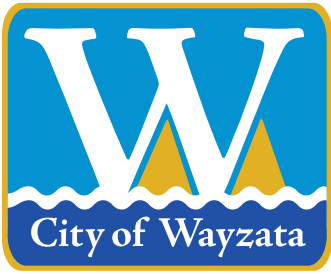


Wayzata City Council Workshop Meeting Agenda
Wayzata City Hall Community Room, 600 Rice Street
Tuesday, June 7, 2016

WORKSHOP TOPIC FOR DISCUSSION:

1. Xcel Energy to Discuss Project at County Road 101 Substation (5:00 PM) Page 2
2. Discuss Schematic Design for Mill Street Ramp (5:30 PM or immediately following) Page 10



City of Wayzata

600 Rice Street

Wayzata, MN 55391-1734

Mayor:

Ken Willcox

City Council:

Bridget Anderson

Johanna McCarthy

Andrew Mullin

Steven Tyacke

City Manager:

Jeffrey Dahl

Date: June 2, 2016

To: Mayor Willcox and City Councilmembers

From: Jeff Thomson, Director of Planning and Building

Subject: Xcel Energy Substation Improvements

Xcel Energy is planning on making improvements to the Gleason Lake Substation located at 701 Central Ave North. The improvements will include minor expansions to the existing fenced area on the west and east sides of the site. The project is scheduled to begin in early 2017 with completion in late 2017. The map, photos, and preliminary plan for the project are attached.

Representatives from Xcel Energy will be in attendance at the City Council Workshop to provide information regarding the project to the Council and answer any questions.

Prior to the City Council Workshop, Xcel Energy will be hosting a neighborhood meeting. Xcel Energy sent a letter to all properties within 350 feet of the substation site to notify them of the project. Attached is a copy of the letter that was mailed to the neighbors.

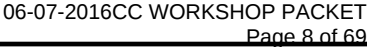














414 Nicollet Mall
Minneapolis, Minnesota 55401-1993

May 23, 2016

Dear Property owner,

Xcel Energy is pleased to announce a proposed project that would improve the reliability of the electric system in your neighborhood. The proposed project would expand the Gleason Lake Substation located at 701 Central Avenue North to accommodate installation of new substation equipment.

Population growth in Plymouth and Wayzata over the past several decades has increased demand for electricity. The proposed improvements will keep the local power grid strong and ensure that we are able to provide reliable electric service to your community.

The project will include minor expansions to the existing fenced area at the east at the entrance off of County Road 101, and to the west as shown on the attached plan. The expansion will be contained entirely within Xcel Energy's substation property. You are receiving this courtesy letter as your property is located within 350 feet of the substation property.

The installation of the new equipment will address low voltage concerns and will enhance overall electrical system reliability. The substation expansion work is expected to begin in early 2017 with an anticipated completion date of late 2017.

Xcel Energy has notified the city of Wayzata about the substation project and will be making a presentation at a City Council workshop on June 7 at 5 p.m. per their request. Xcel Energy staff will be available in the Council Chambers beginning at 4 p.m. prior to the meeting to answer any questions from the public.

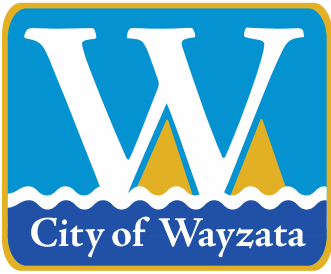
If you would like more information about the project, please contact me by phone or email as listed below.

Sincerely,

A handwritten signature in black ink, appearing to read 'Chris Rogers', written over a horizontal line.

Chris Rogers
Xcel Energy
Principal Siting & Land Rights Agent
612-330-6078
Christopher.c.rogers@xcelenergy.com

Enclosure: substation expansion map



City of Wayzata
600 Rice Street
Wayzata, MN 55391-1734

Mayor:
Ken Willcox

City Council:
Bridget Anderson
Johanna McCarthy
Andrew Mullin
Steven Tyacke

City Manager:
Jeffrey Dahl

DATE: June 2, 2016
TO: Mayor Willcox and Councilmembers
FROM: Jeffrey Dahl, City Manager
SUBJECT: Mill Street Parking Ramp Design Review @ Work Session

Update

Attached is a report from HGA regarding the current status of the design portion of the Mill Street Parking Ramp. The Steering Committee continues to meet and put a lot of time and effort into this process.

The objective of this work session is to get comments from Council Members on the direction of the design and address any concerns regarding the design, construction, and financing process.

Cost Estimates

The cost estimate for the parking ramp without a roof is \$8,137,461, which is based on the work completed in the pre-design phase. The cost estimates for the ramp have not yet been updated for the schematic design. The roof costs have been updated based on the work that has been completed so far in schematic design. Roof options will cost:

- Partial Trellis (wood): \$472,468
- Partial Trellis (steel): \$661,129
- Full Trellis (wood): \$705,096
- Full Trellis (steel): \$1,618,159
- Green Roof: \$1,837,770
- Solar: \$1,020,797 (support structure only; does not include solar panels)

Identified cash available for the ramp is \$1,680,000. By utilizing the cash available and tax increment from Pres. Homes and financing for 24-year term, the max amount the City can bond for without allocation of general levy funds is \$9,362,750.

Solar Providers

The City issued a Solicitation of Interest to six providers of solar PV technology, and the City received two responses (Sustainable Investors and Tru North Solar). The following table summarizes the two proposals:

	Sustainable Investors	Tru North Solar
Roof support structure	To be provided by the City	To be provided by the City
Roof area	Full roof	Half roof
Size	478 kW	118.8 kW
Total Cost	\$956,000	\$252,247
Cost per Watt	\$2.00	\$2.12

The Sustainable Investors proposal indicates that the size of the solar array, 478 kW, is approximately equal to the annual electricity usage of the Muni building. The Tru North Solar proposal indicates that the size of the solar array, 118.8kW, is approximately 25% of the annual electricity usage. The total electric utility charge for the Muni in 2015 was \$54,085.

The two proposals vary in scope, size, and financing, so it is difficult to provide an equal comparison of the two proposals. It is important to note that the HGA estimate for the solar roof is for a support structure over only half of the upper level of the ramp. For comparison purposes, the following outlines the estimated costs of two solar roof options:

	City provided support structure	Solar PV Cost	Total Cost
Half Roof	\$1,020,797	\$252,247 - \$478,000	\$1,273,044 - \$1,498,797
Full Roof	\$1,850,000	\$956,000	\$2,806,000

Both of the proposals include potential financing options for the City to consider, which could reduce the upfront capital costs for the solar. Further analysis and discussion is needed on the potential funding options. In addition, the City could benefit from long-term savings on electricity usage at the Muni. These items could be explored if the City Council wants to move forward with the solar roof option.

Summary

While there has been significant progress in the overall design of the ramp, the Council will need to provide direction on any roof component as a part of the design in order to ensure the goal of opening the ramp by Memorial Day weekend of 2017 is met. Ideally, approval of the design would be considered at the June 14th City Council Meeting.



WALKER
PARKING CONSULTANTS

CITY OF WAYZATA MILL STREET PARKING STRUCTURE

City Council Workshop

June 7, 2016

Meeting Agenda

I. Design Progress Review

- Floor Plan Update
- Cladding Update
- Material Options
- Roof Options
- Solar PV Vendor Proposal Update

II. Structural Engineering Review

- Foundation Systems
- North Retaining Wall
- Post-Tensioned Concrete
- Life-Cycle / Durability

III. Discussion

Site Aerial



Design Progress Review

Floor Plan Update

Parking Totals

Mill Street = 77

Level 1 = 153

Level 2 = 161

Total = 391 cars

Site Plan/Floor Plan – Level 1



Parking Totals

Mill Street = 77

Level 1 = 153

Level 2 = 161

Total = 391 cars

Parking Totals

Mill Street = 77
Level 1 = 153
Level 2 = 161

Total = 391 cars

Parking Totals

Mill Street = 77

Level 1 = 153

Level 2 = 161

Total = 391 cars

Parking Totals

Mill Street = 77

Level 1 = 153

Level 2 = 161

Total = 391 cars

Parking Totals

Mill Street = 77

Level 1 = 153

Level 2 = 161

Total = 391 cars

Floor Plan - Level 2

WORKSHOP PACKET
Page 17 of 69

Design Progress Review

Cladding Update

Cladding Update



Cladding Update



Cladding Update



Cladding Update



Design Progress Review

Material Options

Material Options



Material Options



Material Options



Material Options



Design Progress Review

Roof Options

Roof Options



Roof Options

No Roof





Roof Options



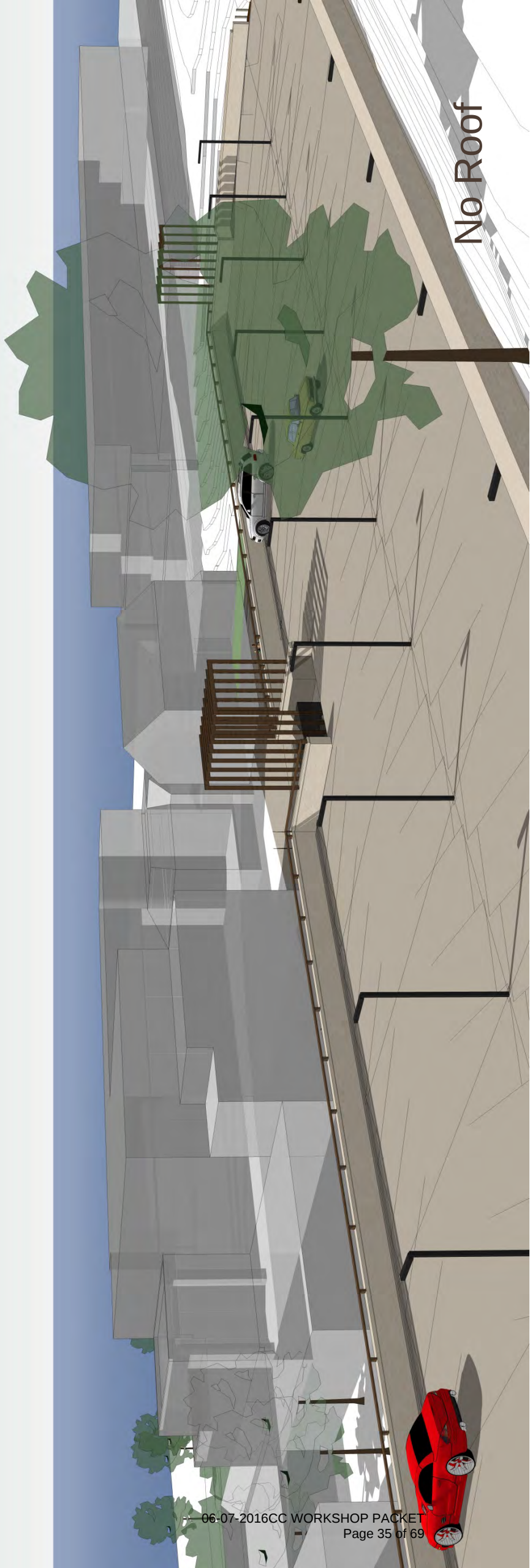
No Roof

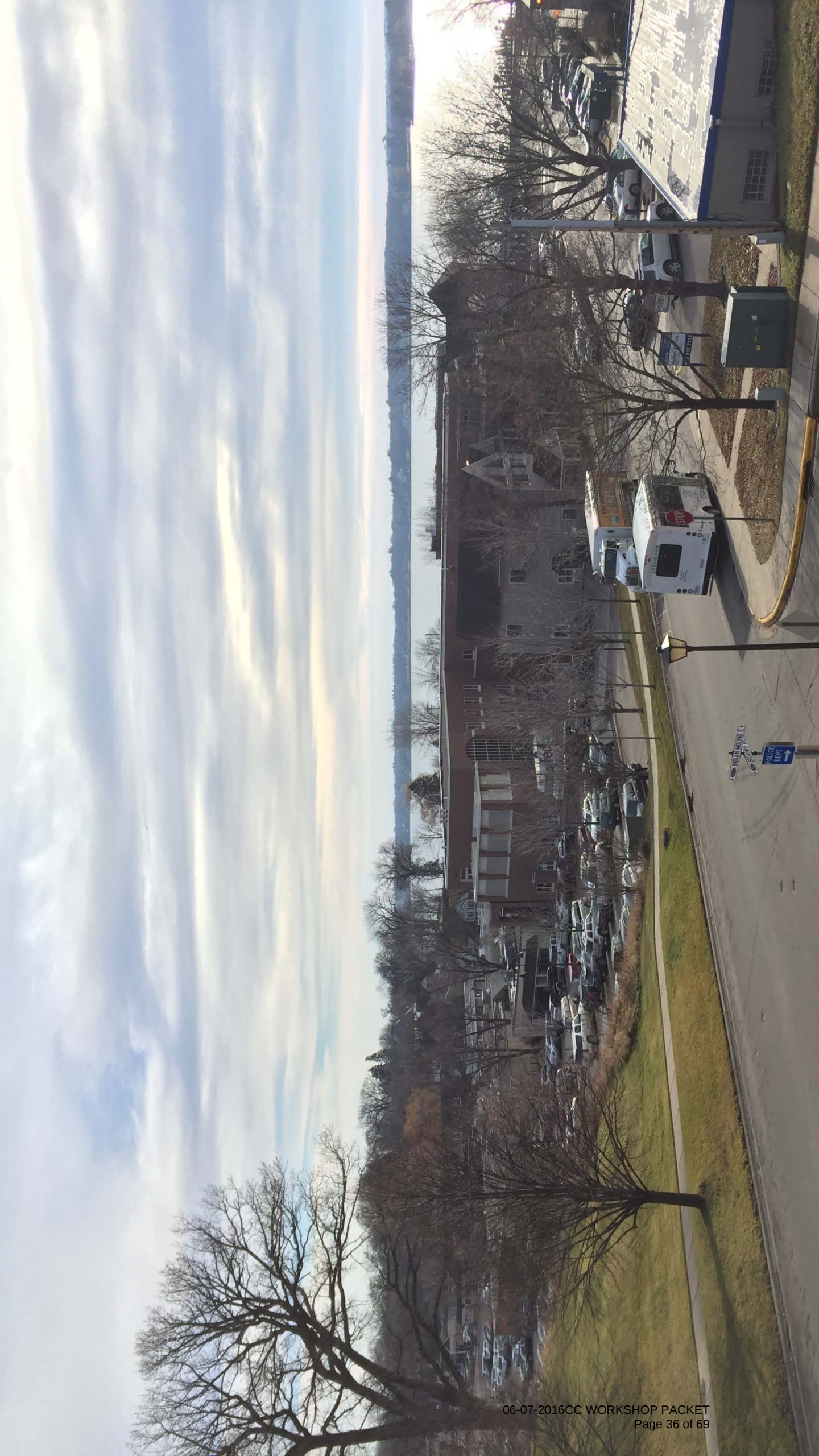
Roof Options





Roof Options





Roof Options



This architectural rendering illustrates a building with several different roof configurations. The main building features a flat roof with a brown railing. To its right, a smaller structure has a gabled roof. Further right, a larger building is shown with a flat roof. The text 'No Roof' is visible on the right side of the image. The scene includes a street with a red car, a blue car, and a yellow car. There are also trees and a clear blue sky.

06-07-2016 CC WORKSHOP PACKET
Page 37 of 69

Roof Options



This architectural rendering illustrates a building with several different roof configurations. The main building features a flat roof with a brown railing. To its right, a smaller structure has a gabled roof. Further right, a larger building is shown with a flat roof. The text 'No Roof' is visible on the right side of the image. The scene includes a street with a red car, a blue car, and a yellow car. There are also trees and a clear blue sky.

06-07-2016 CC WORKSHOP PACKET
Page 37 of 69

Roof Options





Roof Options

Trellis - Partial

Roof Options



Trellis - Partial

Roof Options



Trellis - Partial

Roof Options



Roof Options



Trellis - Partial

Roof Options



Trellis - Partial

Roof Options

Trellis - Full



Roof Options



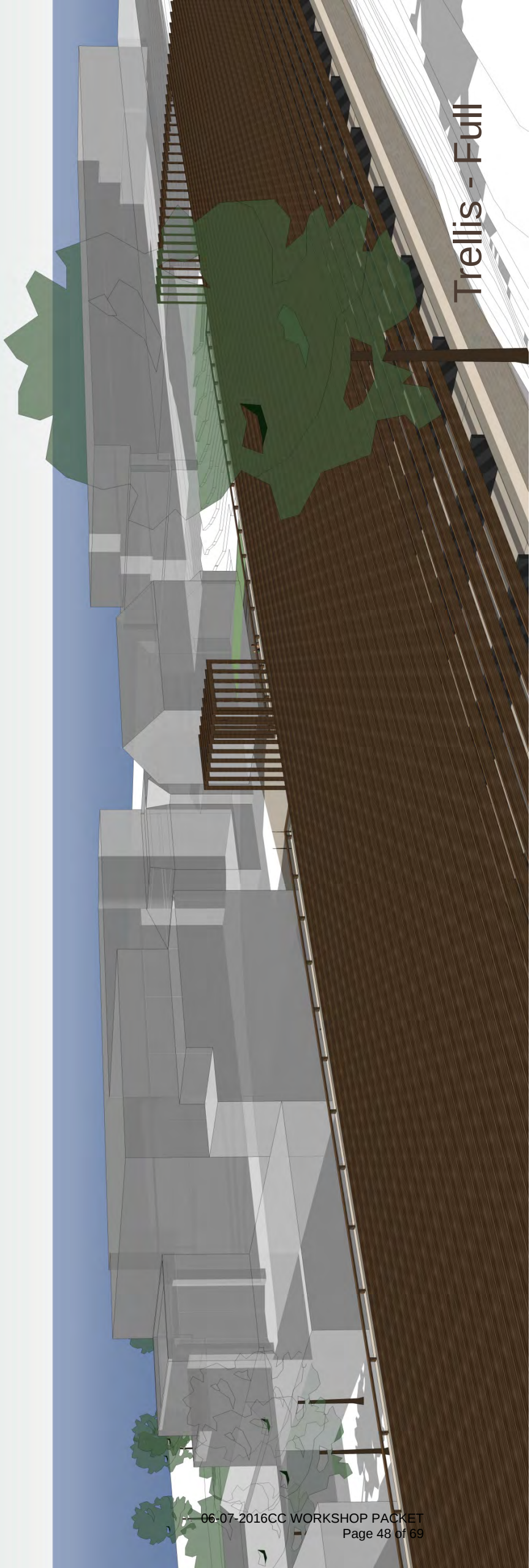
Trellis - Full

Roof Options



Trellis - Full

Roof Options



Trellis - Full

Roof Options



Trellis - Full

Roof Options



Trellis - Full

Roof Options

Green Roof



Roof Options



Green Roof

Roof Options



Roof Options



Green Roof

Roof Options



Roof Options



Green Roof

Roof Options

Solar PV



Roof Options



Solar PV

Roof Options

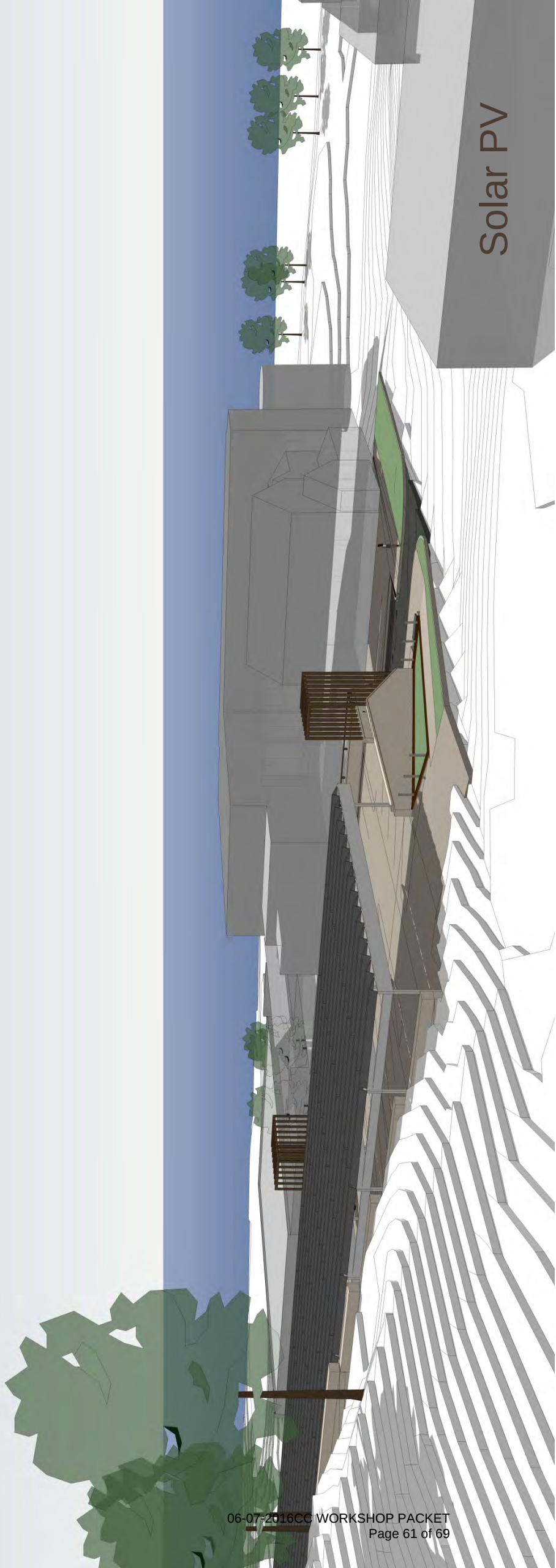


Solar PV

Roof Options



Roof Options



Roof Options



Current Metrics

Parking Metrics

Total Existing Capacity	Additional New Spaces	Total New Capacity
182	209	391
Mill Street: 77 stalls Level 1: 153 stalls Level 2: 161 stalls		

Roof Options

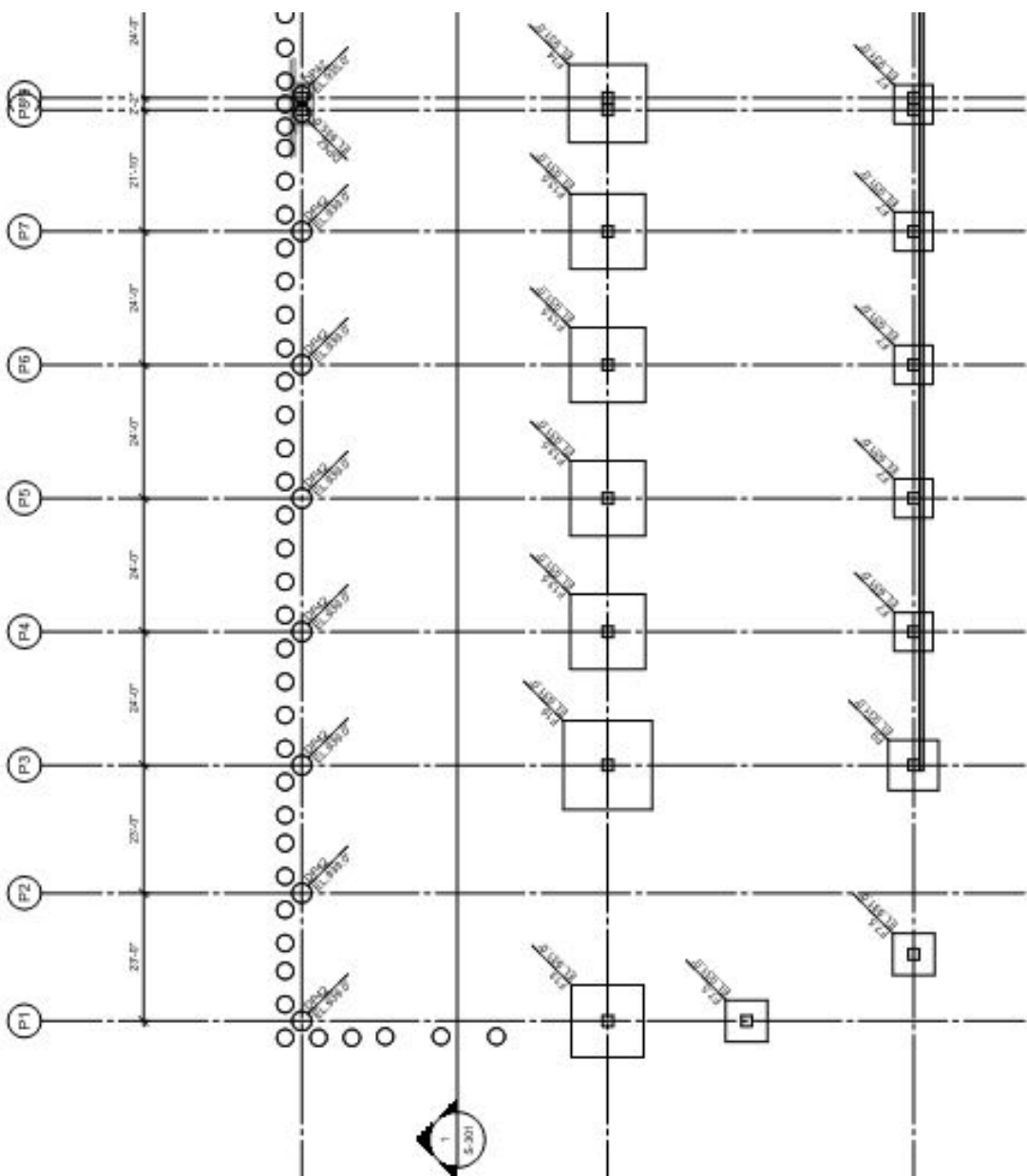
Cost Metrics

	Construction Cost	Fees / Escal. / Cont.	Total Project Cost
Green Roof	\$1,636,869	\$200,901	\$1,837,770
Solar PV Array (Steel Columns & Beams, No PV Support Structure Included)	\$887,188	\$133,609	\$1,020,797
Trellis - Partial Bay (All Steel)	\$553,742	\$107,387	\$661,129
Trellis - Full Bay (All Steel)	\$1,465,199	\$152,960	\$1,618,159
Trellis - Partial Bay (Steel Frame, Glulam Lattice)	\$374,065	\$98,403	\$472,468
Trellis - Full Bay (Steel Columns, Glulam Beams & Lattice)	\$595,615	\$109,481	\$705,096

Structural Engineering Review

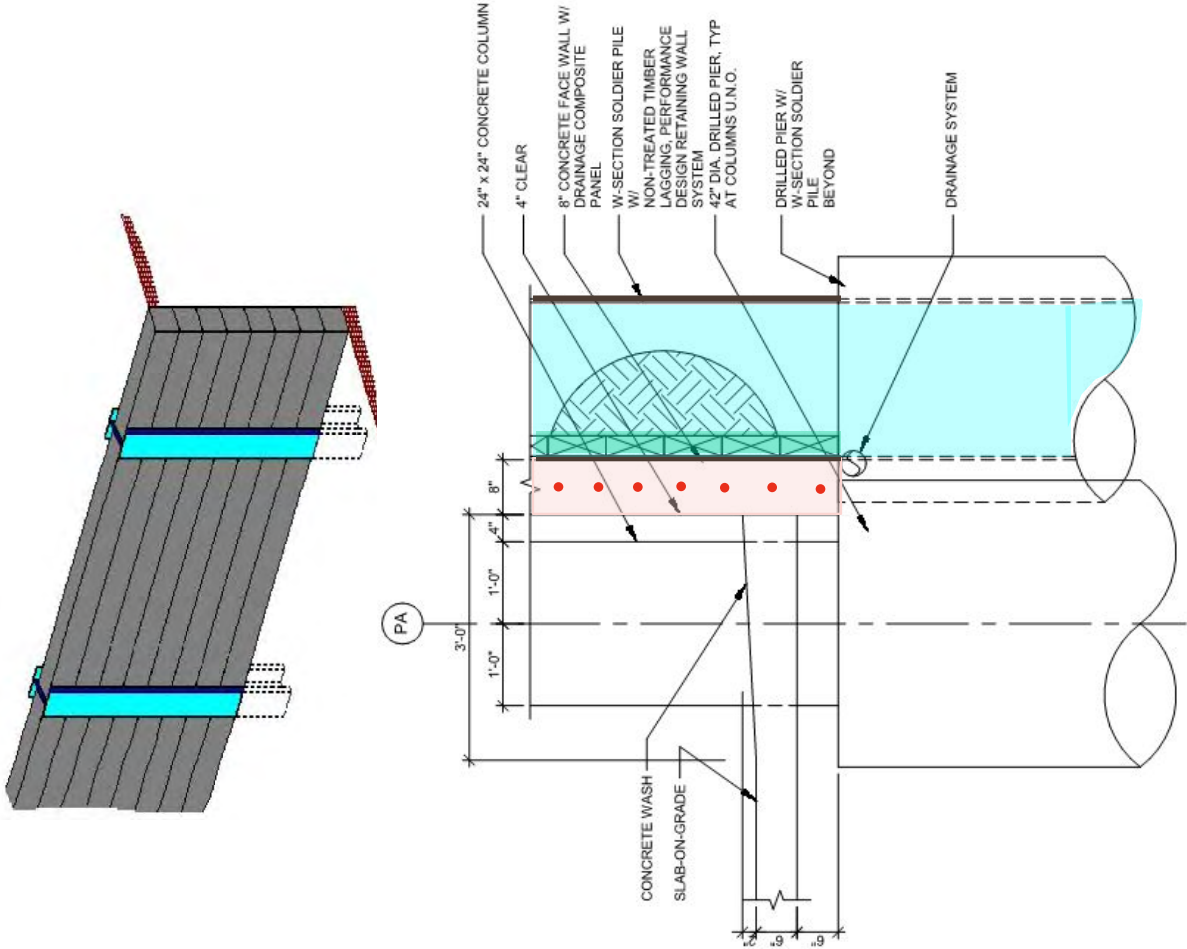
Foundation System

- **Shallow Spread Footing**
 - 13.5 and 7 feet square.
 - Includes green roof
- **3000 #/Sqft**
- **Over excavation & compaction**
- **Ground tier Concrete Slab-on-Grade**
- **Drilled pier @ Retaining wall**



North Retaining Wall

- Wide Flange Pile and Lagging System
 - Enhanced slope stability
- Wall Area approx. 11,000 Sqft
- BASE: Wide flange, wood lagging, concrete face wall. Recommended. COST \$110 / Sqft
- **Recommended sacrificial wood, with structural concrete face. Eliminates water leakage, Installation duration, Conceal install deflections*
 - Option Treated wood \$ 3 / Sqft
 - Option Precast Lagging \$22 / Sqft
 - Form liner \$ 8 / Sqft



Supported Structural System –post tensioned concrete

Durability Baseline Superstructure

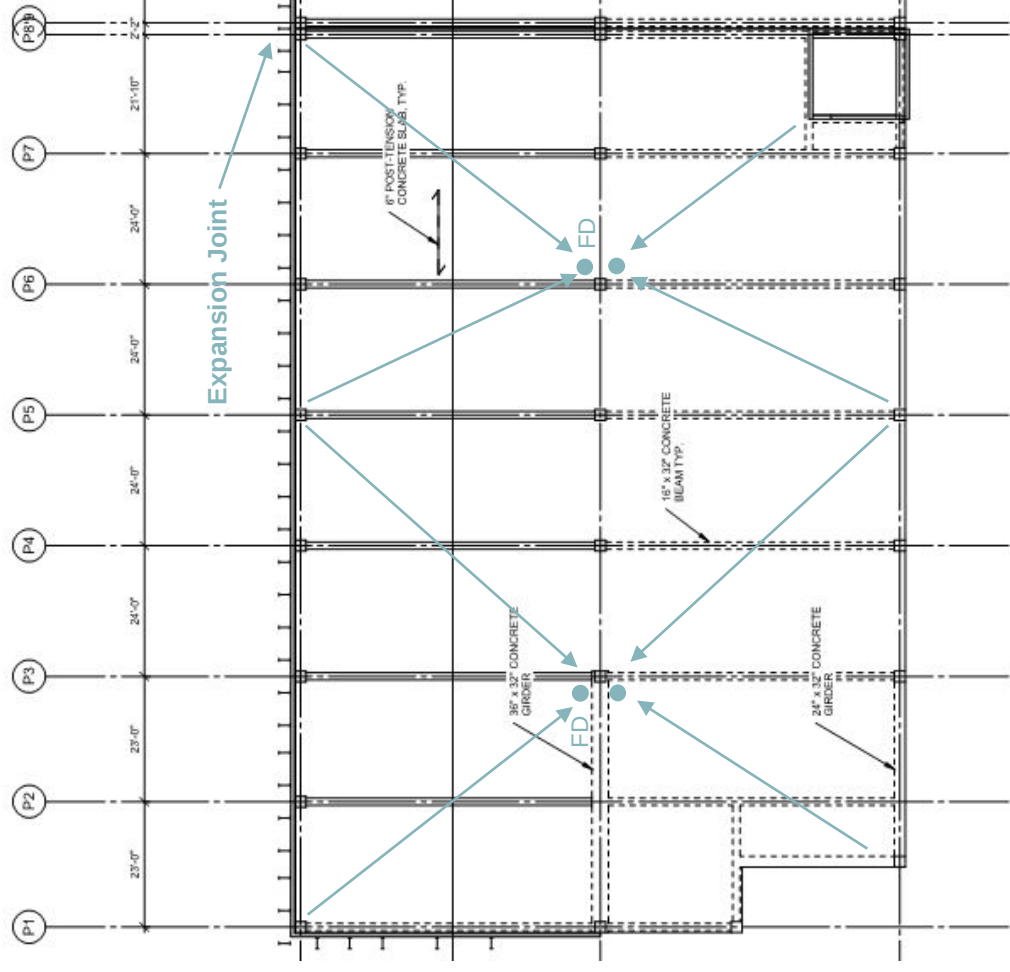
P/T, Drainage & Expansion Joint

6” concrete slab W/ 34” deep x 16” beams
24” square concrete columns

Internal Drainage 1-2% minimum

300’ maximum expansion joint spacing

- Low permeability concrete
- 15% fly ash pozzolans
- Epoxy coated rebar for slabs, beams and beam stirrups



Post Tensioned Concrete – Durability Options

Superstructure Durability Diffusion Model -ACI

15 year repair schedule

- 1 Base Case
 - Low permeability concrete without additional protection 17 Yrs. Corrosion Initiation
- 3 Moderate
 - Epoxy coated rebar ECR, Fly Ash FA 15% 19 Yrs. Corrosion Initiation
- 4 Recommended
 - Corrosion inhibitor DCI 3G, FA 15%, ECR, Sealer 66 Yrs. Corrosion Initiation

	Case Description	Initiation Year	Propagation Time	T-T-R	First Cost per SF	NPV-R per SF	Total Cost per SF
1	Base Case	17	5	22	\$0.00	\$3.01	\$3.01
2	DCI3G + FA15% + ECR	61	20	81	\$1.19	\$0.00	\$1.19
3	FA15% + ECR	19	20	39	\$0.60	\$1.41	\$2.01
4	DCI3G + FA15% + ECR + Sealer	66	20	86	\$1.69	\$0.00	\$1.69
5	FA15% + ECR + Sealer	24	20	44	\$1.10	\$1.16	\$2.26

Discussion