



UNIVERSAL PARAGON CORPORATION

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11/9/2016

Mayor Cliff Lentz and
Councilmembers Liu, Conway, Davis and O'Connell
City of Brisbane
50 Park Place
Brisbane, CA 94005-1310

Councilmembers:

Please find attached case studies of nearby properties with similar historical environmental conditions to the Brisbane Baylands. These studies demonstrate that development of former landfills and railyards is common practice in Brownfield redevelopment and provides local examples of successful redevelopment of similar lands and development types much like what is proposed at the Brisbane Baylands. As you consider the Brisbane Baylands proposal over the next several months, it will be particularly useful to have successful, local examples for reference.

These case studies illustrate standard practices in Brownfield redevelopment and summarize the strict remediation guidelines set by the regional and state regulatory bodies with oversight responsibility for environmentally impaired brownfield sites. In California alone, the Department of Toxic Substances Control (DTSC) completes an average of 125 site remediations each year.

The six sites included in these case studies- Sierra Point, Schlage Lock, Mission Bay, Gables End, Bay Street and Taube Koret Center - are, like the Brisbane Baylands, former industrial sites, landfills and railyards subject to California regulatory standards.

Sierra Point, a development site with 2.8 million square feet of built or approved office and hotel uses on landfill similar to the Brisbane Baylands landfill site, is subject to the same strict State standards as proposed commercial development for the landfill portion of the Brisbane Baylands. Contrary to stated public hearing conclusions this past year by several Planning Commissioners and community members, UPC **has not proposed** housing on the eastern landfill portion of the Baylands site. Sierra Point provides a Brisbane specific track record for successful commercial development of a former landfill site.

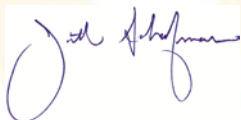
Schlage Lock, a former railyard site adjacent to Brisbane Baylands, is approved for over 1,600 housing units and is now under construction. Mission Bay in San Francisco, also a former railyard, is one of the country's most successful brownfield redevelopment efforts--including UCSF's world class hospital and research center, major sports/entertainment facilities, and over 6,000 units of housing.

Emeryville's Bay Street - a former industrial site built on inert fill - has an extensive entertainment & retail component along with 379 residential units. The retail portion was completed in 2003 and residential portion followed in 2006. Gable's End in Mountain View was built on a 5.3 acres contaminated by an on-site printed circuit board manufacturing facility. The 108 unit on-grade townhome community was completed in 2008.

The Taube Center for Jewish Life is a 455,000 square foot community center and senior housing project built on 8.5 acres in Palo Alto. Historical industrial uses for circuit and instrumentation manufacturing were the sources of site contamination.

We encourage you to visit each of these sites, speak to experts and regulatory agencies involved, and review the environmental documents for cleanup and monitoring. We hope you find these case studies helpful to your deliberations process and look forward to your leadership in transforming this critical regional site into a world-class model for sustainable, transit-oriented development. Please do not hesitate to contact me for additional information regarding the case studies.

Sincerely,



Jonathan Scharfman
Director of Development
Universal Paragon Corporation

Cc: Clay Holstine, Brisbane City Manager
John Swiecki, Brisbane Community Development Director

BROWNFIELD REDEVELOPMENT CASE STUDIES

REGARDING:

BACKGROUND MATERIALS FOR NOVEMBER 17TH PUBLIC HEARING

FOR:

HONORABLE MAYOR CLIFF LENTZ
VICE MAYOR LORI LIU
COUNCILMEMBER CLARKE CONWAY
COUNCILMEMBER TERRY O'CONNELL
COUNCILMEMBER MADISON DAVIS

SUBMITTED BY:

UNIVERSAL PARAGON CORPORATION

November 9, 2016

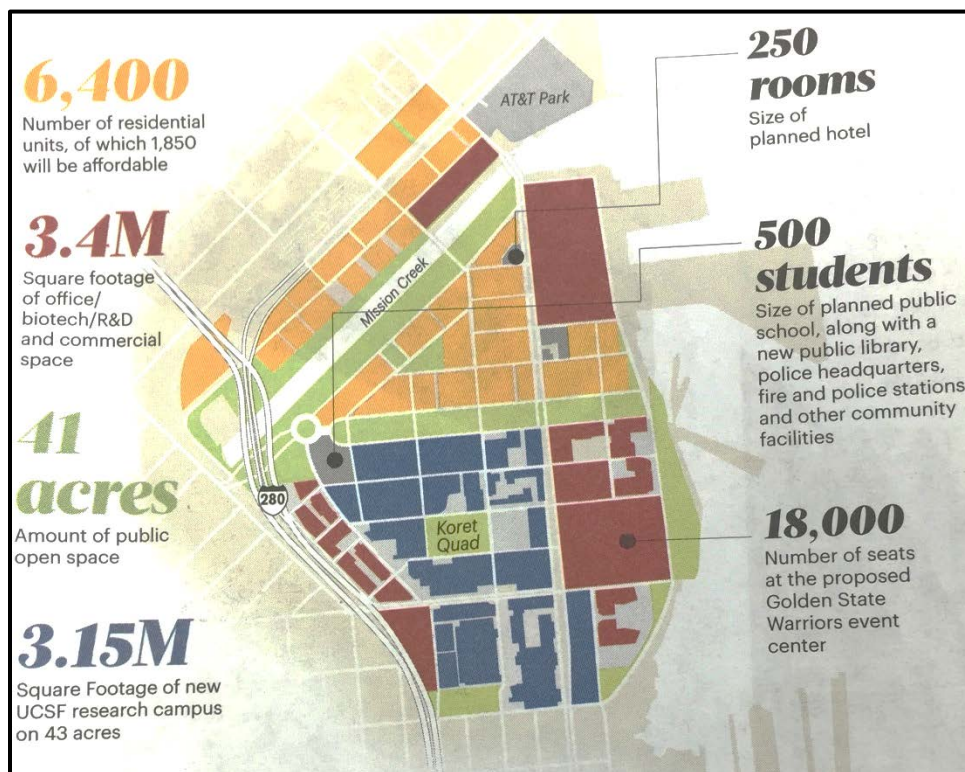
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Mission Bay - San Francisco, California

THE PROJECT

In 1998, San Francisco approved the 303-acre Mission Bay project, a mixed-use site, including multi-family housing, both market-rate and affordable, rental and for-sale units. Already completed is the 43-acre expansion campus for UCSF and approximately 5,000 of the 6,400 approved housing units. Other features include at grade parking, an amphitheater, landscape areas, 425,000 square feet of retail and numerous walkways.



HISTORY

Mission Bay is a particularly relevant local example of a successful reuse of a Brownfield Site. Much of the Mission Bay development area, several hundred acres sandwiched between San Francisco's South of Market and Dogpatch neighborhoods on the north and south, and San Francisco Bay and the Potrero neighborhood on the east and west, served as a railyard and landfill during the City's days as a major working port.

Like many former industrial areas, Mission Bay had contamination that needed to be remediated before new development could begin. Much of the landfill material underneath Mission Bay is rubble from the 1906 earthquake that contained some lead and asbestos, and topsoil contained additional petroleum hydrocarbons left behind by the area's former industrial occupants.

The remedy for landfill and contaminated soil materials was containment beneath a clean layer of soil. The new layer of soil effectively serves as a cap on the contaminated soil.

CONTAMINANTS OF CONCERN

Soil and groundwater investigations were conducted between 1996 and 1997 in order to characterize the environmental conditions and to identify significant source areas that could impact human health and the environment. The site investigation discovered the presence of chemicals in the soil and groundwater. Principal chemicals detected were petroleum hydrocarbons and inorganics (which include metals, such as lead).

TPH

Total petroleum hydrocarbons (TPH) were detected throughout the site in both the soil and the groundwater. The majority of the detections correspond to heavier end petroleum hydrocarbons, particularly in the diesel (TPH-d) and motor oil (TPH-mo) ranges. Most of the higher detections of TPH are located east of 3rd Street in the region of former petroleum bulk storage, pipelines and transfer facilities, where the pure product was encountered.

Metals

Metals were detected throughout the site in the soil and groundwater. The widespread distribution patterns of metals in the soil and groundwater are related to the Mission Bay fill materials placed at the turn of the century.

Asbestos

Asbestos was detected in the soil throughout the site and appears to be primarily associated with serpentinite rock, which was imported to fill Mission Bay and is native to the Mission Bay area.

VOCs

Volatile organic compounds (VOCs) were detected in soil and groundwater. Select volatiles (principally benzene, toluene, ethyl benzene, and xylenes, collectively referred to as BTEX) were detected in limited concentrations, and tended to be concentrated around former petroleum storage facilities east of 3rd Street.

REGULATORY OVERSIGHT

Because residual chemicals and landfill material are present at the site, risk evaluations were conducted to confirm that the site could be developed as planned, in a manner that would be safe for human health and the environment. Regulatory oversight and enforcement mechanisms by the Water Board and Cal-EPA provide the structure for risk management measures applicable to the development that will remain in place and continue to be effective. Risk management measures are prescribed in a Risk Management Plan, approved by the Water Board and Cal-EPA in 1999, for construction activities and long-term post-construction uses.



Mission Bay Creek

RISK MANAGEMENT CONTROLS

Each owner of any portion of Mission Bay must follow the RMP and its contents, and is required to comply with it. The long-term risk management measures that are undertaken to mitigate potential long-term risks to human health and the environment after construction and development of parcels are as follows:

- Covering of areas with residual landfill material or contaminated soil or groundwater with a clean layer of soil;
- Limiting future residential development within certain areas and to preclude single family homes with private front yards or back yards;
- Restricting the future use of groundwater for domestic, industrial or irrigation purposes through recordation of an Environmental Covenant;



UCSF Hospital, Mission Bay, San Francisco

- Providing protocols for future subsurface activities; and
- Implementing a long-term monitoring program.

Examples of additional controls include requiring gardens to be planted in raised boxes (example of an institutional control) and a requirement for a durable cover (buildings or roads) or clean topsoil across

the site (example of an engineering control). Additionally, as a result of organic material decomposing in the fill and underlying organic-rich native peat and bay mud around Mission Bay, methane is sometimes detected in soil gas. If methane is determined to be present above action levels, methane gas mitigation systems must be designed and installed as part of new building construction to prevent the possibility of explosion.

These risk management measures are designed to maintain the protection of human health over the life of the development.

FINANCING

Mission Bay required over \$700 million in new infrastructure, including improved streets, traffic lights, street lights, sewer and water systems, and open space areas. The construction of the infrastructure is the responsibility of the primary developer (initially Catellus, now FOCIL), with new infrastructure built over time to serve adjacent new vertical (building) development. The new infrastructure is financed through a combination of tax increment funding generated by the Mission Bay projects and special Mello Roos taxes paid by the private property owners in Mission Bay. In 1999 and 2000, the Redevelopment Agency formed Mello Roos Community Facilities District Nos. 4 and 6 to finance infrastructure construction in Mission Bay North and South. To date, the Agency has issued over \$280 million in Mello Roos and tax increment bonds to fund Mission Bay infrastructure.

EXAMPLE OF INFRASTRUCTURE INVESTMENT

Mission Bay South includes an innovative "split" water treatment system. Stormwater runoff is being treated onsite and released to the Bay through a series of pump stations and open space passive treatment systems, rather than being directed to the Southeast Water Pollution Control Plant to be treated together with wastewater as is typical throughout the City of San Francisco. This will reduce the impact of the project on the Southeast communities, and will serve as an environmental demonstration project for progressive water management practices.

INFRASTRUCTURE O&M

Approximately \$516 million in infrastructure projects have been completed or are underway, including the rebuilding of Third Street to accommodate Muni's light rail system, the construction of new and rebuilt streets and utility systems to serve residential and commercial development, and the completion of 13 acres of new parks. With the exception of open space, completed Mission Bay infrastructure is operated by the City of San Francisco through the Public Utilities Commission and Department of Public Works.

Sierra Point Landfill – Brisbane, California

THE PROJECT

The Sierra Point development includes an office park, a portion of the San Francisco Bay Trail and the Brisbane Marina. Existing low- and mid-rise office buildings accumulate to about a million square feet of development, and upon buildout will be nearly three million square feet of development. Three of these buildings were constructed with pile foundations prior to the Loma Prieta Earthquake of 1989.

HISTORY

Sierra Point is a closed Class III Solid Waste Disposal Site. The site operated as a landfill between 1965 and 1972 and was used for the disposal of municipal solid wastes. The site encompasses an area of approximately 131 acres, of which 29 acres are located in the City of South San Francisco and 102 acres are located in the City of Brisbane. The site is bounded to the north, south, and east by San Francisco Bay and to the west by Highway 101 and Southern Pacific Transportation Company railroad tracks.



Sierra Point Towers

ENVIRONMENTAL CONCERNS

Environmental concerns include buried Class III waste; methane and other landfill gasses; leachate generation and control; groundwater contamination; seismically-induced fault rupture and liquefaction; unstable soils and potential for differential ground settlement.

REGULATORY OVERSIGHT

The Water Board and CalRecycle through the San Mateo County Health Department (the local enforcement agency for CalRecycle) provide the regulatory oversight for Sierra Point. On April 17, 1996, the Water Board ordered a Post-Earthquake Inspection and Corrective Action Plan (Plan) for Sierra Point Landfill. The Plan would be implemented in the event of a Magnitude 7.0 or greater earthquake within 30 miles of the former landfill. The Plan specifies that results of the inspection of containment features and groundwater and leachate control facilities potentially impacted by the

static and seismic deformations of the landfill must be reported to the Water Board within 72 hours of the event. Immediately following an earthquake event causing damage to the landfill structures, the corrective action plan is required to be implemented and the Water Board must be notified of any damage. Inspection and Corrective Action Plan activities following a triggering event include assessing:

- perimeter dikes and shoreline erosion protection measures;
- surface locations of underground utilities;
- landfill cover including roads and parking areas;
- groundwater monitoring systems;
- leachate monitoring systems; and
- surface water drainage and outlet facilities.

Sierra Point property owners must also comply with California Code of Regulations, Title 27, which requires the operator to amend emergency response plans in the event that post closure land use and/or structures on the site change and these changes are not addressed in existing plans.



View of Sierra Point

RISK MANAGEMENT CONTROLS AND ONGOING OVERSIGHT

The California Code of Regulations, Title 27 contains specific requirements for development on former solid waste landfills for construction methods for buildings to mitigate the effect of differential settlement; flexible connections and collars; and placement of utilities.

The current Waste Discharge Requirements (WDR) for the site are controlled by the Water Board for the San Francisco Bay region. The WDR permit states that the current owners of the property overlying the site, and any new property owners, are responsible for compliance with the WDR, are jointly responsible for overall site maintenance, and have a continuing responsibility for correcting any problems associated with this disposal site during subsequent use of the site for other purposes.

Sierra Point Environmental Management Association (SPEMA) is a nonprofit mutual benefit corporation incorporated in 1998 under the Nonprofit Mutual Benefit Corporation Law of the State of California. The primary purpose of the organization is to perform environmental oversight and promote compliance by each of the members in accordance with the WDR permit and with other requirements arising out of the environmental condition of the real property as a former landfill. This includes semiannual compliance inspections for erosion of the landfill cover, daylighted refuse, and groundwater monitoring. SPEMA is a mandatory association of the site owners. The Association consists of 17 lots located in Brisbane and South San Francisco in the county of San Mateo, California. Any new property owner automatically becomes a member of SPEMA on taking title to the parcel, and all members of SPEMA are dischargers. All property owners are assessed for the annual expenses of SPEMA.



Brisbane Marina, Photo by Scott Mucci

Taube Koret Campus for Jewish Life – Palo Alto, California

THE PROJECT

The \$300 million Taube Koret Campus for Jewish Life (TKCJL) is a collaborative initiative by the Albert L. Schultz Jewish Community Center in Palo Alto, the Jewish Home in San Francisco, the Jewish Community Federation and local community leaders. The 8.5-acre campus is home to a multiuse, intergenerational community center and an independent and assisted living facility for seniors. This includes the 145,000 square foot Oshman Family Jewish Community Center and a 310,000 square foot Jewish senior residence, all over a podium parking structure. Eco-conscious building practices, systems and programs went into the project's planning, design and construction. Twenty percent of construction materials were made from recycled products and 95% of construction debris was recycled or otherwise diverted from landfills. The campus has achieved LEED Silver certification.

The entire campus is covered by a one-story podium structure containing 620 parking spaces. The podium level, approximately 14 feet above grade, supports eight four-story concrete buildings dedicated to independent, assisted, and memory assisted senior housing, a fitness center, and a theatre as the cultural focal point. The campus format allows its residents all of the benefits of city life without the challenges seniors face in an urban environment such as level changes and traffic. The community theater and cultural hall features retractable seating and a rooftop outdoor terrace with sweeping views of Silicon Valley. The Jewish Community Center also features a nursery school with 13 classrooms and a large outdoor fenced play area, an after-school learning center, a café, a cafeteria for residents, retail space, and office space for several non-profit organizations.



Independent and assisted living facility

HISTORY

Historical industrial activities at the Site from 1957 through 1989 involved production of integrated circuits and instrumentation manufacturing. These activities required the use of chemicals such as degreasers, paint thinners, acids, and detergents.

CONTAMINANTS OF CONCERN

The historical industrial activities generated a variety of hazardous wastes. Solvents were introduced to the subsurface soils through disposal into the sanitary sewer lines, and possibly a former water drain. Residual contaminants include perchloroethylene (PCE), trichloroethylene (TCE), and breakdown products of these compounds in soil, soil gas, and groundwater.



Theater for senior residents

REGULATORY OVERSIGHT

The parcel was a Cal-EPA brownfield redevelopment site, which before undergoing construction, was cleaned up to meet the requirements of Cal-EPA. Engineering and institutional controls were implemented to protect site users from residual contaminants that remain in the subsurface. The Risk Management Plan (RMP) was approved by the Water Board after public comment in June 2006. In addition, a letter report with the results of the annual monitoring review is submitted by January 31 of each year to the Water Board and the City of Palo Alto, as described in the RMP.

RISK MANAGEMENT CONTROLS

A Human Health Risk Assessment for the Site was prepared by Geosyntec Consultants on behalf of TKCJL. The development-specific human health risk assessment considered risk reduction by introduced design elements that serve as engineering controls and institutional controls. Engineering controls and institutional controls are requirements contained in the RMP that governed construction at the Site and future management of engineering controls. The RMP specified measures that were implemented by TKCJ as part of the redevelopment of the property to eliminate vapor intrusion into buildings. The RMP included the following engineering and institutional controls:

- Podium parking with continuously operating mechanical ventilation beneath residential units and day care facilities;
 - Sub-slab vapor barriers beneath all occupied structures;
 - Passive vapor extraction system beneath all podium parking areas (underlying all residential units and daycare facilities);
 - Active vapor extraction system beneath the slab-on-grade commercial areas;
 - Vapor migration reduction elements in elevator shafts and utility trenches;
- Ongoing sub-slab vapor monitoring beneath both podium parking/residential areas and slab-on- grade residential areas;
- Quarterly indoor air sampling in the podium parking garage for the first year following development;
 - Ongoing groundwater monitoring;
 - A contingency plan for operation of an active vapor extraction system, if necessary, beneath the parking/residential areas; podium
 - A deed restriction with land use restrictions that require implementation of the RMP and prohibit groundwater use; and
 - Financial assurances.

Gables End – Mountain View, California

THE PROJECT

This 5.3-acre development of 108 condominium homes in Mountain View was built in 2008 by local developer Regis Homes of Northern California. The homes meet standards set by GreenPoint Rated, which promotes livable communities, energy efficiency, indoor air quality, and resource and water conservation. The homes exceed California's strict Title 24 energy code by 16 percent. Most of the lumber and wood used in construction came from managed forests and recycled content. Each home is fully equipped with advanced ventilation and water efficiency systems and Energy Star appliances. In addition to their front porches and stoops, the development is near the Sierra Vista Park, providing residents' ample open space.



HISTORY

The residences at Gables End are constructed on a US Environmental Protection Agency (US EPA) Superfund Site, known as the CTS Printex Superfund Site. The Site was developed with engineering and institutional controls to protect residents. Printex Corporation leased the buildings at the Site beginning in 1970 and operated a printed circuit board manufacturing facility. Printex was acquired by CTS Corporation in 1981 and was renamed CTS Printex, Inc. CTS Printex continued to manufacture printed circuit boards at the Site until early 1985. The Site was purchased by Regis Homes in 2006.

CONTAMINANTS OF CONCERN

As part of the manufacturing processes that occurred, waste water containing copper, lead, and volatile organic compounds (VOCs) drained via floor drains to a sump located south of the building. In the sump, the waste water was neutralized with ammonia and then discharged to the Mountain View sanitary sewer. CTS Printex initiated subsurface environmental investigations at the Site in 1985 before moving their manufacturing operations to Fremont, California. Results of the investigation indicated elevated concentrations of copper and lead in the soil and VOCs, primarily trichloroethylene (TCE), in soil and groundwater. In 1985 and 1986, the sump and 290 cubic yards of soil were excavated and disposed of off-site. Remediation of groundwater at the Site began in 1986 with the installation and operation of a groundwater extraction system. The extraction system operated from 1987 until late 1996, when the RWQCB agreed that the system could be decommissioned due to decreasing amounts of chemicals being detected.

REGULATORY OVERSIGHT

The US EPA placed the CTS Printex facility on the National Priority List (NPL) in February 1990. The RWQCB issued a Final Order No. 91-081 Site Cleanup Requirements (Final Order) for the Site in May 1991. The Final Order did not identify risks associated with the soil at the Site, but it did recommend implementing institutional controls to prevent use of the Site groundwater as drinking water. As a result, a deed restriction was recorded for the Site in early 1992, prohibiting the use of Site groundwater for drinking. The final cleanup plan for the Site recommended no further action for Site soil, extraction of Site groundwater until drinking water quality is achieved, and long-term monitoring of the groundwater.



Gables End, Interior

RISK MANAGEMENT CONTROLS

Human Health Risk Assessment (HHRA) scenarios were developed to evaluate potential risks at the Site, including inhalation of indoor air and outdoor air vapors, inhalation of particulates, dermal contact with shallow groundwater, and ingestion and dermal contact with soils. In summary, the HHRA concluded that risk criteria were exceeded for the indoor air vapor intrusion pathway; however, engineering controls were put in place to mitigate potential risks from vapor intrusion.

These engineering controls, as well as other risk management measures, were described in a Risk Management Plan (RMP), approved by US EPA in 2006.

Risk management measures were implemented to cut-off the vapor intrusion pathway and provide additional protection to Site construction workers and residential occupants from the potential risks related to residual VOCs in the subsurface during and after Site redevelopment. Risk management measures include the following engineering and institutional controls:

- Sub-slab vapor barriers and enhanced passive sub-slab depressurization systems beneath all occupied buildings;
- Vapor migration reduction elements in utility trenches;
- Confirmation indoor air sampling following construction and prior to occupancy; and
- A deed restriction with land use restrictions and prohibition of groundwater use.

Schlage Lock – San Francisco, California

THE PROJECT

The City of San Francisco approved 1,679 housing units on the 20-acre site in 2014. Fifteen percent are affordable units, allowing market rate units to be within reach of middle-income households. Some of the community benefits include:

- Infrastructure and Transportation improvements:
 - New roads, utilities, sidewalks, bicycle infrastructure, pedestrian pathways, and off-site intersection improvements; includes full east-west pedestrian access through the site, from Bayshore Blvd. to the Bayshore Caltrain station
- Up to 46,700 square feet of new retail, including a full service grocery store of at least 15,000 square feet and a total retail floor area of at least 20,000 square feet, to be located along an extension of Leland Avenue.
- Over two acres of Parks and Open Space:
 - Construction and maintenance of two new community open spaces which may be acquired by the Recreation and Parks Department. The developer will be responsible for ongoing maintenance costs regardless of whether a park becomes City property
- Historic Building Rehabilitation:
 - The 18,000 square foot building will undergo full historic rehabilitation. At least 25% of the improved interior space must be dedicated for community use



HISTORY

The majority of the site was the original home of the Schlage Lock Company, manufacturers of locks, keys and door hardware. Walter Schlage, German inventor and entrepreneur, purchased two and a half acres of land in the southeast section of San Francisco, known as Visitacion Valley. On June 25, 1926 the first plant on Bayshore Boulevard was formally dedicated and declared open for business. In 1999, the company moved its plant and headquarters, leaving the community with an industrial site that would sit empty for years. This portion of the site is known as the Schlage OU. Another portion of the site, known as the railyard, was owned by the Southern Pacific Transportation Company from 1896 to 1990. The railyard operated from 1914 to 1960 as an area for materials transfer, maintenance of locomotives, and repair of railcars. This portion of the site is designated as Operable Unit-1 (OU-1). Universal Paragon Corporation purchased the railyard in 1990 and the Schlage Lock property in 2008 combining the two properties as the current site.



Leland Ave view, transportation improvements and housing

CONTAMINANTS OF CONCERN

Environmental investigations were conducted at the Schlage Lock Site beginning in 1982. Elevated volatile organic compound (VOC) concentrations, primarily perchloroethylene (PCE) and trichloroethylene (TCE), have been detected at the site. Also some heavy metals were for in soil investigations.

UPC conducted additional investigations in 2005 and 2006 in OU-1 to confirm the extent of heavy metals and VOC concentrations in soil and groundwater. Analytical results indicated VOCs, primarily TCE and PCE, were present in soil and groundwater. Also, elevated concentrations primarily of arsenic and lead were detected in soil in both the San Francisco and Brisbane portions of OU-1.

REGULATORY OVERSIGHT

The Department of Toxic Substance Control provides regulatory oversight of the site. Since 1994, numerous investigation reports and plans have been submitted to DTSC that study both soil and groundwater contamination. A Remedial Action Plan (RAP) was developed in 2009 to address the VOCs in soil and groundwater along with the heavy metals in soil. Remedial activities that have been implemented as detailed in the RAP include removal of underground storage tanks, onsite soil treatment by soil aeration for VOCs, excavation and off haul of soil impacted with petroleum hydrocarbons, in-situ groundwater treatment via enhanced reductive dechlorination injections, and consolidation / capping of metals impacted soils. The DTSC certified that all remedial actions have been completed and implemented for the Schlage OU in June of 2014. The DTSC is currently performing the final review of documents pertaining to the San Francisco portion of OU-1. Certification of OU-1 is expected in the Spring of 2017.

RISK MANAGEMENT CONTROLS

Land Use Controls (LUC) or deed restrictions are recorded for the Schlage OU portion of the site. The DTSC is in the final stages of writing LUCs for the OU-1 portion of the site. The OU-1 LUCs are expected to be recorded in early 2017. It is anticipated that the OU-1 and OU-2 portions of the Baylands will likely include much of the same or similar LUCs and remedies for cleanup.

INFRASTRUCTURE FINANCING

Infrastructure construction for new site development at the Schlage Lock site will be financed by UPC with impact fee concessions from the City of San Francisco. Utilities and street improvements will be dedicated to the City of San Francisco. Maintenance of the new infrastructure facilities will become the responsibility of the City and County of San Francisco and a master Home Owner's Association.

Bay Street – Emeryville, California

THE PROJECT

Encompassing three city blocks, Bay Street is home to more than 65 shops, 10 restaurants and a nationally ranked 3,300 seat AMC-movie cinema. The podium project includes 379 apartments and townhouses, with separate dedicated parking. Twenty percent of the units are designated as affordable housing for low- and moderate-income residents. The retail and parking, including the structural work for the entire project, were completed in 2003, and the residential portions were completed in 2006.



Bay Street, residential over retail

HISTORY

The site once had indigenous settlements, with “shellmounds” in the southern portion of the Bay Street site. An amusement park was built near the turn of the century. It was later filled, mostly with construction debris and other inert materials, in the 1930’s, after the railroad was installed along the east shore of San Francisco Bay. After being filled in, the 22-acre site was the location of significant industrial activity, including a lime and sulfur plant, an insecticide and spray plant, steel storage, a trucking company, a plant producing iron oxide pigments, and storage of used drums and barrels prior to reconditioning. A portion of the site was occupied by the Judson Steel Corporation from 1882-1987, and succeeded by the Barbary Coast Steel Corporation until 1991. The predominance of commercial land use in Emeryville, combined with the abandonment of large industrial facilities, has given the city a unique opportunity to re-invent itself. Over the last decade, the City has enabled many of the largest developments through land use allowances and amendments to their 1987 General Plan.

ENVIRONMENTAL CONCERNS

Many of the previous uses, including those east of the railroad tracks, released petroleum hydrocarbons, volatile organic compounds, including benzene, toluene, ethylbenzene, and xylenes, lead, arsenic, DDT residuals, and oil and grease in the soil and groundwater. The upper 3 to 7 feet of the site had been affected by diesel, gasoline, hydraulic oil, and lead. PCBs were present in the soil, and diesel and gasoline components were detected in the groundwater.



Bay Street, residential

REGULATORY OVERSIGHT

The Department of Toxic Substances Control (DTSC) and Regional Water Quality Control Board provide regulatory oversight of the project. Remedial work was carried out by Barbary Coast Steel during 1996 and 1997 and involved a first phase of soil excavation and removal and a second phase of capping the site and implementing a groundwater-monitoring program. Because many sites have sources of contamination, there are several case files under the DTSC and the Water Board.

RISK MANAGEMENT CONTROLS and ONGOING OVERSIGHT

Construction of larger developments often includes onsite storage and/or use of quantities of materials capable of significantly impacting soil, surface water, and groundwater. The use of construction best management practices (BMPs) is typical of construction and redevelopment projects of this size, which are required by the city and county as part of construction to minimize the potential negative environmental effects. City ordinances and stormwater control measures as a part of the Alameda Countywide Clean Water Program (ACCWP) serve to minimize impacts.

The California Environmental Protection Agency (Cal EPA), DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment.

There are institutional controls that restrict the uses on the site and require periodic monitoring and reporting to DTSC. Some examples of some of the restrictions include residential development shall be constructed at least one floor above the ground floor of the building and groundwater shall not be extracted unless for groundwater remediation. For ongoing operation and maintenance, the property owner shall inspect and maintain improvements constructed on the property as provided in the Risk Management Plan, approved in July 2000.

FINANCING and DEVELOPMENT AGREEMENT

The City had a major role in catalyzing the project. Emeryville's Redevelopment Agency assembled and cleaned-up the polluted land over a ten-year period, provided five million dollars in direct financial assistance and tendered an \$18 million, low-interest loan in order to assist developer Madison Marquette in building this regional retail center and housing development. Construction of the apartments was also financed through proceeds from the sale of tax-exempt bonds. MacFarlane Partners invested in the development of the retail component and served as developer of the residential component through separate ventures with Madison Marquette Realty Services. Investors also included CalPERS. As part of the development agreement, the Developer agreed to pay a traffic mitigation fee, the City's standard 1% public art fee, and the State-required school district fee. They also agreed to provide "sacred space" and a museum-like exhibit of the historic Native American shell mound on which the project is built.