

CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 0204039

Insp Area: 3

Thos Bros: 297 D7

Site Address: 2141 2ND AV SAC

Parcel No: 010-0341-008

Sub-Type: REP

Housing (Y/N): N

CONTRACTOR

PROBILT CONSTRUCTION
PO BOX 418112
SAC CA

OWNER

WALKER KENT R
2141 EIGHTH AVE
SACRAMENTO CA 95818

ARCHITECT

Nature of Work: FIRE REPAIR IN LAUNDRY ROOM TO REPLACE STRUCT. ELEMENTS
LIKE FOR LIKE, ELECTR. AND PLUMB. NO EXTERIOR WORK

CONSTRUCTION LENDING AGENCY: I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name _____ Lender's Address _____

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class _____ License Number 699807 Date 3/28/02 Contractor Signature *[Signature]*

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars. (\$500.00);

I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

I am exempt under Sec. _____ B & PC for this reason: _____

Date _____ Owner Signature *[Signature]*

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 3-28-02 Applicant/Agent Signature *[Signature]*

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

[Initials] I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: STATE FUND Policy Number 7130003636 Exp Date 10/01/2002

(This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 3-28-02 Applicant Signature *[Signature]*

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEYS FEE.

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.

Sacramento Fire Department - Incident Report

Incident No : 020013706 Call# : 2031141 Date: 03/26/02 Time: 22:38
Address : 2143 2ND AV #A
Type : 11 BUILDING FIRE
Action Taken: 12 VENTILATION, EXTINGUISH, SALVAGE, OVERHAUL
Property : APARTMENTS: APT:7-8 UNIT
UBC : HOTELS APT HOUSES CONVENTS

Weather : 55 Degrees / Clear
Resources : 3 Engines, 2 Trucks
1 Other Apparatus

Fire Casualties : None

Fire Damage : Confined to structure of origin
Smoke Damage : Confined to structure of origin
Property Loss : \$25,000 Contents Loss :
Property Value : \$400,000 Contents Value:
Area of Origin : Laundry room
Caused by : Equipment: Insufficient information
Form of Heat : Insufficient information
Ignition Factor : Failure to use ordinary care
Type of Material : Sawn woods, finished lumber
Form of Material : Structural member, framing
Type of Material : Sawn woods, finished lumber
Form of Material : Structural member, framing
Smoke Travel : Opening in construction
Other Factors : Elect./Mech. Equip Insuff information
Extinguished by : Water carried on first in unit
Structure Type : Building with one specific property use
Structure Status : In use
Occupied
Construction Type: Type V - Wood Frame
Roof Type : Wood shake - treated
Number of Stories: 2

Level: A01

Detector Type : Smoke detector - photoelectric
Power : Hard wire w/battery backup
Performance : Detector operated but not a factor in discovery
Reason Failed : No failure

Extinguishing Sys: No extinguishing system

Report Author : F214



Engineering and Fire
Investigations

8303 Sierra College Boulevard
Suite 130
Roseville, CA 95661
Tel: 800-776-5932
Fax: 916-797-1114
www.efiinfo.com

April 4, 2002

Roger Kolb
Pro-Bilt Construction
P.O. Box 418112
Sacramento, CA 95841-8112

Re: Walker House Repair
2141 2nd Avenue, Sacramento, CA 95818
EFI Job Number: 94605-24171

Dear Mr. Kolb:

You contacted our office regarding the Walker House fire repair at the above referenced address. You indicated that an abandoned septic tank was discovered while excavating a footing to support the 2nd story framing above. You wanted us to inspect the site and provide the necessary recommendations for filling or removing the septic tank. You also wanted recommendations on the 2nd floor framing and temporary support while the tank is addressed.

We met with you at the site on April 2, 2002. The septic tank was a dome-shaped brick tank, and the top was approximately one to two feet below the soil surface. The exact depth of the tank was unknown. There was water and loose/muddy soil in the tank and a total of six pipes entering the tank. Most of the water was entering the tank from one of the pipes at the rear of the house. It was clear that there was a leaking sewer line in the vicinity as evidenced by waste water that had leaked into a hole excavated for the intermediate post footing. Also, it appeared that the perimeter house footing slightly overlapped the underlying edge of the tank.

The framing at the overhanging 2nd floor at the rear of the house was questionable in general; there were defective connections and framing. The framing that had been damaged by the fire had already been removed and the walls were temporarily shored. After review, we have provided a partial framing plan sketch at the subject area. Please see the attached sketch (sheet R1). The first phase is to replace the beam along the rear, provide a double joist to support the west wall, and provide a diagonal beam to span over the tank and support the corner. Once this is complete, the work on the septic tank can begin.

Please note that the intent of the framing plan provided is to repair the 2nd floor framing damaged by the fire and slightly improve the existing condition of the adjoining framing, not to make this portion of the house perfect. Preexisting rot damage, termite damage, architectural, electrical, mechanical, and other repairs or improvements are outside the scope of our services. Therefore, there may be adverse pre-existing conditions not covered in this package that are outside of our responsibility to show requirements for repairing the fire damage.

We recommend that the septic tank cavity eventually be filled with controlled low strength concrete with a high water content. However, the loose, muddy soil and water must be removed from the tank. Since it would be dangerous on many fronts to send a person into the tank, the situation may likely require removal of the tank. The general goal is to fill the void caused by the tank so as not to have new concrete being supported by loose debris or insufficiently compacted soil. Therefore, the debris should be removed to the bottom of the tank, or undisturbed firm soil if the tank has no bottom. The following are specifications for preparing to fill the tank.

- [1] Temporarily brace the second floor walls with the diagonal beam and other components shown on the attached sketch (sheet R1). Please note that the beam orientation does not matter, provided that the temporary beam supports the end of the new beam as shown. Also, if desired, the joist framing at the 2nd floor can be done prior to filling the septic tank provided that the diagonal beam stays in place.
- [2] Remove all loose soil, water, and debris from the tank. If this cannot be done, carefully open up the tank from the north side and remove the debris from the opening. Some of the tank may be left intact, so it may not be necessary to remove the entire tank.
- [3] Cap all lines that come into the tank cavity (this does not have to be done at the tank shell, but may be addressed elsewhere along the pipe in question.). In lieu of capping, the lines in question can be removed if abandoned. Also, the nearby leaking sewer line should be repaired or replaced before attempting to fill in the cavity.
- [4] Once the above items are done, please contact me at (916) 712-4037 to inspect the tank cavity prior to filling. Once inspected, we will provide the appropriate recommendations for filling the cavity based on the observed conditions and discussions with you.

This letter should allow you to proceed and prepare the tank for filling as described above. If you should have any further questions or comments please do not hesitate to call.

Sincerely,

Engineering and Fire Investigations



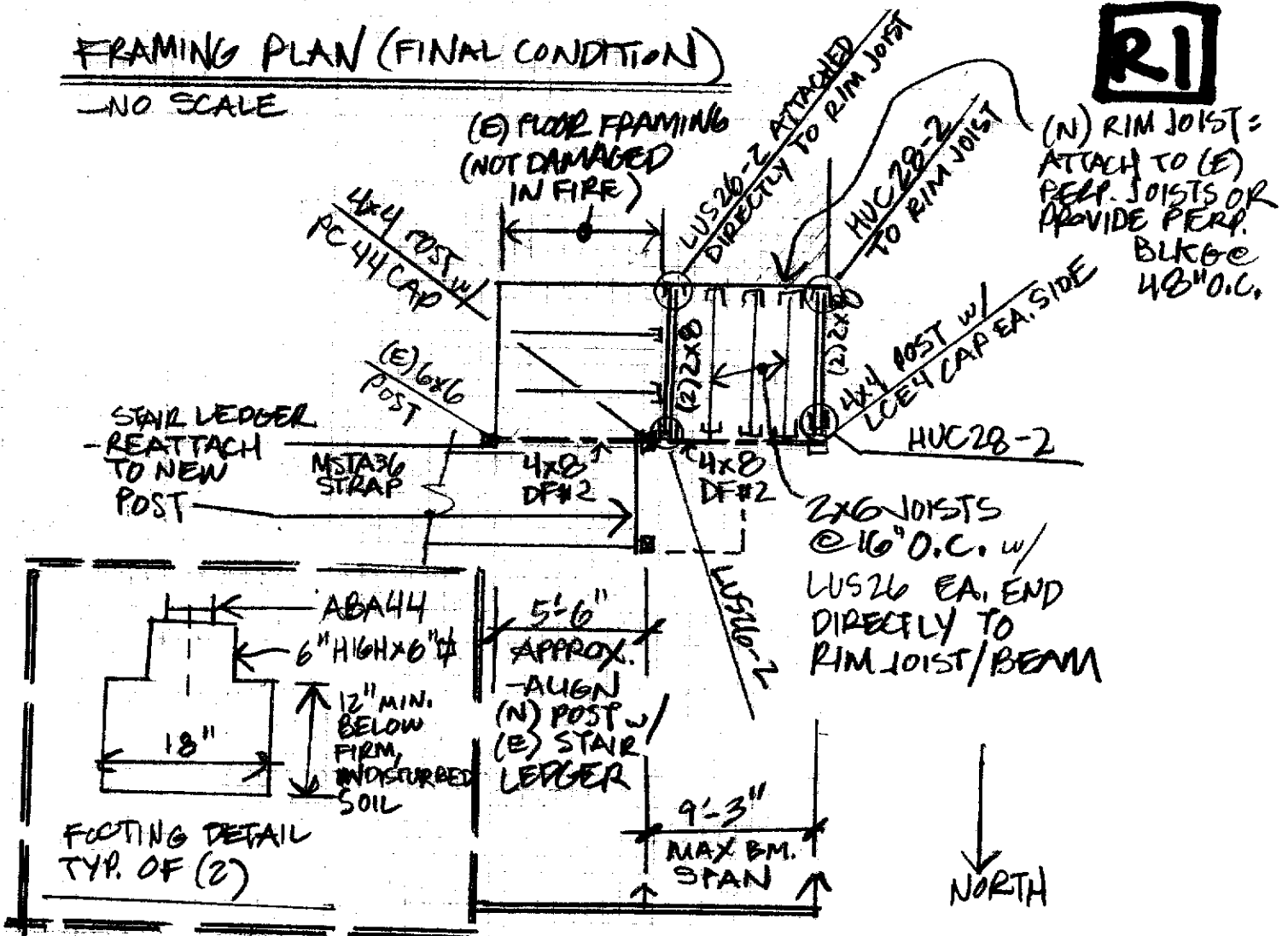
Eric Love, P.E.
LICENSED CIVIL ENGINEER NO. 60458

enclosures: R1: Repair Sketch (Framing Plans)
C-1, C-2: Calculations for framing shown in R1



FRAMING PLAN (FINAL CONDITION)

NO SCALE



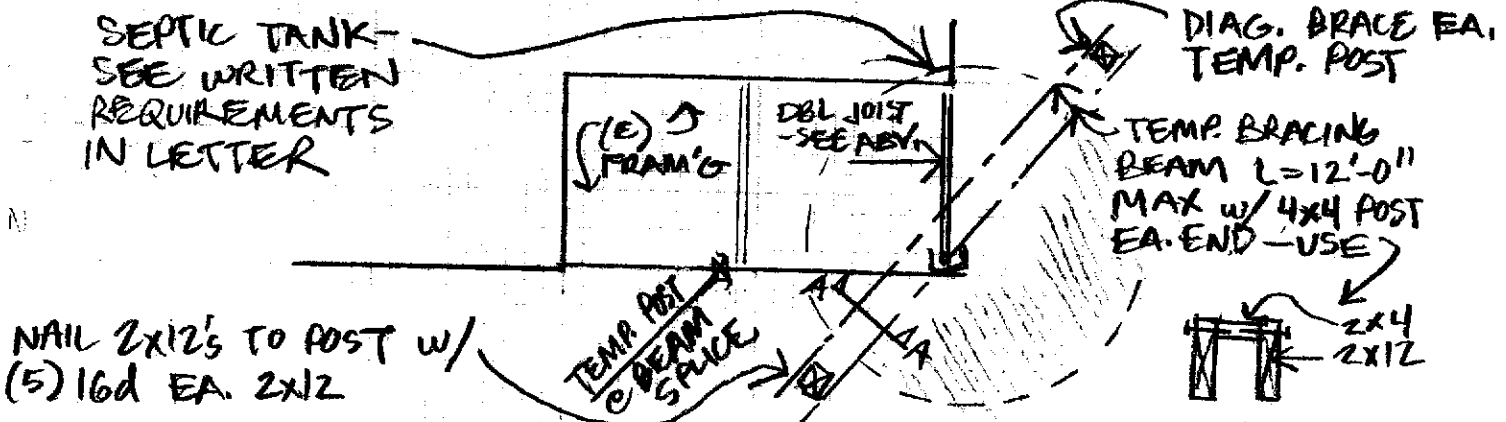
(N) RIM JOIST = ATTACH TO (E) PERP. JOISTS OR PROVIDE PERP. BLK @ 4B\"/>

2x6 JOISTS @ 16\"/>

NORTH

FRAMING PLAN (TO DO BEFORE ADDRESSING SEPTIC TANK)

NO SCALE



NAIL 2x12's TO POST w/ (5) 16d EA. 2x12

SEE A-A



Prepared By: EDL	Location: _____	Scale: _____
File Name: WALKER	File No.: 94605-2471	Date: _____

For illustrative purposes only. May not accurately represent scenes full layout or dimensions.

CALCULATIONS

New Framing

MAXIMUM SPAN FOR NEW BEAM @ REAR:

ROOF LOAD = 35 PSF(6/2) + 50 PSF*(6/2) + 10(8) = 335

4x8 DF#2

WIDTH (in)	DEPTH (in)	LOAD (plf)	E (psi)	I (in ⁴)	S (in ³)	Fb (psi)	Fv (psi)	Defl. factor (L / ___)	Cd factor
3.5	7.25	335	1.60	111.1478	30.66146	1138	95	240	1.25

For Shear: $L = 2[(\text{AREA})(F_v)(\text{Increase}) / (1.5w) + \text{depth of rafter}]$ max. span = 13.20149

For Bending: $L = \text{sqrt} [2(\text{Sect Modulus})(\text{Increase}) / 3w]$ max. span = 9.31449

For Deflection: $L = [(384EI) / ((5w)(\text{Deflection Factor}))]^{(1/3)}$ max. span = 10.56626

Maximum Span =

feet	inches
9	3

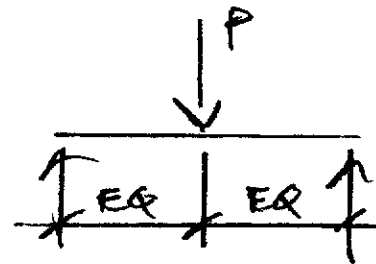
TEMPORARY BEAM:

$L = 12'$

$P = 335(9/2) = 1508 \#$

$V = 754 < 2672 \#$

$M = 4524 < 6631 \#ft$



USE 2x12 EA. SIDE OF 4x4 POST (NAILED)

MOMENT & SHEAR CAPACITY OF SINGLE & BUILT-UP JOISTS

Criteria: (1997 UBC CHAPTER 23)

Adjustment Factors:

- Cd =Load factor (Roof Cd=1.25, Snow Cd=1.15, Floor Cd=1.0, Dead Cd=.9 Wind & Seismic Cd=1.6, Impact Cd=2.0)
- Cm =Moisture factor (< 19%, Cm=1.0, If >19% use Cm=.85 unless when (Fb)(Cf)<= 1150 psi, Cm=1.0)
- Ct =Temperature factor (T<= 100 degrees Fahrenheit)
- CL =Beam stability factor (assume 1.0 for stability)
- Cf =Size factor (2x4, 2x2, 4x4 Cf=1.5 2x6, 4x6, 4x8 Cf=1.3 2x8, 4x10 Cf=1.2 2x10, 4x12 Cf=1.1)
- Cr =Repetitive factor (2x, 4x joist, truss, chords, rafters, studs, planks, decking in contact or not spaced more than 24" O.C. w/ some load distributing element like plywood to spread the load)
- Cfu =Flat use factor (2x4, 4x10 Cfu=1.1 4x6, 4x8 Cfu=1.05 2x6, 2x8 Cfu=1.15 2x10 Cfu=1.2)
- CH =Shear stress factor (assume w/ splits = 1.0, w/o splits 2.0)

Sawn Lumber Beam X-Axis

$$F'_{bx} = F_b (C_d) (C_m) (C_t) (C_L) (C_f) (C_r)$$

Sawn Lumber Beam Y-Axis

$$F'_{by} = F_b (C_d) (C_m) (C_t) (C_f) (C_{fu})$$

Sawn Lumber Beam

$$F'_v = F_v (C_d) (C_m) (C_t) (C_H)$$

Equations:

MOMENT $F'_{bx} = F_b (C_d) (C_m) (C_t) (C_L) (C_f) (C_r)$
 SHEAR $F'_v = F_v (C_d) (C_m) (C_t) (C_H)$

Design Values Used (PSI):

(Includes Cr = 1.15 - Cf is not shown, but incorporated in moment values in table)

	Grade #1		Grade #2	Fv = 95
2 x 6	Fb= 1150	2 x 6	Fb= 1006	
2 x 8	Fb= 1150	2 x 8	Fb= 1006	
2 x 10	Fb= 1150	2 x 10	Fb= 1006	
2 x 12	Fb= 1150	2 x 12	Fb= 1006	

BEAMS	GRADE	MOMENT (F _{bx})						SHEAR (F _v)		
		A	S	I	1.00	1.15	1.25	1.00	1.15	1.25
(1) 2 x 6	#1	8.25	7.56	20.80	942	1083	1178	523	601	653
	#2				824	948	1030			
(2) 2 x 6	#1	16.50	15.13	41.59	1884	2167	2355	1045	1202	1306
	#2				1648	1896	2060			
(3) 2 x 6	#1	24.75	22.69	62.39	2826	3250	3533	1568	1803	1959
	#2				2473	2843	3091			
(1) 2 x 8	#1	10.88	13.14	47.63	1511	1738	1889	689	792	861
	#2				1322	1520	1662			
(2) 2 x 8	#1	21.75	26.28	95.27	3022	3476	3778	1378	1584	1722
	#2				2644	3040	3306			
(3) 2 x 8	#1	32.63	39.42	142.90	4534	5214	5667	2066	2376	2583
	#2				3966	4561	4957			
(1) 2 x 10	#1	13.88	21.39	98.93	2255	2593	2819	879	1011	1098
	#2				1973	2268	2466			
(2) 2 x 10	#1	27.75	42.78	197.86	4510	5186	5637	1758	2021	2197
	#2				3945	4537	4931			
(3) 2 x 10	#1	41.63	64.17	296.79	6765	7780	8456	2636	3032	3295
	#2				5918	6806	7397			
(1) 2 x 12	#1	16.88	31.64	177.98	3032	3487	3790	1069	1229	1336
	#2				2653	3050	3316			
(2) 2 x 12	#1	33.75	63.28	355.96	6064	6974	7581	2138	2468	2672
	#2				5305	6101	6631			
(3) 2 x 12	#1	50.63	94.92	533.94	9097	10461	11371	3206	3687	4008
	#2				7958	9151	9947			



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April 15, 2002

Roger Kolb
Pro-Bilt Construction
P.O. Box 418112
Sacramento, CA 95841-8112

Re: Walker House Repair
2141 2nd Avenue, Sacramento, CA 95818
EFI Job Number: 94605-24171

Dear Mr. Kolb:

You contacted our office regarding the Walker House fire repair at the above referenced address. You indicated that an abandoned septic tank was discovered while excavating a footing to support the 2nd story framing above. We met with you on April 2, 2002 and later sent a letter with specifications dated April 4, 2002. The letter required an additional inspection before the cavity is filled.

We visited the site again on April 15, 2002 and observed the condition of the soil in the tank. A significant amount of soil had been removed from the tank, but there was still some loose soil in the cavity. The pipes entering the tank had been filled, and there was no water dripping into the tank. We used a probe to test the relative compaction of the soil and found that the perimeter soil was relatively firm, while the soil at the center was relatively soft. Based on my observations and my experience as a civil engineer, the tank may be filled with the following conditions/requirements:

- [1] Remove at least 6 inches of soil from bottom (in an area of approximately 4 feet diameter centered in the cavity.) The cavity shall be free from excessively moist soil, loose soil, water, and trash/debris.
- [2] Fill the cavity with a cementious slurry mixture. The slurry shall have a high water content, have a 2-sack mix, and have a compressive strength of at least 400 pounds per square inch (psi) minimum. The building department may want to inspect the cavity before the slurry is poured.
- [3] A form should be placed in the cavity to allow for the new square footing for the corner post, which requires normal strength concrete. The footing should be embedded 12 inches into the cured slurry mixture, and the remaining may be built up to grade with native soil.

This letter should allow you to fill the tank cavity as described above. If you should have any further questions or comments please do not hesitate to call.

Sincerely,

Engineering and Fire Investigations

Eric Love, P.E.
LICENSED CIVIL ENGINEER NO. 60458

