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Organ Consultation Report

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St. Andrew's Catholic Church
631 N. Jefferson Street
Roanoke, VA 24016
Mr. Kelly Wheelbarger, Minister of Music

Overview

This report is submitted in response to the request of the parish through the Minister of Music. Its purpose is to provide an overview of the condition and ability of the present organ to support the music ministry needs of the parish. In addition, the parish has communicated plans for a replacement instrument, and part of this report will address those plans and a specific proposal for such replacement.

Clearly, the historic nature of the church building itself and the fundamental need for appropriate musical support of the liturgy are the principal concerns of the parish with regard to this project, and these issues will be addressed specifically as necessary.

Part I: The Current Organ

The M.P. Möller instrument currently in use in the church is a two-manual, fourteen rank pipe organ built and installed in 1907 and rebuilt by Möller in 1954. In 1970 it was rebuilt again with apparent significant voicing alterations by the Zimmer company. The following comments apply to this instrument:

1. At fourteen ranks the instrument is highly limited in scope, and since so many of these ranks are mixtures, the actual useful number of ranks for worship support is far less than adequate. By way of explanation, it is generally considered that a cohesive instrument serving a church would need to contain at least twenty ranks, although this would be considered a minimum and would contain only the most basic tonal ensembles. For a church the size of St. Andrew's, a typical pipe organ installation would be between thirty-five and fifty ranks in order to provide a comprehensive instrument capable of fully supporting the music program. So in terms of size alone, the present instrument is quite small and completely inadequate tonally.
2. The particular makeup of the pipe ranks is such that the resulting sound possibilities are limited to two basic "sounds," one of which is loud and obtrusive and the other, while softer, is not a cohesive ensemble. The lack of color stops eliminates most of the organ

literature, and also makes meditative service music nearly impossible except on one or two stops. The louder stops, such as the reeds, are built and voiced in a manner making them harsh and not conducive to congregational participation. There is only one foundational pedal stop that is not able to be used in soft to moderate combinations. Unification (the use of one rank of pipes to provide the sounds of several stops) is present throughout the instrument, creating even more compromises musically and lending far less ensemble and projection than the size and acoustic properties of the church building require.

3. The most significant problem with the organ is that it does not properly project supportive and clear sound into the church. In essence, if the congregation attempted to sing with any vigor, they would almost immediately stop, because it would become quickly impossible to judge the pitch and clarity of the organ accompaniment. As a result, it is likely that congregational participation is minimal with this instrument, or at the very least is sporadic and timid. Further, it is also likely that cantors and other song leaders have difficulty in discerning pitch, tempo and rhythm because of the lack of cohesive ensemble from the organ, thereby severely compromising their effectiveness in assisting general congregational participation. This overall lack of appropriate sound projection is the result of two major factors: (1) the small and inadequate number of ranks of the organ, and (2) the general tonal characteristics of the pipes themselves.
4. The condition of the console, while not a tonal factor in itself, is mentioned because of the limitations it places on the player. At present, while the keyboards and stop actions appear to be in reasonable working order, the combination system (that which allows organists to preset registrations for use during liturgies or other functions), is worn out and unreliable, a condition that will continue to deteriorate rapidly. Also, there are signs of pipe action deterioration (sluggish speaking of many pipes is already apparent), which means that the chestwork (and possibly the air reservoirs), will need rebuilding at some point in the near future.

Part II: Options with the Current Organ

The present organ could be completely rebuilt and reconditioned, including the addition of a new console, or it could be replaced. The following comments apply:

1. Rebuilding the current organ could be done, including substantial pipe voicing (to the extent that the pipes can be voiced), chest rebuilding, wind line repairs/replacement as necessary, and the addition of a new console. The cost of doing this could be between \$6K and \$10K per rank, plus a new console, which could cost about \$35K to \$50K depending upon capabilities. This would put the total cost, for fourteen ranks plus a new console, at approximately \$120K to \$175K. When completed, the result would be a reliable instrument, but there would be no change in the size (and therefore sound) of the organ, so none of the problems associated with this being only a fourteen-rank instrument would be eliminated. In essence, this option would be a mechanical repair, not a tonal enhancement or addition.
Recommendation: Do not rebuild the current organ. Even in the most pristine playing condition, this instrument is inadequately sized, scaled and voiced for the church building. The cost is prohibitive by the very result that the organ would still

- be an ineffective tool for worship support, thereby making that cost a waste of church funds. The organ was too small for the building at the time it was installed, and it is likely that the reduced size was a compromise for the limited space available in the loft area due to the “dead” space under both steeples and the necessary avoidance of encroaching upon the rose window in the center. The presence of so much unification would seem to confirm the compromises of the original design.
2. The current organ could be replaced by a new and totally different pipe organ that would include pipework at both the back and the front of the church, thereby solving the problems of size, capability and projection at the same time. This would require a *minimum* of approximately thirty-five ranks of pipes, with twenty-five being in the loft and ten divided on each side of the chancel area, probably on the walls just above the walkway arches. This new instrument would be three manuals with full digital controls, substantial multiple combination memories, and enough color stops to allow for a more diverse repertoire of liturgical and general organ music. While requiring a minimal amount of restructuring of the loft area, it is likely that some of the existing non-speaking pipe façade would need to be enlarged, and there would be exposed pipework in the front of the church as well. The cost of doing this would be, depending upon the pipe builder, anywhere from \$18K to \$30K per rank, with additional charges for the antiphonal (front) placement of ten ranks. Therefore, the total cost of a moderately-sized pipe organ would be \$650K to \$1.2M.
Recommendation: while this would be a workable solution to the problem, it is very costly, and carries with it several responsibilities inherent in the ownership of any fine pipe organ: consistent maintenance and, just as importantly, reasonable climate control. Pipe organs require periodic tuning, and tuning intervals are somewhat dependent upon the temperature and humidity gradients of the space they occupy. It is reasonable to expect to spend approximately \$3K to \$5K per year in direct tuning and maintenance, along with increased utility costs for the church building. If the church has the funding available for this option, this is certainly a recommended path to follow.
 3. The present organ could be replaced by an all-digital organ. Given today’s technology, an all-digital instrument (no pipes at all) is no longer a “compromise” option, and in fact the advantages of minimal to no maintenance, no need for routine tuning, and imperviousness to temperature and humidity make this a very attractive route. Properly installed, all-digital instruments incorporate direct “sampling” of fine pipe organs, computer-controlled to match the space in which they are placed, with some significant advantages: (1) as previously stated, no tuning is required regardless of environmental changes; (2) consoles typically incorporate many technology upgrades with regard to organist controls, such as MIDI implementation; and (3) stops, or “samples” can be changed as necessary to more precisely tailor an all-digital instrument to the church, something that is not possible except at extreme cost with pipe organs. The diversity of all-digital instruments with regard to features and costs is such that it can be difficult to make the right choice. On the other hand, a properly selected and installed digital instrument will serve a church music program quite well. These instruments come in a variety of models and types; however, it is generally better to select a builder first and then work with that builder to develop the optimum configuration for the church, taking into account the music program the organ will

support and the specific installation requirements of the available space for audio systems.

Recommendation: Explore the choice of a digital instrument that would support both the congregation as well as cantors, choirs, and other musical activities of the church. Because of the general capabilities of these instruments, an organ of at least seventy-five to ninety stops should be considered, incorporating some antiphonal (front) voices.

Part III: Proposal Evaluation

Upon my arrival at St. Andrew's to evaluate the current organ, music minister Kelly Wheelbarger presented me with a copy of a proposal from the Allen Organ Company of Macungie, PA, for an Elite Series instrument of ninety-five stops (89 equivalent ranks) on four manuals, including a floating division of string stops with the String and Solo division stops playable from the front of the church. The price quoted is \$257K. I was asked to review the proposal and comment on it in this report. As such, the following applies:

1. The very fact that this is an Elite series organ means that it incorporates the best of Allen's technology, the highest levels of sample memory, and the most overall features that the company can provide on a fully-custom organ.
2. This manufacturer is consistently judged to be the best overall choice because of their longevity, commitment to long-term support, quality of construction, and superior pipe organ sound.
3. The price quote of \$257K is clearly an attempt on the part of the company to place an organ of this type and size in the Roanoke area, as typically an Elite series organ incorporating ninety-five stops would be priced approximately \$75K higher.
4. The ability to have fully eight channels of antiphonal (front) audio will provide a significant level of support for cantors and congregational singing. This capability will also be useful for concerts and special music presentations.
5. The Allen Elite program will permit the church to have input into the development of the instrument, even during manufacture, thereby insuring that the church's needs are addressed accordingly.

Recommendation: The church should seriously consider this proposal, as it would provide an all-digital instrument from a company well-known for the quality of its organs both in construction and sound production. The quoted price is very attractive for an Elite series organ, and the audio upgrades to include divisions hidden behind the altar will be of inestimable value to the music program in general. An added advantage of the Elite series organ is that the Allen factory is directly involved in the design and installation of these instruments in conjunction with the local dealer. This will insure optimum audio layout and installation, as well as involvement of factory engineering and artistic personnel in the tonal finishing and acoustic matching of the instrument to the church building. It is unlikely that any other digital builder could match the capabilities of this instrument, let alone the price for such a fully-custom instrument, making this the best possible digital organ choice.

In summary, it would appear that in order for the music program to properly serve the needs of the congregation, the existing organ will require replacement. It is too small for the church building, and too limited to support even the most basic repertoire. Rebuilding and repair of the current organ would not solve any of the problems that have been present since the organ was new. The other options available to the church are diverse enough in scope and cost to allow for careful analysis and prudent choices. St. Andrew's is fortunate to have fine musicians; the task at hand is now to provide them with the appropriate tools so that the music ministry of the parish will grow and develop to the benefit of the entire congregation as well as the community.

Thank you for the opportunity to provide the evaluation and report as requested.

Rudy Lucente