Kaua`i Community College
Annual Program Review Update (APRU) for (Carpentry)

At a minimum, each program or unit Annual Program Review Update shall include measures described in UHCCP 5.202. Additional measures may also be used for program or unit assessment.

Program or Unit Mission Statement

The Carpentry Technology program provides the basic entry-level skills in the construction of buildings. Skilled carpenters are required in areas of new building construction, repair, and alteration of buildings. The program provides an introduction into the sustainable and green construction methods and materials, while offering instruction in the state's building codes for energy efficiency. This program also enhances the graduate's entry into the Carpenter's Apprenticeship Program.

Part I. Program Description

Date of Last Comprehensive Review	Fall 2017
Date Website Last Reviewed/Updated	Fall 2018
Target Student Population	High school graduates, Native Hawaiians, Local Labor Force
External Factor(s) that Affected the Program or Unit	NA

Part II. Analysis of Quantitative Indicators

Include the Annual Review of Program Data (ARPD; all Instructional programs and Academic Support programs - Library, Technology Resources, Testing Center, Tutoring, and Financial Aid), program-developed metrics (Institutional Effectiveness programs, Office of Continuing Education and Training, campus committees), or metrics required by UHCCP 5.202 that are not provided as ARPD (Administrative Service programs and some Student Support programs) under review in table format below (EP 5.202 and UHCCP 5.202).

The Overall Program Health is___Cautionary___.

Overall Program Health: Cautionary Carpentry Technology

CIP Code = 46.0201

47-2031 - Carpenters47-1011 - First-Line Supervisors of Construction Trades and Extraction Workers47-3012 - Helpers--Carpenters

	Demand Indicators	Program Year			Demand Health
		15-16	16-17	17-18	
1.	New & Replacement Positions (State)	1228	1097	1123	
*2.	New & Replacement Positions (County Prorated)	87	74	74	
3.	Number of Majors	10	11	11	
3a.	Number of Majors Native Hawaiian	4	5	2	
3b.	Fall Full-Time	33%	46%	100%	
3c.	Fall Part-Time	67%	54%	0%	
3d.	Fall Part-Time who are Full-Time in System	0%	0%	0%	
3e.	Spring Full-Time	75%	25%	82%	**Healthy**
3f.	Spring Part-Time	25%	75%	18%	
3g.	Spring Part-Time who are Full-Time in System	0%	0%	0%	
4.	SSH Program Majors in Program Classes	112	135	189	
5.	SSH Non-Majors in Program Classes	39	36	24	
6.	SSH in All Program Classes	151	171	213	
7.	FTE Enrollment in Program Classes	5	6	7	
8.	Total Number of Classes Taught	5	6	5	

	Efficiency Indicators	Program Year			Efficiency Health
		15-16	16-17	17-18	
9.	Average Class Size	6	6	8	
*10.	Fill Rate	53.3%	57.8%	68.3%	
11.	FTE BOR Appointed Faculty	1	1	1	
*12.	Majors to FTE BOR Appointed Faculty	10	11	11	
13.	Majors to Analytic FTE Faculty	10	11	11	**Cautionary**
13a.	Analytic FTE Faculty	1	1	1	
14.	Overall Program Budget Allocation				
14a.	General Funded Budget Allocation				
14b.	Special/Federal Budget Allocation				

14c.	Tuition and Fees				
15.	Cost per SSH				
16.	Number of Low-Enrolled (<10) Classes	4	6	4	

Effectiveness Indicators		Program Year			Effectiveness Health
		15-16	16-17	17-18	
17.	Successful Completion (Equivalent C or Higher)	91%	89%	85%	
18.	Withdrawals (Grade = W)	2	1	0	
*19.	Persistence Fall to Spring	67%	58%	100%	
19a.	Persistence Fall to Fall	64%	27%	70%	
*20.	Unduplicated Degrees/Certificates Awarded	1	3	2	
20a.	Degrees Awarded	1	2	0	
20b.	Certificates of Achievement Awarded	1	2	2	**Cautionary**
20c.	Advanced Professional Certificates Awarded	0	0	0	
20d.	Other Certificates Awarded	0	0	0	
21.	External Licensing Exams Passed				
22.	Transfers to UH 4-yr	0	1	0	
22a.	Transfers with credential from program	0	1	0	
22b.	Transfers without credential from program	0	0	0	

Distance Indicators		Program Year			
		15-16	16-17	17-18	
23.	Number of Distance Education Classes Taught	0	0	0	
24.	Enrollments Distance Education Classes	n/a	n/a	n/a	
25.	Fill Rate	n/a	n/a	n/a	
26.	Successful Completion (Equivalent C or Higher)	n/a	n/a	n/a	
27.	Withdrawals (Grade = W)	n/a	n/a	n/a	
28.	Persistence (Fall to Spring Not Limited to Distance Education)	n/a	n/a	n/a	

Perkins Indicators (2016 - 2017)		Goal	Actual	Met	
29.	1P1 Technical Skills Attainment	92.92	100	Met	
30.	2P1 Completion	51.51	42.36	Not Met	
31.	3P1 Student Retention or Transfer	81.81	50	Not Met	
32.	4P1 Student Placement	64.51	0	Not Met	
33.	5P1 Nontraditional Participation	23	N/A	Not	

					Met	
34.	5P2 Nontraditional Completion	22.22		0	Not Met	

Performance Indicators			Program Year			
			15-16	16-17	17-18	
35.	Number of Degrees and Certificates		2	4	2	
36.	Number of Degrees and Certificates Native Hawaiian		2	3	0	
37.	Number of Degrees and Certificates STEM		0	0	0	
38.	Number of Pell Recipients[1]		2	2	2	
39.	Number of Transfers to UH 4-yr		0	1	0	

Describe and discuss demand, efficiency, effectiveness, and overall health categories. What has been the trend over the past three years in each of these categories? What factors (internal or external) may have contributed to the program or unit health categories? For Career and Technical Education (CTE) programs, provide a discussion on any unmet Perkins Core Indicator that includes contributing factors (UHCCP 5.202).

DEMAND: Industry demand is up and we have been able to maintain the number of Majors has in Carpentry. With the high demand for skilled Carpenters, it is our goal to continue to improve on our course and program enrollment. The Carpenters Union and others private companies are struggling to find as many apprentices and workers as they can on Kauai.

EFFICIENCY: Our average class size has gone up from 6 to 8. We need to get that number up to 10, but a preferred class size would be 12-14. Naturally there is attrition in the program due to individual life events and personal choices. We are also happy to report that the number of low enrolled courses dropped from 6 to 4.

EFFECTIVENESS: Fall to Spring Persistence has been a challenge for the last 2 years, but both our Fall to Fall Persistence and Fall to Spring Persistence has gone up. The next major goal is to bring up the number of students with degrees and certificates. Once this occurs in Spring 2019, the Effectiveness Health should rise from Cautionary to Healthy.

PERKINS: We have met the Perkins Core Indicators in the areas of Technical Skills Attainment. Our Perkin's Indicators should greatly improve in the next academic year. Persistence Fall to Spring has increased to 100% and Fall to Fall increased to 70% in the 2017-2018 Effectiveness Indicator that will improve both 2P1 and 3P1. Trades Program Career Track Coordinator will work with collaboratively with program to assist in job placement to improve 4P1 and recruitment on nontraditional students to improve 5P1 and 5P2.

Based on this analysis, what are the program's strengths and areas to improve regarding demand, efficiency, and effectiveness?

The following items have been targeted as strengths of the program:
· Committed faculty and instructors who strive to provide a breadth of industry experience to students.
·Use of campus resources to develop training opportunities for students as well as be of service to the campus.
·A resource for exploring and developing Green and Sustainable projects and practices for the culture for the community.
·Collaborative efforts with other divisions and campuses, providing interdisciplinary learning opportunities for students and faculty.
·Open communication with the Carpentry Technology departments of the other campuses as evidenced by our annual Peer Collaboration Committee meetings.
·An active Carpentry Advisory Board that meets annually and communicates Open communication with the Carpentry Technology departments of the other campuses as evidenced by our annual employer team meetings.

The following are areas of concern for the Carpentry Technology program:
· Despite industry demand, low enrollment has been an issue.
· Inadequacy of resources (funding, manpower, and time) to develop, reproduce, and disseminate promotional materials.
· Limited faculty time and resources to adequately foster community and high school development. Especially with tapping into the full potential of the Construction Academy that serves our three local high schools.
· Lack of a tracking system to adequately gather data that may assist in understanding the paths of our students upon graduation/job placement.
· Limited faculty time to develop green and sustainably sourced building materials courses.

Describe any significant program actions that occurred in the prior year (e.g., new certificate(s), stop outs, gain/loss of position(s), reduction in funding, new or completed grant(s), etc.).

Following through with the Carpentry Peer Collaboration Committee (PCC) agreements made in Fall of 2015 and 2016 all Carpentry courses statewide are or should be in alignment. It was decided that any course that did not align within the system would change course number, title, and description. All of our courses are in the processes of getting final approval for updates with the curriculum committee. The 5 Year Carpentry Program Assessment Plan has been submitted to the Assessment Committee. Once that is approve all the course updates will go through.

If you reference the Carpentry Comprehensive Program Review from last year, it talked about combining the Carpentry, Facility Engineering, and Electrical Installation and Maintenance programs into the Build Construction Technology Program. Due to some policy changes with the Board of Regents all program change proposals are currently on hold.

Career and Technical (CTE) programs should provide an analysis for any unmet Perkins Core Indicators.

Part III. Assessment Data (EP 5.202)

Assessment results for Program Student Learning Outcomes (PSLOs).

Report on PSLO assessment for the prior year.

1. List of the PSLOs.
2. Indicate PLSOs that were assessed in the year of this APRU.
3. Assessment findings.
4. Changes that have been made as a result of the assessment findings.
5. Next planned assessment date.

PSLO	Assessed During this APRU Cycle (Y or N)	Findings	Improvements Implemented	Next Assessment Date
1. Read and understand blueprints sufficiently to use them to plan a project.	Yes	Students performed tasks on all projects	NA	Spring 2019
2. Select materials properly for a given project.	Yes	Students performed tasks on all projects	NA	Spring 2019
3. Maintain and care for the tools required in the construction industry.	Yes	Students performed tasks on all projects	NA	Spring 2019
4. Know and utilize Occupational Safety and Health Administration (OSHA) and State safety regulations to minimize	Yes	Students performed tasks on all projects	NA	Spring 2019

risk and protect self and others.				
5. Communicate successfully in writing, orally, and with computer technology.	Yes	Students performed tasks on all projects	NA	Spring 2019
6. Understand and demonstrate the craftsmanship standards of dependability, punctuality, and quality.	Yes	Students performed tasks on all projects	NA	Spring 2019

Part IV. Results of Prior Year Action Plans (UHCCP 5.202)

Action Plan	Anticipated Outcome	Actual Outcome
Complete the unfinished containers storage units behind the Carpentry Shop.	Complete project.	Project is on hold. Fall 2019, might be a good time to start project pending funding.
Increasing of the annual budget.	Increase budget.	No funds available currently.

Budget for longer 5-10 year equipment replacement.	Increase budget.	Through the use of Perkin's Grants and UH Equipment Replacement Funds, the following equipment has been replaced/upgraded in each shop:
		
		Carpentry Shop:
		    (1) Shop Compressor
		    (1) Table Saw
		
		Welding Shop:
		    (1) Metal Band saw
		    (1) Shop Compressor
		    (1) Hydraulic Shear
		    (1) Iron Metal Worker
		    (7) Welders
		    Misc. tool boxes and hand tools

List any additional significant actions that impacted your program (e.g., new certificate, loss or gain of faculty or staff, stop outs, etc.).

Due to some policy changes with the Board of Regents all program change proposals are currently on hold the combining of the Carpentry, Facility Engineering, and Electrical Installation and Maintenance programs into the Build Construction Technology Program has been put on hold indefinitely.

Part V. Analysis of Alignment with CPR

List the goals that were identified to be initiated, continued, or completed during this APRU cycle, in your last CPR, and if they were achieved. Be sure to include the benchmark, desired outcome, actual outcome, and unit of measure. If you completed your last CPR prior to 2018, please refer to ***** in this section.

**All Strategic Goals and Priorities are Aligned to the College Mission.

Describe any impacts these goals had on your health indicator(s).

None

*Based on findings in Parts I – IV, develop an action plan for your program or unit from now until your next CPR date. This should include goals that align with the College Mission, measurable outcomes, benchmarks, and alignment to the College's Strategic Priorities, and/or Strategic Goals. Be sure to focus on weaknesses identified in ARPD data, PSLO outcomes, results of survey data, and other data used to assess your unit or program. This plan should guide your program and subsequent APRUs, but may be amended based on new initiatives, updated data, or unforeseen external factors.

Goal	Strategic Goal/Priority (List number)*	Benchmark	Desired Outcome	Unit of Measure	Year(s) Implemented
Implement Island wide Carpentry Industry Needs Survey	Strategic Goal 1: Increase the Number of Graduates Strategic Goal 17: Increase Recent High School Graduates Enrollment	Collect data from the Kauai market demonstrating the demand for skilled Carpenters.	Collect feedback from 10-20 island facilities on how the college can provide them with skilled labor.	Industry Evidence of Local Demand	2
	Strategic Goal 19: Increase High School Non-Completers and GED Recipient Enrollment Strategic Goal 20: Increase Enrollment of Working Adults				

Use Industry Survey Data to develop a marketing strategy to bring in more students.	Strategic Goal 1: Increase the Number of Graduates Strategic Goal 17: Increase Recent High School Graduates Enrollment Strategic Goal 19: Increase High School Non-Completers and GED Recipient Enrollment Strategic Goal 20: Increase Enrollment of Working Adults	Increase all CARP classes by 3-5 students.	Full enrollment in all CARP classes.	Student Enrollment.	3
Follow up with Industry	Strategic Goal 1: Increase the Number of	Continue to develop marketing	Memorandum of agreements	Memorandum of agreement.	4
Needs	Graduates				
Survey					
participants to confirm their input is still current.	Strategic Goal 17: Increase Recent High School Graduates Enrollment				
	Strategic Goal 19: Increase High School Non-Completers and GED				

	Recipient				
	Enrollment				
	Strategic Goal 20: Increase Enrollment of				
	Working				
	Adults				
Implement industry internships	Strategic Goal 1: Increase the Number of				
(paid or	Graduates				
unpaid).					
	Strategic Goal 17: Increase Recent High School Graduates Enrollment				
	Strategic Goal 19: Increase High School Non-Completers and GED				
	Recipient				
	Enrollment Strategic Goal 20: Increase Enrollment of Working Adults				

Part VI. Resource Request(s) for next year (from CPR Plan for your program or unit, or one(s) developed in Part V above if CPR was completed prior to 2018).

If no resources are being requested, place an "X' here. _____

Program Goal & Campus Strategic Goal or Priority Alignment	Our Program Goal of updating and maintaining equipment to industry standards and train students using up and coming technologies aligns with KCC/UHCC Strategic Goal 13: Enhance Facilities with Appropriate Technology and Ensure Facilities Support 21st Century Learning and Teaching Environments. Meeting Goal 13 will also improve KCC/UHCC Strategic Goal 1: Increase the Number of Graduates.
Action Item	Update and maintain equipment to industry standards and train students using up and coming technologies
Resource(s) Request	- Increase Annual Operating Budget to $6500 - Implement a 5-10 year Carpentry Replacement Equipment Budget of $19,330 - Complete Container Storage Improvements $8000
Person(s) Responsible and Collaborators	Program Coordinator, Carpentry Advisory Board, Facilities Engineering Advisory Board, Carpentry and FENG Instructors, KCC Facilities Maintenance Manager and Employees, Office of Continuing Education, Carpenter's Union
Timeline	Implement new Operating Budget and Equipment Replacement Budget in Fall 2019.
Indicator of Improvement	All equipment will be within Occupational Safety and Health Administration compliance as well as updated equipment for students to use.
PSLO Impacted	PSLO 4: Know and utilize Occupational Safety and Health Administration (OSHA) and State safety regulations to minimize risk and protect self and others.

Current Status	CARP and FENG instructors were consulted and agree the suggested budget will help to improve the equipment and the quality of training for students.

Goal Alignment UH System Goals, Kauai Community College Goals, and Strategic Goals	Program Goals
UHCC/KCC Initiative: Hawaii Graduation Initiative	
Strategic Goal 1: Increase the Number of Graduates	Increase the number of graduates to 10 unduplicated certificates or more per year. Strategic Goals 2,3, and 4 (Increase Native Hawaiian, Low Income, and Transfer Student enrolment) will be addressed together with increasing our graduation rates.
Strategic Goal 5: Eliminate Access and Success Gaps	Promote job placement and position advancement for those already employed prior to completion of certificate or degree.
Strategic Goal 6: Reduce the Time to Degree: Accelerate College Readiness	Offer course scheduling that allows students to complete their certificates and degrees in the least amount of time necessary.
UHCC/KCC Initiative: Hawaii Innovation Initiative	
Strategic Goal 8: Increase Job Placement for KauaiCC Students	Promote job placement and position advancement for those already employed prior to completion of certificate or degree.
Strategic Goal 9: Increase the STEM Workforce	Promote job placement and position advancement for those already employed prior to completion of certificate or degree.
UHCC/KCC Initiative: Modern Teaching and Learning	

Environment	
Strategic Goal 11: Increase Campus and Community Sustainability	Demonstrate and implement industry best practices across the curriculum.
Strategic Goal 13: Enhance Facilities with Appropriate Technology and Ensure Facilities Support 21st Century Learning and Teaching Environments	Update and maintain equipment to industry standards and train students using up and coming technologies.
UHCC/KCC Initiative: High Performance Mission-Driven System	
Strategic Goal 15: Implement Hawai'i Papa O Ke Ao	Students will build character and connect with their multicultural learning community as well as learn Hawaiian values and culture throughout the curriculum.
UHCC/KCC Initiative: Enrollment	
Strategic Goal 17: Increase Recent High School Graduates Enrollment	Increase student enrolment from local, state, and national high schools. An emphasis will be placed on enrolling students out of the Construction Academy. Strategic Goal 18 (Pacific Islander enrollment) will be addressed in this effort.
Strategic Goal 19: Increase High School Non-Completers and GED Recipient Enrollment	Contact high school dropout who we enrolled in the Construction Academy and encourage them to complete a GED and enroll in the Carpentry Program.
Strategic Goal 20: Increase Enrollment of Working Adults	Public outreach to adults looking to start a new profession in the Carpentry trade.

Action Plan and New Resource Request

The action plans for Carpentry revolves around two strands. The first strand involves the area facilities improvement. The second strand involves the increasing of the annual budget to allow for properly running and maintaining proper tool, equipment, and facilities safety which will allow us to continue with our ongoing projects.

Action Plan – 1

The Carpentry shop is a space utilized not only by the Carpentry Technology program but is also shared with Facilities Engineering and the Electrical Installation and Maintenance Technology programs. OCET also offers courses in the workshop as well as the various trades unions that run classes in our shop. To better utilize the space and improve the facility, we would like to complete the unfinished containers storage units behind the Carpentry Shop. This would entail pouring concrete, installing fencing, and painting unfinished surfaces in and around the container storage units. Completion of this project would allow more open working space in the Carpentry Shop which is used by many entities on campus. The increase storage would also provide a secure location for essential items needed to run the program efficiently.

Action Plan – 2

The Carpentry Technology program has done a good job of acquiring private donations and UH Foundation money to move forward with special projects that have served as demonstration projects for the community as well as learning modules for students. To keep these projects going it is imperative to increasing of the annual budget (Action Plan 2) as well as budget for longer 5-10 year equipment replacement (Action Plan 3). Both are essential to allow for properly running and maintaining proper tool, equipment, and facilities safety which will allow us to continue with our ongoing projects.

Prog ram Goal	Act ion Ite m	Resources Needed	Person(s) Respon sible	Time line	Indicato r of Improve ment	PSL O impa cted	Curre nt Status
1	1	Container Storage Improveme nt s $8000	Progra m Coordi nator	Ongo ing	Complet ion of project	All PSL O's	ongoin g
2	2	Carpent ry Operati ng Budget $6500	Progra m Coordi nator	Ongo ing	Increase d Enrollm ent and meeting Progra m Goals list above	All PSL O's	contin uing
3	3	Carpentry Operating Budget Equipment/ fu rniture funding ($8,000)	Progra m Coordi nator	Ongo ing	Increase d Enrollm ent and meeting Progra m Goals list above	All PSL O's	contin uing

Resource Implications

Provide a summary of all the resources that will be needed to complete your action plans. Due to limited funding, programs should attempt to re-align, re-purpose, and reallocate whenever feasible.

All fields must be completed as defined below. Please consult with the VCAS if you need assistance.

Initial Acquisition Cost - The initial or upfront cost of acquiring the resource, e.g. for machinery and equipment the purchase price, for personnel the cost to recruit and relocate, for one-time activities such as travel or meetings the cost of the activity, for services, leases, licenses, etc. there is generally no acquisition cost.

Annual Recurring Cost - The average annual cost required to support or maintain the resource over its useful life, e.g. for machinery and equipment the ongoing annual maintenance and supplies cost, for personnel the annual salary, for one-time activities there is no recurring cost, for services, leases, licenses, etc. the annual cost, prorated if applicable.

Useful Life - The expected useful life of the resource. If the acquisition cost is $0 then put "N/A".

RESOURCES NEEDED			OUTCOMES
Initial Acquisition Cost	**Annual Recurring Cost**	**Useful Life**	**(Identify and Quantify)**
Existing resources	Carpentry Budget $6500	1year	Current Carpentry enrolment is below BOR minimum suggested enrolment. Increasing the budget will help support increasing the number of graduates to 10 unduplicated certificates or more per year. Which will also address Strategic Goals 2,3, and 4 (Increase Native Hawaiian, Low Income, and Transfer Student enrolment). Many of the Carpentry projects on campus help to support numerous programs and services on campus. I.e. picnic benches for staff and students, Apiary steps and walkway, Graduation Stage and annual set up stages, etc.
Existing resources	Carpentry Replacement Equipment Budget $19,330	5-10 years	Same as column above.
Container Storage Improvements $8000	none	20+ years	Same as column above.

Carpentry Annual and Long Term Budget (all courses)

Each of the following Carpentry Courses are offered once every two years.

CAPR 20B&C: Intro Consumables and Materials	CARP 22B&C: Concrete Consumables and Materials
5 sets of Impact/Drill Combo's $1300 Misc. Screws $200 Nails: 16 penny 2 boxes, 8 penny 2 boxes $400 Palm Sander (4) $250 Hand Saws (5) $60 Plumb Bob (5) $40 Miter saw blades (10) $250 Circular saw blades (10) $120 Table saw blades (8) $250 Jig Saw blades (5 packs) $50 Sawzall blades (5 packs) $75 Tape Measure (10) $250 Drill Bit Set (5) $150 Masking Tape $50 Shop Vacuum Filter $40 Generator Maintenance $50 Generator Fuel $75 Safety Glasses and Dust Masks $200 Extension Cords $150 Misc. $350 Total: $4,310.00	Flat Shovel (5) $75 Spade Shovel (5) $75 Wheelbarrow (1) $150 Trowels (5) $100 Sponges (10) $30 20 stakes 3ft. $150 Misc Fasteners $400 Layout String $20 Marking Paint $20 Lumber: $500 2x4 2x6 ¾ ply Generator Fuel $75 Misc. $350 Total: $1,945
CARP 41B&C: Rough Framing Consumables and Materials	CARP 42B&C: Finishing Consumables and Materials
Nails: 16 penny 5 boxes, 8 penny 5 boxes $850 Lumber 1 pallet $1200 Misc. Screws $200 Miter saw blades (10) $500 Circular saw blades (10) $100 Table saw blades (8) $240 Jig Saw blades (5 packs) $100 Sawzall blades (5 packs) $100 Framing Hammers (8) $120 Nail Pullers (8) $120 Flat Bar (8) $80 Shop Vacuum Filter $40 Generator Maintenance $50 Generator Fuel $75 Fall Protection (3) $800 Safety Glasses and Dust Masks $200	Finish Nails $400 Screws $200 Mud $300 Drywall $400 Paint $400 Paint Brushes and Rollers $100 Painter Puddy $30 Caulking $50 Masking Tape $50 1x4 trimming $300 Finish Hammer (8) $80 Nail Set (10) $40 Generator Fuel $75 Misc. $350 Total: $2,775

Extension Cords $150 Plate Level (1) $300 Misc. $350 Total: $4,725	

5-10 year Replacement Equipment

Portable Table Saw (2) $1400
Tile Saw (1) $400
Shop Table Saw (1) $5,000
Shop Big Band Saw (1) $5,000
Shop Belt Sander (4) $1,200
Drum Sander (2) $600
100ft Tape $30
Miter Saw (6) $3,000
Circular Saws (8) $1,600
Ladders $600
Scaffolding $1600
Drywall Trowel and Pans (5 each) $300
Shop Clamps $300
Speed Square (10) $150
Framing Square (10) $150
Extension Cords $400
Builders Level (1) $400
Theodolite Transit Level (1) $800
Tripod (2) $200
Scaffolding (2 sets) $1200

Total: $19,330 (5 year cycles costs $3,862 annually; 10 year cycle costs $1,913 annually)