

STATE OF SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

PROJECTS 018–492 & 071–492

US Highway 18 & SD Highway 71

FALL RIVER & **OGLALA LAKOTA COUNTIES**

CLEANOUT & REPAIR PIPE CULVERTS PCNS i4qh and i4qj



Storm Water Permit

No Permit Required

	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL
		018-492 & 071-492	1	12
	Plotting [Date: 04/13/2017		

INDEX OF SHEETS

- Sheets 1: Title Sheet
- Sheet 2-6: Estimate of Quantities & Plan Notes
- Sheet 7: Pipe Cleanout Detail
- Sheets 8-12: Standard Plates



ESTIMATE OF QUANTITIES (US18, i4qh)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
250E0020	Incidental Work, Grading	Lump Sum	LS
450E8900	Cleanout Pipe Culvert	20	Each
634E0010	Flagging	100.0	Hour
634E0110	Traffic Control Signs	338.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
734E0010	Erosion Control	Lump Sum	LS

ESTIMATE OF QUANTITIES (SD71, i4qj)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E7500	Remove Pipe for Reset	104	Ft
450E8900	Cleanout Pipe Culvert	10	Each
450E9000	Reset Pipe	104	Ft
634E0010	Flagging	100.0	Hour
634E0110	Traffic Control Signs	338.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
734E0010	Erosion Control	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.

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 durina fliaht.

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 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:

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:

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.

	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		018-492 & 071-492	2	12

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

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.

CLEANOUT PIPE CULVERT

This work shall consist of cleaning out, removing and disposing of sediment and debris within the existing culvert and shaping the outlet ditch to allow water to drain out of the pipe.

The Contractor shall inspect the locations and determine the necessary method for cleaning out the culverts.

Silt Fence or other approved method shall be used at the outlet end to prevent any pipe cleanout sediment from leaving the project limits. Placement of the silt fence shall be as directed by the Engineer. The silt fence shall be removed upon completion of the pipe cleanout.

The cleaning method shall be approved by the Engineer. The culvert shall be cleaned so that water can flow out of the culvert. Some outlet ditch grading might be needed to accomplish this. The cleaning method shall not damage the pipe. A vacuum truck might be needed at locations to prevent sedimentation from entering nearby waterways.

All excess sediment and debris removed from the culvert shall be disposed of by the Contractor. The Contractor shall shape the ditches in the area of the culvert ends to restore the ditch flow. All costs associated with cleaning out the existing culvert, capturing sediment, the removal of debris and shaping of the ditches shall be incidental to the contract unit price per each for "Cleanout Pipe Culvert".

REMOVE AND RESET PIPE

Included in the Estimate of Quantities are the bid items Remove Pipe for Reset and Reset Pipe. These bid items are provided to repair RCP with separated joints near each end of the pipe. The quantity provided in these plans is for estimating purposes and shall be adjusted as needed to repair separated joints as directed by the Engineer. The Contractor shall remove the separated pipe sections under the inslope and not disturb the existing surfacing. The Contractor shall drill holes in the pipe and reset the pipe sections, so that tie bolts can be installed in accordance with standard plate 450.18. All costs associated with excavating, removing pipe sections, drilling holes, furninshing and installing tie bolts, resetting pipe, backfilling pipe and any other items associated with this work shall be incidental to the contract unit price per foot for the Remove Pipe for Reset or Reset Pipe bid items.

INCIDENTAL WORK, GRADING

This bid item is provided for the repair of the crushed CMP pipe end shown in the table of quantities. The Contractor shall use a jack or other method to repair the culvert end to restore to a functional condition.

STATE OF	PROJECT	QHEET	TOTAL
STATE OF SOUTH	040 400 9 071 400	SHEE1	SHEETS
DAKUTA	010-492 & 071-492	3	12

TABLE OF PIPE CULVERT CLEANOUT AND REPAIR (SD71, PCN i4qj)

HWY	MRM	Disp.	Size		% Plugged	% Plugged	Description	Cleanout Pipe Culvert	Remove and Reset Pipe	Remove and Reset Pipe
			(in)		Lt	Rt		Each	Rt	Lt
SD71	6	0.247	18	RCP	50%	50%	Separated joints, Clean Pipe	1	8	8
SD71	6	0.571	18	RCP	10%	10%	Separated joints, Clean Pipe	1	8	8
SD71	6	0.606	18	RCP	0%	75%-100%	separated joints, Clean Pipe	1	8	8
SD71	6	0.923	24	RCP	20%	20%	Separated joints, Clean Pipe	1	8	8
SD71	6	0.923	24	RCP	20%	20%	Separated joints, Clean Pipe	1	8	8
SD71	7.06	0.043	18	RCP	100%	100%	Separated joints, Clean Pipe	1	8	8
SD71	7.06	0.578	18	RCP	20%	20%	Separated joints, Clean Pipe	1	8	8
SD71	8	0.116	18	RCP	0%	0%	Separated joints		8	8
SD71	8	0.525	30	RCP	0%	0%	Separated joints		8	8
SD71	9	0.006	18	RCP	75%-100%	75%-100%	Separated joints, Clean Pipe	1	8	8
SD71	9	0.295	18	RCP	75%-100%	75%-100%	Separated joints, Clean Pipe	1	8	8
SD71	9	0.501	30	RCP	0%	0%	Separated joints		8	8
SD71	9	0.501	30	RCP	0%	0%	Separated joints		8	8
SD71	11	0.779	24	RCP	20%	20%	Clean Pipe	1		
							Total:	10	104	104

TABLE OF CLEANOUT PIPE CULVERT (US18, PCN i4qh)

								Cleanout	Incidental
								Pipe	Work
HWY	MRM	Disp.	Size		% Plugged	% Plugged	Description	Culvert	Grading
			(in)		Lt	Rt		Each	L.S.
US18	62	0.808	18	CMP	75%-100%	75%-100%	Clean pipe	1	
US18	63	0.597	18	CMP	40%	40%	Clean pipe	1	
US18	64	0.962	18	CMP	80%	80%	Clean pipe	1	
US18	68	0.570	58"x 36"	CMP	40%	70%	Clean pipe	1	
US18	68	0.570	58"x 36"	CMP	40%	70%	Clean pipe	1	
US18	68	0.928	66	CMP	20%	20%	Clean pipe and shape outlet so water can drain out of pipe	1	
US18	69	0.073	18	CMP	60%	20%	Clean pipe	1	
US18	3 70	0.624	18	CMP	30%	30%	Clean pipe	1	
US18	3 70	0.798	18	CMP	50%	50%	Clean pipe	1	
US18	3 70	0.905	24	CMP	60%	60%	Clean pipe	1	
US18	8 71	0.657	18	CMP	0%	90%	Clean pipe	1	
US18	3 74	0.741	60	CMP	10%	10%	Clean pipe and shape outlet so water can drain out of pipe	1	
US18	3 76	0.072	18	CMP	30%	0%	Clean pipe	1	
US18	8 83	0.285	18	CMP	0%	90%	Clean pipe	1	
US18	8 83	0.664	42	CMP	90%	0%	Clean pipe and shape outlet so water can drain out of pipe	1	
US18	8 85	0.822	30	CMP	15%	15%	Clean pipe and shape outlet so water can drain out of pipe	1	
US18	8 85	0.822	30	CMP	15%	15%	Clean pipe and shape outlet so water can drain out of pipe	1	
US18	8 86	0.654	18	CMP	30%	303%	Clean pipe	1	
US18	8 86	0.699	18	CMP	30%	30%	Clean pipe, Repair crushed end section left, Incidental Work, Grading	1	L.S.
US18	8 87	0.185	18	CMP	90%	0%	Clean pipe	1	
							Total:	20	Lump Sum

STATE OF	PROJECT	SHEET	TOTAL
SOUTH DAKOTA	018-492 & 071-492	4	12

EROSION CONTROL

All costs for the erosion control work for furnishing, placing, and maintaining erosion control including equipment, labor, seeding, fertilizing, and mulching shall be incidental to the contract lump sum price for "Erosion Control".

The limits of erosion control work will be determined by the Engineer during construction.

MYCORRHIZAL INOCULUM

Mycorrhizal inoculum shall consist of mycorrhizal fungi spores and mycorrhizal fungi-infected root fragments in a solid carrier. The carrier may include organic materials, calcinated clay, or other materials consistent with application and good plant growth. The supplier shall provide certification of the fungal species claimed and the live propagule count. The inoculum shall include the following fungal species:

Glomus intraradices	25%
Glomus aggregatu	25%
Glomus mosseae	25%
Glomus etunicatum	25%

All seed shall be inoculated by the seed supplier with a minimum of 100,000 live propagules of mycorrhizal fungi per acre. All costs of inoculating the seed shall be incidental to the contract unit price per lump sum for Erosion Control.

The mycorrhizal inoculum shall be as shown below or an approved equal:

Product

MycoApply

Manufacturer

Mycorrhizal Applications, Inc. Grants Pass, OR Phone: 1-866-476-7800 www.mycorrhizae.com

FERTILIZING

The Contractor shall apply an all-natural slow release fertilizer prior to seeding or placing sod. The all-natural fertilizer shall have a minimum guaranteed analysis of 4-6-4 and be USDA Certified BioBased. It should provide a minimum of 4% (N) nitrogen with a minimum water insoluble nitrogen (WIN) fraction of 3.2%, a minimum of 6% (P2O5) available phosphate, a minimum of 4% (K2O) soluble potash, and a maximum carbon to nitrogen ratio (C:N ratio) of 5:1. The all-natural fertilizer shall be free of weed-seed and pathogens accomplished through thermophilic composting, and not mechanical or chemical sterilization, to assure presence of beneficial soil microbiology. The fertilizer shall have a near neutral pH, a low salt index, a low biological oxygen demand, contain organic humic and fulvic acids, and have high aerobic organism counts. The fertilizer shall also be stable, free of bad odors, and be unattractive as a food source for animals. It should also be in a granular form that is easily spread.

The fertilizer shall be applied at a rate of 1,500 pounds per acre in accordance with the manufacturer's recommended method of application.

The all-natural slow release fertilizer shall be as shown below or an approved equal:

> Product Sustane

Sustane Corporate Headquarters Cannon Falls, Minnesota Phone: 1-800-352-9245 www.sustane.com

Manufacturer

PERMANENT SEEDING

The areas to be seeded consist of disturbed areas within the project limits.

Type F Permanent Seed Mixture shall consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana	7
Green Needlegrass	Lodorm	4
Sideoats Grama	Butte, Killdeer, Pierre, Trailway	3
Blue Grama	Bad River, Willis	2
Oats or Spring Wheat: April through May;		10
Winter Wheat: August through November		
	Total [.]	26

FIBER MULCHING

seedina.

The Contractor shall allow the fiber mulch to cure a minimum of 18 hours prior to watering or any storm event to ensure proper cohesion between the soil and fiber particles.

The fiber mulch provided shall be from the approved product list. The approved product list for fiber mulch may be viewed at the following internet site:

TRAFFIC CONTROL

of darkness.

Non-applicable traffic control devices shall be completely covered or removed during periods of inactivity. Periods of inactivity shall be defined as no work taking place for a period of more than 2 calendar days.

All materials and equipment shall be stored a minimum distance of 30' from the traveled way during nonworking hours.

The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

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.

movement.

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.

Traffic approaching the project from intersecting roadways, streets, and approaches must be adequately accommodated. Major intersections or large commercial entrances may require additional signing, flaggers, and channelizing devices on a temporary basis until work activities pass these areas.

Traffic shall be maintained on the driving lanes. Use of the shoulder as a driving lane will not be permitted. Any damage to the shoulder due to rerouted traffic or Contractor's equipment shall be repaired at no additional cost to the State.

Traffic shall not be delayed for a period longer than 15 minutes.

	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL
		018-492 & 071-492	5	12

Fiber mulch shall be applied in a separate operation following permanent

http://sddot.com/business/certification/products/Default.aspx

Unless otherwise stated in these plans, no work will be allowed during hours

All construction operations shall be conducted in the general direction of traffic

INVENTORY OF TRAFFIC CONTROL DEVICES (PCN i4qh)

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W3-4	BE PREPARED TO STOP	4	48" x 48"	16.0	64.0
W20-1	ROAD WORK AHEAD	4	48" x 48"	16.0	64.0
W20-4	ONE LANE ROAD AHEAD	4	48" x 48"	16.0	64.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
W21-5	SHOULDER WORK	4	48" x 48"	16.0	64.0
G20-2	END ROAD WORK	4	36" x 18"	4.5	18.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			338.0

INVENTORY OF TRAFFIC CONTROL DEVICES (PCN i4qj)

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W3-4	BE PREPARED TO STOP	4	48" x 48"	16.0	64.0
W20-1	ROAD WORK AHEAD	4	48" x 48"	16.0	64.0
W20-4	ONE LANE ROAD AHEAD	4	48" x 48"	16.0	64.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
W21-5	SHOULDER WORK	4	48" x 48"	16.0	64.0
G20-2	END ROAD WORK	4	36" x 18"	4.5	18.0
		CONVENTIONAL ROAD			338.0

STATE OF	PROJECT	SHEET	TOTAL
SOUTH DAKOTA	018-492 & 071-492	6	SHEETS 12

Pipe Cleanout



so water can flow out of the pipe. It is acceptable for water to be held in the downstream drainage, but not in the pipe. If shaping is required outside the highway right of way, permission will be obtained by the Area office.

	STATE OF	PROJECT	SHEET	TOTAL	
	SOUTH DAKOTA	018-492 & 071-492	7	12	
	Plotting Date:	04/13/2017			



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	STATE OF PROJECT			SHEET	TOTAL SHEETS			
			071-402	8	12			
U18-492 & 071-492			0	12				
	Plotting Date:		04/13/201	7				
					1			
Posted	Spacing of	f.	-	Spacing of				
Speed	Advance Warr	ning	laper	Channelizing				
Prior to	Signs							
	200		180	25				
35 - 40	350		320	25				
45	500		600	25				
50	500		600	50				
55	750		660	50				
60 - 65	1000		780	50				
	olizioa Doviac	`						
	enzing bevice	5						
	END							
/	ROAD WORK							
	G20-2							
\bigcirc								
The cho 42" cone	nnelizing dev s if traffic	vice cor	s shall ntrolmu	be drums or ust remain				
overnig	ht.							
For sho	ort duration	ope	rations	(I hour				
or less) all channeliz	ing	devices	s may be				
flashing	or revolvin	g y	ellow li	ght is used.				
Worker	Worker signs (W21-1 or W21-1a) may be							
used instead of SHOULDER WORK signs.								
A SHOUL								
affecte	ed.		1 3100					
The SHO		ian	00 00					
interse	ctina roadwa	vis	not r	equired if				
drivers	emeraina fr	om	that r	oadway will				
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before	they reach	a w	ork ac	tivity area.				
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June 3, 2016

GUIDES FOR TRAFFIC CONTROL DEVICES WORK ON SHOULDERS

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634.03

PLATE NUMBER

...\Culvert Cleanout\StdPlate5 dgn

Posted Spacing of Advance Warning Prior to Spacing of Signs Spacing of Channelizing Devices Work (Feet) (Feet) (M.P.H.) (A) (G) 0 - 30 200 25 35 - 40 350 25 50 500 50 55 750 50 60 - 65 1000 50	Warning sign sequence in opposite direction same as below.	
 Flagger Channelizing Device For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be use The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (I hour or less). 		SOLO
For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W2I-2) shall be displayed in advance of the liquid asphalt areas. Flashing warning lights and/or flags may be used to call attention to the advance warning signs. The channelizing devices shall be drums or 42" cones. Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.	ALL AND ALL AN	
Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required. The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles. The length of A may be adjusted to fit field conditions.	ROAD WORK AHEAD	June 3, 2016
Published Date: 1st Qtr. 2017	GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23 Sheet of



...\Culvert Cleanout\StdPlate1





...\Culvert Cleanout\StdPlate4.dgn





...\Culvert Cleanout\StdPlate3.dgr



At cut or fill slope installations, wattles shall be insta perpendicular to the water flow.
At ditch installations, point A must be higher than po flows over the wattle and not around the ends.
The Contractor shall dig a 3" to 5" trench, install the w that daylight can not be seen under the wattle, and from the trench against the wattle on the uphill side
The stakes shall be 1"x2" or 2"x2" wood stakes, however, rebar may be used only if approved by the Engineer. 6" from the ends of the wattles and the spacing of shall be 3' to 4'.
Where installing running lengths of wattles, the Contr wattle tightly against the first and shall not overlap
The Contractor and Engineer shall inspect the erosion week and within 24 hours after every rainfall event of Contractor shall remove, dispose, or reshape the accur necessary as determined by the Engineer.
Sediment removal, disposal, or necessary shaping shall l All costs for removing accumulated sediment, disposal of shaping shall be incidental to the contract unit price Sediment".
All costs for furnishing and installing the erosion cor equipment, and materials shall be incidental to the con for the corresponding erosion control wattle bid item
All costs for removing the erosion control wattle fro equipment, and materials shall be incidental to the con "Remove Erosion Control Wattle".

GENERAL NOTES:

EROSIC	hed Date: 1st Qtr. 2017	
El	hed Date: 1st Qtr. 2017	

Plotted From - trrc11

	STATE OF		PROJECT	SHEET	TOTAL SHEETS	
	DAKOTA	018-49	92 & 071-492	12	12	
	Plotting Date:	03/24	1/2017			
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be installed o	long the	con t our	r and			
han point B Is.	to ensure	e that v	vater			
III the wattle	tiahtly ir	n the t	rench so			
le, and then o phill side. See	compact t Detail B.	he soil	excavated			
owever, other	· types o takes sha	f stake	s such as			
ing of the st	takes alor	ng the v	wattles			
Contractor	shall but	+ +bo e	econd			
overlap the e	ends. See	Detail C	•			
erosion cont	rol_wattle	s <u>o</u> nce	every			
event greate e accumulate	er than 1/2 d sedimen	t when				
g shall be as sposal of sed	directed	by the	Engineer.			
t price per c	ubic yard	for "R	emove			
ion control w	attles in	aludina	labor			
the contract	unit pric	e per f	00†			
DIG ITEM.						-dgn
tle from the the contract	project unit pric	includin e per f	g labor, oo t for			late2
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			December 23, 2	004		
		PLATE NUMBE	R			
ON CONTROL M	VATT! F		734.06			
			Sheet 2 of 2	,		