Construction Transportation Plan

September, 2025

Prepared For:

Cornerstone Solar, LLC

Prepared By:

TRC

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APPENDIX

1) Project Overview

The Cornerstone Solar Project (the Project) is a 200-Megawatt Solar Energy Facility (SEF) planned by Cornerstone Solar, LLC and will be located in Jefferson Township, Washington County, PA. The Project consists of solar panel arrays, collection wiring and electric power conversion devices to connect the arrays to the substation, access roads for each array, fencing, and vegetative areas.

Cornerstone Solar, LLC will obtain approval of the Construction Transportation Plan prior to commencing construction activities.

The proposed Access Point locations are as follows:

Entrance / Exit Location	Intersecting Roadway	Municipality	County, State
Access Point #1	T-335 (Miller Road)	Jefferson Township	Washington County, PA
Access Point #2	T-335 (Miller Road)	Jefferson Township	Washington County, PA
Access Point #3	T-850 (Bethel Ridge Road)	Jefferson Township	Washington County, PA
Access Point #4	County Road No. 7 (Amspoker Road)	City of Weirton	Brooke County, WV

Refer to Appendix A - Access Plan / Haul Route for map illustrating proposed Access Point locations.

2) Work Hours

Construction of the Project can only be performed between the hours of 7:00 AM to 7:00 PM, Monday through Friday and 7:00 AM to 5:00 PM on Saturday. Cornerstone Solar, LLC and the contractor shall comply with all conditions as outlined in Jefferson Township Zoning Ordinance.

If, due to safety, continuous operation, or emergency that construction activities are required to occur beyond the allowable work hours, the contractor shall notify Cornerstone Solar, LLC, Jefferson Township, PennDOT, Brooke County and WVDOH as appropriate. Such notice shall be given at least twenty-four (24) hours in advance unless such construction activities are required to address an emergency.

3) Impact on Traffic Flow

The haul routes will be utilized for delivery of equipment, materials, and access to the work areas for the contractor.

Cornerstone Solar, LLC and the contractor shall coordinate with Burgettstown Area School District to coordinate construction and equipment traffic to avoid construction traffic during school drop-off and pick-up times.

There are no planned closures of any state or township roads in the project area.

During working hours one-way traffic flows controlled by flaggers and/or appropriate warning signs may be required for oversized load deliveries. Cornerstone Solar, LLC and contractors will make a good-faith effort to provide advanced notice of anticipated one-way traffic flows to the Burgettstown Area School District when able. Two-way traffic shall be restored at the end of each workday and overnight with unrestricted traffic flow.

Refer to Appendix A - Access Plan / Haul Route for routes to be utilized by construction traffic.

4) Construction Traffic

The Project will generate construction traffic in the following categories:

1. Site Construction Deliveries – These are anticipated to consist of tri-axle trucks and will happen across the project area to support the construction progress.
2. Array Material Deliveries – These are anticipated to be delivered via tractor-trailer trucks and will include solar panels, piles, racking, and cabling. These deliveries will happen across the project area to support the construction progress.
3. Equipment Deliveries – Various equipment will be delivered on flatbed trucks and moved to each array as needed. Tracked equipment will not be allowed to operate on paved township or state roadways.
4. Workers – The number of workers on site will vary as the construction progresses. The workers will be provided with parking areas. No parking of personal vehicles along the shoulders of township or state roadways will be allowed.
5. Construction Site Entry / Exit – The access road entrances will be utilized by construction traffic for the array construction and will be off township or state roadways.

Cornerstone Solar, LLC will provide a schedule to Burgettstown Area School District for future delivery dates seven (7) days in advance.

Cornerstone Solar, LLC will obtain all appropriate Highway Occupancy Permits and Special Hauling Permits prior to construction.

Refer to Appendix A - Access Plan / Haul Route for routes to be utilized by construction traffic.

5) School Information

A meeting was held with the Burgettstown Area School District to review the Project. It was discussed that both Bus 4 and Jake Schneider's Bus Contracting Service using vans run the routes closest to the Project site. This bus route will mostly use SR 4008 (Eldersville Road), T-388 (Cole School Road), and T-335 (Miller Road) with turnaround points at SR 4014 (State Line Road), T-779 (Shades of Death Road) and the Gas Pad on Bethel Ridge Road.

The following are key dates for the 2025 – 2026 calendar school year:

1. Winter break occurs December 22, 2025 through January 2, 2026.
2. Spring break occurs April 3, 2026 through April 6, 2026.
3. The last day of school is set for June 4, 2026.

Cornerstone Solar, LLC will collaborate with Burgettstown Area School District to adjust key dates for the relevant school year based on the construction start date.

Information regarding school closings or delays can be found on the District's website:

http://www.burgettstown.k12.pa.us/

The following is a list of school contacts.

Name	Title	Phone No.
Stephen Puskar	Superintendent	724.94.8136, Ext. 3308
Chris Mercurio	Jake Schneider Bus Contractor	724.947.4500
Jim Meyers	Bus 4 Driver	724.747.2377

Refer to Appendix B - School Transportation Plan for a map depicting transportation routes, Appendix C - Bus 4 Schedule for times of pick-up / drop-off pertaining to elementary and high school and Appendix D - Van Service Schedule for times of pick-up / drop-off.

6) Temporary Traffic Control Details

Temporary traffic control measures and devices to protect work zones shall be implemented in accordance with PennDOT Publication 213, Temporary Traffic Control Guidelines and WVDOH, Manual on Temporary Traffic Control for Streets and Highways, based on location and duration of the work.

It is anticipated the referenced traffic control details shall be the basis of the temporary traffic control pattern for each location where temporary traffic controls are required.

It is anticipated that all work zones will be considered Short Term Operations.

Refer to Appendix E for PennDOT applicable Temporary Traffic Control Details and Appendix F for WVDOH applicable Temporary Traffic Control Details.

7) Roadway Repair Details

Roadway repairs will be completed to address any failure areas along the planned access/haul routes precipitated by construction traffic. These repairs will be constructed in accordance with PennDOT Pub. 72M, RC-28M and PennDOT Pub. 408.

There are three categories for the repair areas including:

1. Surface Repair
2. Base Repair
3. Edge Repair

Any gravel road repair areas are to be constructed as directed by the Representative and in accordance with PennDOT Pub 447, Specification MS-0450-0004.

A field meeting will be required and attended by Representatives from Cornerstone Solar, LLC, Jefferson Township, PennDOT, Brooke County, and WVDOH to determine the level of roadway repair, as appropriate.

Cornerstone Solar, LLC and the contractor will enter into a road maintenance agreement with Jefferson Township prior to construction.

Refer to Appendix G for the applicable Roadway Repair Details and Specification MS-0450-0004.

APPENDIX A - ACCESS PLAN / HAUL ROUTE

N

LEGEND

- STATE BOUNDARY
- TOWNSHIP BOUNDARY
- PA STATE ROUTE
- JEFFERSON TOWNSHIP ROAD
- WV STATE ROUTE
- BROOKE COUNTY ROAD
- PROPOSED HAUL ROUTE
- PROPOSED ACCESS POINT
- PROPOSED PROJECT

SCALE IN FEET

0 2000 4000

NO.	BY	DATE	REVISION	APP'D.

PROJECT:

CORNERSTONE SOLAR, LLC
CORNERSTONE SOLAR PROJECT
CONSTRUCTION TRANSPORTATION PLAN

TITLE:

ACCESS PLAN / HAUL ROUTE

DRAWN BY: -	PROJ. NO.: 606374.0000
CHECKED BY: -	1 OF 1
APPROVED BY: -	
DATE: AUGUST 29, 2025	

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APPENDIX B - SCHOOL TRANSPORTATION PLAN

LEGEND

- STATE BOUNDARY
- TOWNSHIP BOUNDARY
- PA STATE ROUTE
- JEFFERSON TOWNSHIP ROAD
- WV STATE ROUTE
- BROOKE COUNTY ROAD
- BUS ROUTE 4
- VAN SERVICE ROUTE
- PROPOSED ACCESS POINT
- PROPOSED PROJECT

SCALE IN FEET

0 2000 4000

NO.	BY	DATE	REVISION	APP'D.

PROJECT:

CORNERSTONE SOLAR, LLC
CORNERSTONE SOLAR PROJECT
CONSTRUCTION TRANSPORTATION PLAN

TITLE:

SCHOOL TRANSPORTATION PLAN

DRAWN BY:	-	PROJ. NO.:	606374.0000
CHECKED BY:	-		
APPROVED BY:	-		1 OF 1
DATE:	AUGUST 29, 2025		

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APPENDIX C - BUS 4 SCHEDULE

#4	185	AM HIGH SCHOOL	PICK UP	DISCHAGE
TIME	MILES	LOCATION OF STOP		
6:15		GARAGE		
6:40	12.9	TO BETHEL RIDGE TURN WALESIK WELL		
6:42		BETHEL RIDGE/SHADES OF DEATH		
	2.7	BOX 857 BETHEL RIDGE RD		
	0.2	BOX 888 BETHEL RIDGE RD		
		R CEDAR GROVE ROAD		
6:46		315 CEDAR GROVE ROAD		
6:47		R ONTO COLE SCHOOL ROAD		
6:48		217 COLE SCHOOL ROAD		
6:51		TURN AROUND SHADES OF DEATH/COLE SCHOOL		
6:51		PLESKA DRIVEWAY L ONTO CEDAR GROVE		
6:53		500 CEDAR GROVE ROAD		
6:54		578 CEDAR GROVE RD MIDLER		
6:55	0.1	BOX 623 ELICH FRONT DOOR		
6:56		753 CEDAR GROVE ROAD		
6:57		761 CEDAR GROVE ROAD		
		LEFT ON ELDERSVILLE RD		
7:02	0.1	BOX 19 ELDERSVILLE ROAD		
		TURN AROUND STATE LINE		
7:04	0.5	BOX 276 ELDERSVILLE RD		
7:12	1.2	XPRESS MARKET DO NOT LEAVE ROAD		
7:20	4.2	HIGH SCHOOL		

#4	25-26	PM HIGH SCHOOL
TIME	MILES	LOCATION OF THE STOP
2:15		DEPART SCHOOL
2:40		XPRESS MARKET LANGELOTH
2:57		276 ELDERSVILLE ROAD
2:58		TURN ONTO CEDAR GROVE ROAD
2:59		761 CEDAR GROVE ROAD
2:59		753 CEDAR GROVE ROAD
3:00		SCOTT HOLLOW AND CEDAR GROVE ROAD
3:02		680 CEDAR GROVE RD
3:03		623 CEDAR GROVE ROAD
3:05		578 EDAR GROVE ROAD
3:05		R ONTO BETHEL RIDGE
3:05		1010 BETHEL RIDGE
3:09		888 BETHEL RIDGE
3:10		TURN AROUND AT WELL SITE END OF BETHEL
3:10		INT BETHAL RIDEGE AND MILLER RD
3:14		857 BETHEL RIDGE ROAD
		RIGHT ONTO CEDAR GROVE ROAD
		BOX 315 CEDAR GROVE ROAD
		TURN RIGHT ONTO COLE SCHOOL RD
3:15		217 COLE SCHOOL ROAD
		TURN AROUND MILLER DRIVE L CEDAR GROVE
3:18		470 CEDAR GROVE RD
		500 CEDAR GROVE ROAD
3:30		BAEC

#4	25-26	AM ELEMENTARY		DISCHARGE
TIME	MILES	LOCATION OF STOP		
7:35		HIGH SCHOOL		
7:42		SCOTT HOLLOW ROAD INT		
7:42		LEFT CEDAR GROVE INT WIEGMANN ROAD		
7:55		BETHEL RIDGE TURN AROUND WELL PAD		
		INT MILLER/BETHEL RIDGE RD		
8:00		851 BETHEL RIDGE ROAD		
		R CEDAR GROVE ROAD		
8:02		TURN AROUND BURKETT WELL SITE		
		L CEDAR GROVE ROAD		
8:04		470 CEDAR GROVE ROAD		
8:05		500/501 CEDAR GROVE ROAD		
8:08		BOX 753 CEDAR GROVE ROAD		
8:09		BOX 761 CEDAR GROVE ROAD		
		LEFT ONTO ELDERSVILLE RD		
8:13		275 ELDERSVILLE ROAD		
8:14		CREEK RD ELDERSVILLE INTERSECTION		
8:17		BOX 19 ELDERSVILLE ROAD TURN AROUND		
		STATE LINE		
8:19		BOX 150 ELDERSVILLE ROAD		
		330 ELDERSVILLE ROAD		
8:21		BOX 464 ELDERSVILLE RD		
		INT SHORT STREET ELDERSVILLE CEDAR GROVE		
8:23		519 ELDERSVILLE RD ON LEFT GREEN ROOF BEFORE		
		BOX 1338 LANGELOTH ROAD POST OFFICE PM		
8:26		XPRESS MARKET DO NOT LEAVE ROADWAY		
8:35		ELEMENTARY CENTER		
		TOTAL		

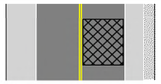
#4	25-26	PM ELEMENTARY	PICK UP	DISCHARGE
TIME	MILES	LOCATION OF STOP		
3:30		ELEMENTARY		
3:45		XPRESS MARKET DO NOT LEAVE ROAD		
3:48		BOX 519 ELDERSVILLE RD JUST PAST GREENMETAL ROOF		
3:51		275 ELDERSVILLE ROAD		
3:51		269 ELDERSVILLE RD BURGETTSTOWN PA		
3:52		CREEK RD ELDERSILLE ROAD INTERSECTION		
3:53		BOX 507 ELDERSVILLE ROAD		
3:54		BOX 19 ELDERSVILLE ROAD		
		TURN AROUND STATE LINE		
3:57		BOX 106 ELDERSVILLE ROAD		
3:58		BOX 150 ELDERSVILLE ROAD		
3:59		BOX 330 ELDERSVILLE ROAD		
4:00		BOX 464 ELDERSVILLE ROAD		
4:01		INT SHORT STREET CEDAR GROVE ROAD		
		R ONTO CEDAR GROVE RD		
4:02		BOX 761 CEDAR GROVE ROAD		
4:03		BOX 753 CEDAR GROVE ROAD		
4:04		SCOTT HOLLOW ROAD INT		
4:05		680 CEDAR GROVE RD		
4:06		611 CEDAR GROVE RD JUST PAST TROY		
		INT CEDAR GROVE AND WEIGMANN ROAD		
4:07		501 CEDAR GROVE ROAD BEFORE BETHEL RIDGE		
4:08		RIGHT BETHEL RIDGE MILLER ROAD		
4:09		767 BETHEL RIDGE ROAD		
4:10		247 COLE SCHOOL RD AT WELL PAD		
		TURN AROUND WELL SITE		
4:13		INTERSECTION MILLER RD/BETHEL RIDGE		
4:14		822 BETHEL RIDGE ROAD TRACTORS DRIVEWAY		
		R CEDAR GROVE ROAD		
4:14		R COLE SCHOOL ROAD TURN AROUND		
		SHADES OF DEATH		
4:15		242 COLE SCHOOL ROAD		
4:16		213 COLE SCHOOL ROAD		
4:17		470 CEDAR GROVE ROAD		
4:18		BOX 500 CEDAR GROVE ROAD		
4:18		INT CEDAR GROVE RD AND MENEELY		
4:40		GARAGE		

APPENDIX D – VAN SERVICE SCHEDULE

Jake Schneider Van Schedule	
Pick Up Times	**Location**
6:45 AM	Miller Road to Bethel Ridge Road (Driving)
6:50 - 7:00 AM	Bethel Ridge Road
7:45 AM	Bethel Ridge Road
8:00 AM	Scott Hollow Road
Drop Off Times	
2:45-3:00 PM	Scott Hollow Road
3:00 PM	Bethel Ridge Road
3:30 - 3:45 PM	Scott Hollow Road
3:45 PM	Meadowcroft Road

APPENDIX E – TEMPORARY TRAFFIC CONTROL DETAILS (PENNDOT)

LEGEND

	Work space (hatched area)		SV Shadow Vehicle equipped with a TMA and Arrow Board in Merge Mode
	Direction of traffic flow (arrows)		SV Shadow Vehicle equipped with a TMA
	Flagger with Stop/Slow Paddle		SV Shadow Vehicle without a TMA
	Flagger with Red Flag		PV Pilot Vehicle equipped with a flashing or revolving yellow light and G20-4 sign (PILOT CAR FOLLOW ME)
	Flagger Location		WV Work Vehicle equipped with a flashing or revolving yellow light
	Channelizing Devices		Mower equipped with a flashing or revolving yellow light
	Channelizing Devices With Sequential Flashing Lights		PCMS Portable Changeable Message Sign on trailer
	Sign Location		Flashing Arrow Board on trailer
	Type III Barricade		Flashing Arrow Board (Merge Mode)
	Automated Flagger Assistance Device (AFAD)		Flashing Arrow Board (Caution Mode)
	Type B flashing light (red) Type B flashing light (yellow) Type B flashing light (white)		Portable Traffic Signal on Trailer (circles contain signal head number)
	Longitudinal Channelizing Device (e.g. water-filled barrier)		Portable Traffic Signal on Pedestal (circles contain signal head number)

GENERAL NOTES

THIS WORK CONSISTS OF THE MAINTENANCE OF TRAFFIC AND THE PROTECTION OF THE TRAVELING PUBLIC APPROACHING THE CONSTRUCTION AREA AND WITHIN THE LIMITS OF CONSTRUCTION.

FURNISH, ERECT, PLACE, AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES.
MAINTAIN TRAFFIC DURING THE HOURS OF CONSTRUCTION AND AT ALL OTHER TIMES IN ACCORDANCE WITH THE METHODS INDICATED ON THESE DRAWINGS AND THE FOLLOWING:

1. PA CODE, TITLE 67, CHAPTER 212, OFFICIAL TRAFFIC CONTROL DEVICES (PENNDOT PUBLICATION 212).
2. PENNDOT PUBLICATION 35, QUALIFIED PRODUCTS LIST FOR CONSTRUCTION (BULLETIN 15).
3. PENNDOT PUBLICATION 213, TEMPORARY TRAFFIC CONTROL GUIDELINES.
4. PENNDOT PUBLICATION 408/2020, SPECIFICATIONS.
5. PENNDOT PUBLICATION 236, HANDBOOK OF APPROVED SIGNS.
6. PENNDOT PUBLICATION 111, TRAFFIC CONTROL - PAVEMENT MARKINGS AND SIGNING STANDARDS.
7. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

IMMEDIATELY UPON COMPLETION OF THE WORK, REMOVE THE DEVICES. THE DEPARTMENT WILL REMOVE ANY TRAFFIC CONTROL DEVICES ERECTED BY DEPARTMENT FORCES.

COVER OR REMOVE ALL SIGNS NOT IN USE.

ALL SIGNS TO BE MOUNTED ON TYPE III BARRICADES UNLESS OTHERWISE NOTED.

ALL TRAFFIC CONTROL DEVICES SHALL BE NEW OR LIKE NEW CONDITION AND MAINTAINED AS SUCH.

NO.	BY	DATE	REVISION	APP'D.

PROJECT:
CORNERSTONE SOLAR, LLC
CORNERSTONE SOLAR PROJECT
CONSTRUCTION TRANSPORTATION PLAN

TITLE:
TEMPORARY TRAFFIC CONTROL DETAILS (PENNDOT)

DRAWN BY:	-	PROJ. NO.:	606374.0000
CHECKED BY:	-		
APPROVED BY:	-		**1 OF 8**
DATE:	AUGUST 29, 2025		

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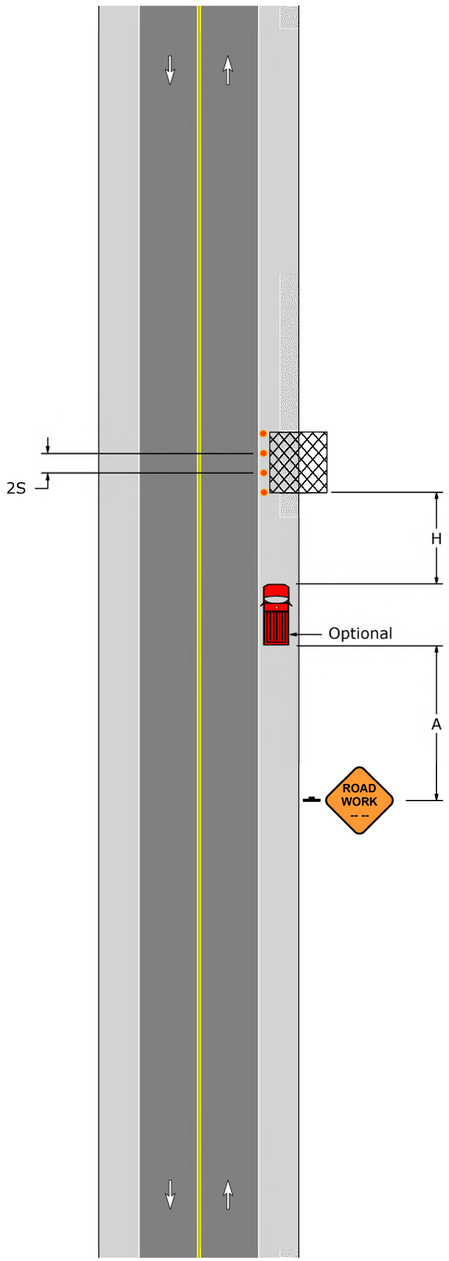
FILE NO.:

PATA FIGURE 101-A
SINGLE LANE APPROACH
NO ROADWAY ENCROACHMENT

NOT TO SCALE



PATA FIGURE 101-A NOTES:

1. The shadow vehicle and TTC devices are not required if the work space is outside the highway right-of-way, behind barrier, more than 2' behind curb, or 15' or more from the edge of the roadway.

2. For operations of 60 minutes or less, all TTC devices may be eliminated if a shadow vehicle is present and the operation does not proceed against normal traffic flow.

3. When a shadow vehicle is not used, distance A is measured from the ROAD WORK sign.

Signs

W20-1

Sign Spacing, Channelizing Device Spacing, and Roll Ahead Space

Speed	Channelizing Devices Spacing	Sign Spacing		Roll Ahead Space
		Urban	Rural	
S (MPH)	2S (Feet)	A (Feet)	A (Feet)	H (Feet)
25	50	100 - 200	500 - 800	150
30	60	100 - 200	500 - 800	150
35	70	100 - 200	500 - 800	150
40	80	350 - 500	500 - 800	150
45	90	350 - 500	500 - 800	150
50	100	350 - 500	500 - 800	250
55	110	350 - 500	500 - 800	250

NO.	BY	DATE	REVISION	APP'D.

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DRAWN BY:	-	PROJ. NO.:	606374.0000
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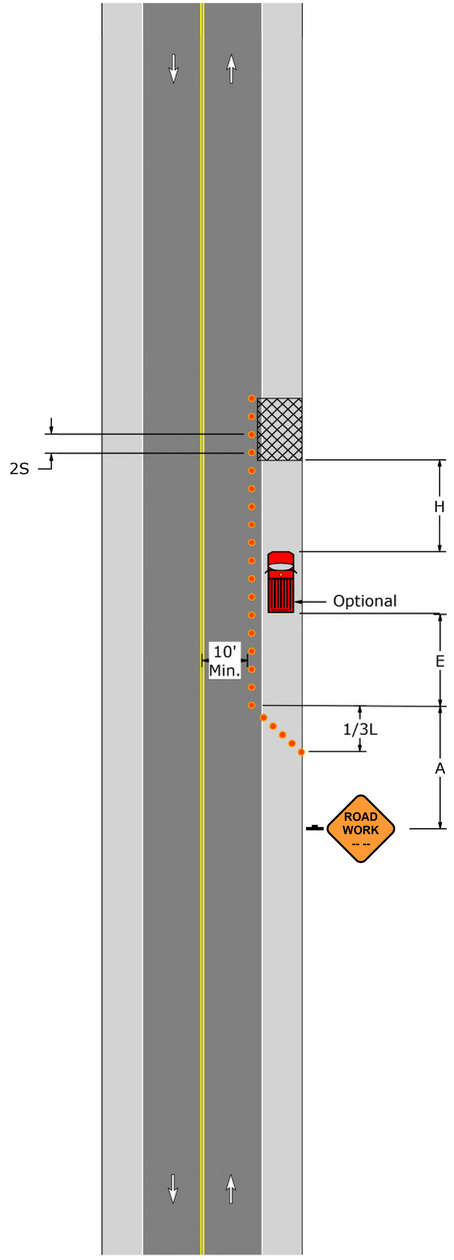
FILE NO.:

PATA FIGURE 102
SINGLE LANE APPROACH
SHOULDER WORK WITH MINOR ROADWAY ENCROACHMENT

NOT TO SCALE



PATA FIGURE 102 NOTES:

1. For operations of 15 minutes or less:

   a) The ROAD WORK sign is not required.

   b) All channelizing devices may be eliminated if a shadow vehicle is present and the operation does not proceed against normal traffic flow.

2. When a shadow vehicle is not used, distance E is measured from the end of the taper to the beginning of the work space.

Signs

W20-1

Sign Spacing, Channelizing Device Spacing, Buffer Space, and Roll Ahead Space

Speed	Channelizing Devices Spacing	Sign Spacing		Buffer Space	Roll Ahead Space
		Urban	Rural		
S (MPH)	2S (Feet)	A (Feet)	A (Feet)	E (Feet)	H (Feet)
25	50	100 - 200	500 - 800	155	150
30	60	100 - 200	500 - 800	200	150
35	70	100 - 200	500 - 800	250	150
40	80	350 - 500	500 - 800	305	150
45	90	350 - 500	500 - 800	360	150
50	100	350 - 500	500 - 800	425	250
55	110	350 - 500	500 - 800	495	250

Taper Lengths and Minimum Number of Channelizing Devices

Speed	Shoulder Taper: 1/3L	
S (MPH)	Length (Feet)	Minimum Number Of Devices
25	45	6
30	60	6
35	85	6
40	110	6
45	180	6
50	200	6
55	220	6

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DRAWN BY:	-	PROJ. NO.:	606374.0000
CHECKED BY:	-		**3 OF 8**
APPROVED BY:	-		
DATE:	AUGUST 29, 2025		

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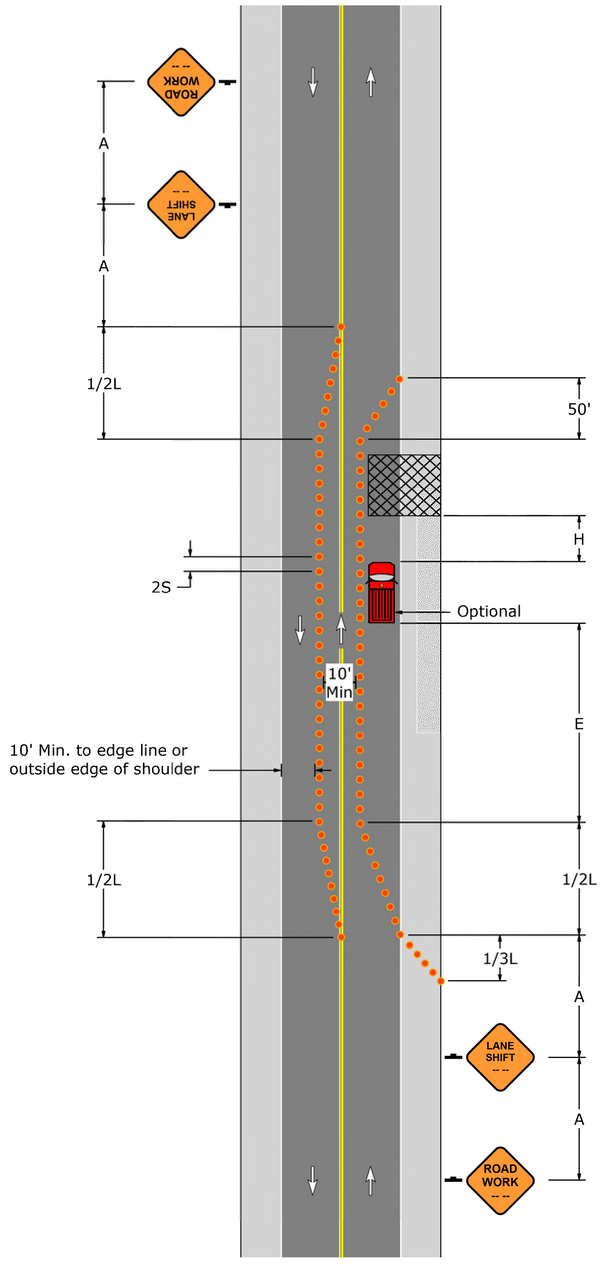
FILE NO.:

PATA FIGURE 103
SINGLE LANE APPROACH
SHOULDER WORK WITH MAJOR ROADWAY ENCROACHMENT

NOT TO SCALE



PATA FIGURE 103 NOTES:

1. The RIGHT REVERSE CURVE sign shall only be used when lane shifts onto shoulder.

2. When a shadow vehicle is not used, distance E is measured from the end of the taper to the beginning of the work space.

Signs	
	
W20-1	W5-5

Sign Spacing, Channelizing Device Spacing, Buffer Space, and Roll Ahead Space

Speed	Channelizing Devices Spacing	Sign Spacing		Buffer Space	Roll Ahead Space
		Urban	Rural		
S (MPH)	2S (Feet)	A (Feet)	A (Feet)	E (Feet)	H (Feet)
25	50	100 - 200	500 - 800	155	150
30	60	100 - 200	500 - 800	200	150
35	70	100 - 200	500 - 800	250	150
40	80	350 - 500	500 - 800	305	150
45	90	350 - 500	500 - 800	360	150
50	100	350 - 500	500 - 800	425	250
55	110	350 - 500	500 - 800	495	250

Taper Lengths and Minimum Number Of Channelizing Devices

Speed	Shifting Taper: 1/2L		Shoulder Taper: 1/3L		50' Per Lane Taper	
S (MPH)	Length (Feet)	Minimum Number Of Devices	Length (Feet)	Minimum Number Of Devices	Length (Feet)	Minimum Number Of Devices
25	65	6	45	6	50	6
30	90	6	60	6	50	6
35	125	6	85	6	50	6
40	160	6	110	6	50	6
45	270	7	180	6	50	6
50	300	7	200	6	50	6
55	330	7	220	6	50	6

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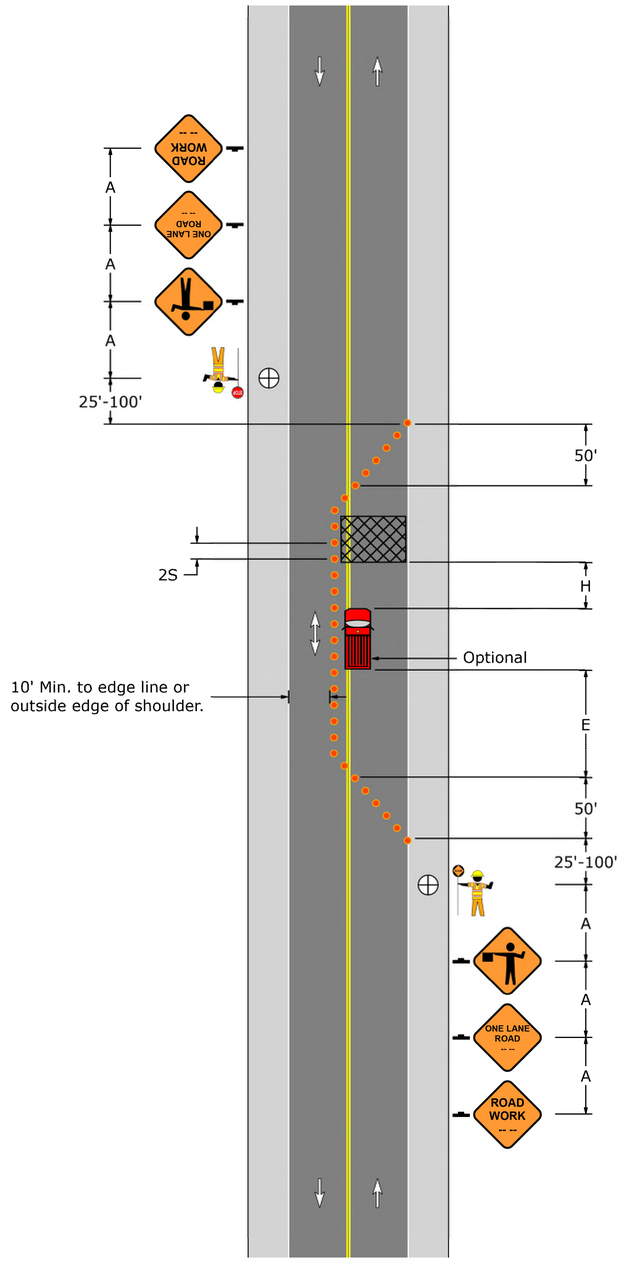
FILE NO.:

PATA FIGURE 106
WORK IN SINGLE-LANE AND CENTER LINE - TWO FLAGGERS

NOT TO SCALE



PATA FIGURE 106 NOTES:

1. Place 50' taper in closed lane as shown. Continue taper angle and spacing as needed on the opposite side of the roadway center line while maintaining a 10' minimum lane width.

2. Flaggers shall be clearly visible to traffic for a minimum distance of E.

3. When a shadow vehicle is not used, distance E is measured from the end of the taper to the beginning of the work space.

Signs		
		
W20-1	W20-4	W20-7

Sign Spacing, Channelizing Device Spacing, Buffer Space, and Roll Ahead Space					
Speed	Channelizing Devices Spacing	Sign Spacing		Buffer Space	Roll Ahead Space
		Urban	Rural		
S (MPH)	2S (Feet)	A (Feet)	A (Feet)	E (Feet)	H (Feet)
25	50	100 - 200	500 - 800	155	150
30	60	100 - 200	500 - 800	200	150
35	70	100 - 200	500 - 800	250	150
40	80	350 - 500	500 - 800	305	150
45	90	350 - 500	500 - 800	360	150
50	100	350 - 500	500 - 800	425	250
55	110	350 - 500	500 - 800	495	250

Taper Lengths and Minimum Number Of Channelizing Devices		
Speed	50' Per Lane Taper	
S (MPH)	Length (Feet)	Minimum Number Of Devices
25	50	6
30	50	6
35	50	6
40	50	6
45	50	6
50	50	6
55	50	6

NO.	BY	DATE	REVISION	APP'D.

PROJECT:
CORNERSTONE SOLAR, LLC
CORNERSTONE SOLAR PROJECT
CONSTRUCTION TRANSPORTATION PLAN

TITLE:
TEMPORARY TRAFFIC CONTROL DETAILS (PENNDOT)

DRAWN BY:	-	PROJ. NO.:	606374.0000
CHECKED BY:	-		
APPROVED BY:	-		**5 OF 8**
DATE:	AUGUST 29, 2025		

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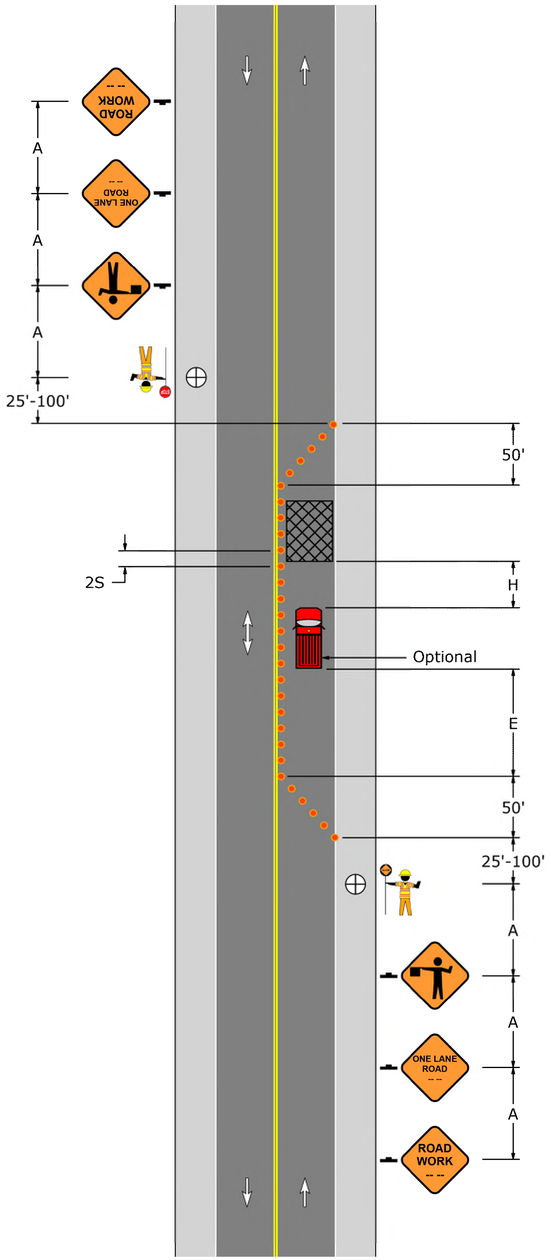
FILE NO.:

PATA FIGURE 107
WORK IN ONE - LANE - TWO FLAGGERS

NOT TO SCALE



PATA FIGURE 107 NOTES:

1. Flaggers shall be clearly visible to traffic for a minimum distance of E.

2. For operations of 15 minutes or less:

   a) The ROAD WORK, ONE LANE ROAD, and FLAGGER SYMBOL signs are not required.

   b) All channelizing devices may be eliminated if a shadow vehicle is present and the operation does not proceed against normal traffic flow.

3. When a shadow vehicle is not used, distance E is measured from the end of the taper to the beginning of the work space.

Signs		
		
W20-1	W20-4	W20-7

Sign Spacing, Channelizing Device Spacing, Buffer Space, and Roll Ahead Space					
Speed	Channelizing Devices Spacing	Sign Spacing		Buffer Space	Roll Ahead Space
		Urban	Rural		
S (MPH)	2S (Feet)	A (Feet)	A (Feet)	E (Feet)	H (Feet)
25	50	100 - 200	500 - 800	155	150
30	60	100 - 200	500 - 800	200	150
35	70	100 - 200	500 - 800	250	150
40	80	350 - 500	500 - 800	305	150
45	90	350 - 500	500 - 800	360	150
50	100	350 - 500	500 - 800	425	250
55	110	350 - 500	500 - 800	495	250

Taper Lengths and Minimum Number Of Channelizing Devices		
Speed	50' Per Lane Taper	
S (MPH)	Length (Feet)	Minimum Number Of Devices
25	50	6
30	50	6
35	50	6
40	50	6
45	50	6
50	50	6
55	50	6

NO.	BY	DATE	REVISION	APP'D.

PROJECT:
CORNERSTONE SOLAR, LLC
CORNERSTONE SOLAR PROJECT
CONSTRUCTION TRANSPORTATION PLAN

TITLE:
TEMPORARY TRAFFIC CONTROL DETAILS (PENNDOT)

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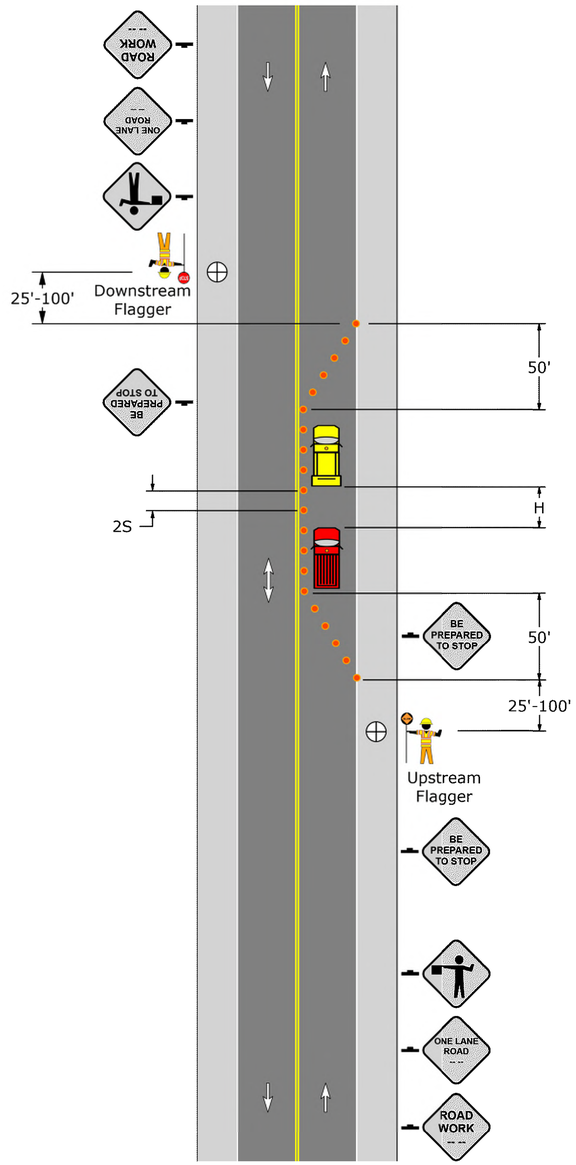
FILE NO.:

PATA FIGURE 302-1
TWO LANE, TWO-WAY APPROACH - MOBILE FLAGGING
TEMPORARY WORK STOPPAGE / SLOWDOWN

NOT TO SCALE



PATA FIGURE 302-1 NOTES:

Signs				
ROAD WORK	ONE LANE ROAD		BE PREPARED TO STOP	PILOT CAR FOLLOW ME
W20-1	W20-4	W20-7	W3-4	G20-4

Sign Spacing, Channelizing Device Spacing, Roll Ahead Space, and Flagger Visibility

Speed	Channelizing Devices Spacing	Sign Spacing		Roll Ahead Space	Flagger Visibility
		Urban	Rural		
S (MPH)	2S (Feet)	A (Feet)	A (Feet)	H (Feet)	E (Feet)
25	50	100 - 200	500 - 800	150	155
30	60	100 - 200	500 - 800	150	200
35	70	100 - 200	500 - 800	150	250
40	80	350 - 500	500 - 800	150	305
45	90	350 - 500	500 - 800	150	360
50	100	350 - 500	500 - 800	250	425
55	110	350 - 500	500 - 800	250	495

Taper Lengths and Minimum Number of Channelizing Devices

Speed	50' Per Lane Taper	
S (MPH)	Length (Feet)	Minimum Number of Devices
25	50	6
30	50	6
35	50	6
40	50	6
45	50	6
50	50	6
55	50	6

NO.	BY	DATE	REVISION	APP'D.

PROJECT:
CORNERSTONE SOLAR, LLC
CORNERSTONE SOLAR PROJECT
CONSTRUCTION TRANSPORTATION PLAN

TITLE:
TEMPORARY TRAFFIC CONTROL DETAILS (PENNDOT)

DRAWN BY: -
CHECKED BY: -
APPROVED BY: -
DATE: AUGUST 29, 2025
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PATA FIGURE 302-1 NOTES CONTINUED:

1. Flaggers are permitted to relocate by walking with the operation if minimum visibility (Distance E) to approaching traffic and control of traffic is maintained.

2. Utilize the Flagger Relocation Methods (Figures 302-2 through 302-13) to relocate flaggers when minimum visibility (Distance E) to approaching traffic or control of traffic cannot be maintained. The three methods to relocate flaggers are:

a) Walking
- Downstream Flagger (Figures 302-2 & 302-3)
- Upstream Flagger (Figures 302-4 & 302-5)

b) Work Vehicle
- Downstream Flagger (Figures 302-6 & 302-7)
- Upstream Flagger (Figures 302-8 & 302-9)

c) Pilot Vehicle
- Downstream Flagger (Figures 302-10 & 302-11)
- Upstream Flagger (Figures 302-12 & 302-13)

Note: Adjustments may be made to the flagger relocation methods (Figures 302-2 through 302-13) to accommodate the operation.

3. Flaggers are not permitted to relocate while holding stopped traffic.

4. Interim BE PREPARED TO STOP signs are required for any project over 1 mile in length and shall be spaced at intervals not exceeding one mile.

5. If a pilot vehicle is utilized:

a) The highway ADT must be 5000 or less.

b) Distance and time requirements (i.e. minimum of 100' every 15 minutes) for mobile operations are waived.

c) The shadow vehicle is optional. When a shadow vehicle is not used, 100' minimum is required from the upstream flagger to the rear of the work vehicle or nearest worker, whichever is closer.

6. If a mobile operation moves too slowly to meet the distance and time requirements (i.e. minimum of 100' every 15 minutes), one of the following options shall be utilized:

a) A pilot vehicle.

b) Set up the Temporary Work Stoppage/Slowdown (Figure 302-1).
- May be used for a maximum of 60 consecutive minutes. Utilize one of the other options if the temporary work stoppage/slowdown will exceed 60 minutes.

c) Set up a short-term stationary PATA (100 Series).

d) Remove workers and equipment from the roadway until the operation can resume.

NO.	BY	DATE	REVISION	APP'D.

PROJECT:
CORNERSTONE SOLAR, LLC
CORNERSTONE SOLAR PROJECT
CONSTRUCTION TRANSPORTATION PLAN

TITLE:
TEMPORARY TRAFFIC CONTROL DETAILS (PENNDOT)

DRAWN BY:	-
CHECKED BY:	-
APPROVED BY:	-
DATE:	AUGUST 29, 2025

PROJ. NO.: 606374.0000

8 OF 8

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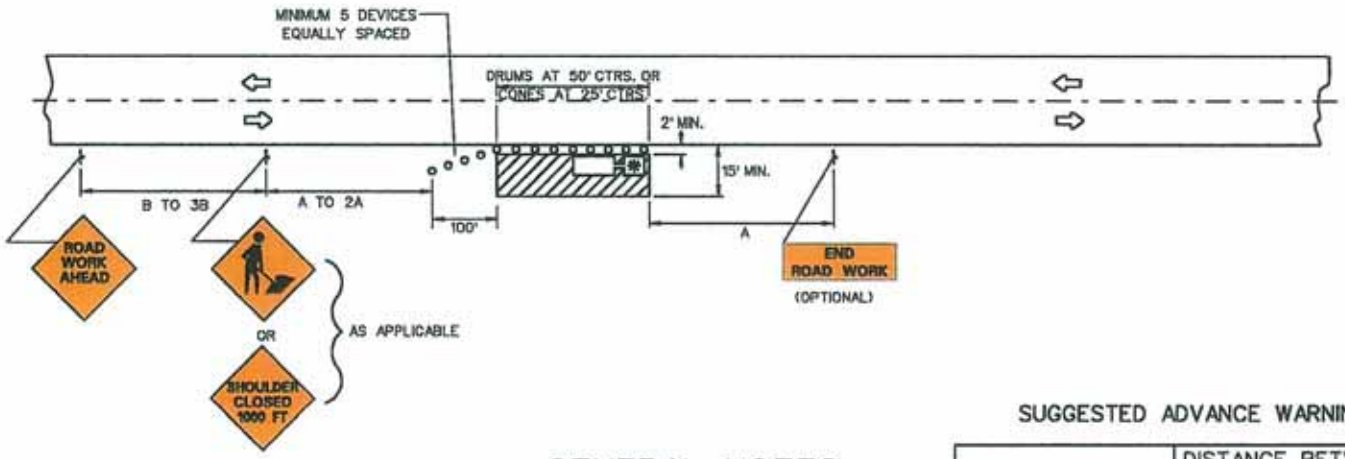
FILE NO.:

APPENDIX F – TEMPORARY TRAFFIC CONTROL DETAILS (WVDOH)



SYMBOLS

- WORK AREA.
- SIGN
- SIGN ON PORTABLE OR PERMANENT SUPPORT.
- CONES OR DRUMS.

TYPICAL APPLICATIONS

CULVERT EXTENSIONS.
SIDE SLOPE CHANGES.
GUARDRAIL INSTALLATION AND MAINTENANCE.
DELINEATOR INSTALLATION AND MAINTENANCE.
LANDSCAPING OPERATIONS.
CLEANING DITCHES AND DRAINAGE STRUCTURES.
SHOULDER REPAIR.
ADJACENT WORK ON SIDE ROADS/BRIDGES
SIGNING OPERATIONS.

GENERAL NOTES

1. OVERNIGHT OPERATIONS ILLUSTRATED AND IF SUCH, USE DRUMS. FOR DAYLIGHT OPERATIONS ONLY, USE CONES OR DRUMS AS DIRECTED BY THE ENGINEER.
2. ANY UNATTENDED OBSTACLE OR EXCAVATION IN THE WORK AREA OVERNIGHT SHALL BE PROTECTED BY TYPE I OR TYPE II BARRICADES.
3. IF THE WORK OPERATION REQUIRES THAT FOUR OR MORE WORK VEHICLES ENTER THE THROUGH TRAFFIC LANES IN A ONE HOUR PERIOD A FLAGGER SHALL BE PROVIDED AND THE FLAGGER SIGN SHALL BE USED (AT 500 FT. IN ADVANCE).
4. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
5. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ABOVE WARNING SIGNS, AS NEEDED ON THE PLANS, AND/OR AS DIRECTED BY THE ENGINEER.

* WORK VEHICLE (IF USED) SHALL HAVE DUAL FLASHERS AND FLASHING AMBER DOME LIGHT OPERATING.

SUGGESTED ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS (IN FT)		
	A	B	C
URBAN (LOW SPEED)*	100	100	100
URBAN (HIGH SPEED)*	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1,000	1,500	2,640

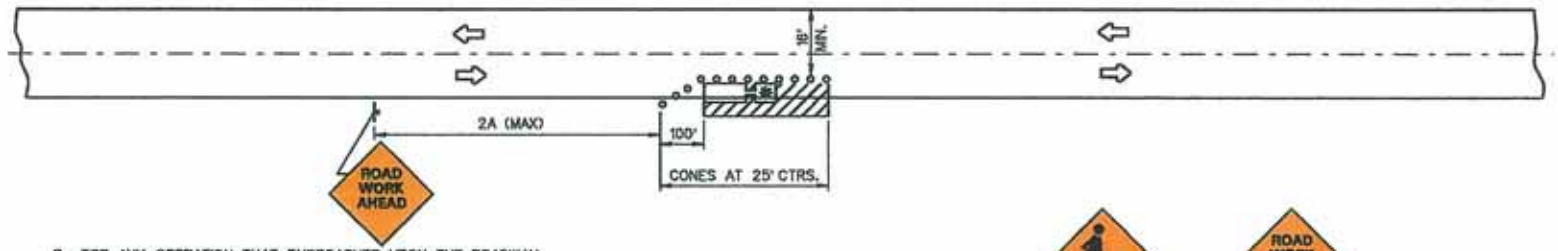
*SPEED CATEGORY TO BE DETERMINED BY WV DOH

CASE A3

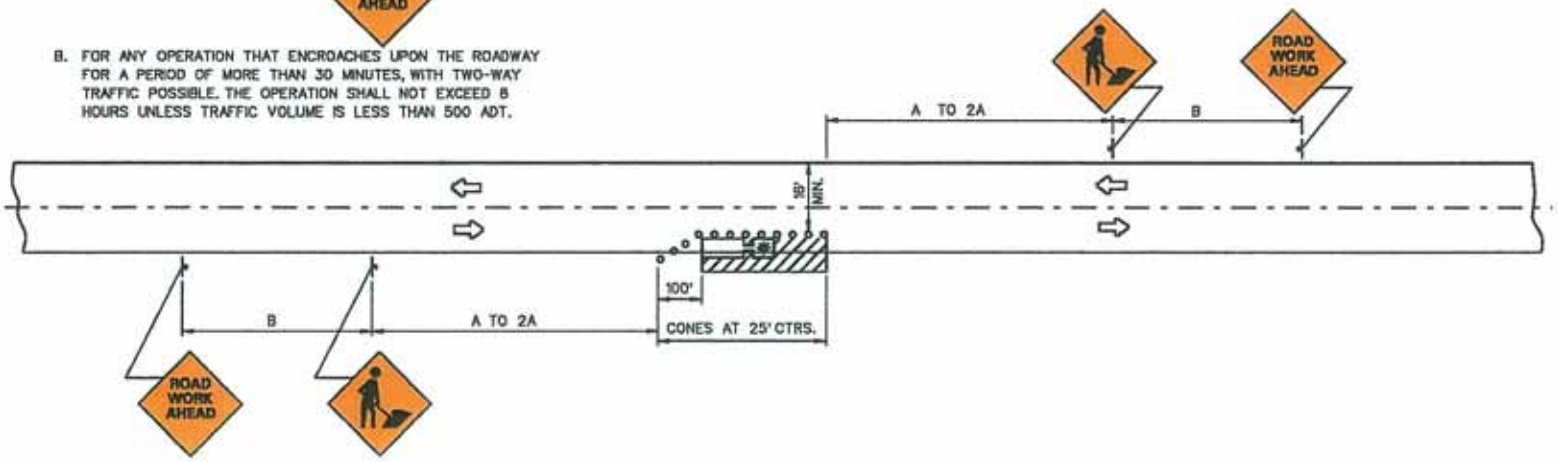
TWO-LANE, TWO-WAY TRAFFIC.
DAY OR NIGHT OPERATIONS.
(STATIONARY)

WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES WILL ENCROACH IN THE AREA BETWEEN 2 FT. AND 15 FT. FROM THE EDGE OF PAVEMENT.

A. FOR ANY OPERATION THAT ENCROACHES UPON THE ROADWAY FOR A PERIOD OF LESS THAN 30 MINUTES, WITH TWO-WAY TRAFFIC POSSIBLE.



B. FOR ANY OPERATION THAT ENCROACHES UPON THE ROADWAY FOR A PERIOD OF MORE THAN 30 MINUTES, WITH TWO-WAY TRAFFIC POSSIBLE. THE OPERATION SHALL NOT EXCEED 8 HOURS UNLESS TRAFFIC VOLUME IS LESS THAN 500 ADT.



SYMBOLS

- WORK AREA.
- SIGN
- SIGN ON PORTABLE OR PERMANENT SUPPORT.
- CONES

GENERAL NOTES

1. IF THE WORK OPERATION REQUIRES THAT FOUR OR MORE WORK VEHICLES ENTER THE THROUGH TRAFFIC LANES IN A ONE HOUR PERIOD A FLAGGER SHALL BE PROVIDED AND THE FLAGGER SIGN SHALL BE USED OR SUBSTITUTED FOR THE SECOND ADVANCE SIGN.
2. ANY UNATTENDED OBSTACLE OR EXCAVATION IN THE WORK AREA SHALL BE PROTECTED BY TYPE I OR TYPE II BARRICADES, AND IF NIGHTTIME WITH FLASHING LIGHTS (TYPE "A").
3. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
4. IF IT BECOMES NECESSARY TO OPERATE ONE LANE TRAFFIC, CASE A6 OR CASE A11 SHALL APPLY AS APPROPRIATE.

* WORK VEHICLE SHALL HAVE DUAL FLASHERS AND FLASHING AMBER DOME LIGHT OPERATING.

TYPICAL APPLICATIONS

SIGNING OPERATIONS.
MAINTENANCE OPERATIONS.
GUARDRAIL MAINTENANCE.
SIGNAL AND LIGHTING MAINTENANCE.
UTILITY OPERATIONS.

SUGGESTED ADVANCE WARNING SIGN SPACING

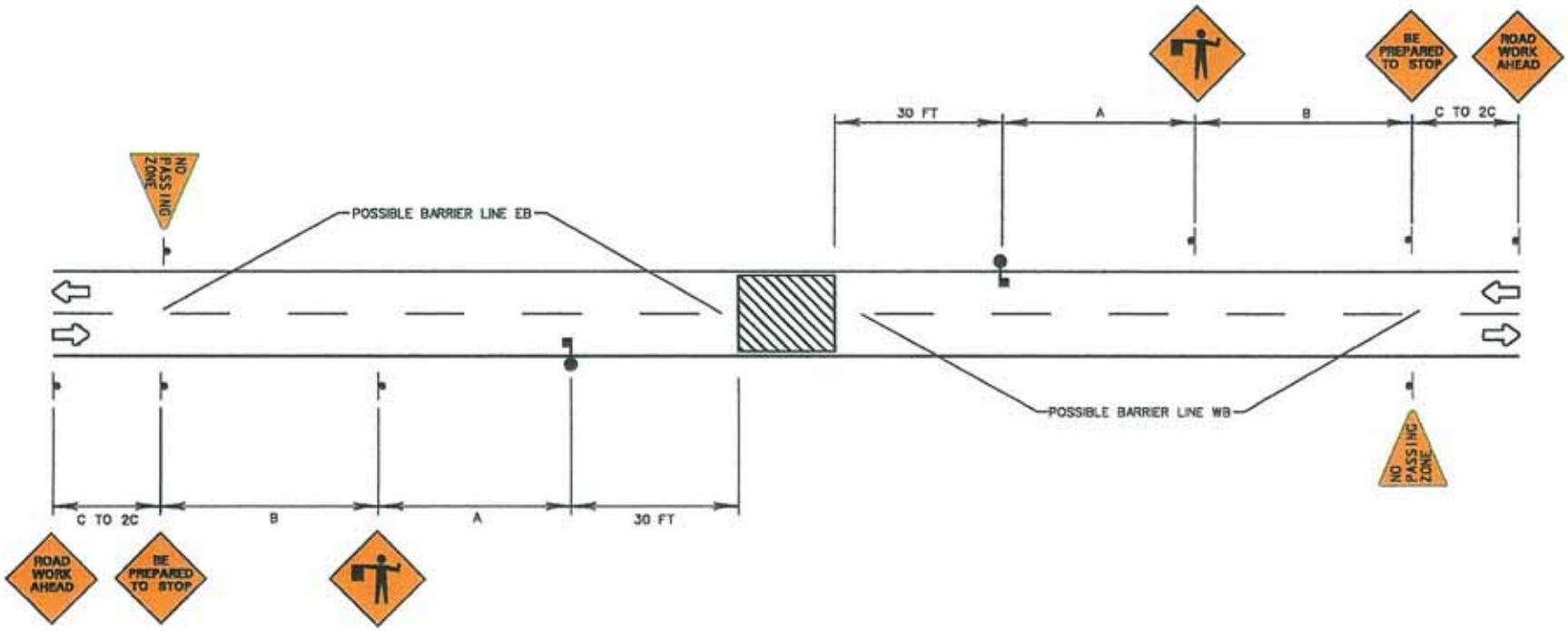
ROAD TYPE	DISTANCE BETWEEN SIGNS (IN FT)		
	A	B	C
URBAN (LOW SPEED)*	100	100	100
URBAN (HIGH SPEED)*	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1,000	1,500	2,640

*SPEED CATEGORY TO BE DETERMINED BY WV DOH

CASE A4

TWO-LANE, TWO-WAY TRAFFIC, DAY OR NIGHT OPERATIONS. FOR LESS THAN 8 HOURS OR FOR LESS THAN 500 ADT

WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES WILL ENCROACH UPON THE ROADWAY, MAINTAINING TWO-WAY TRAFFIC



SYMBOLS

- WORK AREA.
- SIGN ON PORTABLE OR PERMANENT SUPPORT.
- FLAGGER WITH PADDLE.

GENERAL NOTES

1. CONDITIONS REPRESENTED ARE FOR A PLANNED CLOSURE NOT EXCEEDING 30 MINUTES DURING THE DAYTIME.
2. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
3. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ABOVE WARNING SIGNS, AS NEEDED ON THE PLANS, AND/OR AS DIRECTED BY THE ENGINEER.

SUGGESTED ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS (IN FT)		
	A	B	C
URBAN (LOW SPEED)*	100	100	100
URBAN (HIGH SPEED)*	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1,000	1,500	2,640

*SPEED CATEGORY TO BE DETERMINED BY WV DOH

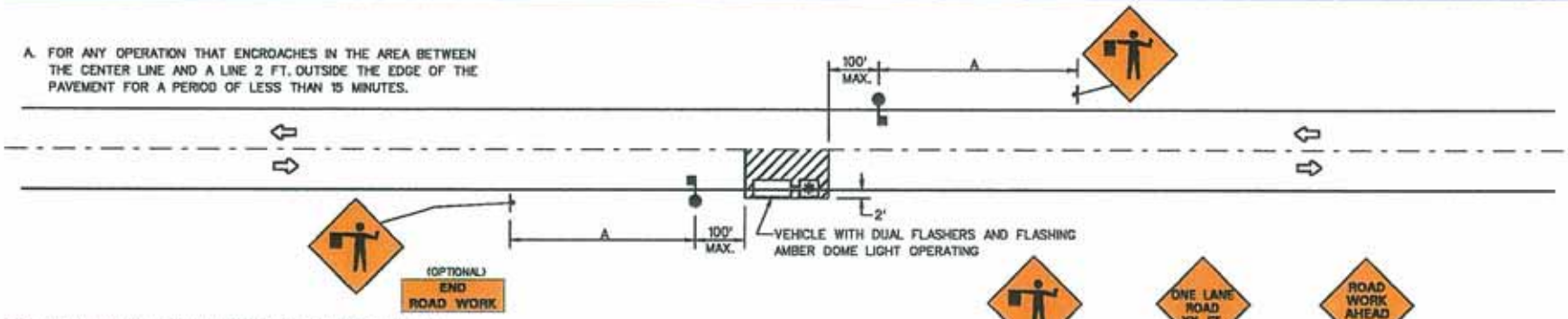
TYPICAL APPLICATIONS

SHORT TERM CLOSING
SHORT TERM UTILITY CROSSING FOR TWO OR THREE LANE ROADWAYS
HAUL ROADS

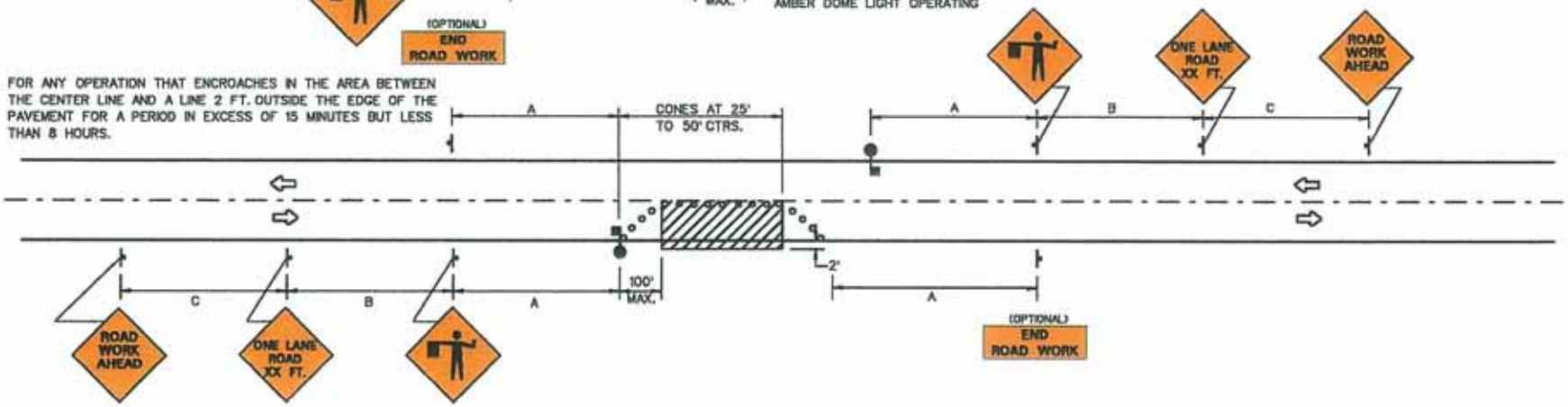
CASE A5

TWO-LANE, TWO-WAY TRAFFIC.
SHORT TERM OPERATIONS.
DAYTIME ONLY.

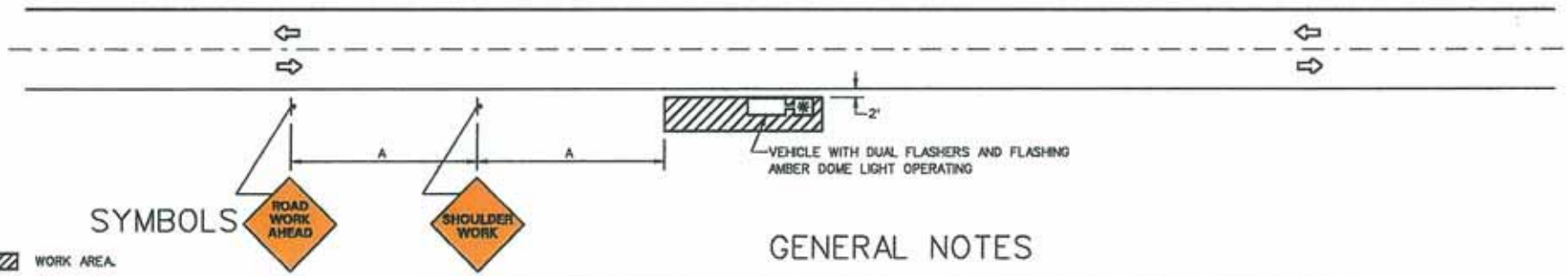
A. FOR ANY OPERATION THAT ENCROACHES IN THE AREA BETWEEN THE CENTER LINE AND A LINE 2 FT. OUTSIDE THE EDGE OF THE PAVEMENT FOR A PERIOD OF LESS THAN 15 MINUTES.



B. FOR ANY OPERATION THAT ENCROACHES IN THE AREA BETWEEN THE CENTER LINE AND A LINE 2 FT. OUTSIDE THE EDGE OF THE PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES BUT LESS THAN 8 HOURS.



C. FOR ANY OPERATION THAT IS MORE THAN 2 FT. OUTSIDE THE EDGE OF THE PAVEMENT FOR A PERIOD OF LESS THAN 60 MINUTES.



SYMBOLS

- WORK AREA.
- SIGN
- SIGN ON PORTABLE OR PERMANENT SUPPORT.
- FLAGGER WITH PADDLE.
- CONES

TYPICAL APPLICATIONS

PATCHING PAVEMENT.
FIELD SURVEY.
CLEANING UP DEBRIS ON PAVEMENT.
CROSSWALK PAINTING.

GENERAL NOTES

1. CONSTRUCTION OPERATIONS SHALL BE CONFINED TO ONE TRAFFIC LANE, LEAVING THE OPPOSITE LANE OPEN TO TRAFFIC. AT LEAST 500 FT. OF BOTH TRAFFIC LANES SHALL BE AVAILABLE FOR TRAFFIC MOVEMENT AT INTERVALS NOT GREATER THAN 1,000 FT. A COMPLETE TRAFFIC CONTROL PLAN MUST BE APPROVED FOR ANY PROJECT EXPECTING TO EXCEED 1,000 FT. IN LENGTH INCLUDING BOTH TAPER AND WORK AREAS.
2. FOR LOW-VOLUME SITUATIONS WITH SHORT WORK ZONES ON STRAIGHT ROADWAYS WHERE THE FLAGGER IS VISIBLE TO ROAD USERS APPROACHING FROM BOTH DIRECTIONS, A SINGLE FLAGGER, POSITIONED TO BE VISIBLE TO ROAD USERS APPROACHING FROM BOTH DIRECTIONS, MAY BE USED.
3. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS.
4. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
5. ALL SIGNS ARE TO BE REMOVED AT COMPLETION OF THE DAY'S OPERATIONS.
6. FOR MULTILANE DIVIDED ROADWAYS THE ADVANCE WARNING SIGNS FOR TRAFFIC APPROACHING FROM THE OPPOSITE DIRECTION MAY BE OMITTED IF APPROVED BY THE ENGINEER.

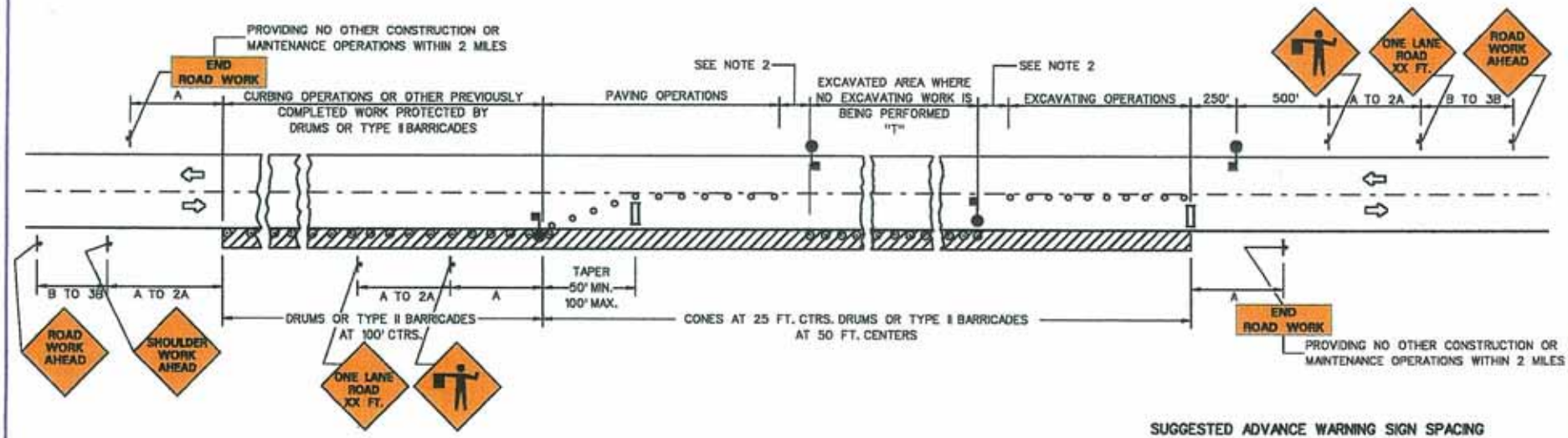
SUGGESTED ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS (IN FT)		
	A	B	C
URBAN (LOW SPEED)*	100	100	100
URBAN (HIGH SPEED)*	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1,000	1,500	2,640

*SPEED CATEGORY TO BE DETERMINED BY WV DOH

CASE A6

TWO-LANE, TWO-WAY TRAFFIC
SHORT-TERM OPERATIONS
DAYTIME ONLY



SUGGESTED ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS (IN FT)		
	A	B	C
URBAN (LOW SPEED)*	100	100	100
URBAN (HIGH SPEED)*	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1,000	1,500	2,640

*SPEED CATEGORY TO BE DETERMINED BY WV DOH

SYMBOLS

- WORK AREA.
- SIGN
- CONES OR DRUMS. (TYPE II BARRICADES OPTIONAL) AS APPLICABLE
- SIGN ON PORTABLE OR PERMANENT SUPPORT.
- FLAGGER WITH PADDLE.
- TYPE III BARRICADE.
- CHANNELIZATION DEVICES (DRUMS OR CONES).

GENERAL NOTES

1. WHERE DISTANCE "T" EXCEEDS 1,500 FT. ADDITIONAL ONE LANE ROAD 1,000 FT., AND FLAGGER SIGNS (AS NECESSARY) SHALL BE INSTALLED. THE CONES, DRUMS, OR BARRICADES MAY BE REMOVED THROUGH THE "T" AREA, AN ADDITIONAL TAPER SHALL BE FORMED BY CONES OR DRUMS IN ADVANCE OF THE EXCAVATING OPERATIONS, ADDITIONAL FLAGGER WILL BE REQUIRED AND THE EXCAVATED AREA SHALL BE PROTECTED BY DRUMS OR TYPE II BARRICADES AT 50 FT. CENTERS.
2. MINIMUM DISTANCE IS 100 FT. WHEN "T" EXCEEDS 1,500 FT., DISTANCE SHALL BE 250 FT.
3. NO PAVING OR EXCAVATING OPERATIONS SHALL BE PERFORMED AT NIGHT UNLESS AUTHORIZED BY THE ENGINEER. WHEN THESE OPERATIONS ARE SUSPENDED ALL VEHICLES AND EQUIPMENT INCLUDING APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE PAVEMENT AND THE EXCAVATED AREA SHALL BE PROTECTED BY DRUMS OR TYPE II BARRICADES AT 50-FOOT CENTERS. ROAD WORK AHEAD AND SHOULDER WORK AHEAD SIGNS SHALL BE INSTALLED AS SHOWN TO PROTECT THE CURING OPERATIONS; ROAD WORK AHEAD AND ROAD WORK 1000 FT. SIGNS SHALL BE INSTALLED FOR TRAFFIC IN THE OPPOSITE DIRECTION.
4. CONSTRUCTION OPERATIONS SHALL BE CONFINED TO ONE TRAFFIC LANE AT A TIME LEAVING THE OPPOSITE LANE OPEN TO TRAFFIC. AT LEAST 500 FT. OF BOTH TRAFFIC LANES SHALL BE AVAILABLE FOR TRAFFIC MOVEMENT AT INTERVALS NOT GREATER THAN 2,500 FT. A COMPLETE TRAFFIC CONTROL PLAN MUST BE APPROVED FOR ANY PROJECT EXPECTED TO EXCEED 5,000 FT. IN LENGTH INCLUDING BOTH TAPER AND WORK AREA.
5. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
6. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS THREE DAYS.
7. WHEN A SIDE ROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED ADDITIONAL TRAFFIC CONTROL DEVICES SHALL BE ERECTED AS DIRECTED BY THE ENGINEER.
8. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ABOVE WARNING SIGNS, AS NEEDED ON THE PLANS, AND/OR AS DIRECTED BY THE ENGINEER.

TYPICAL APPLICATIONS

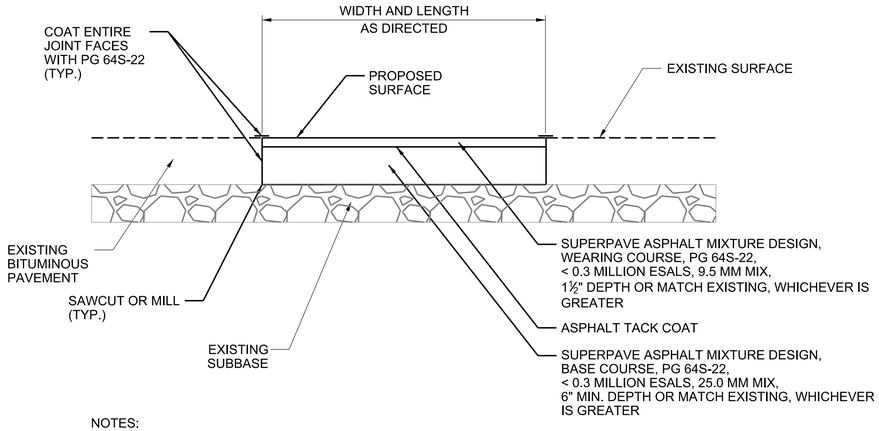
PAVEMENT WIDENING.
SHOULDER WORK.

CASE A9

TWO-LANE, TWO-WAY TRAFFIC
WIDENING OF PAVEMENT
DAY OR NIGHT OPERATIONS

WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES WILL ENCROACH ON THE PAVEMENT DURING PAVEMENT WIDENING OPERATIONS.

APPENDIX G – ROADWAY REPAIR DETAILS

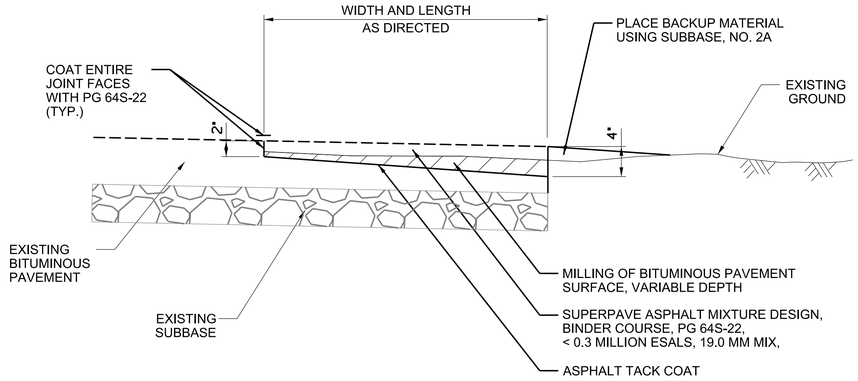


NOTES:

1. MILL OR SAWCUT / EXCAVATE TO TOP OF SUBBASE AS DIRECTED BY THE REPRESENTATIVE.
2. RECOMPACT SUBGRADE/SUBBASE TO NON-MOVEMENT.
3. PREPARE EXPOSED VERTICAL AND HORIZONTAL SURFACES AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 413.3(g).
4. PLACE EDGE FLUSH WITH EXISTING PAVEMENT AND SEAL AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 413.3(k).
5. CONSTRUCT FLEXIBLE BASE REPAIR AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTIONS 313 AND 413.
6. INSTALL ASPHALT TACK COAT AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 460.

FLEXIBLE BITUMINOUS BASE REPAIR DETAIL

NOT TO SCALE

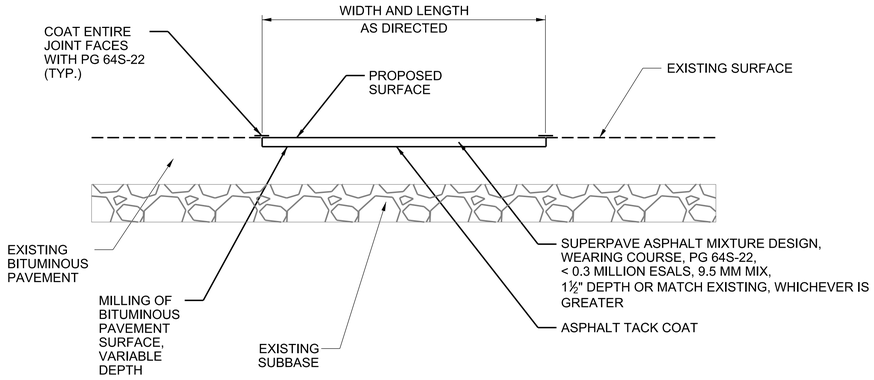


NOTES:

1. MILL TO DEPTH AS DIRECTED BY THE REPRESENTATIVE.
2. PREPARE EXPOSED VERTICAL AND HORIZONTAL SURFACES AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 413.3(g).
3. PLACE EDGE FLUSH WITH EXISTING PAVEMENT AND SEAL AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 413.3(k).
4. CONSTRUCT FLEXIBLE EDGE REPAIR AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 413.
5. INSTALL ASPHALT TACK COAT AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 460.

FLEXIBLE BITUMINOUS EDGE REPAIR DETAIL

NOT TO SCALE

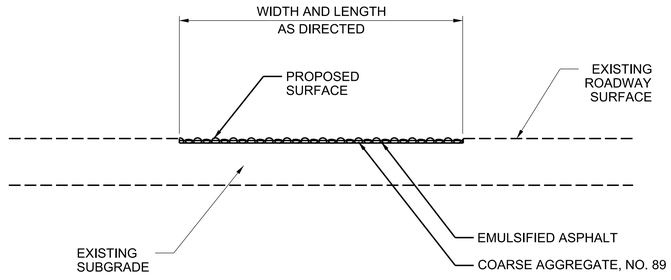


NOTES:

1. MILL AREA AS DIRECTED BY THE REPRESENTATIVE.
2. PREPARE EXPOSED VERTICAL AND HORIZONTAL SURFACES AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 413.3(g).
3. PLACE EDGE FLUSH WITH EXISTING PAVEMENT AND SEAL AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 413.3(k).
4. CONSTRUCT FLEXIBLE BASE REPAIR AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 413.
5. INSTALL ASPHALT TACK COAT AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 460.

FLEXIBLE BITUMINOUS SURFACE REPAIR DETAIL

NOT TO SCALE



NOTES:

1. COMPLETE REPAIR AREA AS DIRECTED BY THE REPRESENTATIVE.
2. RECOMPACT SUBGRADE TO NON-MOVEMENT.
3. CONSTRUCT ASPHALT SEAL COAT REPAIR AS SPECIFIED IN PENNDOT PUBLICATION 408, SECTION 470 IN AREAS WHERE EXISTING SURFACE MATERIAL LOSS OCCURED.

ASPHALT SEAL SURFACE REPAIR DETAIL

NOT TO SCALE

NO.	BY	DATE	REVISION	APP'D.

PROJECT:

CORNERSTONE SOLAR, LLC
CORNERSTONE SOLAR PROJECT
CONSTRUCTION TRANSPORTATION PLAN

TITLE:

ROADWAY REPAIR DETAILS

DRAWN BY:	-	PROJ. NO.:	606374.0000
CHECKED BY:	-		**1 OF 1**
APPROVED BY:	-		
DATE:	AUGUST 29, 2025		

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FILE NO.:

MS-0450-0004
Driving Surface Aggregate (DSA) and Material Requirements

I. DESCRIPTION — This work is the construction of Driving Surface Aggregate. When placed on subgrade, this work includes the preparation of subgrade as specified in Publication 408, Section 210.

II. MATERIAL — Obtain Material from a source listed in Bulletin 14 if using liquid fuels monies.

A. Certification. Certification. MS-447A

B. Aggregate. Publication 408, Section 703 and as follows:

PASSING SIEVE	MINIMUM	MAXIMUM
37.5 mm (1½ Inch)	100%	
19 mm (¾ Inch)	65%	95%
4.75 mm (#4)	30%	65%
1.18 mm (#16)	15%	30%
75 µm (#200)	10%	15%

Quality Control
Determine the resistance to degradation using the Los Angeles Abrasion test, AASHTO T-96 (ASTM C 131). The loss of mass shall be less than 40%. Existing tests made for and approved by PennDOT will be accepted. Testing will be performed by an independent lab at the owner's expense.

Aggregate will be within the range of pH 6 – pH 12.45 as measured by EPA 9045C. Testing will be performed by an independent lab at the owner's expense.

Derive 95% of the aggregate mix from the crushing of clean rock material. If 10% of the aggregate mix does not pass the #200 sieve, utilize up to 5% external source material approved by the engineer to the mix. Do not add clay or silt. Determine the amount of particles less than # 200 sieve size by using the washing procedures specified in PTM No. 100. Lime kiln Dust and cement Kiln Dust may be added to DSA to account for up to 50% of the fines passing the #200 sieve.

III. CONSTRUCTION —

A. Equipment: Spreaders. Publication 408, Section 320.3(a)3, Paver preferred
Compaction Equipment. Publication 408, Section 108.05(c) 3.a, 3.b, 3.e, 4.

B. General. Prepare the subgrade as specified in Publication 408, Section 210 and as follows, before placing (DSA). Do not place (DSA) material on soft, muddy, or frozen areas.

Correct unsatisfactory subgrade conditions developing ahead of the paving operations by scarifying, reshaping, and recompacting, or by replacing the subgrade. The subgrade must be crowned to ½ to ¾ inch per foot, flat "A" cross profile. This may be precluded by the absence of sufficient material such as occurs when bedrock is exposed.
When required, evenly place separation fabric according to manufacturer's recommendations, after scarification.

C. Mixing. Use acceptable methods to mix (DSA) and water to obtain optimum moisture content for the mix as determined by PTM No. 106 before delivery to the project. Use material containing optimum moisture to prevent segregation during stockpiling, hauling, placing, and to minimize water added during compaction. Maintain (DSA) aggregate at optimum moisture from before placement to compaction. AASHTO T-99, ASTM D698, or PA Test Method No. 106.

D. Transport. Use tarps to cover 100% of the load's exposed surface from the time of loading until immediately before placement.

E. Placement. Place the (DSA) on the subgrade using a paver without causing segregation.

Place (DSA) to a minimum un-compacted depth of 6 inches and a maximum un-compacted depth of 8 inches in one lift. The crown or side slope must range from ½ to ¾ inch per foot, for road widths up to 20 feet.

Material is to be be delivered and placed at optimum moisture content +/- 1% as determined for that particular source. The optimum percentage moisture is to be determined using Proctor Test ASTM D698, procedure C, standard.

F. Compaction. Compaction and Density. Compact DSA to between 95% and 100% of the maximum dry-mass (dry-weight) density, determined according to PTM No. 106, Method B. At locations directed by the owner, determine the in-place density for each 2500 m2 (3,000 square yards), of each layer according to AASHTO T 191 or T 310.

Beginning on the lower or berm side of the crown, begin rolling and work to the top of the crown by overlapping the successive longitudinal passes. Utilize static mode on the initial and downgrade passes. Do not run the roller lengthwise directly over the crown. Compact to specified density requirements, using equipment specified is Publication 408, Section 108.05(c) 3.a, 3.b, 3.e, or 4.

G. Incidental. To fill driving surface areas outside the specified width, such as driveway entrances, turnouts and wider passing lanes, add additional new DSA material to fill to the same depth specified throughout the project. If berm edges do not exist to hold the fill, then place, taper and compact sufficient material to form protective edge berms.

H. Plasticity Index. Material must not exceed Plasticity Index (PI) rating of 6. The laboratory test required for there results is ASTM-D4318-Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.