

A NEW ECONOMY IS BORN



Green or Die

INVENTING NEW WAYS TO MEET CRITICAL NEEDS

Starting with one of the most basic critical needs



55% of us on earth lack safe or even basic sanitation.
It is the leading cause of malnutrition, suffering, disease and death.

45% of us are committing
Sewercide



In the privileged or, ***flushing world*** the threats are merely invisible. By abusing precious water to transport our excreta we are poisoning Earth. **It is the primary cause of antibiotic resistant bacteria.** Everywhere in the flushing world contaminants are now found in measurable amounts in surface waters *and* tap water: unmetabolized pharmaceuticals, food additives, hormones – you name it. We call it – ***Sewercide***.

The need for a NEW toilet is universal

NEW toilets and urinals (**NEW2U**) meet this critical global human and environmental health need while helping to feed our hungry planet.

NEW2U **BUILT for *Life***

A JOY TO USE



NEW1f



NEW1m



NEW2

WATERLESS, ODORLESS, SPLASHLESS, TOUCHLESS

POLLUTION PREVENTING. PATHOGEN KILLING. URINE HARVESTING

They pay for themselves and, *keep on paying* by producing a continual source of safe, valuable fertilizer from urine.

Love at first use

How do they work? – Extremely well.

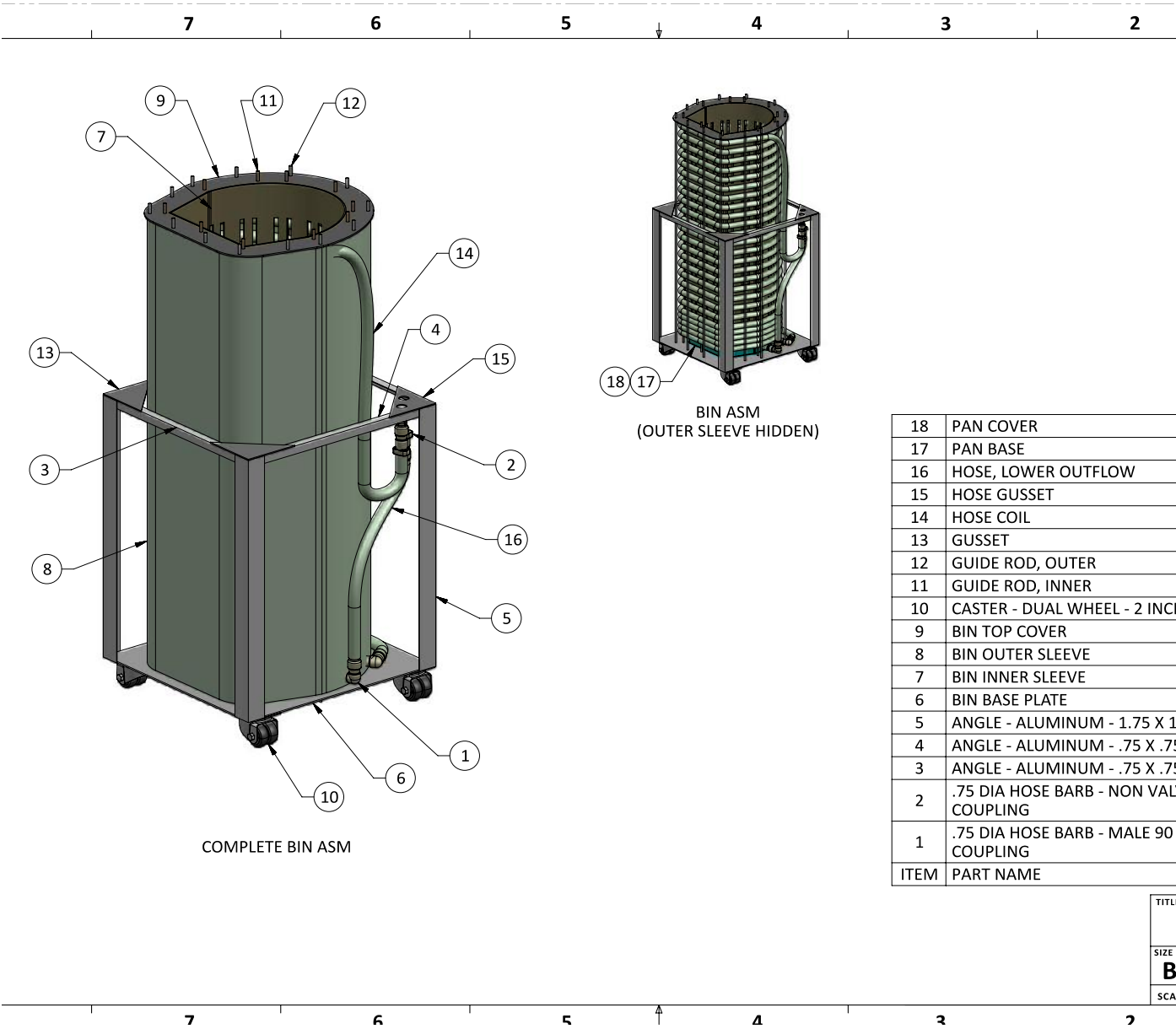
NEW2



- The thermophilic aerobic digester (**TAD**) is situated directly beneath the **NEW2**.
- An in-line fan situated in the exhaust vent (above on the left) assures constant air supply within the **TAD**. This also creates a continual refreshing downdraft at the seat making **NEW2** -- ***absolutely odorless!*** (The left **TAD** door is removed in the model and the chute components separated for illustration.)
- The **NEW2** is connected to the **TAD** via the chute (above on the right). Feces, toilet paper and carbon additive (**humanure**) drop down the chute to the bin below the **NEW2**. Urine is diverted from the funnel in front of the chute to a buried storage tank.
- Each bin is fitted with a natural fiber sack. When the bin below the chute (to the right-above) becomes full in 2-4 months, the other bin is rolled out and the sack containing **pathogen free, dry, odorless, humanure** is removed. The full bin is rolled to the left and the emptied bin is fitted with a new fiber sack and rolled under the chute. The **TAD** doors are closed and it's ready to go.

THE SECRET TO THE SUCCESS OF NEW2

Is in the design of the bins that creates...



PATHOGEN KILLING HEAT

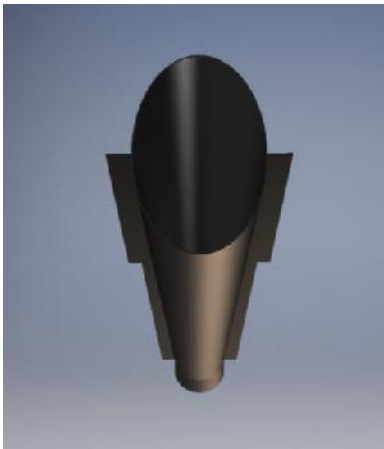
Which distinguishes **NEW2** from any other composting toilet on Earth

- A temperature of 45 C / 113 F is maintained in the encircling hydronic coils via solar thermal heat collectors with spot water-heater back-ups (*as needed*) and circulating pumps powered by photo-voltaic solar collectors.
- This heat sparks nature's little flame throwers, thermophilic aerobic bacteria TAB, (which occur naturally in our guts) into a frenzy of hot activity, creating yet more heat that kills all the other bacteria and viruses. Temperatures within the bins spike to the 70 C / 160 F range. Even the heat tolerant pathogens die.
- **Independent lab tests** of the humanure in the bins for fecal coliforms resulted in **9, 4 and 2 MPN/gram** of 3 separate samples taken 30, 60, and 90 days after the last **NEW2** use. (MPN/gram = **Most Probable Number** of likely fecal coliform colonizing units per gram, which is a universally accepted scientific testing method.)
- For a little perspective: in accordance with EPA guidelines, the minimum safety threshold of **<1000 MPN/g** is required to qualify as a *Class A Biosolid* for public use of municipal yard waste compost and sanitized sewage derived fertilizers etc.
- Other than having to empty the dried, pathogen free, odorless, and very lightweight fiber sacks containing < 2 cubic feet of humanure every 2-4 months, **NEW2** is almost maintenance free.
- Unlike flush toilet bowls, the chute and funnel of **NEW2** *never* need cleaning.
- The lids of **NEW2** and **1f** open and close with a tap of your foot to a switch on lower right side of the base of the stool. The **1m** lid operates with a bump to a switch from your right shin.

AT LAST
Earth's first
Urinal for females
NEW1f



form follows function
forget the flush – find the funnel



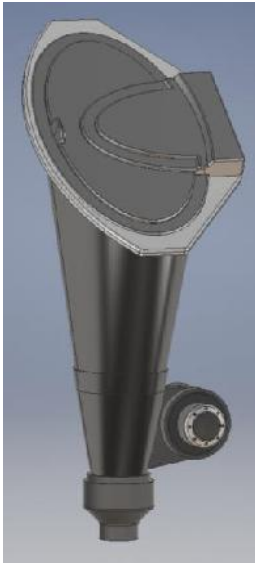
The deep funnel shape functions as both a super shedding, flash drying drain and an odor vacuuming exhaust vent which ***never*** needs cleaning.
Not just for public places. Intended to be installed in your home.

*This is **not** your father's urinal...*

NEW1m

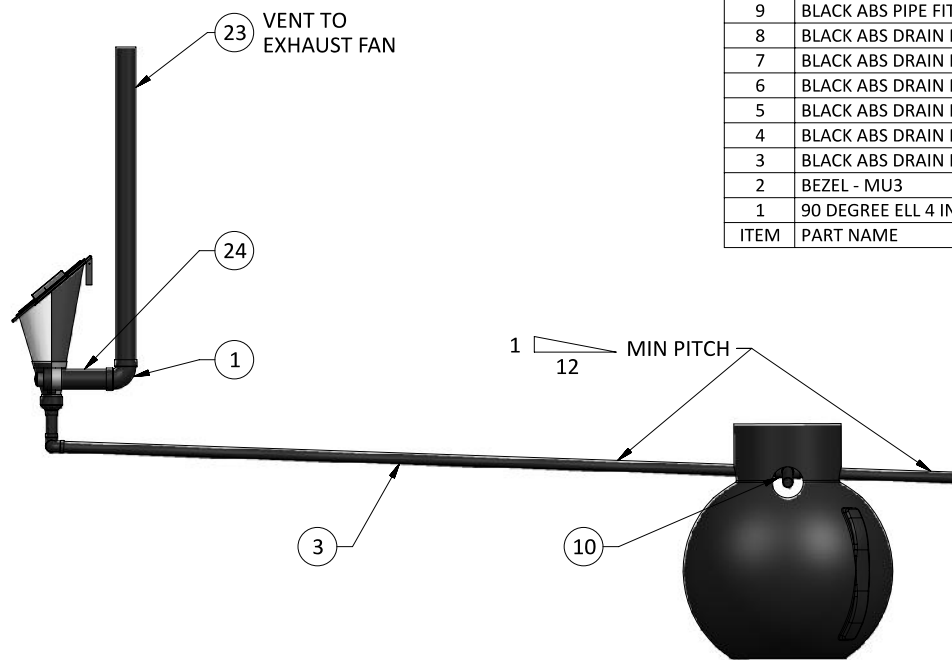
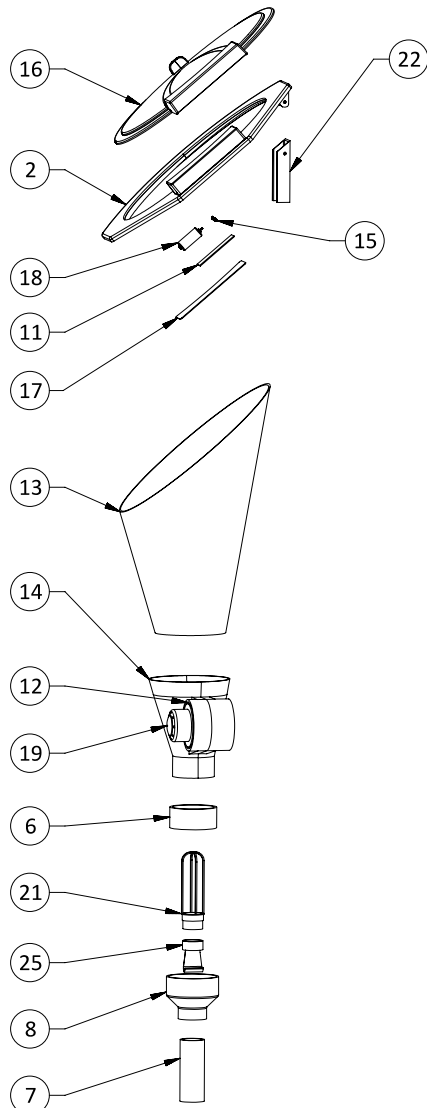
WATERLESS ODORLESS TOUCHLESS

Not just for public places. Intended for residential use too!



SPLASHLESS!

NEW1m Assembly Exploded Isometric View

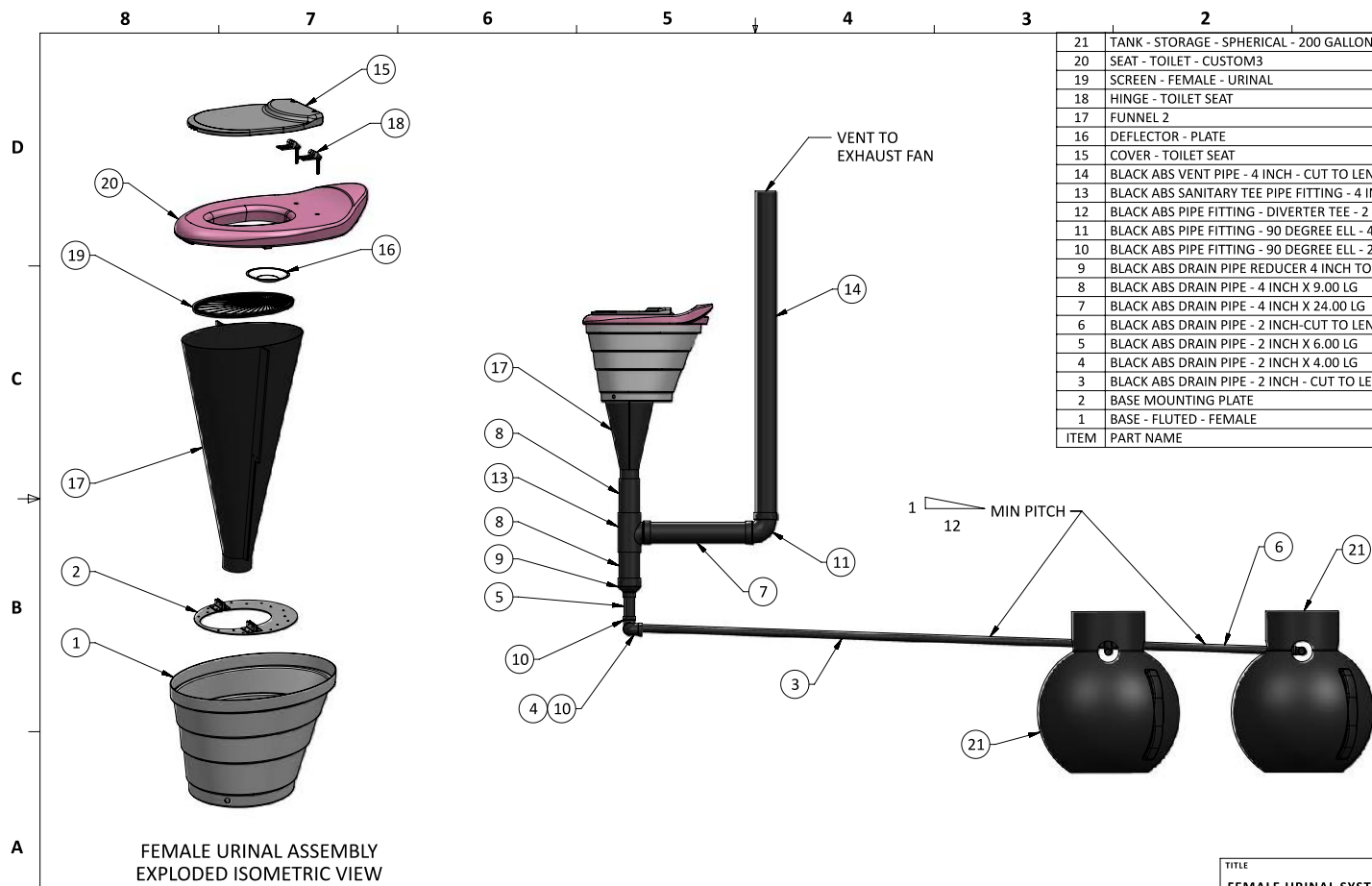


25	ELASTOMERIC TRAP
24	VENT PIPE 4 INCH -
23	VENT PIPE 4 INCH -
22	U CHANNEL WALL-
21	TRAP SCREEN
20	TANK - STORAGE -
19	SHIN-BUMP LID MO
18	LID MOTOR - 12 V
17	LID MOTOR ACCESS
16	LID - MU3
15	GEAR
14	FUNNEL-VENT-DRA
13	FUNNEL - MU3
12	CLEANOUT PLUG
11	CIRCUIT BOARD - F
10	BLACK ABS PIPE FIT
9	BLACK ABS PIPE FIT
8	BLACK ABS DRAIN I
7	BLACK ABS DRAIN I
6	BLACK ABS DRAIN I
5	BLACK ABS DRAIN I
4	BLACK ABS DRAIN I
3	BLACK ABS DRAIN I
2	BEZEL - MU3
1	90 DEGREE ELL 4 IN
ITEM	PART NAME

2nd urine storage tank hidden from view

- Two 200-gallon tanks are required at each site.
- All toilets and urinals (units) drain to 1st tank until full.
- When full, all units are switched to drain to the 2nd tank.
1 year after the last use, the content in the 1st tank is safe for field application. (The process is further explained in the companion **NEW Prospectus**.)

NEW1f Assembly – Exploded Isometric View



STORAGE TANK INSTALLATION



SAVE WATER – GROW CROPS

KEEPING URINE OUT OF OUR WATER: IT IS ELEMENTAL AND EXISTENTIAL

1. Human urine comprises less than 1% of the “wasted” water flow entering municipal sewer plants and private septic systems, but accounts for 50-80% of the nutrient load, chiefly the elements Nitrogen, Phosphorous and Potassium (NPK) that should ideally be removed (but in most cases are not) by those sewer plants and septic systems.
2. Human urine is a significant source of the NPK that along with ag fertilizer run-off causes serious water degradation by fertilizing toxic algal blooms that lead to aquatic dead-zones.
3. Human urine is the source of nearly all of the unmetabolized pharmaceuticals, **antibiotics**, recreational drugs, hormones, food additives, and other ingested contaminants now detected in most surface waters *and* tap water in the flushing world.

LIQUID GOLD: THE POTENTIAL OF URINE

1. No plant can survive, much less thrive without NPK. Urine is rich in all three elements. Numerous studies have definitively shown that urine, if properly handled, can be a safe, powerful, sustainable, and therefore valuable fertilizer. Its supply is continually renewable.
2. The **NEW** proposal is to employ **NEW2U** to harvest and store urine in buried tanks from which it can be pumped, to apply directly to crop land using existing no-till subsurface drill equipment.
3. The value derived from the efficient use of this natural resource will pay for the manufacture, installation of **NEW2U** and the ongoing cost of processing and utilizing the resulting humanure as a pathogen free biosolid.

THE MARKET

We hope you now agree (if you didn't already) that the need for **NEW2U** is both critical and universal, which means the market is global and potentially limitless as well. Where to begin is the question.

INITIAL TARGETS

1. Need should be the leading determinant, followed by expressed interest. In North America those two factors intersect in the **Tribal Nations**. One collaborative study found that Native Americans are *19 times* less likely to have indoor plumbing and safe sanitation than the population at large. Numerous studies reveal that people in many rural areas are also disadvantaged, particularly among predominantly black and latinx communities.

2. It would be wise to apply for **research and development grants** to perfect the **NEW2U** processes, in the early stages and on an ongoing basis. For example: a grant from The National Science Foundation Small Business Innovation Research Program (SBIR) might be used to identify precisely which thermophilic bacteria could be cultivated to optimize the heat producing activity. The Bill and Melinda Gates Foundation has been out front in this area with its Reinvent the Toilet Initiative. It would make sense to share our work with an eye to collaboration.

2. Another focus, should be on **new construction in agricultural areas requiring private septic systems** for several reasons. It will allow us learn as we earn by working in the planning and design phase for the most efficient installation of **NEW2U**. This will keep the costs lower than would be the case for replacing existing septic systems and retrofitting our appliances to suit existing structures. Proximity to crop land will

make establishing the process of the urine fertilizer application convenient.

3. Many rural cities and towns have failed “wasted” water treatment plants (WWTP) that require replacement. The expense of building a new WWTP is often beyond the reach of these communities. **NEW2U** could be offered as a viable alternative to building a new plant. The volume of installations would increase revenue while reducing costs. Again, proximity to crop land make rural communities a priority market segment to target. **Federal assistance grants are available** for such infrastructure investments throughout the flushing world. International aid grants are available in developing countries as well.

4. Generally, urban areas will not be targeted without further product development (discussed in the **NEW** Business Plan). However, certain **public venues such as airports, stadiums, arenas, universities, and schools etc.**, offer unique opportunities. They are high-traffic, therefore, high-volume too -- as in a high volume of urine. Also, because these venues are high-traffic they offer high-visibility for our product. Think free advertising. As we say of **NEW2U**, it is – *“Love at first use”*.

5. No matter urban or rural, **collaborating with architects on LEED projects** should be pursued enthusiastically. In the early stages of introducing **NEW** to the public, the exposure gained by collaborating in LEED and other pioneering projects in environmental sustainability will be invaluable. (Leed = Leadership in Energy and Environmental Design [Certification])

6. The United States lags far behind other nations. Even in the early innings, it would be prudent to pitch our product in **Scandinavian nations, Finland, South Africa, Australia and Germany** to name a few, where the pioneering work *we have built upon* has already been done. We may find that by acknowledging those early efforts in making our innovations possible a very receptive market indeed.

CONCLUSION

NEW2U appliances have evolved over fifteen years of trial and error testing, and product development with many iterations. All three exist as functional prototypes and digitally in 3d models and 2d drawings. Product functionality has been validated by independent lab testing and qualitative evaluations. Their performance has been time tested by everyday use. Entity, product and domain names have all been coined and reserved. Patents are pending. With due preparation and some additional refinement all three appliances are essentially ready to be built. **NEW2U** is now investor ready.

Funding must be secured to complete design for manufacturing (DFM) and product refinement while cultivating vendor relationships and securing a product supply chain. When ready, a test release is planned for **NEW2, 1f** and **1m**. Further product refinement incorporating test release feedback will then be completed before the large-scale release of all three **NEW2U** appliances, supporting and spin-off **NEW** products. The road to manufacturing, distribution and installation is outlined in the **NEW** Prospectus and Business Plan.

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