TYPICAL LINE TYPES

- CONSTRUCTED SWALE
- ROAD CENTERLINE(PROP & EXIST)
- CABLE TV LINE
- FIBER OPTICS
- CONDUIT LINE
- CHAIN LINK FENCE
- SQUARE WOODEN FENCE
- SILT FENCE
- TREE PROTECTION FENCE
- EXISTING PVC FORCEMAIN
- PROPOSED 1" PVC (C900–DR25) FORCEMAIN
- PROPOSED 2" PVC (C900–DR25) FORCEMAIN
- PROPOSED 4" PVC (C900–DR25) FORCEMAIN
- PROPOSED 6" PVC (C900–DR25) FORCEMAIN
- PROPOSED 8" PVC (C900–DR25) FORCEMAIN
- OVERHEAD POWERLINE
- EXISTING SANITARY SEWER LINE
- PROPOSED 10" SANITARY SEWER LINE
- PROPOSED 12" SANITARY SEWER LINE
- PROPOSED 6" SANITARY SEWER LINE
- PROPOSED 8" SANITARY SEWER LINE
- FUTURE SANITARY SEWER LINE
- EXISTING GAS LINE
- 4" DIP (DUCTILE IRON PIPE)
- 6" DIP
- 8" DIP
- 10" DIP
- EXISTING PROPERTY LINE
- FUTURE PROPERTY LINE
- PROPOSED PROPERTY LINE
- EXISTING RIGHT OF WAY
- FUTURE RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- EXISTING SETBACK
- FUTURE SETBACK
- TELEPHONE LINE
- UNDERGROUND POWER LINE
- 3 UNDERGROUND TELEPHONE LINE
- UNDERGROUND TELEPHONE LINE
- PROPOSED 1" PE (SDR17) WATERLINE
- PROPOSED 10" PVC (C900–DR25–CL100) WATERLINE
- PROPOSED 12" PVC (C900–DR25–CL100) WATERLINE
- PROPOSED 2" PVC (SDR21–CL200) WATERLINE
- PROPOSED 30" PVC (C900–DR25–CL100) WATERLINE
- PROPOSED 4" PVC (C900–DR25–CL100) WATERLINE
- PROPOSED 6" PVC (C900–DR25–CL100) WATERLINE
- PROPOSED 8" PVC (C900–DR25–CL100) WATERLINE
- EXISTING WATERLINE
- EXISTING 10" PVC WATERLINE
- EXISTING 12" PVC WATERLINE
- EXISTING 2" PVC WATERLINE
- EXISTING 4" PVC WATERLINE
- EXISTING 20" PVC WATERLINE
- EXISTING 6" PVC WATERLINE
- EXISTING 8" PVC WATERLINE
- FUTURE PVC WATERLINE
- STRIPING LANE LINES
- STRIPING FOR TURN LANES
- STRIPED LANE MARKERS

TYPICAL ABBREVIATIONS

AC	AIR CONDITIONER
BB	BOTTOM OF BANK
BC	BUILDING CORNER
BD	BOTTOM OF DITCH
BENCH	TEMP. BENCHMARK
BFC	BOTTOM FACE OF CURB
BOC	BACK OF CURB
BS#	BACKSIGHT (POINT#)
BSW	BACK OF SIDEWALK
BW	BOTTOM OF WALL
CA	CORNER OF ASPHALT
CB	CATCH BASIN
CC	CORNER OF CONCRETE
CDK	CORNER OF DECK
CG	CORNER OF GRAVEL
CI	CURB INLET
CLBP	CENTERLINE OF BIKE PATH
CLCP	CENTERLINE CART PATH
CLCR	CENTERLINE OF CREEK
CLD	CENTERLINE OF DITCH
CLINT	CENTERLINE OF INTERSECTION
CLP	CENTERLINE OF PAVEMENT
CLR	CENTERLINE OF ROAD
CLSW	CENTERLINE OF SIDEWALK
CMF	CONCRETE MONUMENT FOUND
CMP	CORRUGATED METAL PIPE
CMS	CONCRETE MONUMENT SET
CO	CLEAN OUT
COGO	CALCULATED POINT
COL	COLUMN
CP	CONTROL PANEL
CPL	CORNER OF POOL
CPP	CORRUGATED PLASTIC PIPE
CRIT	S.C. COASTAL CRITICAL LINE
CSW	CORNER OF SIDEWALK
CTV	CABLE TELEVISION BOX
DK	DECK
EA	EDGE OF ASPHALT
EB	ELECTRIC BOX
EBP	EDGE OF BIKE PATH
EC	EDGE OF CONCRETE
ECON	ELECTRIC CONDUIT
EDK	EDGE OF DECK
EDR	EDGE OF DIRT ROAD
EDW	EDGE OF DRIVEWAY(DIRT/GRASS)
EG	EDGE OF GRAVEL
EM	EDGE OF MARSH
EMET	ELECTRIC METER
ECP	EDGE OF CART PATH
ESTUB	ELECTRIC STUB–OUT
ESW	EDGE OF SIDEWALK
EW	EDGE OF WATER
F	FENCE
FC	FENCE CORNER
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FL	FENCE LINE
FOM	FIBER OPTIC MARKER
FP	FLAG POLE
FS	FORESIGHT
GI	GRATE INLET
GL	GROUND LIGHT
GPS#	GPS CONTROL (POINT#)
GRV	GRAVE
GT	GAS TANK
GUT	GUTTER LINE
GV	GAS VALVE
GW	GUY WIRE
HPS	HANDICAP PARKING STRIPE
HSB	HOSE BIB
HT#	HUB & TACK (POINT#)
IM	IRRIGATION METER
INV	INVERT ELEVATION
IPC	IRON PIN CALCULATED(CORNER)
IPF	IRON PIN FOUND
IPS	IRON PIN SET
IV	IRRIGATION VALVE
LI	LANDSCAPE ISLAND
LP	LIGHT POLE/LAMP POST
MB	MAIL BOX
MW	MONITOR WELL
NWL	NORMAL WATER LEVEL

TYPICAL ABBREVIATIONS

OHP	OVER HEAD WIRE
PC	PORCH CORNER
PI	POINT OF INTERSECTION
PK#	P/K NAIL (AS SETUPS)
PP	POWER POLE
PS	PARKING STRIPE
PVC	POLYVINYL CHLORIDE PIPE
PKS	PK NAIL SET
RCP	REINFORCED CONCRETE PIPE
RIM	MANHOLE RIM
RIP	EDGE OF RIP–RAP
RP	RADIUS POINT
SB	SETBACK
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SGN"DESC"	SIGN (THEN A DESC.)
SH	SPRINKLER HEAD
SLAT	SEWER LATERAL
SLM	SEWER LINE MARKER
SSMH	SANITARY SEWER MANHOLE
STOP	STOP BAR
STP	STEP
SUN#	SETUP NAIL#
SV	SEWER VALVE
SVM	SEWER VALVE MARKER
SWB	BACK OF SIDEWALK
T	TOPO SHOT (ELEVATION)
TB	TOP OF BANK
TBC	TOP BACK OF CURB
TBM	TEMPORARY BENCHMARK
TEL	TELEPHONE PEDESTAL
TIE#	TIE TO SETUP NAIL
TL	TREE LINE
TMH	TELEPHONE MANHOLE
TOP	TOP OF PIPE
TP	TRAVERSE POINT
TRNF	TRANSFORMER
TSB	TRAFFIC STOP BAR
TW	TOP OF WALL
UC	UNDERGROUND CABLE TV
UE	UNDERGROUND ELECTRIC
UFO	UNDERGROUND FIBER OPTIC
UGG	UNDERGROUND GAS LINE
UGM	UNDERGROUND GAS MARKER
USS	UNDERGROUND SANITARY SEWER
UT	UNDERGROUND TELEPHONE
UW	UNDERGROUND WATER
VCP	VERIFIED CLAY PIPE
WELL	WATER WELL
WF	WATER FOUNTAIN
WL	WHITE LINE
WLAT	WATER LATERAL
WLM	WHITE LINE MARKER
WM	WATER METER
WP	WATER PIPE
WT	WATER TANK
WV	WATER VALVE
WVM	WATER VALVE MARKER
YL	YELLOW LINE

SUFFIXES

END	END (EX. BFC_END)
OL	ON LINE (EX. BFC_OL)

UTILITY MARKINGS:

RED – ELECTRIC
GREEN –SEWER
BLUE – WATER
YELLOW– GAS
ORANGE – CABLE
ORANGE "T"S – TELEPHONE

TYPICAL LEGEND UNLESS OTHERWISE NOTED

- WETLANDS
- DEMOLITION
- LAGOON/POND
- EXISTING ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- STONE RIP RAP ON ENGR FABRIC
- BRICK PAVEMENT
- TYP. ASPHALT PAVEMENT
- PERVIOUS PAVEMENT

EDGE OF PAVEMENT EP	EDGE OF GRAVEL EG
TOP OF BANK TB	BOTTOM OF BANK BB
EXISTING SPOT ELEVATION	o8.43 GS
LANDSCAPE AREA	SHRUB
CONCRETE MARKER	IRON PIN
TEMPORARY BENCHMARK	SIGNAL BOX
CURB INLET	GRATE INLET
DRAINAGE MANHOLE (D)	CATCH BASIN
PROP FIRE HYDRANT	EXIST FIRE HYDRANT
WATER VALVE WV	IRRIGATION VALVE V
WATER VALVE MARKER WV	WATER METER
POST INDICATOR VALVE	FIRE DEPT CONNECTOR
MONITORING WELL (M)	WELL (W)
SPRINKLER HEAD	HOSE BIB
SANITARY SEWER MANHOLE (S)	SEWER VALVE SV
SANITARY SEWER CLEAN OUT (O)	
TRANSFORMER TRANS	CABLE TV BOX
EXISTING POWER POLE	TELEPHONE PEDESTAL T
GUY WIRE	ELECTRIC BOX ELEC.
LIGHT POLE	GROUND LIGHT
AIR CONDITIONER A/C	SIGN
FIBER OPTIC MANHOLE (P)	
UNDERGROUND GAS MARKER (G)	GAS VALVE GV
MAILBOX	FLAG POLE

DIP CROSSING	
PROP STORM DRAIN	
EXISTING STORM DRAIN	
TOP OF PAVEMENT	TP15.50
TOP OF CURB	TC16.00
TOP OF SIDEWALK	TS15.25
FINISHED GRADE	FG13.50
EXISTING CONTOUR	18.00
PROPOSED CONTOUR	19

UTILITY NOTES:

1. SHOWN ON PLAN ARE KNOWN UNDERGROUND UTILITY LOCATIONS, HOWEVER, NOT SHOWN BUT POSSIBLY ENCOUNTERED IN THE AREA OF THE SITE ARE OTHER BURIED UTILITIES INCLUDING, BUT NOT NECESSARILY LIMITED TO;

A. TELEPHONE
B. FIBER OPTICS
C. CABLE TELEVISION
D. POTABLE WATER
E. SANITARY SEWER
F. GAS PIPELINE / TRANSMISSION LINE
G. STORM SEWER

(NOTE: ALL UTILITIES ENCOUNTERED TO BE PROTECTED DURING CONSTRUCTION)

2. WHEN ENCOUNTERED, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WRITTEN GRAPHICAL INFORMATION PERTAINING TO THE VERTICAL & HORIZONTAL ALIGNMENT OF UTILITY LOCATIONS.

3. ADDITIONAL COST ASSOCIATED WITH THE LOCATING, RELOCATING (DUE TO CONFLICTS), OR DELAYS AS A RESULT OF OTHER UNDERGROUND UTILITIES ENCOUNTERED WILL BE THE RESPONSIBILITY OF THE OWNER.

4. THOSE COSTS BEING ADDITIONAL PIPING, BORES, ASPHALT CUT & PATCH, CLEARING & GRUBBING, STABILIZATION & GRASSING, OR OTHER SPECIAL CONSTRUCTION TECHNIQUES TO BE CHARGED AT THE UNIT BID PRICE OR A NEGOTIATED FEE.

GENERAL NOTES:

1. NO SITE WORK SHALL BEGIN ON A REGULATED SITE UNTIL ALL TREE PROTECTION IS IN PLACE AND ALL REQUIRED SILT FENCE HAS BEEN INSTALLED.

2. A HORIZONTAL & VERTICAL CONTROL MONUMENT HAS BEEN DESIGNATED BY THE ENGINEER. THE VERTICAL DATUM IS NGVD–29, AND THE HORIZONTAL DATUM IS NAD 83.

3. ALL PAVEMENT DIMENSIONS (i.e.; ROAD WIDTHS, PARKING LOTS, LANDSCAPE ISLANDS, etc.) ARE GIVEN TO THE EDGE OF PAVEMENT OR BACK OF CURB, AS SITE DICTATES.

4. ALL BUILDING TIES ARE PERPENDICULAR TO THE PROPERTY LINES.

5. CONTRACTOR TO IDENTIFY AND LOCATE ALL UNDERGROUND UTILITIES PRIOR TO STARTING CONSTRUCTION.

6. CONTRACTOR RESPONSIBLE FOR TRAFFIC CONTROL AND SAFETY DURING CONSTRUCTION.

7. CONTRACTOR RESPONSIBLE FOR SECURING SITE DURING NON–WORKING HOURS TO ENSURE TRAFFIC AND PEDESTRIAN SAFETY.

8. THE GENERAL CONTRACTOR AND SUB–CONTRACTORS SHALL BE AWARE THAT SOME PART OR ALL OF THE CONSTRUCTION OF THIS SITE MAY FALL UNDER THE JURISDICTION OF SPECIFIC CONDITIONS RELEVANT TO A SCDOT OR BEAUFORT COUNTY ENCROACHMENT PERMIT, UNITED STATES ARMY CORPS PERMIT, SETBACKS/BUFFERS PERTINENT TO THE ESTABLISHED ZONING ORDINANCES, SC–DHEC PERMITS, DHEC–OCRM PERMITS OR THE WATER AND SEWER AUTHORITY OF JURISDICTION. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO CONFIRM THE EXISTENCE AND CONDITIONS OF ALL PERMITS RELEVANT TO THIS PROJECT PRIOR TO THE COMMENCEMENT OF THE IMPACTED PHASE(S) OF CONSTRUCTION.

9. THE WATER AND SEWER CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE INSTALLATION OF WATER AND SEWER SERVICES IN ACCORDANCE WITH THE SPECIFICATIONS AND RELEVANT DETAILS OF THE WATER AND SEWER AUTHORITY OF JURISDICTION. THE LOCATION OF WATER AND/OR SEWER SERVICES SHOWN ON THESE PLANS IS TO BE CONSIDERED TO BE SCHEMATIC AND HAS BEEN SHOWN ON THESE DRAWINGS FOR REFERENCE PURPOSES ONLY. SEE DETAILS OR ARCHITECTUAL DRAWINGS FOR EXACT LOCATION.

10. ALL DEDICATED FIRE LINES FROM PIV TO BUILDING AND FDC'S TO BE DESIGNED, PERMITTED, INSTALLED AND TESTED BY FIRE SPRINKLER DESIGNER/FIRE SPRINKLER CONTRACTOR.

11. CONTRACTOR IS MADE AWARE THAT OSHA REQUIRES A PROTECTIVE SYSTEM DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR EXCAVATIONS DEEPER THAN 20 FT.

12. CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO EXISTING ROADWAYS FROM CONSTRUCTION AREAS.

TREE PROTECTION & REMOVAL NOTES:

INSTALL ALL TREE PROTECTION FENCE PRIOR TO THE COMMENCEMENT OF LAND DISTURBANCE ACTIVITIES..

PROJECT REQUIREMENTS FOR HARGRAY TELEPHONE & CATV:

1. COMMERCIAL BUILDINGS–APARTMENTS–VILLAS TO HAVE A MINIMUM 4" DIAMETER CONDUIT SCH. 40 PVC WITH PULL STRING BURIED AT 24" TO 30" DEPTH, FROM THE EQUIPMENT ROOM OR POWER METER LOCATION TO A POINT DESIGNATED BY HARGRAY AT ROAD RIGHT–OF–WAY OR PROPERTY LINE. CONDUITS ARE REQUIRED FROM EACH BUILDING SITE & MULTIPLE CONDUITS MAY APPLY.

2. COMMERCIAL BUILDINGS WITH MULTIPLE "UNITS" MAY REQUIRE CONDUIT(S) MINIMUM 3/4" FROM MAIN EQUIPMENT ENTRY POINT TO TERMINATION POINT INSIDE UNIT. PLENUM TYPE CEILINGS REQUIRE CONDUITS OR FLAME RETARDANT TEFLON WIRING TO COMPLY WITH CODE.

3. HOTEL OR LARGE COMMERCIAL PROJECT REQUIREMENTS WOULD BE 2–4" DIAMETER SCH. 40 PVC UNDERGROUND CONDUITS.

4. EQUIPMENT ROOMS TO HAVE 3/4" 4'X8' SHEET OF PLYWOOD MOUNTED ON WALL TO RECEIVE TELEPHONE EQUIPMENT.

5. A POWER GROUND ACCESSIBLE AT EQUIPMENT ROOM OR AN INSULATED #6 FROM THE SERVICE PANEL OR POWER MGN TO THE BACKBOARD.

6. RESIDENTIAL WIRING REQUIRES MINIMUM THREE PAIR TWISTED IN LOOP CONFIGURATION (INDUSTRY STANDARD).

7. CATV INSIDE WIRING WILL BE RG6 FOIL WRAPPED 66% BRAID MINIMUM, HOME RUN TO EACH OUTLET.

8. ALL INTERIOR WIRING SHOULD BE PULLED TO THE AREA IMMEDIATELY ADJACENT TO THE PLYWOOD BACKBOARD OR POWER METER LOCATION. A MINIMUM OF 5' OF SLACK IS REQUIRED FOR TERMINATIONS.

9. EASEMENTS ARE REQUIRED.

WATER & SANITARY SEWER NOTES:

1. THE EXISTING WATERLINE INFORMATION HAS BEEN SUPPLIED BY OTHERS. ITS LOCATION AND SIZE ARE APPROXIMATE. THE CONTRACTOR IS TO FIELD VERIFY THE EXACT SIZE AND LOCATION OF THE EXISTING WATERLINE PRIOR TO THE BEGINNING OF CONSTRUCTION.

2. THE CONTRACTOR IS TO COORDINATE THE WATERLINE TIE IN WITH BJWSA SEVENTY TWO (72) HOURS MINIMUM BEFORE WATERLINE SHUTDOWN.

3. WATERLINES 4" AND ABOVE ARE TO BE C900–DR18–CL150. ALL 2" WATERLINES ARE TO BE HDPE, AND ALL DUCTILE IRON PIPE (DIP) IS TO BE CL150.

4. WATER METERS ARE 1" DIA. UNLESS OTHERWISE NOTED, AND ARE TO BE PROVIDED AND SET BY BJWSA.

5. ALL SANITARY SEWER PIPE LENGTHS IN PLAN AND PROFILE VIEWS ARE TO THE CENTERLINE OF THE MANHOLES.

6. SANITARY SEWER PIPE IS TO BE PVC SDR26.

7. EXISTING MANHOLE LOCATION, RIM ELEVATION, AND INVERTS HAVE BEEN SUPPLIED BY THE SURVEYOR. THE PIPE LOCATION IS APPROXIMATE AND IS TO BE FIELD VERIFIED BY THE CONTRACTOR IF APPLICABLE.

8. SANITARY SEWER LATERALS ARE TO BE LAID WITH A MINIMUM SLOPE OF 2.00% AS SHOWN ON PLANS.

STORM SEWER NOTES:

1. RCP IS TO BE (CLIII). UNLESS OTHERWISE NOTED.

2. HDPE IS TO BE N–12 UNLESS OTHERWISE NOTED.

3. FOR DESIGN PURPOSES ALL PIPE LENGTHS IN THE PLAN AND PROFILE VIEWS ARE TO THE CENTERLINE OF THE STRUCTURE. (i.e.: CB, JB, OR OUTFALL, FOR PAYMENT IT WILL BE THE NET LENGTH INSTALLED)

4. SUBGRADE DRAIN IS TO BE 4" PERFORATED HDPE WITH GEOTEXTILE SOCK.

5. WRAP ALL JOINTS W/GEOTEXTILE FABRIC.

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

NO.	DESCRIPTION:	DATE:	BY:
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-
7	-	-	-
8	-	-	-

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SOUTH CAROLINA PROFESSIONAL ENGINEER — REGISTERED PROFESSIONAL ENGINEER — STEVEN MADE ANDREWS — NO. 12860

SOUTH CAROLINA — ANDREWS ENGINEERING CO. — No. C00008 — CERTIFICATE OF AUTHORIZATION

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Andrews Engineering & Surveying

Preliminary Site Plan
For
Kitties Crossing Lot 4
S.C. Hwy. 46
Town of Bluffton
Beaufort County, SC

Legend and Note Sheet

Date Drawn:	07/30/15
Last Revised:	03/14/17
Drawn By:	R. Crosby
Engineer:	S. Andrews

SHEET #:

Note

JOB: 150041

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