



TOWN OF PLYMOUTH

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Board of Appeals

Decision

Case No. 3728

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MAR 05 2014

PLANNING BOARD
PLYMOUTH, MA

LANDOWNER: A.D. MAKEPEACE COMPANY

PETITIONER: A.D.M. CRANBERRY CO., LLC.

SUBJECT PROPERTY: Off Federal Road, Carver, Massachusetts

PARCEL ID NO'S: 126-000-007-000, 126-000-011-000, and 126-000-012-000

TITLE REFERENCE: Plymouth County Registry of Deeds in BK 1418, PG 197-203 and BK 5189, PG 245

DATE OF PUBLIC HEARING: December 18, 2013 and concluding on February 19, 2014

In exercise of its discretionary powers, the Plymouth Zoning Board of Appeals (Members: Peter Conner, William Keohan, Michael Main, Edward Conroy, and James Simpson) voted unanimously (5-0) to **GRANT** the petition of **A.D.M. CRANBERRY CO., LLC.** requesting a Special Permit per Section 205-18 F1A & B4 and Section 205-40 Paragraph D1 to remove gravel in excess of 10 cubic yards, subject to Environmental Design Conditions on the property of **A.D. MAKEPEACE COMPANY** located **OFF FEDERAL ROAD** and shown as Lots 7, 11, and 12 on Plat 126 of the Assessors Maps dated January 1, 2012 in a RR Zone.

SUBMITTED DOCUMENTATION:

1. Abutters request, list, and labels (Plymouth, Wareham, & Carver)
2. Check #11489 - \$110.00 payable to CNC
3. Check #11488 - \$400.00 payable to Town of Plymouth - Filing Fee
4. Check #11490 - \$10.00 payable to Town of Plymouth - Abutters Fee
5. Legal Advertisement to CNC
6. Abutters' Notification
7. November 6, 2013 Distribution Memo
8. November 1, 2013 Letter from GAF Engineering
9. ZBA Petition Application
10. Environmental Impact Statement
11. Narrative to Accompany Environmental Impact Statement
12. Deed recorded with the Plymouth County Registry of Deeds in BK 1418
13. Deed recorded with the Plymouth County Registry of Deeds in BK 5189
14. Dept. of Inspectional Services denial dated July 17, 2013
15. Figure 1 Locus Map
16. Figure 2 Truck Route
17. Figure 3 Aquifer Protection Map Overlay
18. Figure 4 Phasing Plan
19. Plan dated October 21, 2013 - 9 Sheets:
 - a. Sheet No. 1 - Title Sheet
 - b. Sheet No. 2 - Project Overview
 - c. Sheet No. 3 - By-Pass Canal



- d. Sheet No. 4 – Block No. 1 Sections 1-5
 - e. Sheet No. 5 – Block No. 2 & 3 Sections 6-15
 - f. Sheet No. 6 – Block No. 4 Sections 16-18
 - g. Sheet No. 7 – Cross-Section A-A
 - h. Sheet No. 8 – Cross-Section B-B
 - i. Sheet No. 9 – Notes, Legend & Details
20. November 20, 2013 Comments from Fire Dept.
 21. November 26, 2013 Comments from Engineering
 22. December 2, 2013 Engineering Review from McKenzie Engineering Group, Inc.
 23. WPA Form 5 – Order of Conditions dated November 20, 2013
 24. WPA Form 2 – Determination of Applicability dated November 13, 2013
 25. December 3, 2013 Letter to George Rogers RE Peer Review
 26. CK# 012450 - \$5,000.00 payable to Town of Plymouth for Peer Review
 27. December 6, 2013 GAF Engineering Response RE Peer Review
 28. December 10, 2013 Planning Board Comments
 29. Locus Map
 30. G.A.F. Engineering Proposed Cranberry Bog Development Plan – Phasing Plan
 31. Excerpts from Public Hearing on December 18, 2013
 32. January 17, 2014 Letter from Vanasse & Associates, Inc.
 33. February 14, 2013 Letter from Vanasse & Associates, Inc.
 34. February 6, 2013 Letter from Vanasse & Associates, Inc.
 35. MOU between Town of Carver and A.D.M. Cranberry Company, LLC.

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THE BOARD FINDS THE FOLLOWING FACTS:

1. The property in question contains approximately 214 acres and is accessed via bog roads located off Federal Road in Carver. The property is zoned Rural Residential (RR). A number of bogs already exist on this property and in the immediate area. The project is not located in a DEP mapped Zone II or within the Town of Plymouth Aquifer Protection District.
2. The project will replace existing flow-through style bogs with more efficient rectangular bogs planted with high producing cultivars. The proposed cranberry project will consist of a 136 acre cranberry bog system along with 77 acres of bog roads, landing areas, drainage flowage canals and other supporting land all located within a 214 acre portion of the site. Two tail water recovery ponds encompassing 18 acres will also be constructed. The cranberry bog configuration will consist of seventeen (17) eight (8) acre sections. The construction of the cranberry beds will involve the alteration and moving of approximately 7.2 million yards of soil. Approximately 6.5 million yards are to be removed from the site over the life of the project. The new cranberry bogs will result in significant water conservation over the old style bogs, some of which will be removed from cultivation commensurate with the new construction.
3. The project has received a certificate of the Secretary of Energy and Environmental Affairs on the EENF (EEA Number 13940). It has been determined that the project is not likely to cause damage to the environment. Water usage will not increase as a result of this project.
4. The following phasing schedule is proposed:
 Phasing
 The project is intended to be constructed over a 10 to 20 year timeframe
 Phase I will consist of constructing Block 4.
 Phase II will consist of constructing access roads and drainage flowage canals.
 Phase III will consist of constructing Block 1.
 Phase IV will consist of constructing Block 2.
 Phase V will consist of constructing Block 3.

5. 50 acres can be disturbed at any one time due to the total site being 1320 total acreage - which is equivalent to 3.8 percent of the total site.

WAIVERS

As part of this request, the applicant is requesting a waiver to increase the 5 acre limitation to 40 acres. Each bog section is 8 acres; construction of bog sections can be carried out in a more efficient manner working in larger 40 acre blocks. In return, the applicant has agreed to provide the funding necessary for the Town to hire an independent consultant to monitor the facility on a quarterly basis for compliance with the special permit conditions and adherence to industry best practices.

In return, the petitioner has agreed to pay for quarterly inspections by the Town's consultant to ensure that the project is in compliance with the conditions of the special permit, the zoning bylaw and best practices.

Approximately 200 heavy truck trips per day are proposed. The destination of approximately 100 of these trips will be to the soil recycling facility and will not cross or travel on public ways. A waiver to increase the 40 maximum heavy equipment trips¹ per day to 100 (off-site) is also requested. Access drives to public ways will be provided with a minimum of a 100 foot bituminous concrete tracking pad which will be maintained daily by sweeping.

ENVIRONMENTAL DESIGN CONDITIONS

Natural Features Conservation

General

The cranberry bog development area consists largely of undeveloped forested land. The site is vegetated with species typical to the region including white pine, pitch pine, shrub oak, low brush blueberry and huckleberry as dominant species.

Due to the site's coarse sandy soil conditions, 2:1 slopes are acceptable as long as proper stabilization is provided. The 2:1 slopes will minimize the area of disturbance and earth removal required for the bog construction. The petitioner should provide further detail of erosion control and stabilization methods to be performed, especially for locations with large cuts. Inspections to monitor slope stabilization should be included in the quarterly monitoring to ensure adequate slope stabilization is being established.

Top Soil

Top soil will remain on site for reuse as slope stabilization material. Additionally if needed top soil will be obtained from other on-site sources. There will be no material introduced to the site with the possible exception of top soil or material needed in forming the bog's slowly permeable confining layer.

Grading & Topography

The USDA Soil Survey of Plymouth County identifies the soils as "Carver" sand. These soil types have been verified through test pit excavation and boring logs.

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¹ For the purposes of this section, a heavy equipment trip shall be counted as the total of one heavy equipment vehicle entering and exiting the site.

Excavation is necessary to construct the cranberry beds, tail water recovery ponds and by-pass canal. No excavation will occur within 500 feet of any abutting property line. Side slopes will vary in height with a maximum height of 26 feet. Upon completion, side slopes will be graded to a 2 to 1 slope.

Interior and exterior slopes will be stabilized with erosion control blankets and seeded or hydro seeded, as necessary.

Vegetation

The project will involve the phased removal of vegetation within the project limits. No trees outside the project limits are intended to be removed.

Excavation of Materials

The excavation of materials are included and required in connection with the construction of the project. The system is designed so that up gradient water use will flow by gravity through the cranberry beds and ultimately to the tail water recovery system for reuse.

Conditions for Excavation

Due to the remoteness of the site, the project is not anticipated to have an adverse impact on adjacent properties. Any stockpiled material will be placed within an excavated area. A water truck will be used to control dust. A sand washing or washout area will be created.

Erosion & Sedimentation Control

The cranberry bogs will be constructed at elevations, which are lower than the surrounding ground elevations. The tail water ponds will be excavated; however a small berm will be constructed at the perimeter of each in order to increase tail water holding capacity.

Once a bog section is complete permanent slope stabilization within the block consisting of loam and silt or hydro seed will be provided.

There are no driveways, roadways or drainage structures, such as, catch basins, manholes and drainage outfalls within the site roadway system as all roads are gravel. All sediment control will occur within the blocks associated with the bogs and drainage canals.

Conservation of Resources

No work is proposed within 500 feet of any public owned property or within 500 feet of land managed by or owned by a non-profit agency or private landowner. The property does however abut the Myles Standish State Forest.

Rare Species

The project will impact approximately 148 acres of mapped habitat and 153 acres of mapped Pine Barrens habitat. Measures to minimize and mitigate state-listed species impacts associated with the project will include permanent protection through a Conservation Restriction of 300 acres in the eastern portion of the site. A conservation restriction will be placed on the land to ensure protection in perpetuity. A large wildlife corridor has been designed into the project between blocks 3 and 4. This corridor will provide a substantial connection between the westerly and easterly land holdings.

Wetlands

The Town of Plymouth Conservation Commission will review applicable portions of the project for consistency with the Wetlands Protection Act and implementing regulations (310 CMR 10.00). The site

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for the new bogs is entirely in forested upland. Elements of the work such as the tail water ponds and pump installations may be located within wetland resource areas.

The site is not located in a DEP defined Zone E or within the Town of Plymouth Aquifer Protection Overlay District. The water table within the project area has been determined by the map entitled "Altitude of the water table in Plymouth-Carver Area, southeastern Massachusetts November 30-December 2, 1984 by Bruce P. Hansen and Wayne W. Lapham and on-site groundwater monitoring wells. The cranberry bed elevations are set four (4) feet above the water table.

Relation to Surroundings

The project site is comprised of 214 acres within the 6,107 acre central core land holding in Plymouth, Carver and Wareham. The project site is located within an area of active cranberry bogs. West of the project site is the Wankinko bog system, Carver Side bogs are to the north and Frog Foot bogs are to the east/southeast. The project area is in the center of A.D. Makepeace's Frog Foot land holdings.

Vehicular and Pedestrian Circulation

The cranberry bog construction project is estimate to require 230 vehicle trips per day during initial construction and gravel removal operations. Most of these vehicle trips will consist of dump trailers (provided that 100 loads per day are authorized for removal). The remaining 30 vehicle trips will consist of employee vehicle trips and other construction related activities.

A temporary commercial soil recycling and manufacturing facility is being constructed by the petitioner on land zoned Industrial A in Carver. The petitioner will be seeking a special permit to construct a permanent soils recycling and manufacturing facility on this property.

It is estimated that 50% of 6.5 million yards of material will be removed from the site and processed at a soils recycling and manufacturing facility during the life of the project. The soils recycling and manufacturing facility is located on land contiguous to this site. These vehicles will not be traversing on public ways.

The remaining 50 percent of material will be transported material removed from the site and will use the truck route travelling from the site southerly to Routes 28, 25, 495 and 195 via Federal Road, Farm to Market Road and Tihonet Road,

Siting & Design of Structures

A 50' by 100' equipment storage building is proposed at the southern end of the proposed bogs (Block 1) and six (6) pump stations are proposed at the tail water recovery ponds. The proposed buildings are associated with the cranberry bog system and farming use.

Surface Water Drainage

No additional impervious surfaces are proposed as part of the gravel removal project. Adequate site drainage and erosion control measures will be in place prior to start of gravel removal through the conditions of this Special Permit.

Utilities

No significant utility upgrades are proposed as part of this project.

Signs

No signage is proposed as part of this project

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THE GRANTING OF THIS SPECIAL PERMIT IS BASED ON THE FOLLOWING REASONS:

1. The proposed activity is appropriate to the zone and this specific site, as the sand and gravel excavation is allowed by Special Permit and is necessary for the development of the cranberry bogs and associated access.
2. Adequate and appropriate facilities are available and will be in place and will provide for the proper operation of the use.
3. There will be no hazard to pedestrians or vehicles because the majority of vehicle trips will solely occur on-site and the material will be delivered to a commercial soil processing center.
4. There will be no nuisance or adverse effect upon the neighborhood, provided the conditions of the Special Permit are met. The site is isolated geographically from abutting uses due to the surrounding land owned by the petitioner and the Myles Standish State Forest.

THE GRANTING OF THIS SPECIAL PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. An erosion control plan shall be prepared and approved by the Zoning Board of Appeals. The plan shall include the locations of the erosion control measures, for the berm around the tail water recovery ponds, location and detail of the 100 foot bituminous concrete trucking pad including daily sweeping, dust control, and sand washout locations.
2. Topsoil stockpiles shall be located on the plans with appropriate erosion controls. This information can be provided on the final construction phasing plans.
3. The petitioner shall record with the Plymouth County Registry of Deeds the Conservation Restriction and documentation establishing the 300 acre parcel to be permanently protected from further development. Said proof of recording shall be provided to the Plymouth Conservation Commission and the Zoning Board of Appeals.
4. The excavation and trucking of material and/or noise generated by the excavation, operation, engine start-up and trucking of material shall be limited to Monday through Friday. The hours of operation shall be limited to 7:00 AM to 4:00 PM. No excavation activities shall be permitted on holidays.
5. The Building Commissioner or its duly authorized agent shall have access to the excavation site at all times in order to inspect the site to insure compliance with all approved plans. The petitioner has agreed to pay for quarterly inspections by the Town's consultant to ensure that the project is in compliance with the conditions of the special permit, the zoning bylaw and best practices (including monitoring associated National Pollutant Discharge Elimination System (NPDES) Permit issued by the Environmental Protection Agency for earth disturbance over a certain square footage).
6. The Petitioner shall install temporary signs warning traffic of truck entry.
7. The Petitioner shall permanently stabilize any portions of the site that are not under construction after earth removal activities have ceased for a period of six (6) months.
8. If all of the above noted conditions are not adhered to, the Building Commissioner may cause all excavation work to cease until the problems identified are corrected.
9. Installation of site stabilization measures as shown on the erosion control and stabilization plan must be performed in a timely manner, and failure to do so shall be reason for the Building Commissioner to issue a cease work order until such time as the erosion control and stabilization measures are installed according to said plan.

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10. No excavation shall be larger than Fifty (50) acres for earth removal, storage, and/or processing at one time. No more than Fifty (50) acres of the entire sand and gravel operation, and associated earth removal activities, shall be exposed at any time. Prior to the commencement of excavation of any subsequent areas, the preceding Fifty (50) acre operation shall be stabilized either temporarily or permanently.
11. Minor modifications to the design and location of excavation may allowed by the Building Commissioner (aka Director of Inspectional Services) to accommodate reasonable and/or necessary field conditions which modifications do not amount to a substantial modification of the plans. Such changes as substituting a particular plant material or number of shrubs or trees where it is impractical to do something, or move a structure or machinery in a manner which does not materially change the project, or slightly reconfigure a drainage area may be allowed.
12. All stationary on-site mechanical equipment shall be placed as far away as possible from existing businesses and homes during its operation.
13. The Petitioner shall be responsible for the clearing of any sand that accumulates on the heavy equipment route as a result of the excavation of material on a daily basis.
14. Excavation of materials shall be allowed for a period of two (2) years from the start of excavation. The applicant shall notify the Building Commissioner prior to the commencement of work. Upon completion of the two (2) year period, the applicant shall have sixty (60) days to submit a written request to the Board of Appeals for an extension of the excavation period. The Board of Appeals may deny the request of the extension for any of the following reasons:
 - a. Violations of any of the conditions of this special permit;
 - b. The work site has been deemed abandoned by the Building Commissioner;
 - c. Proper stabilization methods are not maintained; and
 - d. Documented violation of agreed upon truck routes.
15. The Petitioner shall provide an "as-built" survey that verifies that no more than 6.5 million cubic yards of material were removed.
16. A limit of 40 heavy equipment trips per day on Plymouth public ways will be the maximum allowed for all earth removal operations for the projects. The use of Plymouth roads shall be documented via the truck manifest. Every effort shall be made to phase the heavy equipment trips with the other local projects. A heavy equipment trip is defined in the Bylaw as a total of one heavy equipment vehicle entering and exiting the site (Section 205-18G6).
17. Prior to the Issuance of a Zoning Permit for gravel removal, the Petitioner shall submit to the Building Commissioner:
 - a. A Municipal Lien Certificate shall be provided as evidence of payment of any back taxes, fees or penalties owed to the town, if any; and
 - b. Evidence of recording of this Special Permit at the Plymouth County Registry of Deeds or the Land Court.
18. The Company agrees to gift the town of Plymouth \$0.10 per cubic yard for material transported on roads located within the Town of Plymouth. Said funds are to be used for future roadway maintenance and/or improvements.

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If substantial use or construction permitted by this Special Permit has not commenced within two years from the date on which a copy of this decision is filed with the Town Clerk, excluding the amount of time required for an appeal period to expire and the amount of time required to pursue and await the determination of any such appeal, then this Special Permit shall expire, insofar as the foregoing statement is modified by Chapter 195 of the Acts of 1984.

Any relief not expressly granted hereunder is hereby denied.

We hereby certify that copies of this decision were filed with the Town Clerk, Building Inspector, and the Planning Board on: March 5, 2014

ZONING BOARD OF APPEALS

Peter Conner
Peter Conner, Chairman

Michael Main
Michael Main, Member

NOT SEATED ON THIS CASE
David Zeck, Vice Chairman

Edward Conroy
Edward Conroy, Member

William Keohan
William Keohan, Clerk

James Simpson
James Simpson, Alternate

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NOT SEATED ON THIS CASE
Michael Leary, Alternate

This decision shall not take effect until (a) a copy of this decision certified by the Town Clerk to the effect that twenty (20) days have elapsed since the decision was filed in the Office of the Town Clerk without any appeal having been filed or that any appeal filed has been dismissed or denied has been recorded in the Plymouth County Registry of Deeds or with the Assistant Register of the Land Court for Plymouth County, and (b) a certified copy indicating such Registry recording has been filed with the Board.

Any person aggrieved by a decision of the Board of Appeals has the right to appeal such decision to the Superior Court, the Land Court, or the District Court of the Commonwealth of Massachusetts pursuant to Massachusetts General Laws, Chapter 40A, Section 17, by filing such appeal within twenty (20) days after the date on which the decision was filed with the Town Clerk.

Copy to Applicant via Certified Mail on: March 5, 2014
Notice of Decision to interested parties on: March 5, 2014