



- EXISTING SEWER ABANDONMENT NOTES:**
- THE PORTION OF EXISTING SEWER LINE 'A' TO BE BY-PASSED BETWEEN PROPOSED INSERTION SMH 3 AND REPLACEMENT SMH 7 SHALL BE ABANDONED AFTER THE NEW SEWER BY-PASS LINE HAS BEEN INSTALLED AND IS IN SERVICE. IN ADDITION, THE PORTION OF SEWER LINE 'B' BETWEEN EXISTING SMH 17 AND REPLACEMENT SMH 7 SHALL BE ABANDONED AFTER THE NEW SEWER LINE HAS BEEN INSTALLED BETWEEN EXISTING SMH 17 AND PROPOSED SMH 2.
- ABANDONMENT PROCEDURES ARE AS FOLLOWS:
1. ALL EXISTING STRUCTURES TO BE ABANDONED UNDER THE FINISHED GRADE IS TO BE PAVED, SOGMAINS OR LANDSCAPED AREAS SHALL BE ABANDONED IN PLACE BY FILLING ALL INLETS AND OUTLETS WITH BRICK AND MORTAR, AND THE STRUCTURE FILLED WITH PROCESSED CRUSHED CONCRETE PRODUCT REMOVED FROM THE SITE, UNLESS SPECIFIED OTHERWISE. THE CRUSHED CONCRETE PRODUCT SHALL BE WELL GRADED AND FREE OF FOREIGN AND PARTICLES LARGER THAN 4" ESPECIALLY WITHIN 6" OF THE PROPOSED SUB GRADE. THE MATERIAL SHALL BE PLACED IN 12" LIFTS AND MECHANICALLY COMPACTED.
 2. ALL EXISTING PIPES TO BE ABANDONED IN PLACE UNLESS SPECIFIED OTHERWISE.
 3. INSERTION SMH 3 - PLUG EXISTING 18" OUTLET TOWARD EXISTING SMH 5.
 4. EXISTING SMH 5 - PLUG ALL INLETS AND OUTLETS. EXISTING CONCRETE VAULT SHALL DEMOLISHED TO 2 FEET BELOW PROPOSED FINISHED GRADE TO ALLOW FOR INSTALLATION OF PAVEMENT, AND THEN FILLED WITH PROCESSED CONCRETE. CUT ALL EXPOSED REBAR FLUSH WITH EXISTING CONCRETE.
 5. EXISTING SMH 6 - REMOVE FRAME AND COVER, PLUG INLET AND OUTLETS, AND THEN FILL STRUCTURE WITH PROCESSED CONCRETE.
 6. EXISTING SMH 7 - REMOVE VAULT CMU BLOCK WALLS AFTER NEW INSERTION SMH 7 IS INSTALLED. PLUG EXISTING 10" INLET FROM SEWER LINE 'B'. BACKFILL AREA TO FINISHED GRADE.
 7. EXISTING SMH 17 - PLUG 10" VCP OUTLET.
 8. EXISTING SMH 18 AND 19 - DEMOLISH IN PLACE AND BACKFILL.
- AMENDED SITE PLAN NOTES:**
1. PROPOSED TEXT SHOWN IN BOLD ON THIS SHEET INDICATES WORK TO BE DONE AS PART OF THE AMENDED SITE PLAN. THIS AREA IS DELINEATED BY THE REDDISH CLOUD SHOWN ON THIS SHEET.
 2. THE PROPOSED TEXT SHOWN IN GRAY SCALE ON THIS PLAN INDICATES WORK THAT HAS ALREADY BEEN COMPLETED AS PART OF THE ORIGINAL APPROVAL.
 3. THE CONCEPTUAL LAYOUT SHOWN ON THE ADJACENT PARCEL TO THE SOUTHWEST IS FOR ILLUSTRATION PURPOSES ONLY, AND NOT PART OF THIS APPROVAL.
- 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.
- 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 SLUMP REACHES 1/2 OF THE SLUMP DEPTH, IT SHALL BE REMOVED. ASSOCIATED PIPING SHALL BE INSPECTED ANNUALLY AND ACCUMULATED SEDIMENT SHALL BE REMOVED AS NEEDED.
- HYDRODYNAMIC DEVICES:**
- 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 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 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 DRAINING DURATION SHOULD ALSO BE MONITORED. THE BASIN FLOOR SHALL BE SPECIES. GRASS HEIGHT SHALL BE KEPT BELOW 6" IN HEIGHT. AFTER STORM EVENTS, THE BIODETENTION'S DRAINING DURATION SHOULD ALSO BE MONITORED. SEDIMENT SHALL BE CLEANED OUT OF THE INFILTRATION BASIN ANNUALLY.
- BIODETENTION AREAS:**
- BIODETENTION AREAS 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. GRASS HEIGHT SHALL BE KEPT BELOW 6" IN HEIGHT. AFTER STORM EVENTS, THE BIODETENTION'S DRAINING DURATION SHOULD ALSO BE MONITORED. SEDIMENT SHALL BE CLEANED OUT OF THE BIODETENTION AREA ANNUALLY.
- GENERAL CONSTRUCTION NOTES:**
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 RESPECTIVE UTILITY COMPANIES.
 2. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 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 NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTIGATIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS.
 4. 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.
- EXISTING SEWER VAULT NOTES:**
1. ALL EXISTING SEWER VAULTS BEHIND BUILDING 9 (SMH 14, 15, 16, AND 17) ALONG FISHKILL CREEK SHALL BE MADE WATER-TIGHT BY REPAIRING LEAKS WITH NON-SHRINKING GROUT, AND THEN BY APPLICATION OF TWO COATS OF BITUMINOUS COATING WITHIN THE VAULT.
 2. ANY LATERAL CONNECTIONS TO SEWER VAULTS THAT WILL NOT BE USED SHALL BE PLUGGED WITH BRICK AND MORTAR FOR LARGER PIPES, OR NON-SHRINKING GROUT FOR SMALLER PIPES.
 3. REFER TO SEWER INFILTRATION AND INFLOW REPORT AND SANITARY STRUCTURE REPAIR SCHEDULE ON THIS SHEET FOR ADDITIONAL REPAIRS AND CORRECTIVE MEASURES TO BE TAKEN.

LEGEND:

- EXISTING ROOF LEADER
- SEWER MANHOLE
- UNKNOWN MANHOLE
- CITY WIRE ANCHOR
- UTILITY POLE
- ELECTRIC BOX
- HYDRANT
- WATER VALVE
- ROUND DROP INLET
- ELECTRIC METER
- UTILITY POLE WITH LIGHT
- COMMUNICATION BOX
- OVERHEAD WIRES
- FENCE
- DROP INLET
- GAS METER
- LAMP
- UNKNOWN VALVE
- EXISTING WATER EDGE
- 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
- 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

GRADING AND UTILITY PLAN
SCALE: 1" = 30'

GRAPHIC SCALE
1 inch = 30 ft

DRAINAGE STRUCTURE SCHEDULE

STRUCTURE ID	RM ELEVATION (FT)	INVERT (FROM CB# OR PIPE)			LENGTH (FT)	SLOPE (%)	PIPE # (INCHES)	DOWNSTEAM STRUCTURE	
		IN (FT)	IN (FT)	OUT (FT)					
WDI 1	145.0		140.54 (CB 11)	140.34	18	1.89	24	FES A	
CB 2	142.8	142.13	141.08	140.34	110	0.70	18	CB 11	
CB 3	143.5	142.9 (CB 3)	142.7	142.8 (CB 3)	105	0.85	15	CB 11	
CB 4	147.3	147.3	147.3	147.3	18	5.63	15	CB 2	
VD 1	146.2	146.2	143.5	143.5	25	1.00	12	CB 2	
CB 4	147.5	144.30 (12" RL)	144.05 (CB 6)	144.05	170	0.50	15	DMH 1	
SMH 1	147.8	144.0 (12" RL)	143.2 (CB 5)	143.2 (CB 4)	142.90	82	0.95	18	CB 12
CB 5	146.6		143.6	143.6	57	0.75	15	DMH 1	
DMH 2	145.0	142.30 (12" RL)	141.80 (CB 12)	141.80	43	1.12	18	CB 11	
CB 6	142.3		142.3	142.3	50	0.50	15	CB 4	
CB 11	144.4	141.33 (CB 1)	141.33 (DMH 2)	140.83	57	0.50	24	WD 1	
CB 7	147.9		144.0	144.0	13	1.00	15	UG. STREAM	
WDI 2	160.7	157.7 (CB 8)	157.95 (EX CB A)	156.6	5	2.00	15	UG. DETENTION	
CB 8	162.5		159.5	162.7	176	1.76	15	WD 3	
CB 9	160.85	158.7	158.6	158.6	45	1.44	12	WD 3	
DMH 3	161.4	158.0	157.42	157.4	37	1.44	15	EX. DMH	
CB 10	147.80	144.07	144.0	144.0	7	0.50	12	UG. STREAM	
VD 2	147.0	144.7	145.1	166.8	0.50	12	VD 3		
VD 3	147.8	144.27	144.17	20	0.50	12	CB 9		
FES A				140.00					

EXISTING SANITARY STRUCTURE REPAIR SCHEDULE

STRUCTURE ID OR PIPE/STATION	REQUIRED REPAIRS/IMPROVEMENTS	INVERT (FROM SMH OR PIPE)			LENGTH (FT)	SLOPE (%)	PIPE # (INCHES)	DOWNSTEAM STRUCTURE
		IN (FT)	IN (FT)	OUT (FT)				
EX SMH 1	PLUG 2-4" AND 1-4" PVC PIPES FROM DRAINAGE AND ELECTRICAL STRUCTURES. RE-PARGE MANHOLE							
EX SMH 2	RE-PARGE MANHOLE							
LINE A STA. 44+83	OUTLET PIPE SECTION WITH BLOCKAGE AND REPLACE WITH 18" SDR 35 AND FLEXIBLE PIPE COUPLERS							
EX SMH 4	REPAIR BREAK IN TOP OF PIPE WITH FLEXIBLE COUPLER							
EX SMH 4	PLUG 4" & 6" CP PIPES FROM FLOOR DRAINS. RE-PARGE MANHOLE							
LINE A STA. 2+26	PLACE INSERTION MANHOLE ON LINE. PLUG EXISTING 18" VCP OUTLET AFTER NEW PIPES ARE INSTALLED							
EX SMH 5	FILL VAULT WITH GRAVEL AFTER NEW GRAVITY SEWER BY-PASS IS INSTALLED							
EX SMH 6	FILL MANHOLE WITH GRAVEL AFTER NEW GRAVITY SEWER BY-PASS IS INSTALLED							
EX SMH 7	PLUG 10" PIPE FROM SMH 19. REPLACE VAULT WITH NEW CONCRETE INSERTION 'DOOHOUSE' MANHOLE							
EX SMH 8, 9, & 10	RE-PARGE MANHOLE							
EX SMH 11 & 12	LOCKE MANHOLES AND PROVIDE EXTENSION ROADS TO GRADE. RE-PARGE MANHOLES IF NECESSARY							
EX SMH 14, 15, 16, & 17	PROVIDE WATER-TIGHT COVER. PROVIDE 2 COATS OF BITUMINOUS COATING WITHIN MANHOLE INTERIOR. REMOVE ALL BRUSH AND TREES LOCATED OVER SEWER TO PREVENT FUTURE ROOT INTRUSION.							
EX SMH 19	REMOVE VAULT AND PLUG PIPES AFTER NEW PIPE IS INSTALLED FROM SMH 17 TO PROPOSED SMH 2.							

SANITARY SEWER STRUCTURE SCHEDULE

STRUCTURE RM ELEVATION (FT)	INVERT (FROM SMH OR PIPE)			LENGTH (FT)	SLOPE (%)	PIPE # (INCHES)	DOWNSTEAM STRUCTURE		
	IN (FT)	IN (FT)	OUT (FT)						
EX SMH 17	147.92	137.87 (18")	140.0 (12")	137.27	140.07	1.29	10	SMH 2	
SMH 1	146.2	137.87 (18")	140.0 (12")	137.87	137.87	EXISTING	18	EX. SMH 8	
SMH 2	142.2	138.18 (18")	138.68 (10")	140.0 (6")	138.18	157	0.197	18	SMH 1
SMH 3	148.0	138.34 (18")	138.34	76	0.211	18	SMH 2		

FLOOD ELEVATION NOTES:

1. THE 100 YEAR FLOOD ELEVATION SHOWN ON THIS PLAN WAS TAKEN FROM FEMA FLOOD PANEL 360217 C00464E, COMPLETED IN MAY 2, OF 2012.

RECOMMENDED FOR APPROVAL:

MAYOR OF THE CITY OF BEACON _____ DATE _____

APPROVED BY RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BEACON

ON THE _____ DAY OF _____ 20____

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, ERASURE, 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. BOBENDORF, P.E.
NYS LICENSE NO. 076245
DANIEL G. KORBELER, P.E.
NYS LICENSE NO. 082716

REVISIONS:

NO.	DATE	DESCRIPTION	BY