

	EXISTING ROOF LEADER LOCATION
	SEWER MANHOLE
	UNKNOWN MANHOLE
	GAS METER
	UTILITY POLE
	ELECTRIC BOX
	HYDRANT
	ROUND DROP INLET
	ELECTRIC METER
	UTILITY POLE WITH LIGHT
	COMMUNICATION BOX
	OVERHEAD WIRES
	FENCE
	DROP INLET
	GAS METER
	LAMP
	UNKNOWN VALVE
	EXISTING WATER EDGE
	EXISTING PROPERTY LINE
	100-YEAR FLOOD LINE
	100-YEAR FLOODWAY LINE
	PROPOSED EASEMENT LINE
	PROPOSED CATCH BASIN WITH INLET PROTECTION
	PROPOSED CLEANOUT
	PROPOSED HYDRANT
	PROPOSED WATER VALVE
	PROPOSED SANITARY MANHOLE
	PROPOSED RETAINING WALL
	PROPOSED CULVERT
	PROPOSED UNDERDRAIN
	PROPOSED ROOF LEADER PIPE
	PROPOSED MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED SPOT ELEVATION
	EXISTING CATCH BASIN
	EXISTING UTILITY POLE
	PROPOSED CLEANOUT
	PROPOSED SEWER SERVICE LINE
	PROPOSED WATER SUPPLY LINE
	PROPOSED FENCE
	IMPERVIOUS SURFACE
	PROPOSED RIP RAP
	UTILITY CROSSING LOCATION
	PROPOSED ROOF LEADER LOCATION
	PROPOSED WATER SERVICE LINE
	PROPOSED WATER SHUT-OFF VALVE

**CATCH BASINS AND PIPING.**

ALL CATCH BASINS SHALL BE INSPECTED AFTER EACH STORM EVENT FOR SEDIMENT ACCUMULATION, AND DEBRIS, AND REMOVE AS NECESSARY. WHEN SEDIMENT ACCUMULATION WITHIN THE CATCH-BASIN REACHES 1/2" OF THE SUMP DEPTH, IT SHALL BE REMOVED. ASSOCIATED PIPING SHALL BE INSPECTED ANNUALLY AND ACCUMULATED SEDIMENT SHALL BE REMOVED AS NEEDED.

**HYDRODYNAMIC PIPES.**

THE VORTEX UNITS SHALL BE INSPECTED QUARTERLY DURING THE FIRST YEAR OF OPERATION. THE MANUFACTURER RECOMMENDS THAT THE CDS UNITS BE INSPECTED BI-ANNUALLY (ONCE IN THE FIRST YEAR AND ONCE IN THE FOLLOWING YEAR). THE STRUCTURE SHALL BE VISUALLY INSPECTED FOR BLOCKAGES OR OBSTRUCTIONS IN THE INLET OR SEPARATION SCREEN. THE INSPECTION SHOULD INCLUDE QUANTITY ACCUMULATION OF HYDROCARBONS, SEDIMENT AND TRASH WITHIN THE SYSTEM. INSPECTIONS AND MAINTENANCE SHALL BE PERFORMED BY QUALIFIED PERSONNEL WITH ADEQUATE TRAINING IN THESE TYPES OF UNITS. THE UNITS SHALL BE CLEANED BY VACUUM TRUCK ONCE A YEAR (EXCEPT FOR THE FIRST YEAR WHERE MORE FREQUENT CLEANINGS MAY BE REQUIRED).

**INFILTRATION BASIN.**

THE INFILTRATION BASIN SHALL BE INSPECTED MONTHLY FOR SEDIMENT AND DEBRIS ACCUMULATION. INFLOW PIPES, OUTLET STRUCTURES AND SPILLWAYS SHOULD ALSO BE INSPECTED FOR SEDIMENTATION. ONCE IN A MONTHLY, ANY ACCUMULATED SEDIMENT OR DEBRIS SHOULD BE REMOVED AS NECESSARY. PLANTINGS SHALL BE INSPECTED MONTHLY FOR HEIGHT, FERTILIZER, QUANTITY AND UNAUTHORIZED INVASIVE OR INAPPROPRIATE SPECIES. AFTER STORM EVENTS, THE INFILTRATION BASIN DRAINAGE DIRECTION SHOULD ALSO BE MONITORED. THE BASIN FLOOR SHALL BE MOVED

1. CONTRACTOR SHALL DIG 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.

1. ALL OTHER UTILITIES (TELEPHONE, ELECTRIC, GAS, CABLE, ETC.) SHALL BE INCORPORATED PRIOR TO CONSTRUCTION. ALL SUCH UTILITY DESIGNS SHALL BE DEVELOPED IN COOPERATION WITH THE CITY OF CHICAGO.
2. THE CONTRACTOR SHALL TELEPHONE A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UPO# 1-800-962-7962.
3. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL CATCH BASINS & STORM SEWER LINES, SANITARY MANHOLES & SEWER LINES, WATERLINES AND OTHER UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTITIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS.
4. PIPE CONNECTIONS TO ALL CATCH BASINS SHALL BE MADE WATERTIGHT, WITH PARTICULAR ATTENTION BEING PAID TO CONNECTIONS LOCATED WITHIN FEET OF SEWER MANS (AND SERVICE LATERALS).

1. UPON COMPLETION OF CONSTRUCTION OF THE STORMWATER FACILITIES, AS-BUILT DRAWINGS OF ALL STORMWATER PRACTICES AND AN OPERATION AND MAINTENANCE PLAN MANUAL SHALL BE PROVIDED TO THE CITY OF BEACON.

1. THE SECTIONS OF SEWER MAIN TO REMAIN IN-PLACE ON SITE SHALL BE INSPECTED AND CLEANED TO VERIFY THE CONDITION OF THE PIPE. THIS WORK SHALL BE COORDINATED WITH THE CITY ENGINEER AND SEWER DEPARTMENT. THE PIPES TO REMAIN IN-PLACE SHALL, THEN BE SUIP-LINED BETWEEN EXISTING MANHOLE 11 TO PROPOSED SEWER MANHOLE 12, AND BETWEEN PROPOSED SEWER MANHOLE 14 AND EXISTING SEWER MANHOLE 15.
2. UPON COMPLETION OF CONSTRUCTION OF THE WATER AND SEWER FACILITIES, AS-BUILT DRAWINGS OF FINAL WATER AND SEWER MAIN LOCATIONS SHALL BE PROVIDED TO THE CITY OF BEACON.
3. THE COMPLETED WATER MAIN EXTENSION AND SEWER MAIN RE-LOCATION SHALL BE CERTIFIED BY THE LICENSED PROFESSIONAL OBSERVING CONSTRUCTION TO THE CITY OF BEACON.
4. THE WATER AND SEWER MAINS SHALL BE DEDICATED TO THE CITY OF BEACON UPON ACCEPTANCE OF THE CERTIFICATION.

1. THE SITE OWNER WILL UTILIZE A LOADER TO MOVE SNOW TO THE AREAS DESIGNATED FOR SNOW STORAGE.
2. SNOW SHALL BE REMOVED WITHIN 8 HOURS AFTER A SNOW EVENT.

1. SITE CLEARING SHALL OCCUR BETWEEN OCTOBER 1ST THROUGH MARCH 31ST IN ACCORDANCE WITH NYSDEC REGULATIONS

1. ROCK REMOVAL (IF NECESSARY) SHALL BE ACCOMPLISHED BY MECHANICAL METHODS AS MUCH AS POSSIBLE AND SHALL ONLY BE PERMITTED BETWEEN 8:00AM AND 5:00 PM ON ANY DAY WHICH ROCK REMOVAL IS PERMITTED.
2. ACCEPTABLE ROCK REMOVAL METHODS ARE RIPPING, HYDRAULIC HAMMER OR DRILLING HOLES WITH USE OF EXPANSIVE TOOLS AND/OR WEDGES.
3. IF MECHANICAL METHODS BECOME INEFFECTIVE DUE TO HARD ROCK, AND IT IS DETERMINED THAT BLASTING IS REQUIRED, IT SHALL BE BROUGHT TO THE ATTENTION OF THE CITY OF BEACON BUILDING DEPARTMENT. NO BLASTING SHALL COMMENCE UNTIL A BLASTING PROTOCOL IS SUBMITTED TO THE CITY OF BEACON BUILDING DEPARTMENT FOR REVIEW AND APPROVAL.
4. BLASTING PROTOCOL SHALL BE IN ACCORDANCE WITH §111 OF THE CITY OF BEACON CODE.

5. HYDRANT FLOW TESTS IN THE VICINITY OF THE PROJECT REVEALED STATIC PRESSURES RANGING FROM 88 PSI TO 100 PSI. THEREFORE PRESSURE REDUCING VALVES WILL BE REQUIRED AT ALL PROPOSED DOMESTIC WATER CONNECTIONS.
6. PRESSURE REDUCING VALVES (PRV) SHALL BE FURNISHED BY MUELLER OR WATTS AND COORDINATED WITH THE MECHANICAL ENGINEERING CONSULTANT AS TO TYPE AND SIZE. SPECIFICATIONS FOR THE PROPOSED PRV SHALL BE PROVIDED TO THE CITY OF BEACON BUILDING DEPARTMENT PRIOR TO INSTALLATION.
7. DOUBLE CHECK VALVES SHALL BE PROVIDED ON ALL SERVICE CONNECTIONS TO THE ON-SITE BUILDINGS.
8. DOUBLE CHECK VALVES SHALL BE WATTS SERIES 909 OR APPROVED EQUAL ON DOMESTIC CONNECTIONS AND COORDINATED WITH THE MECHANICAL ENGINEERING CONSULTANT AS TO TYPE AND SIZE.
9. SPECIFICATIONS FOR THE PROPOSED DOUBLE CHECK VALVES SHALL BE PROVIDED TO THE CITY OF BEACON PRIOR TO INSTALLATION.

1. ALL RETAINING WALLS SHOWN ON THIS PLAN SHALL BE DESIGNED BY A NEW YORK STATE LICENSED ENGINEER AND PLANS SHALL BE SUBMITTED TO THE BEACON BUILDING DEPARTMENT PRIOR TO CONSTRUCTION.

1. PARCEL 6054-37-066670 (7-15 CREEK DRIVE) IS CONVEYING 14,700.78 SQFT, (0.337 AC.) TO THIS PARCEL 6054-37-037625 (23-28 CREEK DRIVE).

2. THE RESULTANT AREA FOR PARCEL 6054-37-066670 (7-15 CREEK DRIVE) AFTER THE LOT LINE RE-ALIGNMENT IS 669,918.03 SQFT, OR 1.605 AC.

3. THE RESULTANT AREA FOR PARCEL 6054-37-037625 (23-28 CREEK DRIVE) AFTER THE LOT LINE RE-ALIGNMENT IS 136,953.88 SQFT, OR 3.144 AC.

STORM SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
CB1	RM = 95.23 SUMP = 92.01 PIPE 1 INV OUT = 93.20
CB2	RM = 92.01 SUMP = 91.80 PIPE 1 INV IN = 93.00 PIPE 2 INV OUT = 92.90
CB3	RM = 91.79 SUMP = 86.70 PIPE 3 INV IN = 88.40 PIPE 6 INV IN = 87.60 PIPE 2 INV OUT = 87.70
CB4	RM = 85.93 SUMP = 82.90 PIPE 3 INV IN = 83.90 PIPE 4 INV OUT = 83.90
CB6	RM = 91.18 SUMP = 87.10 PIPE 6 INV OUT = 88.10
W015	RM = 88.98 SUMP = 82.20 PIPE 4 INV IN = 83.30 PIPE 5 INV OUT = 83.20

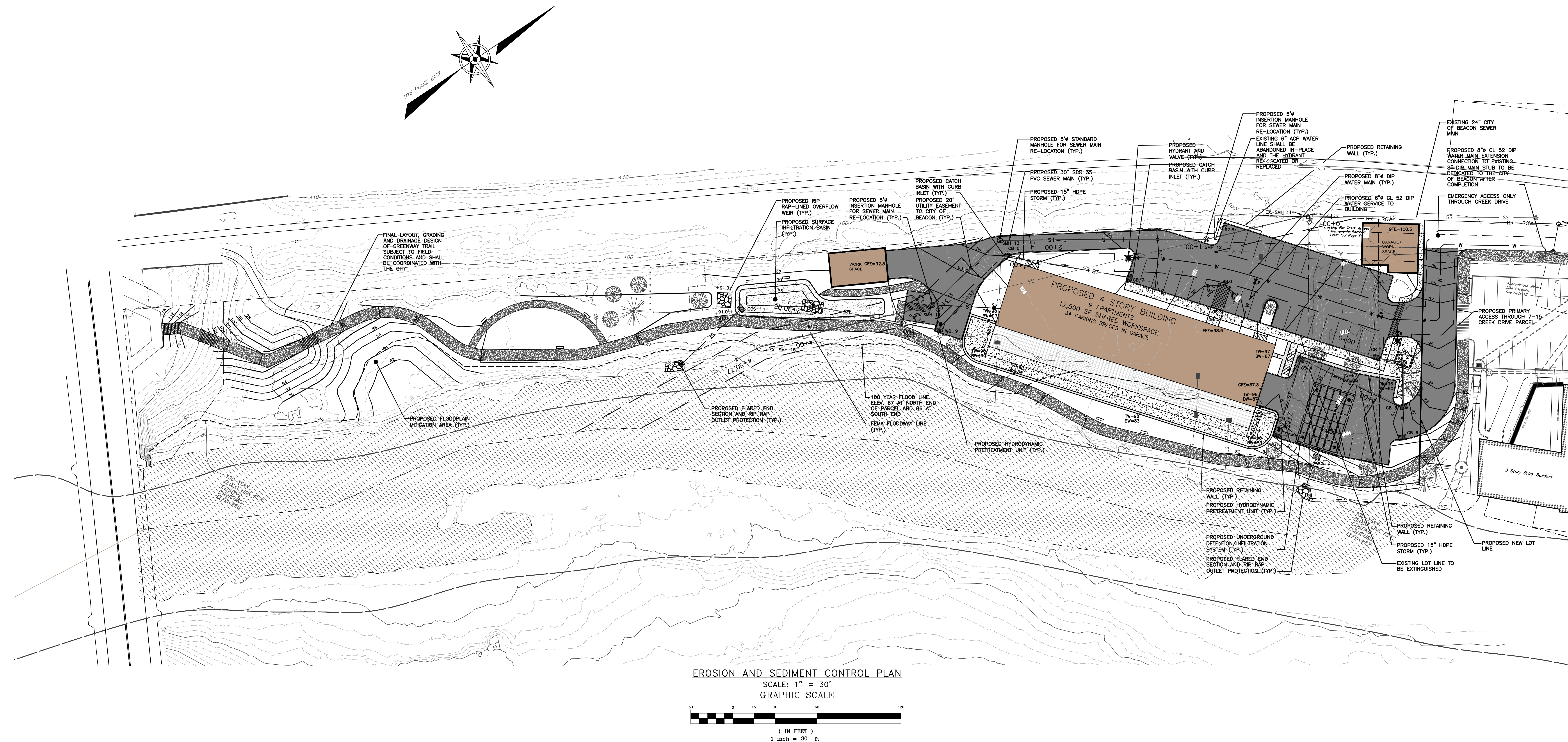
STORM SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
CS7	RM = 95.97 SUM = 92.60
	PIPE 7 INV IN = 92.60 PIPE 8 INV OUT = 93.60
CS8	RM = 94.02 SUM = 86.90
	PIPE 7 INV IN = 91.00 PIPE 8 INV OUT = 89.90
FES 10	RM = 82.91 SUM = ???
	PIPE 9 INV IN = 88.00
WQ9	RM = 91.62 SUM = 87.50
	PIPE 8 INV IN = 88.60 PIPE 9 INV OUT = 88.50

SANITARY SEWER STRUCTURE TABLE		
STRUCTURE	STRUCTURE DETAILS	
EX. SMH 11	PPE 10	RM = 99.23 INV OUT = 92.90
EX. SMH 15	PPE 13	RM = 89.23 INV IN = 76.21
SMH 13	PPE 11	RM = 84.73 INV IN = 87.00 PPE 12 INV OUT = 95.90
SMH 12	PPE 10	RM = 87.09 INV IN = 89.88 PPE 11 INV OUT = 89.70
SMH 14	PPE 12	RM = 91.67 INV IN = 81.90 PPE 13 INV OUT = 81.80

PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
PIPE 1	19 LF	15" Ø CORR HDPE	1.08%
PIPE 2	31 LF	15" Ø CORR HDPE	14.61%
PIPE 3	81 LF	15" Ø CORR HDPE	4.67%
PIPE 4	57 LF	15" Ø CORR HDPE	1.05%
PIPE 5	17 LF	15" Ø CORR HDPE	1.18%
PIPE 6	22 LF	15" Ø CORR HDPE	1.37%


PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
PIPE 7	89 LF	15" Ø CORR HDPE	2.91%
PIPE 8	72 LF	15" Ø CORR HDPE	1.80%
PIPE 9	89 LF	15" Ø CORR HDPE	0.56%

PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
PIPE 10	71 LF	24 inch PVC	4.25%
PIPE 11	147 LF	24 inch PVC	1.83%
PIPE 12	87 LF	24 inch PVC	7.51%
PIPE 13	126 LF	24 inch PVC	4.28%

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GRADING AND UTILITY PLAN  
23-28 CREEK DRIVE  
23-28 CREEK ROAD  
CITY OF BEACON  
DUTCHESS COUNTY, NEW YORK  
TAX ID: 6054-37-037625

JOB #:	2018:029
DATE:	10/23/2018
SCALE:	SCALE: 1" = 30'
TITLE:	GU-1
SHEET:	7 OF 12