CASTLE HILLS ACCESS ROAD
DRAINAGE IMPROVEMENTS
PHASE 1
Project No. STP-0300(122)
AND PHASE 2

Application for:

Section 401 Water Quality Certification

State of Hawaii
Department of Transportation
Highways Division
869 Punchbowl Street
Honolulu, Hawaii 96813

April 2009
Revised May 2010

State of Hawaii
Department of Health
Clean Water Branch

CWB USE ONLY
WQC No.: _____ **Engineer:** _____
Date Received: _____

CWB-WQC Application

Information Required for the Section 401 Water Quality Certification (WQC)

Before completing this form, read the Guidelines for CWB-WQC Application.

If mail is not received at the street address, provide the mailing address(es) in Item 14, Additional Information.

1. Owner Information (see Guidelines for CWB-WQC Application - Note 1)

Legal Name: State of Hawaii Department of Transportation

Street Address: 869 Punchbowl Street

City, State and Zip+4 Code: Honolulu, Hawaii 96813

Contact Person & Title: Edwin Sniffen, Technical Design Section Head

Phone No.: (808) 692-7544 Fax No.: (808) 692-7555

2. General Contractor Information (see Guidelines for CWB-WQC Application - Note 2)

Name: Not selected at this time. To be provided to CWB within seven calendar days (7) prior to construction.

Street Address : _____

City, State and Zip+4 Code: _____

Contact Person & Position Title: _____

Phone No.: ( ) _____ Fax No.: ( ) _____

3. Emergency Contact Information (see Guidelines for CWB-WQC Application - Note 3)

a. Company/Organization Name: State of Hawaii Department of Transportation

Contact Person & Title: To be provided to CWB within seven calendar days (7) prior to construction.

Phone No.: _____ Phone No.: _____

b. Company/Organization Name: To be provided to CWB within seven calendar days (7) prior to construction.

Contact Person & Title: _____

Phone No.: ( ) _____ Phone No.: ( ) _____

4. Project Site Information (see Guidelines for CWB-WQC Application - Note 4)

Project Name: Castle Hills Access Road Drainage Improvements

Government Project/Job No. (as applicable): Phase I STP-0300(122), Phase 2 (TBD)

Street Address: Kapunahala Stream between Pookela Street, Kupohu Street and Pilina Way

City, State and Zip+4 Code: Kaneohe, Hawaii 96744

Contact Person & Title: To be provided to CWB within seven calendar days (7) prior to construction

Phone No.: _____ Fax No.: _____

Island: Oahu

Tax Map Key Number(s)			
Zone	Section	Plat	Parcel(s)
4	5	024	2,3,4,5
4	5	108	68,69,70,71,72,73,74

5. Associated Permits or Licenses (see Guidelines for CWB-WQC Application - Note 5)

Provide the type(s), status, corresponding file number(s), and legal authorization(s) of any existing or pending permits or licenses:

a. Department of the Army (DA) Permit or License: File No. 2009-00185.

b. Section 402 NPDES Permit: HI R10D388 and HI 09GD389

c. RCRA Permit (Hazardous Wastes): N/A

d. Facility on SARA 313 List (identify SARA 313 chemicals on site):

N/A

e. Other (Specify): DLNR File No. SCAP.2380.3 , CZM Reference No. P-12714

6. Receiving State Water Information (see Guidelines for CWB-WQC Application - Note 6)

a. Name: Kapunahala Stream
Classification: (check the appropriate space(s))

Inland:	Class 1 _____		Class 2 __X___		Estuary _____
Marine:	Class AA _____		Class A _____		Embayment _____

Describe the associated existing uses at the "discharge" location(s):

Kapunahala Stream is an unimproved stream within the project boundary. Unstable soil conditions along the stream banks have made the adjacent properties unsuitable for habitation. Therefore, the adjacent properties have been acquired by the applicant in the interest of public safety.

The existing condition could result in further erosion and possible discharge into receiving waters. Therefore, the proposed action will slow stream velocity at the culvert and stabilize a portion of the stream by adding gabions. These actions are intended to minimize or eliminate existing discharge potential. The proposed action is a long-term discharge mitigation measure that is intended to stabilize immediate and downstream bank areas.

The Kapunahala Stream is one of the source streams that feed into the Kaneohe Stream. The Kaneohe Stream ultimately ends in Kaneohe Bay. The proposed improvements are not expected to have any adverse impacts to Kaneohe Stream or Kaneohe Bay. Any disturbances within Kapunahala Stream will be minimal and will be mitigated at the source.

b. Name:_____

Classification: (check the appropriate space(s))

Inland: Class 1 _____	Class 2 _____	Estuary _____
Marine: Class AA _____	Class A _____	Embayment _____

Describe the associated existing uses at the "discharge" location(s):

7. Project Description (see Guidelines for CWB-WQC Application - Note 7)

a. Project Site Coordinates (Applicable for Phase 1 and Phase 2)

Latitude: 21 E 24 ' 13 " N Longitude: 157 E 48 ' 36 " W

Latitude: 21 E 24 ' 13 " N Longitude: 157 E 48 ' 34 " W

b. Describe the overall project scope and activities

The proposed project scope consists of two phases. The first phase will consist of the demolition and disposal of ten (10) single-family residences, and the construction of a gabion wall along the southern stream bank immediately downstream of the existing outlet structure. The second phase will consist of the temporary diversion of the existing stream to allow the

construction of a new concrete drop structure and gabion apron and walls. A detailed construction sequence is attached as Appendix A and summarized below.

Phase 1

1. Install, maintain and monitor temporary water pollution, dust and erosion control measures and BMP's.
2. Demolition and removal of ten (10) residential buildings and appurtenant structures and landscaping.
3. Removal of invasive plants within the stream corridor and stabilization of disturbed areas.
4. Installation of stream diversion measures to allow construction of southern stream bank gabion wall.
5. Excavation and dewatering for gabion wall.
6. Installation of gabion wall.
7. Removal of diversion measures.
8. Installation of erosion controls including hydromulch, temporary grassing and erosion control matting.

Phase 2

1. Install, maintain and monitor temporary water pollution, dust and erosion control measures and BMP's.
2. Demolition and removal of existing concrete ditch.
3. Installation of a 60-inch diversion pipe and other diversion measures.
4. Construction of a temporary diversion wall.
5. Demolition and removal of CRM outlet structure.
6. Excavation and dewatering for the new reinforced concrete drop structure and gabion wall
7. Drill and install micropile foundation.
8. Construct new concrete invert slab, gabion apron, and gabion wall.
9. Remove diversion structures, cofferdam and 60-inch bypass/diversion pipe.
10. Install erosion control measures.

c. Describe the "discharge" activity and the purpose of the proposed discharge activity

Discharge activity will be limited to the diversion of existing stream flow to allow construction and installation of outlet improvements and stream bank stabilization measures. Details of these activities are described in the attached construction sequence that describes all activities involved located below the high water mark. These actions will include the temporary placement of sand bags and sheet piles for stream diversion, dewatering of excavated areas and drainage for excavated materials.

d. List all "discharge" activities that the owner is seeking coverage for under this WQC application

The discharge activities seeking coverage are as follows:

1. Installation of temporary sand bags and sheet pile shoring.
2. Excavation for new reinforced concrete drop structure, gabion walls and gabion apron.
3. Construction of a temporary reinforced concrete diversion wall.
4. Construction of a reinforced concrete drop structure, including micropiles and cushion material (3B fine).
5. Construction of a gabion apron.

e. Specify physical, chemical, biological, thermal, and any other pertinent characteristic of the "discharge" activity

The proposed drainage improvements project consists of the reconstruction of a new stormwater culvert outlet and gabion apron in Kapunahala Stream. Appurtenant work above the Ordinary High Water Mark includes the installation of new gabion walls on the north and south banks of Kapunahala Stream and the reconstruction of a concrete ditch leading into the open culvert. Temporary in-stream discharges include placement of a sand bag berm to divert stream water away from the sheet pile cofferdam enclosing the work area. The project will be conducted in accordance with drawings titled Plans for Castle Hills Access Road Drainage Improvements Phase 1, Vicinity of Pookela Street, Kupohu Street & Pilina Way, Project No. STP-0300 (122) (attachment) and Castle Hills Access Road Drainage Improvements, Phase 2 Vicinity of Pookela Street, Kupohu Street and Pilina Way (attached).

8. Description of the Existing Environment and Potential Environmental Effects from the Construction Activities (see Guidelines for CWB-WQC Application - Note 8)

a. Describe the Existing Physical Environment and Potential Physical Environmental Effects

The existing stream banks are very unstable and subject to significant settlement and erosion. This condition has required the Department of Transportation to acquire 10 residential lots due to the extreme erosion hazard. After the residences are demolished, the stream banks will be stabilized to minimize further erosion and subsequently, erosion hazards and stream water quality degradation. If the proposed improvements are not constructed, the site will be subject to continued erosion and hazardous conditions as well as degraded water quality.

b. Describe the Existing Chemical Environment and Potential Chemical Environmental Effects

An assessment of ground water quality was conducted by AECOS, Inc. for the proposed project. Ground water will be the predominant source of water that will require treatment during the construction phase. Analyses of the water quality data collected from a well within the project area on July 14, 2009 show that water quality is typical of groundwater. Treatment of pumped ground water will bring the water quality values closer to those of surface water samples taken further downstream. The study is included in its entirety in the appendices.

Potential environmental impacts from chemical sources may include minor concrete, lubricant, and fuel spills, and the release of existing nutrients into the water from disturbed soil. Potential chemical impacts will be minimized by the use of erosion control measures and structural controls designed to isolate the work area from the stream. Additionally, BMPs Plan will be implemented and maintained throughout the duration of the project. See attached Site-Specific BMPs Plan.

c. Describe the Existing Biological Environment and Potential Biological Environmental Effects

Aquatic fauna is limited to non-native molly, mosquito fish and American crayfish. None of the species are considered rare or endangered. Stream diversion is not expected to significantly affect aquatic wildlife.

d. Describe the Existing Uses and Its Potential Effects

The existing stream is a natural drainage way for a sub-watershed. It is not considered a recreational resource and is not accessible by a public access point. After the proposed improvements are completed, the outlet and stream will be secured by perimeter fencing for public safety.

9. Project Schedule (see Guidelines for CWB-WQC Application - Note 9)

a. Provide the estimated date or dates on which the activity will begin and end:

December 2010 to July 2011 for Phase 1.

August 2011 to October 2012 for Phase 2. A project schedule is attached.

b. Provide the date or dates that the discharge(s) will take place:

February 2011 to May 2011 for Phase 1

September 2011 to July 2012 for Phase 2. See attached schedule.

10. Site-Specific Best Management Practices (BMP) Plan (see Guidelines for CWB-WQC Application - Note 10)

The BMPs Plan shall, at a minimum, include the following:

a. Maps are attached _X_ Yes ___ No

b. Site Characterization

General BMPs and erosion control measures are specified on Figures 4 thru 8 for Phase 1 and Figures 5 thru 8 and 12 for Phase 2. Site specific BMPs and erosion control measure locations are shown on Figure 11 for Phase 1 and Figures 13 thru 18 for Phase 2.

Site specific BMPs to isolate and confine the in-stream construction activities and to control/minimize in-stream construction activities associated water pollutants from adversely impacting downstream water quality will be provided to CWB by the selected contractor within seven days of the commencement of construction activities.

c. Construction Sequence and Duration

The construction sequence and method are detailed in Appendix A. The total project duration is estimated to be 9 months for Phase 1 and 14 months for Phase 2. See attached

schedule for duration of activities.

d. Construction Method

The construction sequence and method are detailed in Appendix A.

e. Characteristics of the discharge and potential pollutants associated with the proposed construction activity

PHASE 1

Source	Composition	Quantity	Duration
Stormwater runoff from construction site	Soil and Sediment	4.57 cfs	8 months
Existing Residential Structures and Improvements	Demolition Debris (wood, concrete, roofing material, etc.)	Trace amounts	30 days
Gabion Wall (South Streambank) (1)	Temporary sand bags	40 l.f. (~5 c.y.)	45 days
	Temporary steel sheet piles	60 l.f.	45 days

(1) The saturated excavated material/excavation spoils, temporary stockpiled material and construction debris will not be discharged into the stream. The saturated excavated material/excavation spoils will be hauled to the temporary material storage and dewatering basin. The dried material will be hauled and disposed of at a legal, offsite disposal site. Debris will be hauled and disposed of at a legal, offsite disposal site. Dewatering effluent will be pumped into the temporary onsite dewatering basin for treatment.

PHASE 2

Source	Composition	Quantity	Duration
Stormwater runoff from construction site	Soil and Sediment	4.57 cfs	8 months
Stream Bypass/Diversion	Soil and Sediment	<10 ft.^{3}	20 days
	Temporary Sand Bags	40 l.f. (~5 c.y.)	
	Demolition Debris (concrete)	40 l.f. (~5 c.y.)	
Existing CRM Outlet Structure	Demolition debris, including rock, concrete and aggregate material	< 10 ft. ^{3}	20 days
Concrete Drop Structure (2)	Soil and Sediment	<10 ft.^{3}	110 days
	Temporary Sand Bags	20 l.f. (2.5 c.y.)	
	Temporary Steel Sheet Piles	15 l.f.	
	Concrete for Temporary Diversion Wall	2 c.y.	
	Cushion Material (3B Fine)	430 c.y.	

Source	Composition	Quantity	Duration
	Micropiles	1944 l.f.	
	Concrete for Drop Structure	170 c.y.	
Gabion Apron [(2)]	Wire Baskets, Rock and Aggregate	17 c.y.	7 days
Gabion Walls[(2)]	Soil and Sediment	<10 ft.^{3}	60 days
	Temporary Sand Bags	65 l.f. (8 c.y.)	

[(2)] The saturated excavated material/excavation spoils, temporary stockpiled material and construction debris will not be discharged into the stream. The saturated excavated material/excavation spoils will be hauled to the temporary material storage and dewatering basin. The dried material will be hauled and disposed of at a legal, offsite disposal site. Debris will be hauled and disposed of at a legal, offsite disposal site. Dewatering effluent will be pumped into the temporary onsite dewatering basin for treatment.

f. Characteristics of the dredged/excavated material

PHASE 1

Source	Composition	Quantity	Duration
Gabion Wall (South Streambank)[(3)]	Clayey silt, clay with organic matter (peat) and aggregate		20 Days

[(3)] Excavation, dewatering and construction of the new gabion wall will be performed within the temporary sheet pile shoring. The saturated excavated material/excavation spoils, temporary stockpiled material and construction debris will not be discharged into the stream. The saturated excavation material/excavation spoils will be hauled to the onsite temporary material storage and dewatering basin. The dried material will then be hauled and disposed of at a legal, offsite disposal site. Dewatering effluent will be pumped into the onsite temporary material storage and dewatering basin for treatment.

PHASE 2

Source	Composition	Quantity	Duration
Existing CRM Outlet Structure [(4)]	Rock, Concrete and Aggregate	Approx. 125 c.y.	20 days
Concrete Drop Structure [(4)]	Clayey Silt, Clay with Organic Matter (Peat)	Approx. 650 c.y.	60 days
Gabion Walls and Apron [(4)]	Clayey Silt, Clay with Organic Matter (Peat)	Approx. 25 c.y.	30 days

[(4)] Demolition of the existing CRM outlet structure, excavation, dewatering and construction of the new concrete drop structure, gabion walls and apron will be performed within the temporary sheet pile shoring. The saturated excavated material/excavation spoils, temporary stockpiled material and construction debris will not be discharged into the stream. The saturated excavation material/excavation spoils will be hauled to the onsite temporary material storage and dewatering basin. The dried material will then be hauled and disposed of at a legal, offsite disposal site. Dewatering effluent will be pumped into the onsite temporary material storage and dewatering basin for treatment.

g. Proposed control measures and/or treatment

General BMPs and erosion control measures are specified on Figures 4 thru 8 for Phase 1 and Figures 5 thru 8 and 12 for Phase 2. Site specific BMPs and erosion control measure locations are shown on Figure 11 for Phase 1 and Figures 13 thru 18 for Phase 2.

Site specific BMPs to isolate and confine the in-stream construction activities and to control/minimize in-stream construction activities associated water pollutants from adversely impacting downstream water quality will be provided to CWB by the selected contractor within seven days of the commencement of construction activities.

11. Applicable Monitoring and Assessment Plan (see Guidelines for CWB-WQC Application - Note 11)

The Applicable Monitoring and Assessment Plan shall, at a minimum, include the following:

a. Description of the methods and means being used or proposed to monitor the quality and characteristics of the discharge

Water Quality Monitoring Plan is attached as Appendix B.

b. Description of the methods and means being used to monitor/maintain all pollutant control measures

Water Quality Monitoring Plan is attached as Appendix B.

c. Reporting requirements

Water Quality Monitoring Plan is attached as Appendix B.

d. A narrative of how the monitoring results will be used to demonstrate whether or not the project construction activity was in compliance with the applicable State water quality standards

Water Quality Monitoring Plan is attached as Appendix B.

12. Mitigation/Compensation Plan (see Guidelines for CWB-WQC Application - Note 12)

The project site is not designated as a sanctuary, refuge, wetland, mudflat, vegetated shallow, coral reef, or a riffle pool complex therefore a mitigation/compensation plan is not required.

13. Supporting Documents (see Guidelines for CWB-WQC Application - Note 13)

List and submit applicable maps, plans, specifications, copies of associated permits or licenses, federal applications, Environmental Assessments or Environmental Impact Statements, as applicable, etc.

	Document Title	Document Date
a.	Castle Hills Access Road Drainage Improvements FEIS	May 9, 2006
b.	Preliminary Drainage Report	March 2009
c.	Geotechnical Engineering Report	April 29, 2009
d.	Hazardous Materials Survey Report	February 2009
e.	Revised Hazardous Materials Survey Report	April 2009
f.	Stream Channel Alteration Permit	March 2010
g.	Hawaii Coastal Zone Management Consistency Review	August 2009
h.	Nationwide Permit	October 2009
i.		

14. Additional Information (see Guidelines for CWB-WQC Application - Note 14)

The mailing address of the owner is provided in Item 1. The mailing address of the contractor will be provided to CWB within seven calendar(7) days prior to the commencement of construction.

15. Statement of Choice of Publication (see Guidelines for CWB-WQC Application - Note 15)

Check One:

X Public Notice of Proposed Action

___ Public Notice of Public Hearing

___ Not Applicable. The applicant is seeking WQC coverage under authorization of WQC File No. _____ for a DA permit authorization under the following (provide applicable information):

DA NWP No. _____

DA GP No. _____

DA PGP No. _____

16. Authorization of Representative (see Guidelines for CWB-WQC Application - Note 16)

Check one and complete the appropriate space(s). Alteration of this item will result in the invalidation of the authorization statement(s).

a. This statement authorizes the named individual or any individual occupying the named position of the company/organization listed below to act as our representative to process the required Section 401 WQC Application to discharge to navigable waters from the subject project. The Owner hereby agrees to comply with and be responsible for all Section 401 WQC conditions.

Company/Organization Name: ParEn, Inc. dba Park Engineering

Street Address : 711 Kapiolani Boulevard, Suite 1500

City, State and Zip Code+4: Honolulu, Hawaii 96813

Authorized Person & Title: Russell Arakaki, Project Manager

Phone No.: (808) 593-1676 Fax No.: (808) 593-1607

b. This statement authorizes the named individual or any individual occupying the named position of the company/organization listed below to act as our representative to process the required Section 401 WQC Application to discharge to navigable waters from the subject project. Our representative is further authorized to fulfill all conditions of the Section 401 WQC. The Owner hereby agrees to comply with and be responsible for all Section 401 WQC conditions.

Company/Organization Name: _____

Street Address: _____

City, State and Zip Code+4: _____

Authorized Person & Title: _____

Phone No.: ( ) _____ Fax No.: ( ) _____

c. This statement authorizes the named individual or any individual occupying the named position of the company/organization listed below to act as our representative to fulfill all conditions of the Section 401 WQC for the subject project. The Owner hereby agrees to comply with and be responsible for all Section 401 WQC Conditions.

Company/Organization Name: DOT-Highways, Oahu District Office

Street Address: 727 Kakoi Street

City, State and Zip Code+4: Honolulu, Hawaii 96819-2017

Authorized Person & Title: Pratt Kinimaka, District Engineer

Phone No.: (808) 831-6703 Fax No.: (808) 831-6725

d. A separate statement is attached. Yes _____ No _____

17. Certification (see Guidelines for CWB-WQC Application - Note 17)

Alteration of this item will result in the invalidation of this application. **The person certifying this CWB-WQC Application must meet one of the following descriptions and be employed by the owner listed in Item 1.**

___ I certify that for a municipal agency, I am a principal executive officer or ranking elected official.

X__ I certify that for a state agency, I am a principal executive officer or ranking elected official.

___ I certify that for a federal or other non-federal public agency, I am a principal executive officer or ranking elected official.

___ I certify that for a federal agency, I am the chief executive officer of the agency, or I am the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

___ I certify that I am a general partner for a partnership.

___ I certify that I am the proprietor for a sole proprietorship.

___ I certify that for a corporation or association, I am the President, Vice President, Secretary, or Treasurer of the corporation or association and in charge of a principal business function, or I perform similar policy or decision making functions for the corporation or association:

___ I certify that for a corporation, I am the Manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), and authority to sign documents has been assigned or delegated to me in accordance with corporate procedures.

___ I certify that for a trust, I am a trustee.

In accordance with the State of Hawaii, Department of Health, Water Quality Standards, there is reasonable assurance that the proposed activity will be conducted in such a manner which will not violate the basic water quality criteria applicable to all waters and the specific water quality criteria applicable to the class of navigable waters where the proposed "discharge" would take place.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: MAY 19 2010

Printed Name & Title: Brennon T. Morioka, PhD., PE, Director

Company/Organization Name: Department of Transportation

Phone No.: (808) 587-2150 Fax No.: (808) 587-2167

CWB-WQC Application Checklist		
If any item is listed as "no," attach a sheet with the reason for its exclusion from the Section 401 WQC Application submittal.		
Item Number	**Description**	**Is item addressed? (yes/no)**
1.	Owner Information	yes
2.	General Contractor Information	no
3.	Emergency Contact Information	no
4.	Project Site Information	yes
5.	Associated Permits or Licenses	yes
6.	Receiving State Water Information	yes
7.	Project Description	yes
8.	Description of the Existing Environment and Potential Environmental Effects from the Construction Activities	yes
9.	Project Schedule	yes
10.	Site-Specific BMPs Plan	yes
11.	Applicable Monitoring and Assessment Plan	yes
12.	Mitigation/Compensation Plan	yes
13.	Supporting Documents	yes
14.	Additional Information	no
15.	Statement of Choice of Publication	yes
16.	Authorization of Representative	yes
17.	Certification	yes
18.	Filing Fee ($1000.00) is attached	yes
19.	Number of copies with supporting documents submitted	
	a. One (1) copy for projects on Oahu with owner's original signature	yes
	b. Two (2) copies for projects on islands other than Oahu (one with owner's original signature)	