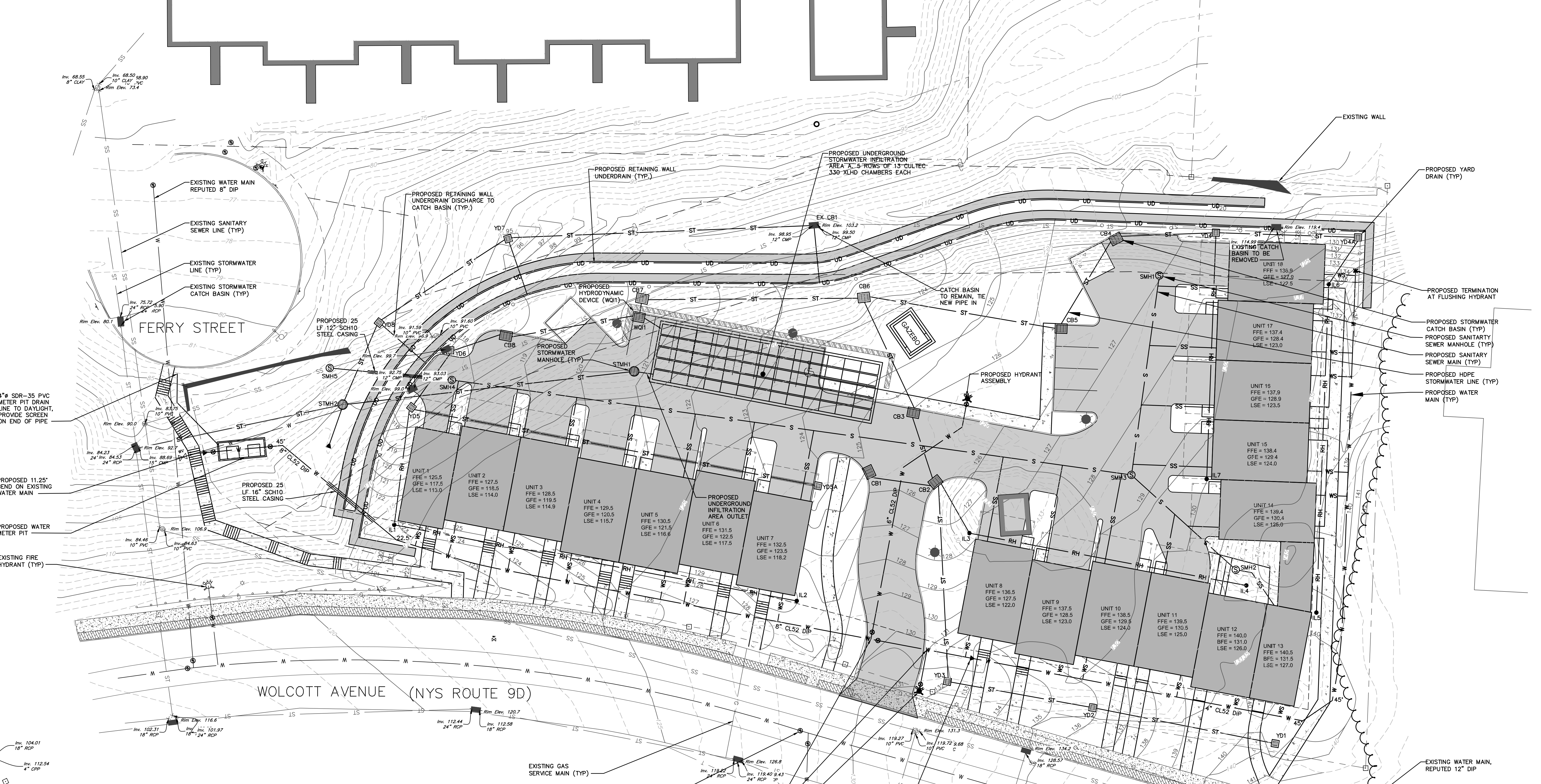


LEGEND

	EXISTING PROPERTY LINE
	EXISTING ADJOINER LINE
	EXISTING TREE
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED MINOR FENCE
	EXISTING FENCE
	EXISTING WATER MAIN
	EXISTING WATER SERVICE LINE
	PROPOSED WATER SERVICE LINE
	SEWER MANHOLE
	UTILITY POLE
	HYDRANT
	WATER VALVE
	ROUND DROP INLET
	ELECTRIC METER
	UTILITY POLE WITH LIGHT
	EXISTING OVERHEAD WIRES
	DROP INLET
	GAS METER
	PROPOSED CATCH BASIN WITH INLET PROTECTION
	PROPOSED MANHOLE DRAIN
	PROPOSED RETAINING WALL
	EXISTING CATCH BASIN
	PROPOSED SILT FENCE
	IMPERVIOUS SURFACE
	PROPOSED RIP RAP
	PROPOSED STORMWATER LINE
	PROPOSED ROOF DRAINAGE HEADER
	PROPOSED SEWER LINE
	PROPOSED WATER LINE

WHERE
 L = LEAKAGE IN GALLONS PER HOUR
 S = LENGTH OF PIPE TESTED, IN FEET
 D = NOMINAL DIAMETER OF PIPE IN INCHES
 P = AVERAGE TEST PRESSURE DURING LEAKAGE TEST, IN PSI (GAUGE)



EXISTING UNDERGROUND UTILITY NOTES:

1. THE CONTRACTOR SHALL DO TEST PITS TO VERIFY LOCATION, SIZE AND PIPE MATERIAL OF EXISTING UNDERGROUND UTILITIES. IF ANY EXISTING UTILITIES ARE NOT IN THE LOCATION WHERE THEY ARE SHOWN ON THE PLAN, IT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.

GENERAL CONSTRUCTION NOTES:

1. ALL OTHER UTILITIES (TELEPHONE, ELECTRIC, GAS, CABLE, ETC.) SHALL BE INCORPORATED PRIOR TO CONSTRUCTION OF FINAL SUCH UTILITIES SHALL BE DEVELOPED IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANIES. THE CONTRACTOR SHALL PROVIDE A UTILITY CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING THE UTILITY COMPANIES. 2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL CATCH BASINS & STORM INLET LINES, SANITARY MANHOLES & SEWER LINES, WATERLINES AND OTHER UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTIGATIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS. 3. PIPE CONNECTIONS TO ALL CATCH BASINS SHALL BE MADE WATER-TIGHT, WITH PARTICULAR ATTENTION BEING PAID TO CONNECTIONS LOCATED WITHIN 10 FEET OF SEWER MAINS (AND SERVICE LATERALS).

POST CONSTRUCTION NOTES:

1. RECORD DRAWINGS OF THE PROJECT INCLUDING ALL UTILITIES WILL BE PROVIDED TO THE BUILDING INSPECTOR AFTER CONSTRUCTION IS COMPLETE. 2. AN OPERATION AND MAINTENANCE PLAN MANUAL SHALL BE PROVIDED TO THE CITY OF BEACON BUILDING INSPECTOR FOLLOWING COMPLETION OF THE STORMWATER FACILITIES.

ROOF DRAINAGE NOTES:

1. FINAL DOWNSPOUT LOCATIONS TO BE DETERMINED BASED ON FINAL ARCHITECTURAL PLANS. 2. DOWNSPOUTS SHALL BE DIRECTED TO THE MANHOLE DRAIN, YARD DRAIN, CATCH BASIN AND ASSOCIATED PIPING SYSTEMS SURROUNDING THE BUILDINGS.

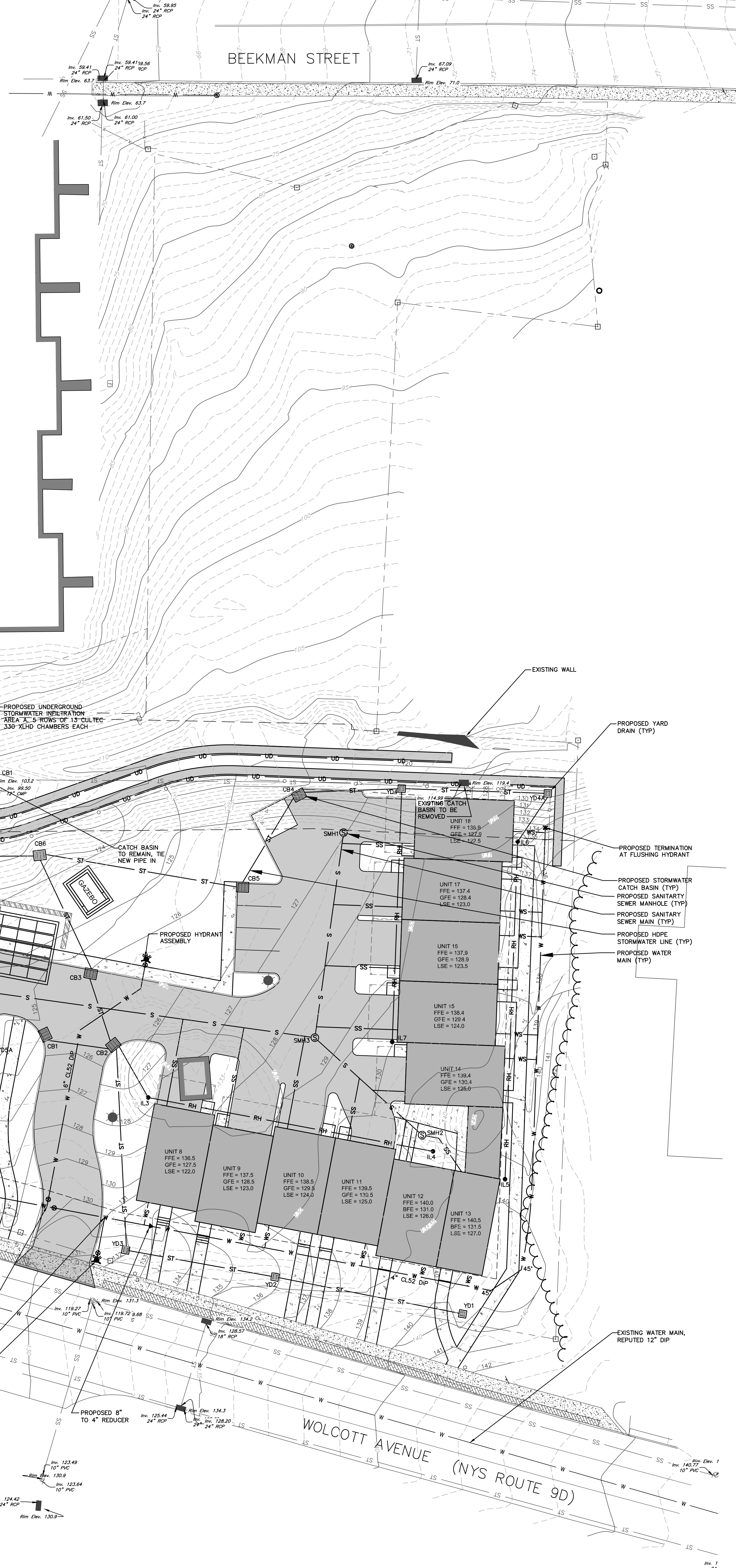
WATERMAIN DISINFECTION & TESTING

1. THE CONTRACTOR SHALL NOTIFY THE CITY OF BEACON WATER DEPARTMENT PRIOR TO TESTING AND SHALL ALSO COORDINATE HIS ACTIONS WITH THE CITY ENGINEER SO AS TO AVOID UNDUE DISTURBANCE OF THE WATER SUPPLY TO ANY EXISTING USERS.

2. THE CONTRACTOR SHALL INFORM THE DESIGN ENGINEER'S AND CITY ENGINEER'S OFFICE A MINIMUM OF 24 HOURS PRIOR TO TESTING SUCH THAT WITNESSING CAN TAKE PLACE AND PROPER CERTIFICATIONS CAN BE ISSUED. 3. ALL NEWLY INSTALLED WATER MAINS SHALL BE FLUSHED AT A MINIMUM VELOCITY OF 2.5 FT/SECOND BEFORE AND AFTER DISINFECTION. 4. ALL WATER LINES SHALL BE DISINFECTED USING THE PROCEDURES DESCRIBED IN THE LATEST EDITION OF ANNA CSDI SPECIFICATIONS FOR DISINFECTION OF WATER LINES (WITH THE EXCEPTION OF THE TABLET METHOD). WATER ENTERING THE NEW MAIN SHALL RECEIVE A DOSE OF CHLORINE FED AT A CONSTANT RATE SUCH THAT THE WATER WILL HAVE NOT LESS THAN 25 MG/L FREE CHLORINE CHLORINE APPLICATION SHALL NOT CEASE UNTIL THE ENTIRE MAIN IS FILLED WITH HEAVILY CHLORINATED WATER. 5. DISINFECTED WATER SHALL REMAIN IN THE NEWLY INSTALLED WATER LINE FOR A MINIMUM OF 24 HOURS. AFTER THIS RETENTION PERIOD, THE HEAVILY CHLORINATED WATER SHALL BE FLUSHED FROM THE MAIN UNTIL CHLORINE MEASUREMENTS SHOW A CONCENTRATION IN THE WATER LEAVING THE MAIN HAS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM. AT SUCH TIME, BACTERIOLOGICAL SAMPLING FOR SUBMITTAL TO STATE HEALTH LABORATORIES SHALL BE PERFORMED BY THE CONTRACTOR. 6. WATER SAMPLES SHALL BE TESTED FOR TOTAL COLIFORM, TPC (HETEROTROPHIC PLATE COUNT), TURBIDITY & COLOR. 7. CONTRACTOR WILL CONTINUE FLUSHING AND DISINFECTION OPERATION UNTIL ACCEPTABLE BACTERIOLOGICAL RESULTS ARE OBTAINED. TWO (2) SUCCESSIVE SAMPLES ARE TO BE TAKEN AT TWENTY-FOUR (24) HOUR INTERVALS. 8. THE ENVIRONMENT INTO WHICH THE HEAVILY CHLORINATED WATER IS TO BE DISCHARGED SHALL BE INSPECTED, AND IF THERE IS ANY LIKELIHOOD THAT THE CHLORINATED DISCHARGE WILL CAUSE DAMAGE, THEN A REDUCING AGENT SHALL BE APPLIED TO THE WATER TO BE WASTED TO THOROUGHLY NEUTRALIZE THE CHLORINE RESIDUAL IN THE WATER. PERMITS MAY BE REQUIRED. THE CITY ENGINEER SHALL BE NOTIFIED PRIOR TO DISPOSAL OF HEAVILY CHLORINATED WATER.

SANITARY SEWER NOTES:

1. THE PROPOSED TOWN HOMES ARE TO BE SERVED BY THE CITY OF BEACON MUNICIPAL SEWER SYSTEM. INSTALLATION OF ALL COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY CODE, CHAPTER 179. 2. REFER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH STANDARD NOTES FOR ADDITIONAL PERTINENT INFORMATION. 3. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH, CITY OF BEACON CHIEF SEWER OPERATOR, AND THE CERTIFYING PROFESSIONAL ENGINEER SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF THE SEWER MAIN INSTALLATION. 4. SEWER MAIN MATERIAL SHALL BE 8" DIAMETER SDR-35 OR SDR-26 PVC BELL AND SPIGOT GRAVITY SEWER PIPE, WITH GAS-TIGHT AND WATER-TIGHT JOINTS. 5. SEWER MAIN SHALL BE Laid IN STRAIGHT ALIGNMENT. MANHOLES SHALL BE CONSTRUCTED AT ALL CHANGES IN SLOPE, ALIGNMENT OR AT INTERVALS NOT EXCEEDING 400 LINEAR FEET. STRAIGHT ALIGNMENT SHALL BE VERIFIED BY DEFLECTION TESTING. 6. THE SEWER MAIN SHALL BE INSTALLED AND TESTED FOR EXPIRATION C-828 AT A PRESSURE OF 3.5 PSI. 7. MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C-1244. IF PRESSURE DROP EXCEEDS THE SPECIFIED AMOUNT, THE NECESSARY REPAIRS OR REPLACEMENTS REQUIRED SHALL BE MADE TO REDUCE THE PRESSURE DROP TO WITHIN THE SPECIFIED LIMIT, AND THE TESTS SHALL BE REPEATED UNTIL THE REQUIREMENT IS MET. 8. SERVICE LATERALS SHALL BE 4" DIAMETER SDR-35 PVC WITH A MINIMUM SLOPE OF 2% UNLESS OTHERWISE NOTED ON THE PLAN. 9. ALL SANITARY SEWER MAINS AND MANHOLES UP TO 10, BUT NOT INCLUDING, THE EXISTING MANHOLE SHALL BE OWNED, OPERATED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.



Utility Plan

Scale: 1" = 20'

STRUCTURE	STRUCTURE DETAILS
CB1	RIM = 125.40 SUMP = 121.10 CB1-CB2 INV OUT = 122.10
CB2	RIM = 125.35 SUMP = 120.60 CB1-CB2 INV IN = 121.70 Y3-CB2 INV IN = 121.70 Y3-CB2 INV IN = 122.30 CB2-CB3 INV OUT = 121.60
CB3	RIM = 125.50 SUMP = 120.20 CB2-CB3 INV IN = 121.30 CB3-CB6 INV OUT = 121.20
CB4	RIM = 126.00 SUMP = 122.00 YD4-CB4 INV IN = 123.10 CB4-CB5 INV IN = 123.10
CB5	RIM = 125.90 SUMP = 121.40 CB4-CB5 INV IN = 122.50 CB5-CB6 INV OUT = 122.40
CB6	RIM = 123.50 SUMP = 119.40 CB5-CB6 INV IN = 120.50 CB3-CB8 INV IN = 120.50 CB6-CB7 INV OUT = 120.40
CB7	RIM = 121.08 SUMP = 117.00 CB7-CB7 INV IN = 118.10 CB7-WQ1 INV OUT = 118.00
CB8	RIM = 118.40 SUMP = 112.50 YD6-CB8 INV IN = 113.60 CB8-WQ1 INV OUT = 113.50
EX CB1	RIM = 103.16 Pipe = (40) INV IN = 99.50 EX CB1-YD7 INV IN = 98.90 Pipe = (41) INV OUT = 98.95
EX CB2	RIM = 92.68 SUMP = 83.23 STMH2-EX CB2 INV IN = 85.16 Pipe = (37) INV IN = 84.53 Pipe = (38) INV OUT = 84.23

STRUCTURE	STRUCTURE DETAILS
IL1	RIM = 122.94 SUMP = 120.30 IL2-IL1 INV IN = 121.40 IL1-YD5 INV OUT = 121.30
IL2	RIM = 128.94 SUMP = 125.60 IL2-IL1 INV OUT = 126.60
IL3	RIM = 127.66 SUMP = 124.00 IL4-IL3 INV IN = 125.10 IL3-CB2 INV IN = 125.00
IL4	RIM = 130.40 SUMP = 127.00 IL4-IL3 INV IN = 128.00
IL5	RIM = 140.30 SUMP = 136.60 IL5-IL6 INV OUT = 137.60
IL6	RIM = 135.50 SUMP = 125.53 IL5-IL6 INV IN = 133.10 IL6-YD4A INV OUT = 126.53
STMH1	RIM = 120.96 SUMP = 119.50 INF A OUT-STMH1 INV IN = 111.90 STMH1-STMH2 INV OUT = 111.60
STMH2	RIM = 100.23 SUMP = 84.50 YD8-STMH2 INV IN = 85.70 STMH1-STMH2 INV IN = 89.70 EST-STMH2 INV IN = 97.20 STMH2-EX CB2 INV OUT = 85.60
WQ1	RIM = 120.46 SUMP = 111.80 CB7-WQ1 INV IN = 117.60 CB8-WQ1 INV IN = 112.90 WQ1-CULTEC INV OUT = 112.80
YD1	RIM = 139.80 SUMP = 125.00 YD1-YD2 INV OUT = 136.00

STRUCTURE	STRUCTURE DETAILS
YD2	RIM = 135.90 SUMP = 131.90 YD1-YD2 INV IN = 133.00 YD2-YD3 INV OUT = 128.70
YD3	RIM = 131.99 SUMP = 127.70 YD2-YD3 INV IN = 128.80 YD3-CB2 INV OUT = 126.80
YD4	RIM = 127.05 SUMP = 122.60 YD4A-YD4 INV IN = 123.70 YD7-YD4 INV IN = 124.20 YD4-YD4A INV OUT = 123.60
YD4A	RIM = 127.16 SUMP = 123.30 IL6-YD4A INV IN = 124.80 YD4A-YD4 INV OUT = 124.30
YD5	RIM = 117.16 SUMP = 113.30 YD5A-YD5 INV IN = 114.55 IL1-YD5 INV IN = 114.80 YD5-YD6 INV OUT = 114.30
YD5A	RIM = 124.00 SUMP = 119.50 YD5A-YD5 INV OUT = 120.50
YD6	RIM = 117.20 SUMP = 112.90 YD5-YD6 INV IN = 114.00 YD6-CB8 INV OUT = 113.90
YD7	RIM = 94.50 SUMP = 90.50 EX CB1-YD7 INV IN = 91.60 YD7-YD8 INV IN = 91.50
YD8	RIM = 88.88 SUMP = 84.90 YD7-YD8 INV IN = 86.00 YD8-STMH2 INV OUT = 85.90

PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
CB1-CB2	28 LF	15" Ø CORR HDPE	1.42%
CB2-CB3	30 LF	15" Ø CORR HDPE	0.99%
CB3-CB6	53 LF	15" Ø CORR HDPE	1.33%
CB4-CB5	44 LF	15" Ø CORR HDPE	1.14%
CB5-CB6	84 LF	15" Ø CORR HDPE	2.27%
CB6-CB7	93 LF	15" Ø CORR HDPE	2.48%
CB7-WQ1	8 LF	15" Ø CORR HDPE	5.07%
CB8-WQ1	56 LF	15" Ø CORR HDPE	1.07%
EST-STMH2	17 LF	15" Ø CORR HDPE	16.00%
EX CB1-YD7	128 LF	15" Ø CORR HDPE	5.07%

PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
IL1-YD5	48 LF	8" Ø CORR HDPE	13.66%
IL2-IL1	172 LF	8" Ø CORR HDPE	3.03%
YD3-CB2	24 LF	8" Ø CORR HDPE	11.31%
IL4-IL3	118 LF	8" Ø CORR HDPE	2.46%
IL5-IL6	138 LF	8" Ø CORR HDPE	3.27%
IL6-YD4A	22 LF	8" Ø CORR HDPE	7.55%
INF A OUT-STMH1	8 LF	12" Ø CORR HDPE	1.25%
STMH1-STMH2	123 LF	15" Ø CORR HDPE	17.83%
STMH2-EX CB2	87 LF	15" Ø CORR HDPE	0.50%
WQ1-CULTEC	11 LF	15" Ø CORR HDPE	16.52%

PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
YD1-YD2	78 LF	15" Ø CORR HDPE	3.85%
YD2-YD3	62 LF	15" Ø CORR HDPE	6.64%
YD3-CB2	84 LF	15" Ø CORR HDPE	8.36%
YD4-CB4	42 LF	15" Ø CORR HDPE	1.19%
YD4A-YD4	57 LF	15" Ø CORR HDPE	1.05%
YD5-YD6	29 LF	15" Ø CORR HDPE	1.04%
YD5A-YD5	173 LF	12" Ø CORR HDPE	3.44%
YD6-CB8	24 LF	15" Ø CORR HDPE	1.24%
YD7-YD8	64 LF	15" Ø CORR HDPE	8.54%
YD8-STMH2	38 LF	15" Ø CORR HDPE	0.53%

DUTCHESS COUNTY DEPARTMENT OF BEHAVIORAL & COMMUNITY HEALTH

STANDARD NOTES FOR PROJECTS W/CENTRAL WATER & SEWER

THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:

"NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS"; NYSDEC

"RECOMMENDED STANDARDS FOR SEWAGE TREATMENT WORKS, (TEN STATES)";

"RECOMMENDED STANDARDS FOR WATER WORKS, (TEN STATES)";

"NEW YORK STATE DEPARTMENT OF HEALTH AND DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION POLICIES, PROCEDURES AND STANDARDS";

"DUTCHESS COUNTY AND NEW YORK STATE SANITARY CODES";

"DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION CERTIFICATE OF APPROVAL LETTER";

THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF SEWAGE DISPOSAL AND WATER SUPPLY FACILITIES.

UPON COMPLETION OF THE FACILITIES, THE FINISHED WORKS SHALL BE INSPECTED, TESTED, AND CERTIFIED COMPLETE TO THE DC EHSB BY THE NEW YORK STATE LICENSED PROFESSIONAL ENGINEER SUPERVISING CONSTRUCTION. NO PART OF THE FACILITIES SHALL BE PLACED IN SERVICE UNTIL ACCEPTED BY THE DC EHSB.

APPROVAL OF ANY PLANS(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLANS(S) SHALL BE RE-SUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.

NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS SHALL BE DISCHARGED INTO THE SEWAGE COLLECTION SYSTEM. ALL BUILDINGS SHALL BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE SEWAGE COLLECTION SYSTEM.

ALL REQUIRED EROSION & SEDIMENT CONTROL, AND STORMWATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.

THE DC EHSB SHALL BE NOTIFIED SIXTY DAYS PRIOR TO ANY CHANGE IN USE. USE CHANGES MAY REQUIRE RE-APPROVAL BY THE DC EHSB. NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WATER SYSTEM SHALL NOT BE PLACED INTO SERVICE, UNTIL A "COMPLETED WORKS APPROVAL" IS ISSUED UNDER SECTION 1-22(2) OF PART 5 OF THE NEW YORK STATE SANITARY CODE (UNIFORMS).

NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WASTEWATER COLLECTION SYSTEM SHALL NOT BE PLACED INTO SERVICE UNTIL A "CERTIFICATE OF CONSTRUCTION COMPLIANCE" IS ISSUED UNDER SECTION 19.7 OF ARTICLE 19 OF THE DUTCHESS COUNTY SANITARY CODE.

ALL SERVICE LINES ARE THE RESPONSIBILITY OF THE OWNER UP TO THE PROPERTY LINE. THE WATER AND SEWER COMPANIES SHALL BE RESPONSIBLE FOR ALL VALVES AND PIPES WHICH ARE NOT ON THE OWNER'S PROPERTY.

THE UNDERSIGNED OWNERS OF THE PROPERTY HEREBY STATE THAT THEY ARE FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENT TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

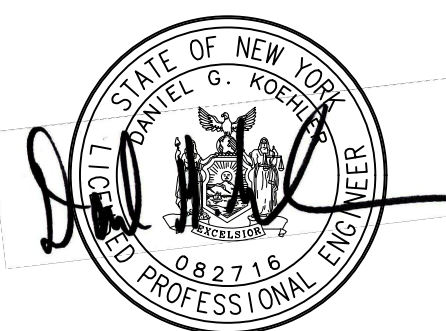
DAY OF 20, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION, ANY CHANGE, ERRASURE, MODIFICATION OR REVISION OF THIS PLAN, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____ 20____ BY _____

CHAIRMAN

SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.



SEAL

JON D. BORDENHOFF, P.E.
NYS LICENSE NO. 078245
DANIEL G. KOEHLER, P.E.
NYS LICENSE NO. 082716

NO.	DATE	DESCRIPTION	BY
1	8/29/2017	PER PLANNING BOARD COMMENTS	DKG
2	9/26/2017	PER PLANNING BOARD COMMENTS	DKG
3	10/31/2017	REVISED RETAINING WALL	DKG
4	11/28/2017	REVISED STAIRWAY TO FERRY STREET	DKG
5	12/22/2017	REMOVED INTERNAL PATH AND POCKET PARK	DKG
6	01/30/2018	PER PLANNING BOARD COMMENTS	DKG
7	02/27/2018	PER PLANNING BOARD COMMENTS	DKG

Utility Plan

Sheet 8 of 15

Owner:
River Ridge Views, LLC
445 Main Street
Beacon, NY 12508

Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Hudson Land Design
174 Main Street
Beacon, New York 12508

Surveyor:
TEC Land Surveying, P.C.
15C Tiionda Avenue
Beacon, New York 12508

River Ridge Townhouses
Beacon, New York
Scale: As Noted
July 25, 2017