

BEDMINSTER TOWNSHIP BOARD OF HEALTH CHECKLIST #2
Application for Subdivision and/or Construction or Alteration of Individual Sewage Disposal System

General Notes:

1. All work to be done in accordance with current Bedminster Health Code, Chapter BH:VI, entitled "The Individual Sewage Disposal System of Bedminster Township". _____
2. A properly executed application shall be submitted of a form supplied by the administrative authority and accompanied by eleven (11) copies of the design drawings and data. All data, including fees, must be received by the Township Board of Health Secretary at least 15 days prior to the Board Meeting. _____
3. Plot plan in scale not less than one inch (1") equals fifty feet (50') signed and sealed by a Licensed Land Surveyor and Professional Engineer as necessary. _____
4. The location and dimensions of the property to be served, the tax lot and block number and the size and location of all existing or proposed structures. _____
5. Location of all paved areas and any other outstanding physical features. _____
6. The location of the proposed primary disposal system. _____
7. The location of the reserve disposal area. _____
8. The location of all potable water supplies, residences, subsurface drains, basement sumps and existing disposal systems within the calculated separation distance or two hundred feet (200'), whichever is greater, of the disposal areas, both primary and reserve disposal areas. _____
9. The location of all watercourses, state approved wetlands and transition areas on the property or within two hundred feet (200') of the proposed systems, including the flood plain boundaries. _____
10. Ground contours at two foot (2') intervals within two hundred feet (200') of the proposed soil disturbance to adequately show the direction of slope. _____
11. The proposed ground elevations at the disposal areas and the proposed building; the proposed elevation of the finished floors and the proposed elevations of the footing drains. A bench mark shall be provided. _____
12. A detailed dimensioned cross section of the disposal area, including encountered soil strata, ground water bearing formations and curtain and/ or subsurface drains. _____
13. The dimensions of the primary and reserve disposal areas. The perimeter of the reserve disposal area shall be shown in heavy dashed lines and referenced to property line. _____
14. The disposal system referenced to the lot lines. _____
15. The total number of bedrooms, including the expansion attic for each building or the estimated sewage flow for buildings other than residence. _____

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16. The location and design of the proposed well referenced to the proposed building and existing wells within the calculated separation distance or two hundred feet (200') whichever is greater. _____

17. Certified percolation and permeability test and soil log data shall be submitted with the application and design as required in Section BH:6-7. Piezometer test data and evaluations shall be certified by a licensed professional engineer. _____

18. Applicable portion of the USGS quad sheet at a scale not smaller than 1" 2000'. The subject property should be outlined on the map. _____

19. Locations of all percolation and permeability tests, ground water elevations and soil logs. The results and location of all tests shall be sub-mitted to the administrative authority for their review and approval. See Section BH:6-7. _____

20. All buried utilities are to be shown on the plans. Disposal system installer to locate buried utilities on site prior to construction. _____

21. The proposed disposal areas meet all setback requirements specified in the Bedminster and State Health Code. _____

22. Any and all easements are shown on the plans. _____

23. Locations of all surface water bodies, springs, or areas of groundwater seepage. _____

24. Locations of existing and proposed surface water diversions. _____

25. Location of all outcrops of bedrock. _____

26. Maximum expected daily volume of sanitary sewage and method of calculation. _____

27. All data and calculations used in the design of the sewage system. _____

Sewer Lines, Distribution Lines, Forcemains

1. Minimum slope of sewer lines shall be 1/4" per foot. _____

2. Disposal Piping: _____

a. Slope of pipe in disposal systems shall be 0-2"/100 feet _____

b. Loop or cap ends of distribution lines _____

c. Pressure dose network shall be constructed of PVC pipe (ASTMD-2662) Schedule 40, SDR-21 or SDR-26, or ABS plastic pipe (ASTM 2661) _____

d. All holes drilled into pressure dose network shall be deburred _____

e. Holes in adjacent laterals shall be offset by 1/2 of hole spacing _____

f. All joints shall be watertight. Solvent welded joints to be used. _____

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4. Forcemain to be PVC pipe. Piping and joints to be capable of 100 p.s.i. minimum pressure rating.

5. Forcemain is to be backfilled with impervious soil from edge of bed to limit of fill area.

6. Forcemain shall be installed a minimum of 48” below grade.

7. Perforated PVC inspection ports with threaded caps to be set in the ends of the disposal bed or trenches.

Septic Tank Notes

1. Certification for frost resistance (ACI 318-16-4.5.1) shall be provided by the manufacturer and the certification displayed on the tank.

2. All inside concrete surfaces shall be sealed with two coatings of an appropriate inert coating of minimize corrosion (coal tar pitch). Coating of pre-cast tank shall be applied by the manufacturer prior to delivery to the job site. Distribution boxes and pump pits must also be coated.

3. Septic tanks and pump pit shall be placed upon a firm and stable foundation so that the potential for uneven settlement or shifting is minimized. Tanks to be installed directly on undisturbed natural soil. If the excavation is dug too deep, it shall be backfilled to the proper elevation with compacted sand. Compacted sand to be observed by design engineer prior to installation of tank.

4. Tank invert connections to be sealed with an expanding grout or a manufactured water proof pipe coupling which is incorporated into the wall of the tank.

5. A septic solids retainer or a six (6) inch septic effluent filter shall be installed and maintained in conjunction with all new septic tanks prior to the effluent distribution network and in accordance with all manufacturer’s specifications. Septic solids retainers and septic effluent filters shall be certified by, and bear the mark of, NSF International (NSF) under NSF Standard 46.

6. All manholes shall be extended flush with finished grade by means of a riser fitted with a removable water-tight cover. Covers shall be bolted or locked to prevent access by children. Covers shall be of cast iron when a concrete riser is used.

7. An inspection port extending to finished grade shall be provided over each tank or compartment inlet or outlet which is not directly below a manhole except for those outlets where a septic solid retainer is used. Inspection ports shall extend to finished grade and shall be constructed of 4” cast iron or PVC pipe with a locked or bolted cap.

8. A permanent, non-corrosive marker a minimum of six square inches in size

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containing the following information shall be attached to the manhole cover or riser immediately below the cover:

- i. The administrative authority name and permit number under which the system was installed;
- ii. The date of installation;
- iii. The type of system; and
- iv. The total design criteria in gallons per day. _____

9. All tanks, including risers and inspection ports to the highest joint, shall be tested for watertightness after installation using hydrostatic or vacuum tests in accordance with N.J.A.C. 7:9A-8.2(m). _____

10. Where the seasonal groundwater table is less than four feet below grade in the area of the septic tank, flotation calculations shall be provided. Concrete anchors shall be provided if necessary. _____

Pump & Pump Pit Notes

1. Contractor must contact Department of Health prior to electrical wiring and installation of components. _____

2. All openings in pump pit and septic tank to be sealed with Embeco 636 Grout or equivalent and covered on outside with tar. _____

3. A gas tight seal shall be provided where the electrical conduit enters the pump pit. _____

4. Provide level controls at heights indicated for pump pit.
Make _____ Model _____ _____

5. Provide high water alarm (bell & light) inside building with automatic reset silencing switch on separate dedicated circuit. _____

6. Pump Pit to contain single phase pump or pumps with electric alternator
Make _____ Model _____ Single Pump _____ Phases _____ Voltage _____ Dual Pump _____,
Electric Alternator _____ Horsepower _____ Discharge Size _____ _____

7. Pumps to be capable of _____ g.p.m. at _____ t.d.h. _____

8. All electrical service lines from the home to the pump pit shall be under-ground and protected by electrical conduit. _____

9. Electrical connections for pump to be made outside of the pump pit in NEMA 3 enclosure mounted on adjacent post. _____

10. Provide pump pit and alarm with separate circuit from building under-ground; all electric work to be done in accordance with the N.E.C. _____

11. Inside of pump pit to be sealed with two coatings of an appropriate coatings of an appropriate inert coating (see septic tank notes) _____

12. Provide cast iron sanitary manhole cover for pump pit. _____

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13. Where the seasonal groundwater table is less than four feet below grade in the area of pump pit, flotation calculations shall be provided. Concrete anchors shall be provided if necessary.

Suitable Fill Notes

1. Fill material utilized within the zone of treatment shall meet the following requirements:

- i. Coarse fragment content (greater than a No. 8 sieve) less than 15 percent by volume or less than 20 percent by weight;
- ii. Textural analysis (composition, by weight, of size fraction passing the particular sieve as stated below in this subparagraph) between 80 and 100 percent must pass a No. 8 sieve (2.36 mm); between 50 and 85 percent must pass a No. 16 sieve (1.18 mm); between 25 and 60 percent must pass a No. 30 sieve (0.6 mm); between 10 and 30 percent must pass a No. 50 sieve (0.3 mm); and between two and 10 percent must pass a No. 100 sieve (0.15 mm); and
- iii. Permeability for this material is established in this chapter at the range of six to 20 inches per hour for design purposes.

2. Fill material placed within the zone of disposal, the fill material shall meet the specifications in N.J.A.C. 7:9A-10.1(f)4 or the following requirements:

- i. Coarse fragment content less than 15 percent by volume or less than 25 percent by weight;
- ii. Textural analysis (composition, by weight, of size fraction passing the two millimeter sieve): 85 percent or more sand; and
- iii. Permeability greater than two inches per hour; or percolation rate faster than 30 minutes per inch.

3. Install Suitable fill in 8” – 12” lifts and compact lightly with roller or tracked vehicle.

4. The permittee is required by the Bedminster Township Board of Health to have the suitable fill material sampled and tested by a soils engineer and be in compliance with New Jersey Department of Environmental Protection Specifications. A sample shall be obtained by sampling an on-site stockpile or by Sampling an on-site stockpile or by sampling material in the disposal bed with a minimum of 2’ of fill installed. A composite mechanical analysis, including sieve and hydrometer testing, will be required of each sample. A copy of the laboratory test report shall be furnished to the Department of Health, prior to the installation of gravel.

General Construction Detail Notes

1. Location of all disposal components to be staked by design engineer prior to construction.

2. Grade area to divert surface water away from disposal area.

3. Any smeared or compacted soil surface which have been produced on the bottom or sidewalls of the excavation shall be removed to expose a fresh soil surface which is rough and uneven.

4. Filter material shall be washed gravel or crushed stone, free of fines, dust, ashes or

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clay. Refer to the New Jersey Department of Transportation standard sizes for coarse aggregates as shown in Figure 26 of Appendix A of N.J.A.C. 7:9A. The filter material shall conform in size and gradation to size number 24, size number three or size number four.

5. Filter material shall be covered with filter fabric (Mirafi #140 or Equivalent) or 4” thick salt hay. Edges of adjacent sheets of filter fabric shall overlap 6 inches.

6. Backfill shall be of earth similar to that found at the site and shall be free of large stones, broken masonry, stumps and other waste materials. Berm material to be clay rich.

7. Distribution box access openings which will be more than 18” below finished grade shall have those access openings extended, so these openings are between 12” and 18” of the finished ground surface.

8. No heavy machinery (rubber tire) allowed on bed or trenches during or after construction.

Inspection Schedule/As-Built Notes

1. In order to prepare an as-built drawing in compliance with local requirements, the design engineer and health department must observe the following phases of construction:

- Curtain drain installation _____
- Open excavations _____
- Permeability or percolation tests are to be conducted in Suitable fill material in 2’ lifts _____
- Suitable fill before placement of stone _____
- Septic tank, distribution box and piping prior to backfilling _____
- Water tightness testing of all tanks after installation and prior to backfilling _____
- Operation of pumps and alarm system _____
- Water testing of pressure distribution network prior to backfill _____
- Air testing of pressure dose supply line _____
- Final grading _____

2. The contractor shall provide 48 hours notice to the engineer and health department for each phase of work.

3. Upon completion of construction, the applicant shall provide the Board of Health with an As-Built Survey referencing all disposal components.

4. A license to operate the septic system must be obtained from the Health Department prior to obtaining a Certificate of Compliance.

N/A