

Attachment B

JOB NO. E OF CALIFY DRN RT DATE \_ 9/10/24 0470.22

| SHEET INDEX |       |  |  |
|-------------|-------|--|--|
| PAGE        | SHEET | TITLE                                    |  |
| 1           | C1.0  | TITLE SHEET AND TOPOGRAPHIC MAP          |  |
| 2           | C1.1  | DEMO PLAN                                |  |
| 3           | C2.0  | PHASE 1 SITE PLAN                        |  |
| 4           | C2.1  | PHASE 2 SITE PLAN                        |  |
| 5           | C3.0  | PHASE 1 GRADING PLAN                     |  |
| 6           | C3.1  | PHASE 2 GRADING PLAN                     |  |
| 7           | C4.0  | EROSION SEDIMENT CONTROL PLAN            |  |
| 8           | C5.0  | POST CONSTRUCTION STANDARDS PLAN         |  |
| 9           | C6.0  | STANDARD DETAILS                         |  |
| 10          | C6.1  | STANDARD DETAILS                         |  |
| 11          | C6.2  | ADA AND EROSION CONTROL DETAILS          |  |
| 12          | C6.3  | INFILTRATION GALLERY DETAILS             |  |
| 13          | C6.4  | INFILLTRATION GALLERY DETAILS            |  |
| 14          | C6.5  | SUMP PUMP DETAILS                        |  |
| 15          | E0.0  | ELECTRICAL SPECIFICATIONS                |  |
| 16          | E0.1  | ONE-LINE DIAGRAM AND ELECTRICAL PLANS    |  |
| 17          | E1.0  | TITLE 24 ELECTRICAL COMPLIANCE DOCUMENTS |  |



# LINE LEGEND

|   | VERTICAL CURB |
|---|---------------|
|   | EP            |
|   | CONC          |
|   | FLOWLINE      |
| X | FENCE         |

# ABBREVIATIONS

AREA DRAIN CLEANOUT CONCRETE CONTROL POINT DOWNSPOUT DRIVEWAY ELEVATION FINISH FLOOR GRATE INVERT MANHOLE STORM DRAIN SANITARY SEWER TYPICAL WATER WATER VALVE

# ADS/STORMTECH CONTACT:

NELSON TEJADA EMAIL: Nelson.Tejada@adspipe.com PHONE: (916) 990-2279

# LIBERTY PUMP CONTACT:

JON EMASIE EMAIL: Jon.Emasie@libertypumps.com PHONE: (800) 543-2550





- 1. THE CONSTRUCTION AND INSTALLATION OF IMPROVEMENTS SHALL CONFORM TO THESE PLANS, THE CITY OF YREKA CONSTRUCTION STANDARDS, STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION 2022 STANDARD PLANS AND SPECIFICATIONS (RSS), AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK).
- 2. THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT PRIOR TO ANY WORK IN THE STREET RIGHT-OF-WAY.
- 3. CALL USA (811) TO LOCATE ALL UTILITIES 48 HOURS PRIOR TO ANY
- 4. ANY CHANGES IN THESE PLANS ARE TO RECEIVE PRIOR APPROVAL OF THE OWNER AND PACE ENGINEERING, INC.
- 5. POTHOLE AND VERIFY LOCATIONS OF ALL PIPE AND UTILITY CROSSINGS PRIOR TO
- 6. PARKING BUMPERS SHALL BE 4-FOOT LONG PRE-CAST CONCRETE AS PER COOK CONCRETE PRODUCTS, ITEM PB 4 OR EQUAL. EACH BUMPER SHALL BE ANCHORED WITH TWO PIECES OF 1/2-INCH REBAR, 24" LONG.
- 7. ALL PAVEMENT STRIPES AND MARKINGS SHALL BE WATERBASED PER CALTRANS RSS SECTION 84-2.02C.
- ED DOMES SHALL HAVE A MINNIMUM WIDTH OF 36", UNLESS NOTED OTHERWISE ON SHEET C6.2 AND CONFORM TO CALIFORNIA BUILDING CODE (CBC) SECTION 11B-705 IN THE AREAS SHOWN ON THE DRAWINGS. \_\_\_\_\_

| PARKING SPACE ANALYSIS |          |          |  |
|------------------------|----------|----------|--|
| TYPE                   | existing | PROPOSED |  |
| <b>REGULAR SPACES</b>  | 12       | 14       |  |
| ADA ACCESSIBLE SPACES  | 4        | 3        |  |
| COMPACT SPACES         | 4        | 2        |  |
| total spaces           | 20       | 19       |  |



# LINE LEGEND

= VERTICAL CURB (E) EP — (N) EP (E) CONC - (N) CONC 

### ABBREVIATIONS

AD

CO

CP

DS

(E)

D/W

ELEC

FF

FG

GR

INV

MΗ

(N)

SD

SS

TYP

W

WV

EL/ELEV

CONC

AREA DRAIN CLEANOUT CONCRETE CONTROL POINT DOWNSPOUT DRIVEWAY EXISTING ELEVATION ELECTRICAL **FINISH FLOOR** FINISH GRADE GRATE INVERT MANHOLE NEW STORM DRAIN SANITARY SEWER TYPICAL WATER WATER VALVE

|      | BUILDING<br>FF 2631.89 |  |                                     |
|------|------------------------|--|-------------------------------------|
| PERM | IT SET                 | BAR IS ONE INCH ON<br>ORIGINAL DRAWING<br>0" 1"<br>IF NOT ONE INCH ON THIS<br>SHEET, ADJUST SCALES<br>ACCORDINGLY. | NO DATE<br>1 9-9-24 DRIVEWAY ENTER. |
|      |                        |  |                                     |

A . A

· ⊿ · .

. 4 *⋖* . . . .

 $\triangleleft$ 

. *4*. v

 $\triangle^{\mathsf{CP#3}}$ 

 $\mathcal{T}$ 

### SYMBOL LEGEND

|                        | AR  |
|------------------------|-----|
| 0                      | BO  |
| $\bigcirc$             | СС  |
| $\triangle^{\rm CP\#}$ | СС  |
| ¢                      | DC  |
| )                      | PIP |
| Ε                      | ELE |
| )-                     | GL  |
| J.                     | РО  |
|                        | SA  |
| <del></del>            | SIC |
| U                      | UN  |
| $\mathbb{W}$           | WA  |
| $\bowtie$              | WA  |
|                        |     |





- REA DRAIN
- ollard
- ONDUIT
- ONTROL POINT
- OWNSPOUT
- PE CULVERT/OUTLET
- ECTRICAL PANEL / BOX
- UY ANCHOR
- OLE- JOINT UTILITY
- ANITARY SEWER MANHOLE
- GN
- NKNOWN UTILITY VAULT
- ATER METER/BOX
- ATER VALVE

# HATCH LEGEND

(E) CONCRETE (N) CONCRETE (E) PAVEMENT TRUNCATED DOMES

# LINE LEGEND

VERTICAL CURB - (E) EP —— (N) EP — (E) CONC — (N) CONC - E ----- (N) ELECTRICAL LINE - sd - sd (N) STORM DRAIN LINE

# ABBREVIATIONS

| AD      | AREA DRAIN     |
|---------|----------------|
| СО      | CLEANOUT       |
| CONC    | CONCRETE       |
| CP      | CONTROL POINT  |
| DS      | DOWNSPOUT      |
| D/W     | DRIVEWAY       |
| (E)     | EXISTING       |
| EL/ELEV | ELEVATION      |
| ELEC    | ELECTRICAL     |
| FF      | FINISH FLOOR   |
| FG      | FINISH GRADE   |
| GR      | GRATE          |
| INV     | INVERT         |
| LF      | LINEAL FEET    |
| MH      | MANHOLE        |
| (N)     | NEW            |
| SD      | STORM DRAIN    |
| SS      | SANITARY SEWER |
| TYP     | TYPICAL        |
| W       | WATER          |
| WV      | WATER VALVE    |

SISKIYOU COUNTY GOVERNMENT CENTER PARKING LOT IMPROVEMENTS

PHASE 2 SITE PLAN





# LINE LEGEND

|                             | VERTICAL CURB        |
|-----------------------------|----------------------|
|                             | (E) EP               |
|                             | (N) EP               |
|                             | (E) CONC             |
|                             | (N) CONC             |
| · · · · · · · · · · · · · · | FLOWLINE             |
| SD                          | (N) STORM DRAIN LINE |
|                             |                      |

### HATCH LEGEND

| (E) CONCRETE                   |
|--------------------------------|
| <br>(N) CONCRETE               |
| <br>(E) PAVEMENT               |
| (N) PAVEMENT, SEE SHEET C2.0   |
| INFILTRATION GALLERY, SEE C5.0 |
|                                |

### **ABBREVIATIONS**

| AB      | AGGREGATE BASE   |
|---------|------------------|
| AD      | AREA DRAIN       |
| СО      | CLEANOUT         |
| CONC    | CONCRETE         |
| СР      | CONTROL POINT    |
| DS      | DOWNSPOUT        |
| (E)     | EXISTING         |
| ELB     | ELBOW            |
| EL/ELEV | ELEVATION        |
| ELEC    | ELECTRICAL       |
| FF      | FINISH FLOOR     |
| FP      | FINISH PAVEMENT  |
| FL      | FLOWLINE         |
| FG      | FINISH GRADE     |
| GR      | GRATE            |
| HMA     | hot mix asphalt  |
| INV     | INVERT           |
| LF      | LINEAL FEET      |
| MH      | MANHOLE          |
| (N)     | NEW              |
| S       | SLOPE            |
| SD      | STORM DRAIN      |
| SS      | SANITARY SEWER   |
| TBC     | TOP BACK OF CURB |
| TC      | TOP OF CONCRETE  |
| TYP     | TYPICAL          |
| W/      | WITH             |
| W       | WATER            |
| WV      | WATER VALVE      |

### <u>NOTES</u>

- 1. SEE SHEET C2.0 FOR DIMENSIONS NOT SHOWN.
- 2. ALL SITE CONCRETE SHALL BE CLASS 520-C-2500 AND CONFORM TO THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK), UNLESS OTHERWISE SHOWN. APPLY LIGHT BROOM FINISH TO ALL WALKWAYS. CONSTRUCT CONTROL JOINTS (WEAKENED PLANE JOINTS) AND EXPANSION JOINTS IN CURBS, GUTTERS, AND WALKS PER DETAILS ON SHEET C6.0.
- 3. HOT MIX ASPHALT (HMA) SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS FOR BE TYPE A, 1/2-INCH MAXIMUM SIZE AGGREGATE. ASPHALT BINDER SHALL BE PG 64-28.
- 4. AGGREGATE BASE SHALL BE 3/4" CLASS 2 AGGREGATE BASE PER STATE SPECIFICATIONS, SECTION 26. COMPACT TO 95% OF MAXIMUM DENSITY AS MEASURED BY ASTM D-1557.
- 5. ALL STORM DRAIN PIPE (6" AND LARGER) SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) WITH SMOOTH INTERIOR CONFORMING WITH AASHTO M294 OR APPROVED EQUAL, UNLESS NOTED OTHERWISE.
- 6. ALL STORM DRAIN PIPE (4" AND SMALLER) SHALL BE POLYVINYL CHLORIDE (PVC) SCHEDULE 80, UNLESS NOTED OTHERWISE.
- 7. NEW AREA DRAINS SHALL BE COOK OR APPROVED EQUAL, GRATE SIZE AS NOTED. SHAPE BOTTOM TO DRAIN TO OUTLET WITH 4" MINIMUM THICKNESS OF CONCRETE. ALIGN CROWNS OF INLET AND OUTLETS PIPES, UNLESS NOTED OTHERWISE.
- 8. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED WITH CLASS "A" TRENCH BACKFILL, SEE SHEET C6.0. GRAVEL BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS MEASURED BY ASTM D-1557.
- 9. ALL GRADES SHOWN ARE FINISH GRADES. ALLOW FOR VARIOUS THICKNESS OF BASE, PAVING AND CONCRETE IN PREPARING SUBGRADE.
- 10. GRADE SITE TO THE GRADES SHOWN. COMPACT FILL AREAS AND TOP 6" OF CUT AREAS TO 95% OF MAXIMUM DENSITY AS MEASURED BY ASTM D-1557. IMPORT OR EXPORT AS NECESSARY.
- 11. ALL AREAS TO RECEIVE FILL ARE TO BE SCARIFIED A MINIMUM DEPTH OF 8", MOISTURE CONDITIONED, AND COMPACTED TO 95% OF MAXIMUM DENSITY AS MEASURED BY ASTM D-1557.

SISKIYOU COUNTY GOVERNMENT CENTER PARKING LOT IMPROVEMENTS

PHASE 1 GRADING PLAN







| bar is one inch on      |    |
|-------------------------|----|
| ORIGINAL DRAWING        | NO |
| 0"                      | 1  |
|                         |    |
|                         |    |
| IF NOT ONE INCH ON THIS |    |
| SHEET, ADJUST SCALES    |    |
| ACCORDINGLY.            |    |
|                         |    |

|    |        | REVISIC                   |
|----|--------|---------------------------|
| NO | DATE   | DE                        |
| 1  | 9-9-24 | DRIVEWAY ENTERANCE IMPROV |
|    |        |                           |
|    |        |                           |
|    |        |                           |
|    |        |                           |
|    |        |                           |
|    |        |                           |



|                                 | VERTICAL CURB        |
|---------------------------------|----------------------|
|                                 | (E) EP               |
|                                 | (N) EP               |
|                                 | (E) CONC             |
|                                 | (N) CONC             |
| · · · · · · · · · · · · · · · · | FLOWLINE             |
| ——— E ———                       | (N) ELECTRICAL LINE  |
| SD                              | (N) STORM DRAIN LINE |
|                                 |                      |

|   | (E) CONCRETE |
|---|--------------|
| ٩ | (N) CONCRETE |
|   | (E) PAVEMENT |

| AB      | AGGREGATE BASE   |
|---------|------------------|
| AD      | AREA DRAIN       |
| СО      | CLEANOUT         |
| CONC    | CONCRETE         |
| СР      | CONTROL POINT    |
| DS      | DOWNSPOUT        |
| (E)     | EXISTING         |
| ELB     | ELBOW            |
| EL/ELEV | ELEVATION        |
| ELEC    | ELECTRICAL       |
| FF      | FINISH FLOOR     |
| FP      | FINISH PAVEMENT  |
| FL      | FLOWLINE         |
| FG      | FINISH GRADE     |
| GR      | GRATE            |
| HMA     | HOT MIX ASPHALT  |
| INV     | INVERT           |
| LF      | LINEAL FEET      |
| MH      | MANHOLE          |
| (N)     | NEW              |
| S       | SLOPE            |
| SD      | STORM DRAIN      |
| SS      | Sanitary sewer   |
| TBC     | TOP BACK OF CURB |
| TC      | TOP OF CONCRETE  |
| TYP     | TYPICAL          |
| W/      | WITH             |
| W       | WATER            |
| WV      | WATER VALVE      |

PG <u>6</u> OF <u>17</u>

| 0 10 20<br>1 IN = 10 FT |   |    |      |          |
|-------------------------|---|----|------|----------|
|                         |   |    |      | REVISION |
|                         | ORIGINAL DRAWING                                | NO | DATE | DESC     |
| PERMII SEI              | O" [  |    |      |          |
|                         | IF NOT ONE INCH ON THIS<br>SHEET, ADJUST SCALES |    |      |          |
|                         | ACCORDINGLY.                                    |    |      |          |



3\_/



RT DATE <u>9/10/24</u>

0470.22

# SYMBOL LEGEND

SEDIMENT BARRIER, SEE NOTE 2 AREA DRAIN

<u>NOTES:</u>

- (1.) THE CONTRACTOR SHALL USE THE LOCATION SHOWN FOR THEIR EXIT OF THE WORK SITE AND INSTALL A TEMPORARY CONSTRUCTION ENTRANCE, PER DETAIL 6 SHEET C6.2, UNLESS THE SITE IS SURFACED WITH PAVEMENT OR AGGREGATE BASE.
- (2.) CONTRACTOR SHALL INSTALL A FIBER ROLL/GRAVEL BERM AND CREATE A 3" LIP BETWEEN THE EXITING CONCRETE EDGE AND UNFINISHED GRADE TO PREVENT SEDIMENT FROM LEAVING THE SITE, PER DETAIL 5 SHEET C6.2.
- (3.) CONTRACTOR SHALL CONSTRUCT GRAVEL BAG AREA DRAIN/DROP INLET SEDIMENT BARRIER PER DETAIL 7 SHEET C6.2, SUBSTITUTING GRAVEL BAGS FOR STRAW BALES.
- 4. CONTRACTOR SHALL PERFORM SWEEP STREETS, AS NECESSARY, TO REMOVE ANY CONSTRUCTION DIRT THAT IS TRACKED ONTO THE PROJECT'S ADJACENT STREETS.
- 5. CONTRACTOR SHALL SUBMIT A REVISED EROSION SEDIMENT CONTROL PLAN TO THE ENGINEER PRIOR TO CONSTRUCTION.
- 6. ONCE CONSTRUCTION OF THE SITE IS COMPLETE BARRIERS AND DRAIN FILTER BAGS SHALL BE REMOVED.
- 7. CONTRACTOR SHALL INSTALL ALL EROSION CONTROL BMP'S PRIOR TO CONSTRUCTION. OWNER IS RESPONSIBLE FOR VERIFYING THAT BMP'S REMAIN IN PLACE AND ARE FUNCTIONAL DURING CONSTRUCTION.

SISKIYOU COUNTY GOVERNMENT CENTER PARKING LOT IMPROVEMENTS

EROSION SEDIMENT CONTROL PLAN



|                         | Roll UP Dog<br>Fr 2632.02 | OR   |    |      | BUILDING<br>FF 2631.89 |                   |
|-------------------------|---------------------------|--|----|------|------------------------|-------------------|
| 0 10 20<br>1 IN = 10 FT |                           |  |    |      |                        |                   |
| PERMIT SI               | ET                        | BAR IS ONE INCH ON<br>ORIGINAL DRAWING<br>0" 1"<br>IF NOT ONE INCH ON THIS<br>SHEET, ADJUST SCALES<br>ACCORDINGLY. | NO | DATE | REV                    | ISIONS<br>descrip |
|                         |                           |  |    |      |                        |                   |



DES\_\_\_\_RT

DRN RT

DATE 9/10/24

JOB NO.

0470.22

### MS4 NOTES

- 1. FOR GRADING INFORMATION NOT SHOWN, SEE GRADING PLAN, SHEET C3.0.
- 2. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- 3. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

### INSPECTION AND MAINTENANCE NOTES

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
  - INSPECTION PORTS Α.
    - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
    - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF A.3. SEDIMENT AND RECORD ON MAINTENANCE LOG
    - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
    - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
  - B. ALL ISOLATOR PLUS ROWS
    - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
    - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
      - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE
      - ENTRY IF ENTERING MANHOLE
    - B.1. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS STEP 2)
  - A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
  - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS Β. CLEAN
  - VACUUM STRUCTURE SUMP AS REQUIRED C.
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

### POST CONSTRUCTION BMP DESIGN

- APPLICABLE STANDARDS:
- HUMBOLDT COUNTY LOW IMPACT DEVELOPMENT STORMWATER MANUAL
- PROJECT CLASSIFICATION: REGULATED PROJECT (OVER 5,000 SQ FT) 2.
- 3. ANALYSIS TOOL: CALIFORNIA PHASE II LID SIZING TOOL
- 4. TREE CREDITS: EXISTING CANOPY: NO CREDITS TAKEN NEW: NO CREDITS INCLUDED
- LID SIZING INPUT PARAMETERS: 5.
  - DMA-1:
    - RAIN GAUGE: YREKA SATURATED HYDRAULIC CONDUCTIVITY: 1.0 IN/HR NEW IMPERVIOUS AREA: 9,600 SQ FT DESIGN METHOD: DESIGN STORM
- RESULTS: 6.

### DMA-1:

BMP CHOSEN: INFILTRATION GALLERY. RUNOFF FROM IMPERVIOUS PARKING LOT FLOWS THROUGH THE INFILTRATION GALLERY. VEGETATED BASIN NEEDED: 113 SQ FT VEGETATED BASIN PROVIDED: 135 SQ FT PERCENT COMPLIANT LID BMP AREA: 119%

SISKIYOU COUNTY GOVERNMENT CENTER PARKING LOT IMPROVEMENTS















| FOR LAYER 'D' STARTS FROM THE TOP OF THE<br>THE FINISH SURFACE. | AS SPECIFIED ON SHEET C2.0.   |   | AS SPECIFIED<br>BEGIN COMPACTION   |
|---|---|---|--|
| LAYER 'C' STARTS FROM THE TOP OF THE                            |   |   | BEGIN COMPACTION   |
| R) TO PAVEMENT SUBBASE ("D"LAYER).                              | GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR<br>PROCESSED AGGREGATE. CLASS 2 AGGREGATE BASE IS ALSO ACCEPTABLE | A-1, A-2-4, A-3<br>AASHTO M43 <sup>1</sup><br>3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10 | CHAMBERS IS REACHED<br>MAX LIFTS TO A MIN. 95%<br>MATERIAL AND 95%<br>AGGREGATE MATERIALS. I<br>EXCEED 12,000 lbs. DYNA  |
| ROUNDING THE CHAMBERS FROM THE LAYER) TO THE 'C' LAYER ABOVE.   | CLEAN, CRUSHED, ANGULAR STONE   | AASHTO M431<br>3, 357, 4, 467, 5, 56, 57  | NO COI   |
| CHAMBERS FROM THE SUBGRADE UP TO THE M) OF THE CHAMBER.         | CLEAN, CRUSHED, ANGULAR STONE   | AASHTO M43 <sup>1</sup><br>3, 357, 4, 467, 5, 56, 57  | PLATE COMPACT OR R   |
| ROUND<br>LAYER)<br>CHAMB<br>M) OF T                             | DING THE CHAMBERS FROM THE<br>TO THE 'C' LAYER ABOVE.<br>ERS FROM THE SUBGRADE UP TO THE<br>THE CHAMBER.                      | ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, AND ANGULAR.                            | 3, 357, 4, 467, 5, 56, 57, 68, 7, 78, 8, 89, 9, 10         DING THE CHAMBERS FROM THE<br>TO THE 'C' LAYER ABOVE.         CLEAN, CRUSHED, ANGULAR STONE         AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57         AASHTO M43 <sup>1</sup> CLEAN, CRUSHED, ANGULAR STONE         AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57 |

MATERIALS WHEN FLACED AND COWFACTED IN 6 (WAX) LIFTS USING TWO FULL COVERAGES WI 

3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT

STORMTECH FOR COMPACTION REQUIREMENTS.

4. LAYER "D" SHALL BE THE PAVEMENT SECTION PER SHEET C2.0.

| bar is one inch on      |    |      |  | REVIS |
|-------------------------|----|------|--|-------|
| ORIGINAL DRAWING        | NO | DATE |  |       |
| 0"                      |    |      |  |       |
|                         |    |      |  |       |
| IF NOT ONE INCH ON THIS |    |      |  |       |
| ACCORDINGLY.            |    |      |  |       |
|                         |    |      |  |       |

# <u>NOTES</u>

- 1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 2. CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". 3. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND
- SLOPED EXCAVATION WALLS.
- 4. REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

### ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS





# I / DENSITY REQUIREMENT

ON SHEETS C2.0 AND C3.0.

NS AFTER 12" OF MATERIAL OVER THE . COMPACT ADDITIONAL LAYERS IN 6" 6 PROCTOR DENSITY FOR WELL GRADED RELATIVE DENSITY FOR PROCESSED ROLLER GROSS VEHICLE WEIGHT NOT TO AMIC FORCE NOT TO EXCEED 20,000 lbs.

MPACTION REQUIRED.

ROLL TO ACHIEVE A FLAT SURFACE. $^{2,3}$ 





|                        | RUNOFF CA   | ALCULATION INPL  |                          | AETERS   |                    | <u>INC</u>  | <u> </u>               |
|------------------------|---|--|--------------------------|--|--------------------|---|------------------------|
|                        |   | PRE-CONSTRU  |                          | POST-CON   |                    | 1.  |                        |
|                        |   | 98   |                          | 9  | 8                  |   | PARAMETE               |
|                        | PERVIOUS AREA   | 0  |                          | (  | )                  |   | CAN BE FC              |
|                        | PERVIOUS CURVE NUMBER   | N/A  |                          | N/   | /Α                 |   | THE PROPU              |
|                        |   | 0.22ac (9,600  | Osf)                     | 0.22ac   | (9,600sf)          | 2.  | TIME OF CO             |
|                        | ELOW LENGTH   | 98   |                          | 9<br>  | 8<br>50            |   | WHERE IC=              |
|                        | FLOW SLOPE  | 1.0%   |                          | 1.0  | )%                 | 3.  | THE CALCU              |
|                        | TIME OF CONCENTRATION   | 3.33   |                          | 3.3  | 33                 |   | 2-YEAR TO<br>DIFFERENC |
|                        | STORM TYPE  | IA   |                          | I.   | 4                  |   |                        |
|                        | СА  |  | FLOWS                    |  |                    |   |                        |
|                        | PARAMETER   | 2-YEAR   | 10-YE                    | EAR 1  | 100-YEAR           |   |                        |
|                        | PRE-CONSTRUCTION  | 0.10cfs (45gpm)  | 0.16cfs (7               | 72gpm) 0.23  | 3cfs (104gpm)      |   |                        |
|                        | POST-CONSTRUCTION   | 0.10cfs (45gpm)  | 0.16cfs (7               | 72gpm) 0.23  | 3cfs (104gpm)      |   |                        |
|                        | RIM 2629.99   |  |                          |  |                    | 4'-7 <sup>1</sup> /2"<br>E STEEL HATCH<br>RAFFIC RATED<br>T-6" LONG<br>1" PVC<br>NSION HAND |                        |
|                        |   |  |                          |  |                    |   |                        |
|                        |   |  |                          |  |                    |   |                        |
| 2" ELEC L<br>SE<br>Cos | INE TO CONTROL PANEL.<br>AND ELEC PLANS<br>4'-1 <sup>3</sup> / <sub>4</sub> "<br>2" ELEC BULK H<br>NEMA 4X JUNCTIO<br>ALL CABLES SHALL<br>THROUGH BOX WIT<br>THE USE OF ANY SP<br>INV 2625.84<br>LE51M-2 SEWAGE<br>1PH, 115V, 1/2 HP<br>POWER CORD, O<br>EPS112064<br>48X72 SIMPLEX LE51M-2<br>(OR EQUAL) | 10"<br>HEAD<br>N BOX.<br>PASS<br>THOUT<br>PLICES<br>PUMP,<br>W/ 25'<br>R EQUAL |                          | HIGH ALA<br>ELEV 2627<br>1 1/4" STA<br>STEEL GU<br>-4"<br>PUMP ON<br>ELEV 2625<br>-6"<br>-6" | RM<br>.61          |   |                        |
|                        |   | ,<br>,   |                          |  | 4'-8<br>FIBERGLASS | 16<br>ANTI-FLOAT  |                        |
|                        |   | ·  |                          | <u>SU1</u>   | MP PUMP            | DETAIL (  | 1                      |
|                        |   |  |                          |  |                    |   |                        |
| PER                    | MIT SET   |  | BAR IS C<br>ORIGIN<br>0" | ONE INCH ON<br>IAL DRAWING<br>1"<br>NE INCH ON THIS<br>DJUST SCALES<br>INGLY.                | NO DATE            |   |                        |

NAGE ANALYSIS WAS PERFORMED USING THE SOIL CONSERVATION SCS) METHOD IN AUTODESK HYDRAFLOW SOFTWARE. THE INPUT ERS FOR THE PRE-CONSTRUCTION AND POST-CONSTRUCTION BASIN OUND IN THE TABLE. NO ADDITIONAL RUNOFF WILL BE CREATED BY OSED IMPROVEMENTS.

CONCENTRATION WAS DETERMINED BASED ON THE LAG METHOD C=1.67(LAG TIME).

CULATIONS ON SHEET C5.0 IS CALCULATED TO INFILTRATE THE ) 10-YEAR RAIN EVENT. THE SUMP PUMP IS DESIGNED TO PUMP THE CE BETWEEN THE 2-YEAR AND THE 100-YEAR RAIN EVENT. (60gpm±)







IONS PACE DESCRIPTION des rt . CKD<u>TJ/SWa</u> JOB NO. DRN\_\_\_\_\_ DATE 9/10/24 0470.22

### ELECTRICAL SPECIFICATIONS

| PART 1 – GENERAL  | PART 3 – EXECUTION   |
|---|--|
| <ul> <li>1.1 INTENT OF PLANS</li> <li>A. ELECTRICAL PLAN DRAWINGS SHOW ONLY GENERAL LOCATIONS OF EQUIPMENT, DEVICES, AND<br/>RACEWAY UNLESS SPECIFICALLY DIMENSIONED. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER<br/>ROUTING OF RACEWAY, SUBJECT TO THE APPROVAL OF THE ENGINEER. MAKE ADJUSTMENTS AS<br/>NECESSARY TO WIRING, CONDUIT, DISCONNECTS, BRANCH CIRCUIT PROTECTION, AND OTHER AFFECTED</li> </ul>   | <ul> <li>3.1 NOTE:</li> <li>A. COORDINATE ELECTRICAL WORK WITH<br/>CONFLICTS, ERRORS, DELAYS, AND UNIT</li> <li>3.2 PROTECTION DURING CONSTRUCTION</li> <li>A. FOLLOWING INSTALLATION, PROTECT M</li> </ul>                                      |
| MATERIAL OR EQUIPMENT TO ACCOMMODATE ACTUAL EQUIPMENT SUPPLIED FOR THIS PROJECT.<br>1.2 CODES, PERMITS, AND REGULATIONS<br>A. DO ALL WORK AND INSTALL PRODUCTS IN ACCORDANCE WITH APPLICABLE NECA REQUIREMENTS, THE<br>REQUIREMENTS OF APPLICABLE STATE AND LOCAL LAWS, CODES AND ORDINANCES. THE CONTRACTOR<br>SHALL ADHERE TO THE SPECIFIC PRODUCT AND INSTALLATION REQUIREMENTS OF THE UTILITY COMPANIES.  | PHYSICAL DAMAGE, AND MOISTURE. C<br>MANUFACTURED SEALS. KEEP OPENING<br>3.3 MATERIAL AND EQUIPMENT INSTALLATION<br>A. FOLLOW THE MANUFACTURER'S INSTALLATIC<br>THE ENGINEER'S DECISION, WHEREVER ANY   |
| <ul> <li>CONFLICTS, IF ANY, WILL BE RESOLVED AT THE DISCRETION OF THE ENGINEER.</li> <li>B. IT IS OF THE UTMOST IMPORTANCE THAT THE INSTALLING CONTRACTOR HAVE A MASTERY OF THE PROJECT-SPECIFIC REQUIREMENTS SHOWN IN SPECIFICATIONS AND PLANS. IT IS STRONGLY ADVISED THAT THE CONTRACTOR CONTACT THE EEOR FOR CLARIFICATION OR RFI THE EEOR IF FURTHER INFORMATION IS</li> </ul>   | INSTALLATION INSTRUCTIONS AVAILABLE ON<br>3.4 CUTTING AND PATCHING<br>A. DO NOT CUT OR NOTCH ANY STRUCTU<br>OF THE ENGINEER. FOLLOWING SUCH  |
| <ul> <li>REQUIRED. THE LEOR SHALL REQUIRE REVISIONS TO BE MADE IN THE HELD IF THE INSTALLATION DOES NOT<br/>FALL WITHIN THESE PROJECT-SPECIFIC GUIDELINES. NO ALLOWANCE SHALL BE MADE FOR INSTALLATIONS<br/>NOT ADHERING TO THESE REQUIREMENTS.</li> <li>1.3 SUBMITTALS</li> <li>A GENERAL</li> </ul>   | SKILLED CRAFTSMEN OF THE TRADES IN<br>3.5 CLEANING AND TOUCH-UP PAINTING<br>A. KEEP THE PREMISES FREE FROM ACCUM<br>OF WORK, REMOVE MATERIALS, SCRAP<br>EXTERIOR OF ALL DEVICES AND FOULIPA  |
| <ol> <li>BEFORE ANY MATERIAL IS FABRICATED OR SHIPPED, FURNISH TO THE ENGINEER FULL DETAILS, SHOP<br/>DRAWINGS, DIMENSIONS, CATALOG CUTS, SCHEMATIC (ELEMENTARY) DIAGRAMS, AND OTHER<br/>DESCRIPTIVE MATTER AS REQUIRED TO FULLY DESCRIBE THE EQUIPMENT SPECIFIED.</li> <li>1.4 TESTING RELATED SUBMITTALS</li> </ol>   | SKILLED CRAFTSMEN OF THE TRADES IN<br>3.6 RACEWAY SYSTEM<br>A. UNLESS OTHERWISE SPECIFIED OR INDIC<br>INSTALLED IN RACEWAYS OF THE TYPES   |
| A. TEST PROCEDURES: SUBMIT THE PROCEDURES TO BE FOLLOWED DURING THE OPERATIONAL READINESS<br>TEST. PROCEDURES SHALL INCLUDE TEST DESCRIPTIONS, FORMS, AND CHECKLISTS TO BE USED TO<br>CONTROL AND DOCUMENT THE REQUIRED TESTS. UPON COMPLETION OF EACH REQUIRED TEST,<br>DOCUMENT THE TEST BY SUBMITTING A COPY OF THE SIGNED OFF TEST PROCEDURES.  | <ul> <li>B. EXTERIOR, EXPOSED: GALVANIZED RIG</li> <li>C. INTERIOR, EXPOSED: ELECTRIC METALLIU</li> <li>D. DIRECT EARTH BURIAL: PVC SCHEDULE</li> <li>E. UNDER SLABS-ON-GRADE: PVC SCHED</li> <li>E. ALL CONDULT PENETRATIONS THROUGH</li> </ul> |
| PART 2 – PRODUCTS<br>2.1 NOTE   | DEPTH OF FLOOR SLAB.<br>G. INSTALL PULL BOXES WHERE SHOWN AN<br>MULTIPLE CONDUIT RUNS. INSTALL PULI  |
| A. UNLESS OTHERWISE INDICATED, PROVIDE ALL FIRST-QUALITY NEW MATERIALS, FREE FROM ANY DEFECTS,<br>AND SUITABLE FOR THE INTENDED USE AND THE SPACE PROVIDED. PROVIDE MATERIALS APPROVED BY UL<br>WHEREVER STANDARDS HAVE BEEN ESTABLISHED BY THAT ORGANIZATION. FURNISH AND INSTALL ALL<br>INCIDENTAL ITEMS NOT SPECIFICALLY SHOWN OR SPECIFIED WHICH ARE REQUIRED TO PROVIDE THE<br>COMPLETE SYSTEMS SPECIFIED HEREIN. WHERE TWO OR MORE UNITS OF THE SAME CLASS OF MATERIAL<br>OR EQUIPMENT ARE REQUIRED, PROVIDE PRODUCTS OF A SINGLE MANUFACTURER. COMPONENT PARTS | CONDUCTOR INSTALLATION. INSTALL P<br>THE EQUIVALENT OF THREE RIGHT-ANGI<br>WHEREVER POSSIBLE AND ALLOWED BY<br>H. SUPPORT BOXES INDEPENDENTLY OF CO<br>MEMBER. INSTALL BAR HANGERS IN FR/<br>SCREWS ON WOOD, BOLTS AND EXPAN                     |
| 2.2 EQUIPMENT FINISH     A. UNLESS OTHERWISE INDICATED, FINISH FOR ELECTRICAL EQUIPMENT AND ENCLOSURES SHALL BE     MANUFACTUREPS'S STANDARD, CRAY, OR ANSI 41, CRAY, OVER A PRIMER AND RUST INHUBITOR  | HOLLOW MASONRY UNITS, AND MACH<br>3.7 RACEWAY INSTALLATION<br>A. CONDUIT AND TUBING SIZES SHOWN A  |
| <ul> <li>2.3 CONDUIT AND CONDUIT FITTINGS:</li> <li>A. GALVANIZED RIGID STEEL CONDUIT (GRS):</li> <li>1. CONDUIT:</li> </ul>  | <ul> <li>B. MAINIAIN RACEWAY ENTIRELY FREE OF</li> <li>C. GROUP RACEWAYS INSTALLED IN SAME</li> <li>D. FOLLOW STRUCTURAL SURFACE CONTO</li> <li>OBSTRUCTION OF PASSACE WAYS PUN</li> </ul>   |
| <ul> <li>a. MEET REQUIREMENTS OF ANSI C80.1 AND UL 6.</li> <li>b. MATERIAL: HOT-DIP GALVANIZED, WITH CHROMATED PROTECTIVE LAYER.</li> <li>2. FITTINGS:</li> <li>a. MEET REQUIREMENTS OF UL 514B.</li> </ul>   | E. INSTALL WATERTIGHT FITTINGS IN OUTDO<br>F. ALL METAL CONDUIT TO BE REAMED, BU<br>CONDUCTORS WIPES OF CARLES   |
| <ul> <li>b. TYPE: THREADED, GALVANIZED. SETSCREW FITTINGS NOT PERMITTED.</li> <li>c. MATERIAL: MALLEABLE IRON WITH INSULATED THROAT.</li> <li>B. ELECTRIC METALLIC TUBING (EMT):</li> </ul>   | G. HORIZONTAL RACEWAYS INSTALLED UN<br>PART EMBEDDED WITHIN SLAB.<br>H. INSTALL CONCEALED, EMBEDDED, AND   |
| <ol> <li>CONDUIT:</li> <li>a. MEET REQUIREMENTS OF ANSI C80.3 AND UL 797.</li> <li>b. MATERIAL: HOT-DIP GALVANIZED, WITH CHROMATED AND LACQUERED PROTECTIVE LAYER.</li> <li>2. FITTINGS:</li> </ol>   | SURFACE AND HAVE NO CURVED PORT<br>I. FOR EMPTY CONDUITS INSTALL A NYLO<br>3.8 RACEWAY PENETRATIONS<br>A. MAKE AT RIGHT ANGLES, UNLESS OTHER   |
| <ul> <li>a. MEET REQUIREMENTS OF UL 514B.</li> <li>b. TYPE: STEEL BODY AND LOCK NUTS WITH STEEL OR MALLEABLE IRON COMPRESSION NUTS.</li> <li>C. PVC SCHEDULE 40 CONDUIT:         <ol> <li>CONDUIT:</li> <li>CONDUIT:</li> </ol> </li> </ul>   | <ul> <li>B. NOTCHING OR PENETRATION OF STRUC<br/>PERMITTED.</li> <li>C. FIRE-RATED WALLS, FLOORS, OR CEILING<br/>FIRE-RESISTANCE RATING.</li> </ul>  |
| <ul> <li>a. MEET REQUIREMENTS OF NEMA TC2 AND UL 651.</li> <li>b. UL LISTED FOR CONCRETE ENCASEMENT, UNDERGROUND DIRECT BURIAL, CONCEALED OR<br/>DIRECT SUNLIGHT EXPOSURE, AND 90°C INSULATED CONDUCTORS.</li> <li>2. FITTINGS</li> </ul>   | <ul> <li>D. APPLY SINGLE LAYER OF WRAPAROUNE<br/>CONCRETE FLOOR SLABS TO A POINT 2</li> <li>E. CONCRETE WALLS, FLOORS, OR CEILIN<br/>OR USE WATERTIGHT SEAL DEVICE</li> </ul>  |
| a. MEET REQUIREMENTS OF NEMA TC-3 AND UL 514B.<br>b. TYPE: PVC, SLIP-ON.<br>D. RACEWAY WARNING TAPE:<br>1. HEAVY-GAUGE, YELLOW PLASTIC TAPE OF 6-INCH MINIMUM WIDTH FOR USE IN TRENCHES.  | F. ENTERING STRUCTURES:<br>1. SEAL RACEWAY AT THE FIRST BOX V<br>GASES OR LIQUIDS FROM ONE ARI<br>2. EXISTING OR PRECAST WALL (UNID  |
| CONTAINING ELECTRIC CIRCUITS.<br>2. UTILIZE TAPE MADE OF MATERIAL RESISTANT TO CORROSIVE SOIL.<br>3. PRINTED WARNING THAT AN ELECTRIC CIRCUIT IS LOCATED BELOW THE TAPE.  | 2. EXISTING OK FRECAST WALL (UNDI<br>ENTRANCE SEAL DEVICE.<br>3.9 RACEWAY SUPPORT<br>A. SUPPORT FROM STRUCTURAL MEMBERS  |
| <ul> <li>2.4 CONDUCTORS</li> <li>A. ELECTRICAL TERMINALS AND TERMINATIONS: IT IS ASSUMED THAT ALL TERMINATIONS IN THE FIELD SHALL<br/>HAVE MINIMUM RATED 75°C RATED TERMINALS. THE CONTRACTOR SHALL FIELD VERIFY ALL TERMINALS<br/>FOR CONNECTION IN COMPLIANCE WITH CEC 110.14. THE CONTRACTOR SHALL INFORM THE ENGINEER</li> </ul>  | IN ANY CASE NOT EXCEEDING 10 FEET.<br>RACEWAYS.<br>B. WALL BRACKETS AND ASSOCIATED HAR<br>STAINLESS STEEL. PROVIDE GALVANIZED  |
| <ol> <li>ALL CONDUCTORS ARE RATED FOR 75°C ON PLANS UNLESS OTHERWISE NOTED.</li> <li>ALL CONDUCTORS SHOWN SHALL BE NEW UNLESS OTHERWISE INDICATED.</li> <li>CONDUCTOR TYPE:         <ol> <li>ALL CIRCUITS: STRANDED</li> </ol> </li> </ol>  | IRAPEZE INCLUDING HARDWARE, SHAL     C. PROVIDE AND ATTACH WALL BRACKETS     1. WOOD: WOOD SCREWS.     2. HOLLOW MASONRY UNITS: TOGG     2. CONCEPTE OF PRICE. EXPANSION   |
| <ol> <li>INSULATION: TYPE THHN/THWN, 90°C DRY OR 75°C WET.</li> <li>INSULATION: TYPE THHN/THWN, 90°C DRY OR 75°C WET.</li> <li>COPPER BUILDING WIRE:         <ol> <li>DESCRIPTION: FLEXIBLE, INSULATED AND UNINSULATED, DRAWN COPPER CURRENT-CARRYING<br/>CONDUCTOR WITH AN OVERALL INSULATION LAYER OR LACKET, OR BOTH, RATED 600 VAC, OR LESS.</li> </ol> </li> </ol>   | <ul> <li>CONCRETE OR BRICK. EAF ANSION<br/>WITH LOCK WASHERS AND NUTS.</li> <li>STEELWORK: MACHINE SCREWS.</li> <li>NAILS OR WOODEN PLUGS INSERTED IN<br/>PERMITTED DO NOT WELD BACEWAYS</li> </ul>  |
| <ul> <li>a. INSULATION:</li> <li>TYPE THHN AND TYPE THWN-2: COMPLY WITH UL 83.</li> <li>2.5 CONDUCTOR ACCESSORIES</li> </ul>  | OF STRAPS OR HANGERS.<br>3.10 RACEWAY BENDS<br>A INSTALL CONCEALED RACEWAYS WITH   |
| <ul> <li>A. TAPE:</li> <li>1. GENERAL PURPOSE, FLAME RETARDANT: 7-MIL, VINYL PLASTIC, RATED FOR 90°C MINIMUM MEETING<br/>REQUIREMENTS OF UL 510.</li> <li>2. FLAME RETARDANT. COLD. AND WEATHER RESISTANT. A SAME NUMBER OF STREET</li> </ul>   | <ul> <li>B. AVOID FIELD-MADE BENDS AND OFFSE<br/>BENDING MACHINE. DO NOT HEAT ME</li> <li>C. PVC CONDUIT:</li> </ul>   |
| <ol> <li>FLAME RETARDANT, COLD AND WEATHER RESISTANT: 8.5 MIL, VINYL PLASTIC.</li> <li>B. CABLE TIES:         <ol> <li>NYLON, ADJUSTABLE, AND SELF-LOCKING.</li> <li>COMPLY WITH UI 20 AND FS WIS-896</li> </ol> </li> </ol>  | <ol> <li>BENDS 30° AND LARGER: PROVIDE</li> <li>90° BENDS: PROVIDE GALVANIZED</li> <li>ALLOWED BY THE UTILITY.</li> </ol>  |

| BAR IS ONE INCH ON                              |    |        | REVISIONS |
|---|----|--------|-----------|
| ORIGINAL DRAWING                                | NC | D DATE | DESCRIPTI |
| 0" 1"   |    |        |           |
| IF NOT ONE INCH ON THIS<br>SHEET, ADJUST SCALES |    |        |           |
| ACCORDINGLY                                     |    |        |           |
|   | -  |        |           |

| - EXECUTION   |  |
|---|--|
| TE:<br>COORDINATE ELECTRICAL WORK WITH THE OWNER AND THE WORK OF OTHER TRADES TO AVOID<br>CONFLICTS, ERRORS, DELAYS, AND UNNECESSARY INTERFERENCE DURING CONSTRUCTION.<br>COTECTION DURING CONSTRUCTION<br>FOLLOWING INSTALLATION, PROTECT MATERIALS, EQUIPMENT, AND INSULATION FROM CORROSION,<br>PHYSICAL DAMAGE, AND MOISTURE. CAP CONDUIT RUNS DURING CONSTRUCTION WITH<br>MANUFACTURED SEALS. KEEP OPENINGS IN BOXES OR EQUIPMENT CLOSED DURING CONSTRUCTION.<br>ATERIAL AND EQUIPMENT INSTALLATION<br>DULOW THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS UNLESS OTHERWISE INDICATED. FOLLOW<br>E ENGINEER'S DECISION, WHEREVER ANY CONFLICT ARISES. KEEP COPY OF THE MANUFACTURER'S<br>STALLATION INSTRUCTIONS AVAILABLE ON THE JOBSITE FOR REVIEW AT ALL TIMES.<br>JITING AND PATCHING<br>DO NOT CUT OR NOTCH ANY STRUCTURAL MEMBER OR BUILDING SURFACE WITHOUT SPECIFIC APPROVAL<br>OF THE ENGINEER. FOLLOWING SUCH WORK, RESTORE SURFACES NEATLY TO NEW CONDITION USING<br>SKILLED CRAFTSMEN OF THE TRADES INVOLVED.<br>EANING AND TOUCH-UP PAINTING<br>KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL OR RUBBISH. UPON COMPLETION<br>OF WORK, REMOVE MATERIALS, SCRAPS, AND DEBRIS FROM THE PREMISES AND FROM THE INTERIOR AND | <ul> <li>A. SOLVENT WELDING: <ol> <li>PROVIDE MANUFACTURER RECOMMENDED SOLVENT; APPLY TO ALL JOINTS.</li> <li>INSTALL SUCH THAT JOINT IS WATERTIGHT.</li> </ol> </li> <li>ADAPTERS: <ol> <li>PVC TO METALLIC FITTINGS: PVC TERMINAL TYPE.</li> <li>PVC TO RIGID METAL CONDUIT: PVC FEMALE ADAPTER.</li> <li>BELLED END CONDUIT: BEVEL THE UNBELLED END OF THE JOINT PRIOR TO JOINING.</li> </ol> </li> <li>3.12 TERMINATION AT ENCLOSURES <ol> <li>SHEET METAL BOXES, CABINETS, AND ENCLOSURES:</li> <li>GALVANIZED RIGID STEEL CONDUIT: <ol> <li>PROVIDE ONE LOCK NUT EACH ON INSIDE AND OUTSIDE OF ENCLOSURE.</li> <li>INSTALL GROUNDING BUSHING.</li> <li>PROVIDE BONDING JUMPER FROM GROUNDING BUSHING TO EQUIPMENT GROUND BUS OF GROUND PAD; IF NEITHER GROUND BUS NOR PAD EXISTS, CONNECT JUMPER TO LAG BOLT ATTACHED TO METAL ENCLOSURE.</li> <li>INSTALL INSULATED BUSHING ON ENDS OF CONDUIT WHERE GROUNDING IS NOT REQUIRED.</li> <li>PROVIDE INSULATED THROAT WHEN CONDUIT TERMINATES IN SHEET METAL BOXES HAVING THREADED HUBS.</li> </ol> </li> <li>ELECTRIC METALLIC TUBING: PROVIDE GLAND COMPRESSION, INSULATED CONNECTORS.</li> </ol></li></ul> |
| EXTERIOR OF ALL DEVICES AND EQUIPMENT. REFINISH DAMAGED SURFACES TO NEW CONDITION USING<br>SKILLED CRAFTSMEN OF THE TRADES INVOLVED   | 3.13 UNDERGROUND RACEWAYS  |
| ACEWAY SYSTEM   | B. INSTALLATION WITH OTHER PIPING SYSTEMS: MAINTAIN MINIMUM 12-INCH SEPARATION UNLESS  |
| UNLESS OTHERWISE SPECIFIED OR INDICATED, WIRING SHALL CONSIST OF INSULATED CONDUCTORS   | OTHERWISE INDICATED. INSTALLATION OVER VALVES OR COUPLINGS NOT PERMITTED.  |

INSTALLED IN RACEWAYS OF THE TYPES INDICATED: EXTERIOR, EXPOSED: GALVANIZED RIGID STEEL. INTERIOR, EXPOSED: ELECTRIC METALLIC TUBING

DIRECT EARTH BURIAL: PVC SCHEDULE 40.

UNDER SLABS-ON-GRADE: PVC SCHEDULE 40. ALL CONDUIT PENETRATIONS THROUGH CONCRETE FLOOR SLABS SHALL BE GALVANIZED RIGID ENTIRE

DEPTH OF FLOOR SLAB INSTALL PULL BOXES WHERE SHOWN AND WHERE NECESSARY TO TERMINATE, TAP-OFF, OR REDIRECT MULTIPLE CONDUIT RUNS. INSTALL PULL BOXES WHERE NECESSARY IN RACEWAY SYSTEM TO FACILITATE CONDUCTOR INSTALLATION. INSTALL PULL BOXES IN CONDUIT RUNS AT LEAST EVERY 150 FEET OR AFTER THE EQUIVALENT OF THREE RIGHT-ANGLE BENDS. USE OUTLET BOXES AS JUNCTION AND PULL BOXES WHEREVER POSSIBLE AND ALLOWED BY APPLICABLE CODES.

SUPPORT BOXES INDEPENDENTLY OF CONDUIT BY ATTACHMENT TO BUILDING STRUCTURE OR STRUCTURAL MEMBER. INSTALL BAR HANGERS IN FRAME CONSTRUCTION, OR FASTEN BOXES DIRECTLY WITH WOOD SCREWS ON WOOD, BOLTS AND EXPANSION SHIELDS ON CONCRETE OR BRICK, TOGGLE BOLTS ON HOLLOW MASONRY UNITS, AND MACHINE SCREWS OR WELDED THREADED STUDS ON STEELWORK. CEWAY INSTALLATION

CONDUIT AND TUBING SIZES SHOWN ARE BASED ON THE USE OF COPPER CONDUCTORS. MAINTAIN RACEWAY ENTIRELY FREE OF OBSTRUCTIONS AND MOISTURE.

GROUP RACEWAYS INSTALLED IN SAME AREA. FOLLOW STRUCTURAL SURFACE CONTOURS WHEN INSTALLING EXPOSED RACEWAYS. AVOID OBSTRUCTION OF PASSAGEWAYS. RUN EXPOSED RACEWAYS PARALLEL OR PERPENDICULAR TO WALLS, STRUCTURAL MEMBERS, OR INTERSECTIONS OF VERTICAL PLANES. INSTALL WATERTIGHT FITTINGS IN OUTDOOR, UNDERGROUND, OR WET LOCATIONS

ALL METAL CONDUIT TO BE REAMED, BURRS REMOVED, AND CLEANED BEFORE INSTALLATION OF CONDUCTORS, WIRES, OR CABLES.

HORIZONTAL RACEWAYS INSTALLED UNDER FLOOR SLABS SHALL LIE COMPLETELY UNDER SLAB, WITH NO PART EMBEDDED WITHIN SLAB. INSTALL CONCEALED, EMBEDDED, AND BURIED RACEWAYS SO THAT THEY EMERGE AT RIGHT ANGLES TO SURFACE AND HAVE NO CURVED PORTION EXPOSED.

FOR EMPTY CONDUITS INSTALL A NYLON PULL CORD TO BE USED FOR FUTURE INSTALLATIONS. CEWAY PENETRATIONS MAKE AT RIGHT ANGLES, UNLESS OTHERWISE SHOWN.

NOTCHING OR PENETRATION OF STRUCTURAL MEMBERS, INCLUDING FOOTINGS AND BEAMS, NOT

PERMITTED FIRE-RATED WALLS, FLOORS, OR CEILINGS: FIRE-STOP OPENINGS AROUND PENETRATIONS TO MAINTAIN FIRE-RESISTANCE RATING. APPLY SINGLE LAYER OF WRAPAROUND DUCT BAND TO ALL METALLIC CONDUIT PROTRUDING THROUGH CONCRETE FLOOR SLABS TO A POINT 2 INCHES ABOVE CONCRETE SURFACE. CONCRETE WALLS, FLOORS, OR CEILINGS (ABOVEGROUND): PROVIDE NONSHRINK GROUT DRY-PACK, OR USE WATERTIGHT SEAL DEVICE.

ENTERING STRUCTURES: 1. SEAL RACEWAY AT THE FIRST BOX WITH CONDUIT SEALING BUSHING TO PREVENT THE ENTRANCE OF GASES OR LIQUIDS FROM ONE AREA TO ANOTHER. 2. EXISTING OR PRECAST WALL (UNDERGROUND): CORE DRILL WALL AND INSTALL A WATERTIGHT ENTRANCE SEAL DEVICE.

CEWAY SUPPORT SUPPORT FROM STRUCTURAL MEMBERS ONLY, AT INTERVALS NOT EXCEEDING CEC REQUIREMENTS, AND IN ANY CASE NOT EXCEEDING 10 FEET. DO NOT SUPPORT FROM PIPING, PIPE SUPPORTS, OR OTHER

RACEWAYS. WALL BRACKETS AND ASSOCIATED HARDWARE IN CONTACT WITH CONCRETE OR MASONRY SHALL BE STAINLESS STEEL. PROVIDE GALVANIZED STEEL AT ALL OTHER LOCATIONS. STRAP HANGERS AND CEILING TRAPEZE INCLUDING HARDWARE, SHALL BE GALVANIZED STEEL PROVIDE AND ATTACH WALL BRACKETS, STRAP HANGERS, OR CEILING TRAPEZE AS FOLLOWS:

. WOOD: WOOD SCREWS. HOLLOW MASONRY UNITS: TOGGLE BOLTS.

3. CONCRETE OR BRICK: EXPANSION SHIELDS, OR THREADED STUDS DRIVEN IN BY POWDER CHARGE, WITH LOCK WASHERS AND NUT 4. STEELWORK: MACHINE SCREWS.

NAILS OR WOODEN PLUGS INSERTED IN CONCRETE OR MASONRY FOR ATTACHING RACEWAY NOT PERMITTED. DO NOT WELD RACEWAYS OR PIPE STRAPS TO STEEL STRUCTURES. DO NOT USE WIRE IN LIEU OF STRAPS OR HANGERS. CEWAY BENDS

INSTALL CONCEALED RACEWAYS WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE. AVOID FIELD-MADE BENDS AND OFFSETS, BUT WHERE NECESSARY, MAKE WITH ACCEPTABLE HICKEY OR BENDING MACHINE. DO NOT HEAT METAL RACEWAYS TO FACILITATE BENDING. PVC CONDUIT:

. BENDS 30° AND LARGER: PROVIDE FACTORY-MADE ELBOWS. 2. 90° BENDS: PROVIDE GALVANIZED RIGID STEEL ELBOWS; EXCEPT ON UTILITY SERVICE RUNS IF NOT ALLOWED BY THE UTILITY.

3.14 CONDUCTORS

- A. DO NOT SPLICE INCOMING SERVICE CONDUCTORS AND BRANCH POWER DISTRIBUTION CONDUCTORS NO. 6 AWG AND LARGER UNLESS SPECIFICALLY INDICATED OR APPROVED BY ENGINEER. B. CONNECTIONS AND TERMINATIONS:
- . INSTALL WIRE NUTS ONLY ON SOLID CONDUCTORS. 2. INSTALL NYLON SELF-INSULATED CRIMP CONNECTORS AND TERMINATORS FOR CIRCUIT
- CONDUCTORS NO. 6 AWG AND SMALLER.
- TAPE INSULATE ALL UNINSULATED CONNECTIONS. 4. PLACE NO MORE THAN ONE CONDUCTOR IN ANY SINGLE-BARREL PRESSURE CONNECTION.
- 5. INSTALL CRIMP CONNECTORS WITH TOOLS APPROVED BY CONNECTOR MANUFACTURER. 6. COMPRESSION LUGS:
- a. ATTACH WITH A TOOL SPECIFICALLY DESIGNED FOR PURPOSE. b. TOOL SHALL PROVIDE COMPLETE, CONTROLLED CRIMP AND SHALL NOT RELEASE UNTIL CRIMP IS COMPLETE.
- c. DO NOT USE PLIER TYPE CRIMPERS.

C. DO NOT USE SOLDERED MECHANICAL JOINTS. D. SPLICES AND TERMINATIONS:

- INDOORS: USE GENERAL PURPOSE, FLAME RETARDANT TAPE.
- 2. OUTDOORS: USE FLAME RETARDANT, COLD- AND WEATHER-RESISTANT TAPE. E. CAP SPARE CONDUIT WITH UL LISTED END CAPS.
- F. CABINETS AND PANELS:
- 1. REMOVE SURPLUS WIRE, BRIDLE AND SECURE. 2. WHERE CONDUCTORS PASS THROUGH OPENINGS OR OVER EDGES IN SHEET METAL, REMOVE BURRS CHAMFER EDGES, AND INSTALL BUSHINGS AND PROTECTIVE STRIPS OF INSULATING MATERIAL TO PROTECT THE CONDUCTORS.

G. PROVIDE ADEQUATE LENGTH PIGTAILS FOR CONDUCTORS CONNECTED BY OTHERS.

- 3.15 GROUNDING A. UNLESS OTHERWISE INDICATED, GROUND ALL EXPOSED NON-CURRENT-CARRYING METALLIC PARTS OF ELECTRICAL EQUIPMENT, RACEWAY SYSTEMS, AND THE NEUTRAL OF ALL WIRING SYSTEMS IN ACCORDANCE WITH THE CEC, STATE, AND OTHER APPLICABLE LAWS AND REGULATIONS.
- 3.16 OPERATIONAL READINESS TEST (ORT) A. TESTING, TEST PLANS, AND TEST REPORTS SHALL BE PROVIDED BY THE CONTRACTOR AS SPECIFIED HEREIN. THE CONTRACTOR SHALL PROVIDE LABOR, INSTRUMENTS, AND OTHER MATERIAL TO COMPLETE THE TEST. B. THE ENTIRE INSTALLED ELECTRICAL SYSTEM SHALL BE CERTIFIED (INSPECTED, TESTED, AND DOCUMENTED) THAT IT IS READY FOR OPERATION. THE OBJECTIVE OF THIS TEST IS TO DEMONSTRATE THAT THE ELECTRICAL SYSTEM IS COMPLETE AND READY FOR USE.
  - a. PERFORM POINT-TO-POINT TESTS TO DETERMINE THE RESISTANCE BETWEEN THE MAIN GROUNDING SYSTEM AND ALL MAJOR ELECTRICAL EQUIPMENT FRAMES.
  - 1. DEMONSTRATION: a. DEMONSTRATE PROPER CIRCUITING.
  - b. DEMONSTRATE PROPER PANEL RELABELING.
- C. PANELBOARD DIRECTORIES SHALL MEET MINIMUM CEC 408.4 REQUIREMENTS. THE CONTRACTOR SHALL IDENTIFY EACH CIRCUIT WITH ROOM NUMBER, ROOM NAME AND EQUIPMENT SERVED. STANDARD
- ABBREVIATIONS FROM THE NEC AND WEBSTER'S DICTIONARY ARE ALLOWED. (E.G., "207 JANITOR WH" OR "102,103 RR RCPT".) D. LABELS SHALL BE MELAMINE, FLEXI-BRASS, OR EQUAL MATERIAL, 1.5"HX3"L, WITH 3/8"H TIMES NEW ROMAN
- LETTERING. 1. BACKGROUND/LETTERING COLOR SHALL BE AS FOLLOWS:
- a. BLACK/WHITE 2. EQUIPMENT LABELING (FOR ALL PROJECT TYPES) SHALL FOLLOW AFTER THE EXAMPLES SHOWN BELOW (FOR GENERATOR/ATS, PANELBOARDS, DISCONNECTS, LIGHTING CONTROL PANELS, ETC.):

PANEL A2 FED FROM PNL B1 400A, 120/208V, 3Ø DISCONNECT B1 FED FROM PNI\_M 60A/15F, 208V/3Ø

ELECTRICAL SYMBOLS

------ CONDUIT EXPOSED

----- CONDUIT CONCEALED or BURIED

SIGNED PACE ENGINEERING DES\_NP/DB\_CKD\_TB JOB NO. DATE 7/26/20 0470.22 drn DB



### SURFACE MOUNT PANELBOARD GROUNDING ELECTRODE CURRENT TRANSFORMER, NUMBER INDICATED **(#)** KEYNOTE NDICATES INTERCONNECTION OF PATHWAYS AND/OR CONDUCTORS, E.G., 4"C-4#500,1#3G (MSB : PNL A) A:B) INDICATES CONDUIT AND CONDUCTORS ROUTED FROM THE MAIN SWITCHBOARD TO PANELBOARD A.

S A SUPPLEMENTAL STANDARD ELECTRICAL LEGEND. SOME SYMBOLS MAY APPEAR ON THIS LEGEND AND NOT ON THE LIGHTING CONTROL SHEET FOR LIGHTING LEGEND.

ELECTRICAL ABBREVIATIONS

- AMMETER, AMPERE

9/9/2024 2:27:25 PM



|                   | (       | GEN         | 1    |       |         |         |       |       |             |       |                      |                 |  |  |
|-------------------|---------|-------------|------|-------|---------|---------|-------|-------|-------------|-------|----------------------|-----------------|--|--|
| M                 | V       | olts        |      |       | 120/208 | WYE     |       |       |             |       |                      |                 |  |  |
|                   | WIRES   |             |      | 4     |         |         |       |       | BUS R       | ATING | 200                  | 200 A           |  |  |
|                   | С       | IRCUITS     |      |       | 18      |         |       |       | MAIN        | BREAK | ER 200               | A               |  |  |
|                   |         |             | 1    |       |         | 1       |       | 1     |             |       |                      |                 |  |  |
| LOAD NAME         | TRIP    | INT<br>TYPE | A    | В     | С       | A       | В     | С     | INT<br>TYPE | TRIP  | LOAD NAME            | HOME RU         |  |  |
| (E) SPACE         | Ξ       |             |      |       |         | 1440 VA |       |       |             | 20 A  | (N) STORM DRAIN PUMP | (N) 3/4"C-2#10, |  |  |
| (E) SPACE         | Ξ       |             |      |       |         |         |       |       |             |       | (N) SPACE            |                 |  |  |
| (E) SPACE         | Ξ       |             |      |       |         |         |       |       |             |       | (N) SPACE            |                 |  |  |
|                   |         |             | 0 VA |       |         | 0 VA    |       |       |             | 00 4  |                      |                 |  |  |
| (E) IT HVAC PNL   | 100 A   |             |      | 0 V A |         |         | 0 V A |       |             | 20 A  | (E) GEN HIR & CHGR   | EXISTING        |  |  |
|                   |         |             |      |       | 0 V A   |         |       | 0 V A |             |       |                      |                 |  |  |
|                   |         |             | 0 VA |       |         | 0 VA    |       |       |             | 50 A  |                      | EXISTING        |  |  |
| (E) IT PNL        | 125 A   |             |      | 0 V A |         |         | 0 V A |       |             | 00.4  |                      |                 |  |  |
|                   |         |             |      |       | 0 V A   |         |       | 0 V A |             | 20 A  |                      | EXISTING        |  |  |
|                   | 1       |             | PHA  | SE A  | PHA     | SE B    | PHA   | SE C  | Notes:      |       |                      |                 |  |  |
| TOI               | TAL LOA | D (VA)      | 144  | 0 V A | 0       | VA      | 0 `   | VA    |             |       |                      |                 |  |  |
| TOTAL LOAD (AMPS) |         | 1           | 12   |       | 0       |         | 0     |       |             |       |                      |                 |  |  |
|                   |         |             |      |       |         |         |       |       |             |       |                      |                 |  |  |

9/9/2024 2:27:25 PM

|   |     |    | REVISION |     |  |
|---|-----|----|----------|-----|--|
| ORIGINAL DRAWIN   | 3   | NO | DATE     | DES |  |
| o"  | 1"  |    |          |     |  |
| IF NOT ONE INCH ON<br>SHEET, ADJUST SCALES<br>ACCORDINGLY | HIS |    |          |     |  |
|   |     |    |          |     |  |

| 01 Project Lo                                     | ocation (city)             | ľ                        | гека   |   | 03  | Occupancy Types Within Project             | ct:                                  | Office  |  |
|---|----------------------------|--------------------------|--|---|---|--|--------------------------------------|---|--|
| 01 Project Lo                                     | ocation (city)             | Y                        | ′reka  |   | 02  | Climate Zone                               | ct:                                  | 16<br>Office  |  |
|   | DE                         |                          |  |   |   | •  | •                                    |   |  |
| B. PROJECT SCO                                    | PE                         | hat and within           |  |   |   |  |                                      |   |  |
|   | s electrical systems t     | nat are withir           | the scope of the per   | mit application.  |   | 00   |                                      |   |  |
| 01  | 02                         | 03                       | 04   | 05  |   | 06   |                                      | 07  |  |
| Electrical Service<br>Designation/<br>Description | Scope of Work <sup>1</sup> | Rating <sup>2</sup> (kVA | Utility Provided<br>Metering System<br>) Exception to<br>130.5(a)/<br>160.6(a) <sup>3</sup>  | subject to CA<br>Elec Code<br>Article 517<br>Exception to<br>130.5(a)and<br>(b) |   | Demand Response Cont                       | rols                                 | Provides power to dwellin<br>units/common living area<br>only in multifamily<br>occupancy |  |
| E0.2 Add/Alt to feeders<br>circuits only          |                            |                          | Where required, demand response controls must be specified<br>which are capable of receiving and automatically responding to at<br>least one standards based messaging protocol which enables<br>demand response after receiving a demand response signal.<br>Sections 120.2/ 160.3, 130.1/ 160.5, and 130.3/ 160.5, and<br>mechanical, indoor lighting, and sign lighting Certificate of<br>Compliance documents will indicate when demand response<br>controls are required. |   |   |  |                                      |   |  |
| FOOTNOTES: Addin                                  | g only new feeders and     | d branch circuit         | s triggers Voltage Drop  | 130.5(c)/160.6(c),  | , no other re                             | equirements from 130.5/160.6 are re        | quired.                              | •   |  |
| Applicable if the ut                              | tility company is provid   | ling a metering          | system that indicates in   | nstantaneous kW d   | demand and                                | l kWh for a utility-defined period.        |                                      |   |  |
| CA Building Ener                                  | gy Efficiency Standa       | ırds - 2022 Nc           | nresidential Complia   | Gen<br>nce Rep<br>Sch   | nerated Dat<br>nort Version<br>ema Versio | e/Time:<br>: 2022.0.000<br>n: rev 20220101 | Documentation<br>Compl<br>Report Gen | Software: Energy Code Ace<br>iance ID: 214144-0724-0003<br>erated: 2024-07-23 14:36:31    |  |
| TATE OF CALIFOR                                   | NIA                        |                          |  |   |   |  |                                      |   |  |
| Electrical P                                      | ower Distrib               | ution                    |  |   |   |  | CALIFORNIA                           | A ENERGY COMMISSION   |  |
| ERTIFICATE OF                                     | COMPLIANCE                 |                          |  |   |   |  |                                      | NRCC-ELC-E  |  |
| roject Name:                                      | Government Center          | ADA Parking              |  |   | Report                                    | Page:                                      |                                      | (Page 3 of 4)   |  |
| -   |                            |                          |  |   |   |  |                                      |   |  |

| C. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| lections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E.<br>Iditional Remarks. These documents must be provided to the building inspector during construction and can be found online |  |  |  |  |  |  |
| Form/Title   |  |  |  |  |  |  |
| IRCI-ELC-E - Must be submitted for all buildings   |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE   |  |  |  |  |  |  |
| here are no forms required for this project.   |  |  |  |  |  |  |
|  |  |  |  |  |  |  |



01

Service Electrical

Generated Date/Time: Report Version: 2022.0.000 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Schema Version: rev 20220101 Documentation Software: Energy Code Ace Compliance ID: 214144-0724-0003 Report Generated: 2024-07-23 14:36:31

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

VOLTAGE DROP CALCULATIONS CONDUIT CONDUCTOR DISTRIBUTION LOAD TYPE MATERIAL MATERIAL MSB: XFMR 2 LINE-LINE (3Ø) CU EMT XFMR 2 : PNL LMDP EMT CU LINE-LINE (3Ø) PNL LMDP : ATS EMT CU LINE-LINE (3Ø) EMT CU ATS : PNL GEN LINE-LINE (3Ø) PNL GEN : PUMP EMT CU LINE-NEUTRAL VD = (L \* Z \* I)/1000 LINE-NEUTRAL LINE-LINE (3Ø) VD = (2 \* L \* Z \* I)/1000 LINE-LINE (1Ø)



# TITLE 24 ELECTRICAL COMPLIANCE DOCUMENTS

SISKIYOU COUNTY GOVERNMENT CENTER PARKING LOT IMPROVEMENTS

PG<u>17</u> OF 17

| OORREITI |        |
|----------|--------|
|          |        |
|          |        |
|          |        |
|          |        |
|          |        |
|          |        |
|          |        |
|          |        |
|          |        |
|          |        |
|          |        |
|          | SHEFT  |
|          | STILLT |

| R | quantity of<br>Runs | CONDUCTOR<br>SIZE (AWG) | CURRENT (A) | DISTANCE (FT) | VOLTAGE (V) | IMPEDANCE (Z) | VOLTAGE<br>DROP (VD) | VOLTAGE DROP<br>(%) |  |
|---|---------------------|-------------------------|-------------|---------------|-------------|---------------|----------------------|---------------------|--|
|   | 1                   | 500                     | 320         | 10            | 480         | 0.05          | 0.27                 | 0.06%               |  |
|   | 2                   | 350                     | 480         | 10            | 208         | 0.03          | 0.24                 | 0.12%               |  |
|   | 1                   | 3/0                     | 160         | 15            | 208         | 0.09          | 0.38                 | 0.18%               |  |
|   | 1                   | 3/0                     | 160         | 8             | 208         | 0.09          | 0.20                 | 0.10%               |  |
|   | 1                   | 10                      | 15          | 75            | 120         | 1.10          | 1.24                 | 1.03%               |  |
|   |                     |                         |             |               |             | TOTAL VO      | LTAGE DROP:          | 1. <b>48</b> %      |  |
|   | VD = (SQRT(3) * L   | * X * I)/1000           |             | L = DISTANCE  |             | Z = IMPEDANCE |                      |                     |  |
|   |                     |                         |             | I = CURRENT   |             |               |                      |                     |  |

| R | quantity of<br>Runs | CONDUCTOR<br>SIZE (AWG) | CURRENT (A) | DISTANCE (FT) | VOLTAGE (V) | IMPEDANCE (Z) | VOLTAGE<br>DROP (VD) | VOLTAGE DRC<br>(%) |
|---|---------------------|-------------------------|-------------|---------------|-------------|---------------|----------------------|--------------------|
|   | 1                   | 500                     | 320         | 10            | 480         | 0.05          | 0.27                 | 0.06%              |
|   | 2                   | 350                     | 480         | 10            | 208         | 0.03          | 0.24                 | 0.12%              |
|   | 1                   | 3/0                     | 160         | 15            | 208         | 0.09          | 0.38                 | 0.18%              |
|   | 1                   | 3/0                     | 160         | 8             | 208         | 0.09          | 0.20                 | 0.10%              |
|   | 1                   | 10                      | 15          | 75            | 120         | 1.10          | 1.24                 | 1.03%              |
|   |                     |                         |             |               |             |               |                      |                    |

Generated Date/Time: Report Version: 2022.0.000 Schema Version: rev 20220101 Compliance ID: 214144-0724-0003 Report Generated: 2024-07-23 14:36:31

Documentation Software: Energy Code Ace

CALIFORNIA ENERGY COMMISSION

06

Documentation Software: Energy Code Ace

Compliance ID: 214144-0724-0003 Report Generated: 2024-07-23 14:36:31

CALIFORNIA ENERGY COMMISSION

NRCC-ELC-E

(Page 4 of 4) 2024-07-23T17:36:29-04:00

NRCC-ELC-E

(Page 2 of 4) 2024-07-23T17:36:29-04:00

| l certif   | y that this Certificate of Compliance documentation is accurate a | and complete.   |  |  |  |  |
|--|---|---|--|--|--|--|
| Documen<br>Anthon  | atation Author Name:<br>y Bowser                                  | Documentation Author Signature:                         |  |  |  |  |
| Company<br>PACE Er   | r:<br>ngineering Inc  | Signature Date:<br>7/23/2024                            |  |  |  |  |
| Address:   | 5155 Venture Pkwy.  | CEA/ HERS Certification Identification (if applicable): |  |  |  |  |
| City/State   | e//ip: Redding, CA 96002  | Phone: 530 244 0202                                     |  |  |  |  |
| RESPONSIBLE PERSON'S DECLARATION STATEMENT         I certify the following under penalty of perjury, under the laws of the State of California:         1.       The information provided on this Certificate of Compliance is true and correct.         2.       I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)         3.       The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the re of Title 24, Part 1 and Part 6 of the California Code of Regulations.         4.       The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calcu plans and specifications submitted to the enforcement agency for approval with this building permit application.         5.       I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the documentation the building, and made available to the enforcement agency for all a inspections. Lunderstand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. |   |   |  |  |  |  |
| Responsit  | ble Designer Name: Anthony Bowser                                 | Responsible Designer Signature:                         |  |  |  |  |
| Company  | PACE Engineering inc  | Date Signed: 7/23/2024                                  |  |  |  |  |
| Address:   | 5155 Venture Pkwy.  | License: E 017988                                       |  |  |  |  |
| City/State/Zip: Redding, CA 96002 Phone: 530 244 0202  |   |   |  |  |  |  |

| STATE OF CALIFOR          | RNIA<br>Power Distribution    |  |  |  |  |
|---------------------------|-------------------------------|--|--|--|--|
| CERTIFICATE OF COMPLIANCE |                               |  |  |  |  |
| Project Name:             | Government Center ADA Parking |  |  |  |  |

Project Address: 311 4th St, Yreka, CA 96097

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

02

Separation for

| Electrical Service  | Co  | mbined Voltage Drop o    | n Inst                    | alled Feeder/Branch    | Location of Voltage Drop            | Sheet Number for Voltage Drop             | Field Inspector |      |
|---|---|--------------------------|---------------------------|------------------------|-------------------------------------|---|-----------------|------|
| Designation/Description   |   | Circuit Conductors (     | Comp                      | iance Method           | Calculations <sup>1</sup>           | Calculations in Construction<br>Documents | Pass            | Fail |
| E0.2  | E0.2 Voltage drop less than 5% Permitted by CA Elec Code (Exception to 130.5(c))* |                          | In construction documents | E1.0                   |                                     |   |                 |      |
| * NOTES: If "Permitted by CA Elec   | Code  | *" is selected under Con | nplian                    | ce Method above, pleas | se indicate where the exception app | plies in the space provided below.        |                 |      |
| <sup>1</sup> FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached"<br>if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible". |   |                          |                           |                        |                                     |   |                 |      |
|   |   |                          |                           |                        |                                     |   |                 |      |

Generated Date/Time:

Report Version: 2022.0.000 Schema Version: rev 20220101

Report Page: Date Prepared:

| Service Electrical<br>Metering 130.5(a)/<br>160.6(a)<br>(See Table F)  | AND  | Separa<br>Monitorin<br>160<br>(See T | ation for<br>g 130.5(b)/<br>1.6(b)<br>Table G) | AND                       | Volta<br>130.5(c<br>(See | ge Drop<br>)/ 160.6(c)<br>Table H) | AND                     | Controlled<br>Receptacles<br>130.5(d)/ 160.6(d)<br>(See Table I) | Electric Ready 3<br>(See Table .     | 160.9<br>J)                  | Compliance                                | Results     |   |
|--|--|--------------------------------------|--|---------------------------|--------------------------|------------------------------------|-------------------------|--|--------------------------------------|------------------------------|---|-------------|---|
|  | AND  |                                      |  | AND                       | ,                        | Yes                                | AND                     |  |                                      |                              | COMPLI                                    | ES          |   |
| [  |  | ·                                    |  |                           |                          |                                    |                         |  |                                      |                              |   |             |   |
| D. EXCEPTIONAL CO  | ONDITI   | ONS                                  |  |                           |                          |                                    |                         |  |                                      |                              |   |             |   |
| This table is auto-fille   | d with u   | uneditable                           | comments b                                     | ecause of                 | selectio                 | ons made or                        | data en                 | tered in tables throug   | hout the form.                       |                              |   |             |   |
|  |  |                                      |  |                           |                          |                                    |                         |  |                                      |                              |   |             |   |
| E. ADDITIONAL REN  | MARKS  |                                      |  |                           |                          |                                    |                         |  |                                      |                              |   |             |   |
| This table includes rer  | marks n  | nade by the                          | e permit app                                   | licant to t               | he Auth                  | ority Having                       | g Jurisdic              | tion.  |                                      |                              |   |             |   |
|  |  |                                      |  |                           |                          |                                    |                         |  |                                      |                              |   |             |   |
| H. VOLTAGE DROP  |  |                                      |  |                           |                          |                                    |                         |  |                                      |                              |   |             |   |
| This table includes en<br>demonstrate complia  | tirely no<br>nce wit                               | ew or comp<br>h 130.5(c)/            | olete replace<br>160.6(c). Fo                  | ment elec<br>or alteratio | trical po<br>ons, only   | ower distrib<br>the altered        | ution sys<br>d circuits | tems, or alterations to<br>must demonstrate co                   | hat add, modify o<br>mpliance per 14 | or replace b<br>1.0(b)2Piii/ | oth feeders and branch<br>180.2(b)4Bviic. | circuits to |   |
| 01   |  |                                      |  |                           | 02                       |                                    |                         | 03   | 3                                    |                              | 04  | 0           | 5 |
| Electrical Service Combined Voltage Drop on Installed Feeder/Branch Location of Voltage Drop Sheet Number for Voltage Drop Field Inspecto  |  |                                      |  |                           |                          |                                    |                         | spector  |                                      |                              |   |             |   |
| Designation/Design | Designation/Description Circuit Conductors Complia |                                      | liance Meth                                    | od                        | Calcula                  | tions <sup>1</sup>                 | Calculat                | ions in Construction<br>Documents                                | Pass                                 | Fail                         |   |             |   |
| E0.2   |  |                                      | Voltage dro                                    | op less tha               | n 🗆                      | Permitted<br>Code (Exc             | by CA El<br>ception t   | ec<br>o In constructio   | n documents                          |                              | E1.0                                      |             |   |

04

Controlled

05

| STATE OF CALIFO    | DRNIA   |   |   |
|--------------------|---|---|---|
| Electrical         | Power Distribution  |   | CALIFORNIA ENERGY COMMISSIO                         |
| CERTIFICATE C      | OF COMPLIANCE   |   | NRCC-ELC-   |
| Project Name:      | Government Center ADA Parking                             | Report Page:  | (Page 2 of 4  |
|                    |   | Date Prepared:  | 2024-07-23T17:36:29-04:0                            |
|                    |   |   |   |
|                    |   |   |   |
|                    |   |   |   |
| C. COMPLIANC       | CE RESULTS  |   |   |
| Results in this to | ble are automatically calculated from data input and cc   | Iculations in Tables F through J. Note: If any cell on this table | e says "COMPLIES with Exceptional Conditions" refer |
| to Table D. Excep  | otional Conditions for guidance or see applicable Table r | eferenced below.  |   |

03