

Appendix A Project Scope of Work Timeline

Project Prep	Initial Site Survey	Tech On-Site Work	Engr On-Site Work	Post	Task	Estimated Duration
X					Identification of possible retrofit options	2 Weeks
	X				Walk down the buildings with county personnel	
X					Obtain list of deferred maintenance items	
X					Obtain occupancy schedule	
X					Identify, locate, and review all active control systems	
X	X				Gather all plans and construction documents after walkthrough to better understand relevance of documents	
X					Calculate Building EUIs - kBtu/sq. ft - kWh/sq ft. - Gas separate kBtu/sq. ft.	
X					Calculate kWh utilization per kW demand	
X					Sort buildings by energy saving potential	
					Insert building consumption data into the ENERGY STAR Portfolio Manager	
					Retail electric portfolio review	
	Data				Select locations for sub meters	
	Data				Install Sub-Meters	
	X				Begin base-lining building energy use and major equipment energy use	
	Data				Prepare for before and after retrofit M&V	
	X				Document Assimilation and Organization	
X					Drawings will be organized by site and date - current drawings will be	
X					Drawings will be scanned for use on this project and future county use	
X					Drawings will be returned and filed and electronic files provided to county	
X		X			Airside Systems	
X	X				Buildings with multiple zones will be identified	
					Presentation to Commissioner's Court and general public	5 Weeks
		SDP			Thermostats will be located on the documents	
		SDP			The floor plan area controlled by the thermostat will be color coded on the drawing	
		SDP			The air system supplying the color coded zone will be identified	
		SDP			Airside equipment list will be copied from the drawings by building and placed in Equipment binders for future verification	
		SDP			Building Plant Equipment	
					Presentation to Commissioner's Court and general public	
		SDP			Rooftop Units, Split Systems, Chillers and Boilers will be identified on the drawings	
		SDP			Equipment list will be produced by building and placed in Equipment binders for future verification	
		SDP			Emergency engines, pumps, large fans will also be listed	
		Data			Add Sub-metering equipment if required	
		SDP			Building Envelope	
		SDP			Roof, wall, and window construction will be documented from the drawings	
		SDP			Lighting	
		SDP			Lighting types will be noted and rough counts be performed from the	
		SDP			Electrical Distribution	
		SDP			Main substations and panels will be located on the drawings	
		SDP			Building Control Systems	
		SDP			Document control systems	
		SDP			Document control sequence of operation	
					Presentation to Commissioner's Court and general public	

Project Prep	Initial Site Survey	Tech On-Site Work	Engr On-Site Work	Post	Task	Estimated Duration
			X		Review of existing information and plan for site inspections	5 Weeks
			X		The EUI, equipment lists, envelope and lighting systems will be reviewed	
			X		The buildings that should be modeled will be identified	
			X		The focus for each building will be planned for the site visits	
			X		Site Visits	
			X		The site visit teams will arrive and survey the buildings	
			X		The teams will verify the equipment list and follow the site visit plan	
			X		The teams will verify control systems and thermostat locations	
			X		The teams will make observations outside the plan if constructive	
			X		The teams will note roof condition and age	
			X		Lights will be counted if site is identified for possible lighting retrofit	
			X		Dimensions will be verified and information required for modeling will be gathered on those building to be modeled	
					Presentation to Commissioner's Court and general public	
			X		Coordinate changes in operations to be immediately implemented with county staff	
			X		Develop list of low/no cost energy savings measured to be provided by county staff	
			X		Report findings to project team	
			Data		Add sub-metering equipment if required	
			X		Develop Recommendations	
			X		Evaluate and assess results for building surveys	
		X	X		For identified buildings only, models will be performed and reviewed	
		X	X		Analyze sub-metered data	
			X		Cost estimates for short-term and long-term recommendations	
			X		Determine M&V plan and cost for energy saving measures	
			X		M&V deemed savings projects	
			X		M&V partial documented savings	
			X		M&V fully documented savings check sub-metered base line data	
			X		Estimate probable construction cost of measures	
			X		Identification of possible funding sources, rebates and incentives	
			X		Review Federal, State, Utility, and Power Provider project funding programs	
			X		Payback Analysis	
					Presentation to Commissioner's Court and general public	
			X		Perform final savings calculations for all measures	
			X		Perform simple payback calculations for all short-term recommendations	
			X		Perform life cycle cost calculations for all long-term recommendations	
			X		Short-term and long-term recommendations to promote energy efficiency and conservation	
			X		Make final recommendations for the energy saving projects	
			X		A review of existing energy policies and a list of recommend policies to increase energy efficiency and conservation	
			X		Gather best practices from all sources	
			X		Investigate staff operations and best fits for policy success	
			X		Determine policies to encourage behavioral changes	
					Design and installation strategies for energy efficient equipment and	
					Presentation to Commissioner's Court and general public	

Project Prep	Initial Site Survey	Tech On-Site Work	Engr On-Site Work	Post	Task	Estimated Duration
			X		Determine proper energy policies for Hidalgo county	4 Weeks
			X	X	A strategy that will guide the county's efforts for energy efficiency and conservation for, at least the next five years with recommendations on improvements, recommendation timelines and estimated cost per task	
				X	Combine all findings into a focused strategy to maximize the county's return on investment in energy reduction	
			X		Ensure that identified deliverables are achieved and included in final report	
				X	Work with staff to develop understanding of importance of energy	
				X	Introduce program to staff	
				X	Provide implementation training for county staff	
				X	Provide behavior change training for county staff	
					Presentation to Commissioner's Court and general public	

Notes

1. The overall intent of this project is to provide the County of Hidalgo detailed energy studies for the buildings listed to establish energy consumption base lines and estimated savings for accountability reporting.
2. "Data" refers to data systems for metering, monitoring and alarming.
3. "SDP" (Site Data Package) refers to on-site collection of building information .
4. Due to unforeseen events, this is not a rigid schedule where the tasks are completed "back-to-back," but rather a guideline for the completion of the different phases. As the project progresses, some tasks will be conducted concurrently, some will require an extended period of time and some tasks will require increased man-hours.
5. A presentation and project progress update will be presented to the Commissioner's Court every two weeks.
6. Consultant waives and releases any proprietary rights or ownership claims therein.

Appendix B
Project Costs and Payment Schedule

Consultant Pay Schedule				
Cycle	Invoice Date	Tasks	%	Amount
Total Price =>			100.0%	\$ 235,503.68
Retainer =>			10.0%	\$23,550.37
Net =>			90.0%	\$211,953.31
0.5	5/26/2011	SOW Tasks completed for Week 1-2	15.0%	\$35,325.55
1	6/9/2011	SOW Tasks completed for Week 3-4	15.0%	\$35,325.55
1.5	6/23/2011	SOW Tasks completed for Week 5-6	15.0%	\$35,325.55
2	7/7/2011	SOW Tasks completed for Week 7-8	15.0%	\$35,325.55
2.5	7/21/2011	SOW Tasks completed for Week 9-10	15.0%	\$35,325.55
3	8/4/2011	SOW Tasks completed for Week 11-12	15.0%	\$35,325.55
Retainer	8/18/2011		10.0%	\$23,550.37
Total Payment =>			100.0%	\$235,503.68



Appendix C

List of Buildings

Facility	Address				Built - Renovated	SqFt	Total SqFt	% of Total	Hours of Ops		Notes
1 Adult Detention Center	Cibolo Rd	Edinburg	TX	78541	built 2003	273,527	34.4%	34.4%	24/7	M - Sun	
2 Old Admin. Bldg	100 E. Cano	Edinburg	TX	78539	built 1972	105,280	47.7%	13.3%	7am – 6pm	M - F	1
3 Court House	100 N. Closner	Edinburg	TX	78539	built 1954	93,000	59.4%	11.7%	7am – 6pm	M - F	
4 Pct 3 Multiplex	722, 724, & 730 Breyfogal	Mission	TX	78572	built 2005	60,000	67.0%	7.6%	7am – 6pm	M - F	2
5 New Admin. Bldg	2818 S. Bus. 281	Edinburg	TX	78539	Ren 2009	55,552	74.0%	7.0%	7am – 6pm	M - F	
6 Elections Office Bldg	101 S. 10th Ave	Edinburg	TX	78539	built ?	40,000	79.0%	5.0%	?	?	2
7 CO Health, 130,	304 S. 25th Avenue	Edinburg	TX	78542	built ?	36,540	88.6%	4.6%	?	?	
8 Law Enforcement Center	Cibolo Rd	Edinburg	TX	78541	built 2003	30,154	92.4%	3.8%	24/7	M - Sun	
9 Pct 1 Multiplex	1902 Joe Stephens	Weslaco	TX	78596	built ?	19,000	97.1%	2.3%	7am – 6pm	M - F	
10 Academy	Cibolo Rd	Edinburg	TX	78541	built 2003	14,036	98.9%	1.8%	8am - 10 pm	M - F	
11 Motor Pool Building	Cibolo Rd	Edinburg	TX	78541	built 2003	8,860	100.0%	1.1%	8am – 7pm	M - F	
						735,949					

Notes.

- 1 Currently under renovation.
- 2 Square feet estimated.

