London N. Breed, Mayor
Philip A. Ginsburg, General Manager

General Manager Directive 19-03
Adopting Standard Construction Measures
December 17, 2019

To: RPD Capital and Planning Division

From: Philip Ginsburg, General Manager

cc: Toks Ajike, Director of Capital and Planning
Stacy Radine Bradley, Deputy Director of Planning

Re: Adopting Standard Construction Measures

With this GM Directive, RPD Capital and Planning Division staff are directed to use the attached *Standard Construction Measures* ("Measures") for all capital projects. These Measures ensure compliance with environmental laws and best practices. The following measures are included in these standards:

- Air Quality
- Water Quality
- Biological Resources
- Visual and Aesthetic Considerations, Project Site
- Cultural Resources, Archaeology and Historic Resources

During project planning the PM should use the measures to identify and address specific environmental concerns. In addition to complying with all applicable Local, State, and Federal laws and regulations, these Measures are to be followed as a standard practice in the execution of every capital RPD project. These measures align with Public Works standard construction measures. Public Works typically manages the bidding process for RPD capital improvements.

For projects that undergo full CEQA review (Mitigated Negative Declaration or Environmental Impact Report), these Measures may be superseded and/or amplified with more detailed, project-specific mitigation measures or conditions stipulated in the project CEQA document and/or permits. The PM is responsible for ensuring the Standard Construction Measures are integrated into their project.

For assistance with these measures, contact the RPD Planning Unit staff.

ATTACHMENT A – RPD Standard Construction Measures and Attachments A-H

San Francisco Recreation and Park Department
Standard Construction Measures

1. AIR QUALITY: All San Francisco Recreation and Park Department (RPD) projects will comply with the Construction Dust Control Ordinance (see Attachment A). Major construction projects that are estimated to require 20 or more days of cumulative days of work within the Air Pollutant Exposure Zone must comply with the additional clean construction requirements of the Clean Construction Ordinance[1] (see Attachment B).

2. WATER QUALITY: All RPD projects will implement erosion and sedimentation controls, as necessary, tailored to the project site, such as fiber rolls and/or gravel bags around storm drain inlets, installation of silt fences, and other such measures sufficient to prevent discharges of sediment and other pollutants to storm drains and all surface waterways, such as San Francisco Bay, the Pacific Ocean, water supply reservoirs, wetlands, swales, and streams. As required, based on project location and size, a Stormwater Control Plan (in most areas of San Francisco) or a Stormwater Pollution Prevention Plan (SWPPP) (in certain areas of San Francisco) will be prepared. If uncontaminated groundwater is encountered during excavation activities, it will be discharged in compliance with applicable water quality standards and discharge permit requirements.

3. BIOLOGICAL RESOURCES: The RPD will comply with all local, State, and federal requirements for surveys, analysis, and protection of biological resources (e.g., Migratory Bird Treaty Act, federal and State Endangered Species Acts, etc.). RPD will screen all RPD project sites and the immediately surrounding area to determine whether significant biological resources may be affected by construction. If significant biological resources are present, a qualified biologist will carry out a survey of the project site to note the presence of general biological resources and to identify whether habitat for special-status species and/or migratory birds is present. If necessary, measures will be implemented to protect biological resources, such as installing wildlife exclusion fencing, establishing work buffer zones, installing bird deterrents, monitoring by a qualified biologist, and other such measures. If tree removal is required, RPD would comply with any applicable tree protection ordinance and policy.

4. VISUAL AND AESTHETIC CONSIDERATIONS, PROJECT SITE: RPD will maintain all project sites in a clean and orderly state. Construction staging areas will be sited away from public view, and on currently paved or previously disturbed areas, where possible. Nighttime lighting will be directed away from residential areas and have shields to prevent light spillover effects. Upon project completion, project sites on City-owned lands will be returned to their general pre-project condition, including re-grading of the site and re-vegetation or re-paving of disturbed

[1] https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf, accessed December 16, 2019.

areas to the extent this is consistent with the Park Code and San Francisco Administrative Code and Charter.

5. CULTURAL RESOURCES: RPD will screen all projects that will alter a building or structure, produce vibrations, or include soil disturbance[2] to assess whether cultural resources are or may be present and could be affected, in coordination with San Francisco Planning Department Environmental Planning (EP) staff as detailed below.

Archeological Resources. No archeological review is required for a project that will not entail soil disturbance. Projects involving soil disturbance will initially be screened by RPD staff to identify whether there is demonstrable evidence of prior soil disturbance at the project site to the maximum vertical and horizontal extent of the current project's planned disturbance. RPD will complete the RPD Preliminary Archeological Checklist (PAC), Part I only (see Attachment C). For projects where prior complete soil disturbance has occurred throughout areas of planned work, RPD will provide evidence of the previous disturbance in the environmental application to be reviewed by EP Archeological staff.

1) For projects that are on previously undisturbed sites or where the depth/extent of prior soil disturbance cannot be documented, or where the planned project-related soil disturbance will extend beyond the depth/extent of prior soil disturbance, additional screening will be carried out as detailed below and shown on the flow chart titled "RPD Standard Construction Measure #5 Archeological Assessment Process" (see Attachment D). The EP Archeologist will complete the Preliminary Archeological Checklist, Part II (PAC) for the project, which will include recommendations for one of three Standard Archeological Measures (I - Discovery, II – Monitoring, or III – Testing/Data Recovery) to be implemented by RPD to protect and/or treat significant archeological resources identified as being present within the site and potentially affected by the project (see Attachments E, F, and G). Additional research and documentation, such an Archeological Research Design and Treatment Plan (ARDTP), Archeological Sensitivity Study (ASA), Archeological Sensitivity Assessment Testing (ASAT), or an archeological field survey, may also be requested by EP Archeological staff. These documents will be completed by a qualified consultant from the EP Archeological Resources Consultant Pool and will be scoped, reviewed, and approved by EP Archeological staff.

2) RPD will implement the PAC recommendations prior to and/or during project construction consistent with Standard Archeological Measures I, II, and III, and will consult with the EP Archeologist in selecting a qualified archeological consultant from

[2] Soil is defined as native earthen deposits or introduced earthen fills. Soil does not include materials that were previously introduced as part of elevated planter beds or materials that were previously introduced as part of a parking lot or structure or roadway pavement section, including asphalt concrete-wearing surface, roadway base, and sub-base.

the EP Archeological Resources Consultant Pool, as needed, to implement these measures.

3) RPD will not begin soil-disturbing activities in archeologically sensitive areas, as identified through the above screening, until required preconstruction archeological measures of the PAC (e.g., preparation of an Archeological Monitoring Plan, Archeological Treatment Plan, and/or an Archeological Research Design and Data Recovery Plan) have been implemented.

Historic (Built Environment) Resources. RPD will consult with Planning Department Preservation staff to determine if projects that would modify an existing building, structure, or landscape feature require preservation review and if a Historic Resource Evaluation (HRE) or Cultural Landscape Report (CLR) will be required. The HRE or CLR will be prepared by a qualified architectural historian and will be scoped with Planning Department Preservation staff. Where the potential for the project to have adverse effects on an historical resource is identified by Planning Department Preservation staff, the Planning Department Preservation Planner will consult with RPD to determine if the project can be conducted as planned or if the project design can be revised to avoid the significant impact. If these options are not feasible, the project will need to undergo further environmental review with the Planning Department and mitigation may be required. If so, the project would not qualify for a Categorical Exemption from CEQA review.

Where construction will take place in proximity to a building, structure, landscape, or monument identified as a significant historical resource but would not otherwise directly affect it, RPD will implement protective measures, such as but not limited to, the erection of temporary construction barriers to ensure that inadvertent impacts to such elements are avoided. RPD will develop these measures prior to construction and document them in a Construction Best Practices for Historical Resources Plan and a plan outlining the Construction Monitoring for Historical Resources Program to be reviewed and approved by Planning Department Preservation staff prior to construction.

If a project includes or is directly adjacent to historic buildings, structures, or monument susceptible to vibration (such as but not limited to unreinforced masonry, earthen construction, lathe and plaster, statues, or fragile architectural ornamentation) as determined in consultation with Planning Department Preservation staff, the Planning Department will determine if vibrations associated with proposed construction activities has the potential to cause damage to such buildings or structures. Generally, vibration below 0.12 inches per second peak particle velocity does not have the potential to damage sensitive buildings or structures. A vibration study may be necessary to determine if such vibration levels will occur. If RPD determines in consultation with Planning Department Preservation staff that vibration damage may occur, RPD will engage a qualified historic architect or historic preservation professional to document and photograph the pre-construction condition of the building, structure, or monument and prepare a plan for monitoring the building, structure, or monument during construction. RPD

will submit the monitoring plan to the Planning Department Preservation Planner for review and approval prior to the beginning of construction. The monitoring plan will identify how often monitoring will occur, who will undertake the monitoring, reporting requirements on vibration levels, reporting requirements on damage to adjacent historical resources during construction, reporting procedures to follow if such damage occurs, and the scope of the preconstruction survey and post-construction conditions assessment. RPD will implement the approved monitoring plan during construction.

If any damage to a historic building, structure, or monument occurs, RPD will immediately notify the Planning Department Preservation Planner and modify activities to minimize further vibration. If the event of damage, RPD will repair the building following the Secretary of the Interior's Standards for the Treatment of Historic Properties under the guidance of a qualified historic architect or historic preservation professional in consultation with a Planning Department Preservation Planner.

Reporting. RPD will follow the reporting requirements specified in the applicable Standard Archeological Measures (see Attachments E—G). If Construction Best Practices for Historical Resources Plan and/or a plan outlining the Construction Monitoring for Historical Resources Program, as discussed above are required, RPD will follow reporting requirements outlined in those approved plans. RDP will provide monthly project updates to Planning Department staff.

ATTACHMENTS

A. Construction Dust Control Measures
B. Clean Construction Measures
C. Recreation and Park Department Preliminary Archeological Checklist (PAC)
D. Recreation and Park Department Standard Construction Measure #5 Archeological Assessment Process
E. Recreation and Park Department Archeological Measure I (Archeological Discovery)
F. Recreation and Park Department Archeological Measure II (Archeological Monitoring)
G. Recreation and Park Department Archeological Measure Ill (Archeological Testing/Data Recovery)
H. Archeological Alert Sheet

Attachment A: San Francisco Recreation & Parks Department (RPD) Dust-Control Measures

For the purposes of this document, "sensitive receptor" means residence, school, childcare center, hospital or other health-care facility or group living quarters, and "visible dust" means dust comprising visible emissions as defined in Bay Area Air Quality Management Board Regulation 6 – Particulate Matter.

For all projects, RPD will institute though its construction specifications the following dust- control measures to achieve a goal of no visible dust emissions:

- Clean up spillage on City streets, whether directly or indirectly caused by construction operations.
- Remove demolition debris from the Site no later than the end of each workday. Any hazardous materials and/or suspected hazardous materials stored on site shall be stored in accordance with all applicable Cal EPA regulations, including being stored in proper containers and being protected from exposure from the elements. Any such materials shall be removed from the site as soon as possible for disposal/recycling in accordance with all applicable statutes and regulations.
- Keep the Site and adjacent areas clean and perform wet sweeping at the end of each shift.
- Perform continuous water spraying during dust generating activities. Mist or spraying shall be conducted in such a way as to prevent puddling or generation of runoff. Mist any immediate area of demolition with a water spray to prevent airborne dust particles.
- Wet all exposed soil surfaces at least three times daily during dry weather or more frequently if dust is blowing or if required by the City. Any serpentine residuals on the street shall be wet swept immediately.
- Use dust enclosures, curtains, and dust collectors as necessary to control dust.
- Load haul trucks, hauling debris, soils, sand or other such materials so that the material does not extend above the walls or back of the truck bed. Wet before covering and tightly cover the surface of each load before the haul truck leaves the loading area.
- Limit vehicle speed limit on unpaved roads to 15 miles per hour (mph).
- Cover any inactive (no disturbance for more than seven days) stockpiles greater than ten cubic yards or 500 square feet of excavated materials, backfill material, import material, gravel, sand, road base, and soil with a 10 mil (0.01 inch) polyethylene plastic or equivalent tarp and brace it down or use other equivalent soil stabilization techniques.
- Reclaimed water will be used for all dust-control operations to the extent feasible (without resorting to extraordinary means and measures) and allowed by law.

If the project grades or excavates more than one half acre surface area at any given time, and the project is within 1,000 feet of a sensitive receptor as defined above, RPD or its contractor shall prepare a Site-Specific Dust Control Plan for the review and approval of the Department of Public Health. The site-specific dust control plan shall contain mapping identifying locations of sensitive receptors and contain additional site-specific dust monitoring and control measures that will apply to the project. These site-specific measures may include the following or equivalent measures, which accomplish the goal of minimizing visible dust:

- Wetting down areas around soil improvement operations, visibly dry disturbed soil surface areas, and visibly dry disturbed unpaved driveways at least three times per shift per day.

- Analysis of the wind direction.

- Placement of upwind and downwind particulate dust monitors.

- Recordkeeping for particulate monitoring results.

- Hiring of an independent third party to conduct inspections for visible dust and keeping records of those inspections.

- Requirements for when dust generating operations have to be shut down due to dust crossing the property boundary or if dust is contained within the property boundary but not controlled after a specified number of minutes.

- Establishing a hotline for surrounding community members to call and report visible dust problems so that RPD or its contractor can promptly fix those problems; posting signs around the site with the hotline number and making sure that the number is given to adjacent residents, schools and businesses.

- Limiting the area subject to excavation, grading, and other demolition or construction activities at any one time.

- Minimizing the amount of excavated material or waste materials stored at the site.

- Installing dust curtains, plastic tarps or windbreaks, or planting tree windbreaks on the property line on windward and down windward sides of construction areas, as necessary.

- Paving, applying water three times daily, or applying non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at the construction site. Reclaimed water must be used if required by Article 21, Section 1100 et seq. of the San Francisco Public Works Code, Article 22. If not required, reclaimed water should be used whenever possible.

- Establishing speed limits so that vehicles entering or exiting construction areas shall travel at a speed that minimizes dust emissions. This speed shall be no more than 15 mph.

- Installing wheel washers to clean all trucks and equipment leaving the construction site. If wheel washers cannot be installed, tires or tracks and spoil trucks shall be brushed off before they re-enter City streets to minimize deposition of dust-causing materials.

- Terminating excavation, grading, and other construction activities when winds speeds exceed 25 mph.

- Hydroseeding inactive construction areas, including previously graded areas inactive for at least 10 calendar days, or applying non-toxic soil stabilizers.

- Sweeping of surrounding streets during demolition, excavation and construction at least once per day to reduce particulate emissions.

SECTION 01 35 48

ADDITIONAL CLEAN CONSTRUCTION REQUIREMENTS ON MAJOR CONSTRUCTION PROJECTS

PART 1 – GENERAL

1.01 SUMMARY

A. This Section 01 35 48 incorporates additional requirements of the San Francisco Clean Construction Ordinance ("Ordinance") for projects that meet the requirements of Environment Code Section 2504(a), which are located in the Air Pollutant Exposure Zone and which are within 1,000 feet of a Sensitive Use, as set forth in Chapter 25 of the Environment Code and Section 6.25 of the Administrative Code.

B. For projects that meet Environment Code Section 2504(b), which are located outside the Air Pollutant Exposure Zone, or which are in the Air Pollutant Exposure Zone but are not within 1,000 feet of a Sensitive Use, refer to Section 00 73 73, Article "CLEAN CONSTRUCTION REQUIREMENTS ON MAJOR CONSTRUCTION PROJECTS."

C. The Department of the Environment is responsible for administering the Ordinance. For more information about the Ordinance and its implementation, please visit the Department of Public Health website at: https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp and https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf.

1.02 DEFINITIONS

A. "Air Pollutant Exposure Zone" means a zone having a substantially greater than average concentration of air pollutants as defined in Health Code Section 3804.

B. "Alternative Fuels" means any transportation fuel that is less polluting than gasoline or petroleum diesel fuel, as determined by the California Air Resource Board and that is shown to have lower lifecycle carbon emissions than gasoline or petroleum diesel. Alternative Fuels may include, but are not limited to: natural gas; propane; biofuels from low carbon, sustainable and preferably local sources; hydrogen produced from low carbon and/or renewable sources; and electricity.

C. "Alternative Sources of Power" means utility-based electric power or other power sources other than diesel engines.

D. "ARB" means the California Air Resources Board.

E. "Clean Construction" means the performance of all work required to be performed under a Public Works contract meeting the requirements in Sections 2504, 2505 and 2506 of the Environment Code, as applicable.

F. "Construction" means building, demolition, excavation, grading or foundation work, whether or not the work requires a City permit.

G. "Construction Activities" means the performance of all work involved in or required for Construction, except for the issuance or obtaining of a site permit for a project.

H. "Construction Phase" means a particular construction activity over a certain period of time. Construction phases may include, but are not limited to, demolition, site preparation, grading, building construction, architectural coatings, and paving. Multiple Construction Phases of a single project may take place at the same time.

I. "Equipment" means off-road and on-road equipment.

J. "Equipment Type" means a category of off-road equipment. Types of off-road equipment include bore/drill rigs, cranes, crawler tractors, excavators, graders, off-highway tractors, off-highway trucks, other construction equipment, pavers, paving equipment, rollers, rough terrain forklifts, rubber-tired dozers, rubber-tired loaders, scrapers, skid steer loaders, surfacing equipment, tractors/loaders/backhoes, and trenchers.

K. "Major Construction Project" means a public work to be performed within the geographic limits of the City that uses off-road equipment and that is estimated to require 20 or more cumulative days of work, including non-consecutive days, to complete.

L. "Most Effective Verified Diesel Emission Control Strategy" means a device, system or strategy that is verified, pursuant to Division 3, Chapter 14, of Title 13 of the California Code of Regulations, to achieve the highest level of pollution control tram an off-road vehicle.

M. "Off-Road Engine" means a non-road engine as defined in Title 40 of the Code of Federal Regulations, Section 89.2.

N. "Off-Road Equipment" means equipment with an off-road engine having greater than 25 horsepower and operating for more than 20 total hours over the entire duration of Construction Activities.

O. "On-Road Equipment" means a heavy-duty vehicle as defined in Title 40 of the Code of Federal Regulations, Section 86.1803-01.

P. "Portable Diesel Engine" means a diesel engine that is portable as defined in 71 California Code of Regulations, Section 93116.2(bb).

Q. "Sensitive Use" means a category of building use identified as a "Sensitive Use" in Health Code Section 3804.

R. "Tier 2 Off-Road Emission Standards" means the Tier 2 new engine emission standards in Title 13, California Code of Regulations, Section 2423(b)(1)(A) and/or Title 40, Code of Federal Regulations, Part 89.112(a).

S. "VDECS" means a verified diesel emission control strategy, designed primarily for the reduction of diesel particulate matter emissions, which has been verified by ARB pursuant to "Verification Procedures, Warranty and In-Use Strategies to Control Emissions from Diesel Engines," Title 13, California Code of Regulations, Sections 2700-2710. VDECS can be verified to achieve Level 1 diesel particulate matter reductions (at least 25 percent), Level 2 diesel particulate matter reductions (at least 50 percent), or Level 3 diesel particulate matter reductions (at least 85 percent).

1.03 SUBMITTALS

A. Construction Emissions Minimization Plan:

1. Contractor shall submit its initial Construction Emissions Minimization Plan no less than 28 days prior to mobilization. (See Subsection 1.04B.)

2. Contractor shall submit an updated Construction Emissions Plan on a quarterly basis in compliance with Subsection 1.04B.5.a, and submit each quarterly report within seven business days of the end of each quarter.

3. Contractor shall submit a final Construction Emissions Minimization Plan report summarizing construction activities within two weeks of achieving Substantial Completion in compliance with Subsection 1.04B.5.b.

B. Clean Construction Emissions Plan Certification Statement: Contractor shall submit this statement with its Construction Emissions Minimization Plan. (See Subsection 1.04B.3.)

C. Waiver Request: Contractor shall submit a waiver request to the Department Head no less than two weeks prior to the planned use of a specific piece of off-road equipment. (See Subsection 1.05A.)

1.04 REQUIREMENTS FOR MAJOR CONSTRUCTION PROJECTS WITHIN THE AIR POLLUTANT EXPOSURE ZONE

A. For all Major Construction Projects that meet the requirements of Environment Code Section 2504(a) and which are located in the Air Pollutant Exposure Zone and within 1,000 feet of a Sensitive Use, the following requirements apply:

1. All off-road equipment shall have engines that (a) meet or exceed either United States Environmental Protection Agency or ARB Tier 2 off-road

emission standards, and (b) have been retrofitted with an ARB Level 3 VDECS. Equipment with engines meeting Tier 4 Interim or Tier 4 Final off- road emission standards automatically meet this requirement. See Section 1.05A regarding the procedure for requesting a waiver to this requirement.

2. Where access to alternative sources of power is available, use of portable diesel engines to perform work on the project shall be prohibited. See Section 1.05B regarding the waiver procedure for this requirement.

3. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes at any location, except as allowed for in applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The Contractor shall post legible and visible signs, in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the idling limit. Refer to the following link for the Clean Construction Sign Template: https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp.

4. The Contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.

B. Construction Emissions Minimization Plan: All Major Construction Projects that meet the requirements of Environment Code Section 2504(a), which are located in the Air Pollutant Exposure Zone and are within 1,000 feet of a Sensitive Use, also must comply with the following requirements:

1. Before starting on-site Construction Activities, the Contractor shall submit a Construction Emissions Minimization Plan ("Emissions Plan") to the City Representative for review and approval. The Emissions Plan shall state, in reasonable detail, how the Contractor will meet the requirements of Section 2505 of the Environment Code.

2. The Emissions Plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for each Construction Phase.

   a. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.

   b. For the VDECS installed, the description may include, but is not limited to: technology type, serial number, make, model,

manufacturer, ARB verification number level, and installation date and hour meter reading on installation date.

c. For off-road equipment using alternative fuels, the description shall also specify the type of alternative fuel.

d. Contractor may use the Clean Construction Equipment Inventory Template to satisfy the Emissions Plan requirements. Refer to the following link for that template: https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp.

3. The Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of the Agreement. Contractor must submit a signed Clean Construction Emissions Plan Certification Statement to the City Representative. Refer to the following link for the Emissions Plan Certification Statement Template: https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp.

4. After City review and approval, the Contractor shall make the Emissions Plan available to the public for review onsite during working hours.

a. The Contractor shall post at the construction site a legible and visible sign summarizing the Emissions Plan. Refer to the following link for the Clean Construction Sign Template: https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp.

b. The sign shall also state that the public may ask to inspect the Emissions Plan for the project at any time during working hours, and shall explain how to request to inspect the Emissions Plan.

c. The Contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way.

5. Reporting:

a. After Construction Activities begin, the Contractor shall update the Emissions Plan on a quarterly basis documenting changes from the original plan and demonstrating compliance with the Emissions Plan. The report shall be submitted to the City Representative quarterly and a copy shall also be maintained at the construction site.

b. Prior to receiving a Notice of Final Completion, or within six months of completion of Construction Activities if a final certificate of acceptance is not required, the Contractor shall submit to the City Representative a final report summarizing Construction Activities, including the start and end dates and duration of each Construction Phase, and the specific information required in the Emissions Plan.

1.05 WAIVERS

A. Waivers Under Subsection 1.04A.

1. The Contractor may request to waive the equipment requirements of Paragraph 1.04A.1 if: (a) a particular piece of off-road equipment with an ARB Level 3 VDECS is technically not feasible; (b) the equipment would not produce desired emissions reduction due to expected operating modes; (c) installation of the equipment would create a safety hazard or impaired visibility for the operator; or, (d) there is a compelling emergency need to use off-road equipment that is not retrofitted with an ARB Level 3 VDECS.

2. Contractor shall submit a waiver request to the Department Head, or designee, no less than two weeks prior to the planned use of a specific piece of off-road equipment.

3. If the Department Head, or designee, grants the waiver specified in Section 1.05A.1, the Contractor must use the next cleanest piece of off-road equipment, according to Table 1, below.

Table 1
Off-Road Equipment Compliance Step Down Schedule*

Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 2	ARB Level 2 VDECS
2	Tier 2	ARB Level 1 VDECS
3	Tier 2	Alternative Fuel**

* If the City determines that the equipment requirements cannot be met, the Contractor must meet Compliance Alternative 1. If the City determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 1, then the Contractor must meet Compliance Alternative 2. If the City determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 2, then the Contractor must meet Compliance Alternative 3.

** Alternative fuels are not a VDECS

B. Waivers Under Subsection 1.04A.2.

1. The Department Head, or designee, may waive the alternative source of power requirement set forth in Subsection 1.04A.2 if an alternative source of power is limited or infeasible at the project site. If the City grants the waiver, the Contractor must submit documentation that the equipment used for onsite power generation meets the requirements of Subsection 1.04A.1, above.

C. All Other Waivers: The Department Head or designee also may waive the requirements of the Ordinance on the grounds set forth in Section 2507 of the Environment Code.

D. For any waiver granted in this Subsection 1.05, the City Representative will within two business days prepare a written notice of the waiver and a written memorandum explaining the basis for the waiver and the steps that will be taken to safeguard public and City employee health during the noncomplying work. The memorandum will also state the steps that the City and the Contractor will take to minimize the use of noncomplying equipment or engines during the noncomplying work.

1.06 NONCOMPLIANCE AND PENALTIES

A. Liquidated Damages: By entering into the Agreement, Contractor and City agree that if Contractor uses off-road equipment and/or off-road engines in violation of the Clean Construction requirements set forth in Administrative Code Section 6.25 and Chapter 25 of the Environment Code, the City will suffer actual damages that will be impractical or extremely difficult to determine. Accordingly, Contractor and the City agree that Contractor shall pay the City the amount of $100 per day per each piece of off-road equipment and each off-road engine used to complete Work on the Project in violation of the Ordinance. Such amount shall not be considered a penalty, but rather agreed monetary damages sustained by City because of Contractor's failure to comply with the Clean Construction requirements.

B. False Representations: False representations by the Contractor, in connection with the bidding, execution or performance of any City contract, regarding the nature or character of the off-road equipment and/or off-road engines to be utilized, on the contract, or to the City about the nature or character of the off-road equipment and/or off-road engines actually used may subject the Contractor to the consequences of noncompliance specified in Section 2510 of the Environment Code, including but not limited to the penalties prescribed therein. The assessment of penalties for noncompliance shall not preclude the City from exercising any other rights or remedies to which it is entitled.

END OF SECTION

SAN FRANCISCO
PLANNING DEPARTMENT

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

San Francisco Recreation and Park Department Preliminary Archeological Checklist (PAC)

PART I - PROJECT INFORMATION:

Date:_____ **RPD RA Staff**: _____

Project name: _____

Case No: _____

Application type: ☐ EE CatEx ☐

Project address: _____

APN/Cross streets: _____

EP Planner:_____**EP Archeologist:** _____

Consultant Archeologist name/firm (if applicable):_____

1. PROJECT DESCRIPTION: (include description of construction methods, all potentially ground-disturbing activities including parking, staging, equipment and spoils storage, temporary and permanent work areas, utility lines)

2. POTENTIAL GROUND DISTURBANCE

Yes	No	Project Component
☐	☐	Excavation (basement, elevator, utilities, seismic retrofit, remediation, underground vaults, septic tank system, culverts, etc.)

Maximum depth:

2. POTENTIAL GROUND DISTURBANCE (cont.)

- ☐ ☐ Pipeline replacement or installation (specify cut and cover, directional drilling, pipe bursting, etc):
- ☐ ☐ Tunnels, transport storage boxes
- ☐ ☐ Bore pits, test pits
- ☐ ☐ Shallow Building Foundation (Mat, Spread Footings, etc.) Depth:
- ☐ ☐ Piles, piers, micropiles, pilings, piling replacement
- ☐ ☐ Grading, scraping
- ☐ ☐ Demolition
- ☐ ☐ Construction staging, spoils on unpaved area, fill
- ☐ ☐ Road construction
- ☐ ☐ Geotechnical trenching (dimensions)_____
- ☐ ☐ New rip rap
- ☐ ☐ Wharf or seawall modification
- ☐ ☐ Other (specify):

Anticipated maximum extent of project ground disturbance:
Vertical_____Horizontal_____
APE Map Attached Y ☐ N ☐

3. PREVIOUS SOILS DISTURBANCE AT PROJECT SITE:
Has the project site been previously disturbed by any of the following?

Yes	No	**Component of disturbance**
☐	☐	Existing Basement Depth:_____ Area:_____
☐	☐	Existing Foundation (footings, perimeter, piles, micropiles, etc.) Depth:
☐	☐	Site remediation/UST installation or removal, other excavation. Depth:
☐	☐	Site Grading
☐	☐	Demolition
☐	☐	Dredging
☐	☐	Piling installation (depth):_____
☐	☐	Riprap
☐	☐	Seawall construction
☐	☐	Other (specify):

4. Has the entire project area previously been disturbed to the maximum depth and extent of proposed project disturbance? Y ☐ N ☐
(Attach documentary evidence such as plans and profiles of prior trenching, utility street occupancy, historic photos, specifications from prior projects, etc.)
List attachments provided:_____
_____

☐ **Complete prior disturbance adequately documented. No further archeological assessment is required. EP Archeologist Concurs:** _____

☐ **Prior ground disturbance is unknown or cannot be adequately documented; Part II Required.**

PART II - ARCHEOLOGICAL DATA ASSESSMENT

1. ARCHIVAL AND DATA REVIEW

Dates of review:_____

Resources reviewed:

- ☐ Maher zone maps. Dates/ origin/ depth of fill if known_____
- ☐ Geotechnical data for project site and vicinity. Report_____
- ☐ EP Archeological GIS maps (all layers or specify applicable layers)_____

_____

- ☐ Sanborn Insurance maps (1887-93, 1899-1900)
- ☐ U.S. Coast Survey maps (1853, 1857, 1869)
- ☐ Information Center archeological records search (attach request and response)
- ☐ NAHC Sacred Lands File
- ☐ Native American/ Ethnic group consultation
- ☐ Other:_____
- ☐ Historical Maps or other information provided by RPD

2. ARCHEOLOGICAL FIELD INVENTORY

- ☐ Not warranted; no exposed ground surface in project area
- ☐ Results negative
- ☐ Results positive
- ☐ Survey results inconclusive

Archeologist/ Firm_____ Date of Survey_____

Attach Archeological Survey Report/Memo; may combine with results of archival review.

3. SUMMARY OF RESULTS OF PROJECT ASSESSMENT

Site History/Formation:

Recorded/documented archeological sites/ investigations on/in the vicinity of the project site:

4. CONCLUSIONS AND RECOMMENDATIONS

a) **NO EFFECTS TO ARCHEOLOGICAL RESOURCES EXPECTED:**

- ☐ Project effects limited to previously-disturbed soils
- ☐ Project effects limited to culturally sterile soils
- ☐ Based on assessment above, no potentially CEQA-significant archeological resources are expected within project area affected soils.

b) AVOIDANCE AND TREATMENT MEASURES NECESSARY TO AVOID AN ADVERSE EFFECT TO SIGNIFICANT ARCHEOLOGICAL RESOURCES:

- ☐ Discovery: potential to adversely affect archeological resources; may be avoided by implementation of **RPD Standard Archeological Measure I** (Discovery during Construction), with implementation of Standard Archeological Measures II (Monitoring) and/or III (Testing/ Data Recovery) in the event of a discovery during construction.

- ☐ Monitoring: some potential for the project to adversely affect archeological resources; may be avoided by implementation of **RPD Standard Archeological Measure II** (Archeological Monitoring) during construction.

- ☐ Testing/Data Recovery: potential of the project to adversely affect archeological resources; may be avoided by implementation of **RPD Standard Archeological Measure III** (Archeological Testing/Data Recovery)
  Implementation Required:
  ☐ prior to ☐ during construction.

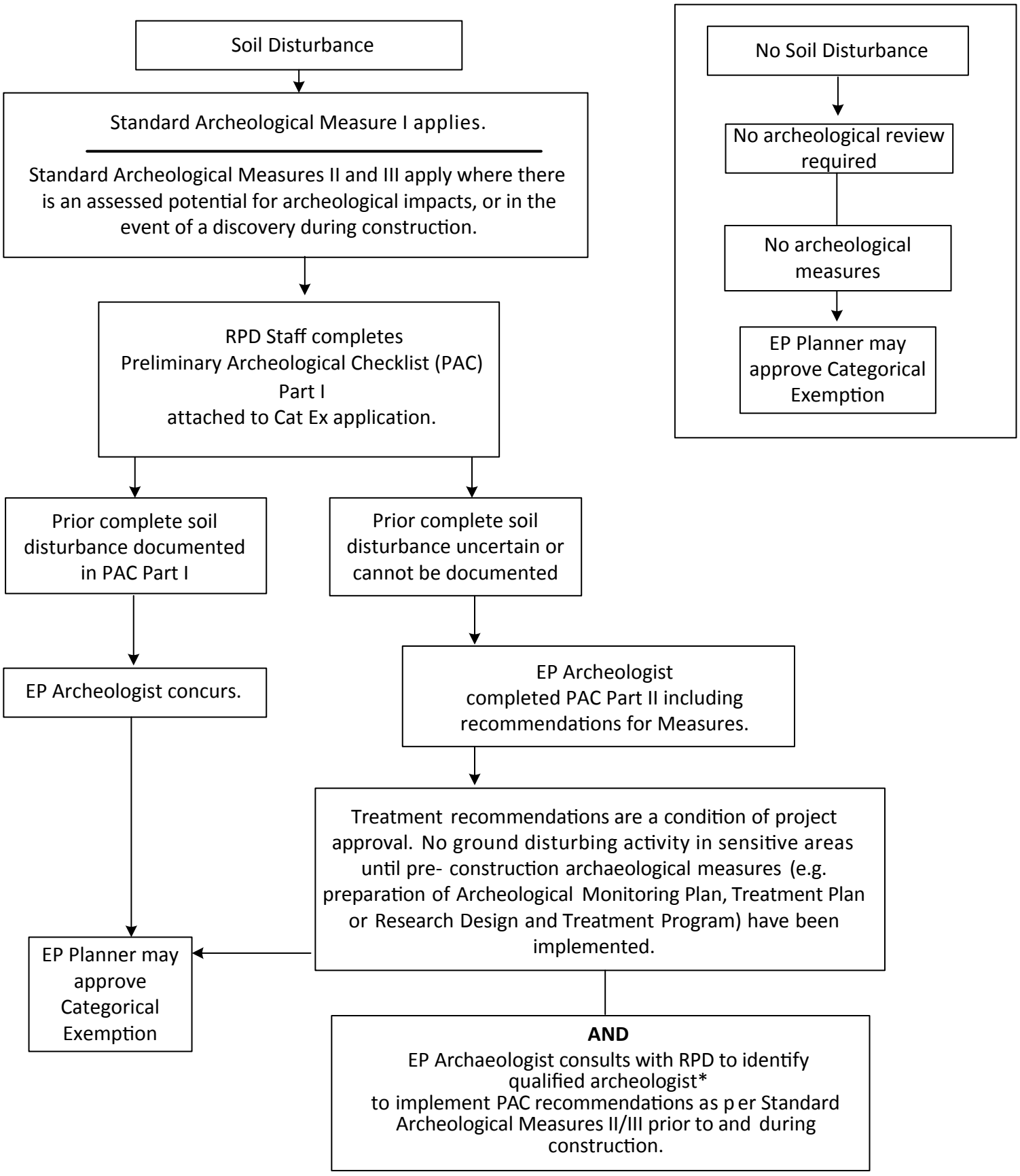
- ☐ CEQA evaluation of the project requires preparation and implementation of an archeological research design and treatment plan (ARDTP) by a qualified archeological consultant. See attached scope of work for the ARDTP

- ☐ Consultation requested.

Signature

Attachment D:

RPD Standard Construction Measure #5 Archeological Assessment Process



* Archeologist or archeological consultant who meets the Secretary of the Interior's Professional Qualifications Standards (36 CFR 61) as defined in Standard Archeological Measure I.

Attachment E: Archeological Measure I (Archeological Discovery)

The following requirements are applicable to:

- All projects that will include soil disturbance,
- Any discovery of a potential historical resource or of human remains, with or without an archeological monitor present.

Prior to ground disturbing activities:

A. Alert Sheet. RPD shall, prior to any soils disturbing activities, distribute the Planning Department archeological resource "ALERT" sheet to each project contractor or vendor involved in project-related soils disturbing activities; ensure that each contractor circulates it to all field personnel; and provide the Environmental Review Officer (ERO) with a signed affidavit from each contractor confirming distribution to all field personnel.

Upon making a discovery:

B. Work Suspension. Should a potential archeological resource be encountered during project soils disturbing activity, with or without an archeological monitor present, the project Head Foreman shall immediately suspend soils-disturbing activities within 50 feet (15 meters) of the discovery in order to protect the find from further disturbance, and notify the RPD Project Manager (PM), who shall immediately notify the ERO for further consultation.

C. Qualified Archeologist. All archeological work conducted under this measure shall be performed by an archeologist who meets the Secretary of the Interior's Professional Qualifications Standards (36-CFR 61); consultants will be selected in consultation with the ERO and meeting the criteria or specialization required for the resource type as identified by the ERO in a manner consistent with RPD contracting requirements.

D. Assessment and Additional Measures. If the ERO determines that the discovery is a potential archeological/historical resource, the qualified archeologist, in consultation with the ERO, shall document the find, evaluate based on available information whether it qualifies as a significant historical resource under the CEQA criteria, and provide recommendations for additional treatment as warranted. The ERO will consult with RPD and the qualified archeologist on these recommendations and may require implementation of additional measures as set forth below in Archeological Measures II and III, such as preparation and implementation of an Archeological Monitoring Plan, an Archeological Testing Plan, and/or an Archeological Data Recovery Plan, and including associated research designs, descendant group consultation, other reporting, curation, and public interpretation of results.

E. Report Reviews. All plans and reports prepared by an archeological consultant, as specified herein, shall be submitted first and directly to the ERO for review and comment with a copy to RPD and shall be considered draft reports subject to revision until final approval by the ERO.

F. Draft and Final Archeological Resources Reports. For projects in which a significant archeological resource is encountered and treated during project implementation (see Archeological Measures II and III), the archeological consultant shall submit a draft Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken, research questions addressed, and research results. Information that may put at risk any archeological resource shall be provided in a separate, removable insert within the draft final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: two copies to the applicable California Historic Information System Information Center (CHRIS), one copy to each descendant group involved in the project, and documentation to the San Francisco Planning Department of transmittal of the above copies. In addition, the Planning Department shall be provided one bound, one unbound and one unlocked, searchable PDF copy on CD of the FARR, which shall include copies of any formal site recordation forms (CA DPR 523 series) and/or National Register of Historic Places/California Register of Historical Resources nominations.

G. Other Reports. In instances of high public interest or interpretive value, the ERO may require different or additional final report content, format, and distribution than that presented above.

H. Human Remains, Associated or Unassociated Funerary Objects. RPD shall ensure that human remains and associated or unassociated funerary objects discovered during any soils disturbing activity are treated in compliance with applicable State and federal laws. In the event of the discovery of potential human remains, the construction contractor shall ensure that construction activity within 50 feet of the find is halted and the RPD PM, ERO, and the County Coroner are notified immediately. If the Coroner determines that the remains are of Native American origin, he/she will notify the California State Native American Heritage Commission. Subsequent consultation on and treatment of the remains shall be conducted consistent with Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(d), in consultation with the ERO.

I. Consultation with Descendant Communities. Consistent with AB 52 requirements, if requested, RPD shall provide opportunities for Native American descendant groups to provide input during project planning for projects that may affect potential Tribal Cultural Resources. In addition, on discovery during construction of an archeological site associated with descendant Native Americans, the Overseas Chinese, or other descendant group, an appropriate representative of the descendant group shall be contacted by RPD at the direction of the ERO. RPD will offer this representative the opportunity to monitor archeological field investigations of the site and to consult with the ERO regarding the appropriate treatment and, if applicable, interpretation of the site and the recovered materials.

J. Construction Delays. Archeological monitoring and/or data recovery programs required by this measure may suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if this is the only feasible means to reduce potential effects on a significant archeological find to a less-than-significant level.

Attachment F. RPD Archeological Measure II (Archeological Monitoring)

A. Archeological Monitoring Plan (AMP). Where an archeological field investigation to identify expected buried or submerged resources cannot reasonably be carried out during project planning/ environmental review (for example, where definitive determination would require extensive street opening prior to construction), prior to any project-related soils-disturbing activities the qualified archeologist identified under Archeological Measure I.C. shall consult with RPD and the ERO to develop an Archeological Monitoring Plan (AMP). The AMP which will be implemented in conjunction with soil-disturbing activities during construction. Preparation and implementation of an AMP also may be required based on the results of pre-construction archeological testing or upon a discovery during construction.

The AMP shall include the following elements, at minimum:

- Historical context and research design for assessment of resource types likely to be encountered;
- Project activities to be archeologically monitored and intensity of monitoring of each type and location of project construction activity; and
- Procedures for the documentation, significance and integrity assessment, treatment, curation, interpretation and reporting of the types of resources likely to be encountered.

B. Reporting. Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the ERO at the end of construction (See Archeological Measure I.E [Report Reviews] and I.F. [Draft and Final Archeological Research Report]).

C. Monitoring Authorities

- The archeological monitor will have the authority to halt construction activity at the location of a suspected resource for inspection, documentation, and assessment of the need for further measures as set forth in Archeological Measure III.
- The Archeological Monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis.
- The Archeological Monitor(s) shall be present on the project site according to a schedule identified in the AMP, subject to modification upon ERO concurrence, based on findings.

D. Testing/Data Recovery. In the event of a discovery during construction, if the ERO and archeological consultant determine that the discovery is a significant resource (that is, a

resource that meets the eligibility criteria of the California Register of Historic Resources or qualifies as a unique archeological resource) that will be adversely affected (that is, where the project would result in loss of data potential) or that additional investigation is required to make this determination, all applicable elements of Archeological Measure III (Archeological Testing/Data Recovery) also shall be implemented.

Attachment G. RPD Archeological Measure III (Testing / Data Recovery)

The following provisions apply prior to or during construction when a significant archeological resource (as defined in Measure II.D) or an archeological resource of undetermined significance is expected to be present in the work area and the ERO, in consultation with the qualified archeologist, determines that an archeological field investigation is needed to determine: a) the presence of an archeological resource, b) whether it retains depositional integrity, and c) whether it qualifies as a legally significant resource under CEQA criteria. All archeological work under this Measure will be carried out by a qualified archeologist as identified in Archeological Measure I.C. Per Archeological Measure I.J, implementation of this measure shall not exceed four weeks except at the direction of the ERO and only if this is the only feasible means to reduce potential effects on a significant archeological find to a less-than-significant level.

A. Archeological Testing Program. If an archeological investigation is required in order to verify resource location and/ or assess the significance of the resource, the archeological consultant shall consult with the ERO to prepare and implement an Archeological Testing Plan (ATP) that identifies:

- Key research questions and associated data needs,
- Testing/ sampling methods, and
- Testing locations.

Results of testing shall be presented to ERO in a written report following Measure I.E. If, based on the archeological testing program, the archeological consultant finds and the ERO concurs that significant archeological resources may be present, Measures III.B and/or III.C below will be implemented.

B. Treatment. If the project could adversely affect a significant (CRHR-eligible) archeological resource, preservation in place is the preferred manner of mitigating impacts, as detailed in CEQA Guidelines 15126.6(b) (3)(a) and (b).

If preservation in place is determined to be infeasible, the RPD at its discretion shall either:

- Re-design the proposed project so as to reduce the adverse effect to a less-than-significant level through preservation in place or other feasible measures; and/or
- For a resource important for its association with an important event or person, or which is of demonstrable public interest for both its scientific and historical values (e.g., a submerged ship), and where feasible, preserve the resource in place with appropriate documentation; or, if not feasible to preserve in place,

systematically document and/or recover for interpretive use, at the discretion of the ERO, and/or;

- For an archeological resource significant primarily for its data potential, design and implement an archeological data recovery program, as detailed under Measure III.D, below.

C. Archeological Data Recovery Plan (ADRP). For resources for which the elected treatment is archeological data recovery, the archeological consultant, in consultation with the ERO, shall prepare and implement an ADRP. It will identify how the significant information the archeological resource is expected to contain will be recovered and preserved. Data recovery results will be reported in the FARR, as detailed in Measure I.F. The ADRP shall include the following elements:

- Historic context and research design
- Field methods and procedures, including sampling strategy
- Archeological monitoring recommendations for ongoing construction
- Cataloguing and laboratory analysis
- Discard, deaccession, and curation policy
- Interpretive program
- Security measures

ALERT!

This project site is in an **archeologically sensitive area**. If you uncover a concentration of historic-era materials (such as bottles or ceramics); wood floors and brick foundations; soils containing shells or bones; or human bones or suspected human bones, you are required to:

1. Immediately stop soil disturbance at the discovery location.
2. Protect the find in place.
3. Call a Planning Department archeologist. Either Allison Vanderslice (415) 575-9075, Sally Morgan (415) 575-9024 or Kari Lentz (415) 558-9023.
4. Ensure that ground-disturbing work around the discovery location does not resume until the archeologist has evaluated the find and any necessary treatment has been implemented.

Material that may indicate the presence of an archeological site include:

- Concentrations of shells or bones
- Dark, greasy soils, with ash, charcoal, burnt earth
- Native American artifacts such as arrowheads and mortar bowls
- Building foundation, wall or floor remains, clay roof/floor tiles
- Trash pits, privy (outhouse) pits, wells
- Concentration of bottles, ceramics, animal bones, hardware, etc.
- Evidence of 1906 Earthquake and Fire (layer of burned building debris, charcoal, fused glass, etc.)
- Wood structural remains (building, pipelines, ship, wharf, etc.)
- Rails, rail ties, rail cars or carts
- Gravestones, carved or cut granite, limestone or marble

Native American tools including obsidian and bone

Shell deposit, often in dark soil

Close-up of shell deposit

Brick foundation

Outhouse pit

Refuse pit