BUILDING CODE
BOARD OF APPEALS
REGULAR MEETING AGENDA

500 W. Big Beaver
Troy, MI 48084
(248) 524-3344
www.troymi.gov
building@troymi.gov

Theodore Dziurman, Chair, Michael Culpepper
Gary Abitheira, Teresa Brooks, Michael Carolan

September 5, 2012 **3:00 PM** **LOWER LEVEL CONFERENCE ROOM**

1. ROLL CALL

2. APPROVAL OF MINUTES –June 20, 2012

3. HEARING OF CASES

   A. **VARIANCE REQUEST, 44201 DEQUINDRE, JONES LANG LA SALLE AT BEAUMONT HEALTH SYSTEMS** – For relief of Section 716.5.5 of the 2009 Michigan Building Code to omit smoke dampers in ductwork penetrating smoke barriers throughout William Beaumont Hospital Troy campus.

   B. **VARIANCE REQUEST, 1057-1155 E. LONG LAKE, GREG CARR OF UNIVERSAL SIGNS** – For relief of Chapter 85, Section 85.02.05(4) to install a third ground sign measuring 25 square feet in area.

   This site currently has two existing ground signs, a 280 square foot main sign approved by the Building Code Board of Appeals and a second 24 square foot real estate sign. The Sign Code limits the number of ground signs in this zoning district to a maximum of two.

4. COMMUNICATIONS

5. PUBLIC COMMENT

6. MISCELLANEOUS BUSINESS

7. ADJOURNMENT

NOTICE: *People with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk by e-mail at clerk@troymi.gov or by calling (248) 524-3317 at least two working days in advance of the meeting. An attempt will be made to make reasonable accommodations.*

Chair Dziurman called the Special meeting of the Troy City Building Board of Appeals to order at 3:00 p.m. on June 20, 2012 in the Lower Level Conference Room of the Troy City Hall.

1. ROLL CALL

Members Present:
Theodore Dziurman, Chair
Gary Abitheira (arrived 3:15 p.m.)
Teresa Brooks
Michael Carolan
Mike Culpepper

Support Staff Present:
Mitch Grusnick, Building Official/Code Inspector
Kathy L. Czarnecki, Recording Secretary

Also Present:
Attached and made a part hereof is the signature sheet of those present and signed in at this meeting.

2. APPROVAL OF MINUTES

Moved by: Carolan
Seconded by: Brooks

RESOLVED, To approve the minutes of the June 6, 2012 Regular meeting as submitted.

Yeas: All present (4)
Absent: Abitheira (arrived 3:15 p.m.)

MOTION CARRIED

3. HEARING OF CASES

A. **VARIANCE REQUEST, ROBERT MOORHOUSE, MOORHOUSE AND ASSOCIATES, 900 TOWER** – For relief of Chapter 85 in order to place two additional 206 square foot wall signs.

Mr. Grusnick presented a brief report on the item. He indicated the department received no responses to the public hearing notices.

The petitioner, Robert Moorhouse, was present. Tony Antone of Kojaian Management and Mike Twarozyouski of Plex Systems were also present.

Mr. Antone announced Plex Systems is looking to move to Troy and occupy four floors (62,000 square feet) of the 900 Tower building, with the right to expand up to seven floors (110,000 square feet) in the future. He briefly addressed the commercial vacancy rate, and said the signage and visibility for the customers and client base of the new company is critical from a wayfinding standpoint. Mr. Antone said no more than two signs would be visible at one time, no matter where one would stand on the site. He noted Citizens Bank signage has visibility from I-75 and the bank has exclusive rights on the elevations.

Mr. Moorhouse informed the Board that Plex Systems is requesting the signage at 900 Tower as a wayfinding aid for their worldwide customers and clients. He said the signage would give visibility to a growing company whose headquarters would be new to the City of Troy and the State of Michigan. Mr. Moorhouse addressed the proposed signage with respect to location, elevation, lettering and symmetry to the existing Citizens Bank signage, and further noted there is no surrounding residential property.

Mr. Twarozyouski, Sr. Vice President of Finance and Operations, said Plex Systems is a software computer company that provides enterprise resource planning (ERP) services to high liability manufacturers in the automotive supply, aerospace, beverage and food supplies and electronics industries. He said the company is a high growth company that grew on an average of 27% in the past five years. Mr. Twarozyouski indicated the company has committed to four floors of the 900 Tower building, with the right to an additional three floors. It is anticipated that 250 people will be employed within the next four to five years.

Chair Dziurman shared a concern about the size of the sign and asked if the applicant would be amenable to smaller 200 square foot signs.

Mr. Antone replied they could go with 200 square feet per sign.

Chair Dziurman said the 200 square feet is the maximum size permitted by the Sign Ordinance, and the only approval needed by the Board would be for the additional signage.

There was discussion on:

- Allowable signage on Big Beaver Road.
- Visibility from I-75.
- Sign dimensions.

Moved by: Carolan
Seconded by: Culpepper

RESOLVED, To approve the appeal request because the proposed signage goes well with the area, the request is only for six square feet above the square footage requirement, two signs only will be visible at any one time and there are no public objections.

Yeas: 3 (Brooks, Carolan, Culpepper)
Nays: 1 (Dziurman)
Absent: Abitheira (arrived 3:15 p.m.)

MOTION CARRIED

Chair Dziurman indicated his opposing vote is based on the size of the signs.

[Gary Abitheira arrived 3:15 p.m.]

B. **VARIANCE REQUEST, JIM GHANEM FOR JIM'S AWNING, 5600 CROOKS** – For relief of Chapter 85 in order to place a 30 square foot ground sign.

Mr. Grusnick presented a brief report on the item. He indicated the department received no responses to the public hearing notices. Mr. Grusnick displayed photographs of the existing three signs on the property. He explained the reason the appeal application is before the Board today is that it has come to the attention of the City that the property has been maintaining three existing ground signs since 2004. At the time the City issued a sign permit to the former Palm restaurant, the City requested removal of the existing 'For Lease' sign; but to date, the sign still exists. In order to approve the proposed new sign, a sign variance is necessary to allow three ground signs on the site. Mr. Grusnick said the proposed new sign would replace the existing Loccino restaurant sign (located in the middle) with a smaller LED sign.

Frank Shushtari, owner of Loccino restaurant, was present. Mr. Shushtari said the new LED sign would advertise the restaurant's banquet and catering facility and special occasions. He addressed the existing vacancy rate and indicated the landlord has no intention of removing the 'For Lease' sign until all vacancies are filled.

Mr. Grusnick addressed the difference between real estate signs for residential and commercial properties. He said this particular "For Lease" sign is considered permanent because it is a ground sign and because of its size, even though the need for the sign will eventually go away. Mr. Grusnick confirmed that in this instance because of the economic times, the "For Lease" sign is restricting signage for ongoing businesses.

Khalil Ajami of Jim's Awning, was present to represent the petitioner. Mr. Ajami addressed the sign dimensions and message board in relation to timing and control of multiple messages.

There was discussion on:

- Future signage on building dependent on Board's decision today.
- Timing / changing of message board.
- Illumination intensity/regulations of intensity during after dark hours.

Mr. Culpepper voiced concern that an active business is being penalized because of a temporary sign.

Moved by: Carolan
Seconded by:

RESOLVED, To approve the appeal request because the applicant has shown a true hardship and with the stipulation that lighting intensity is dimmer at night.

Motion on the floor fails due to lack of support.

Discussion continued on the illumination and brightness intensity of the proposed signage.

Mr. Ajami addressed the light intensity of their manufactured signs. He indicated the signs are not very bright during after dark hours and would not be distracting to traffic. Mr. Ajami said their signs comply with regulations of most cities.

Mr. Grusnick said the Sign Ordinance does not regulate light intensity/illumination, other than stating sign lighting shall not adversely affect driver visibility. He did note that the Sign Ordinance regulates the timing of board messages to one minute.

Moved by: Carolan
Seconded by: Brooks

RESOLVED, To approve the appeal request subject to the Planning Department approval of intensity.

Yeas: All present (5)

MOTION CARRIED

4. COMMUNICATIONS

None.

5. PUBLIC COMMENT

None.

6. MISCELLANEOUS BUSINESS

Chair Dziurman reminded the Board there are no agenda items scheduled for a July meeting at this time.

After a brief discussion on whether to charge fees for holding Special meetings, it was determined that Mr. Grusnick would research a change in the fee schedule and report back to the Board.

7. ADJOURNMENT

The Special meeting of the Board of Building Appeals adjourned at 3:38 p.m.

Respectfully submitted,

_____
Theodore Dziurman, Chair

_____
Kathy L. Czarnecki, Recording Secretary

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3. HEARING OF CASES

A. **VARIANCE REQUEST, 44201 DEQUINDRE, JONES LANG LA SALLE AT BEAUMONT HEALTH SYSTEMS** – For relief of Section 716.5.5 of the 2009 Michigan Building Code to omit smoke dampers in ductwork penetrating smoke barriers throughout William Beaumont Hospital Troy campus.

CITY OF TROY BUILDING INSPECTION DEPARTMENT
CITY OF TROY PLANNING DEPARTMENT
BUILDING CODE BOARD OF APPEALS APPLICATION

SIGN APPEALS
FEE $50
CITY OF TROY PLANNING DEPARTMENT
500 W. BIG BEAVER ROAD
TROY, MICHIGAN 48084
PHONE: 248-524-3344
FAX: 248-689-3210
E-MAIL: evanspm@troymi.gov
http://www.troymi.gov/CodeEnforcement/

CONSTRUCTION OR FENCE CODE APPEALS
FEE: $50
CITY OF TROY BUILDING DEPARTMENT
500 W. BIG BEAVER ROAD
TROY, MICHIGAN 48084
PHONE: 248-524-3344
FAX: 248-689-3210
E-MAIL: GrusnickME@troymi.gov
http://www.troymi.gov/BuildingInspection/

NOTICE TO THE APPLICANT

REGULAR MEETINGS OF THE BUILDING CODE BOARD OF APPEALS ARE HELD ON THE FIRST **WEDNESDAY OF EACH MONTH AT 3:00 P.M.** AT CITY HALL.

PLEASE FILE A COMPLETE APPLICATION, TOGETHER WITH THE APPROPRIATE FEE, **NOT LESS THAN TWENTY-ONE (21) DAYS** BEFORE THE MEETING DATE.

A COMPLETE APPLICATION THAT MEETS CODE REQUIREMENTS IS PLACED ON THE NEXT AVAILABLE AGENDA OF THE BUILDING CODE BOARD OF APPEALS.

1. ADDRESS OF THE SUBJECT PROPERTY: Beaumont, Troy 44201 Dequindre Rd Troy, MI 48085

   ACREAGE PROPERTY: *Attach legal description if this an acreage parcel*

2. PROPERTY TAX IDENTIFICATION NUMBER(S): 80-20-01-200-018

3. CODE NAME (e.g. "BUILDING CODE", "SIGN CODE", etc.) AND SECTION(S) RELATED TO THE APPEAL:
   2009 Michigan Building Code, Chapter 7, Section 716.5.5. 2006 NFPA 101, Chapter 19, Section 19.3.7.4

4. REASONS FOR APPEAL/VARIANCE: *On a separate sheet, please describe the reasons justifying the requested action. See Submittal Checklist*

5. HAVE THERE BEEN ANY PREVIOUS APPEALS INVOLVING THIS PROPERTY? YES ☑ NO ☐

6. APPLICANT INFORMATION:

NAME Jake Meadows

COMPANY Jones Lang LaSalle at Beaumont Health System

ADDRESS 44201 Dequindre Rd

CITY Troy STATE MI ZIP 48085

TELEPHONE Desk - 248-964-9935, Mobile - 586-747-7467

E-MAIL jake.meadows@beaumont.edu

7. APPLICANT'S AFFILIATION TO THE PROPERTY OWNER: Owners representative for Real Estate and Development

8. OWNER OF SUBJECT PROPERTY:

NAME Nancy Susick

COMPANY Willaim Beaumont Hospital

ADDRESS 44201 Dequindre Rd.

CITY Troy STATE MI ZIP 48085

TELEPHONE 248-964-5000

E-MAIL

The undersigned hereby declare(s) under penalty of perjury that the contents of this application are true to the best of my (our) knowledge, information and belief.

The applicant accepts all responsibility for all of the measurements and dimensions contained within this application, attachments and/or plans, and the applicant releases the City of Troy and its employees, officers, and consultants from any responsibility or liability with respect thereto.

I, NANCY SUSICK (PROPERTY OWNER), HEREBY DEPOSE AND SAY THAT ALL THE ABOVE STATEMENTS AND STATEMENTS CONTAINED IN THE INFORMATION SUBMITTED ARE TRUE AND CORRECT AND GIVE PERMISSION FOR THE BOARD MEMBERS AND CITY STAFF TO CONDUCT A SITE VISIT TO ASCERTAIN PRESENT CONDITIONS.

SIGNATURE OF APPLICANT Jake Meadows / Nancy A. Susick DATE 8-1-12

PRINT NAME: Jake Meadows

SIGNATURE OF PROPERTY OWNER Nancy A. Susick DATE 8-1-12

PRINT NAME: NANCY SUSICK

Failure of the applicant or his/her authorized representative to appear before the Board, as scheduled, shall be justifiable cause for denial or dismissal of the case with no refund of appeal fee(s). If the person appearing before the Board is not the applicant or property owner, signed permission must be presented to the Board.

The applicant will be notified of the time and date of the hearing by first class mail.

SUBMITTAL CHECKLIST FOR APPLEAS NOT RELAED TO SIGNS

FOR SIGNS, PLEASE USE SUBMITTAL CHECKLIST ON NEXT PAGE

REQUIRED	PROVIDED	
☒	☐	COMPLETED THE APPLICATION FORM
☒	☐	**1 COPY OF SUPPORTING DOCUMENTS DESCRIBING** THE REQUEST, CONSTRUCTION AND/OR WORK INCLUDING BUT NOT LIMITED TO: ▪ PLOT PLANS DRAWN TO SCALE, SHOWING THE SHAPE AND DIMENSION OF LOT(S). ▪ LOCATION ON THE LOT OF FENCES, OR OTHER STRUCTURES CONCERNING THE REQUEST. ▪ DETAILED PLANS SHOWING CONSTRUCTION MATERIALS AND METHOD OF CONSTRUCTION. ▪ PHOTOS, DRAWINGS, OR RENDERINGS AS NECESSARY TO ACCURATELY DESCRIBE THE REQUEST.
☒	☐	ANY ADDITIONAL INFORMATION INCLUDING REPORTS OR ACCREDITED TESTING AGENCIES, INCLUDING ACCREDITED AGENCIES RECOGNIZED BY THE INTERNATIONAL CODE COUNCIL AND ACCEPTED ENGINEERING PRACTICES SHOULD ACCOMPANY YOUR APPEAL.
☒	☐	**1 COPY OF INFORMATION** THAT CLEARLY EXPLAINS THE IMPACTS OF THE REQUEST ON THE AREA.
☒	☐	**A WRITTEN EXPLANATION OF** THE REASONS JUSTIFYING THE REQUEST. IF APPEALING AN ICC CONSTRUCTION CODE, PLEASE EXPLAIN ALTERNATIVES THAT WOULD BE EQUAL TO WHAT THE CODE REQUIRES.
☒	☐	**MINIMUM SIZE** OF ALL DOCUMENTS **8.5" X 11".**
☒	☐	A COMPACT DISC CONTAINING AN ELECTRONIC VERSION OF THE APPLICATION AND ALL SUPPORTING DOCUMENTATION.

JONES LANG LASALLE
at Beaumont Health System

Date: 7-31-12

City Of Troy

Safe Built
Building Department Services
500 West Big beaver Rd
Troy, MI 48084.
Mr. Rick Kessler
Plan Examiner/coordinator.

Dear Mr. Kessler,

I am writing this letter to inquire a Code Variance on smoke dampers within ductwork penetrating smoke zone barriers at William Beaumont Hospital, Troy. Our previous variance (attached) was reviewed and approved at the Building Code Board of Appeals on Wednesday, April 6th, 2005.

As the code editions associated with this variance have been superseded, it has been requested that we re-submit for the variance again based on the latest code editions. Below is our summary documenting the request for variance based on the latest code editions.

Currently, the hospital is protected with a supervised automatic sprinkler system that is approved by the state of Michigan as well as the City of Troy fire department. In addition, the campus is also protected throughout with a fire alarm system, which is interconnected with the sprinkler system. Also, the sprinkler heads used in the system are listed quick-response type. Furthermore, the heating ventilating and air conditioning systems are fully ducted throughout the site. Based on these conditions, the life safety code NFPA 101, 2006 edition, section 19.3.7.4 lists that smoke dampers are not required in duct penetrations of smoke zone barriers.

Being under your jurisdiction, the hospital falls under the 2009 International Building Code, which was adopted by the City of Troy and requires smoke dampers within smoke zone barriers under section 716.5.5. This difference between the two codes is again similar to the difference in 2005 when the original variance was requested.

Based on the above facts we feel eliminating the smoke dampers from ductwork penetrating smoke zone barrier walls has no effect on the safety of our patients, staff and visitors. In line with the variance approved in 2005, we are again requesting a variance submitting the use of quick response heads within the facility as an alternative to meet the building code requirement for the smoke dampers in ductwork penetrating smoke zone barrier walls. We appreciate your support in this matter and would like to thank you in advance for your efforts to assist us.

Sincerely,

Jake Meadows
Program Leader
Jones Lang LaSalle at Beaumont Health System

2012 Supporting Doc's and Written Explanation, 2 of 3

CHAPTER 18 • New

(4) Open-air parking structures protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7

18.3.7.3 Smoke barriers shall be provided on stories that are usable but unoccupied.

18.3.7.4 Any required smoke barrier shall be constructed in accordance with Section 8.5 and shall have a fire resistance rating of not less than 1 hour, unless otherwise permitted by the following:

(1) This requirement shall not apply where an atrium is used, and both of the following criteria also shall apply:

(a) Smoke barriers shall be permitted to terminate at an atrium wall constructed in accordance with 8.6.7(1)(c).

(b) Not less than two separate smoke compartments shall be provided on each floor.

(2)* Smoke dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air-conditioning systems.

A.18.3.7.4(2) Where the smoke control system design requires dampers so that the system will function effectively, it is not the intent of the provision to permit the damper to be omitted.

This provision is not intended to prevent the use of plenum returns where ducting is used to return air from a ceiling plenum through smoke barrier walls. Short stubs or jumper ducts are not acceptable. Ducting is required to connect at both sides of the opening and to extend into adjacent spaces away from the wall. The intent is to prohibit open-air transfers at or near the smoke barrier walls.

18.3.7.5 Materials and methods of construction used for required smoke barriers shall not reduce the required fire resistance rating.

18.3.7.6 Accumulation space shall be provided in accordance with 18.3.7.6.1 and 18.3.7.6.2.

18.3.7.6.1 Not less than 30 net ft² (2.8 net m²) per patient in a hospital or nursing home, or not less than 15 net ft² (1.4 net m²) per resident in a limited care facility, shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas, and other low hazard areas on each side of the smoke barrier.

18.3.7.6.2 On stories not housing bed or litterborne patients, not less than 6 net ft² (0.56 net m²) per occupant shall be

CHAPTER 19 • Existing

19.3.7.3 Reserved.

19.3.7.4 Any required smoke barrier shall be constructed in accordance with Section 8.5 and shall have a fire resistance rating of not less than ½ hour, unless otherwise permitted by the following:

(1) This requirement shall not apply where an atrium is used, and both of the following criteria also shall apply:

(a) Smoke barriers shall be permitted to terminate at an atrium wall constructed in accordance with 8.6.7(1)(c).

(b) Not less than two separate smoke compartments shall be provided on each floor.

(2)* Smoke dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air-conditioning systems where an approved, supervised automatic sprinkler system in accordance with 19.3.5.7 has been provided for smoke compartments adjacent to the smoke barrier.

A.19.3.7.4(2) Where the smoke control system design requires dampers in order that the system functions effectively, it is not the intent of the exception to permit the damper to be omitted.

This provision is not intended to prevent the use of plenum returns where ducting is used to return air from a ceiling plenum through smoke barrier walls. Short stubs or jumper ducts are not acceptable. Ducting is required to connect at both sides of the opening and to extend into adjacent spaces away from the wall. The intent is to prohibit open-air transfers at or near the smoke barrier walls.

19.3.7.5 Reserved.

19.3.7.6 Accumulation space shall be provided in accordance with 19.3.7.6.1 and 19.3.7.6.2.

19.3.7.6.1 Not less than 30 net ft² (2.8 net m²) per patient in a hospital or nursing home, or not less than 15 net ft² (1.4 net m²) per resident in a limited care facility, shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas, and other low hazard areas on each side of the smoke barrier.

19.3.7.6.2 On stories not housing bed or litterborne patients, not less than 6 net ft² (0.56 net m²) per occupant shall be

2.3. An exhaust fan is installed at the upper terminus of the shaft that is powered continuously in accordance with the provisions of Section 909.11, so as to maintain a continuous upward airflow to the outside.

3. *Smoke dampers* are not required at penetration of exhaust or supply shafts in parking garages that are separated from other building shafts by not less than 2-hour fire-resistance-rated construction.

4. *Smoke dampers* are not required at penetrations of shafts where ducts are used as part of an *approved* mechanical smoke control system designed in accordance with Section 909 and where the *smoke damper* will interfere with the operation of the smoke control system.

5. *Fire dampers* and *combination fire/smoke dampers* are not required in kitchen and clothes dryer exhaust systems when installed in accordance with the *International Mechanical Code*.

716.5.4 Fire partitions. Ducts and air transfer openings that penetrate *fire partitions* shall be protected with *listed fire dampers* installed in accordance with their listing.

Exceptions: In occupancies other than Group H, *fire dampers* are not required where any of the following apply:

1. Corridor walls in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and the duct is protected as a *through penetration* in accordance with Section 713.

2. Tenant partitions in *covered mall buildings* where the walls are not required by provisions elsewhere in the code to extend to the underside of the floor or roof sheathing, slab or deck above.

3. The duct system is constructed of *approved* materials in accordance with the *International Mechanical Code* and the duct penetrating the wall complies with all of the following requirements:

3.1. The duct shall not exceed 100 square inches (0.06 m^2).

3.2. The duct shall be constructed of steel a minimum of 0.0217 inch (0.55 mm) in thickness.

3.3. The duct shall not have openings that communicate the *corridor* with adjacent spaces or rooms.

3.4. The duct shall be installed above a ceiling.

3.5. The duct shall not terminate at a wall register in the fire-resistance-rated wall.

3.6. A minimum 12-inch-long (305 mm) by 0.060-inch-thick (1.52 mm) steel sleeve shall be centered in each duct opening. The sleeve shall be secured to both sides of the wall and all four sides of the sleeve with minimum $1^1/_2$-inch by $1^1/_2$-inch by 0.060-inch (38 mm by 38 mm by 1.52 mm) steel retaining angles. The retaining angles shall be secured to the sleeve and the wall with No. 10 (M5) screws. The *annular space* between the steel sleeve and the wall opening shall be filled with mineral wool batting on all sides.

716.5.4.1 Corridors. A *listed smoke damper* designed to resist the passage of smoke shall be provided at each point a duct or air transfer opening penetrates a *corridor* enclosure required to have smoke and draft control doors in accordance with Section 715.4.3.

Exceptions:

1. *Smoke dampers* are not required where the building is equipped throughout with an *approved* smoke control system in accordance with Section 909, and *smoke dampers* are not necessary for the operation and control of the system.

2. *Smoke dampers* are not required in *corridor* penetrations where the duct is constructed of steel not less than 0.019 inch (0.48 mm) in thickness and there are no openings serving the *corridor*.

716.5.5 Smoke barriers. A *listed smoke damper* designed to resist the passage of smoke shall be provided at each point a duct or air transfer opening penetrates a *smoke barrier*. *Smoke dampers* and *smoke damper* actuation methods shall comply with Section 716.3.3.2.

Exception: *Smoke dampers* are not required where the openings in ducts are limited to a single smoke compartment and the ducts are constructed of steel.

716.5.6 Exterior walls. Ducts and air transfer openings in fire-resistance-rated *exterior walls* required to have protected openings in accordance with Section 705.10 shall be protected with *listed fire dampers* installed in accordance with their listing.

716.5.7 Smoke partitions. A *listed smoke damper* designed to resist the passage of smoke shall be provided at each point that an air transfer opening penetrates a smoke partition. *Smoke dampers* and *smoke damper* actuation methods shall comply with Section 716.3.3.2.

Exception: Where the installation of a *smoke damper* will interfere with the operation of a required smoke control system in accordance with Section 909, *approved* alternative protection shall be utilized.

716.6 Horizontal assemblies. Penetrations by ducts and air transfer openings of a floor, floor/ceiling assembly or the ceiling membrane of a roof/ceiling assembly shall be protected by a shaft enclosure that complies with Section 708 or shall comply with Sections 716.6.1 through 716.6.3.

716.6.1 Through penetrations. In occupancies other than Groups I-2 and I-3, a duct constructed of *approved* materials in accordance with the *International Mechanical Code* that penetrates a fire-resistance-rated floor/ceiling assembly that connects not more than two *stories* is permitted without

Fee $50.00

CASE #_____

CITY OF TROY
APPLICATION
BUILDING CODE BOARD OF APPEALS

Request is hereby made for permission to erect, alter, modify or extend a structure or facility or substitute material therefore, either contrary to the provisions of the Building Regulations enacted by the City Council, including but not limited to: the Building Code, the Existing Structure Code, the Electrical Code, the Plumbing Code, the Mechanical Code and the Fence Ordinance, the Sign Ordinance or ~~contrary to the decision rendered by the Building Official in denying an application for a permit as~~ described below. (does not include Zoning Ordinance)

7 COPIES REQUIRED

Applicant: BEAUMONT SERVICES COMPANY, L.L.C
(owner or duly authorized representative)

Phone Number: (248) 293-1010

Address: 44201 DEQUINDRE ROAD TROY, MI $48085

Name of Owner: WILLIAM BEAUMONT HOSPITAL Phone Number: * (248) 964-5000

Address: $$@)! 44201 DEQUINDRE ROAD TROY, MI48085

ADDRESS OF STRUCTURE/FACILITY: _____

Zoning District: CF Sidwell # 88-20-01-200-014

Lot # NA Subdivision: NA

Present Use: _____

Proposed Use: _____

Has there been a previous appeal involving this property? _____ If yes, state Case Number and particulars: _____

Outline below your appeal, listing sections of the Code for which relief is sought and outline your proposals that are contrary to the Code or Building Officials decision. Indicate your hardships if a variance is not granted and explain your alternatives that would be equal to what the code requires:

2003 MBC, Chapter 7, Section 716.5.5. In conjunction with NFPA 101, 2000 edition, Chapter 19, Section 19.3.7.3, and based on performance of the quick response sprinklers, we are requesting to omit smoke dampers from ducts penetrating smoke barrier walls.

City Of Troy
Building Department
500 West Big beaver Rd
Troy, MI 48084.
Attention:
Mr. Richard Kessler
Plan Examiner/coordinator.

Date: 2-11-05

Dear Mr. Kessler,

I'm writing this letter to inquire a Code Variance on smoke dampers on ductwork penetrating smoke zone barriers at the William Beaumont Hospital Troy.

Currently, the hospital is protected with a supervised automatic sprinkler system that is approved by the state of Michigan as well as the city of Troy fire department. In addition, the campus is also protected throughout with a fire alarm system, which is inter-connected with the sprinkler system. Also, the sprinkler heads used in the system are listed quick-response type. Furthermore, the heating ventilating and air conditioning systems are fully ducted throughout the site.

Based on these conditions, the life safety code NFPA 101, 2000 edition, section 19.3.7.3 lists that smoke dampers are not required in duct penetration of smoke barriers. Also, other codes such as BOCA and Southern agree with NFPA. This issue seems to be a conflict between IFC and other codes. Being under your jurisdiction, the hospital falls under the IFC, which was adopted by City of Troy. However, the State of Michigan, office of fire safety, enforces the life safety code NFPA 101, while the City Of Troy does not being under IFC 2003.
As you know, here at William Beaumont Hospital the safety of our patients is our priority regardless of the cost. However, in this situation and based on the above facts eliminating the smoke dampers from ductwork penetrating smoke barrier wall has no effect on the safety of patients, staff and visitors.

Therefore, I would like to request a code variance exempting the installation of smoke dampers in ductwork penetrating smoke barrier walls.

Finally, I appreciate your support in this matter and I would like to thank you in advance for your efforts to assist us.

Sincerely,

Joseph A. Malkoun PE, CFPE, CFI
Mechanical/energy engineer
Beaumont services company.

Exception No. 3: In buildings protected throughout by an approved, supervised, automatic sprinkler system utilizing quick response sprinklers in accordance with 12-3.5.3, the area of the atrium opening shall not be included in the area limitations of the smoke compartment.

Revise 12-3.7.3 (13-3.7.3) by adding the following exception:

Exception: In buildings protected throughout by an approved supervised automatic sprinkler system utilizing quick response sprinklers in accordance with 12-3.5.3 (13-3.5.3) smoke dampers shall be permitted to be omitted from duct penetrations of required barriers separating smoke compartments.

Revise 12-3.7.5 by adding the following exception:

Exception: In buildings protected throughout by an approved supervised automatic sprinkler system utilizing quick response sprinklers in accordance with 12-3.5.3, 34 in. doors and 60 in. clear openings shall be permitted.

SUBSTANTIATION: The Subcommittee on Health Care Occupancies has determined that the new technology of quick response sprinklers provides a new, effective method of protecting the patient in the room of fire origin. Recognizing that the new technolgy provides a level of safety, at least equivalent to the objectives of Chapters 12 and 13 without an increase of construction cost, yet with a major decrease in the maintenance and operation of the building construction life safety features, the Subcommittee has revised Chapters 12 and 13 accordingly.

With automatic sprinkler protection installed throughout new health care facilities and quick response sprinklers installed in smoke compartments containing patient sleeping rooms, the Subcommittee is of the opinion that a fire and its life threatening by-products will be reduced to acceptable levels thereby allowing the "defend in place" concept to continue. The Subcommittee in its deliberations considered the potential weaknesses of maintaining the proper integrity of the essential life safety elements and is of the opinion that the probability of a sprinkler system operating as designed is equal to or greater than other life safety features. Long standing construction alternatives consistent with complete automatic sprinkler protection and other modifications installed to inhibit the fire and its by-products from spreading beyond the room of origin or to adjacent smoke compartments have been included as part of this proposal.

The revisions to 12-1.6.2 are felt to be justified in the fact that the built-in fire resistance is sufficient in itself to allow for evacuation.

The new exception to 12-1.6.6 is justified since the built-in fire resistance is sufficient in itself to allow for evacuation.

The reduction of door sizes in several of the paragraphs is substantiated since the provision of quick response sprinklers reenforces the protect in place philosophy of the Code. The potential evacuation of persons in bed is too remote so as to eliminate the need for wide doors.

The new exception to 12-3.1.1 is based on the following:

The provisions of 6-2.4.4 with the additional modifications herein, including the fact that the building must be fully sprinklered, that the communicating space has quick response sprinklers, and the limitation to two stories rather than three stories, will provide adequate life safety in a health care facility.

The additional exceptions to 12-3.6.1 and 13-3.6.1 are based on the following:

The installation of complete automatic sprinkler protection provides an adequate alternate to the protection of life threatening fires by staff in attendance at the location of the open space. The activation of quick resease sprinklers installed throughout the smoke compartment or smoke detection installed in the open space in corriders is intented to provide an acceptable level of early warning to the occupants of that compartment.

The new exception to 12-3.7.1 is based on the following:

The area of the floor opening adds neither fuel load nor occupant load to the smoke compartment and the presence of quick response sprinklers should significantly limit the amount of smoke being generated.

The revisions to 12-3.7.3 and 13-3.7.3 are based on the following:

Quick response sprinkler provisions in 12-3.5.3 limit the potential impact of smoke and fire to a level allowing the omission of these dampers.

COMMITTEE ACTION: Accept in Part.

Of the actions proposed by the Submitter, do only those applicable to Chapter 13.

Do not revise Chapter 12 as recommended.

COMMITTEE STATEMENT: See Proposal 101-385 (Log #803) on 12-1.6.2, et. al. which will mandate sprinklering of new facilities.

(Log #833)

101- 386 - (12-1.6.2, 12-1.6.2 Exception, 12-2.2.2.6, 12-2.3.5, 12-2.6.2, 12-3.1.1, 12-3.2.1, 12-3.2.5, 12-3.3.1, 12-3.5.1, 12-3.5.2, 12-3.5.3, 12-3.5.4, 12-3.6.1, 12-3.6.2.1, 12-3.6.2.2, 12-3.6.2.3, 12-3.6.3.1, 12-3.6.3.2, 12-3.6.3.5, 12-3.7.3, A-12-3.6.1, A-12-3.6.2.1 (New)): Accept

SUBMITTER: Technical Committee on Safety to Life

RECOMMENDATION: In Chapter 12, New Health Care Occupancies, do the following:

1. In 12-1.6.2 remove single and double daggers and associated notes from Table 12-1.6.2.

2. In the Exception to 12-1.6.2 delete the last sentence which currently reads: "To qualify for this Exception, the attic or other space so developed shall either be unoccupied or protected throughout by an approved automatic sprinkler system."

3. In 12-2.2.2.6 remove the words "if provided" and the word "required" from the sentence beginning "The automatic sprinkler . . ."

4. In 12-2.3.5 delete all four Exceptions and reword the base paragraph to read:

"The minimum width of doors in the means of egress from sleeping rooms; diagnostic and treatment areas, such as x-ray, surgery, or physical therapy; and nursery rooms shall be 36 in. (91 cm)."

5. In 12-2.6.2 delete the Exception and change "100 ft (30 m)" to "150 ft (45 m)" in (a) and "150 ft (45 m)" to "200 ft (60 m)" in (b).

6. In 12-3.1.1 revise the base paragraph to read:

"Any stairway, ramp, elevator hoistway, light or ventilation shaft, chute, and other vertical opening between stories shall be enclosed in accordance with 6-2.4 with construction having the following minimum fire resistance ratings:

(a) 1-hour in buildings required to be of 1-hour construction.

(b) 1-hour for enclosures connecting not more than three floors.

(c) 2-hour for enclosures connecting more than three floors in buildings required to be of more than 1-hour construction.

Delete Exceptions No. 1 and No. 3.

Renumber Exception No. 2 to be Exception No. 1.

Renumber Exception No. 4 to be Exception No. 2.

Renumber Exception No. 5 to be Exception No. 3.

Renumber Exception No. 6 to be Exception No. 4.

7. In 12-3.2.1 revise the hazardous areas list to read as follows:

Description	Separation/Protection
Boiler and fuel-fired heater rooms	1-hr
Employee locker rooms	See 12-3.6.3.4
Gift/retail shops	See 12-3.6.3.4
Handicraft shops	See 12-3.6.3.4
Laboratories that use hazardous materials which would cause classification as severe hazard in accordance with NFPA 99	1-hr
Central/bulk laundries more than 100 sq ft (9.3 sq m) in area	1-hr
Paint shops employing hazardous substances and materials in qualities less that which would cause classification as severe hazard.	1-hr

Physical Plant Maintenance Shop	1-hr
Soiled linen room	1-hr
Storage rooms more than 50 sq ft (4.6 sq m) in area but not more than 100 sq ft (9.3 sq m) in area storing combustible material.	See 12-3.6.3.4
Storage rooms more than 100 sq ft (9.3 sq m) storing combustible material	1-hr
Trash collection rooms	1-hr

8. In 12-3.2.5 delete the words "and is protected throughout by an approved automatic sprinkler system" from subparagraph (a). Reword subparagraph (b) to read: "Separated from a lobby or corridor with nonfire-rated walls." Delete subparagraph (c).

9. In 12-3.3.1 revise the base sentence to read: "Interior finish of walls and ceilings throughout shall be Class A or B in accordance with Section 6-5. The provisions of 6-5.7.1 shall not apply."

In Exceptions No. 1 and No. 2 change "Class A or B" to "Class C".

10. In 12-3.5.1 retain the current Exception but reword the base paragraph to read:

12-3.5.1" Buildings containing health care facilities shall be protected throughout by an approved supervised automatic sprinkler system installed in accordance with Section 7-7. Quick response sprinklers shall be installed throughout all smoke compartments containing patient sleeping rooms.

11. Delete 12-3.5.2 in entirety.

12. Delete 12-3.5.3 in entirety.

13. Delete 12-3.5.4 in entirety.

14. Replace current 12-3.6.1 and its six Exceptions with the following:

12-3.6.1 Corridors shall be separated from all other areas by partitions complying with 12-3.6.2 through 12-3.6.4 (also see 12-2.5.5).

Exception No. 1: Smoke compartments normally subject to patient occupancy may have spaces that are unlimited in size open to the corridor, provided:

(a) The spaces are not used for patient sleeping rooms, treatment rooms, or hazardous areas, and

(b) The space and corridors are protected by an electrically supervised, automatic smoke detection system installed in accordance with 12-3.4 or the smoke compartment in which the space is located is protected by quick response sprinklers, and

(c) The space does not obstruct access to required exits.

Exception No. 2: Smoke compartments or floors not normally subject to patient occupancy may have spaces that are unlimited in size open to the corridor provided:

(a) The space is not used as a hazardous area, and

(b) The space does not obstruct access to required exits.

Exception No. 3: Space for nurses' stations.

Exception No. 4: Gift shops may be open to the corridor where protected in accordance with 12-3.2.5.

Exception No. 5: In a limited care facility, group meeting or multipurpose therapeutic spaces, other than hazardous areas, may be open to the corridor, provided:

(a) The area does not obstruct any access to required exits, and

(b) The area is equipped with an electrically supervised, automatic smoke detection system installed in accordance with 12-3.4 or the smoke compartment in which the space is located is protected by quick response sprinklers.

15. Delete 12-3.6.2.1 and its two Exceptions in entirety.

16. Renumber existing 12-3.6.2.2 so as to become 12-3.6.2.1 and reword so that it will read:

12-3.6.2.1 Corridor walls shall form a barrier to limit the transfer of smoke. Such walls shall be permitted to terminate at the ceiling when the ceiling is constructed to limit the transfer of smoke. No fire resistance rating is required for corridor walls.

17. Delete 12-3.6.2.3 and its Exception in entirety.

18. Reword 12-3.6.3.1 to read:

12-3.6.3.1 Doors protecting corridor openings shall be constructed to resist the passage of smoke.

Delete Exception No. 1 to 12-3.6.3.1.

Renumber current Exception No. 2 to 12-3.6.3.1 so that it becomes Exception.

19. Delete 12-3.6.3.3 and its Exception in entirety.

20. Delete 12-3.6.3.5 and its Exception in entirety.

21. In 12-3.7.3 renumber current Exception as Exception No. 1 and add a new second Exception to read:

Exception No. 2: Smoke dampers may be omitted from duct penetrations of required smoke barriers.

22. Create an Appendix note A-12-3.5.1 to read:

A-12-3.5.1 The requirements for use of quick response sprinklers intends that quick response sprinklers be the predominant type of sprinkler installed in the smoke compartment. It is recognized, however, that quick response sprinklers may not be approved for installation in all areas such as those where NFPA 13, Standard for the Installation of Sprinkler Systems, requires sprinklers of the intermediate - or high-temperature classification. It is not the intent of the 12-3.5.1 requirements to prohibit the use of standard sprinklers in limited areas of a smoke compartment where intermediate - or high-temperature sprinklers are required.

Where the installation of quick response sprinklers is not practicable in patient sleeping room areas, appropriate equivalent protection features acceptable to the authority having jurisdiction should be provided. It is recognized that the use of quick response sprinklers may be limited in facilities housing certain types of patients, or due to the installation limitations of quick response sprinklers.

23. Create an Appendix note A-12-3.6.2.1 to read:

A-12-3.6.2.1 It is the Code's intent that there be no required fire resistance nor area limitations for vision panels in corridor walls and doors.

SUBSTANTIATION: The numbering of the individual substantiation items follows that of the above 23 recommendations.

1. All new buildings will require supervised automatic sprinkler protection so the Exceptions will no longer apply.

2. All new buildings will require supervised automatic sprinkler protection so the sentence will no longer apply.

3. All new buildings will require supervised automatic sprinkler protection so the words will no longer apply.

4. The mandatory inclusion of quick response sprinklers reinforces the protect in place philosophy in the Code. The potential for evacuation of persons in beds is so remote so as to eliminate the need for wide doors.

5. In view of the mandatory requirement for sprinkler protection, the travel distances allowed for sprinkler protected buildings will now become the base requirement.

6. The proposed change is an adjustment to recognize total sprinkler protection as required by 12-3.5.1.

7. In view of the mandatory requirement for sprinkler protection, the criteria for sprinkler protected buildings will now become the base requirement.

8. Editorial to be consistent with 12-3.5.1.

9. All new buildings will require supervised automatic sprinkler protection so the Exceptions will no longer apply.

10. The Committee on Safety to Life has determined that with the new technology of quick response sprinklers, a greater probability of protecting the patient in the room of fire origin now exists. Recognizing that the new technology increases the level of life safety without an increase of construction costs, yet with a major decrease in the maintenance and operation of the building construction life safety features, the Committee has revised Chapter 12 accordingly.

With automatic sprinkler protection required throughout new health care facilities, and quick response sprinklers required in smoke compartments containing patient sleeping rooms, the Committee is of the opinion that a fire and its life-threatening by-products will be reduced to acceptable levels thereby allowing the defend in place concept to continue. The Committee in its deliberations considered the potential weaknesses of maintaining the proper integrity of the essential life safety elements and is of the opinion that the probability of a sprinkler system operating as designed is equal to or greater than other life safety features. Longstanding

City of Troy
500 West Big Beaver
Troy, Michigan 48084
www.troymi.gov

Area code (248)
Assessing 524-3311
Bldg. Inspections 524-3344
Bldg. Maintenance 524-3368
City Clerk 524-3316
City Manager 524-3330
Community Affairs 524-1147
Engineering 524-3383
Finance 524-3411
Fire-Administration 524-3419
Human Resources 524-3339
Information Services 619-7279
Law 524-3320
Library 524-3545
Parks & Recreation 524-3484
Planning 524-3364
Police-Administration 524-3443
Public Works 524-3370
Purchasing 524-3338
Real Estate & Development 524-3490
Treasurer 524-3334
General Information 524-3300

April 26, 2005

Beaumont Services Company, LLC
44201 Dequindre
Troy, MI 48085

RE: Variance Request – 44201 Dequindre

Gentlemen:

Your request for relief of Section 716.5.5 of the 2003 Michigan Building Code was heard before the Building Code Board of Appeals at their Wednesday, April 6, 2005 meeting.

The following is from the minutes of that meeting:

MOVED, to grant Beaumont Services Company, LLC, 44201 Dequindre, relief of the 2003 Michigan Building Code to omit smoke dampers in ductwork penetrating smoke barriers throughout William Beaumont Hospital Troy campus.

- Variance is not contrary to public interest.
- Variance will not compromise the public safety.

Yeas: All – 5

MOTION TO GRANT VARIANCE CARRIED

Sincerely,

Mark Stimac
Director of Building & Zoning

MS/pp

2005 Application, Approval and Supporting Documentation, 6 of 8

CHAPTER 18 • New

18.3.7* Subdivision of Building Spaces.

A.18.3.7 See A.18.2.2.

18.3.7.1 Buildings containing health care facilities shall be subdivided by smoke barriers as follows:

(1) To divide every story used by inpatients for sleeping or treatment into not less than two smoke compartments
(2) To divide every story having an occupant load of 50 or more persons, regardless of use, into not less than two smoke compartments
(3) To limit the size of each smoke compartment required by (1) and (2) to an area not exceeding 22,500 ft² (2100 m²)

Exception: The area of an atrium separated in accordance with 8.2.5.6 shall not be limited in size.

(4) To limit the travel distance from any point to reach a door in the required smoke barrier to a distance not exceeding 200 ft (60 m).

Exception No. 1: Stories that do not contain a health care occupancy, located totally above the health care occupancy.

Exception No. 2: Areas that do not contain a health care occupancy and that are separated from the health care occupancy by a fire barrier complying with 7.2.4.3.

Exception No. 3: Stories that do not contain health care occupancies and that are more than one story below the health care occupancy.

Exception No. 4: Open-air parking structures protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

18.3.7.2 Smoke barriers shall be provided on stories that are usable but unoccupied.

18.3.7.3 Any required smoke barrier shall be constructed in accordance with Section 8.3 and shall have a fire resistance rating of not less than 1 hour.

Exception No. 1: Where an atrium is used, smoke barriers shall be permitted to terminate at an atrium wall constructed in accordance with Exception No. 2 to 8.2.5.6(1). Not less than two separate smoke compartments shall be provided on each floor.

CHAPTER 19 • Existing

Exception: For rooms protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.2, the aggregate area of openings per room shall not exceed 80 in.² (520 cm²).

19.3.7 Subdivision of Building Spaces.

19.3.7.1 Smoke barriers shall be provided to divide every story used for sleeping rooms for more than 30 patients into not less than two smoke compartments. The size of any such smoke compartment shall not exceed 22,500 ft² (2100 m²), and the travel distance from any point to reach a door in the required smoke barrier shall not exceed 200 ft (60 m).

Exception No. 1: Where neither the length nor width of the smoke compartment exceeds 150 ft (45 m), the travel distance to reach the smoke barrier door shall not be limited.

Exception No. 2: The area of an atrium separated in accordance with 8.2.5.6 shall not be limited in size.

19.3.7.2 For purposes of the requirements of 19.3.7, the number of health care occupants shall be determined by actual count of patient bed capacity.

19.3.7.3 Any required smoke barrier shall be constructed in accordance with Section 8.3 and shall have a fire resistance rating of not less than ½ hour.

Exception No. 1: Where an atrium is used, smoke barriers shall be permitted to terminate at an atrium wall constructed in accordance with Exception No. 2 to 8.2.5.6(1). Not less than two separate smoke compartments shall be provided on each floor.

2005 Application, Approval and Supporting Documentation, 7 of 8

CHAPTER 18 • New

Exception No. 2: Dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air conditioning systems.*

A.18.3.7.3 Exception No. 2 Where the smoke control system design requires dampers in order that the system functions effectively, it is not the intent of the exception to permit the damper to be omitted.

This exception is not intended to prevent the use of plenum returns where ducting is used to return air from a ceiling plenum through smoke barrier walls. Short stubs or jumper ducts are not acceptable. Ducting is required to connect at both sides of the opening and to extend into adjacent spaces away from the wall. The intent is to prohibit open-air transfers at or near the smoke barrier walls.

18.3.7.4 Not less than 30 net ft² (2.8 net m²) per patient in a hospital or nursing home, or not less than 15 net ft² (1.4 net m²) per resident in a limited care facility, shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas, and other low hazard areas on each side of the smoke barrier. On stories not housing bed or litterborne patients, not less than 6 net ft² (0.56 net m²) per occupant shall be provided on each side of the smoke barrier for the total number of occupants in adjoining compartments.

18.3.7.5* Doors in smoke barriers shall be substantial doors, such as 1¾-in. (4.4-cm) thick, solid-bonded wood core doors, or shall be of construction that resists fire for not less than 20 minutes. Nonrated factory- or field-applied protective plates extending not more than 48 in. (122 cm) above the bottom of the door shall be permitted. Cross-corridor openings in smoke barriers shall be protected by a pair of swinging doors or a horizontal sliding door complying with 7.2.1.14. Swinging doors shall be arranged so that each door swings in a direction opposite from the other.

The minimum clear width for swinging doors shall be as follows:

(1) Hospitals and nursing homes—41.5 in. (105 cm)
(2) Psychiatric hospitals and limited care facilities—32 in. (81 cm)

The minimum clear width opening for horizontal sliding doors shall be as follows:

(1) Hospitals and nursing homes—83 in. (211 cm)
(2) Psychiatric hospitals and limited care facilities—64 in. (163 cm)

CHAPTER 19 • Existing

Exception No. 2: Dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air conditioning systems where an approved, supervised automatic sprinkler system in accordance with 19.3.5.3 has been provided for smoke compartments adjacent to the smoke barrier.*

A.19.3.7.3 Exception No. 2 Where the smoke control system design requires dampers in order that the system functions effectively, it is not the intent of the exception to permit the damper to be omitted.

This exception is not intended to prevent the use of plenum returns where ducting is used to return air from a ceiling plenum through smoke barrier walls. Short stubs or jumper ducts are not acceptable. Ducting is required to connect at both sides of the opening and to extend into adjacent spaces away from the wall. The intent is to prohibit open-air transfers at or near the smoke barrier walls.

19.3.7.4 Not less than 30 net ft² (2.8 net m²) per patient in a hospital or nursing home, or not less than 15 net ft² (1.4 net m²) per resident in a limited care facility, shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas, and other low hazard areas on each side of the smoke barrier. On stories not housing bed or litterborne patients, not less than 6 net ft² (0.56 net m²) per occupant shall be provided on each side of the smoke barrier for the total number of occupants in adjoining compartments.

19.3.7.5 Openings in smoke barriers shall be protected by fire-rated glazing; by wired glass panels and steel frames; by substantial doors, such as 1¾-in. (4.4-cm) thick, solid-bonded wood core doors; or by construction that resists fire for not less than 20 minutes. Nonrated factory- or field-applied protective plates extending not more than 48 in. (122 cm) above the bottom of the door shall be permitted.

Exception: Doors shall be permitted to have fixed fire window assemblies in accordance with 8.2.3.2.2.

2005 Application, Approval and Supporting Documentation, 8 of 8

716.5.4.1 Corridors. A listed smoke damper designed to resist the passage of smoke shall be provided at each point a duct or air transfer opening penetrates a corridor enclosure required to have smoke and draft control doors in accordance with Section 715.3.3.

Exceptions:

1. Smoke dampers are not required where the building is equipped throughout with an approved smoke control system in accordance with Section 909, and smoke dampers are not necessary for the operation and control of the system.
2. Smoke dampers are not required in corridor penetrations where the duct is constructed of steel not less than 0.019-inch (0.48 mm) in thickness and there are no openings serving the corridor.

716.5.5 Smoke barriers. A listed smoke damper designed to resist the passage of smoke shall be provided at each point a duct or air transfer opening penetrates a smoke barrier. Smoke dampers and smoke damper actuation methods shall comply with Section 716.3.2.1.

Exception: Smoke dampers are not required where the openings in ducts are limited to a single smoke compartment and the ducts are constructed of steel.

716.6 Horizontal assemblies. Penetrations by ducts and air transfer openings of a floor, floor/ceiling assembly or the ceiling membrane of a roof/ceiling assembly shall be protected by a shaft enclosure that complies with Section 707 or shall comply with this section.

716.6.1 Through penetrations. In occupancies other than Groups I-2 and I-3, a duct and air transfer opening system constructed of approved materials in accordance with the *International Mechanical Code* that penetrates a fire-resistance-rated floor/ceiling assembly that connects not more than two stories is permitted without shaft enclosure protection provided a fire damper is installed at the floor line.

Exception: A duct is permitted to penetrate three floors or less without a fire damper at each floor provided it meets all of the following requirements.

1. The duct shall be contained and located within the cavity of a wall and shall be constructed of steel not less than 0.019 inch (0.48 mm) (26 gage) in thickness.
2. The duct shall open into only one dwelling unit or sleeping unit and the duct system shall be continuous from the unit to the exterior of the building.
3. The duct shall not exceed 4-inch (102 mm) nominal diameter and the total area of such ducts shall not exceed 100 square inches (0.065 m^2) in any 100 square feet (9.3 m^2) of floor area.
4. The annular space around the duct is protected with materials that prevent the passage of flame and hot gases sufficient to ignite cotton waste where subjected to ASTM E 119 time-temperature conditions under a minimum positive pressure differential of 0.01 inch (2.49 Pa) of water at the location of the penetration for the time period equivalent to the fire-resistance rating of the construction penetrated
5. Grille openings located in a ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be protected with a ceiling radiation damper in accordance with Section 716.6.2.

716.6.2 Membrane penetrations. Where duct systems constructed of approved materials in accordance with the *International Mechanical Code* penetrate a ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly, shaft enclosure protection is not required provided an approved ceiling radiation damper is installed at the ceiling line. Where a duct is not attached to a diffuser that penetrates a ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly, shaft enclosure protection is not required provided an approved ceiling radiation damper is installed at the ceiling line. Ceiling radiation dampers shall be tested in accordance with UL 555C and constructed in accordance with the details listed in a fire-resistance-rated assembly or shall be labeled to function as a heat barrier for air-handling outlet/inlet penetrations in the ceiling of a fire-resistance-rated assembly. Ceiling radiation dampers shall not be required where ASTM E 119 fire tests have shown that ceiling radiation dampers are not necessary in order to maintain the fire-resistance rating of the assembly. Ceiling radiation dampers shall not be required where exhaust duct penetrations are protected in accordance with Section 712.4.2, where exhaust ducts are located within the cavity of a wall, and where exhaust ducts do not pass through another dwelling unit or tenant space.

716.6.3 Nonfire-resistance-rated assemblies. Duct systems constructed of approved materials in accordance with the *International Mechanical Code* that penetrate nonfire-resistance-rated floor assemblies and that connect not more than two stories are permitted without shaft enclosure protection provided that the annular space between the assembly and the penetrating duct is filled with an approved noncombustible material to resist the free passage of flame and the products of combustion. Duct systems constructed of approved materials in accordance with the *International Mechanical Code* that penetrate nonfire-resistance-rated floor assemblies and that connect not more than three stories are permitted without shaft enclosure protection provided that the annular space between the assembly and the penetrating duct is filled with an approved noncombustible material to resist the free passage of flame and the products of combustion, and a fire damper is installed at each floor line.

Exception: Fire dampers are not required in ducts within individual residential dwelling units.

716.7 Flexible ducts and air connectors. Flexible ducts and air connectors shall not pass through any fire-resistance-rated assembly. Flexible air connectors shall not pass through any wall, floor or ceiling.

3. HEARING OF CASES

B. **VARIANCE REQUEST, 1057-1155 E. LONG LAKE, GREG CARR OF UNIVERSAL SIGNS** – For relief of Chapter 85, Section 85.02.05(4) to install a third ground sign measuring 25 square feet in area.

This site currently has two existing ground signs, a 280 square foot main sign approved by the Building Code Board of Appeals and a second 24 square foot real estate sign. The Sign Code limits the number of ground signs in this zoning district to a maximum of two.

RECEIVED
AUG - 6 2012
PLANNING

CITY OF TROY BUILDING INSPECTION DEPARTMENT
CITY OF TROY PLANNING DEPARTMENT
BUILDING CODE BOARD OF APPEALS APPLICATION

SIGN APPEALS
FEE $50
CITY OF TROY PLANNING DEPARTMENT
500 W. BIG BEAVER ROAD
TROY, MICHIGAN 48084
PHONE: 248-524-3344
FAX: 248-689-3210
E-MAIL: evanspm@troymi.gov
http://www.troymi.gov/CodeEnforcement/

City of Troy

CONSTRUCTION OR FENCE CODE APPEALS
FEE: $50
CITY OF TROY BUILDING DEPARTMENT
500 W. BIG BEAVER ROAD
TROY, MICHIGAN 48084
PHONE: 248-524-3344
FAX: 248-689-3210
E-MAIL: GrusnickME@troymi.gov
http://www.troymi.gov/BuildingInspection/

NOTICE TO THE APPLICANT

REGULAR MEETINGS OF THE BUILDING CODE BOARD OF APPEALS ARE HELD ON THE FIRST **WEDNESDAY OF EACH MONTH AT 3:00 P.M.** AT CITY HALL.

PLEASE FILE A COMPLETE APPLICATION, TOGETHER WITH THE APPROPRIATE FEE, **NOT LESS THAN TWENTY-ONE (21) DAYS** BEFORE THE MEETING DATE.

A COMPLETE APPLICATION THAT MEETS CODE REQUIREMENTS IS PLACED ON THE NEXT AVAILABLE AGENDA OF THE BUILDING CODE BOARD OF APPEALS.

1. ADDRESS OF THE SUBJECT PROPERTY: ~~1155 E. Long lake~~ **1057-1155 E. Long Lake**

   ACREAGE PROPERTY: *Attach legal description if this an acreage parcel*

2. PROPERTY TAX IDENTIFICATION NUMBER(S): **20-11-351-011**

3. CODE NAME (e.g. "BUILDING CODE", "SIGN CODE", etc.) AND SECTION(S) RELATED TO THE APPEAL:
   SIGN CODE

4. REASONS FOR APPEAL/VARIANCE: *On a separate sheet, please describe the reasons justifying the requested action. See Submittal Checklist*

5. HAVE THERE BEEN ANY PREVIOUS APPEALS INVOLVING THIS PROPERTY? YES [X] NO [ ]

Yes there have been appeals

6. APPLICANT INFORMATION:

NAME GREG CARR

COMPANY UNIVERSAL SIGNS

ADDRESS 28067 HAMPDEN

CITY MADISON HTS STATE Mi ZIP 48071

TELEPHONE 248-548-4134

E-MAIL UNIVERSALSIGNS570@GMAIL.COM

7. APPLICANT'S AFFILIATION TO THE PROPERTY OWNER: Sign Contractor

8. OWNER OF SUBJECT PROPERTY:

NAME Jamie Blumenthal

COMPANY H. E. R. Management

ADDRESS 1155 E Long Lake Rd

CITY TROY STATE Mi ZIP 48084

TELEPHONE 248-688-9506

E-MAIL hermanage@gmail.com

The undersigned hereby declare(s) under penalty of perjury that the contents of this application are true to the best of my (our) knowledge, information and belief.

The applicant accepts all responsibility for all of the measurements and dimensions contained within this application, attachments and/or plans, and the applicant releases the City of Troy and its employees, officers, and consultants from any responsibility or liability with respect thereto.

I, _____ (PROPERTY OWNER), HEREBY DEPOSE AND SAY THAT ALL THE ABOVE STATEMENTS AND STATEMENTS CONTAINED IN THE INFORMATION SUBMITTED ARE TRUE AND CORRECT AND GIVE PERMISSION FOR THE BOARD MEMBERS AND CITY STAFF TO CONDUCT A SITE VISIT TO ASCERTAIN PRESENT CONDITIONS.

SIGNATURE OF APPLICANT Greg Carr **DATE** 8-6-12

PRINT NAME: GREG CARR

SIGNATURE OF PROPERTY OWNER _____ **DATE** 8/6/12

PRINT NAME: Jamie Blumenthal

Failure of the applicant or his/her authorized representative to appear before the Board, as scheduled, shall be justifiable cause for denial or dismissal of the case.

Gmail by Google

Greg Carr <universalsigns570@gmail.com>

Info to put in professional building sign variance request

4 messages

Jamie Blumenthal <hermanage@gmail.com>
To: Greg Carr <universalsigns570@gmail.com>

Sun, Jul 15, 2012 at 5:17 PM

Dear Greg,

In the description you may want to include the following when submitting the sign variance application.

1. The need for this sign is that currently patients cannot find the tenants offices.

2. If variance is given landlord will waive rights to any future signage to be placed on lower portion of building.

3. We will remove existing signage on lower portion of building which is approximately 5' x7' since it does not do a sufficient job identifying where tenants are located in property.

4. Please note that currently pylons sign cannot fit all of the retail tenants plus the professional tenants which is why this sign is necessary.

5. Placing a sign by the st will improve tenants business which currently suffers due to no identifiable sign exposure from East Long Lake Rd.

Thanks

--

Jamie Blumenthal
Director of Leasing and Management
H.E.R. Management, LLC

Office: 248-688-9506
Mobile: 586-758-7718
Fax: 248-688-9606
Email: Jamie@hermanage.com

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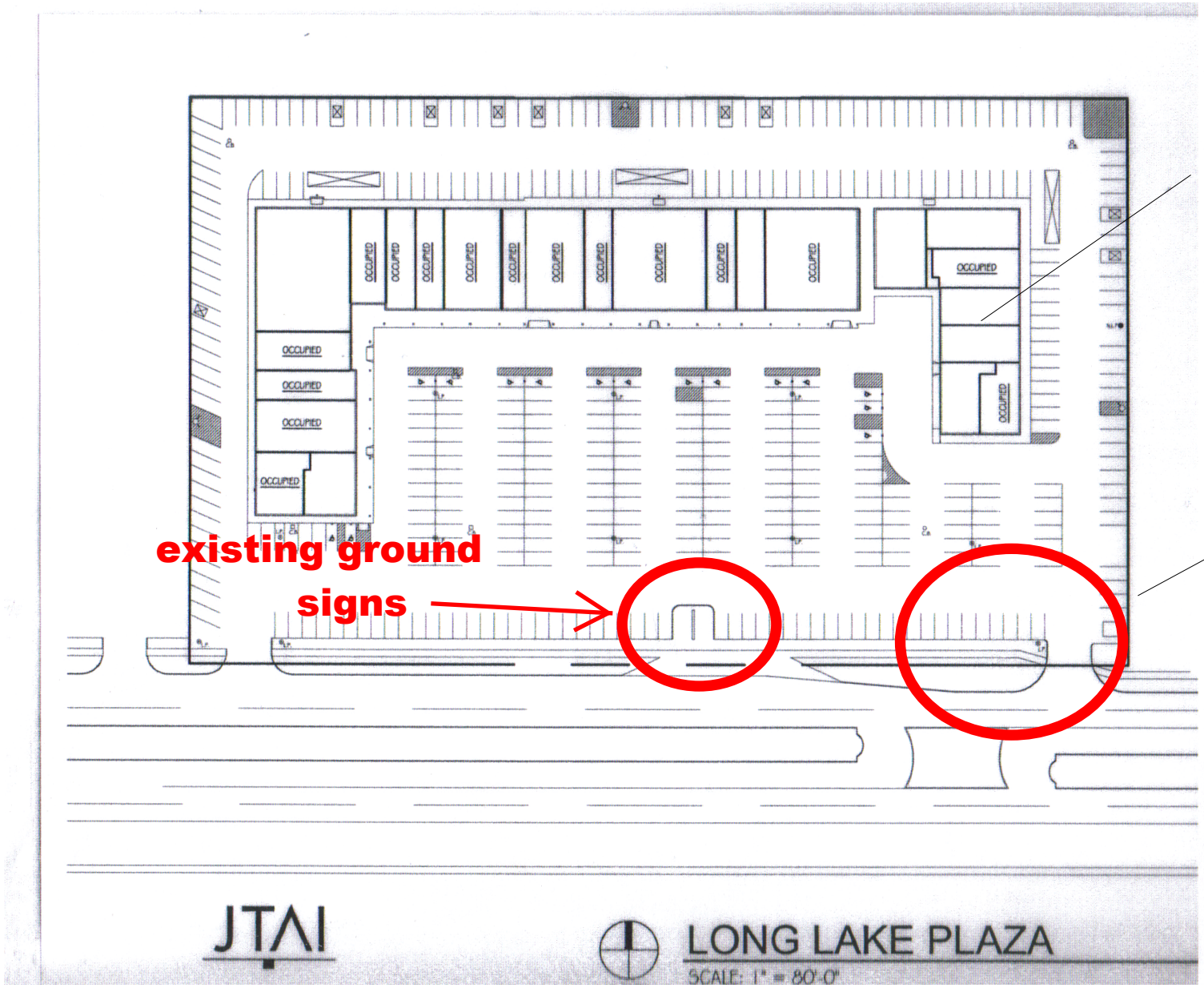
universalsigns570@gmail.com <universalsigns570@gmail.com>
To: Jamie Blumenthal <hermanage@gmail.com>

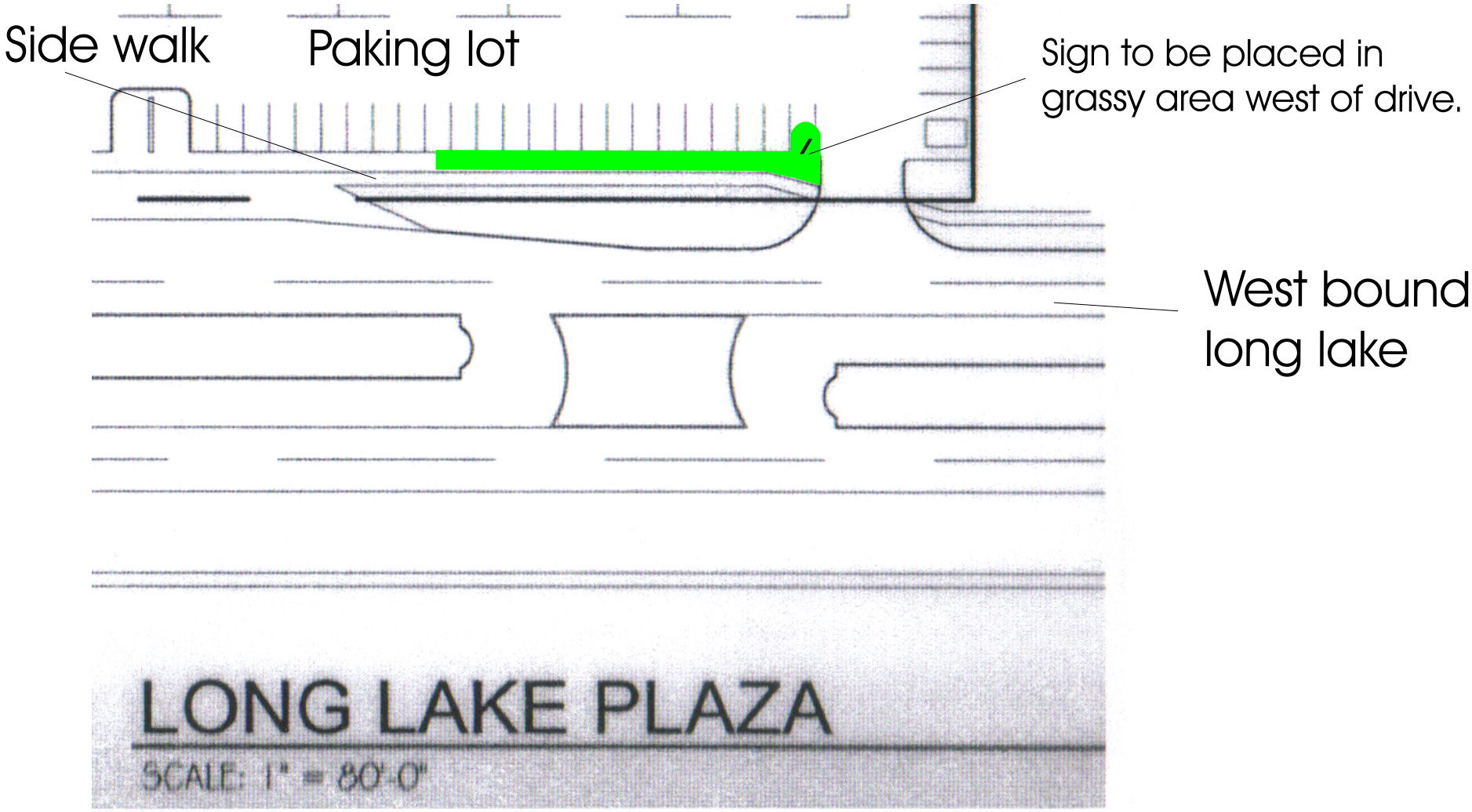
Mon, Jul 16, 2012 at 11:48 AM



Professional building which needs sign

Stone wall prevents seeing the offices.

1155 E Long lake site plan .



1155 E Long lake site plan .

UNIVERSAL SIGNS

Everything you need for
interior / exterior advertising.
248~548~4134 28067 HAMPDEN MADISON HGTS. , MI 48071

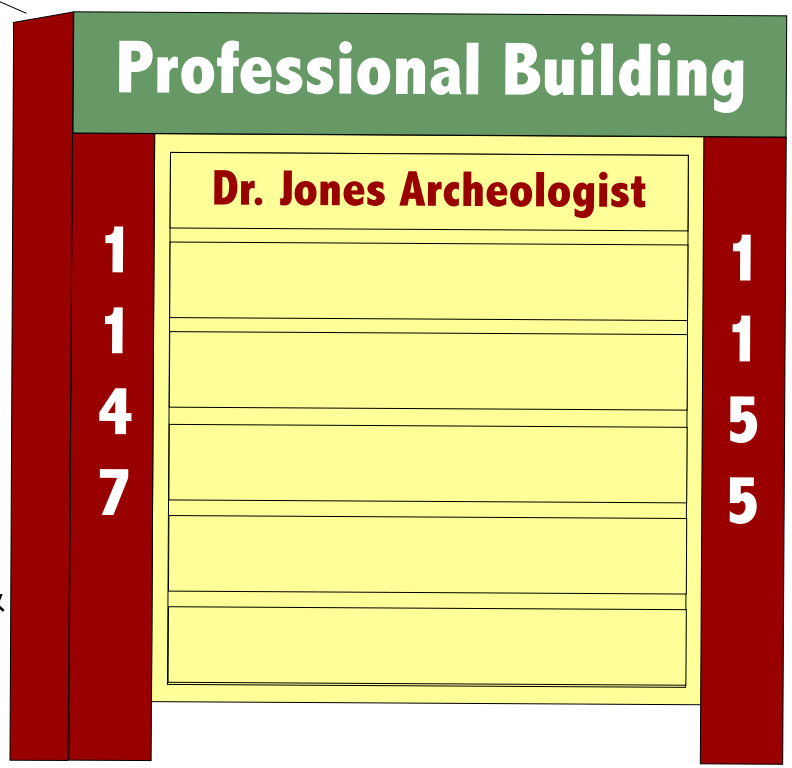
LOCATION :
ROCHESTER & LONG LAKE

Sign will be:
14" thick

5'X5'

Lighted
sign .

Price - $ 2400.00
Includes installation .
Power and city fees
supplied by owner.
2 year warranty Parts &
Labor.



Reproduction of art work w/o written permission of Universal signs is not allowed .

PLEASE DIRECT ANY QUESTIONS TO GREG @ 248 548 4134

Approved :

Date :

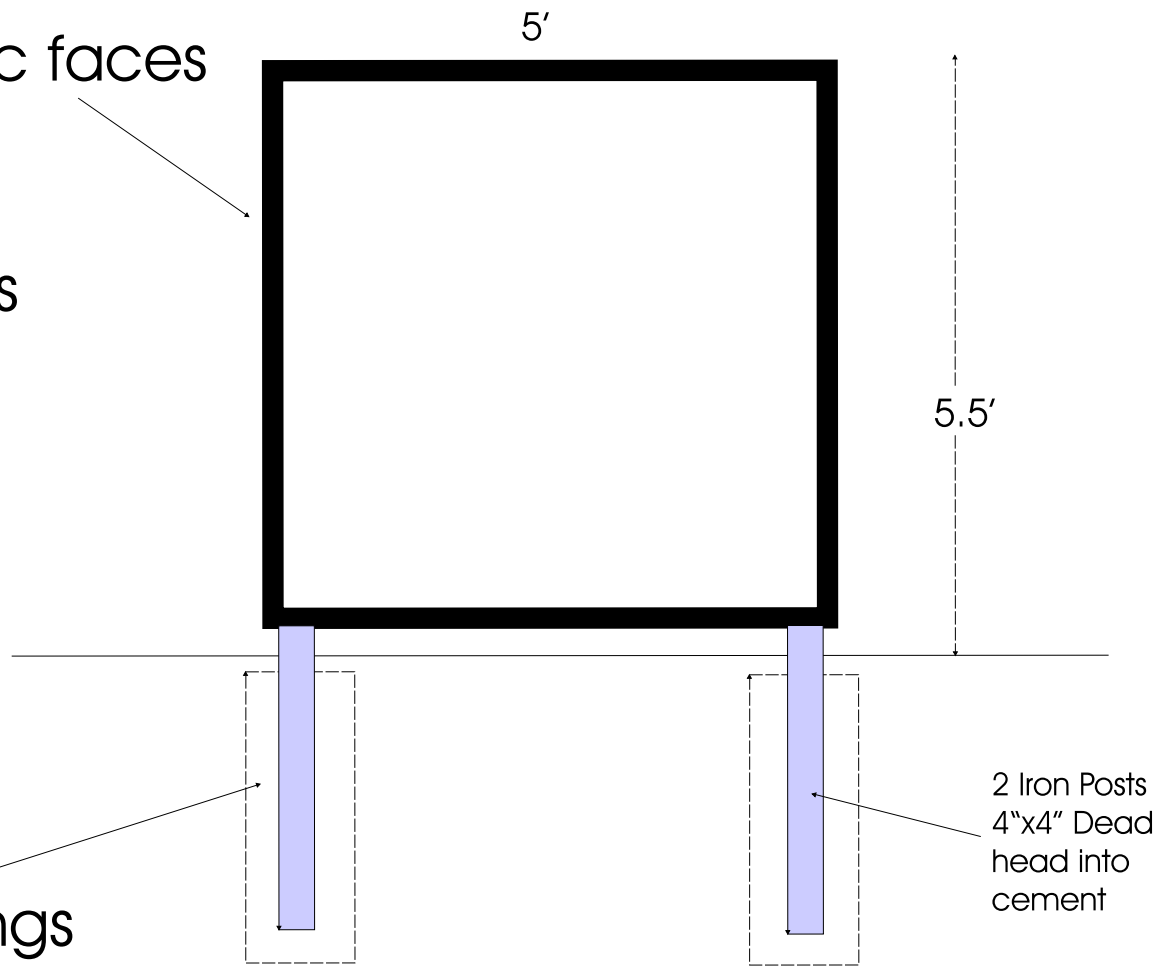
Universal Signs

Everything you need for
interior / exterior advertising.
248~548~4134 28067 HAMPDEN MADISON HGTS. , MI 48071

DATE 8/06/12

1155 e Longlake rd

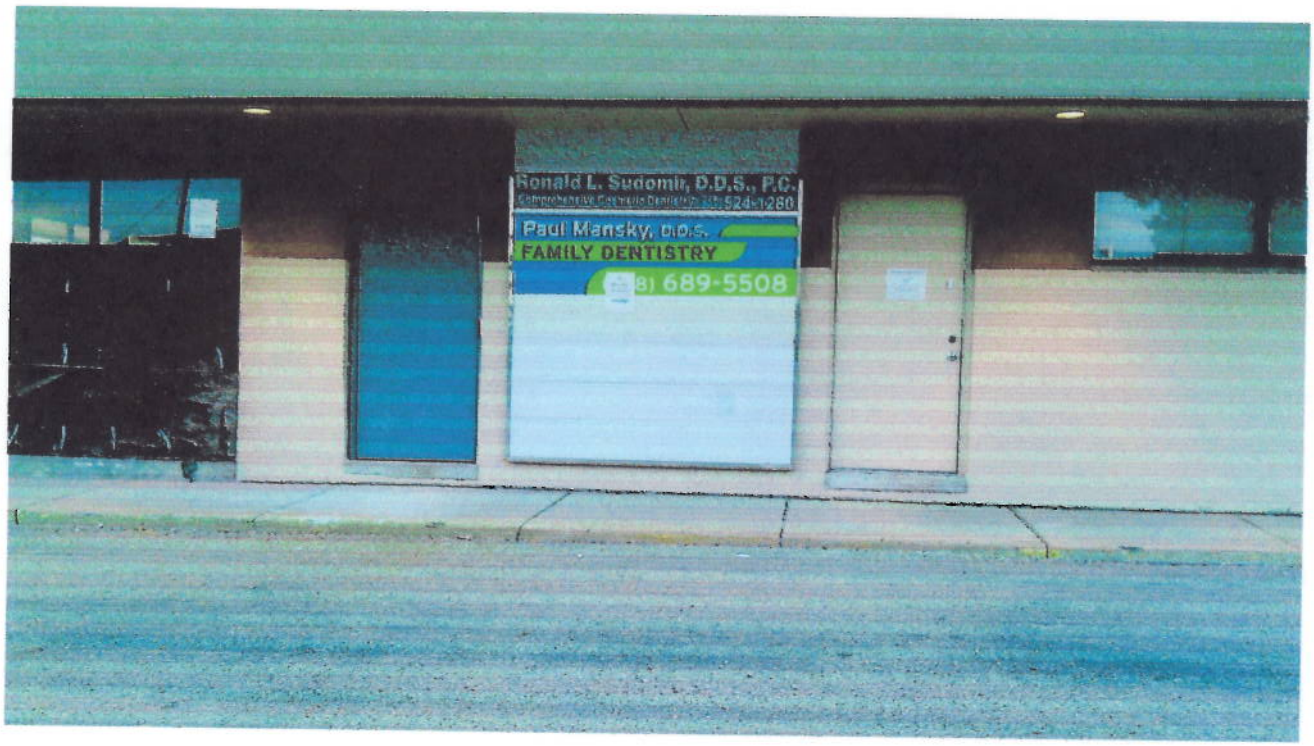
Iron frame
Alum. Trim
and plastic faces
w/saddles
to receive
4"x4" posts



2 Cement pilings
20" dia. Sono tubes
~~36"~~ 42" deep .

Questions PLEASE CALL GREG
248 259 2530

existing ground signs

Realastate sign and retail store sign located on property 225 feet west of proposed sign for professional building

Long Lake Plaza existing wall sign on professional building . This sign to be removed permanently from site.