

**LEGEND:**

- EXISTING ROOF LEADER LOCATION
- SEWER MANHOLE
- UNKNOWN MANHOLE
- GUY WIRE ANCHOR
- UTILITY POLE
- ELECTRIC BOX
- HYDRANT
- WATER VALVE
- ROUND DROP INLET
- ELECTRIC METER
- UTILITY POLE WITH LIGHT
- COMMUNICATION BOX
- OVERHEAD WIRES
- DROP INLET
- GAS METER
- 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 CLEANOUT
- PROPOSED UNDERDRAN
- 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

**INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES**

**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 SWAMP REACHES 1/2 OF THE SWAMP DEPTH, IT SHALL BE REMOVED. ASSOCIATED PIPING SHALL BE INSPECTED ANNUALLY AND ACCUMULATED SEDIMENT SHALL BE REMOVED AS NEEDED.

**HYDROSTATIC TESTS:**  
 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 SPRING AND ONCE IN THE FALL). THE STRUCTURE SHALL BE VISUALLY INSPECTED FOR BLOCKAGES OR OBSTRUCTIONS IN THE INLET OR SEPARATION SCREEN. THE INSPECTION SHOULD ALSO QUANTIFY ACCUMULATION OF HYDROCARBONS, SEDIMENT AND TRASH WITHIN THE SYSTEM. INSPECTIONS AND MAINTENANCE SHALL BE PERFORMED BY QUALIFIED PERSONNEL WITH ACCURATE TRAINING IN THESE TYPES OF UNITS. THE UNITS SHALL BE CLEANED BY VACUUM TRUCK ONCE A YEAR (EXCEPT FOR THE INLET 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 SEDIMENT AND DEBRIS 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 DETERMINING DURATION SHOULD ALSO BE MONITORED. THE BASIN FLOOR SHALL BE MOWED AS REQUIRED; HOWEVER, THE GRASS HEIGHT SHALL NOT EXCEED 18". SEDIMENT SHALL BE CLEANED OUT OF THE INFILTRATION BASIN ANNUALLY.

**EXISTING UNDERGROUND UTILITY NOTES:**

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.

**GENERAL CONSTRUCTION NOTES:**

- 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 RESPECTIVE UTILITY COMPANIES.
- THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UPFO @ 1-800-962-7962.
- 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 NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTIGATIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS.
- 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. 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.

**WATER AND SEWER MAIN RELOCATION NOTES:**

- THE SECTIONS OF SEWER MAIN TO REMAIN IN-PLACE ON SITE SHALL BE TV 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 SLP-LINED BETWEEN EXISTING MANHOLE 11 TO PROPOSED SEWER MANHOLE 12, AND BETWEEN PROPOSED SEWER MANHOLE 14 AND EXISTING SEWER MANHOLE 15.
- 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.
- THE COMPLETED WATER MAIN EXTENSION AND SEWER MAIN RE-LOCATION SHALL BE CERTIFIED BY THE LICENSED PROFESSIONAL OBSERVING CONSTRUCTION TO THE CITY OF BEACON.
- THE WATER AND SEWER MAINS SHALL BE DEDICATED TO THE CITY OF BEACON UPON ACCEPTANCE OF THE CERTIFICATION.

**SNOW REMOVAL AND STORAGE NOTES:**

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

**SITE CLEARING NOTES:**

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

**ROCK REMOVAL NOTES:**

- 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.
- ACCEPTABLE ROCK REMOVAL METHODS ARE RIPPING, HYDRAULIC HAMMER OR DRILLING HOLES WITH USE OF EXPANSIVE TOOLS AND/OR WEDGES.
- 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.
- BLASTING PROTOCOL SHALL BE IN ACCORDANCE WITH §111 OF THE CITY OF BEACON CODE.

**PRESSURE REDUCING VALVE AND BACKFLOW PREVENTION NOTES:**

- HYDRANT FLOW TESTS IN THE VICINITY OF THE PROJECT REVEALED STATIC PRESSURES RANGING FROM 88 PSF TO 100 PSF. THEREFORE PRESSURE REDUCING VALVES WILL BE REQUIRED AT ALL PROPOSED DOMESTIC WATER CONNECTIONS TO BUILDINGS.
- 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.
- DOUBLE CHECK VALVES SHALL BE PROVIDED ON ALL SERVICE CONNECTIONS TO THE ON-SITE BUILDINGS.
- 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.
- SPECIFICATIONS FOR THE PROPOSED DOUBLE CHECK VALVES SHALL BE PROVIDED TO THE CITY OF BEACON PRIOR TO INSTALLATION.

**RETAINING WALL NOTES:**

- 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.

**LOT LINE RE-ALIGNMENT NOTES:**

- PARCEL 6054-37-06670 (7-15 CREEK DRIVE) IS CONVEYING 14,700.76 SQFT. (0.337 AC.) TO THIS PARCEL 6054-37-037625 (23-28 CREEK DRIVE).
- THE RESULTANT AREA FOR PARCEL 6054-37-06670 (7-15 CREEK DRIVE) AFTER THE LOT LINE RE-ALIGNMENT IS 469,918.03 SQFT. OR 10.614 AC.
- THE RESULTANT AREA FOR PARCEL 6054-37-037625 (23-28 CREEK DRIVE) AFTER THE LOT LINE RE-ALIGNMENT IS 4,136,953.88 SQFT. OR 93.144 AC.

**SITE SPECIFIC NOTES:**

- THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UPFO @ 1-800-962-7962. SPECIFIC ATTENTION SHALL BE PAID TO THE LOCATIONS OF THE GAS, WATER AND SEWER MAINS WITH RESPECT TO THE PROPOSED LOCATIONS FOR THE SERVICE LINES.
- THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL BRANCH, SANITARY SEWER, WATER AND GAS LINES AND STRUCTURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT.
- THE PROPOSED LOT SHALL BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER AND SEWER SERVICES. AS SUCH, THE CONTRACTOR SHALL CONTACT THE CITY OF BEACON WATER AND SEWER DEPARTMENTS TO SCHEDULE A PRE-CONSTRUCTION MEETING TO ENSURE THAT THE ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL ARE COMMENCED IN ACCORDANCE WITH THE APPROVED PLANS AND AMENDMENTS THERETO AND GENERALLY ACCEPTED STANDARDS.
- THE WATER SERVICE LINE AND METER FOR EACH UNIT SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BEACON WATER DEPARTMENT REQUIREMENTS.
- THE WATER MAIN EXTENSION SHALL BE 6" CLASS 32 DRP.
- THE SEWER SERVICE LATERAL SHALL BE 6" SDR-35 PVC PIPE WITH PITCH AS SHOWN ON THE PLAN.
- STREET CLOSURE FOR WATER, SEWER AND GAS SERVICE CONNECTIONS AND DRIVEWAY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON REQUIREMENTS. A PERMIT SHALL BE IN PLACE FOR MAINTENANCE AND PROTECTION OF TRAFFIC.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. MAIN STREET AND NORTH ELM STREET SHALL BE KEPT CLEAN AND SWIFT DURING CONSTRUCTION.
- SUMP PUMPS TO BE PROVIDED FOR FOOTING DRAINS, AS REQUIRED. THE TYPES OF PUMPS AND METHODS USED TO ENSURE PROPER DRAINAGE SHALL BE ACCEPTABLE TO THE CITY OF BEACON BUILDING DEPARTMENT.
- THE BUILDING DEPARTMENT SHALL HAVE THE RIGHT TO INSPECT THE EXISTING BUILDING TO CONFIRM THAT THERE ARE NOT EXISTING STORMWATER CONNECTIONS TO THE CITY'S SANITARY SEWER SYSTEM PRIOR TO THE MAP BEING SIGNED.
- THE EXISTING WATER SERVICE MAIN SHALL BE CUT, CARRIED AND ABANDONED IN-PLACE.
- THE EXISTING SEWER SERVICE LATERAL SHALL BE REMOVED AND PLUGGED TO PREVENT ANY GROUNDWATER INFLOW INTO THE CITY SEWER SYSTEM.
- THE EXISTING 24" SEWER MAIN SHALL BE TV INSPECTED AND THE RESULTS PROVIDED TO THE BEACON BUILDING DEPARTMENT.
- THE EXISTING SECTIONS OF SEWER MAIN TO REMAIN IN USE ON THE PARCEL SHALL BE SLP-LINED.

STRUCTURE	STRUCTURE DETAILS
CS1	SM = 90.25 SMP = 92.25 PPE 1 1/2" INV OUT = 93.20
CS2	SM = 91.17 SMP = 93.17 PPE 2 1/2" INV OUT = 93.50
CS3	SM = 91.73 SMP = 93.73 PPE 3 1/2" INV OUT = 94.00
CS4	SM = 92.29 SMP = 94.29 PPE 4 1/2" INV OUT = 94.50
CS5	SM = 92.85 SMP = 94.85 PPE 5 1/2" INV OUT = 95.00
CS6	SM = 93.41 SMP = 95.41 PPE 6 1/2" INV OUT = 95.50
CS7	SM = 93.97 SMP = 95.97 PPE 7 1/2" INV OUT = 96.00
CS8	SM = 94.53 SMP = 96.53 PPE 8 1/2" INV OUT = 96.50
CS9	SM = 95.09 SMP = 97.09 PPE 9 1/2" INV OUT = 97.00
CS10	SM = 95.65 SMP = 97.65 PPE 10 1/2" INV OUT = 97.50

STRUCTURE	STRUCTURE DETAILS
CS7	SM = 93.97 SMP = 95.97 PPE 7 1/2" INV OUT = 96.00
CS8	SM = 94.53 SMP = 96.53 PPE 8 1/2" INV OUT = 96.50
CS9	SM = 95.09 SMP = 97.09 PPE 9 1/2" INV OUT = 97.00
CS10	SM = 95.65 SMP = 97.65 PPE 10 1/2" INV OUT = 97.50

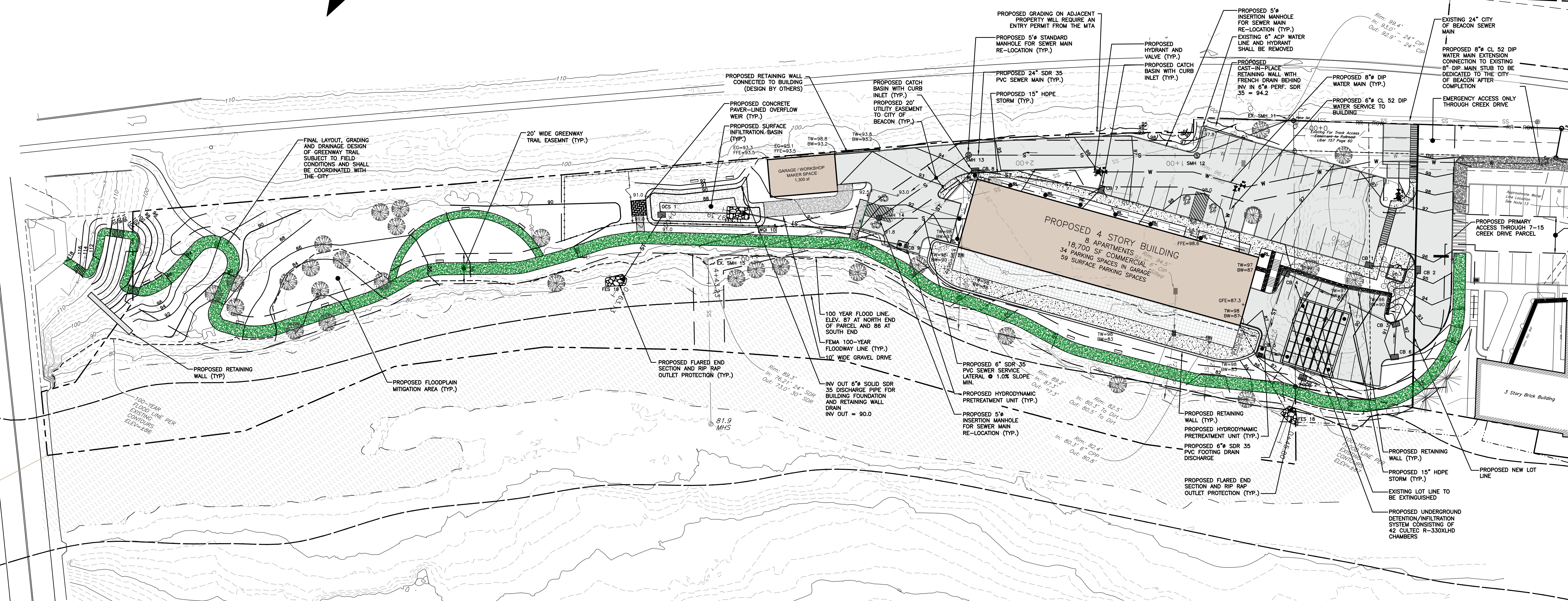
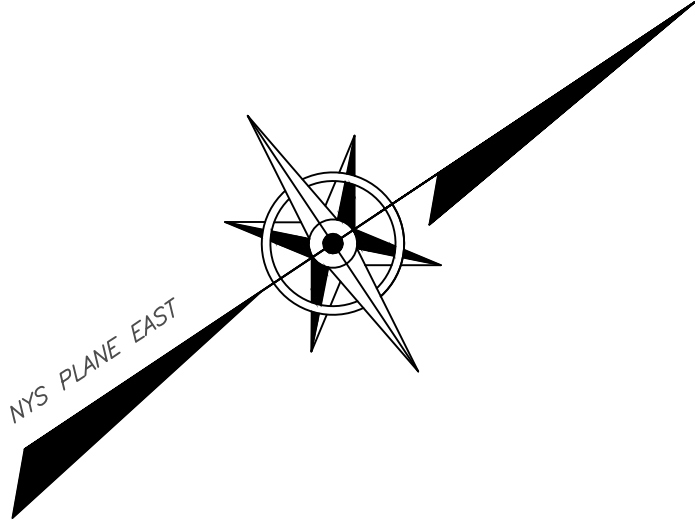
STRUCTURE	STRUCTURE DETAILS
EX SHM 11	SM = 93.19 PPE 11 1/2" INV OUT = 93.80
EX SHM 15	SM = 94.00 PPE 15 1/2" INV OUT = 94.50
SMH 13	SM = 92.50 PPE 13 1/2" INV OUT = 92.50
SMH 12	SM = 92.54 PPE 12 1/2" INV OUT = 93.70
SMH 14	SM = 92.57 PPE 14 1/2" INV OUT = 93.50

PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
PPE 1	13 LF	12" x CORR HDPE	1.02%
PPE 2	31 LF	12" x CORR HDPE	14.61%
PPE 3	81 LF	12" x CORR HDPE	4.87%
PPE 4	37 LF	12" x CORR HDPE	1.02%
PPE 5	17 LF	12" x CORR HDPE	1.18%
PPE 6	22 LF	12" x CORR HDPE	1.37%

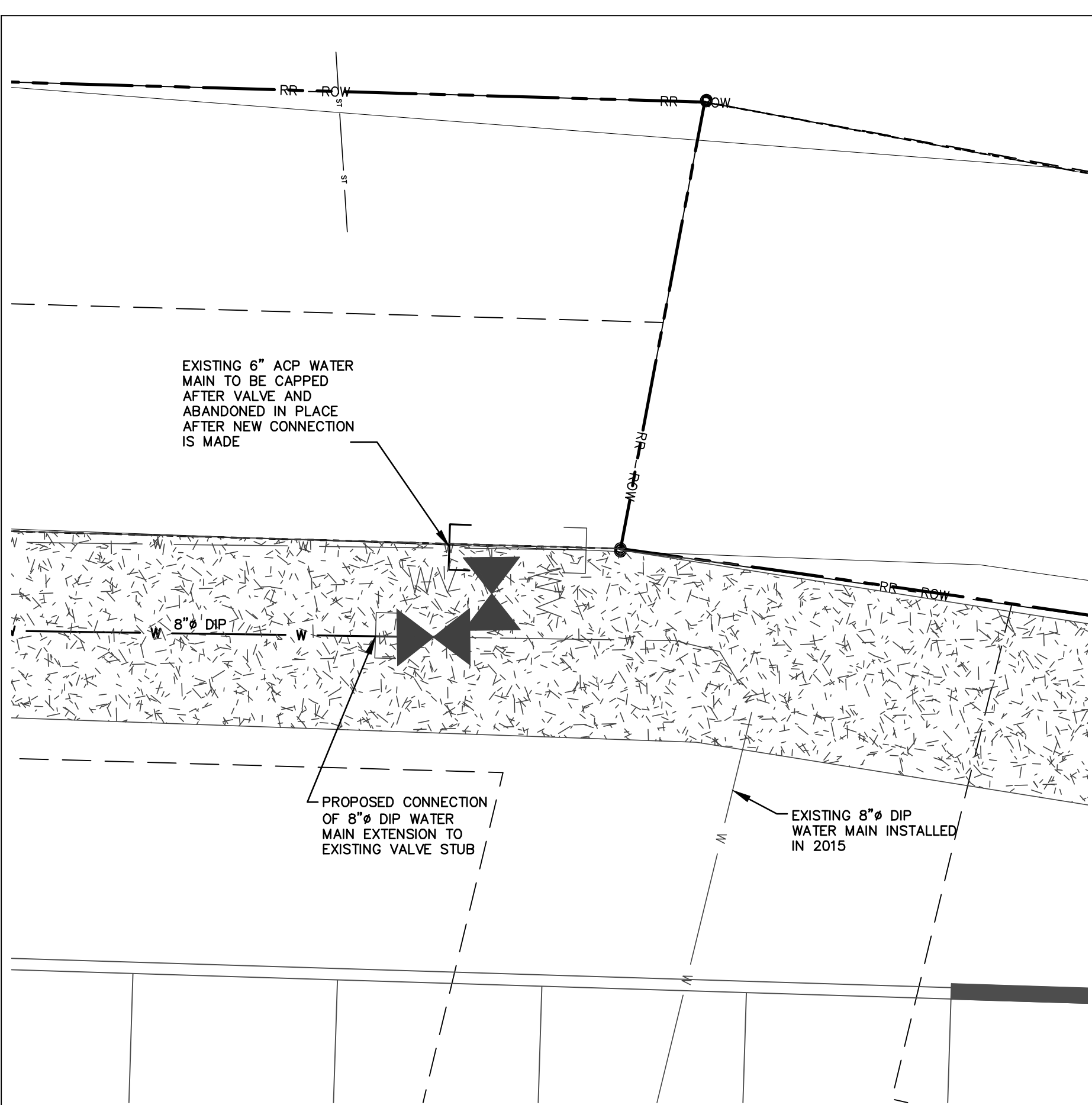
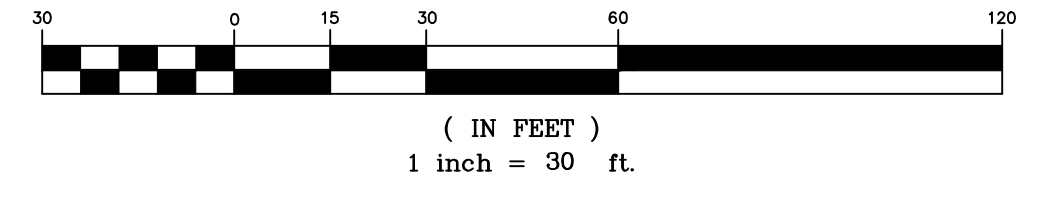
PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
PPE 7	65 LF	12" x CORR HDPE	3.04%
PPE 8	69 LF	12" x CORR HDPE	1.33%
PPE 9	106 LF	12" x CORR HDPE	0.47%

PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
PPE 11	65 LF	24" SDR PVC	4.22%
PPE 12	152 LF	24" SDR PVC	1.78%
PPE 13	73 LF	24" SDR PVC	4.88%
PPE 14	117 LF	24" SDR PVC	4.23%

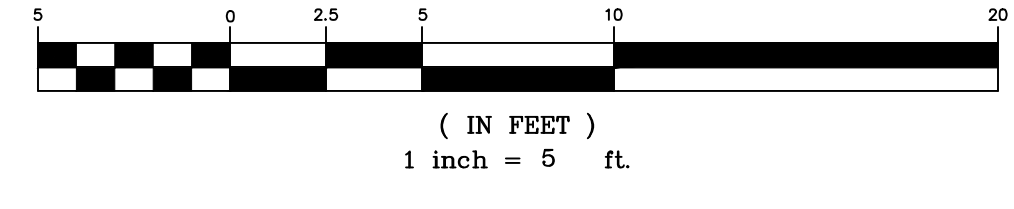
FLARED END SECTION TABLE	STRUCTURE	STRUCTURE DETAILS
FEB 11	PPE 9	INV IN = 95.10
FEB 18	PPE 15	INV IN = 96.10
FEB 19	PPE 16	INV IN = 79.50



**GRADING AND UTILITY PLAN**  
 SCALE: 1" = 30'  
 GRAPHIC SCALE



**ENLARGED WATER SERVICE CONNECTION**  
 SCALE: 1" = 5'  
 GRAPHIC SCALE



DRAWN BY: MAB			CHECKED BY: DGK				
REVISIONS:			REVISIONS:				
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	12/25/18	REVISED PER PLANNING BOARD SUBMISSION	MAB	7	10/29/19	REVISED PER PLANNING BOARD COMMENTS	CMB
2	02/22/19	REVISED BUILDING USE	MAB				
3	02/22/19	REVISED PER PLANNING BOARD COMMENTS	MAB				
4	03/25/19	REVISED PER PLANNING BOARD COMMENTS	MAB				
5	04/30/19	REVISED PER PLANNING BOARD COMMENTS	MAB				
6	05/29/19	REVISED PER PLANNING BOARD COMMENTS	MAB				

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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: AS SHOWN  
 TITLE: GU-1  
 SHEET: 7 OF 12

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