CITY OF DANA POINT

PUBLIC WORKS – ENGINEERING SERVICES
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GEOTECHNICAL REPORT REVIEW CHECKLIST

Plan Check Number: _____

Location / Address: _____

City Plan Checker: _____ Date: _____

GEOTECHNICAL REPORT - GENERAL			
	OK	NOT MET	N/A
Signed by RCE/GE	☐	☐	☐
Signed by CEG (Required for Hillside Area)	☐	☐	☐
Project Address	☐	☐	☐
Location Index Map with reference north, scale, etc.	☐	☐	☐
Site Description (topography, vegetation, existing structures/improvements, drainage)	☐	☐	☐
Description of Proposed Development (grading, structures/improvements, drainage, use, foundation type, estimated structural loads)	☐	☐	☐

GEOTECHNICAL REPORT – FIELD INVESTIGATION			
	OK	NOT MET	N/A
Site Specific Subsurface Investigation	☐	☐	☐
Description of Investigative and Sampling Methods	☐	☐	☐
Boring/Test Pit Logs (Soil/Bedrock descriptions with depth, type and depth indicated for sampling, real or assumed elevation indicated, groundwater conditions)	☐	☐	☐
Sampling performed to anticipated depth of foundations and/or deepest excavation	☐	☐	☐
Boring/Test Pits located on Geotechnical Map/Plot Plan	☐	☐	☐

GEOTECHNICAL REPORT – LAB TESTING			
	OK	NOT MET	N/A
Description of lab test performed with referenced test method (ASTM, EPA, etc)	☐	☐	☐
Soil Strength (Shear)	☐	☐	☐
Expansion	☐	☐	☐
Sulfate	☐	☐	☐
Gradation	☐	☐	☐
Classification of soil in accordance with ASTM D 2487 (when using California Building Code values for lateral load)	☐	☐	☐
Moisture/Density	☐	☐	☐
Consolidation	☐	☐	☐
Atterberg Limits	☐	☐	☐
Maximum Dry Density/Optimum Moisture Content	☐	☐	☐

GEOTECHNICAL REPORT – EARTH MATERIALS			
	OK	NOT MET	N/A
Description and designation of geologic units (surficial soils and bedrock, including depth, thickness)	☐	☐	☐
Geologic structure (bedding, fracturing, faulting of bedrock material)	☐	☐	☐
Description of regional geologic conditions (including reported regional trends of bedding and faulting)	☐	☐	☐

GEOTECHNICAL REPORT – SEISMICITY			
	OK	NOT MET	N/A
General description of regional and local faulting	☐	☐	☐
Site Class	☐	☐	☐
Mapped Spectral Acceleration Parameters (S_s, S_1)	☐	☐	☐
Site Coefficients (F_a, F_v)	☐	☐	☐
Design Spectral Acceleration Parameters (S_{DS}, S_{D1})	☐	☐	☐
Seismic Design Category	☐	☐	☐

GEOTECHNICAL REPORT – GEOLOGIC HAZARDS			
	OK	NOT MET	N/A
Landslide	☐	☐	☐
Expansive Soils	☐	☐	☐
Surficial Slope Instability	☐	☐	☐
Slope Creep	☐	☐	☐
Groundwater	☐	☐	☐
Total and Differential Settlement	☐	☐	☐
Sulfate	☐	☐	☐
Liquefaction	☐	☐	☐
Affect of liquefiable soils on utilities and lifeline services outside of structural mitigation	☐	☐	☐
Seismic Induced Landsliding	☐	☐	☐
Tsunami Potential	☐	☐	☐

GEOTECHNICAL REPORT – ILLUSTRATIONS			
	OK	NOT MET	N/A
Geotechnical Map / Plot Plan	☐	☐	☐
Existing topography / improvements	☐	☐	☐
Proposed topography / improvements	☐	☐	☐
Location of subsurface exploration (borings, test pits, etc.)	☐	☐	☐
Geologic Contacts	☐	☐	☐
Geologic Structure	☐	☐	☐
Location of fill key / buttress	☐	☐	☐
Geologic Cross-Section	☐	☐	☐
Existing topography / improvements	☐	☐	☐
Proposed topography / improvements	☐	☐	☐

Location of subsurface exploration (borings, test pits, etc.)	☐	☐	☐
Geologic Contacts	☐	☐	☐
Geologic Structure	☐	☐	☐
Slope setbacks	☐	☐	☐
Temporary cuts / shoring	☐	☐	☐
Fill Key / buttress	☐	☐	☐
Slope benching	☐	☐	☐
GEOTECHNICAL REPORT – CONCLUSIONS / RECOMMENDATIONS			
	OK	NOT MET	N/A
Statement as to feasibility of project	☐	☐	☐
Statement as to impact on adjacent properties	☐	☐	☐
Statement of the condition of slopes with respect to stability	☐	☐	☐
Slope stability analysis provided to support conclusion/recommendations	☐	☐	☐
Statement regarding liquefaction potential	☐	☐	☐
Liquefaction analysis provided to support conclusion/recommedations	☐	☐	☐
Grading Recommendations	☐	☐	☐
Remedial grading	☐	☐	☐
Compaction standards	☐	☐	☐
Groundwater Mitigation	☐	☐	☐
Temporary excavation (backcuts, slopes) with time limit recommendations	☐	☐	☐
Shoring	☐	☐	☐
Benching	☐	☐	☐
Keys / buttresses	☐	☐	☐
Canyon/Key Subdrains	☐	☐	☐
Foundation Recommendations	☐	☐	☐
Expansive soil mitigation (CBC 1805)	☐	☐	☐

Description of approved embedment material (i.e. compacted fill, terrace deposits, etc)	☐	☐	☐
Minimum depth of embedment (into approved material) for foundations	☐	☐	☐
Minimum width of footings	☐	☐	☐
Minimum diameter of caissons	☐	☐	☐
Bearing capacity (end bearing for caissons)	☐	☐	☐
Coefficient of friction (caisson skin friction)	☐	☐	☐
Lateral bearing	☐	☐	☐
Down drag forces (liquefiable soils, typically Beach Rd)	☐	☐	☐
Lateral Spread forces (liquefiable soils, typically Beach Rd)	☐	☐	☐
Foundation slope/trench setback	☐	☐	☐
Minimum reinforcement requirements	☐	☐	☐
Minimum slab thickness and reinforcement	☐	☐	☐
Slab underlayment	☐	☐	☐
Soluable Sulfate exposure mitigation (typically cement type)	☐	☐	☐
Conventional Retaining Wall Recommendations	☐	☐	☐
Active pressures (level, sloping)	☐	☐	☐
Retaining wall backdrain or recommendation of additional hydrostatic pressure	☐	☐	☐
Backfill	☐	☐	☐
Surcharges	☐	☐	☐
MSE Wall Recommendations (facing material, grid, backfill, stability analysis)	☐	☐	☐
Flatwork / Hardscape recommendations including driveways (subgrade preparation, minimum slab thickness, reinforcement and joint spacing)	☐	☐	☐
Roadway Pavement recommendations (section design, subgrade preparation)	☐	☐	☐
Swimming Pool recommendations	☐	☐	☐
GEOTECHNICAL REPORT – OBSERVATION/TESTING DURING CONSTRUCTION			
	OK	NOT MET	N/A

Footing Excavations	☐	☐	☐
Subdrains	☐	☐	☐
Caisson / Drilled Pier excavations (CBC Table 1704.9)	☐	☐	☐
Pool Excavations	☐	☐	☐
Benching	☐	☐	☐
Keyways	☐	☐	☐
Temporary excavations	☐	☐	☐
Geologic mapping of bedrock excavations	☐	☐	☐
Retaining wall backfill	☐	☐	☐
Utility trench backfill	☐	☐	☐
Engineered fill	☐	☐	☐
Hardscape subgrade (driveways, patios, walkways, etc.)	☐	☐	☐
Import soils	☐	☐	☐
GEOTECHNICAL REPORT – REFERENCES			
	OK	NOT MET	N/A
Current / City adopted Building Code	☐	☐	☐
Grading Code	☐	☐	☐
Geotechnical reports / publications / geologic maps	☐	☐	☐
Ariel photographs	☐	☐	☐
Websites	☐	☐	☐
Dana Point General Plan Coastal Erosion Technical Report (Coastal Bluff Areas)	☐	☐	☐
GEOTECHNICAL REPORT – COASTAL BLUFF			
	OK	NOT MET	N/A
Top of bluff designation (presented on geologic map and cross-sections)	☐	☐	☐

Arial photograph of site showing top of bluff	☐	☐	☐
Bluff retreat rate and total estimated retreat for a 50 year period	☐	☐	☐
Codified Bluff top setback (presented on geologic map and cross-sections)	☐	☐	☐
Slope stability analysis	☐	☐	☐
References for bluff retreat rate	☐	☐	☐
Slope Stability Setback presented on geologic map (surface expression of 1.5 FS)	☐	☐	☐
Total Setback presented on geologic map (greater of A: Slope Stability Setback + 50 yr bluff retreat or B: 10-feet buffer + 50 yr bluff retreat)	☐	☐	☐
Explanation and justification of 40-feet setback deviation	☐	☐	☐
Discussion of Hazards listed in the "Dana Point General Plan Coastal Erosion Technical Report"	☐	☐	☐
Discussion of mitigation measures presented in the "…Coastal Erosion Technical Report"	☐	☐	☐
Discussion of the bluff retreat as presented in the "…Coastal Erosion Technical Report"	☐	☐	☐