



Washtenaw County Environmental Health Department

705 N. Zeeb Rd., P.O. Box 8645
Ann Arbor, Michigan 48107-8645
Phone (734) 222-3800
Fax (734) 222-3930



http://eWashtenaw.org

Table with 3 columns: WEL Non-Potable, WEL2010-00036 (Issue/Expire dates), Well Permit #, Parcel Number, Site Address, Township.

PROJECT NAME: DEWATERING WELL

PROJECT DESCRIPTION: PERMIT FOR DEWATERING (2-INCH) MONITORING WELL FOR NEW 730 CAR UNDERGROUND PARKING STRUCTURE

Directions to site:

Property Owner:

CITY OF ANN ARBOR
\* PO BOX 8647
ANN ARBOR, MI 48107

Permit Applicant:

ANGELO IAFRATE CONSTRUCTION CO
26300 SHERWOOD
WARREN, MI 48091
PH2 810-343-3853

This permit is to install a non-potable well or direct-push well(s) in the approved location shown on the attached plot plan and in accordance with applicable County regulations and Michigan Water Well Construction and Pump Installation Code, Part 127, Act 368.

Type of Work : Non-Potable

Type of Well : DeWatering Well

PERMIT CONDITIONS

- 1 \_\_\_ Notify the Department by fax (734-222-3930) prior to beginning the installation.
\_\_\_ A copy of this permit must be available on-site during drilling operations.
\_\_\_ Submit a copy of a well log or drilling record with GPS coordinantes to the Department within 60 days of drilling.
\_\_\_ Keep and retain all records related to sample data, physical measurements, and/or other data obtained as a result of drilling this well.
\_\_\_ If, at any time, the well is not used for its intended use within one (1) year's time, the well must either be properly abandoned or registered with the Department.
\_\_\_ This permit is valid for twelve (12) months.

NOTE - this permit is NOT transferable to another property or refundable.

Director: [Signature] Date: 2/24/10 [Signature]

2/24/10 2:55PM

Locations:  
Plymouth  
Bay City  
Grand Rapids  
Kalamazoo  
Lansing  
Okemos  
Traverse City

PROJECT NAME  
**PROPOSED SLURRY WALL  
DEWATERING PLAN**

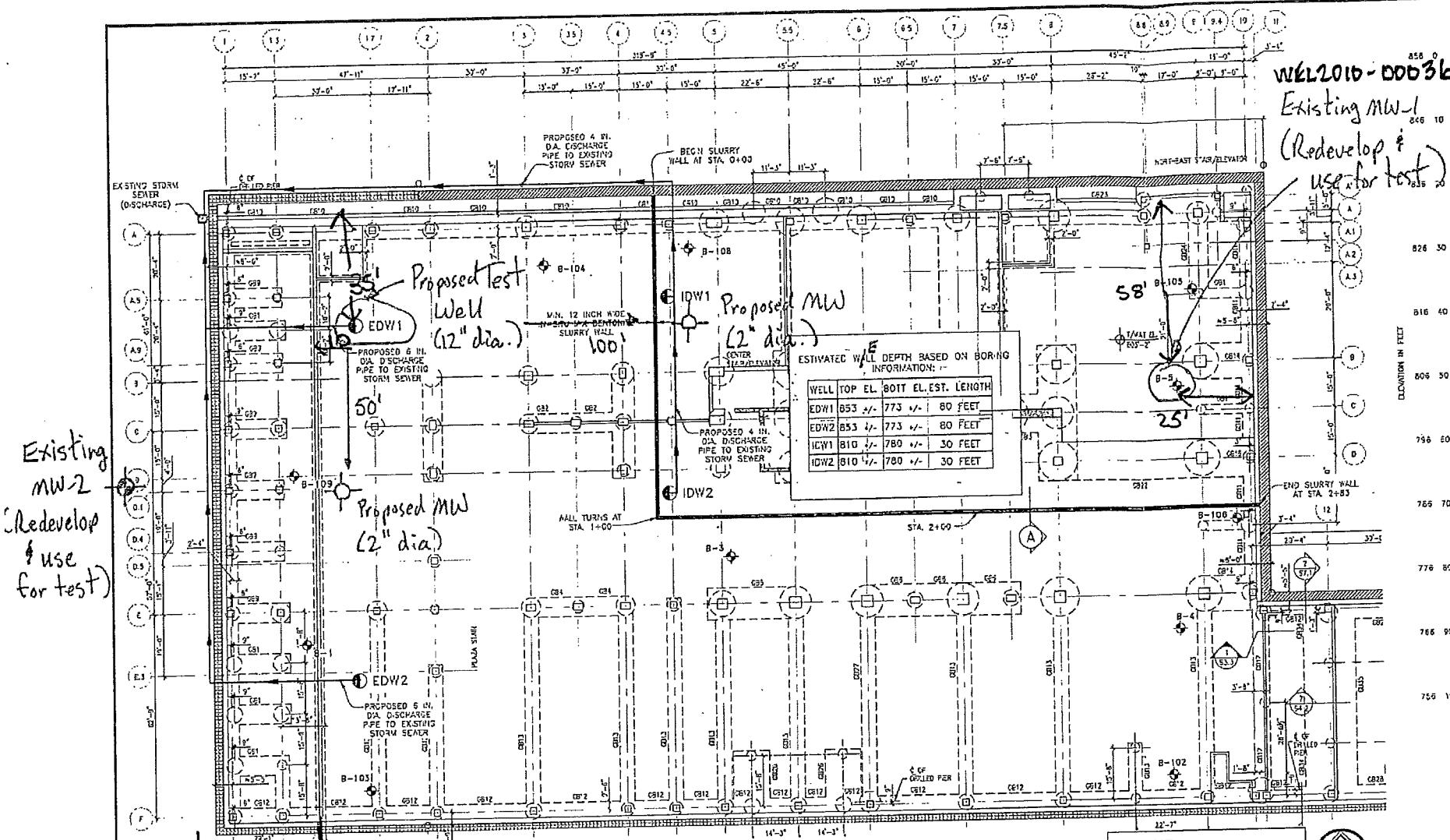
FACILITY NAME & LOCATION  
**SOUTH FIFTH AVENUE  
UNDERGROUND PARKING  
GARAGE  
ANN ARBOR, MICHIGAN**

SHEET NAME  
**SLURRY WALL ALIGNMENT  
AND SOIL CROSS SECTION**

REVISIONS

REV. ISSUED FOR	DATE	BY

PROJECT NO. P060428A  
DESIGNED BY CGM/JWR  
CHECKED BY CGM/JWR  
DATE 11-24-09  
FILE NAME P060428A-02  
SHEET NO. 1 OF 1

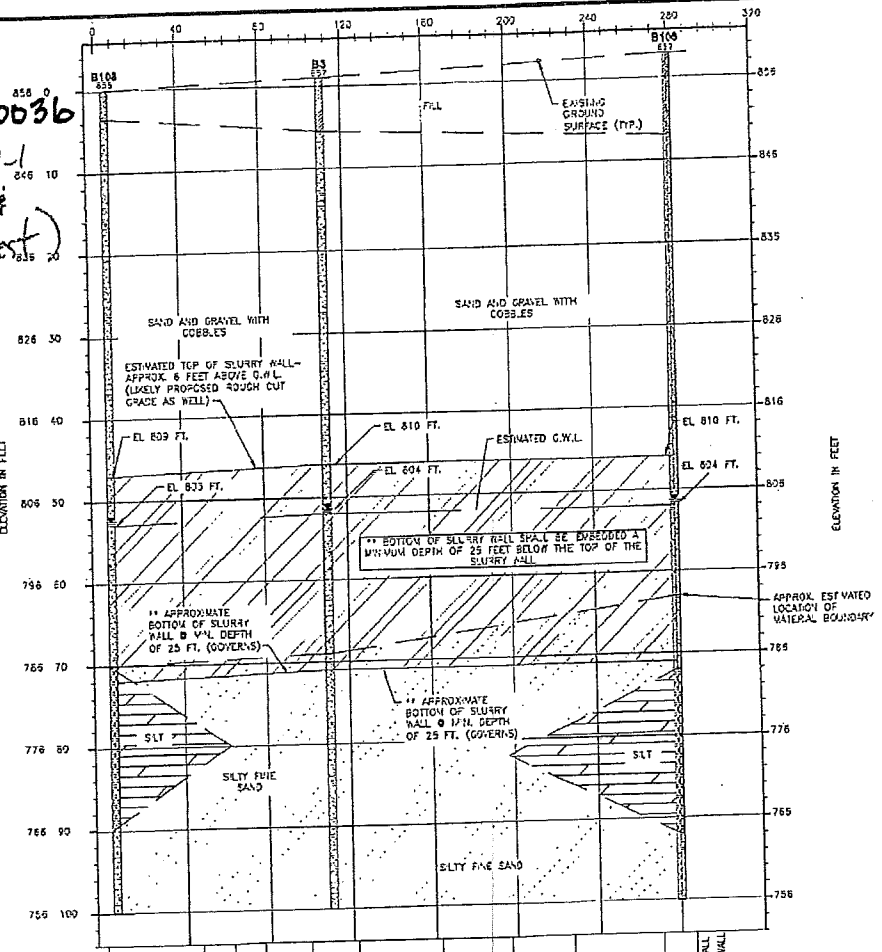
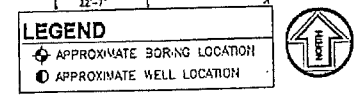


Existing MW2  
(Redevelop & use for test)

WEL2010-00036  
Existing MW-1  
(Redevelop & use for test)

ESTIMATED WALL DEPTH BASED ON BORING INFORMATION:

WELL	TOP EL.	BOIT EL.	EST. LENGTH
EDW1	853 +/-	773 +/-	80 FEET
EDW2	853 +/-	773 +/-	80 FEET
ICW1	810 +/-	780 +/-	30 FEET
ICW2	810 +/-	780 +/-	30 FEET



**SOIL CROSS SECTION ALONG SLURRY WALL**  
SCALE: HORIZONTAL: 1" = 40'  
VERTICAL: 1" = 8'

- NOTES:
- LEVEL OF UNDERLYING SILTS AND SILTY FINE SANDS BETWEEN PREVIOUS BORING LOCATIONS VARIES. ADDITIONAL BORINGS MUST BE PERFORMED TO FURTHER DELINEATE THE SOIL PROFILE NEAR/AT THE PROPOSED SLURRY WALL LOCATION. FINAL SLURRY WALL DEPTH TO BE ADJUSTED AFTER ADDITIONAL BORINGS ARE PERFORMED AT THE TIME OF SLURRY WALL CONSTRUCTION.
  - REFER TO SLURRY WALL LAYOUT PLAN FOR APPROXIMATE WALL LAYOUT.
  - ADDITIONAL EXTERIOR DEWATERING WELLS MAY NEED TO BE ADDED TO CONTROL GROUNDWATER LEVELS BASED UPON CONDITIONS ENCOUNTERED IN THE FIELD.
  - DEWATERING SHALL LOWER THE WATER TABLE AT LEAST 2 FEET BELOW THE BOTTOM OF GRADE BEAM ELEVATIONS (SEE SHEETS 52.01 AND 52.02).
  - THE DEWATERING SYSTEM SHALL REMAIN IN OPERATION UNTIL THE ENTIRE STRUCTURE IS CONSTRUCTED UP TO AN ELEVATION OF AT LEAST ELEVATION 810 FT.
  - THIS DEWATERING PLAN DOES NOT INCLUDE ANY DESIGN FOR SPECIAL HANDLING/DISPOSAL AND/OR TESTING OF ENVIRONMENTALLY IMPACTED SOILS/GROUNDWATER. IF ENVIRONMENTALLY IMPACTED SOILS/GROUNDWATER ARE ENCOUNTERED, ADDITIONAL DESIGN PLANS/DETAILS/PROTOCOLS WILL BE REQUIRED.

PLAN APPROVED

Permit No. WEL2010-00036

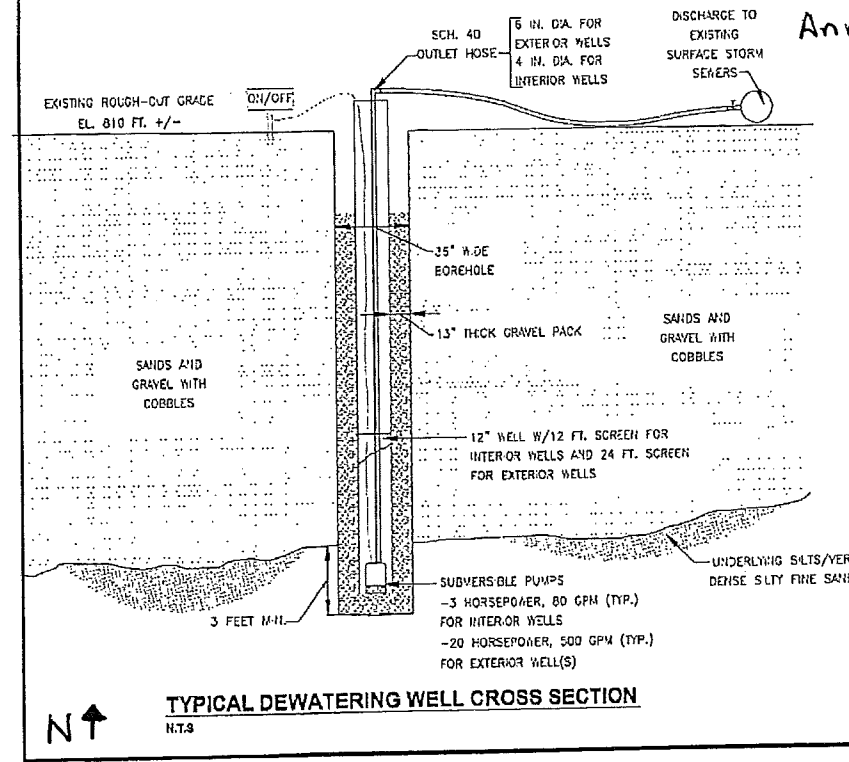
Washtenaw County  
Environmental Health  
This plan has been  
approved this 24 day of  
February, 2010

Signed: [Signature]

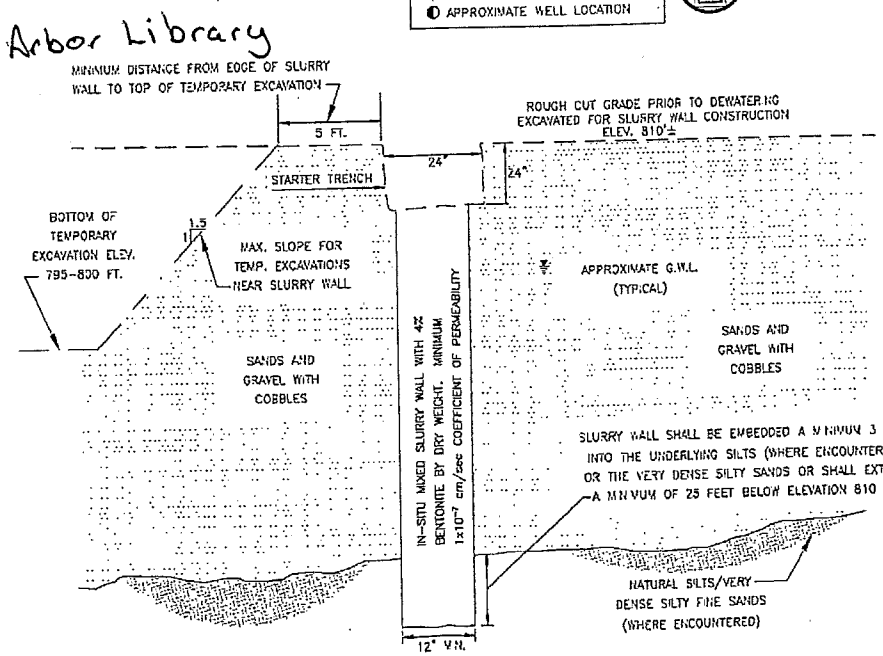


Know what's below.  
Call before you dig.  
Min. Three Days prior to digging

**WARNING!!**  
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.



**TYPICAL DEWATERING WELL CROSS SECTION**  
N.T.S.



**CROSS SECTION A-A**  
N.T.S.

NOTE: BASE DRAWING INFORMATION TAKEN FROM EXISTING FOUNDATION PLAN PREPARED BY CARL WALKER, INC.