

✓ 9-11-06

VARIANCE REQUEST

14.2.3

Iowa Department of Natural Resources

1. Date : 4/18/94. 13. Decision: *Approved*
2. Review Engineer : *Fred Evans* Date: *4/25/94*
3. Date Received : 4/4/94
4. Facility Name : *Beachland Inn MHP* 14. Appeal:
5. County Number : 28 Date:
6. Program Area : *CP*
7. Facility Type : *C05*
8. Subject Area : 308
9. Rule Reference : *64.2(9) for variance & 64.2(3) a. for separation*
10. Design Std. Ref. : *14.2.3*
11. Consulting Engr. : *I IW Engineers*
12. Variance Rule : *64.2(9) C*

15. Description of Variance Request

The existing soil absorption system serving the Beachland Inn MHP has failed and the DNR field office at Manchester has notified the owner that the system must be repaired or replaced. Also during the interim period until the system upgrade is completed, it is required that any excess septage that cannot be absorbed by the existing system must be hauled away for proper disposal. I IW Engineers have been retained by the park owner and the engineers have concluded that the best solution is to construct a new absorption field approximately 100 ft. north and a little west of the existing field. In a site survey conducted by the field office it was noted that there are a number of homes located within 1000 feet of the new site where 90% of the separation distances from the existing absorption field cannot be maintained. In accordance with the department rules and design standards the owners of these homes were contacted and written agreements were obtained from all landowners except one; therefore, a variance from the site separation requirements has been requested for the properties owned by this landowner.

16. Consulting Engineer's Justification

We wish to request a variance from the provision that each landowner within 1,000 feet of the planned subsurface drain field sign a waiver that would permit location of the subsurface drain field closer than 1,000 feet. Waivers were obtained from all landowners affected with the exception of Mr. Carl Willard Hawker and his wife, Marcia J. Their objection was not related to environmental concerns; but rather, to a desire not to have the waiver appear on the abstract for the property. We wish to formally request a variance that will permit construction of the subsurface drain field in the location as proposed and as submitted to your office for permit.

16. Consulting Engineer's Justification (cont.)

17. Department's Justification

It is recommended that a variance

be granted for the following reasons:

1. Waivers have been obtained from 21 landowners of homes located within the ^{site separation} area as defined by our department rules and design standards. The only landowner who would not sign a written agreement has done so because of a desire to not have the waiver appear on the abstract for the property rather than for any environmental concerns.
2. Only the replacement absorption field will be located at the proposed site, since the existing septic tanks and proposed pumping station will be located at the present site.
3. The Beachland Inn MHP property is surrounded by existing homes on the north, west and south sides and Highway #13 is located on the east side. The site selected is the only suitable area available for location of the new absorption field.
4. The separation distance between the existing public well which serves the MHP and the existing absorption field is 235 ft and the separation distance between the public well and the proposed absorption field is 218 ft. The calculated percent of reduction shows that 92.8% of the existing separation will be maintained which exceeds the 90% required by our rules and design standards. (see attached sheet for continuation)

18. Precedents Used

Site separation variances previously approved for the cities of Atlanta, Bronson, Chillicothe, Eldysville, Fort Dodge, Ogden, Ossian, Washington, and West Chester. Variances also approved for the Meadow Lawn Nursing Center, Northridge Mall, Riverview Estates and Troy Mills S.D.

19. Staff Reviewer

: Fred Evans

Date: 4/21/94

20. Supervisor

: [Signature]

Date: 4/21/94

17. Department's Justification (Continued)

5. The wastewater treatment facilities are designed to serve a total of 18 mobile homes and a design flow of 2700 gpd. This design value is based upon 2 bedrooms/mobile home and 75 g/d/bedroom. Design values commonly used for mobile home parks in Iowa are based upon an occupancy of 2.5 persons/unit and a flow value of 50 gpd. Using these values I calculate the following total flow.

$$Q = 18 \times 2.5 \times 50 = \underline{\underline{2250}} \text{ gpd}$$



4155 Pennsylvania Ave. • Dubuque, IA 52002 • (319) 556-2464 • Fax (319) 556-7811

Carl B. Schoenhard, L.S.
Dennis F. Waugh, P.E., S.E.
Charles A. Cate, P.E.
Gary D. Sejkora, P.E.
Warner R. Wright, P.E., L.S.
Ross K. Abbott, L.S.I.T.
Michael A. Jansen, P.E.
Ronald A. Balmer, P.E., AIA
John M. Tranmer, L.S.

March 31, 1994

Mr. Wayne Farrand
Iowa Department of Natural Resources
Wallace State Office Building
Des Moines, IA 50319

Re: Beachland Inn Mobile Home Park, Manchester, IA
IIW Project No. 939107

Dear Mr. Farrand,

This letter is sent to you on behalf of Jim Dory, owner of the Beachland Inn Mobile Home Park in Manchester, Iowa. The content of the letter addresses the points discussed by Charles Cate of IIW Engineers and Surveyors, P.C. and Fred Evans from your office.

1. We wish to request a variance from the provision that each landowner within 1,000 feet of the planned subsurface drain field sign a waiver that would permit location of the subsurface drain field closer than 1,000 feet. Waivers were obtained from all landowners affected with the exception of Mr. Carl Willard Hawker and his wife, Marcia J. Their objection was not related to environmental concerns; but rather, to a desire not to have the waiver appear on the abstract for the property. We wish to formally request a variance that will permit construction of the subsurface drain field in the location as proposed and as submitted to your office for permit.

The parcels of property owned by the Hawker's are described on the enclosed warranty deeds. The locations are indicated on a copy of the accompanying area aerial map.

2. Pump cycle time: the gravelless pipe proposed has a pipe volume of 2,480 gallons for a 10 inch I.D. and a length of 609 lineal feet. If we furnish a pump station of 4 foot diameter manhole sidewall and provide a three foot draw-down per cycle the amount of liquid pumped each cycle is 292 gallons. For the design flow of 2,700 gallons per day the pump would operate approximately 10 times per day.

The amount of wastewater pumped per cycle can be significantly increased if a new 1,500 gallon septic tank is adapted for use as a wet well. The three foot draw-down volume increases to 1,160 gallons. A pump would operate at 2.4 cycles per day. We recommend the installation of this size wet well for the pump. A selected pump and curve has previously been submitted showing the capacity to be approximately 40 gpm.

The pump should be installed without shut off or check valve in the discharge piping. This will eliminate the need for a valve vault or any fittings in the wet well other than a quick disconnect.

3. Accompanying this letter is a suggested distribution box as manufactured by one of the gravelless pipe manufacturers. This is the type of distribution box to be used for this installation.

4. A revised specification has been completed and is submitted for approval.

Sincerely,

IIW ENGINEERS AND SURVEYORS, P.C.



Charles A. Cate, P.E.

cc w/encl: /

Jim Dory