

STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION  
PLANS FOR PROPOSED

**PROJECT 000N-491**  
**SD HIGHWAY 89 & 87**  
**CUSTER & PENNINGTON COUNTIES**

TREE CLEARING  
PCN i4ct

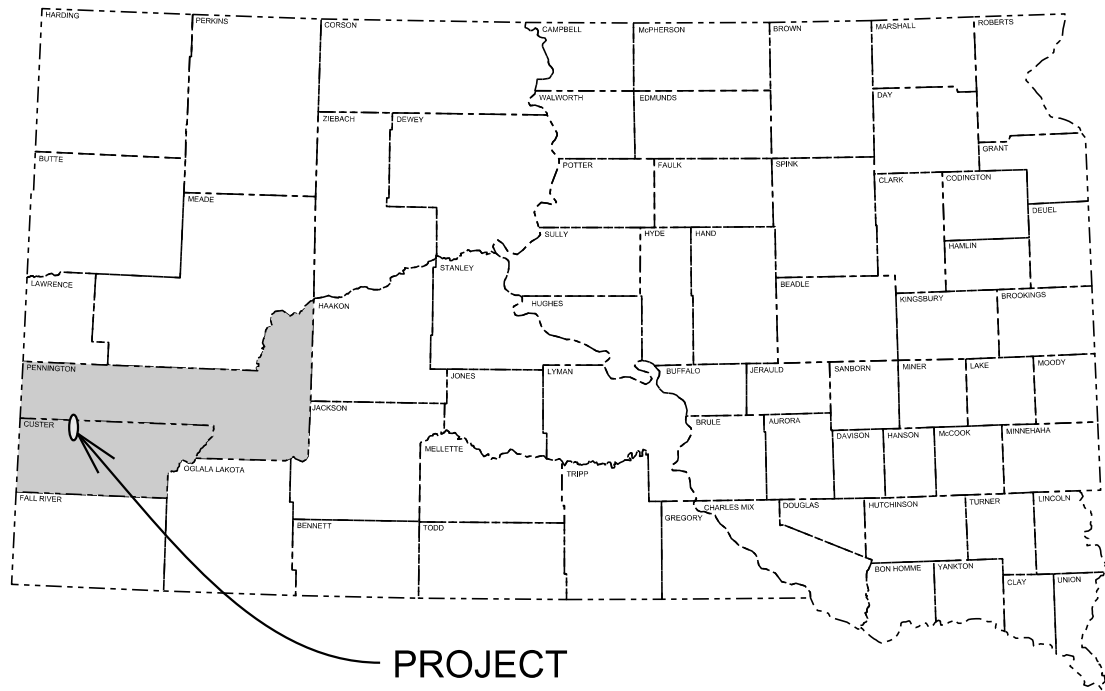
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	000N-491	1	5

Plotting Date: 05/11/2016

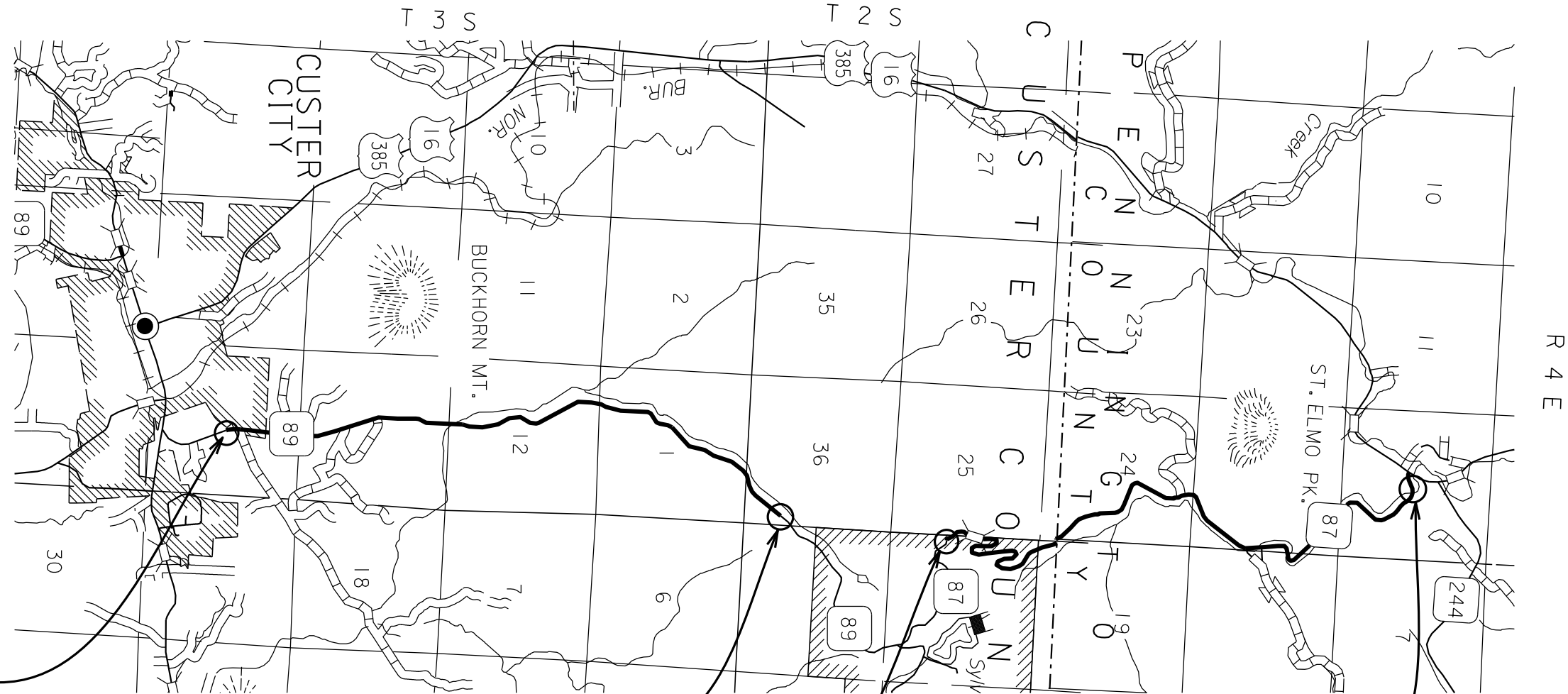
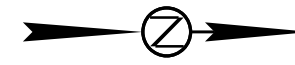
INDEX OF SHEETS

- 1 General Layout with Index
- 2-4 Estimate With General Notes & Tables
- 5 Standard Plates

Plot Scale - 1:200



PROJECT



**SD HWY 89**  
**DESIGN DESIGNATION**

ADT (2015)	784
ADT (2036)	953
DHV	151
D	51%
T DHV	2.5%
T ADT	5.5%
V	45 & 35 MPH

**SD HWY 87**  
**DESIGN DESIGNATION**

ADT (2015)	585
ADT (2036)	711
DHV	112
D	51%
T DHV	3.9%
T ADT	8.5%
V	35 MPH

**STORM WATER PERMIT**  
None Required

BEGIN PROJECT 000N-491  
SD HWY 89  
MRM 58.6

END PROJECT 000N-491  
SD HWY 89  
MRM 63.0

BEGIN PROJECT 000N-491  
SD HWY 87  
MRM 74.4

END PROJECT 000N-491  
SD HWY 87  
MRM 79.3

Plotted From - trc11610

File - ...i4ct\_title.dgn

# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	000N-491	2	5

## Estimate of Quantities – PCN i4ct

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
100E0020	Clear and Grub Tree	1,333	Each
634E0010	Flagging	200.0	Hour
634E0110	Traffic Control Signs	137.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

### SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	000N-491	3	5

## ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

### COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

#### COMMITMENT B2: WHOOPING CRANE

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

#### Action Taken/Required:

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pit, or staging site associated with the project, cease construction activities in the affected area until the Whooping Crane departs and contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

### COMMITMENT D: WATER QUALITY STANDARDS

#### COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

#### Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

### COMMITMENT H: WASTE DISPOSAL SITE

The Contractor shall furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

#### Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the Public ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the Public ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".
2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

### COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

#### Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

### COMMITMENT R: FIRE PREVENTION IN THE BLACK HILLS AREA

This project is located within the confines of the Black Hills Forest Fire Protection Boundary.

#### Action Taken/Required:

The Contractor shall adhere to the "Special Provision for Fire Plan".

**WORK DESCRIPTION**

Work on this project will consist of the following:

- Clearing and disposal of trees, within designated areas along SD Hwy 87 & SD Hwy 89.

**CLEARING**

**Note: The Contractor is highly encouraged to visit the project locations prior to bidding.**

Before clearing activities begin, the Contractor shall contact the Engineer to determine the limits of clearing for the project.

US Forest Service contact is Lance Portlock 605-343-1567.

Extra care shall be taken not to damage other nearby trees during the clearing process.

The Contractor is responsible for keeping the roadway clear of debris. No separate payment will be made for this work.

The Contractor shall restore and grade areas disturbed by clearing activities including ruts. No separate payment will be made for this work.

Trees shall be cut to a maximum height of 3" above the ground.

All costs for clearing, disposal, and other work as described in this section, "CLEARING", shall be included in the contract unit price per each for "Clearing and Grubbing".

**CLEARING (CONT.)**

**SD HWY 89**

Tree Count Hwy 89		
Start	End	
MRM	MRM	Quantity
58.6	63.0	900
<b>TOTAL:</b>		<b>900</b>

- SD89 MRM 58.60 to 61.60
  - Trees are to become property of the contractor.
  - Disposal by chipping or hauling off site.
  - Chips to be spread to a depth no greater than 3".
- SD89 MRM 61.6 to 63.0 (Custer State Park boundary)
  - Dead trees to be left on site
  - Dead trees to be brushed down to lie flat on the ground.
  - No portion of tree to remain within 20' of edge of highway.
  - Green trees that have been marked and have a DBH.

Green trees marked for clearing and having a DBH (Diameter Breast Height) of 9" or greater shall be removed and decked at any of the following locations:

SD87 MRM 76.4 Left  
SD89 MRM 61.2 Right  
SD89 MRM 61.7 Right  
SD89 MRM 62.4 Right

**SD HWY 87**

Tree Count Hwy 87		
Start	End	
MRM	MRM	Quantity
74.4	79.3	433
<b>TOTAL:</b>		<b>433</b>

- SD87 MRM 74.4 (Custer State Park boundary) to MRM 79.3 (Jct. US16/385)
  - Dead trees to be left on site
  - Dead trees to be brushed down to lie flat on the ground
  - No portion of tree shall be remain within 20' of the edge of the highway

**TRAFFIC CONTROL – GENERAL NOTES**

- Unless otherwise stated in these plans, no work will be allowed during hours of darkness.
- Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State. Any damage to existing pipe or guardrail shall be repaired or replaced by the Contractor at no cost to the State.
- All non-applicable existing signing and temporary traffic control devices shall be covered or removed during periods of inactivity. Periods of inactivity shall be defined as no work taking place for a period of more than 48 hours. The cost of removing or covering non-applicable signs and temporary traffic control devices shall be incidental to the contract lump sum price for Traffic Control, Miscellaneous.
- Vehicles working in traffic or alongside traffic shall be equipped with a flashing amber light visible from all directions. All haul trucks shall be equipped with a second flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights shall be incidental to the various related contract bid items.
- Only one set of signs according to Standard Plate Number 634.30 is included in the estimate of quantities. The Contractor shall only work at one site unless the Engineer approves additional work sites.
- Certified flaggers with appropriate advance warning signs for both directions of travel will be required for any work that occupies the traveled lanes. The road shall be kept open to traffic with not more than 5 minutes delay time. The 15-20 minute closure shown on Standard Plate Number 634.30 shall be changed to not exceeding **5 minutes**.
- If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD – whichever is more stringent shall be used, as determined by the Engineer.

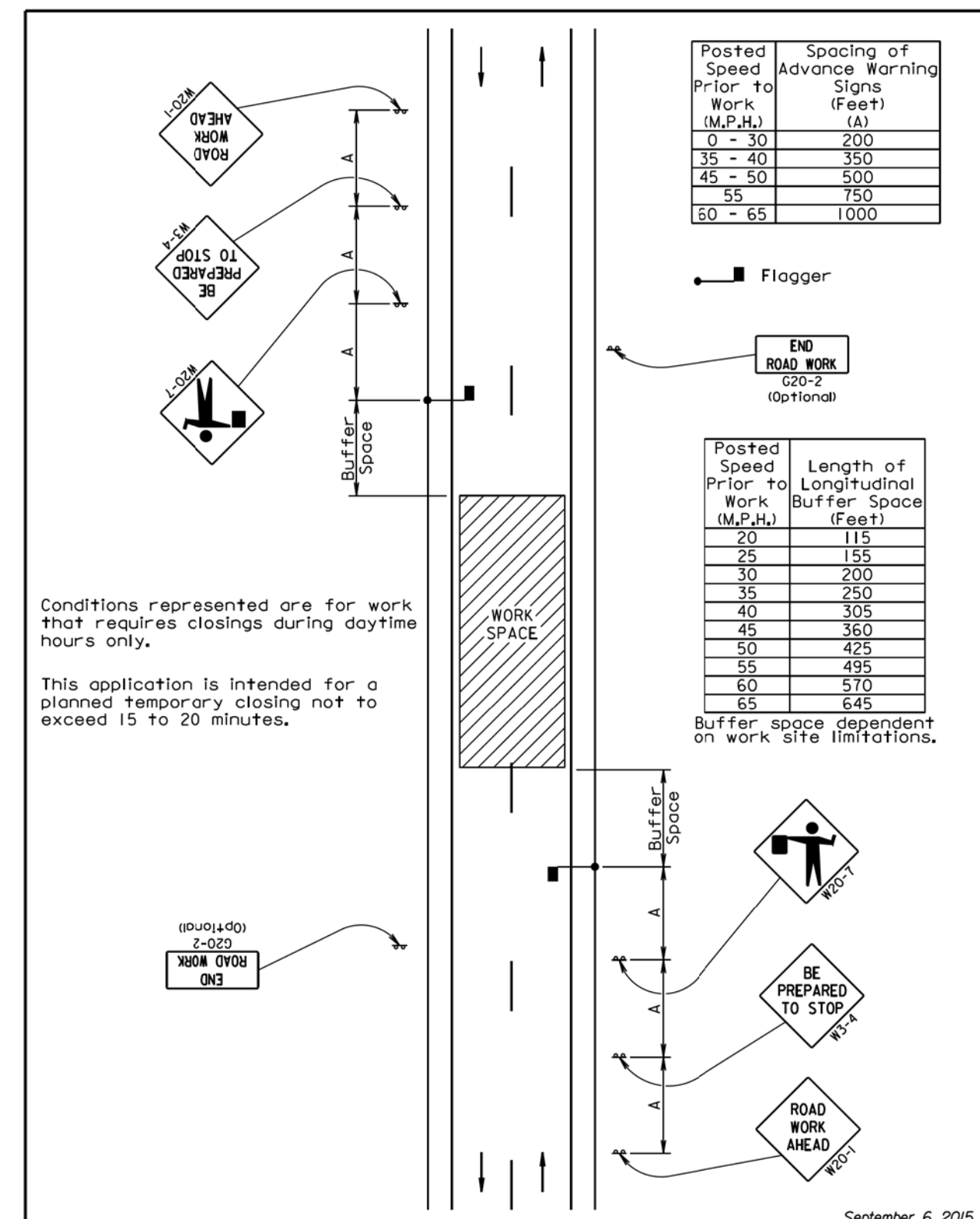
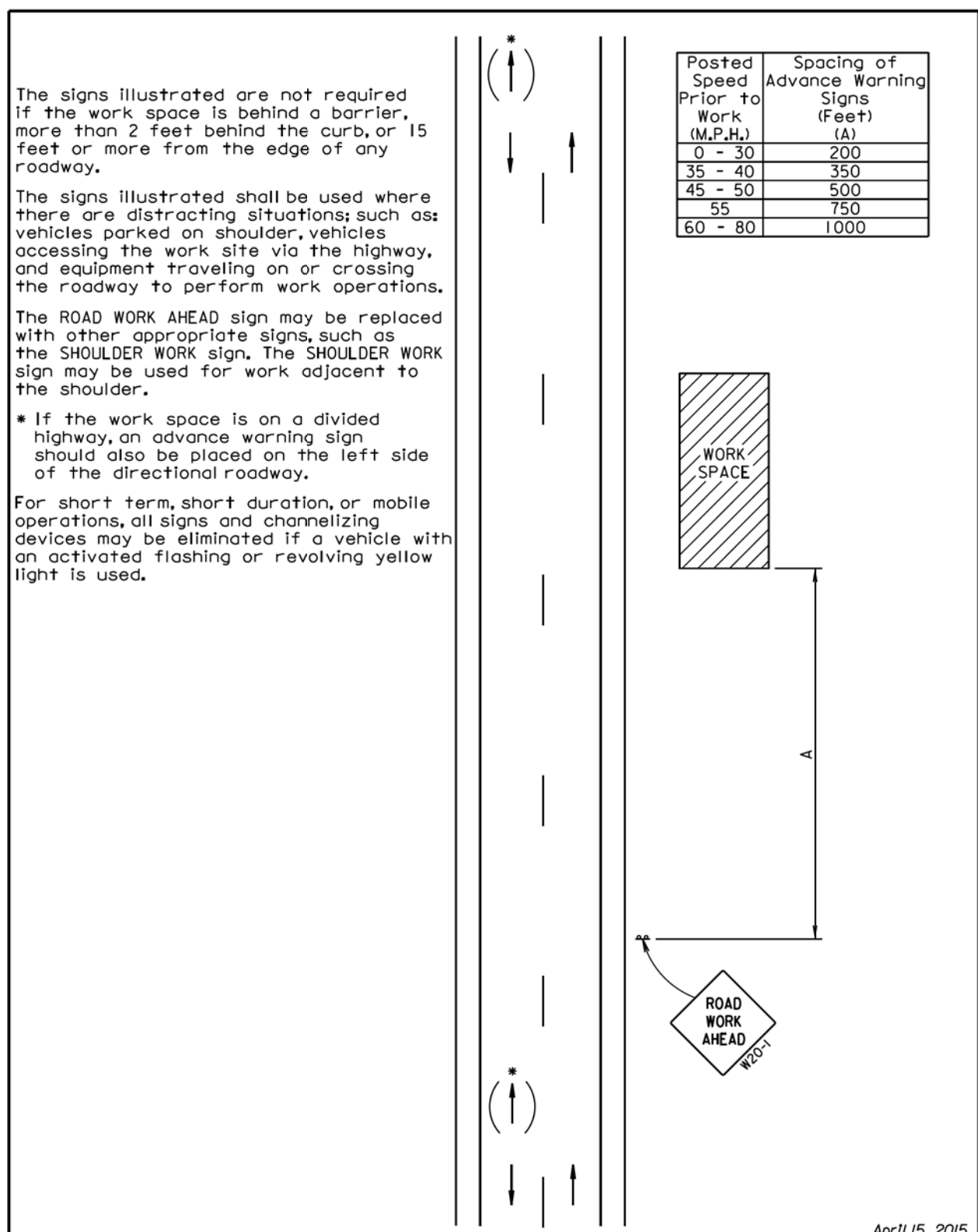
**TABLE OF TRAFFIC CONTROL DEVICES**

**ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS**

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W3-4	BE PREPARED TO STOP	2	48" x 48"	16.0	32.0
W20-1	ROAD WORK AHEAD	4	48" x 48"	16.0	64.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
<b>CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS</b>					<b>137.0</b>
<b>SQFT</b>					

Plotting Date: 05/11/2016

PLOT SCALE - 1:200



PLOT NAME - 2

FILE - ... \STANDARD PLATE.DGN

-PLOTTED FROM - TRRC11610