

Stamski And McNary, Inc.

Engineering - Planning - Surveying

1000 Main Street; Acton, MA 01720 (978) 263-8585

www.stamskiandmcnary.com

Zoning Board of Appeals Special Permit Application

for

**Map 11E Parcel 3079
246 Old Road to 9 Acre Corner
Concord, MA 01742**

Applicant/

Owner:

Concord Country Club
246 Old Road to 9 Acre Corner
Concord, MA 01742

Date:

September 1, 2020

SM-4621B

Table of Contents

- **Zoning Board of Appeals Application**
- **Narrative**
- **Property Card/Record Deed**
- **Cut and Fill Calculations**
 - Prepared by Stamski and McNary, Inc.
- **Photographs of Site**
- **Soil Testing**
- **Attachments**
 - A. Pumping Records
 - B. Irrigation Pond Analysis by Golf Water
 - C. Well Registration Documents
 - D. Discussion of Water Balance by Bristol Engineering Advisors, Inc.
 - E. Trucking Plan by Onyx Corporation
 - F. Irrigation Pond Plan by Stamski and McNary, Inc.
 - a. Concept Plan 2
 - b. Concept Plan 3

Zoning Board of Appeals Application

Town of Concord
Zoning Board of Appeals
141 Keyes Road
Concord, MA 01742
Tel: (978) 318-3295
www.concordma.gov



Zoning Board of Appeals Application

General Application

Town Use Only

Received by Clerk of the Board:

Town Clerk Stamped Received

Application Fee: _____

Hearing Date: _____

1 Application Information

This Application is for: Special Permit Special Permit Renewal Variance
 Sign Variance Appeal from a decision of the Building Inspector/Zoning Enforcement Officer

Sections of the Zoning Bylaw Applicable to Application & Brief Project Description:

7.5 Earth Removal; 11.6 Special Permit

Project is for the construction of an irrigation pond, which will require the removal of 19,432+/- cu. yds. of soil. This exceeds the maximum threshold of 1,000 cu. yds.. Soil will be transported offsite.

2 Property Information

Address: 246 Old Road to Nine Acre Corner

Parcel ID #: 3079

Zoning District: Residence AA

Total Land Area: 198.7 ac.

Present Use: Golf Course

Lot Frontage: 1,480' ORNAC

Proposed Use: Golf Course

Deed Book & Page #: 9716/175

Check all Applicable:

- | | |
|--|--|
| <input type="checkbox"/> Historic District | <input type="checkbox"/> White Pond Advisory Area |
| <input checked="" type="checkbox"/> Wetlands Conservancy District | <input type="checkbox"/> Wireless Overlay District |
| <input checked="" type="checkbox"/> Flood Plain Conservancy District | <input checked="" type="checkbox"/> 100' Wetland Buffer Zone |
| <input checked="" type="checkbox"/> Groundwater Conservancy District | <input checked="" type="checkbox"/> 200' River's Act Area |

3 Building Inspections Division Review

To avoid project delays, this Application and all supporting documentation should be reviewed by a Concord Building Inspector prior to filing with the Town Clerk. It is the Applicant's responsibility to schedule an appointment to meet with a Building Inspector at least two weeks before the application submission deadline. Incomplete applications will not be signed by a Building Inspector.

This completed Application has been reviewed by a Concord Building Inspector.

Signature of Building Inspector: *Gray Matte*

Date: *9/3/2020*

4 Property Owner/Applicant Information

The undersigned hereby certifies that he/she has read and examined this application, the Board of Appeals Procedures and Checklist and that the proposed project is accurately represented in this Application and supporting documentation, and hereby requests a hearing before the Board of Appeals with reference to the above application.

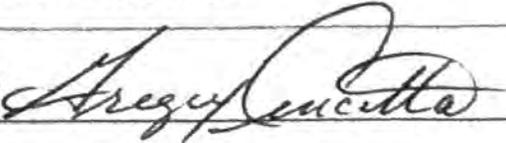
Property Owner(s) Name: Concord Country Club

Address: 246 Old Road to Nine Acre Corner

Phone: 978-371-1089 x 281

E-Mail: prappoccio@concordcc.org

Signature:



Date:

Property Owner(s) Name:

Address:

Phone:

E-Mail:

Signature:

Date:

Applicant(s) Name: Concord Country Club

Address: 246 Old Road to Nine Acre Corner

Phone: 978-371-1089 x 281

E-Mail: prappoccio@concordcc.org

Signature:

Date:

Applicant is: Owner Tenant Agent/Attorney Purchaser

Applicant(s) Name:

Address:

Phone:

E-Mail:

Signature:



Date:

Applicant is: Owner Tenant Agent/Attorney Purchaser

5 Application Materials Checklist – General Application

Information to be submitted with Application

- Application Fee:** Cash or check payable to the Town of Concord. See Fee Schedule for fees.
- Project Narrative:** A thorough description of the existing conditions and/or use; the proposed changes; justification of the proposal; and any other relevant information that the Board may need in reviewing the application.
- Existing Site Plan:** Plan should include the property boundaries, outlines of existing buildings and structures showing closest points of structure to each lot line; existing pavement areas; existing easements; and Wetlands and Flood Plain Conservancy District delineation. The plan must be prepared and stamped by a registered land surveyor.
- Proposed Site Plan:** Plan should include the property boundaries, outlines of proposed buildings and structures showing closest points of structure to each lot line; typical building setbacks for the zoning district; proposed pavement areas; proposed easements; and Wetlands and Flood Plain Conservancy District delineation. The plan must be prepared and stamped by a registered land surveyor.
- Floor plans:** Include existing and proposed layout, drawn to scale and dimensioned. All plans must be dated and include the name of preparer.
- Building elevations:** Show existing conditions and proposed changes drawn to scale. For anything other than one and two family residential developments, all architectural plans must be prepared by a Registered Architect.
- Parking layout:** Submit dimensioned existing and proposed layout, including stall delineations (9 foot by 18 foot dimensioned parking spaces). Provide supporting parking calculations.
- Photographs:** Photographs of the area from various angles. Provide photographs of the existing structure in relation to abutting structures and photographs of other structures within the adjacent neighborhood. Photos should be in color and mounted on an 8-1/2" x 11" page with description of where they were taken from.
- Copy of the deed for the property:** Can be obtained from the [Middlesex South Registry of Deeds](#).
- Sign details and location:** Show the location of existing and proposed signs on the site plan. Details should include dimensions, materials, and all relevant information (if applicable).
- Letters of Support** (not required).

6 Provide the Following Required Copies

- Ten (10) copies of the completed two-page Application
- Ten (10) copies of all supportive materials
- Two (2) full size (36"x24") copies of the plan(s) showing all requested information
- Nine (9) reduced size (11"x17") copies of the plan(s) showing all requested information
- One (1) copy of the Abutters List Request Form and/or copy receipt from Assessor's Office
- One (1) copy of the Legal Notice Form

Narrative

246 Old Road to 9 Acre Corner – Concord Country Club Earth Removal Narrative

The proposed project is for the construction of an Irrigation Pond at the Concord Country Club (CCC) located at 246 Old Road to 9 Acre Corner. This will require the removal of approximately 19,432± cubic yards of soil that will be transported offsite; of this total, approximately 1,200 cubic yards of material has already been removed. Currently, the CCC sources irrigation water via a series of wells directly to their irrigation system; this arrangement makes it difficult to consistently meet water demand of the course. Although the total daily yield is adequate, the wells are not always capable of delivering the flows needed, particularly during the drier months of the year. The construction of the irrigation pond will allow CCC to store pumped groundwater so that they can provide irrigation water at more consistent flows.

The site is located within The Groundwater Conservancy District. Soil testing has been conducted at and around the irrigation pond site to determine the high groundwater elevation. The proposed irrigation pond has been designed to either hold 4' to the high groundwater elevation or maintain the existing ground elevation where the high groundwater elevation is less than 4' from the ground surface in accordance with the requirements of the zoning bylaw. Additionally, the proposed 320 s.f. pump house and 59,587 s.f. irrigation pond will result in only a slight increase to the proportion of the property that is of impervious coverage, which is currently approximately 6± acres, far less than the maximum allowable impervious coverage of 29.8 acres (15% of the 198.7 acre site). The post-development impervious coverage of the site will be approximately 7.4 acres (2.5% of the total site).

It is not practical to complete the proposed work and maintain the general topography of the property without the Earth Removal Special Permit due to the nature of the work. The project requires cutting into a large slope in order to provide the 3.0± million gallon storage capacity needed to store the groundwater; removal of the material from the site is preferable to relocating it onsite elsewhere as it will limit topographic changes to the pond area only and will not impact other areas. The post-development topography will slope upward away from property lines, as it does under existing conditions. Additionally, no topsoil is proposed to be removed from the site; all topsoil will either be used within the work area or used elsewhere on the property.

Analysis of Alternative Locations.

Three alternative locations were evaluated for the proposed irrigation pond. These locations are as follows:

1. The northeast corner of the property is outside of the Groundwater Conservancy District and contains an existing depression. This potential location was eliminated due to its proximity to Old Marlborough Road, property lines, and the existing sewage disposal system that serves the property.
2. Approximately 800' from the project site, there is an existing landscape waste dump that was evaluated due to its topographic position. A concept plan is attached that shows a potential pond in this location. This potential location was eliminated due to its proximity to Bordering Vegetated Wetland.
3. Approximately 150' from the proposed pond location, between two of the golf course holes, there is a sparsely wooded area that was evaluated as a potential pond location. A concept plan is attached that shows this potential pond. This potential location was eliminated due to its location in the middle of the course and its unfavorable placement upgradient of one of the course holes.

Zoning Bylaw Section 7.5.3 Removal of earth subject to board approval

7.5.3.1 The volume proposed for removal does not exceed the minimum practical removal required to accomplish the construction, development, or improvement in accordance with the plans therefor;

The irrigation pond has been sized to provide the storage capacity needed. The storage capacity cannot be provided without excavating some material. As the subject property contains nearly 200 acres, the excavated material could be deposited elsewhere onsite, however this would drastically expand the area of disturbance and would alter areas that would otherwise remain untouched. The removal of the material from the site will allow for the construction of the pond without drastically expanding the area of disturbance required for construction.

7.5.3.2 The plans submitted in connection with the removal are designed to minimize changes in existing contours to enhance attractive land utilization, effective drainage, suitable road gradients, access or other design considerations;

Although change to the existing topography is proposed due to the quantity of earth removal required, the overall drainage characteristics of the area will not be modified as the proposed pond will slope away from the golf course and to the wooded area as this area does under existing conditions. The pond has been provided with an outlet so that runoff entering the pond during a storm will be able to flow into an infiltration basin, and ultimately to the Bordering Vegetated Wetland and Dugan Brook, as all runoff does currently.

7.5.3.3 Effecting the removal will not be detrimental or injurious to abutters or the neighborhood, either by the alteration of existing topography or by a substantial change in the use of the streets in the neighborhood.

Although soil is proposed to be removed from the site, the proposed project will not result in permanent alteration unharmonious with the existing topographic and drainage conditions of the site. The proposed finished grade will maintain the existing downward slope away from the golf course and towards property lines. The earth removal itself will not substantially affect screening of the property as the area of disturbance is a minimum of 137'± from any property lines. The existing land use will remain the same, so no change to the use of streets is expected upon completion of construction.

Property Card/Record Deed

CURRENT OWNER		TOPO	UTILITIES	STRT / ROAD	LOCATION	CURRENT ASSESSMENT				
CONCORD COUNTRY CLUB						Description	Code	Assessed	Assessed	214
						COMMERC.	0380	2,436,900	2,436,900	
						COM LAND	0380	530,100	530,100	CONCORD, MA
						COMMERC.	0380	487,600	487,600	
246 OLD ROAD TO 9 ACRE COR		SUPPLEMENTAL DATA				REC LAND	0805	2,139,500	534,875	VISION
CONCORD MA 01742		Alt Prcl ID CONC GIS RES SOLA				RECRTION	0805	900,000	900,000	
		GIS ID F_687559_2988074			Assoc Pid#					
					Total			6,494,100	4,889,475	

RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	Q/U	V/I	SALE PRICE	VC	PREVIOUS ASSESSMENTS (HISTORY)																	
CONCORD COUNTRY CLUB		9716 0175	01-01-1960	U	V		1	Year	Code	Assessed	Year	Code	Assessed	V	Year	Code	Assessed								
								2019	0380	2,269,200	2018	0380	2,280,200	2017	0380	2,291,100									
									0380	514,900		0380	490,300		0380	467,000									
									0380	487,600		0380	487,600		0380	487,600									
									0805	519,675		0805	495,175		0805	471,775									
									0805	222,000		0805	222,000		0805	222,000									
								Total			4691375			Total			4653275			Total			4617475		

EXEMPTIONS				OTHER ASSESSMENTS			
Year	Code	Description	Amount	Code	Description	Number	Amount
Total			0.00				

ASSESSING NEIGHBORHOOD			
Nbhd	Nbhd Name	B	Tracing
20			

NOTES	
CONCORD COUNTRY CLUB SEE PHOTO-RL.	
WHITE HOUSE AT ROAD: #234	
POOL/TENNIS BLDG: #268	
WAS 240 ORNAC	
2016-234 ORNAC DEMO'D-NOW LANDSCAPING-	

BUILDING PERMIT RECORD										VISIT / CHANGE HISTORY					
Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments		Date	Id	Type	Is	Cd	Purpost/Result
E18-203	03-28-2018	CM	Commercial	7,000		100	06-30-2018	WR MEN'S & WOMEN'S LOC		06-02-2016	RL	02		57	BP Exterior Only
P18-104	03-21-2018	CM	Commercial			100	06-30-2018	BSM-2 BAR SNKS		04-16-2014	SW	04		14	Field Review
18-127	03-14-2018	CM	Commercial	60,000		0		RMDL MEN'S & LADIES LOC		11-15-2012	PM			00	Measur+Listed
E18-150	03-12-2018	CM	Commercial	6,500		100	06-30-2018	NW STROBES & HT DET		06-15-2012	RL	01		00	Measur+Listed
E17-889	11-15-2017	CM	Commercial	4,000		100	06-30-2018	TENNIS CT LTS		07-20-2007	CN	01		00	Measur+Listed
E17-774	10-05-2017	EL	Electric	1,200		100	06-30-2018	NW UG SVS AT TENNIS CT		06-30-2005	LM			11	Measure/Bldg Permit
16-785	11-08-2016	CM	Commercial	56,056		100	06-30-2017	ROOF							

LAND LINE VALUATION SECTION																
B	Use Code	Description	Zone	Land Type	Land Units	Unit Price	Size Adj	Site Index	Cond.	Nbhd.	Nbhd. Adj	Notes	Location Adjustment	Adj Unit P	Land Value	
1	0805	61B GOLF	AA		4.000	AC 530,100.00	1.00000	0	1.00		1.000		1.0000	530,100.0	2,120,400	
1	0805	61B GOLF			193.730	AC 98.47	1.00000	E	1.00		1.000		1.0000	98.47	19,100	
Total Card Land Units					4.000	AC	Parcel Total Land Area					198.7300	Total Land Value			2,139,500

CONSTRUCTION DETAIL			CONSTRUCTION DETAIL (CONTINUED)		
Element	Cd	Description	Element	Cd	Description
Style:	99	Vacant			
Model	00	Vacant			
Grade:					
Stories:					
Occupancy					
Exterior Wall 1					
Exterior Wall 2					
Roof Structure:					
Roof Cover					
Interior Wall 1					
Interior Wall 2					
Interior Flr 1					
Interior Flr 2					
Heat Fuel					
Heat Type:					
AC Type:					
Total Bedrooms					
Total Bthrms:					
Total Half Baths					
Total Xtra Fixtrs					
Total Rooms:					
Bath Style:					
Kitchen Style:					
Extra Kitchen					
			MIXED USE		
			Code	Description	Percent
			0805	61B GOLF	100
					0
					0
			COST / MARKET VALUATION		
			Building Value New		0
			Net Other Adjustment		0
			Year Built		0
			Effective Year Built		0
			Depreciation Code		
			Remodel Rating		
			Year Remodeled		
			Depreciation %		0
			Functional Obsol		0
			Economic Obsol		0
			Trend Factor		1
			Condition		
			Condition %		100
			Percent Good		70
			RCNLD		0
			Dep % Ovr		
			Dep Ovr Comment		
			Misc Imp Ovr		
			Misc Imp Ovr Comment		
			Cost to Cure Ovr		
			Cost to Cure Ovr Comment		

No Sketch

OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)										
Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Gd	Grade	Grade Adj.	Appr. Value
	GREENS	L	18	100000.0		A	50		1.00	900,000

BUILDING SUB-AREA SUMMARY SECTION						
Code	Description	Living Area	Gross Area	Eff Area	Unit Cost	Undeprec Value
Ttl Gross Liv / Lease Area		0	0	0		0



CURRENT OWNER		TOPO	UTILITIES	STRT / ROAD	LOCATION	CURRENT ASSESSMENT				
CONCORD COUNTRY CLUB						Description	Code	Appraised	Assessed	214
246 OLD ROAD TO 9 ACRE COR						COMMERC.	0380	2,436,900	2,436,900	
CONCORD MA 01742		SUPPLEMENTAL DATA				COM LAND	0380	530,100	530,100	CONCORD, MA
Alt Prcl ID CONC GIS RES SOLA						COMMERC.	0380	487,600	487,600	
GIS ID F_687559_2988074		Assoc Pid#				REC LAND	0805	2,139,500	534,875	VISION
						RECRTION	0805	900,000	900,000	
						Total		6,494,100	4,889,475	

RECORD OF OWNERSHIP							BK-VOL/PAGE	SALE DATE	Q/U	V/I	SALE PRICE	VC	PREVIOUS ASSESSMENTS (HISTORY)									
CONCORD COUNTRY CLUB							9716	0175	01-01-1960	U	V		1	Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed
													2019	0380	2,269,200	2018	0380	2,280,200	2017	0380	2,291,100	
														0380	514,900		0380	490,300		0380	467,000	
														0380	487,600		0380	487,600		0380	487,600	
														0805	519,675		0805	495,175		0805	471,775	
														Total	4691375		Total	4653275		Total	4617475	

EXEMPTIONS				OTHER ASSESSMENTS				
Year	Code	Description	Amount	Code	Description	Number	Amount	Comm Int
Total			0.00					

ASSESSING NEIGHBORHOOD			
Nbhd	Nbhd Name	B	Tracing
20			

NOTES			

This signature acknowledges a visit by a Data Collector or Assessor

APPRAISED VALUE SUMMARY	
Appraised Bldg. Value (Card)	2,407,600
Appraised Xf (B) Value (Bldg)	29,300
Appraised Ob (B) Value (Bldg)	1,387,600
Appraised Land Value (Bldg)	2,669,600
Special Land Value	0
Total Appraised Parcel Value	6,494,100
Valuation Method	C
Total Appraised Parcel Value	6,494,100

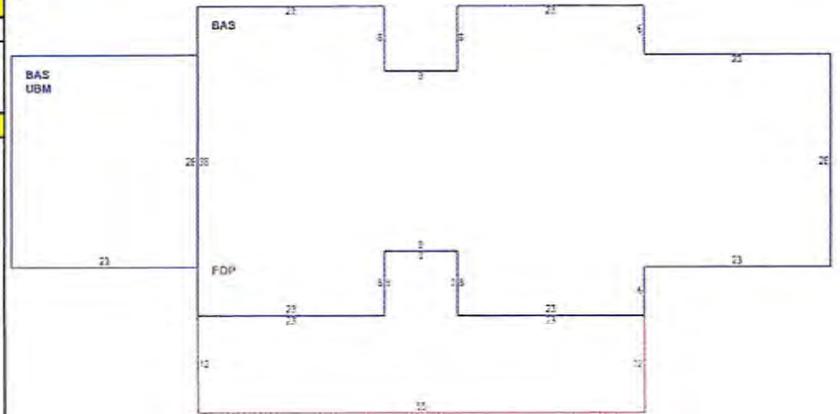
BUILDING PERMIT RECORD										VISIT / CHANGE HISTORY					
Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments		Date	Id	Type	Is	Cd	Purpost/Result

LAND LINE VALUATION SECTION															
B	Use Code	Description	Zone	Land Type	Land Units	Unit Price	I. Factor	Site Index	Cond.	Nbhd.	Nhbd Adj	Notes	Location Adjustment	Adj Unit Pric	Land Value
2	0380	GOLF CRSE	AA		0.000	AC	0.00	1.00000	E	1.00	1.000			0	0.00
Total Card Land Units					0.000	AC	Parcel Total Land Area: 198.7300					Total Land Value		2,669,600	

CONSTRUCTION DETAIL			CONSTRUCTION DETAIL (CONTINUED)		
Element	Cd	Description	Element	Cd	Description
Style:	77	Clubs/Lodges			
Model	94	Commercial			
Grade	05				
Stories:	1				
Occupancy	1.00				
Exterior Wall 1	11	Clapboard			
Exterior Wall 2					
Roof Structure	03	Gable/Hip			
Roof Cover	03	Asphalt			
Interior Wall 1	05	Drywall/Sheet			
Interior Wall 2					
Interior Floor 1	11	Ceram Clay Til			
Interior Floor 2					
Heating Fuel	01	Coal or Wood			
Heating Type	01	None			
AC Type	01	None			
Bldg Use	3800	GOLF CRSE			
Total Rooms	0				
Total Bedrms	0				
Total Baths	2				
Heat/AC	00	NONE			
Frame Type	02	WOOD FRAME			
Baths/Plumbing	02	AVERAGE			
Ceiling/Wall	06	CEIL & WALLS			
Rooms/Prtns	02	AVERAGE			
Wall Height	8.00				
% Comn Wall					
1st Floor Use:					

MIXED USE		
Code	Description	Percentage
0380	GOLF CRSE	100
		0
		0

COST / MARKET VALUATION	
RCN	484,345
Year Built	1980
Effective Year Built	2004
Depreciation Code	VG
Remodel Rating	
Year Remodeled	
Depreciation %	15
Functional Obsol	
Economic Obsol	
Trend Factor	1
Condition	
Condition %	
Percent Good	85
RCNLD	411,700
Dep % Ovr	
Dep Ovr Comment	
Misc Imp Ovr	
Misc Imp Ovr Comment	
Cost to Cure Ovr	
Cost to Cure Ovr Comment	



OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)										
Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value
FGR1	GARAGE-AVE	L	2,400	23.10	2012	E	100		0.00	55,400
LT4	W/FOUR LIGH	L	3	4848.00	2012	A	50		0.00	7,300
LT3	W/TRIPLE LIG	L	1	3957.00	2012	A	50		0.00	2,000

BUILDING SUB-AREA SUMMARY SECTION						
Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value
BAS	First Floor	3,142	3,142	3,142	140.88	442,645
FOP	Porch, Open	0	732	146	28.10	20,568
UBM	Basement, Unfinished	0	598	150	35.34	21,132
Ttl Gross Liv / Lease Area		3,142	4,472	3,438	0.00	484,345



CURRENT OWNER		TOPO	UTILITIES	STRT / ROAD	LOCATION	CURRENT ASSESSMENT				
CONCORD COUNTRY CLUB						Description	Code	Appraised	Assessed	214
246 OLD ROAD TO 9 ACRE COR		SUPPLEMENTAL DATA Alt Prcl ID CONC GIS RES SOLA GIS ID F_687559_2988074 Assoc Pid#				COMMERC.	0380	2,436,900	2,436,900	
CONCORD MA 01742										COM LAND
						COMMERC.	0380	487,600	487,600	
						REC LAND	0805	2,139,500	534,875	VISION
						RECRTION	0805	900,000	900,000	
						Total		6,494,100	4,889,475	

RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	Q/U	V/I	SALE PRICE	VC	PREVIOUS ASSESSMENTS (HISTORY)								
CONCORD COUNTRY CLUB		9716 0175	01-01-1960	U	V		1	Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed
								2019	0380	2,269,200	2018	0380	2,280,200	2017	0380	2,291,100
									0380	514,900		0380	490,300		0380	467,000
									0380	487,600		0380	487,600		0380	487,600
									0805	519,675		0805	495,175		0805	471,775
								Total		4691375	Total		4653275	Total		4617475

EXEMPTIONS				OTHER ASSESSMENTS			
Year	Code	Description	Amount	Code	Description	Number	Amount
Total			0.00				

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ASSESSING NEIGHBORHOOD			
Nbhd	Nbhd Name	B	Tracing
20			

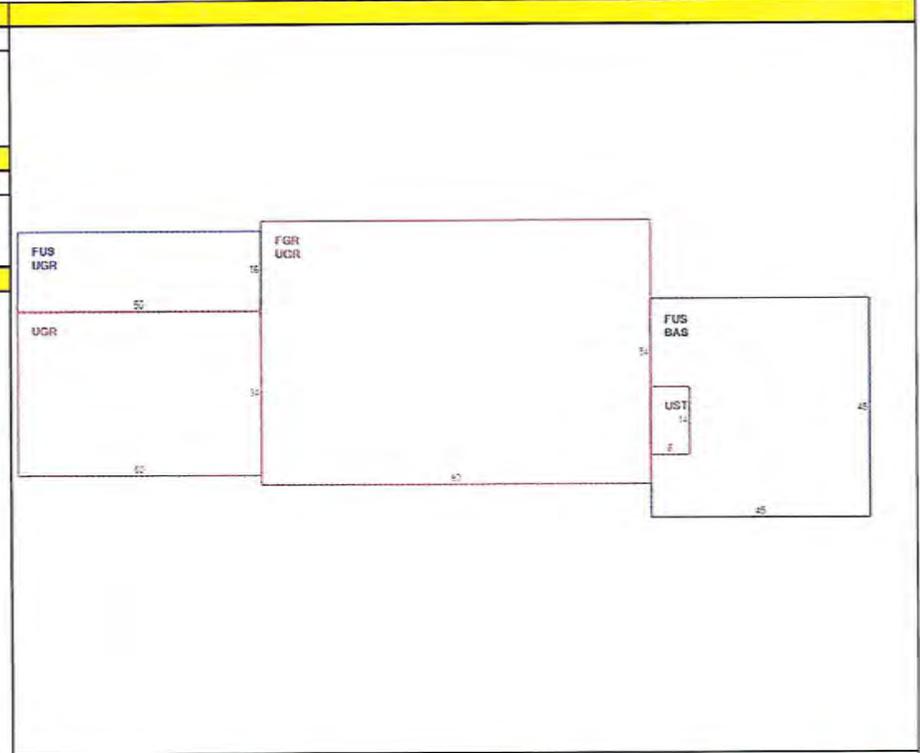
APPRAISED VALUE SUMMARY	
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Special Land Value	0
Total Appraised Parcel Value	6,494,100
Valuation Method	C
Total Appraised Parcel Value	6,494,100

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BUILDING PERMIT RECORD										VISIT / CHANGE HISTORY					
Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments		Date	Id	Type	Is	Cd	Purpost/Result

LAND LINE VALUATION SECTION															
B	Use Code	Description	Zone	Land Type	Land Units	Unit Price	I. Factor	Site Index	Cond.	Nbhd.	Nhbd Adj	Notes	Location Adjustment	Adj Unit Pric	Land Value
3	0380	GOLF CRSE	AA		0 SF	79.41	1.00000	E	1.00		1.000			0	79.41
Total Card Land Units					0.000	AC	Parcel Total Land Area:					198.7300	Total Land Value		2,669,600

CONSTRUCTION DETAIL			CONSTRUCTION DETAIL (CONTINUED)		
Element	Cd	Description	Element	Cd	Description
Style:	95	Garage/Office			
Model	94	Commercial			
Grade	07				
Stories:	2				
Occupancy	1.00				
Exterior Wall 1	27	Pre-finish Metl			
Exterior Wall 2					
Roof Structure	03	Gable/Hip			
Roof Cover	01	Metal/Tin			
Interior Wall 1	04	Plywood Panel			
Interior Wall 2	05	Drywall/Sheet			
Interior Floor 1	03	Concr-Finished			
Interior Floor 2	05	Vinyl/Asphalt			
Heating Fuel	03	Gas			
Heating Type	03	Hot Air-no Duc			
AC Type	06	Half Central			
Bldg Use	3800	GOLF CRSE			
Total Rooms					
Total Bedrms					
Total Baths					
Heat/AC	02	HEAT/AC SPLIT			
Frame Type	05	STEEL			
Baths/Plumbing	02	AVERAGE			
Ceiling/Wall	06	CEIL & WALLS			
Rooms/Prtns	02	AVERAGE			
Wall Height	14.00				
% Comn Wall					
1st Floor Use:	3800				
			MIXED USE		
			Code	Description	Percentage
			0380	GOLF CRSE	100
					0
					0
			COST / MARKET VALUATION		
			RCN		758,081
			Year Built		2012
			Effective Year Built		2012
			Depreciation Code		A
			Remodel Rating		
			Year Remodeled		
			Depreciation %		7
			Functional Obsol		
			Economic Obsol		
			Trend Factor		1
			Condition		
			Condition %		
			Percent Good		93
			RCNLD		705,000
			Dep % Ovr		
			Dep Ovr Comment		
			Misc Imp Ovr		
			Misc Imp Ovr Comment		
			Cost to Cure Ovr		
			Cost to Cure Ovr Comment		



OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)										
Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value

BUILDING SUB-AREA SUMMARY SECTION						
Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value
BAS	First Floor	2,025	2,025	2,025	81.17	164,359
FGR	Garage	0	4,320	1,728	32.47	140,253
FUS	Upper Story, Finished	2,825	2,825	2,825	81.17	229,291
UGR	Garage, Under	0	6,820	2,728	32.47	221,418
UST	Utility, Storage	0	112	34	24.64	2,760
Ttl Gross Liv / Lease Area		4,850	16,102	9,340	0.00	758,081



CURRENT OWNER		TOPO	UTILITIES	STRT / ROAD	LOCATION	CURRENT ASSESSMENT				
CONCORD COUNTRY CLUB						Description	Code	Appraised	Assessed	214
246 OLD ROAD TO 9 ACRE COR		SUPPLEMENTAL DATA Alt Prcl ID CONC GIS RES SOLA GIS ID F_687559_2988074 Assoc Pid#				COMMERC.	0380	2,436,900	2,436,900	
CONCORD MA 01742										COM LAND
						COMMERC.	0380	487,600	487,600	
						REC LAND	0805	2,139,500	534,875	VISION
						RECRTION	0805	900,000	900,000	
						Total		6,494,100	4,889,475	

RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	Q/U	V/I	SALE PRICE	VC	PREVIOUS ASSESSMENTS (HISTORY)								
CONCORD COUNTRY CLUB		9716 0175	01-01-1960	U	V		1	Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed
								2019	0380	2,269,200	2018	0380	2,280,200	2017	0380	2,291,100
									0380	514,900		0380	490,300		0380	467,000
									0380	487,600		0380	487,600		0380	487,600
									0805	519,675		0805	495,175		0805	471,775
									0805	000,000		0805	000,000		0805	000,000
								Total		4691375	Total		4653275	Total		4617475

EXEMPTIONS				OTHER ASSESSMENTS				
Year	Code	Description	Amount	Code	Description	Number	Amount	Comm Int
Total			0.00					

ASSESSING NEIGHBORHOOD			
Nbhd	Nbhd Name	B	Tracing
20			

NOTES			

This signature acknowledges a visit by a Data Collector or Assessor

APPRAISED VALUE SUMMARY	
Appraised Bldg. Value (Card)	2,407,600
Appraised Xf (B) Value (Bldg)	29,300
Appraised Ob (B) Value (Bldg)	1,387,600
Appraised Land Value (Bldg)	2,669,600
Special Land Value	0
Total Appraised Parcel Value	6,494,100
Valuation Method	C
Total Appraised Parcel Value	6,494,100

BUILDING PERMIT RECORD										VISIT / CHANGE HISTORY					
Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments		Date	Id	Type	Is	Cd	Purpost/Result

LAND LINE VALUATION SECTION															
B	Use Code	Description	Zone	Land Type	Land Units	Unit Price	I. Factor	Site Index	Cond.	Nbhd.	Nhbd Adj	Notes	Location Adjustment	Adj Unit Pric	Land Value
4	0380	GOLF CRSE			0 SF	0.00	1.00000		1.00		1.000			0	0.00
Total Card Land Units					0.000	AC	Parcel Total Land Area: 198.7300					Total Land Value		2,669,600	

CURRENT OWNER		TOPO	UTILITIES	STRT / ROAD	LOCATION	CURRENT ASSESSMENT				
CONCORD COUNTRY CLUB						Description	Code	Appraised	Assessed	214
246 OLD ROAD TO 9 ACRE COR		SUPPLEMENTAL DATA				COMMERC.	0380	2,436,900	2,436,900	
CONCORD MA 01742		Alt Prcl ID CONC GIS RES SOLA				COM LAND	0380	530,100	530,100	CONCORD, MA
GIS ID F_687559_2988074		Assoc Pid#				COMMERC.	0380	487,600	487,600	
						REC LAND	0805	2,139,500	534,875	VISION
						RECRTION	0805	900,000	900,000	
						Total		6,494,100	4,889,475	

RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	Q/U	V/I	SALE PRICE	VC	PREVIOUS ASSESSMENTS (HISTORY)								
CONCORD COUNTRY CLUB		9716 0175	01-01-1960	U	V		1	Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed
								2019	0380	2,269,200	2018	0380	2,280,200	2017	0380	2,291,100
									0380	514,900		0380	490,300		0380	467,000
									0380	487,600		0380	487,600		0380	487,600
									0805	519,675		0805	495,175		0805	471,775
								Total		4691375	Total		4653275	Total		4617475

EXEMPTIONS				OTHER ASSESSMENTS				
Year	Code	Description	Amount	Code	Description	Number	Amount	Comm Int
Total			0.00					

ASSESSING NEIGHBORHOOD			
Nbhd	Nbhd Name	B	Tracing
20			

NOTES									
PRO SHOP									

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APPRAISED VALUE SUMMARY	
Appraised Bldg. Value (Card)	2,407,600
Appraised Xf (B) Value (Bldg)	29,300
Appraised Ob (B) Value (Bldg)	1,387,600
Appraised Land Value (Bldg)	2,669,600
Special Land Value	0
Total Appraised Parcel Value	6,494,100
Valuation Method	C
Total Appraised Parcel Value	6,494,100

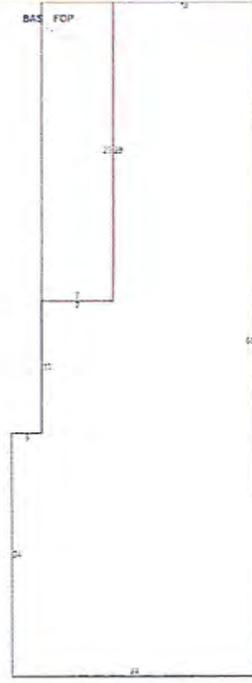
BUILDING PERMIT RECORD										VISIT / CHANGE HISTORY					
Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments		Date	Id	Type	Is	Cd	Purpos/Result

LAND LINE VALUATION SECTION															
B	Use Code	Description	Zone	Land Type	Land Units	Unit Price	I. Factor	Site Index	Cond.	Nbhd.	Nbhd Adj	Notes	Location Adjustment	Adj Unit Pric	Land Value
5	0380	GOLF CRSE			SF	0.00	1.00000		1.00		1.000			0	0.00
Total Card Land Units					0.000	AC	Parcel Total Land Area: 198.7300					Total Land Value		2,669,600	

CONSTRUCTION DETAIL			CONSTRUCTION DETAIL (CONTINUED)		
Element	Cd	Description	Element	Cd	Description
Style:	17	Store			
Model	94	Commercial			
Grade	03				
Stories:	1				
Occupancy	1.00				
Exterior Wall 1	11	Clapboard			
Exterior Wall 2					
Roof Structure	03	Gable/Hip			
Roof Cover	03	Asphalt			
Interior Wall 1	02	Wood			
Interior Wall 2					
Interior Floor 1	14	Carpet	RCN		153,174
Interior Floor 2					
Heating Fuel	03	Gas			
Heating Type	03	Hot Air-no Duc	Year Built		1959
AC Type	04	Unit/AC	Effective Year Built		1987
Bldg Use	3800	GOLF CRSE	Depreciation Code		A
Total Rooms			Remodel Rating		
Total Bedrms			Year Remodeled		
Total Baths			Depreciation %		32
Heat/AC	00	NONE	Functional Obsol		
Frame Type	02	WOOD FRAME	Economic Obsol		
Baths/Plumbing	00	NONE	Trend Factor		1
Ceiling/Wall	06	CEIL & WALLS	Condition		
Rooms/Prtns	02	AVERAGE	Condition %		
Wall Height	8.00		Percent Good		68
% Comn Wall			RCNLD		104,200
1st Floor Use:			Dep % Ovr		
			Dep Ovr Comment		
			Misc Imp Ovr		
			Misc Imp Ovr Comment		
			Cost to Cure Ovr		
			Cost to Cure Ovr Comment		

MIXED USE		
Code	Description	Percentage
0380	GOLF CRSE	100
		0
		0

COST / MARKET VALUATION		
RCN		153,174
Year Built		1959
Effective Year Built		1987
Depreciation Code		A
Remodel Rating		
Year Remodeled		
Depreciation %		32
Functional Obsol		
Economic Obsol		
Trend Factor		1
Condition		
Condition %		
Percent Good		68
RCNLD		104,200
Dep % Ovr		
Dep Ovr Comment		
Misc Imp Ovr		
Misc Imp Ovr Comment		
Cost to Cure Ovr		
Cost to Cure Ovr Comment		



OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)										
Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value

BUILDING SUB-AREA SUMMARY SECTION						
Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value
BAS	First Floor	1,255	1,255	1,255	118.19	148,328
FOP	Porch, Open	0	203	41	23.87	4,846
Ttl Gross Liv / Lease Area		1,255	1,458	1,296	0.00	153,174



CURRENT OWNER		TOPO	UTILITIES	STRT / ROAD	LOCATION	CURRENT ASSESSMENT				
CONCORD COUNTRY CLUB						Description	Code	Appraised	Assessed	214
246 OLD ROAD TO 9 ACRE COR						COMMERC.	0380	2,436,900	2,436,900	
CONCORD MA 01742		SUPPLEMENTAL DATA				COM LAND	0380	530,100	530,100	CONCORD, MA
Alt Prcl ID CONC GIS RES SOLA						COMMERC.	0380	487,600	487,600	
GIS ID F_687559_2988074		Assoc Pid#				REC LAND	0805	2,139,500	534,875	VISION
						RECRTION	0805	900,000	900,000	
						Total		6,494,100	4,889,475	

RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	Q/U	V/I	SALE PRICE	VC	PREVIOUS ASSESSMENTS (HISTORY)								
CONCORD COUNTRY CLUB		9716 0175	01-01-1960	U	V		1	Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed
								2019	0380	2,269,200	2018	0380	2,280,200	2017	0380	2,291,100
									0380	514,900		0380	490,300		0380	467,000
									0380	487,600		0380	487,600		0380	487,600
									0805	519,675		0805	495,175		0805	471,775
								Total		4691375	Total		4653275	Total		4617475

EXEMPTIONS				OTHER ASSESSMENTS					
Year	Code	Description	Amount	Code	Description	Number	Amount	Comm Int	
			Total						0.00

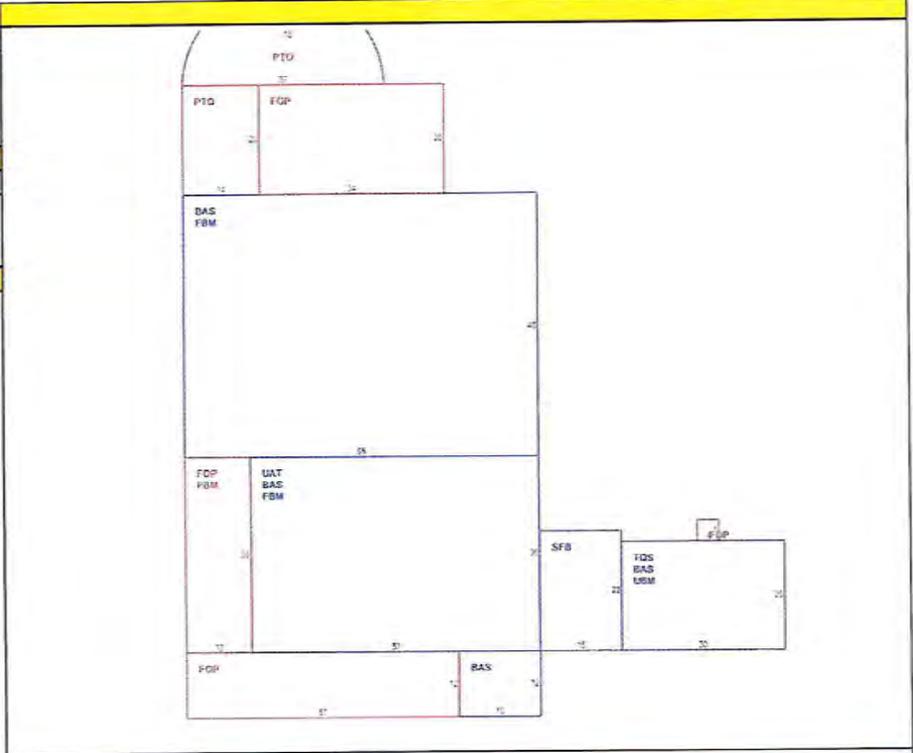
ASSESSING NEIGHBORHOOD				
Nbhd	Nbhd Name	B	Tracing	Batch
20				

NOTES			
This signature acknowledges a visit by a Data Collector or Assessor			
APPRAISED VALUE SUMMARY			
Appraised Bldg. Value (Card)			2,407,600
Appraised Xf (B) Value (Bldg)			29,300
Appraised Ob (B) Value (Bldg)			1,387,600
Appraised Land Value (Bldg)			2,669,600
Special Land Value			0
Total Appraised Parcel Value			6,494,100
Valuation Method			C
Total Appraised Parcel Value			6,494,100

BUILDING PERMIT RECORD								VISIT / CHANGE HISTORY						
Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments	Date	Id	Type	Is	Cd	Purpost/Result

LAND LINE VALUATION SECTION															
B	Use Code	Description	Zone	Land Type	Land Units	Unit Price	I. Factor	Site Index	Cond.	Nbhd.	Nbhd Adj	Notes	Location Adjustment	Adj Unit Pric	Land Value
6	0380	GOLF CRSE			43,560 SF	12.17	1.00000	E	1.00		1.000		0	12.17	530,100
Total Card Land Units					1.000	AC	Parcel Total Land Area: 198.7300					Total Land Value		2,669,600	

CONSTRUCTION DETAIL			CONSTRUCTION DETAIL (CONTINUED)		
Element	Cd	Description	Element	Cd	Description
Style:	77	Clubs/Lodges			
Model	94	Commercial			
Grade	04				
Stories:	2				
Occupancy	1.00				
Exterior Wall 1	11	Clapboard			
Exterior Wall 2					
Roof Structure	03	Gable/Hip			
Roof Cover	03	Asphalt			
Interior Wall 1	03	Plastered			
Interior Wall 2	05	Drywall/Sheet			
Interior Floor 1	14	Carpet			
Interior Floor 2	12	Hardwood			
Heating Fuel	03	Gas			
Heating Type	04	Forced Air-Duc			
AC Type	03	Central			
Bldg Use	0380	GOLF CRSE			
Total Rooms					
Total Bedrms	00				
Total Baths	4				
Heat/AC	02	HEAT/AC SPLIT			
Frame Type	02	WOOD FRAME			
Baths/Plumbing	02	AVERAGE			
Ceiling/Wall	06	CEIL & WALLS			
Rooms/Prtns	02	AVERAGE			
Wall Height	8.00				
% Conn Wall					
1st Floor Use:					
			Code	Description	Percentage
			0380	GOLF CRSE	100
					0
					0
COST / MARKET VALUATION					
			RCN		1,136,674
			Year Built		1947
			Effective Year Built		1989
			Depreciation Code		G
			Remodel Rating		
			Year Remodeled		
			Depreciation %		30
			Functional Obsol		
			Economic Obsol		1
			Trend Factor		
			Condition		
			Condition %		
			Percent Good		70
			RCNLD		795,700
			Dep % Ovr		
			Dep Ovr Comment		
			Misc Imp Ovr		
			Misc Imp Ovr Comment		
			Cost to Cure Ovr		
			Cost to Cure Ovr Comment		



OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)										
Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value
SHD2	SHED W/ LIGH	L	180	35.00	1997	E	100		0.00	6,300
SPL3	POOL-ING GU	L	3,264	42.93	1990	E	100		0.00	140,100
LT1	LIGHTS-IN W/P	L	45	2174.00	2012	A	50		0.00	48,900
TEN2	TENNIS CT CO	L	8	33071.00	1990	VG	85		0.00	224,900
SPR1	SPRINKLERS-	B	12,650	2.91	1988		70		0.00	25,800
FPL3	2 STORY CHIM	B	1	3788.00	1988		70		0.00	2,700
FPO	EXTRA FPL OP	B	1	1212.00	1988		70		0.00	800

BUILDING SUB-AREA SUMMARY SECTION						
Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value
BAS	First Floor	5,808	5,808	5,808	124.09	720,721
FBM	Basement, Finished	0	5,460	1,911	43.43	237,138
FOP	Porch, Open	0	1,728	346	24.85	42,935
PTO	Patio	0	799	40	6.21	4,964
SFB	Base, Semi-Finished	264	330	264	99.27	32,760
TQS	Fin 1/4 story	450	600	450	93.07	55,841
UAT	Attic, Unfinished	0	1,908	191	12.42	23,701
UBM	Basement, Unfinished	0	600	150	31.02	18,614
Ttl Gross Liv / Lease Area		6,522	17,233	9,160	0.00	1,136,674



Mc 7.50 -

NOV 18-60 AM 10:29 096RE***7.50

I, JOSEPHINE GARLISI, of Waltham, Middlesex County, Massachusetts, EXECUTRIX under the Will of MARIA LOMBARDO, late of Concord, Middlesex County, Massachusetts, (Middlesex Probate No. 362753), by power conferred by virtue of a license from the Middlesex Probate Court, dated October 28, 1960, and every other power, for SIXTEEN THOUSAND FIVE HUNDRED (\$16,500.00) Dollars paid, grant to CONCORD COUNTRY CLUB, a corporation organized and existing under the laws of the Commonwealth of Massachusetts with a principle place of business in Concord, Middlesex County, Massachusetts.

A certain parcel of land situated Easterly of Old Marlboro Road in the southerly part of Concord, Middlesex County, Massachusetts, and being shown as Lot marked "Lot 3, Estate of Maria Lombardo, 13.31 acres, more or less to be conveyed to Concord Country Club", as shown on "Plan of Land in Concord, Mass." by A.C. Peters, Surveyor, Concord, Mass. dated July 20, 1960 to be recorded with Middlesex South District Registry of Deeds, bounded and described as follows:

EASTERLY by land of Concord Country Club, as shown on said plan, one thousand twenty-one (1,021) feet, more or less;

SOUTHWESTERLY by land of Concord Country Club, as shown on said plan, four hundred sixty-six and 62/100 (466.62) feet;

NORTHWESTERLY by land of Concord Country Club, as shown on said plan, seventy-six and 56/100 (76.56) feet;

SOUTHERLY by land now or formerly of Saunders, as shown on said plan by two courses measuring respectively ninety-two and 40/100 (92.40) feet and fifty-three and 23/100 (53.23) feet;

SOUTHWESTERLY by land now or formerly of Saunders, as shown on said plan, by three courses measuring respectively forty-three and 52/100 (43.52) feet; eighty-nine and 83/100 (89.83) feet and one hundred twenty-four and 80/100 (124.80) feet to Nut Meadow Brook;

NORTHERLY, WESTERLY and NORTHWESTERLY by Nut Meadow Brook, as shown on said plan, by ten courses totaling one thousand eight hundred forty-five and 49/100 (1,845.49) feet, more or less and measuring respectively one thousand ninety (1,090) feet, more or less; seventy-five and 83/100 (75.83) feet; one hundred one and 53/100 (101.53) feet; one hundred ninety-six and 60/100 (196.60) feet; forty-seven and 61/100 (47.61) feet; thirty-five and 22/100 (35.22) feet; eighty-three and 55/100 (83.55) feet; ninety-eight (98) feet; forty-eight and 62/100 (48.62) feet and sixty-eight and 53/100 (68.53) feet.

Being a portion of the premises conveyed by Charles Lombardo to A. May Orr to the use of Charles Lombardo and Maria Lombardo, husband and wife, as tenants by the entirety, which deed is dated April 10, 1936 and is duly recorded with said Deeds in Book 6019, Page 183.

Witness my hand and seal this eighteenth day of November, 1960.

Josephine Garlisi
Executrix

SEE PLAN IN RECORDED BOOK PAGE

1758

THE COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

November 18, 1960

Then personally appeared the above named Josephine Garlisi, Executrix, and acknowledged the foregoing instrument to be her free act and deed, before me,

Felix E. Cincotta
Felix E. Cincotta, Notary Public

My commission expires
October 21, 1961.



Cut and Fill Calculations

Cut/Fill Report

Generated: 2020-09-02 18:20:23
By user: Paul.Kirchner
Drawing: Z:\4600-4699\4621B\CAD DRAWINGS\2020\Z:\4600-4699\4621B\CAD DRAWINGS\2020\4621B.POND3.WPP.F.cutfill.dwg

Volume Summary							
Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
CUT.FILL	full	1.120	1.000	187789.72	32458.37*	14226.64	18231.73*

Totals							
				2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Total				187789.72	32458.37*	14226.64	18231.73*

* Value adjusted by cut or fill factor other than 1.0

Photographs of Site



Pond Area from Low Point near Toe of Proposed Berm



Pond Area from Adjacent Tee Box (High Point)

Soil Testing



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

A. Facility Information

CONCORD COUNTRY CLUB

Owner Name

246 Old Road to Nine Acre Corner

MAP 11E, PARCEL 3079

Street Address

CONCORD

MA

Map/Lot #

01742

City

State

Zip Code

B. Site Information

1. (Check one) New Construction Upgrade Repair

2. Soil Survey Available? Yes No If yes:

Source

Soil Map Unit

WINDSOR LOAMY SAND

Soil Name

Soil Limitations

SANDY GLACIOFLUVIAL DEPOSITS

Soil Parent material

Landform

3. Surficial Geological Report Available? Yes No

If yes:

OLIVER

Year Published/Source

SAND AND GRAVEL, FINE GRAINED DEPOSITS

Map Unit

Description of Geologic Map Unit:

4. Flood Rate Insurance Map Within a regulatory floodway? Yes No

5. Within a velocity zone? Yes No

6. Within a Mapped Wetland Area? Yes No

If yes, MassGIS Wetland Data Layer:

Wetland Type

7. Current Water Resource Conditions (USGS): 9/1/2020

Month/Day/ Year

Range: Above Normal

Normal

Below Normal

8. Other references reviewed:



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-6-1 6/2/2020
Hole # Date Time Weather Latitude Longitude:

1. Land Use GOLF COURSE BARE EARTH NONE
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: _____
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body _____ feet Drainage Way _____ feet Wetlands _____ feet
 Property Line _____ feet Drinking Water Well _____ feet Other _____ feet

4. Unsuitable Materials Present: Yes No If Yes: Disturbed Soil Fill Material Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
240	C	FINE SAND	2.5Y 5/1	192	HIGH/LOW	<2	-	-	SG	L	

Additional Notes:



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP 6-2 6/2/2020
Hole # Date Time Weather Latitude Longitude:

1. Land Use: _____
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: _____
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body _____ feet Drainage Way _____ feet Wetlands _____ feet
Property Line _____ feet Drinking Water Well _____ feet Other _____ feet

4. Unsuitable Materials Present: Yes No If Yes: Disturbed Soil Fill Material Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
26	C1	SAND	2.5Y 6/4	-	-	-	-	-	SG	L	
60	C2	FINE SAND	2.5Y 5/1	38	HIGH/LOW	<2	-	-	SG	L	

Additional Notes: _____



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP 7-1 7/2/2020 _____
Hole # Date Time Weather Latitude Longitude:

1. Land Use (e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: _____
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body _____ feet Drainage Way _____ feet Wetlands _____ feet
 Property Line _____ feet Drinking Water Well _____ feet Other _____ feet

4. Unsuitable Materials Present: Yes No If Yes: Disturbed Soil Fill Material Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
144	C	SAND	2.5Y 5/1	76	HIGH/LOW	<2	-	-	SG	L	

Additional Notes:



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP 7-2 7/2/2020
Hole # Date Time Weather Latitude Longitude:

1. Land Use: _____
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: _____
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body _____ feet Drainage Way _____ feet Wetlands _____ feet
 Property Line _____ feet Drinking Water Well _____ feet Other _____ feet

4. Unsuitable Materials Present: Yes No If Yes: Disturbed Soil Fill Material Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
144	C	SAND	2.5Y 5/1	86	HIGH/LOW	<2	-	-	SG	L	

Additional Notes: _____



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

- | | | | |
|---|-------------------|-------------------|----------|
| 1. Method Used: | Obs. Hole # _____ | Obs. Hole # _____ | |
| <input type="checkbox"/> Depth observed standing water in observation hole | _____ inches | _____ inches | |
| <input type="checkbox"/> Depth weeping from side of observation hole | _____ inches | _____ inches | |
| <input checked="" type="checkbox"/> Depth to soil redoximorphic features (mottles) | _____ inches | _____ inches | SEE LOGS |
| <input type="checkbox"/> Depth to adjusted seasonal high groundwater (S_h) (USGS methodology) | _____ inches | _____ inches | |

Index Well Number _____

Reading Date _____

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

2. Estimated Depth to High Groundwater: _____ inches

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? SEE LOGS

Yes No

b. If yes, at what depth was it observed (exclude A and O Horizons)?

Upper boundary: _____ inches Lower boundary: _____ inches

c. If no, at what depth was impervious material observed?

Upper boundary: _____ inches Lower boundary: _____ inches



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator
Paul Kirchner, SE 14237

Typed or Printed Name of Soil Evaluator / License #
STAN SOSNICKI, JUSTIN RICHARDSON

Name of Approving Authority Witness

9/1/2020

Date

7/1/2021

Expiration Date of License

CONCORD

Approving Authority

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with [Percolation Test Form 12](#).

Field Diagrams: Use this area for field diagrams:

SEE SITE PLAN

Attachment A
Pumping Records

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Jan-Mar	0	0	0	0	0	0	0	0
April	17,905	146,045	1,046	138,442	121,815	116,684	115,853	641,232
May	1,849,000	1,603,000	2,643,000	1,306,000	1,103,561	1,044,548	758,728	984,563
June	2,135,000	1,422,000	3,910,000	3,467,000	2,156,489	3,546,804	2,490,029	1,056,987
July	6,830,000	6,074,000	2,591,000	6,051,000	4,125,826	5,163,655	3,488,146	3,156,977
August	5,178,921	2,690,000	3,061,000	6,094,000	3,156,987	3,362,792	4,440,888	5,311,563
September	6,125,489	1,747,000	2,225,000	4,674,000	2,168,942	2,444,181	3,057,757	4,125,679
October	1,702,910	1,245,897	1,559,874	1,077,248	988,125	1,216,585	1,346,348	1,345,668
November	0	0	0	0	0	0	0	0
Total Pumped	23,839,225	14,927,942	15,990,920	22,807,690	13,821,745	16,895,249	15,697,749	16,622,669
MGD per Day	0.11139825	0.06975674	0.07472393	0.10657799	0.06458759	0.07894976	0.07335397	0.07767602

Concord CC Water Usage

<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
0	0	0	0	0	0	0	0
775,097	258,004	2,514,249	2,270,953	702,785	1,307,563	1,101,086	1,201,563
1,057,304	287,305	1,725,696	2,618,097	2,757,736	4,798,583	2,933,834	2,548,963
2,404,401	1,074,710	2,251,378	1,840,071	4,594,849	2,101,133	5,086,413	5,453,268
5,359,292	4,990,630	6,234,230	5,325,702	4,768,987	4,752,886	6,002,320	5,215,632
4,768,592	2,762,486	3,990,480	4,816,143	4,825,517	4,092,803	4,357,074	5,215,693
3,449,327	2,549,569	2,082,241	3,646,260	3,001,195	3,220,459	2,978,888	1,265,894
1,455,142	400,026	282,533	2,303,501	434,815	902,659	621,498	485,123
0	0	0	0	0	0	0	0
19,269,155	12,322,730	19,080,807	22,820,727	21,085,884	21,176,083	23,081,113	21,386,136
0.09004278	0.05758285	0.08916265	0.106638911	0.098532168	0.098953659	0.107855668	0.09993521

<u>2018</u>	<u>2019</u>
0	0
651,697	189,170
2,862,552	1,129,025
3,320,412	1,900,981
3,233,086	5,217,400
3,202,784	5,118,000
2,081,308	2,752,164
305,633	429,200

15,657,472 16,735,940
0.073165757 0.07820533

Attachment B
Irrigation Pond Analysis
By
Golf Water



15 Balaurel Drive

Guilford, CT 06437

Mobile: 585-739-4278

proche@golf-water.com

Peter J. Rappoccio, CGCS
Golf Course Superintendent
Concord Country Club
246 ORNAC
Concord, MA 01742

March 17,2020

Peter,

As discussed, please see the following data regarding the new water supply storage basin at Concord Country Club that will utilize existing wells. The more efficient irrigation system supplied by existing wells will have increased water distribution uniformity and efficiency and utilizing a new storage base, demand on well water will be reduced. The following is a overview of the existing/current well operation, how operation will change based on the proposed changes, and how the new pond/basin will be managed.

Current Well Operation:

- Wells are activated and provide flow based on the number of sprinklers operating (system demand). During peak system demand which is typically during the months of May-September, wells will operate at peak flow/output during the hours of 10:00 pm and 8:00 am. During this time both Well #1 and Well #2 will be operating at full available output and apply up to 120,000 gallons on average per day. Daytime operation is considerably less.
- Levels in wells are monitored electronically and remotely to view drawdown and if required, flow is reduced and time that it takes to water the course is extended proportionately.
- Total seasonal flow does not exceed the MA DEP registration for groundwater withdrawal amount of 25,680,000 gallons
- The average daily flow will not change with the new system installation and the new pumping scenario from a pond

Proposed Well Operation as a Resupply to the Pond:

- Wells will be activated by an electronic pond level sensor. When the pond draws down to a determined level, Well #1 will activate to replenish the pond. Should level continue to drop, Well #2 will be activated. This is exactly how the current system works.

- Flow from wells will be variable based on the set point of the exiting variable frequency drive (VFD) controls. Replenishment can now take up to 24 hours during peak use as opposed to current operation mode of 10 hours. This will reduce the burden on the wells and reduce the impact on the water table while providing the same gross volume.
- Well water will discharge into the pond onto a stone/rip-rap wash area to prevent runoff and erosion. Discharge will be at an area away from the new pump station intake in order to promote water movement and circulation.

New Pond, Pump Station, and Controls:

- The new pond shall act as a water holding basin/reservoir that will permit water to be taken at grater flow during the hours of 10:00 pm and 6:00 am. This will reduce evaporative losses associated with watering during daylight hours.
- Pond replenishment will be at a typical rate of 50% of current well operation.
- Pump station safety devices will allow detection of a system leak and will automatically turn off the irrigation system and notify the Course Management Team.
- New pump station will capture daily, monthly and yearly pumping totals.
- A weather station shall track wind speed, temperature, humidity, and solar radiation (sun intensity) that will allow for a calculated evapotranspiration rate (ET); the sum total of evaporation and plant transpiration (water used by the plan). This data will be used to automatically calculate sprinkler operating times so sprinkler application rates meet ET rates.
- Two tipping bucket rain cans will be installed on the property to measure rainfall. Upon Two tipping bucket rain cans shall be positioned on the property to measure rainfall. Upon 1/100th of an inch of precipitation, the irrigation system will activate a course “rain hold” and continue to monitor and measure rainfall. Rainfall totals will be compared to planned application rates and irrigation system will either cancel an irrigation event of rainfall exceeds plant requirements or, compare rainfall with planned application amount and adjust application amount as required.
- Chart shows new system and pumping capacities will reduce demand of water usage (next page). Due to better pumping capacity, more efficient sprinklers and being to accurately water where and when needed.

Pond Management:

- The pond shall capture surface drainage water and rainfall to supplement and reduce the demand for well water.



15 Balaurel Drive

Guilford, CT 06437

Mobile: 585-739-4278

proche@golf-water.com

- The pond shall not be put into operation until April of 2021 which will allow for time to capture natural rainfall, snow, and run-off before wells are needed to supplement the pond. Wells will not operate during the winter and ponds will be allowed to drop below normal levels in anticipation of capturing off season rainfall, snow, and run-off.
- A pond aeration system will be installed to keep the pond from stagnating during times when there is no water use on the golf course and wells are not operating.
- Pond maximum fill levels will be two feet below the maximum capacity below overflow and will not exceed. Wells will shut off and will not operate until levels drop below threshold.

The attached table is a projected Annual Irrigation Requirement based on historical evapotranspiration and rainfall for the region. Rain fall was factored in at 33% of average annual precipitation.

If you have any questions or if I can be of any additional assistance, please do not hesitate to contact me.

Thank you,

Paul J. Roche, CID – Golf

Annual Irrigation Requirement

Golf Course: Concord Country Club
Date: 8/29/18
Author: Roche

Plan # G0820
Revision Date: 3/17/20



Region (Rainfall)	Boston - NOAA
Region (ETo)	Boston - NRCC

Existing Turfgrass

Irrigation Days	20
Crop Coeff. (Kc)	0.80

	April	May	June	July	August	September	October	Totals
Historical Avg. Rainfall (in.)	3.28	2.90	2.51	2.76	2.91	2.95	3.42	20.73
Effective RF (%)	33%	33%	33%	33%	33%	33%	33%	33%
Effective RF (in.)	1.08	0.96	0.83	0.91	0.96	0.97	1.13	6.84
Historical Avg. ETo (in.)	1.95	3.09	3.58	4.02	3.49	2.29	1.36	19.78
Adjusted (Kc) ET (in.)	1.56	2.47	2.86	3.22	2.79	1.83	1.09	12.66
Irrigation Efficiency	85%	85%	85%	85%	85%	85%	85%	85%
Requirement (in.)	1.84	2.91	3.37	3.78	3.28	2.16	1.28	14.89
Moisture Deficit (in.)	0.75	1.95	2.54	2.87	2.32	1.18	0.15	11.78
Moisture Deficit (ft.)	0.06	0.16	0.21	0.24	0.19	0.10	0.01	0.98
Avg. Daily Def. (in.)	0.03	0.06	0.08	0.09	0.07	0.04	0.00	
Gallons/Month/Acre	20,444	52,984	69,001	78,006	63,117	32,090	4,111	319,754

Irrigated Acres	70
-----------------	----

Peak Use Per Cycle	0.14
--------------------	------

Monthly Totals	1,431,086	3,708,869	4,830,094	5,460,427	4,418,184	2,246,331	287,778
----------------	-----------	-----------	-----------	-----------	-----------	-----------	---------

Water Use/Irrig Event	273,021
-----------------------	---------

Annual Water Use	22,382,769
------------------	------------

Water Use Projection = $\frac{ETo \times Kc - ER}{Irrigation\ Efficiency}$

Ave. Rainfall = Average Rainfall (over 30 years) - NOAA

Irrigation Days = Number of irrigation days per month

Irrigation Efficiency = Efficiency for new irrigation system 85-90%
per Irrigation Association Recommendations

ETo = Regional and referenced historical evapotranspiration rates - Maximum Monthly - Northeast Regional Climate Center

Kc = Crop Coefficient - .8 for established cool season turfgrass 1.2 for Establishing Turfgrass - ET data is for Turfgrass
1.2 - is based on Crop Coefficient (.80) x Crop Microclimate (1.2) x Crop Density (1.2)

ER = Effective Rainfall - 50% - Per Irrigation Association Recommendations (GW uses 33% during peak requirements)

Appendix C
Well Registration Documents



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

**Massachusetts Water Management Act Registration Statement
Content and Conditions for 2008-2017**

The enclosed renewed Water Management Act Registration Statement authorizes continued withdrawals from January 1, 2008 through December 31, 2017. This Registration Statement reflects your documented water withdrawals from January 1, 1981 through December 31, 1985, and the source locations from which this water was withdrawn. While the initial Water Management Registration Statements had to be filed with the Massachusetts Department of Environmental Protection (the Department) by January 1, 1988, existing registrants have the opportunity to renew the Statements every ten years thereafter. Earlier this year you requested that your Registration be renewed, and the attached Registration Statement confirms your authorized registered withdrawal volumes and sources.

As noted in the Department's August 2007 Registration Renewal Request, the Department has evaluated including water conservation measures in registrations that are consistent with the State Water Conservation Standards approved by the Water Resources Commission (WRC) in July 2006. To better achieve a balance between competing water withdrawals and uses mandated by the Act, to protect the natural environment, and to provide continued and sustainable economic growth in the Commonwealth, the Department is including seasonal demand management measures in registration statements pursuant to M.G.L. c. 21G, §§(5) and (6), that include:

- a requirement that registrants begin implementing by May 1, 2009 a Seasonal Demand Management Plan that, at a minimum, restricts nonessential outdoor water use between May 1st and September 30th when the Massachusetts Drought Management Task Force declares a drought level of "Advisory", "Watch", "Warning" or "Emergency" for the region in which the registrants withdrawals are located. Restrictions on outdoor water use shall remain in force until the drought level is declared to be "Normal" by the Drought Management Task Force.

Seasonal Demand Management

Registrants will be required to develop a Seasonal Demand Management Plan to reduce nonessential outdoor water use from May 1st to September 30th. The Department will be working in the coming months with the Massachusetts Water Works Association and the Water Management Advisory Committee to develop an outline of the minimum elements that will be required in a Seasonal Demand Management Plan. The Department will forward the Seasonal Demand Management Plan outline to registrants by May 1, 2008. Registrants will be required to forward a draft of their proposed Seasonal Demand Management Plan to the Department for its review and approval by August 1, 2008. For more information on the Massachusetts Drought Task Force and drought declarations, please see <http://www.mass.gov/dcr/waterSupply/rainfall/drought.htm>

This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057. TDD Service - 1-800-298-2207.

MassDEP on the World Wide Web: <http://www.mass.gov/dep>

Printed on Recycled Paper

In addition, the Department has included more information that was submitted by Registrants in 1988 and updated the documents to include changes that have occurred since 1988, including:

- A detailed list of ground and surface water sources, including locations, for all registered withdrawal points. The Department has added this information to reflect the withdrawal points registered in 1988;
- Replacement wells and/or satellite wells, if applicable.

Finally, the Department has included the following administrative language:

- Enforcement language that reserves the Department's rights in any case where there is an ongoing proceeding, or may be a future proceeding; and
- Appeal language that explains how the registrant can seek review of the Registration Conditions in the Renewal Registration Statement in an adjudicatory proceeding.

Many Registrants also hold Water Management Act permits. If the Registrant holds a Water Management Act permit, then the conditions in the permit, including all applicable deadlines, shall supersede the corresponding conditions in this Registration Statement.



COMMONWEALTH OF MASSACHUSETTS
 EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

DEVAL L. PATRICK
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IAN A. BOWLES
 Secretary

TIMOTHY P. MURRAY
 Lieutenant Governor

LAURIE BURT
 Commissioner

RENEWAL REGISTRATION STATEMENT FOR VERIFIED WATER WITHDRAWAL

The Massachusetts Department of Environmental Protection (“the Department”) hereby accepts the Registration Renewal Request filed by the following Registrant pursuant to 310 CMR 36.10 for the water withdrawal described below. The Registrant is hereby authorized to withdraw up to the registered volume of water from the registered withdrawal point(s) until the expiration date, as set forth below, in compliance with M.G.L. c. 21G and 310 CMR 36.00, subject to the Registration Conditions set forth below.

GENERAL INFORMATION

Registration Number: **31406702**

River Basin: CONCORD

Registrant: CONCORD COUNTRY CLUB
 246 ORNAC
 NINE ACRE CORNER
 CONCORD, MA 01742

Number of registered withdrawal points: 2
 Groundwater: 2 Surface water: 0

<u>Type</u>	<u>Source Name</u>	<u>Location</u>
GW	IRRIGATION WELL #1	OLD ROAD
GW	IRRIGATION WELL #2	OLD ROAD

Use: Golf Course Irrigation

Average Volume per Day (MGD): 0.12

Total Annual Volume (MGY): 25.68

Days of Operation: 214

Effective Date: January 1, 2008

Expiration Date: December 31, 2017

This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057, TDD Service - 1-800-298-2207.

MassDEP on the World Wide Web: <http://www.mass.gov/dep>

Printed on Recycled Paper

REGISTRATION CONDITIONS

The Registrant shall comply at all times with M.G.L. c. 21G, 310 CMR 36.00 and all other applicable state and federal statutes and regulations.¹ In addition, the Registrant shall comply with the following conditions, provided, however, that if the Registrant holds a currently valid Water Management Act permit, then the conditions in the permit, including all applicable deadlines, shall supersede the corresponding conditions in this Renewal Registration Statement.

Metering:

The Registrant shall install and maintain source meter(s) for each withdrawal point(s).
The Registrant shall calibrate all source meter(s) annually.

Records:

The Registrant shall maintain withdrawal records in sufficient detail to timely provide the information necessary to accurately complete each Annual Report Form it files with the Department.

Seasonal Demand Management – May 1 through September 30:

The Registrant shall submit a Seasonal Demand Management Plan by August 1, 2008 for the Department's review and approval. The Plan must begin by May 1, 2009, and must restrict at a minimum, nonessential outdoor water use from May 1st through September 30th when the Massachusetts Drought Management Task Force declares a Drought Advisory, Drought Watch, Drought Warning or Drought Emergency for the region where the Registrant's withdrawals are located. Restrictions on outdoor water use shall remain in place until the drought level is returned to "Normal."

Nonessential Water Use: As used herein, "nonessential outdoor water use" means uses that are not required: (a) for health or safety reasons; (b) by regulation; (c) for the production of food and fiber; (d) for the maintenance of livestock; or (e) to meet the core functions of a business.

Examples of nonessential outdoor water uses include: the irrigation of lawns or landscaping, except by means of a hand-held hose outside the hours of 9:00 a.m. to 5:00 p.m.; washing vehicles other than by means of a commercial car wash or except as necessary for operator safety; and washing of exterior building surfaces, parking lots, driveways and/or sidewalks, except as necessary to apply paint, preservatives, stucco, pavement, cement, or the like.

Examples of acceptable outdoor water uses outside the hours of 9:00 a.m. to 5:00 p.m. include: irrigation to establish a new lawn during the months of May and September; irrigation for the production of food and fiber or the maintenance of livestock; irrigation by plant nurseries as necessary to maintain stock; irrigation by golf courses as necessary to maintain greens and tees, and limited fairway watering; and irrigation of public parks and recreational fields.

Nothing in this Registration Statement shall be construed to prohibit or prevent the Registrant from implementing any water use restrictions stricter than those contained herein.

For the most up-to-date information on the drought status in your region, the Registrant should monitor the Department's website at www.mass.gov/dep and MassDCR's website at <http://www.mass.gov/dcr/waterSupply/rainfall/drought.htm>.

REPORTING

¹ Regulations may change from time-to-time. The Registrant is responsible for complying with the most current version of the applicable regulations, unless the regulations expressly provide otherwise.

The Registrant shall file an annual statement of withdrawal, as required by 310 CMR 36.11, for each year that this registration is in force, on forms provided and by the deadline specified by the Department. At the request of the Department, the Registrant may be required to report withdrawal volumes monthly or daily in accordance with 310 CMR 36.08.

EFFECT ON ANY PENDING AND FUTURE ACTIONS

The withdrawal registration program is intended to provide a procedure and deadline for persons making existing withdrawals above the threshold quantity to file a registration statement with the Department for their existing withdrawals to enable the Department to document baseline water use to manage the surface and groundwater of the Commonwealth. Except as expressly provided herein, this Renewal Registration Statement shall not be construed or operate as barring, diminishing, adjudicating or in any way affecting any legal or equitable right of the Department with respect to any pending administrative or judicial action, or any such future action, including without limitation any pending enforcement action or permit appeal, or any legal or equitable right of the Department to pursue any claim, action, suit, cause of action, or demand that the Department may have with respect to any matter covered by this Renewal Registration Statement.

REGISTRATION RENEWAL

This Registration Statement expires on January 1, 2018, unless the Registrant files a registration renewal request with the Department prior to that date in accordance with 310 CMR 36.10. Failure to file a registration renewal request by the expiration date shall result in the loss of the Registrant's right to withdraw the water volumes authorized by this Renewal Registration Statement until a permit for such withdrawal has been obtained from the Department.

REGISTRATION TRANSFER

The transfer of Registration Statements is governed by 310 CMR 36.09. Except as provided in 310 CMR 36.09(2), this Renewal Registration Statement may be transferred, in whole or in part, by the Registrant to another person if (1) the Department is notified of the proposed transfer at least 30 days in advance of the proposed transfer date, (2) the notice includes a written agreement between the parties to the transfer, (3) the notice provides the date that the proposed transfer is to take place, and (4) the notice describes the registration to be transferred. A transfer request must be accompanied by the applicable fee established in 310 CMR 4.00. This Renewal Registration Statement shall be surrendered to the Department upon transfer of any withdrawal authorized by this document.

APPEALS

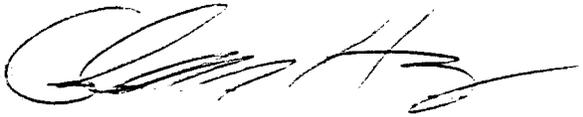
The Registrant may request an adjudicatory hearing on this Renewal Registration Statement by timely filing a Notice of Claim for an Adjudicatory Appeal ("Notice of Claim") in accordance with M.G.L. c. 30A, § 10 and 310 C.M.R. 1.00 within twenty-one (21) days of its receipt of this Renewal Registration Statement. The Notice of Claim shall state specifically, clearly and concisely the facts that are grounds for the appeal, the relief sought, and any additional information required by applicable law or regulation. A copy of this Renewal Registration Statement shall be included with a Notice of Claim. The Notice of Claim and supporting documentation must be sent to:

Case Administrator
Office of Appeals and Dispute Resolution
Department of Environmental Protection
One Winter Street, Second Floor
Boston, MA 02108

In addition, a valid check made payable to the Commonwealth of Massachusetts in the amount of \$100 for the appeal filing fee, if required, must be mailed to:

Commonwealth of Massachusetts Lock Box
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

The Notice of Claim may be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver. The filing fee is not required if the appellant is a city, town (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, along with the hearing request, an affidavit setting forth the facts believed to support the claim of undue financial hardship.



Glenn Haas, Acting Assistant Commissioner
Bureau of Resource Protection

12/31/07
Date

Paper



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

June 9, 2017

**CONCORD COUNTRY CLUB
246 ORNAC
NINE ACRE CORNER
CONCORD, MA 01742**

RE: Registration # **31406702**

Dear Water Management Act Registrant:

I am writing to update you on the status of the renewal process for your Water Management Act Registration Statement ("Registrations"). The Permit Extension Act has extended all Water Management Registrations by four years; therefore all current Water Management Registrations are effective through December 31, 2021. A subset of Registrations renewed in 2008 included water conservation requirements. Those requirements are not in effect at this time. Additional information is provided below.

The Permit Extension Act: Valid Water Management Act Registrations were due to expire on December 31, 2017. In the fall of 2010 Governor Deval Patrick signed Chapter 240 of the Acts of 2010 into law. Section 173 of this Act is known as the Permit Extension Act ("PEA" or "the Act"). With limited exceptions, the Act automatically extended, for two years beyond its otherwise applicable expiration date, any permit or approval for the use or development of property that was "in effect or existence" during the qualifying period beginning on August 15, 2008, and extending through August 15, 2010. On August 7, 2012, Governor Patrick signed Chapter 238 of the Acts of 2012 which included an amendment to the Permit Extension Act extending permits and approvals for an additional two years. The 2010 PEA's provisions extended the term of all Water Management Registrations by two years to December 31, 2019, and the 2012 amendment of the PEA extended the term of all Water Management Act Registrations for an additional two years to December 31, 2021.

Therefore, there is no requirement to file a registration renewal request with the Department by June 30, 2017. When the new renewal deadline approaches in 2021, the Department will contact you and provide the forms necessary to file a renewal request for your Water Management Act Registration.

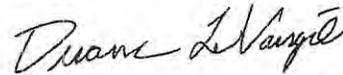
Massachusetts Water Management Act Registration Statement Content and Conditions for 2008-2017: Water Management Registration Statements for 2008-2017 included new registration conditions. Those conditions required that public water supply registrants meet Performance Standards for Residential Water Use and Unaccounted-for-Water, and that all registrants, excepting cranberry growers, develop a Seasonal Demand Management Plan that included, at a minimum, restrictions on outdoor water use when the Massachusetts Drought Management Task Force declared a Drought for the area where the registrant's withdrawals are located. Subsequently, the new conditions were appealed to the Massachusetts Supreme Judicial Court.

The decision of the Massachusetts Supreme Judicial Court in Fairhaven, et al v. DEP, 455 Mass. 740 (2010), as corrected and amended, required MassDEP to first promulgate regulations before including new conditions in registration renewals. Consequently, MassDEP has not enforced, and does not intend to enforce, those conservation requirements. MassDEP will keep you informed of any future regulatory developments, hearings or opportunities for public comment.

Please note that the minimum "Registration Conditions" set out in 310 CMR 36.08 (as authorized by G.L. c. 21G, s. 6) were not challenged in Fairhaven and therefore will continue to apply and be subject to enforcement. The minimum registration conditions set out in 310 CMR 36.08 which are in effect are the requirements to meter, calibrate and maintain records as described on page 2 and reporting of withdrawal data as described on page 4 of the registration statement.

If you have any questions or concerns about these developments, or any other aspect of the Water Management Act Program, please feel free to contact me by telephone at (617) 292-5706 or by email at duane.levangie@state.ma.us.

Sincerely,



Duane LeVangie, Program Chief
Water Management Act Program

Y:/DWPWMA/Registration Renewal 2021/PEA Registration Extension Letter 6-9-2017
ecc: MWWA
Mass Rivers Alliance



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

December 31, 2007

CONCORD COUNTRY CLUB
246 ORNAC
NINE ACRE CORNER
CONCORD, MA 01742

Dear Registrant:

Please find the attached documents:

- A description of the Massachusetts Water Management Act Registration Statement Contents and Conditions for 2008-2017; and
- The Water Management Act Registrant Statement #**31406702** for 2008-2017;
- The 2007 Annual Report Form required to be completed and returned by February 28, 2008.

If you have any questions regarding the Registration Statement, please contact Duane LeVangie at (617) 292-5706 or Beth McCann at (617) 292-5901.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn Haas".

Glenn Haas
Acting Assistant Commissioner
Bureau of Resource Protection

Enclosures

Cc: Duane LeVangie, MassDEP-WMA Program, Boston

Y:\DWP Archive\NERO\CONCORD-WMA-Registration #31406702 2007-12-31

Appendix D
Discussion of Water Balance
By
Bristol Engineering Advisors, Inc.



May 27, 2020

Peter J. Rappoccio, CGCS
Golf Course Superintendent
Concord Country Club
246 ORNAC
Concord, MA 01742

Re: Concord Country Club Proposed Irrigation Pond
Discussion of Water Balance

Dear Mr. Rappoccio:

Bristol Engineering Advisors, Inc. (Bristol) is pleased to provide you with this brief discussion of the water balance associated with the use of your existing irrigation supply wells to fill and refill the proposed irrigation pond at the Concord Country Club (CCC). This letter is intended to be a generalized discussion of water balance and is not intended to be a comprehensive analysis of your specific circumstances.

Based on our understanding of the proposed project, an approximately 3.6 million gallon irrigation pond has been created to provide for flexibility to irrigate the course at instantaneous flow rates higher than is currently obtainable using the CCC's two irrigation wells. As proposed, the irrigation pond will be lined and filled through a combination of direct rainfall, surface water runoff and water pumped from the existing wells.

The existing irrigation wells are registered with MassDEP under the Water Management Act, and have a combined capacity of approximately 600 gallons per minute. The CCC's registration limits the well pumping to 25,680,000 gallons spread out over 214 calendar days per year, an average of 120,000 gallons per day. The registration does not limit the amount of water that can be pumped in a day, only the total volume of water pumped during the year. Therefore, were the wells to pump 24-hours per day at their combined rated capacity of 600 gpm, they would provide approximately 864,000 gallons per day. There is nothing in the proposal that I have reviewed that modifies, or seeks to modify with MassDEP, this flexibility. At their presumed safe yield of 600 gpm, the wells would fill the empty pond in about 100 hours, or slightly more than four (4) days.

The information provided to Bristol indicates no anticipated change in overall water usage. In this case, there no net impact on downgradient resources – natural or manmade – would be expected when the pond is in operation.

The exception to the this, however, is the period of time in which the wells are serving the dual purpose of irrigation and recharge of the irrigation pond. This period of filling is considered a

BRISTOL ENGINEERING ADVISORS, INC.

MATTAPOISETT

WWW.BRISTOLEA.COM

BOSTON



change in storage (ΔS) in the equation below. This would be a transitory event that occurs only during initial filling.

$$Q_{out} = Q_{in} + \Delta S$$

Where: Q_{in} is the volume of water into a system;

Q_{out} is the volume of water out of the system;

ΔS is the change in storage.

When there is no change in storage, $Q_{in} = Q_{out}$. When there is an increase in storage, Q_{out} must also increase to stay in balance. Therefore, once the pond has been filled, the wells will only be needed to refill the water lost to irrigation and to a much lesser extent evaporation.

According to the information provided, the CCC proposes to construct the irrigation pond in the fall, prior to the advent of the rain and snow season to allow for as much natural recharge to the basin as possible before the spring irrigation season. Atmospheric recharge in a typical winter could take considerable demand off the wells in the spring.

Additionally, the ability to capture peak events such as downpours associated with summer thunderstorms may result in a decrease in reliance on the wells, as these discrete events can often provide an inch or more of rain in a very short time, most of which is often lost to overland flow due to the inability of the soil to incorporate such rapid recharge.

Evaporative loss is an interesting matter to consider. It is reasonable to conclude that surface water evaporates faster than groundwater, and this is true to an extent. However, transpiration by plants is a much bigger source of water loss from both surface water and near-surface groundwater. This evapotranspiration (ET) by plants is greatest during spring and summer and can have a quantifiable effect on groundwater level. If vegetation in the pond is kept to a minimum, it may have lower evaporative losses than the surrounding vegetated surfaces.

To summarize:

- The Concord Country Club is currently legally authorized to withdraw up to 25,680,000 gallons over a 214-day period, with the only restriction on the amount of water to be pumped in any single day being the capacity of the wells.
- There will be potential transitory effects from well pumping more than historical averages only during the initial pond filling period; after which the existing water balance can be maintained. It would be prudent to coordinate with the Concord Public Works Water Division to mitigate possible impacts to their wells during this period.



- The presence of the irrigation pond may lessen the long-term draw on the wells by capturing peak storm events that may be greater than the ability of the local soils to infiltrate.
- Evaporative losses from the pond will occur, but may be lower than evapotranspiration losses in the adjacent grassy or wooded areas.

We appreciate the opportunity to assist you with this effort. If you have any questions, please do not hesitate to contact me.

Respectfully,

BRISTOL ENGINEERING ADVISORS, INC.

A handwritten signature in blue ink that reads "Peter L. Newton". The signature is fluid and cursive, with the first name being the most prominent.

Peter Newton, PG

Appendix E
Trucking Plan
By
Onyx Corporation



*Sand & Gravel · Excavation
Landscape Construction
Established 1980*

Pete Rappoccio
Concord Country Club
246 ORNAC
Concord, MA 01742

Date: 8/28/2020

Re: Dust and mud control / Vehicle types

Project Description: Concord Country Club Pond

Contract No:EX-19-0012

Dear Mr. Rappoccio,

Onyx will control the dust with a water truck as needed. We have placed crushed stone along the whole road out of the golf course as well as a construction entrance containing 2-4" crushed stone to prevent mud from leaving the site. We will also have a drivable sweeper for the road on site if needed.

The types of vehicles hauling material will consist primarily of 6 wheelers, tri axles and dump trailers. There will be 10 trucks per day
Each truck will haul approximately 12-15 loads depending on traffic and weather
Estimated cubic yards per day is between 3000-to 3500
Onyx will have a police detail as needed for this work

Hours of operation Truck Route #1 are Monday- Friday 7:00am to 9:00am.

Hours of operation Truck Route #2 are Monday- Friday 9:00am to 3:00pm

No pickups on Sundays or major holidays.

No vehicles will be able to park on the street and all pickups will be made on the jobsite.

All vehicles removing material from the site between 7:00am- 9:00am will use the route through the golf course main entrance to ORNAC to Rt. 2 to Rt. 62 to Knox Trail Rd for Truck Route #1

All vehicles removing material from the site between 9:00am- 3:00pm will use Williams Rd to ORNAC to Rt. 2 to Rt. 62 to Knox Trail Rd for Truck Route #2

Sincerely,

Paul DiGregorio
774-249-1889
paul@onyxcorporation.net

TRUCK ROUTE MAP



 **TRUCK ROUTE # 1**
 **TRUCK ROUTE # 2**

Attachment F
Irrigation Pond Plan
by Stamski and McNary, Inc.

LEGEND:

- N/F NOW OR FORMERLY
- TREE LINE
- - - EXISTING CONTOUR
- - - EXISTING CONTOUR
- △ WETLAND FLAG
- 99X9 SPOT ELEVATION
- PROPOSED PLANTING AREA

EDGE OF BORDERING VEGETATED WETLAND (DELINEATED BY B&C ASSOCIATES)

MEAN ANNUAL HIGH WATER (DELINEATED BY B&C ASSOCIATES)

PROPOSED ANCHOR TRENCH (SEE DETAIL)

PROPOSED INFILTRATION BASIN

15" FLARED END=133.00 PROVIDE 3-6" RIP-RAP AT OUTLET

PROPOSED OVERFLOW TRENCH 41' L X 3' W X 3' D (SEE INFILTRATION BASIN DETAIL)

EDGE OF BORDERING VEGETATED WETLAND

15" PERFORATED ADS N-12 L=41', INV.=132.00 TO BE SET LEVEL

PROPOSED EMERGENCY OVERFLOW WEIR EL.=136.00

PROPOSED RELOCATED SILTATION BARRIER

15" ADS N-12 L=18', S=0.055

OUTLET STRUCTURE RIM=135.80

PROPOSED EMERGENCY OVERFLOW WEIR EL.=153.00

15" ADS N-12 WT L=84', S=0.060

EXISTING EROSION CONTROL

PROPOSED PUMP HOUSE SLAB=155.00

PROPOSED PLANTING AREA (SEE NOTE 3)

197.2±

EXISTING GRAVEL CART PATH

8" PIPE TO CONNECT TO EXISTING IRRIGATION SYSTEM

EDGE OF DISTURBED (TYPICAL)

EDGE OF DISTURBED (TYPICAL)

PROPOSED 24" OUTLET W/TRASH RACK AT INLET RIM=152.00 15" INV. OUT=138.00

DATUM
N.A.V.D OF 1988.

PROPOSED PLASTIC-LINED IRRIGATION POND (LINER PROVIDED BY OTHERS)

APPROXIMATE LOCATION PRE-DEVELOPMENT GRAVEL CARTPATH (VIA AERIAL IMAGERY) TO BE RESTORED UPON COMPLETION OF CONSTRUCTION

EDGE OF DISTURBED (TYPICAL)

EXISTING TEMPORARY GRAVEL CONSTRUCTION ROAD TO BE REMOVED UPON COMPLETION OF CONSTRUCTION AREA TO BE RETURNED TO PRE-DEVELOPMENT CONDITION OR AS SHOWN

EXISTING GRAVEL CART PATH

6" LOAM AND SEED ALL DISTURBED EARTHEN SURFACES

EXISTING DIRT PATH

APPROXIMATE LOCATION PRE-DEVELOPMENT TREELINE (VIA AERIAL IMAGERY)

IRRIGATION POND PLAN
IN
CONCORD, MASSACHUSETTS
(MIDDLESEX COUNTY)

FOR: **CONCORD COUNTRY CLUB**
SCALE: 1"=40' JANUARY 31, 2020

REVISED: FEBRUARY 14, 2020
REVISED: MARCH 2, 2020
REVISED: MARCH 9, 2020
REVISED: MARCH 18, 2020
REVISED: SEPTEMBER 1, 2020



STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

0 20 40 80 120 160 FT

SHEET 1 OF 2
SM-4621B
(4621B.POND3.WPP.F.dwg)

DRAINAGE SYSTEM OPERATION AND MAINTENANCE PLAN

1. **BMP OWNER:** CONCORD COUNTRY CLUB
246 OLD ROAD TO NINE ACRE CORNER
CONCORD, MA 01742

2. **PARTIES RESPONSIBLE FOR THE MAINTENANCE OF THE STORM WATER MANAGEMENT SYSTEM:**
DURING CONSTRUCTION: APPLICANT - CONCORD COUNTRY CLUB
246 ORVAC
CONCORD, MA 01742
AFTER CONSTRUCTION: THE APPLICANT SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM.

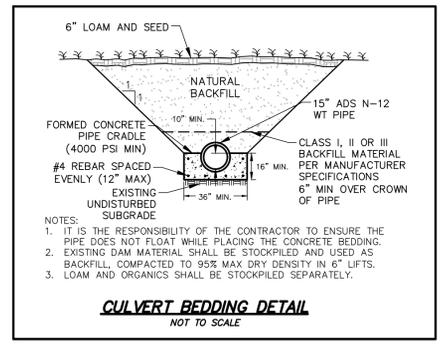
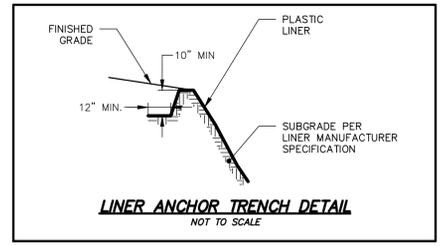
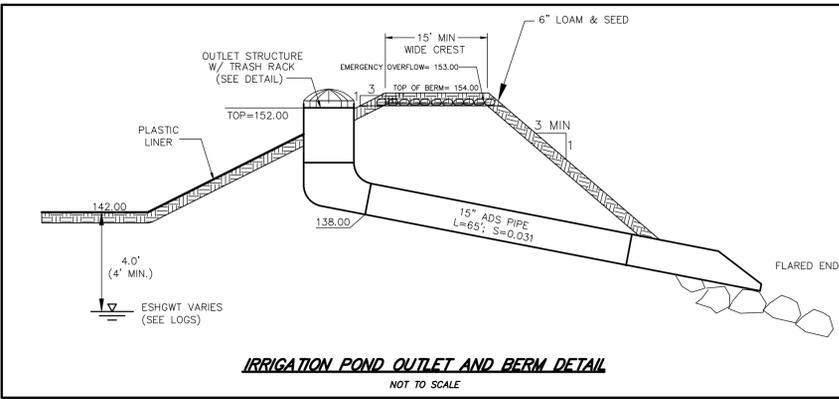
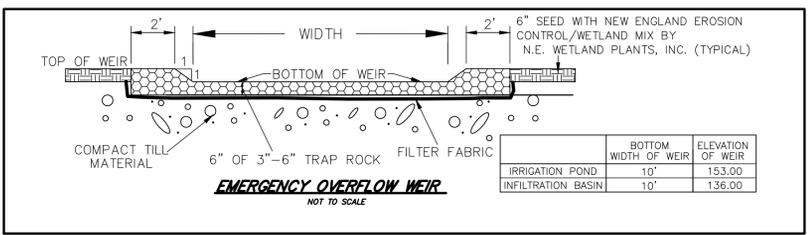
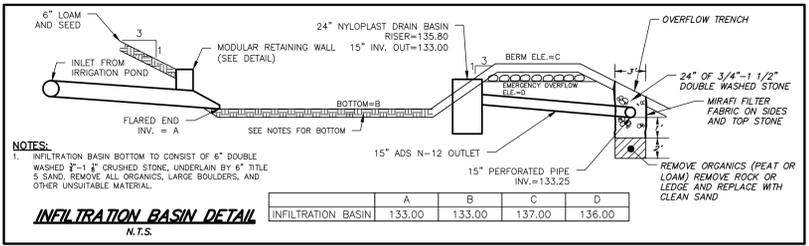
3. **SCHEDULE FOR INSPECTION AND MAINTENANCE:**

INFILTRATION BASINS:
PREVENTATIVE MAINTENANCE SHOULD BE PERFORMED AT LEAST TWICE A YEAR, AND IDEALLY SEDIMENT SHOULD BE REMOVED FROM THE SEDIMENT FOREBAY AFTER EVERY MAJOR STORM EVENT. SEDIMENT SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL GUIDELINES. ONCE ONLINE, THE BASIN SHALL BE INSPECTED AFTER EVERY MAJOR STORM EVENT (1" IN 24 HOURS) FOR THE FIRST 3 MONTHS THEREAFTER. THEREAFTER, THE BASIN SHOULD BE INSPECTED AT LEAST TWICE PER YEAR. IMPORTANT ITEMS TO CHECK FOR INCLUDE: DIFFERENTIAL SETTLEMENT, CRACKING, EROSION, LEAKAGE, OR TREE GROWTH ON THE EMBANKMENTS, CONDITION OF RIPRAP, SEDIMENT ACCUMULATION, AND HEALTH OF THE TURF. NOW THE SIDE SLOPES AND EMBANKMENT AND CLEAN THE EMERGENCY SPILLWAYS AT LEAST TWICE PER YEAR. GRASS CLIPPINGS AND ACCUMULATED ORGANIC MATTER SHOULD BE REMOVED TO PREVENT THE FORMATION OF AN IMPERVIOUS ORGANIC MAT. SCARIFY BOTTOM AND ADD ADDITIONAL SAND IF NECESSARY.

OVERFLOW TRENCH:
THE TRENCH SHALL BE INSPECTED ANNUALLY. THE FILTER FABRIC SHALL BE INSPECTED FOR EXCESSIVE SEDIMENT BUILT UP. IF APPRECIABLE AMOUNTS OF SEDIMENT ARE OBSERVED, THE TOP LAYER OF STONE SHALL BE MOVED ASIDE AND WASHED BEFORE BEING REPLACED OVER THE PERFORATED PIPE.

EMERGENCY CONTACTS:
IN THE EVENT OF A HAZARDOUS MATERIALS SPILL ON THE SITE THE FOLLOWING PARTIES SHALL BE CONTACTED:
FIRE DEPARTMENT: PH: 978-318-3488

RECORDS:
THE OWNER SHALL MAINTAIN AN INSPECTION LOG OF ALL ELEMENTS OF THE STORM WATER MANAGEMENT PLAN. THE OWNER SHALL MAINTAIN A MAINTENANCE LOG DOCUMENTING THE INSPECTION AND MAINTENANCE OF THE DRAINAGE STRUCTURES UNDER THEIR CONTROL. A COPY OF THE EROSION CONTROL AND STORM WATER MAINTENANCE PLAN AND INSPECTION LOGS SHALL BE KEPT ONSITE AT ALL TIMES.



EROSION AND SEDIMENTATION CONTROL NOTES

1. THE LIMITS OF WORK SHALL BE MARKED IN THE FIELD PRIOR TO THE RETURN TO WORK.
2. ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO RETURN TO ANY WORK ON THE SITE. SILTATION BARRIER AND SILT FENCE SHALL BE PLACED IN ALL AREAS AS SHOWN ON ALL THE PLANS AND IN ANY OTHER AREAS AS DETERMINED NECESSARY DURING CONSTRUCTION.
3. ALL SOIL STOCKPILES SHALL HAVE EROSION CONTROL MEASURES AROUND THEIR EDGES AT ALL TIMES. SOIL STOCKPILES SHALL BE COVERED WITH TEMPORARY VEGETATION OR FASTENED TAUPAULIN SHEETS.
4. THE DRAINAGE SYSTEM SHALL BE CONSTRUCTED DURING THE EARLIEST STAGES OF THE PROJECT IN ORDER TO COLLECT RUNOFF AND SEDIMENT.
5. ALL CATCH BASINS IN WILLIAMS ROAD SHALL BE PROTECTED WITH SILT SACKS DURING CONSTRUCTION.
6. ALL CUT AND FILL SLOPES SHALL BE IMMEDIATELY COVERED WITH 6" OF LOAM AND SEEDING DURING THE GROWING SEASON (APRIL 1 TO NOVEMBER 1) OR COVERED WITH HAYMULCH DURING THE NON-GROWING SEASON (NOVEMBER 1 TO APRIL 1), UNLESS OTHERWISE INDICATED. ALL DISTURBED AREAS SHALL RECEIVE 6" OF LOAM AND BE SEED TO PREVENT EROSION.
7. THE DRAINAGE BASIN SHALL BE CLEANED FOLLOWING CONSTRUCTION AND TWICE ANNUALLY THEREAFTER. UPON ACCUMULATION OF 6" OF SEDIMENT, THE DRAINAGE BASIN SHALL BE CLEANED.
8. THE SILTATION BARRIER SHALL BE MAINTAINED UNTIL VEGETATIVE COVER HAS BEEN SUITABLY ESTABLISHED AND GRADED SLOPES ARE STABLE.
9. THE SITE CONTRACTOR IS RESPONSIBLE TO CLEAN UP ANY SEDIMENT WHICH ERODES FROM THE SITE INTO ANY ADJACENT PUBLIC WAY, PARTICULARLY WILLIAMS ROAD, OR ABUTTING PROPERTY IMMEDIATELY UPON DISCOVERY.
10. THE CONTRACTOR SHALL FOLLOW STANDARD PRACTICE AND LOAM AND SEED ALL DISTURBED AREAS FOLLOWING CONSTRUCTION.
11. OPERATOR PERSONNEL MUST INSPECT THE CONSTRUCTION SITE AT LEAST EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5 INCHES OR MORE. DISTURBED AREAS THAT HAVE BEEN STABILIZED MUST BE INSPECTED AT LEAST ONCE PER MONTH.
12. ALL CATCH BASIN SUMPS FITTED WITH SILT SACKS AND MANHOLES LOCATED DOWNDRAINING FROM SAID CATCH BASINS SHALL BE CLEANED OUT AFTER CONSTRUCTION.
13. DURING CONSTRUCTION, THE CONTRACTOR SHALL SPRAY DOWN THE SITE WITH A WATER TRUCK AS NEEDED FOR DUST CONTROL.
14. DURING CONSTRUCTION THE CONTRACTOR SHALL INSPECT THE ADJACENT PUBLIC WAYS, PARTICULARLY WILLIAMS ROAD, AND SWEEP AS NECESSARY.
15. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL STRUCTURES AND DEVICES THROUGHOUT CONSTRUCTION. ANY EROSION CONTROL DEVICES FOUND TO NO LONGER TO BE SERVICEABLE SHALL BE REMOVED. ALL ACCUMULATED SEDIMENTS MUST BE REMOVED WHEN DEPOSITS REACH NO MORE THAN ONE HALF THE HEIGHT OF THE SILTATION BARRIER.
16. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING (7 DAYS IF WITH 100 FEET OF A STREAM, POND OR WETLAND) AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL.
17. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT THE SITE FROM SPRING RUNOFF PROBLEMS. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TEMPORARY MULCH OR OTHER METHODS APPROVED BY THE ENGINEER SHALL BE EMPLOYED TO PROTECT THE SITE.
18. A STOCKPILE OF ADDITIONAL SILT FENCE AND FILTERMATS SHALL BE KEPT ONSITE IN ORDER TO BE ABLE TO IMMEDIATELY RESPOND TO ISSUES WHICH MIGHT DEVELOP DURING CONSTRUCTION.

TEST PIT DATA:

DATE OF TESTING: 1/30/2020 (TP 20-1, 20-2)
TEST BY: STAMSKI AND McNARY, INC.
CERT. SOIL EVAL.: PAUL KIRCHNER, SE 14237

DATE OF TESTING: 1/30/2020 (TP 320-1 THRU 6)
TEST BY: STAMSKI AND McNARY, INC.
CERT. SOIL EVAL.: DANIEL CARR, SE 13201

TEST PIT: TP 320-1
ELEV.=135.0±

0'-16" LAYER B: SAND
16"-102" LAYER C: FINE SAND

NO MOTTLING OBS.

E.S.H.G.W. ELEV =130.5'+

MOTTLING OBSERVED @ 46"
E.S.H.G.W. ELEV =131.2'

TEST PIT: TP 320-2
ELEV.=138.8±

0'-16" LAYER B: SAND
16"-52" LAYER C1: SAND
52"-108" LAYER C2: FINE SAND

NO MOTTLING OBS.

E.S.H.G.W. ELEV =134.0'+

TEST PIT: TP 320-3
ELEV.=149.5±

0'-20" LAYER B: LOAMY SAND
20"-72" LAYER C2: FINE SAND
72"-192" LAYER C3: FINE-MEDIUM SAND

NO MOTTLING OBS.

E.S.H.G.W. ELEV =133.5'+

TEST PIT: TP 320-4
ELEV.=158.5±

0'-48" LAYER C1: MEDIUM SAND
48"-180" LAYER C2: FINE-MEDIUM SAND
180"-312" LAYER C3: MEDIUM SAND

NO MOTTLING OBS.

E.S.H.G.W. ELEV =132.5'+

TEST PIT: TP 320-5
ELEV.=158.5±

0'-12" LAYER B: SANDY LOAM
12"-296" LAYER C: MEDIUM SAND

NO MOTTLING OBS.

E.S.H.G.W. ELEV =133.8'+

TEST PIT: TP 320-6
ELEV.=169.5±

0'-60" LAYER C1: MEDIUM SAND
60"-228" LAYER C3: FINE SAND

NO MOTTLING OBS.

E.S.H.G.W. ELEV =150.5'+

DATE OF TESTING: 6/2/2020 (TP 6-1, 6-2)
TEST BY: STAMSKI AND McNARY, INC.
CERT. SOIL EVAL.: PAUL KIRCHNER, SE 14237
WITNESS: STAN SOSNICKI

DATE OF TESTING: 7/2/2020 (TP 7-1, TP 7-2)
TEST BY: STAMSKI AND McNARY, INC.
CERT. SOIL EVAL.: PAUL KIRCHNER, SE 14237
WITNESS: JUSTIN RICHARDSON

TEST PIT: TP 6-1
ELEV.=151.0±

0'-192" LAYER C: FINE SAND

MOTTLING OBSERVED @ 192"
E.S.H.G.W. ELEV =135.0'

TEST PIT: TP 6-2
ELEV.=140.2±

0'-26" LAYER C1: SAND
26"-60" LAYER C2: FINE SAND

MOTTLING OBSERVED @ 38"
E.S.H.G.W. ELEV =131.8'

TEST PIT: TP 7-1
ELEV.=165.5±

0'-144" LAYER C: SAND

MOTTLING @ 76"
E.S.H.G.W. ELEV =159.1'+

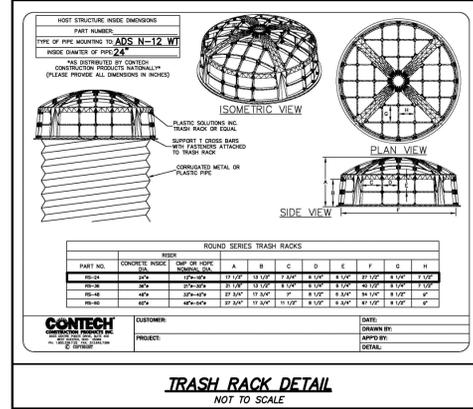
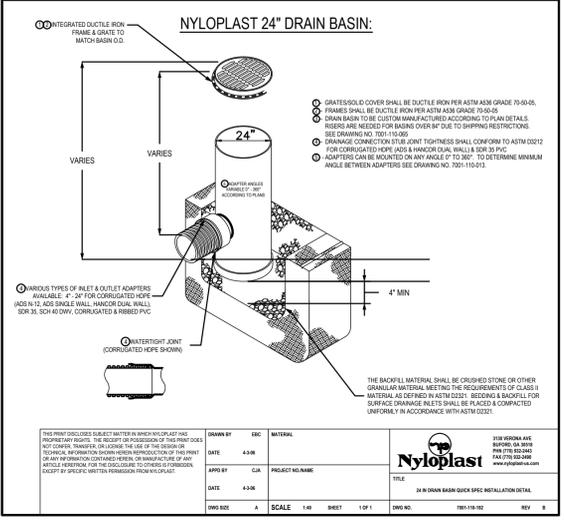
TEST PIT: TP 7-2
ELEV.=154.4±

0'-144" LAYER C: SAND

MOTTLING @ 86"
E.S.H.G.W. ELEV =147.2'+

NOTES:

1. ALL UNDERGROUND UTILITIES SHOWN HERE WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS FROM VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE DESIGNING, EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION OR REPAIRING. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. SEE CHAPTER 370, ACTS OF 1963 MASS. WE ASSUME NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE PLANNING FUTURE CONNECTIONS THE APPROPRIATE PUBLIC UTILITY ENGINEERING DEPARTMENT MUST BE CONSULTED. DIG SAFE TELEPHONE No. 1-888-344-7233.
2. AREAS DISTURBED FOR TEMPORARY CONSTRUCTION ACCESS SHALL BE RESTORED TO THEIR PRE-DEVELOPMENT CONDITION.
3. ALL DISTURBED SURFACES SHALL BE STABILIZED WITH FLEXTERRA HIGH PERFORMANCE FLEXIBLE GROWTH MEDIUM, OR APPROVED EQUAL. AREAS SHALL BE PLANTED WITH NEW ENGLAND CONSERVATION/WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC., OR APPROVED EQUAL.
4. APPROXIMATELY 164,000 S.F. OF WOODED AREA HAS BEEN CLEARED TO DATE TO ALLOW FOR POND CONSTRUCTION.



**IRRIGATION POND PLAN
IN
CONCORD, MASSACHUSETTS
(MIDDLESEX COUNTY)**

FOR: CONCORD COUNTRY CLUB
SCALE: 1"=40' JANUARY 31, 2020

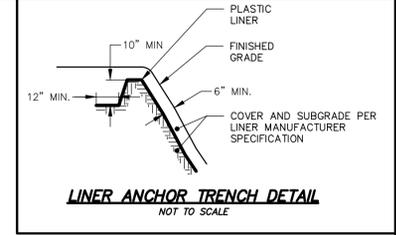
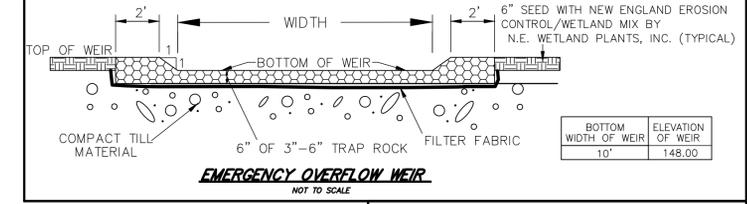
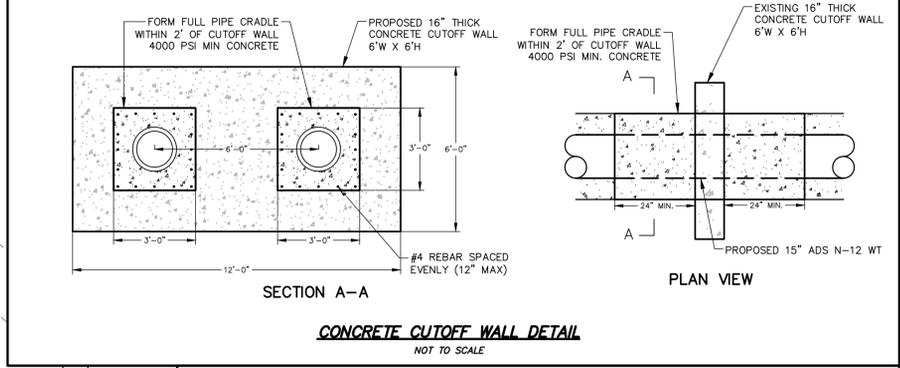
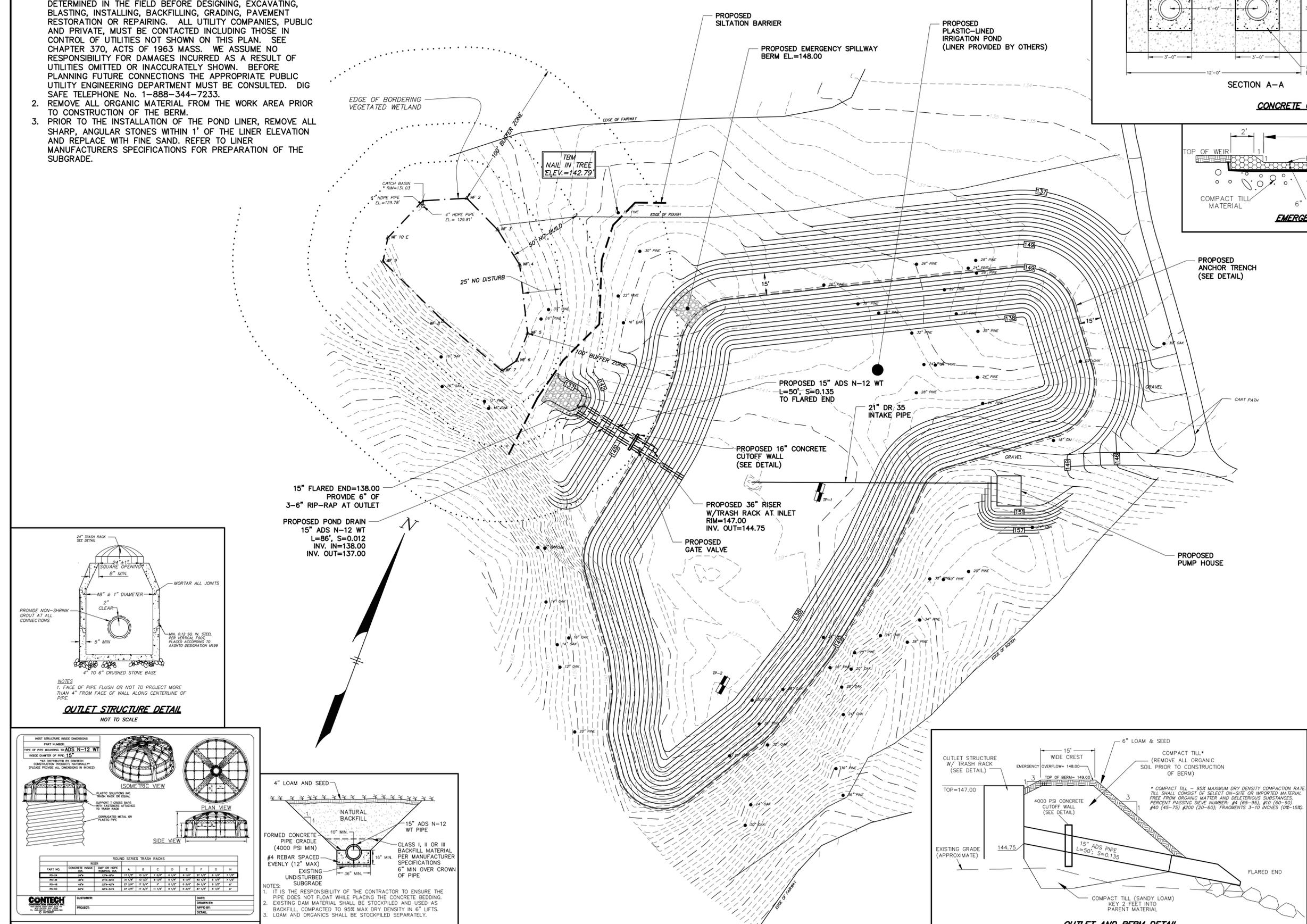
REVISED: FEBRUARY 14, 2020
REVISED: MARCH 2, 2020
REVISED: MARCH 9, 2020
REVISED: MARCH 18, 2020
REVISED: SEPTEMBER 1, 2020

STAMSKI AND McNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING



NOTES:

- ALL UNDERGROUND UTILITIES SHOWN HERE WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS FROM VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE DESIGNING, EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION OR REPAIRING. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. SEE CHAPTER 370, ACTS OF 1963 MASS. WE ASSUME NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE PLANNING FUTURE CONNECTIONS THE APPROPRIATE PUBLIC UTILITY ENGINEERING DEPARTMENT MUST BE CONSULTED. DIG SAFE TELEPHONE No. 1-888-344-7233.
- REMOVE ALL ORGANIC MATERIAL FROM THE WORK AREA PRIOR TO CONSTRUCTION OF THE BERM.
- PRIOR TO THE INSTALLATION OF THE POND LINER, REMOVE ALL SHARP, ANGULAR STONES WITHIN 1' OF THE LINER ELEVATION AND REPLACE WITH FINE SAND. REFER TO LINER MANUFACTURERS SPECIFICATIONS FOR PREPARATION OF THE SUBGRADE.



- LEGEND:**
- N/F NOW OR FORMERLY OVERHEAD WIRES
 - TREE
 - TREE LINE
 - UP UTILITY POLE
 - GG GAS GATE
 - G GAS SERVICE (BURIED)
 - WG WATER GATE
 - W WATER SERVICE (BURIED)
 - DMH DRAIN MANHOLE
 - D SUB-SURFACE DRAIN LINE
 - EXISTING CONTOUR
 - - - EXISTING CONTOUR
 - ☆ LIGHTPOLE
 - △ WETLAND FLAG
 - 99X9 SPOT ELEVATION

RECORD OWNER
CONCORD COUNTRY CLUB
246 OLD ROAD TO NINE ACRE CORNER
CONCORD, MA

ZONING DISTRICT
AA

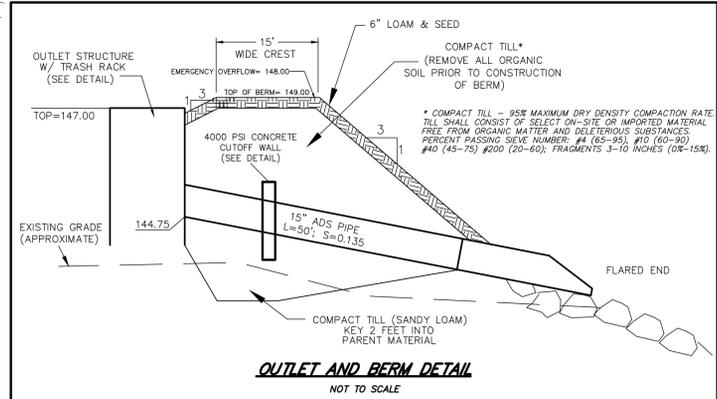
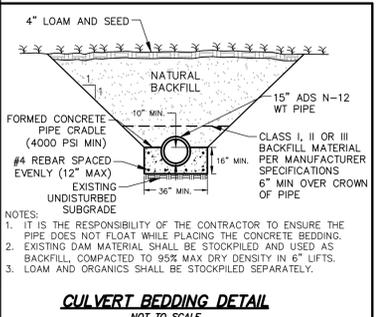
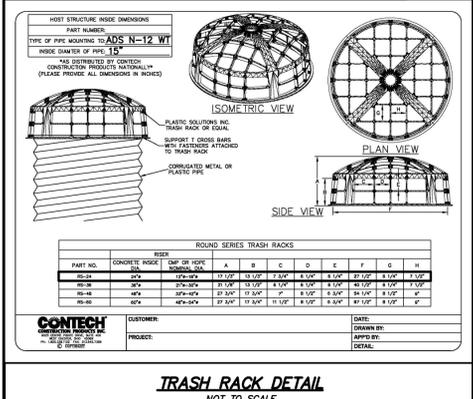
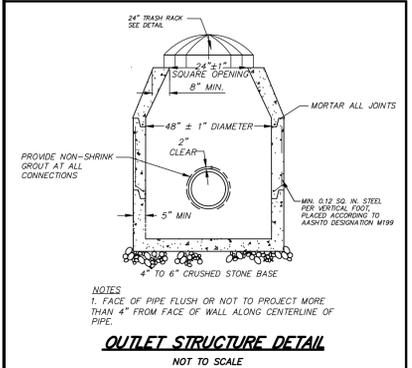
DATUM
NGVD OF 1988.

CONCEPT 2 IRRIGATION POND
IN
CONCORD, MASSACHUSETTS
(MIDDLESEX COUNTY)
FOR: CONCORD COUNTRY CLUB
SCALE: 1"=30' MAY 28, 2019

STAMSKI AND McNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

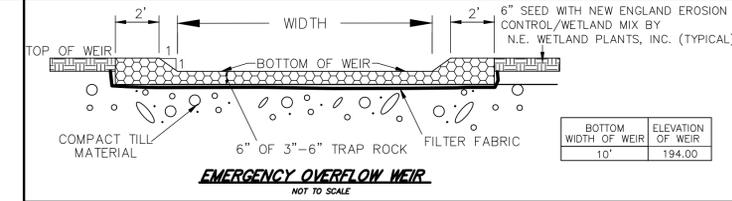
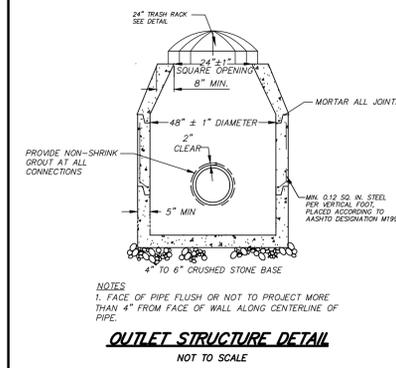
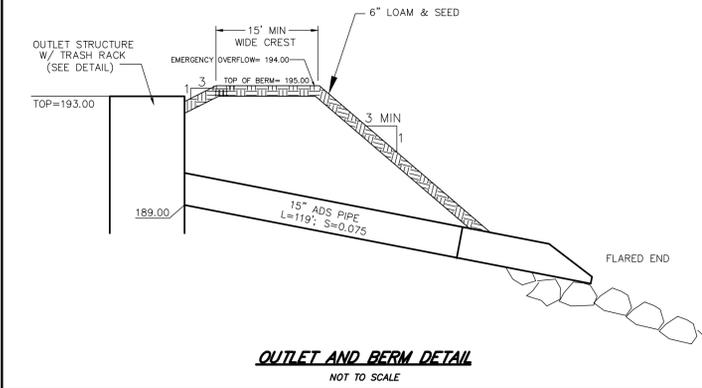
0 15 30 60 90 120 FT

(4621B.POND.dwg) 246 O.R.N.A.C. SM-4621B



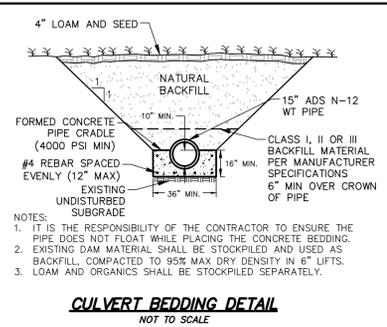
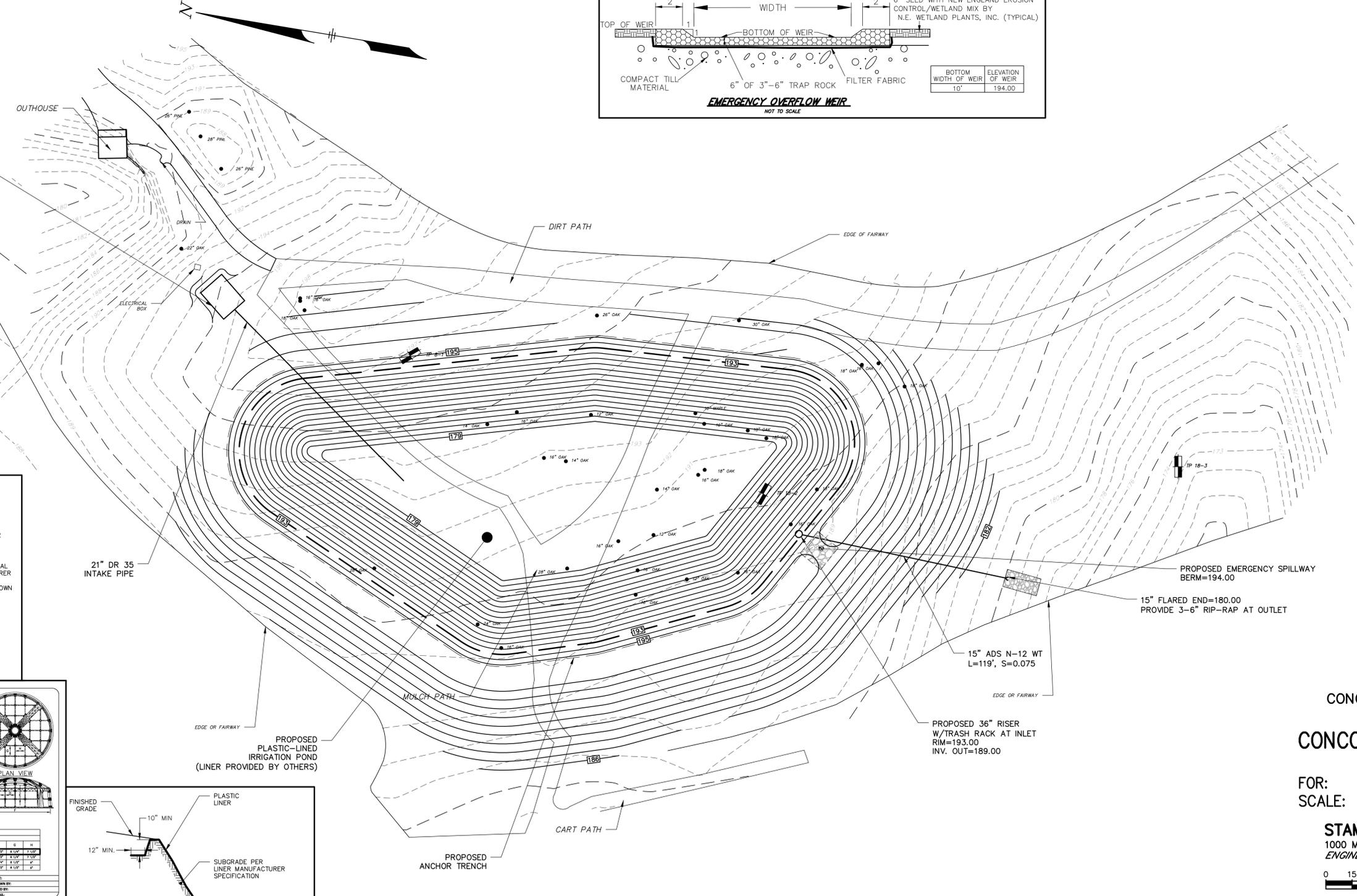
NOTES:

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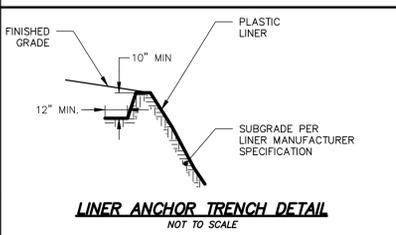


LEGEND:

- N/F NOW OR FORMERLY OVERHEAD WIRES
- TREE
- TREE LINE
- UP UTILITY POLE
- GG+ GAS GATE
- G GAS SERVICE (BURIED)
- WG+ WATER GATE
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- DMH DRAIN MANHOLE
- D SUB-SURFACE DRAIN LINE
- EXISTING CONTOUR
- - - EXISTING CONTOUR
- ☆ LIGHTPOLE
- △ WETLAND FLAG
- 99X9 SPOT ELEVATION
- ○ ○ ○ STONE WALL
- EDGE OF PAVEMENT



ROUND SERIES TRASH RACKS	
PART NO.	CONCRETE WEIGHT
TR-10	10.00
TR-12	12.00
TR-15	15.00
TR-18	18.00
TR-24	24.00
TR-30	30.00
TR-36	36.00
TR-42	42.00
TR-48	48.00
TR-54	54.00
TR-60	60.00
TR-66	66.00
TR-72	72.00
TR-78	78.00
TR-84	84.00
TR-90	90.00
TR-96	96.00
TR-102	102.00
TR-108	108.00
TR-114	114.00
TR-120	120.00



**CONCEPT 3 IRRIGATION POND
IN
CONCORD, MASSACHUSETTS
(MIDDLESEX COUNTY)**

FOR: **CONCORD COUNTRY CLUB**
SCALE: 1"=30' SEPTEMBER 6, 2019

STAMSKI AND McNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

