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PROJECT REFERENCE NO.	SHEET NO.
A-0009CB	EC-15/CONST.31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
201 W. MARION ST–STE 200
SHELBY, NC 28150
PH (704) 476–0003
CORP. LICENSE NO.: C–0275

MATCH LINE STA –L– 361+00.00
MATCH TO SHEET NO. 30

MATCH LINE STA –L– 375+00.00
MATCH TO SHEET NO. 32

NAD 83/2011

DETAIL 31A
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground; VARIES; D; d; Geotextile; VARIES; Front Ditch Slope

Type of Liner=Class I Rip–Rap

Min. D=2.0 Ft.
Min. d=2.0 Ft.

–L– STA. 368+00 TO 369+40 LT
SEE PFL & XSC FOR DITCH GRADE

DETAIL 31B
FALSE SUMP
(Not to Scale)

Outside Ditch Traffic Flow; 4:1; 8:1; 2.0'; 0.5' Min. 1.0' Max; GI etc.; S

S=Ditch Slope

℄ Proposed Ditch

–L– STA. 363+38 LT
–L– STA. 364+87 LT

DETAIL 31C
CONCRETE SILL DETAIL
(Not to Scale)

BOND BREAKER; RETAINING WALL; CONC. SILL; 4"; DRAINAGE GRATE; BOND BREAKER; CONC. SILL; RETAINING WALL; D; d; B; 2:1; VARIES; NATURAL GROUND; 4"

D= 1.0' d=0.5'
B= 2.0'

–L– STA. 363+47 LT
–L– STA. 369+88 LT
–L– STA. 371+43 LT

DETAIL 31D
CONCRETE DITCH
BEHIND RETAINING WALL
(Not to Scale)

RETAINING WALL; BOND BREAKER; D; B; 2:1; VARIES; NATURAL GROUND; 4"

D= 1.0'
B= 1.0'

–L– STA. 361+00 TO 368+35 LT
–L– STA. 369+40 TO 375+00 LT
(SEE WALL ENVELOPES FOR DITCH GRADE)

AREA NOT TO BE CLEARED OR GRUBBED

ORANGE SAFETY FENCE

PROP. RETAINING WALL #17
W/9' WW WILDLIFE FENCE
& CONCRETE DITCH
BEGIN –L– STA. 369+40±
END –L– STA. 375+26±

PROP. RETAINING WALL #15
W/9' WW WILDLIFE
FENCE & CONCRETE DITCH
BEGIN –L– STA. 352+29±
END –L– STA. 368+35±

SINGLE FACED CONCRETE BARRIER
–L– STA. 358+77± TO 362+94±

U.S. FOREST SERVICE

–L– PC 364+18.18

–L– PT 368+11.01

30 x 22 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
8 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 31.1

Modified Silt Basin
Type 'B'
30 x 22 x 3
8 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 31.1

33 x 11 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 31.2

55 x 11 x 3
ID 31.3

44 x 11 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 31.5

22 x 11 x 3
1.5 inch Skimmer
with 0.25 inch
Orifice Diameter
4 ft. weir
ID 31.4

TB PRECAST DRAINAGE STRUCTURE w/ 2GI STD 840.46

FALSE SUMP SEE DETAIL 31B

CONCRETE SILL SEE DETAIL 31C

CONC. DITCH BEHIND RETAINING WALL SEE DETAIL 31D

SPECIAL CUT DITCH SEE DETAIL 31A CLASS I RIPRAP 192 TONS,270 TONS GEO

CONCRETE SILL SEE DETAIL 31C

CONC. DITCH BEHIND RETAINING WALL SEE DETAIL 31D

PRECAST 4' DIA MH w/ 2GI STD 840.52

15" RCP–IV; 18" RCP–III; 18" CSP; 24" RCP–IV; 2GI; TB 2GI; BDO; ROD&LUG W/ GASKETS (ELBOW); ROD AND LUG WITH GASKETS (ELBOWS); PLUG; REMOVE; TB JB w/MH; CWD; FS; 8'FDPS; PDE; CSHP; CRADLE & SPLASH PAD; RETAIN CONCRETE DITCH; RETAIN & EXTEND? TO COORDINATE WITH GEOTECH

FILL WITH FLOWABLE FILL EST 7 CY

MAX 1% PIPE SLOPE THIS SIDE OF ELBOW

CLASS B RIPRAP 2 TONS, 7 SY GEO

CLASS B RIPRAP 3 TONS, 10 SY GEO

CLASS I RIPRAP 7 TONS, 15 SY GEO

FILL WITH FLOWABLE FILL EST 8 CY

REMOVE 10 LF

PROP. 24' SOIL DRIVE

RICHARD P. THORNTON

SHOULDER BERM GUTTER
–L– STA. 360+04 TO 363+61, RT

–L– PT 363+04.13

CLEAR TREES INSIDE EXISTING R/W
(NO GRUBBING)
FROM –L– STA. 358+00
TO 363+00 RT

330' TAPER

193' TAPER

711' TAPER

100' TAPER

U-TURN LANE
500' DECELERATION & 150' STORAGE

PHILLIPS & JORDAN INVESTMENT CORP.

PROP. RETAINING WALL #16
W/9' WW WILDLIFE FENCE
BEGIN –L– STA. 366+70±
END –L– STA. 369+72±

CLEAN WATER DIVERSION
(Not to Scale)

STABILIZE EXCAVATED MATERIAL
SOIL STABILIZATION GEOTEXTILE
OFFSITE CLEAN WATER
1' MIN.
1' MIN.

CLEAN WATER DIVERSIONS ARE INDEPENDENT OF OTHER EC DITCH LINES AND TERMINATE INTO A SC–A.

SEEDING AND PLANTING ON US FOREST SERVICE (USFS) PROPERTY WILL BE IMPLEMENTED AS DIRECTED BY THE ENGINEER ON NCDOT RIGHT OF WAY AND ADJOINING USFS PROPERTY. REFER TO THE EROSION CONTROL SPECIAL PROVISIONS.

AREA NOT TO BE CLEARED OR GRUBBED
SAFETY FENCE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 31

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.