PROJECT DESCRIPTION

GREENSPOT EV CHARGING STATION INSTALLATION

PROJECT LOCATION: 299 CHERRY HILL RD. PARSIPANNY, NJ

SCOPE OF WORK

INSTALL (3) DUAL PEDESTAL LEVLE 2 BTC POWER CHARGERS

SHEET INDEX

ELECTRICAL COVER SHEET, GENERAL NOTES & SYMBOL LEGEND

- ELECTRICAL SITE LAYOUT
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GENERAL NOTES

- 1. THIS DOCUMENT DOES NOT CONTAIN ALL SPECIFICATIONS AND DETAILS NECESSARY FOR CONSTRUCTION. REFER TO INSTALLATION GUIDES AND OTHER DOCUMENTS PROVIDED BY
- 2. ALL EXISTING CONDITIONS SHOWN ARE APPROXIMATE. EXISTING UTILITY LOCATIONS AND CROSSINGS ARE TO BE LOCATED IN THE FIELD. CONTRACTOR IS TO CONTACT 811 PRIOR TO BEGINNING ANY EXCAVATION WORK
- 3. ALL PAVEMENT, LANDSCAPING, UTILITIES, AND OWNER PROPERTY THAT IS DAMAGED OR AFFECTED BY CONSTRUCTION SHALL BE RETURNED TO EXISTING CONDITIONS AT THE
- CONTRACTOR'S EXPENSE. 4. PROPOSED PAVEMENT STRIPING SHALL LINE UP WITH EXISTING STRIPING WHEREVER POSSIBLE, ADDITIONAL PAVEMENT STRIPE IS NOT NECESSARILY PARALLEL TO THE
- CONSTRUCTED CHARGING ISLAND.
- 5. ACCESSIBLE EV STALLS WERE DESIGNED BASED ON EXISTING CONDITIONS AND WITHOUT SENERIT OF SURVEY DATA. ALL ADA AND LOCAL REQUIREMENTS INCLUDING, BUT NOT LIMITED TO SCOPE AND SPACING SHALL BE CONFIRMED BY THE CONTRACTOR AND MET AT
- THE TIME OF CONSTRUCTION. 6. CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN ACCESSIBILITY PRIOR TO
- 7. ANY NOTES ON DRAWING PAGES CONTAINED HEREIN SHALL BE CONSIDERED PART OF THESE
- 8. CONTRACTOR RESPONSIBILITIES INCLUDE CHARGING STATION MOUNTING, OVERHEAD
- CONDUIT INSTALLATION, AND WIRING. 9. CONTRACTOR TO PAINT PROPOSED EV PARKING SPACES PER JURISDICTIONAL
- 10. CONTRACTOR TO FIELD SCAN/XRAY EXISTING CONCRETE SLAB TO ENSURE REINFORCEMENT IS NOT DAMAGED DURING EQUIPMENT OR CONDUIT ANCHORING, ENSURE 1" GAP MIN.
- BETWEEN REBAR AND ANCHORAGE. 11. EXACT STATION PLACEMENT AND ROTATION ANGLE MAY VARY SLIGHTLY UPON INSTALLATION DEPENDING ON SITE CONDITIONS.
- 12. JUNCTION BOXES LOCATIONS AND SIZES TO BE DETERMINED BY INSTALLER AND SHALL MEET
- 13. EXACT LOCATION OF BOLLARD (IF ANY USED) PLACEMENT TO BE DETERMINED IN FIELD TO MEET LOCAL JURISDICTION REQUIREMENTS AND TO PROVIDE THE BEST PROTECTION OF ELECTRICAL COMPONENTS FROM DAMAGE.

ELECTRICAL NOTES

- THIS DESIGN MAY BE USED FOR SECURING PERMITS, BID, PLANNING, THE COMPANY'S REVIEW OR SOME OTHER GOAL THIS DESIGN DOES NOT GUARANTEE THESE APPROVALS, NOR ARE THESE APPROVALS A REQUIREMENT FOR SERVICES OR THE COMPLETION OF THIS WORK.
- 2. THE ELECTRICAL CONTRACTOR SHALL PAY ALL PERMIT FEES, PLAN REVIEW FEES, LICENSE FEES, INSPECTION AND TAXES APPLICABLE TO THE ELECTRICAL WORK, PROVIDE ALL INSTRUMENTS AND PERFORM ALL TESTS REQUIRED BY THE AHJ. CORRECT ALL FAILURES AND REPLACE ANY DAMAGED PORTIONS OF THE WORK RESULTING FROM TESTS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE TESTS.
- 3. THIS DESIGN IS NOT A COMPLETE SET OF CONSTRUCTION DRAWING OR SHOP DRAWINGS. THIS DESIGN REPRESENTS DIAGRAMMATIC REPRESENTATION OF INTENDENT SCOPE OF WORK.
- 4. THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS, THEREFORE, NOT ALL THE SYMBOLS PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY
- 5. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE NATIONAL ELECTRICAL CODE, IECC, LIFE SAFETY CODE, LOCAL BUILDING CODE, OSHA REGULATIONS, OCAL, STATE, FEDERAL AND AUTHORITY HAVING JURISDICTION CODES APPLICABLE AT THE TIME OF THE
- 6. GENERAL WORK PRACTICES FOR ELECTRICAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NECA 1 STANDARD FOR GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION (ANSI)
- 7. ALL MATERIALS PROVIDED BY THE CONTRACTOR SHALL BE NEW AND FREE OF DEFECTS, LISTED/LABELED FOR THE INTENDED PURPOSE BY UNDERWRITERS (UL) OR OTHER ORGANIZATION THAT IS ACCEPTABLE TO THE AHJ.
- 8. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SCHEDULING DELIVERY, RECEIVING UNLOADING, STORING, SETTING IN PLACE, AND PROTECTING FROM DAMAGE, VANDALISM THEFT OR WEATHER DURING CONSTRUCTION FOR ALL NEW EQUIPMENT PROVIDED BY THE ELECTRICAL CONTRACTOR OR PROVIDED BY OTHER PARTIES TO THE ELECTRICAL
- CONTRACTOR FOR INSTALLATION BY THE ELECTRICAL CONTRACTOR. 9. THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS ARE INTENDED TO DESCRIBE AND LLUSTRATE SYSTEMS WHICH WILL NOT INTERFERE WITH THE STRUCTURE OF THE BUILDING AND WHICH WILL FIT INTO THE AVAILABLE SPACES. THE CONTRACTOR IS RESPONSIBLE FOR CAREFULLY LAYING OUT ALL WORK TO CONFORM TO NATIONAL FLECTRICAL CODE LEARANCES, ARCHITECTURAL, STRUCTURAL, MECHANICAL AND SITE CONDITIONS, TO AVOID
- 10. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT ONLY. COORDINATE WITH DRAWINGS OF OTHER TRADES TO FIT THE ACTUAL SPACE CONDITIONS, HEADROOM AND SPACE CONDITION TO BE MAINTAINED.

OBSTRUCTIONS AND TO ALLOW THE PROPER INSTALL ATION OF EACH ITEM

- 11 THE DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY AND DO NOT NECESSARILY SHOW THE EXACT LOCATION AND DETAILS OF THE WORK TO BE INSTALLED.
- 12. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF RECEPTACLES, AND LIGHTING
- 13. UPON THE COMPLETION OF THE WORK, THE ENTIRE ELECTRICAL SYSTEM SHALL BE TESTED AND SHALL BE SHOWN TO BE IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE INTENT OF THE SPECIFICATIONS AND DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE
- 14. PREPARE AND FURNISH TO OWNER 'AS-BUILT' PLANS FOR ALL WORK INSTALLED. 15. ELECTRICAL CONTRACTOR SHALL FURNISH RECORD SET OF DRAWINGS WITH ANY DEVIATIONS

CONTRACTOR TO HAVE ALL SYSTEM READY FOR OPERATION AND INSPECTION BY AHJ.

- 16. TEST AND INSPECT ALL WIRING AND EQUIPMENT INSTALLED UNDER THIS SECTION OF SPECIFICATIONS. ALL WIRING MUST BE FREE OF SHORTS AND BROKEN WIRE. LEAVE ALL
- MATERIALS AND APPARATUS IN PROPER AND SATISFACTORY WORKING CONDITIONS 17. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE CORRECT PHASE SEQUENCE OF ALL
- THREE-PHASE FEEDERS AND BRANCH CIRCUITS. VERIFY PROPER ROTATION OF ALL MOTORS. 18. ELECTRICAL CONTRACTOR SHALL VERIFY PHASE LOAD BALANCING ON POWER PANELS UPON
- 19. PROVIDE IDENTIFICATION ON ALL PANELBOARDS, SWITCHES, STARTERS, DIMMERS, SWITCHES
- IN DISTRIBUTION PANELBOARDS AND SWITCHBOARDS 20. CONDUIT RUNS WHEN SHOWN ARE DIAGRAMMATICAL. FINAL LOCATION AND ROUTING SHALL BE
- ESTABLISHED BY THE CONTRACTOR BASED ON THE INSTALLATION CONDITIONS AND SHALL BE VERIFIED IN THE FIELD. ALL CONDUIT TYPES AND INSTALLATION REQUIREMENTS SHALL BE IN
- 21. CONDUIT RUNS SHALL BE PARALLEL WITH OR AT RIGHT ANGELS TO WALLS AND CEILINGS. CONDUIT SHALL BE SUPPORTED BY APPROVED MEANS. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A DRAG WIRE.
- 22. ALL SUSPENDED CONDUITS SHALL BE RIGIDLY SUPPORTED FROM THE BUILDING STRUCTURE BY MEANS OF APPROVED CONDUIT FASTENERS, HANGERS, STRAPS, SUPPORTS, CLAMPS, ETC., FIRMLY ANCHORED IN PLACE AND SPACED AT INTERVALS NOT TO EXCEED 10'-0".
- 23. PULLBOXES, JUNCTION BOXES, CONDUIT BODIES, AND EXPANSION JOINTS SHALL BE
- 24. PROVIDE CONDUIT EXPANSION FITTINGS WITH BONDING JUMPERS FOR ALL CONDUITS PASSING THROUGH EXPANSION JOINTS.
- 25. PROVIDE SLEEVES FOR PENETRATIONS THROUGH BLOCK OR CONCRETE WALLS AND FLOORS. 26. THE USE OF FLEXIBLE CONDUIT FROM LIGHTING FIXTURES TO JUNCTION BOX IS PERMITTED ONLY WHEN A SEPARATE GROUND WIRE IS INSTALLED WITH THE CONDUCTORS INSIDE FLEXIBLE CONDUIT. THE GROUND WIRE MUST BOND THE FIXTURE HOUSING TO THE JUNCTION
- 27. FLEXIBLE CONDUIT INSTALLED OUT OF DOORS, IN ANY MECHANICAL EQUIPMENT ROOMS, OF NORMALLY WET AREAS SHALL BE LIQUID TIGHT FLEX WITH SUITABLE FITTINGS.
- 28. PROVIDE CONDUIT, WIRING, CIRCUITING AND REQUIRED CONNECTIONS TO ALL DEV ES, FIXTURES AND EQUIPMENT. CONNECT TO CIRCUITS AS INDICATED. CIRCUIT NUMBER OF ARREST OF FOR INFORMATION PURPOSES ONLY. ACTUAL CIRCUIT NUMBERS SHALL BE DETER TO IN THE FIELD AND REFLECTED IN THE PANEL SCHEDULE DIRECTORY AND ON
- 29 CONTRACTOR SHALL VERIEY AND COORDINATE ALL MOUNTING HEIG MOUNTED IN CASEWORK OR IN ABOVE COUNTERS WITH EXISTING
- 30. UNLESS SPECIFICALLY DIRECTED OTHERWISE, FURNIS AND INSTALL HAND EVERY ITEM CONTAINED IN AND ASSOCIATED WITH, THE WORK INV. SHOWN THE DRAWINGS AND/OR DESCRIBED IN THE ACCOMPANYING SPECIFICATIONS, THER WITH ALL AND/OR DESCRIBED IN THE ACCOMPANYING SPECIFICATIONS, THERWITH ALL APPURTENANCES, COMPONENTS AND INCIDENTALS NEC SAMPLETE THE WORK, CONTRACTOR SHALL PROVIDE CONDUIT, WIRING AND CA. O ALL DEVICES, FIXTURES AND
- ETC. FOR A COMPLETE WORKING SYSTEM BASED ON THE 31. PROVIDE INDEPENDENT SUPPORT FOR DISCOMECT SWITCH AS, CONTROL STATIONS, BOXES, PANELS, ETC. WHERE NO WALLS OR OTHER STATIONS URFACE EXISTS.
- 32. EQUIPMENT SIZED AND LOCATIONS ARE TE. ACTUAL DIMENSIONS TO BE DETERMINED BY EQUIPMENT

ABBREVIATIONS

ABOVE FINISHED FLOOR

ABOVE FINISHED GRADE

ASYMMETRICAL

CONDUIT

CENTER LIN

CEILING

CONTROL

COPPER

DEMOLISH

DIAMETER

DOWN

DRAWING

CIRCUIT BREAKER

ARC FLASH INTERRUPTER

AMERICAN WIRE GAUGE

ARC FLASH CIRCUIT INTERRUPTER

AUTOMATIC TRANSFER SWITCH

CLOSED CIRCUIT TELEVISION

CONTROL POWER TRANSFORMER

CURRENT TRANSFORMER

DISCONNECT SWITCH

DISTRIBUTION PANEL BOARD

ELECTRICAL CONTRACTOR

AFF

AFG

AFCI

ASYM

ATS

BKR

CCTV

CKT

CLG

CNTL

DN

DWG

E.C.

AWG

AFI

BOX. MAXIMUM LENGTH SHALL BE 6'-0"

- 33. PROVIDE BRANCH CIRCUIT V ALL S REQUIRING ELECTRICAL CONNECTIONS.
 DT SHOWN, CONNECT ITEMS TO CIRCUITS INDICATED. WHERE BRANCH CIRCUIT WITH EXACT ROUTING OF CONDUITS AND WIRING, UNLESS THE CONTRACTOR SHALL
- IRCUITS SHALL BE MINIMUM #12 THHN AWG COPPER DEVICE WITH PIG TAIL SUCH AS SOLENOID VALVES, LIMIT TORS AND ETC. FOR PROPER ELECTRICAL CONNECTION. PROVIDE 34 PROVIDE JUNCTIO OX SWITCHES, SMOKE TEC UNTING OF JUNCTION BOX.
- RACEWAY, SWITCHES, AND JUNCTION BOXES SHALL BE PAINTED
- 36. TIGHTEN SCREWS AND BOLTS FOR CONNECTORS AND TERMINALS ACCORDING TO MANUFACTURER'S PUBLISHED TORQUE - TIGHTENING VALUES.
- 37. EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THE MECHANICAL AND PLUMBING DRAWINGS, COORDINATE WITH MECHANICAL AND PLUMBING CONTRACTORS

ELEC ELECTRICAL

EVCS ELECTRICAL VEHICLE CHARGING STATION

EQUIP EQUIPMENT

EXIST (E) EXISTING

FBO

FIXT

FTV

G.C.

GEN

GFCI

HOA

KVA

KW

KWH

LCP

G-GND

FIRE ALARM

FEEDER

FIXTURE

GROUND

GENERATOR

FIELD TO VERIFY

GENERAL CONTRACTOR

GROUND FAULT CIRCUIT INTERRUPTER

GROUND FAULT INTERRUPTER

HIGH INTENSITY DISCHARGE

INTERRUPTING CAPACITY

HAND-OFF-AUTOMATIC

HORSE POWER

INPUT / OUTPUT

KILOVOLT AMPERE

LOCAL CONTROL PANEL

JUNCTION BOX

KILOWATT HOUR

KILOVOLT

KILOWATT

FLOOR

FURNISHED BY OTHER

- 38. WHEREVER THE INSTALLATION OF ELECTRICAL EQUIPMENT AS SHOWN ON THE DRAWINGS IS IMPRACTICAL DUE TO LOCAL INTERFERENCE OR LINEORESEEN FIELD CONDITIONS. THE CONTRACTOR SHALL INSTALL THE EQUIPMENT AT NEW LOCATIONS AS DIRECTED BY THE
- 39. DESIGN IS BASED ON ALL CONDUCTORS TO BE THHN COPPER AND NO MORE THAN 4 CURRENT CARRYING CONDUCTORS IN THE SAME RACEWAY OR CONDUIT, UNLESS OTHERWISE NOTED.
- 40. WHEN EQUIPMENT IS BEING REMOVED/DEMO FROM THE FIELD, ALL WIRING ASSOCIATED WITH THE LOAD MUST BE REMOVED FROM THE JUNCTION BOX OR THE CIRCUIT BREAKER. DO NOT LEAVE UNUSED CONDUCTORS IN THE FIELD WITH ENDS TAPED WITH TAPE OR WIRE NUTS.
- 41. SPARE WIRES INSTALLED SHALL BE NEATLY COILED, BOUND AND PLACED IN SPACE AVAILABLE.
- 42. WHERE EXISTING CIRCUIT TO REMAIN ARE INTERRUPTED DUE TO NEW CONSTRUCTION, CONDUIT AND WIRE SHALL BE EXTENDED RE-ENERGIZED. 43 PROVIDE DISCONNECT SWITCHES FOR ELECTRICAL HEATER, HVAC FOLIPMENT AND EXHAUST
- FANS WITHIN EYE SIGHT OF THE EQUIPMENT. 44. PROVIDE SERVICE RECEPTACLE WITHIN 25 FEET OF EACH HVAC EQUIPMENT.
- 45. ELECTRICAL CONTRACTOR TO VERIFY ACTUAL INSTALLED EQUIPMENT ELECTRICAL NAME PLATE DATA BEFORE ENERGIZING THE CIRCUIT, CONFIRM ELECTRICAL DESIGN VALUES AND ACTUAL EQUIPMENT BEING INSTALLED ARE IN COMPLIANCE WITH ELECTRICAL CODE AND MANUFACTURER INSTALLATION REQUIREMENTS.
- 46. DISCONNECT SWITCHES SHALL BE HEAVY-DUTY, QUICK-MADE, QUICK-BREAK TYPE, NEMA 1. ENCLOSURE FOR INDOOR LOCATIONS (NEMA 3R FOR OUTDOOR LOCATIONS). SWITCHES SHAL BE AS MANUFACTURED BY SQUARE 'D'. GENERAL ELECTRIC. OR SIEMENS (I.T.E.). PROVIDE FUSES AS MANUFACTURED BY BUSSMAN, GOULD-SHAWMUT, OR LITTLE-FUSE. ALL CONDUCTOR TERMINALS TO BE U.L, LISTED FOR A MAXIMUM OF 75°C. SWITCHES USED AS SERVICE ENTRANCE EQUIPMENT TO BE U.L. LISTED AS "SER" RATED EQUIPMENT
- 47. PANEL BOARDS SHALL BE MANUFACTURED BY SQUARE-D, EATON, GENERAL ELECTRIC, OR SIMILAR, MEETING U.L. STANDARDS 50 AND 67, WITH U.L. LABEL. PANELS USED AS SERVICE ENTRANCE EQUIPMENT TO BE U.L. LISTED AS "SER" RATED EQUIPMENT.
- 48. ALL SWITCHBOARDS AND PANELBOARDS SHALL BE MARKED WITH IDENTIFYING NAMEPLATES TO INDICATE THE DESIGNATIONS USED ON THESE DRAWINGS. PROVIDE NEW PANELBOARD SCHEDULES, CORRECTLY FILLED OUT FOR EVERY PANELBOARD,
- 49 ALL PANELS SWITCHES ETC. SHALL HAVE SUFFICIENT GUTTER SPACE AND LUGS TO
- 50. BREAKERS: THERMAL, MAGNETIC TYPE, QUICK-MAKE, QUICK-BREAK, PLUG-IN TYPE FOR LOAD CENTERS AND BOLT IN TYPE FOR PANEL BOARDS AND SINGLE UNIT CONSTRUCTION. TWO POLE BREAKERS SHALL BE SINGLE UNIT COMMON TRIP TYPE. BREAKERS USED AS SWITCHES FOR 120V LIGHTING CIRCUITS SHALL BE APPROVED FOR THAT USE AND MARKED "SWD". ALL BREAKERS FOR HVAC AND REFRIGERATION EQUIPMENT SHALL BE "HACR" RATED BREAKERS.
- 51. GROUNDING SYSTEM: PERMANENTLY AND EFFECTIVELY GROUND ALL METALLIC CONDUIT, SUPPORTS CABINETS PANEL BOARDS AND SYSTEM NEUTRAL CONDUCTORS MAINTAIN CONTINUITY OF EQUIPMENT GROUND THROUGHOUT THE SYSTEM. GROUND CLAMPS SHALL APPROVED TYPE, SPECIFICALLY DESIGNED FOR GROUNDING, WHERE GROUNDING CONDUCTOR IS ENCLOSED IN CONDUIT, GROUND CLAMP SHALL BE OF A TYPE WHICH GROUNDS BOTH CONDUCTOR AND CONDUIT. ALL CIRCUITS IN FLEXIBLE METAL OF PLASTIC CONDUIT SHALL INCLUDE A GROUND WIRE SIZED AND INSTALLED IN ACCORDAN NATIONAL ELECTRICAL CODE.
- 52. PROVIDE AND INSULATED GREEN GROUNDING WIRE IN THE SAME CONDUIT CIRCUIT OR FEEDER WIRING AND FOR ALL (3) PHASES AND/OR SINGL

CIRCUITS AND FOR ALL FEEDERS, SHOWN OR NOT SHOWN.

- 53. ALL WORK SHALL BE PERMANENTLY AND EFFECTUALLY OUND CONNECTIONS ARE SPECIFICALLY SHOWN OR SPECIFIED. G' UND ANCE AT ANY POIN SHALL NOT EXCEED 25 OHMS
- 54. ALL CONDUITS SHALL BE EMT UNLESS OTHERV
- 55. CONDUIT SHALL BE SIZED TO COMPLY WITH NE INSTALLED PER NEC. PROVIDE SCHEDULE 40 STEEL CONDUIT BELOW GRADE, MINIMUM 3/4". PROVIDE ELECTRIC FOR INTERNAL LOCATIONS, EMT FLEXIBLE METAL CONDUIT (IN LENGTHS 6' O. CONNECTORS AND COUPLING SHALL " TYPE CABLES MUST BE INSTALLED IN ACCORDANCE WITH OT BE SUPPORTED FROM CEILING SUPPORT WIRES.
- 56. ELECTRICAL CONTRACTOR ZE OF CONDUIT SHOWN ON PLANS.
- Y SY MS TO BE INSTALLED WITH SEPARATE GROUNDING MEANS. 57. ALL CONDUIT AND RA
- 58. CONDUCTORS: ATED ANNEALED 98% PURE COPPER WITH COLOR CODING, B AND S GAGE, #10 AND MALLER TO BE SOLID, #8 AND LARGER TO BE STRANDED, MINIMUM #12 UNLES OTHER SE IN CATED. INDUCTORS MUST BE INSTALLED IN ACCORDANCE WITH NEC AND D S ANNEALED 98% PURE COPPER WITH COLOR CODING, B AND S TO BE SOLID, #8 AND LARGER TO BE STRANDED, MINIMUM #12 UNLESS REPORT OF THE ROY CEILING SUPPORT WIRES. THIN MAY NOT BE USED DO NOT THE USED
 - R 600 V AND TYPES AS FOLLOWS: THWN OR THHN THWN OR THHN SERVICE ENTRANCE: SE-RHW OR USE-RHW OVER #4/0 ORDINARY SERVICE: THIN OR XHHN
- OR WHITHIN OF HTG EQUIP .: ALL CONDUIT AND RACEWAY SYSTEMS TO BE INSTALLED WITH SEPARATE GROUND
- CONDUCTOR. CONDUIT SYSTEM IS NOT TO BE USED AS THE SOLE GROUNDING MEANS. 60. ALL WIRING TO BE COLOR-CODED AS FOLLOWS:

OVER #4/0 WET OR HOT SERVICE:

WIRE THRU FLUORESCENT FIXTURES

208 VOLT SYSTEM		277/480 SY	STEM	
TRAL:	WHITE	PHASE A:	BROWN	
SE A OR L1:	BLACK	PHASE B:	ORANG	
SE B OR L2:	RED	PHASE C:	YELLO\	
SECORIA:	BLUE	NEUTRAL ·	GRAY	

61. WIRE CONNECTORS SHALL BE EQUAL TO "SCOTCH LOCK" FOR #8 AWG WIRE AND SMALLER AND EQUAL TO T & B "LOCK TIGHT" FOR #6 AWG AND LARGER.

62 LIGHT FIXTURES & LAMPS ARE FURNISHED BY CONTRACTOR EXCEPT AS NOTED ON THE LIGHT

- FIXTURE SCHEDULE. FIXTURE INSTALLATION SHALL BE BY THE ELECTRICAL CONTRACTOR ACCORDING TO LOCAL CODE AUTHORITY.
- 63. EMERGENCY LIGHTING SHALL HAVE A MINIMUM OF 90 MIN. BATTERY BACK-UP, OR AS REQUIRED BY LOCAL CODE AUTHORITY. PROVIDE LOCK-ON CIRCUIT BREAKERS FOR CIRCUITS SERVING
- EXIT SIGN FIXTURES AND EMERGENCY BATTERY PACK FIXTURES. 64. ALL EMERGENCY LIGHTS SHALL BE CONNECTED AHEAD OF ANY LOCAL SWITCH.
- 65. ALL EXIT SIGNS SHOWN ARE PER ARCHITECTURAL LAYOUT AND SHALL BE APPROVED BY FIRE
- DEPARTMENT AND BUILDING OFFICIAL.
- 66. LAYOUT BRANCH CIRCUIT WIRING AND ARRANGEMENT OF HOME RUNS FOR MAXIMUM ECONOMY AND EFFICIENCY. INCREASE WIRE SIZE IF 100 FEET OF LENGTH IS EXCEEDED.
- 67. CONCEAL WIRING SYSTEM ABOVE SUSPENDED CEILINGS OR IN WALL OR FLOOR
- CONSTRUCTION WHERE POSSIBLE, INSTALL CONDUITS PARALLEL TO BUILDING LINES, AND TO CLEAR ALL OPENING, DEPRESSIONS, PIPES, DUCTS, STRUCTURE, ETC. 68. INSTALL CONDUIT CONTINUOUS BETWEEN BOXES AND CABINETS WITH NO MORE THAN FOUR (4) 90 DEGREE BENDS. SECURELY FASTEN IN PLACE WITH STRAPS, HANGERS AND STEEL
- SUPPORTS AS REQUIRED. DO NOT SUPPORT CONDUIT FROM SUSPENDED CEILING GRID OR SUSPENSION WIRES. REAM CONDUIT ENDS BEFORE INSTALLATION AND THOROUGHLY CLEAN
- 69. PROV
- 70. FOR A

PWR POWER

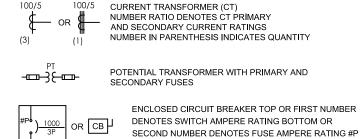
RECEP RECEPTACLE

SHD SHIELDED CABLE

REV REVISION

RMIN		TION. OPENINGS SHALL BE PLUGGED OR COVERE ITCHES AND OUTLET SHALL NOT BE USED TO "FE T.		
		SANG PLASTER RING AND A 1/8" DIAMETER NYLON NG SPACE FROM ALL NEW TELEPHONE AND/OR D.		
R AL		EVICES, VERIFY FINISH COLOR WITH ARCHITECT.		
	LIS	LOAD INTERRUPTER SWITCH	SP	SPARE
	LP	LIGHTING PANEL	SS	SURGE SUPRESSION
	LTG	LIGHTING	SWBD	SWITCHBOARD
	MAX	MAXIMUM	SWGR	SWITCHGEAR
	MBJ	MAIN BONDING JUMPER	SYM	SYMMETRICAL
	MCC	MOTOR CONTROL CENTER	TEL	TELEPHONE
MCS MDP MIN MSB		MOLDED CASE SWITCH	TYP	TYPICAL
		MAIN DISTRIBUTION PANEL	U/G	UNDERGROUND
		MINIMUM	U.O.N.	UNLESS OTHERWISE NOTED
		MAIN SWITCHBOARD	V	VOLT OR VOLTAGE
	MSG	MAIN SWITCHGEAR	VA	VOLT AMPERE
	MTS	MANUAL TRANSFER SWITCH	VFD	VARIABLE FREQUENCY DRIVE
	NA	NON-AUTOMATIC	W	WATTS
	NC	NORMALLY CLOSED	WHM	WATT HOUR METER
	NEC	NATIONAL ELECTRIC CODE	WP	WEATHERPROOF
	NO	NORMALLY OPEN	ww	WIREWAY
	NTS	NOT TO SCALE	XFMR	TRANSFORMER
	OCPD	OVER CURRENT PROTECTION DEVICE		
	P	POLE		
	PH	PHASE		
	PNL	PANEL TRANSFORMER		
	PT	POTENTIAL TRANSFORMER		
	PP	POWER PANEL		

SYMBOL LEGEND ELECTRICAL EQUIPMENT DISTRIBUTION EQUIPMENT GENERATION & GROUNDING TYPICAL FOR ALL RECEPTACLES, OUTLETS, JUNCTION BOXES AND FOR ALL DISTRIBUTION EQUIPMENT EQUIPMENT: NUMBER DENOTES PANEL CIRCUIT NUMBER. GFP - GROUND FAULT PROTECTION UTILITY COMPANY METER AND METER PAN AS SHUNT TRIP LONG TIME, SHORT TIME INSTANTANEOUS AND ARC FAULT CIRCUIT INTERRUPTER GROUND FAULT PROTECTION FUNCTIONS GROUND FAULT INTERRUPTER 100% RATED EQUIPMENT. SURGE SUPPRESSION TYPE ISOLATED GROUND TYPE WEATHERPROOF SURGE PROTECTOR DEVICE DUPLEX RECEPTACLE ELECTRIC OPERATED DEVICE SWITCHED DUPLEX RECEPTACLE - ONE OUTLET SWITCHED LOWER CASE LETTER DENOTES ELECTRONIC TRIP TYPE DEVICE SWITCH CONTROL DOUBLE DUPLEX RECEPTACLE CIRCUIT BREAKER GROUNDED WYE CONNECTION SINGLE RECEPTACLE THERMAL MAGNETIC CIRCUIT BREAKER TOP NUMBER DENOTES TRIP AMPERE RATING BOTTOM NUMBER DENOTES FRAME SIZE AMPERE RATING SPECIAL RECEPTACLE AMPERE AND VOLTAGE UNGROUNDED WYE CONNECTION RATING AS INDICATED ON DRAWING #P - DENOTES NUMBER OF POLES SURFACE RACEWAY WITH RECEPTACLES, AS OPEN DELTA CONNECTION INDICATED ON DRAWINGS CIRCUIT BREAKER WITH ELECTRONIC TRIP PROGRAMMER. TOP NUMBER INDICATES FRAMI DOUBLE DUPLEX RECEPTACLE - FLOOR MOUNTED SIZE SIZE, BOTTOM NUMBER INDICATES SENSOR RATING. #P - DENOTES NUMBER OF POLES DELTA CONNECTION DUPLEX RECEPTACLE - FLOOR MOUNTED DRAW-OUT TYPE THERMAL MAGNETIC CIRCUIT SPECIAL RECEPTACLE - FLOOR MOUNTED BREAKER TOP NUMBER DENOTES TRIP AMPERE RATING BOTTOM NUMBER DENOTES FRAME SIZ AMP RATING #P - DENOTES NUMBER OF POLES WIRE TERMINAL CEILING MOUNTED DUPLEX RECEPTACLE GROUND TEST ELECTRODE FLOOR JUNCTION BOX UNFUSED DISCONNECT SWITCH. NUMBER **GROUND ROD** WALL MOUNTED JUNCTION BOX DENOTES SWITCH AMPERE RATING #P - DENOTES NUMBER OF POLES INDERGROUND GROUND SYSTEM BARE CABLE. SIZE AS NOTED OR INDICATED. JUNCTION BOX, SIZE AND MOUNT AS REQUIRED BUILDING GROUND SYSTEM BARE CABLE SIZE AS NOTED OR INDICATED ELECTRICAL OR TELEPHONE MANHOLE FUSED DISCONNECT SWITCH TOP OR



AMPERE RATING BOTTOM OR

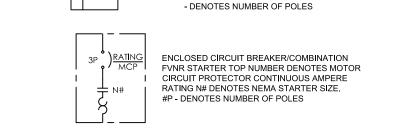
#P - DENOTES NUMBER OF POLES

SECOND NUMBER DENOTES

AMPERE FUSE RATING

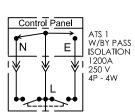
GROUND GRID CABLE CONNECTION

GROUND CONNECTION









3PJ O

ELECTRICAL OR TELEPHONE HANDHOLE

TERMINAL BLOCKS.

INDICATE EQUIPMENT TAG

INDICATE EQUIPMENT TAG

TERMINAL BOX. SIZE IN ACCORDANCE WITH NEC

REQUIREMENTS AND TO ACCOMMODATE ALL

PULL BOX. SIZE IN ACCORDANCE WITH NEC

SURFACE PANELBOARD LETTERS & NUMERALS

ELECTRICAL PANEL LETTERS AND NUMBERS

INDICATE PANELBOARD IDENTIFICATION TAG

SEE PANEL SCHEDULE FOR DETAILS.

HOMERUN CIRCUITS TO PANELBOARD.

CIRCUIT HOMERUNS. 1 PH 120V

INDICATES NEW OR EXISTING

DEMOLISHED AND/OR REMOVED

EQUIPMENT/CONDUIT

FLEXIBLE CONNECTION

—O CONDUIT TURNING UP

CAPPED CONDUIT

WIDTH IN INCHES

PUSHBUTTON STATION

EV CHARGING STATION

—U/G—U/G—U/G— UNDERGROUND CONDUCTORS AND CONDUIT

—O/H—O/H—O/H—O/H— OVERHEAD CONDUCTORS AND CONDUIT

INDICATING LIGHT STATION

BUS DUCT

CONDUIT TURNING DOWN

INDICATES CONCEALED NEW OR EXISTING

INDICATES EXISTING EQUIPMENT/CONDUIT TO BE

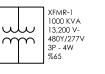
CABLE TRAY (LADDER STYLE) NUMBER DENOTES

NUMBER OF ARROWS INDICATES NUMBER OF

FEEDER TAG WITH CONDUIT AND WIRE SIZE AND

RECESSED PANELBOARD LETTERS & NUMERALS

AUTOMATIC TRANSFER SWITCH WITH BYPASS ISOLATION



TRANSFORMER SIZE AS NOTED WITH PRIMARY AND SECONDARY VOLTAGE AS INDICATED

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PROFESSIONAL ENGINEERING

SEAL & SIGNATURE:

201-920-2899
 ☑info@AmperEngineering.com

05/02/2022

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\ REV. DATE

CLIENT:



EV CHARGETEC 185 INDUSTRIAL PKWY,

BRANCHGURG, NJ 08876

DESCRIPTION

908-801-6890

PROJECT: **GREENSPOT EVCS INSTALLATION**

299 CHERRY HILL RD. PARSIPANNY, NJ

PROJECT NUMBER: AE# 1522-22 SHEET SIZE: DRAWN BY: 24X36 DESIGNED BY: CHECKED BY: DEE

ELECTRICAL COVER SHEET, |GENERAL NOTES & SYMBOL LEGEND

DRAWING TITLE:

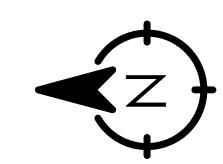


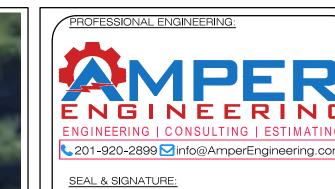
INTERIOR O/H CONDUIT & CONDUCTORS

UNDERGROUND CONDUIT & CONDUCTORS



CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME





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ADDRESS: 185 INDUSTRIAL PKWY, BRANCHGURG, NJ 08876

908-801-6890

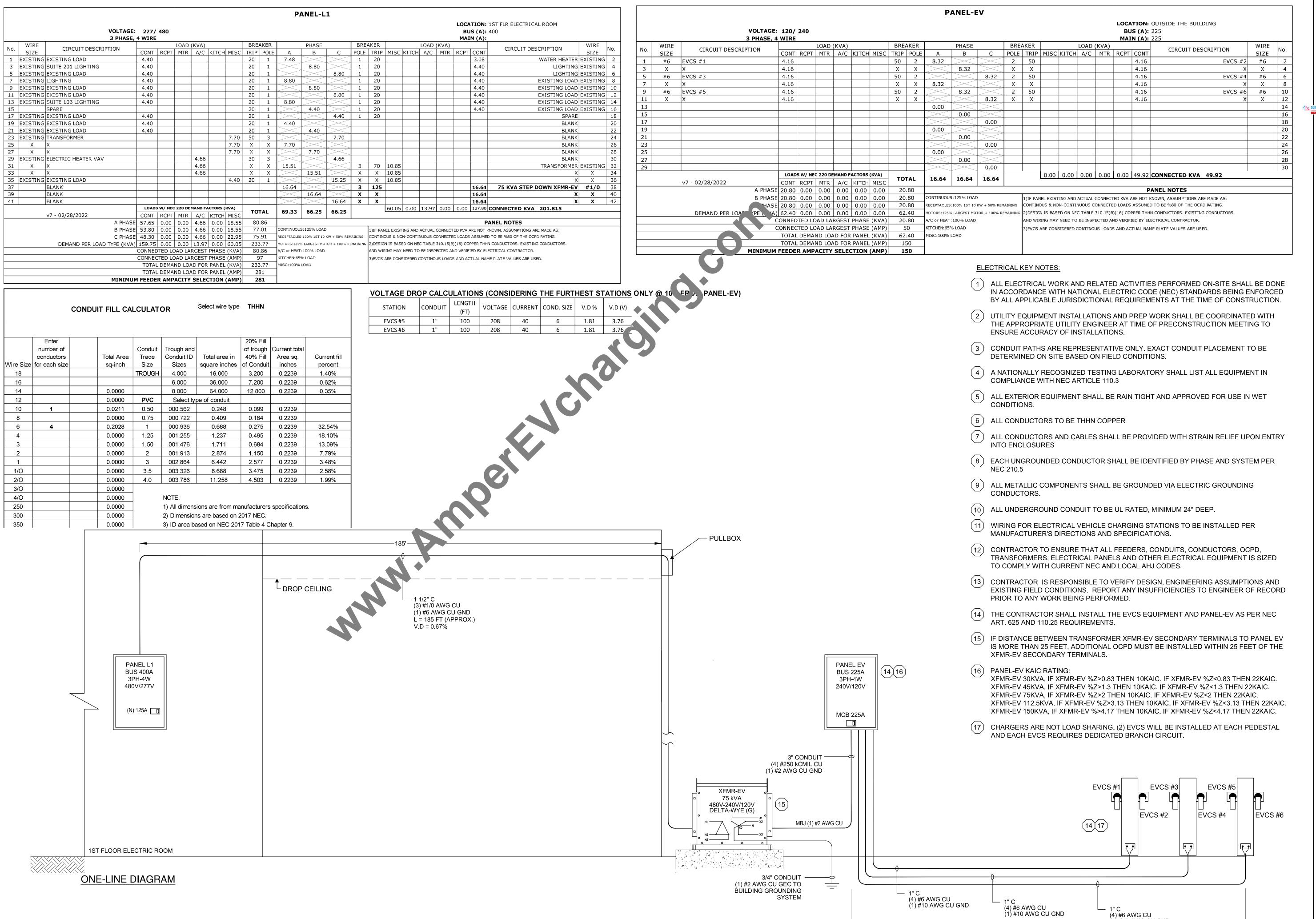
GREENSPOT EVCS INSTALLATION

ADDRESS: 299 CHERRY HILL RD. PARSIPANNY, NJ

	PROJECT NUMBER:			
	AE# 1522-22			
	SHEET SIZE:	DRAWN BY:		
	24X36	IB		
	DESIGNED BY:	CHECKED BY:		
ì	AC	DEE		

DRAWING TITLE:
ELECTRICAL SITE LAYOUT

E100



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0 |04/27/2022|ISSUED FOR PERMIT REV. DATE DESCRIPTION

CLIENT:

EV CHARGETEC

185 INDUSTRIAL PKWY, BRANCHGURG, NJ 08876

908-801-6890

PROJECT:

GREENSPOT EVCS INSTALLATION

299 CHERRY HILL RD. PARSIPANNY, NJ

PROJECT NUMBER: AE# 1522-22

SHEET SIZE: DRAWN BY: 24X36 DESIGNED BY: CHECKED BY: AC DEE

DRAWING TITLE: ONE-LINE DIAGRAM & CALCULATIONS

(1) #10 AWG CU GND

(1) #10 AWG CU GND

E200



L2 Dual Port

BTC Power's AC-Level 2 product family is certified according to the California Type Evaluation Program (CTEP, Cert-#: 5890-21). It is the only EVSE that supports authentication via RFID or Credit Card, mobile payment methods like QR-Code or app. Our systems also allow for Multi-tiered energy pricing (time-of-use tariffs) and multi-tiered parking pricing for currents up to 70A, which allows ultimate freedom in choosing the right pricing strategy for each use case. Our AC Level 2 EVSE come fully calibrated, tested and sealed, ready for installation for commercial purposes (certain RSA activities may need to be performed).

Features

Dual Ports rate for 30 / 40 Amps (each)

BTC POWER

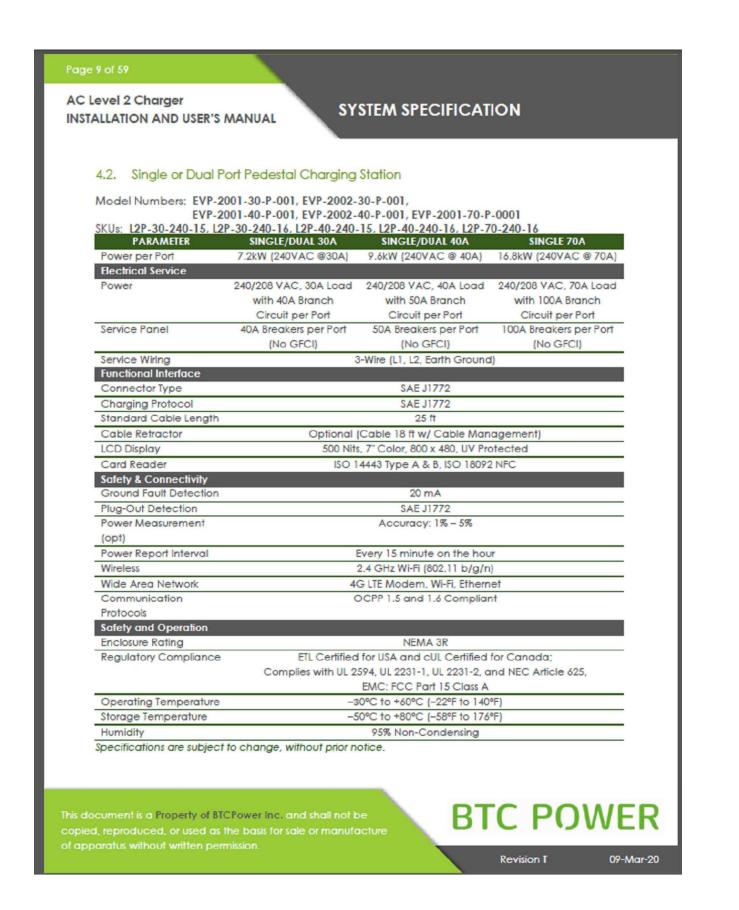
PEDESTAL BASE PLATE DETAIL

SCALE 6"=1'-0"

(NOT USED)

- SA J1772 Charging Protocol
- NEMA 3R Housing
- 7" Color LCD Screen
- RFID, Credit Card





EVCS OVERVIEW

SCALE
N.T.S.

1 PEDESTAL OVERVIEW

SCALE
N.T.S.

3 PRODUCT SPECIFICATION

SCALE
N.T.S.

5

N.T.S.

5

N.T.S.

1 PEDESTAL OVERVIEW

SCALE
N.T.S.

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1 PRODUCT SPECIFICATION

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1 PRODUCT SPECIFICATION

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PRODUCT SPECIFICATION

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PRODUCT SPECIFICATION

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PRODUCT SPECIFICATION

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PRODUCT SPECIFICATION

N.T.S.

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N.T.S.

9

PRODUCT SPECIFICATION

N.T.

SCALE N.T.S.

(NOT USED)

201-920-2899 ☑info@AmperEngineering.com SEAL & SIGNATURE: THE ENGINEER OF RECORD SHALL NOT HAVE CONTROL OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, DEVIATIONS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE INFORMATION IN THIS DRAWING IS PROPRIETARY. ANY REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE ENGINEER OF RECORD. THIS DESIGN IS NOT TO BE USED FOR CONSTRUCTION UNLESS P.E. STAMPED, SIGNED, DATED AND ONE OF THE REVISION STATES "ISSUED FOR CONSTRUCTION", "IFC" OR "IFC UPDATED".

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CLIENT:

EV CHARGETEC

185 INDUSTRIAL PKWY, BRANCHGURG, NJ 08876 PHONE:

908-801-6890

GREENSPOT
EVCS
INSTALLATION

ADDRESS: 299 CHERRY HILL RD. PARSIPANNY, NJ 07054

PROJECT NUMBER:

AE# 1522-22

SHEET SIZE: DRAWN BY:

24X36 IB

DESIGNED BY: CHECKED BY:

AC DEE

INSTALLATION DETAILS
SHEET 3

DRAWING NO:

SCALE

N.T.S.

E302