

TO: IMPLEMENTATION & STANDARDS COMMITTEE

FROM: PRESTON P. PATE, JR.

SUBJECT: CONTINUED DISCUSSION OF THE "DAWSON AMENDMENT REQUEST"
TO CHANGE THE DEFINITION OF LARGE STRUCTURE

DATE: MARCH 18, 1992

The Committee will continue its consideration of a request from Mr. Dave Dawson of Buxton to change the current definition of a large structure by removing any reference in that definition to the number of units a structure may have. The Committee first discussed Mr. Dawson's request at its September meeting. Included in that discussion was an alternative rule change recommended by staff. The staff recommended change was adopted for a public hearing which was held at the Commission's December meeting. Comments from the hearing and merits of both the staff and Mr. Dawson's proposal were considered at the last meeting.

Following is the rule change proposal that was taken to public hearing.

7H.0306(a)(4) - Because large structures located immediately along the Atlantic Ocean present increased risk of loss of life and property, increased potential for eventual loss or damage to the public beach area and other important natural features along the oceanfront, increased potential for higher public costs for federal flood insurance, erosion control, storm protection, disaster relief and provision of public services such as water and sewer, and increased difficulty and expense of relocation in the event of future shoreline loss, a greater oceanfront setback is required for these structures than is the case with smaller structures. Therefore, in addition to meeting the criteria in this Rule for setback behind the primary and/or frontal dune, for all/multi-family residential/structures/(including/hotels/hotels/condominiums/and/motelininiums)/of/more/than/1/unit/0r/5,000/square/feet/total/floor/area,/and/for/any nonresidential/structure/with/a/total/area any structure of more than 5,000 square feet, the erosion setback line shall be twice the erosion setback described in .0306(a)(1) of this Rule, provided that in no case shall this distance be less than 120 feet. In areas where the rate is more than 3.5 feet per year, this setback line shall be set at a distance of 30 times the long-term annual erosion rate plus 105 feet.

Following is the rule change recommended by Mr. Dawson:

7H.0306(a)(4) - Because large structures located immediately along the Atlantic Ocean present increased risk of loss of life and property, increased potential for eventual loss or damage to the public beach area and other important natural features along the oceanfront, increased potential for higher public costs for federal flood insurance, erosion control, storm protection, disaster relief and provision of public services such as water and sewer, and increased difficulty and expense of relocation in the event of future shoreline loss, a greater oceanfront setback is required for these structures than is the case with smaller structures. Therefore, in addition to meeting the criteria in this Rule for setback behind the primary and/or frontal dune, for all multi-family residential structures (including motels, hotels, condominiums and moteliminiums) ~~of more than 4 units or~~ of more than 5,000 square feet total floor area, and for any non-residential structure with a total area of more than 5,000 sq. ft., the erosion setback line shall be twice the erosion setback described in .0306(a)(1) of this Rule, provided that in no case shall this distance be less than 120 feet. In areas where the rate is more than 3.5 feet per year, this setback line shall be set at a distance of 30 times the long-term annual erosion rate plus 105 feet.

Previous staff reports have identified the major changes each alternative would have on future permit decisions for locating structures in the Ocean Hazard AEC. In summary, Mr. Dawson's proposal would allow structures smaller than 5,000 sq. ft. to meet the small structure setback regardless of the number of units. Residential structures with more than 5,000 sq. ft. of total floor area and 4 units or less would still be required to meet the small structure setback. The change recommended by staff would satisfy Mr. Dawson's needs, eliminate any distinction between categories based on proposed use, and rely solely on the total floor area measurement to determine if a proposed structure should meet the small or large structure setback.

Six (6) people spoke at the public hearing on the proposed rule change. Four (4) spoke in favor of the rule, including a representative from the Town of Kill Devil Hills speaking on behalf of the Town Board of Commissioners. Two (2) opposed the rule change, including the Currituck County Planning Director speaking on behalf of the Currituck County Board of Commissioners.

The discussion at the last Committee meeting included a motion to adopt the rule changes recommended by staff and a substitute motion to adopt the rule change proposed by Mr. Dawson. The

Committee took no action on the proposed changes and directed the staff to collect more information on the following three (3) points: 1) What factors affect the moveability of a structure; 2) Local government height ordinances; and, 3) The maximum building footprint that can be placed on existing lots.

There has been a great deal of information collected to help answer these questions. As one might expect, there is considerable variability to the answers to questions posed to housemovers, the factors affecting structure moveability and the factors affecting the size of structure that can be built on a lot. I will attempt for the sake of brevity, to summarize these findings, make general statements based on them and provide more specific information, if necessary, to continue or complete the Committee's discussion.

DCM staff interviewed housemovers in the coastal area and surveyed local government records and ordinances to obtain the information requested by the Committee. Spencer Rogers of the UNC Sea Grant Program also interviewed housemovers and has provided me with an excellent analysis of his findings. Spencer has also summarized, based on his involvement in and recollection of previous CRC deliberations on this subject, the major reasons for the building setback requirements. For the sake of simplicity and giving Spencer credit for the effort he has made to gather information on this subject, I refer you to the attached memo from him. His findings on the factors affecting the moveability of a structure are consistent with those of DCM staff.

FACTORS AFFECTING MOVEABILITY

Housemovers were asked to identify the most important factors affecting their ability to move a structure and to qualify what they consider to be an "easily" or "readily" moveable structure. They uniformly responded that width, height and obstacles, such as utility lines, are the most important limiting factors. Length, weight and distance of move are not as important.

Width - The DOT regulates moving structures along highways. District offices can approve moving one less than 36' wide. Permits for wider structures must undergo a more stringent review through the Raleigh office. Width related restrictions include obstacles such as utility poles, mail boxes, pavement width, etc. Spencer reports that all of the movers he interviewed considered a 28' wide structure could be readily moved. Two-thirds of those surveyed felt the maximum limit was 30'. The other third suggested 31' to 36' as maximum widths.

Other factors related to structure width are lot configuration and right-of-way (ROW) width. In some areas, lot configuration has placed structures seaward of other structures on adjacent lots without enough room between them to move the oceanward

structure. We found that some of the older incorporated beach areas, such as Atlantic Beach, have ROWs as narrow as 14'. Some of the planned unit developments have 20' wide ROWs. Others were found to be as wide as 40'-50'.

Height - Spencer reported that building height was considered a major limitation by all those surveyed. This limitation is created by overhead obstacles, such as utility lines, that must be raised or removed. While such obstacles may not be impossible to overcome, they can make a housemoving job more difficult and expensive. However, utility companies are not obligated to remove lines to accommodate a move. Required vertical clearance underneath utility lines is 18'. Some are placed higher as an added safety factor for high voltage lines. Spencer found that two-thirds of the movers stated that the upper limit of height for an easily moved building is 18'-20'. The upper third set 21'-25' as the upper limit except for one that said 30'. In figuring the height of a building being moved, one must factor in approximately 3' for the wheels and trailer beams. The consensus among the movers was that a one-story building was easily moved. Two-story buildings require more planning and are more expensive.

The following is an excerpt from Spencer's report:

The housemovers were also asked for their opinion on the best way to define an easily moved building. Most responded one-story. Some added dimensions. A few listed total floor area. Of those listing dimensions or areas, the range was 1500 to 2500 square feet, with an average maximum total floor area of 1900 square feet. All but one mover reported he considered the 5000 square foot standard a very large building to move. Elevating the individual limiting dimensions provided by the movers found the following:

	Width	Length	Height*
Mean	30'	67'	20'
Median	30'	60'	20'
Range	28-36'	50-100'	18-30'

* Height includes wheels and beams

Availability of Vacant Lots - A basic requirement for successfully relocating a structure is having a place to put it. The availability of such places is beyond our ability to evaluate, but, we can safely make some pertinent assumptions. Few oceanfront homeowners have the luxury of being able to move back far enough at their present site to gain any practical benefits of the move. Typical lot size on the oceanfront is 60' to 70' wide and 100' to 120' deep. Neither do many have the opportunity to relocate to vacant lots across the street or within close proximity to the present site. Availability of undeveloped lots will continue to diminish.

FACTORS AFFECTING BUILDING SIZE

The most significant factors limiting the size of residential structures on oceanfront lots are CRC setback requirements combined with local ordinances that set street and side yard setback distances, and, height limitations. It's impossible to characterize a "typical" lot or building situation given the variation in local ordinances and lot sizes and configurations.

Most zoning ordinances distinguish between the height of habitable space and height to the roof top. Height of habitable space for residential structures generally ranged from 28'-35'. The total height is generally measured from the average finished grade of the lot to the peak of the rooftop. Southern Shores has a total height limit of 30'. Rooftop height in other areas was generally 40' for residences and 52'-100' for commercial structures.

Spencer presented information on Page 8 of his report to show that the average size of oceanfront houses at Holden Beach has increased from 1,344 square feet in 1973 to 3,060 square feet in 1991. This trend is probably true for the entire coast, but, we have not collected complete data for other areas. We found that the largest oceanfront house approved in Currituck County in 1991 was 11,172 square feet. There were several others 7500 sq. ft. structures approved. Currituck County allows up to 25% lot coverage so that the maximum footprint on a typical 15,000 sq. ft. lot will be 3750 sq. ft. This yields 7500 sq. ft. within a two-story building. The County requires that new lots created north of Corolla must be at least 3 acres. The 25% coverage limitation will allow up to approximately a 32,500 sq. ft. footprint on those lots.

The largest residential structure in Pine Knoll Shores is 5,775 sq. ft. and an average size of 2500-3000 sq. ft. There are 85 undeveloped platted lots on the oceanfront at Emerald Isle. They are typically 75' x 200'. Their Local Planning Officer (LPO) advised that 3,000 sq. ft. of total floor area is the most that can be built without combining lots. A survey of the number of lots in the southern coastal area that can accommodate a 5,000 sq. ft. footprint when considering local setback requirements yielded the following results: Pender County - 50; Holden Beach - 125; Surf City - 23; New Hanover County - 220; Figure 8 Island - 26; Sunset Beach - 164; Caswell Beach - 100.

CONCLUSIONS

The information collected for this report confirms the expected difficulty in being able to define a moveable structure by any sound scientific or statistical analysis. Documented and unexpected variables will defeat such an effort. Differing circumstances and conditions will render a structure moveable in one location and immovable in another. Placing limits on the

size of a structure to be approved according to established setbacks will be by necessity guided by judgement and the basic goals of the ocean hazard management program.

The opinions of the housemovers place some parameters on what they consider as readily moveable and establishes a good starting point. Other considerations, such as those basic program goals outlined in my earlier memos and Spencer's attached report, economic impacts and fairness to property owners have to be made.

PPP/dh
Attachment