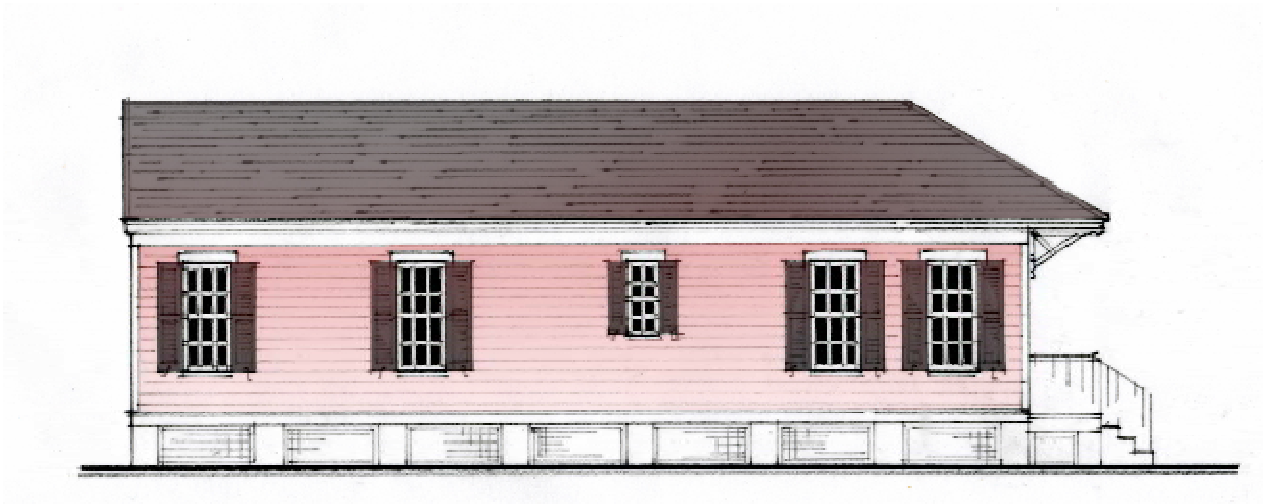
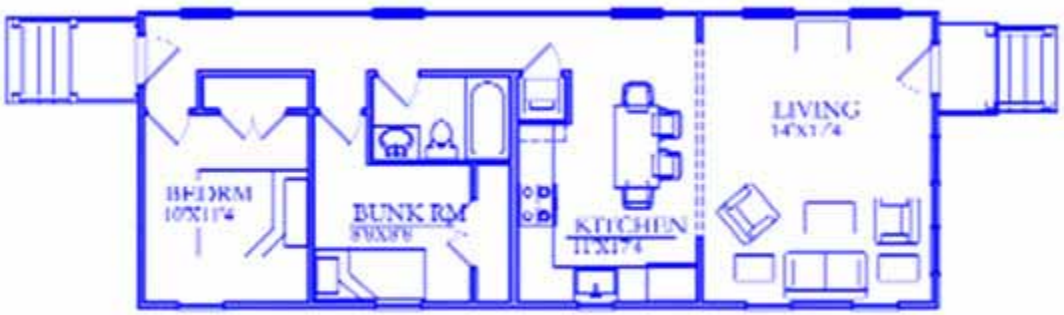
APPENDIX C
AHPP Cottage Designs

Cypress Realty Partners

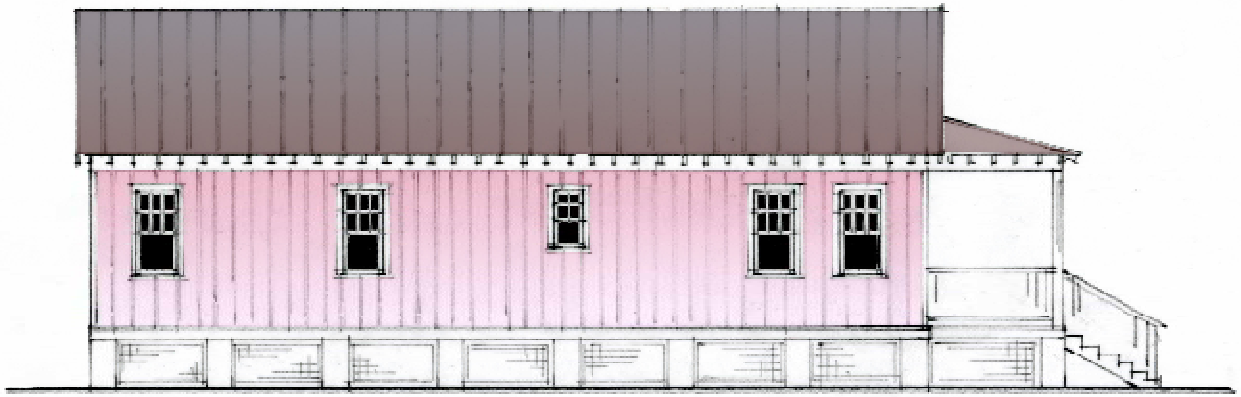


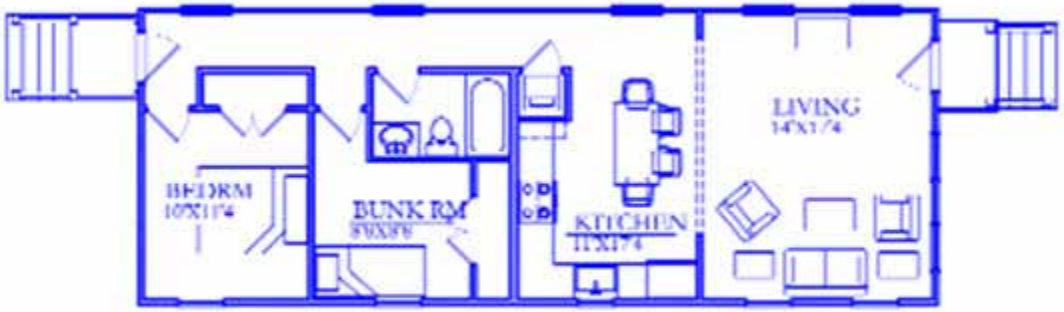


874 Sq. Ft. Unit

2 bed / 1 bath

Cypress Realty Partners

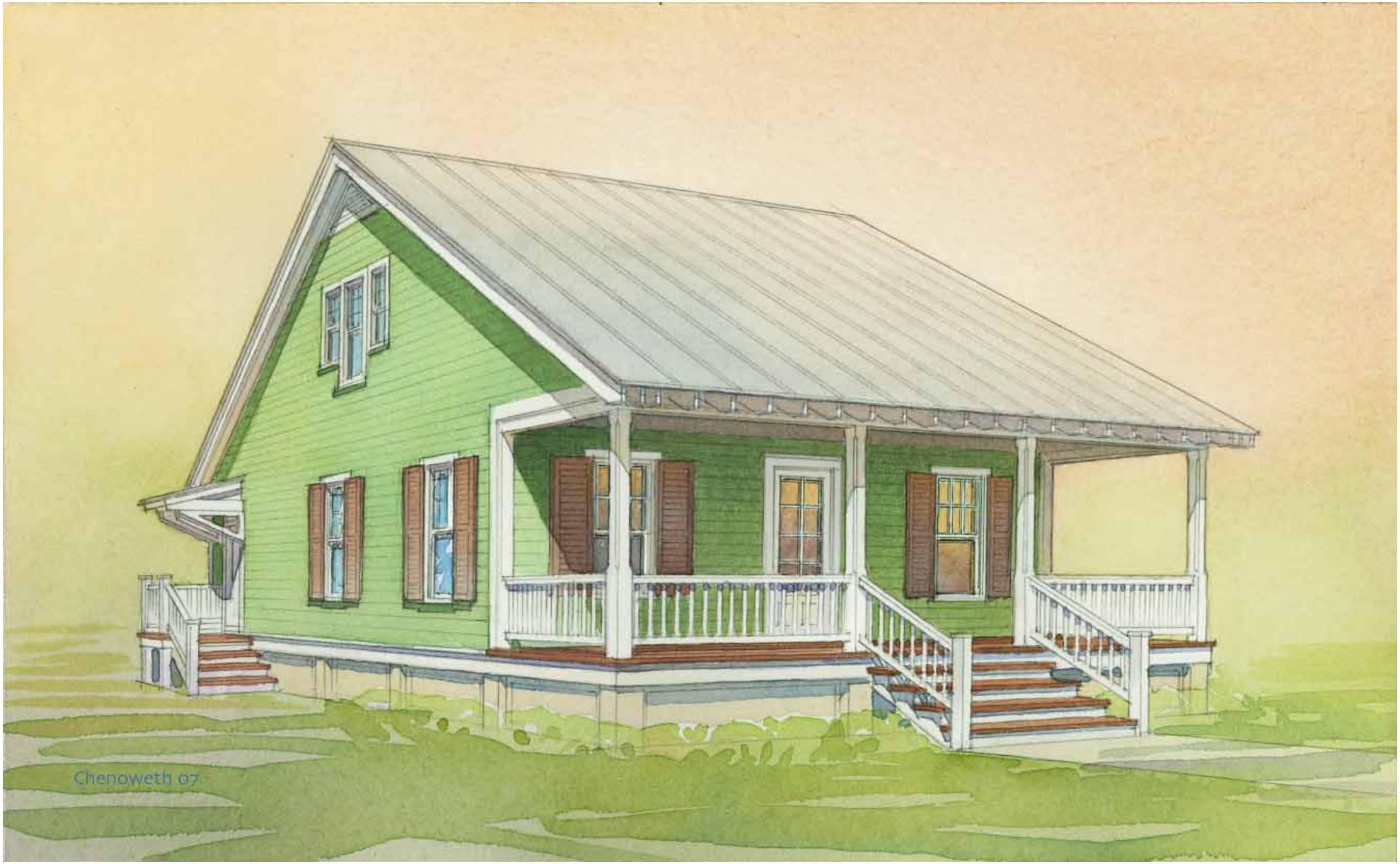




874 Sq. Ft. Unit

2 bed / 1 bath

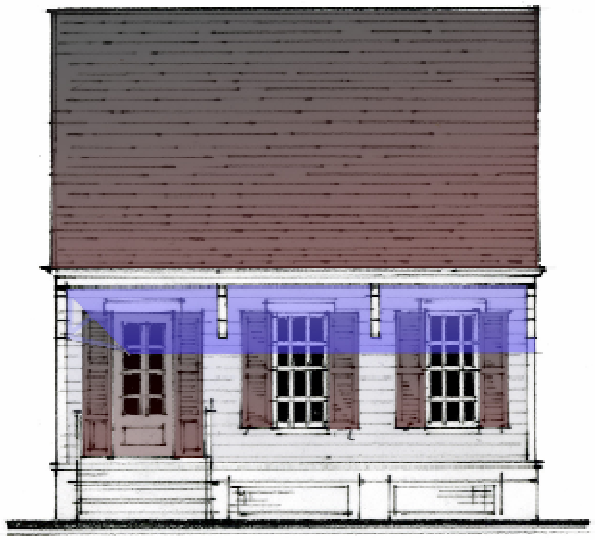
Cypress Realty Partners



910 Sq. Ft. Unit

3 bed / 1 bath

Cypress Realty Partners



910 Sq. Ft. Unit

3 bed / 1 bath

Cypress Realty Partners

910 Sq. Ft. Unit

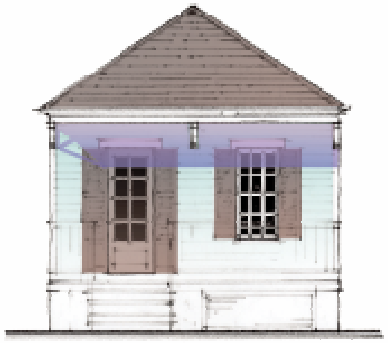
3 bed / 1 bath

Cypress Realty Partners

936 Sq. Ft. Unit

1080 Sq. Ft. Unit

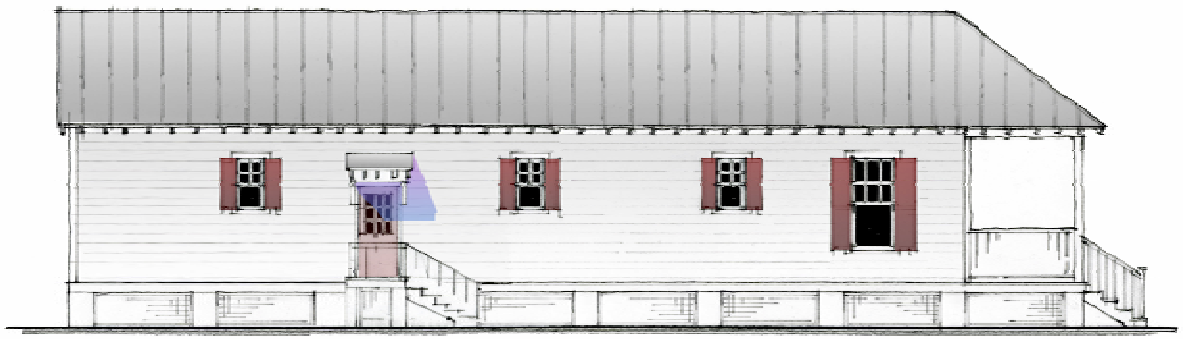
3 bed / 2 bath



1080 Sq. Ft. Unit

3 bed / 2 bath

Cypress Realty Partners



1080 Sq. Ft. Unit

3 bed / 2 bath

Cypress Realty Partners

1112 Sq. Ft. Unit

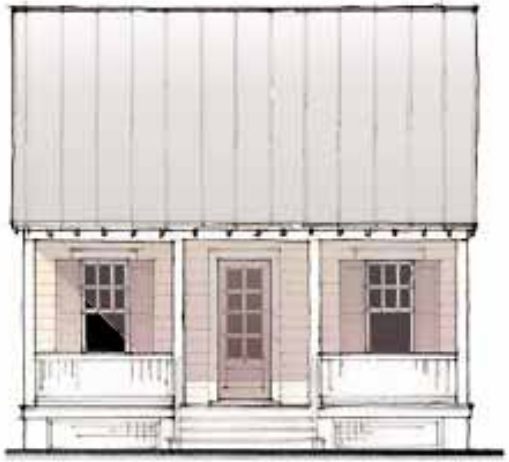
3 bed / 2 bath

Cypress Realty Partners

1112 Sq. Ft. Unit

3 bed / 2 bath

Cypress Realty Partners



1112 Sq. Ft. Unit

3 bed / 2 bath

Cypress Realty Partners

Cypress Realty Partners

APPENDIX D
Air Quality Calculations

CALCULATION SHEET-COMBUSTIBLE EMISSIONS

Assumptions for Combustible Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	1	300	8	240	576000
Diesel Road Compactors	1	100	8	90	72000
Diesel Dump Truck	2	300	8	90	432000
Diesel Excavator	1	300	8	90	216000
Diesel Hole Trenchers	0	175	8	90	0
Diesel Bore/Drill Rigs	0	300	8	90	0
Diesel Cement & Mortar Mixers	1	300	8	240	576000
Diesel Cranes	1	175	8	240	336000
Diesel Graders	1	300	8	90	216000
Diesel Tractors/Loaders/Backhoes	2	100	8	90	144000
Diesel Bull Dozers	1	300	8	90	216000
Diesel Front End Loaders	1	300	8	90	216000
Diesel Fork Lifts	2	100	8	90	144000
Diesel Generator Set	12	40	8	90	345600

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Water Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTIBLE EMISSIONS

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Water Truck	0.279	1.314	3.485	0.260	0.254	0.470	340.227
Diesel Road Paver	0.029	0.117	0.389	0.027	0.026	0.059	42.544
Diesel Dump Truck	0.209	0.985	2.614	0.195	0.190	0.352	255.170
Diesel Excavator	0.081	0.309	1.095	0.076	0.074	0.176	127.657
Diesel Hole Cleaners\Trenchers	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Bore/Drill Rigs	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Cement & Mortar Mixers	0.387	1.473	4.621	0.305	0.298	0.463	336.228
Diesel Cranes	0.163	0.481	2.118	0.126	0.122	0.270	196.318
Diesel Graders	0.083	0.324	1.126	0.079	0.076	0.176	127.657
Diesel Tractors/Loaders/Backhoes	0.294	1.303	1.146	0.217	0.211	0.151	109.669
Diesel Bull Dozers	0.086	0.328	1.133	0.079	0.076	0.176	127.657
Diesel Front End Loaders	0.090	0.369	1.190	0.083	0.081	0.176	127.633
Diesel Aerial Lifts	0.314	1.231	1.358	0.221	0.214	0.151	109.622
Diesel Generator Set	0.461	1.432	2.274	0.278	0.270	0.308	223.674
Total Emissions	**2.477**	**9.668**	**22.548**	**1.946**	**1.894**	**2.929**	**2124.055**

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-TRANSPORTATION COMBUSTIBLE EMISSIONS

Construction Worker Personal Vehicle Commuting to Construction Site-Passenger and Light Duty Trucks									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	240	15	15	0.32	0.38	0.71
CO	12.4	15.7	60	240	15	15	2.95	3.74	6.69
NOx	0.95	1.22	60	240	15	15	0.23	0.29	0.52
PM-10	0.0052	0.0065	60	240	15	15	0.00	0.00	0.00
PM 2.5	0.0049	0.006	60	240	15	15	0.00	0.00	0.00
							-		

Heavy Duty Trucks Delivery Supply Trucks to Construction Site									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	240	2	2	0.01	0.02	0.03
CO	1.32	3.21	60	240	2	2	0.04	0.10	0.14
NOx	4.97	12.6	60	240	2	2	0.16	0.40	0.56
PM-10	0.12	0.33	60	240	2	2	0.00	0.01	0.01
PM 2.5	0.13	0.36	60	240	2	2	0.00	0.01	0.02

	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of Cars	Number of trucks	Total Emissions cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	30	240			-	0.00	-
CO	12.4	15.7	30	240			-	0.00	-
NOx	0.95	1.22	30	240			-	0.00	-
PM-10	0.0052	0.0065	30	240			-	0.00	-
PM 2.5	0.0049	0.006	30	240			-	0.00	-

Truck Emission Factor Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.

CALCULATION SHEET-FUGITIVE DUST

Construction Fugitive Dust Emissions

Construction Fugitive Dust Emission Factors

	Emission Factor	Units	Source
General Construction Activities	0.19	ton PM10/acre-month	MRI 1996; EPA 2001; EPA 2006
New Road Construction	0.42	ton PM10/acre-month	MRI 1996; EPA 2001; EPA 2006

PM2.5 Emissions

PM2.5 Multiplier	0.10	(10% of PM10 emissions assumed to be PM2.5)	EPA 2001; EPA 2006
Control Efficiency	0.50	(assume 50% control efficiency for PM10 and PM2.5 emissions)	EPA 2001; EPA 2006

Project Assumptions

Construction Area (0.19 ton PM10/acre-month)

Duration of Construction Project	6	months
Length	0	miles
Length (converted)	0	feet
Width	0	feet
Area	11.00	acres

Staging Areas

Duration of Construction Project		months
Length		miles
Length (converted)		feet
Width		feet
Area	0.00	acres

Conversion Factors

0.000022957	acres per feet
5280	feet per mile

Project Emissions (tons/year)

	PM10 uncontrolled	PM10 controlled	PM2.5 uncontrolled	PM2.5 controlled
Construction Area (0.19 ton PM10/ac	12.54	6.27	1.25	0.63
Staging Areas	0.00	0.00	0.00	0.00
Total	**12.54**	**6.27**	**1.25**	**0.63**

APPENDIX E

Floodplain Eight Step Planning Process and Public Notice

FEMA AHPP Calcasieu Programmatic Environmental Assessment
Eight-Step Planning Process for Floodplains and Wetlands

Step 1: Determine whether the Proposed Action is located in a wetland and/or the 100-year floodplain, or whether it has the potential to affect or be affected by a floodplain or wetland.	**Project Analysis:** According to FEMA Q3 data approximately 50 percent of Calcasieu Parish lies within flood hazard areas (500- and 100-year floodplains). Currently, the locations of the proposed specific AHPP sites are unknown and may potentially be located within the 100-year floodplain. Wetlands may potentially be impacted by the proposed AHPP housing sites located on undeveloped land. However, in general each of the proposed sites is substantially less than 1 acre and would be located in areas where there are currently adjacent residential developments.
Step 2: Notify public at earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision-making process.	**Project Analysis:** A public notice was issued by FEMA and the LRA notifying the public regarding the proposed action's floodplain impacts on March 4, 2009. In addition, FEMA and the LRA will notify the public of the availability of the draft Programmatic Environmental Assessment (EA) which evaluates all natural resource impacts from the proposed program in Calcasieu Parish. The public notice will be provided in a newspaper of general circulation when the draft PEA is made available for public review and a final public notice for proposed floodplain impacts will also be provided in a newspaper of general circulation.
Step 3: Identify and evaluate practicable alternatives to locating the Proposed Action in a floodplain or wetland.	**Project Analysis:** The Applicant considered the following alternatives in selecting the proposed action: *Alternative 1. No Action:* Under the No Action Alternative, no AHPP housing would be provided for families displaced from their homes. Rental resources are very limited in the affected area, and people displaced by Hurricanes Katrina and Rita would remain in housing provided by family members or friends, in hotels, in temporary "dormitories" such as homeless shelters or churches, or in facilities damaged by the storm and determined structurally unsafe or unsanitary. Although no new construction would occur in the 100-year floodplain, permanent housing for Louisiana residents would remain inadequate.

Step 3, continued	*Alternative 2. Installation of a Permanent AHPP Unit on Previously Disturbed Land:* Alternative 2 would include the acquisition of the land and the installation of a single AHPP unit on previously disturbed land. Previously disturbed land would include land that was previously residential or agricultural. The site would be cleared of all debris and vegetation, then grubbed, contoured, and graded, if necessary. Projects under this alternative may require ground disturbing activities, including the demolition of former housing structures, slab/foundation removal, and the modification of utilities (*i.e.,* utility lines, septic systems, water wells) and entryways (driveways, sidewalks, *etc*.). All units would be located outside of the Coastal High Hazard Area (CHHA), and if units were within the 100-year floodplain, they would be elevated above the Base Flood Elevation (BFE) for those units located in Lake Charles but would be elevated above the Advisory Base Flood Elevation (ABFE) if located outside of Lake Charles, where applicable. *Alternative 3. Installation of a Permanent AHPP Unit on Undeveloped Land:* Alternative 3 would include the acquisition of the land and the installation of a single AHPP unit on undeveloped land. The site would be cleared of all debris and vegetation, then grubbed, contoured, and graded, if necessary. Projects under this alternative may require ground disturbing activities including site preparation (clearing of debris and vegetation) and the installation of utilities (*i.e.,* utility lines, septic systems, water wells) and entryways (driveways, sidewalks, *etc*.). All units would be located outside of the CHHA, and if units were within the 100-year floodplain, they would be elevated above the BFE for those units located in Lake Charles but would be elevated above the ABFE, if located outside of Lake Charles, where applicable. *Build AHPP housing in other areas within Calcasieu Parish:* Although the specific locations for the proposed AHPP units has not been finalized, several sites have already been disregarded early in the LRA review process as they seemed problematic from a wetland,

	cultural resources, or other natural resources. In addition, a few sites were disregarded due to time constraints regarding their development.
Step 4: Identify the full range of potential direct or indirect impacts associated with the occupancy or modification of floodplains and wetlands, and the potential direct and indirect support of floodplain and wetland development that could result from the Proposed Action.	**Project Analysis:** If each of the proposed 40 to 55 AHPP units would lie within the 100-year floodplain, there would be direct impacts to the floodplain which would include converting approximately 1.0 acre to 1.01 acres of 100-year floodplain to areas outside the floodplain. The loss of floodplain area would generally be considered a direct, permanent impact; however, as these sites may not be located in the 100-year floodplain and/or would be scattered throughout Calcasieu Parish there would be a minimal adverse effect. Elevation of the proposed AHPP units to the ABFE would be attained through the addition of fill material, the construction the AHPP units on piers, or through a combination of both. The proposed conversion of the project area to non-floodplain is not likely to result in an evident increase in flood velocities or elevations upstream or downstream. Although the program does not encourage additional development within the floodplain, the program will result in providing civic support to populations living in the floodplain which would be an indirect impact. Should each of the possible 40 to 55 AHPP units lie within wetlands, there would be a total impact to approximately 1.0 acre to 1.01 acres of wetlands. However, in general each of the proposed sites is currently adjacent to residential developments and is not considered to be wetlands. Due to these conditions there would be a minimal, insignificant effect to wetlands from either action alternatives.
Step 5: Minimize the potential adverse impacts from work within floodplains and wetlands (identified under Step 4), restore and preserve the natural and beneficial values served by wetlands.	**Project Analysis:** To minimize impacts to the floodplain, the proposed AHPP cottages would be constructed either on previously developed sites which have been previously filled and graded or the sites would be located on undeveloped land that would be filled and graded so that each AHPP unit would be located outside the 100-year floodplain. The proposed AHPP units would be elevated above the BFE for all sites within Lake Charles and above the ABFE for those sites not within the city limits.

Step 6: Re-evaluate the Proposed Action to determine: 1) if it is still practicable in light of its exposure to flood hazards; 2) the extent to which it will aggravate the hazards to others; 3) its potential to disrupt floodplain and wetland values.	**Project Analysis:** The Proposed Action remains practicable; as it increases permanent affordable housing in Louisiana, would only minimally (if at all) increase nearby flood elevations, and preserves abundant nearby floodplains retaining their natural values.
Step 7: If the agency decides to take an action in a floodplain or wetland, prepare and provide the public with a finding and explanation of any final decision that the floodplain or wetland is the only practicable alternative. The explanation should include any relevant factors considered in the decision-making process.	**Project Analysis:** Executive (EO) 11988 (Floodplain Management) requires Federal agencies to avoid direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative. FEMA applies the decision process described in 44 CFR Part 9, referred to as the Eight-Step Planning Process, to ensure that its actions are consistent with EO 11988. A final public notice will be published informing the public of FEMA's decision to proceed with the project. This notice will include rationale for floodplain impacts, a description of all significant facts considered in making the determination, a list of the alternatives considered, a statement indicating whether the action conforms to State and local floodplain protection standards, a statement indicating how the action affects the floodplain, and a statement of how mitigation will be achieved.
Step 8: Review the implementation and post-implementation phases of the Proposed Action to ensure that the requirements of the EOs are fully implemented. Oversight responsibility shall be integrated into existing processes.	**Project Analysis:** This step is integrated into the NEPA process and FEMA project management and oversight functions.

FINAL PUBLIC NOTICE

FEMA-1603-DR-LA AND FEMA-1607-DR-LA

Proposed Federal Funding in the 100-year Floodplain

Public Notice is hereby given by the Federal Emergency Management Agency (FEMA) per 44 Code of Federal Regulations Part 9 (Floodplain Management and Protection of Wetlands), FEMA's implementing regulation for Executive Order 11988, Floodplain Management, of its intent to provide alternative pilot housing assistance under the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery of 2006, Pub. L. No. 109-234.

Recognizing the extensive and complex housing challenges facing victims and communities along the Gulf Coast region, as a result of the 2005 hurricane season, and acknowledging the limitations on Federal Emergency Management Agency's (FEMA) ordinary statutory authority to provide long-term and permanent housing solutions, the United States (U.S.) Congress appropriated funds to Department of Homeland Security (DHS) to support alternative housing pilot programs (Emergency Supplemental Appropriations Act, 2006, Public Law [P.L.] 109-234). The Alternative Housing Pilot Program (AHPP) represents a one-time exception to FEMA's existing authority under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). The Louisiana Recovery Authority (LRA), in conjunction with the State of Louisiana, has applied for FEMA funding under the AHPP to provide permanent housing solutions for eligible applicant families displaced by Hurricanes Katrina and Rita throughout the State of Louisiana, including within Calcasieu Parish.

After the Presidential disaster declarations FEMA-1603-DR-LA and FEMA-1607-DR-LA, FEMA published an initial floodplain notice providing information on the agency's disaster assistance actions in the 100-year floodplain (areas that have been determined to have a one percent probability of flooding in any given year).

This publication provides final notice for the construction of alternative pilot housing projects that would be located in the 100-year floodplain, scattered throughout Calcasieu Parish, Louisiana but predominately within the City of Lake Charles, Louisiana. FEMA has determined that for the proposed action which consists of land acquisition and construction of 40-55 single-family, permanent housing units scattered throughout Calcasieu Parish, there are no practicable alternatives outside the floodplain because a large portion of the Parish is within the floodplain. The LRA will ensure appropriate elevation of housing units through open works (columns, piers, piles, etc.) or fill. No additional fill would be needed for the proposed action due to the prior development of the subdivision in which fill was used to elevate the homesites to the base flood elevation. The applicant will ensure that construction meets the applicable State or local floodplain standards. Other mitigation measures may be incorporated on an action-by-action basis.

Maps of the area are available for public inspection upon request. Maps can also be accessed through the internet at http://www.fema.gov/plan/ehp/noma/resources4.shtm#katrina .

This constitutes final notice, and FEMA is accepting comments to its above determination. Written comments can be mailed to Environmental and Historic Preservation, 1250 Poydras Street, 14th Floor, New Orleans, LA 70114 or faxed to (504) 762-2527. The public comment period will be limited to the 15 days from March 4, 2009 to March 18, 2009.

APPENDIX F

Rare, Threatened, Endangered Species in Calcasieu Parish

Rare, Threatened, & Endangered Species & Natural Communities
Tracked by the Louisiana Natural Heritage Program
Calcasieu Parish - April 2008

PARISH: Calcasieu

Scientific Name	Common Name	State Rank	Global Rank	State Status	Federal Status
Agalinis filicaulis	Purple False-foxglove	S2	G3G4		
Aimophila aestivalis	Bachman's Sparrow	S3	G3		
Amsonia ludoviciana	Louisiana Blue Star	S3	G3		
Anemone berlandieri	ten petal thimbleweed	S2	G4?		
Asclepias hirtella	Green Milkweed	S1	G5		
Bottomland hardwood forest	Bottomland Hardwood Forest	S4	G4G5		
Brachycercus flavus	Yellow Brachycercus Mayfly	S1	G4		
Brackish marsh	Brackish Marsh	S3S4	G4?		
Canis rufus	Red Wolf	SX	G1Q		LE,XN
Caracara cheriway	Crested Caracara	S1	G5		PS:LT
Carex meadii	Mead's Sedge	S3	G4G5		
Carex microdonta	Little Tooth Sedge	S3	G4		
Chaetopappa asteroides	Chaetopappa	S1	G5		
Coastal prairie	Coastal Prairie	S1	G2Q		
Cooperia drummondii	Evening Rainlily	S2	G5		
Cycleptus elongatus	Blue Sucker	S2S3	G3G4		
Dichanthelium strigosum var. leucoblepharis	roughhair witchgrass	SH	G5T3T5		
Fallicambarus dissitus	Pine Hills Crawfish	S2	G4		
Fallicambarus macneesei	Old Prairie Crawfish	S2	G3		
Galium virgatum	Southwest Bedstraw	S2	G5		
Grus canadensis	Sandhill Crane	S1N	G5		PS
Haliaeetus leucocephalus	Bald Eagle	S2N,S3B	G5	Endangered	Delisted
Hieracium longipilum	Hawkweed	S1	G4G5		
Lampsilis satura	Sandbank Pocketbook	S2	G2		
Liatris punctata	Gayfeather	S1	G5		
Lobelia flaccidifolia	coastal plain lobelia	S2?	G5		
Ludwigia microcarpa	Small-fruited Water-willow	S1	G5		

Rare, Threatened, & Endangered Species & Natural Communities
Tracked by the Louisiana Natural Heritage Program
Calcasieu Parish - April 2008

PARISH: Calcasieu

Scientific Name	Common Name	State Rank	Global Rank	State Status	Federal Status
Ludwigia sphaerocarpa	Grapefruit Primrosewilow	S2	G5		
Monarda lindheimeri	Lindheimer's Bee-balm	S1	G4		
Nymphaea elegans	Blue Water Lily	S2S4	G4?		
Orconectes blacki	Calcasieu Painted Crawfish	S2	G2		
Panicum tenerum	Southeastern Panic Grass	S4	G4		
Physostegia longisepala	Long-sepaled False Dragon-head	S2S3	G2G3		
Picoides borealis	Red-cockaded Woodpecker	S2	G3	Endangered	LE
Platalea ajaja	Roseate Spoonbill	S3	G5		
Polygala chapmanii	Chapman's milkwort	S1	G3G5		
Polygala crenata	scalloped milkwort	S2	G4?		
Polyodon spathula	Paddlefish	S3	G4	Prohibited	
Pterocaulon virgatum	Wand Blackroot	S2	G5		
Reithrodontomys humulis	Eastern Harvest Mouse	S3S4	G5		
Rhynchospora divergens	Spreading Beakrush	S1	G4		
Rhynchospora miliacea	Millet Beakrush	S2	G5		
Rhynchospora nitens	Short-beaked Baldsedge	S3	G4?		
Rhynchospora perplexa	pineland beaksedge	S4	G5		
Rhynchospora tracyi	Beak-rush	SH	G4		
Saccharum brevibarbe	Short-beard Plumegrass	S1	G3G5		
Salix humilis var. tristis	Dwarf Gray Willow	S2	G5T4T5		
Samolus ebracteatus	Brookweed	S1	G4G5		
Scleria verticillata	Low Nutrush	S1	G5		
Scutellaria cardiophylla	Heart-leaved Skullcap	S2	G4?		
Spilogale putorius	Eastern Spotted Skunk	S1	G5		
Sporobolus silveanus	Silveus Dropseed	S2	G4		
Strophitus subvexus	Southern Creekmussel	S1	G3		
Terrapene ornata	Ornate Box Turtle	S1	G5	Restricted Harvest	

Rare, Threatened, & Endangered Species & Natural Communities
Tracked by the Louisiana Natural Heritage Program
Calcasieu Parish - April 2008

PARISH: Calcasieu

Scientific Name	Common Name	State Rank	Global Rank	State Status	Federal Status
Waterbird Nesting Colony	Waterbird Nesting Colony	SNR	GNR		
Western acidic longleaf pine savannah	Western Acidic Longleaf Pine Savannah	S1S2	G2G3		
Western saline longleaf pine savannah	Western Saline Longleaf Pine Savannah	S1	G1		
Xyris fimbriata	Fringed Yellow-eyed Grass	S2?	G5		
Xyris louisianica	Louisiana yellow-eyed grass	S3	G3		
Xyris stricta	Pineland Yellow-eyed Grass	S1	G3G4		

EXPLANATION OF RANKING CATEGORIES EMPLOYED BY NATURAL HERITAGE PROGRAMS NATIONWIDE

Each element is assigned a single global rank as well as a state rank for each state in which it occurs. Global ranking is done under the guidance of NatureServe, Arlington, VA. State ranks are assigned by each state's Natural Heritage Program, thus a rank for a particular element may vary considerably from state to state. Federal ranks are designated by the U.S. Fish & Wildlife Service under the provisions of the Endangered Species Act of 1973. **DISCLAIMER:** This document is not an official copy of the laws in effect and should not be utilized or relied upon as such. For this reason, the accuracy of the information contained within this document cannot be guaranteed and the reader is cautioned that it is his/her responsibility to be apprised of the laws in effect at any given time. These laws include those contained within the Louisiana Revised Statutes, particularly Title 56, the official regulations of the Louisiana Wildlife and Fisheries Commission, federal laws, and any local or parish ordinances.

FEDERAL RANKS (USESA FIELD):

LE = Listed Endangered
LT = Listed Threatened
PE = Proposed endangered
PT = Proposed Threatened
C = Candidate
PDL = Proposed for delisting
E (S/A) or T (S/A) = Listed endangered or threatened because of similarity of appearance
XE = Essential experimental population
XN = Nonessential experimental population
No Rank = Usually indicates that the taxon does not have any federal status. However, because of potential lag time between publication in the Federal Register and entry in the central databases and state databases, some taxa may have a status which does not yet appear.
(Rank, Rank) = Combination values in parenthesis = The taxon itself is not named in the Federal Register as having U.S. ESA status; however, all of its infraspecific taxa (worldwide) do have official status. The statuses shown in parentheses indicate the statuses that apply to infraspecific taxa or populations within this taxon. *THE SPECIES IS CONSIDERED TO HAVE A COMBINATION STATUS IN LOUISIANA*
(PS) = partial status= Status in only a portion of the species' range. Typically indicated in a "full" species record where an infraspecific taxon or population has U.S. ESA status, but the entire species does not. *THE SPECIES DOES NOT HAVE A STATUS IN LOUISIANA*
(PS: Rank) = partial status= Status in only a portion of the species' range. The value of that status appears because the entity with status does not have an individual entry in Natureserve. *THE SPECIES MAY HAVE A STATUS IN LOUISIANA*

GLOBAL ELEMENT RANKS:

G1 = critically imperiled globally because of extreme rarity (5 or fewer known extant populations) or because of some factor(s) making it especially vulnerable to extinction
G2 = imperiled globally because of rarity (6 to 20 known extant populations) or because of some factor(s) making it very vulnerable to extinction throughout its range
G3 = either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range (e.g., a single physiographic region) or because of other factors making it vulnerable to extinction throughout its range (21 to 100 known extant populations)
G4 = apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery (100 to 1000 known extant populations)
G5 = demonstrably secure globally, although it may be quite rare in parts of its range, especially at the periphery (1000+ known extant populations)
GH = of historical occurrence throughout its range; i.e., formerly part of the established biota, with the possibility that it may be rediscovered (e.g., Bachman's Warbler)
GU = possibly in peril range-wide, but status uncertain; need more information
G? = rank uncertain. Or a range (e.g., G3G5) delineates the limits of uncertainty
GQ = uncertain taxonomic status
GX = believed to be extinct throughout its range (e.g., Passenger Pigeon) with virtually no likelihood that it will be rediscovered
T = subspecies or variety rank (e.g., G5T4 applies to a subspecies with a global species rank of G5, but with a subspecies rank of G4)

STATE ELEMENT RANKS:

S1 = critically imperiled in Louisiana because of extreme rarity (5 or fewer known extant populations) or because of some factor(s) making it especially vulnerable to extirpation
S2 = imperiled in Louisiana because of rarity (6 to 20 known extant populations) or because of some factor(s) making it very vulnerable to extirpation
S3 = rare and local throughout the state or found locally (even abundantly at some of its locations) in a restricted region of the state, or because of other factors making it vulnerable to extirpation (21 to 100 known extant populations)
S4 = apparently secure in Louisiana with many occurrences (100 to 1000 known extant populations)
S5 = demonstrably secure in Louisiana (1000+ known extant populations)
(B or N may be used as qualifier of numeric ranks and indicating whether the occurrence is breeding or nonbreeding)
SA = accidental in Louisiana, including species (usually birds or butterflies) recorded once or twice or only at great intervals hundreds or even thousands of miles outside their usual range
SH = of historical occurrence in Louisiana, but no recent records verified within the last 20 years; formerly part of the established biota, possibly still persisting
SR = reported from Louisiana, but without conclusive evidence to accept or reject the report
SU = possibly in peril in Louisiana, but status uncertain; need more information
SX = believed to be extirpated from Louisiana
SZ = transient species in which no specific consistent area of occurrence is identifiable

STATE PROTECTION STATUS:

State status are contained in Title 56 of the Louisiana Revised Statutes as well as relevant rules and regulations adopted by the Louisiana Wildlife and Fisheries Commission and the Secretary of the Department of Wildlife and Fisheries. The Secretary of the Department of Wildlife and Fisheries is authorized to implement additional restrictions in emergency situations in order to protect fish and wildlife resources.

Endangered = Taking or harassment of these species is a violation of state and federal laws.
Threatened = Taking or harassment of these species is a violation of state and federal laws.
Threatened/Endangered = Taking or harassment of these species is a violation of state and federal laws.
Prohibited = Possession of these species is prohibited. No legal harvest or possession.
Restricted Harvest = There are restrictions regarding the taking and possession of these species