

2013 AUG - 2

DECISION

ZBA CASE NO. 13-08
PROPERTY LOCATION: 171-175 Bearfoot Road
PETITIONER: Andrew Wolthers, Little John Engineering Associates
PROPERTY OWNER: Iron Mountain Information Management Inc.
RECORDED WITH WORCESTER DISTRICT REGISTRY OF DEEDS: Bk: 40380 Pg: 83

RECORDED WITH WORCESTER DISTRICT REGISTRY OF DEEDS: Bk: 40380 Pg: 83 This document is the DECISION of the Northborough Zoning Board of Appeals on the petition of Andrew Wolthers, Littlejohn Engineering Associates, for a Variance, a Special Permit with Site Plan Approval, and a Special Permit, Groundwater Protection Overlay District, to allow the addition of an electronic datacenter facility, storage of hazardous material (diesel fuel for generators) and parking reductions at the Iron Mountain facility site located at 171-175 Bearfoot Road, Map 28 Parcel 44, in Groundwater Protection Overlay District Area 3.

APPLICATION

On May 23, 2013, the Applicant filed with the Town Clerk an Application for Hearing before the Zoning Board of Appeals for a Special Permit per Section 7-07-010D(3)(c)[4]&[5], Groundwater Protection Overlay District, Use Regulations, to allow the addition of an electronic datacenter facility and storage of hazardous material (diesel fuel for generators) in Groundwater Protection Overlay District Area 3; a Special Permit with Site Plan Approval per Section 7-03-050A(2) Applicability; and 7-09-020 Site Design Standards; and a Variance from Section 7-09-030B(2)(c)[4] Off-street parking design standards for industrial uses, to allow reduction of the required amount of parking spaces for the proposed addition of an electronic data center facility at the Iron Mountain site located at 171-175 Bearfoot Road, Map 28 Parcel 44.

Notice of the public hearing was duly published in "THE WORCESTER TELEGRAM & GAZETTE" on June 10, 2013 and June 17, 2013, and was mailed to abutters and other parties in interest on June 6, 2013.

EXHIBITS

Submitted for the Board's deliberation were the following exhibits:

- 1. Application for Hearing before the Zoning Board of Appeals including:
 - a. A Quitclaim Deed for 175 Bearfoot Road, recorded at the Worcester District Registry of Deeds on 12/20/2008, Bk: 40380 Pg: 83;
 - b. A letter to Kathy Joubert, Town Planner, from Chris Curtis, Senior Vice President, Compass Datacenters, dated May 22, 2013, re: Compass Datacenters;
 - c. A certified abutters list of parcels 300 feet from 175 Bearfoot Road, with a cover sheet signed by Mary E. Carey, For the Board of Assessors, dated May 15, 2013 and including an 11" x 17" Northborough, MA GIS Viewer Map with a lot outlined in red identified as 175 Bearfoot Road, Northborough, MA and

a Commercial Property Record Card for 175 Bearfoot Road, Map 28, Parcel 44, dated 5/9/2013;

- d. A document entitled "Stormwater Management Report for Iron Mountain Datacenter, Northborough, Massachusetts, May 23, 2013, prepared by Littlejohn Engineering Associates, stamped by James H. Littlejohn, Civil No. 46970, Registered Professional Engineer;
- e. Two pages of a 5-page web article entitled "How to Staff Your Next Data Center", downloaded on 3/28/12 12:26 pm;
- f. A two-page web article entitled "Data Centers: What is the employment density of a server farm or data center?", downloaded 3/28/12 11:55 am;
- g. Three pages of a web article entitled "The Datacenter Engineer's Blog", downloaded 3/28/12 12:38 pm;
- h. A set of nineteen (19) 24" x 36" plan sheets entitled "Iron Mountain Data Center, ZBA Site Plan Submittal, 175 Bearfoot Road, Northborough, Worcester County, Massachusetts", submitted May 23, 2013, Prepared for Compass Datacenters, by Littlejohn Engineering Associates, signed by James H. Littlejohn Civil No. 46970, Registered Professional Engineer, stamped by the Town Clerk's office on May 23, 2013, with sheets identified as follows: Cover Sheet; Sheet 1 of 1, Existing Site (ANR Plan); Sheet C-2.0, General Notes; C3.0, Site Demolition; C4.0, EPSC Plan; C4.1, EPSC Details; C5.0, Site Layout-Overall; C5.1, Site Layout Plan; C5.2, Site Layout Plan Reserve Parking; C6.0, Site Grading & Drainage Plan; C6.1, Site Grading & Drainage Reserve Parking; C7.0, Site Utility Plan; C8.0, Site Details; C8.1, Site Details; L1.0, Landscape Planting Plan; A-201, Architectural Elevations; A-202, Architectural Elevations; A-203, Architectural Elevations; and E1.01, Site Lighting Plan;
- A document entitled "Stormwater Management Report for Iron Mountain Datacenter, Northborough, Massachusetts, May 23, 2013, Revised June 19, 2013, prepared by Littlejohn Engineering Associates, stamped by James H. Littlejohn, Civil No. 46970, Registered Professional Engineer; and
- j. A set of two 24" x 36" plan sheets entitled "Northborough Datacenters, BOS I-A, Northborough, 171 Bearfoot Road, Northborough, MA 01532, Consultant: Littlejohn Engineering Associates; Developer: Compass Datacenters, date-stamped by the Town Clerk's office on June 20, 2013, with sheets identified as follows: Pre-Development Drainage Area Map, dated 05/23/2013, 06/05/2013, 06/14/2013 and 06/19.2013; and Post-Development Drainage Area Map, dated 05/23/2013, 06/05/2013, 06/14/2013 and 06/19.2013;
- A letter to the Zoning Board of Appeals from Fire Chief David Durgin, Subject: 175 Bearfoot Road, dated May 29, 2013;
- A letter to Richard Rand, Chairman, Zoning Board of Appeals from Fred Litchfield, Town Engineer, on behalf of the Groundwater Advisory Committee, RE: 175 Bearfoot Road, Map 28, Parcel 44, dated June 25, 2013; and
- 4. A letter to Richard Rand, Chairman, Zoning Board of Appeals from Fred Litchfield, Town Engineer, RE: 175 Bearfoot Road, Map 28, Parcel 44, dated June 26, 2013.

HEARING

Chris Curtis, Compass Datacenters, representing the property owner, Iron Mountain Information Management, Inc., presented the Application at a duly noticed public hearing of the Board on June 26, 2013, in Conference Room B of the Northborough Town Office, 63 Main Street, Northborough, MA 01532. Voting members Richard Rand, Dick Kane, Fran Bakstran, Mark Rutan and Brad Blanchette were present throughout the proceedings.

Mr. Curtis explained the Iron Mountain site at 175 Bearfoot Road is 58.33 acres in size and is located in Groundwater Protection Overlay District Area 3. The existing buildings on the site, including the main building and a truck building, total 589,726 square feet. Iron Mountain is now seeking approval to add an electronic datacenter on their site, separate from the existing buildings, and located in the front portion of the property. The proposed 56,020 square foot electronic datacenter will be comprised of 3 buildings (Compass Datacenters pods), and will be constructed in three phases. It will be staffed by a maximum of 6 full-time employees and will have very few visitors. In addition, each of the proposed 3 buildings will have its own above-ground generators with storage for 8,000 gallons of diesel fuel.

Mr. Curtis stated Iron Mountain is requesting a variance to reduce the number of spaces required for an industrial use; Special Permits to allow the use of the proposed building and to allow the storage of hazardous materials (diesel fuel) in a groundwater district; and a Special Permit with Site Plan Approval.

The Town Engineer, Fred Litchfield, noted that 5 out of the 6 fuel tanks used to run the generators proposed on the site are outside the groundwater area.

Mr. Curtis explained the project includes the demolition of existing asphalt pavement and concrete curbing; an existing sewer force main; an existing leach field; and a sanitary sewer structure on the site. In addition, an existing fire hydrant will be removed, as well as trees and boulders. The existing street sign for Bearfoot Road will be removed and relocated.

It was noted by Fred Lonardo, Inspector of Buildings/Zoning Enforcement Officer, that the portion of the property on which the proposed project is sited has been designated as 171 Bearfoot Road to distinguish it from the other buildings on the site for the benefit of Fire and Police personnel. It is still part of the 175 Bearfoot Road property and the correct address for the electronic data center is 171-175 Bearfoot Road per the Town Assessor's office.

No one present spoke in opposition to the project and the Board received no letters in opposition to the project.

The hearing was closed on June 26, 2013.

FINDINGS OF FACT

- 1. The subject site at 175 Bearfoot Road is located in the Industrial District and Groundwater Protection Overlay District Area 3. It is 58.33 acres in size and two existing buildings on the site, the main building and a truck building, total 589,726 square feet. The proposed project consists of disturbing approximately 6.63 acres of the overall 58.33-acre site.
- 2. The Applicant is proposing to add a 56,020 square-foot building, separate from the existing buildings, for the use of an electronic datacenter comprised of three buildings (Compass Datacenter Pods) to be constructed in three phases. It will include a 22,424 square-foot building (Phase 1); a 16,813 square foot building (Phase 2); and a 16,783 square-foot building (Phase 3). Each of the proposed buildings will have 2 above-ground generators with storage capacity of 4,000 gallons of diesel fuel per generator; a total of 6 generators and storage of 24,000 gallons of diesel fuel for the electronic datacenter.

- 3. In Groundwater Protection Overlay District Area 3, the use of an electronic datacenter (industrial development) on a lot of at least 60,000 square feet in size requires a Special Permit per Section 7-07-010D(3)(c)(4) Groundwater Protection Overlay District, Use Regulations, Area 3, of the Northborough Zoning Bylaw.
- 4. In Groundwater Protection Overlay District Area 3, the storage of hazardous materials (diesel fuel) requires a Special Permit per Section 7-07-010D(3)(c)(5) of the Northborough Zoning Bylaw.
- 5. In an Industrial District, the use of an electronic datacenter (data processing center) requires a minimum of 1 parking space per 500 square feet of gross floor area, and in this case, the proposed electronic data center would require a minimum of 112 parking spaces for its 56,020 square feet of gross floor area.
- 6. The Applicant proposes a maximum of 12 parking spaces (11 standard spaces and 1 handicapped-accessible space), along with 78 spaces that will held in reserve. Therefore, a Variance to allow a decrease in the required number of parking spaces for the use of a 56,020 square-foot electronic datacenter from 112 spaces to 12 spaces is require from Section 7-09-030B(2)(c)(4), Off-street parking design standard for industrial use, of the Northborough Zoning Bylaw.
- 7. Three web articles submitted with the application indicate a limited amount of staff is typically required for an electronic datacenter. Those web articles are identified as follows: "Two pages of a 5-page web article entitled "How to Staff Your Next Data Center", downloaded on 3/28/12 12:26 pm"; "A two-page web article entitled "Data Centers: What is the employment density of a server farm or data center?, downloaded 3/28/12 11:55 am; and "Three pages of a web article entitled "The Datacenter Engineer's Blog", downloaded 3/28/12 12:38 pm.
- 8. The proposed electronic datacenter will be staffed with 2-3 full-time employees: 1 Engineer, 1 Security Guard and possibly 1 Assistant Engineer. The office component is oversized in order to service a total of 3 data floors. In addition, an electronic datacenter typically has very few visitors. Therefore, any parking spaces constructed to serve more than the small amount of staff and visitors expected on the electronic datacenter site is unnecessary.
- 9. The proposed project is subject to Site Plan Approval, Section 7-03-050A(1)&(2) Site Plans, Applicability, of the Northborough Zoning Bylaw because Special Permits are required for the project per Section 7-07-010, Groundwater Overlay District. Section 7-03-050A(2) Site Plans, states: "Land clearing and grading activities for a use requiring a special permit shall be incorporated within the Special Permit with Site Plan Approval." Therefore, earthwork will be reviewed and permitted by the Zoning Board of Appeals within their Site Plan Approval.
- 10. The site is serviced by Town water and a septic system.
- 11. The applicant proposes to connect a 10" water line to an existing 8" fire service line to bring water to additional hydrants on the subject site.
- 12. The Stormwater Management plan for the site has been developed to satisfy the requirements of the Massachusetts Department of Environmental Protection (DEP) Stormwater Management Standards. The site currently drains from north to south across the site and all stormwater discharges into Barefoot Brook to the south and east of the site. The site will utilize two infiltration basins that have been oversized to provide stormwater detention for the 2-year and 100 year storms. The post-development site is divided into two sub-basins Basin 1, which drains the eastern side of the proposed development, and Basin 2, which drains the western side of the proposed development.
- 13. The project has been designed so that the post-development peak discharge rates do not exceed the pre-development peak discharge rates for the 2-year and 100-year 24-hour storms, and therefore it meets the requirements of Section 7-07-010D(3)(c)(4) Groundwater Protection Overlay District, Use Regulations, Area 3, of the Northborough Zoning Bylaw.

- 14. Each of the 3 buildings of the proposed electronic datacenter will have 2 above-ground generators on pads. Each generator will have self-contained, double-walled diesel fuel storage tanks and leak detection alarms. Each fuel storage tank will store 4,000 gallons of diesel fuel, for a total of 24,000 gallons for the electronic datacenter. The use of the generators as proposed, with self-contained, double-walled diesel fuel storage and leak detection alarms, meets the requirements of Section 7-07-010D(3)(c)(5) Groundwater Protection Overlay District, Use Regulations, Area 3, of the Northborough Zoning Bylaw.
- 15. In a letter to Richard Rand, Chairman, Zoning Board of Appeals, from Fred Litchfield, Town Engineer, on behalf of the Groundwater Advisory Committee, RE: 175 Bearfoot Road, Map 28, Parcel 44, dated June 25, 2013, Mr. Litchfield stated the Groundwater Advisory Committee reviewed the application, original plans and revised plans for this project, recommended approval and included their comments for the Zoning Board of Appeals.
- 16. All items included in a letter to Richard Rand, Chairman, Zoning Board of Appeals from Fred Litchfield, Town Engineer, RE: 175 Bearfoot Road, Map 28, Parcel 44, dated June 26, 2013, have been, or will be, addressed.
- 17. All the items included in a letter to the Zoning Board of Appeals from Fire Chief David Durgin, Subject: 175 Bearfoot Road, dated May 29, 2013 have, or will be, addressed by the Applicant.
- 18. The Variance from Section 7-09-030B(2)(c)(4) of the Northborough Zoning Bylaw is being requested based on the unique building type and anticipated parking needs for this type of construction. The proposed construction will employ 8-10 full-time employees at maximum capacity and very few visitors are expected on the site. Therefore, any parking constructed which serves more than this amount is unnecessary and contributes to an increase in impervious cover on the site that is also unnecessary.
- 19. The subject site at 171-175 Bearfoot Road is an appropriate location for the use of an electronic datacenter with 6 above-ground generators with self-contained, double-walled diesel fuel storage tanks. It will not adversely affect any neighborhoods in the area and will cause no nuisance or serious hazards to vehicles or pedestrians.
- 20. Adequate and appropriate facilities will be provided for the proper operation of an electronic datacenter with 6 above-ground generators with self-contained, double-walled diesel fuel storage tanks at 171-175 Bearfoot Road.
- 21. The electronic datacenter with 6 above-ground generators with self-contained, double-walled diesel fuel storage tanks, will not, during construction or thereafter, impair ambient groundwater quality or reduce existing recharge capacity beyond that allowed in Section 7-07-010 of the Northborough Zoning Bylaw; and will not adversely affect the quality or yield of an existing or potential water supply.
- 22. The use of an electronic datacenter with 6 above-ground generators with self-contained, doublewalled diesel fuel storage tanks, meets the purpose and intent of, and will not derogate from the purpose of, the Groundwater Protection Overlay District.
- 23. The proposed electronic datacenter with 6 above-ground generators with self-contained, doublewalled diesel fuel storage tanks, will have no impact on the natural environment, historic development patterns of the town, or historically significant buildings.
- 24. The proposed electronic datacenter with 6 above-ground generators with self-contained, doublewalled diesel fuel storage tanks, will conform to any special requirements of the special permit granting authority as stated in its written decision.

DECISION

- On June 26, 2013, after due consideration of the Application, the Board voted unanimously to 1. GRANT a VARIANCE from Section 7-09-030B(2)(c)[4] Off-street parking design standards for industrial uses, to reduce the required 112 parking spaces for the proposed 56,020 square-foot addition of an electronic data center facility to 11 standard spaces and 1 handicapped-accessible space (with 78 spaces in reserve), on the property located at 171-175 Bearfoot Road, due to the small number of employees and anticipated visitors who will require parking spaces on the site and per the plans submitted and identified as: "A set of nineteen (19) 24" x 36" plan sheets entitled "Iron Mountain Data Center, ZBA Site Plan Submittal, 175 Bearfoot Road, Northborough, Worcester County, Massachusetts", submitted May 23, 2013, Prepared for Compass Datacenters, by Littlejohn Engineering Associates, signed by James H. Littlejohn Civil No. 46970, Registered Professional Engineer, stamped by the Town Clerk's office on May 23, 2013, with sheets identified as follows: Cover Sheet; Sheet 1 of 1, Existing Site (ANR Plan); Sheet C-2.0, General Notes; C3.0, Site Demolition; C4.0, EPSC Plan; C4.1, EPSC Details; C5.0, Site Layout-Overall; C5.1, Site Layout Plan; C5.2, Site Layout Plan - Reserve Parking; C6.0, Site Grading & Drainage Plan; C6.1, Site Grading & Drainage - Reserve Parking; C7.0, Site Utility Plan; C8.0, Site Details; C8.1, Site Details; L1.0, Landscape Planting Plan; A-201, Architectural Elevations; A-202, Architectural Elevations; A-203, Architectural Elevations; and E1.01, Site Lighting Plan.
- 2. On June 26, 2013, after due consideration of the Application, the Board voted unanimously to GRANT a SPECIAL PERMIT per Section 7-07-010D(3)(c)(4) Groundwater Protection Overlay District, Use Regulations, to allow the use of an electronic datacenter in an Industrial District on the property located in Groundwater Protection Overlay District Area 3, at 171-175 Bearfoot Road, per the plans submitted and identified as: "A set of two 24" x 36" plan sheets entitled "Northborough Datacenters, BOS I-A, Northborough, 171 Bearfoot Road, Northborough, MA 01532, Consultant: Littlejohn Engineering Associates; Developer: Compass Datacenters, date-stamped by the Town Clerk's office on June 20, 2013, with sheets identified as follows: Pre-Development Drainage Area Map, dated 05/23/2013, 06/05/2013, 06/14/2013 and 06/19.2013; and Post-Development Drainage Area Map, dated 05/23/2013, 06/05/2013, 06/05/2013, 06/14/2013 and 06/19.2013".
- 3. On June 26, 2013, after due consideration of the Application, the Board voted unanimously to GRANT a SPECIAL PERMIT per Section 7-07-010D(3)(c)(5) Groundwater Protection Overlay District, Use Regulations, to allow the use of above-ground generators with self-contained, double-walled diesel fuel storage tanks and leak detection alarms, on the property located at 171-175 Bearfoot Road, in Groundwater Protection Overlay District Area 3, with the following conditions:
 - a. No more than a total of 25,000 gallons of diesel fuel shall be stored at the electronic datacenter site.
- 5. On June 26, 2013, after due consideration of the Application, the Board voted unanimously to GRANT a SPECIAL PERMIT with SITE PLAN APPROVAL per Section 7-03-050A(2) Applicability; and 7-09-020 Site Design Standards, for the proposed electronic datacenter on the property located at 171-175 Bearfoot Road, with the following conditions:

Performance Standards Condition:

a. An ambient sound study shall be required to determine pre-construction and post-construction sound levels at the site of the proposed electronic datacenter at 171-175 Bearfoot Road, per Section 7-05-040C of the Northborough Zoning Bylaw.

Earthwork Permit Conditions:

a. This Permit is for the removal of up to 1000 cubic yards of borrow material.

- b. Erosion Control measures shall be installed to prevent the movement of material to resource areas or from leaving the site.
- c. Earth moving operations shall occur between the hours of 7 AM and 5 PM weekdays and between 7 AM and 12 Noon on Saturdays. No earth moving operation shall be conducted on Sundays or Holidays unless permitted by this Board.
- d. Heavy vehicle traffic shall maintain reasonable noise levels and speeds.
- Any spillage on public roads shall be cleaned up at the end of each day's activity.
- f. Dust nuisance shall be kept to a minimum during operations.
- g. No cuts greater than 6 feet shall be left at the end of each day.
- h. No dangerous conditions such as potential slides of unsupported buildings and banking shall be allowed.
- i. No stumps or other debris shall be buried on the site.
- j. The project shall be brought to final grade as shown on the plans as approved by this board and all disturbed areas shall be restored prior to the end of the construction season.
- k. A minimum of 4 inches of compacted loam shall be placed on all disturbed areas.
- I. All excess loam shall be kept within the Town of Northborough.
- m. The infiltration basins shall be installed as soon as the site is cleared and grubbed and all site run off shall be directed toward one or the other of each basin. These basins shall act as sedimentation basins during construction and until the site is stabilized.
- n. All existing loam and topsoil shall be stockpiled and kept on site until the project is completed.
- o. A maximum of 6.63 acres may be disturbed.
- p. Tire scrubbers shall be installed and maintained to the satisfaction of the Town Engineer.
- q. A bond in the amount of \$45,000 shall be posted prior to the start of any work, to insure the complete stabilization of all disturbed area if the project is not completed in accordance with the approved plan.
- r. Any change to the natural drainage shall be designed to meet the requirements of the DEP Stormwater Management Policy, the Town Engineer and all local regulations. No drainage shall enter onto a town road without the approval of the Department of Public Works.

Town Engineer's & Public Works Director's Conditions:

a. The revised drainage calculations dated June 19, 2013 meet the requirements of section 7-07-0 10 D (3) (c) [4] of the Zoning Bylaw. However the emergency spillway elevation shall be set at, or slightly above, the 100-year flood elevation for each basin and is not as currently shown on the revised plans.

b. The proposed hydrants and gate valves shall be open right style and a model as specified by the Northborough Department of Public Works

Groundwater Advisory Committee Conditions:

- a. The Operation and Maintenance Plan included with the application shall include an annual report to the Town Engineer along with a record of all maintenance and inspection performed on the drainage system each year. The Town shall be given the opportunity to be present during the inspections and any required maintenance if desired. This annual report shall cover the entire drainage system at this address.
- b. The proposed impervious cover is changing and shall be verified within the standard form generally used by the Building Department and shall be placed on file with the Building Inspector prior to issuance of a building permit.
- c. At least one permeability test shall be performed within the each area of proposed infiltration in order to verify the assumed rates of infiltration, prior to the issuance of a building permit.
- d. An as-built site plan shall be submitted to the Town Engineer for approval prior to the issuance of the certificate of occupancy for the first phase of building. The as-built plan will then be updated prior to the issuance of the certificate of occupancy for each phase after the first. The as-built plan shall include, at a minimum, and as applicable to the project, a permanent benchmark, elevation of all pipe inverts and outlets, pipe sizes, materials, slopes; all other drainage structures; limits of clearing, grading and fill; all structures, pavement; contours; and all dates of fieldwork. Upon approval by the Town Engineer one (1) mylar and three (3) paper copies of the as-built plan shall be submitted in addition to an electronic copy compatible with the Town's GIS system and the Town's vertical datum (U.S.G.S. Datum of 1988). The as-built plan shall cover the entire site at this address.
- e. Upon completion of all the above conditions, the Zoning Board of Appeals shall forward a letter to the treasurer and bonding agency (as appropriate) indicating all monies and interest posted to complete this project shall be returned to the applicant.
- 4. Appeals, if any, from this decision shall be made pursuant to Massachusetts General Laws, Ch. 40A, Sec. 17 and shall be filed within twenty (20) days after the date of filing of this decision in the office of the Town Clerk.
- 5. The VARIANCE and SPECIAL PERMITS shall not take effect until a copy of the decision bearing the certificate of the Town Clerk is recorded with the Worcester District Registry of Deeds in accordance with the provisions of Massachusetts General Laws, Ch. 40A, Sec. 11 and 15 stating that "twenty (20) days have elapsed after the decision has been filed in the office of the Town Clerk and no appeal has been filed, or if such appeal has been filed it has been dismissed or denied."
- 6. If the rights authorized by the **VARIANCE** are not exercised within one year from the time of granting, it shall lapse in accordance with the provisions of Massachusetts General Laws, Ch. 40A, Sec. 10.
- 7. If the rights authorized by the **SPECIAL PERMIT** are not exercised within two years from the time of granting, it shall lapse in accordance with the provisions of Massachusetts General Laws, Ch. 40A, Sec. 10.

TOWN OF NORTHBOROUGH, MASSACHUSETTS ZONING BOARD OF APPEALS

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FRAN BAKSTRAN, CHAIRMAN

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