



Bus Shelter Design Project

Progress Report
Presented To the City Council of Columbia, MO
July 21, 2014

Project Partners

PedNet/CoMET
MU Architectural Studies
COMO Connect
Office of Cultural Affairs
Office of Sustainability



Bus Shelter Design Project

- Project Background
- Project Implementation
- Design Process
- Presentation, Media, and Public Input
- Design Selection
- Next Steps

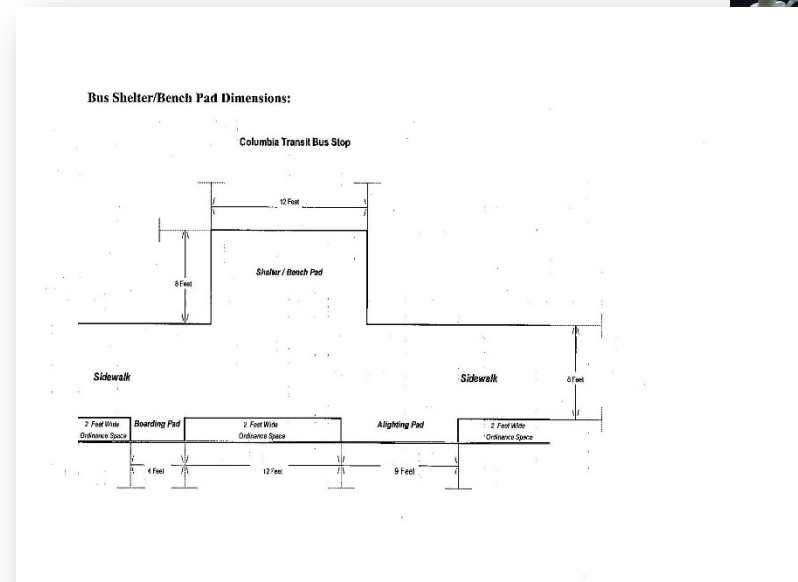
Project Background

- COMO Connect
- CoMET
- Austria



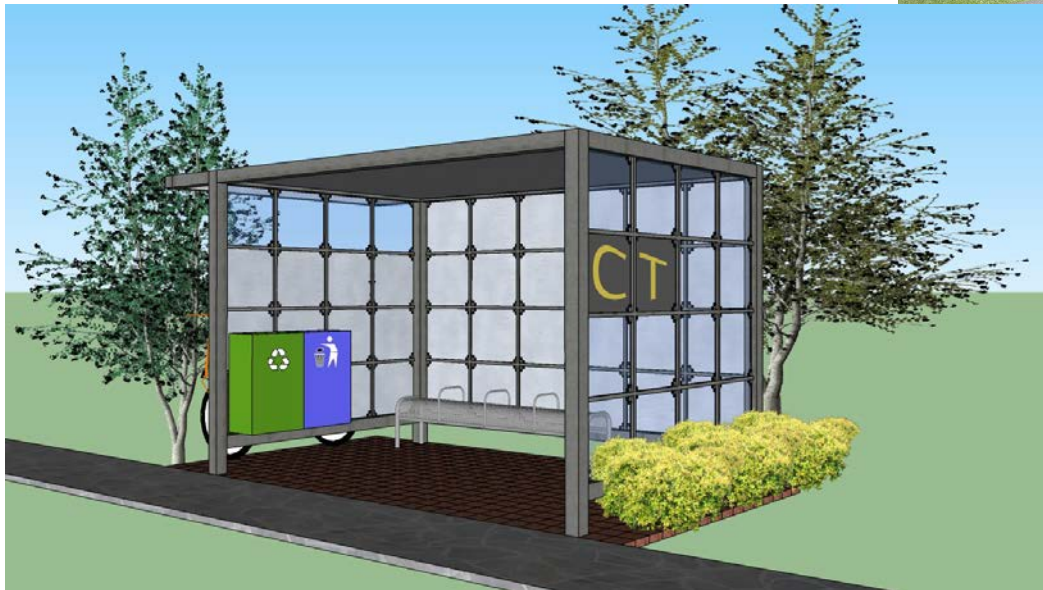
Project Implementation

- Partnership planning
- Design criteria
- Classroom instruction



Design Process

- Concept development
- Schematic design
- Design development



Presentation, Media, Outreach, and Public Input

Presentation: where people were informed

- Online
- Earth Day
- Bike, Walk, and Wheel Week
- Art In the Park
- Health Department
- Family Impact Center



Presentation, Media, Outreach, and Public Input

Presentation: where people were informed

- Wabash Station
- City Hall
- ARC
- Bicycle and Pedestrian Commission
- Public Transit Advisory Commission
- Disabilities Commission
- Environment and Energy Commission



Presentation, Media, Outreach, and Public Input

Media

- KOMU TV
- The Missourian and Columbia Tribune newspapers
- KBIA radio
- Mediacom Newsleaders television show
- PedNet/CoMET social media and newsletters
- COMO Connect website
- MU Architectural Studies website
- MU News Bureau



Presentation, Media, Outreach, and Public Input

Outreach

- Neighborhood associations
- Homeowner associations
- Non-profits
- University student organizations; Extension
- CID; business owners
- Columbia Housing Authority
- Groups serving international students and refugees
- Columbia Public Schools
- Current riders

Presentation, Media, Outreach, and Public Input

Public Input: where people voted

- Online
- Earth Day
- Bike, Walk, and Wheel Week
- Art In the Park
- Health Department
- Family Impact Center
- Wabash Station



Presentation, Media, Outreach, and Public Input

Public Input: how people voted

- Tickets
- Online surveys
- Paper surveys
- Professional jury:
 - Bimal Balakrishnan
 - Drew Brooks
 - Barbara Buffaloe
 - JJ Musgrove
 - Cheryl Price
 - Michael Pryor
 - Christiane Quinn



Presentation, Media, Outreach, and Public Input

Public Input: categories

- 2,970 votes cast to select “People’s Favorite”
 - 2372 ticket votes; 598 surveys
- “Jury Award”

Public Input: survey summary

- 54% of respondents familiar with new COMO Connect routes
 - 38% unfamiliar (remainder skipped question)
- 56% of respondents MORE LIKELY to ride bus if shelters are added
 - <1% LESS LIKELY; 39% no change/not sure (remainder skipped question)

Presentation, Media, Outreach, and Public Input

Public Input: survey summary

- 33% from inside Columbia
- 9% from Boone Co. outside Columbia
- 27% outside Boone Co.
- 32% not sure/do not know
- Themes from comments:
 - Positive comments about sustainability components
 - Appreciation for student involvement
 - Concerns about visibility and transparency of materials
 - Preference for the inclusion of bike storage

Design Selection

“People’s Favorite:”

- Team “Fab Collab” clear winner (about 25% of all votes cast)

“Jury Award”

- 1st Place – Team “Fab Collab”
- 2nd Place – Team “MPRSW”
- 3rd Place – Team “RAMA”
- Honorable Mention – “Green Team”

Design Selection: Team “Fab Collab”



Design Selection: Team "Fab Collab"



THE FAB COLLAB
RJ BALDWIN, CHASE JOHNSON,
DUY TRAN + LINDSAY WEBB
MAJ ARCH14323

CONCEPT

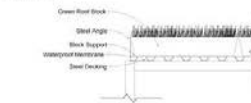
The Fab Collab iteration of the Columbia Transit System bus stop redesign is based on versatility, modularity, and sustainability. With aesthetics catching the eye of riders and an educational value, the design selection will put a new face on the city's public transportation system. A living art gallery displaying Columbia's local artists will be featured at every stop.

GREEN INITIATIVES

The planned overhaul of the current Columbia Transit system bus shelters is backed by green design initiatives and sustainable technologies. The modularity of the bus shelter design is a cost effective approach to sustainable design. All exterior panels are based on a 4'x8' template and are all fastened to one another and the underlying structure by glass friction clamps. All panels are interchangeable allowing for a customizable shelter layout. Various works of art can be displayed on each section and if damaged, the repair process is as simple as unfastening and replacing them.

ENERGY: The consideration of a more efficient approach to saving electricity was acknowledged by the introduction of solar panels into our design solution. Photovoltaic cells will be located on a dual axis rotating panel located above the exterior bike storage area. Each set of solar panels will be site specifically installed to maximize solar gain for each bus stop location. This system will be the source of power for the interior LED tube lighting for night use.

WATER: Sustainability is capitalized on our green roof system. Two thirds of the rooftop will be composed of green roof blocks to collect a large amount of rainwater and any runoff from these portions of the roof including the backward sloping canopy at top, will be collected by a gutter system and then dispensed among the sun surrounding site.

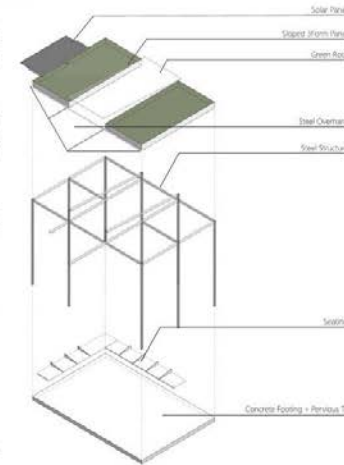


INDOOR AIR QUALITY: Circulation will be controlled by the open entry space up front and cross ventilation will be governed by perforated kick plates at the base of all transparent panels and through the open canopy at the rooftop.

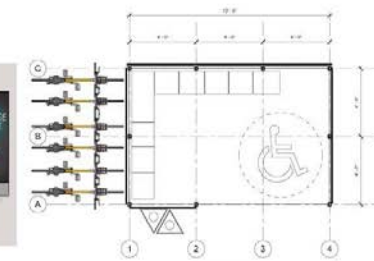
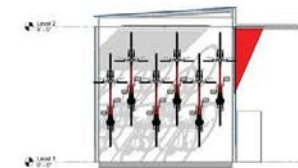
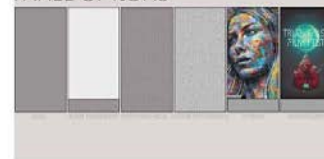
COST ESTIMATE

Item	Description	Quantity	Price	Total	Location
1	4'x8' Green Roof Block	1	200	200	Green Roof
2	4'x8' Steel Angle	1	50	50	Green Roof
3	4'x8' Waterproof Membrane	1	100	100	Green Roof
4	4'x8' Drain Channeling	1	100	100	Green Roof
5	4'x8' Steel Support	1	100	100	Green Roof
6	4'x8' Steel Angle	1	50	50	Green Roof
7	4'x8' Steel Support	1	100	100	Green Roof
8	4'x8' Steel Angle	1	50	50	Green Roof
9	4'x8' Steel Support	1	100	100	Green Roof
10	4'x8' Steel Angle	1	50	50	Green Roof
11	4'x8' Steel Support	1	100	100	Green Roof
12	4'x8' Steel Angle	1	50	50	Green Roof
13	4'x8' Steel Support	1	100	100	Green Roof
14	4'x8' Steel Angle	1	50	50	Green Roof
15	4'x8' Steel Support	1	100	100	Green Roof
16	4'x8' Steel Angle	1	50	50	Green Roof
17	4'x8' Steel Support	1	100	100	Green Roof
18	4'x8' Steel Angle	1	50	50	Green Roof
19	4'x8' Steel Support	1	100	100	Green Roof
20	4'x8' Steel Angle	1	50	50	Green Roof

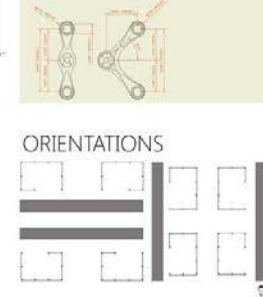
MANUFACTURERS



PANEL OPTIONS



ORIENTATIONS



Design Selection: “Jury Award”



2nd Place: Team “MPRSW”



3rd Place: Team “RAMA”



Hon. Men.: “Green Team”

Next Steps

- Sponsorship program
- Construction drawings
- Public art

QUESTIONS?

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