

REMEDIAL DESIGN

CONTRACT DRAWINGS

CONTRACT NO. D006547

FOR THE
KLIEGMAN BROTHERS SITE OPERABLE UNIT NO. 1 (ON-SITE)
NYSDEC SITE 2-41-031
GLENDALE, QUEENS, NEW YORK



Prepared for:

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 Broadway, Albany, New York

ALEXANDER B. GRANNIS, COMMISSIONER

DIVISION OF ENVIRONMENTAL REMEDIATION

APRIL 2007

URS Corporation

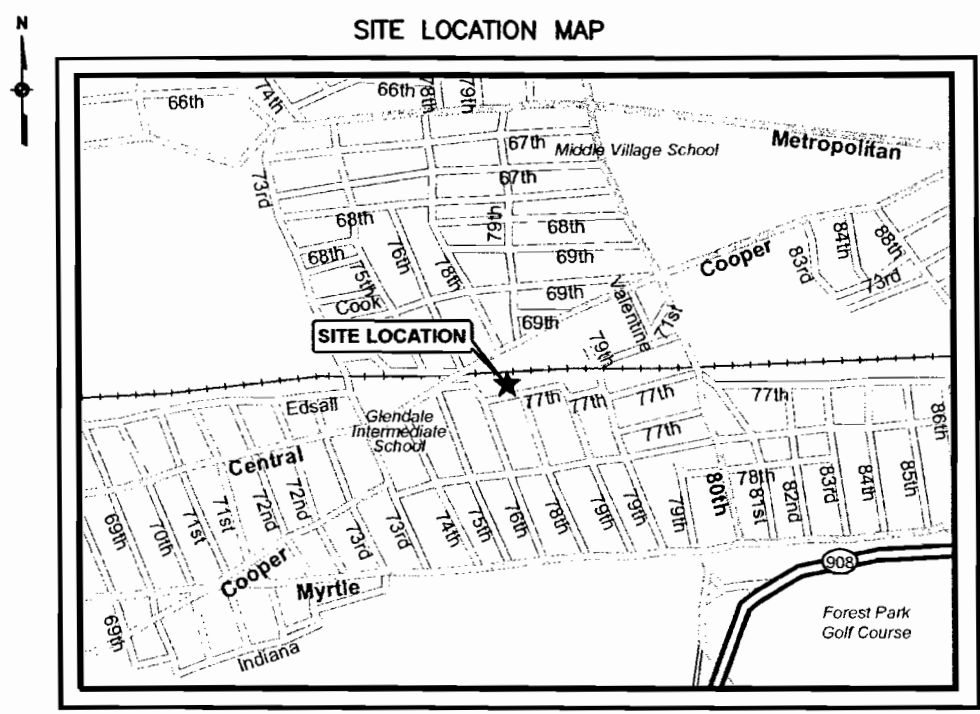
Group Consultants

77 Goodell Street
Buffalo, New York 14203
(716)856-5636 phone - (716)856-2545 fax

NOTES

1. IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, OTHER THAN WHOSE SEAL APPEARS ON THIS DRAWING TO ALTER IN ANY WAY ANY ITEM ON THIS DRAWING. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.
2. BASEMAP BY ENVIROSCIENCE CONSULTANTS, INC., 2001.
3. THE TOPOGRAPHY ON THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION. THIS DRAWING IS PROVIDED FOR GENERAL LOCATION AND ARRANGEMENT.
4. THE LOCATION OF ANY UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN. PRIOR TO ANY CONSTRUCTION ACTIVITIES, ALL UTILITY COMPANIES SHOULD BE NOTIFIED IN ORDER TO VERIFY OR AMEND THEIR LOCATIONS AND/OR EXISTENCE. FOR ASSISTANCE CALL UFPO AT 1-800-962-7962.
5. LEGEND OF ELECTRICAL SYMBOLS IS SHOWN ON DRAWING 5.

INDEX OF DRAWINGS	
DWG. NO.	DESCRIPTION
	TITLE SHEET
1	INDEX OF DRAWINGS, GENERAL NOTES, AND SITE LOCATION MAP
2	SITE PLAN
3	PROCESS AND INSTRUMENTATION DIAGRAM
4	WELL CONSTRUCTION AND MISC. DETAILS
5	ELECTRICAL DETAILS AND ONE-LINE DIAGRAM



SOURCE: ArcView GIS STREETMAP

KLIEGMAN BROTHERS SITE OPERABLE UNIT NO.1
76-01 77th AVENUE
GLENDALE, QUEENS, NEW YORK

LEGEND AND ABBREVIATIONS			
AP ()	ANALYSIS OR MEASUREMENT POINT	HOA	HAND/OFF/AUTO SWITCH
FI ()	FLOW INDICATOR	HS	HAND SWITCH
HS ()	HAND SWITCH	.	BOLLARD
LAH ()	LEVEL ALARM HIGH	⊗	TREE
LI ()	LEVEL INDICATOR	—	FENCE
LSH ()	LEVEL SWITCH HIGH	⌵	BUTTERFLY VALVE
PI ()	PRESSURE INDICATOR	⌵	GATE VALVE
TI ()	TEMPERATURE INDICATOR	⌵	CHECK VALVE
		⌵	RELIEF VALVE
		◇	ELECTRICAL INTERLOCK
		◆	EXISTING SOIL VAPOR EXTRACTION LOCATION
		⊙	PREVIOUS SOIL SAMPLE LOCATION
		◆	PROPOSED SOIL VAPOR EXTRACTION LOCATION
		⊕	EXISTING MONITORING WELL
		⊕	PROPOSED VACUUM MONITORING POINT

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NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
REVISIONS					

DESIGNED BY: DMc
 DRAWN BY: RAL
 CHECKED BY: CWP
 PROJ. ENGR. DMc

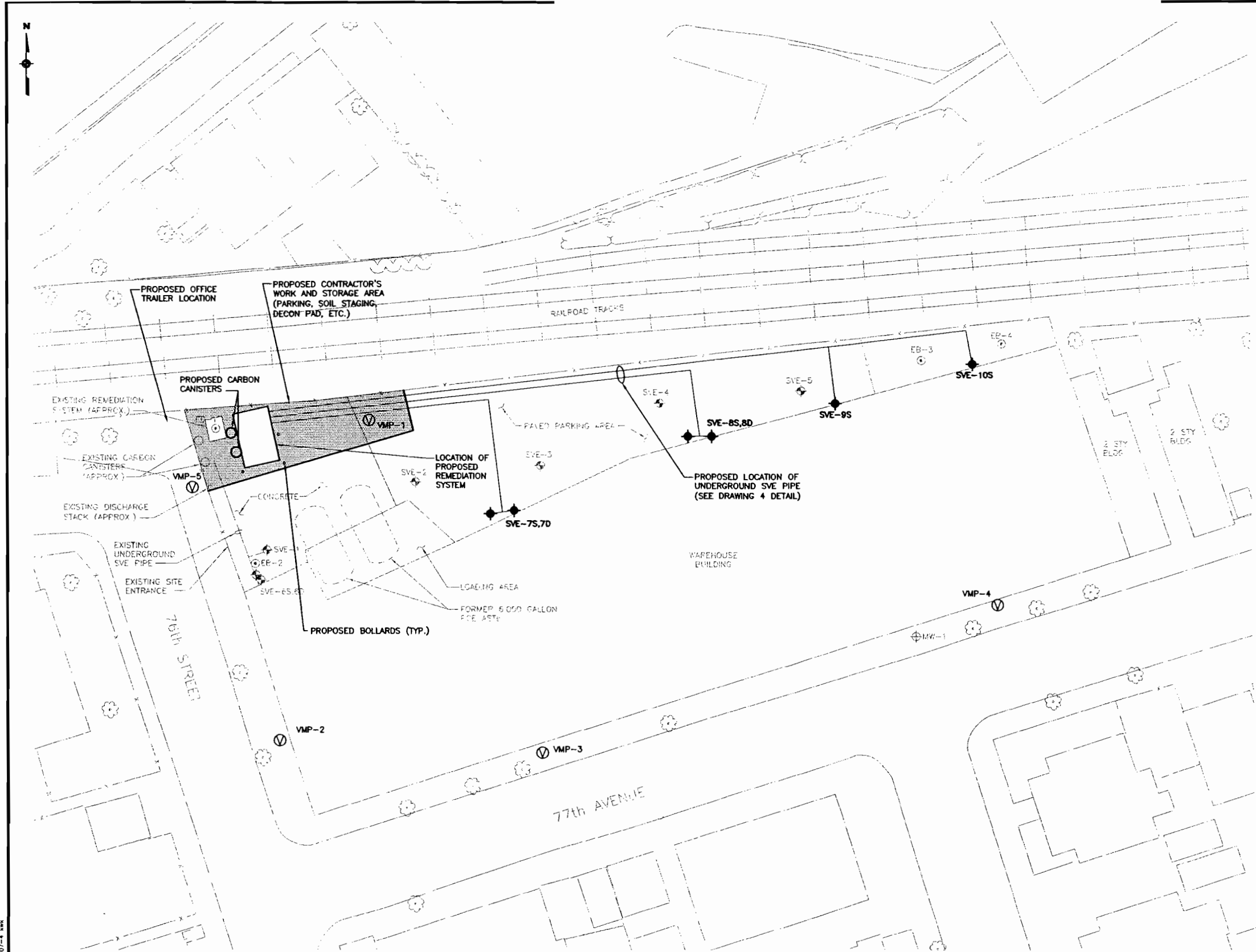
URS Corporation
 Group Consultants
 77 Goodell Street, Buffalo, New York 14203
 (716)856-5636 - (716)856-2545 fax
JOB No. 11171964.00000



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CONTRACT D006547
 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 625 BROADWAY, ALBANY, NEW YORK

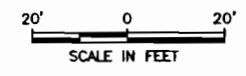
INDEX OF DRAWINGS, GENERAL NOTES, AND SITE LOCATION MAP	
Scale: NONE	Date: APRIL 2007
DWG. 1	



NOTES:

- EXISTING AND PROPOSED WELL LOCATIONS, BUILDINGS, AND PIPING ARRANGEMENTS ARE ALL SHOWN AS APPROXIMATE.
- THE CONTRACTOR SHALL COORDINATE WITH THE DEPARTMENT, THE ENGINEER, AND THE SITE OCCUPANT (AS APPROPRIATE) TO DETERMINE THE ACTUAL LAYOUT OF ALL PROPOSED STRUCTURES AND WORK AREAS AT THE SITE.
- ALL SITE ACTIVITIES OUTSIDE THE DESIGNATED CONTRACTOR'S AREAS SHALL BE COORDINATED ON A DAILY BASIS WITH THE ENGINEER AND THE SITE OCCUPANT. THE CONTRACTOR SHALL PROVIDE A MINIMUM 24-HOUR NOTICE OF ALL WORK AREAS PROPOSED FOR THE FOLLOWING WORK DAY(S). THE CONTRACTOR SHALL WORK WITH THE SITE OCCUPANT TO CORDON OFF ALL AREAS PROPOSED FOR WORK.
- ALL WORK ASSOCIATED WITH WELL INSTALLATION AND PIPE INSTALLATION SHALL BE LIMITED TO ONE ACTIVE WORK LOCATION PER DAY UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MINIMIZE DISRUPTION TO THE EXISTING OPERATIONS AT THE SITE.
- THE CONTRACTOR SHALL UTILIZE STEEL PLATES, TEMPORARY FENCING, AND OTHER METHODS AS REQUIRED TO COVER HOLES AND TRENCHES AND TO ALLOW OPERATIONS AT THE SITE TO CONTINUE UNIMPEDED. THE CONTRACTOR SHALL ENSURE THAT ALL SUCH MEASURES ARE ADEQUATE TO SUPPORT THE LOADING FROM TRAFFIC AT THE SITE, AS WELL AS TO ENSURE THE SAFETY OF ALL PERSONS AT THE SITE.
- LAYOUT OF THE HOUSING FOR THE PROPOSED SVE SYSTEM SHALL NOT INTERFERE WITH ACCESS AND OPERATION OF THE EXISTING SVE SYSTEM. THIS INCLUDES REMOVAL OF CONDENSATE, CHANGEOUT OF THE CARBON UNITS, AND ALL OTHER WORK THAT MAY BE REQUIRED ON EITHER THE EXISTING OR THE PROPOSED SYSTEMS.
- EXISTING WELLS SVE-1, SVE-6S, AND SVE-6D ARE ALL CONNECTED TO THE EXISTING SVE SYSTEM VIA UNDERGROUND PIPING AND SHALL BE PROTECTED. EXISTING WELLS SVE-2, SVE-3, SVE-4, AND SVE-5 ARE ALL TO BE DECOMMISSIONED.
- A PREVIOUS RAILROAD SPUR MAY BE LOCATED UNDERGROUND NEAR THE EXISTING LOADING AREA. ALL RAILROAD TIES, RAILS, AND OTHER UNDERGROUND OBSTRUCTIONS LOCATED WITHIN THE AREAS OF EXCAVATION AND DRILLING SHALL BE REMOVED AND DISPOSED BY THE CONTRACTOR AS REQUIRED FOR CONSTRUCTION.
- ALL AREAS OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO A CONDITION EQUAL TO OR BETTER THAN THE CONDITION PRIOR TO WORK.
- CONTRACTOR SHALL RELOCATE ALL EXISTING MATERIALS AND EQUIPMENT ON THE SITE (E.G., DUMPSTERS, PALLETS, DRUMS, GARBAGE, COMPACTOR, ETC.) AS REQUIRED FOR THE PERFORMANCE OF THE WORK. ALL MATERIALS AND EQUIPMENT SHALL BE REPLACED TO ITS ORIGINAL LOCATION, OR AS DIRECTED BY THE OWNER, AFTER THE WORK IS COMPLETE. NO EXISTING ONSITE MATERIALS MAY BE REMOVED OR DISPOSED OF WITHOUT THE SPECIFIC CONSENT OF THE OWNER.
- PROPOSED LOCATION OF THE OFFICE TRAILER IS SHOWN ON THIS DRAWING, PENDING APPROVAL OF THE PROPERTY OWNER AND/OR OBTAINING A PERMIT FOR THE LOCATION. OTHER POTENTIAL LOCATIONS INCLUDE THE SIDEWALK AROUND THE BUILDING, AS APPROVED BY THE DEPARTMENT AND THE ENGINEER, AND PENDING APPROVAL OF A PERMIT FOR THE LOCATION. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND APPROVALS.

LEGEND
 SVE-7S ◆ PROPOSED SOIL VAPOR EXTRACTION WELL LOCATION
 SVE-1 ◆ EXISTING SOIL VAPOR EXTRACTION WELL LOCATION
 EB-2 ⊙ PREVIOUS SOIL SAMPLING LOCATION



BASEMAP SOURCE:
 ENVIROSCIENCE CONSULTANTS, INC. - 2001

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REVISIONS					

DESIGNED BY: **DMc**
 DRAWN BY: **RAL**
 CHECKED BY: **CWP**
 PROJ. ENGR. **DMc**

URS Corporation
 Group Consultants
 77 Goodell Street, Buffalo, New York 14203
 (716)856-5636 - (716)856-2545 fax

JOB No. 11171964.00000

NYSDEC SITE 2-41-031
 GLENDALE, QUEENS

**KLIEGMAN BROTHERS SITE
 OPERABLE UNIT NO. 1**

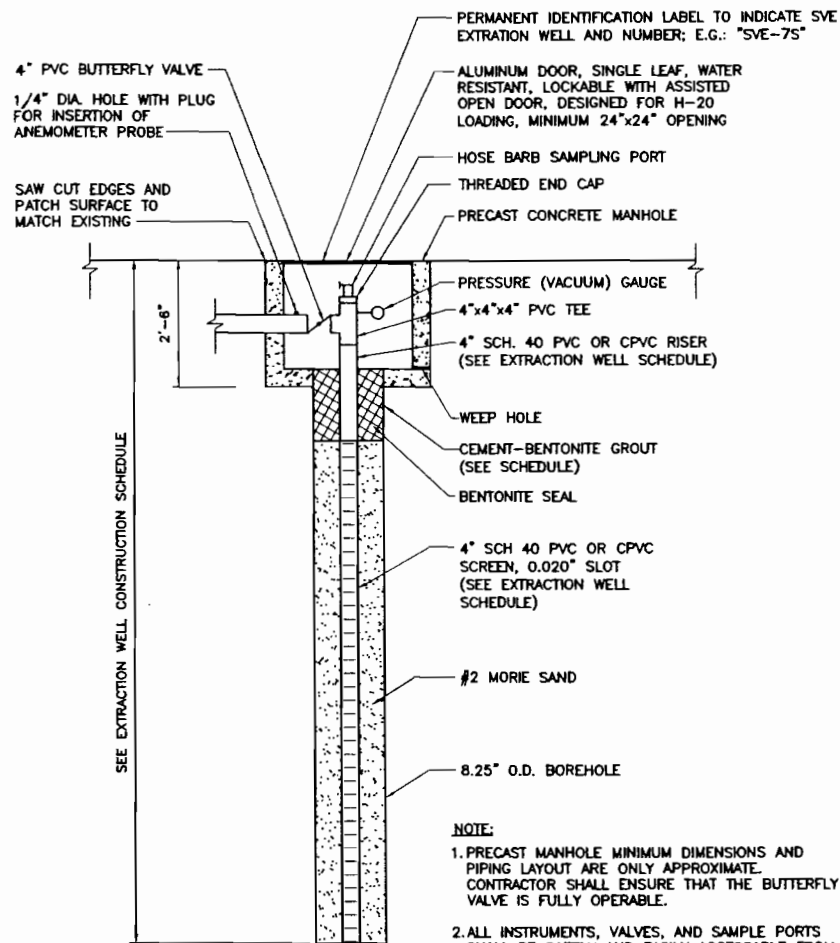
GLENDALE, QUEENS NEW YORK

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 625 BROADWAY, ALBANY, NEW YORK

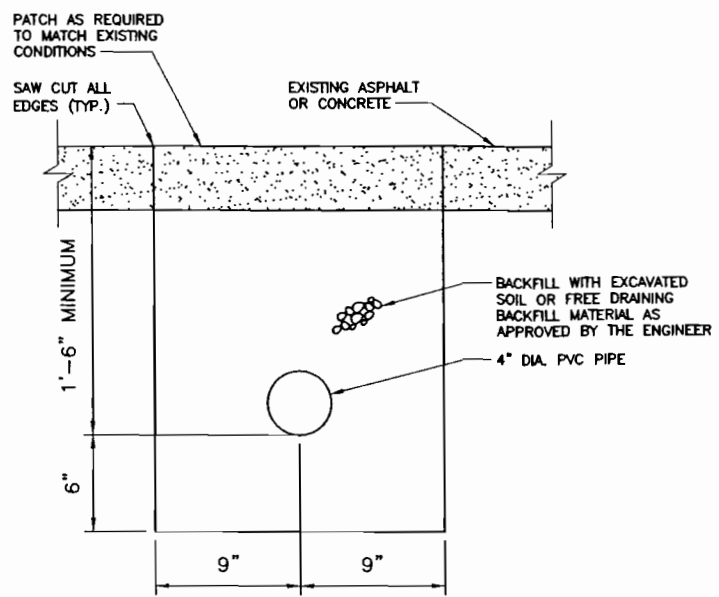
SITE PLAN

Scale: AS NOTED Date: APRIL 2007 **DWG. 2**

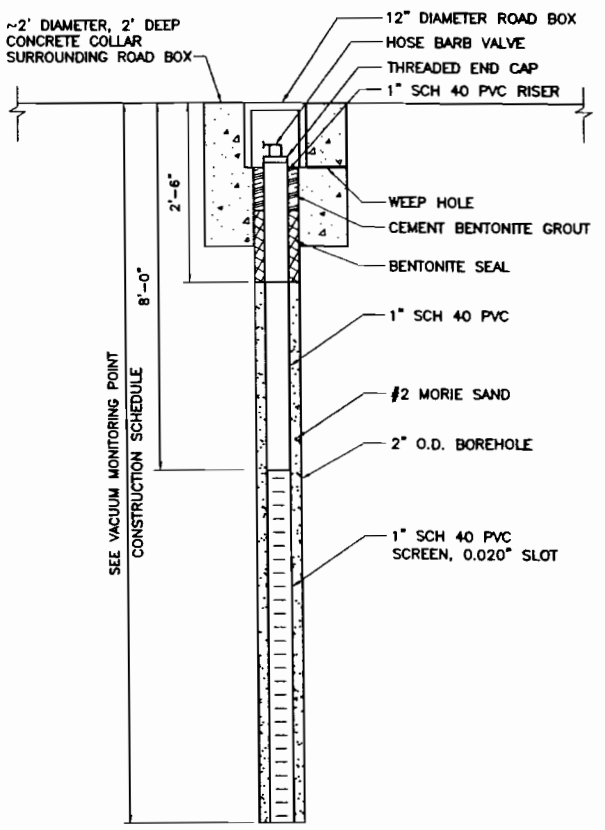
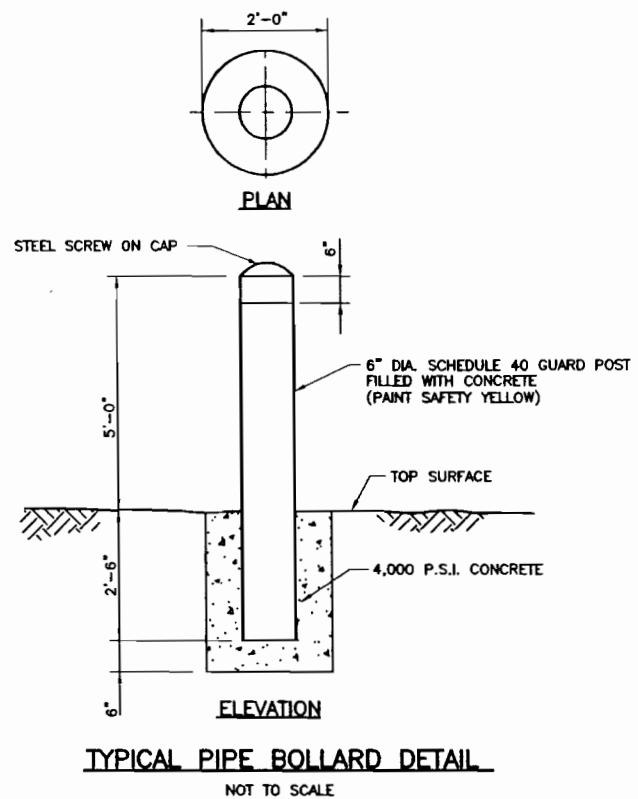
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SVE EXTRACTION WELL
(TYP OF 6)
NOT TO SCALE



SVE PIPE TRENCH DETAIL
NOT TO SCALE



VACUUM MONITORING POINT
(TYP OF 4)
NOT TO SCALE

1. PERMANENT IDENTIFICATION LABEL TO INDICATE VACUUM MONITORING POINT AND NUMBER; E.G., "VMP-1".

SVE EXTRACTION WELL CONSTRUCTION SCHEDULE				
WELL NUMBER	APPROX. WELL DEPTH (FEET bgs)	SCREENED INTERVAL (FEET bgs)	BENTONITE SEAL (FEET bgs)	CEMENT - BENTONITE GROUT (FEET bgs)
SVE-7S	25.0	5 - 25	2.5 - 5	-
SVE-7D	65.0	30 - 65	22.5 - 25	2.5 - 22.5
SVE-8S	25.0	5 - 25	2.5 - 5	-
SVE-8D	65.0	30 - 65	22.5 - 25	2.5 - 22.5
SVE-9S	12.0	5 - 12	2.5 - 5	-
SVE-10S	12.0	5 - 12	2.5 - 5	-

bgs = BELOW GROUND SURFACE

NOTE:
1. WELL DEPTHS AND DIMENSIONS SHOWN ARE APPROXIMATE. WELLS ARE TO BE COMPLETED ABOVE THE WATER TABLE AND AS APPROVED BY THE ENGINEER. NO WELLS SHALL PENETRATE THE CONFINING CLAY LAYER (IF PRESENT).

VACUUM MONITORING POINT CONSTRUCTION SCHEDULE	
VMP NUMBER	APPROX. TOTAL DEPTH (FEET bgs)
VMP-1	30
VMP-2	30
VMP-3	30
VMP-4	12
VMP-5	30

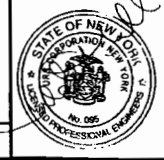
NOTE:
1. VMP'S SHALL NOT PENETRATE THE CONFINING CLAY LAYER, IF PRESENT.

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NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
REVISIONS					

DESIGNED BY: **DMc**
DRAWN BY: **RAL**
CHECKED BY: **CWP**
PROJ. ENGR. **DMc**

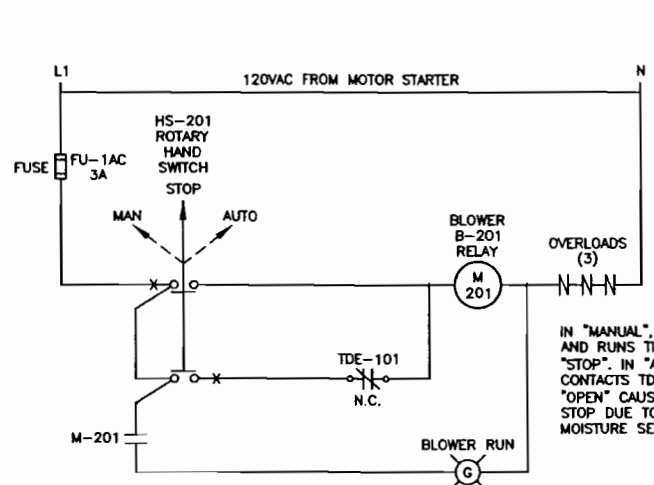
URS Corporation
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77 Goodell Street, Buffalo, New York 14203
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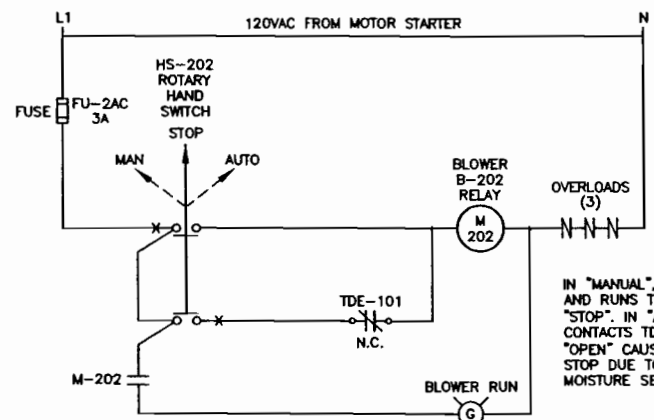
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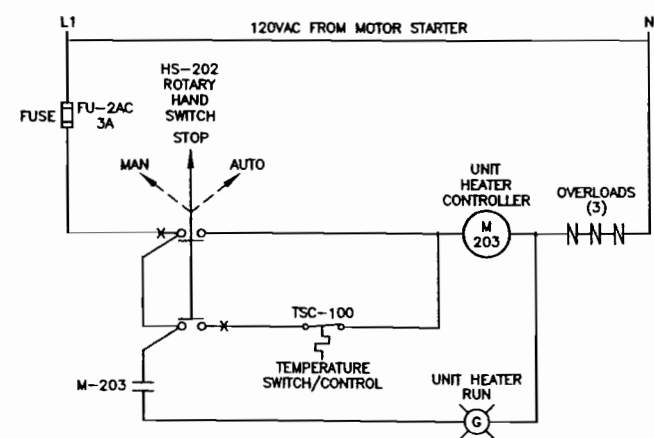
WELL CONSTRUCTION AND MISC. DETAILS
Scale: AS NOTED Date: APRIL 2007 **DWG. 4**



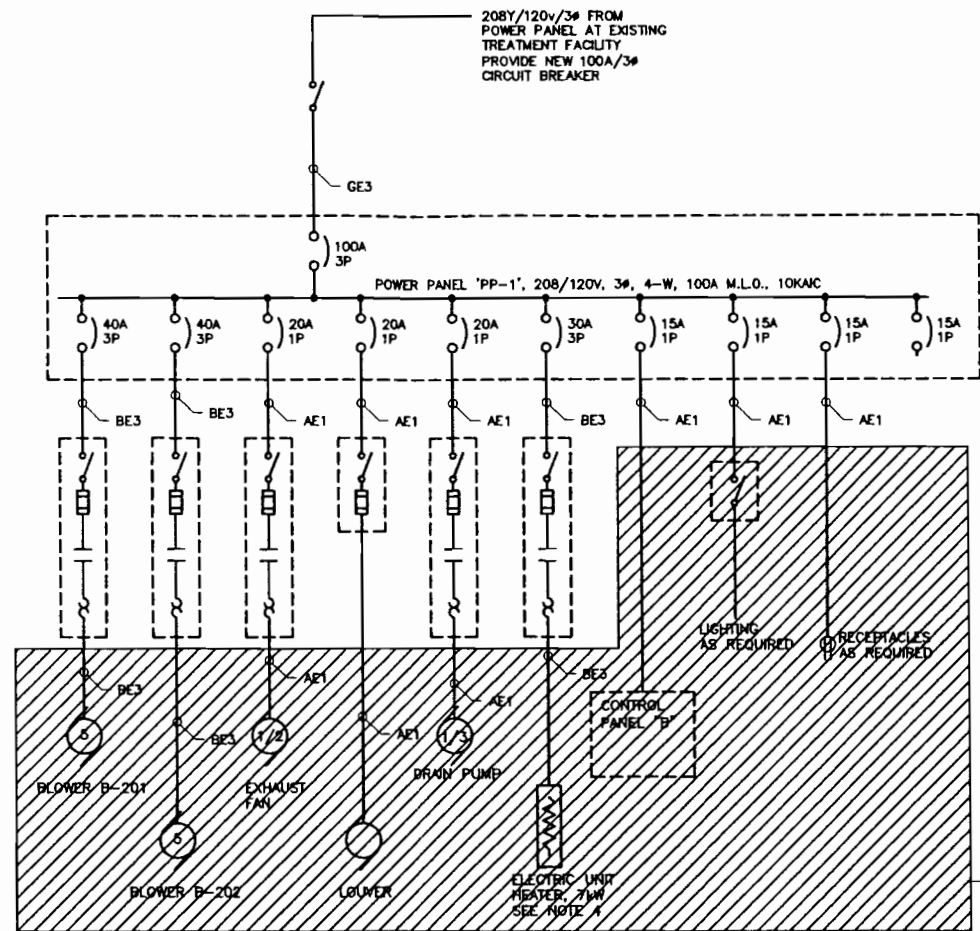
BLOWER B-201 CONTROL CIRCUITS
NOT TO SCALE



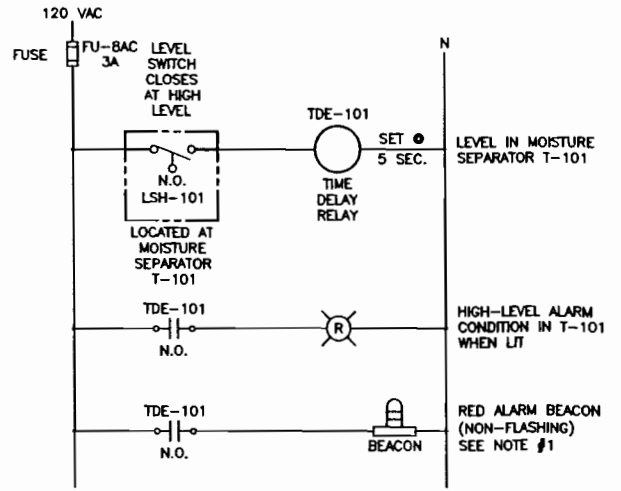
BLOWER B-202 CONTROL CIRCUITS
NOT TO SCALE



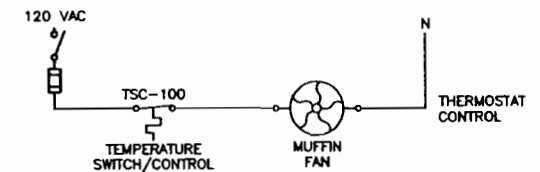
ELECTRIC UNIT HEATER
NOT TO SCALE



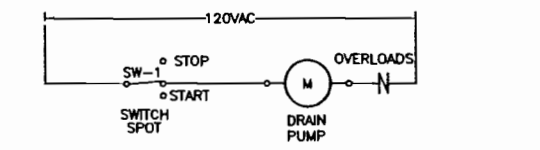
SINGLE LINE DIAGRAM
NO SCALE



CONTROL PANEL "B" ALARM CIRCUITS
NOT TO SCALE



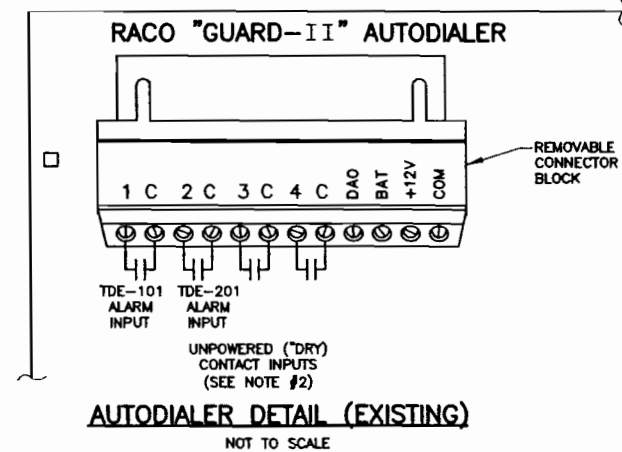
EXHAUST FAN DETAIL
NOT TO SCALE



DRAIN PUMP WIRE DETAIL
NOT TO SCALE

OVERCURRENT DEVICE RATING	CONDUCTORS + NEUTRAL **75°C	EGC (E)	SGC (THWN) (S)	CONDUIT 1 PHASE (1)	CONDUIT 3 PHASE (3)
A 20	#12	#12	-	1 1/2"	1 1/2"
B 30	#10	#10	-	1 1/2"	1 1/2"
C 50	#8	#8	-	3/4"	1"
D 70	#6	#8	-	1"	1"
E 80	#4	#8	-	1 1/2"	1 1/2"
F 90	#4	#8	-	1 1/2"	1 1/2"
G 100	#2	#8	#8	1 1/2"	1 1/2"
H 125	#2	#6	#8	1 1/2"	1 1/2"
I 150	#1/0	#6	#6	1 1/2"	2"
J 175	#2/0	#6	#4	2"	2"
K 200	#3/0	#6	#4	2"	2 1/2"
L 225	#3/0	#4	#4	2"	2 1/2"

- NOTES:**
- MOUNT RED ALARM BEACON IN A CONSPICUOUS LOCATION OUTSIDE TRAILER.
 - THE INPUT SIGNALS TO THE AUTODIALER CAN BE "DRY" CONTACTS, ANALOG, OR DIGITAL LOGIC. "DRY" CONTACTS ARE SHOWN IN WIRING SCHEMATIC. THE WIRING CONNECTIONS SHOWN ARE FOR A RACO "GUARD-II" AUTODIALER.
 - PURCHASE AUTODIALER WITH A.C. TO D.C. TRANSFORMER OR D.C. POWER SUPPLY.
 - PROVIDE NEW UNIT HEATER AS REQUIRED TO MAINTAIN SPACE TEMPERATURE OF 50° F. HEATER SHALL BE A REZNOR EGEEA SERIES.
- LEGEND**
- ELECTRIC METER
 - TRANSFORMER
 - GROUND
 - CIRCUIT BREAKER
 - NODE
 - PILOT LIGHT (R- RED)
 - SWITCH/DISCONNECT
 - FUSE
 - CONTACT, N.O.
 - CONTACT, N.C.
 - COIL, MOTOR STARTER
 - THERMAL MOTOR OVERLOAD
 - MOTOR LOAD, # INDICATES H.P.



AUTODIALER DETAIL (EXISTING)
NOT TO SCALE

N:\1171964\0000\CAD\DWG\1-E-1.dwg 1=1 1/16/07-2 RAL

REVISIONS

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DESIGNED BY: DML
 DRAWN BY: DML
 CHECKED BY: CWP
 PROJ. ENGR. Dmc

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 Group Consultants
 77 Goodell Street, Buffalo, New York 14203
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**ELECTRICAL DETAILS AND
 ONE-LINE DIAGRAMS**
 Scale: AS NOTED Date: APRIL 2007 **DWG. 5**