

Report of the Subcommittee  
Drainage, Impervious Cover, and FAR Issues  
Rollingwood CRCRC

The subcommittee of the CRCRC which was assigned the task of considering and researching the issues of Drainage, Impervious Cover and FAR (floor to area ratio) was composed of Brian Rider (Chair), Thom Farrell, and Duke Garwood. The Subcommittee reports as follows:

The subcommittee had several meetings, mostly at City Hall, and all very informal. We considered the questionnaire and responses to the questionnaire sent out as the full CRCRC began its work. We asked Jerry Fleming, a Rollingwood resident and engineer whose home is significantly impacted by the ongoing drainage work at this time, to sit in with us. We also asked Nikki Stautzenberger, our Development Services Manager, to attend meetings and respond to questions and make suggestions.

The issues of drainage, impervious cover and floor-to-area ratio (“FAR”) are intertwined in that building regulations of each kind do impact the amount of water runoff and/or the speed of water runoff from developed properties. In addition, each indirectly or directly impacts how much development can occur on a lot. Nearby cities have used one or more of these kinds of regulations precisely for those building size limitations in addition to water runoff impacts.

The interconnection of these issues is demonstrated by consideration of what drainage features should or could be required in connection with a lot development or redevelopment (for example detention features in landscaping or more formal detention ponds). That kind of regulation could deal with how fast or how slowly rainfall would drain off of an improved lot and the impact of that water flow and timing issues of water flow on downstream homes. It is assumed that a requirement of more pervious cover (that is more grass, shrubs, trees) and less impervious cover on an improved property (more driveways, sidewalks, roofs, etc.)

would result in some way to reduce and slow water runoff from that property, which then impacts possible flooding, and so impervious cover issues are involved in drainage issues. And a lower floor-to-area-ratio is another possible regulation which could result in more yard area (and therefore more pervious cover) and so impact the amount and speed of runoff, meaning that FAR issues are also involved in drainage issues.

The issues of impervious cover are to some degree dealt with by the Texas Commission on Environmental Quality (TCEQ). Rollingwood is in the Edwards Aquifer recharge zone and TCEQ has regulations in place which require some drainage control if development of a lot is to result in more than 20% impervious cover. This regulation is a matter of state level law and is separate from any regulation which Rollingwood could possibly consider. For most of the citizens of Rollingwood, this regulation is manifest by the presence on newly constructed home lots of large metal (usually) tanks into which rainwater from roofs is to drain and then later drain onto the ground in a more controlled and slower way.

Regulation of all of these factors (drainage structures, impervious cover limits, and FAR limitations) in development of property are used in various areas of the municipalities which surround Rollingwood or which are in the Austin area. Members of the subcommittee have had involvement in these issues in their business lives outside of their ownership of homes in Rollingwood.

While the purposes and features of land use regulations intended to deal with drainage, impervious cover and FAR are not difficult to understand in a broad sense, the true impact of such regulations on a particular tract is a matter of significant engineering work and expertise. The subcommittee was aware that the City of Rollingwood has expended significant amounts of money to study drainage in the city and has multiple studies on file which could be excavated if needed, but the CRCRC does not have a budget to engage engineers whose expertise would be the efficiency of the regulations to be considered. The subcommittee therefore considered the information available to it, the experience of its sources, and the wishes of the community as expressed in the survey done by the CRCRC. The Subcommittee studied the questions and answers of the survey, as well as studying

in detail the many comments made by our citizens in answering the survey questions

**Drainage:**

Results of citizen questionnaire: There was no question on the questionnaire specifically about drainage. Citizens did comment with some frequency about drainage matters in their responses to other questions.

The final meeting of the Subcommittee in early July occurred on an afternoon when the excavation for drainage improvements which are part of the City's project were loudly heard in City Hall. The committee did not find that there were issues of drainage beyond the issues dealt with by the City's project for any significant numbers of citizens. The subcommittee did not think it had the expertise to make improvements on the City's current drainage manual or that there was any demand for us to insert ourselves into the ongoing work of the City's engineers and Council.

**Impervious Cover:**

Results of citizen questionnaire: The questionnaire solicited citizen response to the question (no. 20) whether more should be done to limit the amount of impervious cover on a building lot. The responses were 102 for and 159 against. The comments, analyzed separately, did indicate that the citizens of Rollingwood understood that the issue of impervious cover had drainage implications and the commentators suggested that the city should rely on the City's studies and initiatives with bonds, etc. to deal with drainage problems. The issue of whether we need to use impervious cover regulations to curb development of "big" houses was mentioned, but reliance on setbacks and other design standards was frequently cited as a better approach to the building size issue.

The CRCRC has recommended regulations for building setbacks. The CRCRC has also recommended improvements to the ordinances requiring plantings of trees and shrubs in those areas. TCEQ regulations require drainage improvements if the impervious cover of a lot in Rollingwood used for residential development exceeds 20%. The subcommittee feels that it does not have either a mandate from the citizens to improve regulations dealing with impervious cover other than by

suggestions for setback recommendations and the landscaping recommendations within those setbacks. Neither the subcommittee nor the whole of the CRCRC has the expertise to deal with the more sophisticated issues of impervious cover regulations and has no budget for hiring that expertise. The subcommittee does not recommend any regulation directly addressing mandatory minimums or maximums for impervious cover for the residential areas of Rollingwood.

### **Floor to Area Ratio:**

Results of citizen questionnaire: Citizen response to this question (no. 6) about adoption of a FAR, was evenly split with 136 in favor and 131 opposed. The commentary responding to the questionnaire focused on the use of setbacks and vegetation requirements in those setbacks as the better way to deal with what FAR might deal with – which is protecting the neighborhood feel of Rollingwood and the appearance that Rollingwood is an area of lots of trees. Commentary about protection of “property rights” and the possible infringements of those rights by FAR regulation was particularly strong.

After review of the survey answers and comments which were reviewed, as well as the impact of TCEQ regulations, the proposed building height, setback requirements and tenting regulations, and in view of the lack of significant desire by the citizens for any FAR regulations, the subcommittee does not recommend any FAR regulations for Rollingwood. The subcommittee believes that the goal of the CRCRC effort is not to discourage large houses in Rollingwood. The subcommittee finds that maintaining the character of the community can be done via the building height proposal, the tenting proposals, the tree ordinance, the drainage ordinance, and setback ordinances rather than directly attacking building sizes, which is what FARs usually do.

**Conclusion:** The subcommittee has no recommendation that Rollingwood should adopt any building regulation on the residential areas of the city, beyond the existing drainage ordinances and drainage manual, the proposed building height and setback and setback area vegetation requirements, the proposed tenting

regulations, and the tree ordinance, to deal with matters of on-lot drainage structures, impervious cover requirements, or FAR. The CRCRC for its part has dismissed the utility of FAR for solving any residential issues.

One significant contributing success factor to other CRCRC recommendations was having within its membership the residential design and execution expertise that was provided by its two professional architects. The CRCRC lacks similar expertise in the areas of drainage and impervious cover and FAR. The Subcommittee suggests to the City Council that if it desires a deeper dive into the subjects of on-site drainage regulations, impervious cover requirements, or FAR regulations, that a similar model be employed by drawing expertise in these matters from the local citizenry, and employing a CRCRC-like, community driven approach to developing a set of recommendations. Budget for outside professional assistance may be required.