NOTE:
The contractor shall provide transverse contraction joints and longitudinal joints to match existing joints.

EXISTING CONCRETE JOINT

FULL OR HALF PANEL LENGTH

PANEL LENGTH VARIES

#5x24" epoxy coated deformed tie bars @ 30" o.c.

#10x18" epoxy coated deformed tie bars at 18" o.c.

1 1/4"x18" epoxy coated smooth round dowel at 18" o.c.

Saw full depth & seal all joints

TRAFFIC

CITY OF RAPID CITY
PUBLIC WORKS DEPARTMENT

CONCRETE PANEL REPLACEMENT LAYOUT

DATE: 5-1-07
SEC. SHT. 40-1
LONGITUDINAL SAWED JOINT
(NEW CONSTRUCTION)

1/4" – 3/8" SAWED JOINT
FILLED W/HOT POURED
ELASTIC JOINT–FILLER

#5 DEFORMED EPOXY
COATED TIE BARS, 30"
LONG, SPACED 48" O.C. *

LONGITUDINAL CONSTRUCTION JOINT W/O TIE BARS
(NEW CONSTRUCTION)

1/4" – 3/8" SAWED JOINT
FILLED W/HOT POURED
ELASTIC JOINT–FILLER

1/2 3/4 2 1/2

#5 DEFORMED EPOXY
COATED TIE BARS, 30"
LONG, SPACED 48" O.C. *

LONGITUDINAL CONSTRUCTION JOINT W/ TIE BARS
(NEW CONSTRUCTION)

1/2 1 1/2 2 1/2

15" 15"

* #4 DEFORMED EPOXY COATED
TIE BAR, 30" LONG, SPACED 36"
O.C. IF BENT BARS ARE PROPOSED
TRANSVERSE EXPANSION JOINT
NEW CONSTRUCTION

TRANSVERSE CONSTRUCTION JOINT WITH TIE BARS
NEW CONSTRUCTION

NOTES:
FOR TRANSVERSE CONSTRUCTION JOINTS, THE #4 EPOXY COATED DEFORMED TIE BARS SHALL BE SPACED 12" CENTER TO CENTER AND APPROXIMATELY 6" FROM THE PAVEMENT EDGES. WHEN A TRANSVERSE CONSTRUCTION JOINT IS MADE, NO PAVING WILL BE DONE IN THIS AREA FOR 12 HOURS.

THE DISTANCE BETWEEN A TRANSVERSE CONSTRUCTION JOINT WITH TIE BARS AND AN ADJACENT TRANSVERSE CONTRACTION JOINT AT ROADWAY CENTERLINE SHALL BE 7 TO 8 FEET.
SAWED JOINT TO BE FILLED WITH HOT-POURED ELASTIC JOINT SEALER

#5 EPOXY COATED DEFORMED TIE BARS SPACED 30" CENTER TO CENTER

DRILLED HOLE WITH EPOXY RESIN

NOTE:
THE TIE BAR IS TO BE ANCHORED INTO THE EXISTING PAVEMENT WITH AN EPOXY RESIN ADHESIVE. TIE BARS SHALL BE PLACED A MINIMUM OF 15" FROM EXISTING TRANSVERSE CONTRACTION JOINTS.

LONGITUDINAL SAWED JOINT
T = EXISTING AND NEW PAVEMENT THICKNESS

SAWED JOINT TO BE FILLED WITH HOT-POURED ELASTIC JOINT SEALER

#10 EPOXY COATED DEFORMED TIE BAR SPACED 18"

EXISTING P.C.C. PAVEMENT

NEW P.C.C. PAVEMENT

DRILLED HOLE W/ EPOXY RESIN FULL DEPTH SAWCUT

TRANSVERSE/LONGITUDINAL CONSTRUCTION JOINT W/ TIE BARS (EXISTING P.C.C. PAVEMENT)

SAWED JOINT TO BE FILLED WITH HOT-POURED ELASTIC JOINT SEALER

#10 EPOXY COATED DEFORMED TIE BAR OR 1 1/4" EPOXY COATED SMOOTH ROUND DOWEL SPACED 18" CENTER TO CENTER

EXISTING PAVEMENT

NEW PAVEMENT

DRILLED HOLE WITH EPOXY RESIN

NOTE:
THE #10 EPOXY COATED DEFORMED TIE BAR IS TO BE ANCHORED INTO THE EXISTING PAVEMENT WITH AN EPOXY RESIN ADHESIVE. TIE BARS SHALL BE PLACED A MINIMUM OF 9" FROM EXISTING LONGITUDINAL JOINTS.

TRANSVERSE EXPANSION JOINT
T = EXISTING AND NEW PAVEMENT THICKNESS

CITY OF RAPID CITY PUBLIC WORKS DEPARTMENT
LONGITUDINAL & TRANSVERSE JOINTS CONNECTING NEW PAVEMENT TO EXISTING
DATE: 5-1-07
SEC.
SHT.
40-4
NOTE:
The first saw cut to control cracking shall be a minimum of 1/4 the depth of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the low modulus silicone joint sealant will be necessary. Backer rod shall be non-moisture absorbing resilient material approximately 25% larger in diameter than the width of the joint to be sealed.

TRANSVERSE CONTRACTION JOINT
W/ BACKER ROD & SILICONE SEAL
NEW CONSTRUCTION
CONSTRUCT FILLETS AND PAN ACCORDING TO STANDARD DETAIL SHEET

EXPANSION JOINT THROUGH CURB & GUTTER

MINIMUM 1' IN LENGTH

TRANVERSE CONSTRUCTION JOINT (TYP)

LONGITUDINAL CONSTRUCTION JOINT W/OUT TIE BARS, TYP

LONGITUDINAL SAWSED JOINT, TYP

LONGITUDINAL CONSTRUCTION JOINT W/TIE BAR (TYP) AT GUTTER LIP

TYPICAL DRIVEWAY ENTRANCE

A. SPACING IN FEET IS TWO TIMES THE PAVEMENT THICKNESS IN INCHES. FIFTEEN FEET MAXIMUM. (FOR 5" PAVEMENT A=10')

JOINT DETAIL

NOTE:

MANHOLE BLOCKOUT DETAIL

NOTE:
ALL MANHOLE CASTINGS LOCATED WITHIN THE PAVEMENT LIMITS SHALL BE SEPARATED FROM THE PAVEMENT BY BOXING THEM OUT AS SHOWN IN THE DETAIL. MATCH PAVEMENT JOINTS TO MANHOLE BLOCKOUT CORNERS AS DIRECTED BY THE ENGINEER.