**STRUCTURAL CALCULATIONS**

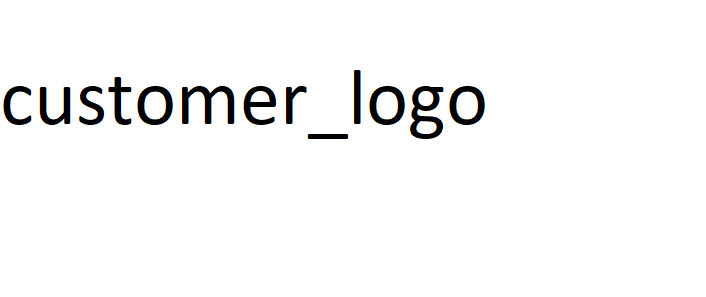
**[project\_ID]**

**[Site\_ID]**

[site address\_]

[Site\_city\_state\_zip]

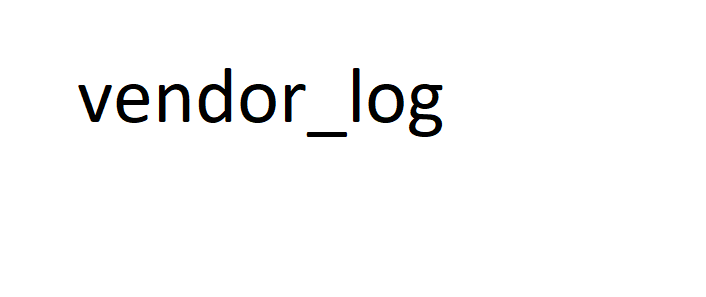
Prepared For



[customer \_address]

[customer\_city\_state\_zip]

February 22, 2019

***[Vendor\_info]***

[vender\_street\_address]

[Vendor\_city\_and\_state\_Zip]

[Vendor\_phone]

Description of the Project:

[customer\_name] Wireless proposes to modify an existing City of San Jose street light pole [construction method] All engineering is in accordance with the 2016 CBC and AASHTO LTS-6.

**Results:** *[newpoleornot]* ***Passing*** *with Proposed Loading*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| OD at  Bottom  *in* | Overall  Length  *ft* | Governing Allowable  Combined Stress Ratio  *%* | Governing  ASD Stress Ratio  *%* | Governing  Capacity  Percentage  *%* |
| 8.0 | 30 | 100 | [strength\_ratio] | [strength\_ratio] |

*[newfoundastionornot] Foundation* ***Passing*** *with Proposed Loading*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Pile Diameter  *in* | Pile  Length  *ft* | Required Pile Depth  *ft* | Capacity Percentage  *%* |  |  |
| 24 | 7.0 | [foundation\_strength] | [foundation\_ratio] |  |  |

The proposed added equipment **will not** compromise the structural integrity of the proposed City of San Jose pole.

Additionally, the 1½” dia. access port for the disconnect power cables and the 1¼ ” dia. access ports for the antenna/radio equipment fiber/power cables, reinforced with welded-in rings (welds are to be inspected by City of San Jose approved special inspector), are required. These ports, if reinforced as detailed in the project drawing, **will not** compromise pole structural integrity.

As seen in Appendix A under Friction Mount Support, the friction mount is able to support up to 616 pounds, which is more than the 150 pounds proposed with the equipment. The friction mount is therefore **adequate** to support the proposed equipment.

Pole specifications are taken from the City of San Jose standard details E-15 through E-20, dated 3/3/92.

As future equipment is installed the supporting pole should be re-evaluated on a case-by-case basis. If the existing conditions are different than the information presented in this report the [vendor\_info] should be contacted for resolution of any issues.

Please refer to Appendix A for structural analysis supporting the above results.

Please contact us if there are any questions.

Prepared By: Lei Zheng, P.E.

**Content:**

Report……………………….……….1-4

Appendix A Calculations………..…..5-12**Limitations and Assumptions:**

This report is based on the following:

1. The City of San Jose Street Light Pole is properly installed and maintained.
2. All members are as specified in the original design documents and are in good condition.
3. All required members are in place.
4. All bolts are in place and are tightly fastened.
5. Pole is in plumb condition.
6. All member protective coatings are in good condition.
7. All pole members were properly designed, detailed, fabricated, and installed, and have been properly maintained since erection.

The [vendor\_info]is not responsible for any modifications completed prior to or hereafter in which [vendor\_info] is not or was not directly involved.

**Disclaimer:**

All engineering services are performed on the basis that the information used is current and correct. The information may consist of, but not limited to information supplied by the client regarding the structure itself.

It is the responsibility of the client to ensure that the information provided to The [vendor\_info] is correct and complete. The [vendor\_info] assumes that all structures were constructed in accordance with the drawings and specifications and are in good condition and have not deteriorated, and that their capacity has not significantly changed from the “as new” condition.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices.

If there is a discrepancy discovered after construction that begun between the actual conditions and this report or construction drawing, the contractor/owner/client shall notify the engineer of record for immediate remedial details.

By accepting this report, the engineer of record shall not be held liable for discrepancies not brought to the attention of the engineer of record.

**APPENDIX A**

**CALCULATIONS**