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Case No. 882-A

OAH No. 2010041379

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ORDER DENYING PETITION FOR RECONSIDERATION

has been read and considered by the Board for Professional Engineers, Land Surveyors, and Geologists. Good cause for the granting of the petition has not been shown; therefore, the Petition for Reconsideration is hereby denied.

The Decision issued by the Board for Professional Engineers, Land Surveyors, and Geologists shall become effective upon expiration of the Order Granting Stay of Execution of Decision on January 24, 2011.

IT IS SO ORDERED January 4, 2011.

Original Signed

BOARD FOR PROFESSIONAL ENGINEERS,
LAND SURVEYORS, AND GEOLOGISTS
Department of Consumer Affairs
State of California

NANCY A. EISSLER
Enforcement Program Manager
Board for Professional Engineers and Land Surveyors
Department of Consumer Affairs
State of California

BEFORE THE
BOARD FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS
DEPARTMENT OF CONSUMER AFFAIRS
STATE OF CALIFORNIA

In the Matter of the Accusation against:)

FRANCISCO MOLINA, JR.)

810 Morrill Street)

Hayward, CA 94541)

Civil Engineer License No. C 28116,)

Respondent.)

Case No. 882-A

OAH No. 2010041379

DECISION

The attached Proposed Decision of the Administrative Law Judge is hereby adopted by the Board for Professional Engineers and Land Surveyors as its Decision in the above-entitled matter.

This Decision shall become effective on December 24, 2010.

IT IS SO ORDERED November 17, 2010.

Original Signed

BOARD FOR PROFESSIONAL ENGINEERS
AND LAND SURVEYORS
Department of Consumer Affairs
State of California

BEFORE THE
BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
DEPARTMENT OF CONSUMER AFFAIRS
STATE OF CALIFORNIA

In the Matter of the Accusation Against:

FRANCISCO MOLINA, JR.,

Civil Engineer License No. C28116

Respondent.

Case No. 882-A

OAH No. 2010041379

PROPOSED DECISION

Administrative Law Judge Diane Schneider, State of California, Office of Administrative Hearings, heard this matter in Oakland, California on September 13, 2010. Aspasia Papavassiliou, Deputy Attorney General, represented complainant David Brown, Executive Officer of the Board for Professional Engineers and Land Surveyors.

Respondent was present and represented himself.

The record closed, and the matter was submitted for decision on September 13, 2010.

FACTUAL FINDINGS

1. At the hearing, the Accusation was amended to delete the allegations contained in paragraph 9, subsections AA, BB and HH.
2. David Brown made this accusation in his official capacity as the Executive Officer of the Board for Professional Engineers and Land Surveyors (board), Department of Consumer Affairs.
3. On August 10, 1977, the board issued Civil Engineer License Number C 28116 to respondent Francisco Molina, Jr. The Civil Engineer license was in full force and effect at all times relevant to this matter and will expire on March 31, 2012, unless renewed.¹
4. On August 18, 2003, respondent entered into a written engineering service contract with Raymundo Reyes for a property located on Burr Street in Oakland. The

¹ At the hearing, counsel for complainant amended the Accusation, at page one, line 26, to reflect the current expiration date of respondent's license.

property was a vacant lot on which Reyes wished to build a single family dwelling. Respondent agreed to provide engineering calculations necessary for obtaining a building permit from the city. According to the contract, respondent agreed to provide Reyes with structural calculations, grading plans, architectural drawings of plans and elevations, and drainage and sewage plans, among other things. Reyes paid respondent \$6,000 in fees for respondent's services. Respondent prepared drawings and plans, and submitted them to the City of Oakland. The plans were not approved because they did not comply with city guidelines. Reyes testified that the city planner in charge of the project, Caesar Quitevis, described respondent's plans as "confusing" and incomplete. Quitevis communicated his concerns to respondent, who revised the plans. In spite of his revisions, respondent could not obtain city approval for the plans. As a result, Reyes withdrew his application to build a house on the Burr Street property. Reyes later hired an architect, who drew up plans and obtained city approval for the project.

5. Mohammed R. Hariri is a licensed structural and civil engineer with over 20 years of experience in planning and designing residential and commercial structures. At the request of the board, he reviewed the engineering work and drawings prepared by respondent for the Burr Street project. Hariri documented numerous problems with respondent's calculations and drawings in an 11-page report. In his report, he concludes:

These drawings have incorrect and improper details, lack of proper information for a contractor, and demonstrate several violations of the standard of the profession, negligence and/or incompetence on a level nothing less than unsafe. These drawings show numerous errors and omissions and the engineer preparing these plans may have knowledge [of] some building code sections and design of building elements but [is] incompetent at putting together a presentable, legible, complete set of plan[s] per the current [applicable] code. Considering the totality of the evidence at my disposal and based on the numerous violations it is my professional opinion that had the plans been submitted to a jurisdiction with a less diligent plan check and construction inspection procedures, the building could have been completed with serious life threatening defects.

6. Hariri also testified at the hearing regarding the numerous errors contained in respondent's drawings and calculations. Hariri's testimony was persuasive and provides the basis for the findings, set forth below, regarding respondent's acts of negligence and incompetence.²

7. Respondent's plans contained the following calculation errors:

² Hariri testified that respondent's errors also constituted violations of the California Building Code.

- a. On sheet one of the calculations, respondent calculated the roof trusses' dead load at two pounds per square foot (psf) when it should have been calculated at about 4.35 psf. In addition, the second floor diaphragm load is low since it does not include drywall weight. These errors constitute negligence.
- b. On sheet four of the calculations, respondent's seismic calculations were inadequate in that they did not include the space between the first level and top of the garage. This error constitutes negligence.
- c. On sheet five of the calculations, respondent failed to provide calculations for determination of seismic reliability and redundancy for the structure. This error constitutes negligence.
- d. On sheet eight of the calculations, respondent used wind exposure "B" in his wind load calculations. Respondent should have used wind exposure "C" as that is required by the Oakland City Code. This error constitutes negligence.
- e. On sheet 11 of the calculations, respondent failed to provide complete calculations for concrete walls, retaining walls, elevated concrete slab (garage roof) and all shallow and deepened footings. This error constitutes negligence.
- f. On sheet 10 of the calculations, respondent's model of pier location plan does not match the plan on sheet one of the drawings. This error constitutes negligence.
- g. On sheet 12 of the calculations, respondent did not provide complete calculations for piles strength, embedment into soil, and deformation. He also failed to apply the effects of creep forces to all piles, grade beams, and footings, and failed to design the exposed portions of piles as cantilevered columns. Respondent also failed to print this sheet in color, which is necessary for a unity check. These errors constitute negligence and incompetence.
- h. On sheets 13 through 15 of the calculations, respondent's computer output models and forces are not legible. This error constitutes negligence.
- i. On sheet 38 of the calculations, respondent failed to provide calculations for the truss member connection. This error constitutes negligence.
- j. On sheets 42 through 44 of the calculations, respondent's computer output models, nodes and forces, are illegible. This error constitutes negligence.

8. Respondent's drawings, dated June 9, 2004, contained the following errors:

- a. On sheet one of the drawings, respondent failed to include a list of adopted codes, and referred to the 1997 Uniform Building Code, which was obsolete at the time of these plans. This error constitutes negligence.
- b. On sheet one of the drawings, respondent's foundation pier location plan is incomplete and not to scale. This error constitutes negligence.
- c. On sheet one of the drawings, respondent failed to provide details for piles or piers and walls indicated as W-P1 through W-P4 on the east side and shown on foundation pier location. In addition, the number of piles designated as N-P1 through N-P4 does not match the number of piles on Sheet 11 of the drawings. These errors constitute negligence.
- d. On sheet two of the drawings, respondent failed to clearly indicate the levels of the building on the site plan. The extent of the garage level and the entry balcony of

level one are not shown. In addition, the balconies on level two are not labeled, half of the lines for the dormer roofs are missing, the extent of the roof drip lines and gutters is not clear, and the exterior staircase from grade to the garage roof level is missing information for landings and connection to the building. These errors constitute negligence.

- e. On sheet two of the drawings, respondent depicts the roof as hips and eaves in the north and south elevations, and as gable and rake and gable walls in the east and west elevations, site plan and framing layout. In addition, lines are missing from the north side of the garage and level two balconies. These errors constitute negligence.
- f. On sheet three of the drawings, for the level one floor plan, respondent failed to label rooms, the floor level of the garage roof below, and the entry balcony. He also failed to include dimensions and landing elevations information on the exterior staircase from the garage roof level to the entry balcony of level one. These errors constitute negligence.
- g. On sheet three of the drawings, for the level one floor plan, respondent failed to label rooms, and there are missing wall and door lines at the bedroom and hallway. In addition, the line work for the waste piping is not labeled, and the text is illegible. The floor opening for the interior staircase is missing dimensions. These errors constitute negligence and incompetence.
- h. On sheet three of the drawings, respondent references building code sections that were obsolete at the time of these plans. In addition, note one regarding smoke alarms is incomplete and does not address building code requirements. These errors constitute negligence.
- i. On sheet five of the drawings, specifications regarding the attachment of the stair handrail to the top rail are inconsistent with the 2001 California Building Code. In addition, the text noted for the handrails is illegible. These errors constitute negligence.
- j. On sheet six of the drawings, notes nine through 20 regarding nailing wood members are incomplete and are inconsistent with the 2001 California Building Code. These errors constitute negligence.
- k. On sheets five and six of the drawings, respondent failed to provide complete material specifications for concrete, steel, and wood, which could compromise the integrity of the house. These errors constitute negligence.
- l. On sheet five of the drawings, respondent failed to specify the size of the beams at the edge of the balcony, which could cause injury or damage. This error constitutes negligence.
- m. On sheet five of the drawings, respondent failed to call out stud walls on the north, south and west walls. Although the stud wall size is called out on the east wall, spacing and grade are not indicated. Respondent also failed to specify that exterior walls around stairs should be balloon framed since they are not laterally supported at the second floor level. These errors constitute negligence.
- n. On sheet five of the drawings, respondent failed to call out the shear wall specifications on the north, south, and west walls. This omission compromises the

- resistance of the structure against lateral loads, which may cause damage to or failure of the entire structure. These errors constitute negligence.
- o. On sheet five of the drawings, respondent failed to provide details for the shear transfer of lateral forces at the floor levels, and there is no continuous load path. The omission of the details for shear transfer of lateral forces compromises the continuity of the continuous load path, and may cause damage to or failure of the upper roof and floor structures. These errors constitute negligence.
 - p. On sheet six of the drawings, notes 31 and 32 reference sections of the California Building Code that were obsolete as the date of the plans, and note 36 is erroneous. These errors constitute negligence.
 - q. On sheet six of the drawings, respondent failed to indicate the requirements for under floor or crawlspace ventilation for the structure. In addition, line work for floors is missing from the building section. These errors constitute negligence.
 - r. On sheet six of the drawings, there are no details for sheer transfer of lateral forces at the roof level, and there is no continuous load path. Typical shear transfer blockings between trusses are missing in cornice detail and sections, which compromises the continuity of the continuous load path and may cause damage to or failure of the upper roof and floor structures. These errors constitute negligence.
 - s. On sheet six of the drawings, respondent failed to provide roof and floor sheathing thickness, panel grade and panel index. In addition, no details are provided for plywood panel layout. These errors constitute negligence.
 - t. On sheet six of the drawings, ridge beams and dormer outriggers are over-stressed. These errors constitute negligence.
 - u. On sheet seven of the drawings, respondent's notes for fire stopping in combustible framing are incomplete and need clarification. These errors constitute negligence.
 - v. On sheet eight of the drawings, respondent failed to indicate that exterior electrical outlets must be weatherproof, and failed to place a smoke alarm in the hallway. These errors constitute negligence.
 - w. On sheet nine of the drawings, respondent failed to indicate safety glazing at required locations. This error constitutes negligence.
 - x. On sheet 10 of the drawings, respondent failed to provide plans for the layout of the reinforcing bars for the garage roof concrete slab. The location of steel and the layout and connection to the walls for this slab are not detailed. In addition, the slab is inadequately reinforced and overstressed. These errors constitute negligence.
 - y. On sheet 10 of the drawings, respondent failed to provide the minimum reinforcement for concrete walls. Respondent also failed to provide specifications for the reinforcing bar splices and development length, as well as Jamb bars, horizontal bars at corners of concrete walls, and reinforcing bars around openings. These errors constitute negligence and incompetence.
 - z. On sheet 10 of the drawings, the details regarding the longitudinal reinforcing bars are in violation of the California Building Code. These errors constitute negligence and incompetence.
 - aa. On sheet 10 of the drawings, respondent failed to interconnect piles in two directions. In addition, no ties are provided to connect the piles to each other.

- perpendicular to the grade beams even though the soil engineer recommended interconnecting the piles in the soil report. These errors constitute negligence.
- bb. On sheet 10 of the drawings, respondent failed to detail piles of adequate length. Minimum pile embedment is necessary to develop minimum fix-end moment and overall stability of the deep foundation system. This error constitutes negligence.
 - cc. On sheet 10 of the drawings, respondent failed to provide concrete wall anchors for out-of-plane forces at the west concrete wall above the garage roof. This error constitutes negligence.
 - dd. On sheet 11 of the drawings, the number of piles conflicts with the foundation pier location on sheet one of the drawings. In addition, respondent failed to indicate pile embedment lengths. These errors constitute negligence.
 - ee. On sheet 11 of the drawings, respondent failed to interconnect concrete piles in two directions. In addition, no ties are provided to connect the piles to each other perpendicular to the grade beams, even though the soil engineer recommended interconnecting the piles in the soil report. These errors constitute negligence.
 - ff. On sheet 12 of the drawings, respondent failed to provide details for the shear transfer of lateral forces at the roof and floor levels. In addition, there is no continuous load path. This omission compromises the continuity of the continuous load path, and may cause damage to or failure of the upper roof and floor structure. These errors constitute negligence.
 - gg. On sheet 12 of the drawings, respondent's depiction of the longitudinal reinforcing bars is contrary to the requirements of the California Building Code. This error constitutes negligence and incompetence.
 - hh. On sheet 12 of the drawings, there are missing dimensions, pedestal size and reinforcements for the east wall footing. In addition, there are no dimensions to show how deep this footing should be embedded into competent soil. These errors constitute negligence and incompetence.

Respondent's Evidence

9. Respondent is genuinely interested in performing engineering work in accordance with professional standards. He does not believe that he committed any acts of negligence or incompetence in his drawings or calculations for the Burr Street project. He also does not believe that the city's refusal to grant approval for the Burr Street project was due to deficiencies in his work. Instead, he believes that part of the problem in gaining city approval for his plans stemmed from Reyes' insistence on 10 foot ceilings and a vertical platform construction. According to respondent, the city would not agree to a vertical platform construction because of the Loma Prieta earthquake. Respondent also asserts that Reyes only hired respondent to prepare informal plans. For this reason, respondent maintains that his drawings and calculations were preliminary in nature. The evidence does not support respondent's testimony on these points.

10. Respondent received his engineering license in 1977. Respondent has not practiced engineering for the past three or four years. Respondent testified that he last worked as an engineer for Chevron about three or four years ago, but was fired after he

refused to falsify his calculations. He explained that he has an outstanding lawsuit against Chevron, and that "they" drove him to bankruptcy. He currently supports himself on social security.

Costs

11. Complainant has incurred costs of \$8,770, in the enforcement of this matter. The costs include the following items: \$1,500 in technical experts costs and \$7,270 in Attorney General costs. The costs are found to be reasonable.

LEGAL CONCLUSIONS

1. The standard of proof applied in this proceeding is clear and convincing evidence.

Cause for Discipline

2. Business and Professions Code section 6775, subdivision (c), provides that the board may discipline the license of a professional engineer who commits acts of negligence or incompetence in his practice. The matters set forth in Factual Findings 4 through 8 establish that respondent committed acts of negligence and incompetence in the practice of civil engineering. Accordingly, cause for disciplinary action exists pursuant to Business and Professions Code 6775, subdivision (c).

Penalty Determination

3. California Code of Regulations, title 16, section 418, sets forth criteria that the board will consider in determining the rehabilitation of a licensee and his present eligibility to retain his license. The rehabilitation criteria include the nature and severity of the acts, the time that has passed since commission of the acts, and any evidence of rehabilitation presented by the licensee. In the instant case, respondent committed numerous acts of negligence and incompetence in his work on the Burr Street project. Respondent's misconduct caused financial hardship to his client. Moreover, had the home actually been built according to respondent's drawings and calculations, his errors would have created a hazardous condition there. Against this background, it is troubling that respondent continues to deny that he acted in an incompetent or negligent manner. His inability or unwillingness to appreciate the nature and extent of his errors raises concerns that he could commit similar misconduct in the future. Respondent's practice as a civil engineer for over 30 years and his genuine interest in maintaining professional standards are acknowledged. Nonetheless, insofar as respondent failed to demonstrate that he is rehabilitated from his misconduct, it would not be in the public interest to allow respondent to continue to practice engineering.

Cost Recovery

4. Pursuant to Business and Professions Code section 125.3, a licensee found to have violated the licensing law may be required to pay a sum not to exceed the reasonable costs of investigation and enforcement of the case. By reason of the matters set forth in Legal Conclusion 2, respondent was found to have violated the licensing law. Therefore, cause exists to order reimbursement of costs.

5. In accordance with the holding in *Zuckerman v. State Board of Chiropractic Examiners* (2002) 29 Cal.4th 32, 45, a respondent's ability to pay must be considered in assessing costs. Respondent's ability to pay full costs of \$8,770 is extremely limited by the fact that he supports himself on social security. Accordingly, it is appropriate to reduce the amount of cost recovery due in this proceeding to \$5,000.

ORDER

1. Civil Engineer License Number C 28116, issued to Francisco Molina, Jr., is revoked.
2. Respondent shall pay to the board its costs of investigation and enforcement in the amount of \$5,000.

DATED: 10/25/10

Original Signed

DIANE SCHNEIDER
Administrative Law Judge
Office of Administrative Hearings

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8 **BEFORE THE**
BOARD FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS
9 **DEPARTMENT OF CONSUMER AFFAIRS**
10 **STATE OF CALIFORNIA**

11 In the Matter of the Accusation Against:

Case No. 882-A

12 **FRANCISCO MOLINA, JR.**
810 Morrill Street
13 Hayward, California 94541

ACCUSATION

14 **Civil Engineer License No. C28116**

15 Respondent.
16

17 Complainant alleges:
18

19 **PARTIES**

20 1. David Brown (Complainant) brings this Accusation solely in his official capacity as
21 the Executive Officer of the Board for Professional Engineers and Land Surveyors, Department
22 of Consumer Affairs.

23 2. On or about August 10, 1977, the Board for Professional Engineers and Land
24 Surveyors issued Civil Engineer License Number C28116 to Francisco Molina, Jr. (Respondent).
25 The Civil Engineer License was in full force and effect at all times relevant to the charges brought
26 herein and will expire on March 31, 2010, unless renewed.

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1 Calculations: (Comments based on Revision 1 set of drawings dated June 9, 2004)

2 A. (From Sheet 1 of Calculations): Respondent calculated the roof trusses' dead
3 load at 2.0 pounds per square foot (psf) in violation of 2001 California Building Code section
4 1606. The roof trusses' dead load should have been calculated at approximately 4.35 psf. Also,
5 the second floor diaphragm load is low because it does not include drywall weight. The above-
6 described conduct by Respondent constitutes negligence.

7 B. (From Sheet 4 of Calculations): In seismic calculations, the space between the
8 first level and top of the garage shall be included in seismic mass and vertical distribution.
9 Respondent's calculations show that the exposed concrete footings/grade beams of the structure
10 are approximately 7'0" (average) above grade, in violation of 2001 California Building Code
11 section 209. The above-described conduct by Respondent constitutes negligence.

12 C. (From Sheet 4 of Calculations): Respondent failed to provide calculations for
13 determination of seismic reliability/redundancy factor for the structure, in violation of 2001
14 California Building Code section 1630.1.1. The above-described conduct by Respondent
15 constitutes negligence.

16 D. (From Sheet 8 of Calculations): In wind load calculations, Respondent used
17 wind exposure "B." Oakland City Code, however, requires wind exposure "C" to be used in wind
18 load calculations. The above-described conduct by Respondent constitutes negligence.

19 E. (From Sheet 10 of Calculations): Respondent's calculations provided model
20 result only. Respondent failed to provide complete calculations for concrete walls, retaining
21 walls, elevated concrete slab (garage roof), and all shallow and deepened footings, in violation of
22 2001 California Building Code section 106.3.3. The above-described conduct by Respondent
23 constitutes negligence.

24 F. (From Sheet 10 of Calculations): Respondent's model of pier location plan on
25 sheet 10 of the calculations does not match the plan on sheet 1 of the drawings, in violation of
26 2001 California Building Code section 106.3.3. The above-described conduct by Respondent
27 constitutes negligence.

1 G. (From Sheet 12 of Calculations): Respondent failed to provide complete
2 calculations for piles strength, embedment into soil, and deformation, failed to apply the effects of
3 creep forces to all piles, grade beams, and footings, failed to design the exposed portions of piles
4 as cantilevered columns, and failed to print the sheet in color so that the unity check could be
5 seen, in violation of 2001 California Building Code sections 1806.8, 1808.2, and 1809. The
6 above-described conduct by Respondent constitutes negligence and incompetence.

7 H. (From Sheets 13 through 15 of Calculations): Respondent's computer output
8 models and forces are illegible, in violation of 2001 California Building Code sections 1063.2 and
9 106.3.3. The above-described conduct by Respondent constitutes negligence.

10 I. (From Sheet 38 of Calculations): Respondent failed to provide calculations for
11 the truss member connection, in violation of 2001 California Building Code section 106.3.3. The
12 above-described conduct by Respondent constitutes negligence.

13 J. (From Sheets 42 through 44 of Calculations): Respondent's computer output
14 models, nodes, and forces are illegible, in violation of 2001 California Building Code section
15 106.3.3. The above-described conduct by Respondent constitutes negligence.

16 9. In preparing plans for the above-mentioned Burr Street property, Respondent
17 committed certain acts or omissions in his drawings, which are hereafter set forth.

18 Drawings (Comments based on Revision 1 set of drawings dated June 9, 2004)

19 A. (From Sheet 1 of Drawings): Respondent failed to include the list of adopted
20 codes, and noted and referred to the 1997 Uniform Building Code which was obsolete at the time
21 of these plans. The above-described conduct by Respondent constitutes negligence.

22 B. (From Sheet 1 of Drawings): Respondent failed to provide a complete
23 foundation plan, showing instead only an incomplete foundation pier location plan which was not
24 to a $\frac{1}{2}'' = 1'0''$ scale as indicated, in violation of 2001 California Building Code section 106.3.3.
25 The above-described conduct by Respondent constitutes negligence.

26 C. (From Sheet 1 of Drawings): Respondent failed to provide details for piles
27 (piers) and walls indicated as W-P1 through W-P4 on the east side and as shown on foundation
28 pier location, and the number of piles designated as N-P1 through N-P4 does not match the

1 number of piles on Sheet 11, in violation of 2001 California Building Code section 106.3.3. The
2 above-described conduct by Respondent constitutes negligence.

3 D. (From Sheet 2 of Drawings): Respondent failed to clearly indicate the levels of
4 the building on the site plan. The extent of the garage roof level is not shown, the entry balcony
5 of level one is not shown, the balconies on level two are not labeled, half of the lines for the
6 dormer roofs are missing, the extent of the roof drip lines and gutters is unclear, and the exterior
7 staircase from grade to the garage roof level is missing information for landings and connection to
8 the building. The above-described conduct by Respondent constitutes negligence.

9 E. (From Sheet 2 of Drawings): Respondent depicts the roof as hips and eaves in
10 the north and south elevations, and as gable end rake and gable walls in the east and west
11 elevations, site plan, and framing layout. In addition, lines are missing for the north side of the
12 garage and level two balconies. The above-described conduct by Respondent constitutes
13 negligence.

14 F. (From Sheet 3 of Drawings): For the level one floor plan, Respondent failed to
15 label rooms, the floor level of the garage roof below, and the entry balcony. Further, the level
16 one entry balcony is shown hatched but without an indication of the guardrails showing the true
17 extent of hatching on the balcony. The exterior staircase from the garage roof level to the entry
18 balcony of level one is missing dimensions and landing elevation information. Also, there are
19 missing wall and door lines at the bathroom. The above-described conduct by Respondent
20 constitutes negligence.

21 G. (From Sheet 3 of Drawings): For the level two floor plan, Respondent failed to
22 label rooms, and there are missing wall and door lines at the bedroom and hallway. Further, the
23 line work for the waste piping is not labeled and the text is illegible. The floor opening for the
24 interior staircase is missing dimensions. The above-described conduct by Respondent constitutes
25 negligence.

26 H. (From Sheet 3 of Drawings): Respondent's notes reference building code
27 sections obsolete as of the date of the plans, and Note 1 regarding smoke alarms is incomplete
28 and does not address all of the requirements of 2001 California Building Code section 310.9.1 for

1 the power and specific layout conditions of the structure. The above-described conduct by
2 Respondent constitutes negligence.

3 I. (From Sheet 5 of Drawings): Respondent's drawings indicate the stair handrail
4 is to be attached to the top rail of a 42" high guardrail without an additional indication that the
5 maximum handrail height pursuant to 2001 California Building Code section 1003.3.6 is 38"
6 above tread nosing. Further, the text notes for the handrails are illegibly small, and the minimum
7 tread depth of 9" is not indicated. The above-described conduct by Respondent constitutes
8 negligence.

9 J. (From Sheet 5 of Drawings): Notes 9 – 20 pertaining to nailing wood members
10 are incomplete and do not conform to 2001 California Building Code Table 23-II-B-1. The
11 above-described conduct by Respondent constitutes negligence.

12 K. (From Sheet 5 of Drawings): Respondent fails to provide complete material
13 specifications for concrete, steel, and wood, thereby compromising the use of the appropriate type
14 of materials, in violation of the 2001 California Building Code. The above-described conduct by
15 Respondent constitutes negligence.

16 L. (From Sheet 5 of Drawings): Respondent failed to specify the beams at the edge
17 of the balcony, in violation of 2001 California Building Code section 106.3.3. The above-
18 described conduct by Respondent constitutes negligence.

19 M. (From Sheet 5 of Drawings): Respondent failed to call out stud walls on the
20 north, south, and west walls and, although the stud walls on the east wall are called out, spacing
21 and grade are not indicated. Further, there is no indication that the exterior walls around the stairs
22 are ballooned-framed as required because they are not laterally supported at the second floor
23 level, in violation of 2001 California Building Code section 2308 and Table 23-IV-B. The above-
24 described conduct by Respondent constitutes negligence.

25 N. (From Sheet 5 of Drawings): Respondent failed to call out the shear wall
26 specifications on the north, south, and west walls, and although the shear wall thickness and grade
27 are called out on the east wall, the nailing is missing, in violation of 2001 California Building
28 Code section 23II-I-1. The sill plate nailing and possible tie downs are also missing. This

1 omission compromises the resistance of the structure against lateral loads which may cause
2 damage to or failure of the structure, in violation of 2001 California Building Code section
3 2315.3.3. The above-described conduct by Respondent constitutes negligence.

4 O. (From Sheet 5 of Drawings): Respondent failed to provide details for shear
5 transfer of lateral forces at the floor levels, in violation of 2001 California Building Code section
6 1605. Further, there is no continuous load path. The anchor bolt spacing shall be designed and
7 detailed according to shear wall strength to transfer the lateral loads to the foundation. The
8 omission of the details for shear transfer of lateral forces compromises the continuity of the
9 continuous load path and may cause damage to or failure of the upper roof/floor structures. The
10 above-described conduct by Respondent constitutes negligence.

11 P. (From Sheet 6 of Drawings): Notes 31 and 32 reference California Building
12 Code sections obsolete as of the date of the plans, and Note 36 regarding stairs and handrails is
13 erroneous. The above-described conduct by Respondent constitutes negligence.

14 Q. (From Sheet 6 of Drawings): Respondent failed to indicate the requirements for
15 underfloor or crawlspace ventilation for the structure, in violation of 2001 California Building
16 Code section 2317.7. Note 22 specifies crawlspace vents but does not indicate the required
17 numbers or locations. Further, linework for the floors is missing from the building section. The
18 above-described conduct by Respondent constitutes negligence.

19 R. (From Sheet 6 of Drawings): Respondent failed to provide details for shear
20 transfer of lateral forces at the roof level, in violation of 2001 California Building Code section
21 1605, and there is no continuous load path. Typical shear transfer blockings between trusses are
22 missing in cornice detail and sections, which compromises the continuity of the continuous load
23 path and may cause damage to or failure of the upper roof/floor structure, in violation of 2001
24 California Building Code section 1605. The above-described conduct by Respondent constitutes
25 negligence.

26 S. (From Sheet 6 of Drawings): Respondent failed to provide roof and floor
27 sheathing thickness, panel grade, and panel index. Also, no details are provided for the plywood
28 panel layout. The above-described conduct by Respondent constitutes negligence.

1 T. (From Sheet 6 of Drawings): Respondent indicated ridge beams of the dormers
2 as "2x6 HIP" on plan and section. The 2x6 ridge beams are over-stressed for the 15'0" span even
3 if properly supported at each end, which was not shown on the plan. Bottom chords of trusses are
4 called out to 2x6 @ 24" on center in plan view while truss sections show them as 2x8 @ 24" on
5 center. Further, dormers outriggers as 2x8 are over-stressed for the 6'9" cantilevered overhang at
6 each side of the dormers. The above-described conduct by Respondent constitutes negligence.

7 U. (From Sheet 7 of Drawings): Respondent's notes for fire stopping in
8 combustible framing are incomplete and need clarification to meet the requirements of 2001
9 California Building Code section 708. The above-described conduct by Respondent constitutes
10 negligence.

11 V. (From Sheet 8 of Drawings): On the electrical layout, Respondent failed to
12 indicate that the exterior electrical outlets must be weatherproof and failed to place a smoke alarm
13 in the hallway. The above-described conduct by Respondent constitutes negligence.

14 W. (From Sheet 9 of Drawings): Respondent failed to indicate safety glazing
15 (tempered glass) at required locations, such as the sliding glass doors in the bedroom and
16 bathrooms, in violation of 2001 California Building Code section 2406.4. The above-described
17 conduct by Respondent constitutes negligence.

18 X. (From Sheet 10 of Drawings): Respondent failed to provide plans for the layout
19 of the reinforcing bars for the garage roof concrete slab, and the location of steel and the layout
20 and connection to the walls for this slab are not detailed. Further, the slab is inadequately
21 reinforced and overstressed pursuant to California Building Code sections 1907.12.2, 1910.5.1,
22 1910.6.4, and 1910.6.5. The above-described conduct by Respondent constitutes negligence.

23 Y. (From Sheet 10 of Drawings): Respondent failed to provide the minimum
24 reinforcement for concrete walls required by California Building Code sections 1914.3.1 and
25 1914.3.4, which require two layers of reinforcement parallel to faces of the wall. Further,
26 Respondent failed to provide specifications for the reinforcing bar splices and development
27 length, Jamb bars, horizontal bars at corners of concrete walls, and reinforcing bars around
28

1 openings, in violation of California Building Code section 1914.3.7. The above-described
2 conduct by Respondent constitutes negligence and incompetence.

3 Z. (From Sheet 10 of Drawings): Detail G/10-10 depicts five #5 longitudinal
4 reinforcing bars which is only 0.006 (0.06%) of the gross area, and no ties are shown in the detail,
5 in violation of 2001 California Building Code section 11910.9.1. Concrete piles (piers) as non-
6 composite compression members shall not have less than 0.01 (1%) times gross area longitudinal
7 reinforcing bars. The above-described conduct by Respondent constitutes negligence and
8 incompetence.

9 AA. (From Sheet 10 of Drawings): Respondent failed to detail concrete wall to pile
10 connections properly in Detail G/10-10. Corner conditions are not covered, no calculations are
11 provided for #5 dowels at 11" on center, and no typical details are provided for reinforcing bar
12 splices and development length, Jamb bars, and horizontal bars at corners of concrete walls. The
13 above-described conduct by Respondent constitutes negligence.

14 BB. (From Sheet 10 of Drawings): In section F/10-10, Respondent failed to show an
15 opening per Detail D/7-2 and failed to provide any specifications for the lintel and jamb
16 reinforcing bars. The above-described conduct by Respondent constitutes negligence.

17 CC. (From Sheet 10 of Drawings): Respondent failed to interconnect concrete piles
18 (piers) in two directions. No ties are provided to connect the piles to each other perpendicular to
19 the grade beams even though the soil engineer recommended interconnecting the piles on page 7
20 of the soil report. This is in violation of 2001 California Building Code section 1807.2. The
21 above-described conduct by Respondent constitutes negligence.

22 DD. (From Sheet 10 of Drawings): Respondent failed to detail piles (piers) of
23 adequate length. Pursuant to page 7 of the soil report, piles (piers) should be extended into hard
24 sedimentary material at least 5'0" (minimum 12'0" below existing grade). The soil report
25 indicates that hard sediment starts at approximately 8'0" below the existing grade. However,
26 Respondent's pile (pier) lengths are not even 12'0" as indicated under the South pile (pier)
27 dimension heading. Minimum pile embedment is necessary to develop minimum fix-end moment
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1 and to ensure the overall stability of the deep foundation system. The above-described conduct
2 by Respondent constitutes negligence.

3 EE. (From Sheet 10 of Drawings): Respondent failed to provide concrete wall
4 anchors for out-of-plane forces at the west concrete wall above the garage roof, in violation of
5 2001 California Building Code section 1605.2.3. The above-described conduct by Respondent
6 constitutes negligence.

7 FF. (Sheet 11 of Drawings): Respondent depicted five piles (piers) which is in
8 conflict with the foundation pier location on Sheet 1 of the Drawings. Further, Respondent failed
9 to indicate pile embedment lengths. Piles (piers) should be extended into hard sedimentary
10 material at least 5'0" pursuant to page 7 of the soil report. The above-described conduct by
11 Respondent constitutes negligence.

12 GG. (From Sheet 11 of Drawings): Respondent failed to interconnect concrete piles
13 (piers) in two directions. No ties are provided to connect the piles to each other perpendicular to
14 the grade beams even though the soil engineer recommended interconnecting the piles on page 7
15 of the soil report. This is in violation of 2001 California Building Code section 1807.2. The
16 above-described conduct by Respondent constitutes negligence.

17 HH. (From Sheet 11 of Drawings): Respondent failed to detail the concrete wall to
18 pile connections for the side and bottom connection conditions as shown in section B/11-1.
19 Further, it is not clear how the vertical and lateral forces of the grade beams are transferred to the
20 piles. Section B presents conflicting reinforcing bar spacing and the expansion joint detail
21 (without detail number). Wall reinforcing bars are not indicated at center line of wall thickness.
22 The above-described conduct by Respondent constitutes negligence.

23 II. (From Sheet 12 of Drawings): Respondent failed to provide details for the shear
24 transfer of lateral forces at the roof and floor levels as red-marked in Section E/12-2, in violation
25 of 2001 California Building Code section 1605. Further, there is no continuous load path. The
26 above-described conduct by Respondent constitutes negligence.

27 JJ. (From Sheet 12 of Drawings): Detail L/12-2 depicts six #5 longitudinal
28 reinforcing bars which is only 0.007 (0.07%) of the gross area, in violation of 2001 California

1 Building Code section 1910.9.1, which requires that non-composite compression members shall
2 have not less than 0.01 (1%) gross area longitudinal reinforcing bars. Further, there is a conflict
3 in the size of the concrete column supporting a 5.125" x 12" Glu-Lam beam as red-marked in
4 Detail E1/12-2. The above-described conduct by Respondent constitutes negligence and
5 incompetence.

6 KK. (From Sheet 12 of Drawings): Detail L/12-2 is missing dimensions, pedestal
7 size, and reinforcements for the east wall footing as red-marked. There are no dimensions or
8 indications to show how deep the footing should be embedded into competent soil pursuant to the
9 soil report. The above-described conduct by Respondent constitutes negligence and
10 incompetence.

11 CAUSE FOR DISCIPLINE

12 (Negligence and/or Incompetence)

13 10. Paragraphs 7, 8, and 9 are herein incorporated by reference as though fully set forth.

14 11. Respondent has subjected his license to discipline under Code section 6775(c) in that
15 he was negligent and/or engaged in incompetence in the practice of civil engineering in on or
16 about 2003-2004, by virtue of the conduct alleged in paragraphs 7, 8, and 9 above.

17 PRAYER

18 WHEREFORE, Complainant requests that a hearing be held on the matters herein alleged,
19 and that following the hearing, the Board for Professional Engineers and Land Surveyors issue a
20 decision:

21 1. Revoking or suspending Civil Engineer License Number C28116, issued to Francisco
22 Molina, Jr.;

23 2. Ordering Francisco Molina, Jr. to pay the Board for Professional Engineers and Land
24 Surveyors the reasonable costs of the investigation and enforcement of this case, pursuant to
25 Business and Professions Code section 125.3; and

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3. Taking such other and further action as deemed necessary and proper.

DATED: _____

2/17/10

Original Signed

DAVID BROWN
Executive Officer
Board for Professional Engineers and Land Surveyors
Department of Consumer Affairs
State of California
Complainant

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