attention
IA	

Repair	
	Replace Surrounding Asphalt
A	Adjust Frame & Grate to Grade
B	Replace Median CB Grates w/RI Std 3.4.4M {see details)
C	Replace Broken CB Grate or MH Cover RI Std 6.3.0 or 6.2.1
D	Seal Gap Between Corbel Cone & Frame
E	Repoint Brick: Corbel Cone 5-10 layers of Bricks
F	Rebuild Corbel Cone 1-5 layers of Brick
G	Seal Cracks in Concrete Basin {± l/2"wide)
H	Mortar and Seal Around Pipe End
I	

Asset Documentation
Catch Basins, Manholes, and Inlets

Date: _____ **Drainage System No.:** _____ **STRUCTURE ID:** _____

Inspectors: _____

State Roadway: _____ **Route #:** N S E W (Circle One) **City/Town:** _____

Descriptive Location:
Include house #, utility pole, mile marker, intersection + distance/direction

GPS Location: N: _____
W: _____
GPS/Survey UNIT: _____
Accuracy: _____

STRUCTURE (document the structure characteristics) — CIRCLE ONE

Size	Structure Depth	Sump Depth	Structure Material	Type	Grate Type	Bottom Type
INCHES (Diameter or Length/Width)	INCHES from Grate to bottom of structure	INCHES from lowest pipe to bottom of structure	PreCast	Grate	None	Open
Rnd: _____	_____	_____	Brick	Curb Inlet	High Capacity	Weep
Sqr: L: _____			Block	Curb Inlet w/ Grate	Bicycle Saftey	Other
W: _____			Other	Double Grate	Other	
				Access		
				Other		

Comment:

PIPES (document the pipes entering and exiting the structure)

	Flows From or Flows To: Structure ID	In / Out	Diameter: INCHES	Invert: INCHES from Grate to bottom of pipe	Material: Clay, RCP, Concrete, Asbestos Cement, Orangeburg, Corregated Metal, Cast Iron, Ductile Iron, HDPE, PVC, Other
1					
2					
3					
4					

Comment:

INTERCONNECTION (pipes owned by others)

Circle One: None State Municipal Private Sewer Other

List owner:

Comment:

OUTFALL (ultimate discharge point) — CIRCLE ONE

Ultimate Outfall ID	Outfall Type	Swale	Flows to	Est. distance to water	Ultimate receiving waterbody name
	Flared End Pipe End Headwall Other	Vegetated RipRap Paved None	Overland Waterbody		

Comment:

MAINTENANCE CONCERNS (circle all appropriate)

	Access Issues	Extra Traffic Control Required	Has Ladder	Confined Space Cert Needed	Other:

DIAGRAM (sketch birds-eye view of structure)

Be sure to include:
All pipes
Pipe #s
Street
Stairs
Other CB IDs

North ↑

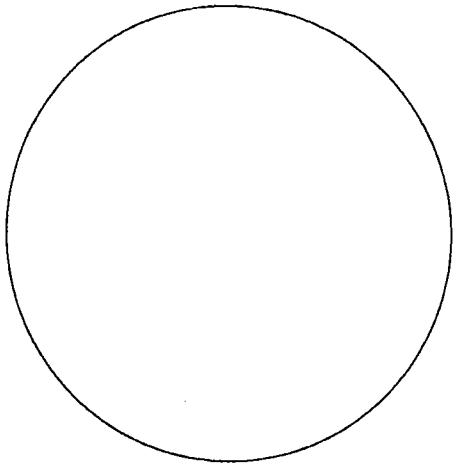


PHOTO ID / DATE / TIME

Asset Documentation
Catch Basins, Manholes, and Inlets

Date: *9/20/2012*

Drainage System No.: *123xyz*

STRUCTURE ID: _____

Inspectors: *Hamel*

State Roadway: *Hope St*

Route #: *116 S*

City/Town: *Bristol*

Descriptive Location: include house #, utility pole, mile marker, etc: *across from 1234 Hope St; next to UP 987*

GPS Location: N: 41.68748
W: -71.27908
GPS Unit: *Trimble 5600*
Accuracy: *.5 ft*

STRUCTURE (document the structure characteristics) — CIRCLE ONE

Size	Structure Depth	Sump Depth	Structure Material	Type	Grate Type	Bottom Type
INCHES Diameter or Length/Width	INCHES from Grate to bottom of structure	INCHES from lowest pipe to bottom of structure	PreCast	Grate	None	Open
Rnd: _____			Brick	Curb Inlet	High Capacity	Weep
Sqr: L: *24"*	*84"*	*36"*	Block	Curb Inlet w/ Grate	Bicycle Saftey	Other
W: *24"*			Other	Double Grate	Other	
				Access		
				Other		

Comment:

PIPES (document the pipes entering and exiting the structure)

	Flows From or Flows To: Structure ID	In / Out	Diameter: INCHES	Invert: INCHES Grate to bottom of pipe	Material: Clay, RCP, Concrete, Asbestos Cement, Orangeburg, Corregated Metal, Cast Iron, Ductile Iron, HDPE, PVC, Other
1	*3699*	*IN*	*12"*	*40"*	*RCP*
2	*3697*	*OUT*	*12"*	*48"*	*RCP*
3	*Town*	*IN*	*12"*	*40"*	*RCP*
4					

Comment:

INTERCONNECTION (pipes owned by others)

Circle One: None | State | Municipal | Private | Sewer | Other

List owner: *BRISTOL*

Comment:

OUTFALL (ultimate discharge point) — CIRCLE ONE

Ultimate Outfall ID	Outfall Type	Swale	Flows to	Est. distance to water	Ultimate receiving waterbody name
WARR014	Flared End	Vegetated	Overland	*> 1000-feet*	*Mill Pond*
	Pipe End	RipRap	Waterbody		
	Headwall	Paved			
	Other	None			

Comment: *Flows through 2 other RIDOT catch basins and then to outfall to Mill Pond*

MAINTENANCE (circle/describe any concerns)

Access Issues	Extra Traffic Control Required	Has Ladder	Confined Space Cert Needed	Other:

DIAGRAM (sketch bird's eye view of structure)

Be sure to include:
All pipes
Pipe #s
Street
Stairs
Other CB IDs

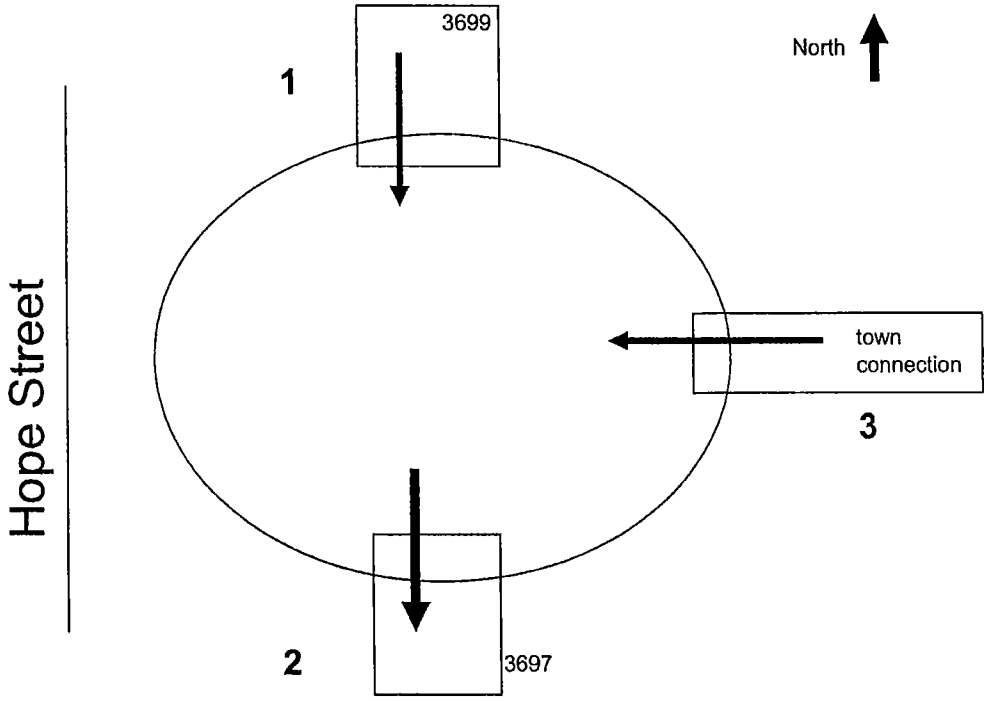


PHOTO ID / DATE / TIME

Photo #3; 9/20/12 @ 10:42 am

Asset Management
Catch Basins, Manholes, and Inlets

One form should be filled out for each structure

INSPECTION INFORMATION	
Date:	DATE OF INSPECTION
STRUCTURE ID:	PROVIDE UNIQUE STRUCTURE ID; LEAVE BLANK IF UNKNOWN
Inspectors:	INSPECTION CREW
State Roadway:	STATE ROADWAY -INCLUDE ROAD NAME & ROUTE #
City/Town:	RHODE ISLAND CITY OR TOWN
Descriptive Location:	Provide location information: include house #, utility pole, mile marker, intersection + distance/direction, etc
GPS Location:	PROVIDE GPS COORDINATES

STRUCTURE (document the structure characteristics)	
Size	Document size of structure by providing diamenter (if round) or LegthlWidth (if square/rectangle)
Structure Depth	INCHES from Grate to bottom of structure
Sump Depth	INCHES from lowest pipe to bottom of structure
Type	Circle Structure Type: Grate, Curb Inlet, Curb inlet with Grate, Double Grate, Access M-anhole, Other
Grate Type	Circle Grate Type: None, High Capacity, Bike Safety, Other
Structure Material	Circle Structure Material: Precast, Brick, Block, Other
Bottom Type	Circle Bottom Type if Known: Open, Weep, Other
Comment	If any item Is OTHER, please note

PIPES (document the pipes entering and exiting the structure)	
Structure ID	Provide STRUCTURE ID if known
In / Out	Does water flow IN to the structure, or OUT of the structure via the pipe?
Diameter	Provide PIPE diameter in INCHES
Invert	PROVIDE INCHES from Grate to bottom of pipe
Material	Provide PIPE Material: Clay, RCP, Concrete, Asbestos Cement, Orangeburg, Corregated Metal, Cast Iron, Ductile Iron, HOPE, PVC, Other
Comment:	Provide any comment on pipes

INTERCONNECTION (pipes owned by others)	
Interconnection Type	Circle Interconnection Type: None, State, Municipal, Private, Sewer, Other
Owner	ID an owner if possible (OWNER OF HOUSE/BUSINESS @ 123

OUTFALL (ultimate discharge point)	
Ultimate OutfallID	Provide information on the outfall, if known
Outfall Type	CIRCLE type of Outfall: Flared End, Pipe End, Headwall, Other
Swale	CIRCLE Swale Type: Vegetated, RipRap, Paved, None
Flows to	CIRCLE flow: Overland; Direct to Waterbody
Est. distance to water	Estimate the distance to the water
Ultimate receiving water	List the wwaterbody name the outfall flows to

MAINTENANCE CONCERNS (circle any applicable)

Concern Type I Circle or Describe any mainenentance concem

DIAGRAM (sketch birds eye view of structure)

Provide general information on the structure
All pipes
Pipe #s FROM FRONT PAGE -PIPES SECTION
Street
Stairs
Other CB IDs

PHOTO DATE / TIME

If photo was taken, provide picture numbers & date/time; Make sure camera DATE/TIME STAMP is turned 'on'

Inspection for Maintenance & Repair Needs

OUTFALLS

State Roadway: _____ Route #: _____ N S E W (Circle One) Town: _____ Date: _____

Inspectors: _____ Drainage System No.: _____ GPS UNIT: _____ Date of Last Rain Event: _____

	Structure ID or GPS Coordinates	Pipe ID	Clogged	Buried	Scouring	Contamination	Flooding	Dry Weather Discharge	Inter-connection	Overall Condition	Maintenance Needed	Repair Needed	PHOTO
			Outfall has excessive Vegetation, Trash, Sediment (leave empty if none)	Outfall is Buried (✓ if Yes)	Area around outfall is scoured and gullied (✓ if Yes)	Evidence of oil, gas, contaminants or other pollutants (✓ if Yes)	Structure causes street flooding (✓ if Yes)	Flowing water visible (✓ if Yes; if yes, Complete DWD Survey form)	State Municpal Private	Good Fair Poor Unsound	Could Not Access Clean Outfall Pipe Replace Riprap Immediate Attention	Replace RipRap+ Regrade Area Clean Swale Full Restoration	Photo ID
1	41.69101		V, S					✓	P	G CP		RR+	1, 2
	-71.27938		Comment:										
2													
3													
4													
5													
6													
7													
8													
9													
10													

Inspection for Maintenance & Repair Needs
OUTFALLS

ONE DATASHEET SHOULD BE STARTED FOR EACH STREET

ONE DATASHEET SHOULD BE STARTED FOR EACH DATE

State Roadway:	**State Roadway** - Include Road Name & Route #
Town:	Rhode Island City Or Town
Date:	Date Of Inspection And Maintenance
Inspectors:	Inspection/Maintenance Crew
Drainage System No.:	System Identification - Leave Blank If Unknown
Last Rain Event:	Date of last 0.10-inch rain event (find at www.wunderground.com)

Structure ID or GPS Coordinates	Provide Either Structure ID Or GPS Coordinates
Clogged	Write First Letter Of Vegetation, Trash, Sediment in each box if blockage is present; Leave Empty If No Blockage Exists
Buried	Pipe is completely buried by sediment & vegetation
Scouring	Indicate if scouring or gullies is present
Contamination	Check Box If There Is Evidence Of Oil, Gas, Contaminants, Or Other Pollutants
Flooding	Check Box If Structure Is Known To Cause Street Flooding
Dry Weather Discharge	Check Box If Flowing Water (Not Rain) Is Visible
Inter-connection	Write First Letter Of State, Municpal, Private To Describe If There Is A Non-Ridot Pipe Connected To Structure; Leave Empty If No Connection; Include Owner In Comment Section If Possible
Overall Condition	Write First Letter Of Good, Fair, Poor, Unsound To Describe Overall Condition Of Structure
Maintenance Needed	Write Maintenance Code to indicate Maintenance needed **In general, any work that DOES NOT NEED an environmental permit**
Repair Needed	Write Repair Code to indicate Repair that is needed **In general, any work that REQUIRES AN ENVIRONMENTAL PERMIT**
Comment	Write In Any Comment About Structure ***** Include WHY could not access or needs Immediate Attention*****
Photo	Photo ID number
System Comment	Write in any comment about entire system

OUTFALL Maintenance Codes		
CNA	Could Not Access	This is a MAINTENANCE activity ONLY if it is within 10-feet of the outfall location that needs fixing
CP	Clean Outfall Pipe	
RR	Replace RipRap Pad	
IA	**Unsound / Needs Immediate Attention**	

OUTFALL Repair Codes		GENERALLY REQUIRE PERMITTING
A	Replace Riprap +	If replacing riprap beyond 10-feet of outfall location; environmental permit required
B	Regrade Area	Scouring is occuring; may be fixed with regrade & permanent E&S controls
C	Clean Swale	Downstream Swale requires maintenance/repair
D	Full Restoration	Entire outfall area requires restoration

Asset Documentation
OUTFALLS

Date: _____

Inspectors: _____ **Drainage System No.:** _____ **OUTFALL ID:** _____

State Roadway: _____ **Route #:** _____ N S E W (Circle One) **City/Town:** _____

Descriptive Location:
include house #, utility pole, mile marker, intersection

GPS Location: N: _____ W: _____ GPS/Survey UNIT: _____ Accuracy: _____

Note: If more than one pipe is located in a single area, complete a separate sheet for each one. (Use the same Outfall ID for each pipe at the location, but assign a different Pipe ID to each pipe.)

OUTFALL

Pipe Size (dia):	Pipe Material	Outfall Type	Swale	Flows	Est. distance & direction to water	Ultimate receiving waterbody name
_____ inch	Clay, RCP, Concrete, Asbestos Cement, Orangeburg, Corregated Metal, Cast Iron, Ductile Iron, HDPE, PVC, Other	Flared End Pipe End Headwall Other	Vegetated RipRap Paved None	Overland Directly to Waterbody		

Comment:

MAINTENANCE CONCERNS

Access Issues	Extra Traffic Control Required	Other:	

DIAGRAM (Outfall and Waterway)

Be sure to include:
All pipes
Pipe #s
Street
Ultimate Receiving Water

North ↑

Rhode Island Department of Transportation

Inspection and Maintenance Checklist

Water Quality Basins (Ponds)

Date: _____ BMP ID: _____

Inspectors: _____ Contract #: _____

Location: _____ Nearest Intersection: _____ N W S E Distance _____

Utility Pole #: _____ N W S E _____

Type of Inspection: (circle one) Storm Weekly Monthly Annual

	Issue		Condition to Inspect for	Condition Exists (Y/N)	Comments	Photo ID
1	General	a	Discharge water has obvious signs of poor water quality (clarity, odor, sedimentation, color, staining (iron-fixing OK))			
		b	Trash or debris > 1 cubic foot (one standard size garbage can); Visual evidence of dumping			
		c	Poisonous or nuisance vegetaion or noxious weeds (Puple loosestrife, Phragmities, poison ivy/oak, Japanese Knotweed)			
		d	Any evidence of oil, gasoline, contaminants or other pollutants			
		e	Vegetation growth does not allow maintenance access or interferes with maintenance activity; Dead, diseased, or dying trees			
		f	Vegetation growing in inlet/outlet pipe joints			
2	Side Slopes	a	Rill erosion evident on slopes			
		b	Unvegetated areas on slopes			
		c	Eroded over 2-inches deep where causes of damage is still present or where there is potential for continued erosion			
3	Storage Area	a	Areas of accumulated sediment > 6-inches OR affects inletting or outletting condition of basin			
		b	Liner is visible and appears damaged			

OVER

Rhode Island Department of Transportation

Inspection and Maintenance Checklist

Water Quality Basins (Ponds)

	Issue		Condition to Inspect for	Condition Exists (Y/N)	Comments	Photo ID
4	Emergency Overflow/ Spillway and Berms	a	Berm settlement 4-inches lower than the design elevation			
		b	Woody vegetation growth on berms or emergency spillway >4-ft in height or covering more than 10% of spillway			
		c	Discernable water flow through pond berm. Ongoing erosion w/ potential for erosion to continue			
5	Debris Barriers / Trash Racks	a	Trash or debris is plugging more than 20% of the opening in the barrier			
		b	Bars are bent out of shape more than 3-inches; loose and/or rusted; bars are missing			
		c	Debris barrier missing or not attached to pipe			
6	Fencing	a	Any defect in the fence that permits easy entry to a facility			
		b	Erosion more than 4-inches high and >18-inches wide permitting an opening under a fence			
		c	Damage to gate/fence, posts out of plumb, or rails bent more than 6-inches that has affected structural adequacy			
		d	Missing gate or locking devices, broken or missing hinges, out of plum more than 6-inches and more than 1-foot out of design alignment			

Overall Condition: Good Fair Poor

Diagram (Plan View): Include flow direction, inverts, North arrow

Maintenance Required: Yes No

Notes:

Rhode Island Department of Transportation

Inspection and Maintenance Checklist

Oil/Water Separators

Date: _____ BMP ID: _____

Inspectors: _____ Contract #: _____

Location: _____ Nearest Intersection: _____ Distance N W S E _____

Utility Pole #: _____ N W S E _____

Type of Inspection: (circle one) Storm Weekly Monthly Annual

	Issue		Condition to inspect for	Condition Exists (Y/N)	Comments	Photo ID
1	Water Quality	a	Discharge water has obvious signs of poor water quality (clarity, odor, sedimentation, color, staining (iron-fixing OK))			
2	Sediment Accumulation	a	Accumulated sediment >10% of designed pond depth or affects inletting or outletting condition of basin			
3	Trash & Debris Accumulation	a	Trash or debris > 1 cubic foot (one standard size garbage can); Visual evidence of dumping			
4	Oil Accumulation	a	Oil accumulations that exceed 1-inch at the surface of the water			
5	Pipes	a	Inlet or outlet piping damaged or broken and in need of repair			
6	Access Cover	a	Cover damaged or cannot be opened; corrosion/deformation of cover			
7	Vault Structure	a	Cracks wider than 1/2-inch or evidence of soil particles entering the structure through the cracks; not structurally sound			
		b	Cracks wider than 1/2-inch at the joint of any inlet/outlep pipe or evidence of soil particles entering through cracks			
8	Baffles	a	Baffles corroding, cracking, warping and/or showing signs of failure			
9	Access Ladder	a	Ladder is corroded or deteriorated, not functioning properly, not securely attached to structure wall, missing rungs, cracks, &/or misaligned			

OVER

Rhode Island Department of Transportation

Inspection and Maintenance Checklist

Oil/Water Separators

Overall Condition: Good Fair Poor

Maintenance Required: Yes No

Notes:

Diagram (Plan View): Include flow direction, inverts, North arrow

Rhode Island Department of Transportation

Inspection and Maintenance Checklist

Swirl Chambers

Date: _____ BMP ID: _____

Inspectors: _____ Contract #: _____

Location: _____ Nearest Intersection: _____ Distance N W S E _____

Utility Pole #: _____ N W S E _____

Type of Inspection: (circle one) Storm Weekly Monthly Annual

	Issue		Condition to inspect for	Condition Exists (Y/N)	Comments	Photo ID
1	Water Quality	a	Discharge water has obvious signs of poor water quality (clarity, odor, sedimentation, color, staining (iron-fixing OK))			
2	Sediment Accumulation	a	Sediment depth is within 6-inches of dry weather water surface elevation			
3	Trash & Debris Accumulation	a	Trash or debris accumulated in vault, inlet/outlet pipe			
4	Oil Accumulation	a	Oil accumulations that exceed 1-inch at the surface of the water			
5	Pipes	a	Inlet or outlet piping damaged or broken and in need of repair			
6	Access Cover	a	Cover damaged or cannot be opened; corrosion/deformation of cover			
7	Vault Structure	a	Cracks wider than 1/2-inch or evidence of soil particles entering the structure through the cracks; not structurally sound			
		b	Cracks wider than 1/2-inch at the joint of any inlet/outlep pipe or evidence of soil particles entering through cracks			
8	Baffles	a	Baffles corroding, cracking, warping and/or showing signs of failure			

OVER

Rhode Island Department of Transportation

Inspection and Maintenance Checklist

Swirl Chambers

Overall Condition: Good Fair Poor

Maintenance Required: Yes No

Notes:

Diagram (Plan View): Include flow direction, Inverts, North arrow

Rhode Island Department of Transportation

Inspection and Maintenance Checklist

Swales (Vegetated & RipRap)

Date: _____ BMP ID: _____

Inspectors: _____ Contract #: _____

Location: _____ Nearest Intersection: _____ Distance N W S E _____

Utility Pole #: _____ N W S E _____

Type of Inspection: (circle one) Storm Weekly Monthly Annual

	Issue		Condition to Inspect for	Condition Exists (Y/N)	Comments	Photo ID
1	Water Quality	a	Discharge water has obvious signs of poor water quality (clarity, odor, sedimentation, color, staining (iron-fixing OK))			
2	Trash & Debris Accumulation	a	Trash or debris > 1 cubic foot (one standard size garbage can); Visual evidence of dumping			
3	Sediment Accumulation	a	Sediment accumulated at inflow points			
		b	Sediment accumulated along swale			
		c	Sediment accumulated at outflow point			
4	Vegetation	a	Woody vegetation growing across and blocking more than 10% of the swale			
		b	Woody vegetation growing in inlet/outlet preventing proper drainage			
5	Erosion	a	Eroded over 2-inches deep where causes of damage is still present or where there is potential for continued erosion			
6	Check Dams	a	Undermined/eroded			
		b	Sediment accumulated > 1/2 height of dam			
		c	Trash or debris accumulated against dam			
7	Maintenance	a	Mowing required			
		b	Replanting required			
		c	Remulching of shrubs/trees requried			

OVER

Rhode Island Department of Transportation

Inspection and Maintenance Checklist

Swales (Vegetated & RipRap)

Overall Condition: Good Fair Poor

Maintenance Required: Yes No

Notes:

Diagram (Plan View): Include flow direction, Inverts, North arrow

ILLICIT DISCHARGES
REPORTING FORM

REPORTING INFORMATION

DATE: _____ TIME: _____

CALLER/REPORTING PERSON:

NAME: _____ PHONE: _____

BUSINESS: _____

ADDRESS: _____

BRIEF SUMMARY:

_____

_____

_____

_____

_____

NAME OF PERSON TAKING CALL/COMPLAINT: _____

ILLICIT DISCHARGE IDENTIFICATION

WHEN WAS THE DISCHARGE SEEN: DATE: _____ TIME: _____

LOCATION: (highway and mile marker; nearest cross street; landmarks; directions)

_____

_____

_____

_____

DISCHARGE:

1 IS THE MATERIAL IN THE STORM DRAIN?	YES / NO
2 IS THE MATERIAL JUST ON THE HIGHWAY?	YES / NO
3 IS THE SUBSTANCE A KNOWN HAZARDOUS MATERIAL?	YES / NO
4 IS THE SUBSTANCE A KNOWN NON-HAZARDOUS MATERIAL?	YES / NO
5 IS THE SUBSTANCE UNKNOWN AND CANNOT BE IDENTIFIED?	YES / NO

DESCRIPTION OF SUBSTANCE:

_____

_____

_____

_____

ILLICIT DISCHARGES
DRY WEATHER FLOW SURVEY
Survey must be taken 72-hours AFTER a 0.10-inch rain event

I: General Information

Date:	Time:	**Outfall ID:**
Last Rain Event:	Investigators:	

II: Illicit Discharge Flow Measurements

Appox Width of Water Surface:	☐ < 1"	☐ 1" - 6"	☐ 6" - 12"	☐ > 12"
Approx Depth of Water:	☐ < 1"	☐ 1" - 6"	☐ 6" - 12"	☐ > 12"
Approx Flow Velocity (visual):	☐ drip	☐ trickle	☐ moderate	☐ substantial

III: Visual Observations

Immediate Surrounding Land Use:
☐ Highway ☐ Commercial ☐ Residential ☐ Municipal ☐ Open Space ☐ Industrial ☐ Other

Odor
☐ None ☐ Sewage ☐ Rotten Eggs ☐ Oil/Gas ☐ Laundry ☐ Other

Color
☐ None ☐ Red ☐ Yellow ☐ Brown ☐ Green ☐ Orange ☐ Other

Floatables
☐ None ☐ Sewage/ Toilet Paper ☐ Oil Sheen ☐ Laundry/ Soap Suds ☐ Other

Staining
☐ None ☐ Black ☐ Brown ☐ Yellow ☐ White ☐ Orange ☐ Other

Clarity
☐ Clear ☐ Cloudy ☐ Opaque

Vegetation/Algae Growth
☐ None ☐ Normal ☐ Excessive ☐ Inhibited

Sedimentation
☐ No ☐ Yes

Scouring
☐ No ☐ Yes

Notes:

LEVEL 3 TRANSPORTATION MANAGEMENT PLAN

Project Name: **Statewide Drainage Asset Inspection & Inventory**
RI Design Contract No(s): **RFP No. 7549840**
RI Construction Contract No(s): **To Be Assigned**

Submission: **FINAL** Date: **9/18/2015**

PROJECT INFORMATION

Brief Project Description: This project will inspect and maintain its MS4 drainage system of catch basins, manholes, outfalls and structual BMPs (e.g.detention ponds, retention ponds, storm water treatment units, etc.) Inspection data will be required to be provided for all drainage related assets.

General Work Limits: The project work limits are indefinite until project completion; however, work locations will be limited to all areas within the public right-of-way in the State of Rhode Island and Providence Plantations. Most work locations are expected to abut travelways (e.g., freeways, expressways, arterial, collector and local roadways, shared-use paths) and/or parking areas. Although most work is expected to require short-duration shoulder or lane closures to accomodate work vehicles (staged for access to work sites), some work will take place entirely outside the roadway limits, while other work may require intermediate-term lane closures.

WORK ZONE LOCATIONS

ROADWAY NAME or INTERSECTION	FROM	TO	APPROX. LENGTH
The project work zone locations/limits are indefinite until project completion (see *General Work Limits* above)			

General Project Schedule*: Overall work schedule is for three (3) consecutive years. Work may begin as early as January 2016.

*The information in this section is not intended to and shall not supersede the approved schedule and milestone/completion dates for the project.

TRAFFIC-RELATED WORK RESTRICTIONS

General Restrictions: See attached "General Restrictions" table

Holiday Restrictions: See attached Holiday restrictions chart.

TEMPORARY TRAFFIC CONTROL PLANS

These RIDOT- and/or Designer-Developed TTC Plans will be used during the work on this project

RIDOT TYPICAL TTC PLANS	Included In: TMP	Included In: Plan Set
√ Mobile Operation	X	
√ Work Beyond the Shoulder	X	
√ Shoulder Closure - Two Lane Road	X	
√ Shoulder Closure - Limited Access	X	
√ 1-Side Lane Shift - Two Lane Road	X	
2-Side Lane Shift - Two Lane Road		
Lane Shift - Limited Access		
√ Lane Closure - Two Lane Road	X	
Lane Closure - Four Lane Road		
√ Lane Closure - Limited Access	X	
√ Double Lane Closure - Limited Access	X	

DESIGNER-DEVELOPED TTC PLANS	Included In: TMP	Included In: Plan Set
Typical Short Duration Shoulder Work	X	
Typical Short Duration Lane Closure on Multi-Lane Hwy.	X	
Typical Work on Side of Freeway or Expressway Ramp	X	

NOTE: Additional TTC Plans may be provided to the Contractor as part of a WOP-RFQ if the TTC Plans listed to the left and above are not sufficient to describe TTC requirements for a work site.

PUBLIC INFORMATION PLAN

These strategies will be used to provide information concerning the project to road users and the community

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS
RIDOT travel advisories news releases	Contractor's TMPImp.Mngr. to send Work Notification Form to Communications min. 48 hrs. in advance of restrictions.
RIDOT travel advisories web site	Contractor's TMPImp.Mngr. to send Work Notification Form to Communications min. 48 hrs. in advance of restrictions.
RIDOT 511 traveler information system	Contractor's TMPImp.Mngr. to send Work Notification Form to RIDOT TMC min. 48 hrs. in advance of restrictions.
Changeable message signs (CMS)	Truck-mounted CMS to be used where called for on Temporary Traffic Control Plans.

TRANSPORTATION OPERATIONS PLAN

These strategies will be used to provide improved transportation operations/safety within project work zones

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS
Crash attenuators	Truck-mounted attenuators to be used where called for on Temporary Traffic Control Plans.

PERFORMANCE MONITORING, CHANGES TO TMP, & CONTINGENCIES

The **Contractor's TMP Implementation Manager** is responsible for keeping the portion of the project being used by public traffic in a condition that (1) safely and adequately accommodates such traffic and (2) is in accordance with the Traffic-Related Work Restrictions, the Temporary Traffic Control Plans, and where appropriate, the other transportation management strategies identified above. The **RIDOT TMP Implementation Manager** or his/her responsible designee should (1) inspect the project work zones at initial setup, at the start of each subsequent work day, and just prior to extended breaks in the work (e.g., weekends) for conformance with the Temporary Traffic Control Plans, the *ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features*, and where applicable, the other transportation management strategies identified above and (2) document all work zone-related feedback and complaints that are received from the public.

If at any time (1) a significant deviation from any of the strategies included in the TMP (e.g., the use of an alternate construction sequence) is desired by one or more members of the project implementation team, (2) field observations and/or data suggest that impacts to road users are or will be unacceptable, or (3) one or more performance requirements established in the TMP are not being met in the field, the RIDOT TMP Implementation Manager shall report the situation to his/her supervisor or Division/Section/Unit manager. The supervisor / manager will coordinate with the State Traffic Engineer, the Deputy Chief Engineer, the TMP Implementation Manager(s), the Chief Engineer, and/or other interested parties as appropriate and/or necessary to consider and determine whether revised and/or alternate strategies should be implemented in an effort to lessen the adverse safety and/or mobility impacts of the project. If the supervisor / manager deems that strategy changes should be implemented, the changes shall be documented in a revised version of the TMP and the Deputy Chief Engineer, the State Traffic Engineer, and the Chief Engineer must approve of the revised TMP prior to their implementation.

If a significant deviation from any of the strategies included in the TMP is requested by the Contractor, unless directed otherwise by the RIDOT the Contractor is responsible for preparing and submitting to the RIDOT TMP Implementation Manager appropriate documentation (e.g., design calculations, analysis reports, Temporary Traffic Control Plans, etc.) showing that the requested change(s) are (1) feasible and (2) expected to result in safety and mobility impacts that are no more adverse than the impacts resulting from the strategies already included in the latest approved TMP. The RIDOT will review and consider the submittal(s) as described in the preceding paragraph and will determine whether the changes should be implemented. If the requested changes are approved by the RIDOT, unless otherwise directed by the RIDOT the Contractor shall prepare and submit to the RIDOT TMP Implementation Manager a revised version of the latest approved TMP in both printed and electronic (Microsoft® Excel) format that documents all of the approved changes. Work to implement the changes shall not begin until the Deputy Chief Engineer, the State Traffic Engineer, and the Chief Engineer have approved of the revised TMP.

When unexpected events (e.g., crashes, inclement weather, unforeseen traffic demands, etc.) occur in a project work zone where one or more lanes are closed, the RIDOT TMP Implementation Manager or his/her responsible designee should (1) determine whether or not the lane closure(s) can/should be removed in order to improve traffic operations and/or minimize delays and (2) if deemed appropriate, take action to remove the lane closure(s).

Other Requirements:

TMP APPROVALS

All approvals must be obtained prior to start of work

DEPUTY CHIEF ENGINEER		
Signature:		
Date: 9/18/2015		
Revision #	Initials	Date

STATE TRAFFIC ENGINEER		
Signature		
Robert Rocchio, P.E.		
Date 9-18-15		
Revision #	Initials	Date

CHIEF ENGINEER		
Signature:		
Date: 9/18/2015		
Revision #	Initials	Date

TMP IMPLEMENTATION MANAGERS

Project managers with the primary responsibility & authority for implementation of this TMP

RIDOT	
Name:	
Title:	
Unit:	
Office Phone:	
Mobile Phone:	
E-Mail:	

CONTRACTOR (if contract work)	
Name:	
Title:	
Company/Unit:	
Office Phone:	
Mobile Phone:	
E-Mail:	

	MINIMUM NUMBER OF LANES & SHOULDERS TO REMAIN OPEN TO TRAFFIC[1-4]							
	Time of Day		Day of Week						
Location	From	To	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
All 4-Lane 2-Way Undivided Roadways	0:00	6:00	ALL	1 L	1 L	1 L	1 L	1 L	ALL
	6:00	9:00	1 L	ALL	ALL	ALL	ALL	ALL	1 L
	9:00	15:00	1 L	1 L	1 L	1 L	1 L	1 L	1 L
	15:00	19:00	1 L	ALL	ALL	ALL	ALL	ALL	1 L
	19:00	24:00	1 L	1 L	1 L	1 L	1 L	ALL	ALL
All 3-Lane 2-Way Undivided Roadways	0:00	6:00	ALL	1 L	1 L	1 L	1 L	1 L	ALL
	6:00	9:00	1 L	ALL	ALL	ALL	ALL	ALL	1 L
	9:00	15:00	1 L	1 L	1 L	1 L	1 L	1 L	1 L
	15:00	19:00	1 L	ALL	ALL	ALL	ALL	ALL	1 L
	19:00	24:00	1 L	1 L	1 L	1 L	1 L	ALL	ALL
All 2-Lane 2-Way Undivided Roadways	0:00	6:00	ALL	1 L (alt)	1 L (alt)	1 L (alt)	1 L (alt)	1 L (alt)	ALL
	6:00	9:00	1 L (alt)	ALL	ALL	ALL	ALL	ALL	1 L (alt)
	9:00	15:00	1 L (alt)	1 L (alt)	1 L (alt)	1 L (alt)	1 L (alt)	1 L (alt)	1 L (alt)
	15:00	19:00	1 L (alt)	ALL	ALL	ALL	ALL	ALL	1 L (alt)
	19:00	24:00	1 L (alt)	1 L (alt)	1 L (alt)	1 L (alt)	1 L (alt)	ALL	ALL
All 2-Lane 1-Way Roadways	0:00	6:00	ALL	1 L	1 L	1 L	1 L	1 L	ALL
	6:00	9:00	1 L	ALL	ALL	ALL	ALL	ALL	1 L
	9:00	15:00	1 L	1 L	1 L	1 L	1 L	1 L	1 L
	15:00	19:00	1 L	ALL	ALL	ALL	ALL	ALL	1 L
	19:00	24:00	1 L	1 L	1 L	1 L	1 L	ALL	ALL

LEGEND

ALL	All travel lanes and shoulders shall remain open to traffic
1 L	A minimum of one 11-foot wide travel lane in each direction shall remain open to traffic
1 L (alt)	A minimum of one 11-foot wide travel lane shall remain open to alternating traffic

NOTES

1 The set-up and break-down of temporary traffic control devices within a traveled way shall be construed as a closure of that traveled way.

2 The provisions noted herein shall not free the Contractor from his responsibility to conduct all work in such a manner that assures the least possible obstruction to traffic.
3 At locations with a sidewalk(s), a minimum of one sidewalk on one side of the roadway shall remain open to pedestrians at all times.
4 Access to and egress from all side streets, driveways, buildings, and other pedestrian pathways intersecting the Project work zones shall be maintained at all times unless otherwise noted or shown on Plans.

Attachment B

To Transportation Management Plan (TMP) for:

Project Title: **Statewide Drainage Asset Inspection & Inventory**
RIC No.: **To Be Assigned**

Holiday Restrictions

NOTE: IN CASE OF DISCREPANCY BETWEEN THESE HOLIDAY RESTRICTIONS AND THE GENERAL RESTRICTIONS (ATTACHMENT A), THESE HOLIDAY RESTRICTIONS SHALL GOVERN.

No lane and/or shoulder closures allowed after 13:00 on the Friday preceding a holiday weekend.

EASTER SUNDAY

No lane and/or shoulder closures allowed on Saturday.
No lane and/or shoulder closures allowed on Sunday until 19:00 (after 19:00, General Restrictions shall apply).

NEW YEAR'S DAY, INDEPENDENCE DAY, & CHRISTMAS DAY

No lane and/or shoulder closures allowed after 13:00 on the day before the holiday.
No lane and/or shoulder closures allowed on the holiday.

VETERANS DAY

No lane and/or shoulder closures allowed after 13:00 on the day before the holiday.
No lane and/or shoulder closures allowed on Veterans Day until 19:00 (after 19:00, General Restrictions shall apply).

DR. MARTIN LUTHER KING JR. DAY, MEMORIAL DAY, LABOR DAY, VICTORY DAY, & COLUMBUS DAY

No lane and/or shoulder closures allowed on Saturday and/or Sunday.
No lane and/or shoulder closures allowed on Monday until 19:00 (after 19:00, General Restrictions shall apply).

THANKSGIVING DAY

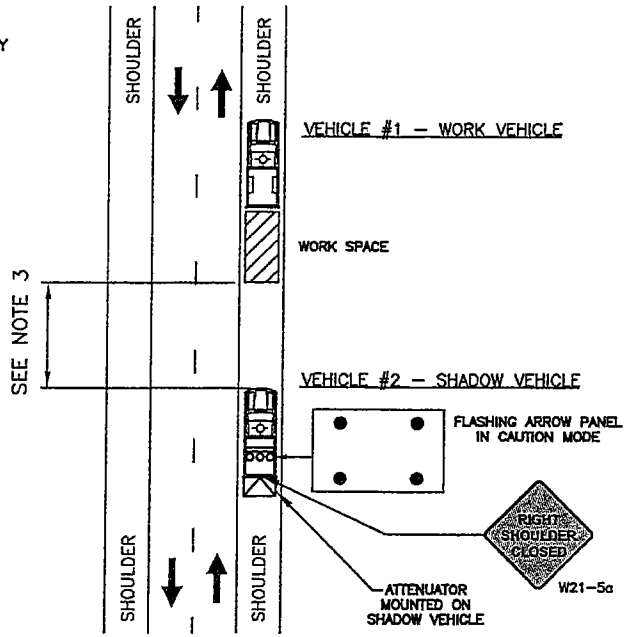
No lane and/or shoulder closures allowed after 13:00 on the Wednesday preceding Thanksgiving Day.
No lane and/or shoulder closures allowed on Thanksgiving Day, Friday, Saturday, and/or Sunday.

NOTES:

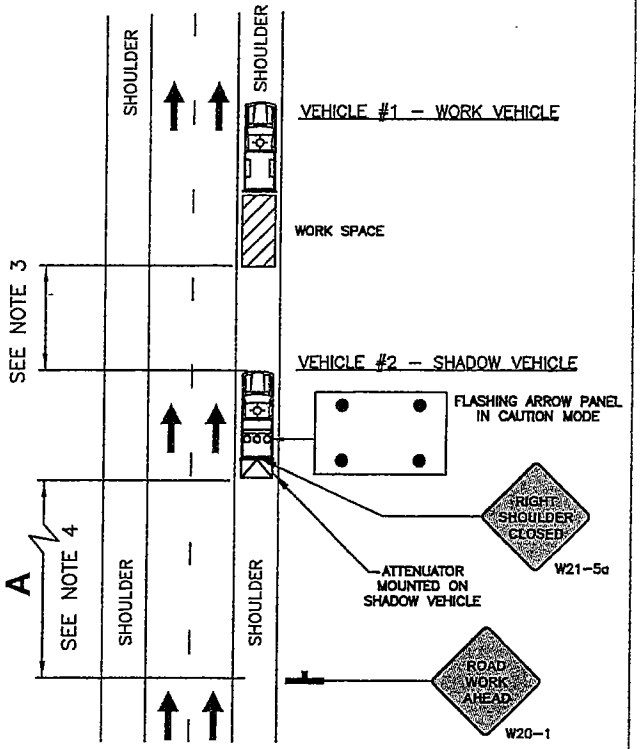
1. THIS PLAN IS APPROPRIATE FOR WORK OPERATIONS THAT REQUIRE THE CLOSURE OF A SHOULDER WHERE THE OPERATIONS ONLY OCCUPY A LOCATION FOR UP TO ONE (1) HOUR. FOR WORK OPERATIONS THAT OCCUPY A LOCATION FOR MORE THAN ONE (1) HOUR, FOLLOW RIDOT TEMPORARY TRAFFIC CONTROL PLANS "TYPICAL SHOULDER CLOSURE ON FREEWAY OR EXPRESSWAY" AND "TYPICAL SHOULDER CLOSURE ON TWO-LANE HIGHWAY" ON DIVIDED AND NON-DIVIDED HIGHWAYS, RESPECTIVELY.
2. ALL VEHICLES USED FOR THESE OPERATIONS SHALL BE EQUIPPED WITH HIGH INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE WARNING LIGHTS WITH 360 DEGREE VISIBILITY. THESE WARNING LIGHTS SHALL BE ACTIVATED DURING THE WORK.
3. THE DISTANCE BETWEEN THE SHADOW VEHICLE AND THE WORK SPACE SHOULD BE SELECTED BASED ON TRAFFIC AND SITE CONDITIONS AS WELL AS THE CHARACTERISTICS OF THE SHADOW VEHICLE/ATTENUATOR AND ITS MANUFACTURER'S RECOMMENDATIONS, BUT SHOULD BE NO GREATER THAN THE MINIMUM DISTANCE SUFFICIENT TO ENSURE THAT THE SHADOW VEHICLE WILL NOT ROLL INTO THE WORK SPACE WHEN HIT BY AN ERRANT VEHICLE.
4. ON DIVIDED HIGHWAYS, THE DISTANCE BETWEEN THE ADVANCE WARNING SIGN AND THE SHADOW VEHICLE SHOULD BE SELECTED SO THAT APPROACHING MOTORISTS ARE GIVEN ADEQUATE ADVANCE WARNING OF THE WORK ACTIVITY AHEAD. THE TABLE AT RIGHT INDICATES MINIMUM DISTANCES BASED ON IDEAL CONDITIONS. ACTUAL ADVANCE WARNING SIGN SPACING MAY BE ADJUSTED IN THE FIELD IF NECESSARY TO FIT SITE CONDITIONS. IN SITUATIONS WHERE THE WORK AND SHADOW VEHICLES MOVE DOWN THE HIGHWAY FOR SHORT DURATION SHOULDER WORK AT MULTIPLE LOCATIONS, THE MAXIMUM SPACING BETWEEN THE "ROAD WORK AHEAD" SIGN AND THE SHADOW VEHICLE SHALL BE TWO (2) MILES.
5. TEMPORARY TRAFFIC CONTROL SET-UP FOR SHORT DURATION SHOULDER WORK IN THE LEFT SHOULDER OF A DIVIDED HIGHWAY SHALL BE SIMILAR TO THE SET-UP SHOWN, WITH APPROPRIATE CHANGES TO SIGN LEGENDS AND SIGN/VEHICLE PLACEMENT TO INDICATE THE LEFT SHOULDER CLOSURE. IF WORKERS ARE ON FOOT WITHIN 30 FEET OF TRAFFIC TRAVELING IN THE OPPOSITE DIRECTION AND UNPROTECTED BY A CRASHWORTHY BARRIER, AN ADDITIONAL SET OF THE TRAFFIC CONTROL DEVICES SHOWN (INCLUDING SHADOW VEHICLE AND ADVANCE WARNING SIGN) SHALL BE USED TO WARN TRAFFIC APPROACHING THE WORK SPACE FROM THE OPPOSITE DIRECTION.
6. THE SHAPES OF WARNING SIGNS SHOWN ON VEHICLES ARE RECOMMENDED, BUT MAY BE REPLACED WITH OTHER SHAPES WHERE ADVANCE PERMISSION IS GRANTED BY THE ENGINEER.
7. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
8. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
9. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
10. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 48" X 48".
11. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES MAY BE NEEDED FOR CONFORMANCE WITH PART 6 OF THE MUTCD.
12. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES.

MINIMUM ADVANCE WARNING SIGN SPACING

Roadway Type / Location Posted Speed Limit	Distance (Feet)		
	A	B	C
NON-FREEWAY/EXPRESSWAY ≤ 25 MPH	100	100	100
NON-FREEWAY/EXPRESSWAY IN URBAN AREA, ≥30 MPH	350	350	350
NON-FREEWAY/EXPRESSWAY IN RURAL AREA, ≥30 MPH	500	500	500
FREEWAY/EXPRESSWAY	1,000	1,500	2,640



SHORT DURATION SHOULDER WORK ON NON-DIVIDED HIGHWAY

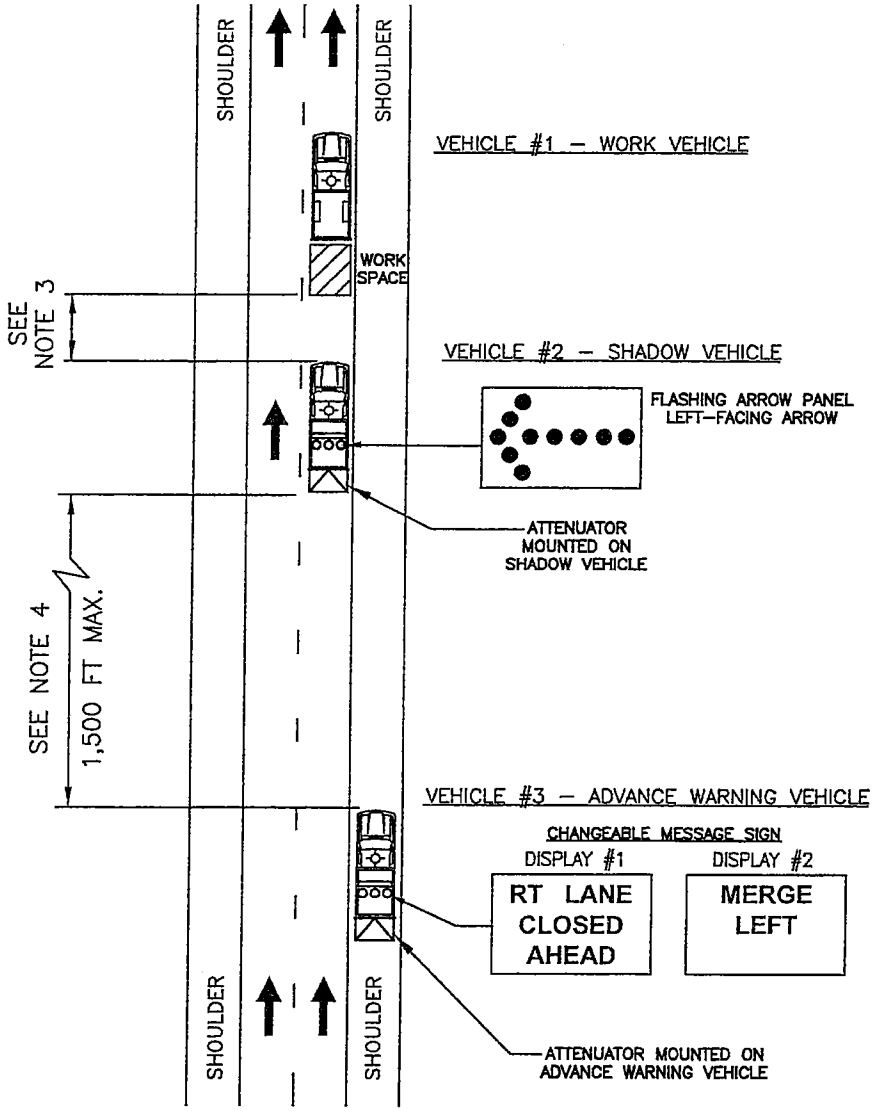


SHORT DURATION SHOULDER WORK ON DIVIDED HIGHWAY (INCLUDING FREEWAYS/EXPRESSWAYS)

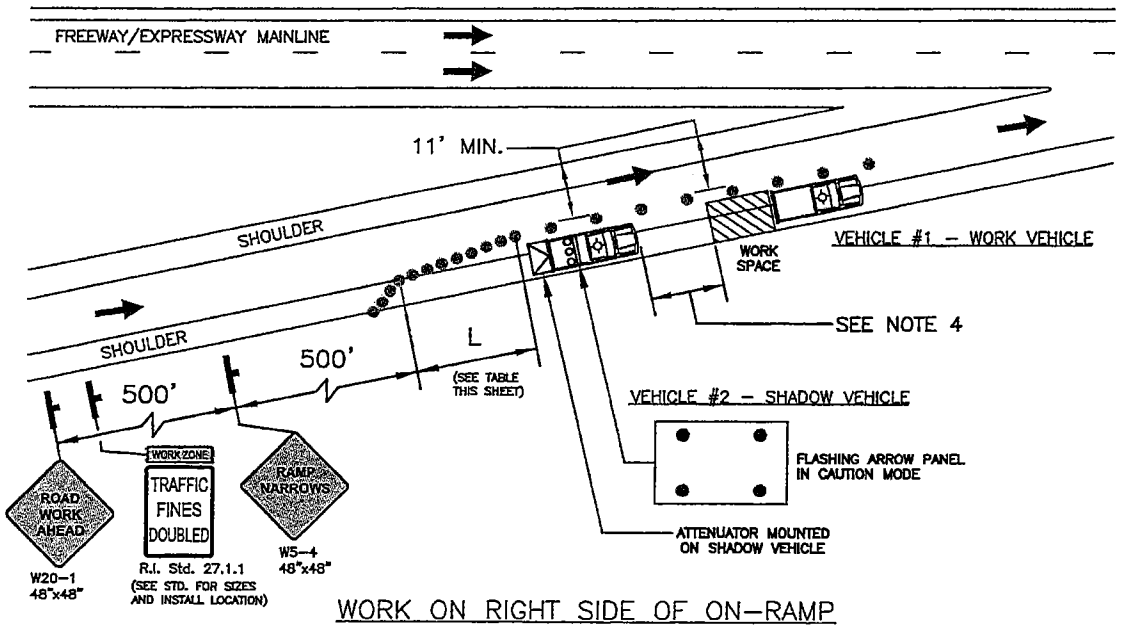
RHODE ISLAND DEPARTMENT OF TRANSPORTATION TEMPORARY TRAFFIC CONTROL PLAN		TYPICAL SHORT DURATION SHOULDER WORK (WORK OCCUPYING LOCATION UP TO 1 HOUR)	NOT TO SCALE DATE: 02-07-2013

NOTES:

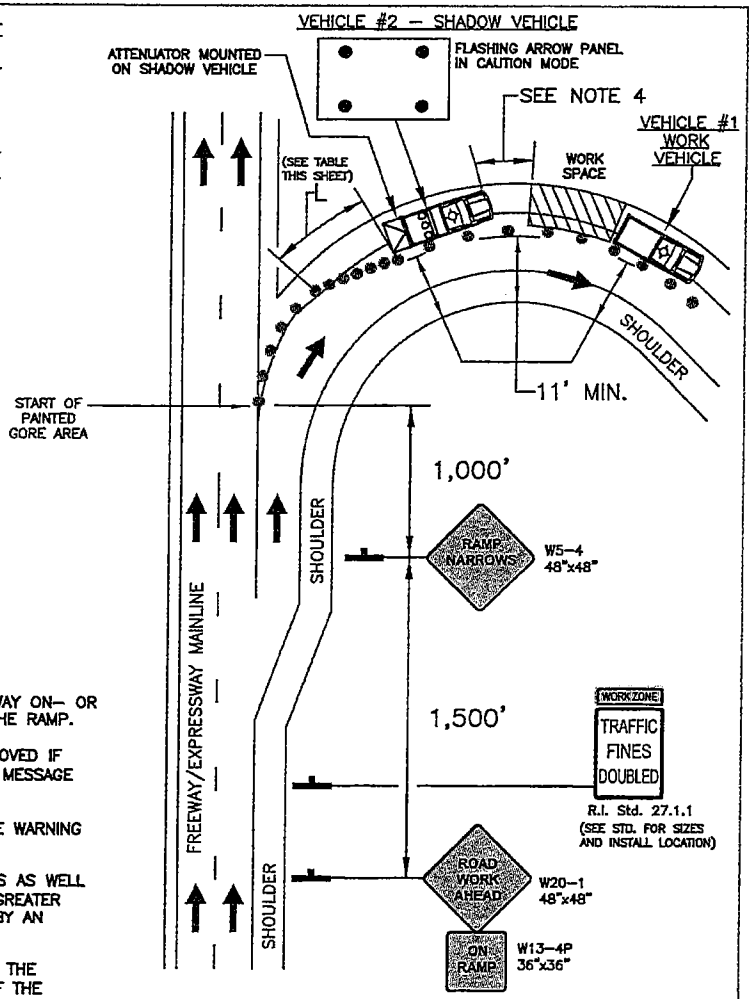
1. THIS PLAN IS APPROPRIATE FOR WORK OPERATIONS THAT REQUIRE THE CLOSURE OF A SINGLE EXTERIOR TRAVEL LANE ON A MULTI-LANE HIGHWAY WHERE THE OPERATIONS ONLY OCCUPY A LOCATION FOR UP TO ONE (1) HOUR. FOR WORK OPERATIONS THAT OCCUPY A LOCATION FOR MORE THAN ONE (1) HOUR, FOLLOW OTHER RIDOT TEMPORARY TRAFFIC CONTROL PLANS FOR A TYPICAL LANE CLOSURE ON A MULTI-LANE HIGHWAY USING GROUND-MOUNTED WARNING SIGNS AND CHANNELIZATION DEVICES.
2. ALL VEHICLES USED FOR THESE OPERATIONS SHALL BE EQUIPPED WITH HIGH INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE WARNING LIGHTS WITH 360 DEGREE VISIBILITY. THESE WARNING LIGHTS SHALL BE ACTIVATED DURING THE WORK.
3. THE DISTANCE BETWEEN THE SHADOW VEHICLE AND THE WORK SPACE SHOULD BE SELECTED BASED ON TRAFFIC AND SITE CONDITIONS AS WELL AS THE CHARACTERISTICS OF THE SHADOW VEHICLE/ATTENUATOR AND ITS MANUFACTURER'S RECOMMENDATIONS, BUT SHOULD BE NO GREATER THAN THE MINIMUM DISTANCE SUFFICIENT TO ENSURE THAT THE SHADOW VEHICLE WILL NOT ROLL INTO THE WORK SPACE WHEN HIT BY AN ERRANT VEHICLE.
4. THE DISTANCE BETWEEN THE ADVANCE WARNING VEHICLE AND THE SHADOW VEHICLE SHOULD BE SELECTED SO THAT APPROACHING MOTORISTS ARE GIVEN ADEQUATE ADVANCE WARNING OF THE WORK ACTIVITY AHEAD. THE DISTANCE SHOULD VARY BASED ON THE AVAILABLE SIGHT DISTANCE AND EXISTING RAMPS/INTERSECTIONS WITHIN THE WORK ZONE. A MINIMUM DISTANCE OF 500 FEET IS DESIRABLE ON ROADWAYS WITH A POSTED SPEED LIMIT OF 35 MPH OR LESS, WHILE A MAXIMUM DISTANCE OF 1,500 FEET IS ALLOWABLE ON FREEWAYS/EXPRESSWAYS WHERE SIGHT DISTANCE TO THE DOWNSTREAM SHADOW VEHICLE IS RESTRICTED.
5. TEMPORARY TRAFFIC CONTROL SET-UP FOR A SHORT DURATION CLOSURE OF THE LEFT LANE ON A MULTI-LANE DIVIDED HIGHWAY SHALL BE SIMILAR TO THE SET-UP SHOWN, WITH APPROPRIATE CHANGES TO CHANGEABLE MESSAGE SIGNS AND FLASHING ARROW PANELS TO INDICATE THE LEFT LANE CLOSURE.
6. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
7. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
8. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
9. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES MAY BE NEEDED FOR CONFORMANCE WITH PART 6 OF THE MUTCD.



RHODE ISLAND DEPARTMENT OF TRANSPORTATION TEMPORARY TRAFFIC CONTROL PLAN		TYPICAL SHORT DURATION LANE CLOSURE ON MULTI-LANE HIGHWAY (WORK OCCUPYING LOCATION UP TO 1 HOUR)	NOT TO SCALE DATE: 02-07-2013



WORK ON RIGHT SIDE OF ON–RAMP



WORK ON LEFT SIDE OF OFF–RAMP

NOTES:

1. THIS PLAN IS APPROPRIATE FOR WORK OPERATIONS THAT REQUIRE THE PARTIAL CLOSURE OF A SINGLE–LANE FREEWAY OR EXPRESSWAY ON– OR OFF–RAMP, BUT WHICH ALWAYS PROVIDE FOR A MINIMUM OF 11–FEET OF CLEAR WIDTH FOR PASSAGE OF VEHICLES TRAVELING ON THE RAMP.
2. FOR WORK OPERATIONS THAT OCCUPY THE WORK SPACE FOR LESS THAN ONE (1) HOUR, ALL ADVANCE WARNING SIGNS MAY BE REMOVED IF THE "RAMP NARROWS" SIGN IS REPLACED WITH AN ADVANCE WARNING VEHICLE WITH TRUCK–MOUNTED ATTENUATOR AND CHANGEABLE MESSAGE SIGN, WITH FIRST PHASE DISPLAYING "ROAD WORK AHEAD" AND SECOND PHASE DISPLAYING "RAMP NARROWS".
3. ALL VEHICLES USED FOR THESE OPERATIONS SHALL BE EQUIPPED WITH HIGH INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE WARNING LIGHTS WITH 360 DEGREE VISIBILITY. THESE WARNING LIGHTS SHALL BE ACTIVATED DURING THE WORK.
4. THE DISTANCE BETWEEN THE SHADOW VEHICLE AND THE WORK SPACE SHOULD BE SELECTED BASED ON TRAFFIC AND SITE CONDITIONS AS WELL AS THE CHARACTERISTICS OF THE SHADOW VEHICLE/ATTENUATOR AND ITS MANUFACTURER'S RECOMMENDATIONS, BUT SHOULD BE NO GREATER THAN THE MINIMUM DISTANCE SUFFICIENT TO ENSURE THAT THE SHADOW VEHICLE WILL NOT ROLL INTO THE WORK SPACE WHEN HIT BY AN ERRANT VEHICLE.
5. ALL TEMPORARY TRAFFIC CONTROL SET–UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
6. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
7. WHERE A STREET OR RAMP INTERSECTS THE WORK ZONE, REDUCTIONS IN ADVANCE WARNING SIGN SPACING AND/OR ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES MAY BE NEEDED FOR CONFORMANCE WITH PART 6 OF THE MUTCD.
8. MAXIMUM CHANNELIZATION DEVICE SPACING IN TANGENT SECTIONS (INCLUDING GORE AREAS) SHALL BE 25 FEET; IN TAPERS USE 15–FOOT MAX. SPACING.
9. WHEN WORK SPACE ON OFF–RAMPS IS WITHIN 1,000 FEET OF MAINLINE, ALWAYS START CHANNELIZATION DEVICE PLACEMENT AT (OR IN LINE WITH) START OF PAINTED GORE AREA, AND CONTINUE PLACING DEVICES ALONG EDGE LINE UNTIL REACHING THE SHIFTING TAPER.

TAPER LENGTHS

Speed of Traffic on Ramp at Taper*	Shifting Taper Length (L), Feet	Speed of Traffic on Ramp at Taper*	Shifting Taper Length (L), Feet
25 MPH	65	40 MPH	160
30 MPH	90	45 MPH	270
35 MPH	125	50 MPH	300

* Speed may be estimated

* Speed may be estimated

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

TEMPORARY
TRAFFIC CONTROL PLAN

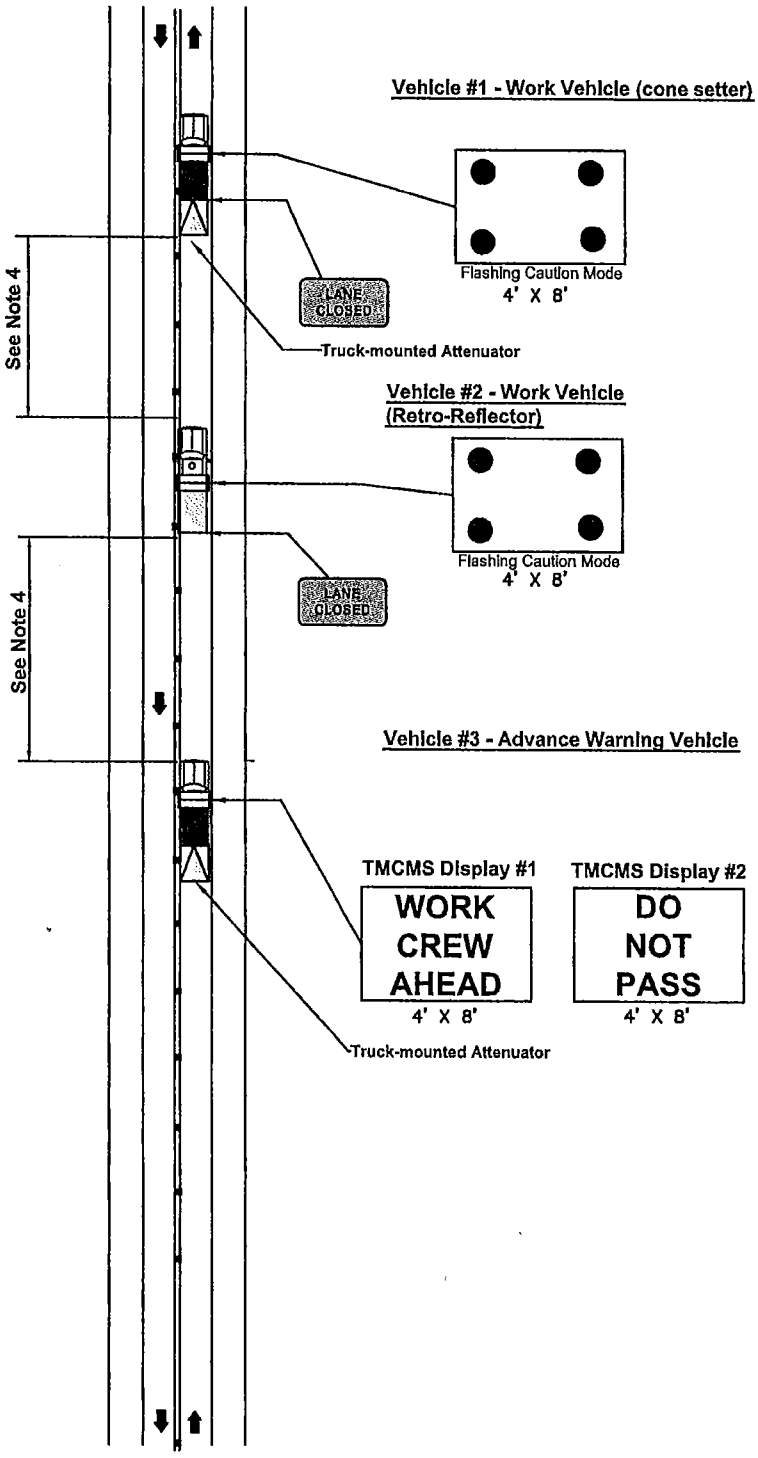
TYPICAL WORK ON SIDE OF FREEWAY OR EXPRESSWAY RAMP

NOT TO SCALE

DATE:
02–07–2013

NOTES:

1. THIS PLAN IS APPROPRIATE FOR RETRO REFLECTIVITY TESTING OF PAVEMENT MARKING ON MOBILE OPERATION ON A TWO WAY–LANE ROADWAY WHERE CONING IS REQUIRED TO DELINEATE THE CLOSURE.
2. THE MESSAGES DISPLAYED ON THE TRUCK–MOUNTED CHANGEABLE MESSAGE SIGNS SHALL BE MODIFIED AS NECESSARY TO CORRESPOND WITH THE ACTUAL WORK ACTIVITIES TAKING PLACE.
3. ALL VEHICLES USED FOR THESE OPERATIONS SHALL BE EQUIPPED WITH HIGH INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE WARNING LIGHTS WITH 360 DEGREE VISIBILITY. THESE WARNING LIGHTS SHALL BE ACTIVATED DURING THE WORK.
4. THE DISTANCES BETWEEN VEHICLE #3 (THE ADVANCE WARNING VEHICLE) AND VEHICLE #2 (WORK VEHICLE–RETRO REFLECTOR) AND BETWEEN VEHICLE #1 (THE CONE SETTER VEHICLE) AND VEHICLE #2 (WORK VEHICLE–RETRO REFLECTOR) SHALL BE BASED ON THE CONDITIONS EXISTING AT THE TIME AND LOCATION OF WORK, USING THE GUIDELINES PROVIDED IN CHAPTER 9 OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) ROADSIDE DESIGN GUIDE, LATEST EDITION.
5. THE DISTANCE BETWEEN THE ADVANCE WARNING VEHICLE AND THE WORK VEHICLE–RETRO REFLECTOR VEHICLE SHALL BE VARIED AS THE WORK OPERATION PROCEEDS SO THAT APPROACHING MOTORISTS ARE GIVEN ADEQUATE ADVANCE WARNING OF THE WORK ACTIVITY AHEAD.
6. WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW VEHICULAR TRAFFIC TO PASS.
7. CONES SHOULD GENERALLY BE PLACED EVERY 40FT. CLOSER SPACING MAY BE USED IF NEEDED.
8. THE SHADOW VEHICLE OR THE ADVANCE WARNING VEHICLE MAY BE OMITTED ONLY WHERE TRAFFIC SPEEDS ARE LOW, SIGHT DISTANCE IS GOOD, AND WHERE ADVANCE PERMISSION IS GRANTED BY THE ENGINEER.
9. THE WARNING SIGNS SHOWN ON VEHICLES ARE EXAMPLES AND MAY BE REPLACED WITH OTHER TYPES, SIZES, AND/OR SHAPES OF WARNING SIGNS OR OMITTED WHERE ADVANCE PERMISSION IS GRANTED BY THE ENGINEER.
10. THE CONE SETTLER/RETRIVER SHALL TURN AROUND AND RETURN TO RETRIEVE THE CONES ONCE THE TESTING IS COMPLETE AT A SPECIFIC LOCATION AND THE EQUIPMENT READY TO MOVE TO THE NEXT LOCATION.



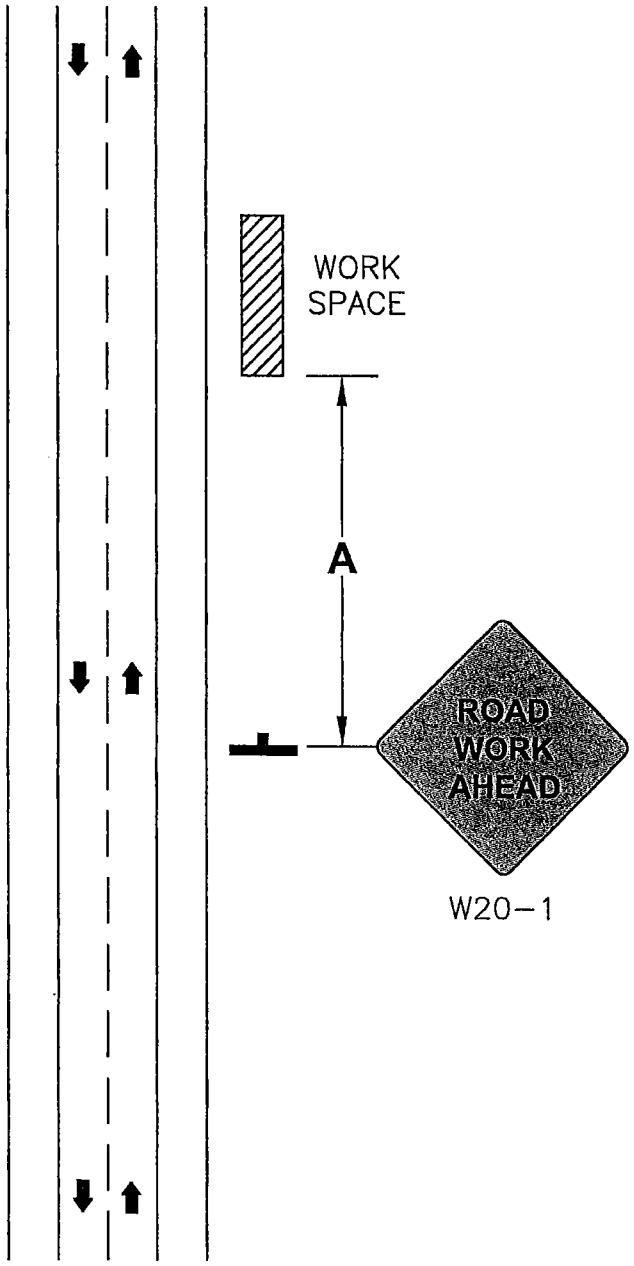
RHODE ISLAND DEPARTMENT OF TRANSPORTATION TYPICAL TEMPORARY TRAFFIC CONTROL PLAN	----------	MOBILE INSPECTION OPERATION ON TWO-LANE, TWO-WAY ROADWAY NOT TO SCALE DATE: 01-17-2012

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL SET–UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE COVERED OR REMOVED.
4. THE "ROAD WORK AHEAD" SIGN MAY BE OMITTED WHERE ALL WORKERS, WORK VEHICLES, AND EQUIPMENT WILL REMAIN MORE THAN 24 INCHES BEHIND THE CURB, MORE THAN 15 FEET AWAY FROM THE EDGE OF THE NEAREST VEHICULAR TRAVEL OR PARKING LANE (WHICHEVER IS CLOSER), OR BEHIND A BARRIER.
5. FOR SHORT–DURATION OPERATIONS THAT OCCUPY A LOCATION FOR ONE HOUR OR LESS, THE "ROAD WORK AHEAD" SIGN MAY BE OMITTED IF ALL WORK VEHICLES ACTIVELY DISPLAY HIGH–INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS DURING THE WORK.
6. VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH–INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.
7. ADVANCE WARNING SIGN SPACING MAY BE ADJUSTED IN THE FIELD IF NECESSARY TO FIT SITE CONDITIONS.
8. A "ROAD WORK AHEAD" SIGN SHALL BE PLACED ON ALL SIDE STREETS AND RAMPS INTERSECTING THE WORK ZONE, UNLESS THE SIGN ON THE MAINLINE IS OMITTED PER NOTE 4 OR 5.
9. THE SIZES OF DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 48"X48" ON FREEWAYS AND EXPRESSWAYS, AND 36"X36" ON ALL OTHER ROADWAYS.

MINIMUM ADVANCE WARNING SIGN SPACING

Roadway Type / Location Posted Speed Limit	Distance (Feet)		
	A	B	C
NON–FREEWAY/EXPRESSWAY ≤ 25 MPH	100	100	100
NON–FREEWAY/EXPRESSWAY IN URBAN AREA, ≥30 MPH	350	350	350
NON–FREEWAY/EXPRESSWAY IN RURAL AREA, ≥30 MPH	500	500	500
FREEWAY/EXPRESSWAY	1,000	1,500	2,640



RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

TEMPORARY
TRAFFIC CONTROL PLAN

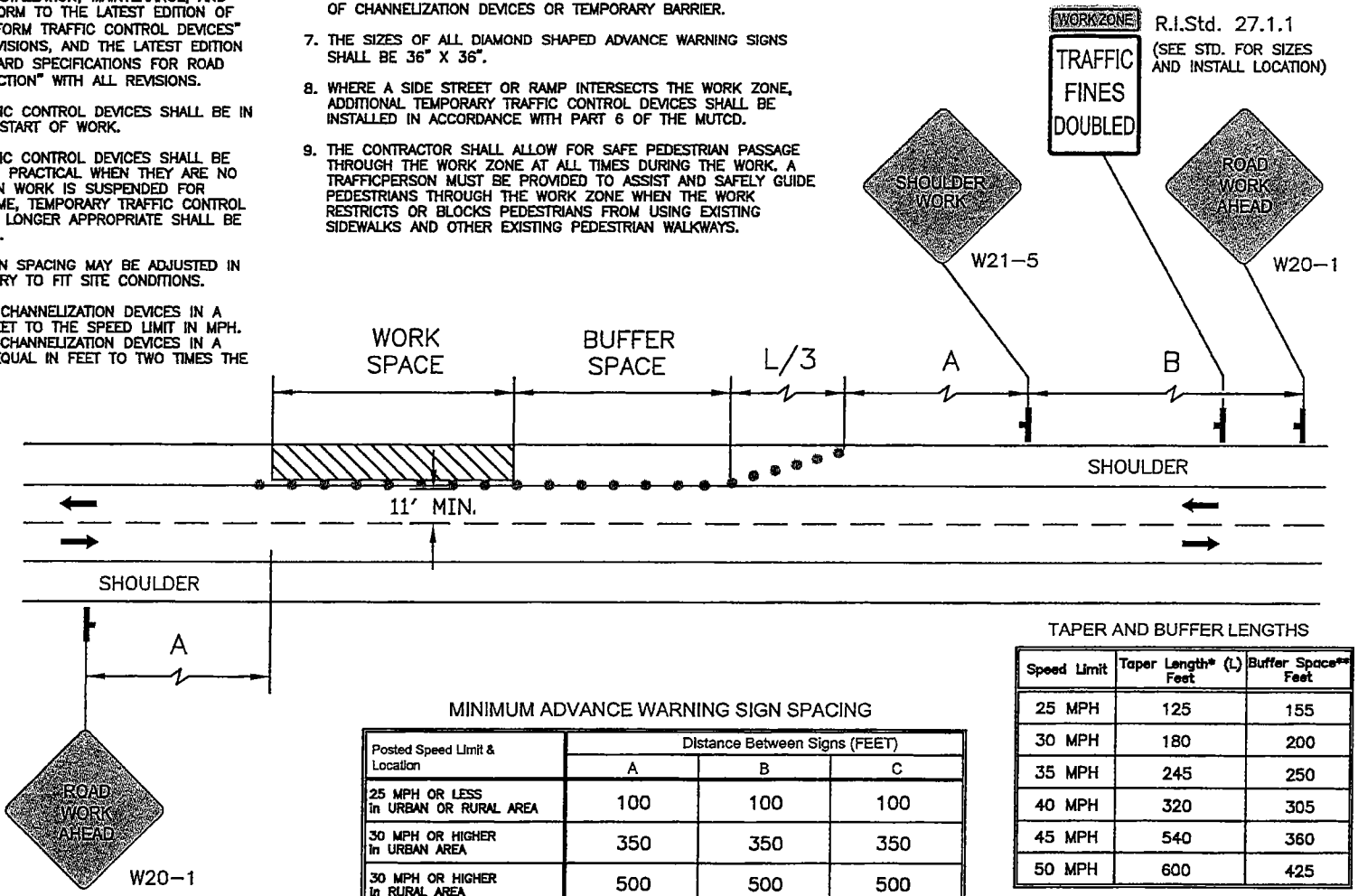
TYPICAL WORK BEYOND THE SHOULDER

NOT TO SCALE

DATE: 02-07-2013

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL SET–UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
4. ADVANCE WARNING SIGN SPACING MAY BE ADJUSTED IN THE FIELD IF NECESSARY TO FIT SITE CONDITIONS.
5. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TAPER IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH.
6. MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES OR TEMPORARY BARRIER.
7. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 36" X 36".
8. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH PART 6 OF THE MUTCD.
9. THE CONTRACTOR SHALL ALLOW FOR SAFE PEDESTRIAN PASSAGE THROUGH THE WORK ZONE AT ALL TIMES DURING THE WORK. A TRAFFICPERSON MUST BE PROVIDED TO ASSIST AND SAFELY GUIDE PEDESTRIANS THROUGH THE WORK ZONE WHEN THE WORK RESTRICTS OR BLOCKS PEDESTRIANS FROM USING EXISTING SIDEWALKS AND OTHER EXISTING PEDESTRIAN WALKWAYS.



MINIMUM ADVANCE WARNING SIGN SPACING

Posted Speed Limit & Location	Distance Between Signs (FEET)		
	A	B	C
25 MPH OR LESS In URBAN OR RURAL AREA	100	100	100
30 MPH OR HIGHER In URBAN AREA	350	350	350
30 MPH OR HIGHER In RURAL AREA	500	500	500

TAPER AND BUFFER LENGTHS

Speed Limit	Taper Length* (L) Feet	Buffer Space** Feet
25 MPH	125	155
30 MPH	180	200
35 MPH	245	250
40 MPH	320	305
45 MPH	540	360
50 MPH	600	425

* Required
** Suggested

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

TEMPORARY
TRAFFIC CONTROL PLAN

TYPICAL SHOULDER CLOSURE ON TWO–LANE HIGHWAY

NOT TO SCALE

DATE: 02-07-13

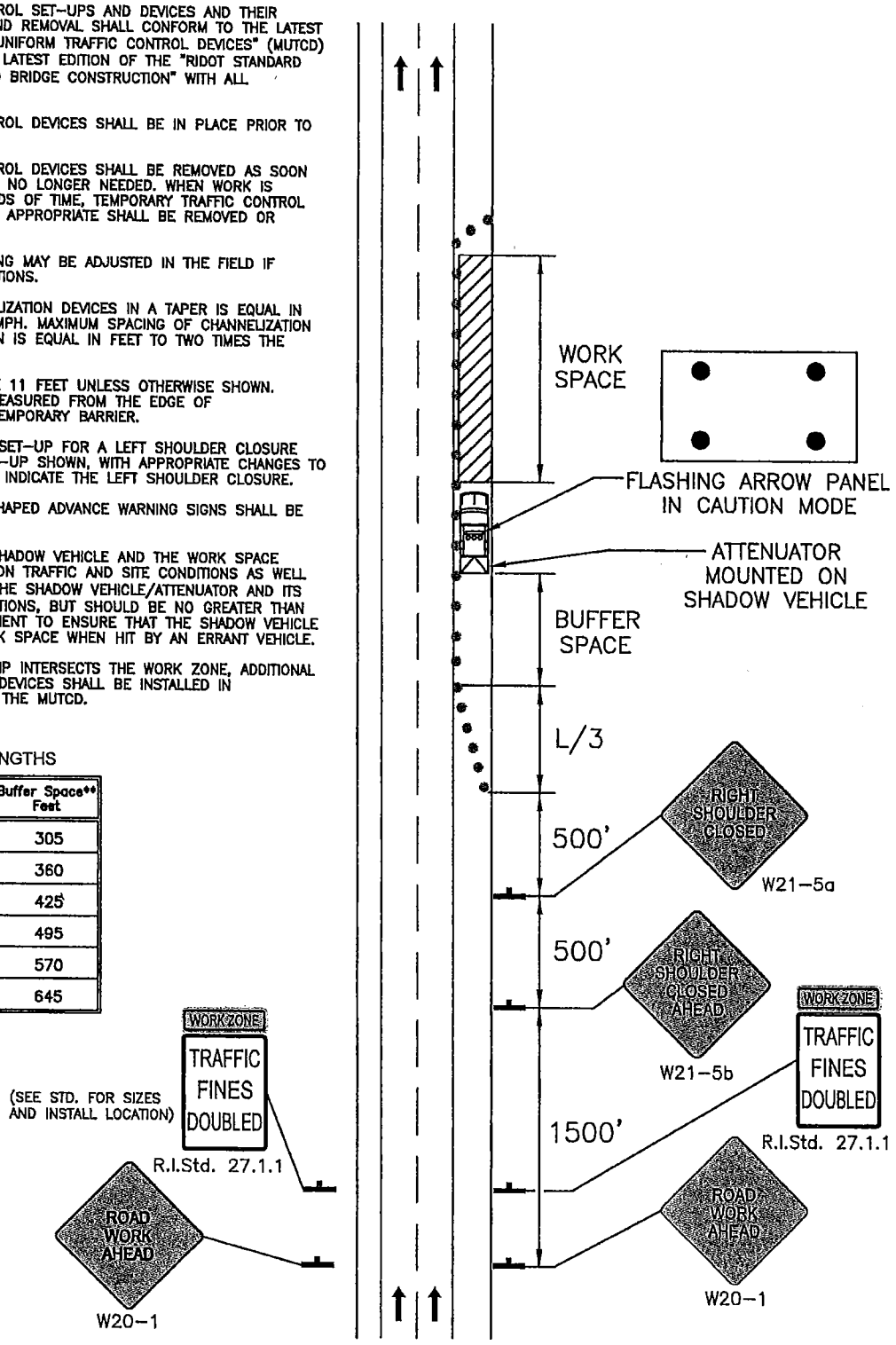
NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
4. ADVANCE WARNING SIGN SPACING MAY BE ADJUSTED IN THE FIELD IF NECESSARY TO FIT SITE CONDITIONS.
5. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TAPER IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH.
6. MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES OR TEMPORARY BARRIER.
7. TEMPORARY TRAFFIC CONTROL SET-UP FOR A LEFT SHOULDER CLOSURE SHALL BE SIMILAR TO THE SET-UP SHOWN, WITH APPROPRIATE CHANGES TO SIGNS AND OTHER DEVICES TO INDICATE THE LEFT SHOULDER CLOSURE.
8. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 48" X 48".
9. THE DISTANCE BETWEEN THE SHADOW VEHICLE AND THE WORK SPACE SHOULD BE SELECTED BASED ON TRAFFIC AND SITE CONDITIONS AS WELL AS THE CHARACTERISTICS OF THE SHADOW VEHICLE/ATTENUATOR AND ITS MANUFACTURER'S RECOMMENDATIONS, BUT SHOULD BE NO GREATER THAN THE MINIMUM DISTANCE SUFFICIENT TO ENSURE THAT THE SHADOW VEHICLE WILL NOT ROLL INTO THE WORK SPACE WHEN HIT BY AN ERRANT VEHICLE.
10. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH PART 6 OF THE MUTCD.

TAPER AND BUFFER LENGTHS

Speed Limit	Taper Length* (L) Feet	Buffer Space** Feet
40 MPH	320	305
45 MPH	540	360
50 MPH	600	425
55 MPH	660	495
60 MPH	720	570
65 MPH	780	645

* Required
** Suggested



RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

TEMPORARY
TRAFFIC CONTROL PLAN

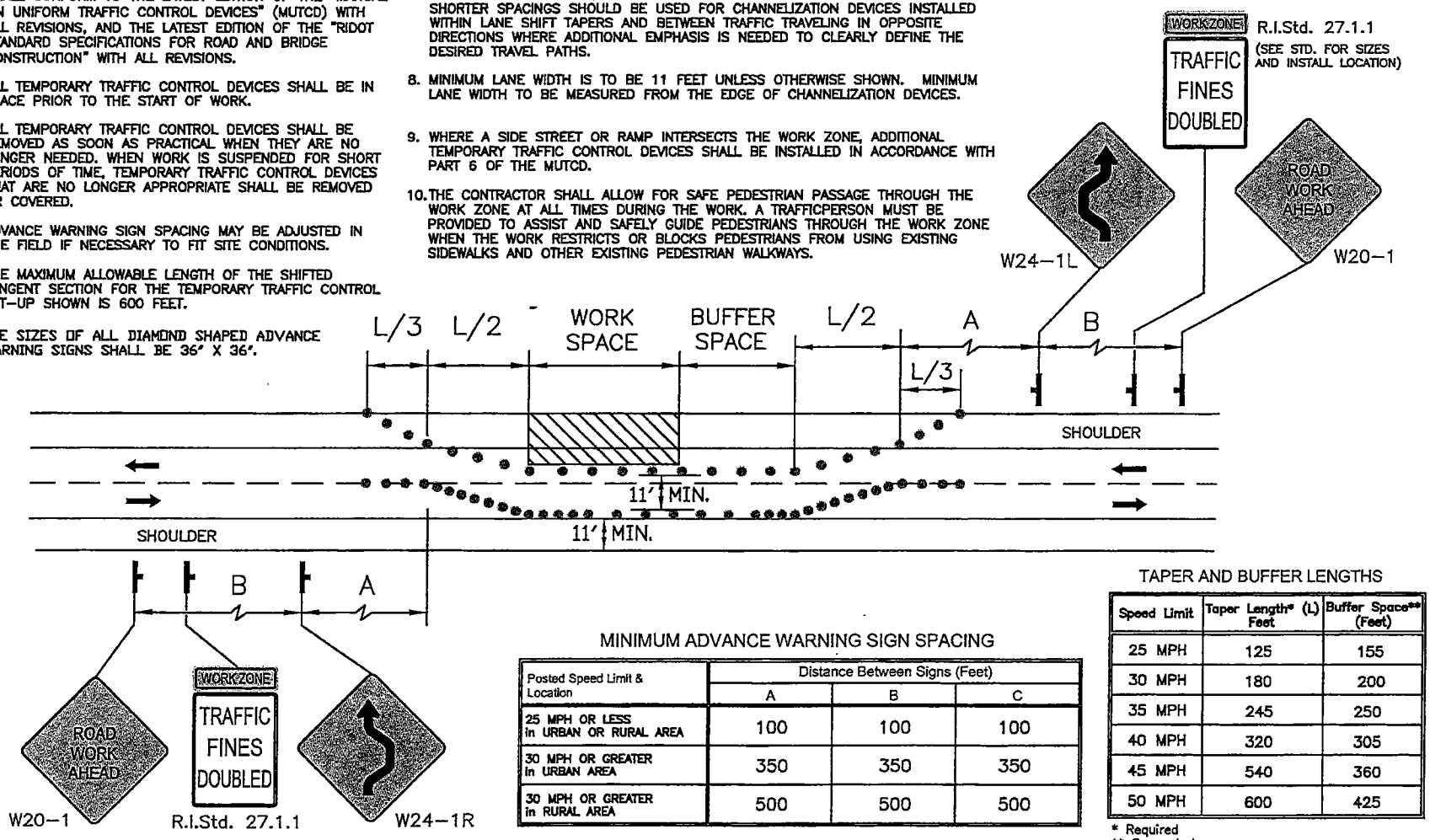
TYPICAL SHOULDER CLOSURE ON FREEWAY OR EXPRESSWAY

NOT TO SCALE

DATE: 02-07-13

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
4. ADVANCE WARNING SIGN SPACING MAY BE ADJUSTED IN THE FIELD IF NECESSARY TO FIT SITE CONDITIONS.
5. THE MAXIMUM ALLOWABLE LENGTH OF THE SHIFTED TANGENT SECTION FOR THE TEMPORARY TRAFFIC CONTROL SET-UP SHOWN IS 600 FEET.
6. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 36" X 36".
7. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TAPER IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH. SHORTER SPACINGS SHOULD BE USED FOR CHANNELIZATION DEVICES INSTALLED WITHIN LANE SHIFT TAPERS AND BETWEEN TRAFFIC TRAVELING IN OPPOSITE DIRECTIONS WHERE ADDITIONAL EMPHASIS IS NEEDED TO CLEARLY DEFINE THE DESIRED TRAVEL PATHS.
8. MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES.
9. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH PART 6 OF THE MUTCD.
10. THE CONTRACTOR SHALL ALLOW FOR SAFE PEDESTRIAN PASSAGE THROUGH THE WORK ZONE AT ALL TIMES DURING THE WORK. A TRAFFICPERSON MUST BE PROVIDED TO ASSIST AND SAFELY GUIDE PEDESTRIANS THROUGH THE WORK ZONE WHEN THE WORK RESTRICTS OR BLOCKS PEDESTRIANS FROM USING EXISTING SIDEWALKS AND OTHER EXISTING PEDESTRIAN WALKWAYS.



MINIMUM ADVANCE WARNING SIGN SPACING

Posted Speed Limit & Location	Distance Between Signs (Feet)		
	A	B	C
25 MPH OR LESS in URBAN OR RURAL AREA	100	100	100
30 MPH OR GREATER in URBAN AREA	350	350	350
30 MPH OR GREATER in RURAL AREA	500	500	500

TAPER AND BUFFER LENGTHS

Speed Limit	Taper Length* (L) Feet	Buffer Space** (Feet)
25 MPH	125	155
30 MPH	180	200
35 MPH	245	250
40 MPH	320	305
45 MPH	540	360
50 MPH	600	425

* Required
** Suggested

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

TEMPORARY
TRAFFIC CONTROL PLAN

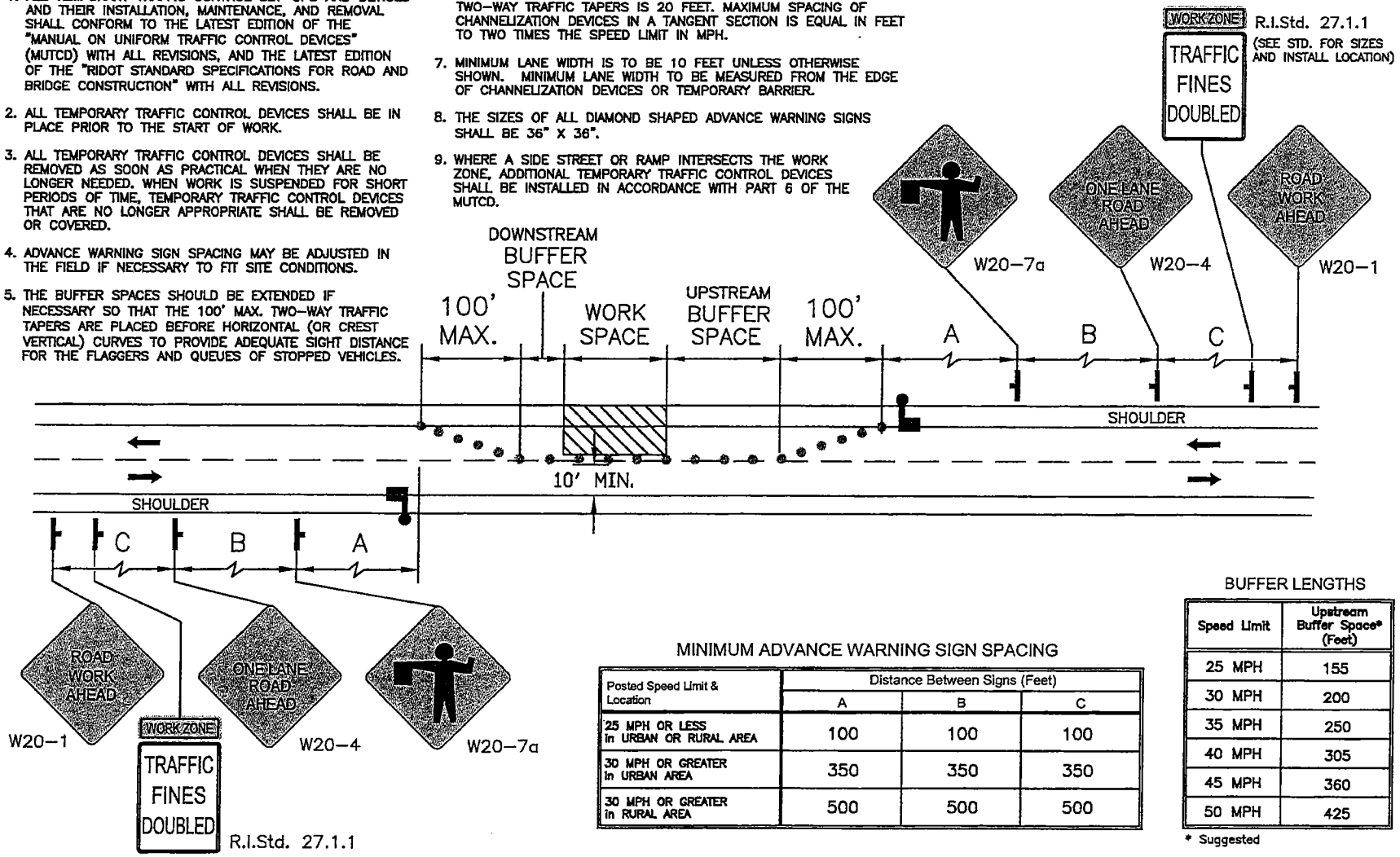
TYPICAL LANE SHIFT ON TWO-LANE ROADWAY

NOT TO SCALE

DATE: 02-07-13

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
4. ADVANCE WARNING SIGN SPACING MAY BE ADJUSTED IN THE FIELD IF NECESSARY TO FIT SITE CONDITIONS.
5. THE BUFFER SPACES SHOULD BE EXTENDED IF NECESSARY SO THAT THE 100' MAX. TWO-WAY TRAFFIC TAPERS ARE PLACED BEFORE HORIZONTAL (OR CREST VERTICAL) CURVES TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGERS AND QUEUES OF STOPPED VEHICLES.
6. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN THE 100' MAX. TWO-WAY TRAFFIC TAPERS IS 20 FEET. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH.
7. MINIMUM LANE WIDTH IS TO BE 10 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES OR TEMPORARY BARRIER.
8. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 36" X 36".
9. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH PART 6 OF THE MUTCD.



MINIMUM ADVANCE WARNING SIGN SPACING

Posted Speed Limit & Location	Distance Between Signs (Feet)		
	A	B	C
25 MPH OR LESS in URBAN OR RURAL AREA	100	100	100
30 MPH OR GREATER in URBAN AREA	350	350	350
30 MPH OR GREATER in RURAL AREA	500	500	500

BUFFER LENGTHS

Speed Limit	Upstream Buffer Space* (Feet)
25 MPH	155
30 MPH	200
35 MPH	250
40 MPH	305
45 MPH	360
50 MPH	425

* Suggested

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

TEMPORARY
TRAFFIC CONTROL PLAN

TYPICAL LANE CLOSURE ON TWO-LANE ROADWAY

NOT TO SCALE

DATE: 02-07-13

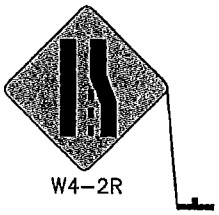
NOTES:

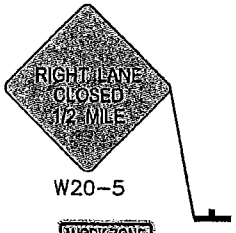
1. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
4. ADVANCE WARNING SIGN SPACING MAY BE ADJUSTED IN THE FIELD IF NECESSARY TO FIT SITE CONDITIONS.
5. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TAPER IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH.
6. MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES OR TEMPORARY BARRIER.
7. TEMPORARY TRAFFIC CONTROL SET-UP FOR A LEFT LANE CLOSURE SHALL BE SIMILAR TO THE SET-UP SHOWN, WITH APPROPRIATE CHANGES TO SIGNS AND OTHER DEVICES TO INDICATE THE LEFT LANE CLOSURE.
8. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 48" X 48".
9. THE DISTANCE BETWEEN THE SHADOW VEHICLE AND THE WORK SPACE SHOULD BE SELECTED BASED ON TRAFFIC AND SITE CONDITIONS AS WELL AS THE CHARACTERISTICS OF THE SHADOW VEHICLE/ATTENUATOR AND ITS MANUFACTURER'S RECOMMENDATIONS, BUT SHOULD BE NO GREATER THAN THE MINIMUM DISTANCE SUFFICIENT TO ENSURE THAT THE SHADOW VEHICLE WILL NOT ROLL INTO THE WORK SPACE WHEN HIT BY AN ERRANT VEHICLE.
10. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH PART 6 OF THE MUTCD.

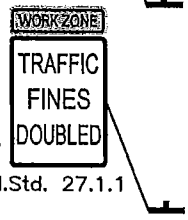
TAPER AND BUFFER LENGTHS

Speed Limit	Taper Length* (L) Feet	Buffer Space** Feet
40 MPH	320	305
45 MPH	540	360
50 MPH	600	425
55 MPH	660	495
60 MPH	720	570
65 MPH	780	645

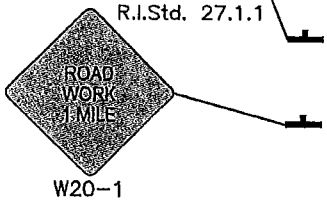
* Required
** Suggested

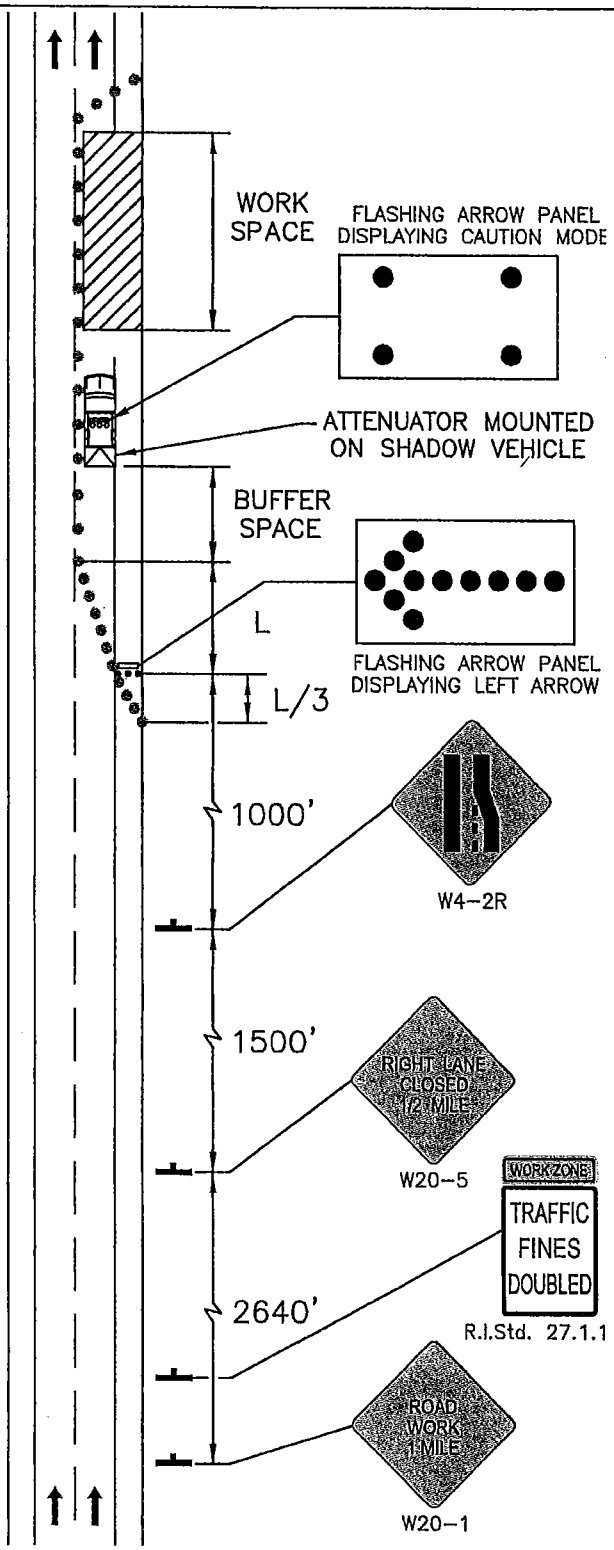






(SEE STD. FOR SIZES AND INSTALL LOCATION)





RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

TEMPORARY
TRAFFIC CONTROL PLAN

TYPICAL LANE CLOSURE ON FREEWAY OR EXPRESSWAY

NOT TO SCALE

DATE: 02-07-13

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
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4. ADVANCE WARNING SIGN SPACING MAY BE ADJUSTED IN THE FIELD IF NECESSARY TO FIT SITE CONDITIONS.
5. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TAPER IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH.
6. MINIMUM LANE WIDTH IS TO BE 12 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES OR TEMPORARY BARRIER.
7. TEMPORARY TRAFFIC CONTROL SET-UP FOR A DOUBLE LEFT LANE CLOSURE SHALL BE SIMILAR TO THE SET-UP SHOWN, WITH APPROPRIATE CHANGES TO SIGNS AND OTHER DEVICES TO INDICATE THE LEFT LANE CLOSURE.
8. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 48" X 48".
9. THE DISTANCE BETWEEN THE SHADOW VEHICLE AND THE WORK SPACE SHOULD BE SELECTED BASED ON TRAFFIC AND SITE CONDITIONS AS WELL AS THE CHARACTERISTICS OF THE SHADOW VEHICLE/ATTENUATOR AND ITS MANUFACTURER'S RECOMMENDATIONS, BUT SHOULD BE NO GREATER THAN THE MINIMUM DISTANCE SUFFICIENT TO ENSURE THAT THE SHADOW VEHICLE WILL NOT ROLL INTO THE WORK SPACE WHEN HIT BY AN ERRANT VEHICLE.
10. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH PART 6 OF THE MUTCD.

TAPER AND BUFFER LENGTHS

Speed Limit	Taper Length* (L) Feet	Buffer Space** Feet
40 MPH	320	305
45 MPH	540	360
50 MPH	600	425
55 MPH	660	495
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65 MPH	780	645

* Required
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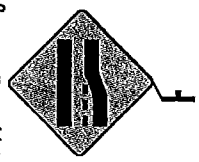

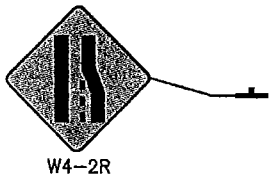

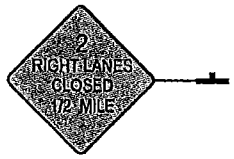

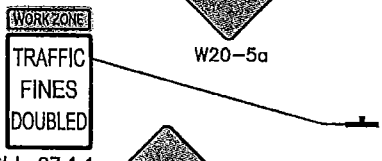

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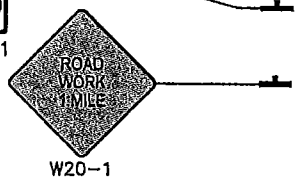

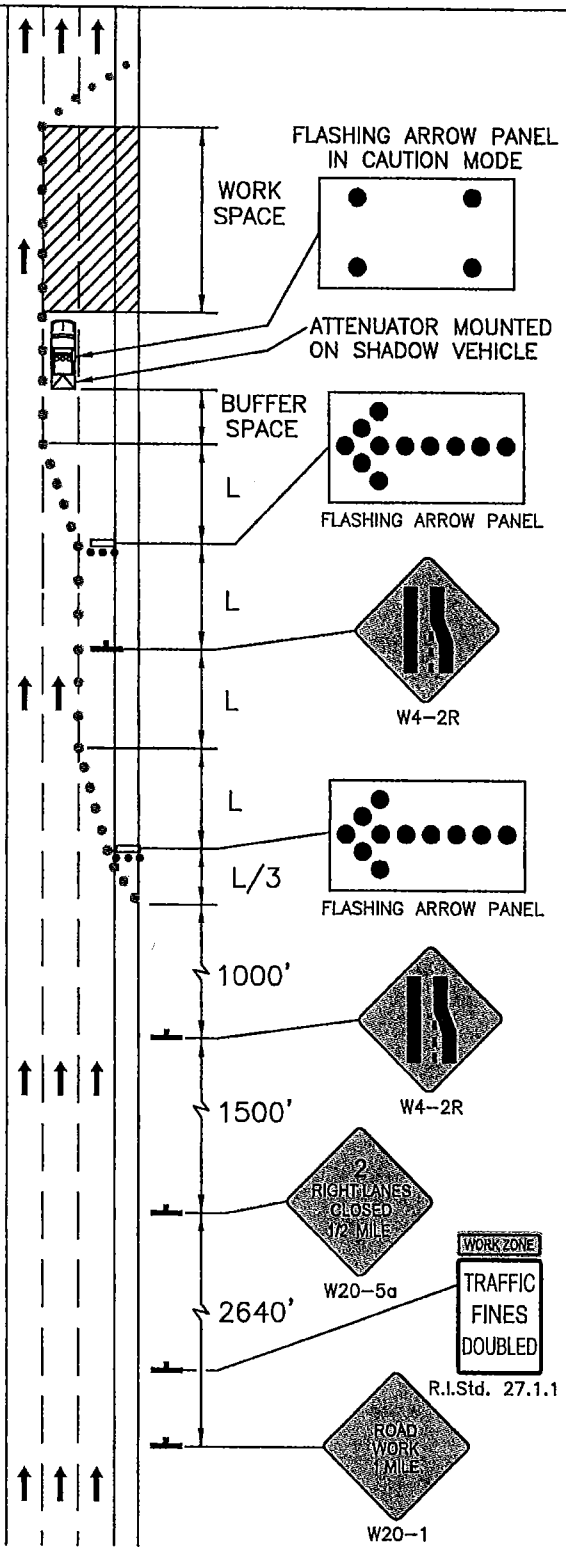

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

TEMPORARY
TRAFFIC CONTROL PLAN

TYPICAL DOUBLE LANE CLOSURE ON FREEWAY OR EXPRESSWAY

NOT TO SCALE

DATE: 02-07-13