

Project Description

The Dean Road Transportation Facility's approximately 70,000 gsf building provides increased capacity for office space, bus storage, and operations and maintenance activities, while reducing carbon emissions and costs and improving safety. New features to help reduce fuel consumption and greenhouse gas emissions include the ability to accommodate articulated

buses, increasing passenger capacity and decreasing overall carbon emissions of the fleet, as well as charging infrastructure to maintain electric buses. Additionally, its move from the Ross Athletic Campus to North Campus will annually eliminate thousands of daily bus operation hours for routes that begin on North Campus—reducing

bus fuel consumption and university greenhouse gas emissions. The modern maintenance facility also meets current safety guidelines for vehicle maintenance, circulation and work zones.



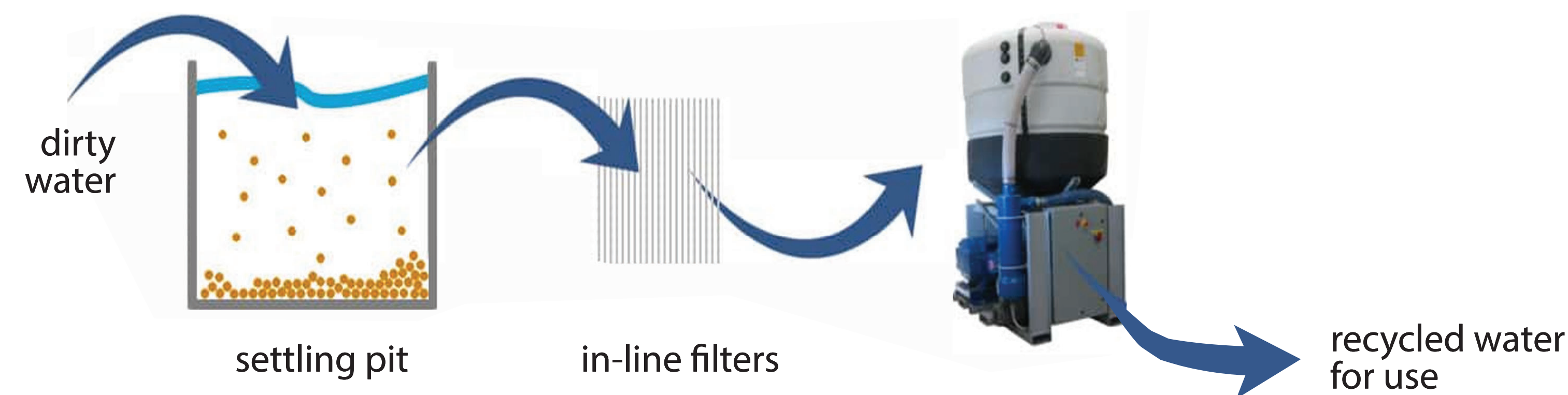
Daylighting

- Clerestory windows along the south facade provide daylight in the high bay maintenance and bus storage areas to reduce lighting load and energy use
- Lighting is controlled by daylight sensors to avoid over lighting spaces with ample daylight while occupancy sensors turn off lighting in unoccupied spaces

Water Reclamation

- It takes approximately 348 gallons of water to wash a typical 40 foot bus
- With a new reclaimed water system, 305 gallons of reclaimed water is used for washing while only 43 gallons of fresh water is used yielding an **88% water savings** with each bus wash

centrifugal filter system & bio-remediation system



Stormwater & Native Plantings

100% of stormwater will be managed within the project boundary through use of detention basins with native grasses, sedges and rushes that tolerate fluctuating water levels and don't require irrigation or mowing



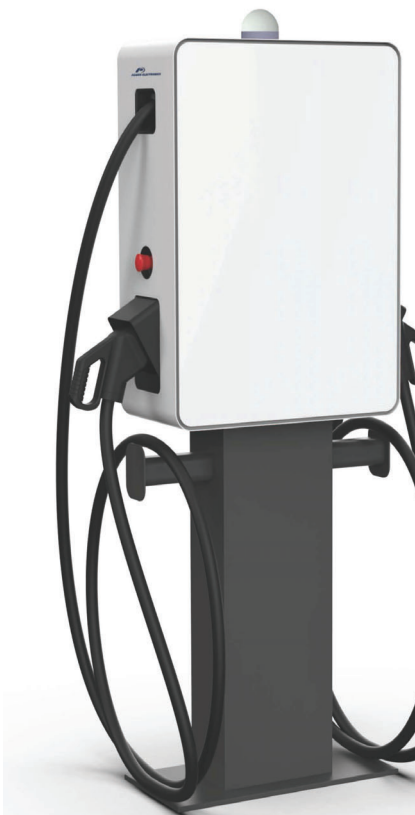
Equity & Inclusion

Universal changing and shower rooms in the locker room promote inclusivity for people with disabilities and transgender and non-binary people while providing increased efficiency in use

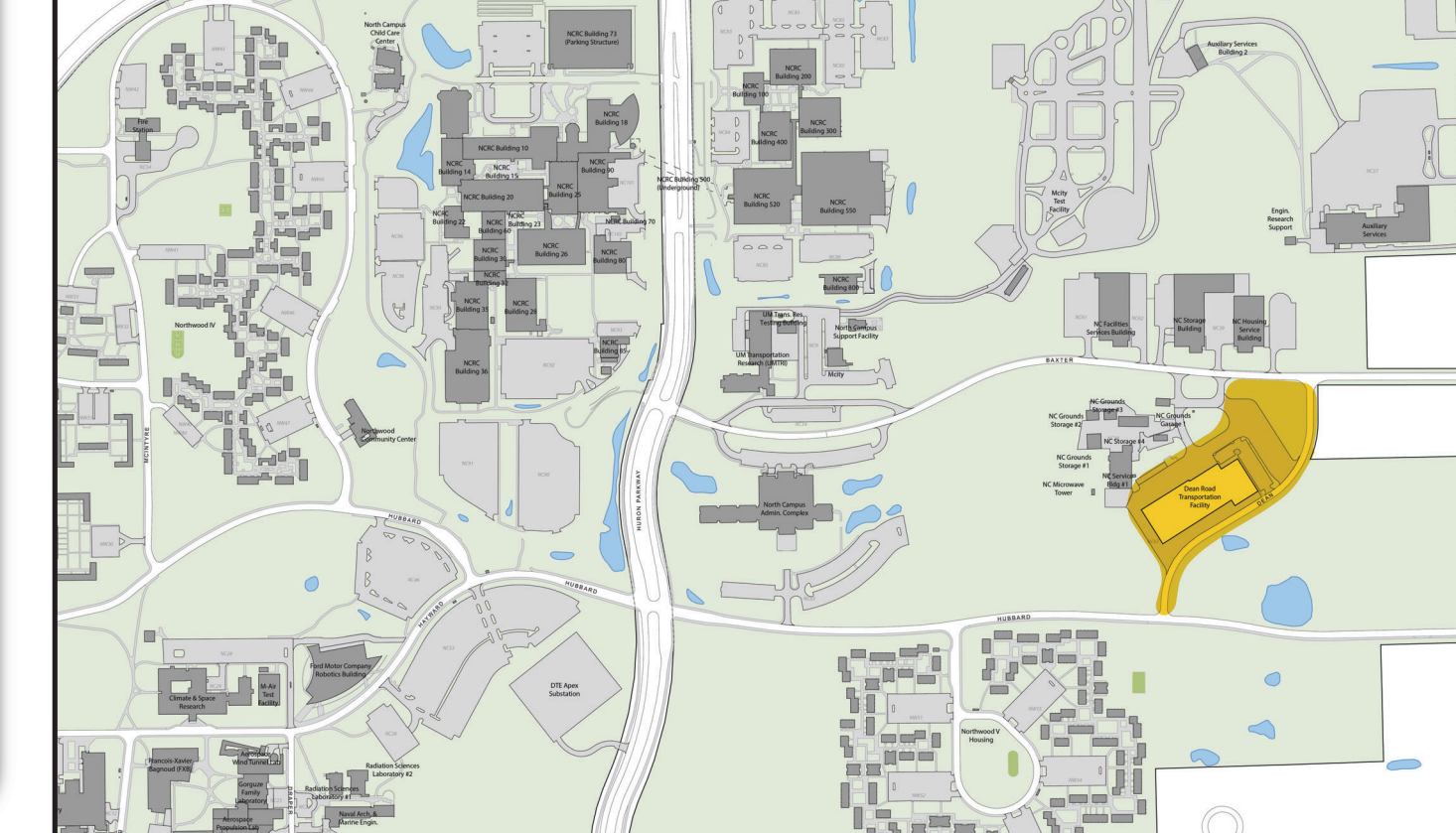


Electric Vehicle Charging

Four Electrical Vehicle (EV) charging dispensers for buses are installed inside the bus storage building, along with accommodations for 12 additional charging dispensers for future use



Project Location: North Campus



Sustainability Facts

Dean Road Transportation Facility
 Building Use Office/Bus Storage/Bus Maintenance
 Location Ann Arbor, Michigan
 Size 70,000 Gross Square Feet
 Number of Occupants 59 Daily Average

LEED version	v4
LEED certification level	TBD
ASHRAE 90.1 version	2013
Energy cost savings compared to ASHRAE baseline	26%
Total energy savings	\$83,017 / year
Total electrical savings	397,816 KWh / year
Total gas savings	-9,795 Therms / year
CO2 emissions avoided	230 Metric Tons
Water fixture baseline	2012 Michigan Plumbing Code
Total water savings	30%
Construction/Demolition waste diverted from landfill	TBD
Insulation (R-Value)*	Code Project
Wall assembly - above grade, wall type 1	15.6 19
Wall assembly - above grade, wall type 2	15.6 29
Slab on grade	20 30
Roof assembly	5 10
Glazing	
U-value**	0.35 0.21
Solar Heat Gain Coefficient (SHGC)**	0.4 0.20
Glazing - Visible Light Transmittance (VT)***	0.23

Project Team	
Owner	University of Michigan - Logistics, Transportation and Parking
Architect	AECOM
Engineer	AECOM
Contractor	Devon Industrial Group LLC
Commissioning Authority	U-M AEC
Project Management	U-M AEC

Design Period: 03/2019 - 01/2021
 Construction Period: 11/2020 - 12/2022
 * The higher the R-value the better the insulating quality
 ** The lower the U-value and SHGC the more energy efficient the window
 *** The higher the VT value the more daylight in the space. VT is measured between 0 and 1

