


County of San Mateo RFP Maple St Correctional Center Photovoltaic System

ADDENDUM TO REQUEST FOR PROPOSALS – Maple St Correctional Center Photovoltaic System

	ADDENDUM No. 04
	San Mateo County 555 Government Center, Fifth Floor Redwood City, CA 94063
	RFP: Maple St Correctional Center Photovoltaic System
	Date: February 08, 2023

INTENT:

This Addendum is issued by the County of San Mateo to add a modification to the Request for Proposals (RFP) for Maple St Correctional Center Photovoltaic System. Proposers shall ascertain prior to submitting its Proposal that it has received all addenda issued. Please clearly note the addendum date and number on your proposal.

In the event of a conflict between the terms and provisions of this Addendum and the terms and provisions of the Maple St Correctional Center Photovoltaic System, the terms and provisions of this Addendum shall control. In all other respects, the RFP for Maple St Correctional Center Photovoltaic System shall remain unchanged and in full force and effect.

1. **Replace - Document 00 11 09 Bidding Calendar with attached updated document revising the Submission to County Board Approval and Anticipated Contract Award Date.**
2. **Add – Geotechnical Supplemental Letter**

Initial and Date: SY 02/08/2023

County of San Mateo RFP Maple St Correctional Center Photovoltaic System

DOCUMENT 00 11 09

BIDDING CALENDAR

NOTICE - THIS SUMMARY OF DATES IS FOR INFORMATIONAL PURPOSES ONLY.

The dates and times listed may not be relied upon or enforced. This summary does not form a part of the Contract Documents and does not establish contractual obligations.

NOTICE – THIS IS A SUMMARY ONLY AND DOES NOT LIST ALL DATES, TIMES OR TIME PERIODS CONTAINED IN THE BIDDING AND CONTRACT DOCUMENTS.

All bidders and contractors must refer to the actual documents for all applicable dates, times, and time periods.

Maple Street Correctional Center Photovoltaic System, Project No PB010		
Event	Date/Time	Location
Contract Documents Issued for Bid (Released & Available):	Monday 9 th of January 2023	https://publicworks.smcgov.org/projects-out-bid
Mandatory Pre-Bid Conference and Project Site Visit/Job Walk	Thursday 26 th of January 2023	1300, Maple St, Redwood City, CA 94063
Deadline for Questions –Last Day for prospective Bidders to submit questions, in writing, by email to_ <u>Authorized Contact Person:</u> bdelgado@smcgov.org	Wednesday 8 th of February 2023	N/A
Response to Questions	Wednesday 15 th of February 2023	https://publicworks.smcgov.org/projects-out-bid
Bids Due:	Wednesday February 22 nd 2023	See Notice to Contractors Document 00 11 16
Bid Opening Date:	Monday February 27 th 2023	See Notice to Contractors Document 00 11 16
Bid Evaluation Period:	Friday March 3 rd 2023	N/A
Issue Notice of Intent to Award:	Monday March 6 th 2023	N/A
Protest Period:	Friday March 10 th 2023	See Instructions to Bidders Document 11 21 13
Submission to County Board for Approval:	April 2023	N/A
Anticipated Contract Award Date:	April 2023	N/A

END OF DOCUMENT

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Project No.
09515.000.003

March 16, 2021

Ms. Suna Yatagama
County of San Mateo Public Works
555 County Center, Floor 5
Redwood City, CA 94063-1665

Subject: Maple Street Correctional Facility – Solar Power Generation
1300 Maple Street
Redwood City, California

SUPPLEMENTAL GEOTECHNICAL RECOMMENDATIONS FOR SOLAR PANEL ARRAYS

Dear Ms. Yatagama:

As requested, we prepared these recommendations for design of the proposed solar panel arrays at the existing Maple Street Correctional Facility in Redwood City, California. The solar panel arrays will be supported by a carport system located within the existing parking area in the southern area adjacent to US-101. We understand subsequent phases may include additional solar panels in the parking area to the north and west of the building. According to your Structural Engineer, Rinne and Peterson, column loads are anticipated to range from 11 to 15 kips and lateral demand will likely be less than 3 kips. Your design team has indicated that both cast-in-drilled-hole (CIDH) concrete piers and spread footings are currently being considered for this structure.

SPREAD FOOTINGS

The proposed solar array structures can be supported on spread footings bearing in the existing onsite soil. We provide the following geotechnical design parameters for conventional footings.

TABLE 1: Spread Footing Design Parameters

DESIGN PARAMETER	ALTERNATIVE 1 VALUE	ALTERNATIVE 2 VALUE
Allowable Bearing Capacity	1,000 psf	1,500 psf
Estimated Total Settlement	Up to ¾ inch	Up to 1 inch
Estimated Differential Settlement	½ inch over 25 ft	
Minimum Footing Depth	12 in	
Maximum Width or Length of Footing	48 in	
Passive Lateral Resistance	300 pcf equivalent fluid pressure	
Coefficient of Friction	0.25*	

*A combination of both passive lateral resistance and friction may be used if the friction coefficient is reduced by 50 percent

The maximum allowable bearing pressure is provided for dead-plus-live loads and is a net value; the weight of the footing may be neglected for design purposes. This value may be increased by one-third for the short-term effects of wind or seismic loading. Footings located adjacent to utility trenches should have their bearing surfaces below an imaginary 1:1 (horizontal:vertical) plane projected upward from the bottom edge of the trench to the footing.

During construction, we should be retained to observe the footing excavations; foundation subgrade preparation (such as processing and compacting the exposed soil) may be necessary depending on the consistency of the foundation subgrade soil.

CIDH DRILLED PIER

Alternatively, the proposed solar array structures may be supported by cast-in-drilled-hole (CIDH) concrete pier foundations. The piers should be designed in accordance with the following recommendations.

TABLE 2: CIDH Pier Design Parameters

DESIGN PARAMETER	VALUE
Minimum Pier Diameter	12 inches
Minimum Pier Depth	8 feet
Downward Load Capacity (Skin Friction)	500 psf
Lateral Load Capacity (Passive Resistance)	300 pcf

Long-term settlement associated with CIDH piers designed in accordance with parameters provided above is estimated to be less than ½ inch. The skin friction and lateral capacity values may be increased by one-third when considering seismic or wind loads. Provided that the area adjacent to the piers are confined by hardscape or pavement and up to ½-inch lateral movement at the pier top is acceptable, passive resistance may be applied over two pier diameters.

The bottoms of pier holes should be dry, clean, and free of loose soil before reinforcing or structural steel is installed and concrete is placed. Depression at the top of the piers resulting from drilling operations or from any other cause should be backfilled to prevent ponding. Concrete collars occurring at the top of piers as a result of excessive concrete placement should be removed. Pier drilling operations and concrete placement should be coordinated so that pier holes are left open a minimum amount of time. Pier holes should not be allowed to desiccate significantly before placement of concrete and certainly not to the point of showing shrinkage cracks. We recommend that the excavation of piers be performed under our observation to confirm that the piers are founded in suitable materials and constructed in accordance with the recommendations presented in this letter.

2019 CBC SEISMIC DESIGN PARAMETERS

Based on the subsurface conditions encountered in the borings previously performed on the site, we characterized the site as “Site Class D.” We provide the 2019 CBC seismic design parameters in Table 3, which include design spectral response acceleration parameters based on the mapped Risk-Targeted Maximum Considered Earthquake (MCE_R) spectral response acceleration parameters.

TABLE 3: 2019 CBC Seismic Design Parameters
Latitude: 37.493 Longitude: -122.219

PARAMETER	VALUE
Site Class	D
Mapped MCE_R Spectral Response Acceleration at Short Periods, S_S (g)	1.63
Mapped MCE_R Spectral Response Acceleration at 1-second Period, S_1 (g)	0.66
Site Coefficient, F_a	1
Site Coefficient, F_v	Null*
MCE_R Spectral Response Acceleration at Short Periods, S_{MS} (g)	1.63
MCE_R Spectral Response Acceleration at 1-second Period, S_{M1} (g)	Null*
Design Spectral Response Acceleration at Short Periods, S_{DS} (g)	1.08
Design Spectral Response Acceleration at 1-second Period, S_{D1} (g)	Null*
Mapped MCE Geometric Mean (MCE_G) Peak Ground Acceleration, PGA (g)	0.703
Site Coefficient, F_{PGA}	1.1
MCE_G Peak Ground Acceleration adjusted for Site Class effects, PGA_M (g)	0.774
Long period transition-period, T_L (sec)	12

*Requires site-specific ground motion hazard analysis per ASCE 7-16 Section 11.4.8

Considering the proposed construction, we anticipate the fundamental periods of the proposed solar array structures to be less than $1.5T_s$; this should be confirmed by the structural engineer. If the fundamental period of the structures is less than $1.5T_s$, the structural engineer may consider exception(s) of Section 11.4.8 of ASCE 7-16 as follows:

“A ground motion hazard analysis is not required for structures... where, structures on Site Class D sites with S_1 greater than or equal to 0.2, provided the value of the seismic response coefficient C_s is determined by Eq. (12.8-2) of ASCE 7-16 for values of $T \leq 1.5T_s$ and taken as equal to 1.5 times the value computed in accordance with Eq. (12.8-3) of ASCE 7-16 for $1.5T_s < T \leq T_L$.”

CLOSING

We strived to perform our professional services in accordance with generally accepted geotechnical engineering practices currently employed in the area; no warranty is express or implied.

If you have any questions or comments regarding this letter, please call and we will be glad to discuss them with you.

Sincerely,
 ENGEO Incorporated

Leroy Chan, GE, LEED AP
 idm/lc/mmg/dt



A handwritten signature in black ink, appearing to read "Mark M. Gilbert".

Mark M. Gilbert, GE



Attachment: Selected References

SELECTED REFERENCES

1. ENGEO; Geotechnical Exploration, San Mateo County Replacement Correctional Facility, Redwood City, California; November 30, 2012; Project No. 9515.000.000.
2. ENGEO; Testing and Observation Services during Backfill of Demolition, Environmental Excavations, Rough Grading and Utility Backfill; San Mateo County Replacement Correctional Facility, Redwood City, California; October 11, 2013; Project No. 9515.000.001.
3. Bartos Architecture; County of San Mateo – Solar Study, Maple Street Correctional Facility Site, County of San Mateo, 1300 Maple Street, Redwood City, CA; December 2020.