

The Coves at Smith Mountain Lake

Central Sewer System Modifications

Optima Properties - Smith Mountain Lake, LLC

Franklin County, Virginia

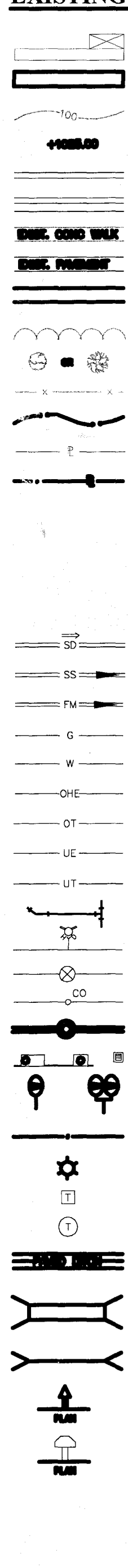
ACS DESIGN

ENGINEERING • PLANNING
CONSTRUCTION MANAGEMENT

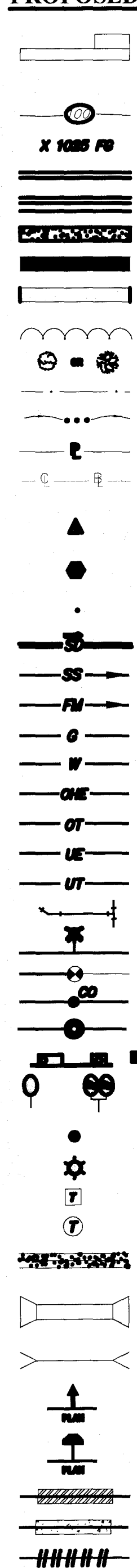
ABBREVIATIONS AND ACRONYMS

ABAN	ABANDONED	MAS	MASONRY
AC	ACRES	MATL	MATERIAL
ADJ	ADJACENT	MAX	MAXIMUM
AGGR	AGGREGATE	MB	MAIL BOX
ALUM	ALUMINUM	MBL	MINIMUM BUILDING LINE
ANC	ANCHOR	MECH	MECHANICAL
BC	BACK OF CURB	MFR	MANUFACTURER
BEG	BEGINNING	MH	MANHOLE
BIT	BITUMINOUS	MIN	MINIMUM
BJ	BELL JOINT	MJ	MECHANICAL JOINT
BL	BASE LINE	MON	MONUMENT
BLDG	BUILDING	MTL	METAL
BM	BENCH MARK	N&C	NAIL AND CAP
BO	BLOW-OFF VALVE	NBL	NORTHBOUND LANE
BSP	BLACK STEEL PIPE	NIC	NOT IN CONTRACT
BY	BUTTERFLY VALVE	NQ	NUMBER
BYCE	BEGIN VERTICAL CURVE ELEVATION	NPW	NON-POTABLE WATER
BVCS	BEGIN VERTICAL CURVE STATION	NTS	NOT TO SCALE
C&G	CURB AND GUTTER	OC	ON CENTER
CB	CATCH BASIN	OD	OUTSIDE DIAMETER
CI	CAST IRON	OHE	OVERHEAD ELECTRIC
CL	CENTER LINE	OHU	OVERHEAD UTILITIES
CMP	CORRUGATED METAL PIPE	PC	POINT OF CURVE
CMU	CONCRETE MASONRY UNITS	PCC	POINT OF COMPOUND CURVE
CO	CLEANOUT	PER	PERIMETER
COE	U.S. ARMY CORPS OF ENGINEERS	PERF	PERFORATED
COL	COLUMN	PERP	PERPENDICULAR
COMB	COMBINATION	PI	POINT OF INTERSECTION
CONC	CONCRETE	PL	PROPERTY LINE
CONST	CONSTRUCTION	POL	POINT ON LINE
CONV	CONVEYOR	PP	POWER POLE
COR	CORNER	PRC	POINT OF REVERSE CURVE
CTR	CENTER	PSI	POUNDS PER SQUARE INCH
CTV	CABLE TELEVISION	PT	POINT OF TANGENT
CULV	CULVERT	PUE	PUBLIC UTILITY EASEMENT
D	DEPTH	PUEP	PUBLIC UTILITY & PEDESTRIAN PATHWAY EASEMENT
DW	DRIVEWAY	PVC	POLYVINYL CHLORIDE
DE	DRAINAGE EASEMENT	PVC	POINT OF VERTICAL CURVE
DEQ	VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY	PVI	POINT OF VERTICAL INTERSECTION
DI	DROP INLET	PVMT	PAVEMENT
DIA, Ø	DIAMETER	R	RADIUS
DIM	DIMENSION	R/W	RIGHT OF WAY
DIP	DIP/TIE-IRON PIPE	RCP	REINFORCED CONCRETE PIPE
DISC	DISCONNECT	RDOR	REDUCER
DMH	DROP MANHOLE	RIE	REFRIGERANCE
DOC	DEGREE OF CURVE	REINF	REINFORCEMENT
DTL	DETAIL	REL	RELOCATED
DWG	DRAWING	REQD	REQUIRED
DWL	DWELLING	REV	REVISION
EA	EACH	RR	RAILROAD
EBL	EASTBOUND LANE	RT	ROUTE
EF	EACH FACE	RTW	RIGHT-OF-WAY
ELEC	ELECTRICAL	SAN	SANITARY
ELEV	ELEVATION	SBL	SOUTHBOUND LANE
ENGR	ENGINEER	SD	STORM DRAIN
ENTR	ENTRANCE	SE	SLOPE EASEMENT
EOL	END OF LINE	SEC	SECTION
EP	EDGE OF PAVEMENT	SF	SQUARE FEET
EQ	EQUAL	SH	SHEET
EQPT	EQUIPMENT	SIM	SIMILAR
EVCE	END VERTICAL CURVE ELEVATION	SMH	SEWER MANHOLE
EVCS	END VERTICAL CURVE STATION	SPEC	SPECIFICATION
EW	EACH WAY	SQ	SQUARE
EXT	EXISTING	SS	SANITARY SEWER
EXT	EXTERIOR	SSSD	SAFE STOPPING SIGHT DISTANCE
FC	FACE OF CURB	ST	STATION
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY	STA	STANDARD
FES	FLARED END SECTION	SUR	SURVEY
FFE	FINISHED FLOOR ELEVATION	SV	SERVICE
FIG	FIGURE	TEL	TELEPHONE
FIN	FINISH	TEMP	TEMPORARY
FLG	FLANGE	TEL P	TELEPHONE POLE
FM	FORCE MAIN	TRTD	TREATED
FT	FOOT, FEET	TW	TOP OF WALL
FTG	FOOTING	TYP	TYPICAL
FUT	FUTURE	UG	UNDERGROUND ELECTRIC
GA	GALVE	UG	UNDERGROUND GAS
GAL	GALLON	UGD	UNDERGROUND
GALV	GALVANIZED	UL	UNDERWRITERS LABORATORY
GAR	GARAGE	UN	UNLESS OTHERWISE NOTED
GND	GROUND	USGS	U.S. GEOLOGIC SURVEY
GOVT	GOVERNMENT	UT	UNDERGROUND TELEPHONE
GPD	GALLONS PER DAY	V	VENT
GPM	GALLONS PER MINUTE	VAL	VALVE
GR	GRAVEL	VAR	VARIABLE
GRTO	GRATING	VC	VERTICAL CURVE
GV	GATE VALVE	VHD	VIRGINIA DEPARTMENT OF HEALTH
H&T	HUB AND TAC	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
HM	HOLLOW METAL	VERT	VERTICAL
HOR	HORIZONTAL	VESCH	VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK
HPT	HIGH POINT	VNL	VINYL
HUR	HOUR	VOL	VOLUME
HYD	HYDRANT	W	WATER
ID	INSIDE DIAMETER	W/O	WITHOUT
IN	INCH	WBL	WESTBOUND LANE
INSL	INSULATION	WL	WATER LINE
INT	INTERIOR	WM	WATER METER
INV	INVERT	WMH	WATER MANHOLE
IPF	IRON PIN FOUND	WS	WATER SURFACE
IPS	IRON PIN SET	WT	WEIGHT
L	LENGTH LONG	WTT	WATERTIGHT
LP	LINEAR FOOT	WTT	WATERTIGHT
LP	LIGHT POLE	WTT	WATERTIGHT
LPG	LIQUID PETROLEUM	WTT	WATERTIGHT

EXISTING



PROPOSED



DESCRIPTION

BUILDING WITH PORCH OR STOOP
FOUNDATION ONLY
CONTOUR, CONTOUR WITH ELEVATION
SPOT ELEVATION
CONCRETE CURB
CONCRETE CURB & GUTTER
CONCRETE WALK OR SLAB
PAVEMENT
UNPAVED OR GRAVEL ROAD
TREE LINE
TREE OR SHRUB
FENCE (EXISTING OR PROPOSED NOTED)
CENTERLINE CREEK, SWALE, DITCH
PROPERTY LINE
CENTERLINE OR BASELINE
FIELD SURVEY TRAVERSE POINT
GEOLOGIC BORE HOLE
BENCH MARK (EXISTING OR SET NOTED)
STORM DRAIN
SANITARY SEWER
FORCE MAIN
GAS MAIN OR SERVICE LINE
WATER MAIN OR SERVICE LINE
OVERHEAD ELECTRICAL LINE
OVERHEAD TELEPHONE LINE
UNDERGROUND ELECTRICAL LINE
UNDERGROUND TELEPHONE LINE
PIPE FITTINGS
FIRE HYDRANT
GATE VALVE
CLEANOUT
MANHOLE
DROP INLET (CURB AND GRATING TYPES)
WM - WATER METER
DWM - DOUBLE WATER METER
UTILITY POLE
LIGHT POLE
TELEPHONE PEDESTAL
BURIED TELEPHONE VAULT
PAVED DITCH
CULVERT WITH FLARED END SECTION
AIR RELEASE VALVE / VAULT ASSEMBLY
BLOW OFF VALVE / VAULT ASSEMBLY
STEEL ENCASEMENT
CONCRETE ENCASEMENT
ABANDON OR REMOVE
LIMITS OF DISTURBED AREA
WATERLINE PLUG

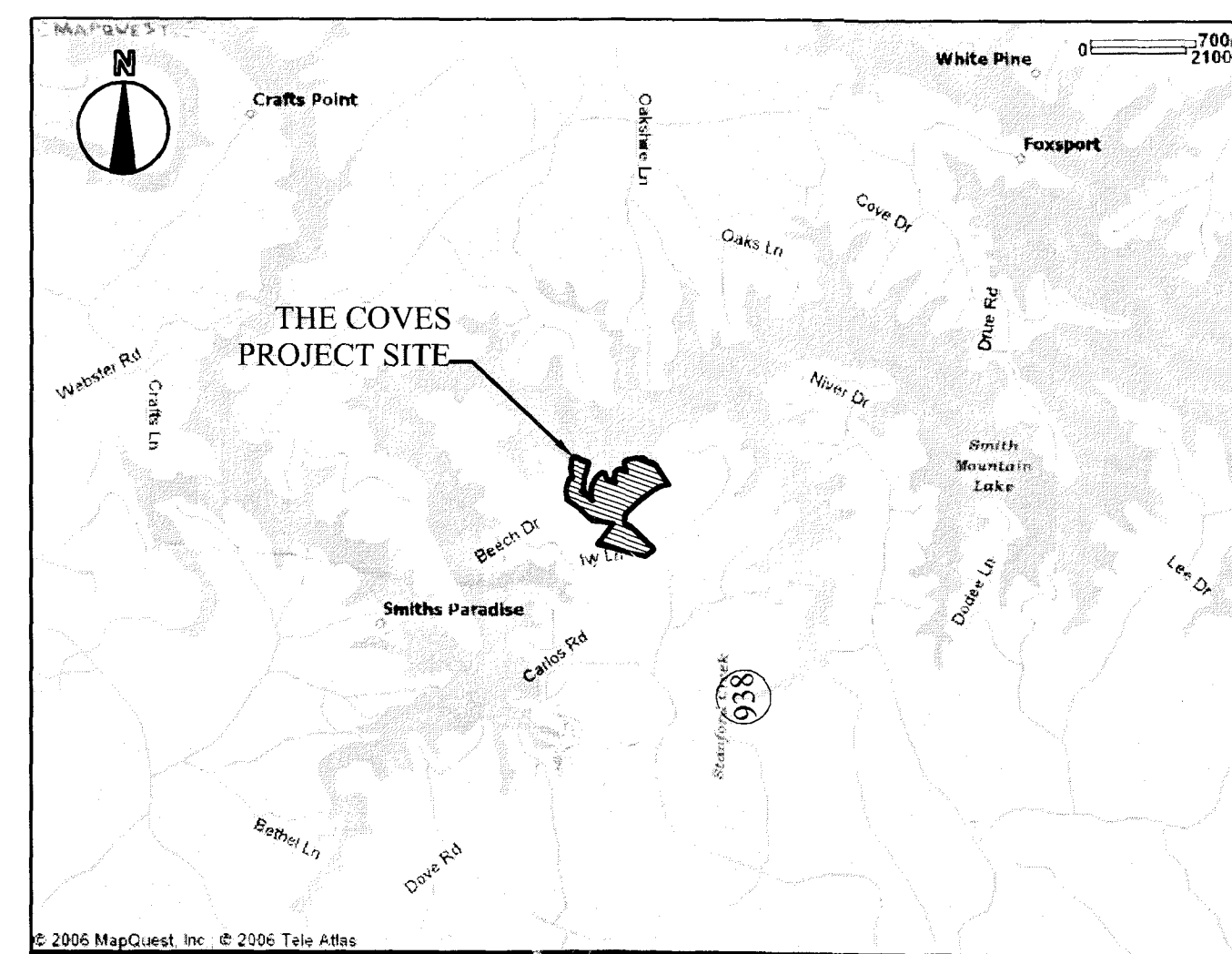
FRANKLIN COUNTY PLANNING DEPARTMENT
NEIL HOLTHOUSE
40 EAST COURT STREET
ROCKY MOUNT, VIRGINIA 24151
PHONE: (540) 483-3027
FAX: (540) 483-3041

FRANKLIN COUNTY UTILITY DEPARTMENT
40 E. COURT STREET
ROCKY MOUNT, VIRGINIA 24151
PHONE: (540) 483-6660

THE RETREAT WATER COMPANY
C/O PETRUS ENVIRONMENTAL
P.O. BOX 21173
ROANOKE, VIRGINIA 24018
PHONE: (540) 344-9800
FAX: (540) 344-9806
EMAIL: dpetrus@aol.com

FRANKLIN COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH SERVICES
C/O ADAM CARTER
365 PELL AVE.
ROCKY MOUNT, VA 24151
PHONE: (540) 484-0292

VIRGINIA DEPARTMENT OF HEALTH
DIVISION OF WASTEWATER ENGINEERING
C/O JOHN SCHOFIELD
131 WALKER ST.
LEXINGTON, VIRGINIA 24450
PHONE: (540) 463-1642
FAX: (540) 463-3892



VICINITY MAP (1"=2000')

RESPONSIBLE LAND DISTURBER CERTIFICATION

PRINTED NAME

SIGNATURE

COMPANY NAME ADDRESS

RESPONSIBLE LAND DISTURBER CERTIFICATION NUMBER

OWNER/DEVELOPER CERTIFICATION

THE OWNER/DEVELOPER CERTIFIES THAT THEY UNDERSTAND THE SITE DESIGN REQUIREMENTS IMPOSED BY THE SITE DEVELOPMENT PLANS AND APPLICABLE COUNTY CODES, AS SHOWN HEREON, AND AGREES TO COMPLY WITH THESE PLANS DURING CONSTRUCTION, UNLESS MODIFICATIONS TO PLANS ARE APPROVED BY FRANKLIN COUNTY.

OWNER REPRESENTATIVE

STATE OF VIRGINIA

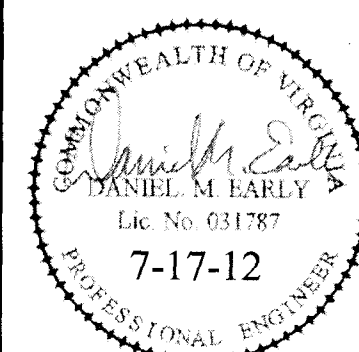
I, _____ OF _____, A NOTARY PUBLIC IN AND FOR THE AFORESAID COUNTY AND STATE DO HEREBY CERTIFY THAT _____, WHOSE NAME IS SIGNED TO THE FOREGOING WRITING DATED _____, 2012, HAS PERSONALLY APPEARED BEFORE ME IN MY AFORESAID COUNTY AND STATE AND ACKNOWLEDGED THE SAME ON _____, 2012. MY COMMISSION EXPIRES _____.

NOTARY PUBLIC

OWNER:	OPTIMA PROPERTIES, LLC 1001 WADE AVE., SUITE 301 RALEIGH, NC 27605	PHONE: 919-523-7010 FAX: 360-343-7118 Email: Jmerritt@optimaprop.com
DEVELOPER:	OPTIMA PROPERTIES, LLC 1001 WADE AVE., SUITE 301 RALEIGH, NC 27605	PHONE: 919-523-7010 FAX: 360-343-7118 Email: Jmerritt@optimaprop.com

2203 PETERS CREEK ROAD
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WWW.ACSDESIGNLLC.COM

SHEET INDEX:
C100 COVER SHEET
C101 MASTER PLAN
C102 REZONING DOCUMENTS
C103 SEWER SYSTEM SITE PLAN & DETAILS
C104 TYPICAL SFD WASTEWATER SYSTEM, NOTES & DETAILS
C104A SFD WASTEWATER SYSTEM DETAILS
C104B ORENCO ADVANTEX AX20 WWTP DETAILS
C104C ZOELLER FUSION ZF450 WWTP DETAILS
C105 EROSION & SEDIMENT CONTROL DETAILS
C106 MASTER PUMP STATION OPTION #1
C107 MASTER EFFLUENT PUMP STATION OPTION #1 STRUCTURAL DETAILS
C108 MASTER EFFLUENT PUMP STATION OPTION #1 DETAILS
C109 MASTER EFFLUENT PUMP STATION OPTION #2
C110 MASTER EFFLUENT PUMP STATION OPTION #2 DETAILS
C111 MASTER EFFLUENT PUMP STATION OPTION #2
C112 MASTER EFFLUENT PUMP STATION ELECTRICAL
C113 MASTER EFFLUENT PUMP STATION SPECIFICATIONS
C114 MASTER EFFLUENT PUMP STATION SPECIFICATIONS
C115 MASS DRAINFIELD PLAN, NOTES & SCHEDULE
C116 STANDARD DETAILS



DRAWN BY:	JSB	REVISIONS:	No. 1
DESIGNED BY:	DME	No. 2	
CHECKED BY:	DME	No. 3	
DATE:	7-17-12	No. 4	
JOB NUMBER:	11038		

SHEET NUMBER: C100

COVERSHEET