

G E N E R A L N O T E S		
<div>1. THESE ELECTRICAL PLANS ARE DIAGRAMMATIC AND ARE CORRECT FOR GENERAL DESIGN ONLY. THE EXACT LOCATIONS OF EQUIPMENT & APPURTENANCES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.</div> <div>2. SYMBOLS, ABBREVIATIONS AND GENERAL NOTES APPLY TO ALL "E" DRAWINGS.</div> <div>3. THIS IS A GENERAL LEGEND. NOT ALL SYMBOLS ARE USED.</div> <div>4. SPECIAL INSTRUCTION TO THE CONTRACTOR: IT IS EXPECTED THAT AN ELECTRICAL CONTRACTOR WILL BE ABLE TO INTERPRET THE DESIGNED TRAFFIC PHASING AND THE WIRING SHOWN ON THE PLANS AND ENSURE THAT THE NET RESULT WILL OPERATE CORRECTLY. ANY IRREGULARITIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.</div> <div>5. ALL CALTRANS TYPE STANDARDS SHALL BE IN ACCORDANCE WITH SECTION 86--2.04 OF CTSS. EXCEPT MASTARM POLE HANDHOLES ARE 180" AWAY FROM CURB AND SL POLE HANDHOLES ARE 180" AWAY FROM CURB AND ALSO AWAY FROM TRAFFIC.</div> <div>6. CONTROLLER DOOR SHALL BE ORIENTED AWAY FROM INTERSECTION SUCH THAT WHILE WORKING IN THE IC, THE TECHNICIAN IS FACING THE INTERSECTION. NO PULL BOX SHALL BE LOCATED WITHIN A 3' BY 3' CLEARANCE IN FRONT OF IC DOOR.</div> <div>7. PRIOR TO INSTALLING SERVICE CONDUITS AND PULL BOXES, REFER TO PG&E CONSTRUCTION SKETCH FOR EXACT LOCATION OF THE PG&E SERVICE, COORDINATE WITH PG&E AND INFORM SFPUC FOR SERVICE CONNECTIONS; THIRTY WORKING DAYS ADVANCE NOTICE IS REQUIRED.</div> <div>8. SERVICE CONNECTIONS SHALL BE MADE PER SPDPSWF #87,203. IF THE PLAN REQUIRES FUSING IN A PULL BOX FOR IC SERVICE, THIS IS THE POINT THE NEUTRAL IS BONDED TO GROUND. THE GROUND ROD IN THE PULL BOX SHALL BE CONNECTED TO THE GROUND ROD IN THE IC WITH #6 BSCW TO FORM A GROUNDING SYSTEM.</div> <div>9. F/I IN-LINE FUSE HOLDERS WITH A 40A FUSE FOR IC SERVICE, A 40A FUSE FOR SL SERVICE AND A 10A FUSE FOR STREETLIGHTS. CONNECT BOTH SERVICES TO THE SAME PHASE. PROVIDE LABELING FOR "IC CONTROLLER" AND STREETLIGHT" SERVICE WITH LOCATION IDENTIFICATION. (I.E. A SAMPLE LABEL IS AS FOLLOWS: "IC IN-LINE FUSE HOLDER INSTALLED IN NE CORNER") SIMILARLY FOR STREET LIGHT SERVICE.</div> <div>10. PROVIDE GROUND WIRES IN ALL TRAFFIC SIGNAL AND SERVICE CONDUIT. SEE PROJECT MANUAL, SECTION 26 05 00 IN CONTRACT SPECIFICATIONS AND DETAIL <div>2 E-5</div></div> <div>11. VERIFY THE VOLTAGE OF EACH EXISTING STREETLIGHT LUMINAIRE SO THE NEW STREETLIGHT LUMINAIRE REPLACING THE OLD LUMINAIRE SHALL HAVE THE SAME VOLTAGE, U.O.N.</div> <div>12. PROVIDE 12" CONCRETE COLLAR ALL AROUND PULL BOX IN UNPAVED OR LAWN AREA PER SPDPSWF #87,201.</div> <div>13. CONSTRUCT A CONCRETE PAD AROUND A POLE OR CONTROLLER CABINET FOUNDATION IN AN UNPAVED OR LAWN AREA. FINAL DIMENSIONS OF CONCRETE PAD SHALL BE DIRECTED BY RESIDENT ENGINEER AS INCIDENTAL COST.</div> <div>14. COORDINATE WITH RESIDENT ENGINEER TO LAYOUT CONTRACT CURB LOCATIONS PRIOR TO POLE, PULL BOX, AND FOUNDATION CONSTRUCTION.</div> <div>15. CONTRACTOR SHALL BE RESPONSIBLE FOR WORKING AROUND AND PROTECTING ALL EXISTING FACILITIES ADJACENT TO HIS WORK AREA. THESE FACILITIES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: TREES, LANDSCAPING, HYDRANTS AND UTILITY POLES.</div> <div>16. PROVIDE 1/4" PULL ROPE IN ALL EMPTY PVC OR GRSC CONDUITS AND ALL CONDUITS CROSSING THE STREET CONTAINING TS OR 12/C. PROVIDE 3/8" PULL TAPE IN ALL POLYETHYLENE CONDUITS.</div> <div>17. CONDUITS RUNNING IN THE SAME DIRECTION CAN BE JOINT TRENCHED.</div> <div>18. PROTECT ALL SURVEY MONUMENTS, AND COORDINATE WITH THE RESIDENT ENGINEER FOR ANY SURVEY MONUMENTS DISCOVERED IN THE FIELD. PROVIDE 48 HOUR NOTICE.</div> <div>19. IN ACCORDANCE WITH SAN FRANCISCO ADMINISTRATIVE CODE SECTION 6.22(E), THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL PAY THEIR WORKERS THE GENERAL RATES OF PREVAILING WAGE BASED ON THE TYPE OF WORK PERFORMED. THE CONTRACTOR AND ITS SUBCONTRACTORS ARE ADVISED THAT THE CITY CONSIDERS THE PROPER CLASSIFICATION FOR EMPLOYEES WHO PERFORM ALL ELECTRICAL WORK ASSOCIATED WITH THE INSTALLATION OF UNDERGROUND FED TRAFFIC SIGNALS TO BE THAT OF ELECTRICIAN: INSIDE WIREMAN. THE CLASSIFICATION OF ELECTRICAL UTILITY LINEMAN IS NOT APPLICABLE FOR THIS TYPE OF WORK. THE SAN FRANCISCO BOARD OF SUPERVISORS ANNUALLY DETERMINES THE CLASSIFIED PREVAILING RATES OF WAGE. THE RATES ARE AVAILABLE ON-LINE AT http://www.dir.ca.gov/DLRS/PWD.</div> <div>20. FIELD VERIFY AND MAINTAIN TRAFFIC SIGNAL, STREETLIGHT, AND INTERCONNECT WIRING WHICH WILL NOT BE MADE OBSOLETE AND WHICH WILL BE DISTURBED DUE TO CONSTRUCTION CHANGES REQUIRED BY THIS CONTRACT. THEY SHALL BE RESTORED TO OPERATING CONDITION, AS REQUIRED AND/OR AS DIRECTED. WHERE REQUIRED, SHOWN AND/OR DIRECTED, CONDUIT RUNS SHALL BE RELOCATED. IN SOME CASES, IT MAY BE NECESSARY TO EXTEND CONDUITS AND PULL IN NEW WIRING OR REPLACE OLD WIRING WITH NEW.</div> <div>21. WHERE EXISTING CONDUIT OR WIRING IS TO BE ABANDONED, THE CONDUIT OR WIRING SHALL BE REMOVED IF IT IS EXPOSED. WHERE IT IS IMPOSSIBLE TO REMOVE THE CONDUIT OR WIRING, IT SHALL BE CUT OFF 6" BELOW AND CAPPED OR PLUGGED. RESTORE SIDEWALK.</div>	<div>22. ALL TEMPORARY AND REMODELING WORK SHALL BE CONSIDERED AS PART OF THIS CONTRACT AND NO EXTRA CHARGES WILL BE ALLOWED. THIS SHALL INCLUDE MINOR ITEMS OR MATERIAL EQUIPMENT NECESSARY TO MEET THE REQUIREMENTS AND INTENT OF THE PROJECT.</div> <div>23. COORDINATE WITH OTHER TRADES TO DETERMINE THE SEQUENCE OF CONSTRUCTION THROUGH-OUT THE PROJECT, INCLUDING EXISTING, TEMPORARY REMODELED AND NEW AREAS, WHERE APPLICABLE.</div> <div>24. NO EXPOSED CONDUITS. U.O.N.</div> <div>25. SPlicing FOR STREETLIGHT AND CONTROLLER ONLY ALLOWED AT UTILITY SERVICE BOXES.</div> <div>26. PRIOR TO FINAL COMPLETION, CONTRACTOR SHALL CLEAR ALL DEBRIS INSIDE THE PULLBOXES AND CABINETS.</div> <div>27. ALL NEW POLES AND CONTROLLER CABINETS MUST BE LOCATED AT LEAST 5 FEET FROM FIRE HYDRANTS U.O.N.</div> <div>28. ALL EXISTING STREETLIGHTS SHALL REMAIN IN OPERATION THROUGHOUT THE DURATION OF THE PROJECT. PROVIDE TEMPORARY LIGHT AS NEEDED.</div> <div>29. RESTORE SIDEWALK AND CROSSWALK TO MATCH EXISTING SIDEWALK AND CROSSWALK IN DESIGN, COLOR, AND MATERIAL AND TO EXISTING WHOLE FLAG LINES THAT ARE AFFECTED BY THIS PROJECT.</div> <div>30. WHEN PROVIDING TEMPORARY SIGNAL, CONTRACTOR SHALL MAINTAIN 5' PATH OF TRAVEL.</div> <div>31. CONDUIT ALIGNMENTS SHOWN ON PLANS ARE SCHEMATIC. CONDUIT RUNS SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE. WHERE OBSTRUCTIONS ARE ENCOUNTERED AND WITH PRIOR APPROVAL OF THE ENGINEER, LOCATION OF CONDUIT MAY BE CHANGED OR ALIGNMENT BE CURVED ACCORDINGLY TO THE CONDUIT BENDING RESTRICTIONS SPECIFIED IN THE SPECIAL PROVISIONS.</div> <div>32. THE UTILITY INFORMATION IS FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATIONS OF THE UTILITIES. ALL DAMAGE TO EXISTING UTILITY LINES OR ADJACENT FACILITES SHALL BE REPAIRED PROMPTLY AT THE CONTRACTOR'S EXPENSE.</div> <div>33. ANY PULLBOXES INSTALLED ON ROADWAY OR DRIVEWAY SHALL BE H--20 LOADING WITH NON-SKID METAL COVER AND SEE SHEET NOTE 4 SPDPSWF #87,201.</div> <div>34. FOR ALL TRAFFIC SIGNAL AND STREET LIGHT PULL BOXES THAT ARE ROTATED, RELOCATED, OR ADJUSTED, THE CONTRACTOR SHALL CONTACT SFMTA TRAFFIC SIGNAL SHOP AND SFPUC AT LEAST 3 DAYS PRIOR TO SETTING THE BOX AT THE NEW LOCATION AND/OR GRADE. THE WORK PERFORMED SHALL MEET THE FOLLOWING CONDITIONS:<div>a. THE ENDS OF ALL EXISTING CONDUITS SHALL BE WITHIN THE WALLS OF THE EXISTING PULL BOX AT ITS NEW LOCATION;</div><div>b. THE CONDUIT ENDS (I.E., BUSHINGS) SHALL BE A MINIMUM OF 5" FROM THE BOTTOM OF THE PULL BOX LID;</div><div>c. CONTRACTOR SHALL CONTACT THE SFMTA TRAFFIC SIGNAL SHOP AND SFPUC THROUGH THE ENGINEER AFTER THE WORK IS COMPLETED, FOR FINAL INSPECTION AND APPROVAL OF THE PULLBOX MODIFICATION(S).</div><div>d. ALL CONDUIT AND WIRING MODIFICATIONS SHALL BE PART OF INCIDENTAL COST.</div></div> <div>35. WHERE EXISTING CONDUITS NEED TO BE EXTENDED TO THE PULL BOX, THE CONTRACTOR SHALL MODIFY THE EXISTING TRAFFIC SIGNAL WIRING AS FOLLOWS:<div>a. REMOVE EXISTING TRAFFIC SIGNAL WIRING, COMPLETE ALL NECESSARY PULL BOX AND CONDUIT MODIFICATIONS, PROVIDE NEW TRAFFIC SIGNAL WIRES TO REPLACE ALL THE EXISTING WIRING IMPACTED BY THIS MODIFICATION; OR</div><div>b. WITH THE APPROVAL OF THE SFMTA TRAFFIC SIGNAL SHOP, THE CONTRACTOR SHALL PULL BACK EXISTING WIRES TO ADJACENT PULL BOX (TOWARD THE I/C), COMPLETE ALL NECESSARY PULL BOX AND CONDUIT MODIFICATIONS, RECONNECT, AND REUSE THE EXISTING TRAFFIC SIGNAL WIRES, IF FEASIBLE.</div></div> <div>36. PROVIDE TEMPORARY POLE BASE MOUNTED LIGHTING AND TRAFFIC SIGNAL FOR PEDESTRIAN AND VEHICULAR SAFETY IF THERE IS CONFLICT DUE TO UNFORESEEN UTILITIES WITHIN EXISTING AND/OR NEW LIGHTING/TRAFFIC SIGNAL IN THE LIMIT OF WORK AND OUTSIDE THE LIMIT OF WORK. TEMPORARY LIGHTING/TRAFFIC SIGNAL SOURCE SHALL BE TAPPED FROM NEAREST EXISTING SOURCE. THIS WORK SHALL BE PART OF INCIDENTAL COST.</div> <div>37. RESTORE CONCRETE DETECTABLE SURFACE TILES TO MATCH EXISTING CONCRETE DETECTABLE SURFACE TILES IN DESIGN, COLOR AND MATERIAL THAT ARE AFFECTED BY THIS PROJECT.</div> <div>38. RESTORE CURB AND GUTTER TO MATCH EXISTING CURB AND GUTTER IN DESIGN, COLOR, AND MATERIAL THAT ARE AFFECTED BY THIS PROJECT.</div> <div>39. CURB RETURN AREA:<div>a. PRIOR TO CONSTRUCTION, CONTRACTOR AND RESIDENT ENGINEER SHALL PHOTOGRAPH THE CURB RETURN AREA, SIDEWALK, CURB RAMP, CONCRETE DETECTABLE SURFACE TILES, CURB AND GUTTER WITHIN THE PROJECT SCOPE.</div><div>b. CONTRACTOR TO SUBMIT PLANS FOR ALL SIDEWALK, CURB RAMP, CONCRETE DETECTABLE SURFACE TILES, CURB AND GUTTER THAT ARE TO BE REPLACED TO CITY REPRESENTATIVE FOR APPROVAL.</div><div>c. ANY DAMAGE TO CONCRETE DETECTABLE SURFACE TILES, CURB RAMPS, SIDEWALKS, AND/OR CURB AND GUTTER WHICH OCCURS DURING CONSTRUCTION SHALL BE REPLACED AT CONTRACTOR'S COST TO MATCH EXISTING CONCRETE DETECTABLE SURFACE TILES, CURB RAMPS, SIDEWALKS, CURB AND GUTTER IN DESIGN, COLOR AND MATERIAL TO EXISTING WHOLE PANELS, CONSTRUCTION JOINTS, SIDEWALK FLAGS AND/OR CURBS AND GUTTERS.</div></div> <div>40. PRIOR TO START ELECTRICAL WORK, CONTRACTOR TO FIELD VERIFY THE EXISTING ELECTRICAL CIRCUIT. RECONNECT ALL EXISTING TRAFFIC SIGNAL AND STREETLIGHT SERVICE WHICH MAY HAVE BEEN INTERRUPTED DUE TO RENOVATION. RESTORE ALL ELECTRICAL SERVICE AND WIRING TO EXISTING CONDITIONS. INCLUDING THE ADJACENT FIXTURE OUTSIDE THE LIMIT OF WORK AS INCIDENTAL COST.</div> <div>41. TRAFFIC SIGNAL POLES SHALL COMPLY WITH 2015 CTSP, PLAN APPROVAL DATE, OCTOBER 30, 2015 AND 2010 CTSS</div>	<div>42. SPlicing OF TRAFFIC SIGNAL NEUTRAL CABLES IN PULL BOXES SHALL BE MADE USING SPLIT BOLT ONLY. SPlice CONNECTORS SHALL BE OF THE APPROPRIATE SIZE.</div> <div>43. SPlicing OF STREET LIGHT CABLES IN PULL BOXES SHALL BE MADE USING SPLIT BOLT ONLY. SPlice CONNECTORS SHALL BE OF THE APPROPRIATE SIZE.</div> <div>44. R/C REMOVED FOUNDATION (UNLESS OTHERWISE NOTED): CONTRACTOR TO REMOVE UP TO 36" BELOW GRADE, INCLUDING ALL ASSOCIATED EMBEDDED CONDUITS , UNLESS IT IS MUNI POLE. REFER TO SPECIFICATION. IF IT IS POLE IN PLACE OF POLE, CONTRACTOR TO REMOVE POLE FOUNDATION TO ACCOMMODATE THE NEW POLE FOUNDATION AND FILL THE CAVITY WITH SLURRY AS REQUIRED AND RESTORE SIDEWALK.</div> <div>45. ANY GAP OPENING FOR WIRE ENTRIES OR EQUIPMENT MOUNTING SHALL BE COMPLETELY WATER AND AIR TIGHT SEALED WITH DUCT SEAL TO PREVENT FOREIGN OBJECTS FROM ENTERING.</div> <div>46. PRIOR TO R/C PULL BOX, CONTRACTOR TO VERIFY IF ANY EXISTING CIRCUIT IS TO BE MAINTAINED, COORDINATE WITH ENGINEER, IF NO CIRCUIT IS TO BE MAINTAINED, ABANDON CONDUIT IN PLACE, DISCONNECT ALL UNUSED CIRCUITS, R/C PULL BOX AND RESTORE SIDEWALK TO MATCH EXISTING.</div> <div>47. R/C DEMOLISHED TRAFFIC SIGNAL POLES, STREETLIGHT POLES, TRAFFIC SIGNAL EQUIPMENT, FIXTURES, AND FIXTURE ARMS U.O.N.</div> <div>48. R/C ALL UNUSED OR ABANDONED PULL BOXES AND RESTORE PAVEMENT TO MATCH EXISTING.</div> <div>49. PROVIDE FLEXIBLE ENGRAVING STOCK NAMEPLATE TAG WITH PLASTIC TIE WRAP FOR TRAFFIC SIGNAL AND STREETLIGHT SERVICE LABELING, WHITE LETTER ON BLACK BACKGROUND.</div> <div>50. ALL CONDUITS FROM ROADWAY TO SUB-SIDEWALK BASEMENTS SHALL BE GRS. ALL CONDUITS UNDERNEATH THE RAIL TRACK SHALL BE GRS.</div> <div>51. REFER TO STRUCTURAL DRAWINGS FOR STREET LIGHT POLE FOUNDATION.</div> <div>52. WHEN USING PVC CONDUIT FOR STREET LIGHT WIRES, PROVIDE SEPARATE GROUND WIRE AND TIE TO GROUND ROD AT TRAFFIC SIGNAL SERVICE POINT.</div> <div>53. TOUCH UP ANY NEW POLES AND/OR EQUIPMENT MOUNTING THAT IS EXPOSED/RUSTED WITH RUST-OLEUM PAINT TO PREVENT CORROSION.</div> <div>54. ALL TRAFFIC SIGNAL CONTROLLER CABINETS SHALL HAVE MINIMUM 36" CLEARANCE FROM THE DOOR U.O.N.</div> <div>55. STREETLIGHT POLES INSTALLED ON TRUNCATED DOME SHALL HAVE 1" CONCRETE FLAG AROUND THE BASE COVER OR BASE PLATE.</div> <div>56. STREETLIGHT PULL BOXES SHALL HAVE CONCRETE BOLT DOWN LID WITH TAMPER PROOF BOLTS PER SFPUC REQUIREMENT AND BE WITHIN 5 FEET OF STREETLIGHT POLE U.O.N.</div> <div>57. STREETLIGHTS INSTALLED IN SPECIAL PAVER AREA SHALL HAVE 3X3' CONCRETE FLAG AROUND POLE BASE AND STREETLIGHT PULL BOX U.O.N. EXCEPTION WILL NEED TO BE COORDINATED WITH SFPUC.</div> <div>58. INSTALL CITY FURNISHED ONE SECTION LED PEDESTRIAN COUNTDOWN SIGNAL MODULE IN CONTRACTOR FURNISHED ONE SECTION PEDESTRIAN SIGNAL HOUSING.</div>

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