

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
<p><b>AESTHETICS</b></p> <p>d) Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</p>	<p>CR 4.1-1      <i>Prior to the issuance of any building permit for new structures and/or site improvements subject to the DTSP, a project lighting/photometric plan shall be prepared and submitted to the Community Development Department for review and approval. The City requires that the project’s lighting effects shall maintain the minimum illumination level required for security, while limiting spill onto adjacent properties to the maximum extent practicable. Lighting design – including sizes, wattage, photometric, and distances for lighting elements – will be subject to review and approval by the City. The light fixtures shall include shields and side shields to prevent light trespass.</i></p>
<p><b>CULTURAL RESOURCES</b></p> <p>b) Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5</p> <p>c) Would the Project directly or indirectly destroy a unique paleontological resource or site unique geologic feature?</p>	<p>MM 4.3-2      <i>During construction activities, if paleontological resources are encountered, the contractor shall be responsible for immediate notification and securing of the site area immediately. A qualified archaeologist and/or paleontologist approved by the City of Huntington Beach Community Development Director shall be retained to establish procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of cultural resource finds. If major paleontological resources are discovered that require long-term halting or redirecting of grading, a report shall be prepared identifying such findings to the City and the County of Orange. Discovered cultural resources shall be offered to the County of Orange or its designee on a first-refusal basis.</i></p> <p>MM CUL-1      <i>Prior to commencement of construction involving any ground disturbance, retain a Qualified Principal Investigator. A qualified principal</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
	<p><i>investigator, defined as an archaeologist, who meets the Secretary of the Interior’s Standards for professional archaeology and has previous experience working in the Los Angeles basin within the ancestral tribal territory of the Kizh Gabrieleno. Previous experience must contain professional and/or academic expertise of prehistorical and historical (Mission era) Gabrieleno culture including but not limited to Gabrieleno place-names and locations, political and social structure, economic organization and trade, village catchment and use areas, foraging and hunting areas, identification of traditional tools and jewelry, religious beliefs and ritual practices, games, recreation, etc. The archaeologist shall provide a curriculum vitae and project experience to the Kizh Gabrieleno Tribe for concurrence of approval. The archaeologist (hereafter referred to as qualified archaeologist) shall be retained to carry out all mitigation measures related to any archaeological historic or prehistoric tribal cultural resources.</i></p>
	<p><b>MM CUL-2</b> <i>Prior to commencement of construction involving any ground disturbance activities, the project Applicant will be required to obtain the services of a qualified Native American Monitor during construction-related ground disturbance activities. Ground disturbance is defined by the Tribal Representatives from the Gabrieleño Band of Mission Indians-Kizh Nation as activities that include, but are not limited to, pavement removal, pot-holing or auguring, grubbing, weed abatement, boring, grading, excavation, and trenching, within the project area. The monitor(s) must be approved by the Tribal Representatives and will be present on-site during the construction phases that involve any ground disturbing activities. The Native American Monitor(s) will complete monitoring logs on a daily basis. The logs will provide descriptions of the daily activities,</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
	<p><i>including construction activities, locations, soil, and any cultural materials identified. The monitor(s) shall possess Hazardous Waste Operations and Emergency Response (HAZWOPER) certification. In addition, the monitor(s) will be required to provide insurance certificates, including liability insurance, for any archaeological resource(s) encountered during grading and excavation activities pertinent to the provisions outlined in the California Environmental Quality Act, California Public Resources Code Division 13, Section 21083.2 (a) through (k). The on-site monitoring shall end when the project site grading and excavation activities are completed, or when the Tribal Representatives and monitor have indicated that the site has a low potential for archeological resources.</i></p> <p><i>**Hazwoper is needed only if the site has hazardous concerns.</i></p>
	<p>MM CUL-3 <i>All archaeological resources unearthed by project construction activities shall be evaluated by the Qualified Archaeologist and Native Monitor. If evidence of an archaeological site or other suspected historical resource are discovered during any project-related earth-disturbing activities, all earth-disturbing activity within 100 feet of the find shall be halted. If the resources are Native American in origin, the Tribe shall coordinate with the landowner regarding treatment and curation of these resources. Typically, the Tribe will request reburial or preservation for educational purposes. If a resource is determined by the Qualified Archaeologist to constitute a “historical resource” pursuant to CEQA Guidelines Section 15064.5(a) or has a “unique archaeological resource” pursuant to Public Resources Code Section 21083.2(g), the Qualified Archaeologist shall coordinate with the applicant and the City to develop a formal treatment plan that would serve</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
	<p><i>to reduce impacts to the resources. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be donated to a local school or historical society in the area for educational purposes.</i></p>
<p>d) Would the Project disturb any human remains, including those interred outside of formal cemeteries?</p>	<p><i>MM CUL-4 Prior to the start of ground disturbing activities, the land owner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects. Any discoveries of human skeletal material shall be immediately reported to the County Coroner. The monitor will immediately divert work at minimum of 50 feet and place an exclusion zone around the burial. The monitor will then notify the Qualified Archaeologist and the construction manager who will call the coroner. Work will continue to be diverted while the coroner determines whether the remains are Native American. The discovery is to be kept confidential and secure to prevent any further disturbance. If Native American, the coroner will notify the NAHC as mandated by state law who will then appoint a Most Likely Descendent. In the</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
	<p><i>case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24 hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed. The Tribe will work closely with the Qualified Archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be taken which includes at a minimum detailed descriptive notes and sketches. Additional types of documentation shall be approved by the Tribe for data recovery purposes. Cremations will either be removed in bulk or by means as necessary to ensure completely recovery of all material. If the discovery of human remains includes 4 or more burials, the location is considered a cemetery and a separate treatment plan shall be created. The project applicant shall consult with the Tribe regarding avoidance of all cemetery sites. Once complete, a final report of all activities are to be submitted to the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive diagnostics on human remains.</i></p> <p><b>NOTE:</b> <i>Professional Standards: Archaeological and Native American monitoring and excavation during construction projects will be consistent with current professional standards. All feasible care to avoid any unnecessary disturbance, physical modification, or separation of human remains and associated funerary objects shall be taken. Principal personnel must meet the Secretary of Interior standards for archaeology</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
	<p><i>and have a minimum of 10 years of experience as a principal investigator working with Tribal Cultural Resources in southern California. The Qualified Archaeologist shall ensure that all other personnel are appropriately trained and qualified.</i></p>
<p><b>GEOLOGY AND SOILS</b></p> <p>a) Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p style="padding-left: 20px;">ii) Strong seismic ground shaking?</p> <p style="padding-left: 20px;">iii) Seismic-related ground failure, including liquefaction?</p> <p style="padding-left: 20px;">iv) Landslides?</p> <p>b) Would the Project result in substantial soil erosion, loss of topsoil, or changes in topography or unstable soil conditions from excavation, grading, or fill?</p> <p>c) Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?</p>	<p><i>MM 4.4-1 Future development in the DTSP area shall prepare a grading plan, subject to review and approval by the City's development services departments, to contain the recommendations of the required final soils and geotechnical report. These recommendations shall be implemented in the design of the project, including but not limited to measures associated with site preparation, fill placement, temporary shoring and permanent dewatering, groundwater seismic design features, excavation stability, foundations, soils stabilization, establishment of deep foundations, concrete slabs and pavements, surface drainage, cement type and corrosion measures, erosion control, shoring and internal bracing, and plan review.</i></p> <p><i>CR 4.4-1 A California-licensed Civil Engineer (Geotechnical) shall prepare and submit to the City a detailed soils and geotechnical analysis with the first submittal of a grading plan. This analysis shall include Phase II Environmental soils sampling and laboratory testing of materials to provide detailed recommendations for grading, chemical and fill properties, liquefaction, and landscaping.</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
<p>d) Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?</p>	
<p><b>HAZARDS AND HAZARDOUS MATERIALS</b></p> <p>a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</p>	<p>MM 4.5-1     <i>The City of Huntington Beach shall require a Phase One assessment on properties within the Downtown Specific Plan area, including properties utilized for oil production activities, proposed for development to assure that any hazardous materials/contaminated soils present on the property are identified and remediated in accordance with City specifications 422, 429 and 431-92. All native and imported soils associated with a project shall meet the standards outlined in City Specification No. 431-92 prior to approval of grading and building plans by the Huntington Beach Fire Department. Additionally, all work at a project site shall comply with the City's Public Works Department requirements (e.g., haul route permits).</i></p> <p>MM 4.5-2     <i>In the event that previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health or the environment is encountered during construction in the project area, construction activities in the immediate vicinity of the contamination shall cease immediately. If contamination is encountered, a Risk Management Plan shall be prepared and implemented that 1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development and 2) describes measures to be</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
	<p><i>taken to protect workers and the public from exposure to potential site hazards. Such measures could include a range of options, including, but not limited to, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., Huntington Beach Fire Department). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration requirements shall be prepared and in place prior to commencement of work in any contaminated area.</i></p>
<p><b>HYDROLOGY AND WATER QUALITY</b></p> <p>a) Would the Project violate any water quality standards or waste discharge requirements?</p> <p>e) Would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</p> <p>k) Would the Project potentially impact stormwater runoff from construction activities?</p> <p>l) Would the Project potentially impact stormwater runoff from post-construction activities?</p>	<p><i>MM 4.13-2 Individual development projects within the Downtown Specific Plan Area will require connections to existing water, sewer, and utility lines in the City and may require construction of new water pipeline facilities. All connections to existing water and wastewater infrastructure will be designed and constructed per the requirements and standards of the City of Huntington Beach Public Works Department. Connections to any OCSD sewer line shall be designed to OCSD standards. Such installation shall be coordinated, reviewed, and approved by the appropriate City departments and applicable agencies.</i></p> <p><i>MM 4.6-2 Prior to issuance of any grading or building permits, a hydrology and hydraulic analysis shall be submitted to the Department of Public Works for review and approval (10-, 25-, and 100-year storms and back-to-back storms shall be analyzed). In addition, this study shall include 24-hour peak back-to-back 100-year storms for onsite detention analysis. The drainage improvements shall be designed and constructed</i></p>



## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
<p>m) Would the Project result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?</p> <p>n) Would the Project result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters?</p> <p>o) Would the Project create or contribute significant increases in the flow velocity or volume of stormwater runoff to cause environmental harm?</p> <p>p) Would the Project create or contribute significant increases in erosion of the project site or surrounding areas?</p>	<p><i>as required by the Department of Public Works to mitigate impact of increased runoff due to development, or deficient, downstream systems. Design of all necessary drainage improvements shall provide mitigation for all rainfall event frequencies up to a 100-year frequency.</i></p>
<p><b>NOISE</b></p> <p>a) Would the Project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or</p>	<p><i>MM 4.8-1 Noise attenuation devices shall be used on all construction equipment, and construction staging areas shall be located as far as possible from any residences or other noise sensitive receptors.</i></p> <p><i>CR 4.8-1 All construction activities shall be limited to the hours between 7:00 a.m. and 8:00 p.m. Monday</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
<p>applicable standards of other agencies?</p> <p>c) Would the Project result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?</p> <p>d) Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?</p>	<p><i>through Saturday. Construction and demolition shall be prohibited on Sundays or federal holidays.</i></p> <p><i>MM 4.8-2 Prior to issuance of building permits for residences located within the 65 CNEL noise contour, a detailed noise assessment with noise reduction measures specified shall be prepared to show that noise levels in those areas will not exceed the 65 CNEL outdoor noise criteria. Prior to issuance of permits, a detailed noise assessment with noise reduction measures specified shall be prepared to show that noise levels in the residences will not exceed the 45 CNEL indoor noise standard. The assessment will be based on the architectural plans for each specific project. The reports by a qualified acoustical consultant and shall document the sources of noise impacting the areas and describe any measures required to meet the standard. These measures will be incorporated into the project plans. The report be completed and approved by the City prior to issuance of building permits.</i></p> <p><i>MM 4.8-3 Prior to issuance of building permits, a detailed noise assessment shall be prepared for mixed-use and commercial projects within 50 feet of any residence to ensure that these sources do not exceed the City's Noise Ordinance limits. The assessment shall be prepared by a qualified acoustical engineer and shall document the noise generation characteristics of the proposed equipment and the project noise levels at the nearest residential use. Compliance with the City's Noise Ordinance shall be demonstrated and any measures required to comply with the Noise Ordinance and reduce impacts to less than significant levels shall be included in the project plans. The report shall be completed and approved by the City prior to issuance of project approval.</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
	<p><i>MM NOI-1: A noise monitoring program shall be implemented during construction. The monitoring program will alert construction management personnel when noise levels approach the upper limits of the 8-hour Leq exceedance threshold (80 dBA) along the residential property line. Construction activity will cease prior to noise levels exceeding the 8-hour threshold.</i></p>
<p><b>PUBLIC SERVICES</b></p> <p>Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</p> <p>b) Police Protection?</p> <p>c) Schools?</p>	<p><i>MM 4.10-1 New construction within the Downtown Specific Plan Area shall be designed to provide for safety measures (e.g., alarm systems, security lighting, other on-site security measures and crime prevention through environmental design policies) and subject to the review and approval of the City Community Development Department and Huntington Beach Police Department.</i></p> <p><i>CR 4.10-2 Project applicants for future development located within the HBCSD shall pay all applicable development impact fees in effect at the time of building permit issuance to the HBCSD to cover additional school services required by the new development. These fees are currently \$3.20 per square foot for any new multi-family attached residential unit and \$0.31 per square foot of commercial/industrial development.</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
d) Libraries?	<p>CR 4.10-3     <i>Future project applicants shall pay all applicable development impact fees in effect at the time of building permit issuance to the HBUHSD to cover additional school services required by the new development. These fees are currently \$3.48 per square foot of accessible interior space for any new residential unit and \$0.56 per square foot of covered floor space for new commercial/industrial development.</i></p> <p>CR 4.10-5     <i>The applicant of individual development projects shall pay required development impact fees, pursuant to City Council Resolution No. 2012-23, prior to issuance of building permits.</i></p>
<b>RECREATION</b>	
<p>a) Would the Project increase the use of existing neighborhood, community and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?</p> <p>b) Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?</p> <p>c) Would the Project affect existing recreational opportunities?</p>	<p>CR 4.11-1     <i>Prior to the issuance of building permits, the Applicant shall demonstrate compliance with city parkland requirements identified in Chapter 254.08 of the City of Huntington Beach Zoning Ordinance, either through the dedication of on-site parkland or through payment of applicable fees. Any on-site park provided in compliance with this section shall be improved prior to final inspection (occupancy) of the first residential unit (other than the model homes).</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
<p><b>TRIBAL CULTURAL RESOURCES</b></p> <p>a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <ul style="list-style-type: none"> <li>i) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or,</li> <li>ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?</li> </ul>	<p><i>Reference MM 4.3-2 and MM CUL-1 through MM CUL-4 in Cultural Resources section.</i></p>

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
<b>UTILITIES AND SERVICE SYSTEMS</b>	
a) Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<i>MM 4.13-1 To ensure that there are no adverse impacts associated with the future Downtown Specific Plan development projects during construction, applicant /developer /builder /contractor shall coordinate with utility and service organizations prior to the commencement of construction.</i>
b) Would the Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<i>MM 4.13-2 Individual development projects within the Downtown Specific Plan Area will require connections to existing water, sewer, and utility lines in the City and may require construction of new water pipeline facilities. All connections to existing water and wastewater infrastructure will be designed and constructed per the requirements and standards of the City of Huntington Beach Public Works Department. Connections to any OCSD sewer line shall be designed to OCSD standards. Such installation shall be coordinated, reviewed, and approved by the appropriate City departments and applicable agencies.</i>
c) Would the Project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<i>MM 4.13-3 Each development project is required to implement separate water conservation measures that support major water conservation efforts. The following water saving technologies can be implemented on a project basis to comply with statewide water goals and water conservation measures that can further assist in meeting the 20% reduction goal.</i>
d) Would the Project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<ul style="list-style-type: none"> <li>• <i>Waterless urinals should be specified in all public areas, including restaurants and commercial bathrooms.</i></li> <li>• <i>Low-flush toilets should be installed in all new residential units and encouraged through rebates or other incentives in existing homes.</i></li> <li>• <i>Low-flow shower heads and water faucets should be required in all new residential and commercial spaces and encouraged in existing developed properties.</i></li> </ul>
e) Would the Project result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in	

## SUMMARY OF MITIGATION MEASURES AND CODE REQUIREMENTS

<u>DESCRIPTION OF IMPACT</u>	<u>MITIGATION MEASURE/CODE REQUIREMENT</u>
<p>addition to the provider's existing commitments?</p>	<ul style="list-style-type: none"> <li>• <i>Water efficient kitchen and laundry room appliances should be encouraged through rebates for both residential and commercial units.</i></li> <li>• <i>Landscaping should be completed with drought tolerant plants and native species.</i></li> <li>• <i>Irrigation plans should use smart controllers and have separated irrigation meters.</i></li> </ul> <p><i>MM 4.13-4 As individual development occurs within the Downtown Specific Plan area, additional hydraulic studies shall be performed to verify that water pipes will adequately support each specific project. A sewer study shall be prepared for Public Works Department review and approval. A fourteen (14) day or longer flow test data shall be included in the study. The location and number of monitoring test sites, not to exceed three, to be determined by the Public Works Department.</i></p> <p><i>MM 4.6-2 Prior to issuance of any grading or building permits, a hydrology and hydraulic analysis shall be submitted to the Department of Public Works for review and approval (10-, 25-, and 100- year storms and back-to-back storms shall be analyzed). In addition, this study shall include 24-hour peak back-to-back 100-year storms for onsite detention analysis. The drainage improvements shall be designed and constructed as required by the Department of Public Works to mitigate impact of increased runoff due to development, or deficient, downstream systems. Design of all necessary drainage improvements shall provide mitigation for all rainfall event frequencies up to a 100-year frequency.</i></p>