DAN SZUMSKI, P.E. C30167

CIVIL ENGINEER/STRUCTURAL DESIGN

September 26, 2003

The undersigned has read, reviewed & received a copy of this document:

Date _____ Signature

Date 11/24/03 Signature

3 pages.

Mr Vic Linden
954 Keller Avenue
Berkeley, CA 94708

Re: Engineering inspection - 954 Keeler Avenue, Berkeley, CA

Dear Mr Linden:

I conducted an engineering inspection of the above referenced residence on September 26, 2003 during dry weather conditions. My inspection included the foundation, accessible the sub-structural framing, the back deck structure, and seismic upgrades beneath the first floor diaphragm. This letter provides a summary report of my inspection findings and my recommendations for remedial work.

I. Commentary on Deficiency Corrections

This is a two story wood framed structure that is constructed on a moderately downsloping lot in an area of Berkeley that is underlain by clay soils. The home has a large wooden deck at the back of the home's lower floor, and an attached garage at the s-e corner. For purposes of this report, I have assumed that the home faces east onto Keeler Avenue.

The home is in what Alan Kropp has designated a potentially active land movement area. I see no signs of large scale land movement on this lot. The movement all appears to be due to local conditions.

The home's foundation is an unreinforced concrete mass-type footing that is in mixed condition. My inspection found that there has been a history of settlement in both the west wall of the structre, and the western portion of the north wall. This movement is greatest at the n-w corner in the vicinity of the chimney and its two fireplaces. I suspect that these portions of the home are built on a thin layer of loose fill soils that were placed there when the home was originally built.

The present owner has taken out permits to complete remedial work

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to stop the settlement. This work has addressed the issue in a responsible way by constructing hand dug bench piers that are founded at least 5' beneath the surface grades. My estimates places the bottom of these piers well into the original hillside grades. This should be an effective method of stabilizing portions of the foundation where the hand dug piers have been installed. This is limited to the north half of the west wall, with an additional pier at the west side of the concrete porch at the north side of the home.

Additional piers should be installed to support the chimney, and the south portion of the west wall. Unless this is done these sections of the foundation will continue to settle around the stabilized foundation sections. The new support should include what I estimate to be seven helical steel piles that find their support deep in the hillside. These should be located approximately: 3 between the s-w corner and the middle of the west wall(the s-w corner appears to be supported by the deck foundation); one at the west end of the north and south walls; and two at the chimney. These will have to be engineered. At the same time a sister grade beam should be constructed on the north portion of the foundation that includes the chimney foundation. I estimate the cost of this work at about $12,500.

When this foundation stabilization work is completed, the interior e-w footing at the south end of the crawl space should be connected to the west foundation with a reinforced concrete crack repair. The crack repair is constructed by installing #4x10" epoxied-in-place dowels in the face of the foundation in a field extending 18" back on both sides of the crack and over the height of the foundation. These dowels are then crossed with several horizontal and diagonal #4 bars, formed for a 6" crack repair, and poured with 2,500psi concrete.

My inspection found that as the west foundation settled in the past. the roof rafters have been pulled toward the west. The way that the rafters sit on a vertical section of 2x12(probably a strong back) has caused the top of the rafters to lift as the west wall dropped. The result of these modes of motion has been the tearing of the rafters from the ridge pole. My inspection found that at the center of a 20' section of roof where the rafters are separated from the ridge pole, the rafters are pulled 4" to the west. This distance decreases toward both ends of the ridge pole.

This is a problem that could become important in a large earthquake, particularly with this heavy roof. Ideally, the problem can be solved by reinstalling new sister rafters that are nailed to each of the existing ones that are displaced. However, this would require opening the roof, and I understand that the roof was redone only about 1-2 years ago.

There is another alternative that will solve the structural issues here. In particular, it is possible to add collar ties

that tie the opposing roof rafters together. In this repair, a sister is installed on the top 4-5' of the rafters that are pulled away. These are nailed to the ridge pole with (2)16d through the ridge pole, and to the rafter with 12d@6"c-c. The collar tiescan be cut from 3/4" CDX struct I plywood. It will have a trapazoidal shape so that it fits up against the roof surface, and nailing to the rafters with 10d@4"c-c(two rows).

II. Seismic Upgrade Items

Finally, my inspection noted that this home would benefit from a seismic retrofit. This home, like most other of its age was not built in accordance with modern earthquake codes. Consequently these recommendations are for an upgrade to the property to bring it more in line with the seismic standards of the modern codes.

1. The mudsills should be bolted to the foundations throughout finished and unfinished areas with 5/8"x10" all-thread(w/BP⅝-2 bearing plates) epoxied into 3/4" drilled holes @2'c-c. Bolts should be correspondingly longer if they penetrate solid blocking. Where these connections cannot be made because of clearance problems at the uphill side of the sub-area UFP10's should be installed @8'c-c. The upper basement area is most easily bolted from the outside by removing stucco and sub-sheathing and reinstalling it after the mudsills are bolted.

2. Three horizontal HTT22's should be installed in the lower crawl space to connect equally spaced floor joists to the face of the concrete foundation at the uphill side of the crawl space.

3. The floor joists should be connected to the double wall plates with H2.5's @16"c-c, and to the beams with H2.5's @32"c-c. Where the floor joists run parallel to the foundation, the connection can be with L90's @24"c-c or with A35's @16"c-c, or the shear walls can be edge nailed(two rows) to a 2x6 sister nailed to the floor joist w/12d's@6"c-c(staggered).

4. Shear walls should be installed on accessible crawl space cripple walls, or preferably according to an engineered plan. In the former case, these should be 1/2" CDX struct II w/10d @4"c-c edge, 6"c-c field, fully blocked at all edges, with vent holes. Where there are wall or vent openings, the plywood should be cut around the corners. Plywood panels should be continuous between the mudsill and the top plate.

5. The home would benefit from a seismic motion sensetive automatic gas shutoff valve.

I have tried to place some very rough cost estimates on the work described in the deficiency correction section of this report. These costs are summarized as follows:

Foundation support with helical steel piles	$13,000
Gusset connections in attic	1,200
Crack repair	1,000

This inspection is the result of a reasonably diligent visual inspection of the property as described and limited in paragraph one. It included no testing or other special investigative techniques. No detailed calculations were performed for the recommendations contained in this report. In addition, it is not a complete record of the discussions that took place during or following the inspection, and for this reason, may not reflect qualifiers or choices made verbally between the parties. I hope that you find it to be a complete response to your call for an engineering inspection. If you or your contractor have any questions, please call me at 510-418-7155.

Respectfully submitted,

REGISTERED PROFESSIONAL ENGINEER
DANIEL S. SZUMSKI
No. C 30167
Exp. 3/04
CIVIL
STATE OF CALIFORNIA

Daniel S Szumski, PE C30167

525
7799
415
477
3737
PATTW
VICLINDEN

RECO INSPECTION REPORT

Shel Harris Energy Conservation
1941 Haste Street, Berkeley, Calif 94704
(510) 549-3290 Fax (510)549-3291

AFFILIATED WITH: Amistad Insulation
Hayward, Calif. 94540
LIC# 776975

Address: 954 KEELER

Owner/Agent: THERESE FISHMAN - BERK Hms
Vic, SUSANNE 524.5157

Attic: 415 314-8816 CEL 504-606-2800 $ 1099

Weather-Stripping: TWO DOORS FULL W/SPRING BRONZE (ONE BOW TOP, ONE W/AUTO SWEEP) REFIT AS NEEDED $ 240

Heating: DUCTS INSULATED $ OK

Hot Water: COVER TANK W/REFLECTIX, INSULATE PIPES $ 85

Shower Heads: 2.5 G.P.M. $ OK

Water Conservation:
1 Toilets @ $ 10 = $ 10 Faucets @ $ 10 = $ 10 $ 20

RECEIVED AND READ
NUMBER OF PAGES 1
NAME 11/24/03 DATE

TOTAL BID $ 1444

ADDITIONAL COSTS/ESTIMATED:
NAME DATE

Preliminary Inspection Fee		$ 90
Filing Fee $ 15	Compliance Inspection $ 100	$ 115
Fireplace		$ OK
Knob & Tube Wiring Inspection		$ 200-350

BID 1444
Pre Insp 90
Fil " + Cor. 160
Fire " 100
TOTAL $1794

DEMAND
TOTAL RECO ~~EXPENSE~~ $1794 ~~$ 1749~~ TO ~~$1899~~

TERMS and CONDITIONS:
1). Cash payment upon completion of work; payment can be made from escrow funds/pending sales.
2). All labor is guaranteed for one year after date of installation. Materials are warrantied for three years. (See individual manufacturer's warranty.) Attic insulation is normally warrantied for the life of the structure.
3). Quote valid for 45 days. All items include sales tax.

QUOTATION BY: Shel Harris DATE: Sept 17.03

Pay to Harris @ P.O. Box 936, Berkeley Calif. 94701-0936

Thanks

City of Berkeley
Chapter 19.16
Ordinance 6099 -N.S.

Residential Energy Conservation Ordinance (RECO) Certificate of Compliance

FORM A

Escrow Closing date: ____/____/____ Address of Property: 954 Keeler

Title Company: _____ Escrow #: _____

Structure ___ of ____ Number of units: _____ *(NOTE: Each structure requires a separate Form A)*

*Acceptance of this form by the City deems the property to be in compliance with RECO (*Ordinance 6099, BMC 19.16*)*
It is given to property owners by the RECO inspector after a satisfactory RECO inspection and must be filed with:
City of Berkeley Building & Safety Division, 2120 Milvia St., Berkeley, CA 94704
A $15 filing fee is required for each residential structure.
*The maximum expenditure for meeting the requirements of this Ordinance is 0.75% of the **final** sale price for the property. See NOTE below.*

RECO MEASURES:	YES	NO	N/A	Unit (if failed)
1. Ceiling insulation of minimum thermal resistance value R-30 installed	☒	☐	☐	___
2. Furnace heating ducts sealed at plenum and all joints in heating duct system sealed with mastic and insulated to a minimum of R-3	☒	☐	☐	___
3. All domestic storage water heaters insulated to a minumum total of R-12	☒	☐	☐	___
4. Low-flow faucet devices or fixtures with a maximum flow rate of 3 gallons/minute in all showers; 2.75 gallons per minute in all sinks and lavatories; and 4 gallons/minute in all other faucets.	☒	☐	☐	___
5. Hot water pipes in pumped, recirculating domestic water heating systems insulated to a minimum thermal resistance of R-3.	☐	☐	☒	___
6. All exposed hot and cold water pipes connected to, within 24 inches of water heater, must be insulated to a minimum thermal resistance of R-3 except within 6 inches of single-wall flue and one inch of a double walled flue	☒	☐	☐	___
7. Incandescent light bulbs, located in multiunit structure common areas, must be replaced with lamps of at least 25 lumens per watt	☐	☐	☒	___
8. Approved weatherstripping must be installed on all exterior doors	☒	☐	☐	___
9. Approved dampers, doors, or other devices to block air flow and reduce heat loss through chimneys	☒	☐	☐	___
10. Replace existing tank or flushometer-type toilets with toilet fixtures designed to use no more than 1.6 gallons per flush, or modify existing fixtures to reduce the amount of water used while ensuring correct operation. Any new toilet installed in a renovation must be *designed* to use no more than 1.6 gallons per flush.	☒	☐	☐	___

NOTE: ☐ If any items are checked "NO" because the maximum required expenditure for this sale has been met, check here and attach itemized receipts (with an explanation, if necessary) and note the maximum required expenditure amount:
Final Sale Price $_____ X 0.0075 = $_____ City Inspector :_____ Date:_____

Seller/Owner: _____ (Type/Print Name) Buyer _____ (Type/Print Name)

Seller/Owner: _____ (SIGNATURE) Buyer: _____ (SIGNATURE)

Address: _____ Address: _____

Phone:(____) _____ Phone:(____) _____

Inspector Name & Agency: Peter Menard-Warwick CESC Date: 9/30/03

Inspection Fee paid by: Shel Harris Amount paid:$_____

Filing Fee ($15/structure) paid by: _____ Amount paid $100.00 Ck. 4071

ORIGINAL: Building & Safety **Yellow:** Owner **Pink:** Inspector

Proposal Number: 1103-290 REV 0
Proposal Date: 11/26/03
Estimator: Peter Landre

CA STATE LIC. #618168
EPA #CAD 982 029258
CA STATE ASBESTOS ABATEMENT CERT.#AD481
OSHA REG #77

SYNERGY
ENVIRONMENTAL, INC.

"We Treat People Right"

28436 Satellite Street, Hayward, CA 94545

Phone: 510 259-1700
Toll Free: 800 439-9610
FAX: 510 259-1715
E-Mail: PLandre@Synergycompanies.org

WORK PERFORMED AT			
Name	Contact		
Address 954 Keeler Ave.	City Berkeley	State CA	Zip 94708
Phone(H)	Phone(W)		Phone(C)
E-Mail	Fax		
BILLING INFORMATION			
Name	Contact		
Address	City	State CA	Zip
Phone(H)	Phone(W)		Phone(C)
E-Mail	Fax		
PROPERTY OWNER INFORMATION			
Name	Contact		
Address	City	State CA	Zip
Phone(H)	Phone(W)		Phone(C)
E-Mail	Fax		

SCOPE OF WORK

SYNERGY will supply all labor, equipment, materials, services and permits to complete work as referenced herein in strict accordance with all current applicable Federal, State and Local regulations, standards and codes governing asbestos abatement and any other work done in connection with the Scope of Work.

1 REMOVE THE ACCESSIBLE ASBESTOS COVERED HEATING DUCTS FROM:

- [ ] BASEMENT
- [ ] GARAGE
- [ ] ATTIC
- [ ] SUB FLOOR CRAWL SPACE
- [X] FURNACE CLOSET.
- [X] OTHER AREAS Hall Closet
- [ ] REMOVE THE BOOTS
- [X] STRIP ASBESTOS FROM BOOTS AND ENCAPSULATE
- [ ] REMOVE THE PLENUM
- [X] STRIP ASBESTOS FROM PLENUM AND ENCAPSULATE
- [ ] REMOVE THE VENT PIPE
- [ ] STRIP ASBESTOS FROM VENT PIPE AND ENCAPSULATE
- [ ] REMOVE THE TRANSITE FLU FROM:
- [X] REMOVE LOOSE VISIBLE ASBESTOS TAPE FROM INTERIOR OF SUPPLY REGISTERS AND ENCAPSULATE

2 [X] OTHER REMOVAL ITEMS:

RECEIVED AND READ

Demo soffits in hallway and downstairs bedroom closet and remove asbestos covered heating ducts

NUMBER OF PAGES 3

NAME DATE

NAME DATE

3 [ ]

4 [ ] BAAQMD NOTIFICATION FEE (IF REQUIRED)

5 [X] VISUAL AND AIR TEST TO BE CONDUCTED BY AN INDEPENDENT THIRD PARTY OSHA CERTIFIED CONSULTANT

This contract is for the removal of the asbestos covered duct and NOT for the REPLACEMENT of the duct.
The replacement of the duct needs to be done by others and NOT Synergy Environmental.

Payments: Customer will pay a down payment of $ $129 to SYNERGY ENVIRONMENTAL prior to scheduling work. The balance of the contract price of $ 1,161 will be due the day the job is finished. PAYMENT MUST BE GIVEN TO FOREMAN AT JOB SITE UPON COMPLETION OF WORK. 1.5% per month will be due on any unpaid balance. Terms: 10% Down, Net 0 [10%]

1	$940.00
2	$350.00
3	$0.00
4	$0.00
5	$0.00
TOTAL	$1,290.00

Do not sign this agreement until you have read items 1-19 and Important notices on the following 2 pages of document.

CUSTOMER X _____ DATE: _____

CONTRACTOR X Peter Landre DATE: 11/26/03

WARRANTIES: SYNERGY guarantees and warrants that for a period of one year from the date of completion of the Scope of Work, it will replace or repair any work which is defective in workmanship or materials or which does not conform to the specifications set forth in the Scope of Work. This guarantee does not extend to the performance of any materials for other than those uses for which the material is intended. SYNERGY makes no other representations or warranties of any kind and expressly disclaims all implied warranties, including warranties or merchantability and fitness for a particular purpose. "You the buyer may cancel this transaction at any time prior to midnight of the third business day after the date of this transaction." (See Reverse Side)

Terms and Conditions

1. **Scope of Work:** Synergy will supply all labor, equipment, materials, services and permits to complete work as referenced herein in strict accordance with all current applicable Federal, State and Local regulations, standards and codes governing asbestos abatement and any other work done in connection with the Scope of Work.
2. **Payments:** Customer will pay a 10% downpayment of $_____ to SYNERGY prior to scheduling work. The balance of the contract price of $_____ will be due the day the job is finished. PAYMENT MUST BE GIVEN TO FOREMAN AT THE JOB SITE UPON COMPLETION OF WORK. 1.5 percent per month will be due on any unpaid balances.
3. **Competent Persons (Workers):** The Scope of Work shall be performed by persons trained, and knowledgeable in the techniques of abatement, handling and disposal of asbestos-containing materials (ACM,) and cleaning of contaminated areas.
4. **Site Conditions:** All moveable objects (including wall hangings) are to be removed from work area prior to SYNERGY arrival. Extra work to clear area by SYNERGY will be charged to customer. Additionally, customer will provide use of light, heat, water, power and secure storage space for asbestos materials sealed for disposal, on the property during performance of Scope of Work.
5. **Incidental Damage:** The necessity of safety precautions, such as stapling or taping plastic barriers to walls, etc., can involve some damage to wall and floor coverings, such as paint, wallpaper, carpet, etc. **Customer understands this and will be responsible for all such damage.**
6. **Site Access:** Customer to insure that prior to and during any asbestos abatement operations, the asbestos storage area and asbestos control area shall be vacated and shall remain closed to all persons (other than SYNERGY employees) and animals for the duration of the project. In the event that any individual (other than SYNERGY employees) or animals enters the asbestos storage area and/or asbestos control area, customers agrees that SYNERGY shall not be held liable for any health problems or claims relating to any injury, loss, or damage and/or asbestos exposure and/or actions that will increase any claim for exposure and/or contamination arising there from except to the extent that such claims arise from the sole negligence or willful misconduct of SYNERGY.
7. **Time Requirement:** Customer understands that SYNERGY can only provide a limited estimate of time required to complete said job. Additional time may be required due to unforeseen conditions or circumstances.
8. **Changes and Errors:** Customer may request changes in the work from time to time and at any time, including changes in method, scope, performance requirements or scheduling, in which case the contract price and completion date will be adjusted by SYNERGY. SYNERGY may adjust the Scope of Work, contract price, and completion date and/or cancel contract if an error greater than 5% either direction is found in any part of the Proposal of the On-site inspection form, which are incorporated by this reference, or the measuring of linear and/or square feet. Any and all changes must be in writing and signed by both parties.
9. **Additional ACM:** SYNERGY assumes no responsibility nor liability to inspect, nor locate nor remove asbestos beyond the limited locations identified. Nor will SYNERGY be responsible for removing unopened, unexposed and/or inaccessible asbestos. Accessibility is to be determined by SYNERGY in consultation with customer. If SYNERGY determines the asbestos to be inaccessible the customer will have reasonable time to render the material accessible at the customer's sole expense and liability. Price for removal and/or encapsulating and cleaning of such additional accessible asbestos material is not included in Scope of Work unless otherwise stated.
10. **Differing Site Conditions:** If SYNERGY encounters subsurface or latent physical conditions and/or unknown physical conditions and/or unknown physical conditions of unusual nature at the site, differing materially from those indicated in the Proposal, SYNERGY will promptly notify the customer, if such conditions cause an increase or decrease in the cost of or time required for performances of any part of the Scope of Work, an adjustment in price shall be made by SYNERGY and the contract time modified accordingly by This Contract may be assigned to Synergy Environmental Company (t) or Synergy Environmental, Inc.
11. **Force Majeure:** SYNERGY shall not be liable nor be deemed to default for damages for any delay or failure in performance of its Scope of Work which arises out of causes beyond its reasonable control. Such causes may include, without limitations, acts of government in either its contractual of sovereign capacity, acts of God or the public enemy, epidemics, floods, fires, strikes, quarantine restrictions, freight embargoes, material shortages, or unusual severe weather, In the event the Scope of Work is delayed by such causes, the time for performance will be extended.
12. **Notifications to Contractor:** Customer agrees to promptly notify contractor if asbestos containing material debris remains on the property after completion of the Scope of Work.
13. **Good Faith Effort:** After a good faith effort to remove any asbestos, if unable to do so, SYNERGY may abate asbestos by encapsulating, isolating or removing all or part of the affected structure, after obtaining permission from the owner (owner is then responsible for the purchase and installation of a replacement structure). Contract price and completion time will be adjusted by SYNERGY if additional encapsulating, isolating, or removal of structures is required beyond that specifically stated in the Scope of Work. These adjustments must be in writing and signed by both parties.
14. **Generator of Waste:** Customer agrees that they are the generator of waste and request and authorize SYNERGY to properly dispose of their asbestos contaminated materials (as outlined in the Scope of Work) as per governmental regulations.
15. **Assignees of Contractor:** Contractor shall have the right to assign this agreement to any other person, firm or corporation without notice to customer, and customer acknowledges that the terms and conditions of this agreement bind customer to any assignee with the same force and effect they bind customer to contractor.
16. **Limitation of Liability: Customer will defend, indemnify, and hold harmless SYNERGY for all damages, liabilities and claims of Customer and third parties from exposure to asbestos or ACM, except to the extent that such exposure is, caused by the sole negligence or willful misconduct of SYNERGY. Customer agrees that SYNERGY'S liability for any damage of whatever kind to the property, customer, and any other resident of the property or any of their agents, representative, licensees, invites or animals which arises out of SYNERGY'S performance shall be limited to the contract price. Moreover, SYNERGY shall not in any case be liable for indirect, incident or consequential damages of any kind. Customer agrees that all limitations of liability in the agreement apply to SYNERGY, its employees, agents, independent contractors, officers and directors.**
17. **Breach of Agreement:** In the event of any breach of this agreement whether or not legal suit is filed, the breaching party agrees to pay the non-breaching party all attorney fees and costs incurred by the non-breaching party. If any portion of this agreement is illegal or unenforceable, it shall not affect the balance of this agreement, which shall remain in full force and effect.
18. **Legal Effect:** This agreement contains all the terms and conditions upon which SYNERGY will perform the Scope of Work described herein and shall supersede all proper corresponding agreements and understandings, both verbal and written. This agreement is made without regard to any of the provisions in the Bid (Proposal) Documents not expressly incorporated herein by referenced or otherwise agreed to in writing, signed by SYNERGY. Once signed, this document represents the entire agreement of the parties with regard to performance of and payment of Scope of the Work.
19. **Arbitration of Disputes:** Any dispute or claim in law or equity arising out of this contract or any resulting transaction shall be decided by neutral binding arbitration in accordance with Part 3, Title 9 of the California Code of Civil Procedure, and not by court action except as provided by California law for judicial review of arbitration proceedings. Judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction there of. The parties to the arbitration shall have the right to discovery in accordance with the Code of Civil Procedure Section 1283.05. The arbitrator shall be a retired Superior Court Judge or a licensed California attorney. The losing party shall pay the arbitrator's fee. In the event of disagreement as to the selection of an arbitrator, the presiding Judge of the Superior Court having jurisdiction to enforce the arbitration award, shall select the arbitrator.

Contractor Representative has discussed items 9-19 with customer and customer understands and agrees to the foregoing.
Customer initials_____ Contractor Initials_____

Work Commencement: Failure by SYNERGY without lawful excuse to substantially commence work within twenty (20) days from the approximate date specified in this contract when work will begin is a violation of the California Contractors License Law. **Substantial commencement of work** with reference to this agreement shall mean the delivery of products or materials necessary to commence the Scope of Work to the address specified herein.

Contractors are required by law to be licensed and regulated by the Contractors State License Board, which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within 10 years of the date of the alleged violation. Any questions concerning the contractor may be referred to the Registrar, Contractors State License Board, Post Office Box 26000, Sacramento, California 95826.

NOTICE TO OWNER

Under the California Mechanic's Lien Law, any contractor, subcontractor, laborer, supplier, or other person or entity who helps to improve your property, but is not paid for his or her work or supplies, has a right to place a lien on your home, land, or property where the work was performed and to sue you in court to obtain payment. This means that after a court hearing, your home, land, and property could be sold by a court officer and the proceeds of the sale used to satisfy what you owe. This can happen even if you have paid your contractor in full if the contractor's subcontractors, laborers, or suppliers remain unpaid. To preserve their rights to file a claim or lien against your property, certain claimants such as subcontractors or material suppliers are each required to provide you with a document called a "Preliminary Notice". Contractors and laborers who contract with owner directly do not have to provide such notice since you are aware of their existence as an owner. A preliminary notice is not a lien against your property, its purpose is to notify you of persons or entities that may have a right to file a lien against your property if they are not paid. In order to perfect their lien rights, a contractor, subcontractor, supplier, or laborer must file a mechanics lien with the county recorder which then becomes a recorded lien against your property. Generally, the maximum time allowed for filing a mechanics lien against your property is 90 days after substantial completion of your project.

TO INSURE EXTRA PROTECTION FOR YOURSELF AND YOUR PROPERTY, YOU MAY WISH TO TAKE ONE OR MORE OF THE FOLLOWING STEPS.

1. Require that your contractor supply you with a payment and performance bond (not a license bond), which provides that the bonding company will either complete the project or pay damages up to the amount of the bond. This payment and performance bond as well as a copy of the construction contract should be filed with the county recorder for your further protection. The payment and performance bond will usually cost from 1 to 5 percent of the contract amount depending on the contractor's bonding ability. If a contractor cannot obtain such bonding, it may indicate his or her financial incapacity.
2. Require that payments be made directly to subcontractors and material suppliers through a joint control. Funding services may be available, for a fee, in your area which will establish voucher or other means of payment to you contractor. These services may also provide you with lien waivers and other forms of protection. Any joint control agreement should include the addendum approved by the registrar.
3. Issue joint checks for payment made out to both your contractor and subcontractors or material suppliers involved in the project. The joint checks should be made payable to the persons or entities which send preliminary notices to you. Those persons or entities have indicated that they may have lien rights on your property, therefore you need to protect yourself. This will help to insure that all persons due payment are actually paid.
4. Upon making payment on any completed phase of the project, and before making any further payments, require your contractor to provide you with unconditional "Waiver and Release" forms signed by each material supplier, subcontractor, and laborer involved in that portion of the work for which payment was made. The statutory lien releases are set forth in exact language in Section 3262 of the Civil Code. Most stationery stores will sell the "Waiver and Release" forms if your contractor does not have them. The material suppliers, subcontractors, and laborers that you obtain releases from are those persons or entities who have filed preliminary notices with you. If you are not certain of the material suppliers, subcontractors and laborers working on your project, you may obtain a list from your contractor. On projects involving improvements to a single-family residence or a duplex owned by individuals, the persons signing these releases lose the right to file a mechanic's lien against your property. In other types of construction, this protection may still be important, but may not be as complete.
   To protect yourself under this option, you must be certain that all material suppliers, subcontractors and laborers have signed the "Waiver and Release" form. If a mechanic's lien has been filed against your property, it can only be voluntarily released by a recorded "Release of Mechanics' Lien", signed by the person or entity that filed the mechanics' lien against your property unless the lawsuit to enforce the lien was not timely filed. You should not make any final payments until any and all such liens are removed. You should consult an attorney if a lien is filed against your property.

NOTICE OF CANCELLATION

_____Date of Transaction

You may cancel this transaction without any penalty or obligation within three business days from the above date. If you cancel, any property traded in, any payments made by you under this agreement and any negotiable instrument executed by you will be returned within 10 days following receipt by the contractor of your cancellation notice, and any security interest arising out of the transaction will be cancelled. If you cancel, you must make available to the contractor at your residence, in substantially as good condition as when received, any goods delivered to you under this agreement, or you may if you wish, comply with the instructions of the contractor regarding the return shipment of the goods at the contractor's expense and risk. If you do not make the goods available to the contractor and the contractor does not pick them up within 20 days of the date of your notice of cancellation, you may retain or dispose of the goods without further obligation. If you fail to make the goods available to the contractor, or if you agree to return the goods to the contractor and fail to do so, then you remain liable for performance of all obligations under this agreement. To cancel this transaction, mail or deliver a signed and dated copy of this cancellation notice, any other written notice, or send a telegram to:

SYNERGY ENVIRONMENTAL, INC., 28436 Satellite Street, Hayward, Ca. 94545 NOT LATER THAN MIDNIGHT OF_____

I HEREBY CANCEL THIS TRANSACTION

_____ _____

Date Customer's Signature

CITY OF BERKELEY

Permit Service Center
Planning and Development Department
2120 Milvia Street
Berkeley, California 94704

Fire Prevention	883-6555
Engineering Permits	883-6555
Toxics	705-8150
Health Dept.	644-6510
Zoning	705-8141

(510) 883-6555 • Telecommunications Device for the Deaf (510) 644-6915 • FAX (510) 883-6549
To Arrange Building and Public Works Inspections Call (510) 883-6566

PERMIT EXPIRES 180 DAYS FROM DATE OF ISSUANCE

Application Number: 99-0000291961 Date: 07/07/99
Site: 951 KEELER AVE
Permit Number: 0 03 - 99 0 000 00
Application Description: 1 - BUILDING REPAIRS Dr. # 1300585
Property Use: SINGLE FAMILY RESIDENTIAL
Owner: OCH
GRUBER, VICTOR OWNER
951 KEELER AV
BERKELEY CA 94704
(510) 548-8959

RECEIVED AMARA
NAME
DATE

No. Description Lead Inspection
SINGLE FAMILY RESIDENCE 1 NAME
Construction Type: STANDARD CONSTRUCTION
Occupancy/Use: VAD V NONCARED
Dwelling Units: 1 Units of Dwelling 1

Permit: BUILDING PERMIT
Additional Use:
Permit Fee: 95.00 Plumbing Fee: 0.00
Issue Date: 6/28/99 Valuation: 7,200
Expiration Date: 12/28/99
Qty Unit Charge Per Extension
BASE FEE 0.00
1.00 0.00 15,0000 THOU BUILDING PERMIT TYPE 400.00

Permit: PLUMBING PERMIT
Additional Use:
Sub-Contractor: MC LAREN PLUMBING COMPANY
Permit Fee: 0.00 Plan Check Fee: 0.00
Issue Date: 6/30/99 Valuation: 0
Expiration Date: 12/27/99
Qty Unit Charge Per Extension
BASE FEE 0.00
4.00 4.2500 EA 10.00 FIXTURES ADDED/REM 34.00
1.00 17.0000 EA 17.00 PLAN CHECK UNITS 17.00

Special Attachments/Conditions:
DEX NOT REPAIRED THROUGH FOUNDATION OF BLDG.
MAJOR DAMAGE TO THE PLUMBER SUPPORT
FIELD INSPECTION PER (M. HALL)

Other Fees: FILING FEE BUILDING 11.50
TOTAL: 511.50

APPLICATION APPROVAL STATEMENT

NOTE: This permit does not become valid until signed by the building official or his deputy, and fees are paid and receipts acknowledged in the space provided.

Signature of Deputy

JOBSITE RECORD

1 of 3

CITY OF BERKELEY
Permit Service Center
Planning and Development Department
1947 Center Street
Berkeley, California 94704

Fire Prevention 883-6555
Engineering Permits 883-6555
Notices 705-8150
Health Dept. 644-6510
Zoning 705-8111

(510) 883-6555 • Telecommunications Device for the Deaf (510) 644-6915 • FAX (510) 883-6543
To Arrange Building and Public Works Inspections Call (510) 883-6566

RECEIVED

APPLICATION APPROVAL STATEMENT

Signature of Deputy:

NOTE: This permit does not become valid until signed by the permit official and all fees are paid and receipt acknowledged in the space provided below.

JOBSITE RECORD

Planning Department
Building & Safety Division
1947 Center Street
Berkeley, CA 94704

BUILDING PERMIT

Arrange for inspections by calling
510-981-5560

Permit Number
Job Address
Type of Inspection Requested
Date Requested
Approved By

CERTIFICATE OF OCCUPANCY

ELECTRICAL

Date Approved

GAS

Date Approved

FINAL	DATE	APPROVED
PLANNING		
FIRE		
HEALTH		
PUBLIC WORKS		
PARKING		

ABOVE APPROVALS REQUIRED BEFORE BUILDING FINAL

FINAL INSPECTION

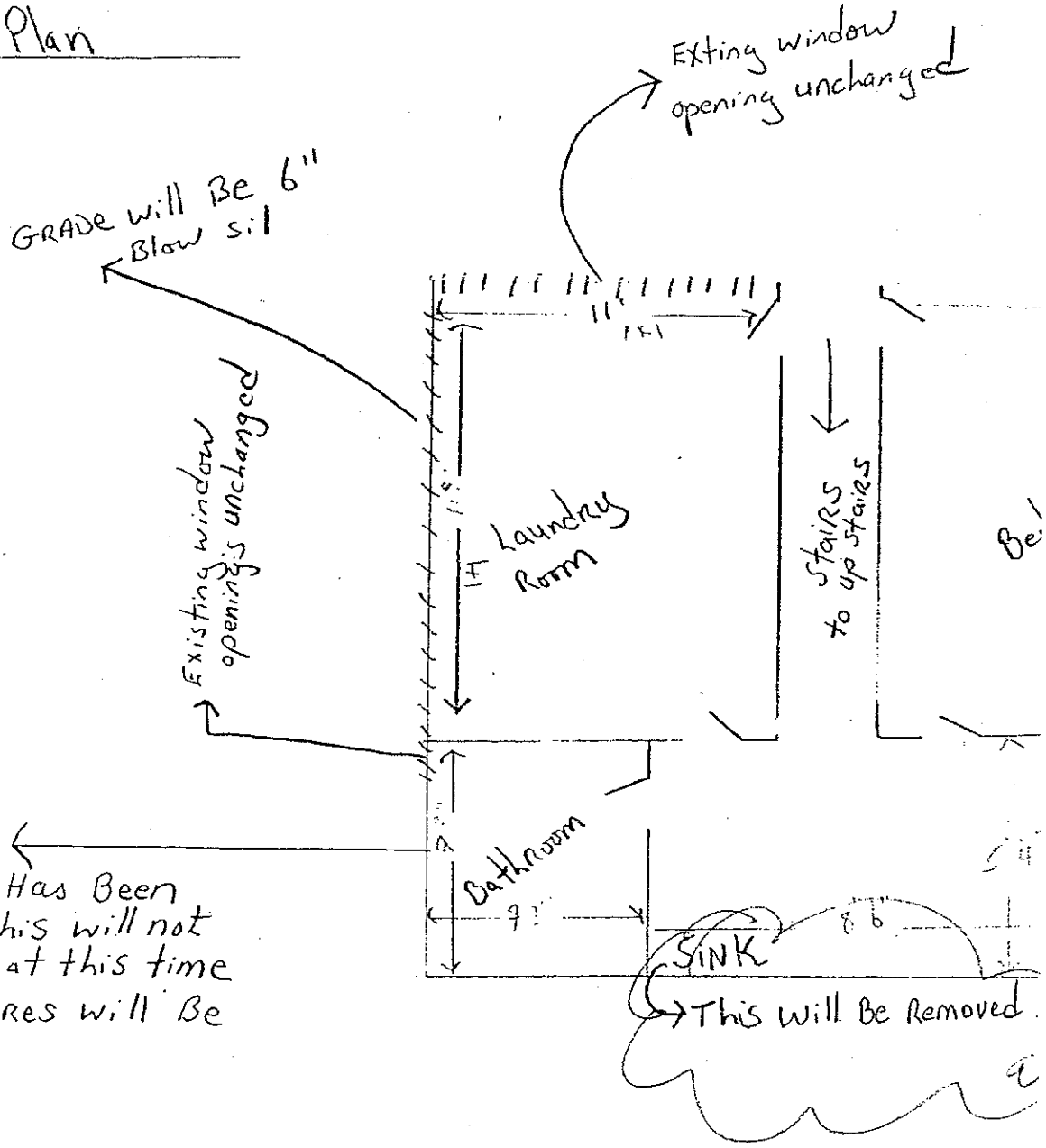
This building must not be occupied until a final inspection has been called for and certified below.

11/1/00 D. Will

Date

3 of 3

lOWNSTAIRS Floor Plan



-5

pair & Remodle : 954 Keeler

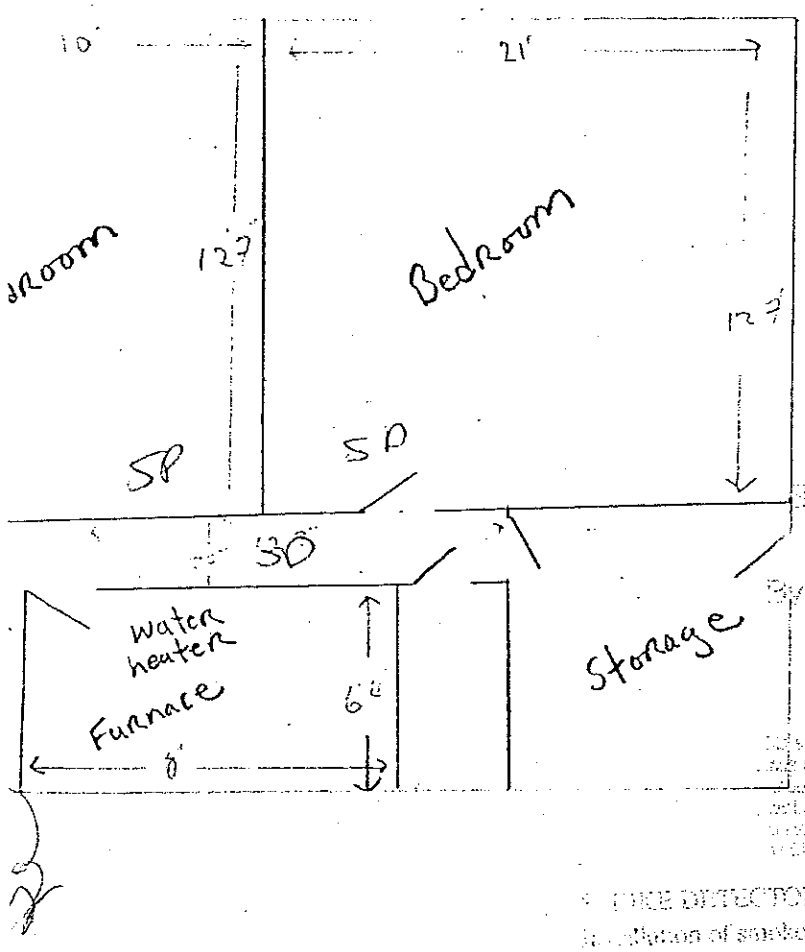
awN By : Alan Brennan

me owner : Victor Linden

CONSTRUCTION

All work shall comply with 1995 State amended:
1994 Uniform Building Code
1994 Uniform Mechanical Code
1994 Uniform Plumbing Code
1993 National Electrical Code
Title 24 Energy Regulations
Title 24 Disabled Access Regulations
and the Berkeley Municipal Code.

attachments for fluorescent lights smoke detectors & receptacle locations



JOB SITE

N

BUILDING & SAFETY DIVISION
City Planning Department
APPROVED
By
FEB 23 1990

Use of plans and specifications [illegible] and is unlawful to make any changes or alterations [illegible] without written permission from the City of Berkeley, Building & Safety Division. The stamping of this plan and specifications [illegible] permit or to be an approval to the violation of any provisions of City Ordinances or State law.

MARIN

SMOKE DETECTORS REQUIRED
Installation of smoke detectors is required when alterations or repairs to an R-1 or R-3 occupancy exceeds $1,000.00. Smoke Detectors shall be installed in accordance with the manufacturers instructions and the UBC & UFC.

Keeler

Laundry Room : New Framing 2 Exterior walls – 5/8 Plywood 6/4 CDX on exterior 1/2 sheetrock on interior 6/4

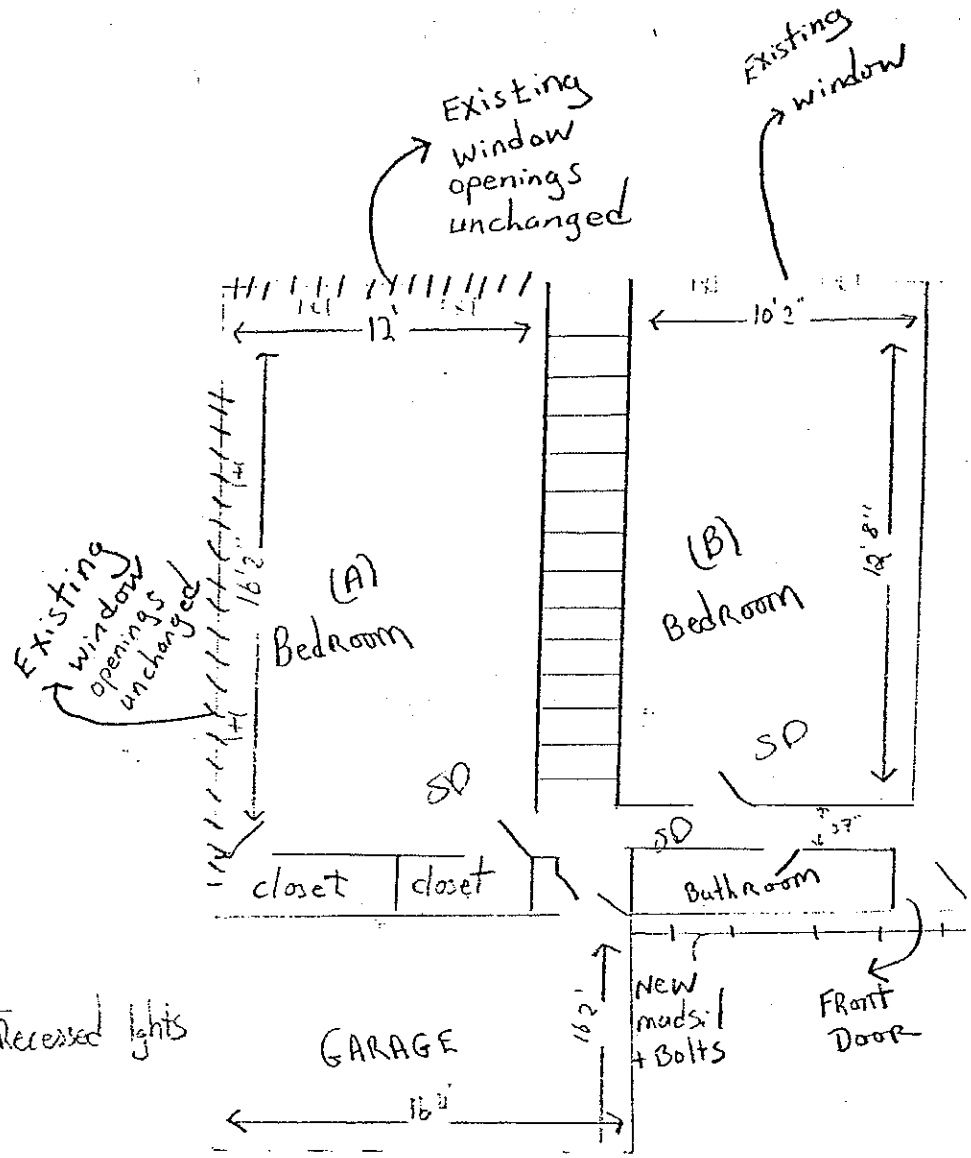
Plumbing : Has Been changed and inspected

Electrical
Laundry Room 2 outlets

OWNER

Please read all the red marks, stamps, and understand prior to proceeding with construction.

IpStairs Floor Plan



S

Ectrical ÷ Two Dedicated Circuits

tchen ÷ 2 Switches 5 outlets - 5 Recessed lights

throom ÷ 1 outlet

droom(A) ÷ 4 outlets

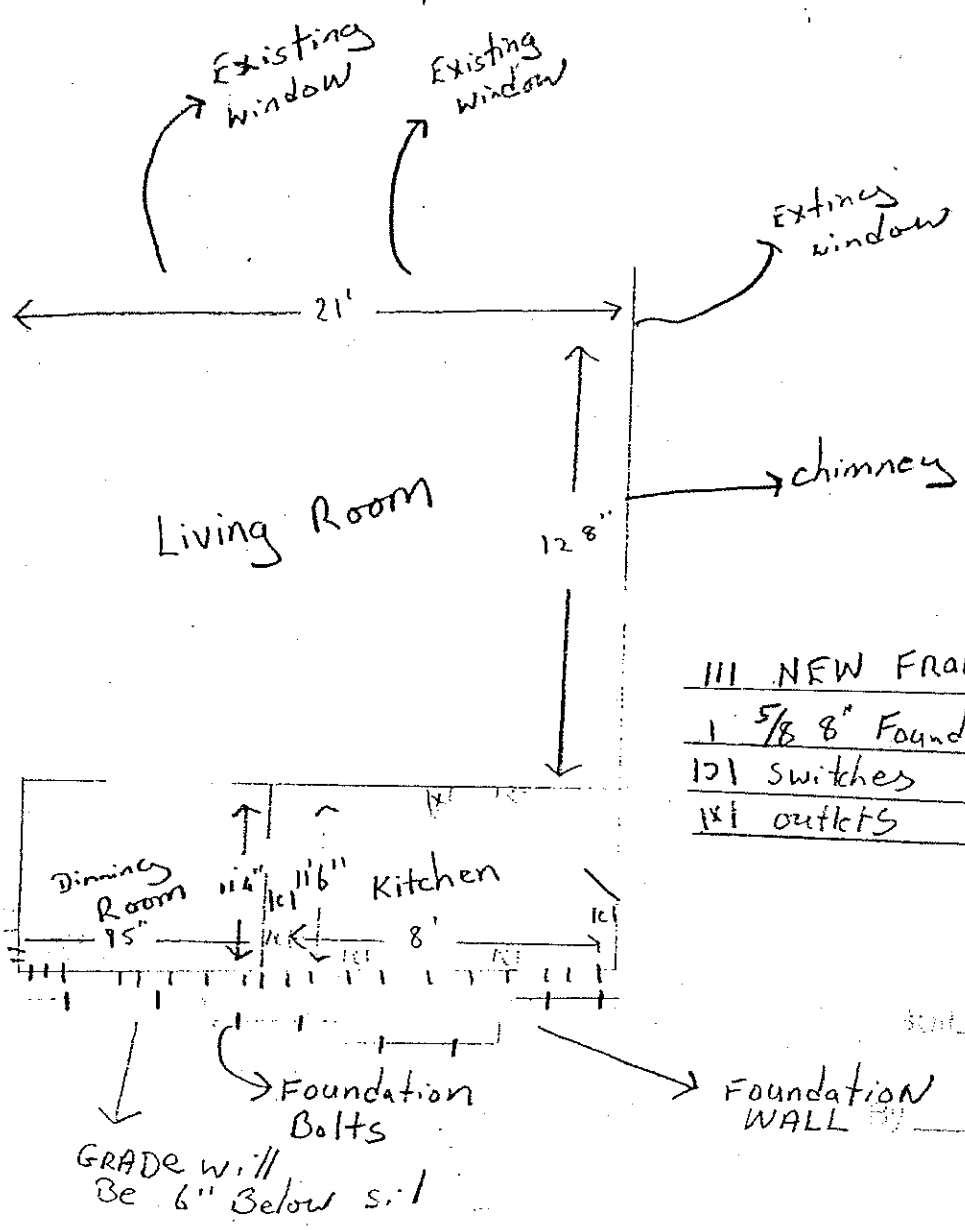
d Room(B) ÷ 2 outlets

Plumbing ÷ Has Been changed and inspected

emodle For ÷ 954 Keeler

AWN By ÷ ALAN Brennan - 510-435-5074

OME owner ÷ Victor Linden



III NEW Framing
1 5/8 8" Foundation Bolts w/ 2"x2"x3/16" plate washers
121 switches
1x1 outlets

N

MARIN

BUILDING & SAFETY DIVISION
City Planning Department
APPROVED
BY
28 1989

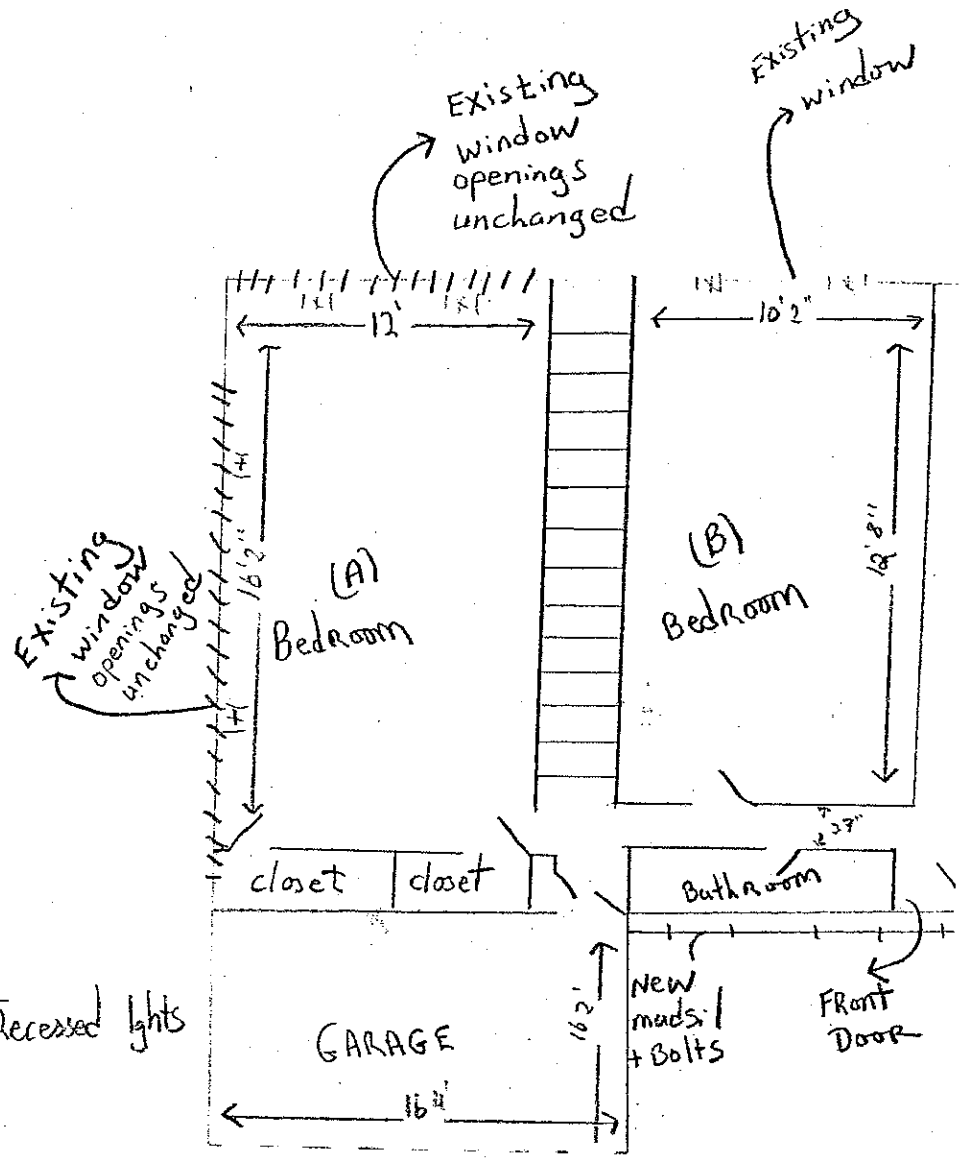
Keeler

IIII Bedroom (A) - NEW Framing 2 Exterior walls opening to Remain the Same - insulate - Sheetrock on interior - Plywood exterior 5/8 CDX 6/4
Bedroom (B) - Sheetrock 1 exterior wall
Living Room - Repair Sheetrock under 2 windows
Dining Room - New Framing - Replace sheetrock and Plywood exterior 5/8 CDX
Kitchen - Sheetrock walls and Part of Ceiling install New Cabinets new appliances where existing
Bathroom - install New sub-Floor 3/4 CDX 6/4 sheetrock walls-Ceiling 6/4 - Fixtures Replaced AS Existing

min 6" on edges 12" in field - solid block & nail all edges

1pstairs Floor' Plan

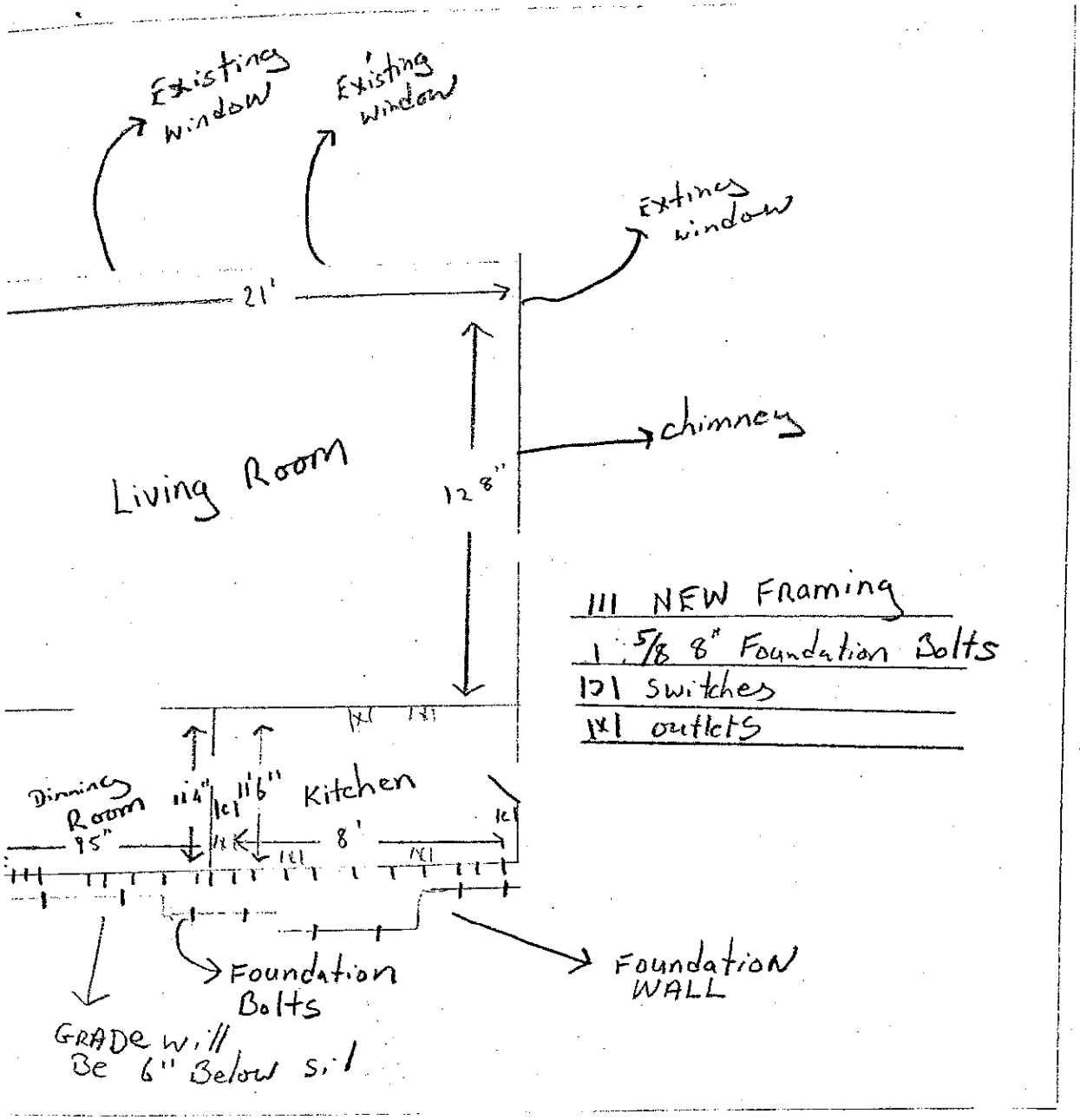
-5



lectrical :
itchen : 2 Switches 5 outlets - 5 Recessed lights
two Dedicated circuits.
throom : 1 outlet
droom(A) : 4 outlets
ed Room(B) : 2 outlets

Plumbing : Has Been changed and inspected

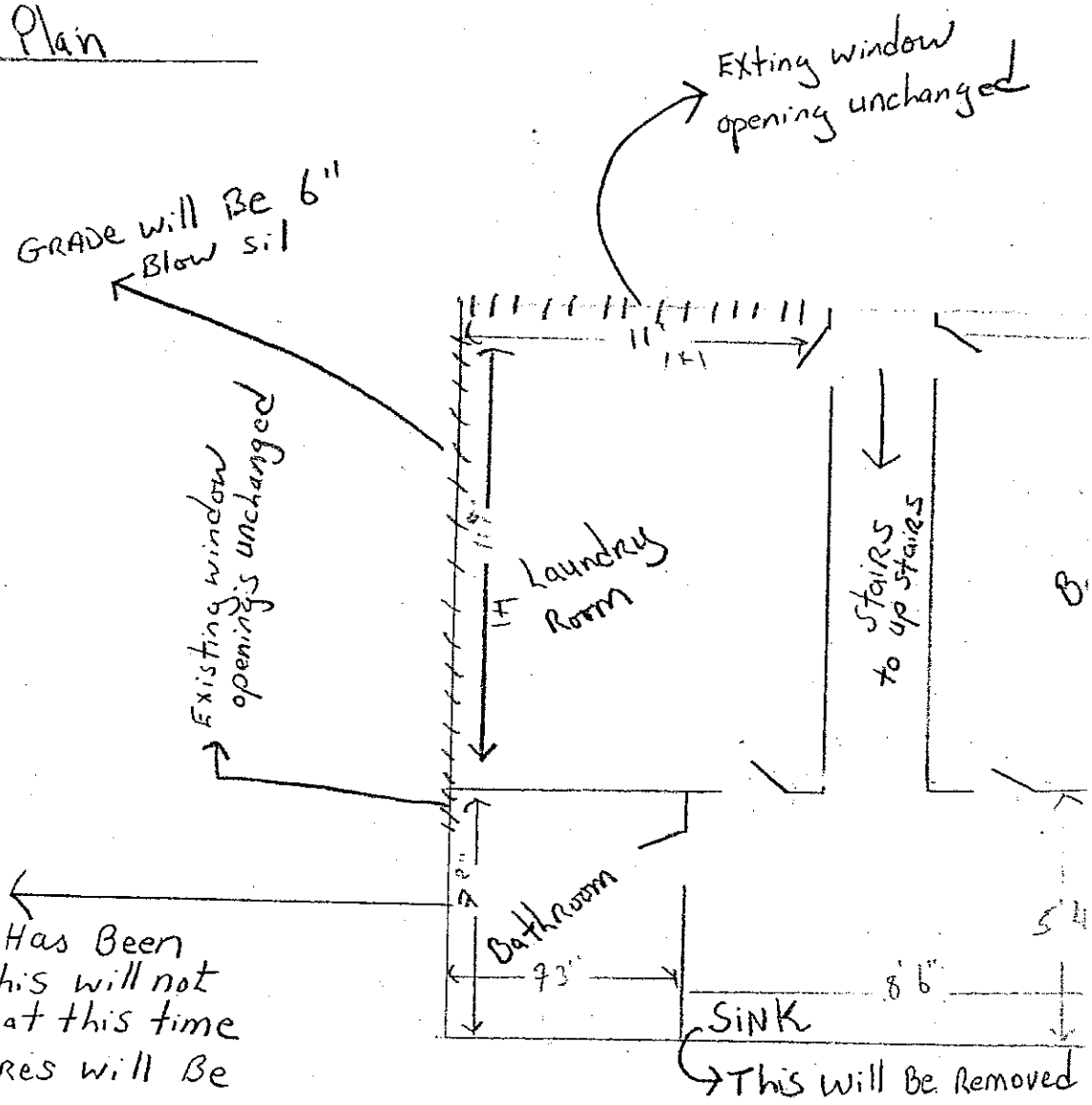
emodle For : 954 Keeler
rawn By : ALAN Brennan - 510-435-5074
ome owner : Victor Linden



Keeler

Bedroom (A): NEW Framing 2 Exterior Walls opening to Remain the Same - insulate - sheetrock on interior - Plywood exterior 5/8 CDX 6/4
Bedroom (B): Sheetrock 1 exterior wall
Living Room: Repair sheetrock under 2 windows
Dining Room: New Framing - Replace sheetrock and Plywood exterior 5/8 CDX
Kitchen: Sheetrock walls and Part of Ceiling install New Cabinets new appliances where existing
Bathroom: install New sub-Floor 3/4 CDX 6/4 sheetrock walls - Ceiling 6/4 - Fixtures Replaced As Existing

DOWNSTAIRS FLOOR PLAN

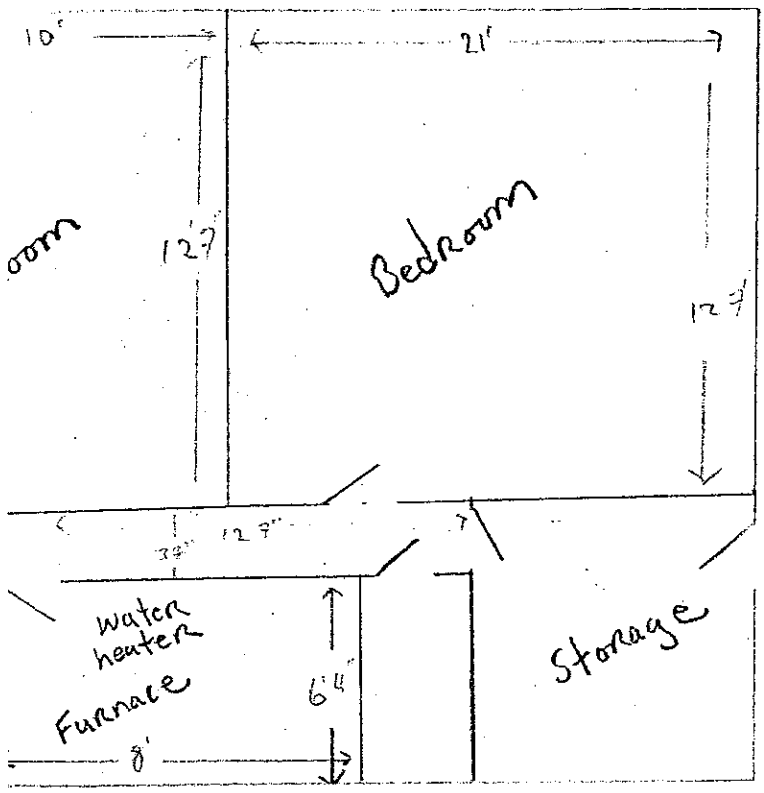


-S

epair & Remodle : 954 Keeler

rawn By : Alan Brennan

ome owner : Victor Linden



N →

MARIN

Keeler

aundry Room - New Framing & Exterior walls - 5/8 Plywood 6/4 CDX
n exterior 1/2 sheetrock on interior 6/4

Lumbing - Has Been changed and inspected

lectrical
aundry Room 2 outlets

Planning Department
Building and Safety Division

SEISMIC/TRANSFER TAX GUIDELINES

The following guidelines will assist applicants through the process to qualify for the City of Berkeley's seismic retrofit exemption in connection with the City of Berkeley's **transfer tax**.

From the date of the recordation of the transfer document, the applicant shall have one (1) year to complete all seismic retrofit work and submit a Seismic Retrofit Verification Application to the Building and Safety Division of the City of Berkeley. If the work is not completed at the end of one year, that portion which has been completed may be credited to the applicant upon submission of a Seismic Retrofit Verification Application, substantiating documentation, and receipts showing dollar amount of work completed up to that date. All other monies remaining in escrow will be returned to the City of Berkeley upon written request by the Finance Department.

1. Real estate/escrow agents will obtain the **Declaration of Real Property Transfer Tax** form from the City of Berkeley's Finance Department. This form must be completed in its entirety by the title company (or applicant if not being processed through the title company) and submitted to the City of Berkeley Finance Department for their signature.

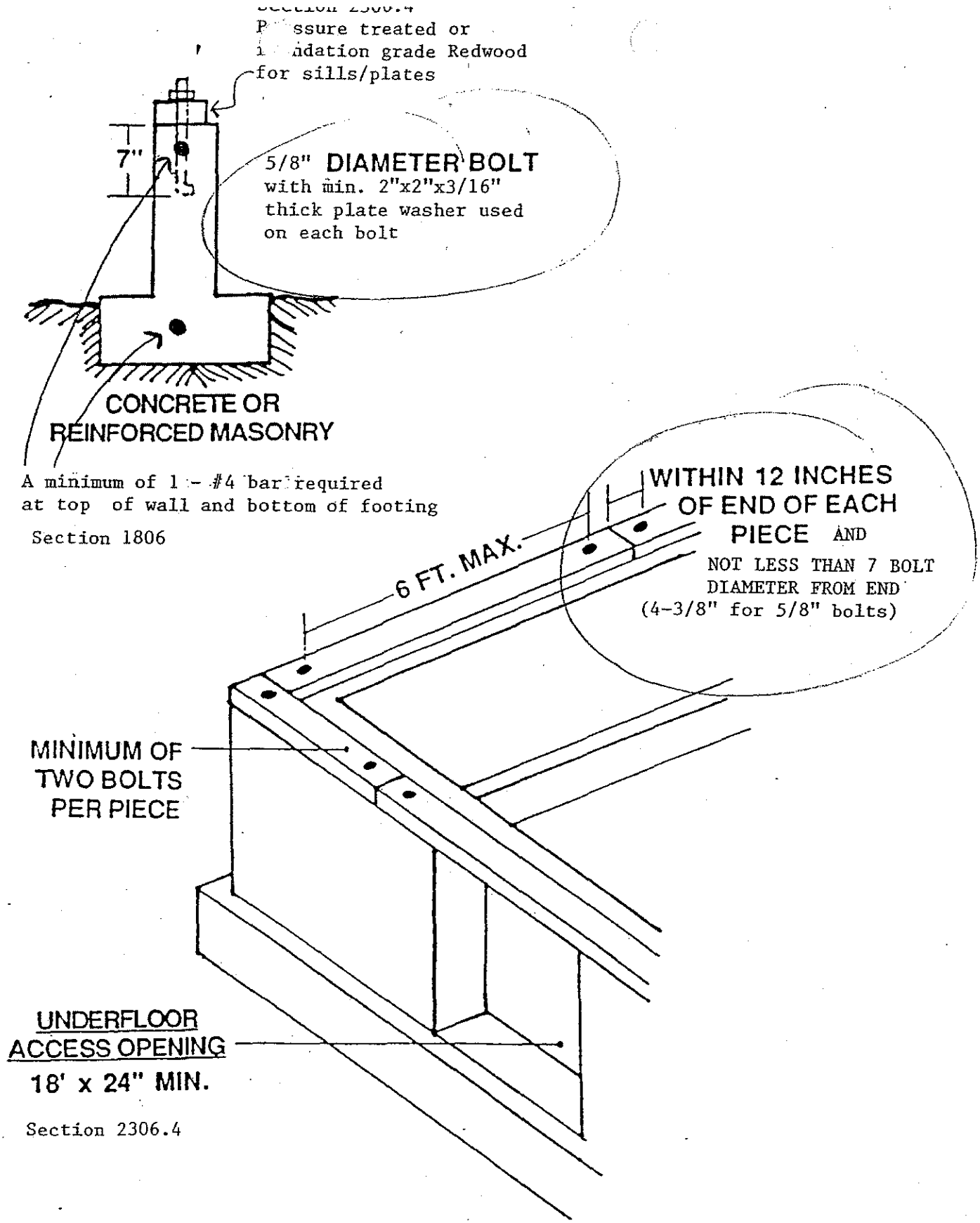
   A recorded grant deed must be filed with the Finance Department if a Declaration of Real Property Transfer Tax is not on file.

2. The title company will distribute the **Seismic Retrofit Verification Application** form to property owners at the close of escrow.

   The Seismic Retrofit Verification Application may be obtained also from the City of Berkeley, Permit Service Center.

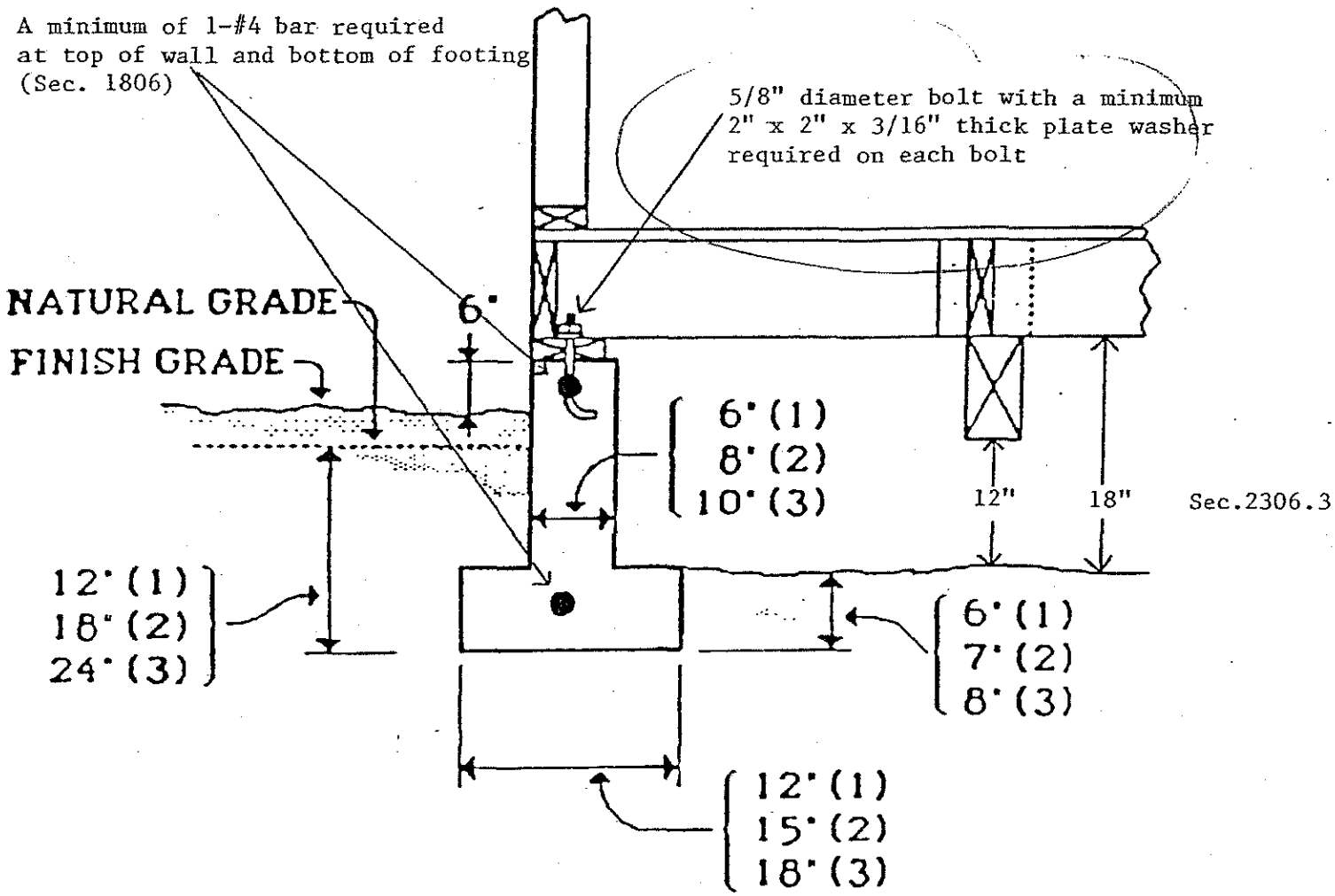
3. The applicant must pull proper permits from the City of Berkeley, Permit Service Center.

2120 Milvia Street, Berkeley, CA 94704-1113 Tel: 510.883.6544 TDD: 510.644.6915 Fax: 510.883.6543
E-mail: planning@ci.berkeley.ca.us



FOUNDATION BOLTS

SECTION 1806



FOUNDATIONS FOR STUD BEARING WALLS

SECTION 1806 TABLE 18-I-C

Kitchen Lighting

Would one fluorescent light in a kitchen, installed over the sink or under one cabinet, meet the "general lighting" requirements?

No. The general lighting must evenly light the entire kitchen. Two *examples* of acceptable lighting configurations are (1) fluorescent lighting (or other light source with at least 40 lumens/watt) around the perimeter of the kitchen (under or over cabinets), or (2) a fluorescent in the center of the kitchen.

If a customer asks me not to install fluorescent lights in their home, are there any other light sources I can use to meet the kitchen lighting requirements?

Yes, although they may not be readily available, there are products other than fluorescent which meet the lighting requirements of the standards, Section 150(k). The two criteria for the kitchen and bathroom general lighting are (1) a lamp with an efficacy of 40 lumens/watt or more, and (2) the fixtures cannot contain a medium base incandescent lamp socket. Table 2-2 indicates the typical lumens/watt of several common products, some of which meet the required lumens/watt. Specifications from a product's manufacturer can also be used to verify that a product has at least 40 lumens/watt.

2.5 LIGHTING

Energy Code

Kitchen Lighting (Section 150(k)1, 3)

1. *Luminaires for general lighting in kitchens shall have lamps with an efficacy of not less than 40 lumens per watt. General lighting must provide a sufficient light level for basic kitchen tasks and provide a uniform pattern of illumination. A luminaire(s) that is(are) the only lighting in a kitchen will be considered general lighting. General lighting shall be controlled by a switch on a readily accessible lighting control panel at an entrance to the kitchen.*

   Additional luminaires to be used only for specific decorative effects need not meet this requirement.

3. *Luminaires installed to meet the 40 lumens per watt requirements of Section 150(k) 1. or 2. shall not contain medium base incandescent lamp sockets, and shall be on separate switches from any incandescent lighting.*

Construction

Kitchen Lighting

Installing energy-efficient lamps and fixtures can reduce lighting energy costs without sacrificing the quality or quantity of light available. As indicated in Table 2-2, a 40-watt standard fluorescent lamp is over four times as efficient as a 100-watt standard incandescent lamp.

The general lighting in kitchens must:

- Have an efficacy of *at least 40 lumens/watt* (see Table 2-2).
- Provide a uniform pattern of lighting, such as a fixture in the center of the kitchen or around the perimeter (not a fixture in the corner).
- Provide a light level sufficient for performing basic kitchen tasks such as preparing meals and washing dishes.
- Be controlled on a readily accessible switch at an entrance to the kitchen (not in a cupboard or beside the kitchen sink).
- Be switched independent of incandescent lighting.
- Shall not contain medium-base incandescent lamp sockets. This prevents the occupant from replacing the efficient light source with an incandescent bulb.

If there is only one light in the kitchen, it is general lighting.

Additional luminaires for decorative effect do not need to meet these requirements

Incandescent lighting fixtures recessed into insulated ceilings must be approved for zero-

clearance insulation cover (IC-rated) in compliance with Section 150(k)4 (see below).

Inspection

Kitchen Lighting

The lighting in the kitchen, either general or the only lighting, must:

- Be fluorescent or another product that has at least 40 lumens/watt (see Table 2-2).
- Provide a uniform pattern of lighting, such as a fixture in the center of the kitchen or around the perimeter (not a fixture in the corner).
- Provide a light level sufficient for performing basic kitchen tasks such as preparing meals and washing dishes.
- Be controlled on a readily accessible switch at an entrance to the kitchen (not in a cupboard or beside the kitchen sink).
- Be switched separately from incandescent lighting and on a control panel at an entrance to the kitchen.
- Not contain medium-base incandescent lamp sockets. This prevents the occupant from replacing the efficient light source with an incandescent bulb.

Table 2-2. Typical Efficacy of Luminaries

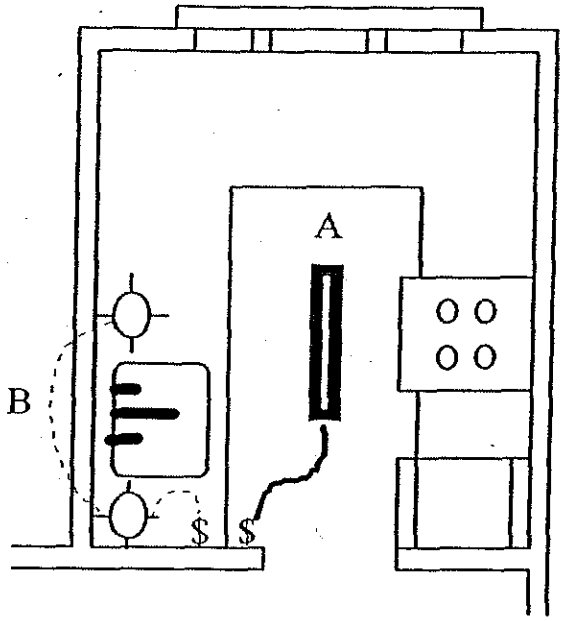
Light Source	Type	Rated Lamp Watts	Typical Efficacy Lumens/Watt[1]
Incandescent	Standard	40 - 100	14 - 18
Incandescent	Halogen	40 - 250	20[2]
Incandescent	Halogen IR	See footnote [3]	Up to 30
Fluorescent (Lamp/Ballast Systems)[4]	Full-Size, 4' Long	32 - 40	69 - 91
	U-Shaped T-8 Bipin	16 - 31	78 - 90
	Compact Fluorescent	5 - 9	26 - 38
	Compact Fluorescent	13 +	42 - 58
Metal Halide	Metal Halide	32 - 175	50 - 90
High Pressure Sodium	White High Pressure Sodium	35 - 100	36 - 55

[1] Includes power consumed by ballasts where applicable.

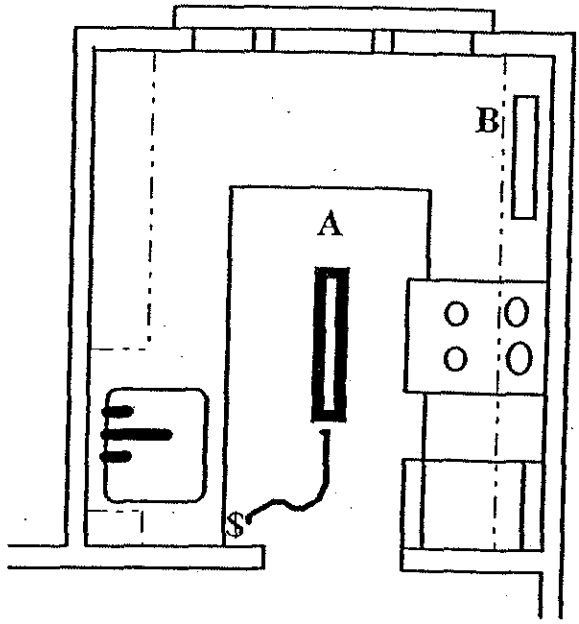
[2] Halogen capsule incandescent lamps may be the most efficient light source for highlighting applications. Most halogen lamps are designed to produce a beam of directed light. Manufacturer's data typically list the "candlepower" intensity of that beam, rather than lumens (lumens measure total light output in all directions).

[3] A new technology using infrared reflecting films on the halogen capsules has increased output up to 30 lumens/watt for some high wattage lamps.

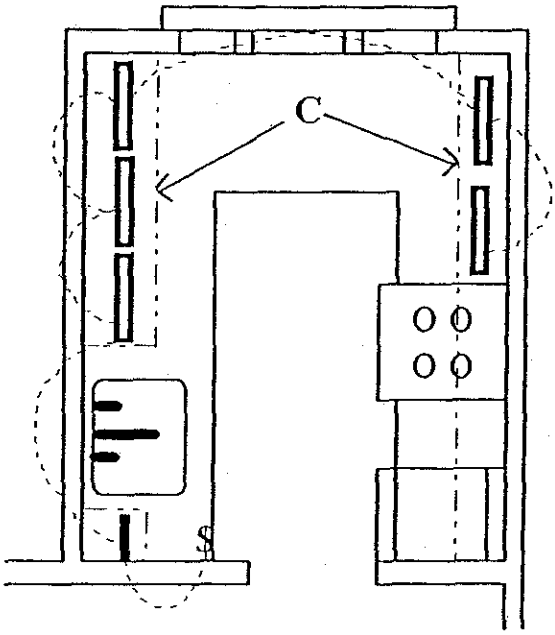
[4] Efficacy of fluorescent lighting varies depending on lamp and ballast types.



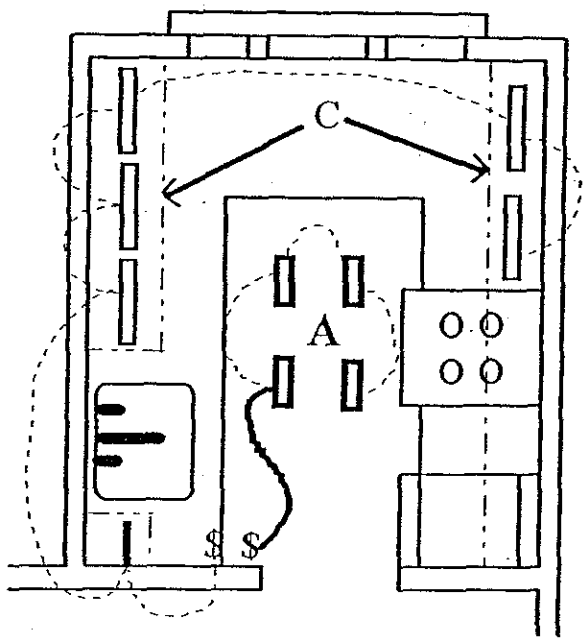
"A" must be fluorescent



"A" must be fluorescent
"B" alone is not general lighting.



All of "C" must be fluorescent



All of "A" or "C" must be fluorescent.
If "C" then "C" must be the most accessible switch.

Figure 2-11: Kitchen Lighting Examples

Branch Circuits to Kitchens and Laundry

Section 210-52(b) requires two or more 20-A circuits for all receptacle outlets for the small appliance loads, including refrigeration equipment [see FPN following Section 210-8(a)(5)], in the kitchen, dining room, pantry, and breakfast room of a dwelling unit. Counter top receptacle outlets in kitchens are required to be supplied by no fewer than two small-appliance branch circuits. These circuits may also supply receptacle outlets in the pantry, dining room, and breakfast room as well as an electric clock receptacle, electric loads associated with gas fired appliances, or outdoor receptacles, but are to have no other outlets. See Sections 210-8(a)(3) and (a)(5) for GFCI requirements.

At least one additional 20-A branch circuit is required to be provided for the supply to the laundry receptacle outlet(s). This circuit is to have no other outlets. See Figure 210-29.

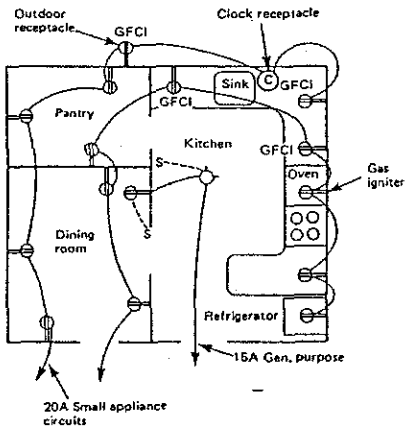


Figure 210-29. This figure illustrates the application of requirements of Section 210-52(b)(1) and (2). Though these small-appliance branch circuits may serve certain outlets in other specified areas, they are not permitted to serve any other outlets such as might be connected to exhaust hoods or fans, disposals or dishwashers. The counter top receptacles are required to be supplied by two circuits [see Section 210-52(b)(2)]; receptacles in other rooms are not. Receptacles within 6 feet of the kitchen sink installed to serve counter top surfaces are required to be GFCI protected in accordance with Section 210-8(a)(5).

Kit

(c) Counter T
units, a receptac
space 12 inches (
installed so that
inches (610 mm),
let in that space.

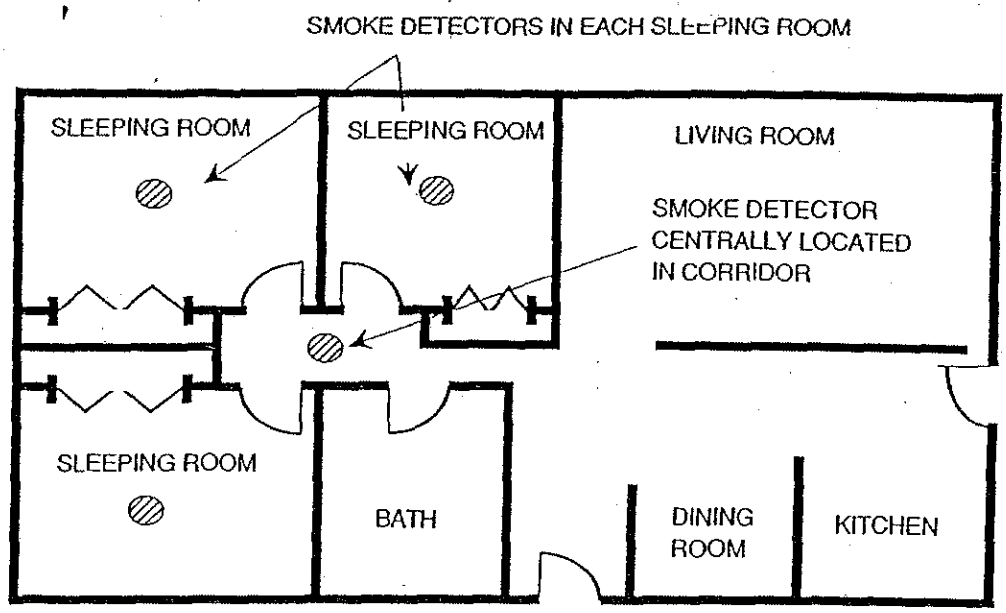
Counter top
are now require
wall line is more
and peninsular
required to hav
of counter spac

Receptacles re
in place or inst
space, such as di
gas ovens, waste
required recepta

A receptacle ou
sular counter top
or greater and a
greater. Receptac
tops shall be instal
the counter top. R
point along the cer
inches (610 mm),
let in that space. A
connecting edge.

Counter top spa
sinks shall be consi
tacle outlets rende
tened in place or
not be considered

Receptacle outl
in the work surface



LOCATION OF SMOKE DETECTORS WITHIN A RESIDENCE

Figure 310-3

310.9.1 Smoke detectors.

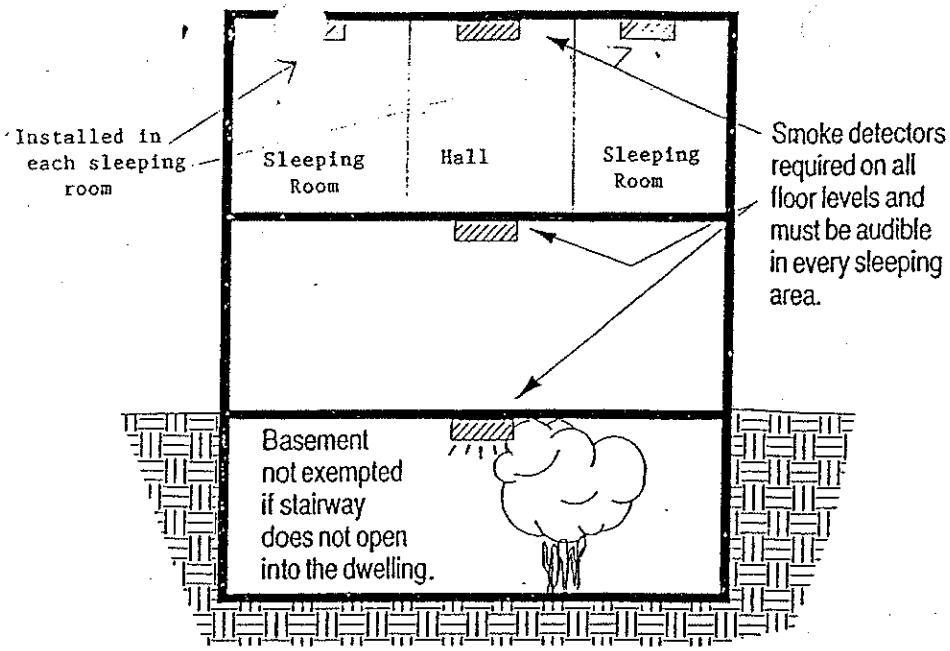
310.9.1.1 General. Dwelling units, congregate residences and hotel or lodging house guest rooms that are used for sleeping purposes shall be provided with smoke detectors. Detectors shall be installed in accordance with the approved manufacturer's instructions.

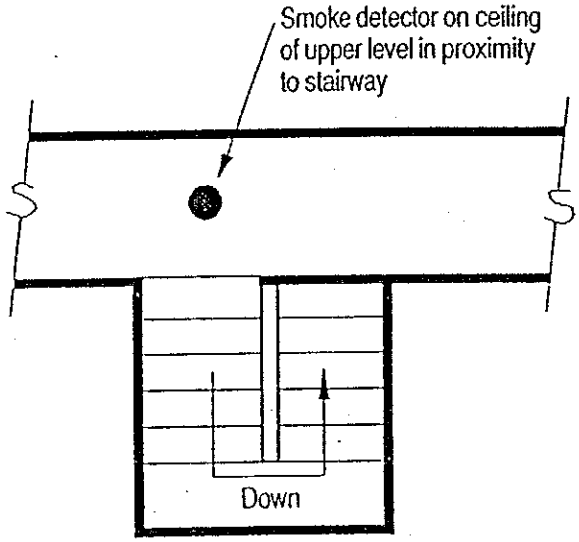
310.9.1.2 Additions, alterations or repairs to Group R Occupancies. When the valuation of an addition, alteration or repair to a Group R Occupancy exceeds $1,000 and a permit is required, or when one or more sleeping rooms are added or created in existing Group R Occupancies, smoke detectors shall be installed in accordance with Sections 310.9.1.3, 310.9.1.4 and 310.9.1.5 of this section.

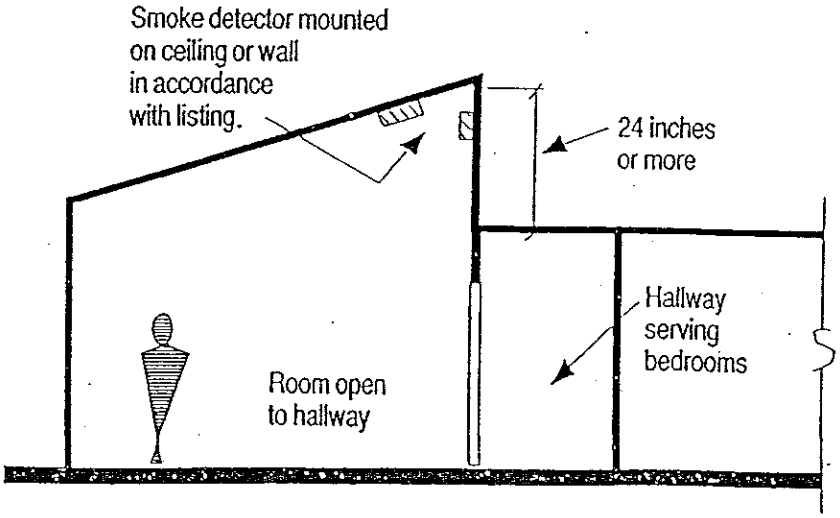
EXCEPTION: Repairs to the exterior surfaces of a Group R Occupancy are exempt from the requirements of this section.

310.9.1.3 Power source. In new construction, required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source and shall be equipped with a battery backup. The detector shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Smoke detectors may be solely battery operated when installed in existing buildings; or in buildings without commercial power; or in buildings which undergo alterations, repairs or additions regulated by Section 310.9.1.2.

310.9.1.4 Location within dwelling units. In dwelling units, a detector shall be installed in each sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. When the dwelling unit has more than one story and in dwellings with basements, a detector shall be installed on each story and in the basement. In dwelling units where a story or basement is split into two or more levels, the smoke detector shall be installed on the upper level, except that when the lower level contains a sleeping area, a detector shall be installed on each level. When sleeping rooms are on an upper level, the detector shall be placed at the ceiling of the upper level in close proximity to the stairway. In dwelling units where the ceiling height of a room open to the hallway serving the bedrooms exceeds that of the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallway and in the adjacent room. Detectors shall sound an alarm audible in all sleeping areas of the dwelling unit in which they are located.


Installed in each sleeping room
Sleeping Room
Hall
Sleeping Room
Smoke detectors required on all floor levels and must be audible in every sleeping area.
Basement not exempted if stairway does not open into the dwelling.


Smoke detector on ceiling of upper level in proximity to stairway
Down


Smoke detector mounted on ceiling or wall in accordance with listing.
24 inches or more
Hallway serving bedrooms
Room open to hallway

MIT SERVICE CENTER

FEB 07 2000

RECEIVED BY

SEISMIC RETROFIT VERIFICATION APPLICATION

From the date of the recordation of the transfer document, the applicant shall have one (1) year to complete all seismic retrofit work and submit a Seismic Retrofit Verification Application to the Building and Safety Division of the City of Berkeley. If the work is not completed at the end of one year, that portion which has been completed may be credited to the applicant upon submission of a Seismic Retrofit Verification Application, substantiating documentation, and receipts showing dollar amount of work completed up to that date. All other monies remaining in escrow will be returned to the City of Berkeley upon written request by the Finance Department.

Property Address: 954 KEELER AVE.	Parcel #: 063 B 2970008
Applicant's Name / Mailing Address: VIC LUNDEN - 954 KEELER AVE., BERKELEY, CA 94708	Phone #: 510 524-5157
Title Company / Title Company's Address: FIRST CALIFORNIA TITLE - 1676 N. CALIFORNIA BLVD., P-120, WALNUT CREEK, CA 94596	Title Company's Phone #: (925) 933-6333
Property Use (check one): ☒ Residential	☐ Mixed use. If mixed use, how many dwelling units? _____
Was work performed prior to October 17, 1989?	☐ Yes ☒ No

Applicant/Permit #	Date Application Issued	Valuation of Seismic Work Listed on Application	Did expenses exceed the valuation listed on the application?
00 454	6-29-99	$ 8,000	☐ Yes ☒ No

Description and Cost of seismic work done:	Done/Yes	Not done/No	Amount
Replacement/Repair of foundation		NO	$
Replacement/Repair of rotted mudsills			$ 6,000
Bracing of basement or pony walls			$
Bolting of mudsills to standard foundations			$ 2,000
Installation of shear walls			$
Anchoring of water heaters			$
Securing chimneys			$
Securing stacks or water heaters			$
Other (describe):			$
	Total Verified Amount		$ 8,000

Date of APPROVED final seismic inspection: 1-14-00

Applicant's Signature: Vic Lunden	Date Signed: 1-20-00

PROPERTY RECORDS	BUILDING AND SAFETY
Approved/Denied	Approved/Denied
Comment:	Comment:
Finance Department signature — Date	Building Inspector's signature — Date

CITY OF BERKELEY

Permit Service Center
Planning and Development Department
2120 Milvia Street
Berkeley, California 94704

Fire Prevention 883-5550
Engineering Permits 883-5551
Toxics 705-8150
Health Dept 644-6500
Zoning 705-8111

(510) 883-6555 • Telecommunication Device for the Deaf (510) 647-3915 • FAX (510) 883-6545
To Arrange Building and Public Works Inspections Call (510) 883-6566

PERMIT PURPOSE YOU DATE PERM DATE OF ISSUANCE

OPT Permit Number 00 000042 0 Date 2/07/00

Job Number 954 KEELER AVE

Job Description COST 2470.00 10

BUILDING REPAIR

SINGLE FAMILY DWELLING

OWNER

LYNDEN RYO

954 KEELER AVE

BERKELEY

CA 94708

510 524 6187

HOME OWNER

PROJECT DESCRIPTION

STRUCTURE VERIFICATION

CONSTRUCTION TYPE

OCCUPANCY TYPE

TYPE V NONRATED

FLOOR

UNDERPINNING BEHIND

FEE SUMMARY

PAID

TOTAL

RECEIVED AND READ

NUMBER OF PAGE

DATE

NAME

NOTE: This permit does not become valid until signed by the building officer or his deputy and the permit fee is received and the space provided below

Signature of Deputy

APPLICATION APPROVAL STATEMENT

JOBSITE RECORD

108 2

BUILDING PERMIT

CERTIFICATE OF OCCUPANCY

ELECTRICAL RELEASE

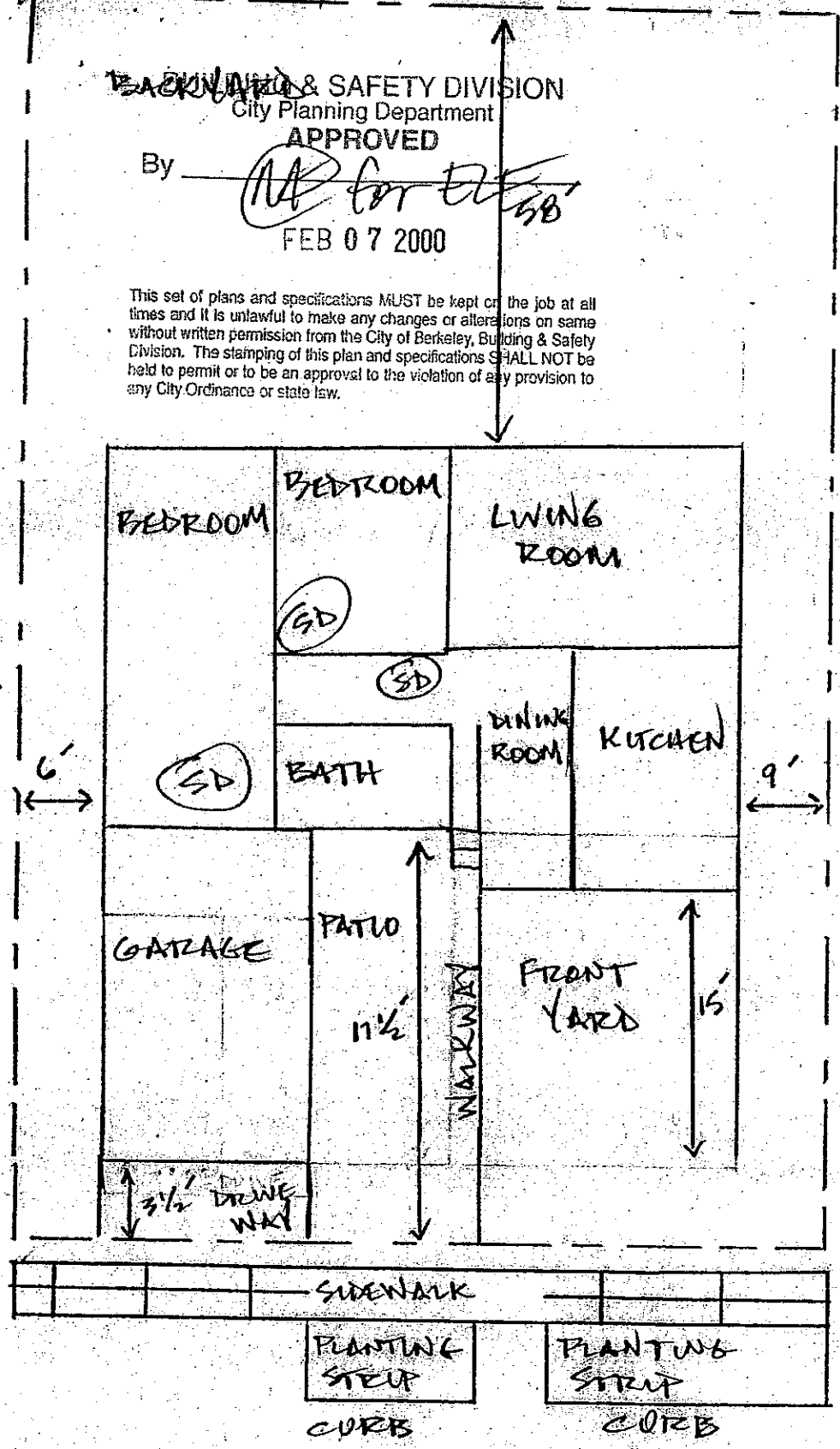
GAS RELEASE

FINAL INSPECTION

2 of 2

BUILDING & SAFETY DIVISION
City Planning Department
APPROVED
By NA for EL
FEB 07 2000

This set of plans and specifications MUST be kept on the job at all times and it is unlawful to make any changes or alterations on same without written permission from the City of Berkeley, Building & Safety Division. The stamping of this plan and specifications SHALL NOT be held to permit or to be an approval to the violation of any provision to any City Ordinance or state law.



PLOT PLAN
DRAWN BY:
VIC LINDEN
954 KEELER AVE.
BERKELEY, CA 94708
(510) 524-5157

PROPERTY OWNER:
SAME

DRAWING NOT TO SCALE

LEGEND:

= PROPERTY LINE

SD = SMOKE DETECTOR

HD = HOLDOWNS

= NEW MUDSILL + 3/4" PLYWOOD EXT. WALL UPPER STORY

SMOKE DETECTORS REQUIRED
Installation of smoke detectors is required when alterations, repairs, or additions to R-1 or R-3 occupancy exceeds $1,000.00. Smoke Detectors shall be installed in accordance with the manufacturers instructions and UBC & UFC.

THE WORK COVERED UNDER PERMIT HAS HAD NO LATERAL ANALYSIS PERFORMED. TO BRING BUILDING UP TO CURRENT CODE MAY REQUIRE ADDITIONAL WORK.

JOB SITE

SHEET 1 OF 4

BACKYARD

BUILDING & SAFETY DIVISION
City Planning Department
APPROVED
By _____

FEB 07 2000

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58'

LAUNDRY ROOM

BED ROOM

BEDROOM

SD

SD

SD

6'

9'

BATHROOM

VALLEY ROOM

BEDROOM

SD

SD

66'

98 1/2'

98 1/2'

PLOT PLAN

DRAWN BY:

VIC LINDEN
954 KEELER
BERKELEY, CA 9470.
(510) 524-5157

PROPERTY OWNER:

SAME

DRAWING NOT TO SCALE

LEGEND:

- - - - = PROPERTY LINE

SD = SMOKE DETECTOR

HD = HOLDOWNS

//// = NEW MUDSILL + 3/4" PLYWOOD EXT. WALL UNDER STUCCO

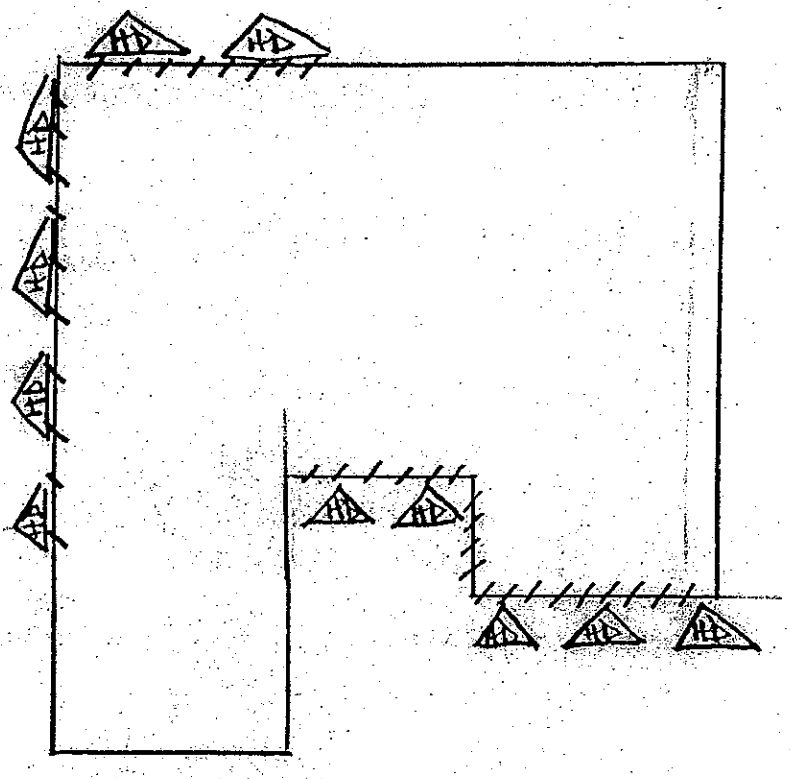
954 KEELER AVE (LOWER LEVEL)

N

SHEET 2 OF 4

BUILDING & SAFETY DIVISION
City Planning Department
APPROVED
By ~~(W) for ELE~~
FEB 07 2000

This set of plans and specifications MUST be kept on the job at all times and it is unlawful to make any changes or alterations on same without written permission from the City of Berkeley, Building & Safety Division. The stamping of this plan and specifications SHALL NOT be held to permit or to be an approval to the violation of any provision to any City Ordinance or state law.



PLOT PLAN
DRAWN BY:

VIC LINDEN
954 KEELER AVE.
BERKELEY, CA 94708
(510) 524-5157

PROPERTY OWNER:
SAME

DRAWING NOT TO SCALE

LEGEND:

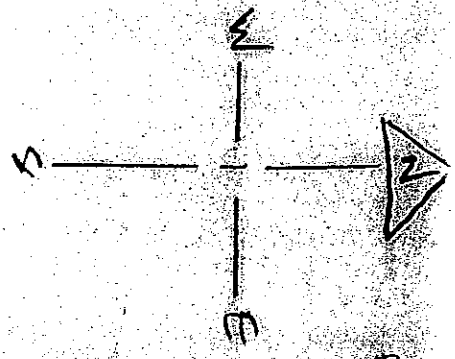
- - - - = PROPERTY LINE

SD = SMOKE DETECTOR

HD = HOLDOWNS

+++++++ = NEW MUD SILL + 3/4" PLYWOOD EXT. WALL UNDER STUCCO

3/4" PLYWOOD



VALIDITY OF PERMIT

ssuance of a permit or approval of plans shall not be construed to be permission to violate other ordinances or codes.

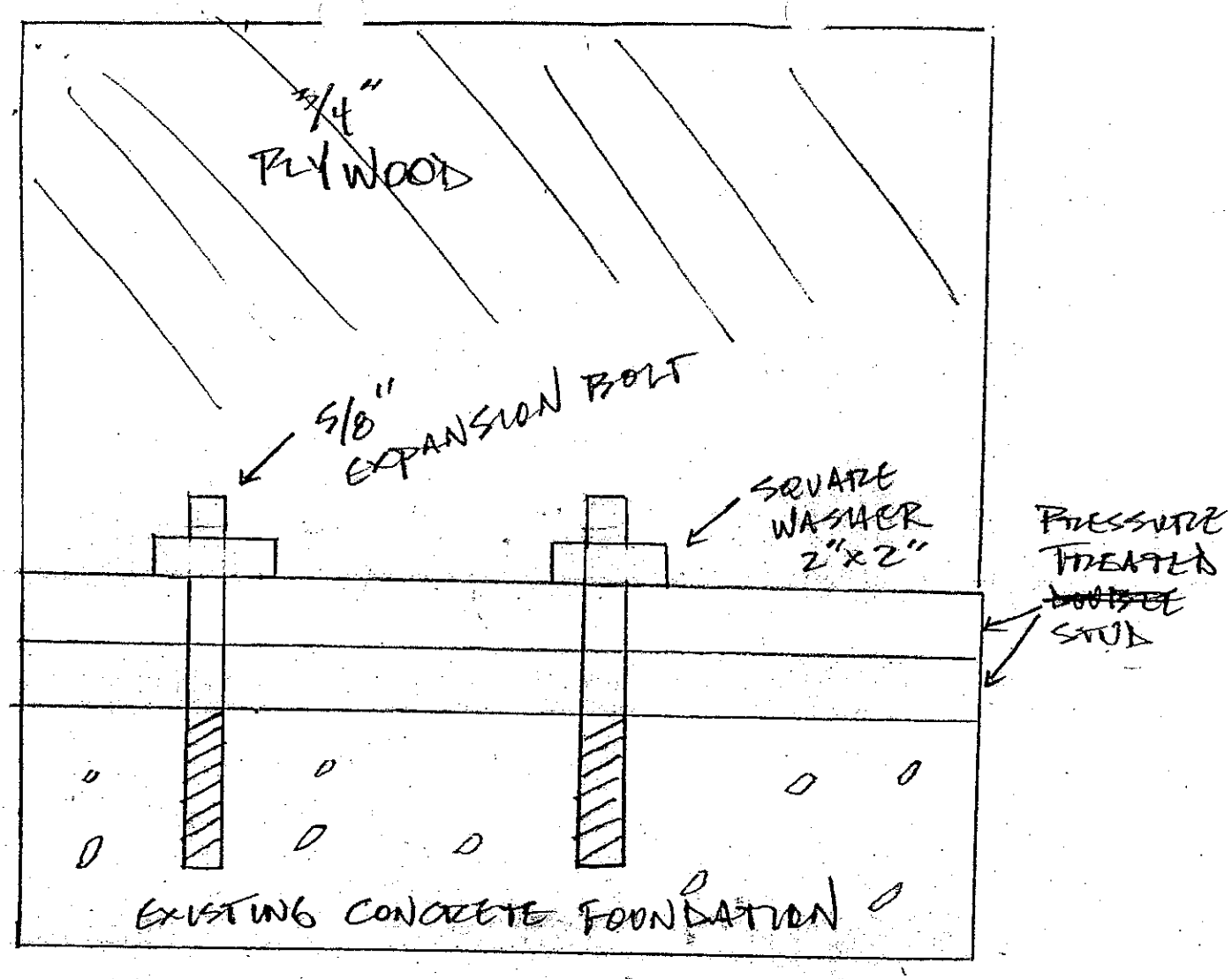
We have assumed that the site has no easements, other than what is represented on the plans.

Please read and understand all of the marks and stamps prior to proceeding with construction. You have the right to alternate methods and materials of construction, and the right to appeal.

Permit expires 180 days after date of issue or after date of the last inspection.

CONSTRUCTION
All work shall comply with:
California Building Code, 1998 Edition
California Mechanical Code, 1998 Edition
California Plumbing Code, 1998 Edition
California Electrical Code, 1998 Edition
Title 24 Energy Regulations
Title 24 Disabled Access Regulations
and the Berkeley Municipal Code.

SHEET 3 OF 4



CONSTRUCTION DETAILS

VIC LUNDEN
954 KEELER AVE
BERKELEY, CA 94708
(510) 524-5157

Permit Service Center
Planning and Development Department
2120 Milvia Street
Berkeley, California 94704

Fire Prevention 883-6555
Engineering Permits 883-6555
Toxics 705-8150
Health Dept. 644-6510
Zoning 705-8104

(510) 883-6555 • Telecommunications Device for the Deaf (510) 644-6915 • FAX (510) 883-6543
To Arrange Building and Public Works Inspections Call (510) 883-6566

PERMIT EXPIRES 180 DAYS FROM DATE OF ISSUANCE

Application Number: 00-00005790 Date: 12/15/00

Address: 962 KEELER AVE

Application Description: BUILDING PERM

Fire Zone: HIGH FIRE HAZARD

Owner: RECEIVED AND READ

Contractor: CA 95704

Work Description: REPLACE RETAINING WALL

Single Family Residence: Yes

Structure Type: NONRATED

Occupancy: DATES OF COMP

Notes: BUILDING PERM

Additional Fees

Total Fee: 97.00 Plan Check: 48.50

Permit Fee: 97.00 Total Fee: 145.50

Permit Fee Paid: 97.00

Unit Charge: 1.00

SMIP: 0.00 SMIP Paid: 0.00

Special Notes and Conditions

REPLACE (20) CONCRETE RETAINING WALL

Other Fees

FIRE DEPT. - BUILDING: 0.00

NON-RESIDENTIAL: 12.00

FIRE DEPT. - KEELER: 0.00

SMIP - RESIDENTIAL: 0.00

SMIP - NON-RESIDENTIAL: 0.00

SMIP - LAG: 0.00

Encumbrances: Encumbrance: Date: 0.00

Total Fees Paid: 0.00 Balance Due: 0.00

Total Fees: 145.50 Total Paid: 97.00

Total Fees for Permit: 97.00 Balance: 0.00

Grand Total: 152.84 Paid: 152.84 Balance: 0.00

APPLICATION APPROVAL STATEMENT

NOTE: This permit does not become valid until signed by the building official or his deputy and fees are paid, and receipt is acknowledged in the space provided.

Signature of Deputy

JOBSITE RECORD

1 of 2

Building and Safety Division

No.

Building Inspectors: 510-885-6544 Ext. 1
9 AM or 4:30-5 PM

	Date	Inspector	Comment
Setback/lot coverage			
Foundation forms/depth/size	1/9/00	[illegible]	accepted engineer of record [illegible]
Steel			
Anchor bolts			
Holdowns			
UFER			
Underfloor electric			
Underfloor mechanical			
Underfloor plumbing			
Underfloor insulation			
Floor frame			
Slab			
DO NOT COVER UNTIL ABOVE IS SIGNED			
Frame electric – rough			
Frame mechanical – rough			
Frame plumbing – rough			
Frame			
Shearwalls			
Roofing/insulation			
DO NOT COVER UNTIL ABOVE IS SIGNED			
Lath – exterior			
Lath – drywall – interior			
Fire Department Approvals			
Sprinkler system			
Hood extinguishing system			
Extinguishing system			
Fire alarm system			
Public Works/Engineering Approvals			
Public Right-of-Way			
Sewer			
Drain			
Finals – Division/Department			
Fire Department			
Hazardous Materials			
Health Department			
Public Works			
Planning/Zoning			
Final Gas Test			
Gas release to PG&E			
Electrical release to PG&E			
		Building and Safety Division	
Final – Electrical			
Final – Plumbing			
Final – Mechanical			
Final – Building			
CERTIFICATE OF OCCUPANCY			

CODES\BUILDING\BF-99.DOC

2 of 2

COURTESY NOTICE
BUILDING AND SAFETY DIVISION

City of Berkeley
City Planning Department
Building and Safety Division
2120 Milvia Street
Berkeley, California 94704

Job Site: 954 [illegible]

Owner:

PLEASE CORRECT THE FOLLOWING:

Cannot to pour
- Provide written approval
from design engineer
in regards to existing
conditions - not stamped
[illegible].

[illegible] 11 3 00

INSPECTOR DATE

SEE HELPFUL INFORMATION ON THE BACK OF THIS NOTICE

AMANA ENGINEERING & CONSTRUCTION, INC.

930 Dwight Way, Suite 10A
Berkeley, CA 94710
California Contractor's License # 505138

TEL: (510) 845-4515
TEL: (510) 649-0468
FAX: (510) 649-0239

November 8, 2000

Liberty Construction

RE: Retaining Wall Excavation and rebar AT:
954 Keeler Ave, Berkeley, CALIFORNIA.

Dear Linda:

This is to confirm that I inspected the excavation and the steel rebar placement of the retaining wall at the above project, and to the best of my engineering judgement I found that both meet the design requirements.

Per your request this statement is made.

If you have any questions, please do not hesitate to contact us.

Sincerely,

REGISTERED PROFESSIONAL ENGINEER
A. NASSER EL-JANDALI
No. C-042060
Exp. 03-31-00
CIVIL
STATE OF CALIFORNIA

A. Nasser Jandali, M.Sc., P.E.

AMANA *ENGINEERING & CONSTRUCTION, INC.*

930 Dwight Way, Suite 10A
Berkeley, CA 94710
California Contractor's License # 505138

TEL: (510) 845-4515
TEL: (510) 649-0468
FAX: (510) 649-0239

November 6, 2000

Liberty Construction

RE: Retaining Wall Design AT:
954 Keeler Ave, Berkeley, CALIFORNIA.

Dear Linda:

This is to confirm that the attached sketch can be used in lieu of the old plans for the retaining wall at the above project. The main changes are in the Geometry of the Wall in terms of the locat ion of the Main Stem.

Per the owner's request this statement is made.

If you have any questions, please do not hesitate to contact us.

Sincerely,

A. Nasser Jandali, M.Sc., P.E.

REGISTERED PROFESSIONAL ENGINEER
A. NASSER EL-JANDALI
No. C-042060
Exp. 03-31-00
CIVIL
STATE OF CALIFORNIA

AMANA ENGINEERING & CONSTRUCTION, INC.

930 Dwight Way, Suite 10A
Berkeley, CA 94710
California Contractor's License # 505138

TEL: (510) 845-4515
TEL: (510) 649-0468
FAX: (510) 649-0239

Title Page

Revised Plans

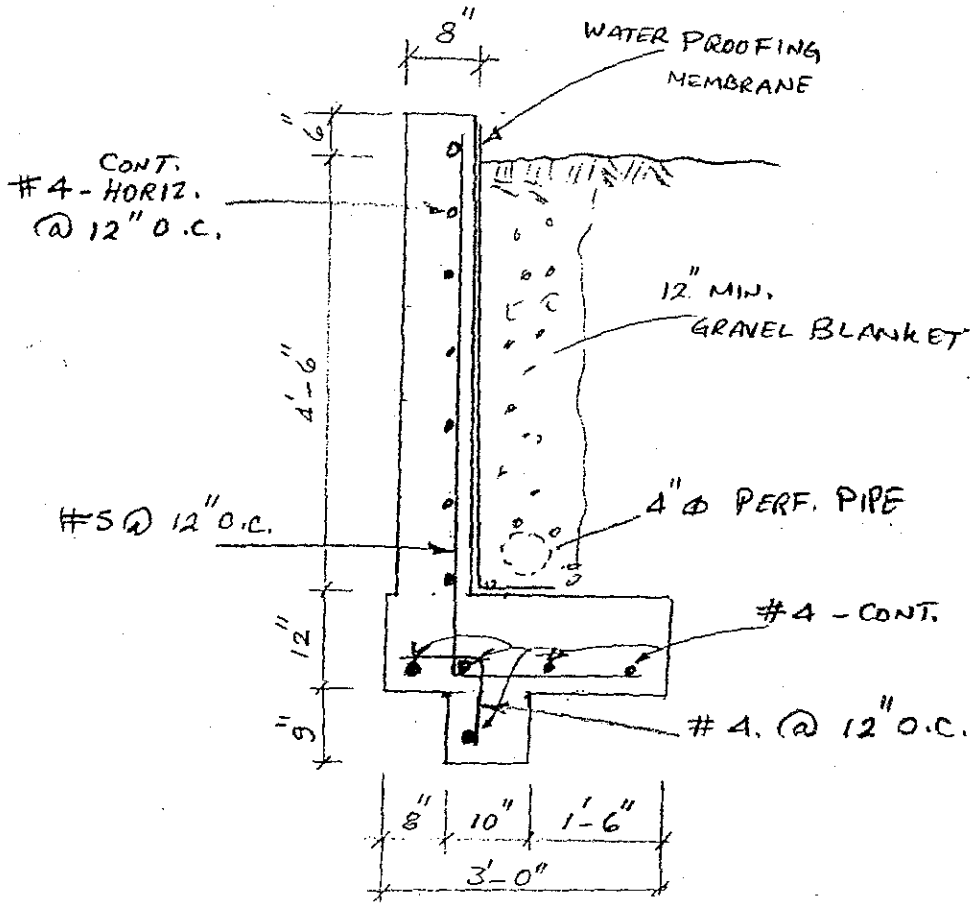
Project: Replace Existing Concrete Retaining
954 Keler Avenue
Berkeley, California

Owner/Agent: Vic Linden

Date: 11/6/2000

Contractor: Liberty Construction

REGISTERED PROFESSIONAL ENGINEER
A. NASSER EL-JANDALI
No. C-042060
Exp. 03-31-00
CIVIL
STATE OF CALIFORNIA



954 Keeler Avenue, Berkeley, CA

RETAINING WALL DESIGN

N.T.S.

Replace Existing Concrete Retaining Wall at:
954 Keler Avenue Berkeley, California

RETAINING WALL DESIGN

BASIC INFORMATION:
==========

SOIL UNIT WEIGHT, G:		120 pcf
STEM WALL UNIT WEIGHT, GC:		150 pcf
EQUIV. FLUID PASSIVE PRESS., PP:		350 pcf
EQUIV. FLUID ACTIVE PRESS. PA:		65 pcf
EARTH PRESS. FACTOR, KA:		0.5
SLOPE RATIO:	1:	5
SURCHARGE LOAD, QS:		0 psf
VERTICAL (LINE) LOAD, PW:		0 plf
COEFF. OF FRICTION, CF:		0.35

WALL GEOMETRY:
==========

SOIL HEIGHT BEHIND THE WALL, H:	4.5 feet
HT. OF WALL ABOVE GRADE, HC:	0.5 feet
TOP STEM THICKNESS, T1:	8 inches
LOWER STEM THICKNESS, T2:	8 inches
BASE WIDTH, L:	3 feet
BASE THICKNESS, D:	12 inches
TOE LENGTH, B:	0.16 feet
HEEL LENGTH, I:	2.1733333 feet
KEY DEPTH, K:	0.667 feet
KEY THICKNESS, T3:	10 inches
KEY ARM FROM HEEL, K1:	1.5 feet
SOIL THICKNESS ABOVE BASE, S:	0.5 feet

SOIL PRESSURES AND FORCES:
==========

THE RESULTANT IS OUTSIDE THE MIDDLE THIRD.

MAX. SOIL PRESSURE, Q1:	2072.1865 psf
MIN. SOIL PRESSURE, Q2:	0 psf
OVERTURNING MOMENT, OM:	2264.3893 lb-ft
RESISTING MOMENT, RM:	4531.884 lb-ft
HORIZONTAL FORCE, FA:	1144.6587 lb
F.S. AGAINST OVERTURNING:	2.0013714
F.S. AGAINST SLIDING:	1.5296817
MAX. MOMENT AT BOTT. OF WALL, M:	1678.2188 lb-ft

Replace Existing Concrete Retaining Wall at:
954 Keler Avenue Berkeley, California

RETAINING WALL DESIGN

BASIC INFORMATION:
==========

SOIL UNIT WEIGHT, G:		120 pcf
STEM WALL UNIT WEIGHT, GC:		150 pcf
EQUIV. FLUID PASSIVE PRESS., PP:		350 pcf
EQUIV. FLUID ACTIVE PRESS. PA:		65 pcf
EARTH PRESS. FACTOR, KA:		0.5
SLOPE RATIO:	1:	5
SURCHARGE LOAD, QS:		0 psf
VERTICAL (LINE) LOAD, PW:		0 plf
COEFF. OF FRICTION, CF:		0.35

WALL GEOMETRY:
==========

SOIL HEIGHT BEHIND THE WALL, H:	5.5 feet
HT. OF WALL ABOVE GRADE, HC:	0.5 feet
TOP STEM THICKNESS, T1:	8 inches
LOWER STEM THICKNESS, T2:	8 inches
BASE WIDTH, L:	3.25 feet
BASE THICKNESS, D:	12 inches
TOE LENGTH, B:	2 feet
HEEL LENGTH, I:	0.5833333 feet
KEY DEPTH, K:	0.667 feet
KEY THICKNESS, T3:	10 inches
KEY ARM FROM HEEL, K1:	1.5 feet
SOIL THICKNESS ABOVE BASE, S:	0.5 feet

SOIL PRESSURES AND FORCES:
==========

THE RESULTANT IS OUTSIDE THE MIDDLE THIRD.

MAX. SOIL PRESSURE, Q1:	1564.1088 psf
MIN. SOIL PRESSURE, Q2:	0 psf
OVERTURNING MOMENT, OM:	3138.1946 lb-ft
RESISTING MOMENT, RM:	5116.22 lb-ft
HORIZONTAL FORCE, FA:	1422.859 lb
F.S. AGAINST OVERTURNING:	1.6303068
F.S. AGAINST SLIDING:	1.1074647
MAX. MOMENT AT BOTT. OF WALL, M:	3064.0729 lb-ft

AMANA *ENGINEERING & CONSTRUCTION, INC.*

930 Dwight Way, Suite 10A
Berkeley, CA 94710
California Contractor's License # 505138

TEL: (510) 845-4515
TEL: (510) 649-0468
FAX: (510) 649-0239

November 6, 2000

Liberty Construction

RE: Retaining Wall Design AT:
954 Keeler Ave, Berkeley, CALIFORNIA.

Dear Linda:

This is to confirm that the attached sketch can be used in lieu of the old plans for the retaining wall at the above project. The main changes are in the Geometry of the Wall in terms of the locat ion of the Main Stem.

Per the owner's request this statement is made.

If you have any questions, please do not hesitate to contact us.

Sincerely,

A. Nasser Jandali, M.Sc., P.E.

REGISTERED PROFESSIONAL ENGINEER
A. NASSER EL-JANDALI
No. C-042060
Exp. 03-31-00
CIVIL
STATE OF CALIFORNIA

AMANA ENGINEERING & CONSTRUCTION, INC.

930 Dwight Way, Suite 10A
Berkeley, CA 94710
California Contractor's License # 505138

TEL: (510) 845-4515
TEL: (510) 649-0468
FAX: (510) 649-0239

Title Page

Revised Plans

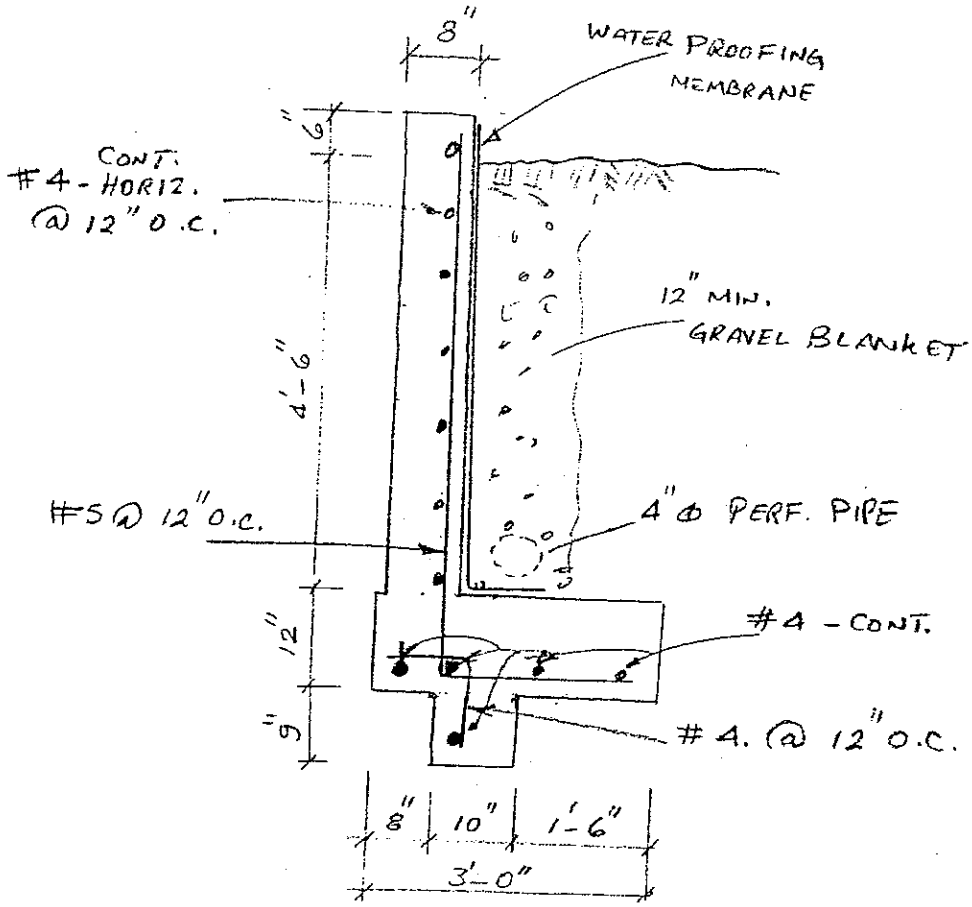
Project: Replace Existing Concrete Retaining
954 Keler Avenue
Berkeley, California

Owner/Agent: Vic Linden

Date: 11/6/2000

Contractor: Liberty Construction

REGISTERED PROFESSIONAL ENGINEER
A. NASSER EL-JANDALI
No. C-042060
Exp. 03-31-00
CIVIL
STATE OF CALIFORNIA



954 Keeler Avenue, Berkeley, CA

RETAINING WALL DESIGN

N.T.S.

Replace Existing Concrete Retaining Wall at:
954 Keler Avenue Berkeley, California

RETAINING WALL DESIGN

BASIC INFORMATION:
==========

SOIL UNIT WEIGHT, G:		120	pcf
STEM WALL UNIT WEIGHT, GC:		150	pcf
EQUIV. FLUID PASSIVE PRESS., PP:		350	pcf
EQUIV. FLUID ACTIVE PRESS. PA:		65	pcf
EARTH PRESS. FACTOR, KA:		0.5	
SLOPE RATIO:	1:	5	
SURCHARGE LOAD, QS:		0	psf
VERTICAL (LINE) LOAD, PW:		0	plf
COEFF. OF FRICTION, CF:		0.35	

WALL GEOMETRY:
==========

SOIL HEIGHT BEHIND THE WALL, H:	4.5	feet
HT. OF WALL ABOVE GRADE, HC:	0.5	feet
TOP STEM THICKNESS, T1:	8	inches
LOWER STEM THICKNESS, T2:	8	inches
BASE WIDTH, L:	3	feet
BASE THICKNESS, D:	12	inches
TOE LENGTH, B:	0.16	feet
HEEL LENGTH, I:	2.1733333	feet
KEY DEPTH, K:	0.667	feet
KEY THICKNESS, T3:	10	inches
KEY ARM FROM HEEL, K1:	1.5	feet
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MAX. MOMENT AT BOTT. OF WALL, M:	1678.2188	lb-ft

Replace Existing Concrete Retaining Wall at:
954 Keler Avenue Berkeley, California

RETAINING WALL DESIGN

BASIC INFORMATION:
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STEM WALL UNIT WEIGHT, GC:		150	pcf
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EARTH PRESS. FACTOR, KA:		0.5	
SLOPE RATIO:	1:	5	
SURCHARGE LOAD, QS:		0	psf
VERTICAL (LINE) LOAD, PW:		0	plf
COEFF. OF FRICTION, CF:		0.35	

WALL GEOMETRY:
==========

SOIL HEIGHT BEHIND THE WALL, H:	5.5	feet
HT. OF WALL ABOVE GRADE, HC:	0.5	feet
TOP STEM THICKNESS, T1:	8	inches
LOWER STEM THICKNESS, T2:	8	inches
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BASE THICKNESS, D:	12	inches
TOE LENGTH, B:	2	feet
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RESISTING MOMENT, RM:	5116.22	lb-ft
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MAX. MOMENT AT BOTT. OF WALL, M:	3064.0729	lb-ft

3/13

AMANA ENGINEERING & CONSTRUCTION, INC.

930 Dwight Way, Suite 1[illegible]
Berkeley, CA 94710
California Contractor's License = 505138

TEL: (510) 845-4515
TEL: (510) 649-0468
FAX: (510) 649-0239

BUILDING & SAFETY DIVISION
City Planning Department
APPROVED
By _____
SEP 11 2000

This set of plans and specifications MUST be kept on the job at all times and it is unlawful to make any changes or alterations on same without written permission from the City of Berkeley, Building & Safety Division. The stamping of this plan and specifications SHALL NOT be held to permit or to be an approval to the violation of any provision of any City Ordinance or state law.

Title Page

JOB SITE

Project: Replace Existing Concrete
Retaining Wall at
954 Keeler Avenue
Berkeley, California

Owner: C/O Vic Linden

Date: 7-23-2000

Contractor: Vic Linden

REGISTERED PROFESSIONAL ENGINEER
A. NASSER EL-JANDALI
No. C-042060
Exp. 03-31-00
CIVIL
STATE OF CALIFORNIA

CONSTRUCTION
All work shall comply with:
California Building Code, 1998 Edition
California Mechanical Code, 1998 Edition
California Plumbing Code, 1998 Edition
California Electrical Code, 1998 Edition
Title 24 Energy Regulations
Title 24 Disabled Access Regulations
and the Berkeley Municipal Code.

APPROVED PLAN
9-12-2000
CURRENT PLANNING DATE
height of retaining wall shall

AMANA ENGINEERING & CONSTRUCTION, INC.

NOTES

FOUNDATIONS

1. All footings not formed shall be poured into neat excavations. Measures shall be taken to prevent sloughing of soil into the footing excavation prior to and during the placing of concrete.
2. The contractor shall be responsible of carrying out all the recommendations of the Engineer:

CONCRETE

1. All concrete shall meet the following minimum specifications:
   Design strength at 28 days 3000 psi U.O.N.
   Cement content shall be a minimum of 5 sacks per cubic yard for 1"-1 1/2" maximum aggregate size.
   Maximum slump shall be 4 inches.
   Aggregate size shall be compatible with pouring, placing and finishing conditions.
2. All concrete shall conform with requirements of the latest edition of the ACI Code.
3. Cement shall conform to ASTM C-150 Type 1 or 2.
4. Concrete aggregates shall conform to ASTM C-33
5. Remove all debris from the forms before pouring any concrete. No wood form spreaders or wood stakes shall be used in areas to be poured with concrete.
6. All formwork shall remain in place for the periods of time specified in the ACI Code as minimum.
7. All concrete shall be cured by an approved method.
8. Follow all ACI recommendations for placing and curing concrete during hot or cold weather conditions.

CONCRETE REINFORCING

1. Reinforcing steel shall conform to ASTM A615 Grade 60 FOR #4 AND LARGER
2. Reinforcing steel shall be fabricated according to the "Manual of Standard Practice for Reinforced Concrete Construction".
3. Reinforcing dowels, bolts, anchors and other items to be embedded in concrete shall be securely positioned before placing concrete.
4. All rebars to be welded shall be continously inspected by a qualified laboratory. Contractor must furnish to the laboratory mill certificate showing chemical analysis. All preheating and welding shall be done in accordance with AWS Standards.
5. Concrete coverage shall be from the face of the bar and shall denote clear coverage. The following minimum coverage shall be observed:

Concrete poured against earth	3"
Concrete poured in forms and exposed to earth or weather	2"
Bars in beams or columns	2"
Bars in walls or interior face	3/4"
Bars in interior slabs	3/4"

6. All bars shown continuous in plans shall have if spliced a minimum splice length of 40 x rebar diameter.

PIPES AT CONCRETE FOUNDATIONS

All pipe shall be encased in sleeves. Pipes clear sleeves by 1/2". Caulk with plastic material. If pipe is in place prior to pouring concrete, wrap pipe with 1" glass wool. Step footing if pipe passes below or in spread footing portion of foundation. No digging is allowed for pipe trench parallel to footing below lines indicated.

AMANA ENGINEERING & CONSTRUCTION, INC.

930 Dwight Way, Suite 10A
Berkeley, CA 94710
California Contractor's License # 505138

TEL: (510) 845-4515
TEL: (510) 649-0468
FAX: (510) 649-0239

DESIGN ASSUMPTIONS

1. BASIS OF DESIGN IS U.B.C. 1997 EDITION

2. CONCRETE SHALL ATTAIN A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI PER ACI-318-[illegible].

3. REINFORCING STEEL SHALL CONFORM TO ASTM 1-615, GR.40.

4. FOUNDATION DESIGN PER U.B.C. REQUIREMENTS.

5. LUMBER-DOUGLAS FIR GRADE [illegible]. 2 OR BETTER (U.O.N.).

6. COLUMNS AND POSTS SHALL HAVE CONTINUOUS BEARING ON BEAMS AND FOOTINGS OR MUD SILLS.

7. COLUMNS AND POSTS SHALL HAVE I.C.B.O. APPROVED COLUMN CAPS AND POST ANCHORS.

8. THE OWNER SHALL INSURE THAT CONSTRUCTION CONFORMS TO THESE CALCULATIONS; AND THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS.

9. NOTHING IN THESE CALCULATIONS OR DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO LOCAL CODES, STATE, AND NATIONAL ORDINANCES AND REGULATIONS.

10. THESE CALCULATIONS HAVE BEEN PREPARED EXCLUSIVELY FOR SPECIFIC APPLICATIONS TO THE PROPOSED BUILDING IN ACCORDANCE WITH GENERALLY ACCEPTED CIVIL-STRUCTURAL ENGINEERING PRACTICES. NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE. IN THE EVENT THAT ANY CHANGES IN THE NATURE, DESIGN, OR LOCATION OF THE STRUCTURE ARE PLANNED, THE CONCLUSIONS AND RECOMMENDATIONS CONTAINED IN THESE CALCULATIONS SHOULD NOT BE CONSIDERED VALID UNLESS THE CHANGES ARE REVIEWED AND CALCULATIONS OF THESE CALCULATIONS MODIFIED OR VERIFIED IN WRITING.

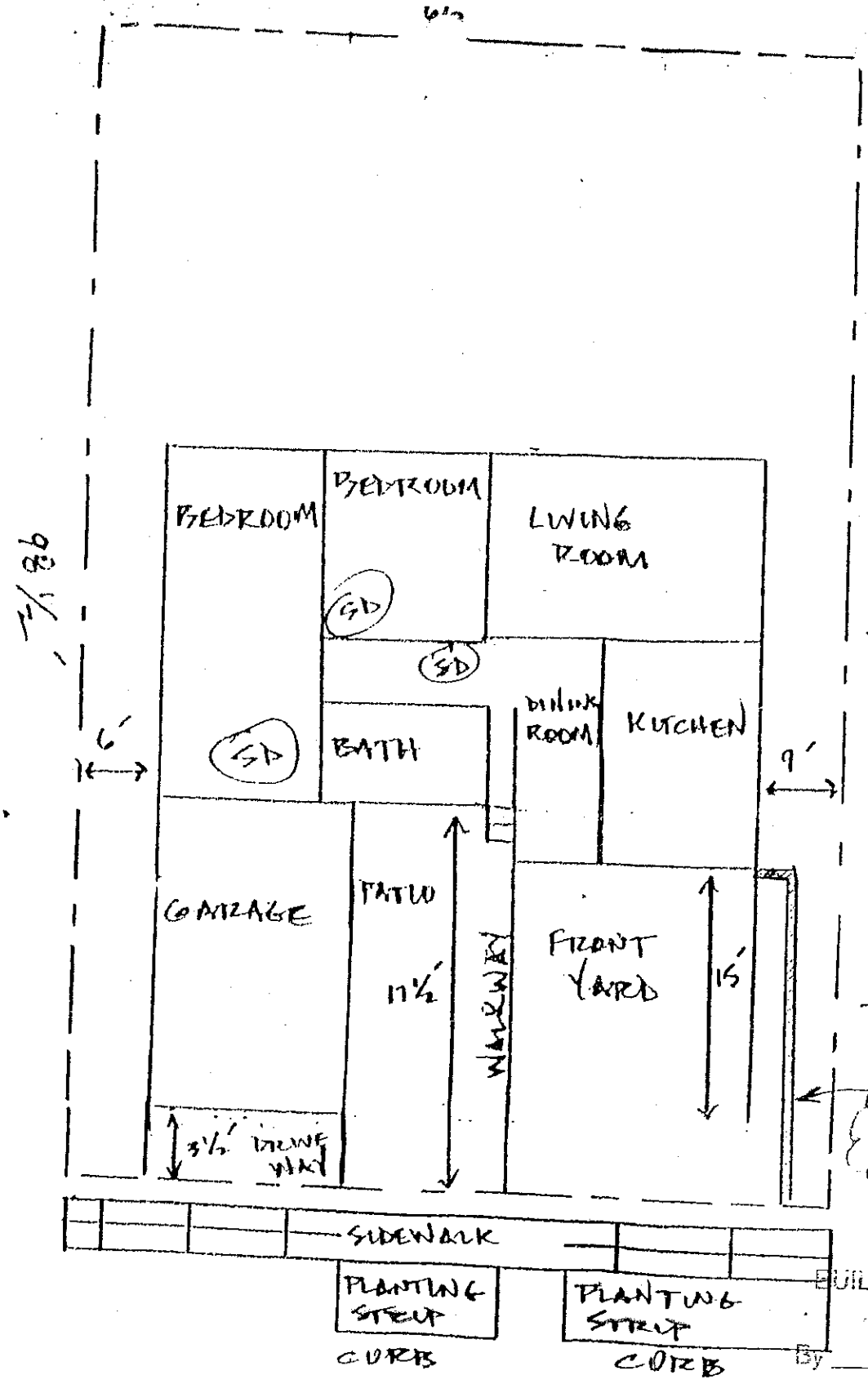
PLOT PLAN

DRAWN BY:

VIC LUNDEN
954 KEELER AVE.
BERKELEY, CA 94708
(510) 524-5157

PROPERTY OWNER:
SAME

DRAWING NOT TO SCALE



LEGEND:

PROPERTY LINE

REPLACE EXISTING RETAINING WALL

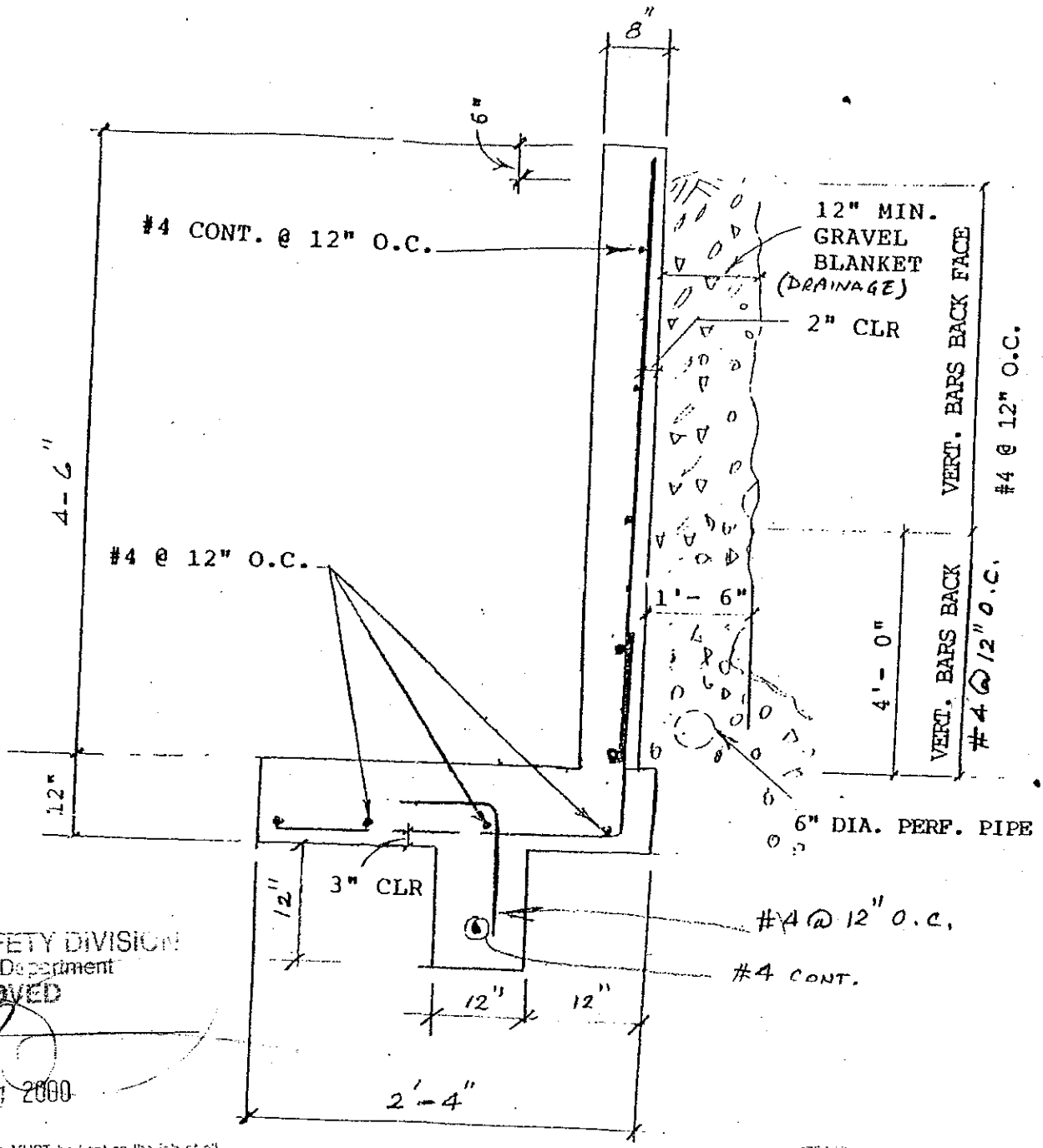
BUILDING & SAFETY DIVISION
City Planning Department
APPROVED
By
SEP 11 2000

954 KEELER AVENUE

PLOT PLAN

N.T.S

This set of plans and specifications MUST be kept on the job at all times and it is unlawful to make any changes or alterations on same without written permission from the City of Berkeley, Building & Safety Division. The stamping of this plan and specifications SHALL NOT be held to permit or to be an approval to the violation of any provision of any City Ordinance or state law.



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City Planning Department
APPROVED
By
SEP 1 , 2000

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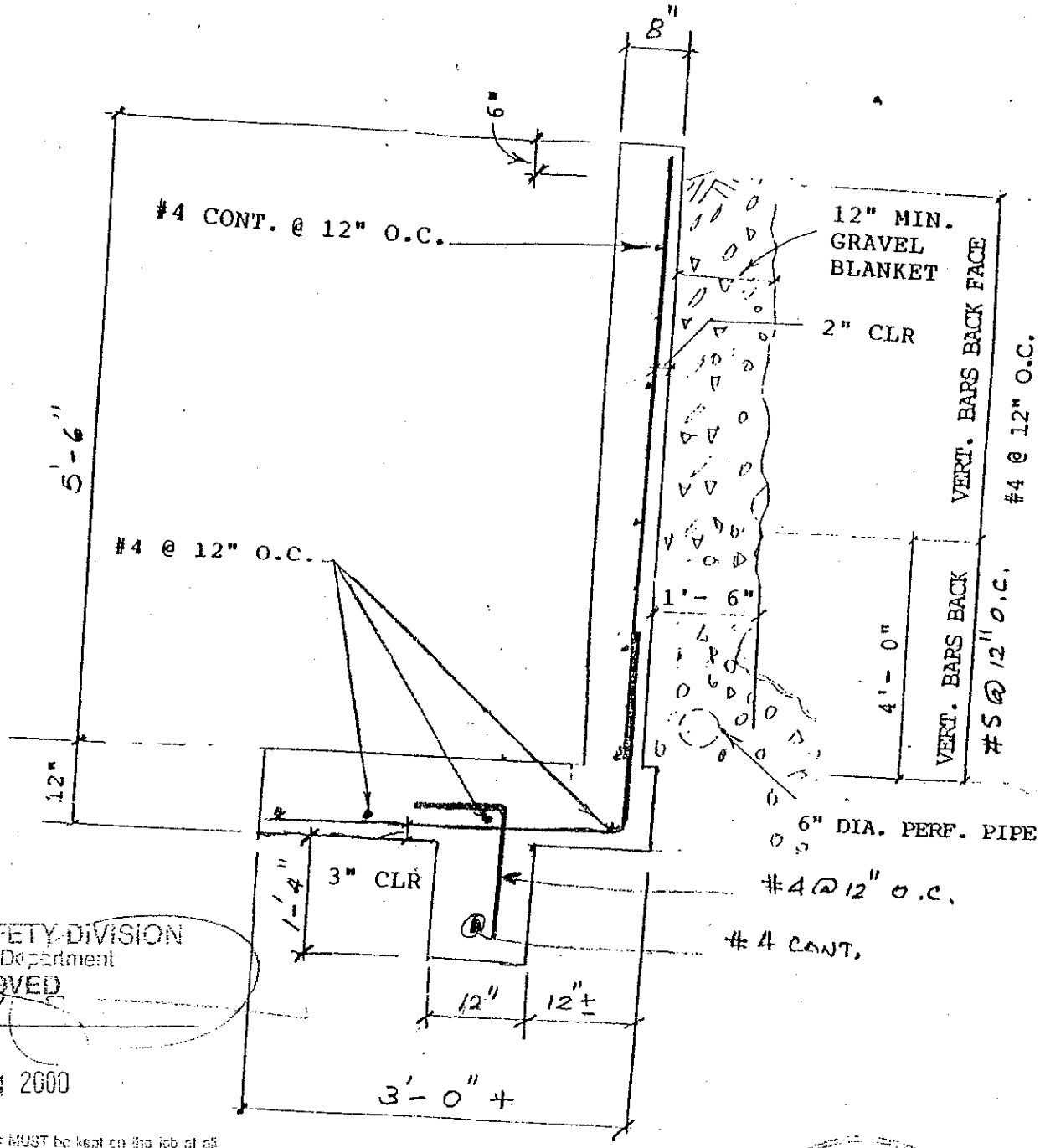
REGISTERED PROFESSIONAL ENGINEER
A. NASSER EL-JANDALI
No. C-042060
Exp. 03-31-00
CIVIL
STATE OF CALIFORNIA

954 Keeler Avenue, Berkeley, CA

RETAINING WALL DESIGN

N.T.S.



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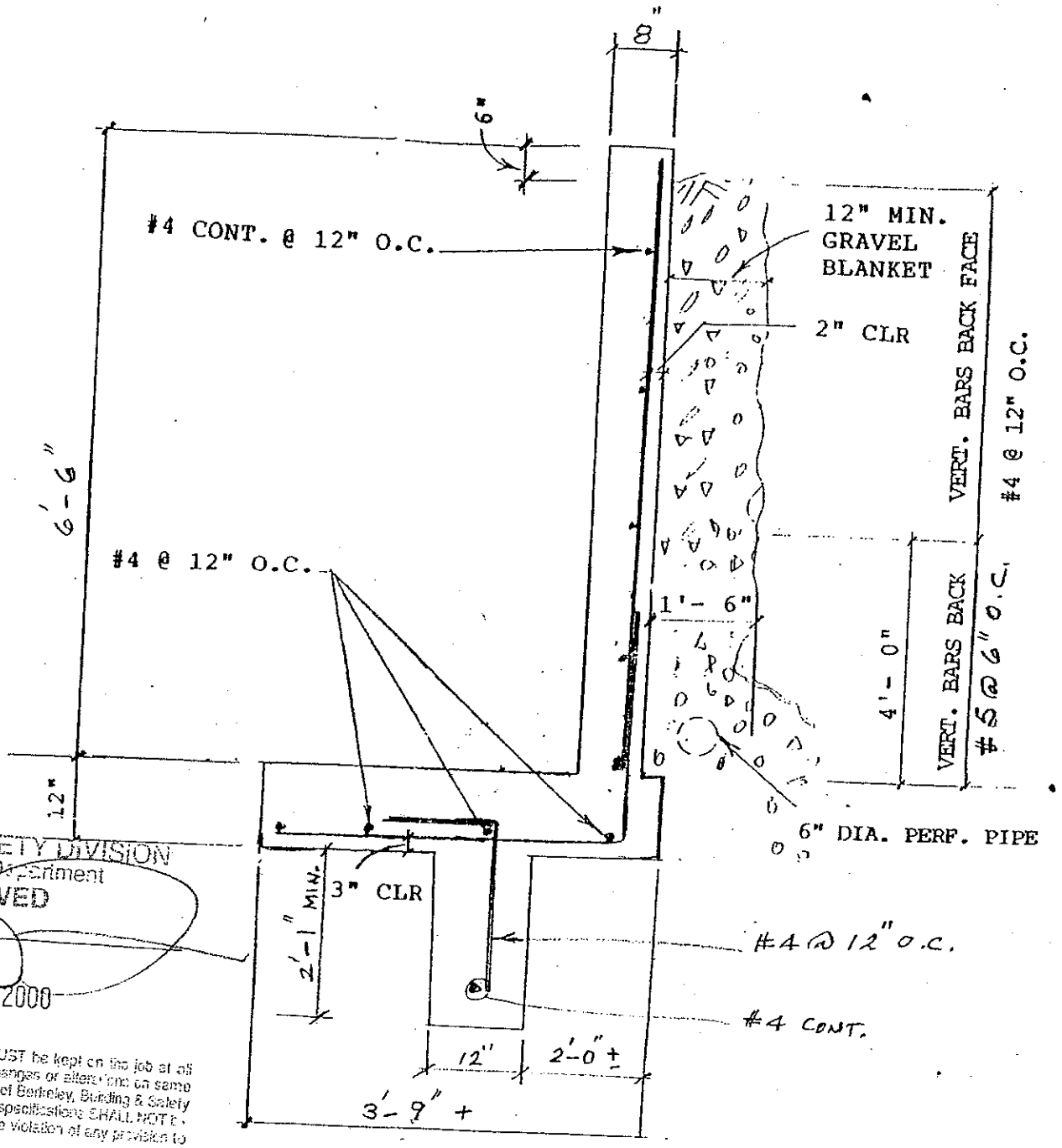

Applicant agreed that height of wall will not exceed 6'-0" KG 9-12-2000

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to permit or to be an approval to the violation of any provision to
City Ordinance or state law.

NOTE: CONNECT DRAINAGE PIPE TO (E) DRAIN PIPE.

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A. NASSER EDJAADALI
No. C-042060
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CIVIL
STATE OF CALIFORNIA

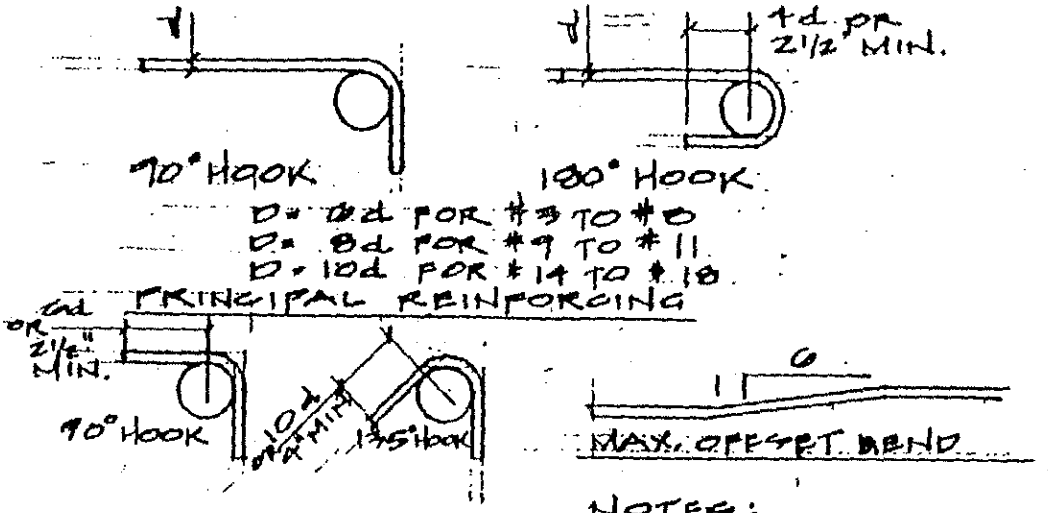
954 Keeler Avenue, Berkeley, CA

RETAINING WALL DESIGN

N.T.S.

DESCRIPTION OF HOW REBAR CAN
E TIED TOGETHER + BENT

AMANA ENGINEERING & CONSTRUCTION, INC.

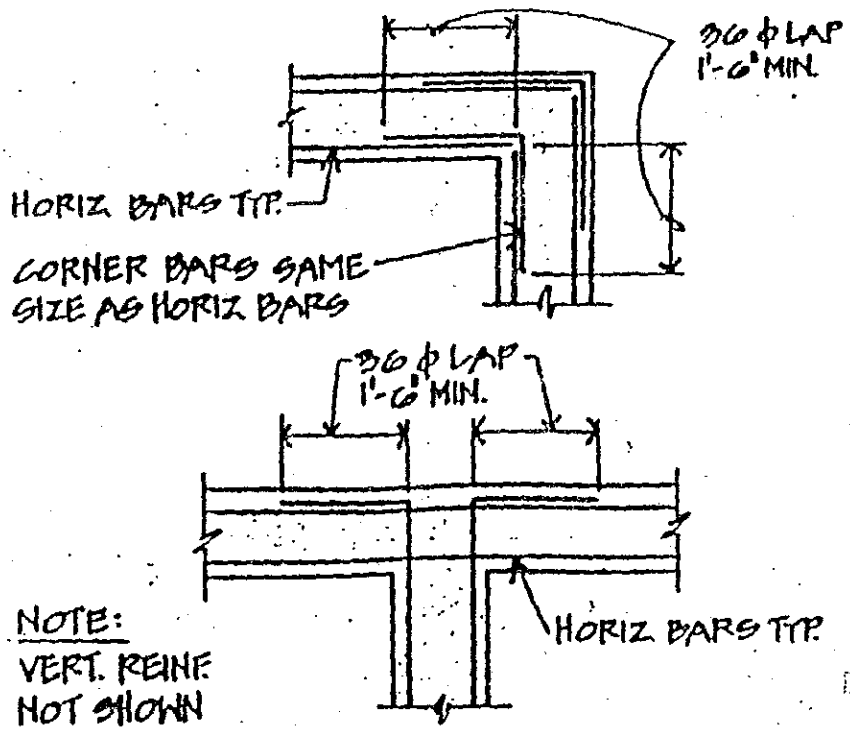


MIN D = 1 1/2" FOR #3
MIN D = 2" FOR #4
MIN D = 2 1/2" FOR #5

TIE OR STIRRUP

NOTES:
1. ALL BENDS SHALL BE MADE COLD
2. #14 & #18 BARS SHALL BE BEND TESTED & LAB APPROVED PRIOR TO BENDING.

BAR BENDS
N.T.S.



NOTE:
VERT. REINF. NOT SHOWN

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APPROVED
By
SEP 11 2000

CONC. FOUNDATION TIE JUNCTION
N.T.S.

954 Keeler Avenue, Berkeley, CA

RETAINING WALL DESIGN

BASIC INFORMATION:
==========

SOIL UNIT WEIGHT, G:		120 pcf
STEM WALL UNIT WEIGHT, GC:		150 pcf
EQUIV. FLUID PASSIVE PRESS., PP:		350 pcf
EQUIV. FLUID ACTIVE PRESS. PA:		65 pcf
EARTH PRESS. FACTOR, KA:		0.5
SLOPE RATIO:	1:	5
SURCHARGE LOAD, QS:		0 psf
VERTICAL (LINE) LOAD, PW:		0 plf
COEFF. OF FRICTION, CF:		0.35

WALL GEOMETRY:
==========

SOIL HEIGHT BEHIND THE WALL, H:	4 feet
HT. OF WALL ABOVE GRADE, HC:	0.5 feet
TOP STEM THICKNESS, T1:	8 inches
LOWER STEM THICKNESS, T2:	8 inches
BASE WIDTH, L:	2.333 feet
BASE THICKNESS, D:	12 inches
TOE LENGTH, B:	1.6 feet
HEEL LENGTH, I:	0.0663333 feet
KEY DEPTH, K:	1 feet
KEY THICKNESS, T3:	1 inches
KEY ARM FROM HEEL, K1:	2 feet
SOIL THICKNESS ABOVE BASE, S:	0.5 feet

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SOIL PRESSURES AND FORCES:
==========

THE RESULTANT IS OUTSIDE THE MIDDLE THIRD.

MAX. SOIL PRESSURE, Q1:	1395.9395 psf
MIN. SOIL PRESSURE, Q2:	0 psf
OVERTURNING MOMENT, OM:	1364.9745 lb-ft
RESISTING MOMENT, RM:	2067.2187 lb-ft
HORIZONTAL FORCE, FA:	816.81739 lb
F.S. AGAINST OVERTURNING:	1.5144743
F.S. AGAINST SLIDING:	1.8586349
MAX. MOMENT AT BOTT. OF WALL, M:	1178.6667 lb-ft

954 Keeler Avenue, Berkeley, CA

REINFORCED CONCRETE BEAM DESIGN

MA=	1178.6667 lb-ft	x12 inches *1.7 (FACTORED LOAD)		
MU=	24044.8 lb-in			
FC=	2500 psi	BM WIDTH, B1=	2.7884645 inches	
FY=	60000 psi	BM WIDTH, B2=	2.5509611 inches	
RW MAX. MOMENT, M=	1178.6667 lb-ft	BM DEPTH, D1=	4.879813 inches	
		BM DEPTH, D2=	5.1019221 inches	
DESIGN WIDTH, B=	12 inches	BM. FULL DEPTH, H=	8 inches	
DESIGN DEPTH, D=	5.75 inches	REQ'D. DEPTH, D=	5.75 inches	
REQ'D. STEEL, AS=	0.0866094 inch^2			
MAX. STEEL, AS1=	0.9220169 inch^2			
MIN. STEEL, AS2=	0.23 inch^2			
DESIGN STEEL, AS=	0.1963495 inch^2	Rebar size =	#	4
		Spacing =		12 in. O.C.
DESIGN MOMENT, MN=	58509.926 lb-in	AS(BAR)=		0.1963495 in.^2
=	4875.8272 lb-ft			

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