

STATE OF SOUTH DAKOTA <u>DEPARTMENT OF TRANSPORTATION</u> PLANS FOR PROPOSED **PROJECT 410A297 CLARK DOT MAINTENANCE YARD CLARK COUNTY**

SALVAGE AND STOCKPILE ASPHALT MIX AND GRANULAR BASE MATERIAL, PLACING BASE COURSE SALVAGE, & ASPHALT CONCRETE SURFACING



STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
SOUTH DAKOTA	410A297	1	8
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ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	100	CuYd
260E1030	Base Course Salvaged	2,351.0	Ton
270E0040	Salvage and Stockpile Asphalt Mix and Granular Base Material	3,964.0	Ton
320E1200	Asphalt Concrete Composite	1,785.0	Ton
634E0100	Traffic Control	136	Unit

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

SURFACING THICKNESS DIMENSIONS

Plans tonnage will be applied even though the thickness may vary from that shown on the plans.

At those locations where material must be placed to achieve a required elevation, plans tonnage may be varied to achieve the required elevation.

SCOPE OF WORK

Work on this project includes, but is not limited to Salvage and Stockpile Asphalt Mix and Granular Base Material, Placing Base Course Salvaged, and Asphalt Concrete Surfacing.

SEQUENCE OF OPERATIONS

The following sequence of operations shall be adhered to. Any changes must be approved in writing by the Area Engineer prior to changes being made.

- 1. Salvage and Stockpile Asphalt Mix and Granular Base Material
- 2. Excavate Digouts and Complete Backfill Operations
- 3. Place Base Course, Salvaged
- 4. Complete Asphalt Concrete Surfacing

Contractor shall notify the Huron Area Office a minimum of 2 weeks prior to any stage of construction.

COORDINATION OF WORK

The DOT CLARK MAINTENANCE YARD is scheduled for an underground fuel tank replacement project #BS11024 during the 2012 construction season. The project is scheduled to be let December 15th, 2011 and has an overall completion date of June 15th, 2012. The asphalt concrete surfacing portion of this project shall not be completed until project OSE# T2210-29X is completed. The Contractor will be responsible to coordinate work with the Contractor to which the underground fuel tank replacement project is awarded so the schedules do not conflict. For more information regarding the awarded project #BS11024 contact Brad Letcher at 605-353-7140.

TRAFFIC CONTROL

Construction operations shall be conducted in a manner to provide DOT forces access to the Maintenance Yard on a continuous basis.

Storage of vehicles and equipment may be permitted within the Clark DOT Maintenance Yard as space permits. If there is not space within the Clark DOT Maintenance Yard it shall be the contactors responsibility to locate an alternate staging site. Contractor's employees should mobilize at a location off-site and arrive at the work sites in a minimum number of vehicles necessary to perform the work. Indiscriminate driving and parking of vehicles at the site will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

Work activities during non-daylight hours are subject to prior approval.

The bottom of signs on portable or temporary supports shall not be less than seven feet above the pavement in urban areas and one foot above the pavement in rural areas. Portable sign supports may be used as long as the duration is less than 3 days. If the duration is more than 3 days the signs shall be on fixed location, ground mounted, breakaway supports.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP Report 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
W8-6	48" x 48"	TRUCK CROSSING	2	34	68
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	2	34	68
			TOTA	AL UNITS	136

If a sign is required on a project and not listed in the above inventory, the units per sign will be determined as follows: Signs 36" x 36" will be measured at 27 units each and signs 48" x 48" will be measured at 34 units each, otherwise: If a sign measures less than 25" high and 25" wide the units per sign will be computed as sign size (sq ft) x 3. If a sign measures between 23H" and 37H" the units per sign will be computed as sign size (sq ft) x 1.2 +15.

Traffic Control units, as shown in the Estimate of Quantities, are estimates. Contractor's operation may require adjustments in guantities, either more or less. Payment will be for those signs actually ordered by the Engineer and used.

PCC PAD

Located to the east of the current DOT shop is an approximately 76' x 11.5' PCC pad that shall be removed by DOT forces prior to placing Base Course, Salvaged. The Contractor shall notify the Huron Area Office a minimum of 1 week prior to before mentioned work to allow time for the PCC pads removal.

MATERIAL

Salvage and Stockpile Asphalt Mix and Granular Base Material shall precede asphalt concrete paving by no more than 10 working days. For each working day beyond this, the Contractor will be assessed liquidated damages at the rate of \$250.00 per working day.

An estimated 3,964 tons of asphalt mix and granular base material shall be salvaged at a depth of 9" from the project in areas shown on sheet 4 to have existing asphalt. The depth may need to be adjusted depending on the depth of existing material as directed by the Engineer. The salvaged material shall be stockpiled within the Clark DOT Maintenance Yard at a location as marked by the Engineer.

The quantity of salvage asphalt mix and granular base material may vary from the plans. No adjustment will be made to the contract unit price for variations of the quantity of "Salvage and Stockpile Asphalt Mix and Granular Base Material." Plans Quantity will be the basis of payment unless an adjustment to the depth of Salvaged material is ordered by the Engineer.

Contractor is advised section 270.2 of the Standard Specifications does apply and may be price adjusted (DOT-18) for failure to conform to specification requirements. Non-specification material will be required to be screened and the material screened off shall be disposed of by the Contractor prior to incorporation into the project. Passing material not incorporated into the project shall become property of the SD DOT.

It may be necessary to use special methods and equipment to salvage material close to obstacles and buildings. Any material that may not be salvageable shall be disposed by the Contractor. All costs associated with this work shall be incidental to the contract unit price per ton for SALVAGE AND STOCKPILE ASPHALT MIX AND GRANULAR BASE MATERIAL.

EXCAVATION OF UNSTABLE MATERIAL

Included in the Estimate of Quantities are 100 Cubic Yards of Unclassified Excavation, Digouts for the necessary removal of unstable material.

Backfill shall be Base Course, Salvage paid for at the contract unit price per ton.

BASE COURSE, SALVAGED

Base Course, Salvaged shall be obtained from the Stockpile Site and may be used without further testing.

An estimated 2,151 tons of Base Course, Salvaged shall be placed to the elevations as shown on sheet 5. Also included in the Estimate of Quantities are 200 Tons of Base Course, Salvaged for Unclassified Excavation, Digouts.

Base Course, Salvaged shall be sloped at a distance of approximately 2.5' from the newly installed gas tank PCC Concrete pad to allow placement of 3" of Asphalt Concrete Composite that will match elevations with PCC Concrete pad.

All other requirements of the Standard Specifications for Base Course shall apply.

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SALVAGE AND STOCKPILE ASPHALT MIX AND GRANULAR BASE

Compaction shall be achieved using the Ordinary Compaction Method as per Section 120.3.B.3.b of the South Dakota Standard, Specifications for Road and Bridges, 2004.

WATER FOR COMPACTION OF GRANULAR MATERIALS

Cost of water for compaction of the granular material shall be incidental to the contract unit price per ton of Base Course, Salvaged. Six percent, plus or minus, moisture will be required at the time of compaction unless otherwise directed by the Engineer.

WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the DOT Environmental Office.

The Contractor shall not withdraw water directly from streams of the James, Big Sioux, and Vermillion watersheds without prior approval from the DOT Environmental Office.

The DOT Environmental Office contact is the Environmental Project Scientist, 605-773-3268. The WATER SOURCE plan note does not relieve the Contractor of his/her responsibility to obtain the necessary permits from other agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE).

ASPHALT CONCRETE COMPOSITE

Areas marked on sheet 6 shall receive two 2" lifts of asphalt concrete composite.

Mineral aggregate for the Asphalt Concrete Composite shall conform to the requirements of the Standard Specifications for Class E, Type 1.

All other requirements in the Standard Specifications for Asphalt Concrete Composite shall apply.

The asphalt binder used in the mixture shall be a PG 64-22, PG 64-28, PG 58-34 or PG 64-34 Asphalt Binder.

Asphalt Concrete Composite shall be paver laid.

SS-1h or CSS-1h for tack will be required on any vertical faces, along buildings, or any other structure.

Compaction shall be achieved using the Specified Roller Coverage method as per Section 320.3.F.2 of the South Dakota Standard, Specifications for Road and Bridges, 2004.

It can be anticipated that handwork will be required to shape the asphalt concrete for the around obstacles and buildings. After completion of placing the asphalt concrete the Contractor shall shape the surrounding ground to match the new surface. All costs associated with this work shall be incidental to the contract unit price per ton for Asphalt Concrete Composite.

SAWING IN EXISTING SURFACING

Where new Asphalt Concrete Pavement is placed adjacent to existing asphalt concrete or when as directed by the Engineer the existing asphalt concrete shall be sawed <u>full</u> depth to a true line with a vertical face. No separate payment shall be made for sawing.

WASTE DISPOSAL SITE

The Contractor will be required to furnish a site(s) for the disposal of construction/demolition debris generated by this project.

Construction/demolition debris may not be disposed of within the State ROW or SD DOT property.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Highway, Road, and Railway 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 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/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/demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State 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 State 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.

HISTORICAL PRESERVATION OFFICE CLEARANCES

To obtain State Historical Preservation Office (SHPO) clearance, a cultural resources survey may need to be conducted by a qualified archaeologist. In lieu of a cultural resources survey, the Contractor could request a records search from Jim Donohue, State Archaeological Research Center (SARC). Provide SARC 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 no artifacts have been found on the site. The Contractor shall arrange and pay for the cultural resource survey and/or records search.

If any earth disturbing activities occur within the current geographical or historic boundaries of any South Dakota reservation, the Contractor shall obtain Tribal Historical Preservation Office (THPO) clearance. If no THPO exists, the required SHPO clearance shall suffice, with documentation of Tribal contact efforts provided to SHPO.

To facilitate SHPO or THPO responses, the Contractor should submit a records search or cultural resources survey report to the DOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3268). Allow 30 days from the date this information is submitted to the Environmental Engineer for SHPO/THPO approval. The Contractor is responsible for obtaining all required permits and clearances for staging areas, borrow sites, waste disposal sites, and all material processing sites. The Contractor shall provide the required permits and clearances to the Engineer at the preconstruction meeting.

UTILITIES

The Contractor shall contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It shall be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities. Utilities owned by the property owner (beyond the "meter") shall also be the contractor's responsibility for locating prior to excavation/underground work.

Utilities are not planned to be affected on this project. If utilities are identified near the improvement area through the SD One Call process as required by South Dakota Codified Law 49-7A and Administrative Rule Article 20:25; the Contractor shall contact the Project Engineer to determine modifications that will be necessary to avoid utility impacts.

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Existing Asphalt Concrete and Granular Material to be Salvaged and Stockpiled

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Northing	Easting	Elevation	Point	Northing	Easting	Elevation
88100.7815	2549017.5381	1857.41	32	388346.0709	2549195.1221	1852.57
88098.8613	2549045.1219	1857.46	33	388346.0709	2549238.0241	1852.57
88095.7190	2549090.7900	1857.57	34	388368.7220	2549095.0400	1852.82
88146.0635	2549019.8004	1857.24	35	388392.6300	2549007.3300	1853.41
88146.0635	2549045.1221	1857.01	36	388396.0709	2549045.1221	1853.42
88146.0635	2549095.1215	1856.54	37	388396.0709	2549095.1221	1852.40
88146.0709	2549119.7923	1856.30	38	388396.0709	2549145.1221	1852.22
88172.8750	2549019.8900	1856.10	39	388396.0709	2549195.1221	1851.99
88165.6680	2549131.0801	1855.87	40	388396.0709	2549245.1221	1851.77
88196.0708	2549009.5181	1855.06	41	388396.0709	2549258.2657	1851.67
88196.0698	2549045.1251	1854.37	42	388437.9420	2549015.4300	1851.22
88196.0698	2549095.1221	1854.29	43	388438.7887	2549045.1221	1851.46
88196.0698	2549145.1222	1855.62	44	388440.4610	2549103.7701	1851.97
88185.5590	2549159.4400	1855.84	45	388452.3782	2549145.1222	1851.85
88183.2480	2549204.8900	1854.87	46	388446.0709	2549195.1222	1851.80
88196.0709	2549195.1221	1854.62	47	388446.0709	2549245.1222	1851.52
88246.0709	2548995.1220	1853.98	48	388446.0709	2549276.9601	1851.22
88246.0709	2549045.1222	1853.90	49	388470.5473	2549195.1221	1851.65
88246.0709	2549095.1222	1853.83	50	388480.8660	2549215.5200	1851.33
88246.0709	2549145.1221	1853.76	51	388484.9310	2549291.0000	1850.79
88246.0709	2549195.1221	1853.68	52	388511.2290	2549245.1222	1850.55
88246.0709	2549215.5582	1853.65	53	388508.2840	2549302.2700	1850.17
88296.0710	2548995.1218	1853.24	54	388533.8641	2549267.1902	1850.03
88296.0710	2549045.1222	1853.40	55	388546.8713	2549305.7035	1849.05
88294.7830	2549076.7100	1853.18	56	388573.7440	2549282.4000	1848.49
88296.0709	2549095.1222	1853.07	57	388575.2339	2549308.2274	1848.31
88296.0709	2549145.1221	1852.82	58	388612.3874	2549275.5088	1847.38
88296.0709	2549195.1222	1852.82	59	388611.6670	2549325.3820	1847.32
88296.0709	2549225.9446	1852.82	60	388632.7517	2549258.6291	1847.49
88346.0709	2549095.1222	1852.97	61	388633.7473	2549351.5355	1847.61
88346.0709	2549145.1262	1852.57				

1.00	Control F	Point Data	1.5.5
Point	Northing	Easting	Elevation
CP #20	388564.3843	2549329.6828	1848.98
CP #21	388182.5208	2549169.1857	1856.28
CP #22	388262.5405	2549566.0550	1864.64

Approximently 4" to 5" of Base Course, Salvaged



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								PLOT NAME - CLARKPLANSET2
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-Anchor Post or Slip Base

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