

PLOT SCALE - 200,000000:1,000000

PLOTTED FROM - TRRC12508

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

PROJECT 000I-452
INTERSTATE 90
PENNINGTON COUNTY

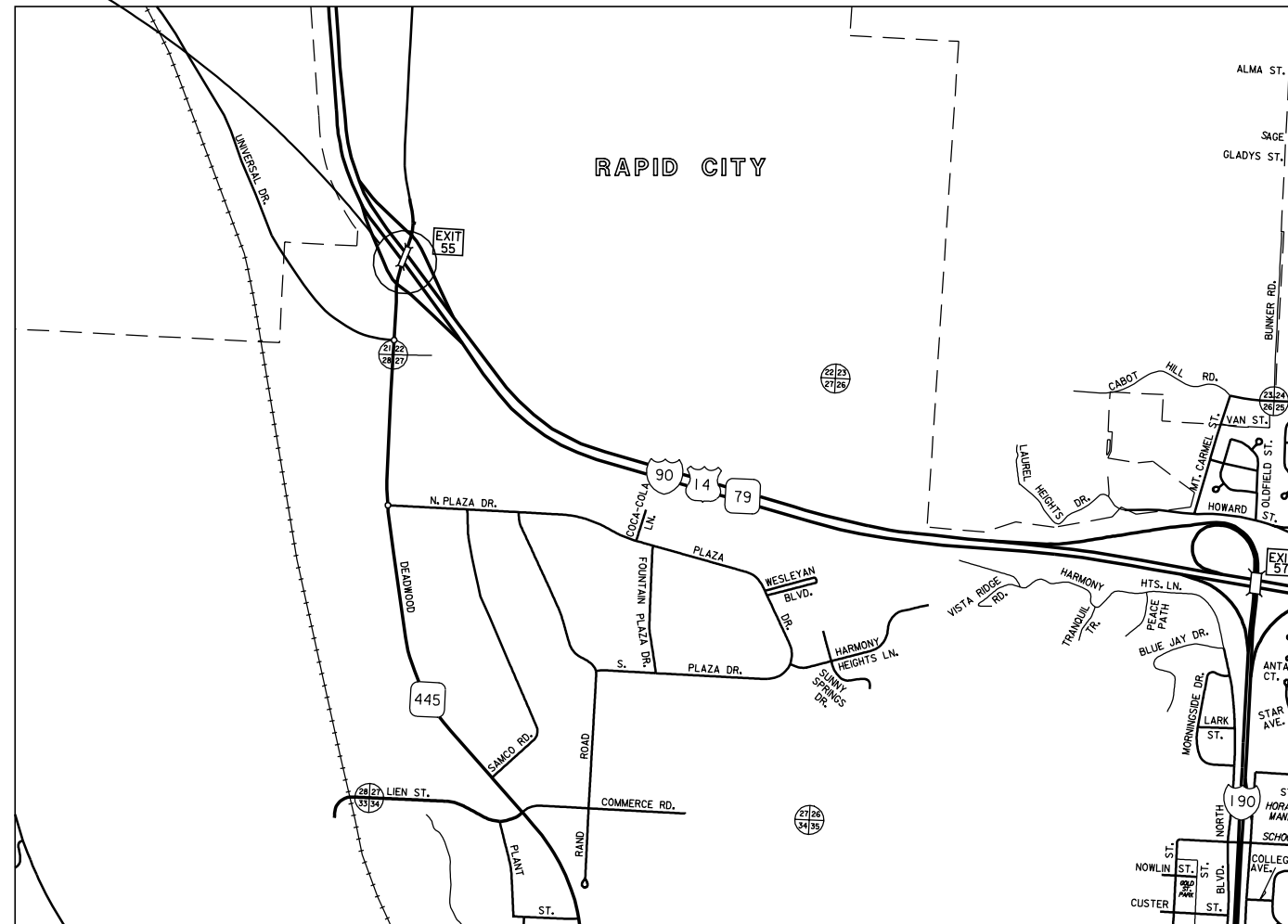
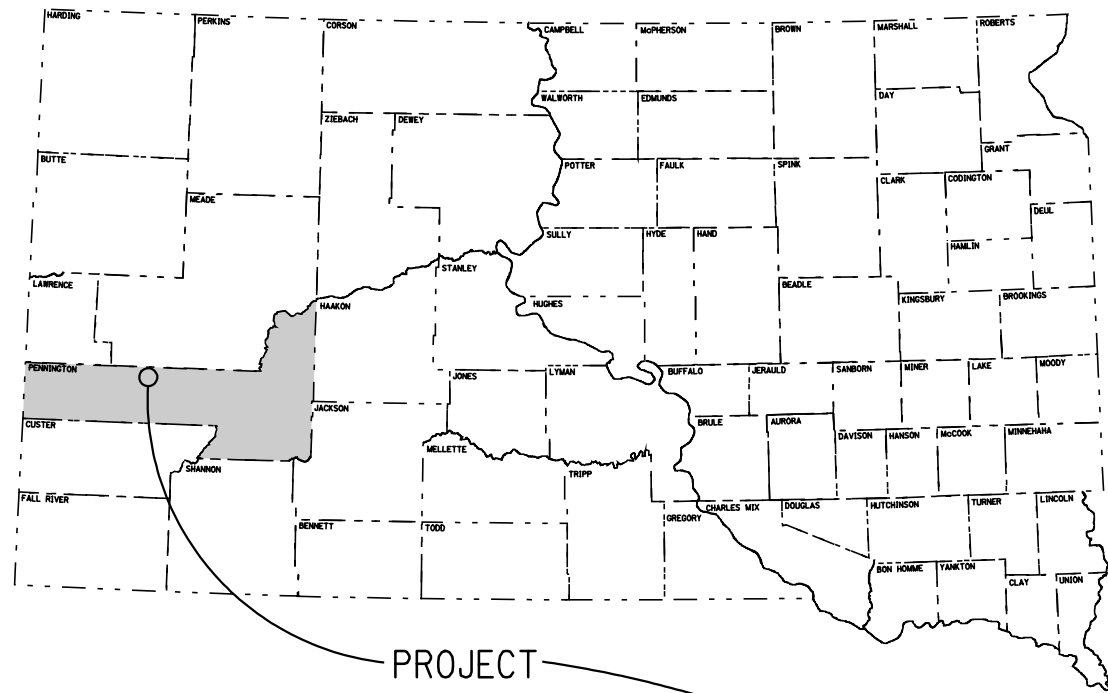
REPAIR LIGHT BRACKETS
PCN I1H7

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	000I-452	1	4

Plotting Date: 19-MAY-2009

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ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
250E0010	Incidental Work	Lump Sum	LS
635E6200	Miscellaneous, Electrical	Lump Sum	LS
634E0100	Traffic Control	34	Unit

SPECIFICATIONS

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

SCOPE OF WORK

This project will require the lowering of the existing lighting rings, repair of the lighting brackets, and raising the rings once repairs are completed.

All four High Mast Light Towers at Exit 55 will require work. Two of the towers have four brackets and two have five brackets. All 18 brackets will require modification.

INCIDENTAL WORK

Incidental work includes, but is not limited to the following items:

- 1) Lowering and raising of light rings.
- 2) Removal and reinstallation of hardware associated with existing lighting brackets.
- 3) All work required for installation of the new bent plates, pipe sleeves with washer shims, and new 3/8" bolts.
- 4) All grinding and touch-up painting required on the bent plates and existing lighting brackets.
- 5.) The restoration of all disturbed areas to the satisfaction of the Engineer.

MISCELLANEOUS, ELECTRICAL

All new bent plates, pipe sleeves with washer shims, new 3/8" nuts and bolts, zinc-rich paint and any other new hardware, etc. required to repair the existing lighting brackets shall be incidental to the contract lump sum price for Miscellaneous, Electrical.

Specifications for the items in Miscellaneous, Electrical shall be as follows:

- 1.) Bolts shall be galvanized ASTM A325 or A307.
- 2.) Bent plates shall be ASTM A36.
- 3.) Pipe sleeves shall be ASTM A53 grade B pipe or ASTM A500 .grade B HSS
- 4.) Washers shall be ASTM F436.
- 5.) All galvanization shall be in accordance with ASTM A123 or A153.
- 6.) The zinc-rich paint shall be submitted to the Engineer for approval.

LOWERING AND RAISING OF LIGHT RINGS

Care shall be taken during the lowering and raising of the light rings. Any damage caused by the lowering and raising of the light rings shall be repaired at no additional cost to the State.

Prior to preparing his/her bid, the Contractor shall make a visual inspection of the project to verify the extent of the work and material involved.

The lowering devices are the non-latching type. The portable motor power unit shall consist of a TEFC NEMA 56 C face motor, 240-volt reversible with a magnetic brake attached. It shall be mounted to the winch with an internal bracket and a V-drive belt. The motor shall be equipped with a power cord and a weatherproof connector to mate with the power supply cord connector. The motor shall be operated by a push button control on a 20-foot long extension cord.

The Contractor may contact Jerry Nuber (605-394-4118, Ext 702) at the City of Rapid City with more specific questions regarding the light rings.

GENERAL MAINTENANCE OF TRAFFIC

Storage of vehicles and equipment shall be outside the clear zone and as near as possible to the right-of-way line. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work.

Indiscriminate driving and parking of vehicles within the right-of-way 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.

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 supports.

INVENTORY OF TRAFFIC CONTROL DEVICES

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	1	34	34
TOTAL UNITS					34

The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

The signs illustrated shall be used where there are distracting situations; such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

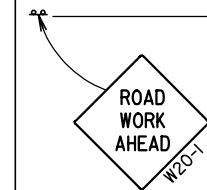
The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

For short term, short duration, or mobile operations, all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 75	1000



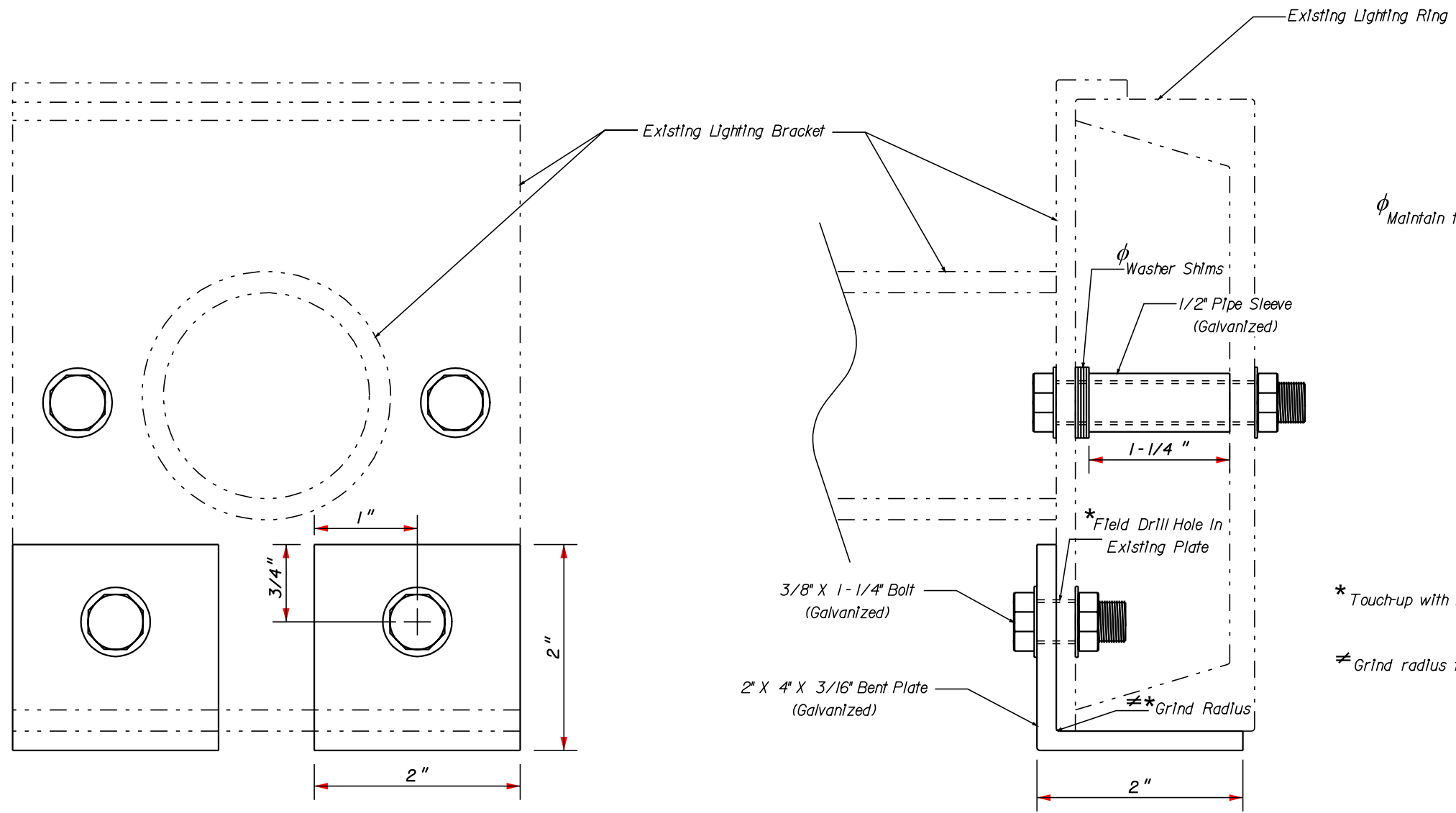
July 1, 2005

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STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	0001-452	4	4

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ϕ Maintain tight fit at top and bottom of lighting ring.

* Touch-up with zinc-rich paint.

≠ Grind radius for tight fit across the bottom of the lighting ring.

GENERAL DRAWING
FOR
EXIT 55 TOWER LIGHTING REPAIR

PENNINGTON COUNTY
S. D. DEPT. OF TRANSPORTATION

JANUARY 2006 (1) OF (1)

DESIGNED BY HE	DRAWN BY JK	CHECKED BY HE	APPROVED <i>John C. Cole</i> BRIDGE ENGINEER
PENNTWRLTS	Lightrepair		

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