PIPE SCHEDULE

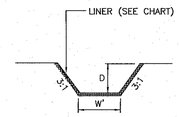
UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	UPSTREAM INVERT	DOWNSTREAM INVERT	SIZE (IN)	LENGTH (FT)	SLOPE	
2	1	391.00	390.80	15	30	0.66%	
5	4	376.80	372.00	54	123	3.90%	
7	6	378.60	374.00	18	44	10.51%	*CMP
8	7	388.30	388.10	18	40	0.50%	
12	11	420.50	420.20	15	52	0.57%	
14	13	405.00	397.00	15	90	8.90%	
15	14	413.00	411.00	15	71	2.80%	
17	16	427.60	426.00	18	63	2.56%	
18	17	428.00	427.70	18	43	0.70%	
20	19	428.00	422.00	15	121	4.95%	
22	21	423.50	423.20	36	58	0.52%	
23	22	424.60	424.40	24	21	0.96%	
25	24	408.50	407.00	24	62	2.41%	
27	26	428.90	428.60	24	57	0.52%	
28	27	431.00	429.00	15	45	4.43%	

NOTES:
1. ALL PIPE SHALL BE CLASS III RCP EXCEPT FOR PIPE FROM DI-7 TO HW-6 WHICH IS CMP.
2. RIM ELEVATIONS ARE TO TOP OF GRATE FOR DI'S.
3. "DI" DESIGNATES DROP INLET CATCH BASIN PER NCDOT STD. DETAIL 840.13 ON DETAIL SHEET.

SEDIMENT BASIN SCHEDULE

BASIN	DRAINAGE AREA (ACRES)	DISTURBED AREA (ACRES)		Q(25) C=0.5 (CFS)	REQUIRED SURFACE AREA (BASED ON (400 X Q25) (SF)	REQUIRED VOLUME (BASED ON 3600 CF/DISTURBED ACRE) (CF)	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	SURFACE AREA PROVIDED (SF)	VOLUME PROVIDED (CF)	BOTTOM ELEV	BERM ELEV	WEIR ELEV	WEIR LENGTH (FT)	BASIN TYPE
A	0.60	0.40		2.46	983	1,368	46	23	3.5	1,058	2,116	383.0	386.5	385.0	4	1
B	0.70	0.50		2.87	1,147	1,728	50	25	3.5	1,250	2,500	383.0	386.5	385.0	4	1
C	1.60	1.10		6.55	2,621	3,780	74	37	3.5	2,738	5,476	394.0	397.5	396.0	6	1
D	3.50	1.10		14.33	5,733	4,032	CONSTRUCT TO PERMANENT POND DIMENSIONS			7,010 @ 379	40,081	378.0	383.0	381.5	10	2
E	1.60	1.40		6.55	2,621	5,040	74	37	3.5	2,738	5,476	424.0	427.5	426.0	6	1

BASIN TYPE 1 = TEMPORARY SEDIMENT TRAP PER DETAIL ON DETAIL SHEET.
BASIN TYPE 2 = CONSTRUCT TO FUTURE PERMANENT POND SHAPE. PERMANENT POND RISER TO BE USED AS BASIN RISER DURING CONSTRUCTION. ATTACH 4" SKIMMER TO RISER PER DETAIL ON DETAIL SHEET.



CHANNEL	W	D	LINER
A	4'	1'	CLASS B RIP-RAP
B	4'	1'	NAG S150
C	4'	1'	CLASS 1 RIP-RAP
D	3'	1'	NAG SC150
E	3'	1'	NAG S150

NAG=NORTH AMERICAN GREEN (OR APPROVED EQUAL) EROSION CONTROL BLANKET

PERMANENT CHANNEL DETAIL

N.T.S.

ENERGY DISSIPATER SCHEDULE

DOWNSTREAM STRUCTURE	SIZE (IN)	VELOCITY (FPS)	RIP RAP TYPE	L X W X THK	
1	15	4.30	CL. B (D50=6")	8' x 4' x 18"	
4	54	24.01	CL. B (D50=6")	20' x 20' x 18"	* SEE NOTE
6	18	16.60	CL. B (D50=6")	20' x 20' x 18"	* SEE NOTE
11	15	4.30	CL. B (D50=6")	8' x 4' x 18"	
13	15	15.74	CL. B (D50=6")	8' x 4' x 18"	
16	18	9.55	CL. B (D50=6")	9' x 5' x 18"	
19	15	11.74	CL. B (D50=6")	8' x 4' x 18"	
21	36	6.45	CL. B (D50=6")	50' x 9' x 18"	
24	18	4.51	CL. B (D50=6")	9' x 5' x 18"	
26	24	5.24	CL. B (D50=6")	12' x 6' x 18"	
31	48	18.78	CL. B (D50=6")	24' x 12' x 18"	
32	24	4.44	CL. B (D50=6")	12' x 6' x 18"	

* SHARED ENERGY DISSIPATER

STRUCTURE SCHEDULE

STRUCTURE	RIM	STRUCTURE TYPE
2	395.00	DI
7	392.20	DI
8	392.20	DI
14	415.00	DI
15	417.00	DI
17	432.50	DI
18	433.00	DI
20	433.00	DI
22	427.50	DI
23	428.00	DI
27	433.00	DI

ROADSIDE DITCH LINER CALCULATIONS

STREET A

STATION	SIDE	DRAINAGE AREA (AC)	C	Q(10) (CFS)	SLOPE (FT/FT)	DEPTH (FT)	VELOCITY (FPS)	SHEAR STRESS (PSF)	LINER TYPE	ALLOWABLE VELOCITY (FPS)	ALLOWABLE SHEAR STRESS (PSF)
13+00 - 14+15	L	0.14	0.55	0.56	0.0434	0.34	1.61	0.92	S150	6.00	1.75
14+15 - 16+60	L	0.42	0.40	1.21	0.0348	0.47	1.83	1.02	S150	6.00	1.75
16+60 - 21+00	L	0.90	0.55	3.57	0.0893	0.64	2.91	3.57	CL 1 RIP RAP	-	4.00
21+00 - 22+00	L	0.37	0.40	1.07	0.050	0.42	2.02	1.31	S150	6.00	1.75
22+70 - 24+90	L	2.30	0.35	5.81	0.0255	0.80	3.03	1.27	S150	6.00	1.75
24+90 - 29+00	L	4.10	0.35	10.36	0.0174	1.04	3.19	1.13	S150	6.00	1.75
29+00 - 30+00	L	1.60	0.35	4.04	0.0542	0.78	2.21	2.64	CL 1 RIP RAP	-	4.00
30+00 - END	L	2.60	0.35	6.57	0.0144	0.97	2.33	0.87	S150	6.00	1.75
10+25 - 14+15	R	0.63	0.40	1.82	0.0773	0.54	2.08	2.60	CL 1 RI PRAP	-	4.00
14+15 - 16+60	R	0.22	0.50	0.79	0.0348	0.40	1.65	0.87	S150	6.00	1.75
16+60 - 19+70	R	0.22	0.55	0.87	0.0893	0.40	1.81	2.23	CL 1 RIP RAP	-	4.00
22+60 - 24+20	R	0.12	0.55	0.48	0.0255	0.36	1.23	0.57	S150	6.00	1.75

STREET B

STATION	SIDE	DRAINAGE AREA (AC)	C	Q(10) (CFS)	SLOPE (FT/FT)	DEPTH (FT)	VELOCITY (FPS)	SHEAR STRESS (PSF)	LINER TYPE	ALLOWABLE VELOCITY (FPS)	ALLOWABLE SHEAR STRESS (PSF)
10+00 - 12+75	L	6.80	0.35	17.18	0.0298	1.04	5.29	1.93	SC150	8.00	2.00
12+75 - 17+30	L	0.82	0.45	2.66	0.0208	0.66	2.10	0.86	S150	6.00	1.75
17+30 - 19+20	L	0.52	0.40	1.50	0.0251	0.54	1.71	0.85	S150	6.00	1.75
19+20 - 21+20	L	0.50	0.35	1.26	0.0609	0.42	2.38	1.60	SC150	8.00	2.00
21+20 - 23+60	L	0.25	0.45	0.81	0.12	0.37	1.97	2.77	CL 1 RIP RAP	-	4.00
12+40 - 14+10	R	0.10	0.55	0.40	0.0208	0.34	1.15	0.44	S150	6.00	1.75
16+10 - 17+30	R	0.06	0.55	0.24	0.0208	0.29	0.95	0.38	S150	6.00	1.75
17+30 - 18+40	R	0.06	0.55	0.24	0.0251	0.28	1.02	0.44	S150	6.00	1.75
20+30 - 21+20	R	0.06	0.55	0.24	0.0609	0.23	1.51	0.87	S150	6.00	1.75
21+20 - 23+60	R	0.2	0.55	0.79	0.12	0.37	1.92	2.77	CL 1 RIP RAP	-	4.00

STREET C

STATION	SIDE	DRAINAGE AREA (AC)	C	Q(10) (CFS)	SLOPE (FT/FT)	DEPTH (FT)	VELOCITY (FPS)	SHEAR STRESS (PSF)	LINER TYPE	ALLOWABLE VELOCITY (FPS)	ALLOWABLE SHEAR STRESS (PSF)
10+00 - 12+80	L	0.24	0.55	0.95	0.0805	0.36	2.44	1.81	SC150	8.00	2.00
12+80 - 15+60	L	0.21	0.55	0.83	0.0501	0.38	1.92	1.19	S150	6.00	1.75
15+60 - 18+50	L	0.91	0.35	2.30	0.0479	0.55	2.53	1.64	SC150	8.00	2.00
18+50 - 21+20	L	0.33	0.40	0.95	0.0971	0.41	1.88	2.48	CL 1 RIP RAP	-	4.00
21+20 - END	L	0.12	0.55	0.48	0.0501	0.31	1.66	0.97	S150	6.00	1.75
10+00 - 12+80	R	0.29	0.55	1.15	0.0805	0.38	2.65	1.91	SC150	8.00	2.00
12+80 - 14+60	R	0.27	0.40	0.78	0.0501	0.38	1.80	1.19	S150	6.00	1.75
16+50 - 18+50	R	0.17	0.55	0.68	0.0479	0.35	1.85	1.05	SC150	8.00	2.00
18+50 - 21+20	R	0.39	0.45	1.27	0.0971	0.45	2.09	2.73	CL 1 RIP RAP	-	4.00
21+20 - END	R	0.61	0.35	1.54	0.0501	0.48	2.23	1.50	S150	6.00	1.75

NOTES:
1. NAG=NORTH AMERICAN GREEN (OR APPROVED EQUAL) EROSION CONTROL BLANKET
2. RIP-RAP MAY BE REPLACED WITH NAG C350 PERMANENT LINER IF APPROVED BY NCDOT.

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PRELIMINARY
NOT FOR CONSTRUCTION

RIVERSTONE SUBDIVISION
HIGHWAY 64
PITTSBORO, NORTH CAROLINA

ISSUED: 05 MAY 2015

REVISIONS:

DRAWN BY: MLS
CHECKED BY: JDL

PROJECT: FPRSP

DETAILS

DWG. NO. PS 15