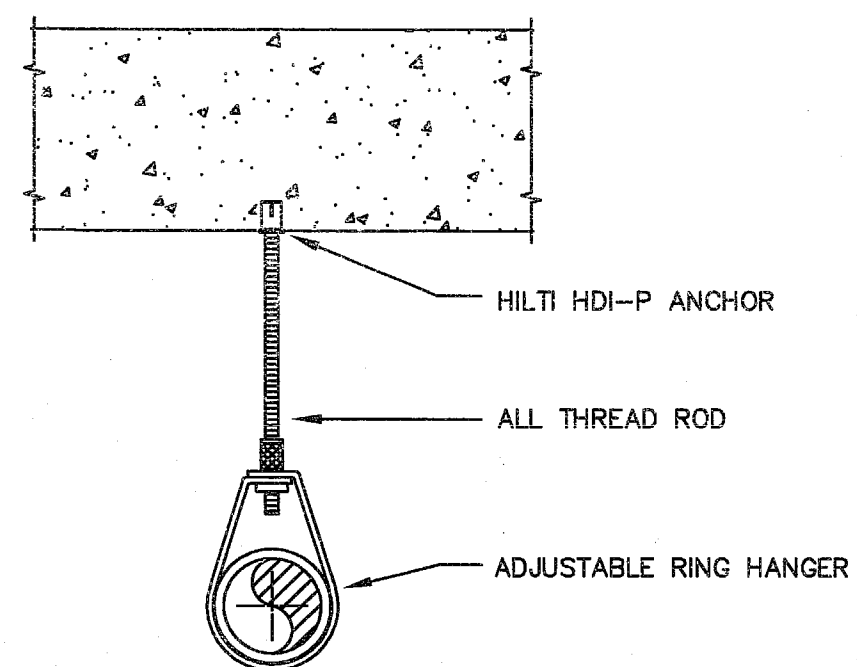




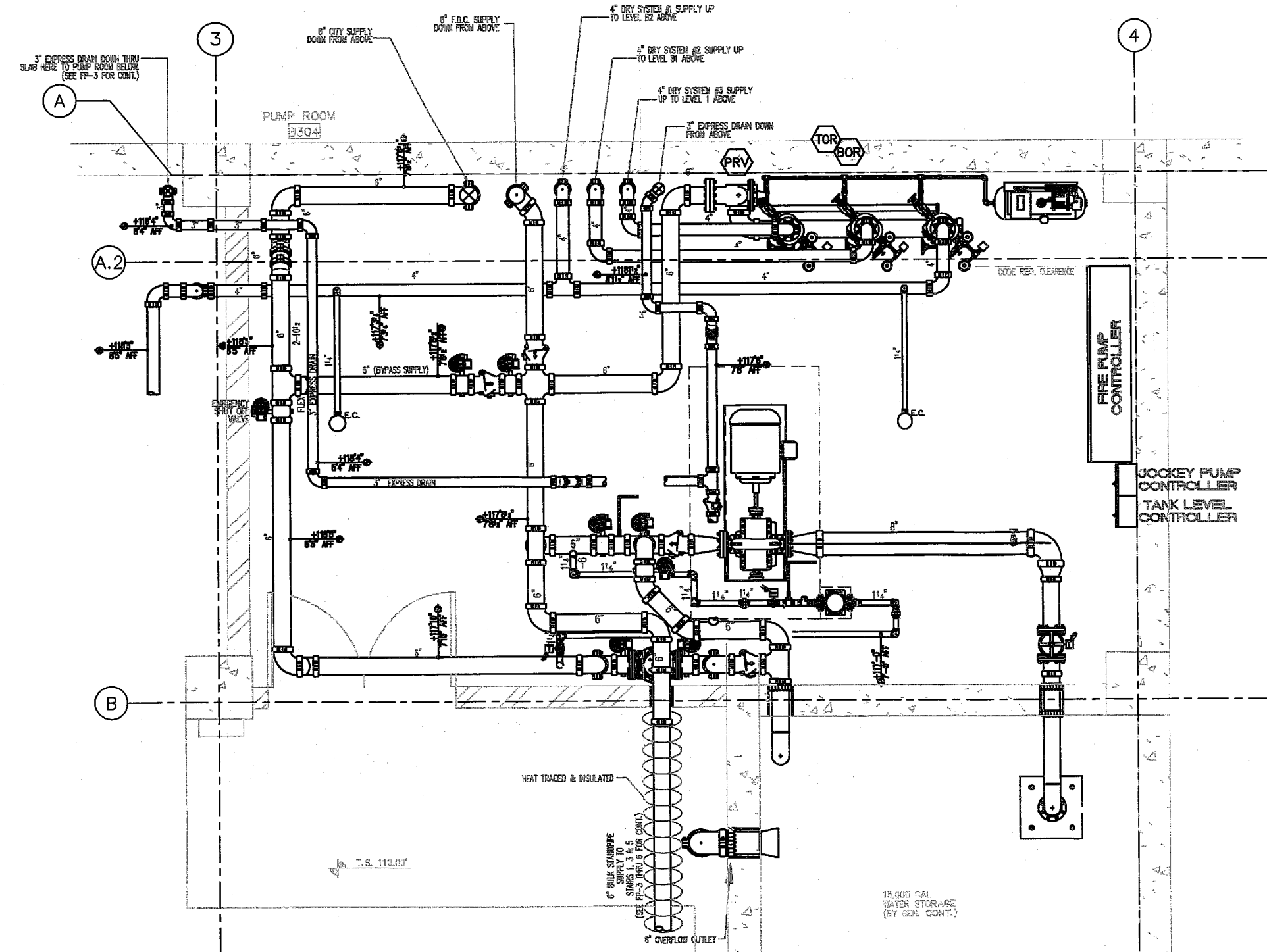
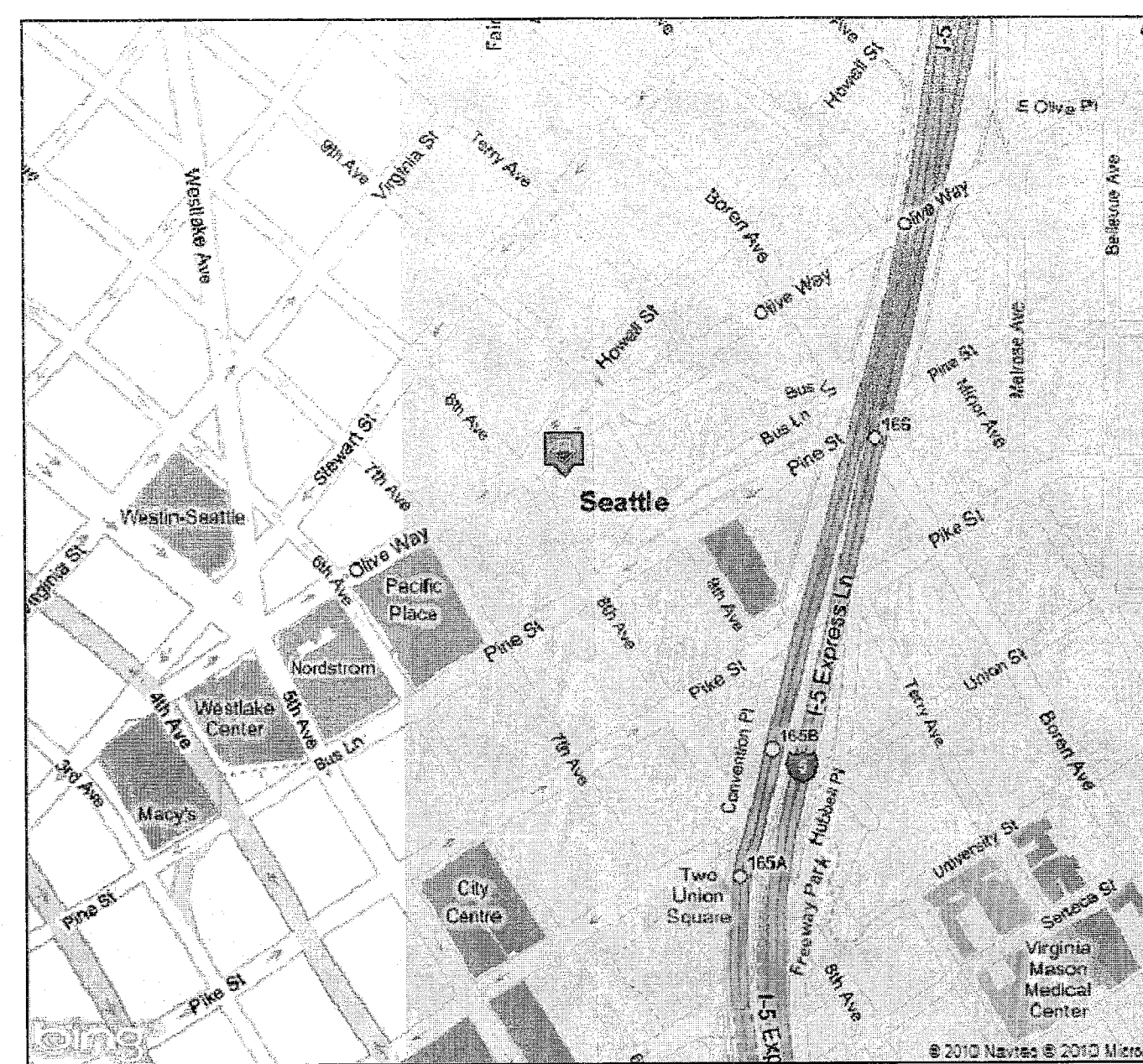
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### FIRE SPRINKLER LEGEND

EXISTING PIPE: --- X ---  
NEW PIPE: --- X-X ---  
ADDED PENDENT SPRINKLER: ○  
ADDED UPRIGHT SPRINKLER: ○  
RELOCATED SPRINKLER: ○  
DEMO SPRINKLER: ○



### FLAG NOTES

- 1 DEMO EXISTING 3/4" SPRINKLER AND INSTALL NEW 1/2"x2" BUSHING AND 1/2" SPRINKLER
- 2 DEMO EXISTING 3/4" SPRINKLER AND PLUG
- 3 DEMO EXISTING 1 1/2"x2" 90° ELL AND ADD A THREADED COUPLING WITH NEW PIPE AND SPRINKLER.
- 4 ADD NEW 3/4" SPRINKLER. SPRINKLER WILL NEED TO BE LOCATED UNDER THE LOW INSULATION AND AN AUX DRAIN VALVE WILL NEED TO BE ADDED.
- 5 DEMO/REPLACE EXISTING GROOVED 90° ELL WITH A GROOVED 90° DRAIN ELL. ADD NIPPLE AND 1"x2" 90° ELL TO 1" DRAIN OUTLET ON GROOVED ELL.
- 6 DEMO EXISTING 1 1/2" GROOVED 90° ELL AND INSTALL A NEW 1 1/2" GROOVED TEE. DEMO EXISTING 1"x2" PIPE TO SPRINKLER AND INSTALL NEW PIPE.

RECEIVED  
MAY 05 2010  
DEPT OF PLANNING  
AND DEVELOPMENT

### SCOPE

RELOCATE/REPLACE (6) SPRINKLERS AND ADD (10) SPRINKLERS TO REVISED RESIDENT/TENANT STORAGE AREA.

### GENERAL NOTES

- 1 SPRINKLER SYSTEM DESIGN PER N.F.P.A. #13
- 2 ALL MATERIALS SHALL BE NEW AND UL AND OR F.M. APPROVED
- 3 FIRE SPRINKLER SYSTEM TO BE INSTALLED, BRACED AND TESTED IN ACCORDANCE WITH N.F.P.A. #13
- 4 IN LOCALITIES SUBJECT TO FREEZING CONDITIONS IT IS THE OWNERS RESPONSIBILITY TO PROVIDE HEAT THROUGHOUT THE WET PIPE SPRINKLER SYSTEM AREAS AND IN ENCLOSURES FOR DRY PIPE, DELUGE AND OTHER TYPES OF VALVES CONTROLLING WATER SUPPLIES TO SPRINKLER SYSTEMS
- 5 OWNER IS RESPONSIBLE TO ASSURE THAT STRUCTURE AS IT IS SHOWN ON CONTRACT DRAWINGS CAN ADEQUATELY SUPPORT ALL FIRE SPRINKLER PIPING LOADS. NO AUXILIARY DEVICES OR ATTACHMENTS SHALL BE PROVIDED BY SIMPLEXGRINNELL TO SUPPLEMENT THE STRUCTURE TO ACCOMMODATE FIRE SPRINKLER PIPING LOADS.
- 6 ALL ELECTRICAL, PAINTING OF PIPE, FURRING, CUTTING OR PATCHING TO BE BY OTHERS
- 7 NEW 1" - 2" PIPING TO DYNA-THREAD WITH THREADED AND/OR GROOVED FITTINGS
- 8 EXISTING 1 1/2" - 4" PIPING IS DYNA-FLOW WITH GROOVED FITTINGS

Remote Area 1	Flowing Heads 18	Start Head PSI	Varies
Wet / Dry	Density	0.20	Varies
Wet / Dry	Area	1280	Varies
Wet / Dry	Code	NFPA-13	Varies
Construction	Non-Comb.	Max Velocity	27.8
Source Name or Location	Pressure Reducing Valve in Pump Room		
PSI Available at Source	125.0	100% Res'd at Source	418.8
PSI Res'd at Source	77.8	Inside Hose	Outside Hose
Safety PSI	47.2	Ref'd Source Volume	250

NOTES:  
Design: 0.20 / 1500 sq.ft.  
NFPA-13 (2002) 11.2.3.2.5 Increase area of operation by 30% for Dry System.  
Design: 0.20 / 1950 sq.ft.  
Actual Design Area: 0.20 / 1280 sq.ft. (Entire Area)

### LEVEL B1, PARTIAL FIRE SPRINKLER PIPING PLAN

SCALE 1/8" = 1'-0"  
GRAPHIC SCALE

### OWNER / OCCUPANT

Washington Hanover LLC  
5847 San Felipe, Suite 360  
Houston, TX 77057  
Contact: Scott Lee

Site Contact: Chad Locker  
Site Phone: 206-459-5613

**IMPORTANT**  
In localities subject to freezing conditions, it is the owner's responsibility to provide heat throughout wet pipe sprinkler systems areas and in enclosures for dry pipe deluge and other types of valves controlling water supplies to sprinkler systems.  
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### CONTRACT RESPONSIBILITIES

ITEM	SimplexGrinnell/OTHERS
STREET WATER CONNECTION	
UNDERGROUND WATER MAINS	
EXCAVATIONS	
BACKFILL	
PAINTING	

### SYMBOLS

Hydraulic Reference Point	Flow Switch (FS)	4-4 Gate Valve - N.R.S. (GV)	Fire Dept. Conn. (FDC)
Line Designation	Monitor Switch	4-4 OMBY Gate Valve (OS&Y)	Post Indicator Valve (PIV)
Man Designation	Alarm Valve (ALV)	4-4 Thrust Block	Fire Hose Assembly
1 1/2" E of Pipe Below Bottom of Deck	Water Motor Gong (WAG)	4-4 Key Gate Sectional Valve	4-4 Inspectors Test
1 1/2" E of Pipe Above Ref. Plane	4-4 Water Check Valve	4-4 Globe Valve	4-4 Dry Pipe Valve
Direction Change in Pipe (not thru roof)	4-4 Flanged Connection	4-4 Fire Dept. Conn. (FDC) - Angle Valve	
	4-4 System Riser	4-4 Fire Dept. Conn. (FDC)	

### SPRINKLERS

MAKE	TYPE	MODEL	SIN	NPT	K-FACTOR	TEMP.	FINISH	ESCUOTHEON	NOTES	SYMBOL	QTY.
TYCO	UPRIGHT	TY-FRB	TY3131	1/2"	K=5.6	155°	BRASS				15

### HYDRAULIC DESIGN DATA

HAZARD CLASSIFICATION	DENSITY GPM/SQ.FT. APPLIC.	AREA OF HOSE ALLOW.	SQ. FT. ALLOW.	TOTAL SYSTEM REQUIREMENTS
				GPM PSI AT

### ABBREVIATIONS

AC - Above Finished Ceiling	AF - Above Finished Floor
BD - Below Finished Ceiling	BD - Bottom of Beam
BD - Bottom of Deck	BD - Bottom of Joist
BD - Bottom of Plinth	BD - Bottom of Pile
BD - Bottom of Slab	BD - Bottom of Wall
BD - Bottom of Window	BD - Bottom of Window
BD - Bottom of Window	BD - Bottom of Window

### SYSTEM TYPE

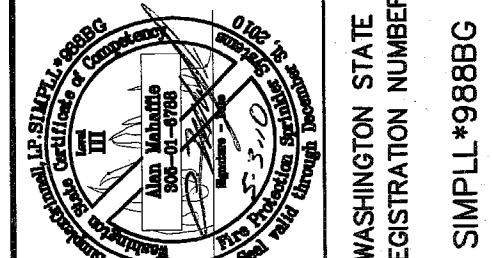
WET	DRY	DELUGE	PREACTION
WET	DRY	DELUGE	PREACTION

### SPECIAL REQUIREMENTS

DOMESTIC PIPE	SCHEDULE 40	SCHEDULE 80	GALVANIZED PIPE	GALVANIZED FITTINGS	GALVANIZED MATERIALS	SPECIAL FITTINGS	F.M. MATERIAL	OTHER
DOMESTIC PIPE	SCHEDULE 40	SCHEDULE 80	GALVANIZED PIPE	GALVANIZED FITTINGS	GALVANIZED MATERIALS	SPECIAL FITTINGS	F.M. MATERIAL	OTHER

**tyco** Fire & Security  
**SimplexGrinnell**  
9520 10th Avenue South Suite 100  
Seattle, WA 98106  
SALES: 206-291-1400  
SERVICE: 206-291-1400  
FAX: 206-291-1500

NO.	DATE	BY	REVISIONS - SEE FLAGGED AREA ON PLAN



**FIRE SPRINKLER SYSTEM**  
DESCRIPTION: LEVEL B1 STORAGE TI  
**THE OLIVIAN**  
809 OLIVE WAY  
SEATTLE, WA

SCALE: 1/8" = 1'-0"

DRAWN BY: ALAN MAHAFFIE  
CHECKED BY: DESIGN MANAGER

DATE: 5-3-2010

CONTRACT NUMBER: 950584001

SHEET NUMBER: FP-1

SHEET 1 OF 1