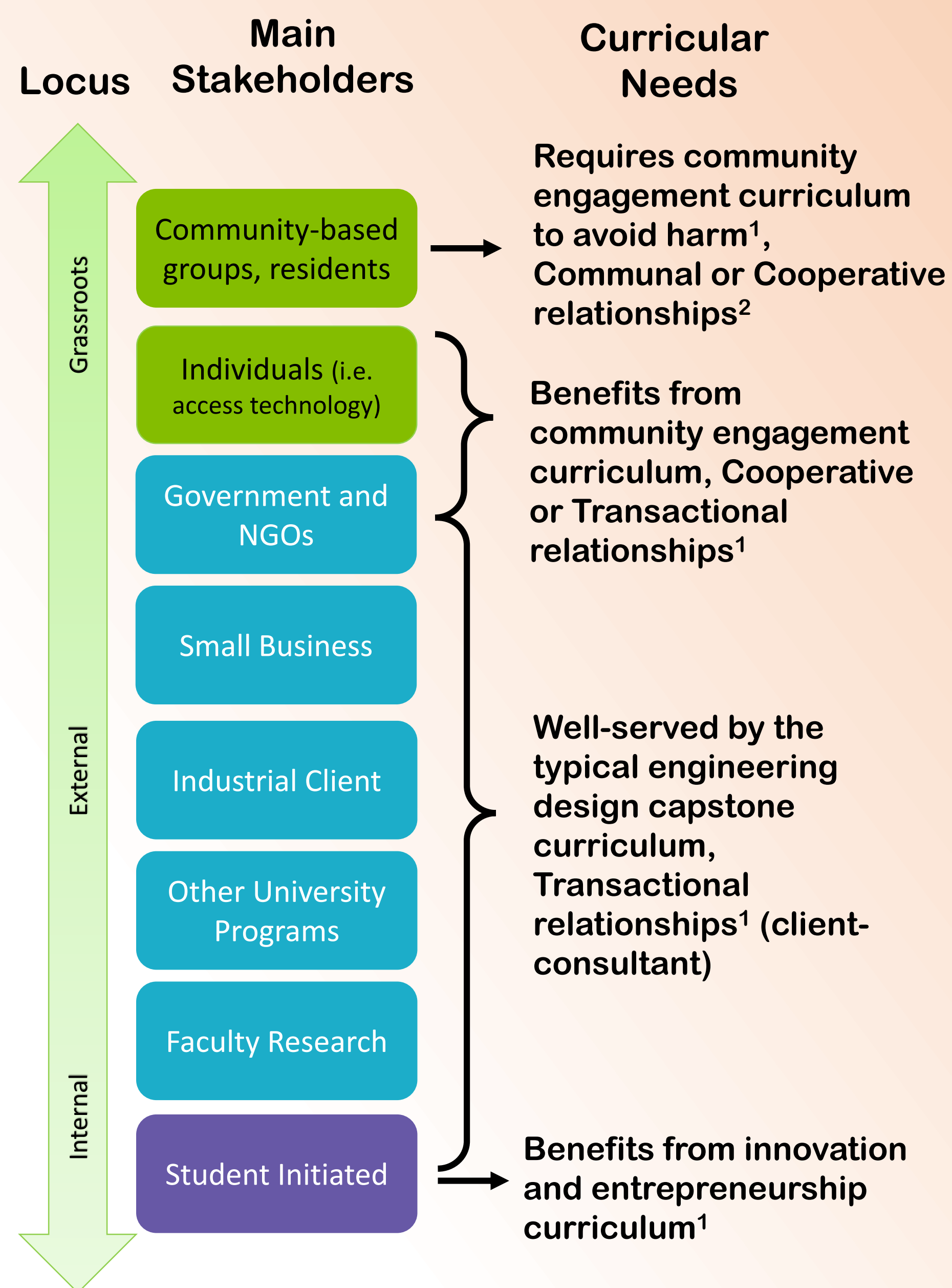


Adventures in Creating a Transdisciplinary, Community-Engaged Capstone

Sarah A. Brownell, Rochester Institute of Technology

Background

Not all projects are created equal...



Objective

Develop an alternative capstone course to:

- Connect students directly with community-based organizations.
- Facilitate authentic, mutually beneficial community relationships.
- Work on projects identified and prioritized by local communities.
- Incorporate the variety of disciplinary skills needed.
- Allow projects to span semesters.
- Culminate a future minor...

Potential Social Impact Design and Engagement Minor

1. Foundations of Community Engagement and Transformation (Science, Technology & Society (STS) General Education)

2a. Sustainable Communities (STS General Education)

2b. Human Centered Design (Applied Engineering Elective)

3. Choice of supporting course

4 & 5. Collaborative Community Capstone (General Engineering, Crosslisted, 2 semesters)

References

- ¹A. M. McBride & E. Mlyn (eds). *Connecting Civic Engagement and Social Innovation: Toward Higher Education's Democratic Promise*. Campus Compact, Boston, MA, 2020.
- ²J. D. Thompson, "Transactional, Cooperative, and Communal: Relating the Structure of Engineering Engagement Programs with the Nature of Partnerships," *Michigan J. of Community Service Learning*, vol. 23, (2), pp. 83, 2017.
- ³E. Hartman, "A strategy for community-driven service-learning and community engagement: fair trade learning," *Michigan Journal of Community Service Learning*, vol. 22, (1), pp. 97, 2015.

Support



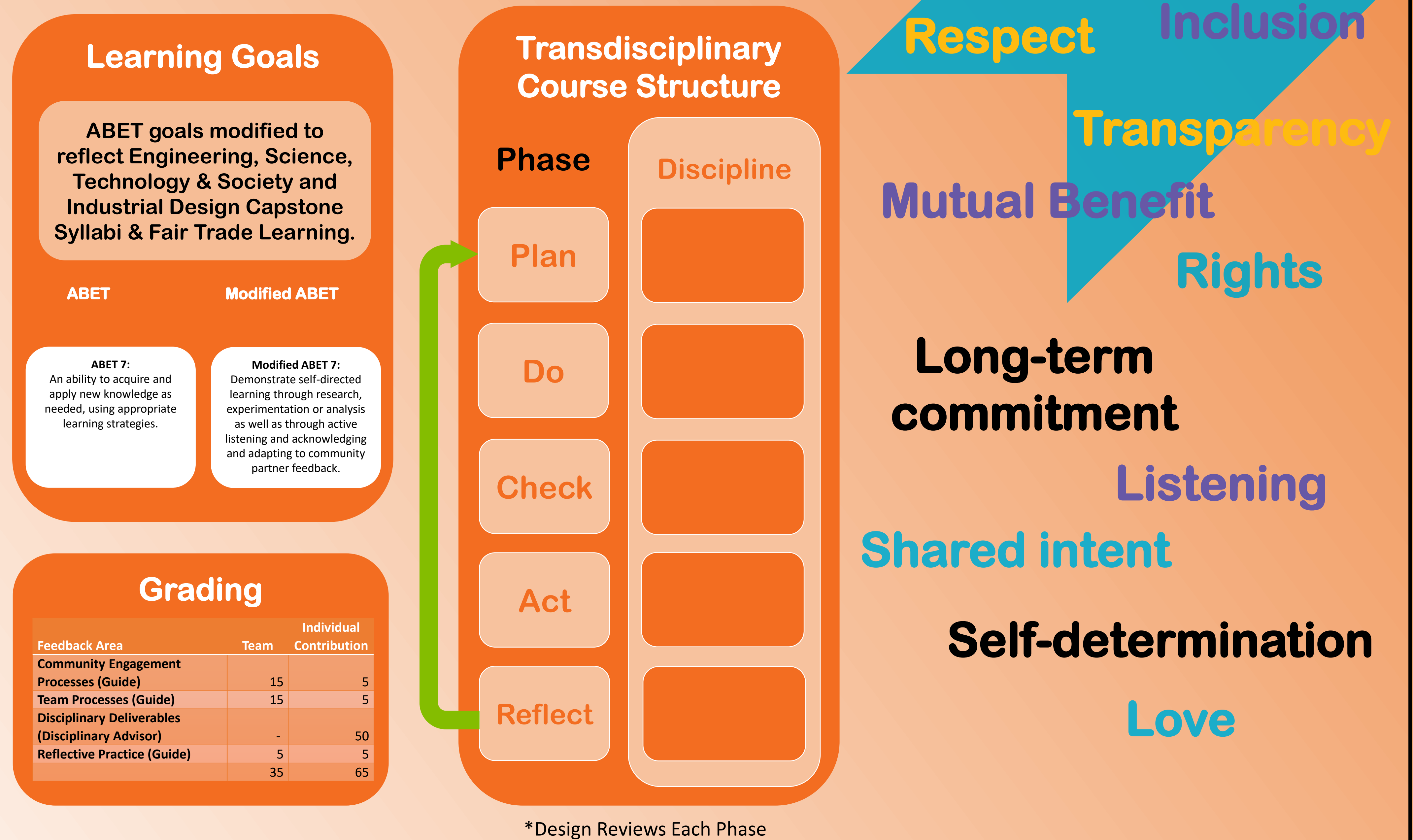
2019 Course & Program Grant (3 years)
Creating an Implementation Course for the Social Impact Design & Engagement Program: Expanding RIT's Innovation and Entrepreneurship Ecosystem to Alleviate Poverty

RIT

Kate Gleason
College of Engineering
Multidisciplinary
Senior Design

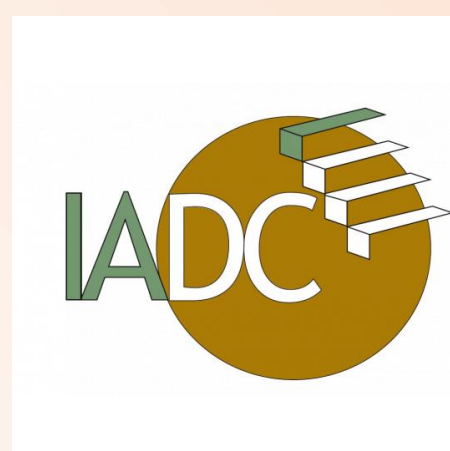
Results

Course Follows Fair Trade Learning³ Values:



*Design Reviews Each Phase

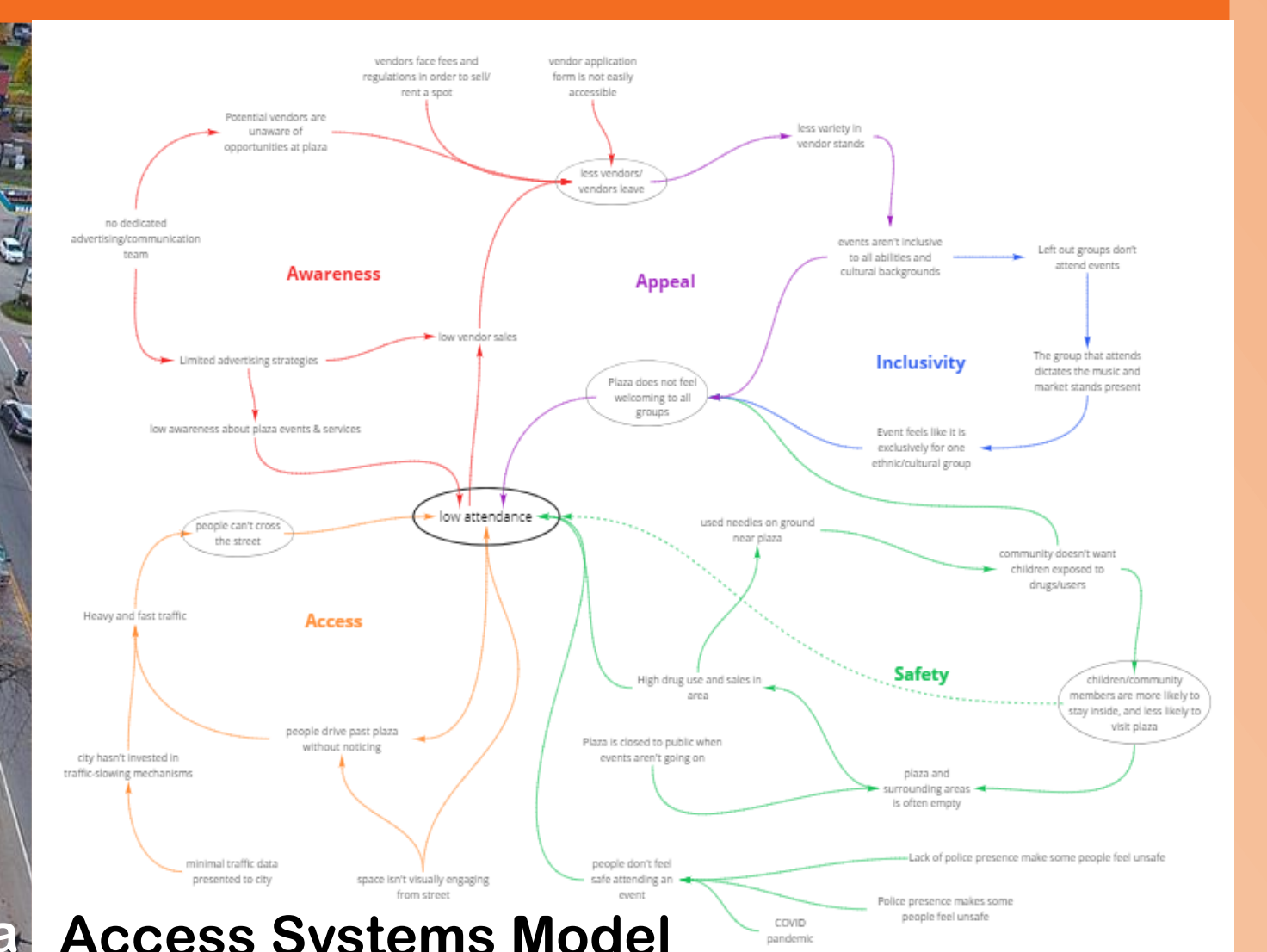
Partner: IBERO American Development Corp.



Fifty year history in the El Camino Neighborhood:

- Community organizing
- El Camino Plan
- Housing construction
- Recreational Activities
- Social services
- Advocacy

Project: Improve "Access" to the Rochester International Plaza.



Diverse Student Interest

Fall 2021

Spring 2022



Valuable Experiences

Resident Interviews at Plaza events
Block Club meetings
Researching City / Traffic Regulations
Many Stakeholder and Group Meetings
Traffic Data Collection and Analysis
Presentation to Traffic Control Board
Combined Engineering, Design and Social Sciences Methodologies

Proposal to City Council

Plaza Elements



- Children's fun
- Info Sharing
- Seating
- Shade



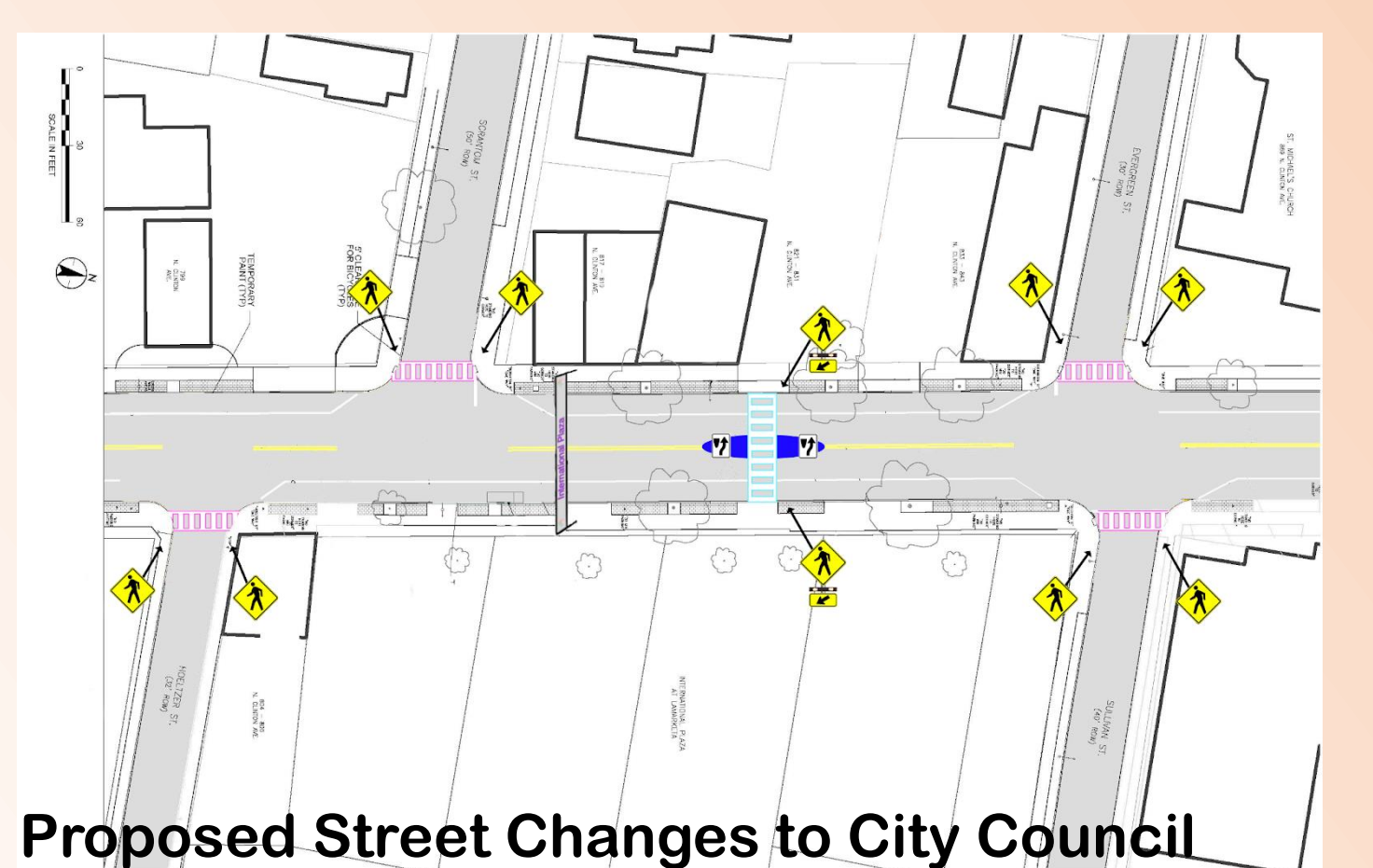
Pentagonal Info Post

Street Elements

Traffic calming and pedestrian safety



Traffic Study



Proposed Street Changes to City Council

Challenges

Early recruiting of non-engineers

Student disdain for uncertainty

Disciplinary advisor credit

Countering the transactional mindset

COVID and Snow

