



EAST BAY DISCHARGERS AUTHORITY
2651 Grant Avenue
San Lorenzo, CA 94580-1841
(510) 278-5910
FAX (510) 278-6547

A Joint Powers Public Agency

Pursuant to the Governor's Executive Order N-25-20 the Operations & Maintenance Meeting scheduled for October 13th at 9:00 a.m. will be telephonic. The dial-in number for the meeting is +1 669 900 6833 with meeting I.D. # 833 5493 0638. Members of the public are encouraged to dial in to the meeting using the same number. <https://us02web.zoom.us/j/83354930638>

ITEM NO. 15

OPERATIONS & MAINTENANCE COMMITTEE AGENDA

Tuesday, October 13, 2020

9:00 A.M.

**East Bay Dischargers Authority
2651 Grant Avenue, San Lorenzo, CA 94580**

Committee Members: Cutter (Chair); Johnson

OM1. Call to Order

OM2. Roll Call

OM3. Public Forum

OM4. EBDA Performance

(The Committee will be updated on EBDA's NPDES report.)

OM5. Status Report

(The Committee will be updated on EBDA's O&M activities.)

OM6. Adjournment

(Any member of the public may address the Commission at the commencement of the meeting on any matter within the jurisdiction of the Commission. This should not relate to any item on the agenda. It is the policy of the Authority that each person addressing the Commission limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Commission on an agenda item should do so at the time the item is considered. It is the policy of the Authority that oral comments be limited to three minutes per individual or ten minutes for an organization. Speaker's cards will be available in the Boardroom and are to be completed prior to speaking.)

(In compliance with the Americans with Disabilities Act of 1990, if you need special assistance to participate in an Authority meeting, or you need a copy of the agenda, or the agenda packet, in an appropriate alternative format, please contact the Administrative Assistant at the EBDA office at (510) 278-5910 or juanita@ebda.org. Notification of at least 48 hours prior to the meeting or time when services are needed will assist the Authority staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting or service.)

(In compliance with SB 343, related writings of open session items are available for public inspection at East Bay Dischargers Authority, 2651 Grant Avenue, San Lorenzo, CA 94580. For your convenience, agenda items are posted on the East Bay Dischargers Authority website located at <http://www.ebda.org>.)

**The next O&M Committee meeting will be held
Tuesday, November 17, 2020, at 9:00 a.m.**

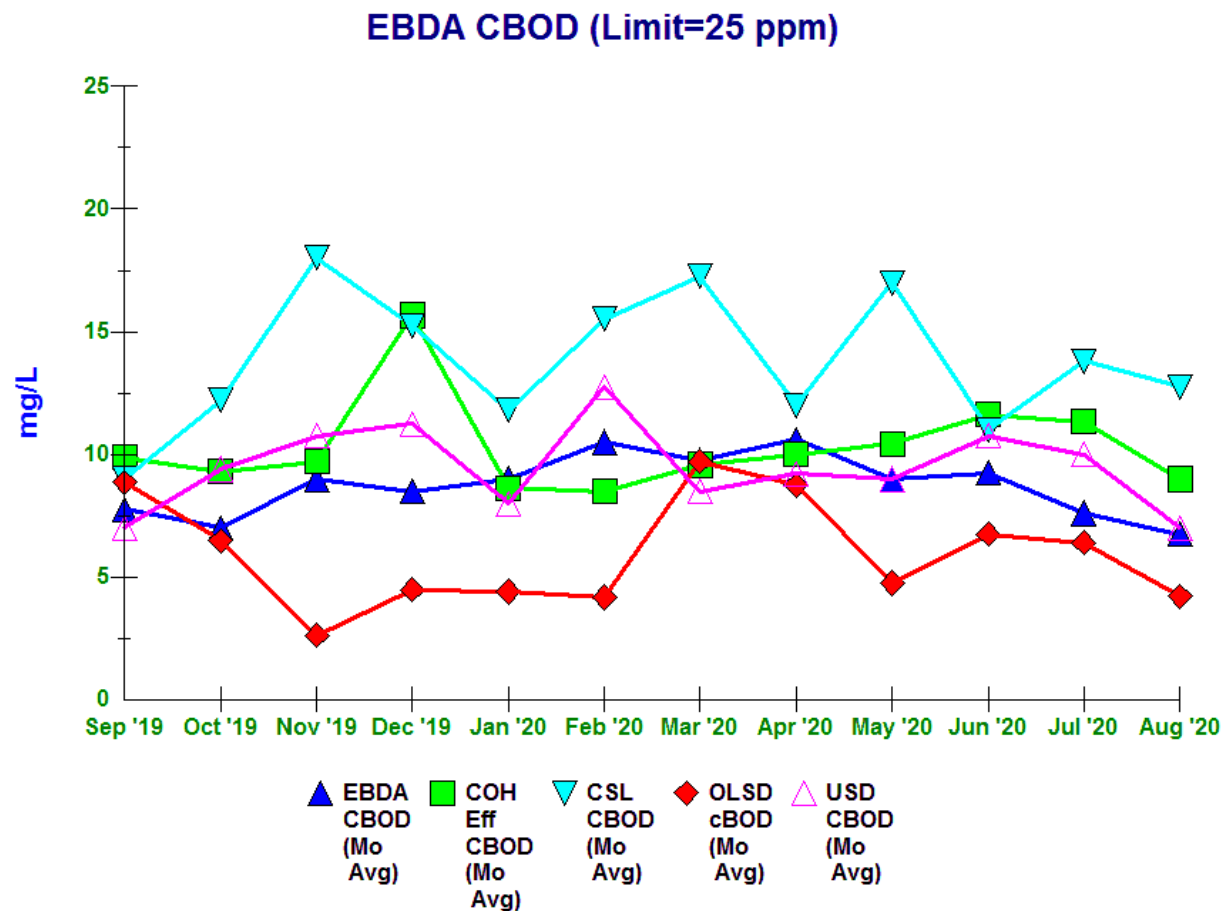
ITEM NO. OM4 EBDA PERFORMANCE

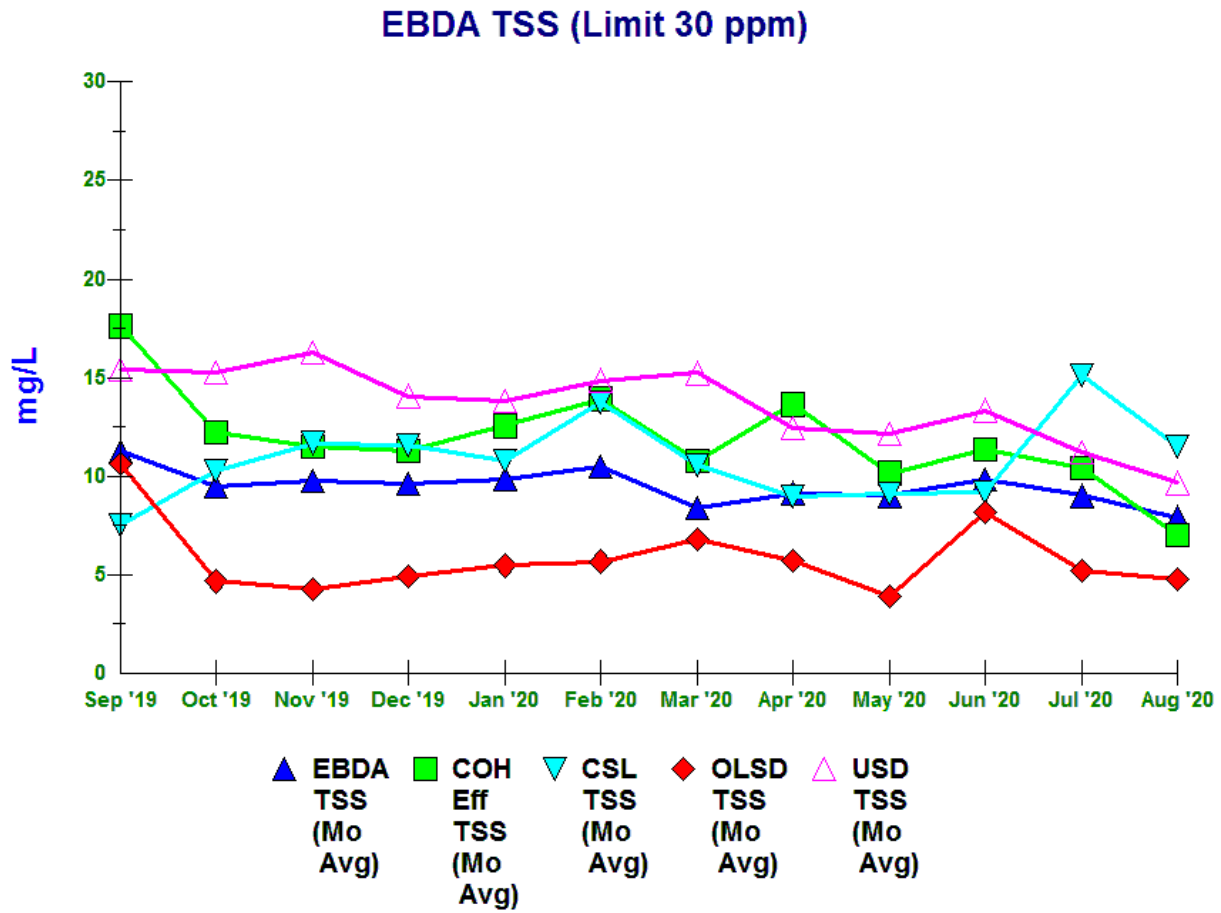
Recommendation

For the Committee's information only; no action is required.

Permit Compliance Issues

There were no NPDES permit violations in August and preliminary data from September are also free of permit exceedances. Member Agency CBOD and TSS performance are shown below. A table with bacterial indicators is also included. Sodium hypochlorite dosing was increased as the temperatures rose to prevent bacterial outbreaks during the summer months.





EBDA EFF TSS

EBDA Bacterial Indicators

Date	FECAL	ENTERO
	MPN/ 100mL	MPN/ 100mL
Limit (90th Percentile)	1100	
Limit (Geomean)	500	240
October 2019 Geomean	35	2
November 2019 Geomean	32	2
December 2019 Geomean	18	< 2
January 2020 Geomean	6	< 2
February 2020 Geomean	5	< 3
March 2020 Geomean	8	< 2
April 2020 Geomean	4	2
May 2020 Geomean	40	2
June 2020 Geomean	28	3
July 2020 Geomean	27	3
8/3/2020	8	< 2
8/4/2020	41	< 2
8/5/2020	22	2
8/10/2020	7	2
8/11/2020	11	9
8/12/2020	27	6
8/17/2020	89	2
8/18/2020	130	37
8/24/2020	14	< 2
8/25/2020	23	4
8/31/2020	14	< 2
August 2020 Geomean	23	3
9/1/2020	23	4
9/2/2020	170	4
9/7/2020	27	2
9/8/2020	540	<= 3
9/9/2020	170	6
9/10/2020		< 2
9/14/2020	138	21
9/15/2020	11	4
9/21/2020	2	2
9/22/2020	11	39
9/28/2020	47	8
9/29/2020	22	4
September 2020 geomean	41	5

ITEM NO. OM5 STATUS REPORT

Union Effluent Pump Station (UEPS – Formerly AEPS)

Effluent Pump No. 2 Variable Frequency Drive (VFD)

On September 24, 2020, Rockwell Automation Field Service installed the new VFD transformer for Effluent Pump No. 2 with assistance from USD maintenance staff. During that service call, upgraded timer relays were installed, and the VFD programming was modified to include additional VFD safeguards. Because Effluent Pumps No. 2 and No. 6 have the same VFDs, the upgraded timer relays and the VFD programming modifications were duplicated for the Effluent Pump No. 6 VFD. The upgrades were incorporated into the VFD wiring diagrams and documentation and forwarded to USD staff.

Hayward Effluent Pump Station (HEPS)

Generator Service

On September 22, 2020, Peterson Power Systems, Inc. performed a major preventative maintenance service on the HEPS Generator in preparation for wet weather. This service followed the manufacturer's recommended standards and included an oil change, coolant change and replacement of hoses, belts, filters and numerous other parts.

Motor Control Center (MCC) Replacement Project

This project is substantially complete, and staff and the contractor are currently processing the paperwork to finalize the project.

Oro Loma Effluent Pump Station (OLEPS)

Wet Well Hypochlorite (Hypo) System

This project will allow for automatic control of hypo to the OLEPS wet well, reducing the cost of hypo, sodium bisulfite (SBS), and staff time. Calcon Systems, Inc. (Calcon) is in the process of procuring product information for the equipment that will be installed. Prior to purchase, OLSD staff will have an opportunity to review and comment on the selected equipment.

Main Electrical Switchboard Upgrade

As part of the Renewal and Replacement Fund (RRF) project list for FY 2020/2021, the Commission approved \$260,000 for the replacement of the breakers and refurbishment of the main switchboard, and installation of two new automatic transfer switches (ATSS). Replacement of the 75 kW generator is also included and will be evaluated further as the project proceeds. These upgrades will improve the electrical reliability of the station, particularly in the event of a power outage.

Beecher Engineering, Inc., EBDA's contract electrical engineering firm, produced single-line drawings and a draft scope of work for the OLEPS main electrical switchboard upgrade project. EBDA staff received two quotes for the switchboard upgrade and is

currently negotiating the scope and fee with the low bidder. A motion will be presented to the Commission next month.

Paving Repair/Upgrade

OLSD's Pavement Reconstruction and Rehabilitation Project is underway. As part of that project, the asphalt behind OLEPS next to the 8,000 gallon above-ground diesel storage tank will be replaced. EBDA requested a quote for additional paving around OLEPS, specifically to the east of the pump station. This additional paving will reduce tripping hazards and match the rest of the plant where the paving is most noticeable. The additional paving will cost EBDA approximately \$10,000 over the current funds budgeted for this project in the RRF.

San Leandro Effluent Pump Station (SLEPS)

No change; all equipment is operational.

Skywest Pump Station

Recycled Water Production

During the month of September 2020, the Skywest Recycled Water System only operated three days and produced 1.37 million gallons of recycled water.

Recycled Water Pipeline Leak

An insurance claim was filed for reimbursement of the costs associated with the Skywest recycled water pipeline leak and the embankment repair. CSRMA authorized settlement of the claim.

Marina Dechlorination Facility (MDF)

Generator Service

On September 23, 2020, Peterson Power Systems, Inc. performed a major preventative maintenance service on the MDF Generator in preparation for wet weather. This service followed the manufacturer's recommended standards and included an oil change, coolant change and replacement of hoses, belts, filters, batteries and numerous other parts.

Force Main

Transport System Repair Coupling & Seals

As part of the Amended and Restated Joint Powers Agreement (JPA) negotiations, the Authority agreed to purchase encapsulating couplings and flexible internal seals and sleeves that can be used to repair the force main in the event of a failure. The 48-inch seals and sleeve were given to and are being stored at San Leandro, the 60-inch seals and sleeve are being stored at Hayward, and the 96-inch seals and sleeve are being stored at OLEPS. The last remaining item to complete the Authority's commitment is the 60-inch encapsulating coupling, which is scheduled to ship at the end of October.

Development Along the EBDA Force Main Easement

EBDA was recently contacted regarding site development near the EBDA force main easement in Hayward. The preliminary design calls for fill over the easement for a driveway and a warehouse constructed next to the easement. This design is consistent with development directly to the north of this site and in other areas of the easement. Staff contacted Dave Mathy with DCM Consulting, Inc. (DCM) to prepare a Technical Memorandum (TM) that included recommendations and requirements for the site development. DCM has performed this type of geotechnical engineering review for EBDA in the past and has also worked with EBDA's Member Agencies. The TM prepared by DCM and forwarded to the site development engineering firm is attached at the end of the O&M status report.

Operations Center

No change; all equipment is operational.

Miscellaneous Items

Underground Service Alerts

EBDA received eighteen (18) Underground Service Alert (USA) tickets during the month of September 2020. Three required field verification.

USA Service Area Update

On September 10, 2020, EBDA updated its Service Area Registration (SAR) polygon shapefiles in the USA North 811 system removing the 48-inch force main between SLEPS and MDF. The City of San Leandro staff will field verify USAs for the 48-inch force main.

COVID-19 Response

Authority staff is continuing to implement the Pandemic Response Plan, which includes staff working from home and alternating time in the office to ensure social distancing. Signage regarding closure of the office to the public and the Authority's social distancing measures has been posted on the office door. All meetings are being conducted by phone and web conference until further notice.

Staff is also continuing to track research efforts utilizing data on the prevalence of SARS-CoV-2 virus in wastewater influent to identify and anticipate COVID-19 community trends, termed wastewater-based epidemiology. Researchers at UC Berkeley secured foundation funding to develop a pop-up lab that can process 100 samples per day. The lab began operation in late September. They are still working to identify funding for the sample analysis, which they estimate at \$100/sample. A Working Group has been created to inform regional efforts and ensure coordination. The group includes representatives from UC Berkeley, Stanford, county public health offices, and wastewater treatment plants, coordinated by the Bay Area Clean Water Agencies (BACWA).

As an outgrowth of the regional Working Group, a call is planned for October 12, 2020, with representatives from UC Berkeley, Alameda County Public Health Department, East Bay Municipal Utility District, and EBDA. The goal of the meeting is to begin framing a sewer surveillance program for Alameda County that will produce meaningful and actionable data. Staff will report on the outcomes of this meeting and next steps at the October O&M Committee and Commission meetings.

Special Projects

Cargill Brine Project Due Diligence – Transport System Inspection

On October 1, 2020, in conjunction with a USD plant shutdown, EBDA shut down the southern portion of the transport system to assess the condition of the concrete pipe. During the shutdown, HEPS flow was diverted to the Hayward Ponds. The inspection was conducted on a section of the force main just south of Highway 92 in Hayward. JDH Corrosion Consultants, Inc. (JDH) was subcontracted by Brown and Caldwell (BC) to perform the inspection. GSE Construction Inc. (GSE) was subcontracted by BC to remove the Air Relief Valve (ARV) and open the manway cover to allow JDH entry to the force main. The City of San Leandro force main crew assisted with draining the force main. The southern portion of the transport system was shut down from approximately 2:00 am to 5:30 am. Two different sections of the concrete pipe were tested, both upstream and downstream of the manway. EBDA is awaiting the results of this inspection to determine if two additional locations will be inspected next spring.

The purpose of this work is to establish a quantitative baseline for corrosion in the transport system against which any impacts resulting from Cargill brine addition can be measured. For more information on the scope, see Item No. FM8.



Inspection Preparation



Inspector In Manhole

Inspector In Force Main

Advanced Quantitative Precipitation Information (AQPI) Project

The regional AQPI project to improve prediction of rainfall events in the Bay Area continues to move forward. The Cooperative Agreement for installation of the X-band radar in the East Bay has been approved by the East Bay agencies, but approval by Sonoma County Water District (Sonoma Water), the implementing agency, was slowed by the COVID-19 emergency and subsequent wildfires. Sonoma Water is expected to approve the East Bay agreement, as well as the lease agreement with American Tower for the site, on November 10, 2020. Staff are readying plans for installation of the X-band at Rocky Ridge as they await approval of the agreement, in hopes that the radar will be installed to capture as much as possible of the upcoming wet season.

To:	Howard Cin East Bay Dischargers Authority	Date:	September 16, 2020
From:	Dave Mathy DCM Consulting, Inc.	File:	No. 343
Subject:	Heat and Control Site Development 21121 Cabot Drive Hayward, CA		

1.0 INTRODUCTION

This technical memorandum presents the results of a geotechnical engineering review of currently available site development plans for expansion of Heat and Control's facilities at 21121 Cabot Drive in Hayward with respect to impacts on East Bay Dischargers Authority's (EBDA) transport system pipeline on the west side of the property (see Figure 1). The EBDA transport system pipeline consists of approximately 11.5 miles of reinforced concrete pipe (RCP) extending along the eastern margin of San Francisco Bay from Union City to San Leandro. The pipeline transports treated (and chlorinated) waste water effluent from Union Sanitary District, Hayward, Oro Loma and San Leandro waste water treatment plants as well as from Livermore Amador Valley Water Management Agency to EBDA's outfall pipeline in San Francisco Bay. At the Heat and Control project site the EBDA transport pipeline is a 60-inch-diameter reinforced concrete pipe (RCP) located within a 40-foot-wide easement over a length of approximately 600 feet on the west side of the property. Current site development plans for the Heat and Control expansion (see Figure 2) illustrate a new building abutting the EBDA easement with a paved driveway allowing access around the building over the EBDA easement. Site development will involve approximately 5 to 6 feet of engineered fill to be placed over the EBDA easement with final grades matching the property and parking lot immediately south of the site (i.e. the EBDA transport pipeline has already been filled over on the property to the south by a like amount of fill).

The 60-inch RCP EBDA transport pipeline was constructed in 1977 by open-cut trenching. At the Heat and Control site the pipeline has approximately 8 feet of cover (see Figure 3). Immediately north of the Heat and Control site at an Alameda County Flood Control District (ACFCD) channel, the pipeline has approximately 13 feet of cover under existing channel berms. The original geotechnical investigation for the transport pipeline by Harding Lawson Associates includes a boring (B-35) drilled at or near the ACFCD channel in 1975 (see Figure 4). Test boring B-35 indicates that the EBDA transport pipeline is directly underlain by medium stiff to stiff sandy clay (CL) with a Standard Penetration Test Blow Count, N-value of $N = 8$.

2.0 CONCLUSIONS

1. The EBDA transport pipeline at the Heat and Control property has approximately 8 feet of cover and is underlain by medium stiff to stiff sandy clay soils. There is no indication of very soft to soft Bay Mud underlying the pipeline in the nearest available reference test boring.

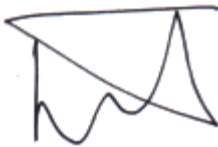
2. The addition of 5 to 6 feet of fill over the EBDA easement and pipeline will not produce large-scale consolidation settlement of the underlying medium stiff to stiff clays (e.g., as would occur if the pipeline were underlain by very soft to soft Bay Mud).
3. The EBDA transport pipeline has already experienced a similar addition of fill over the easement with past development of property directly to the south with no reported issues (e.g., settlement and joint stretching) with the 60-inch RCP. The development of the property directly to the south is limited to a parking/storage lot (i.e. no building foundations adjacent to the easement).

3.0 RECOMMENDATIONS

1. The 60-inch EBDA transport pipeline should be potholed in two locations on the Heat and Control property by vacuum excavation to:
 - a. verify the existing pipeline cover thickness of 8 feet; and
 - b. determine the location and alignment of the pipeline within the 40-foot-wide easement.
2. Review the Heat and Control project geotechnical report and test borings to verify that no very soft to soft Bay Mud underlies the site and EBDA easement.
3. Review the project grading plan to confirm that new fills placed over the EBDA easement will not exceed 6 feet in thickness.
4. Review the Heat and Control new building foundation plans to verify no impacts on the EBDA pipeline (e.g., see Figure 5 for a schematic diagram of the approximate zone of influence of spread footing foundation loading).
5. At time of site grading and trenching, field mark the alignment of the EBDA transport pipeline with stakes and flagging at no more than 100-foot spacings (see item 1.b.) with signage to protect the underlying EBDA 60-inch RCP transport pipeline during construction.
6. Limit construction equipment on the EBDA easement with a minimum of 6 feet of pipeline cover to rubber-tired vehicles conforming to H20 highway loading and track-mounted equipment to a track contact pressure of less than 10 psi.
7. Limit excavation within the EBDA easement to only that required for clearing and grubbing and subgrade preparation for engineered fill placement (e.g. approximately 12 inches deep).
8. Limit excavation in the bio-retention area at the north end of the EBDA easement, maintain no less than 6 feet of cover on the EBDA transport pipeline with final grades.
9. Limit vibrations from vibratory compaction equipment and foundation construction (e.g., in the case of driven piles) to a peak particle velocity (PPV) of less than 2 inches/second at the nearest edge of pipeline.

10. Do not allow localized stockpiling of soils or construction materials on the EBDA easement rough or final grades.
11. Protect, or reinstall after site development, the EBDA pipeline location bollard on the north end of the EBDA easement. Install a new matching EBDA pipeline location bollard on the south end of the EBDA easement.
12. Large trees of any kind should not be planted at any location within the 40-foot-wide EBDA easement. Small landscaping shrubs with shallow root structures can be planted within the 40-foot-wide EBDA easement.

Let me know if you have any questions or need any additional review of Heat and Controls development geotechnical investigation report, grading plans and foundation plans.



David C. Mathy
C.E. 28082
G.E. 569



Figure 1 – Heat and Control expansion site, empty lot behind 21121 Cabot Drive in Hayward.

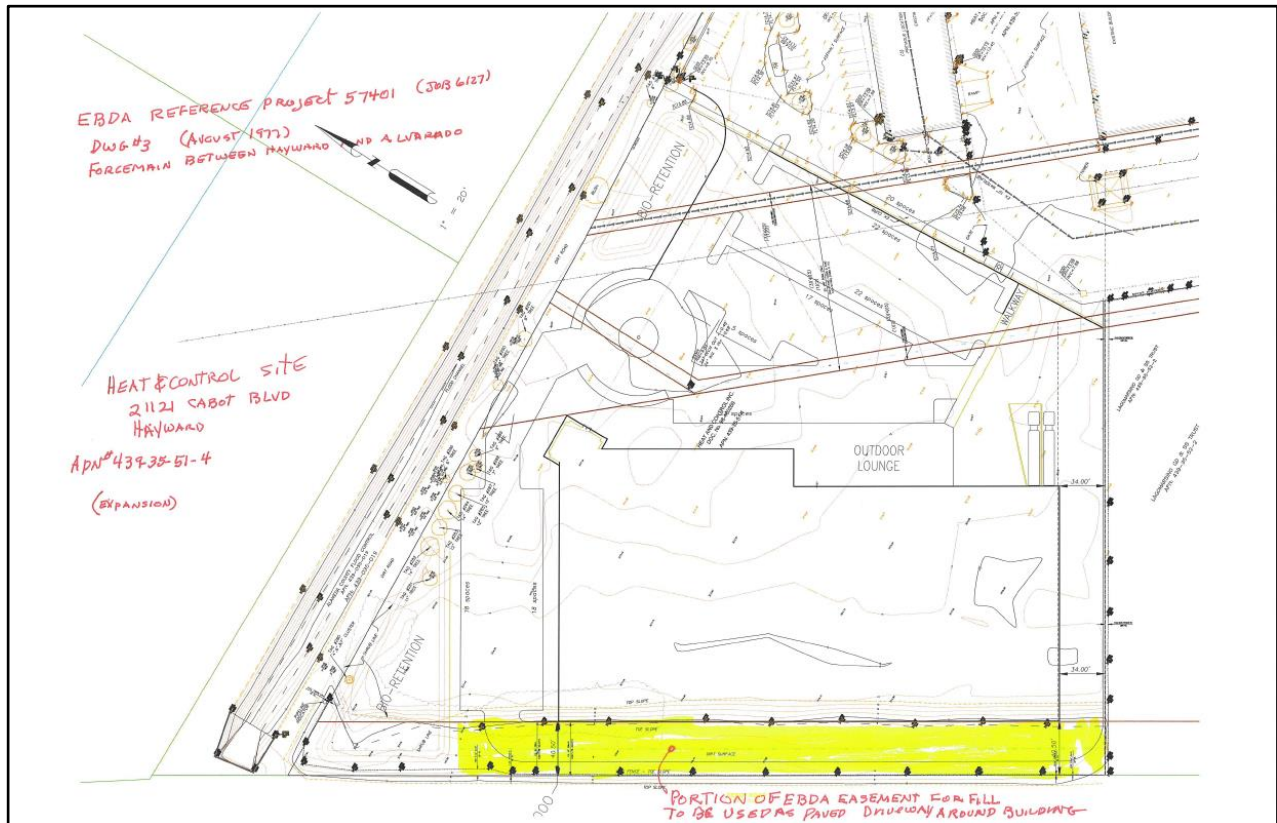


Figure 2 – Heat and Control expansion, preliminary development plan (untitled, undated). Note that the western edge of the planned new building is adjoining the eastern edge of the EBDA easement. The location of the EBDA transport pipeline within the 40-foot wide easement is not established at this time. (see also Figure 5)

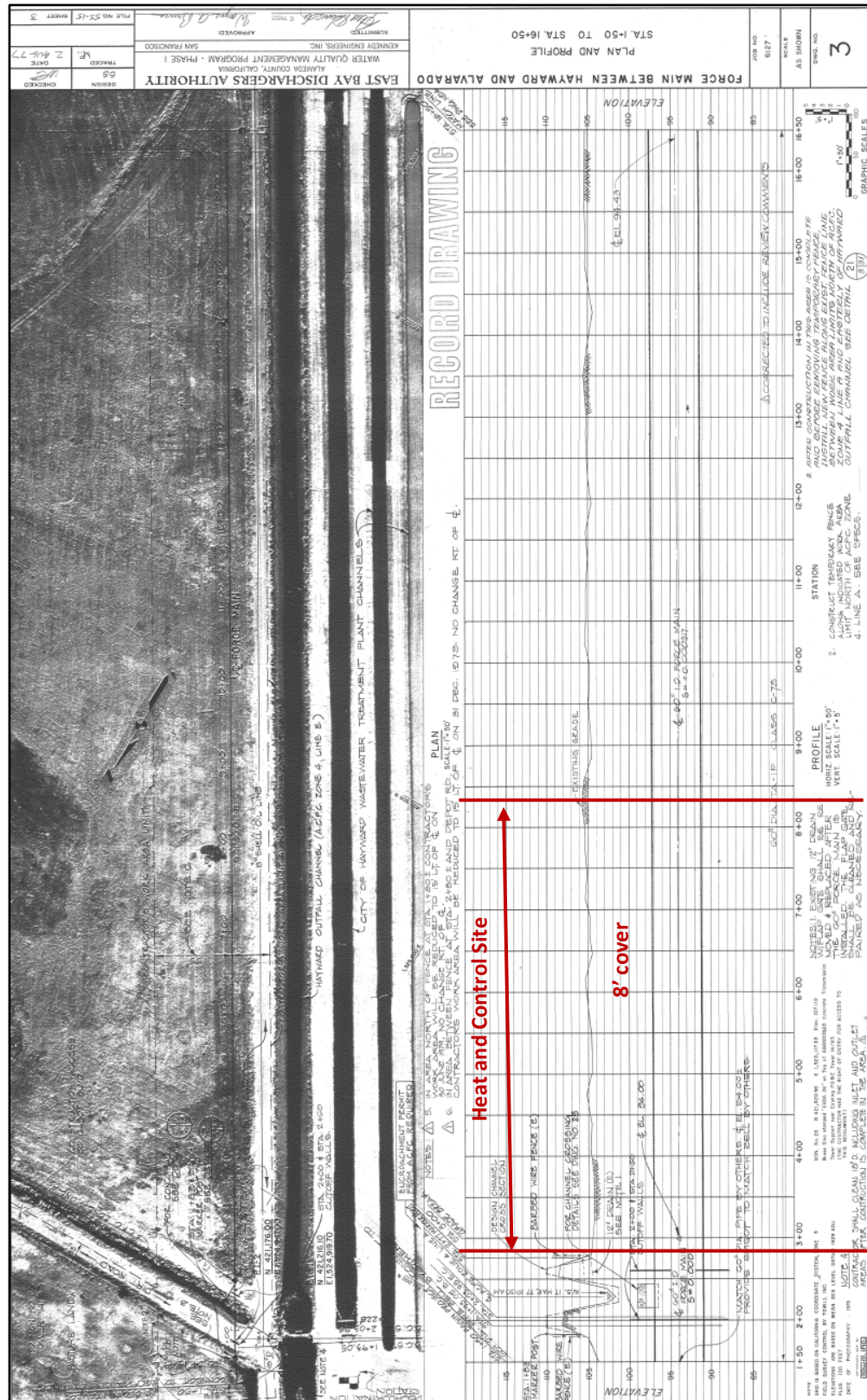


Figure 3 – EBDA 60-inch transport pipeline, 1977 plan and profile at the Heat and Control site.

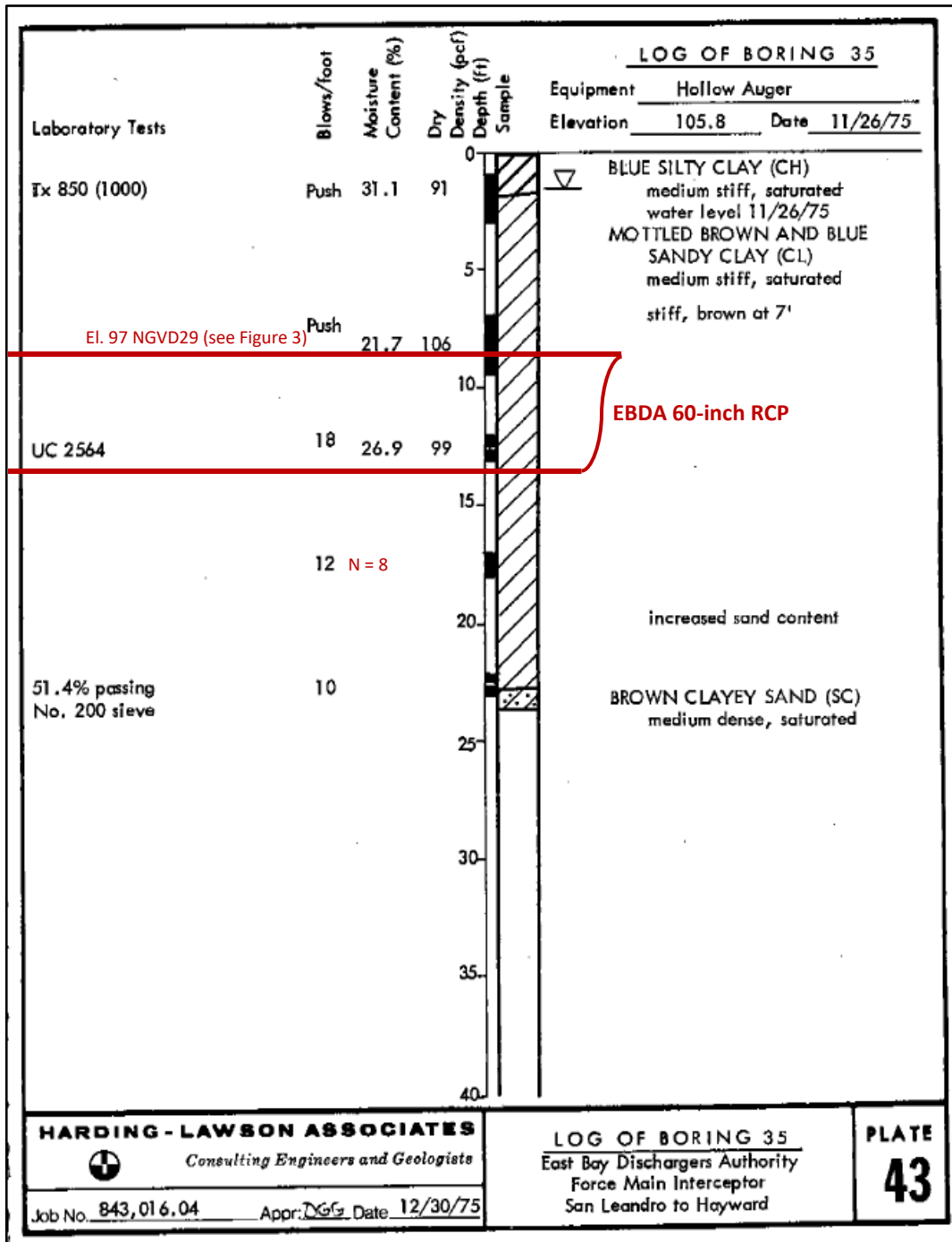


Figure 4 – 1975 Harding Lawson test boring B-35 located at or near the ACFCD channel on the north side of the Heat and Control site. The test boring indicates that the pipeline should be underlain by medium stiff to stiff clay (no Bay Mud).

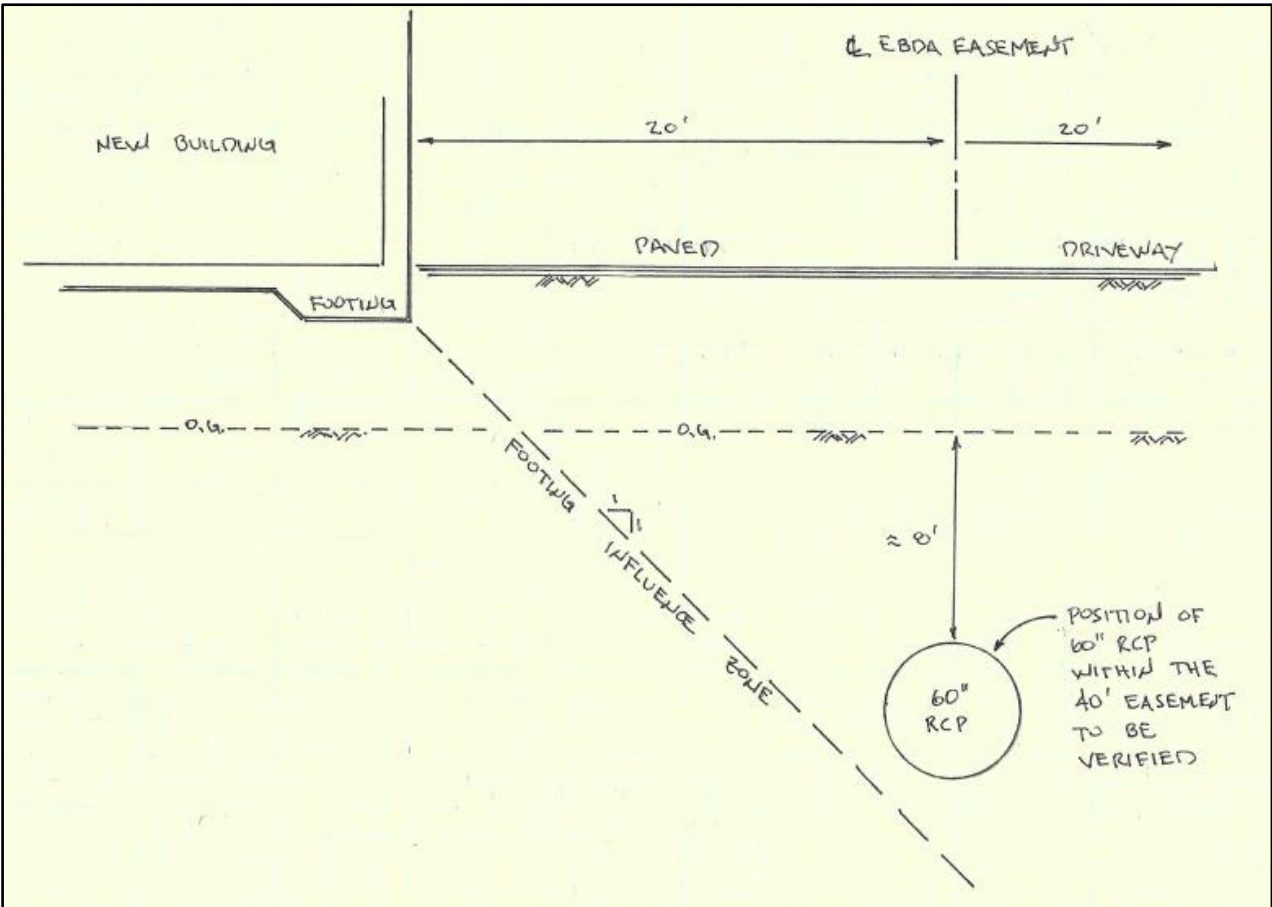


Figure 5 – Schematic spread footing foundation load distribution influence zone (1H:1V). If the verified location of the EBDA 60-inch RCP transport pipeline falls within the influence zone of a shallow spread footing foundation, further geotechnical analysis should be required to estimate pipeline loading.