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Alameda County
Environmental Health



March 28, 2011

Mr. Jerry Wickham
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

**Subj: Workplan Addendum to Delineate Extent of Free Product
at 3820 Manila Avenue, Oakland, CA**

Dear Mr. Wickham:

SOMA Environmental Engineering, Inc. (SOMA) has prepared this workplan addendum for the Law Offices of Loeb & Loeb LLP and their client, the owners of the subject property, in response to a request from Alameda County Environmental Health Services (ACEHS) documented in correspondence dated February 10, 2011.

In the above-referenced correspondence, ACEHS approved SOMA's workplan, dated January 26, 2011, to evaluate the extent of free product (FP) and the potential for vapor intrusion, but requested that some technical comments be addressed in a workplan addendum prior to workplan implementation.

The proposed investigation will be carried out as described in the approved workplan, except for changes proposed in this workplan addendum. The following sections address the technical comments in the order they appeared in above-referenced ACEHS correspondence and describe modifications to the original workplan.

Proposed Borings

SOMA had planned to advance all proposed borings (SB-17 through SB-22) utilizing a limited direct push technology (DPT) rig. Concrete surface will be required for the smallest DPT equipment to be bolted down during boring advancement. To fully define the extent of FP, each proposed boring will be advanced to approximately 20 feet bgs (25 feet bgs where appropriate, due to surface elevation changes). On February 24, 2011, SOMA visited the Red Cross building and conducted a site reconnaissance. During this evaluation, two pieces of equipment were observed adjacent to the Red Cross building in the area of proposed borings (SB-21 and SB-22). During site reconnaissance it was observed that concrete surface in the area of proposed boring SB-21 is likely

located too close to the aforementioned equipment to be suitable for anchoring. Due to this access limitation, some borings will be advanced utilizing the limited DPT rig; where lack of access precludes use of DPT, hand augering to total depth will be employed. Some borings were moved slightly to compensate for the anticipated site limitations. During hand augering, SOMA will utilize recovered soil cuttings to evaluate subsurface lithology; integrity of the proposed subsurface sampling or free product observations will not be impacted. All necessary general field and quality control procedures (documented in the approved workplan) applicable to subsurface sampling will be utilized. Attachment 1 catalogs photographs that show area near the proposed drilling locations. Figure 1 shows the proposed drilling locations.

Building Foundation and Vapor Sampling

During the site reconnaissance, SOMA contacted the Red Cross Bay Area Chapter (Red Cross) located east of the subject site at 3901 Broadway in Oakland. The building, which the Red Cross occupies, is owned by the Oakland Masonic Center, located at 3903 Broadway. A Masonic Center representative escorted SOMA around the Red Cross facility during its February 24 site reconnaissance, and provided site access to the public first floor areas. On March 15, SOMA reviewed and took photographs of building plans for the Red Cross building, which were provided by the Masonic Center. Photographs of the reviewed prints are attached to this letter (Attachment 2). According to the building plans, it appears that the first floor of the building was installed on compacted fill with 4-inches of concrete. Over the compacted fill, a 4-inch layer of free draining gravel was installed and covered with moisture-proof membrane (Sisalkraft® or approved equivalent) and with 2 inches of fine sand, with reinforcements installed and covered with concrete. Sisalkraft® is a range of fiberglass reinforced bitumen laminated material (foil-faced waterproof building paper), used as a vapor barrier membrane (which resists diffusion of moisture through walls minimizing mold and rot development). Per reviewed drawings, the building foundation was reinforced by footing and a series of columns. Columns appeared at least 2 feet 6 inches in diameter, extended to a maximum depth of 10 feet bgs, and were spaced at various distances from one another; each column was bell-shaped. Depth to the bottom of shallow reinforcement (footing) appears to vary between 2 to 4 feet below the concrete floor. During this evaluation a notation reading "remove tank" was observed. At this time no further information regarding this tank was available for review. Results of this investigation will also be utilized to determine whether there is any reason to be concerned that there was, in fact, a UST which is serving as a source of contamination. For more details please refer to the photographs of building drawings cataloged in Attachment 2. Photographic documentation gathered during the site visit is cataloged in Attachment 1.

SOMA also contacted Alan Lu of the City of Oakland to obtain "as-built" plans for the Red Cross building. The building was built in the mid-1960s, and the City did not appear to have these older records.

The building does not appear to have a basement or crawl space, which would be impacted by vapor intrusion, although service and general elevators exist at the site. The service elevator (bottom of which appears to be at approximately 3 feet below the concrete floor) is located in the western portion of the Red Cross building. Based on above findings (the presence of a vapor barrier beneath the Red Cross building, lack of a basement, etc.), SOMA recommends first conducting the proposed investigation to delineate the extent of free product and then utilize the obtained results to determine if any future vapor assessment in the vicinity of Red Cross building is necessary.

Shutdown of MPE System

As requested, MPE operations will be temporarily halted for a period of 30 days prior to drilling to allow subsurface conditions to equilibrate.

Please do not hesitate to call me at (925) 734-6400, if you have questions or comments.

Sincerely,



Mansour Sepehr, Ph.D., PE
Principal Hydrogeologist

cc: Mr. Albert Cohen
Mr. Stuart Depper
Dr. Bruce Page

Attachments:

- Figure 1: Locations of Proposed Soil Borings
- Attachment 1: Photographic Documentation
- Attachment 2: Photographs of Building Blueprints

Perjury Statement

Stuart Depper
Name

Responsible Party
Title

3820 Manila Avenue
Street Address

Oakland
City

94609
Zip

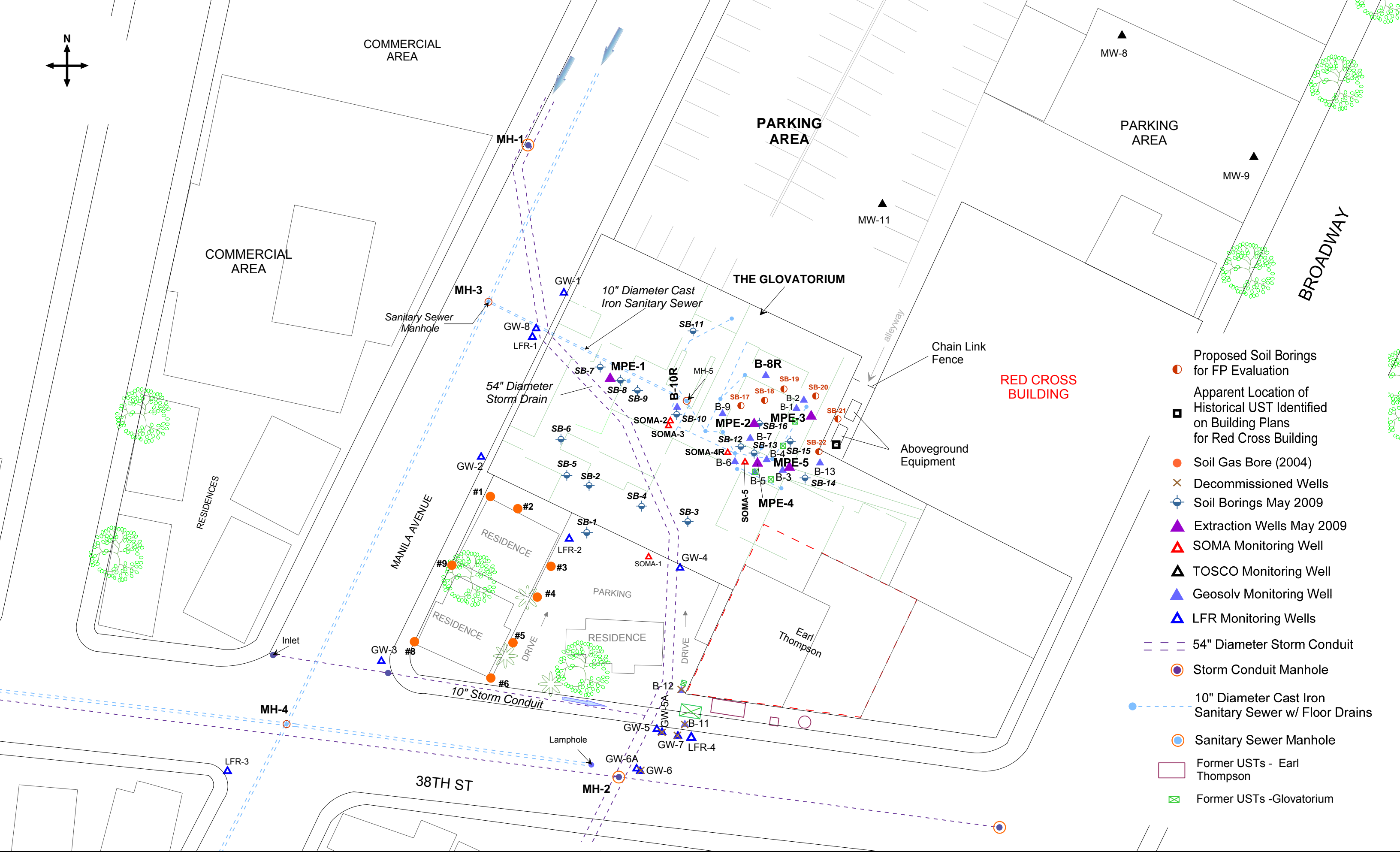
I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report were prepared under my direction and to the best of my knowledge true and correct.



Signature

03-28-2011

Date



- Proposed Soil Borings for FP Evaluation
- Apparent Location of Historical UST Identified on Building Plans for Red Cross Building
- Soil Gas Bore (2004)
- ✕ Decommissioned Wells
- Soil Borings May 2009
- ▲ Extraction Wells May 2009
- ▲ SOMA Monitoring Well
- ▲ TOSCO Monitoring Well
- ▲ Geosolv Monitoring Well
- ▲ LFR Monitoring Wells
- 54" Diameter Storm Conduit
- Storm Conduit Manhole
- 10" Diameter Cast Iron Sanitary Sewer w/ Floor Drains
- Sanitary Sewer Manhole
- Former USTs - Earl Thompson
- Former USTs -Glovatorium

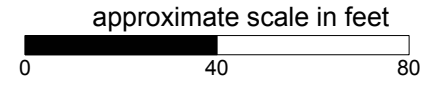


Figure 1: Locations of Proposed Soil Borings



Plate 1. View of one elevator car, door open



Plate 2. View of second elevator car, door closed



Plate 3. Door near elevator cars



Plate 4. Wall between elevator and nearby door



Plate 5. Door way between elevator cars and front entrance of building



Plate 6. Front lobby facing walkway to back of building to back parking lot



Plate 7. Front entrance to Red Cross building, Broadway side



Plate 8. Front entrance to Red Cross building, Broadway side



Plate 9. Building, Broadway side with sidewalk profile



Plate 10. Building, front signage, Broadway side



Plate 11. Rear entrance to Red Cross building, parking lot, Manila side



Plate 12. Back of Red Cross building, parking lot, Manila side



Plate 13. Back of Red Cross Building, Rear entrance to Red Cross, parking lot side



Plate 14. Generator and fuel storage tank southeast corner of Red Cross building, near rear entrance of Red Cross, parking lot side



Plate 15. Retaining wall and wall, boundary with Glovatorium and Red Cross building



Plate 16. Retaining wall and wall, boundary with Glovatorium and Red Cross parking lot, towards Manila ave.



Plate 17. Rear of building



Plate 18. Alleyway between Red Cross and 3820 Manila Avenue (view south/southwest)



Plate 19. Alleyway between Red Cross and 3820 Manila Avenue (view south/southwest)

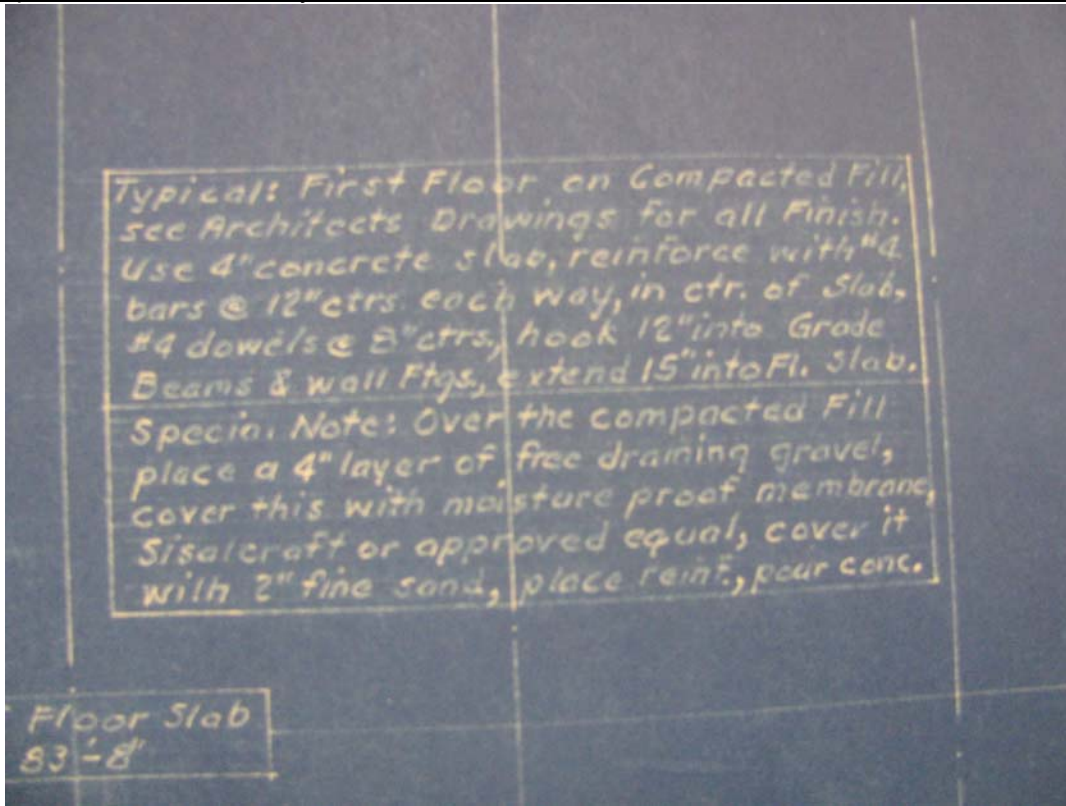


Plate 1. Blueprint explanation of subsurface for Red Cross Building (dated 5-17-1965)

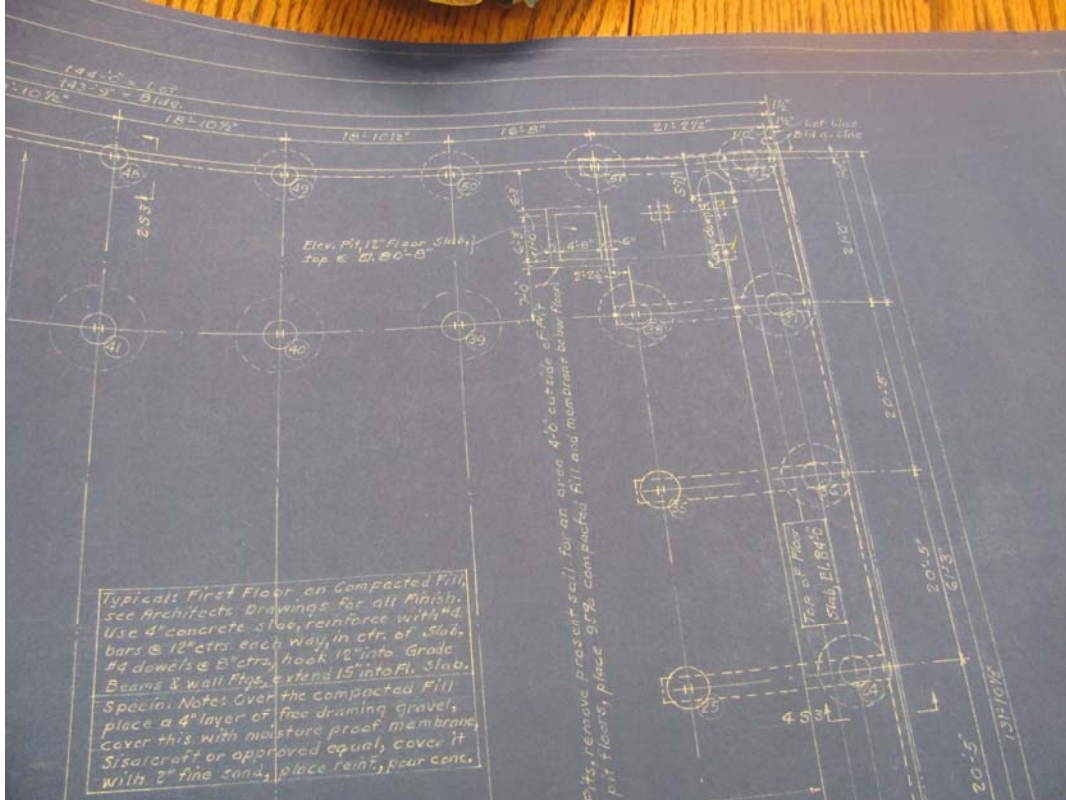


Plate 2. First floor blueprints for Red Cross Building

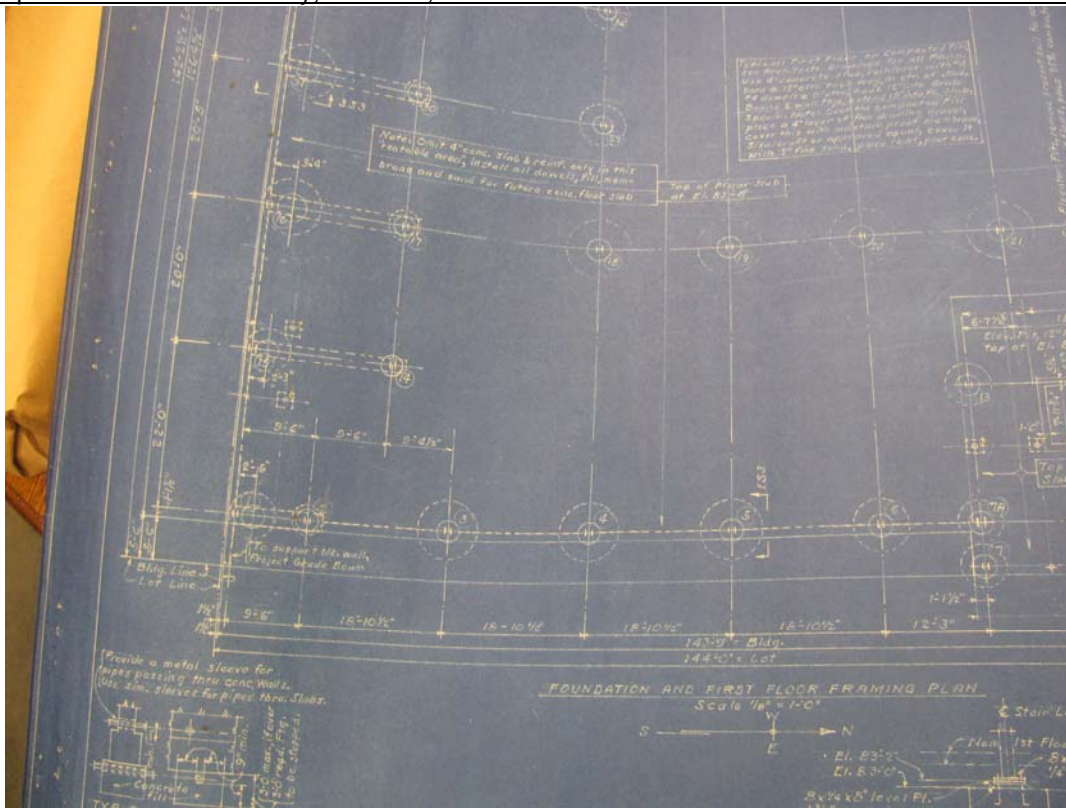


Plate 3. Foundation and first floor blueprints for Red Cross Building

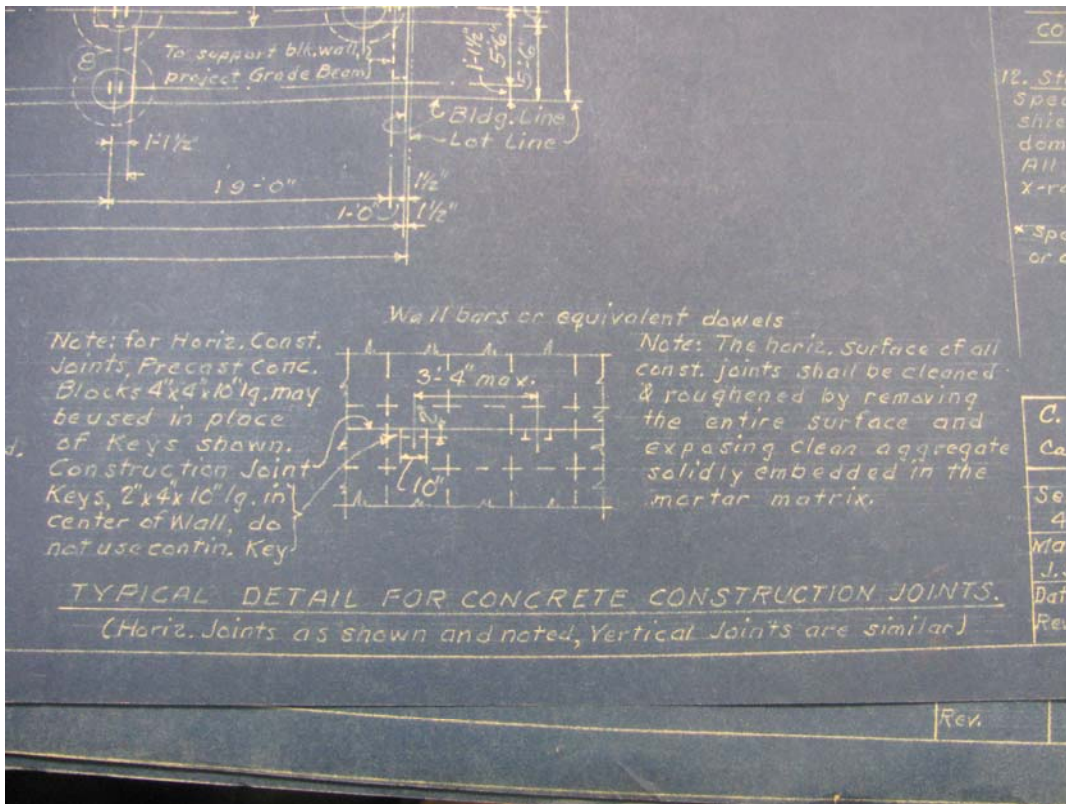


Plate 4. Typical concrete construction joint details

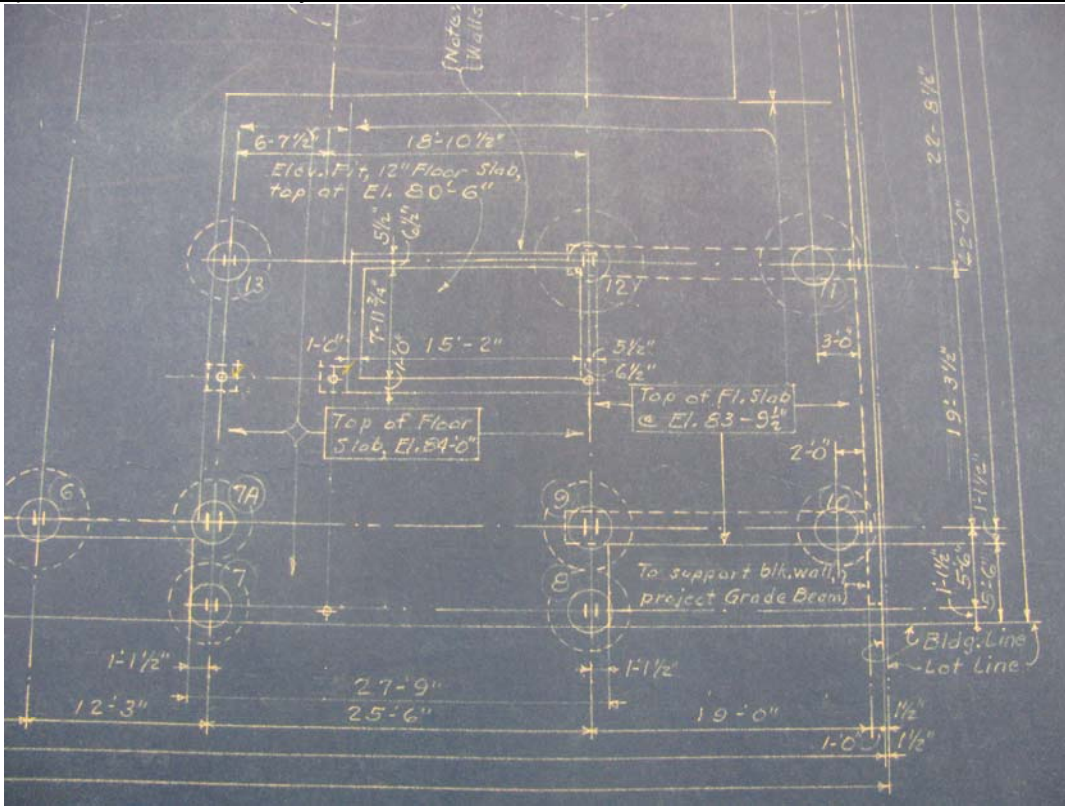


Plate 5. Floor plan for corner of Red Cross Building

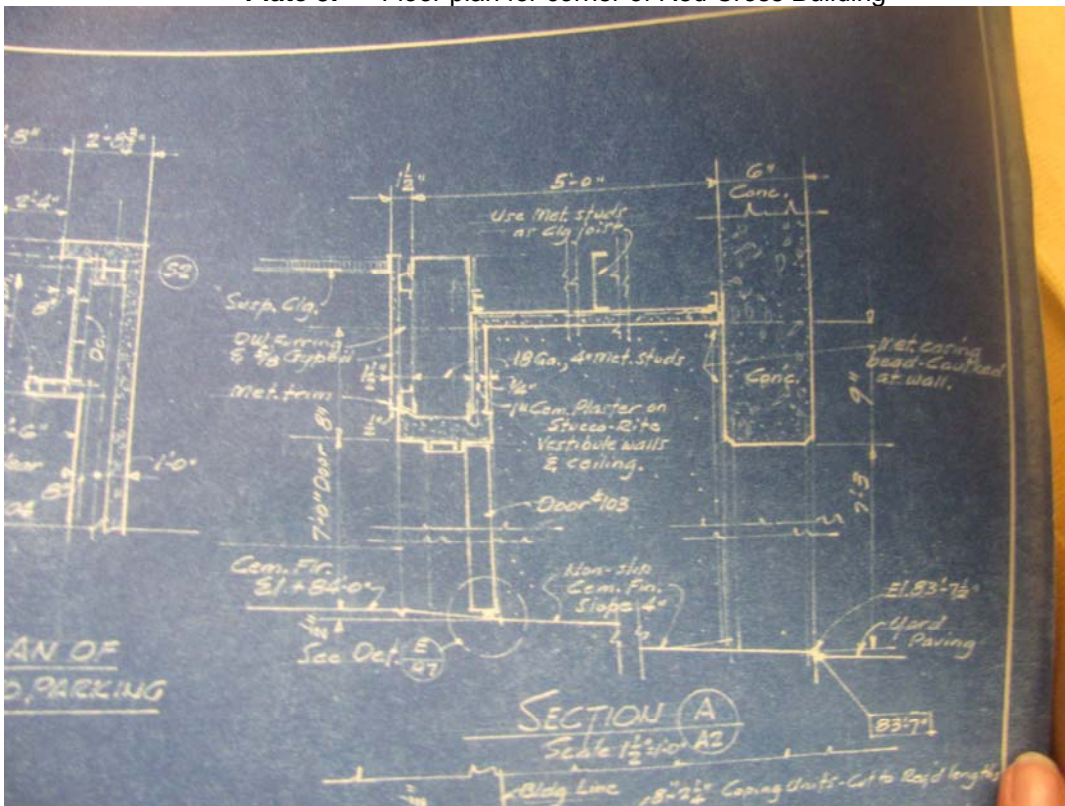


Plate 6. Construction details for Red Cross Building

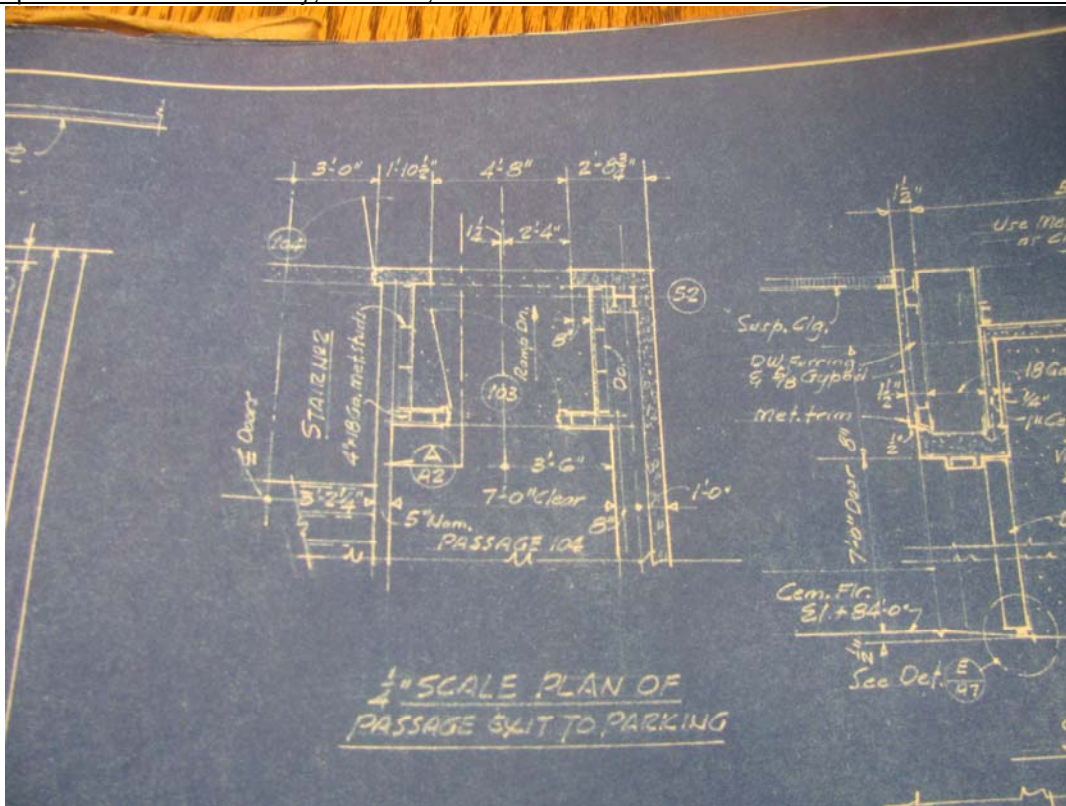


Plate 7. Blueprints for Red Cross Building, exit towards Glovatorium

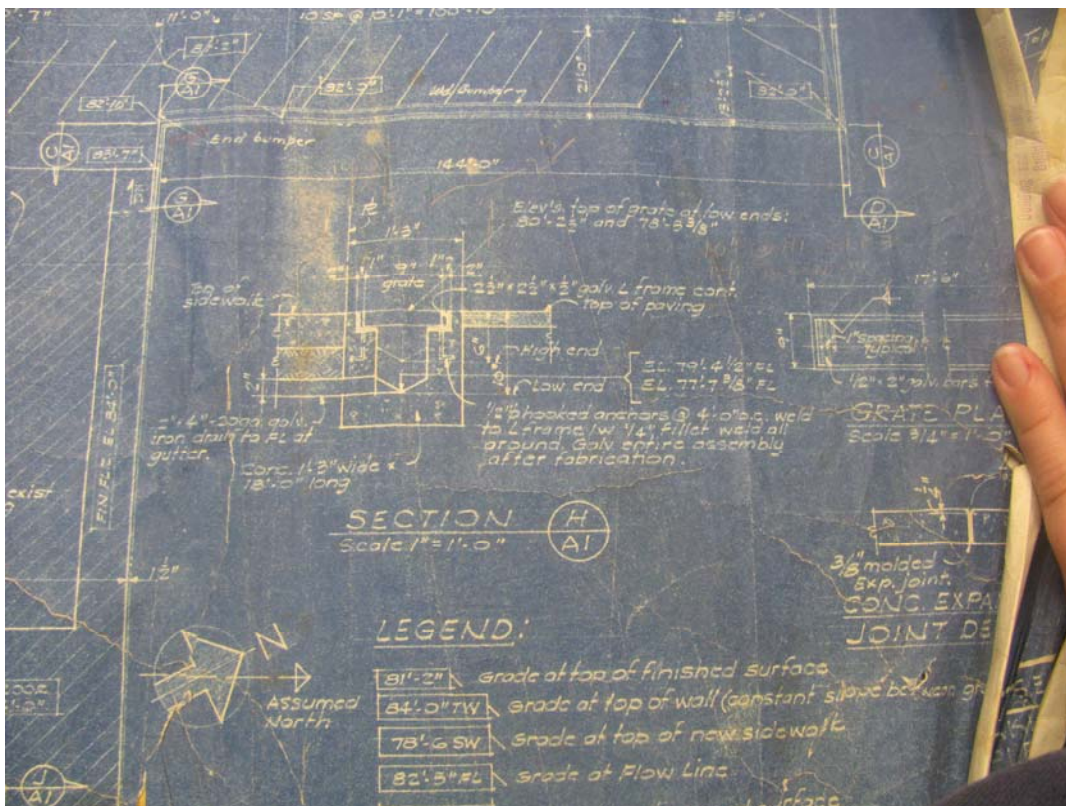


Plate 8. Expansion joint and footing plans, Red Cross Building

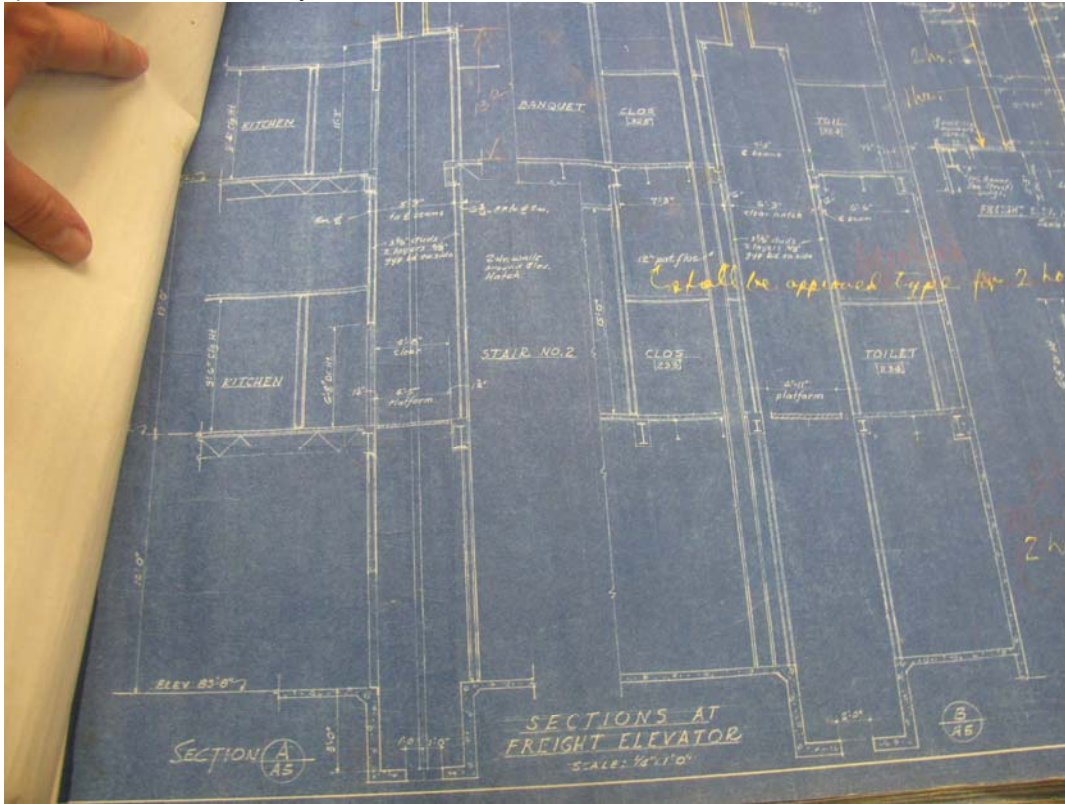


Plate 9. Freight elevator shaft

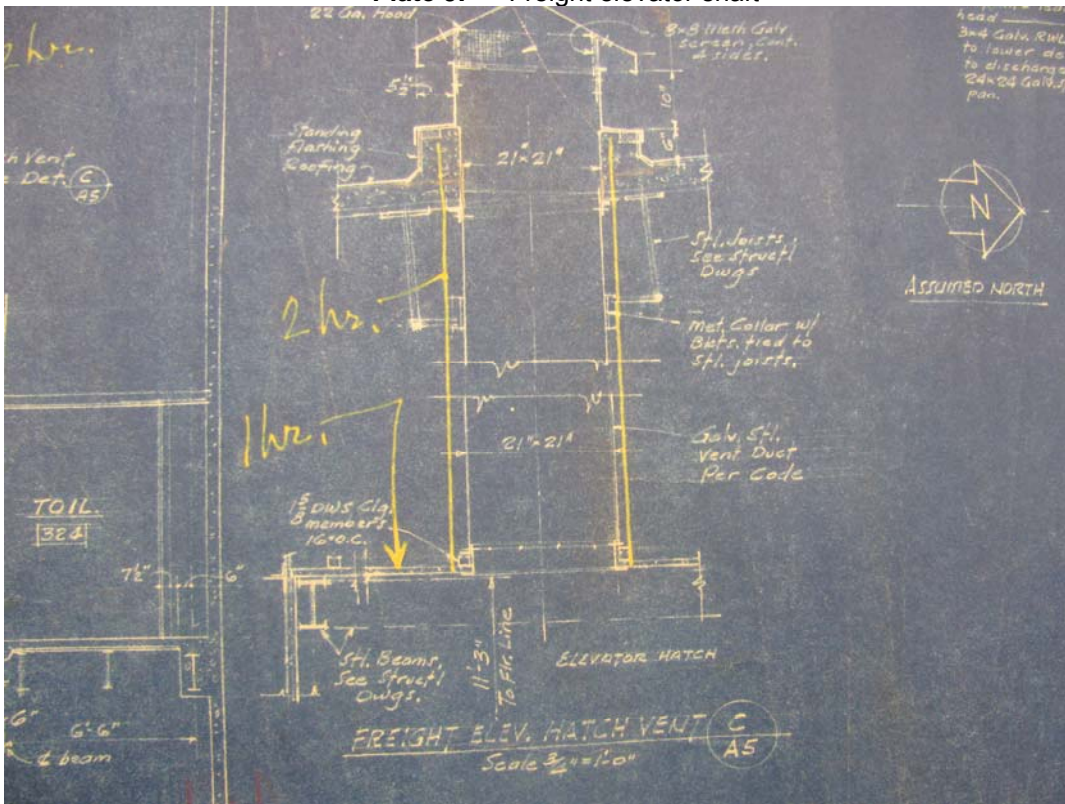


Plate 10. Freight elevator hatch vent plans, Red Cross Building

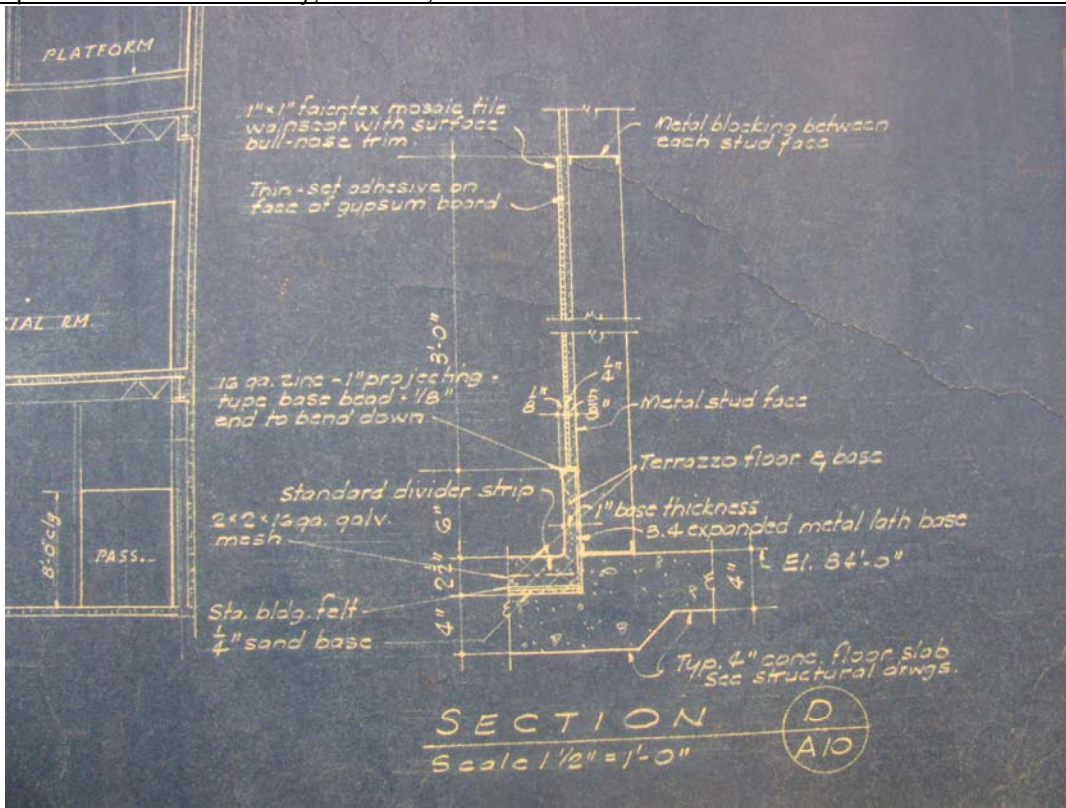


Plate 11. Footing and slab details for Red Cross Building

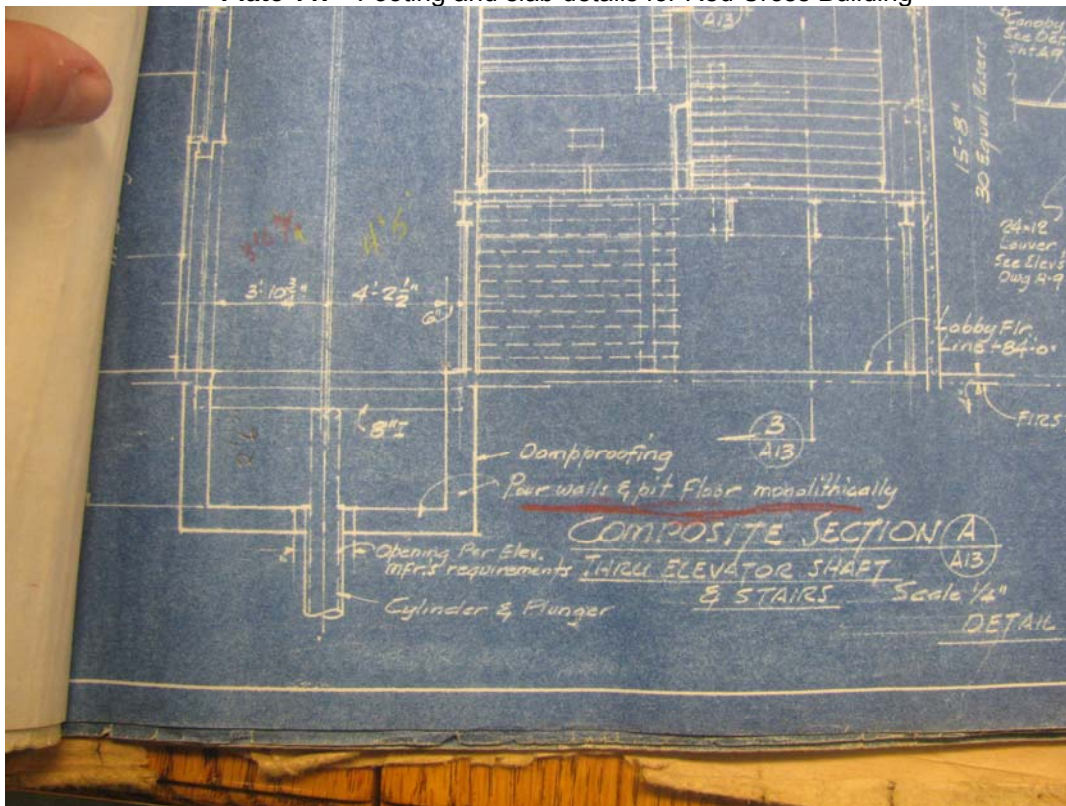


Plate 12. Elevator shaft subsurface details (showing distance of 2'6" to the bottom of pit)

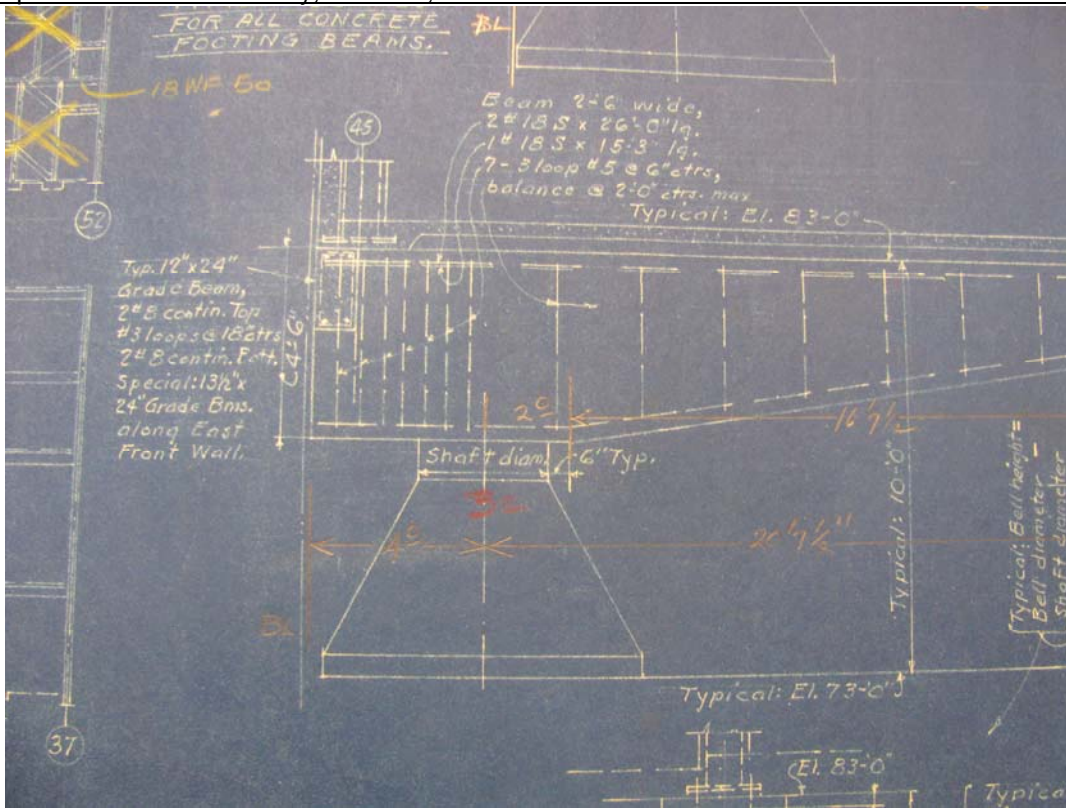


Plate 13. Concrete footing details (typical 10' to the bottom of shaft and 4'6" to the bottom of grade beams)

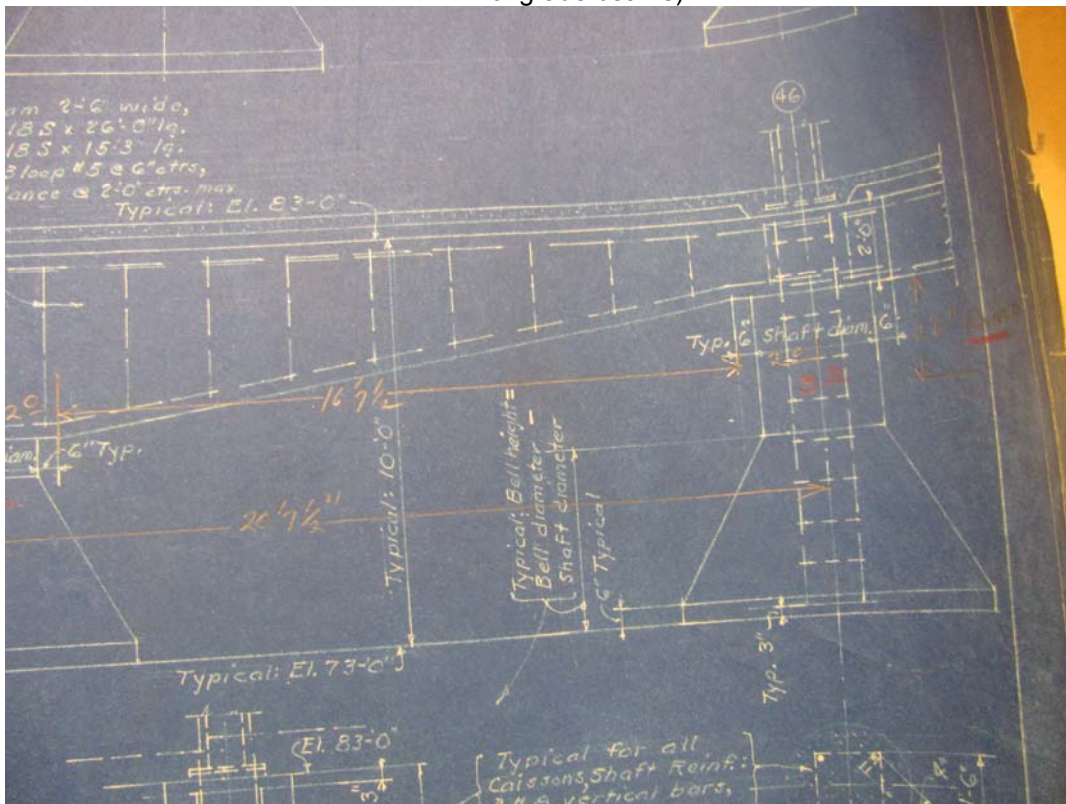


Plate 14. Concrete footing/beam details



Plate 17. Area detail with "remove tank" notation(zoomed)