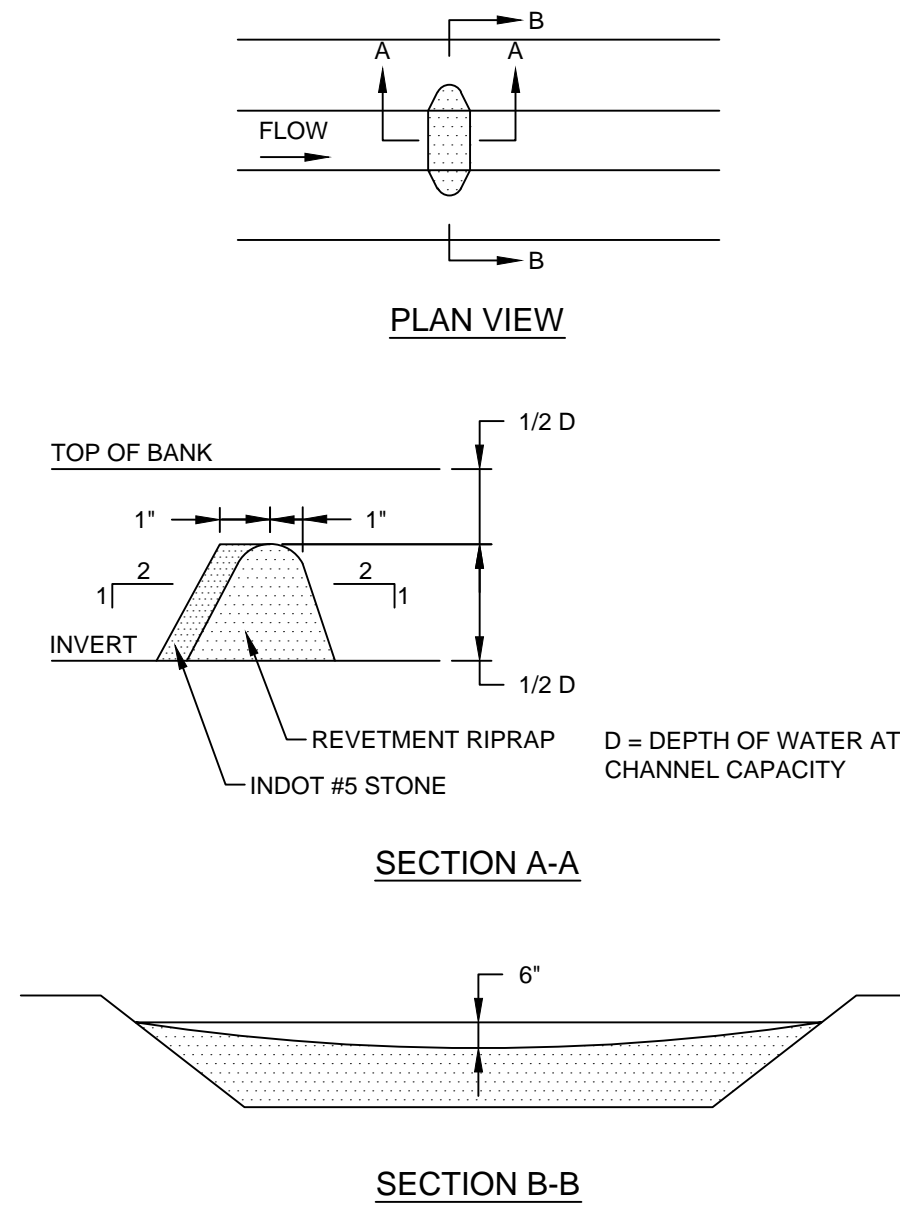
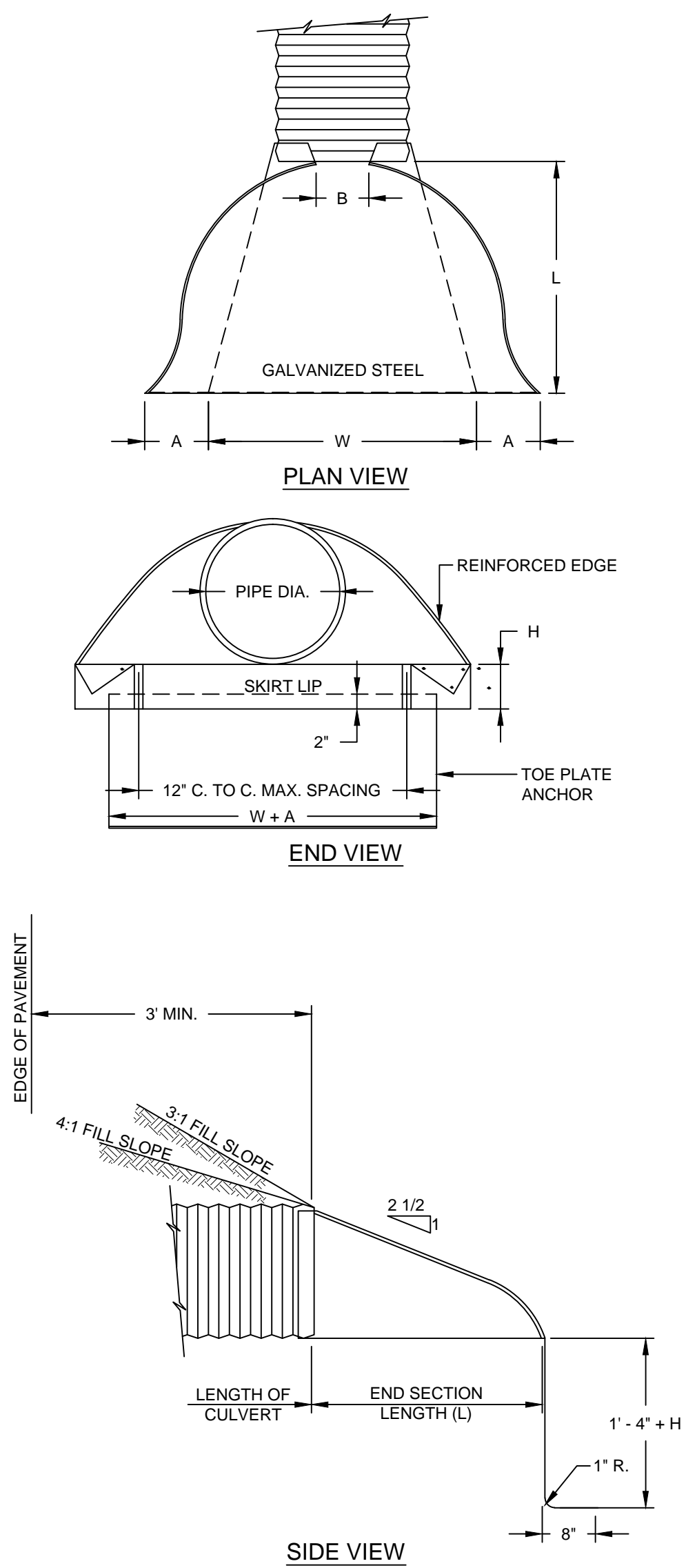


DRIVEWAY CULVERT - DETAIL

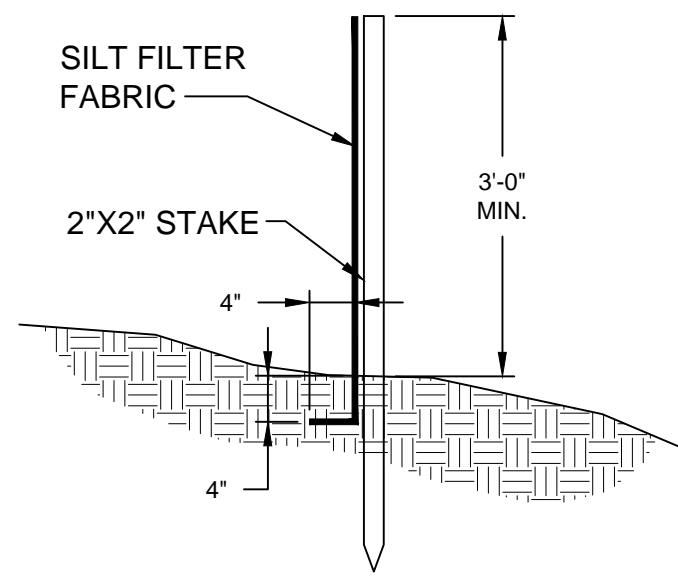
NOT TO SCALE



ROCK FILTER CHECK DAMS SHALL BE INSPECTED AFTER ANY RAINFALL OR SNOW MELT RUNOFF EVENT TO ENSURE PROPER FUNCTIONING. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES 1/2" OF THE ORIGINAL HEIGHT. REGULAR INSPECTIONS SHOULD BE MADE TO ENSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM MUST BE CORRECTED IMMEDIATELY.

ROCK FILTER CHECK DAM

NOT TO SCALE



SILT FENCE DETAIL

NOT TO SCALE

EROSION CONTROL PLAN

DURING ALL PHASES OF CONSTRUCTION, THE SITE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL EXERCISE MEASURES TO PREVENT THE EROSION OF SOILS DUE TO THE ACTION OF WATER AND WIND. THE CONTRACTORS SHALL USE THE FOLLOWING MEASURES TO ACCOMPLISH THIS OBJECTIVE:

- A. SURFACE PROTECTION**
 - CLEARING SHALL BE LIMITED SO AS TO EXPOSE THE SMALLEST POSSIBLE AREA OF LAND FOR THE SHORTEST POSSIBLE TIME.
 - EXPOSED AREAS SHALL BE IMMEDIATELY GRADED AND PROTECTED WITH TEMPORARY OR PERMANENT COVER, SUCH AS SOD, SEED AND MULCH, CROWVETCH, LESPEDEZA OR CREEPER. NEWLY-GRADED CHANNELS OR STEEP SLOPES WILL REQUIRE THE USE OF FIBROUS MATTING, NETTING OF SEEDED AND MULCHED AREAS, OR THE STAKING OR SHINGLING OF SOD WHILE VEGETATION IS BECOMING ESTABLISHED.
- B. RUN-OFF CONTROL**
 - LONG AND/OR STEEP SLOPES WILL REQUIRE CONTOUR BENCHING AND FURROWING, OR BERMS TO REDUCE RUN-OFF VELOCITIES.
- C. SEDIMENT TRAPPING**
 - THE TRAPPING OF ERODED PARTICLES WILL BE ACCOMPLISHED BY THE DIVERSION OF RUN-OFF TO SEDIMENT BASINS, EXCAVATION TRAPS, BERMS, STAKED HAY BALES, OR FLOATING SILT CURTAINS.
 - THE PROPOSED RETENTION AND/OR DETENTION POND(S) ALONG WITH ANY ENVIRONMENTAL BERM(S)/REAR YARD SWALE(S) SHALL BE CONSTRUCTED FIRST. THE POND(S) AND OUTFALL STRUCTURE(S) MUST BE COMPLETE AND OPERATIONAL PRIOR TO THE PLACEMENT OF ANY IMPERVIOUS SURFACE.
 - TRAPPING DEVICES SHALL BE PERIODICALLY INSPECTED DURING DRY PERIODS AND AFTER EACH RAINFALL EVENT BY THE SITE CONTRACTOR. TRAPPING DEVICES SHALL BE REPLACED IF DETERMINED TO BE INCAPABLE OF PERFORMING INTENDED FUNCTION OF SEDIMENT TRAPPING.
 - TRAPPING DEVICES SHALL REMAIN IN PLACE UNTIL A VEGETATIVE COVER HAS ESTABLISHED SUFFICIENTLY TO STABILIZE THE SOILS AND PREVENT EROSION.
- D. SOIL MOISTURE**
 - THE CONTRACTOR SHALL HAVE AVAILABLE ON THE CONSTRUCTION SITE A WATER SOURCE CAPABLE OF APPLYING WATER TO DRY EXPOSED SOIL IN ORDER TO PREVENT WIND EROSION. THE APPLICATION RATE AND MANNER SHALL BE SUCH THAT SOIL MOISTURE IS ATTAINED AND NO SURFACE RUN-OFF IS CREATED.
- E. RESPONSIBILITY**
 - THE CONTRACTOR SHALL BE HELD RESPONSIBLE UNTIL THE CERTIFICATE OF COMPLETION IS ISSUED. AFTER THAT, THE OWNER WILL BE RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER COLLECTION AND DETENTION SYSTEM.

- END SECTIONS AND TOE PLATE ANCHORS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS AS SET OUT IN THE INDOT STANDARD SPECIFICATIONS.
- MULTIPLE PANEL BODIES SHALL HAVE LAP SEAMS WHICH SHALL BE TIGHTLY JOINTED WITH 3/8" DIA. GALVANIZED RIVETS OR BOLTS.
- THE TOE PLATE ANCHOR SHALL BE CONSTRUCTED OF 0.138" THICKNESS GALVANIZED STEEL AND BE REQUIRED ON ALL STEEL PIPE END SECTIONS. IT SHALL BE MATCHED- PUNCHED TO FIT HOLES IN SKIRT LIP AND SUPPLIED LOOSE, COMPLETE WITH 3/8" DIA. GALVANIZED BOLTS.
- PIMPLED CONNECTION BAND MAY BE USED TO CONNECT PIPE END SECTION TO HELICALLY CORRUGATED PIPE.
- IF ALUMINUM ALLOY PIPE CULVERT IS FURNISHED, ALUMINUM ALLOY END SECTIONS SHALL ALSO BE USED AND ALL COMPONENT PARTS SHALL BE ALUMINUM ALLOY AS SET OUT IN THE STANDARD SPECIFICATIONS.
- END SECTIONS WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EACH DRIVEWAY CULVERT REPLACEMENT COMPLETE IN PLACE AND ACCEPTED.

PIPE ARCH DIMENSIONS		T IN.	DIMENSIONS					SLOPE APPROX.	BODY
SPAN	RISE		A 1'±	B MAX.	H 1'±	L 1.5'±	W 2'±		
18	11	.064	7	9	6	19	30	2 1/2	1 PC.
22	13	.064	7	10	6	23	36	2 1/2	1 PC.
25	16	.064	8	12	6	28	42	2 1/2	1 PC.
29	18	.064	9	14	6	32	48	2 1/2	1 PC.
36	22	.079	10	16	6	39	60	2 1/2	1 PC.
43	27	.079	12	18	8	46	75	2 1/2	1 PC.

PIPE DIA.	T IN.	DIMENSIONS					SLOPE APPROX.	BODY
		A 1"±	B MAX.	H 1"±	L 1.5"±	W 2"±		
12	.064	6	6	6	21	24	2 1/2	1 PC.
15	.064	7	8	6	26	30	2 1/2	1 PC.
18	.064	8	10	6	31	36	2 1/2	1 PC.
21	.064	9	12	6	36	42	2 1/2	1 PC.
24	.064	10	13	6	41	48	2 1/2	1 PC.
30	.079	12	16	8	51	60	2 1/2	1 PC.
36	.079	14	19	9	60	72	2 1/2	2 PC.

STABILIZATION PRACTICE	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
PERMANENT SEEDING				A			*//////////N////////*					
DORMANT SEEDING	B										B	
TEMPORARY SEEDING				C				D				
SODDING				E**			*//////////N////////*					
MULCHING	F											

- A = INDOT SEED MIXTURE GRASS TYPE 2; PLUS 2 TONS STRAW MULCH/ACRE.
- B = KENTUCKY BLUEGRASS 60 LBS/ACRE; CREEPING RED FESCUE 60 LBS/ACRE; PLUS 2 TONS STRAW MULCH/ACRE, OR ADD ANNUAL RYEGRASS 30 LBS/ACRE.
- C = INDOT SEED MIXTURE TYPE "T" SPRING OATS - 150 LBS/ACRE
- D = INDOT SEE MIXTURE TYPE "T" WINTER WHEAT - 150 LBS/ACRE
- E = SOD
- F = STRAW MULCH 2 TONS/ACRE
- *////* IRRIGATION NEEDED DURING JUNE, JULY, AND/OR AUGUST.
- ** IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.

This document, originally issued, sealed, and signed by Daniel R. Cutshaw, Indiana Professional Engineer, No. 11200431, on April 19, 2013, shall not be used in lieu of a certified document.

GRW PROJECT NO. 3916-08

CLIENT CONTRACT NO H-1

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ENGINEERS - ARCHITECTS - PLANNERS

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EROSION CONTROL DETAILS

CONTRACT H-1 - U.S. 421 P.S. & TELEMETRY

DIVISION H - WATERWORKS SYSTEM IMPROVEMENTS

HOOSIER HILLS REGIONAL WATER DISTRICT

RIPLEY COUNTY, INDIANA

DESIGNED	ALW	DRAWN	JEC	REVIEWED	CJF	APPROVED	DRC
NO.	1	DATE	9/2014	BY	JEC		
REVISIONS	DESCRIPTION						
1.	AS-BUILT REVISION						

DATE: APRIL 2013

SCALE: N.T.S.

SHEET NO.

THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

EC-1