

SOUTH APPROACH FRAMING PLAN

PROCEDURE TO LOWER DIAPHRAGMS

NOTE: TEMPORARY DIAPHRAGM SUPPORT AND MEANS OF LOWERING MUST BE INPLACE PRIOR TO REMOVAL OF RIVETS.

1. REMOVE ALL RIVETS THAT ATTACH DIAPHRAGM TO THE WEB STIFFENERS.
2. LOWER DIAPHRAGM SO THAT ONE GUSSET PLATE RESTS ON THE BOTTOM FLANGE OF THE HIGHEST GIRDER.
3. TEMPORARILY SUPPORT DIAPHRAGM IN A LEVEL POSITION.
4. DRILL FOUR 1 5/16" DIAMETER HOLES IN STIFFENER AT EACH END OF DIAPHRAGM, AS INDICATED ON SHEET 3, USING HOLES IN DIAPHRAGM AS A TEMPLATE.
5. INSERT 3/4" X 2" A325 BOLTS (WITH NUT AND TWO WASHERS) IN NEW HOLES AND TIGHTEN PER SPEC. 2402.3G2c(4). BOLT ROTATION SHALL BE 1/3 TURN BEYOND "SNUG TIGHT".
6. PAINT EXPOSED BARE METAL AREAS PER THE SPECIAL PROVISIONS.

SUMMARY OF QUANTITIES FOR SOUTH APPROACH

3/8" Ø RIVETS REMOVED	1944
1 5/16" Ø HOLES IN STIFFENERS	432
3/4" Ø BOLTS (W/ NUT AND 2 WASHERS)	432

MAXIMUM WEIGHT OF ONE DIAPHRAGM = 553 LBS.

APPROVED 1-4, 1999

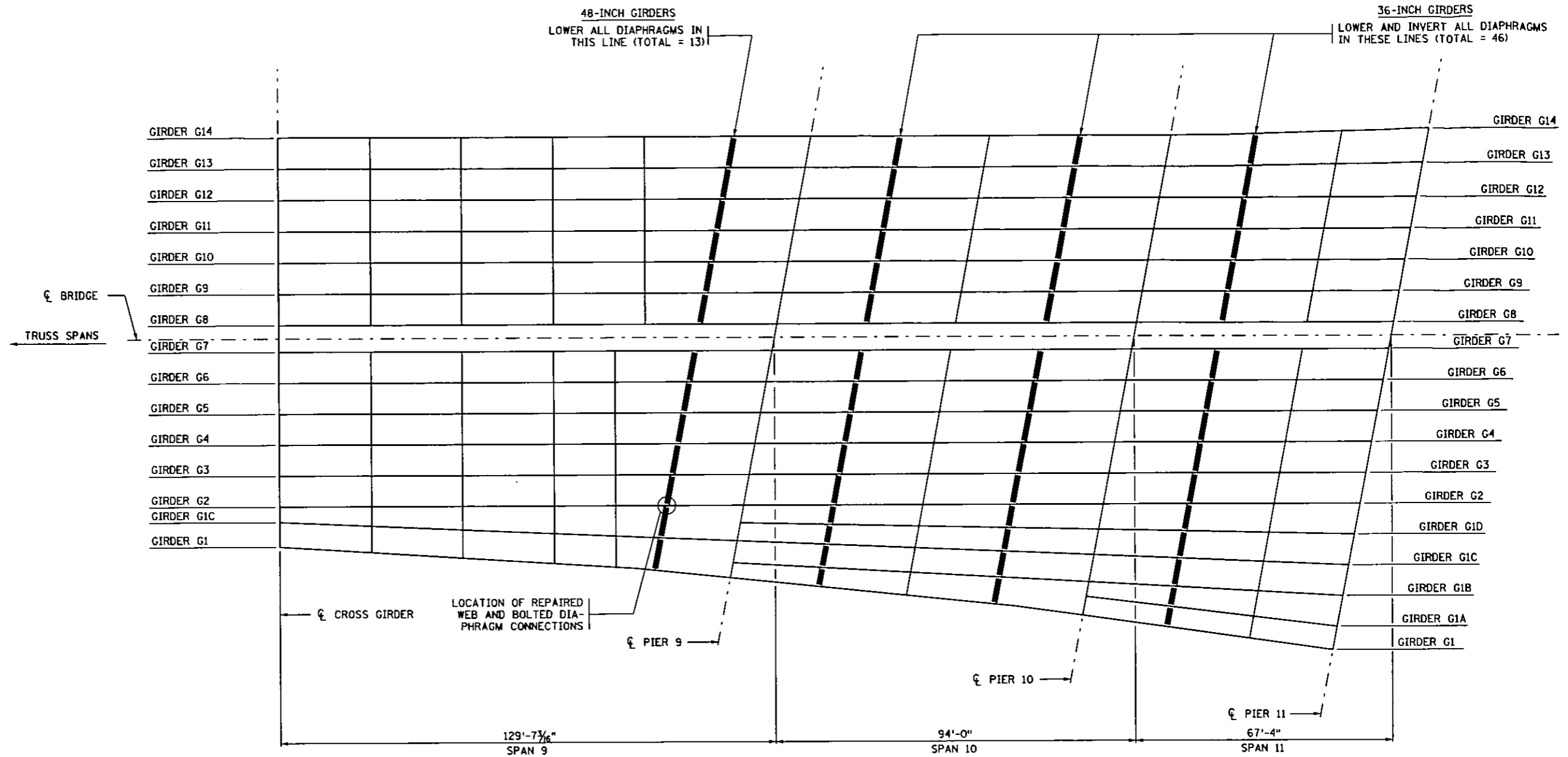
Donald J. Manning
STATE BRIDGE ENGINEER

CERTIFIED BY Arthur O. Thomas TITLE: PROFESSIONAL ENGINEER
REG. NO. 7378 1/4 1999

SOUTH APPROACH FRAMING PLAN

DES: ADO	DR: RWS	APPROVED:
CHK: EOW	CHK: ADO	
SHEET NO. 1 OF 3 SHEETS		

BRIDGE NO. 9340



NORTH APPROACH FRAMING PLAN

PROCEDURE TO LOWER DIAPHRAGMS AT 48-INCH GIRDERS

NOTE: TEMPORARY DIAPHRAGM SUPPORT AND MEANS OF LOWERING MUST BE INPLACE PRIOR TO REMOVAL OF RIVETS.

1. REMOVE ALL RIVETS THAT ATTACH DIAPHRAGM TO THE WEB STIFFENERS.
2. LOWER DIAPHRAGM SO THAT ONE GUSSET PLATE RESTS ON THE BOTTOM FLANGE OF THE HIGHEST GIRDER.
3. TEMPORARILY SUPPORT DIAPHRAGM IN A LEVEL POSITION.
4. DRILL FOUR 1 5/16" DIAMETER HOLES IN STIFFENER AT EACH END OF DIAPHRAGM, AS INDICATED ON SHEET 3, USING HOLES IN DIAPHRAGM AS A TEMPLATE.
5. INSERT 3/4" X 2" A325 BOLTS (WITH NUT AND TWO WASHERS) IN NEW HOLES AND TIGHTEN PER SPEC. 2402.3G2c(4). BOLT ROTATION SHALL BE 1/3 TURN BEYOND "SNUG TIGHT". MAR THREADS AFTER INSTALLATION.
6. PAINT EXPOSED BARE METAL AREAS PER THE SPECIAL PROVISIONS.

PROCEDURE TO LOWER AND INVERT DIAPHRAGMS AT 36-INCH GIRDERS

NOTE: TEMPORARY DIAPHRAGM SUPPORT AND MEANS OF LOWERING AND INVERTING MUST BE INPLACE PRIOR TO REMOVAL OF RIVETS.

1. REMOVE ALL RIVETS THAT ATTACH DIAPHRAGM TO THE WEB STIFFENERS.
2. INVERT AND LOWER DIAPHRAGM SO THAT ONE END OF DIAPHRAGM RESTS ON THE BOTTOM FLANGE OF THE HIGHEST GIRDER.
3. TEMPORARILY SUPPORT DIAPHRAGM IN A LEVEL POSITION.
4. DRILL FOUR 1 5/16" DIAMETER HOLES IN STIFFENER AT EACH END OF DIAPHRAGM, AS INDICATED ON SHEET 3, USING HOLES IN DIAPHRAGM AS A TEMPLATE.
5. INSERT 3/4" X 2" A325 BOLTS (WITH NUT AND TWO WASHERS) IN NEW HOLES AND TIGHTEN PER SPEC. 2402.3G2c(4). BOLT ROTATION SHALL BE 1/3 TURN BEYOND "SNUG TIGHT". MAR THREADS AFTER INSTALLATION.
6. PAINT EXPOSED BARE METAL AREAS PER THE SPECIAL PROVISIONS.

SUMMARY OF QUANTITIES FOR NORTH APPROACH

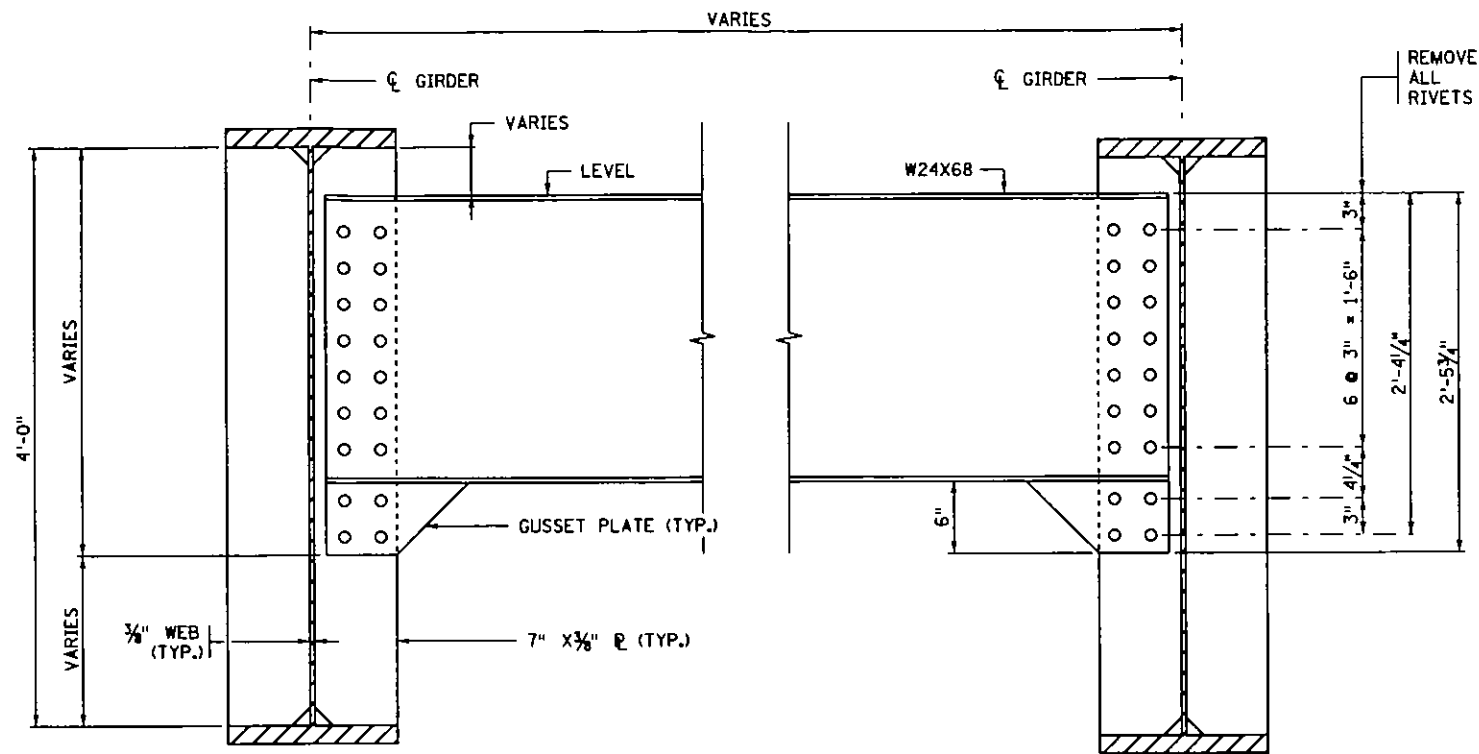
① 7/8" Ø RIVETS REMOVED	1756
1 5/16" Ø HOLES IN STIFFENERS	472
3/4" Ø BOLTS (W/ NUT AND 2 WASHERS)	472

① INCLUDES 36 BOLTS AT SITE OF REPAIRED WEB.

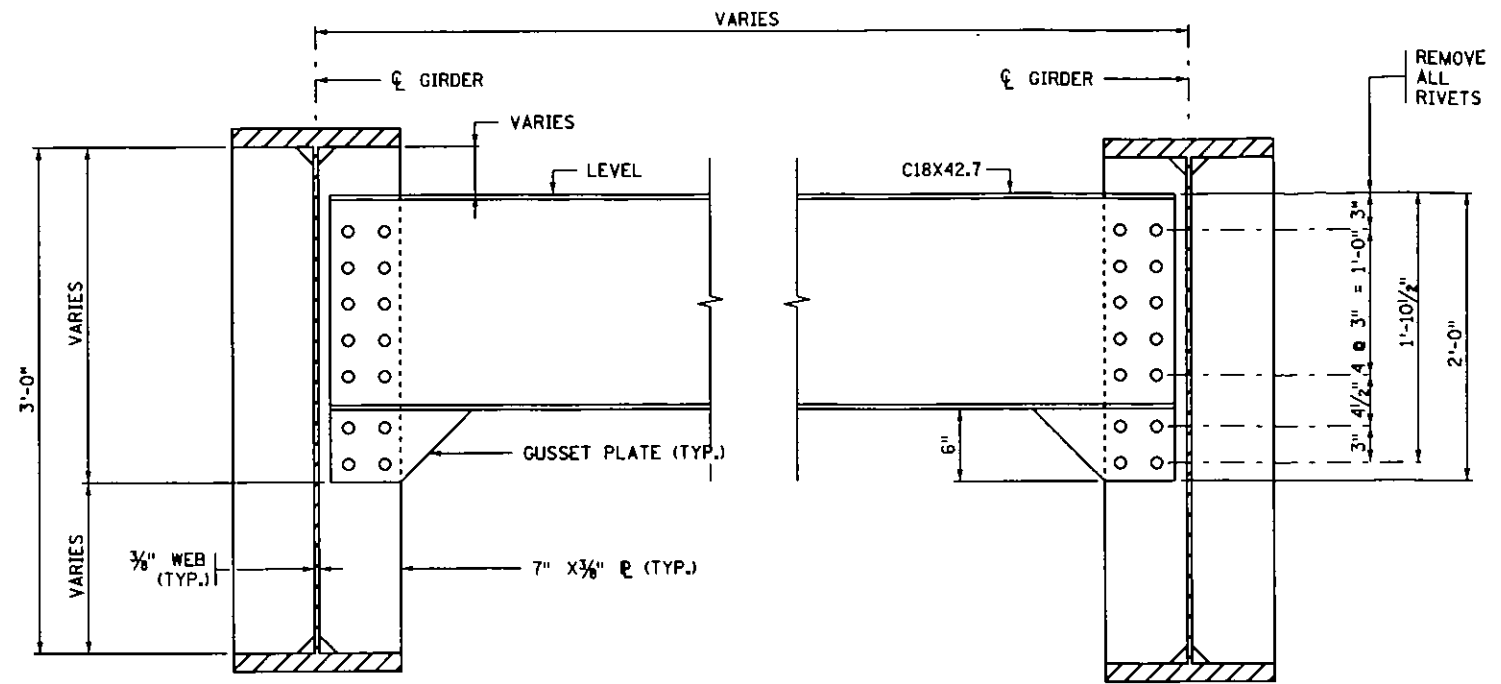
MAXIMUM WEIGHT OF ONE DIAPHRAGM @ 48" GIRDER = 591 LBS.

MAXIMUM WEIGHT OF ONE DIAPHRAGM @ 36" GIRDER = 215 LBS.

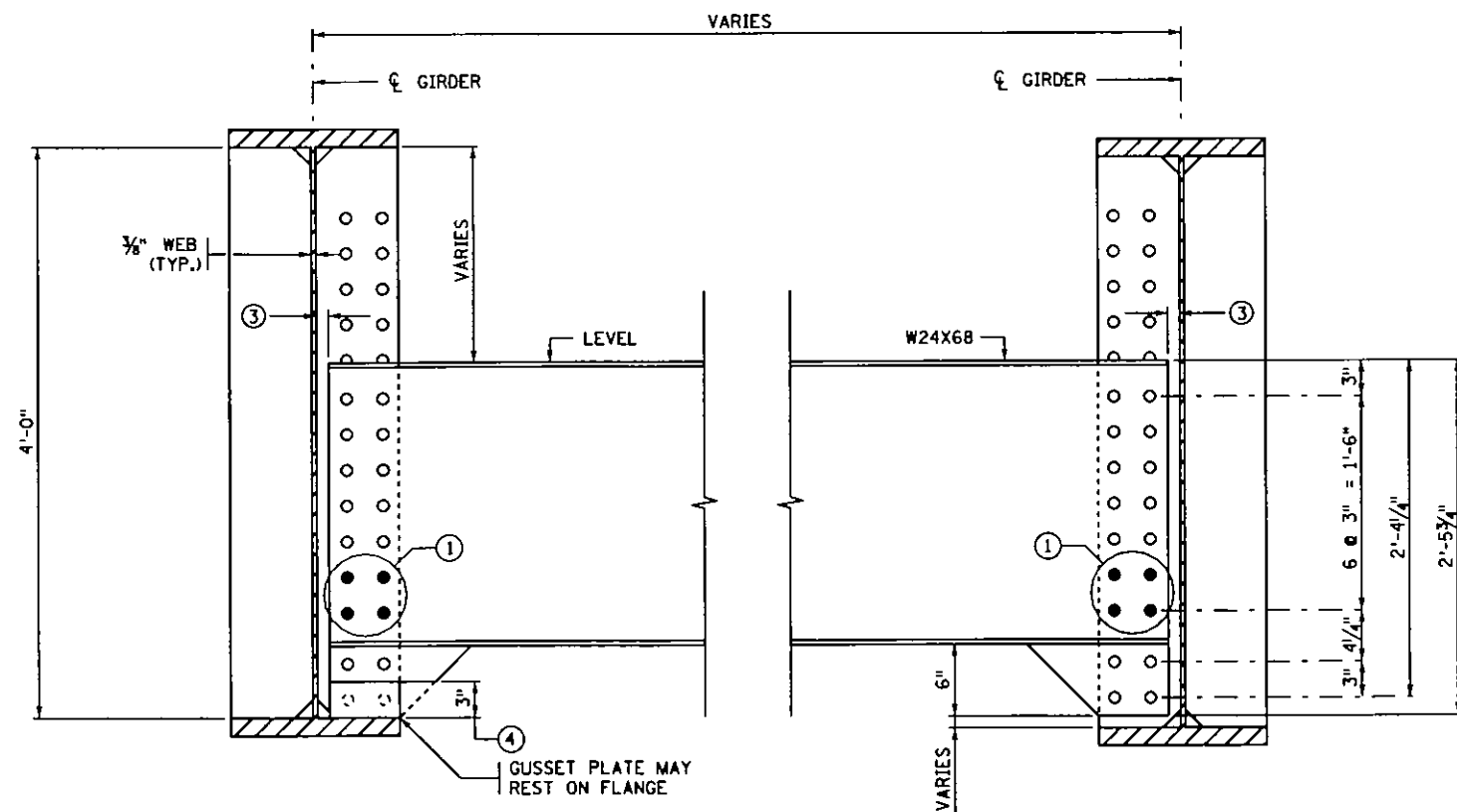
CERTIFIED BY <i>Arlen Ottman</i> PROFESSIONAL ENGINEER REG. NO. 7578	TITLE NORTH APPROACH FRAMING PLAN	DES: ADO	DR: RWS	APPROVED:	BRIDGE NO. 9340
		CHK: EOW	CHK: ADO		
SHEET NO. 2 OF 3 SHEETS					



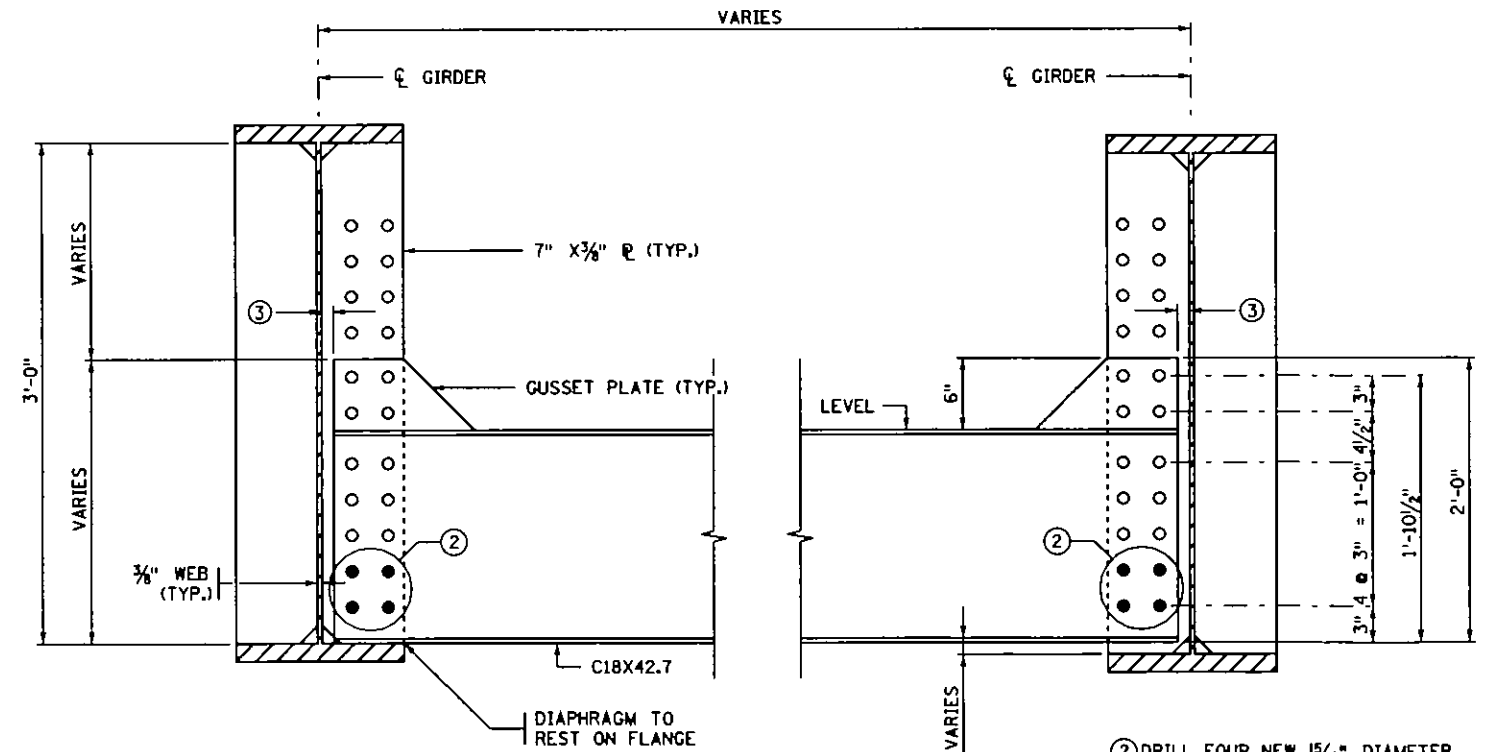
ORIGINAL DIAPHRAGM POSITION
48-INCH GIRDER



ORIGINAL DIAPHRAGM POSITION
36-INCH GIRDER



LOWERED DIAPHRAGM POSITION
48-INCH GIRDER



LOWERED AND INVERTED DIAPHRAGM POSITION
36-INCH GIRDER

② DRILL FOUR NEW 15/16" DIAMETER HOLES, AS INDICATED, IN STIFFENER AT EACH END OF DIAPHRAGM USING DIAPHRAGM AS A TEMPLATE. INSERT 3/4" Ø BOLTS AND TIGHTEN PER PROCEDURE ON SHEETS 1 AND 2.

① DRILL FOUR NEW 15/16" DIAMETER HOLES, AS INDICATED, IN STIFFENER AT EACH END OF DIAPHRAGM USING DIAPHRAGM AS A TEMPLATE. INSERT 3/4" Ø BOLTS AND TIGHTEN PER PROCEDURE ON SHEETS 1 AND 2.

③ MAINTAIN ORIGINAL CLEARANCE BETWEEN DIAPHRAGM AND WEB.

④ CUTOFF GUSSET PLATE TO PROVIDE HOLE CLEARANCE. WILL BE NECESSARY AT ALL DIAPHRAGMS AT HIGH GIRDER ON SOUTH APPROACH.

NOTE: ALL DIAPHRAGMS ARE LEVEL IN PLACE AND SHALL REMAIN LEVEL IN LOWERED POSITION.

CERTIFIED BY *Valerie Ottman*
REG. NO. 7578 12/15 1998
PROFESSIONAL ENGINEER

TITLE
DIAPHRAGM DETAILS

DES: ADD	DR: RWS	APPROVED:
CHK: EOW	CHK: ADO	
SHEET NO. 3 OF 3 SHEETS		

BRIDGE NO.
9340