



# MEETING MINUTES

Meeting Location: Rooms 159 School of Education, UW-Madison

Project/No.: 2015 Campus Master Plan Update

Date/Time: Wednesday, December 9, 2015, 1:00-4:00PM

Re: Campus Visit #5, TCC #8  
Landscape Work Group  
GI/Stormwater Work Group  
Transportation Work Group  
Utility Work Group

Notes By: Aaron Williams, FP&M

### Attendees:

Faculty/Guests: John Harrington (DLA), David Liebl (UWEX), Randy Mattison (UWSA), Anita Thompson (BSE), David Trowbridge, Ben Zellers (CoM), Mike Hanson, Kathy Kalscheur, Lisa Pearson (DFD)

FP&M Staff: Bill Elvey, Gary Brown, Rob Lamppa, Kris Ackerbauer, Julie Grove, Jeff Pollei, Aaron Williams, Rhonda James, Jonathan Bronk, Matt Collins, Marcella Otter, Patrick Kass, Rob Kennedy, Kurt Johnson, Ellen Agnew, Pete Heaslett, Harmony Makovec, Marisa Trapp, Doug Rose (FP&M)

Consultants: Jon Hoffman, Mary Jukuri, Neal Kessler, Eric Schuchardt, Bill Patek, Dave Wolmutt, Cassie Goodwin (SGJR), Mike Skowlund, Stan Szwalek (HS), Kevin Krause, Paul Huettl, Scott Moll (AEI), Brian Smalkoski, Kevin White (KH)

Excused/Absent: Jim LaGro (URPL), John Krogman (DoIT), Drew Beck, Kate Christopherson (CoM), Sam Dennis (DLA), Jeanette Kowalik (UHS), David Marcouiller (URPL), David Noyce, Ken Potter, (CEE) Dan Dudley, Dan Okoli, Rick Weere (FP&M), Alex Roe (UWSA), Beth Reid (DOA), Steve Wildeck (UWEX)

### TCC MEMBER-ALL GROUP PRESENTATION A. Williams)\*\*\*\*\*

#### Areas of Change (M. Jukuri)

- West Campus
  - o 'Liner' building is moved adjacent to School of Nursing facility
  - o Large parking structure shown to replace lot 60 removal
- Near West Campus
  - o VetMed expansion cuts off circulation across Linden.
  - o There is a 'U' of circulation maintained back into the interior of this area
  - o Give some green space around the horse barn for it to breath and act as a terminus to the Linden Greater Mall on this western end.
  - o Regional bike path shown adjacent to Campus Drive, cutting off Meat and Muscle.
- Superblock

- Lot 20 is envisioned as becoming more efficient, which allowed for the block to be opened up and better bisect the block with transportation.
- South Campus
  - The Design Review Board has always viewed this portion of campus as having no ‘there’ there.
- Engineering Precinct
  - Parking structure relocation
  - Wendt Library indicated as green space

Engineering master plan and the interaction of the existing ‘new’ private housing development

G. Brown: The Engineering master plan is aware of this and has planned a 30 year master plan.

Lot 45 building, what is shown?

G. Brown: Shown as academic use, but might become a utility facility.

What is the future of the railroad cutting through the middle of campus. It would be better to not have freight trains cutting through campus.

R. Kennedy: The 50 year lease and the ability to compromise with the railroad makes any change to this area unlikely. It has been planned for future commuter rail with stops at Union South and near Kohl Center.

Would there be a pedestrian connection through the VetMed facility along Linden?

M. Jukuri: At this point in the planned design we can assume there will not be ped. access through.

**LANDSCAPE WORK GROUP-TCC #8(G. Brown)\*\*\*\*\***

Faculty: John Harrington (DLA)

FP&M/DOA/UWSA: Gary Brown, Kris Ackerbauer, Julie Grove, Jonathan Bronk, Ellen Agnew, Harmony Makovec, Lisa Pearson (DOA)

Consultants: Eric Schuchardt, Neal Kessler, Mary Jukuri (SGJJR), Stan Szwalek, Shuangshuang Wu (HS)

Excused/Absent: Sam Dennis (DLA), Dan Okoli (FPM), Alex Roe (UWSA)

This is Technical Coordinating Committee Landscape/Open Space Work Group meeting #8 of the 2015 Campus Master Plan project.

Stan S. provided an overview of the draft preliminary landscape master plan (PPT on file).

Comments/Questions:

John H. – overall the “social landscape” type will mix in with the other areas and types of landscapes; prior concepts showed a “rural” landscape – is that still being considered?; Might be able to show the landscape north and west of Ag Hall as more naturalized and as a “meadow landscape” as opposed to mowed lawn.

Kris A. – what does a typical “green street” look like? Can you give us some examples? (Stan provided photo images of prototypical green streets along with cross sections.)

Kris A. – what about the huge rains that we sometimes get? How do green street systems handle those flooding conditions? (Gary noted that we typically design for 100-year storm events when designing stormwater facilities. The high flooding events, 500-year storms like what we had in 2008, are less frequent and will cause street flooding. The challenge is to design for those large flood events so that they do not create significant damage to structures or people.)

“Landscape Typologies” – is this the correct word or do we want to use “landscape character”?

#### Observatory Hill

Kris A. – how did the students like the plan for oak savannah on the hill and taking away their active recreation areas? (Gary noted that they were actually fine with the proposed changes as long as we kept some green lawn space on the east side near Liz Waters.)

John H. – it would be nice to bleed the oak savannah landscape across and south of Observatory Drive to include the mound landscape. Also would be good to have savannah around Tripp, Adams, Carson Gulley, etc.

Jonathan B. – Is the meadow landscape an alternative to mowed lawn? Can we use no-mow or a mix of fescues and different seed mixes as alternatives to mowed lawn? (Yes – that is the idea. Reduce the amount of bluegrass lawn areas that require regular weekly mowing. We can use a variety of mixes for different that would be selected based on the soil, sun, etc. The plan is to have a native meadow, savannah landscape on Observatory Hill that has shorter grassland species mixed in under oak savannah trees. This maintains the open views from a security standpoint for pedestrians on the sidewalks and trails.)

John H. – different lawn mixes and a meadow mixes, prairies, etc. would allow for more educational uses in a variety of campus departments.

#### Central Campus

Julie G. and Kris A. – The plan shows parking under the current Humanities building site, correct?? Where and how much? (This is a carryover from the 2005 Campus Master Plan which called for 400 underground parking spaces under the two new buildings planned for this site.)

Mary J. – is this helpful to show the variety of landscape spaces and landscape types?

Julie G. – yes, it is very helpful to give guidance to the departments as they develop new buildings.

Jonathan B. – yes since it gives us some way of making the whole campus more cohesive. It’s also a guideline for smaller landscape projects so they fit in with the overall campus landscape.

Mary J. – what about occupied vs. non-occupied greenroofs? Do we need two categories? Probably could be one category.

Perhaps the courtyard, plaza, terrace could be one category? What do these mean? No lawn? The graphic seems to depict things to literally for the typical viewer.

Jonathan B. – we may want to add a definition for each category in the final written document so we know the distinction between the different types of use.

### South Campus

Stan S. – “green alley” spaces are also being reviewed for use in the N. Brooks Street & N. Mills Street area as well as along Engineering Drive. Similar to green streets but in a narrower configuration.

### Near West Campus

Jonathan B. – blend the landscape typologies more, especially around the lakeshore residence halls; more naturalized and similar to the lakefront; bring the lakefront landscape into the campus.

Kris A. – Where does the storage space that is currently in the old Horse Barn go when it is converted to a different use? (Gary – unfortunately we don’t get into the details of the programmatic changes to spaces up at the overall Campus Master Plan level. This would be dealt with in detail in the CALS facilities master plan.)

John H. – can the section of Linden Drive/Mall west of Elm Drive have a better pedestrian environment? Yes, surely.

### West Campus

Stan S. – We would like to create a better arrival/wayfinding experience for hospital patients and visitors; convert traditional lawns to low mow or meadow landscapes bringing the shoreline landscape into the campus.

### Observatory Drive - Prairie and Wetland

Kris A. – we need to make sure the sidewalks, especially on the south side of Observatory Drive, are wide enough for snow plowing. (Again, this kind of detail is not included at the Campus Master Plan level. We will be providing general site design guidelines for use across campus but we are not designing the streetscape along Observatory Drive at this time. We’ll want to look at this when we actually take the parking off the street and reconfigure the street cross-section.)

Ellen A. – Are the sidewalks north of Observatory Drive all paved? (Stan – there likely would be a hierarchy of paving options; some could be crushed stone but the major desire lines would be paved.)

### Charter/Linden Intersection

John H. – It would be nice to lower the road if we can but that doesn’t seem possible. The overhead pedestrian connections need to be as direct as possible. Concept one (ie Istanbul landscape bridge) seems to connect everything really well but it might be hard to keep the space under the bridge light and airy.

John H. – what percentage of pedestrian traffic would come off the street if we build the bridge? Seems like it might be a lot but we do know that pedestrians also flow down N. Charter Street toward University Avenue.

Mary J. – the biggest issue is the bus traffic and getting off schedule due to the heavy congestion of pedestrians crossing at this intersection.

Julie G. – We need to add some functions in the new buildings that help draw people to the bridge; lecture halls, sitting areas, food service, etc.

Kris A. – What about the grades in front of Sterling Hall? Can you get up to the bridge coming north on Charter Street? It might be too steep to get over the service drive on the north side of Sterling Hall. (Stan

S. - The hardest part seems to be the design up from the south on Charter Street and how that design works for both pedestrian and vehicles through this space).

Gary B. - It will be important to connect the 2<sup>nd</sup> floor bridge to the west addition/infill at Ingrham Hall as well.

John H. – Concept 4 seems intriguing but it doesn't seem to address the pedestrian routes needed from the east to the northwest.

#### University Avenue

Stan S. – the south side combined bike lane tends to be moving forward over the idea for the north side bike lanes; the south side dual bike lane makes it easier to manage the bus stops and for the buses not having to cross the bike lanes.

John H. – What is the minimum width of tree planters on the south side islands? (Stan S. – they will be up to twelve feet wide). John is also concerned with bike traffic in the dual lane bike path and the fact that the bikes will want to go fast in the cycle track which will create a safety issue.

Lisa P. – How do the eastbound bikes cross the westbound bike traffic to turn left and go north into the campus? We need to understand how those turning movements work. (All of the turning movements will need to be reviewed once we actually move forward with a project.)

Jonathan B. – What about the landscape plantings in the street medians? What type of landscape plantings are we suggesting for those areas? (Stan – probably not stormwater plantings but large shade trees to help emphasize the street tree canopy in these areas. The large trees will also do a lot for stormwater management.) Floodplain trees might work. Large trees would be best.

John H. – We'll need to make sure there is enough room (soil capacity wise) for the large canopy trees in those medians.

Stan S. – We want to maintain a 12 ft. sidewalk on each side of the street as well, especially in heavily used areas, to accommodate the heavy pedestrian loads during class change times.

John H. – We need to push for large trees in this corridor; they do so much more than just make things look nice. They help slow traffic, create a sense of campus and help reduce stormwater.

Jonathan B. – With these being city streets, the city arborist will likely demand diversity of tree species in the right of ways of University, Dayton, etc.

Kris A. – For the area around Henry Mall at University Avenue, we still have a problem where Babcock Drive swings off of University Avenue. It is still a pinch point for bikes and vehicles going around the corner, even after it was updated recently.

Lisa P. – We also need to look at the pedestrian crossings especially to the west of Henry Mall. We really can't remove the one that provides access for engineering students to the Babcock Drive, Biochem, and the Ag Hall area to the north and west.

#### Linden Drive & Willow Creek

John H. – We really need to look at pedestrian access and making sure we are accommodating as much porosity as possible.

John H. – We need to draft guiding principles for the overall campus landscape master plan

- Reduced mowed turf areas.
- Increased large canopy trees and diversity of species.
- Increased stormwater management, rain gardens.
- Important landscapes for support of teaching on campus, etc.

Stan S. – The consultant team will be drafting a preferred species list for campus landscape plantings. FP&M staff will review and provide feedback.

Jonathan B. – Can we be more focuses on ecosystem services when we develop that preferred planting list? Plants should be selected for habit creation, pollinator landscapes, etc.

**STORMWATER/GREEN INFRASTRUCTURE-TCC #8 (A. Williams)\*\*\*\*\***

Faculty: Anita Thompson (BSE), David Liebl (UWEx)

FP&M/DOA/UWSA: Rhonda James, Matt Collins, Marisa Trapp, Aaron Williams (FP&M), Kathy Kalscheur (DFD)

Consultants: Dave Wolmutt, Cassie Goodwin, Eric Schuchardt, (SGJRR)

Excused/Absent: Jim LaGro, Ken Potter

This is Technical Coordinating Committee Stormwater/Green Infrastructure Work Group meeting #8 of the 2015 Campus Master Plan project.

D. Wolmut provided an overview presentation of the materials to date:

- Goal is to provide stormwater that people see and is functional to meet permit and campus needs. It may be more aesthetic at times, or more contained (subgrade) in others. SGJRR interested in testing ideas and getting the committees feedback.
- UW does not have a good stormwater map that is specific for the permits.
- Total Permit area=841 Ac
- Non-Exempt Area=499Ac
- M. Collins: We do not have to adhere with Strand’s modeling areas since we are creating new maps with updated data.
- South Campus has been added to the SLAMM model. The streets have been broken out and are not included in the numbers.
- Storm Sewer Outfall/Basin Mapping
  - o Primarily showing pipe outfall.
- Source Areas
  - o Total Impervious Areas=306Ac
- Best Management Practices
  - o 2008 Neilson Pond, Street sweeping (primary reduction method), Lot 34 bioswale,

- 2015 Added a number of practices that have been done since. Green roofs are not included.
  - SLAMM can model green roofs from a volume reduction standpoint, not a sediment reduction standpoint
- M. Collins: A large portion is by street sweeping. There are mechanical, vacuum and high suction sweepers. Streets are assumed as mechanical sweepers. DNR currently doesn't allow you to take credit for a 'street' that doesn't have curbs (i.e. parking structures do not count). UW should get credit for these facilities since they are swept regularly.
- Sheet flow erosion is not accounted for currently. DNR does not allow any credit for bank stabilization. It assumes everything is in a stable condition. Curve number of forested steep slopes are exempt in the SLAMM model (presettlement).
- Liebl identified the central lawn of Bascom Hill as a site for infiltration of roof water from adjoining (up-gradient) buildings via sub-surface drain fields. This would require an investigation of subsurface soils (no borings are known to exist); Identifying conflicts with buried utilities; Plumbing the roof drains from adjoining buildings; Outreach about the project goals.
- GI Enhancement Opportunities
  - Areas where major redevelopment is occurring.
- Redevelopment Evaluation-Site by Site Basis
  - Lot 60, 2500 lbs of sediment per year coming off the site.
  - Lot 60, redevelop with 40% removal (80% TSS reduction) we get 1200 lbs per year.
  - Every new campus project should meet the 80% TSS reduction requirement (city is 80% reduction over the existing)
- HydroCAD Model
  - Indicates rate and volume
  - We should identify the outfalls that are undersized or where high volumes are occurring and determine what flow attenuation practice could be implemented.

#### 'Multi-Site' GI Opportunities

- Areas where we can use multiple sites to implement a GI practice
- Area 'A'
  - Lot 76 currently drains into the Lot 60 ponds
  - VA area, not owned/operated by the UW, but in our permit area which UW is responsible for. This area goes back through the Willow Creek section.
- Area 'B'
  - Wetland on the west side of the Willow Creek. SGJJR has looked at wetland on the east side, but requires more space and moving the creek to the west does not pan out from a cost/benefit stand point.
  - \*\*\*What are the uses of the Willow Beach parking lot, can this area become a GI facility?
  - Can we treat a portion of Observatory Drive on the west side of the Natatorium?
  - Linden Drive proposed to have green street practices integrated.
  - Dairy Barn, everything to the south and west goes to the sanitary

- Meat Science parking lot is disconnected from a drainage stand point north to the Dairy Barn due to a large steam line bisecting the area.
- West athletic fields
- \*\*\*Where does water go at the cross connection at Observatory and Elm and at Linden Elm?
- Minimum capture 40%, size indicated currently.
  - M. Collins, please recommend what it is solving. It is worth running the model on it. Is it just for the sediment and P, or for infiltration? Infiltration is difficult due to ground water and soil conditions.
  - \*\*\*M. Collins to get soil borings for around DeJope to SGJJR for modeling BMP
- Grass swales along Observatory Drive? It would be possible to assign 'other' projects to contribute to grass swales to compensate when they cannot meet the requirements.
  - Each project is its own set of stormwater credits, rather than amassing a large sum of money to do something big.
- Conflict issues. Pervious pavement bicycle lanes in this area that are raised might make some sense in this area.
- Pervious pavement. It isn't just the pavement, it is the system underneath and the correct construction is critical.
- Any benefit to having a more ag related BMP in the Dairy Barn location?
- Area 'C'
  - Lot 34, what can we effectively treat? What does this get us?
    - Could pick up the storm system off of Babcock Drive, the Residence Halls, Observatory Hill...can treat about 16 AC
    - Potential to grab some of roof water from Tripp/Adams.
  - Superblock
    - Partial infiltration and partial underground storage
    - Using the GI BMP to reduce some of the capacity that currently goes into the Orchard Street 'super' pipe that drains to Monona Bay
- Area 'D'
  - Green Streets not in our permit area
  - Brooks Street large elliptical pipe could be picked up and treated in the Dayton Street quad.
  - SGJJR to look further into infiltrating above utilities and dealing with chlorides in the R/W.

Adaptive Management if UW can safely show an on campus reduction of 40%, should UW even join adaptive management?

\*\*\*There needs to be a recommendation in the master plan about who is responsible for maintaining aspects of BMPS.

**TRANSPORTATION WORK GROUP-TCC #8 (R. Kennedy) \*\*\*\*\***

City: David Trowbridge, Ben Zellers (CoM)

FP&M: Patrick Kass, Rob Kennedy,

Consultants: Brian Smalkoski (KH)

Excused/Absent: David Marcouiller, David Noyce (UW), Drew Beck, Kate Christopherson (CoM), Brian White, Emily Moser, Jeffrey Smith, Matt Horton, William Reynolds (KH)



This is Technical Coordinating Committee Transportation Work Group meeting #8 of the 2015 Campus Master Plan project.

- “Bike Priority Street”? Check what that means and why only one on Linden Drive by Elm Drive.
- Include commentary about why Linden Drive cannot be closed since it was recommended in the 2005 Master Plan.
- Don’t like “play” street. Develop alternative to describe proposal for Dayton.
- Eliminate intersection cross section for University Avenue.
- Provide more space to west for design of University Ave. cycle tracks to show intersection with Breese Terrace.
- Describe how a 10’ wide cycle track for two-way bike traffic will work for passing situations and otherwise answer concerns for ‘bikers’ wanting a wider track.
- Advanced green for bikes desired on cross streets.
- “Proposed two-way conversion” for Charter Street added to legend.
- N-S connection at street Brooks/Mill should be explored for pedestrians—mall opportunity.
- Describe rationale for new NS and EW streets in super block. Emphasize it as a driveway for the new parking structure(s) and pedestrian/bike circulator, not a motor vehicle route.
- Delete Far West on Slide 35.

**UTILITIES WORK GROUP-TCC #8 (J. Pollei) \*\*\*\*\***

FP&M/UWSA: Jeff Pollei, Rob Lamma, Rick Were, Kurt Johnson, Pete Heaslett (FP&M), Randy Mattison (UWSA), Mike Hanson (DFD)

Consultants: Bill Talbert, Brian Stiklestad, Paul Huettl (AEI)

Excused/Absent: Dan Dudley (FP&M), John Krogman (DoIT), Keven Krause, Mike Broge, Scott Moll (AEI)

This is Technical Coordinating Committee Utilities Group meeting #8 of the 2015 Campus Master Plan project.

**MECHANICAL:**

- UW FP&M indicated there seems to be a pinch point in pipe capacity in the steam and chilled water piping distribution through the Engineering Campus.
- The chilled water plant dispatch order was discussed. UW FP&M indicated the plants are dispatched in the following order with approximate capacity.
  1. WCCF Expansion – 10,000 tons
  2. WCCF Existing – 10,000 tons
  3. Charter Street (CSHP) – 26,000 tons
  4. Walnut Street (WSHP) – Peaking with either steam or electric chillers depending on electric demand
- The current differential pressure on the chilled water system is 30-31 psi on a peak day.
- How the chilled water flow model should be set up was discussed. The following was agreed upon between UW FP&M and AEI.
  1. WCCF Expansion and Existing should be based on fixed flow

2. CSHP should be based on pressure differential
  3. WSHP should be set to the remainder of the flow required
- A total of 75,000 lb/hr of low pressure steam has been distributed to campus from the Charter Street Plant on a peak day.
  - There seems to be a pinch point in pipe capacity in the high pressure steam piping distribution in the Health Sciences Super Block.
  - How the steam flow model should be set up was discussed. The following was agreed upon between UW FP&M and AEI.
    1. WCCF and WSHP should be set to provide 300,000 lb/hr of steam to the system
    2. CSHP should make up the remainder of the required steam flow
  - UW FP&M asked AEI to check and see if superheat is accounted for in the steam model.

#### RENEWABLE:

- University's current wind energy purchase contract of 15% of campus electricity runs through 2020. Cost to the UW system is approximately \$3.7M/yr with approximately 50% of that for Madison.
- Revise terminology associated with biomass to 'defunded' from 'rejected'
- Consider MG&E's new renewable energy standards that include specific targets for renewable energy contributions.
- Consider including an economic sensitivity analysis that identifies the utility cost threshold that achieves the minimum payback. The State currently requires a 10 year simple payback for projects.
- Refine the 'new' building list to identify which buildings are actually new or where existing to be renovated will accommodate renewables. Remove buildings from map and calculation that may not be applicable (i.e. Cogen Chiller Expansion has limited roof, greenhouses, etc.)
- Change label on 'Wind' component to 'Purchased Wind' so it is clear that it is not on-campus renewable.
- The current blended virtual electricity rate for the University is approximately \$0.09/kWh. Major efficiency projects are largely complete and demand limiting control strategies are used.

#### ELECTRICAL:

- AEI and UW FP&M (Rick Werre and Kurt Johnson) started to discuss electrical deficiencies. Future meeting to be scheduled to further advance list. It is encouraged UW FP&M start creating a list for future meeting.
- Reviewed One-Line diagram. It was noted that Dayton Street Substation was not completed. Rick Werre to send drawing of configuration of Dayton Street Substation to AEI to incorporate (Information was received from Rick on 12/15/2015).
- After information on Dayton Street Substation is updated in One-Line Diagram, a hard copy will be sent to Rick Werre and Kurt Johnson to review for any additional information that should be included for final delivery.

#### **End of Minutes**

If this report does not agree with your records or understanding of this meeting, or if there are any questions, please advise the writer immediately in writing; otherwise comments are assumed to be correct.