

The Ideal Washeteria for Large Population, Highly Dependent

Group 3

Initial Approach

- ▶ Examine current practice: data on current facility (location, use, likes/dislikes, “turns per day”, peak use hours, physical use patterns, etc)
- ▶ Consider paying someone to gather use information on site
- ▶ Determine whether water treatment plant will be co-located (assume that it will)
- ▶ Demographics - population, income, other businesses
- ▶ Input from community - ideas, brainstorming, multi-use ideas
- ▶ Options for waste heat, wind, etc.

Design elements

- ▶ Size and number of bathrooms and machines will be key consideration on for this facility, given heavy use
- ▶ Consider separate heating system for dryers in order more energy efficiency and drying time (180 degree operation)
- ▶ Explore hybrid heating for dryers (electric and fuel fired)
- ▶ Use waste heat to pre-heat the dryer plenum
- ▶ Use slab on grade foundation, if possible, to allow concrete floor. Otherwise, consider polyuria as flooring.
- ▶ Make room for kids to hang out,
- ▶ Space for other enterprises like food and beverage sales

Design, continued

- ▶ Consider including city office in same facility
- ▶ Include space for attendant, storage, etc.
- ▶ Consider itinerant lodging
- ▶ Incorporate ability to add on to building into design - so future funding could construct addition for other uses

(Additional space for the other uses is primarily a capital expense, so capital funding may be a limitation)

Design (continued)

- ▶ Modularity: Consider modular design if several facilities are being developed at same time.
- ▶ Standard equipment and processes (brands, etc.): Promote and use to the extent possible.
- ▶ Community input into how the building looks and fits in.
- ▶ Steel siding
- ▶ Think about “flow” from one washer type to the right type of dryer
- ▶ Air re-use of dryer air to reduce energy usage
- ▶ Explore potential for heat recovery from wastewater
- ▶ Better ventilation could enhance user experience

Construction

- ▶ Look at alternatives to local labor force account construction - talk about construction contracts, design/build, etc.
- ▶ Metal pre-fab structure would probably allow for more multi-use options and open areas.
- ▶ Work with Cold Climate Housing center on alternative construction approaches

Sanitary Facilities: Contribution to Health

- ▶ Use anti-microbial surfaces wherever possible (copper, silver, etc.)
- ▶ Consider incorporating ozone into laundry - ensures a “kill step” in laundering process without paying for dryer (needs more information)
- ▶ Consider pricing for both washers and dryers so customers will use dryers.
- ▶ Greatly improved O&M manuals and training to improve sanitary conditions

Economics

- ▶ Explore partnership with economic enterprise to operate and maintain the washeteria (rather than local government)
- ▶ Mom and Pop operation - contract with someone local for five years
- ▶ Create a new cooperative to partner with smaller communities on operation of washeterias (similar to ARUC for piped communities)
- ▶ Enhanced training programs to approach washeteria operation (and book keeping) as business, rather than government function.
- ▶ Three keys to economic viability of business approach: pricing, hours, and services

Economics (continued)

- ▶ Additional services - wash/dry/fold
- ▶ Onsite chlorine production for household sales (locally made bleach)
- ▶ Policy of only allowing detergent sold at facility (none from home) - helps to keep machines from breaking and increases revenue
- ▶ Appointment times for extra fee or low-use hours
- ▶ Space rental for birthday parties, meetings, etc.

Use/User Needs

- ▶ Additional services will help to make sure an attendant is on duty
- ▶ Re-name the facility with local input - naming and logo contest that will impart local meaning and purpose
- ▶ Get sociologist or other expertise involved in early project to help build local buy in (not a job for engineers!)
- ▶ Use architect to enhance the experience of using the facility, leading to increased use
- ▶ Closed-circuit camera record for vandalism prevention (all hours)