Code Analysis and Design

709 W. Main St. Aspen, CO 81611 925-2571

James J. Wilson Building Consultants, Inc. 0047 Original Lane

Basalt, Colorado 81621

927-8003

A JOINT VENTURE

January 7, 1992

Centennial Owner's Association 100 Luke Short Court Aspen, CO 81611

RE: Progress report on inspection for water damage

Ladies and Gentlemen:

We have completed our inspection of the building crawl spaces and offer this progress report of our findings and observations. We have included a summary of the full intended inspection process. We should complete the base data within the next 7 to 10 days.

The inspections were as thorough as practical, and were sufficient to establish the generally representative conditions in the crawl spaces. At this time, the only established constant is the inconsistent and variable conditions between buildings. At the risk of drawing premature conclusions, we are fairly certain that extensive moisture damage, to the degree that was investigated in our previous report, would be isolated and widespread. We base our opinion on the apparent conditions in the crawl spaces at the time of our inspection.

In general, we feel the collected base data for the crawl spaces can be reasonably interpreted as "dry", with respect to such perpetual and static conditions as roof drainage, site drainage and soil permeability. In other words, those exterior conditions have not yet affected the interior crawl space conditions. Two of the building crawl spaces (Buildings A and C) were inundated with water, apparently contributed by a blown pressure and temperature relief valve on a water heater. These contributors, like

lawn sprinklers, are considered intermittent and active conditions which have little long-term effect on the crawl space conditions if remedied and controlled. We are anticipating naturally occurring, "wet" crawl space conditions in the spring.

Active fungus, a precursor to decay, was observed in some crawl spaces. The specific locations, the possible causes and anticipated effects will all be detailed in our final report. In general though, fungal growth and the eventual decay result from wet wood. We observed two sources of the moisture necessary to sustain the growth of fungus. Infiltration of exterior moisture is one suspected source. The other is apparently due to relatively high humidity levels in the crawl spaces, where materials adjacent to the few and random openings to the exterior, were saturated with condensation – a rather vivid example of dew point theory. We also reexamined the conditions at 214 Teal Ct., and found that the previously active surface mold was apparently dormant, but we discovered the wood in the area had decayed by dry rot infestation.

We will continue our inspection of the buildings by testing above grade, exterior walls. The intent of this testing is to analyze the effects of interior humidity, exterior moisture and possible "rising damp" on the exterior walls. Upon completion of both phases of testing, we will analyze our data and issue a complete report of findings and recommendations.

If there are any questions regarding this progress report, please call. Thank you.

Respectfully Submitted,

J. Robert Weien Code Analysis and Design James J. Wilson
President,
James J. Wilson
Building Consultants, Inc.

CENTENNIAL INSPECTION & TESTING PROCESS

Inspection Process

Determine test areas at building perimeter which are likely vulnerable to site drainage, roof drainage, or irrigation exposure. Building crawl spaces will be inspected at corresponding locations. Mark and log selected test areas for consistency and future reference.

Establish base data, using instuments, following an extended dry spell of weather and without lawn irrigation.

Develop comparative data, using instruments, in the early spring before thawing begins and/or soon after the seasonal thaw.

Correlate and analyze all data and summarize in a report format.

<u>Instruments</u>

Hygrometer - Digital Hygrometer/Thermometer, Model DTH 9000, Interstate Electric Manufacturers
Measures relative humidity (RH) and temperature (OF)

Soil Moisture Meter - Kelway Soil Tester, Model HB-2, Kel Instruments Co., Inc.
Measures percent of relative saturation (as opposed to moisture content) of in situ soil

Moisture Meter - Moisture Tester, Model BD-8, Delmhorst Instrument Company Measures moisture content of concealed wood framing and insulation by probing through small holes in exterior siding

Test Procedure

Record outdoor RH and temperature readings at the time of the tests

Crawl space

Access only the building crawl space for visual inspection and

instrument readings, unless building interior readings are requested

Spot measure RH and temperature, OF, for a generally representative area of each building.

Measure soil moisture level and wood framing moisture content at predetermined test areas around the perimeter.

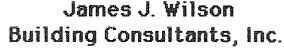
If observation of visible framing indicates fungus, mold or rot, the moisture content of the infested wood and localized RH and temperature readings will be recorded.

Exterior walls

Probe above grade exterior walls for moisture content of wall cavity insulation and concealed wood framing at areas with extensive fungal infestation or high moisture content around the crawl space perimeter. Probe also around poorly caulked doors and windows and other areas susceptible to moisture, such as exterior walls at bathrooms, that are otherwise visibly saturated and accessible.

Code Analysis and Design

709 W. Main St. Aspen, CO 81611 925-2571



0047 Original Lane Basalt, Colorado 81621 927-8003

a joint venture

March 9, 1992

Centennial Owner's Association 100 Luke Short Court Aspen, CO 81611

RE: Progress report on inspection for water damage

Ladies and Gentlemen:

We have completed the initial inspection phase of our evaluation of moisture effects on all Association buildings. As we described in our last progress report, this initial phase consists of:

- 1) Exterior observation of the buildings under winter conditions.
- 2) Crawl space observation, and spot testing the moisture content of soil and wood framing with instruments.
- 3) Spot testing the moisture content of exterior walls with instruments at ground level.

The purpose of this initial phase is to document seasonal observations and instrumental readings to be used in a comparative analysis with subsequent data to be collected in early spring.

Visual observations are being photographed and/or noted for future reference and instrument readings have been logged to establish the base-line for our final comparative tabulation. The collected documentation and data will then be analyzed to determine the degree that external penetrating dampness, rising dampness, and indoor humidity threaten the buildings. Data analysis will also help to determine the cause of the conditions. Once the causes of the conditions are identified, practical and effective remedial measures will be suggested.

Centennial Owner's Association March 9, 1992 Page Two

At this stage of our analysis, we must concede that few absolute conclusions will be possible regarding physical damage. No accurate method currently exists to estimate or locate damage by sample testing and analysis. The unpredictability of the numerous variables has even stymied attempts to develop computer models. Moisture related failures can be explained by established physical principles, once the damage is apparent. The possibility of latent defects exists for each building; however, nothing short of complete visual inspection would positively establish the degree of physical damage. Numerous variables reduce attempts at conclusive deduction to conjecture. This limitation is most likely to affect any planned litigation. If the Board has opted for legal action, a collaborative strategy session with an attorney could prove effective at this point.

So far, the collected data appears to confirm the theory we expressed in our initial report. The dynamics of the moisture have been especially vivid during the cold winter months. With the problems defined and pending substantiation, we have begun our final report of findings and recommendations. Our final analysis will estimate the degree that each of the determined moisture factors may have contributed to the condition of the buildings; the probable reasons for the conditions; and possible solutions with recommended sequencing and timing of remedial measures.

If there are any questions regarding this progress report, please call. Thank you.

Respectfully Submitted,

James J. Wilson President.

James J. Wilson

Building Consultants, Inc.

October 7, 1992

Marie and Chip Munday 212 Free Silver Ct. Aspen, Colorado 81611

Re: Capital Expenses for Centennial Owners' Assoc.

Dear Marie and Chip,

This letter is in response to our meeting concerning items which should be considered capital expenses in relation to the sale of your unit. After speaking with Ned at David Melton Accountants (in 1990 when this issue came up), the items which he felt can be considered capital expenses and/or improvements are listed below. These items and the corresponding amounts are what the Association has spent to date.

Mailbox lights\$	1120.00
Window Repair/Replacement	5073.99
Fire Extinguisher	4345.98
Landscape Improvements	3650.00
Exterior Repairs to Building	5299.49
Exterior Utility Doors	9728.00
Exterior Energy Lighting	1783.99
Exterior Siding Repairs	37,462.94

TOTAL....\$ 68,464.39

You also ask for the amounts of the Replacement Reserve Fund so that it could also be calculated into your sale price. At this time, according to the Pitkin County Housing Authority, Reserve Fund monies are not incorporated into the sales price of any units. If you have any other questions or need further information please don't hesitate to call me.

Sincerely,

Kim Miller Keilin Centennial Community Management, Inc.

100 Luke Short Court Aspen, Colorado 816

303/925-1876