**HEADWALL SUPPLEMENT DRAWING LIST**

COPY ANY OF THE APPLICABLE HEADWALL SUPPLEMENT DRAWINGS BELOW INTO THE “STANDARD DRAWINGS THAT APPLY” FILE

**ROADWAY**

***~ PIPE AND BOX CULVERT HEADWALLS*** ***~***

PIPE CULVERT HEADWALLS

 *12” – 27” - SINGLE LINE PIPE*

CONCRETE HEADWALLS FOR 12” - 27” CIRCULAR PIPE CULVERTS RDH-005-02

CONCRETE HEADWALLS FOR 15” - 27” NON-CIRCULAR PIPE CULVERTS RDH-010-02

SLOPED AND FLARED HEADWALLS FOR 12” TO 27” PIPE RDH-020-03

SLOPED AND PARALLEL HEADWALLS, 12” TO 21” PIPE RDH-030-03

U-TYPE HEADWALLS RDH-050-02

 *30” – 108” - SINGLE LINE PIPE*

PIPE CULVERT HEADWALLS, 0° SKEW (LAYOUT AND STEEL PATTERN) RDH-110-02

PIPE CULVERT HEADWALLS, 15°, 30°, AND 45° SKEW (LAYOUT AND STEEL PATTERN) RDH-120-02

DIMENSIONS AND QUANTITIES, 30” TO 108” HEADWALLS, CIRCULAR PIPE, 0° SKEW RDH-210-03

DIMENSIONS AND QUANTITIES, 30” TO 108” HEADWALLS, CIRCULAR PIPE, 15° SKEW RDH-212-02

DIMENSIONS AND QUANTITIES, 30” TO 108” HEADWALLS, CIRCULAR PIPE, 30° SKEW RDH-214-03

DIMENSIONS AND QUANTITIES, 30” TO 108” HEADWALLS, CIRCULAR PIPE, 45° SKEW RDH-216-02

DIMENSIONS AND QUANTITIES, 30” TO 72” HEADWALLS, NON-CIRCULAR PIPE, 0° SKEW RDH-220-02

DIMENSIONS AND QUANTITIES, 30” TO 72” HEADWALLS, NON-CIRCULAR PIPE, 15° SKEW RDH-222-02

DIMENSIONS AND QUANTITIES, 30” TO 72” HEADWALLS, NON-CIRCULAR PIPE, 30° SKEW RDH-224-02

DIMENSIONS AND QUANTITIES, 30” TO 72” HEADWALLS, NON-CIRCULAR PIPE, 45° SKEW RDH-226-02

BILL OF REINFORCEMENT 30” TO 90” DIAMETER, CIRCULAR PIPE, HEADWALLS, 0° SKEW RDH-310-04

BILL OF REINFORCEMENT 96” TO 108” DIAMETER, CIRCULAR PIPE, HEADWALLS, 0° SKEW RDH-312-04

BILL OF REINFORCEMENT 30” TO 72” DIAMETER, CIRCULAR PIPE, HEADWALLS, 15° SKEW RDH-320-04

BILL OF REINFORCEMENT 78” TO 108” DIAMETER, CIRCULAR PIPE, HEADWALLS, 15° SKEW RDH-322-04

BILL OF REINFORCEMENT 30” TO 66” DIAMETER, CIRCULAR PIPE, HEADWALLS, 30° SKEW RDH-330-04

BILL OF REINFORCEMENT 72” TO 96” DIAMETER, CIRCULAR PIPE, HEADWALLS, 30° SKEW RDH-332-03

BILL OF REINFORCEMENT 102” TO 108” DIAMETER, CIRCULAR PIPE, HEADWALLS, 30° SKEW RDH-334-04

BILL OF REINFORCEMENT 30” TO 66” DIAMETER, CIRCULAR PIPE, HEADWALLS, 45° SKEW RDH-340-05

BILL OF REINFORCEMENT 72” TO 96” DIAMETER, CIRCULAR PIPE, HEADWALLS, 45° SKEW RDH-342-04

BILL OF REINFORCEMENT 102” TO 108” DIAMETER, CIRCULAR PIPE, HEADWALLS, 45° SKEW RDH-344-04

BILL OF REINFORCEMENT 30” TO 72” DIAMETER, NON-CIRCULAR PIPE, 0° SKEW RDH-350-03

BILL OF REINFORCEMENT 30” TO 72” DIAMETER, NON-CIRCULAR PIPE, 15° SKEW RDH-360-04

BILL OF REINFORCEMENT 30” TO 60” DIAMETER, NON-CIRCULAR PIPE, 30° SKEW RDH-370-05

BILL OF REINFORCEMENT 66” TO 72” DIAMETER, NON-CIRCULAR PIPE, 30° SKEW RDH-372-04

BILL OF REINFORCEMENT 30” TO 60” DIAMETER, NON-CIRCULAR PIPE, 45° SKEW RDH-380-04

BILL OF REINFORCEMENT 66” TO 72” DIAMETER, NON-CIRCULAR PIPE, 45° SKEW RDH-382-04

 *7’-0”X 5’-1” – 15’-4” X 9’-3” SINGLE LINE PIPE*

STEEL PIPE ARCH HEADWALLS - 0° SKEW (PIPE RISE LESS THAN 6’- 0”) (LAYOUT AND

 STEEL PATTERN) RDH-400-02

STEEL PIPE ARCH HEADWALLS - 0° SKEW (PIPE RISE 6’- 0” OR GREATER) (LAYOUT AND

 STEEL PATTERN) RDH-405-02

STEEL PIPE ARCH HEADWALLS - 15° - 30° - 45° SKEW (PIPE RISE LESS THAN 6’- 0”)

 (LAYOUT AND STEEL PATTERN) RDH-410-02

STEEL PIPE ARCH HEADWALLS - 15° - 30° - 45° SKEW (PIPE RISE 6’- 0” OR GREATER)

 (LAYOUT AND STEEL PATTERN) RDH-415-02

DIMENSIONS STEEL PIPE ARCHES - 0° SKEW AND 15° SKEW RDH-420-02

DIMENSIONS STEEL PIPE ARCHES - 30° SKEW AND 45° SKEW RDH-425-02

QUANTITIES FOR STEEL PIPE ARCHES - 0° - 15° - 30° AND 45° SKEW RDH-430-02

BILL OF REINFORCEMENT 7’- 0” X 5’-1” – 15’- 4” X 9’-3” STEEL PIPE ARCHES - 0° SKEW RDH-435-04

BILL OF REINFORCEMENT 7’- 0” X 5’- 1” – 12’- 10” X 8’- 4” STEEL PIPE ARCHES - 15° SKEW RDH-440-03

BILL OF REINFORCEMENT 15’- 4” X 9’- 3” STEEL PIPE ARCHES - 15° SKEW RDH-445-03

BILL OF REINFORCEMENT 7’- 0” X 5’- 1” – 12’- 10” X 8’- 4” STEEL PIPE ARCHES - 30° SKEW RDH-450-03

BILL OF REINFORCEMENT 15’- 4” X 9’-3” STEEL PIPE ARCHES - 30° SKEW RDH-455-03

BILL OF REINFORCEMENT 7’- 0” X 5’- 1” – 11’- 5” X 7’- 3” STEEL PIPE ARCHES - 45° SKEW RDH-460-03

BILL OF REINFORCEMENT 12’- 10” X 8’- 4” – 15’- 4” X 9’- 3” STEEL PIPE ARCHES - 45° SKEW RDH-465-03

 *18” – 48” MULTIPLE LINE PIPE*

18” – 24” DOUBLE AND TRIPLE PIPE CULVERT HEADWALLS AT 0° SKEW RDH-500-03

DOUBLE PIPE CULVERT HEADWALLS, 0° SKEW RDH-510-04

TRIPLE PIPE CULVERT HEADWALLS, 0° SKEW RDH-520-05

DIMENSIONS AND QUANTITIES 30” – 48” DOUBLE AND TRIPLE HEADWALLS,

 CIRCULAR PIPE, 0° SKEW RDH-522-02

BILL OF REINFORCEMENT 30” – 48” DOUBLE AND TRIPLE HEADWALLS,

 CIRCULAR PIPE, 0° SKEW RDH-524-03

DOUBLE PIPE CULVERT HEADWALLS, 15° - 30° AND 45° SKEW RDH-530-04

DIMENSIONS AND QUANTITIES 30” – 48” DOUBLE HEADWALLS, CIRCULAR PIPE,

 15° - 30° - 45° SKEW RDH-532-04

BILL OF REINFORCEMENT 30” – 48” DOUBLE HEADWALLS, CIRCULAR PIPE,

 15° - 30° SKEW RDH-534-03

BILL OF REINFORCEMENT 30” – 48” DOUBLE HEADWALLS, CIRCULAR PIPE, 45° SKEW RDH-536-03

BOX CULVERT HEADWALLS

 *3’ X 2’ – 12’ X 12’ SINGLE LINE BOX*

PRECAST BOX CULVERT HEADWALLS - 0° SKEW (BOX RISE LESS THAN 6’- 0”)

 (LAYOUT AND STEEL PATTERN) RDH-1000-02

PRECAST BOX CULVERT HEADWALLS - 0° SKEW (BOX RISE 6’- 0” OR GREATER)

 (LAYOUT AND STEEL PATTERN) RDH-1005-02

PRECAST BOX CULVERT HEADWALLS - 15° - 30° AND 45° SKEW (BOX RISE LESS THAN 6’-0”)

 (LAYOUT AND STEEL PATTERN) RDH-1010-02

PRECAST BOX CULVERT HEADWALLS - 15° - 30° AND 45° SKEW (BOX RISE 6’- 0” OR GREATER)

 (LAYOUT AND STEEL PATTERN) RDH-1015-02

DIMENSIONS 3’ X 2’ – 6’ X 6’ HEADWALLS, PRECAST BOX CULVERT - 0° SKEW RDH-1100-02

DIMENSIONS 7’ X 4’ – 9’ X 9’ HEADWALLS, PRECAST BOX CULVERT - 0° SKEW RDH-1105-02

DIMENSIONS 10’ X 5’ – 11’ X 11’ HEADWALLS, PRECAST BOX CULVERT - 0° SKEW RDH-1110-02

DIMENSIONS 12’ X 4’ – 12’ X 12’ HEADWALLS, PRECAST BOX CULVERT - 0° SKEW RDH-1115-02

DIMENSIONS 3’ X 2’ – 6’ X 6’ HEADWALLS, PRECAST BOX CULVERT - 15° SKEW RDH-1120-02

DIMENSIONS 7’ X 4’ – 9’ X 9’ HEADWALLS, PRECAST BOX CULVERT - 15° SKEW RDH-1125-02

DIMENSIONS 10’ X 5’ – 11’ X 11’ HEADWALLS, PRECAST BOX CULVERT - 15° SKEW RDH-1130-02

DIMENSIONS 12’ X 4’ – 12’ X 12’ HEADWALLS, PRECAST BOX CULVERT - 15° SKEW RDH-1135-02

DIMENSIONS 3’ X 2’ – 6’ X 6’ HEADWALLS, PRECAST BOX CULVERT - 30° SKEW RDH-1140-02

DIMENSIONS 7’ X 4’ – 9’ X 9’ HEADWALLS, PRECAST BOX CULVERT - 30° SKEW RDH-1145-02

DIMENSIONS 10’ X 5’ – 11’ X 11’ HEADWALLS, PRECAST BOX CULVERT - 30° SKEW RDH-1150-02

DIMENSIONS 12’ X 4’ – 12’ X 12’ HEADWALLS, PRECAST BOX CULVERT - 30° SKEW RDH-1155-02

DIMENSIONS 3’ X 2’ – 6’ X 6’ HEADWALLS, PRECAST BOX CULVERT - 45° SKEW RDH-1160-02

DIMENSIONS 7’ X 4’ – 9’ X 9’ HEADWALLS, PRECAST BOX CULVERT - 45° SKEW RDH-1165-02

DIMENSIONS 10’ X 5’ – 11’ X 11’ HEADWALLS, PRECAST BOX CULVERT - 45° SKEW RDH-1170-02

DIMENSIONS 12’ X 4’ – 12’ X 12’ HEADWALLS, PRECAST BOX CULVERT - 45° SKEW RDH-1175-02

QUANTITIES 3’ X 2’ – 12’ X 12’ HEADWALLS, PRECAST BOX CULVERTS - 0° SKEW RDH-1200-02

QUANTITIES 3’ X 2’ – 12’ X 12’ HEADWALLS, PRECAST BOX CULVERTS - 15° SKEW RDH-1205-02

QUANTITIES 3’ X 2’ – 12’ X 12’ HEADWALLS, PRECAST BOX CULVERTS - 30° SKEW RDH-1210-02

QUANTITIES 3’ X 2’ – 12’ X 12’ HEADWALLS, PRECAST BOX CULVERTS - 45° SKEW RDH-1215-02

BILL OF REINFORCEMENT 3’ X 2’ – 7’ X 4’ HEADWALLS, PRECAST BOX CULVERTS –

 0° SKEW RDH-1300-03

BILL OF REINFORCEMENT 7’ X 5’ – 9’ X 7’ HEADWALLS, PRECAST BOX CULVERTS –

 0° SKEW RDH-1302-03

BILL OF REINFORCEMENT 9’ X 8’ – 11’ X 4’ HEADWALLS, PRECAST BOX CULVERTS –

 0° SKEW RDH-1304-03

BILL OF REINFORCEMENT 11’ X 6’ – 12’ X 10’ HEADWALLS, PRECAST BOX CULVERTS –

 0° SKEW RDH-1306-03

BILL OF REINFORCEMENT 12’ X 12’ HEADWALLS, PRECAST BOX CULVERTS - 0° SKEW RDH-1308-03

BILL OF REINFORCEMENT 3’ X 2’ – 5’ X 5’ HEADWALLS, PRECAST BOX CULVERTS –

 15° SKEW RDH-1310-03

BILL OF REINFORCEMENT 6’ X 3’ – 7’ X 5’ HEADWALLS, PRECAST BOX CULVERTS –

 15° SKEW RDH-1312-03

BILL OF REINFORCEMENT 7’ X 6’ – 8’ X 6’ HEADWALLS, PRECAST BOX CULVERTS –

 15° SKEW RDH-1314-03

BILL OF REINFORCEMENT 8’ X 7’ – 9’ X 7’ HEADWALLS, PRECAST BOX CULVERTS –

 15° SKEW RDH-1316-03

BILL OF REINFORCEMENT 9’ X 8’ – 10’ X 7’ HEADWALLS, PRECAST BOX CULVERTS –

 15° SKEW RDH-1318-03

BILL OF REINFORCEMENT 10’ X 8’ – 11’ X 4’ HEADWALLS, PRECAST BOX CULVERTS –

 15° SKEW RDH-1320-03

BILL OF REINFORCEMENT 11’ X 6’ – 11’ X 11’ HEADWALLS, PRECAST BOX CULVERTS –

 15° SKEW RDH-1322-03

BILL OF REINFORCEMENT 12’ X 4’ – 12’ X 10’ HEADWALLS, PRECAST BOX CULVERTS –

 15° SKEW RDH-1324-03

BILL OF REINFORCEMENT 12’ X 12’ HEADWALLS, PRECAST BOX CULVERTS –

 15° SKEW RDH-1326-03

BILL OF REINFORCEMENT 3’ X 2’ – 5’ X 4’ HEADWALLS, PRECAST BOX CULVERTS –

 30° SKEW RDH-1328-03

BILL OF REINFORCEMENT 5’ X 5’ – 7’ X 4’ HEADWALLS, PRECAST BOX CULVERTS –

 30° SKEW RDH-1330-03

BILL OF REINFORCEMENT 7’ X 5’ – 8’ X 5’ HEADWALLS, PRECAST BOX CULVERTS –

 30° SKEW RDH-1332-03

BILL OF REINFORCEMENT 8’ X 6’ – 9’ X 5’ HEADWALLS, PRECAST BOX CULVERTS –

 30° SKEW RDH-1334-03

BILL OF REINFORCEMENT 9’ X 6’ – 9’ X 9’ HEADWALLS, PRECAST BOX CULVERTS –

 30° SKEW RDH-1336-03

BILL OF REINFORCEMENT 10’ X 5’ – 10’ X 8’ HEADWALLS, PRECAST BOX CULVERTS –

 30° SKEW RDH-1338-03

BILL OF REINFORCEMENT 10’ X 9’ – 11’ X 6’ HEADWALLS, PRECAST BOX CULVERTS –

 30° SKEW RDH-1340-03

BILL OF REINFORCEMENT 11’ X 8’ – 11’ X 11’ HEADWALLS, PRECAST BOX CULVERTS –

 30° SKEW RDH-1342-03

BILL OF REINFORCEMENT 12’ X 4’ – 12’ X 8’ HEADWALLS, PRECAST BOX CULVERTS –

 30° SKEW RDH-1344-03

BILL OF REINFORCEMENT 12’ X 10’ – 12’ X 12’ HEADWALLS, PRECAST BOX CULVERTS –

 30° SKEW RDH-1346-03

BILL OF REINFORCEMENT 3’ X 2’ – 5’ X 3’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1348-03

BILL OF REINFORCEMENT 5’ X 4’ – 6’ X 5’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1350-03

BILL OF REINFORCEMENT 6’ X 6’ – 7’ X 6’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1352-04

BILL OF REINFORCEMENT 7’ X 7’ – 8’ X 6’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1354-03

BILL OF REINFORCEMENT 8’ X 7’ – 9’ X 6’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1356-03

BILL OF REINFORCEMENT 9’ X 7’ – 9’ X 9’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1358-03

BILL OF REINFORCEMENT 10’ X 5’ – 10’ X 7’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1360-03

BILL OF REINFORCEMENT 10’ X 8’ – 10’ X 10’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1362-03

BILL OF REINFORCEMENT 11’ X 4’ – 11’ X 8’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1364-03

BILL OF REINFORCEMENT 11’ X 10’ – 12’ X 4’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1366-03

BILL OF REINFORCEMENT 12’ X 6’ – 12’ X 10’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1368-03

BILL OF REINFORCEMENT 12’ X 12’ HEADWALLS, PRECAST BOX CULVERTS –

 45° SKEW RDH-1370-03