



KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

October 30, 2001

Ordinance 14238

Proposed No. 2001-0404.2

Sponsors Phillips and Sullivan

1 AN ORDINANCE establishing a method for rapid
2 abatement of damaged structures, developing building and
3 fire code standards for reconstruction and repair of
4 damaged structures, and providing reimbursement to the
5 department of development and environmental services for
6 the fiscal impacts resulting from an emergency declared by
7 the County Executive; amending Ordinance 14111, Section
8 154, and K.C.C. 16.04.020, Ordinance 14111, Section 156,
9 and K.C.C. 16.04.040, Ordinance 14111, Section 160, and
10 K.C.C. 16.04.080, Ordinance 14111, Section 168, and
11 K.C.C. 16.04.160, Ordinance 14111, Section 170, and
12 K.C.C. 17.04.01023, Ordinance 14111, Section 171, and
13 K.C.C. 17.04.01024, Ordinance 14111, Section 175, and
14 K.C.C. 17.04.01028, adding new sections to K.C.C. Title
15 16, adding new sections to K.C.C. chapter 17.04, and
16 adding a new section to K.C.C. chapter 27.02.

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PREAMBLE:

Because of its geographical location, King County is vulnerable to natural, technological and national security disasters. When a disaster occurs, it is the responsibility of government to protect public health, safety and property and to provide recovery assistance.

Disasters often result in widespread damage to structures, which may pose a threat to public health or safety. Therefore, the metropolitan King County council has determined that the county government has the responsibility for developing a process for abating damaged structures rapidly and adopting construction standards for repairing disaster damaged structures located in unincorporated King County.

K.C.C. Title 13, Code Compliance, is the regulatory authority for King County to enforce code violations and to abate dangerous structures. The provisions in K.C.C. Title 13 are acceptable for routine code compliance, which can take months to achieve, but does not provide a process for rapid abatement procedures that may be needed after a wide-spread disaster.

The Federal Emergency Management Agency (FEMA) provides assistance to communities that have experienced loss as a result of a disaster. FEMA determines the eligibility for recovery of costs associated with the repair or replacement of structures based on standards that are in

41 writing and adopted by the state or local government on or before the date
42 of the disaster declaration.

43 King County does not have adequate adopted disaster damage repair or
44 replacement standards. The uniform building and fire codes establish
45 standards for new construction but lack adequate standards for restoring
46 damaged buildings. King County should adopt disaster damage repair or
47 replacement standards to assure that citizens will qualify for FEMA
48 financial assistance.

49 The King County department of development and environmental services
50 is responsible for assessing damage and authorizing repairs or demolition
51 to structures in unincorporated King County damaged as a result of a
52 disaster. The department of development and environmental services is
53 funded primarily through permit fees. The department is prohibited by
54 RCW 43.09.210 from using funds collected for permit review to cover the
55 expense of disaster damage response. The department would not be able
56 to conduct normal work that funds the department during a large-scale
57 disaster and would need reimbursement for revenue losses and
58 unanticipated additional expenses related to disaster damage recovery.

59 These amendments help achieve the county's goal of delivering timely
60 and efficient emergency and recovery services in the event of a disaster.

61 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

62 SECTION 1. Ordinance 14111, Section 154, and K.C.C. 16.04.020 are each
63 hereby amended to read as follows:

64 **Purpose - UCADB Section 102.1.** Section 102.1 of the Uniform Code for the
65 Abatement of Dangerous Buildings is not adopted and the following is substituted:

66 **Purpose (UCADB 102.1).** It is the purpose of this code to provide a just,
67 equitable, and practicable method, to be cumulative with and in addition to any other
68 remedy provided by the Uniform Building Code, 1997 Edition, Uniform Housing Code,
69 1997 Edition, as adopted by King County or otherwise available by law, whereby
70 buildings, structures or nuisances which from any cause endanger the life, limb, health,
71 morals, property, safety or welfare of the general public or their occupants may be
72 required to be repaired, vacated or demolished.

73 This code also provides an alternative method and process whereby buildings and
74 other structures damaged by a disaster resulting in a declared emergency may be
75 expeditiously evaluated and abated.

76 The purpose of this code is not to create or otherwise establish or designate any
77 particular class or group of persons who will or should be especially protected or
78 benefited by the terms of this code.

79 NEW SECTION. SECTION 2. There is hereby added to K.C.C. Title 16 a new
80 section to read as follows:

81 Section 103 of the Uniform Code for the Abatement of Dangerous Buildings is
82 not adopted and the following is substituted.

83 **Alterations, additions and repairs (UCADB 103).** All buildings or structures
84 that are required to be repaired under the provisions of this code shall comply with UBC
85 3403, except for buildings and structures damaged as a result of a disaster resulting in a
86 declared emergency, as defined in K.C.C. 16.04.080, which shall comply with sections

87 19 through 25 and 30 through 31 of this ordinance. The provisions of sections 19
88 through 25 and 30 through 31 of this ordinance are not intended to modify requirements
89 that would otherwise apply under the Washington state energy code, chapter 19.27A
90 RCW or provisions in buildings for aged and handicapped persons, chapter 70.92 RCW.

91 SECTION 3. Ordinance 14111, Section 156, and K.C.C. 16.04.040 are each
92 hereby amended to read as follows:

93 **Enforcement - Administration.** Section 201.1 of the Uniform Code for the
94 Abatement of Dangerous Buildings is not adopted and the following is substituted:

95 **Administration (UCADB 201.1).** The building official is hereby authorized to
96 enforce the provisions of this code pursuant to the provisions of K.C.C. Title 23. Such
97 authority shall include, but is not limited to, the authority to order the immediate
98 abatement of any disaster-damaged structure, or a portion thereof, which the building
99 official has determined is an immediately hazardous and dangerous structure, as defined
100 in K.C.C. 16.04.080.

101 The building official shall have the power to render interpretations of this code
102 and to adopt and enforce rules and supplemental regulations in order to clarify the
103 application of its provisions. Such interpretations, rules and regulations shall be in
104 conformity with the intent and purpose of this code.

105 SECTION 4. There is hereby added to K.C.C. Title 16 a new chapter entitled:
106 “Rapid abatement of structures damaged by a disaster (UCADB 206).”

107 NEW SECTION. SECTION 5. There is hereby added to K.C.C. Title 16 a new
108 section to read as follows:

109 **Rapid abatement - purpose (UCADB 206.1).** The purpose of establishing
110 procedures for the rapid abatement of structures damaged by a disaster resulting in a
111 declared emergency, as defined in K.C.C. 16.04.080, is to protect the public health and
112 safety by assuring that structures damaged as a result of a disaster are abated in a timely
113 manner and to assure that the public right-of-way is accessible for emergency vehicles in
114 the event of a disaster.

115 NEW SECTION. SECTION 6. There is hereby added to K.C.C. Title 16 a new
116 section to read as follows:

117 **Rapid abatement - authority (UCADB 206.2).** The building official, subject to
118 the express provisions of this code, shall have the authority to order the rapid abatement
119 of any structure, or a portion thereof, that has been damaged as a result of a disaster
120 resulting in a declared emergency, which represents an imminent hazard to public health
121 and safety or poses an imminent threat to the public right-of-way.

122 NEW SECTION. SECTION 7. There is hereby added to K.C.C. Title 16 a new
123 section to read as follows:

124 **Rapid abatement plan - applicability (UCADB 206.3).** A rapid abatement plan
125 must be prepared for structures determined by the building official to be an immediately
126 hazardous and dangerous structure, which is an imminent hazard to public health and
127 safety or an imminent threat to the public right-of-way.

128 NEW SECTION. SECTION 8. There is hereby added to K.C.C. Title 16 a new
129 section to read as follows:

130 **Rapid abatement - compliance (UCADB 206.4).** It shall be unlawful for any
131 person to repair or demolish and remove any disaster-damaged structure, or a portion

132 thereof, without following the applicable procedures set forth in this code and obtaining
133 all required permits. It shall be unlawful for any owner, or owner's agent, to fail or
134 neglect to comply with any valid order of abatement made by the building official
135 pursuant to this code.

136 NEW SECTION. SECTION 9. There is hereby added to K.C.C. Title 16 a new
137 section to read as follows:

138 **Rapid abatement - assessment of immediacy and notification (UCABD**
139 **206.5).**

140 1. The building official shall be responsible for determining whether a structure,
141 or a portion thereof, damaged by a disaster, is an immediately hazardous and dangerous
142 structure, as defined in K.C.C. 16.04.080, and represents an imminent hazard to public
143 health and safety or poses an imminent threat to the public right-of-way.

144 2. Unless extenuating circumstances exist, a disaster-damaged structure
145 surrounded by securely fenced yard for a distance equal to one and one-half times the
146 height of the structure will not be considered to represent an imminent hazard to public
147 health and safety or pose an imminent threat to the public right-of-way.

148 3. When the building official identifies a structure to be an immediately
149 hazardous and dangerous structure, which is an imminent hazard to public health and
150 safety or an imminent threat to the public right-of-way, the structure shall be posted with
151 a placard which identifies it as an immediately hazardous and dangerous structure,
152 requires that a rapid abatement plan be submitted and identifies the time frame for when
153 it must be submitted.

154 4. The owner shall be notified within twenty-four hours of posting by telephone,
155 fax, mailing or any other method determined by the director, that the structure has been
156 determined to be an immediately hazardous and dangerous structure, which is an
157 imminent hazard to public health and safety or an imminent threat to the public right-of-
158 way, that a rapid abatement plan is required and the time frame for when it must be
159 submitted. Failure to successfully notify the owner under this section shall not invalidate
160 the requirement for a rapid abatement plan or change the time frame.

161 5. The building official shall notify the King County office of historic
162 preservation if any historic structure, as identified in K.C.C. 16.04.080, has been
163 determined to be an immediately hazardous and dangerous structure, which is an
164 imminent hazard to public health and safety or an imminent threat to the public right-of-
165 way, and requiring rapid abatement. The abatement, by repair, alteration, restoration,
166 rehabilitation or demolition and removal, of disaster-damaged historic structures shall
167 comply with the provisions of this code.

168 NEW SECTION. SECTION 10. There is hereby added to K.C.C. Title 16 a new
169 section to read as follows:

170 **Rapid abatement plan - contents (UCADB 206.6).** The rapid abatement plan
171 shall consist of:

- 172 1. The names of all owners of the structure;
- 173 2. The address of the structure;
- 174 3. An engineering evaluation, as defined in K.C.C. 16.04.080. The engineering
175 evaluation shall include an evaluation of life safety issues related to the safety of the
176 occupants or individuals in the vicinity of the structure. The engineering evaluation shall

177 also contain a detailed evaluation of the structural and nonstructural damage incurred to
178 the building or structure;

179 4. Recommendations for temporary repair, or, in lieu of recommendations for
180 temporary repair, a recommendation for demolition; and

181 5. Schematic recommendations for permanent repair, or, in lieu of schematic
182 recommendations for permanent repair, a recommendation for demolition.

183 Temporary repair may be comprised of bracing, shoring or other repairs necessary
184 to minimize excessive immediate risk and to restore the structure to a safe condition
185 suitable for continued repair.

186 NEW SECTION. SECTION 11. There is hereby added to K.C.C. Title 16 a new
187 section to read as follows:

188 **Rapid abatement plan - time frame for submittal (UCABD 206.7).** The
189 following time frames are established for the submittal of a rapid abatement plan. A
190 maximum of two extensions, of forty-eight hours each, may be added to the initial time
191 frame established for submittal of the rapid abatement plan. The time frames are
192 measured from the time of posting the placard on the structure. Immediate demolition or
193 abatement can occur prior to submittal of the rapid abatement plan, when indicated. The
194 street groups are classified in section 12 of this ordinance.

195 1. When a structure has more than a minimal potential for immediate collapse,
196 the following time frames apply:

197 1.1 When a structure represents an imminent threat to public
198 health and safety, the owner is required to immediately abate the structure
199 and submit an abatement plan within seventy-two hours of abatement.

200 1.2 When a structure does not represent an imminent threat to
201 public health and safety, but threatens a Group I street or road and an
202 alternative route is available, the owners is required to submit an
203 abatement plan within seventy-two hours. When no alternative route is
204 available, the owner is required to immediately abate the structure and
205 submit an abatement plan within seventy-two hours of abatement.

206 1.3 When a structure does not represent an imminent threat to
207 public health and safety, but threatens a Group II street or road and an
208 alternative route is available, the owner is required to submit an abatement
209 plan within seventy-two hours. When no alternative route is available, the
210 owner is required to submit an abatement plan within forty-eight hours.

211 1.4 When a structure does not represent an imminent threat to
212 public health and safety, but threatens a Group III street or road and an
213 alternative route is available, the owner is required to submit an abatement
214 plan within five days. When no alternative route is available, the owner is
215 required to submit an abatement plan within seventy-two hours.

216 2. When a structure is damaged, but threat of collapse is not great and the
217 structure creates only minor or no risk to life or property and no street or road is
218 threatened, rapid abatement procedures do not apply.

219 NEW SECTION. SECTION 12. There is hereby added to K.C.C. Title 16 a new
220 section to read as follows:

221 **Rapid abatement plan - street and road groups (UCADB 206.8).** The
222 following street and road groups apply to the time frames established by section 11 of
223 this ordinance. These classifications are based on the King County Road Standards.

224 1. Group I streets and roads are principal arterial, minor arterial, collector arterial
225 or “collector” and neighborhood collectors.

226 2. Group II streets and roads are subcollectors and business access streets.

227 3. Group III street and roads are subaccess streets, minor access streets
228 (Residential), multiple dwelling access streets, industrial access streets and minor access
229 streets (Commercial).

230 NEW SECTION. SECTION 13. There is hereby added to K.C.C. Title 16 a new
231 section to read as follows:

232 **Rapid abatement plan - time frame for completion of abatement (UCADB**
233 **206.9).** Approval by the building official of the rapid abatement plan constitutes
234 authority to proceed with abatement. If the building official approves the rapid
235 abatement plan, the owner, or owner’s agent, shall complete abatement in accordance
236 with the plan within forty-eight hours of obtaining approval of the plan. Within twenty-
237 four hours of completion of the abatement work, the owner, or owner’s agent, shall
238 provide the building official with a written signed verification that the abatement has
239 been completed in conformance with the approved rapid abatement plan. When the
240 abatement includes structural repairs, the verification shall include a written, signed and
241 stamped report from the owner’s architect or structural or civil engineer attesting that the
242 engineer has visited the site and that repairs have been completed in general conformance
243 with the approved rapid abatement plan. This written signed and stamped report from the

244 owner's architect or structural or civil engineer and the written and signed verification by
245 the owner or owner's agent may be made by completing and signing a standard form
246 provided by the department of development and environmental services.

247 NEW SECTION. SECTION 14. There is hereby added to K.C.C. Title 16 a new
248 section to read as follows:

249 **Rapid abatement plan - disapproval by the building official (UCADB**
250 **206.10).** In each case where a rapid abatement plan is disapproved, the building official
251 shall state the reasons for disapproval to the owner, or the owner's agent. Notice of
252 disapproval can be either by direct conversation, a telephone conversation, fax, a written
253 notice of disapproval mailed to the owner, or owner's agent, or any other method
254 determined by the building official. Regardless of the method used for notice of
255 disapproval, the owner, or the owner's agent, must submit a revised rapid abatement plan
256 addressing the deficiencies noted by the building official in the notice of disapproval
257 within seventy-two hours.

258 NEW SECTION. SECTION 15. There is hereby added to K.C.C. Title 16 a new
259 section to read as follows:

260 **Rapid abatement by the building official (UCADB 206.11).** The building
261 official is authorized to abate a structure which is identified to be an immediately
262 hazardous and dangerous structure, which is an imminent hazard to public health and
263 safety or an imminent threat to the public right-of-way, in the following cases:

- 264 1. If the owner fails to respond to the notice of abatement, responds untimely, or
265 responds timely but fails to complete abatement within the required time frame; or
266 2. If the owner cannot be located within the established time frame; or

267 3. When the building official determines the structures is an imminent hazard to
268 public health and safety or an imminent threat to the public right-of-way, which must be
269 abated immediately.

270 SECTION 16. Ordinance 14111, Section 160, and K.C.C. 16.04.080 are each
271 hereby amended to read as follows:

272 **Definitions - UCADB Section 301.** Section 301 of the Uniform Code for the
273 Abatement of Dangerous Buildings is not adopted and the following is substituted:

274 **General (UCADB 301).** For the purpose of this code, certain terms, phrases,
275 words and their derivatives shall be construed as specified in either this chapter or as
276 specified in the Building Code or the Housing Code. Where terms are not defined, they
277 shall have their ordinary accepted meanings within the context with which they are used.
278 *Webster's Third New International Dictionary of the English Language, Unabridged,*
279 copyright 1986, shall be construed as providing ordinary accepted meanings. Words used
280 in the singular include the plural and the plural the singular. Words used in the masculine
281 gender include the feminine and the feminine the masculine.

282 **ABATE** is to take whatever steps are deemed necessary by the building official to
283 return a property to the condition which is neither dangerous nor a nuisance, or to ensure
284 that the property complies with the applicable requirements of this code. Abatement may
285 include, but is not limited to, repair, rehabilitation, removal, or demolition.

286 **BUILDING CODE** is the *Uniform Building Code* promulgated by the
287 International Conference of Building Officials, or its successor, as adopted by the county.

288 **DAMAGE RATIO** is the ratio of the estimated cost of repairs required to restore
289 the structural members of an immediately hazardous and dangerous structure to their pre-
290 event condition to the estimated replacement cost of the structure.

291 **DANGEROUS BUILDING** is any building or structure deemed to be dangerous
292 under the provisions of Section 302 of ~~((this code))~~ the Uniform Code of Abatement of
293 Dangerous Buildings.

294 **DECLARED EMERGENCY** is a proclamation in writing by the King County
295 executive stating that King County or some designated part of the county is in a condition
296 of emergency and procedures reserved for emergency situations are in effect.

297 **DISASTER** is an event or set of circumstances of catastrophic nature arising
298 from any cause which reaches such a dimension as to demand immediate action to
299 preserve public health, to protect life and property or to provide relief to any stricken
300 community overtaken by such occurrences or which warrants the declaration of a state of
301 emergency or the execution of emergency management operations plans.

302 **ENGINEERING EVALUATION** is an evaluation of structural or nonstructural
303 damage or suspected damage to a structure performed by or under direction of an
304 architect who is licensed in the state of Washington, or a civil or structural engineer
305 licensed in Washington.

306 **HISTORIC STRUCTURE** is any structure, or collection of structures and their
307 associated sites, deemed of importance to the history, architecture or culture of an area by
308 an appropriate local, state or federal governmental jurisdiction. Historic structure
309 includes a King County landmark, King County historic resources inventory property,
310 property listed on the national register of historic places, property listed on the

311 Washington state register of historic places, property determined eligible for listing on
312 the national register, and any other property deemed of historic significance by the King
313 County historic preservation officer.

314 **HOUSING CODE** is the *Uniform Housing Code* promulgated by the
315 International Conference of Building Officials, or its successor, as adopted by this
316 jurisdiction.

317 **IMMEDIATELY HAZARDOUS AND DANGEROUS STRUCTURE** is a
318 structure that has been determined by the building official to constitute an immediate
319 safety hazard because the structure, or some portion of that structure, is determined, to be
320 subject to immediate failure, detachment, dislodgment or collapse and is likely to injure
321 persons, damage property or cause other serious public safety problems.

322 **NONSTRUCTURAL DAMAGE** is damage that has been determined through an
323 engineering evaluation to have the potential to cause injury or death to the occupants or
324 the public, or to have the potential to prevent occupancy due to restricted access or
325 egress. Nonstructural damage includes, but is not limited to, damage to parapets,
326 chimneys, ornamentation, cladding, masonry veneer, glazing, interior partitions, cracks in
327 finishes, damage of equipment, furnishing and mechanical or electrical problems not
328 directly related with fire protection or life safety, but that creates a situation where
329 correction is required for safe operation and occupancy.

330 **NUISANCES** shall be defined, for the purpose of this Code, as provided by
331 K.C.C. Title 23.

332 **RAPID ABATEMENT PLAN** is a plan prepared pursuant to sections 4 through 15
333 of this ordinance, for the abatement of an immediately hazardous and dangerous structure
334 damaged by disaster resulting in a declared emergency.

335 **STRUCTURAL DAMAGE** is damage that has been determined through an
336 engineering evaluation to have significantly decreased the structural integrity or the
337 vertical and lateral load carrying capacity of the structural frame of a structure. Structural
338 damage includes, but is not limited to, damage to roof or floor systems, columns,
339 diaphragms, walls or vertical bracing, moment frames, framing connections, precast
340 connections, base plate damage, weld failures or serious foundations damage.

341 SECTION 17. Ordinance 14111, Section 168, and K.C.C. 16.04.160 are each
342 hereby amended to read as follows:

343 **Notices and orders of building official - Repair, vacation and demolition.**
344 Section 403 of the Uniform Code for the Abatement of Dangerous Buildings is not
345 adopted and the following substituted:

346 **Repair, vacation and demolition (UCADB 403).** The following standards shall
347 be followed by the building official (and the Hearing Examiner if an appeal is taken) in
348 ordering the repair, vacation, abatement, or demolition of any dangerous structure or
349 nuisance:

350 1. A building declared a dangerous building under this code shall either be
351 repaired in accordance with the current building code, except structures damaged as a
352 result of a disaster when the Executive has declared an emergency, which shall comply
353 with sections 19 through 25 and 30 through 31 of this ordinance; or shall be demolished
354 at the option of the building owner. The provisions of sections 19 through 25 and 30

355 through 31 of this ordinance are not intended to modify requirements that would
356 otherwise apply under the Washington state energy code, chapter 19.27A RCW or
357 provisions in buildings for aged and handicapped persons, chapter 70.92 RCW.

358 2. If the building or structure is in such condition as to make it immediately
359 dangerous to the life, limb, property or safety of the public or its occupants, it shall be
360 ordered to be vacated and secured from entry.

361 3. If the nuisance located on the premises is in such condition as to make it
362 immediately dangerous to life, limb, property or safety of the public, or its occupants, it
363 shall be ordered to be removed, abated or vacated and secured from entry.

364 NEW SECTION. SECTION 18. There is hereby added to K.C.C. Title 16 a new
365 section to read as follows:

366 **Disaster damage - purpose (UBC 3419).** The purpose of sections 19 through 25
367 of this ordinance is to provide a defined level of repair for buildings and structures
368 damaged by a disaster resulting in a declared emergency, as defined in K.C.C. 16.04.080.
369 The provisions of sections 19 through 25 of this ordinance are not intended to modify
370 requirements that would otherwise apply under the Washington state energy code,
371 chapter 19.27A RCW or provisions in buildings for aged and handicapped persons,
372 chapter 70.92 RCW.

373 NEW SECTION. SECTION 19. There is hereby added to K.C.C. Title 16 a new
374 section to read as follows:

375 **Disaster damage - critical structures (UBC 3420).**

376 For the purpose of the UBC, a “critical structure” means a structure that may
377 require a higher level of repair after a disaster because of its construction, use, height in
378 stories, occupant load or location and is one or more of the following:

379 1. A masonry structure constructed without structural reinforcement or reinforced
380 only with joint reinforcement;

381 2. A structure with either a Group A, E or I occupancy classification, as defined
382 by the UBC 303.1.1, 305.1 or 308.1, and an occupant load of over three hundred;

383 3. A structure that is four or more stories in height;

384 4. A structure that has been identified as an essential facility occupancy category
385 in UBC Table 16-K;

386 5. A structure that contains a Group H occupancy, as defined in UBC 307.1, with
387 the exception of Division 4 (repair garages) occupancy; or

388 6. A structure that is located in a seismic or landslide hazard area, as designated
389 in the King County Sensitive Areas Map Folio.

390 NEW SECTION. SECTION 20. There is hereby added to K.C.C. Title 16 a new
391 section to read as follows:

392 **Disaster damage - structural repairs (UBC 3421).** Required structural repair
393 levels shall be based on the ratio of the estimated cost of repairs required to restore the
394 structural members to their pre-event condition to the estimated replacement cost of the
395 structure.

396 1. Required structural repair level for a damage ratio of ten percent or less (UBC
397 3421.1). When the damage ratio is ten percent or less, structures, except critical

398 structures, as defined in section 19 of this ordinance, must be restored, at a minimum, to
399 their pre-event condition.

400 **EXCEPTIONS:** 1. Replacement of structural masonry shall
401 always be provided with reinforcement. 2. Structural masonry
402 repairs shall be based on the recommendation of the engineer of
403 record.

404 2. Required structural repair level for a damage ratio greater than ten percent but
405 no more than fifty percent (UBC 3421.2).

406 2.1. Structures, except critical structures, as defined in section 19
407 of this ordinance, shall have the damaged structural members, including
408 all critical ties and connections associated with the damaged structural
409 members, all structural members supported by the damaged member, and
410 all structural members supporting the damaged members repaired,
411 replaced or strengthened to bring them into compliance with the
412 connection requirements and seventy-five percent of the force levels of the
413 Uniform Building Code.

414 **EXCEPTION:** For structures with rigid diaphragms where the
415 above-required repair and strengthening increases the rigidity of
416 the resisting members, the entire lateral-force-resisting system of
417 the structure shall be investigated. When, in the opinion of the
418 building official, an unsafe or adverse condition has been created
419 as a result of the increase in rigidity, the condition shall be
420 corrected.

421 2.2. When the structure is not a critical structure, as defined in
422 section 19 of this ordinance, conventional stud framed structures, which
423 contain occupancies classified as Group R, Division 3 or Group U,
424 Division 1 or accessory sheds or one story buildings not greater than two
425 thousand square feet, which are accessory to Group R, Division 3
426 occupancies, may alternatively comply with section 22 of this ordinance,
427 with the approval of the building official.

428 **EXCEPTIONS:** 1. Structures containing occupancies classified
429 as Group R, Division 3 which are located in a seismic or landslide
430 hazard area, as designated on the King County sensitive area folio
431 maps. 2. Structures with foundation or ground failures.

432 3. Required structural repair level for a damage ratio greater than fifty percent
433 (UBC 3421.3). When the damage ratio is greater than fifty percent, all structures shall
434 have the entire structure strengthened to comply with the force levels and connection
435 requirements of the UBC.

436 4. Required structural repair level for critical structures (UBC 3421.4). When the
437 damage ratio for critical structures, except for structures identified as essential facilities,
438 as defined in UBC Table 16-K, is ten percent or less, the critical structures may be
439 restored to their pre-event condition, except as noted in this section. When the damage
440 ratio for critical structures is greater than ten percent but no greater than thirty percent,
441 and for essential facilities when the damage ratio is greater than five percent but no
442 greater than thirty percent, structures shall have the damaged structural members,
443 including all critical ties and connections associated with the damaged structural

444 members, all structural members supported by the damaged member, and all structural
445 members supporting the damaged members repaired, replaced or strengthened to bring
446 them into compliance with the connection requirements and seventy-five percent of the
447 force levels of the UBC. When the damage ratio for critical structures and essential
448 facilities is greater than thirty percent, the entire structure shall be strengthened to comply
449 with the force levels and connection requirements of the UBC.

450 **EXCEPTION:** The top two floors of a four or more story
451 structure may meet a lesser criteria than having those levels
452 strengthened to comply with the force levels and connection
453 requirements of the UBC, provided that the criteria is not less than
454 that which those floors would be subject to if they were in a two-
455 story structure, based on the damage they incurred.

456 5. Exception to the required structural repair level for Group H occupancies
457 (UBC 3421.5). When the structure owner can demonstrate that Group H occupancies are
458 of a minor or accessory nature, the building official may designate the structure as other
459 than a critical structure for structural repair design criteria purposes.

460 6. Disaster damage repair - evaluations required (UBC 3421.6). For all structures
461 listed in subsections 1, 2 and 3 of this section, UBC 3421.1, UBC 3421.2 and UBC
462 3421.3, proposed repair or alteration of structures shall include an evaluation of the
463 effects of such work to the building in its entirety. This evaluation shall include, but not
464 be limited to, an investigation of the effects of any induced eccentricity and changes in
465 the foundation and in story stiffness, as a result of the proposed improvements. When, in

466 the opinion of the building official, an unsafe or adverse condition has been created as a
467 result of such effects, the condition shall be corrected.

468 7. Disaster damage repair - alternatives (UBC 3421.7). The building official may
469 approve an alternative design criteria if the owner's engineer or architect can
470 demonstrate, to the satisfaction of the building official, that the structure, after repair or
471 alteration, will provide that level of safety as required by the intent of the UBC.

472 8. Appeals (UBC 3421.8), Decisions of the building official relating to the
473 required structural repair level may be appealed to the Building Code Advisory Board in
474 accordance with K.C.C. 16.04.05004.

475 NEW SECTION. SECTION 21. There is hereby added to K.C.C. Title 16 a new
476 section to read as follows:

477 **Disaster damage repair - special provisions (UBC 3422).** The following
478 special provisions shall apply when the damage ratio is greater than ten percent:

479 1. A structure containing an occupancy classified as Group R, which contains
480 five or more dwelling units and which contains parking shall have any level containing
481 parking and the connections of any parking level to adjacent levels strengthened to
482 comply with the force levels and connection requirements of the UBC.

483 **EXCEPTION:** A wood-frame structure of one or two stories or
484 one story and a basement, provided that no dwelling units are
485 located above parking areas.

486 2. A structure having concrete tilt-up or masonry bearing walls shall be provided
487 with a positive connection between the walls and roof diaphragm sized in accordance
488 with the UBC.

489 3. A masonry structure, constructed without structural reinforcement or
490 reinforced only with joint reinforcement, which has not been identified as an essential
491 facility occupancy category in UBC Table 16-K, and does not contain Group H
492 occupancies, other than Division 4, repair garages, shall comply with the Uniform Code
493 for Building Conservation, Appendix Chapter 1. These structures, which are used as an
494 essential facility, or contain Group H occupancies, other than Division 4, repair garages,
495 shall have the entire structure strengthened to comply with the force levels and
496 connection requirements of the UBC.

497 4. For repairs to structures located in a seismic hazard area, as identified on the
498 King County sensitive areas map folio, consideration shall be given to potential
499 consequences of any liquefaction and soil strength loss, including estimation of
500 differential settlement, lateral movement or reduction in foundation soil bearing capacity
501 in accordance with a foundation investigation as required by UBC Section 1804.2.

502 5. For repairs to structures located in a landslide hazard area, as identified on the
503 King County sensitive areas map folio, an evaluation of the risks shall be made by a
504 geotechnical engineer. Where excessive risk exists and cannot be mitigated, repair is
505 prohibited, when the ratio of the estimated value of the repairs required to restore the
506 structural members to their pre-event condition to the estimated replacement value of the
507 structure exceeds thirty percent. Repair proposals and construction shall be in
508 conformance with recommendations of the geotechnical engineer of record.

509 NEW SECTION. SECTION 22. There is hereby added to K.C.C. Title 16 a new
510 section to read as follows:

511 **Disaster damage repairs - alternative residential provisions (UBC 3423).**

512 When the structure is not a critical structure and the damage ratio is greater than ten
513 percent, but less than fifty percent, conventional stud framed structures which contain
514 occupancies classified as Group R, Division 3 or Group U, Division 1 or accessory sheds
515 or one story buildings not greater than two thousand square feet, which are accessory to
516 Group R, Division 3 occupancies, shall, at a minimum, be restored to their pre-event
517 condition. If restored to their pre-event condition, the following provisions also apply:

- 518 1. Damaged required braced panels shall be repaired or replaced.
- 519 2. The wood frame shall be attached to the foundation with not less than the
520 following, or its equivalent: one-half inch anchor bolt at six feet on center where one
521 floor is supported on the foundation; or one-half inch anchor bolt at four feet on center
522 where two or three stories are supported on the foundation. Each foundation bolt newly
523 installed for compliance with this section shall be provided with plate washers a
524 minimum of two inch by two inch by three-sixteenths inch thick.

- 525 3. At each level, in each direction, minimum bracing shall be provided as
526 follows:

527 3.1. Braced wall panels shall be in a quantity such that the total
528 amount of braced wall panels shall be not be less than eighteen percent of
529 the building width at first story of two stories, or second story of three
530 stories.

531 3.2 The total amount of braced wall panels shall be not less than
532 thirty percent of the building width at the first story of three stories.

533 3.3 Construction of braced wall panels shall be one of the methods
534 listed in UBC 2320.11.3, Bracing, or may fully comply with K.C.C.
535 16.04.05049, UBC 2320.11.4.

536 3.4 Braced wall panels shall be installed so that there is no
537 unbraced section along the wall exceeding thirty-two feet, except that
538 braced wall panels shall be installed so there is no unbraced section along
539 the wall exceeding twenty-five feet at the first story of three stories.

540 3.5 No braced wall panel less than two feet shall be considered to
541 satisfy a portion of the overall length requirement, unless fully complying
542 with K.C.C. 16.04.05049, UBC 2320.11.4.

543 3.6. Braced wall panels shall be provided with ties to the wall
544 below or to the foundation to resist overturning where the braced wall
545 panel is less than three feet at the first and second story of three stories and
546 first of two stories.

547 3.7 Alternative braced wall panels shall comply with K.C.C.
548 16.04.05049, UBC 2320.11.4

549 NEW SECTION. SECTION 23. There is hereby added to K.C.C. Title 16 a new
550 section to read as follows:

551 **Disaster damage - nonstructural repairs to light fixtures and suspended**
552 **ceilings (UBC 3424).** Regardless of the damage ratio, when light fixtures and the
553 suspension system of suspended ceilings are damaged, the damaged light fixtures and
554 suspension systems shall be required to fully comply with the requirements of this code

555 and UBC Standard 25-2. Undamaged light fixtures and suspension systems shall have
556 the additional support and bracing, provided that is required in UBC Standard 25-2.

557 NEW SECTION. SECTION 24. There is hereby added to K.C.C. Title 16 a new
558 section to read as follows:

559 **Disaster damage - repair criteria for masonry chimneys (UBC 3425).**

560 1. All damaged masonry chimneys must be repaired or reconstructed to comply
561 with the requirements of UBC Chapter 31, repaired or reconstructed with pre-
562 manufactured chimneys or they shall be removed. When only a portion of the masonry
563 chimney requires repair, damaged portions of chimneys shall be removed and repaired in
564 accordance with the following criteria:

565 1.1. When the damaged portion of the chimney is located between
566 the roof line and the top of the chimney, the damaged portion shall be
567 removed to the roof line provided the roof and ceiling anchorage are in
568 sound condition. The reconstructed portion of the chimney shall be braced
569 to the roof structure.

570 1.2. For a single story structure in which the damaged portion of
571 the chimney is below the roofline or the damaged portion extends from
572 above the roofline to below the roofline, the chimney shall be removed to
573 the top of the fireplace.

574 1.3. For a multistory structure, the damaged portion of the
575 chimney shall be removed from the top to a floor line where sound
576 anchorage is found.

577 1.4. In any structure where the firebox has been damaged, the
578 entire chimney and firebox shall be removed to the foundation. If the
579 fireplace foundation is in sound condition, the firebox and chimney may
580 be reconstructed using the existing foundation. If the fireplace foundation
581 has been damaged, the fireplace foundation shall be removed and
582 replaced.

583 2. Where existing conditions preclude the installation of all anchorage required
584 by UBC Chapter 31, alternate systems may be used in accordance with the alternate
585 methods and materials provisions of the current code when approved by the building
586 official. Such alternate systems shall be designed and detailed by a structural engineer,
587 civil engineer or architect.

588 3. When the portion of the chimney extending above the roof line exceeds three
589 times the least dimension of the chimney, that portion above the roof line shall be braced
590 to the roof structure.

591 NEW SECTION. SECTION 25. There is hereby added to K.C.C. Title 16 a new
592 section to read as follows:

593 **Disaster damage - certified compliance program for nonstructural and**
594 **“stand-alone” structural repairs (UBC 3426).**

595 The building official may establish a certified compliance program by public rule
596 in accordance with K.C.C. chapter 2.98. This program will allow certain repairs to
597 disaster damaged structures through an issued building permit without requiring an
598 engineered repair design and without submitting plans for review by King County.

599 1. Repairs authorized under this program will be where the damage is limited to
600 nonstructural components, such as chimneys and stand-alone structural systems, such as
601 masonry or concrete masonry walls.

602 2. The program would require that nonstructural and stand-alone structural
603 repairs be performed only by registered contractors who can demonstrate competence in
604 standards set forth in the public rule.

605 3. The program may waive the requirement for inspection of the nonstructural
606 and stand alone structural repairs, provided the registered contractor provides
607 certification that the repairs have been completed in accordance with the approved permit
608 and the repair criteria.

609 4. Repair criteria and required standards for registered contractors shall be set
610 forth in the public rule.

611 SECTION 26. Ordinance 12560, Section 170, and K.C.C. 17.04.01023 are each
612 hereby amended to read as follows:

613 **Fire department access - Life safety/rescue access (UFC 904).**

614 1. All occupancies shall be required to provide approved life/safety rescue access
615 except for the following:

616 1.1 Group U occupancies.

617 1.2 Roof access need not be provided to roof levels having slope greater than 4
618 in 12.

619 2. The provisions of this chapter shall apply to all buildings whose county
620 assessed value has increased by more than 50% within a five year period due to the added
621 value of additions, alterations and repairs. When the first permit application is submitted

622 to add to, alter or repair an existing building, the county assessed value of the building at
623 the time the complete application is submitted shall be considered the base county
624 assessed value for the following five year period.

625 **EXCEPTION:** Structures damaged as a result of a disaster, as
626 defined in K.C.C. 16.04.080, shall comply with sections 30 and 31
627 of this ordinance.

628 3. Any additions to an existing structure shall be considered new construction and
629 subject to the provisions of this section.

630 SECTION 27. Ordinance 12560, Section 171, and K.C.C. 17.04.01024 are each
631 hereby amended to read as follows:

632 **Fire-extinguishing systems - General.** Section 1003.2.1 of the Uniform Fire
633 Code is not adopted and the following is substituted:

634 **General (UFC 1003.2.1).** 1. An automatic fire-extinguishing system shall be
635 installed in the occupancies and locations as set forth in Section 1003.2. For provisions
636 on special hazards and hazardous materials, see Section 1001.9 and Article 79, 80 and 81.

637 2. The provisions of this section shall apply to all buildings whose county
638 assessed value has increased by more than 50% within a five year period due to the added
639 value of additions, alterations and repairs. When the first permit application is submitted
640 to add to, alter or repair an existing building, the county assessed value of the building at
641 the time the complete application is submitted shall be considered the base county
642 assessed value for the following five year period.

643 **EXCEPTION:** Structures damaged as a result of a disaster, as
644 defined in K.C.C. 16.04.080, shall comply section 30 and 31 of
645 this ordinance.

646 3. Any additions to an existing structure shall be considered new construction and
647 subject to the provisions of this section.

648 4. All condominiums shall have the following wording in the recorded
649 Declaration of Covenants and a copy of the document shall be provided to the building
650 official or his((/))or her designee:

651 4.1 In the event that any unit should be equipped with a sprinkler system,
652 nothing shall be hung from the sprinklers comprising a part of the system nor shall any
653 such sprinklers be painted, covered, or otherwise changed, tampered with or altered.

654 4.2 Prior to any alteration, amendment, modification or change thereof, the
655 owners or their agents will submit such alteration, amendment, modification or change to
656 the King County Fire Marshal or his((/))or her designee for approval and agrees to
657 comply with all applicable sprinkler requirements.

658 SECTION 28. Ordinance 12560, Section 175, and K.C.C. 17.04.01028 are each
659 hereby amended to read as follows:

660 **Fire-protection systems and equipment - Fire detection systems (UFC 1008).**

661 1. All occupancies exceeding 3,000 square feet gross floor area shall be required
662 to provide an approved automatic fire detection system. Area separation walls as noted
663 in Section 504.6 of the Uniform Building Code shall not be considered to separate a
664 building to enable deletion of the required fire detection system except in the following:

665 1.1 Group U or R, Division 3, occupancies.

666 1.2 Occupancies protected throughout by an approved/monitored automatic
667 sprinkler system can delete heat detectors from the system.

668 2. The provisions of this section shall apply to all buildings whose county
669 assessed value has increased by more than 50% within a five year period due to the added
670 value of additions, alterations and repairs. When the first permit application is submitted
671 to add to, alter or repair an existing building, the county assessed value of the building at
672 the time the complete application is submitted shall be considered the base county
673 assessed value for the following five year period.

674 **EXCEPTION:** Structures damaged as a result of a disaster, as
675 defined in K.C.C. 16.04.080, shall comply with sections 30 and 31
676 of this ordinance.

677 3. Any additions to an existing structure shall be considered new construction and
678 subject to the provisions of this section.

679 NEW SECTION. SECTION 29. There is hereby added to K.C.C. chapter 17.04
680 a new section to read as follows:

681 **Disaster damage - purpose (UFC 8705.5).** The purpose of sections 30 and 31 of
682 this ordinance is to provide a defined level of repair for buildings and structures damaged
683 as a result of a disaster, as defined in K.C.C. 16.04.080, when a formal state of
684 emergency has been declared. The provisions of sections 30 through 31 of this ordinance
685 are not intended to modify requirements that would otherwise apply under the
686 Washington state energy code, chapter 19.27A RCW or provisions in buildings for aged
687 and handicapped persons, chapter 70.92 RCW.

688 NEW SECTION. SECTION 30. There is hereby added to K.C.C. chapter 17.04
689 a new section to read as follows:

690 **Life safety/rescue access, fire-extinguishing system and fire detection system**
691 **requirements for structures damaged by disaster (UFC 8705.6).** Structures damaged
692 as a result of a disaster, as defined in K.C.C. 16.04.080, that do not comply with K.C.C.
693 17.04.01023 (Life safety/rescue access - UFC 904), K.C.C. 17.04.01024 (Fire
694 extinguishing systems - UFC 1003.2.1) or K.C.C. 17.04.01028 (Fire detection systems -
695 UFC 1008), shall comply with current code based on the ratio of the estimated value of
696 the repairs required to restore the structural members to their pre-event condition to the
697 estimated replacement value of the structure as follows:

698 1. When the damage ratio is thirty percent or less, structures will not be required
699 to be retrofitted to comply with K.C.C. 17.04.01023 (Life safety/rescue access - UFC
700 Section 904), K.C.C. 17.04.01024 (Fire extinguishing systems - UFC 1003.2.1) or K.C.C.
701 17.04.01028 (Fire detection systems - UFC 1008).

702 2. When the damage ratio is greater than thirty percent, but less than fifty percent,
703 structures shall comply with K.C.C. 17.04.01023 (Life safety/rescue access - UFC
704 Section 904), K.C.C. 17.04.01024 (Fire extinguishing systems - UFC 1003.2.1) and
705 K.C.C. 17.08.01028 (Fire detection systems - UFC 1008), to the degree feasible. When
706 full compliance with K.C.C. 17.04.01024 (Fire extinguishing systems - UFC Section
707 1003.2.1) is found to not be feasible due to insufficient water availability, partial
708 coverage may be required. Feasibility shall be determined by the fire marshal using the
709 following factors:

710 3.1 Water availability;

- 711 3.2 Existing configuration of the structure;
- 712 3.3 Existing configuration of the site and access;
- 713 3.4 Whether repairs will extend the useful life of the structure;
- 714 3.5 Projected length of the economic life of the structure;
- 715 3.6 Existing or proposed area separation walls;
- 716 3.7 Extent of the proposed noncompliance;
- 717 3.8 Extent of repairs;
- 718 3.9 Use, occupant load, or fire load of the facility; and
- 719 3.10 Economic considerations.

720 3. When the damage ratio is fifty percent or greater, structures shall meet full
721 compliance with K.C.C. 17.04.01023 (Life safety/rescue access - UFC Section 904),
722 K.C.C. 17.04.01024 (Fire extinguishing systems - UFC 1003.2.1) and K.C.C.
723 17.08.01028 (Fire detection systems - UFC 1008).

724 NEW SECTION. SECTION 31. There is hereby added to K.C.C. chapter 17.04
725 a new section to read as follows:

726 **Repairing and replacing existing fire-extinguishing systems and fire detection**
727 **systems damaged by a disaster (UFC 8901).** Existing fire extinguishing systems and
728 fire detection systems damaged as a result of a disaster, as defined in K.C.C. 16.04.080,
729 shall comply as follows:

730 1. When damage to an existing fire extinguishing system or fire detection system
731 requires repair, replacement or both, totaling less than or equal to ten percent of the
732 system, it may be repaired or replaced to the code requirements in effect at the time the
733 system was installed.

734 2. When the damage to an existing fire extinguishing system or fire detection
735 system requires repair, replacement or both, totaling more than ten percent, but less than
736 fifty percent of the system, the damaged portions of the system must be brought into
737 compliance with the current code requirements.

738 3. When the damage to an existing fire extinguishing system or fire detection
739 system requires repair, replacement or both totaling fifty percent or more of the system,
740 the entire system must be brought into compliance with current code requirements.

741 NEW SECTION. SECTION 32. There is hereby added to K.C.C. chapter 27.02
742 a new section to read as follows:

743 **Disaster Response Expenditures.** Expenditures drawn from the Development
744 and Environmental Services (DES) Fund for disaster response, which are not recovered
745 through the assessment of fees or reimbursement from the Federal Emergency
746 Management Administration (FEMA), shall be reimbursed to the DES Fund by the
747 Current Expense Fund within twelve months of when the expenses were incurred.

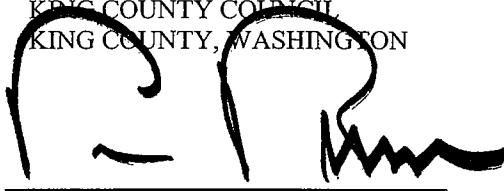
748 SECTION 33. Severability. If any provision of this ordinance or its application

749 to any person or circumstance is held invalid, the remainder of the ordinance or the
750 application of the provision to other persons or circumstances is not affected.
751
752

Ordinance 14238 was introduced on 8/20/01 and passed by the Metropolitan King
County Council on 10/29/01, by the following vote:

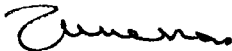
Yes: 12 - Mr. von Reichbauer, Ms. Miller, Ms. Fimia, Mr. Phillips, Mr. Pelz,
Mr. McKenna, Ms. Sullivan, Mr. Pullen, Mr. Gossett, Ms. Hague, Mr.
Thomas and Mr. Irons
No: 0
Excused: 1 - Mr. Nickels

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

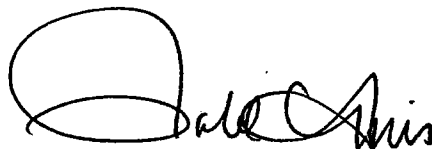


Pete von Reichbauer, Chair

ATTEST:



Anne Noris, Clerk of the Council
APPROVED this 10 day of NOVEMBER, 2001.



Ron Sims, County Executive

Attachments None