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LEGEND	
ITEM	DESCRIPTION
	SETBACK LINE
	BUFFER LINE
	EASEMENT LINE
	NHESP BOUNDARY LINE
	FEMA FLOOD BOUNDARY LINE
	WETLAND BOUNDARY LINE
	EXISTING UNDERGROUND POWER CONDUIT LINE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING WATER LINE
	EXISTING STORM AND DRAINAGE LINE
	EXISTING SANITARY SEWER LINE
	EXISTING GUARD RAIL
	EXISTING SPEED BUMP
	EXISTING LIGHT POLE
	EXISTING BOLLARD
	EXISTING FENCE LINE
	EXISTING FIRE HYDRANT
	EXISTING SIGN
	EXISTING STRUCTURE
	EXISTING TREE
	EXISTING TREE LINE
	EXISTING L2 ELECTRIC VEHICLE CHARGING STATION
	LIMITS OF DISTURBANCE = ±18,400 SF (±0.42 AC)
	LIMITS OF WORK = ±31,500 SF (±0.72 AC)
	EXISTING PARKING STRIPING TO BE REMOVED
	PERVIOUS AREA REMOVAL
	FULL-DEPTH CONCRETE PAVEMENT / CURBING REMOVAL
	FULL-DEPTH ASPHALT PAVEMENT REMOVAL
	ASPHALT / CONCRETE PAVEMENT SAW CUT LINE
	STORMWATER FLOW DIRECTION ARROW
	(SF) SILT FENCE
	(EF) EROSION EEL / FILTER SOCK
	(IP) INLET PROTECTION
	(TP) TREE PROTECTION
	(CA) CONCRETE WASHOUT AREA
	CONDUIT AND CONDUCTOR FEEDER CALLOUT
	EV VAN STALL PARKING COUNT
	POWER CONDUIT - UNDERGROUND
	EXISTING UTILITY MANHOLE
	UTILITY SWITCHING CABINET - PAD MOUNTED
	UTILITY METER
	UTILITY TRANSFORMER - PAD MOUNTED
	ELECTRICAL MANHOLE
	480V LV SWITCHBOARD - PAD MOUNTED
	LV TRANSFORMER - PAD MOUNTED
	LV PANEL - UNISTRUT MOUNTED (U.O.N.)
	NEMA 3R JUNCTION BOX
	L3 DC FAST CHARGING STATION (DCFC)
	L2 EVCS - POST MOUNTED w/ JUNCTION BOX
	EMBEDDED BOLLARD
	POST INSTALLED BOLLARD
	ENLARGEMENT
	SHEET NUMBER
	PARKING STRIPING (SEE PLANS FOR REVISED PARKING LAYOUT)
	REGRADE & RESTORE CONCRETE CURBING
	CONCRETE PAD / REGRADE & RESTORE CONCRETE PAVEMENT
	REGRADE & RESTORE ASPHALT PAVEMENT
	(PS) REGRADE AND RESTORE PERVIOUS / LANDSCAPE AREA

- PROJECT NOTES**
- THIS PROJECT PROPOSES LEVEL 2 CHARGERS AND DC FAST CHARGERS (LEVEL 3) AS SHOWN IN THE EV CHARGING QUANTITIES BY TYPE TABLE ABOVE. THESE CHARGERS ARE PROPOSED TO SERVE A PRIVATE FLEET.
 - EV CHARGING MANUFACTURER WILL BE TRITUM, SIEMENS, PIHONG, OR OWNER-APPROVED ALTERNATIVE.

GEOTECHNICAL NOTE

THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT GEOTECHNICAL REPORT. CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS TO BE IN CONFORMANCE WITH THE CURRENT GEOTECHNICAL REPORT AND NOTIFY ENGINEER AND PROJECT TEAM OF ANY DISCREPANCIES PRIOR TO THE SCHEDULING OF ANY SITE DISTURBANCE ACTIVITIES. CONTRACTOR SHALL COORDINATE UPDATING THE CURRENT GEOTECHNICAL REPORT AS REQUIRED OR SHALL EMPLOY THE GEOTECHNICAL RECOMMENDATIONS OF THE PREVIOUSLY APPROVED PLAN.

SETBACK NOTE

CONTRACTOR TO VERIFY THAT LOCATIONS OF ALL PROPOSED EV ELECTRICAL EQUIPMENT AND INFRASTRUCTURE ARE IN COMPLIANCE WITH ALL LOCAL CODES, SETBACKS, AND BUFFERS.

- DEMOLITION NOTES**
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE INFORMATION PROVIDED BY AMAZON AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR MARKING ON-SITE LOCATIONS OF EXISTING UTILITIES.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 72 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
 - ALL EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME THE DRAWINGS WERE PREPARED AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGE DUE TO THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME, IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY. THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
 - THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, AND EROSION CONTROL PLANS AND INSPECTION REPORTS (SWPPP).
 - ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER / ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FROM WHICH THE OWNER AND ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
 - QUANTITIES SHOWN HERE ARE APPROXIMATE AND ARE PROVIDED FOR CONVENIENCE ONLY AND NOT FOR BID PURPOSES. CONTRACTOR SHALL VERIFY QUANTITIES NECESSARY TO DEMO FACILITIES SHOWN.

- PAVING NOTES**
- PRIVATE CURB RAMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA STANDARDS.
 - ALL ACCESSIBLE RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS, LATEST EDITION.
 - CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, HANDICAPPED PARKING SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDING AS SHOWN ON THE PLANS. ALL PAINT AND PAVEMENT MARKINGS SHALL ADHERE TO AHJ AND OWNER STANDARDS.
 - THE MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS SHALL BE 2 FEET.
 - BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE AREAS, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESSIBLE AREAS SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
 - EXISTING ASPHALT / CONCRETE PAVEMENT SHALL REQUIRE THE REMOVAL AND REPLACEMENT OF A MINIMUM 2" WIDE SECTION FOR CONSTRUCTION AND REPLACEMENT OF CONCRETE FORMS WHERE ADJACENT TO NEW CONCRETE. CONTRACTOR SHALL MATCH EXISTING ASPHALT SECTION.

DISTURBANCE NOTE

FOR THE PURPOSE OF THIS PLAN, THE LIMITS OF WORK (LOW) REFER TO THE APPROXIMATE BOUNDARY WITHIN WHICH THE INSTALLATION OF THE EV INFRASTRUCTURE WILL OCCUR. THE LIMITS OF DISTURBANCE (LOD) IS THE BOUNDARY WITHIN WHICH ALL CONSTRUCTION, CLEARING, EXCAVATION, GRADING, AND RELATED ACTIVITIES SHALL OCCUR. THE LOW ENCOMPASSES THE LOD SHOWN ON THIS PLAN.

EXISTING UTILITY NOTE

THE EXISTING UTILITIES SHOWN ON THE PLAN ARE BASED UPON RECORD DRAWINGS PROVIDED BY AMAZON AND ARE ILLUSTRATIVE IN NATURE. THE CONTRACTOR SHALL FIELD DETERMINE THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. REPORT DISCREPANCIES AND POTENTIAL CONFLICTS WITH PROPOSED INFRASTRUCTURE TO ENGINEER PRIOR TO CONSTRUCTION.

EV PARKING DATA TABLE		
TYPE	REQUESTED QTY.	PROPOSED QTY.
L2 STALLS	151 STALLS	161 STALLS
L3 STALLS	4 STALLS	4 STALLS

NOTE: ALL QUANTITIES REPRESENT THE NUMBER OF L2 & L3 STALLS.

EV CHARGER QUANTITIES BY TYPE		
CHARGER TYPE	SINGLE CHARGERS	DUAL CHARGERS
L2s	5 EVCS	78 EVCS
L3s	N/A	2 DCFC

NOTE: ALL QUANTITIES REPRESENT THE NUMBER OF SINGLE AND DUAL CHARGERS INSTALLED

VAN PARKING DATA TABLE		
TOTAL EXISTING VAN STALLS	450 STALLS	
TOTAL PROPOSED VAN STALLS	445 STALLS	
CHANGE	1 VAN STALL(S) TO BE DEDICATED TO EV INFRASTRUCTURE	

- ELECTRICAL NOTES**
- PART ONE - GENERAL**
- THE WORK, ALL WORK SHALL BE NEW UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE THE WORK SHOWN ON THE DRAWINGS AND SPECIFIED FOR ITS INDIVIDUAL SECTIONS OF WORK. THE WORD "WORK" IS DEFINED AS ALL LABOR, TRANSPORTATION, MATERIAL, EQUIPMENT, TOOLS, INSTALLATION, SUPERVISION AND ANY OTHER INCIDENTAL ITEMS OR SERVICES NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE COMPLETE SYSTEMS, WHICH SHALL BE PROVIDED BY THIS CONTRACTOR WHETHER OR NOT SPECIFICALLY INDICATED OR NOTED.
 - RESPONSIBILITY: THIS CONTRACTOR IS SOLELY RESPONSIBLE FOR THE ACTIONS OF ITS PERSONNEL, SUPPLIERS, AND SUB-CONTRACTORS. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERFORMANCE OF ALL WORK AS MAY BE REQUIRED TO ACCOMMODATE OR SUPPORT THE ELECTRICAL WORK. EXAMPLES: PAINTING, STRUCTURAL SUPPORTS, CUTTING AND PATCHING, EXCAVATION AND BACKFILL, CONCRETE PADS, ROOF JACKS, ETC. REQUIRING THE CONTRACTORS ENGAGEMENT OF APPROPRIATE TRADES TO PERFORM SUCH WORK FOR THE PROPER INSTALLATION AND OPERATION OF COMPLETE ELECTRICAL SYSTEMS.
 - MINIMUM REQUIREMENTS: THESE SPECIFICATIONS ESTABLISH THE MINIMUM REQUIREMENTS FOR THE WORK AND MATERIALS, EQUIPMENT AND METHODS TO BE PROVIDED. THE DRAWINGS MAY INDICATE REQUIREMENTS THAT EXCEED THESE MINIMUMS. GENERAL CONDITIONS: ALL GENERAL CONDITIONS, SPECIAL REQUIREMENTS OR GENERAL REQUIREMENTS OF THE CONSTRUCTION SPECIFICATIONS ARE MADE PART OF THIS SPECIFICATION AND HAVE THE SAME FORCE AND EFFECT AS IF COMPLETELY REPRODUCED.
 - DEFINITIONS:
 - AHJ: AUTHORITY HAVING JURISDICTION.
 - AN: AN INSTALLATION OR SYSTEM OF MULTIPLE COMPONENTS REQUIRING MULTIPLE CONNECTIONS. (I.E. TRASH COMPACTOR, MOTORIZED DOOR, HVAC SPLIT SYSTEM, ETC.)
 - EQUAL: ACCEPTED BY THE ENGINEER AS EQUAL.
 - FF&E: FURNISHINGS, FIXTURES, AND EQUIPMENT - PROVIDED BY OTHERS AT JOBSITE. RECEIVE, PROTECT, STORE, ASSEMBLE, INSTALL AND CONNECT. PROVIDE MINIMUM OF 5x STRUCTURAL BACKING. (EXAMPLES: CHAMBLERS, PROJECTORS, ETC.)
 - PROVIDE: FURNISH, INSTALL, ACTIVATE, AND COMMISSION.
 - CODES: ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED CODE PER THE AHJ INCLUDING THE NEC, IECG, AND ALL OTHER ADOPTED APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
 - AMZ STANDARDS: ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST AMAZON SPECIFICATIONS AND STANDARDS.
 - PERMITS: PAY ALL FEES AND OBTAIN ALL PERMITS AND INSPECTIONS REQUIRED FOR THE WORK.
 - DRAWINGS: DRAWINGS ARE DIAGRAMMATIC AND SCHEMATIC IN NATURE, AND INDICATE THE TYPE, SIZE, ARRANGEMENT, AND LOCATIONS OF MATERIALS AND EQUIPMENT. WORK INCLUDES CERTAIN COMPONENTS, APPURTENANCES, AND RELATED SPECIALTIES THAT MAY NOT BE SHOWN. PROVIDE ALL NECESSARY ITEMS TO COMPLETE THE WORK ACCORDING TO INDUSTRY STANDARDS. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO REQUIRE FINISHED WORK, TESTED, AND READY FOR OPERATION. DO NOT SCALE DRAWINGS. ARRANGEMENT OF EQUIPMENT AND ROUTING OF FEEDERS AND BRANCH CIRCUITING SHALL BE PLUMB AND AT RIGHT ANGLES TO BUILDING CONSTRUCTION, AND MAY REQUIRE MODIFICATION DUE TO UNFORESEEN CONDITIONS REQUIRING ON-SITE REVISIONS DURING CONSTRUCTION. (SEE ALSO "BIDDING").
 - COORDINATION: THIS PROJECT REQUIRES A HIGH LEVEL OF COORDINATION AND COOPERATION WITH THE OWNER, VENDORS, AND SPECIALTY CONTRACTORS. MAKE REASONABLE MODIFICATIONS IN THE LAYOUTS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES IN ORDER TO PROVIDE ACCESS FOR THE PROPER EXECUTION OF THE WORK.
 - VERIFICATION: CHECK AND VERIFY ALL SIZES, DIMENSIONS, AND CONDITIONS BEFORE STARTING ANY WORK, ANY DEVIATIONS (OR PROBLEMS) SHALL BE TRANSMITTED TO THE ENGINEER FOR REVIEW.
 - CONNECTIONS: CONNECT ALL EQUIPMENT, SYSTEMS, AND ASSEMBLIES PROVIDED BY OTHERS INCLUDING CONTROLS, SAFETY DEVICES, AND INTERCONNECTIONS.
 - SUBMITTAL: SUBMIT TO THE ENGINEER COMPLETE ELECTRONIC SETS OF SHOP DRAWINGS AND TECHNICAL DATA SHEETS FOR ALL EQUIPMENT AND MATERIALS SPECIFIED HEREIN. PRIOR TO COMMENCEMENT OF WORK, THE ENGINEER SHALL REVIEW SHOP DRAWINGS AND TECHNICAL DATA SHEETS FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND ISSUE A WRITTEN ASSESSMENT TO THE OWNER. THE ENGINEER'S FAILURE TO CORRECT ERRORS IN THE SUBMITTAL SHALL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION TO PERFORM THE WORK AS SHOWN AND/OR SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ENGINEERING FEES NECESSARY TO CHANGE PROJECT DOCUMENTS BASED ON ALTERNATE SUBMITTAL PACKAGE/SEQUENCE/SUBSTITUTIONS.
 - AS-BUILT: UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH AS-BUILT DOCUMENTS ACCURATELY SHOWING THE MATERIALS AND EQUIPMENT AS INSTALLED. PROVIDE OPERATION AND MAINTENANCE MANUAL(S) CONTAINING APPROVED SHOP DRAWINGS, OPERATING AND MAINTENANCE INSTRUCTIONS FOR SWITCHGEAR, LIGHTING FIXTURES, CONTROLS, AND SPECIALTY EQUIPMENT.
 - GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A MINIMUM OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER (LONGER IF REQUIRED BY GENERAL AND/OR SPECIAL CONDITIONS). IN ADDITION, THE INSTALLATION SHALL BE GUARANTEED TO PERFORM AS SPECIFIED AND FULFILL EACH AND EVERY REQUIREMENT OF THE DRAWINGS AND SPECIFICATIONS WHEN OPERATED IN ACCORDANCE WITH THE CONTRACTORS INSTRUCTIONS. SHOULD THE INSTALLATION IN ANY WAY FAIL TO DO SO, THE CONTRACTOR WILL, WITHOUT DELAY AND WITHOUT COST TO THE OWNER, PROVIDE WHATEVER ADDITIONAL EQUIPMENT, MATERIAL, AND LABOR REQUIRED TO CORRECT THE DEFICIENCY AND COMPLY WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. WHERE SPECIFIED EQUIPMENT HAS A LONGER GUARANTEE PERIOD, THE TERM OF THAT GUARANTEE SHALL GOVERN (EXAMPLE: LED SYSTEM WITH 5-YEAR GUARANTEE). INCANDESCENT LAMPS ARE EXEMPT BUT SHALL BE NEW AND UNUSED AT THE TIME OF FINAL ACCEPTANCE.
 - BIDDING:
 - SITE VISIT: CONTRACT DOCUMENTS INDICATE NEW WORK TO BE PERFORMED AND DO NOT EXPECT TO SHOW ALL EXISTING CONDITIONS. VISIT THE SITE PRIOR TO SUBMITTING A BID TO BECOME FAMILIAR WITH EXISTING CONDITIONS, COMPARE THE WORK SPECIFIED IN THE CONTRACT DOCUMENTS AGAINST EXISTING CONDITIONS, AND IDENTIFY AND ANNOTATE ALL WORK OR CONDITIONS THAT ARE DIFFERENT FROM THE CONTRACT DOCUMENTS OR THEIR INTENT. UPON DISCOVERY, IMMEDIATELY NOTIFY AND REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER. NO EXTRAS OR CHANGE ORDERS WILL BE ALLOWED FOR FAILING TO PERFORM THE PRE-BID SITE VISIT.
 - BASIS OF PROPOSAL: THE PROPOSAL SHALL BE BASED ON MANUFACTURERS AND MODELS AS LISTED UNLESS "OR EQUAL" IS INDICATED. PROVIDE SUBSTITUTION REQUESTS A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO BID DATE CLOSING TO ALLOW TIME FOR DUE CONSIDERATION OF PROPOSED ALTERNATE AND SUBSEQUENT NOTIFICATION TO ALL OTHER BIDDERS IN THE EVENT SUBSTITUTION IS DEEMED ACCEPTABLE. THE DETERMINATION OF SUBSTITUTION EQUALITY RESTS SOLELY WITH THE ENGINEER.
 - BIDDING: THE CIVIL, ARCHITECTURAL, MECHANICAL, AND/OR INTERIOR DRAWINGS CONTAIN DETAILED DESCRIPTIONS, CIRCUITING, AND CONNECTION REQUIREMENTS WHICH ARE PART OF THIS CONTRACTOR'S RESPONSIBILITIES. DO NOT SUBMIT BIDS ON THIS PROJECT PRIOR TO REVIEWING ALL PROJECT DRAWINGS, SPECIFICATIONS, AND ADDENDA.

- PART TWO - EXECUTION**
- UTILITY SERVICES: PROVIDE POWER SYSTEM SERVICES IN ACCORDANCE WITH THE REQUIREMENTS OF THE SERVING UTILITIES. KIMLEY-HORN TO PROVIDE APC FLASH STUDY AND LABELING FOR CONTRACTOR INSTALLATION ON ALL NEW EQUIPMENT IN ACCORDANCE WITH NEC. PROVIDE EXCAVATION, RACEWAY, STRUCTURES, GROUNDING, ETC. AS DIRECTED. POWER SERVICES AND DISTRIBUTION SYSTEM AIR RATING SHALL EXCEED THE MAXIMUM AVAILABLE FAULT CURRENT THROUGH UTILITY SERVICE TRANSFORMER. CONTACT SERVING UTILITIES AND OBTAIN THEIR REQUIREMENTS PRIOR TO BID. (UTILITY SERVICE AND LINE EXTENSION CHARGES PAID BY OTHERS).
 - LOCATIONS: INDICATED LOCATIONS OF EQUIPMENT ARE SUBJECT TO CHANGE. SHIFTER/LOCATER/CONFIGURE ANY OUTLET, EQUIPMENT, OR CONNECTION POINT UP TO 5' AS DIRECTED BY THE ENGINEER AT NO ADDED COST.
 - WORKMANSHIP: THE WORK SHALL BE WELL-SUPPORTED AND SOLIDLY MOUNTED. DRESS AND TIE WIRING IN PANELBOARDS AND SWITCHGEAR. THE WORK SHALL BE LEFT CLEAN WITH NO DIRT, DENTS, ABRASIONS, PAINT SPLATTERS, OR OTHER IRREGULARITIES.
 - SLEEVES AND PENETRATIONS: PENETRATIONS OF ALL SURFACES SHALL BE PROVIDED WITH SLEEVES THAT SHALL BE SEALED WITH LIKE MATERIALS AND SHALL BE FINISHED WITH ESCUTCHEON PLATES. PENETRATIONS BELOW GRADE LEVEL SHALL BE WATER-TIGHT.
 - ELECTRICALLY OPERATED EQUIPMENT: VERIFICATION AND SUBSTITUTION, FEEDERS AND OVER-CURRENT DEVICES INCLUDING STARTERS, DISCONNECTS, ETC.) HAVE BEEN DESIGNED BASED ON INFORMATION PROVIDED BY THE RESPONSIBLE CONSULTANT AND/OR DESIGNATED SUPPLIER. PRIOR TO POURING, COORDINATE WITH THE APPROPRIATE TRADE AND/OR INSTALLER TO DETERMINE THAT THE ACTUAL NAMEPLATE ELECTRICAL REQUIREMENTS MATCH THIS DESIGN. ALL ADDITIONAL ELECTRICAL COSTS RELATED TO THE CONTRACT VARIATION WHICH VARIES FROM THE ORIGINAL SPECIFICATIONS SHALL BE RESOLVED BY THE CONSTRUCTION TEAM AT NO ADDITIONAL COST TO THE OWNER.
 - HOURS OF OPERATION: CONDUCT WORK TO MINIMIZE DISRUPTION OF THE OWNER'S ONGOING BUSINESS OPERATIONS. PROVIDE BARRICADES, NOISE ABATEMENT, AND DUST CONTAINMENT MEASURES TO ENSURE THE SAFETY AND COMFORT OF PATRONS, STAFF, AND WORKERS. INTERRUPTIONS OF EXISTING POWER, COMMUNICATIONS, AND/OR FIRE ALARM SYSTEMS SHALL BE PERFORMED ONLY AT SUCH TIMES AS DIRECTED BY THE OWNER OR RESIDENT ENGINEER. OUTAGES SHALL BE MOMENTARY IN NATURE. EACH SUCH OUTAGE (OR OPERATION WHICH MAY POSE A RISK OF AN ACCIDENTAL OUTAGE) SHALL BE SCHEDULED A MINIMUM OF FORTY- EIGHT (48) HOURS IN ADVANCE.

PROJECT RESPONSIBILITY MATRIX						
#	ITEM	CSI SPECIFICATION REFERENCE	FURNISHED BY	INSTALLED BY	NOTES	
1	EQUIPMENT WIRING	26 0509	C	C		
2	MEDIUM VOLTAGE CABLES	26 0513	C	C		
3	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES	26 0519	C	C		
4	GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS	26 0526	C	C		
5	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS	26 0529	C	C		
6	RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS	26 0533	C	C		
7	CABLE TRAYS FOR ELECTRICAL SYSTEMS	26 0536	C	C		
8	UNDERGROUND RACEWAYS	26 0543	C	C		
9	IDENTIFICATION FOR ELECTRICAL SYSTEMS	26 0553	C	C		
10	ELECTRICAL DISTRIBUTION SYSTEM STUDIES	26 0573	E	C	THE ELECTRICAL POWER SYSTEM STUDIES COMPLETED BY THE EOR AND DELIVERED TO THE CONTRACTOR DURING CONSTRUCTION.	
11	COMMISSIONING OF ELECTRICAL SYSTEMS	26 0800	A	A	COMMISSIONING COMPLETED BY A THIRD PARTY VENDOR MANAGED AND CONTRACTED BY AMAZON.	
12	ELECTRICAL TESTING	26 0805	A	A	ELECTRICAL TESTING COMPLETED BY A THIRD PARTY VENDOR MANAGED AND CONTRACTED BY AMAZON.	
13	MEDIUM-VOLTAGE TRANSFORMERS	26 1200	A	C	ALL ELECTRICAL GEAR PROCURED BY AMAZON - LUGS, T-BODIES, ELBOWS, AND BUSHING CONTRACTOR PROCURED.	
14	MEDIUM-VOLTAGE PAD MOUNTED SWITCHGEAR	26 1300	A	C	ALL ELECTRICAL GEAR PROCURED BY AMAZON.	
15	MEDIUM-VOLTAGE METERING	26 1600	U / A	U / C	FURNISHING OF UTILITY METERING EQPT VARIES PER PROJECT. COORDINATE WITH UTILITY REP FOR INSTALLATION SCOPE OF WORK.	
16	MEDIUM-VOLTAGE CIRCUIT PROTECTION DEVICES	26 1600	A	C	ALL ELECTRICAL GEAR PROCURED BY AMAZON.	
17	LOW-VOLTAGE TRANSFORMERS	26 2200	A	C	ALL ELECTRICAL GEAR PROCURED BY AMAZON.	
18	SWITCHBOARDS	26 2400	A	C	ALL ELECTRICAL GEAR PROCURED BY AMAZON.	
19	PANELBOARDS	26 2416	A	C	ALL ELECTRICAL GEAR PROCURED BY AMAZON.	
20	ELECTRICAL VEHICLE CHARGING EQUIPMENT	26 2713	A	C	ELECTRIC VEHICLE CHARGING EQUIPMENT PROCURED BY AMAZON.	
21	WIRING DEVICES	26 2726	C	C		
22	LOW-VOLTAGE CIRCUIT PROTECTION DEVICES	26 2800	A	C		
23	MANUFACTURED METAL BOLLARDS	32 3913	C	C	BOLLARDS FURNISHED BY CONTRACTOR VIA OWNER CERTIFIED VENDOR. COORDINATE WITH AMAZON TEAM FOR PROCUREMENT.	
24	EV CHARGER WITH PEDESTAL	34 8013	A	C		

ACRONYMS:
C = CONTRACTOR
A = AMAZON (OWNER)
U = UTILITY
E = ENGINEER OF RECORD

GENERAL NOTES:
1. FURNISH IS TO MEAN PROCURE AND DELIVER TO THE PROJECT SITE READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR ACTIVITIES.
2. INSTALL MEANS TO SET IN POSITION FOR SERVICE OR USE. INCLUDES ACTIVITIES AT SITE, SUCH AS UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, PROTECTING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING.
3. THE TABLE SHALL NOT BE CONSIDERED A COMPREHENSIVE LIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL ANY ITEMS NOT LISTED IN THE TABLE ABOVE THAT ARE REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM.
4. FOR THE PURPOSE OF THE TABLE ABOVE, MATERIALS ARE TO BE FURNISHED BY THE INDICATED PARTY UNLESS OTHERWISE NOTED WITHIN THE CONTRACT DOCUMENTS.
5. ALL CIVIL WORK FURNISHED AND INSTALLED BY THE CONTRACTOR.

SCOPE ITEM	UTILITY RESPONSIBILITY MATRIX						COMMENTS
	UTILITY		ELECTRICAL CONTRACTOR		AMAZON		
	FURNISH	INSTALL	FURNISH	INSTALL	FURNISH		
EASEMENT OR RIGHT OF WAY				X	X	for to provide easement exhibit and survey. LEUWD to provide legal language. Amazon to provide recorded easement to LEUWD before construction. Language is found in LEUWD Construction Handbook	
PRIMARY VOLTAGE INFRASTRUCTURE	*INCOMING VOLTAGE (PRIMARY SIDE): 24.98kV						
TERMINAL POLE AND FRAMING						N/A	
PRIMARY RISER						N/A	
PRIMARY TRENCHING			X	X		Per LEUWD Construction Handbook	
PRIMARY CONDUIT			X	X		Per LEUWD Construction Handbook	
PRIMARY CABLE	X	X					
PULLING WIRE (SHIN/REL) STRING OR ROPE IN CONDUITS			X	X		Per LEUWD Construction Handbook	
PRIMARY CABLE TERMINATION	X	X					
TRANSFORMER	X	X					
TRANSFORMER PAD							
UTILITY TRANSFORMER	X	X	X	X		Per LEUWD Construction Handbook	
TRANSFORMER PRIMARY PROTECTION			X	X		Per LEUWD Construction Handbook	
GROUNDING OF TRANSFORMER			X	X		Per LEUWD Construction Handbook	
LOADBREAK CONNECTORS (ELBOWS)	X	X					
METERING							
*MOUNTING TYPE	X	X				Donut style CTs installed in secondary of transformer. Meter socket installed per LEUWD Construction Handbook	
*TRANSFORMER SECONDARY			X	X		Per LEUWD Construction Handbook	
*CT CABINET						N/A	
*INSTRUMENTATION ENCLOSURE	X	X					
HOT SEQUENCE	X	X					
COLD SEQUENCE						N/A	
METERING SOCKET	X			X		Per LEUWD Construction Handbook	
METER BASE			X	X		Per LEUWD Construction Handbook	
METER WIRE FROM METERING TRANSFORMERS TO METER Socket	X	X					
METERING CONDUIT FROM TRANSFORMERS TO METER JCT BOX			X	X		Per LEUWD Construction Handbook	
TERMINATION	X	X					
METER BASE H-FRAME / PEDESTAL			X	X		Per LEUWD Construction Handbook	
PROTECTION BARRIERS			X	X		Per LEUWD Construction Handbook	
SECURITY PADLOCK	X	X					
SECONDARY VOLTAGE INFRASTRUCTURE							
SECONDARY CONDUIT			X	X			
SECONDARY CONDUCTORS			X	X			
SECONDARY TERMINATIONS (TRANSFORMER SIDE)			X	X			
TRANSFORMER SECONDARY PROTECTION			X	X			

NOTE: IF NOT USED, ITEM SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

NOTE: IF NOT USED, ITEM SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

AMAZON APPLICABLE STANDARDS

- AMZL ENERGY - NA EV INFRASTRUCTURE - AOR DESIGN GUIDELINES REV2.0
PUBLISHED: 02/06/2023
- AMZL ENERGY - ELECTRICAL DESIGN STANDARDS - REV1.3
PUBLISHED: 04/28/2023
- AMZL EV CHARGING ELECTRICAL DESIGN STANDARDS - REV1.2
PUBLISHED: 07/14/2023
- AMZL DESIGN CRITERIA AND OUTLINE SPECIFICATIONS - VERSION 9
ISSUED: 06/02/2023
- AMZL SITE DESIGN GUIDELINE - VERSION 6
ISSUED: 08/08/2022
- AMZL DESIGN DELIVERABLE REQUIREMENTS - VERSION 3
ISSUED: 02/11/2022

TYPICAL ABBREVIATIONS

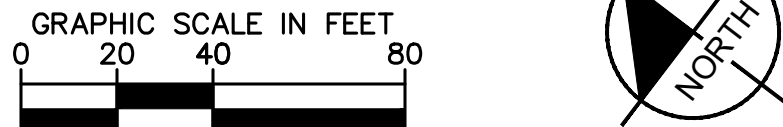
A	AMPERE
AC	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AHJ	AUTHORITY HAVING JURISDICTION
AL	ALUMINUM
ART	ARTICLE
AUX	AUXILIARY
BAY	BAYONET FUSE
BLDG	BUILDING STRUCTURE
CL	CENTER LINE
CLF	CURRENT LIMITING FUSE
CLR	CLEARANCE
CONC	CONCRETE
CU	COPPER
DC	DIRECT CURRENT
EXIST	EXISTING
EGC	EQUIPMENT GROUNDING CONDUCTOR
ESA	ENVIRONMENTAL SITE ASSESSMENT
EMT	ELECTRIC METALLIC TUBING
EQPT	EQUIPMENT
EV	ELECTRIC VEHICLE
EVCS	ELECTRIC VEHICLE CHARGING STATION
EVSE	ELECTRIC VEHICLE SUPPLY EQUIPMENT
EVSD	ELECTRIC VEHICLE SWITCH GEAR
EAS	EROSION AND SEDIMENT CONTROL</

[illegible]

LEGEND	
ITEM	DESCRIPTION
	PROPERTY LINE
	SETBACK LINE
	BUFFER LINE
	EASEMENT LINE
	NHESP BOUNDARY LINE
	FEMA FLOOD BOUNDARY LINE
	WETLAND BOUNDARY LINE
	EXISTING UNDERGROUND POWER CONDUIT LINE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING WATER LINE
	EXISTING STORM AND DRAINAGE LINE
	EXISTING SANITARY SEWER LINE
	EXISTING SPEED BUMP
	EXISTING LIGHT POLE
	EXISTING BOLLARD
	EXISTING FENCE LINE
	EXISTING FIRE HYDRANT
	EXISTING GUARD RAIL
	EXISTING SIGN
	EXISTING STRUCTURE
	EXISTING TREE
	EXISTING TREE LINE
	EXISTING L2 ELECTRIC VEHICLE CHARGING STATION
	EV VAN STALL PARKING COUNT

KEY MAP

N.T.S.



[illegible]

DISTURBANCE NOTE:

FOR THE PURPOSE OF THIS PLAN, THE LIMITS OF WORK (LOW) REFER TO THE APPROXIMATE BOUNDARY WITHIN WHICH THE INSTALLATION OF THE EX INFRASTRUCTURE WILL OCCUR. THE LIMITS OF DISTURBANCE (LOD) IS THE WORK/WORK AREA WHICH ALL CONSTRUCTION, CLEARING, EXCAVATION, GRADING, AND RELATED ACTIVITIES SHALL OCCUR. THE LOW ENCOMPASSES THE LOD SHOWN ON THIS PLAN.

UTILITY NOTE:

THE EXISTING UTILITIES SHOWN ON THE PLAN ARE BASED UPON RECORD DRAWINGS PROVIDED BY ARIZONA AND ARE ILLUSTRATIONS IN NATURE. THE CONTRACTOR SHALL FIELD DETERMINE THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION, REPORT DISCREPANCIES AND POTENTIAL CONFLICTS WITH PROPOSED INFRASTRUCTURE TO ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS FOR FURTHER RECOMMENDATIONS.

DEMOLITION QUANTITIES TABLE		
ID	DESCRIPTION	QTY.
F.D.A.	FULL-DEPTH REMOVAL OF ASPHALT PAVEMENT	15,700 SF
F.D.C.	FULL-DEPTH REMOVAL OF EXISTING CONCRETE PAVEMENT	+30 SF
P.A.	REMOVAL OF PERVIOUS AREA	#650 SF
C.C.	REMOVAL OF CONCRETE CURBING	220 LF

NOTE: THE DEMOLITION QUANTITIES SHOWN ARE FOR THE CONVENIENCE OF THE CLIENT AND ARE TO BE CONSIDERED APPROXIMATE. ACTUAL QUANTITIES FOR BIDDING AND CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR.

SLOPE STABILIZATION NOTE:

1. ALL 3:1 OR STEEPER SLOPES TO BE STABILIZED WITHIN 7 DAYS.
2. ALL DISTURBED AREAS TO BE LOAMED AND SEEDED WITH "NEW ENGLAND SEMI-SHADE GRASS AND FORBS MIX" BY NEW ENGLAND WETLAND PLANTS, 15 PEARL LANE, SOUTH HADLEY, MA 01075 OR APPROVED EQUAL.

TREE PROTECTION NOTE:

TREE PROTECTION FENCING IS TO REMAIN IN PLACE UNTIL FINAL INSPECTION AND SIGN-OFF ON THE MASTER BUILDING PERMIT AND CERTIFICATE OF OCCUPANCY BY THE URBAN FORESTER. STORMWATER SIGN-OFF AND REMOVAL OF EROSION CONTROL MEASURES IS NOT JUSTIFICATION TO REMOVE TREE PROTECTION FENCING.

E&S CONSTRUCTION SEQUENCE

INITIAL E&S

- 1. CONTRACTOR TO INSTALL CONSTRUCTION ENTRANCES, SILT FENCE, TREE PROTECTION FENCING, FIBER ROLLS, AND CONCRETE WASHOUTS ON-SITE PRIOR TO DEMOLITION BEGINNING
- 2. SILT FENCE IS TO BE INSTALLED AROUND ALL BOREHOLE AREAS TO PROTECT FROM SOIL COMPACTION DURING CONSTRUCTION
- 3. AFTER PERFORMER MEASURES ARE INSTALLED, CONTRACTOR SHALL SCHEDULE PRE-CONSTRUCTION MEETING WITH A&J.
- 4. CONTRACTOR TO CONTACT A&J TO OBTAIN STORMWATER PERMIT, THE CONTRACTOR SHALL CONTACT APPROPRIATE PARTY FOR INSPECTION OF EROSION CONTROL DEVICES
- 5. ALL 3:1 OR STEEPER SLOPES TO BE STABILIZED WITHIN 7 DAYS.

FINAL E&S

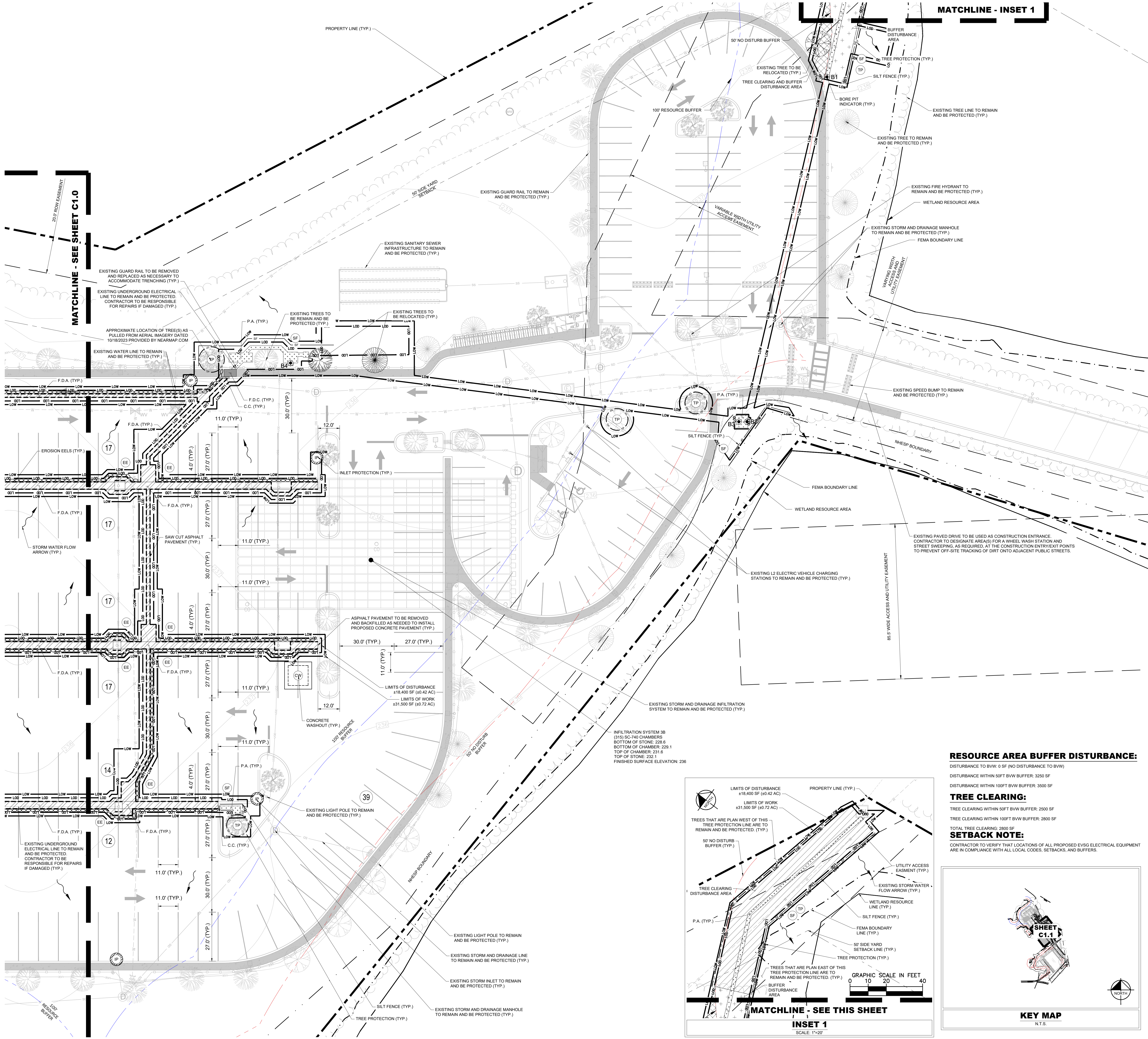
- 1. CONTRACTOR TO CLEAR, GRUB, EXCAVATE EXISTING UTILITIES ON-SITE AND GRADE REMAINING SITE.
- 2. INSTALL PROPOSED UTILITIES
- 3. CONSTRUCT REMAINING SITE ACCORDING TO THE APPROVED PLANS, OR AS INSTRUCTED BY THE EROSION CONTROL INSPECTOR.
- 4. PERMANENTLY STABILIZE SITE.
- 5. UPON PERMANENT SITE STABILIZATION, REMOVE ALL TEMPORARY EROSION & SEDIMENT CONTROL MEASURES
- 6. FINISH INSTALLING PERMANENT STORMWATER BMP'S SHOWN ON PLANS.

SETBACK NOTE:
CONTRACTOR TO VERIFY THAT LOCATIONS OF ALL PROPOSED EVSG ELECTRICAL EQUIPMENT ARE IN COMPLIANCE WITH ALL LOCAL CODES, SETBACKS, AND BUFFERS.

DKO1_EV
EV INFRASTRUCTURE PLAN
151 TAYLOR STREET
LITTLETON, MA 01460

[illegible]

This document, together with the contracts and designs prepared herein, is intended only for the specific purpose and use for which it was prepared. Reuse of any information contained in this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



LEGEND	
ITEM	DESCRIPTION
---	PROPERTY LINE
---	SETBACK LINE
---	BUFFER LINE
---	EASEMENT LINE
---	NHESP BOUNDARY LINE
---	FEMA FLOOD BOUNDARY LINE
---	WETLAND BOUNDARY LINE
---	EXISTING UNDERGROUND POWER CONDUIT LINE
---	EXISTING UNDERGROUND ELECTRIC LINE
---	EXISTING WATER LINE
---	EXISTING STORM AND DRAINAGE LINE
---	EXISTING SANITARY SEWER LINE
---	EXISTING SPEED BUMP
---	EXISTING LIGHT POLE
---	EXISTING BOLLARD
---	EXISTING FENCE LINE
---	EXISTING FIRE HYDRANT
---	EXISTING GUARD RAIL
---	EXISTING SIGN
---	EXISTING STRUCTURE
---	EXISTING TREE
---	EXISTING TREE LINE
---	EXISTING L2 ELECTRIC VEHICLE CHARGING STATION
---	EV VAN STALL PARKING COUNT
---	LIMITS OF DISTURBANCE = ±18,400 SF (±0.42 AC)
---	LIMITS OF WORK = ±31,500 SF (±0.72 AC)
---	EXISTING PARKING STRIPING TO BE REMOVED
---	PERVIOUS AREA REMOVAL
---	FULL-DEPTH CONCRETE PAVEMENT / CURBING REMOVAL
---	FULL-DEPTH ASPHALT PAVEMENT REMOVAL
---	ASPHALT / CONCRETE PAVEMENT SAW CUT LINE
---	STORMWATER FLOW DIRECTION ARROW
---	SILT FENCE
---	EROSION EEL / FILTER SOCK
---	INLET PROTECTION
---	TREE PROTECTION
---	CONCRETE WASHOUT AREA
---	BORING LOCATION INDICATOR
---	REGRADE & RESTORE PERVIOUS AREA - BUFFER DISTURBANCE
---	REGRADE & RESTORE PERVIOUS AREA - TREE CLEARING
---	REGRADE & RESTORE PERVIOUS AREA - BUFFER & TREE CLEARING

DISTURBANCE NOTE:
FOR THE PURPOSE OF THIS PLAN, THE LIMITS OF WORK (LOW) REFER TO THE APPROXIMATE BOUNDARY WITHIN WHICH THE INSTALLATION OF THE EV INFRASTRUCTURE WILL OCCUR. THE LIMITS OF DISTURBANCE (LOD) IS THE BOUNDARY WITHIN WHICH ALL CONSTRUCTION, CLEARING, EXCAVATION, GRADING, AND RELATED ACTIVITIES SHALL OCCUR. THE LOW ENCOMPASSES THE LOD SHOWN ON THIS PLAN.

UTILITY NOTE:
THE EXISTING UTILITIES SHOWN ON THE PLAN ARE BASED UPON RECORD DRAWINGS PROVIDED BY AMAZON AND ARE ILLUSTRATIVE IN NATURE. THE CONTRACTOR SHALL FIELD DETERMINE THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. REPORT DISCREPANCIES AND POTENTIAL CONFLICTS WITH PROPOSED INFRASTRUCTURE TO ENGINEER PRIOR TO CONSTRUCTION. REFER TO DEMOLITION SECTION OF GEOTECH REPORT FOR FURTHER RECOMMENDATIONS.

- DEMOLITION NOTES:**
- SEE ADDITIONAL DEMOLITION NOTES ON SHEET G1.0.
 - CONTRACTOR SHALL PHASE WORK SO THAT EMPLOYEE ACCESS TO BUILDING ENTRANCES REMAIN OPEN AT ALL TIMES.
 - CONTRACTOR TO LOCATE ALL PRIVATE AND PUBLIC UTILITIES ON SITE WITHIN WORK AREAS. CONTRACTOR TO TAKE EXTRA CAUTION TO AVOID DAMAGE TO ELECTRICAL, TELEPHONE, IRRIGATION, AND OTHER CONDUITS TYPICALLY FOUND IN THE UPPER FEW FEET OF GROUND. CONTRACTOR SHALL REPLACE ANY DAMAGED OR DESTROYED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
 - CONTRACTOR TO REMOVE TREE ROOTS AS NECESSARY TO PERFORM REPAIRS INDICATED. WHEN ROOT CUTTING IS UNAVOIDABLE, A CLEAN SHARP CUT SHALL BE MADE TO AVOID SHREDDING OR SMASHING. ROOT CUTS SHOULD BE MADE BACK TO A LATERAL ROOT. WHENEVER POSSIBLE, TREE ROOTS SHOULD BE CUT BETWEEN LATE FALL AND BUD OPENING. WHEN ROOT ENERGY SUPPLIES ARE HIGH AND CONDITIONS ARE LEAST FAVORABLE FOR DISEASE CAUSING AGENTS, EXPOSED ROOTS SHALL BE COVERED IMMEDIATELY TO PREVENT DEHYDRATION. ROOTS SHALL BE COVERED WITH SOIL OR MULCH AND KEPT MOIST.
 - EXISTING ASPHALT / CONCRETE PAVEMENT SHALL REQUIRE THE REMOVAL AND REPLACEMENT OF A MINIMUM 2" WIDE SECTION FOR CONSTRUCTION AND PLACEMENT OF CONCRETE FORMS WHERE ADJACENT TO NEW CONCRETE. CONTRACTOR SHALL MATCH EXISTING ASPHALT SECTION.
 - ASPHALT PAVEMENT TO BE REMOVED AND BACKFILLED AS NEEDED TO INSTALL PROPOSED CONCRETE EQUIPMENT PADS(S) / PAVEMENT WHERE APPLICABLE.
 - ALL OTHER CONCRETE AND ASPHALT REPAIRS SHALL BE COMPLETED PRIOR TO BEGINNING SEAL COAT OPERATIONS.
 - ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.

DEMOLITION QUANTITIES TABLE		
ID	DESCRIPTION	QTY.
F.D.A.	FULL-DEPTH REMOVAL OF ASPHALT PAVEMENT	±5,700 SF
F.D.C.	FULL-DEPTH REMOVAL OF EXISTING CONCRETE PAVEMENT	±30 SF
P.A.	REMOVAL OF PERVIOUS AREA	±650 SF
C.C.	REMOVAL OF CONCRETE CURBING	±20 LF

NOTE: THE DEMOLITION QUANTITIES SHOWN ARE FOR THE CONVENIENCE OF THE CLIENT AND ARE TO BE CONSIDERED APPROXIMATE. ACTUAL QUANTITIES FOR BIDDING AND CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR.

SLOPE STABILIZATION NOTE:

- ALL 3:1 OR STEEPER SLOPES TO BE STABILIZED WITHIN 7 DAYS.
- ALL DISTURBED AREAS TO BE LOAMED AND SEEDED WITH "NEW ENGLAND SEMI-SHADE GRASS AND FORBS MIX" BY NEW ENGLAND WETLAND PLANTS, 15 PEARL LANE, SOUTH HADLEY, MA 01075 OR APPROVED EQUAL.

TREE PROTECTION NOTE:
TREE PROTECTION FENCING IS TO REMAIN IN PLACE UNTIL FINAL INSPECTION AND SIGN-OFF ON THE MASTER BUILDING PERMIT AND CERTIFICATE OF OCCUPANCY BY THE URBAN FORESTER. STORMWATER SIGN-OFF AND REMOVAL OF EROSION CONTROL MEASURES IS NOT JUSTIFICATION TO REMOVE TREE PROTECTION FENCING.

E&S CONSTRUCTION SEQUENCE	
INITIAL E&S	
• CONTRACTOR TO INSTALL CONSTRUCTION ENTRANCES, SILT FENCE, TREE PROTECTION FENCING, FIBER ROLLS, AND CONCRETE WASHOUTS ON-SITE PRIOR TO DEMOLITION BEGINNING.	
• SILT FENCE IS TO BE INSTALLED AROUND ALL BIORETENTION AREAS TO PROTECT FROM SOIL COMPACTION DURING CONSTRUCTION.	
• AFTER PERIMETER MEASURES ARE INSTALLED, CONTRACTOR SHALL SCHEDULE PRE-CONSTRUCTION MEETING WITH AHI.	
• CONTRACTOR TO CONTACT AHI TO OBTAIN STORMWATER PERMIT. THE CONTRACTOR SHALL CONTACT APPROPRIATE PARTY FOR INSPECTION OF EROSION CONTROL DEVICES.	
• ALL 3:1 OR STEEPER SLOPES TO BE STABILIZED WITHIN 7 DAYS.	
FINAL E&S	
• CONTRACTOR TO CLEAR, GRUB, EXCAVATE EXISTING UTILITIES ON-SITE AND GRADE REMAINING SITE.	
• INSTALL PROPOSED UTILITIES.	
• CONSTRUCT REMAINING SITE ACCORDING TO THE APPROVED PLANS, OR AS INSTRUCTED BY THE EROSION CONTROL INSPECTOR.	
• PERMANENTLY STABILIZE SITE.	
• UPON PERMANENT SITE STABILIZATION, REMOVE ALL TEMPORARY EROSION & SEDIMENT CONTROL MEASURES.	
• FINISH INSTALLING PERMANENT STORMWATER BMP'S SHOWN ON PLANS.	

RESOURCE AREA BUFFER DISTURBANCE:

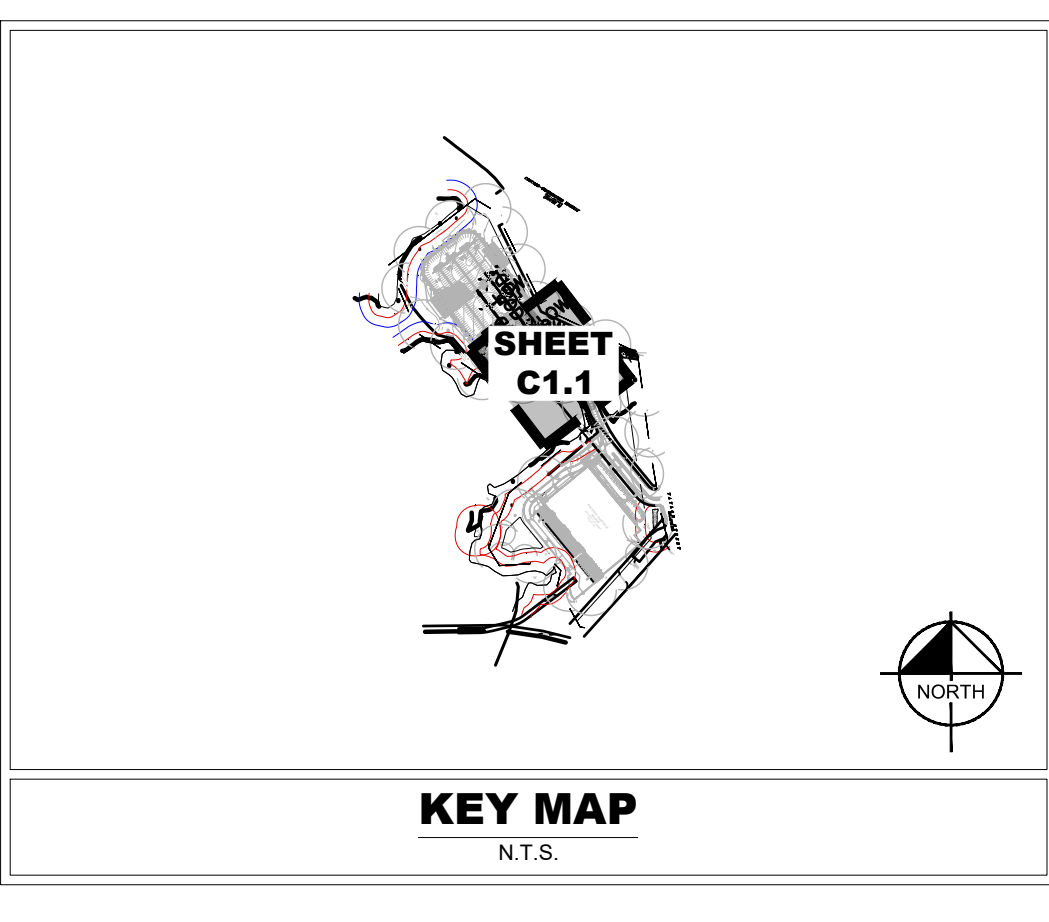
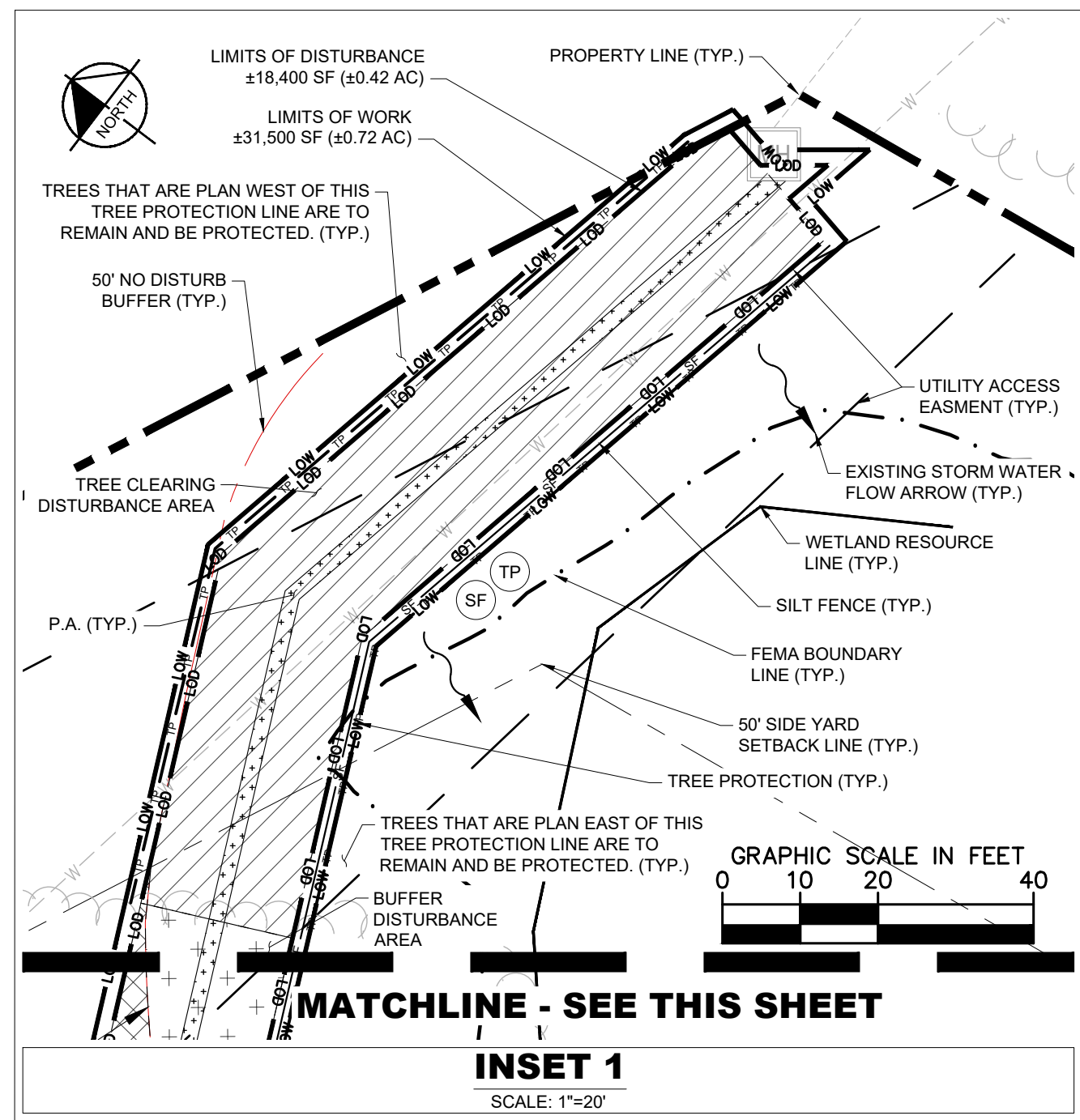
DISTURBANCE TO BVW: 0 SF (NO DISTURBANCE TO BVW)
DISTURBANCE WITHIN 50FT BVW BUFFER: 3250 SF
DISTURBANCE WITHIN 100FT BVW BUFFER: 3500 SF

TREE CLEARING:

TREE CLEARING WITHIN 50FT BVW BUFFER: 2500 SF
TREE CLEARING WITHIN 100FT BVW BUFFER: 2800 SF
TOTAL TREE CLEARING: 2800 SF

SETBACK NOTE:

CONTRACTOR TO VERIFY THAT LOCATIONS OF ALL PROPOSED EVSG ELECTRICAL EQUIPMENT ARE IN COMPLIANCE WITH ALL LOCAL CODES, SETBACKS, AND BUFFERS.



404 WYMAN ST., SUITE 305, WALTHAM, MASSACHUSETTS 02451

Main: 781-322-0076 | www.kimley-horn.com

02021-2400 | info@kimley-horn.com

Kimley»Horn

DKO1_EV

EV INFRASTRUCTURE PLAN

151 TAYLOR STREET

LITTLETON, MA 01460

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DESIGNED BY: LKC

DRAWN BY: JWO

CHECKED BY: AA

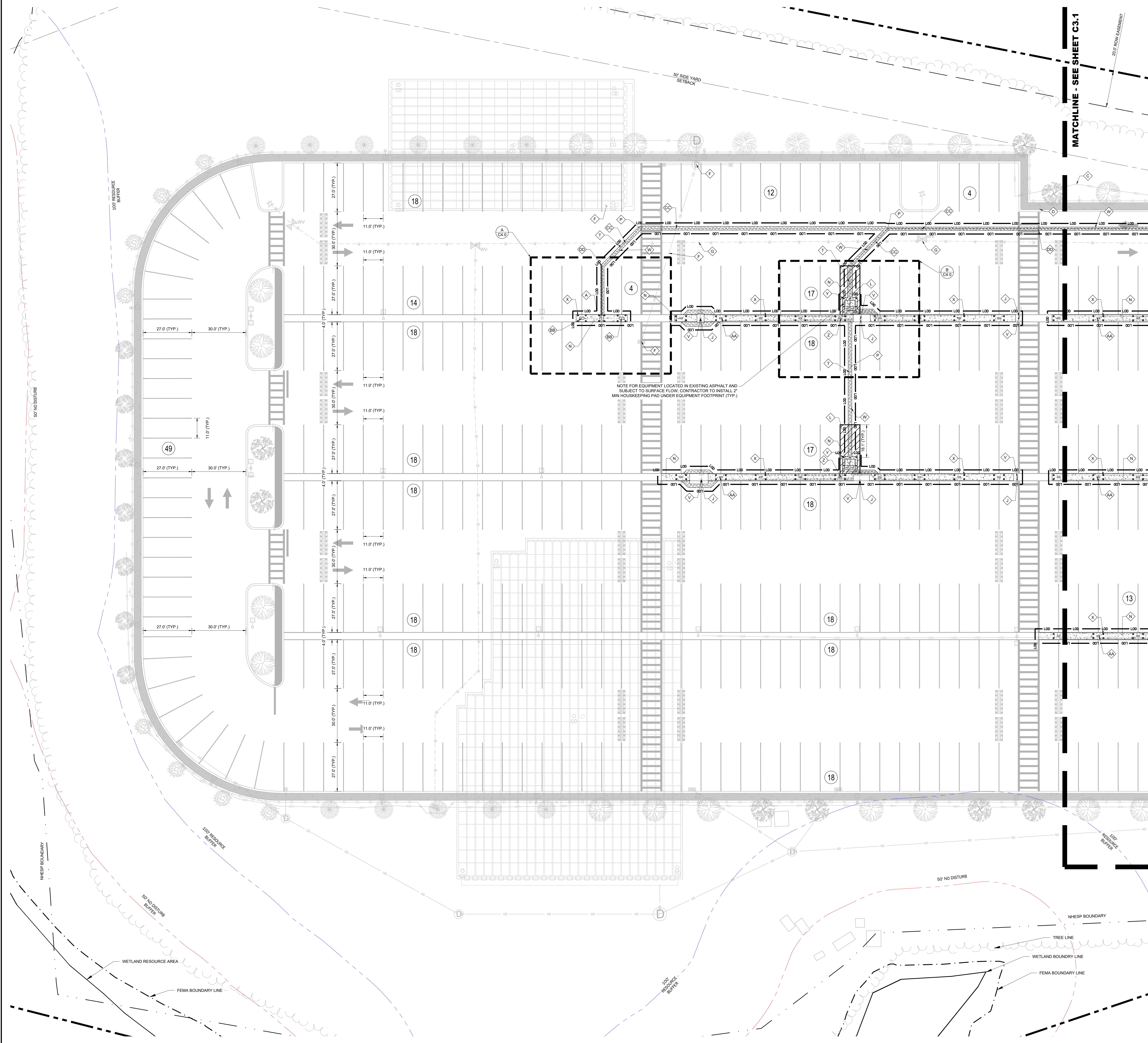
DATE: 07/19/2024

KIMLEY-HORN PROJECT NO. 115319067

EXISTING CONDITIONS, DEMOLITION, AND E&S PLAN

SHEET NUMBER C1.1

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LEGEND	
ITEM	DESCRIPTION
---	LIMITS OF DISTURBANCE = ±18,400 SF (±0.42 AC)
●	RELOCATED TREE
○	ENLARGEMENT
1	SHEET NUMBER
---	PARKING STRIPING (SEE PLANS FOR REVISED PARKING LAYOUT)
---	REGRADE & RESTORE CONCRETE CURBING
---	CONCRETE PAD / REGRADE & RESTORE CONCRETE PAVEMENT
---	REGRADE & RESTORE ASPHALT PAVEMENT
(P)	REGRADE AND RESTORE PERVIOUS / LANDSCAPE AREA
---	REGRADE & RESTORE PERVIOUS AREA - BUFFER DISTURBANCE
---	REGRADE & RESTORE PERVIOUS AREA - TREE CLEARING
---	REGRADE & RESTORE PERVIOUS AREA - BUFFER & TREE CLEARING

DISTURBANCE NOTE:
FOR THE PURPOSE OF THIS PLAN, THE LIMITS OF WORK (LOW) REFER TO THE APPROXIMATE BOUNDARY WITHIN WHICH THE INSTALLATION OF THE EV INFRASTRUCTURE WILL OCCUR. THE LIMITS OF DISTURBANCE (LOO) IS THE BOUNDARY WITHIN WHICH ALL CONSTRUCTION, CLEARING, EXCAVATION, GRADING, AND RELATED ACTIVITIES SHALL OCCUR. THE LOW ENCOMPASSES THE LOO SHOWN ON THIS PLAN.

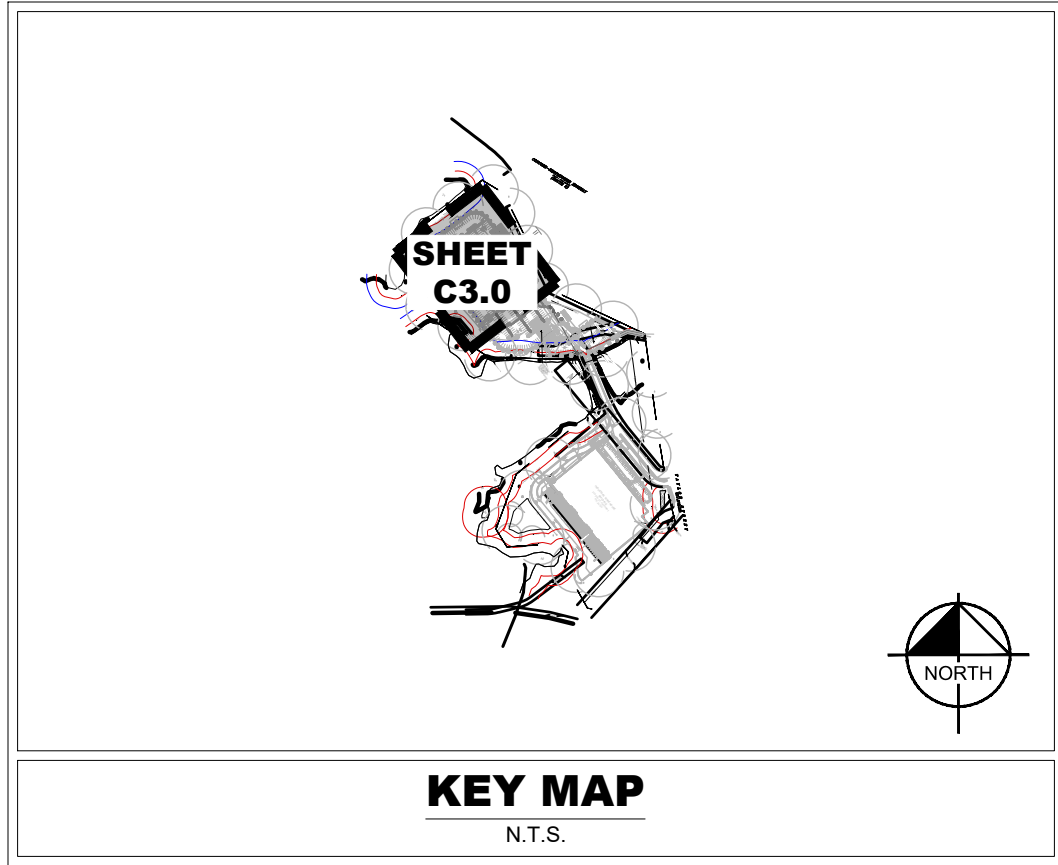
CONSTRUCTION NOTES:
1. SEE PAVING AND ADDITIONAL CONSTRUCTION NOTES ON SHEET C3.0.
2. CONTRACTOR TO BORE AND/OR HAND-TRENCH CONDUIT AS REQUIRED PER NEC.
3. ALL EQUIPMENT SHALL BE INSTALLED PER CLIENT DESIGN STANDARDS.
4. CONTRACTOR TO RETURN ALL AREAS OF DISTURBANCE BACK TO EXISTING GRADE AND UP TO OR BETTER THAN EXISTING CONDITIONS.
5. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.

PAVEMENT MARKING NOTES:
1. CONTRACTOR SHALL TAKE FIELD MEASUREMENTS OR OTHERWISE ESTABLISH A SURVEY OF THE EXISTING STRIPING IN ALL WORK AREAS IN ORDER TO ESTABLISH ALL EXISTING PAVEMENT MARKINGS WITH FULL COORDINATION OF NEW MARKINGS PROPOSED ON THIS PLAN.
2. UNLESS OTHERWISE INDICATED ON THIS PLAN, THE CONTRACTOR SHALL ESTABLISH PAVEMENT MARKINGS FOR ALL FIRE LANES, DIRECTIONAL ARROWS, STOP BARS, CURBS, SIDEWALK, LIGHT POLE BASES, SIGN BASES AND PARKING STALLS TO MATCH THE EXISTING SITE WITHIN THE REPAIR LIMITS.
3. CONTRACTOR TO USE APPROPRIATE PAINT COLORS TO MATCH THE EXISTING FEATURES. ADA BARRIER FREE AREAS TO COMPLY WITH ALL LOCAL AND FEDERAL ADA STANDARDS. PAVEMENT MARKINGS SHALL BE A HIGH QUALITY PAINT RECOMMENDED BY THE PAINT MANUFACTURER. PAINT COLORS SHALL CLOSELY MATCH THE FEDERAL STANDARD 5996 COLOR NUMBER AS FOLLOWS: BLUE-COLOR 15180, WHITE-COLOR 37925 AND YELLOW-COLOR 33038.
4. IN AREAS NOT BEING RESURFACED BUT REQUIRING RESTRICTION, CONTRACTOR SHALL REMOVE EXISTING STRIPING BY EITHER SAND-BLASTING, WATER-BLASTING, OR BY ANOTHER APPROVED METHOD OF STRIPING REMOVAL. WHERE THE STRIPING REMOVAL CHANGES THE SURFACE TEXTURE OF THE EXISTING ASPHALT, CONTRACTOR SHALL SEAL COAT THE AREA PRIOR TO RESTRICTION. CONTRACTOR TO SUBMIT STRIPING REMOVAL METHOD TO PROPERTY MANAGER AND ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

KEYNOTE LEGEND	
ID	DESCRIPTION
△	LIMITS OF DISTURBANCE = ±18,400 SF (±0.42 AC)
△	RELOCATED TREE
△	EXISTING UNDERGROUND ELECTRICAL LINE TO REMAIN AND BE PROTECTED (TYP.)
△	EXISTING SIGN POST TO REMAIN AND BE PROTECTED (TYP.)
△	EXISTING GUARDRAIL TO BE REPLACED AS NECESSARY (TYP.)
△	EXISTING STORMWATER INFRASTRUCTURE TO REMAIN AND BE PROTECTED (TYP.)
△	EXISTING WATER INFRASTRUCTURE TO REMAIN AND BE PROTECTED (TYP.)
△	EXISTING SSWR INFRASTRUCTURE TO REMAIN AND BE PROTECTED (TYP.)
△	ELECTRICAL CONDUIT BORE LINE (TYP.)
△	EXISTING LIGHT POLE TO REMAIN AND BE PROTECTED (TYP.)
△	EXISTING TREE TO REMAIN AND BE PROTECTED (TYP.)
△	EXISTING PARKING STALL(S) TO BE DEDICATED TO EV INFRASTRUCTURE
△	EXISTING L2 ELECTRIC VEHICLE CHARGING STATION TO REMAIN AND BE PROTECTED
△	CONCRETE EQUIPMENT PAD
△	REGRADE & RESTORE CONCRETE SIDEWALK (TYP.)
△	REGRADE & RESTORE ASPHALT PAVEMENT
△	REGRADE & RESTORE PERVIOUS AREA
△	RESTORE CURBING TO MATCH EXISTING CONDITIONS
△	TIE INTO EXISTING CURBING
△	UNDERGROUND POWER CONDUIT (TYP.)
△	CONDUIT TO BE ROUTED AROUND EXISTING TREE
△	CONDUIT TO BE ROUTED AROUND EXISTING LIGHT POLE
△	POWER CONDUIT TRENCH (TYP.)
△	POST-INSTALLED BOLLARD (TYP.)
△	EMBEDDED BOLLARD (TYP.)
△	PAD-MOUNTED SINGLE L2 EVCS
△	PAD-MOUNTED DUAL L2 EVCS (TYP.)
△	PAD-MOUNTED DUAL L3 DC FAST CHARGER (TYP.)
△	UNDERGROUND UTILITY CROSSING. (MAINTAIN 12" MINIMUM SEPARATION)
△	PARKING STRIPING TO BE CONSTRUCTED PER THE LATEST AMAZON STANDARDS
△	3X3 BORE PIT
△	EXISTING STORM INFILTRATION SYSTEM INSPECTION PORT TO REMAIN & BE PROTECTED

RESOURCE AREA BUFFER DISTURBANCE:
DISTURBANCE TO BVW: 0 SF (NO DISTURBANCE TO BVW)
DISTURBANCE WITHIN 50FT BVW BUFFER: 3250 SF
DISTURBANCE WITHIN 100FT BVW BUFFER: 3500 SF
TREE CLEARING:
TREE CLEARING WITHIN 50FT BVW BUFFER: 2500 SF
TREE CLEARING WITHIN 100FT BVW BUFFER: 2800 SF
TOTAL TREE CLEARING: 2800 SF

VAN PARKING DATA TABLE	
TOTAL EXISTING VAN STALLS	450 STALLS
TOTAL PROPOSED VAN STALLS	445 STALLS
CHANGE	1 VAN STALL(S) TO BE DEDICATED TO EV INFRASTRUCTURE



Kimley»Horn

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00245 Waltham, MA 02451

DKO1_EV

EV INFRASTRUCTURE PLAN

151 TAYLOR STREET
LITTLETON, MA 01460

DESIGNED BY: LKC

DRAWN BY: JWG

CHECKED BY: AA

DATE: 07/19/2024

KIMLEY-HORN PROJECT NO.
115319967

CIVIL PLAN

SHEET NUMBER
C3.0

[illegible]

DISBURSTANCE NOTE:

FOR THE PURPOSE OF THIS PLAN, THE LIMITS OF WORK (LOW) REFER TO THE APPROXIMATE BOUNDARY WITHIN WHICH THE INSTALLATION OF THE EV INFRASTRUCTURE WILL OCCUR. THE EXISTING UTILITIES SHOWN ON THIS PLAN ARE NOT TO BE DISTURBED. THE CONSTRUCTION, CLEANING, EXCAVATION, GRADING, AND RELATED ACTIVITIES SHALL OCCUR. THE LOW ENCOMPASSES THE AREA SHOWN ON THIS PLAN.

CONSTRUCTION NOTES:

1. SEE PAVING AND ADDITIONAL CONSTRUCTION NOTES ON SHEET G10.
2. CONTRACTOR TO BORE AND/or TRENCH CONDUIT AS REQUIRED PER NEC.
3. EQUIPMENT SHALL BE PROTECTED BY CONSTRUCTION BARRIERS REMOVED ON THIS PLAN.
4. CONTRACTOR TO RETURN ALL AREAS OF DISTURBANCE BACK TO EXISTING GRADE AND UP TO OR BETTER THAN EXISTING CONDITIONS.
5. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.

PAVEMENT MARKING NOTES:

1. CONTRACTOR SHALL TAKE FIELD MEASUREMENTS OR OTHERWISE ESTABLISH A SURVEY OF THE EXISTING STRIPING. ALL WORK AREAS IN ORDER TO ESTABLISH ALL EXISTING STRIPING AND PAVEMENT MARKINGS WITHIN THE CONSTRUCTION AREA.
2. IF OTHERWISE INDICATED ON THIS PLAN, THE CONTRACTOR SHALL ESTABLISH PAVEMENT MARKINGS FOR ALL FIRE LINES, DIRECTIONAL ARROWS, STOP BARRS, CURBS, AND ALL OTHER MARKINGS. THE CONTRACTOR SHALL FOLLOW THE FEDERAL STANDARD STRIPING COLOR NUMBER AS FOLLOWS: BLUE-COLOR 15180, WHITE-COLOR 39725 AND YELLOW-COLOR 3553.
3. IN AREAS NOT BEING RESURFACED BUT REQUIRING RESTRICTION, CONTRACTOR SHALL REMOVE EXISTING STRIPING BY EITHER SAND BLASTING, WATER BLASTING, OR BY ANOTHER MEANS OF REMOVAL METHOD OF THE STRIPING. WHERE THE STRIPING REMOVAL CHANGES THE SURFACE TEXTURE OF THE EXISTING ASPHALT, CONTRACTOR SHALL SEAL COAT THE AREA TO BE PROTECTED. CONTRACTOR TO SUBMIT STRIPING REMOVAL METHOD TO PROPERTY MANAGER AND ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

RESOURCE AREA BUFFER DISTURBANCE:

DISTURBANCE TO BWV: 0 SF (NO DISTURBANCE TO BWV)

DISTURBANCE WITHIN 50FT BWV BUFFER: 3250 SF

DISTURBANCE WITHIN 100FT BWV BUFFER: 3500 SF

TREE CLEARING:

TREE CLEARING WITHIN 50FT BWV BUFFER: 2500 SF

TREE CLEARING WITHIN 100FT BWV BUFFER: 2800 SF

TOTAL TREE CLEARING: 2800 SF

KEY MAP

N.T.S.

Kimley»Horn

404 WYMAN ST, SUITE 385, WALTHAM, MASSACHUSETTS 02451
Main: 781-328-0676 | www.kimley-horn.com
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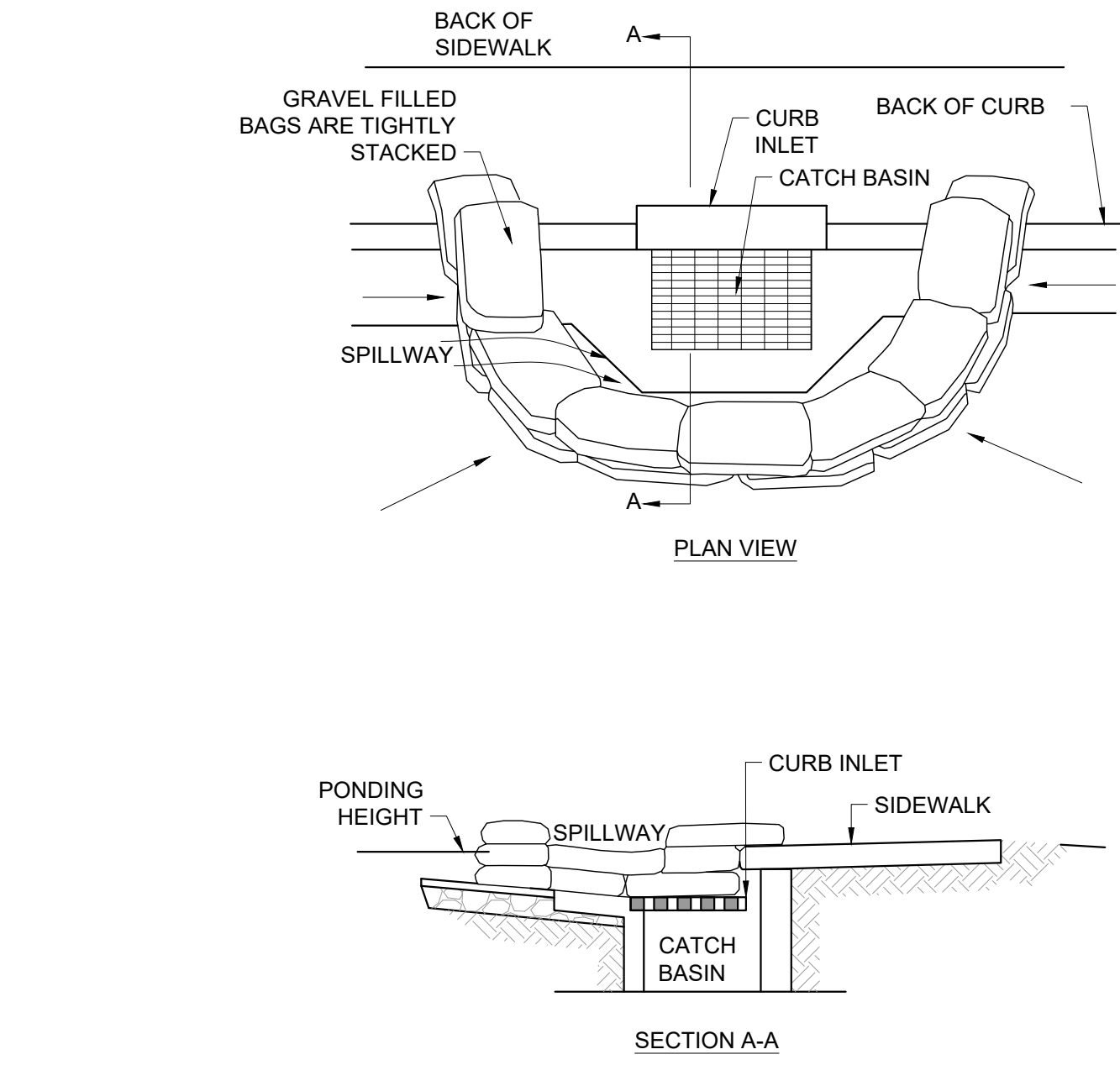
DKO1_EV

EV INFRASTRUCTURE PLAN

151 TAYLOR STREET
LITTLETON, MA 01460

REV/ISSIONS		DATE	BY
No.	0		
DESIGNED BY:			LKC
DRAWN BY:			JWG
CHECKED BY:			AA
DATE:		07/19/2024	
KIMLEY-HORN PROJECT NO. 115319667			
CIVIL PLAN			
SHEET NUMBER C3.1			

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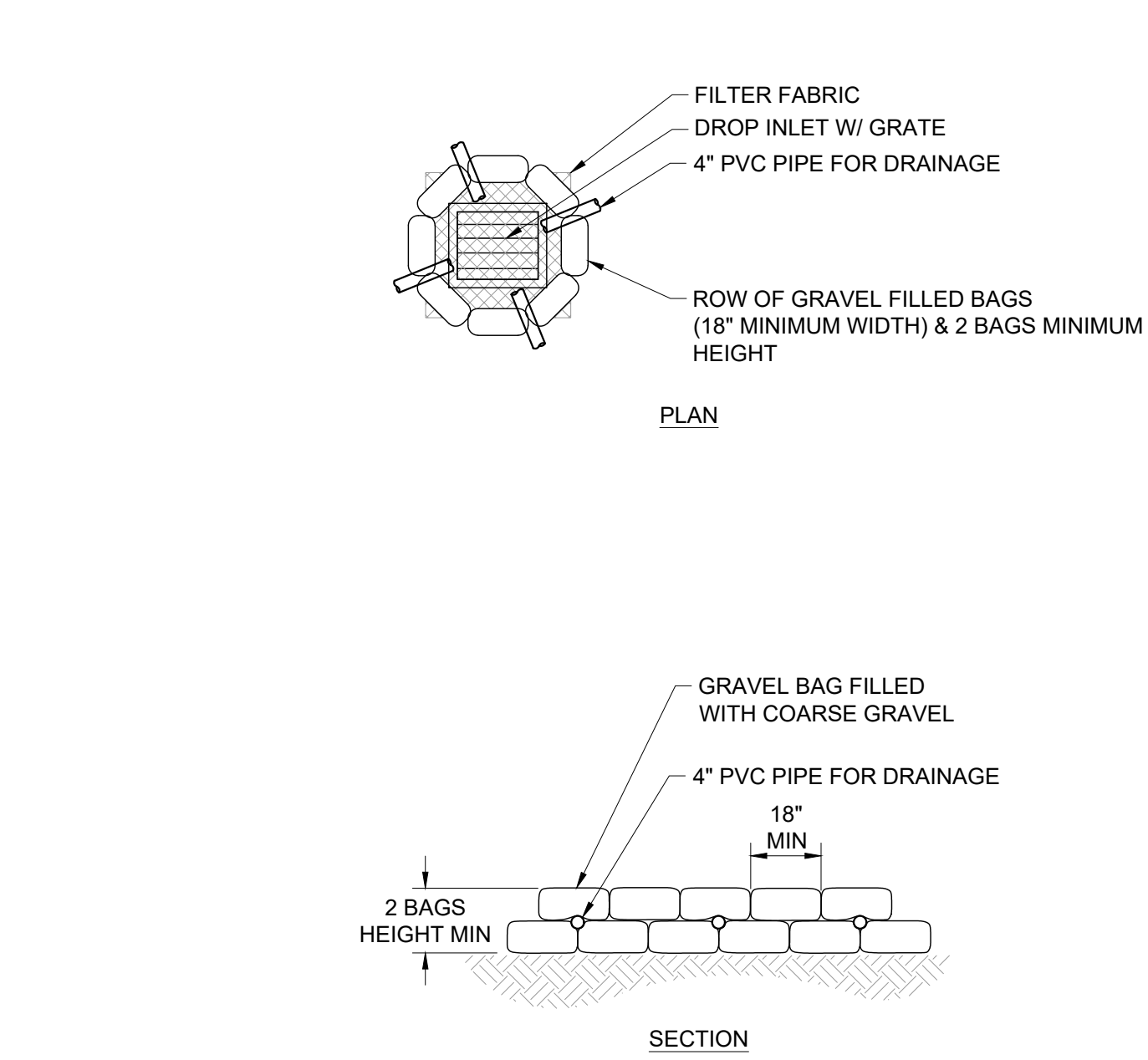


- NOTES:
1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
 2. GRAVEL BAG MATERIAL: POLYPROPYLENE, POLYETHYLENE OR POLYIMIDE WOVEN FABRIC, MINIMUM UNIT WEIGHT 4 OUNCES PER SQUARE YARD, MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70%.
 3. GRAVEL BAG SHALL BE FILLED WITH 3/4" ROCK OR 1/4" PEA GRAVEL.
 4. PLACE SEVERAL LAYERS OF SAND BAGS (12" MINIMUM HIGH) OVERLAPPING THE BAGS AND PACKING THEM TIGHTLY TOGETHER.
 5. LEAVE GAP OF ONE BAG ON THE TOP ROW TO SERVE AS A SPILLWAY.
 6. PLACE FILTER FABRIC OVER WIRE MESH. FILTER FABRIC SHALL BE MANUFACTURED FROM UV RESISTANT POLYPROPYLENE, NYLON, POLYESTER, OR ETHYLENE FABRIC WITH AN EQUIVALENT OPENING SIZE NOT GREATER THAN 20 SIEVE AND WITH A MINIMUM FLOW RATE OF 40 GALLONS/MINUTE/SQ. FT.
 7. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB INLET SEDIMENT BARRIER

SCALE
N.T.S.

1

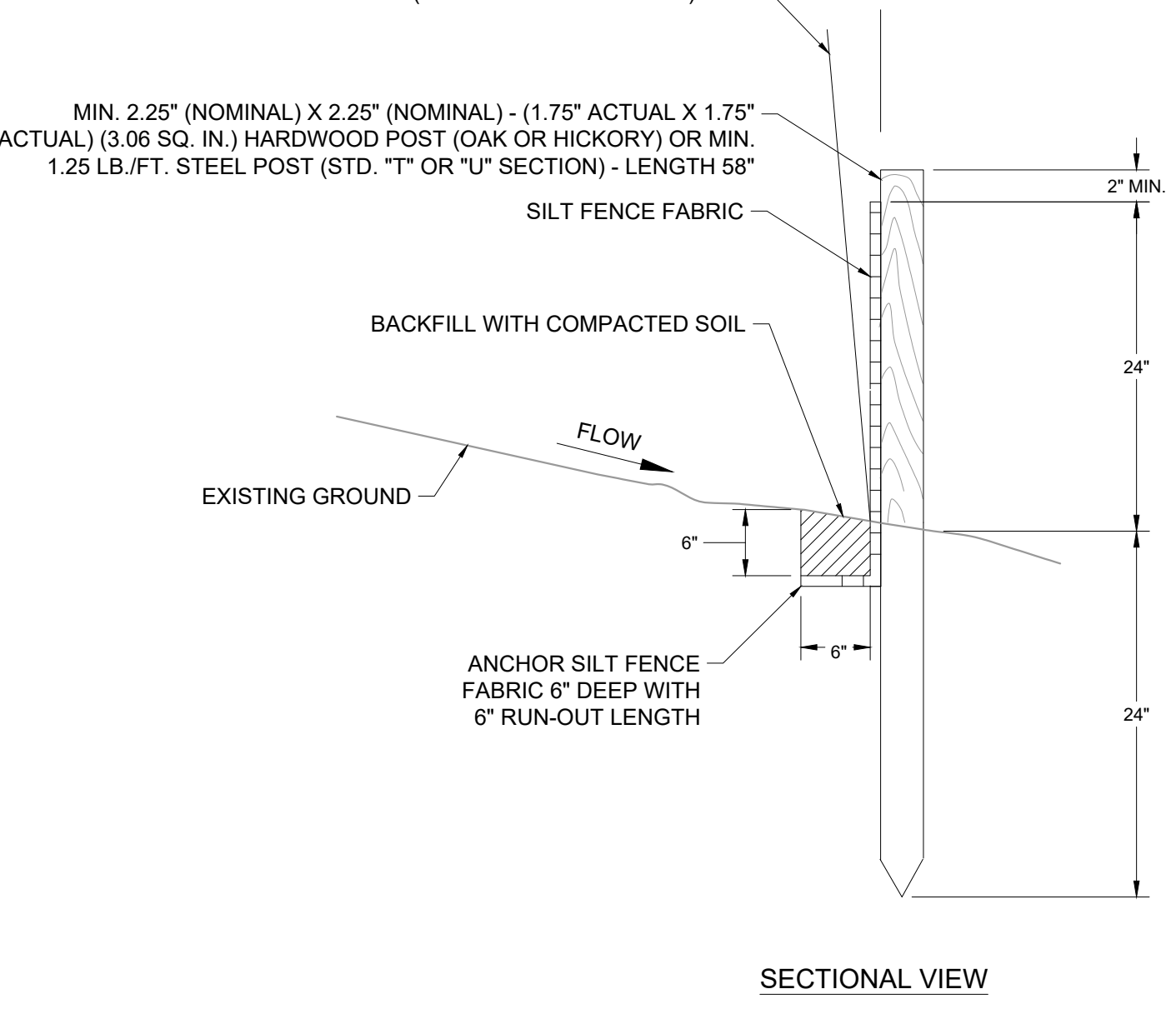


- NOTES:
1. GRAVEL BAG MATERIAL: POLYPROPYLENE, POLYETHYLENE OR POLYIMIDE WOVEN FABRIC, MINIMUM UNIT WEIGHT 4 OUNCES PER SQUARE YARD, MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70%.
 2. GRAVEL BAG SHALL BE FILLED WITH 3/4" ROCK OR 1/4" PEA GRAVEL.
 3. PLACE SEVERAL LAYERS OF SAND BAGS (12" MINIMUM HIGH) OVERLAPPING THE BAGS AND PACKING THEM TIGHTLY TOGETHER.
 4. LEAVE GAP OF ONE BAG ON THE TOP ROW TO SERVE AS A SPILLWAY.
 5. PLACE WIRE MESH OVER AND 1" (MINIMUM) BEYOND THE INLET STRUCTURE.
 6. PLACE FILTER FABRIC OVER WIRE MESH. FILTER FABRIC SHALL BE MANUFACTURED FROM UV RESISTANT POLYPROPYLENE, NYLON, POLYESTER, OR ETHYLENE FABRIC WITH AN EQUIVALENT OPENING SIZE NOT GREATER THAN 20 SIEVE AND WITH A MINIMUM FLOW RATE OF 40 GALLONS/MINUTE/SQ. FT.
 7. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT.

DROP INLET SEDIMENT BARRIER

SCALE
N.T.S.

2

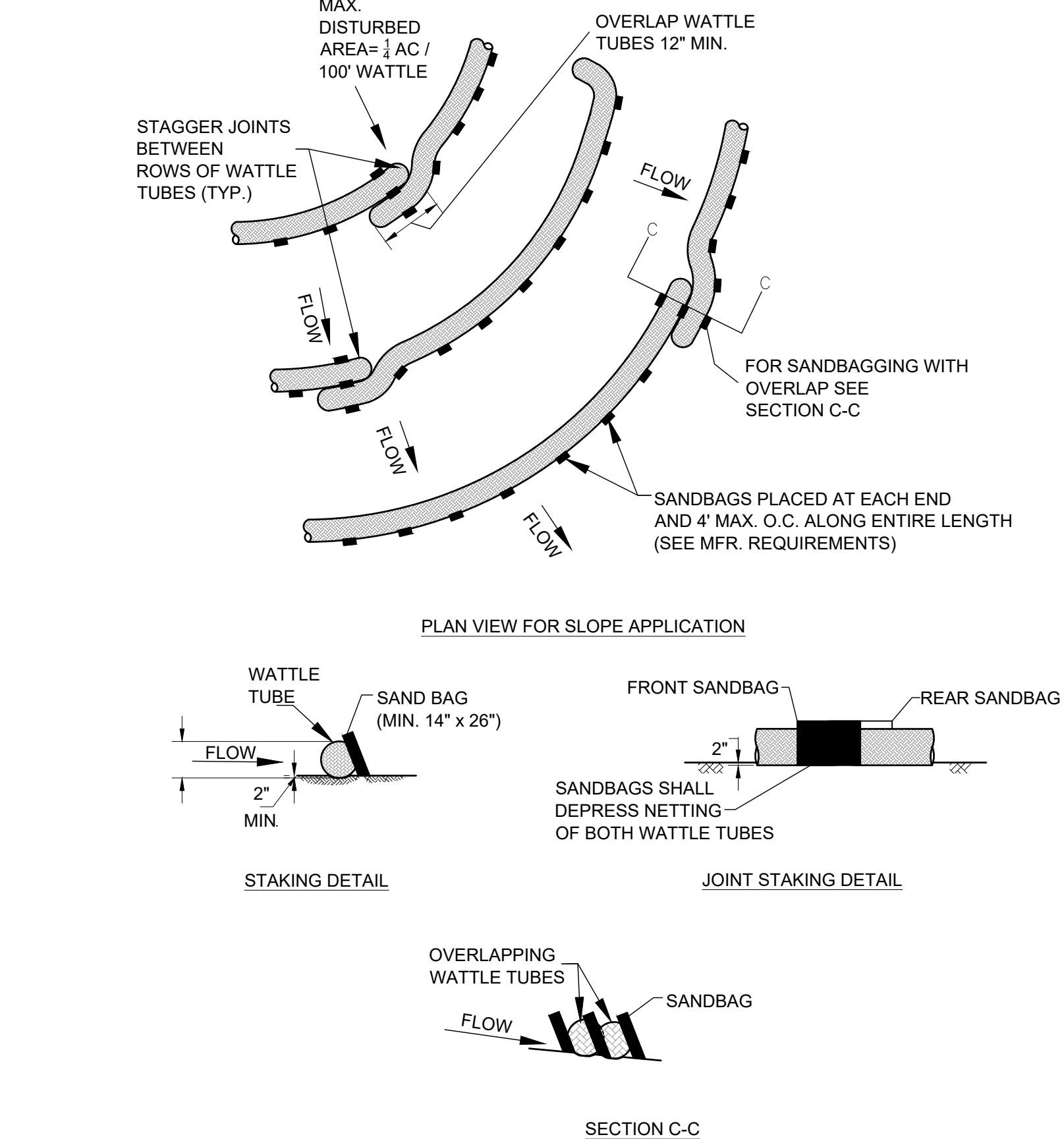


- NOTES:
1. GEOTEXTILE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 2. WHEN TWO SECTIONS OF GEOTEXTILE ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 3. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE EROSION CONTROL PLAN. COLLECTED MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE OR WHEN CAPACITY NEARS 50%.

SILT FENCE INSTALLMENT

SCALE
N.T.S.

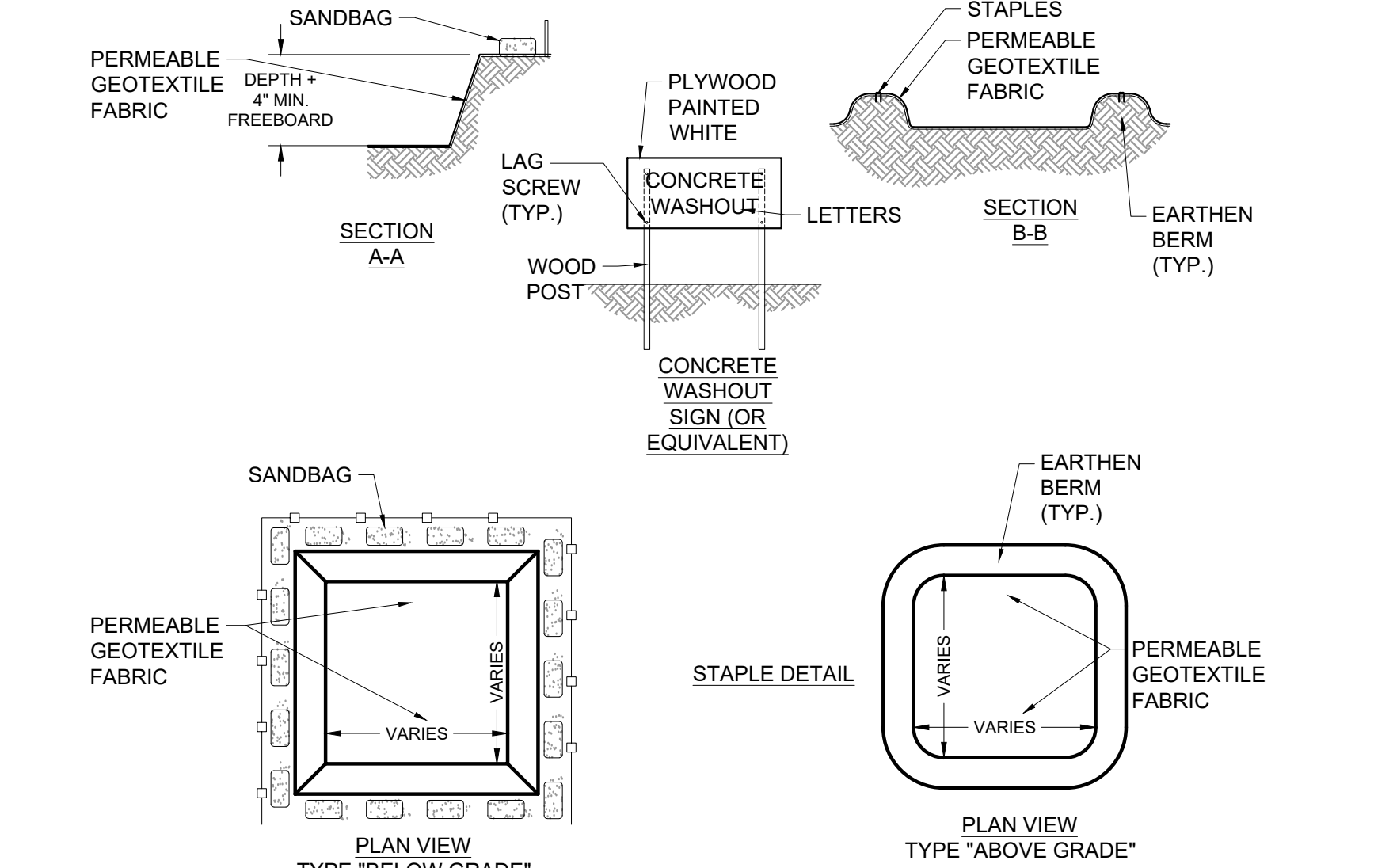
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EROSION EELS

SCALE
N.T.S.

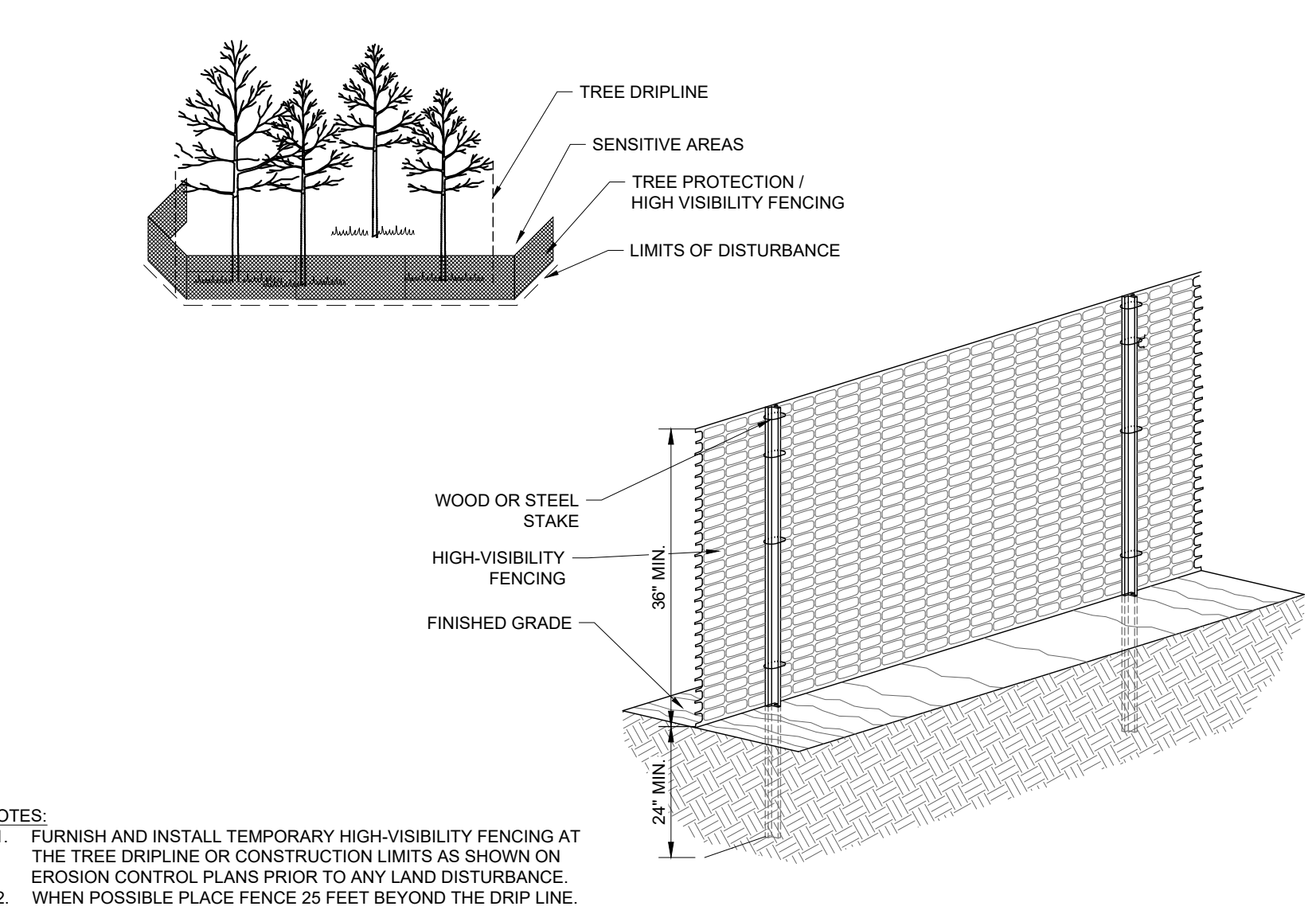
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CONCRETE WASHOUT

SCALE
N.T.S.

5



- NOTES:
1. FURNISH AND INSTALL TEMPORARY HIGH-VISIBILITY FENCING AT THE TREE DRIPLINE OR CONSTRUCTION LIMITS AS SHOWN ON EROSION CONTROL PLANS PRIOR TO ANY LAND DISTURBANCE.
 2. WHEN POSSIBLE PLACE FENCE 25 FEET BEYOND THE DRIP LINE.

TREE PROTECTION

SCALE
N.T.S.

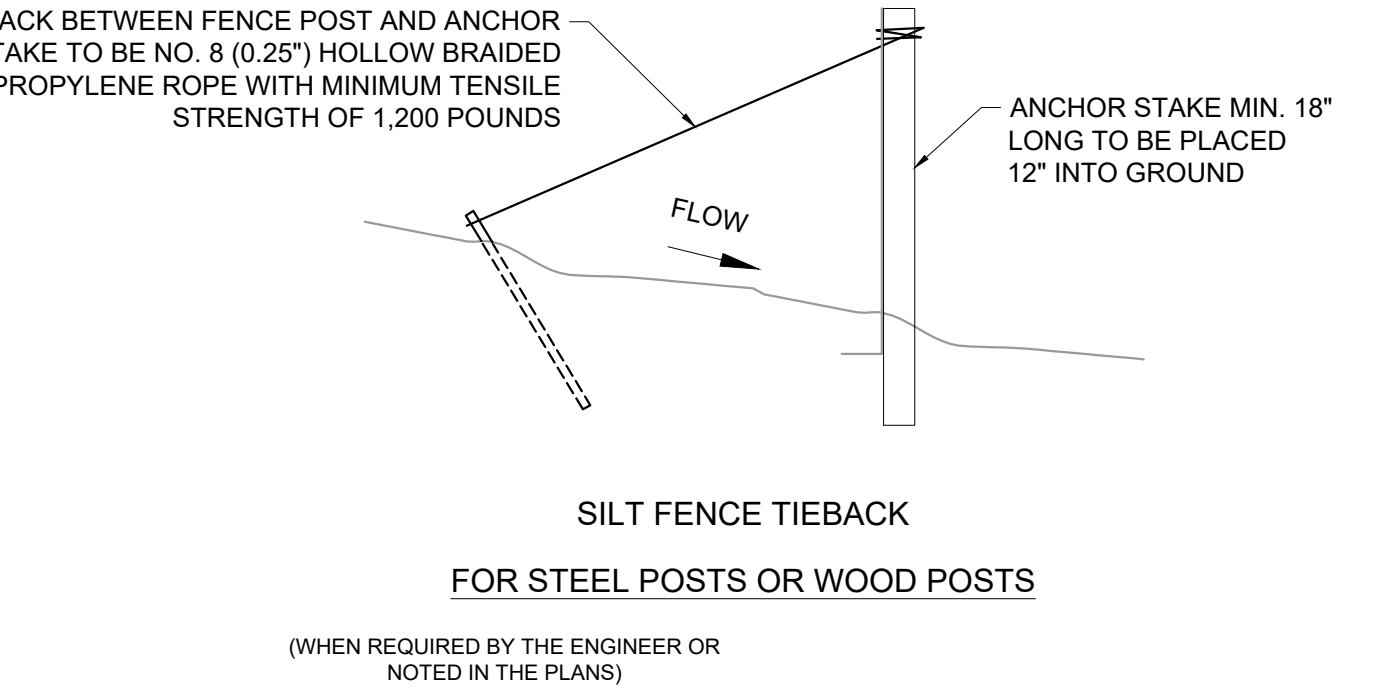
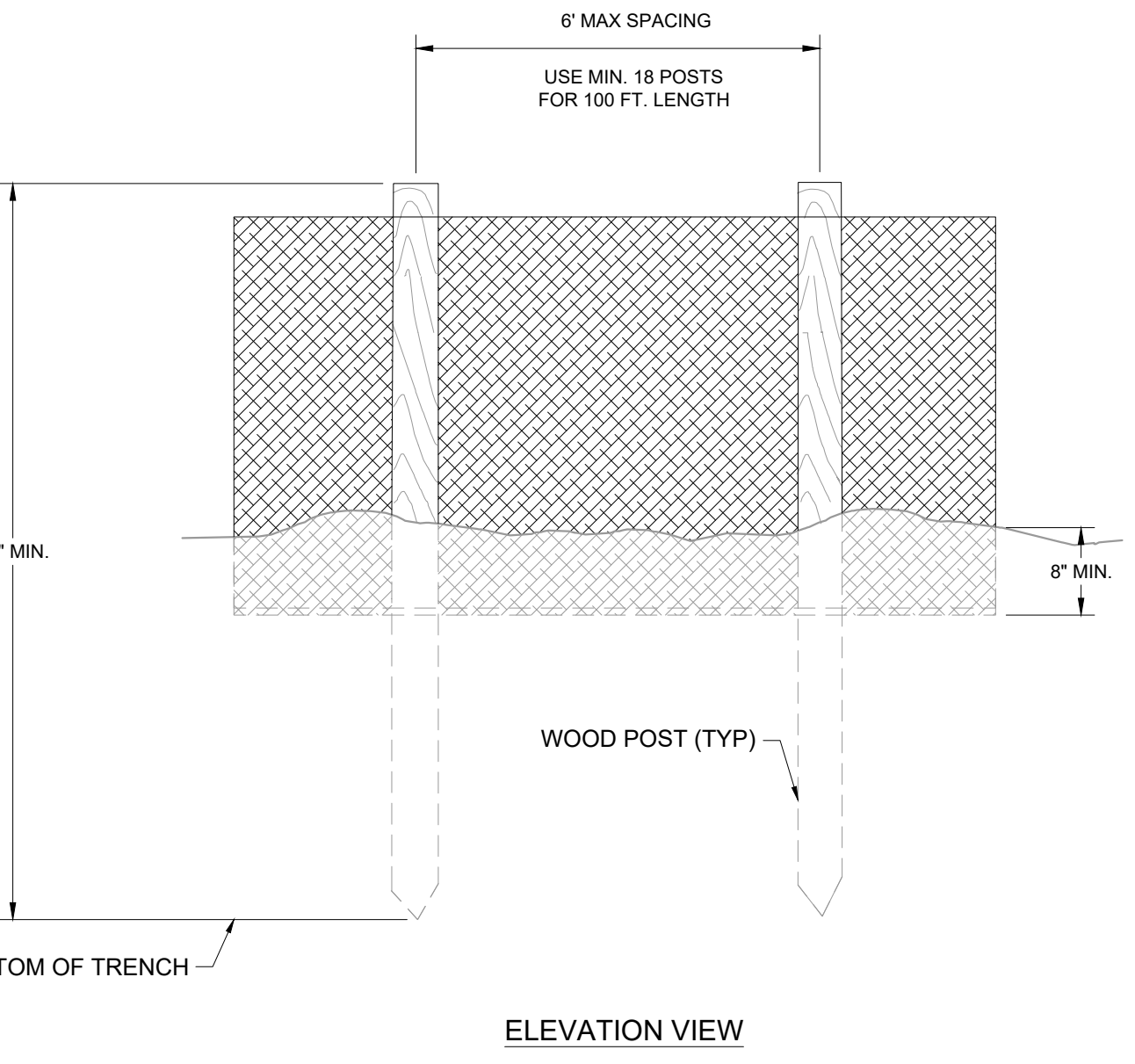
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PERMANENT STABILIZATION MEASURES SHALL BE DONE IN ACCORDANCE WITH LOCAL EROSION AND SEDIMENT CONTROL REQUIREMENTS

PERMANENT STABILIZATION

SCALE
N.T.S.

8



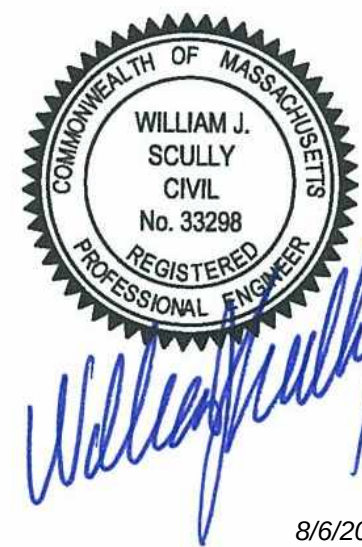
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SCALE
N.T.S.

9

DKO1_EV
EV INFRASTRUCTURE PLAN

151 TAYLOR STREET
LITTLETON, MA 01460



8/6/2024

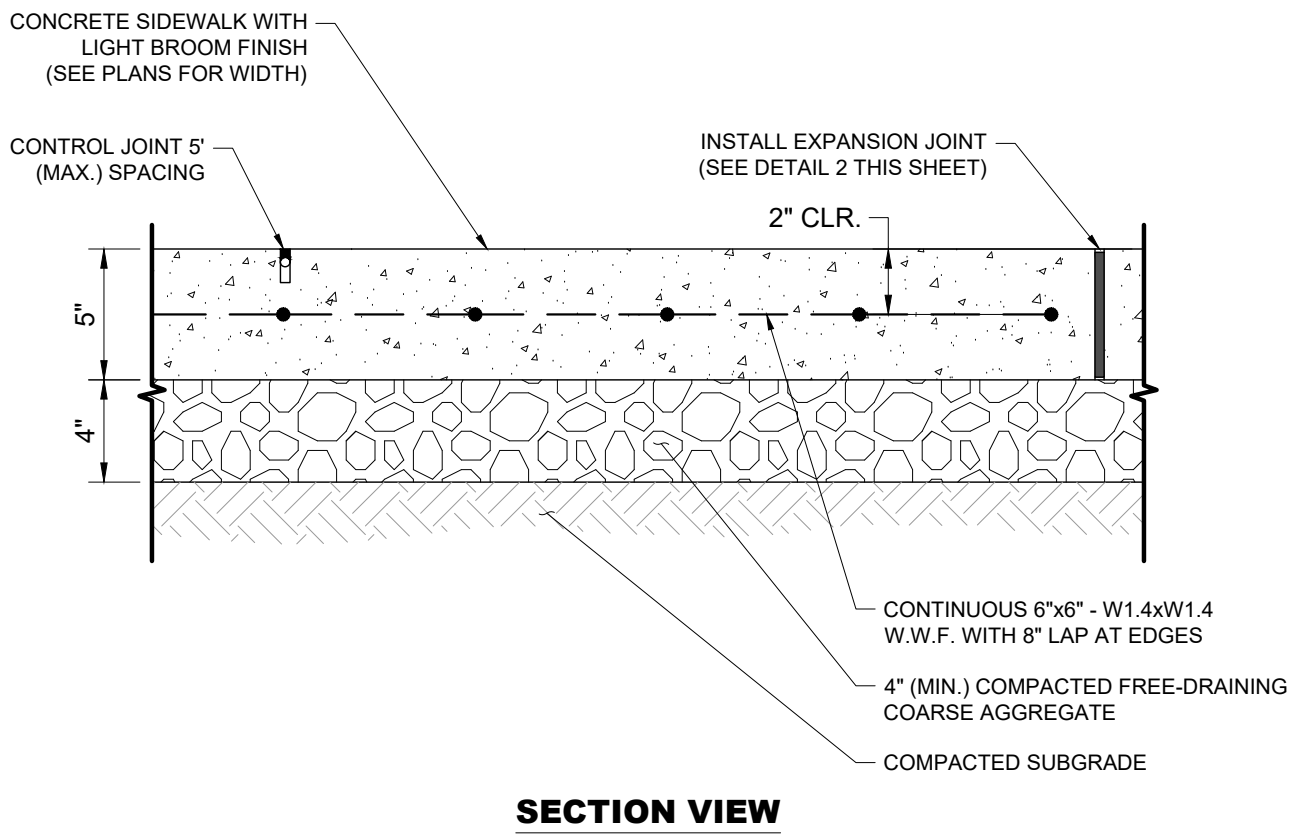
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DESIGNED BY: LKC
DRAWN BY: JWG
CHECKED BY: AA
DATE: 07/19/2024
KIMLEY-HORN PROJECT NO. 115319967

E&S DETAILS

SHEET NUMBER
C6.0

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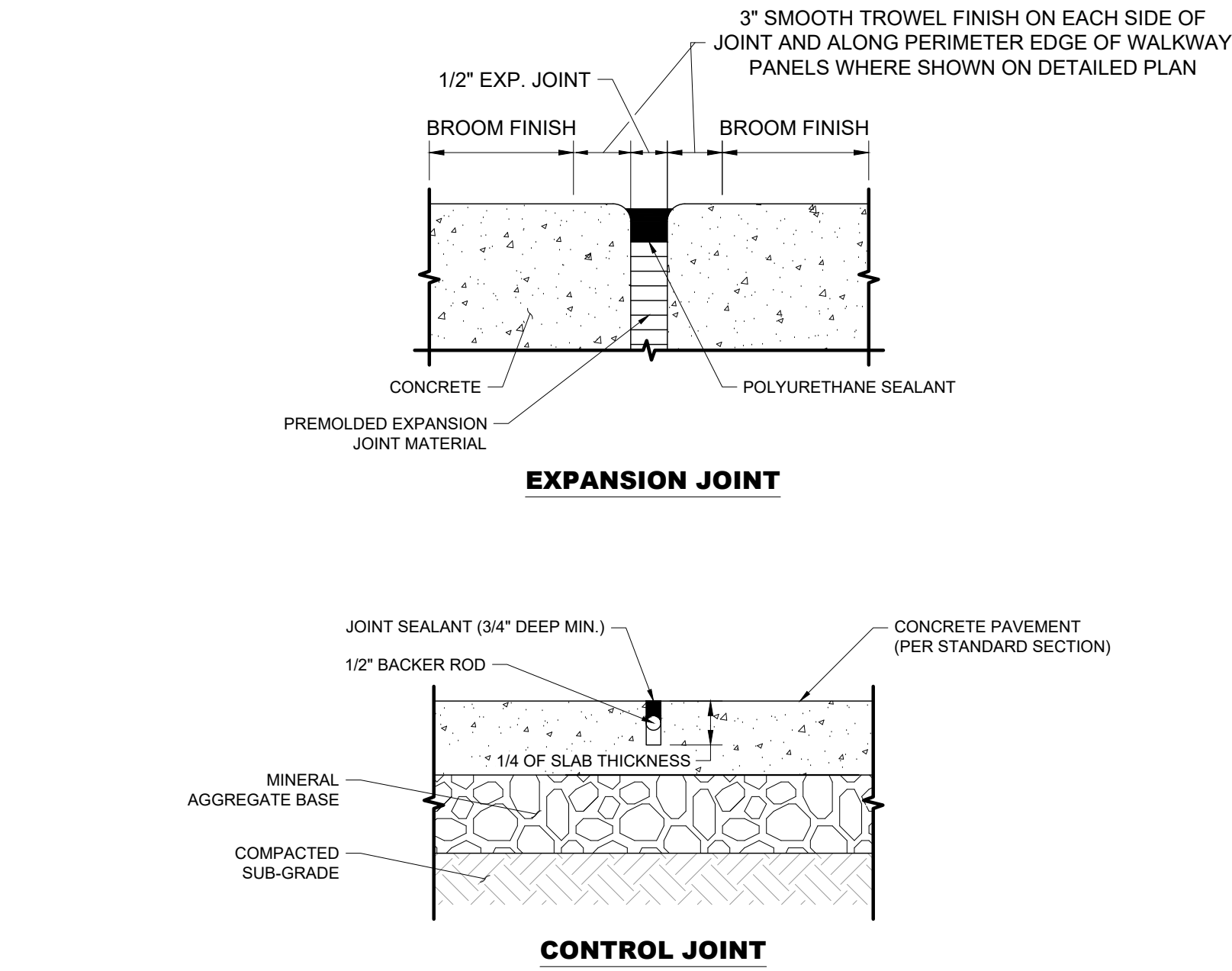
- NOTES:
1. ALL SIDEWALK SHALL BE CONSTRUCTED WITH CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
 2. PROVIDE 1/2" EXPANSION JOINTS AT 20' MAXIMUM SPACING AND FILLED WITH PREMOLDED BITUMINOUS EXPANSION JOINT FILLER MATERIAL OR REDWOOD. EXPANSION JOINTS SHALL HAVE #4 DOWELS, LUBRICATED, 18" LONG, AT 12" CENTERS, 6" FROM EDGE.
 3. PROVIDE 3/8" GROOVED CONTROL JOINTS AT 5' CENTERS.
 4. WELDED WIRE FABRIC (6X6-6X6) SHALL BE INSTALLED THROUGH DRIVEWAYS AT 2" ABOVE SLAB BOTTOM.
 5. PROVIDE 1/2" BITUMINOUS EXPANSION JOINT FILLER MATERIAL WHERE WALK ABUTS EXISTING IMPROVEMENTS AND AT ALL CHANGES IN GRADE.
 6. USE 2-#4 REINFORCING BARS, 10' LONG OVER ALL UTILITY TRENCHES FOR NEW SIDEWALK AND CONNECTIONS TO EXISTING SIDEWALK.
 7. AT DRIVE APPROACHES, SIDEWALK PCC AND BASE THICKNESS SHALL MATCH THAT OF THE DRIVE.

CONCRETE SIDEWALK

SCALE
N.T.S.

1

TYPICAL CONCRETE JOINTS

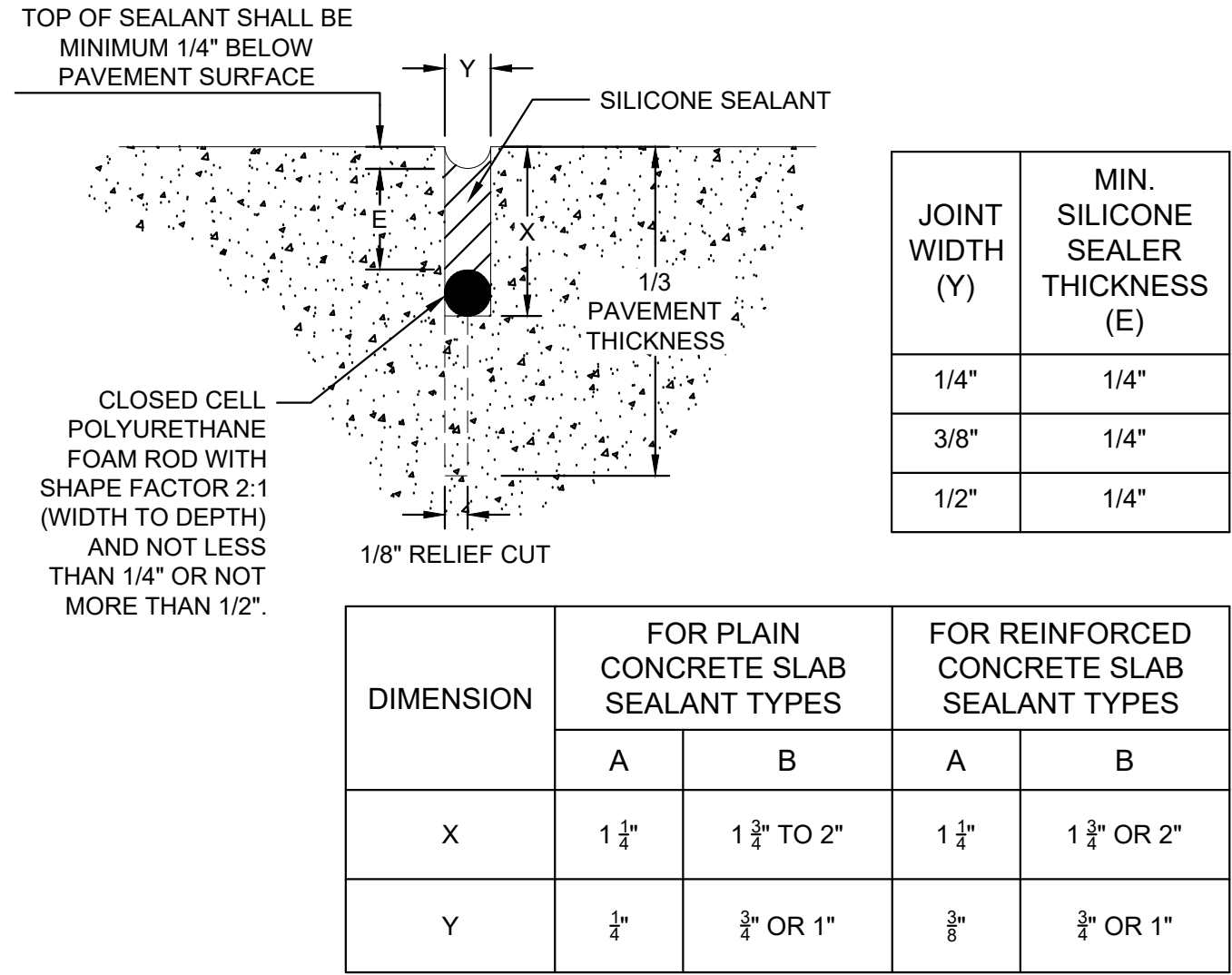


- NOTES:
1. INSTALL SAWCUT JOINTS WITHIN 24 HOURS OF FINISHING CONCRETE.
 2. INSTALL CONSTRUCTION JOINTS WHEN CONTINUOUS POUR OPERATIONS ARE SUSPENDED FOR MORE THAN 30 MINUTES.
 3. INSTALL EXPANSION JOINTS @ 15' O.C. (225 S.F.) IN EACH DIRECTION AND AGAINST ASPHALT PAVEMENT AND STRUCTURES.

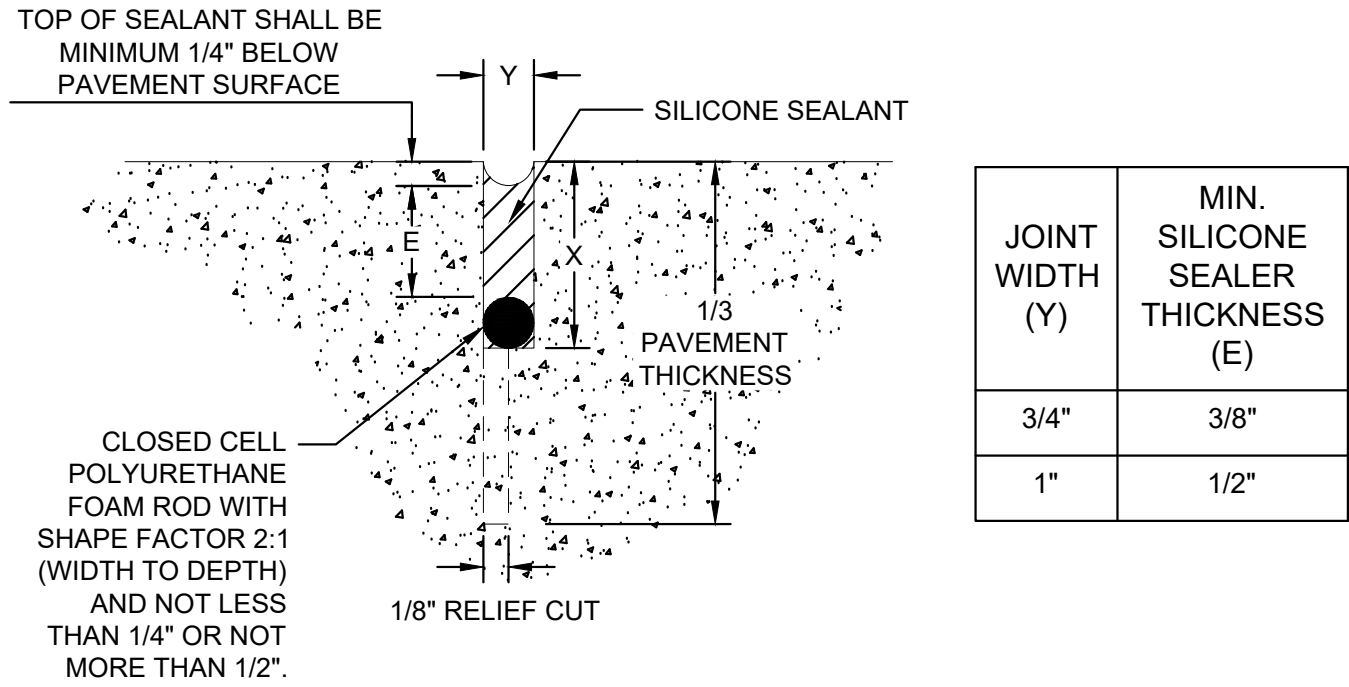
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2

CONTRACTION JOINTS (TYPE A SILICONE)



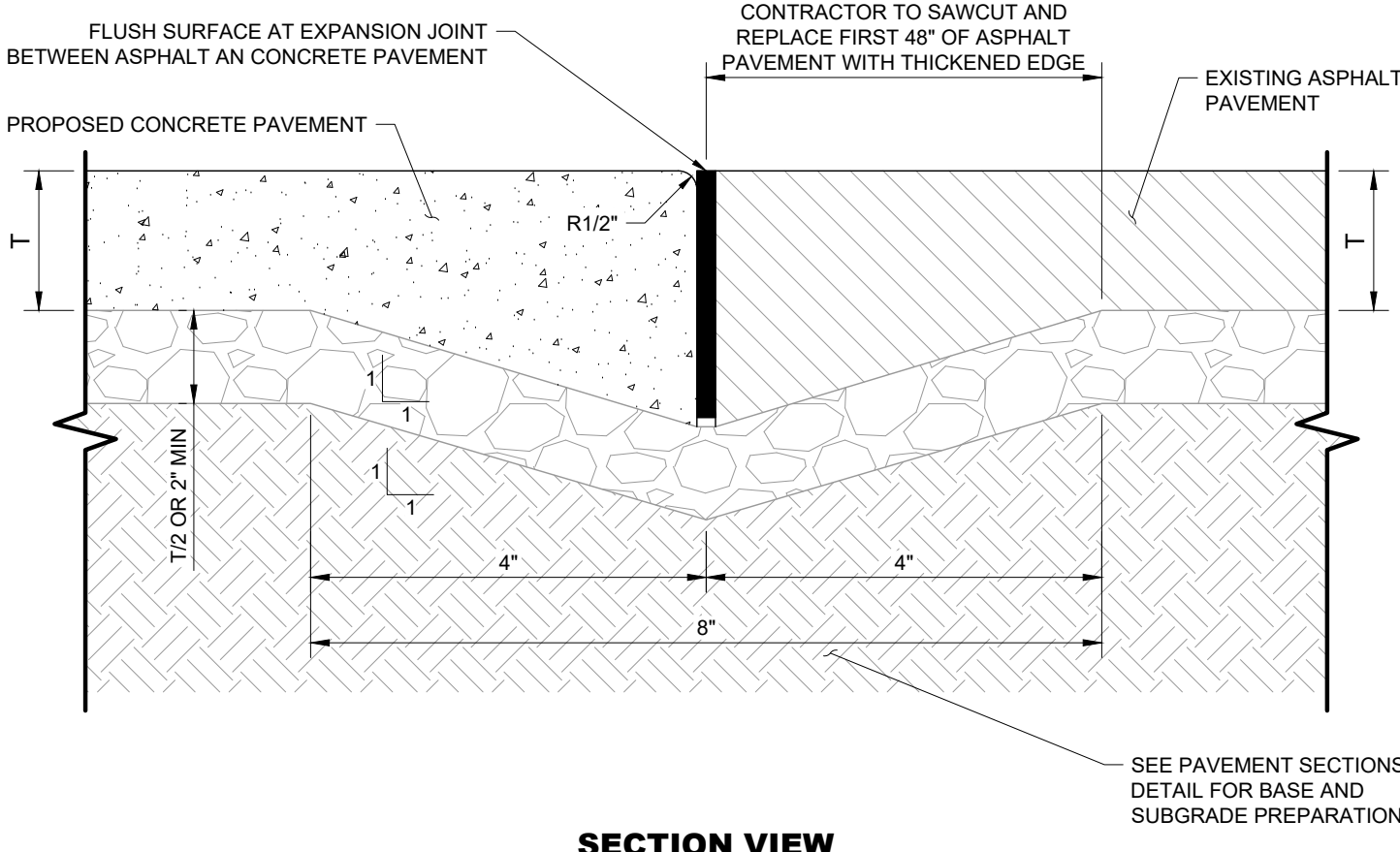
EXPANSION JOINTS (TYPE B SILICONE)



- NOTES:
1. THESE DETAILS SHALL BE USED FOR ALL NEWLY CONSTRUCTED OR SAWN JOINTS.
 2. SILICONE SEALANTS SHALL BE USED TO SEAL ALL JOINTS.
 3. TYPES OF JOINT MATERIAL ARE TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
 4. ALL CONTRACTION JOINTS TO BE SAWS IN CONFORMANCE WITH THE DETAILS, EXCEPT THAT WHERE GRAVEL AGGREGATE IS USED IN THE CONCRETE, THE JOINT MAY BE PREPARED BY FORMING 1/4" OR LESS OF THE WIDTH, FOR THE DEPTH SHOWN WITH WITH NON-METALLIC OR REMOVABLE MATERIAL, FOLLOWED BY SAWING TO COMPLETE THE JOINT TO THE REQUIRED WIDTH AND DEPTH.

SCALE
N.T.S.

3



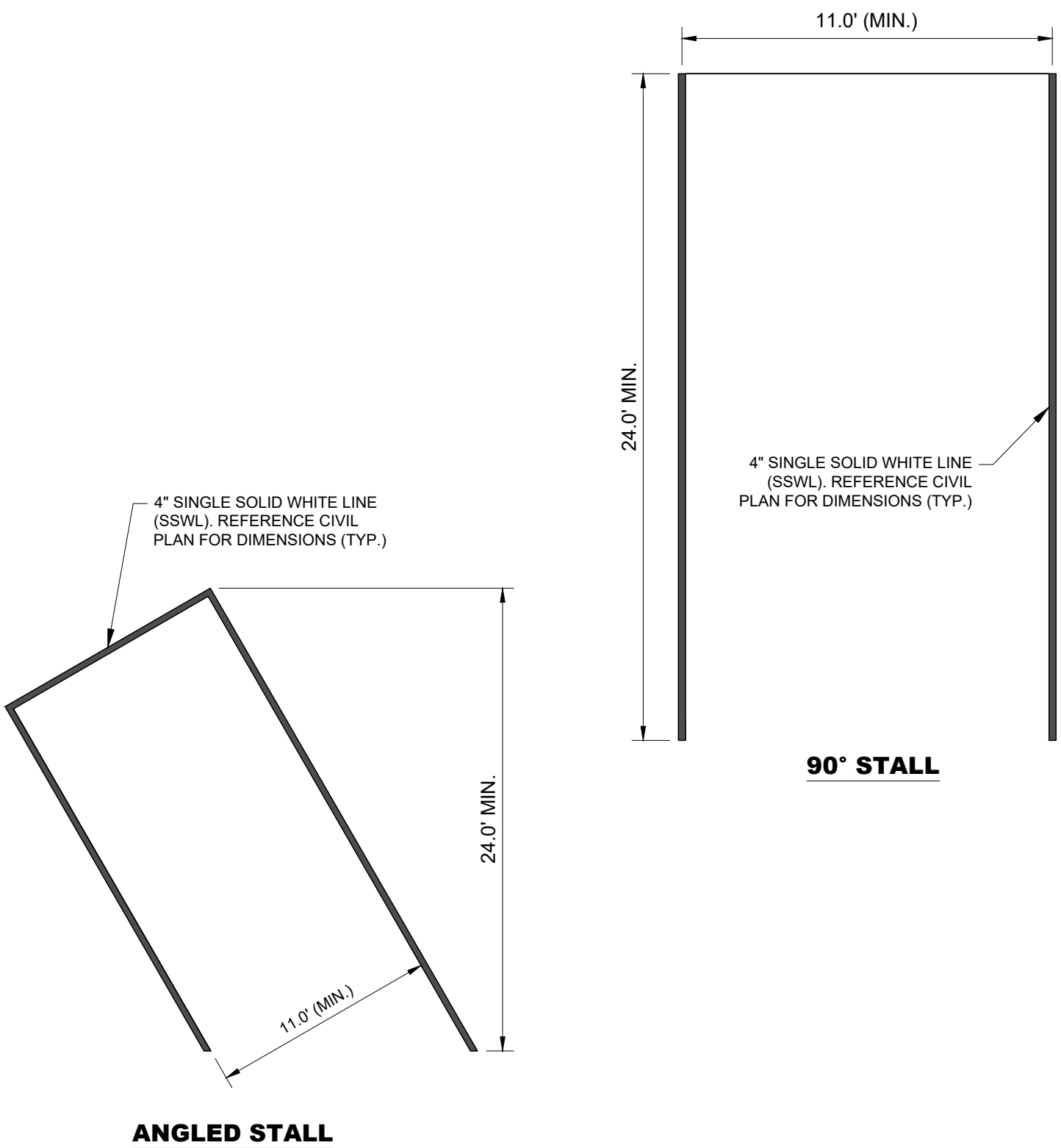
- NOTES:
1. SEE PREVIOUS DESIGN OR GEOTECH REPORTS FOR PAVEMENT SECTION AND THICKNESS (T). IF NOT AVAILABLE CONTRACTOR TO FIELD VERIFY.
 2. DETAIL APPLIES AT ALL PAVEMENT EDGE CONDITIONS AND PAVEMENT TRANSITIONS FROM ASPHALT TO CONCRETE.

THICKENED EDGE AT ASPHALT & CONCRETE

SCALE
N.T.S.

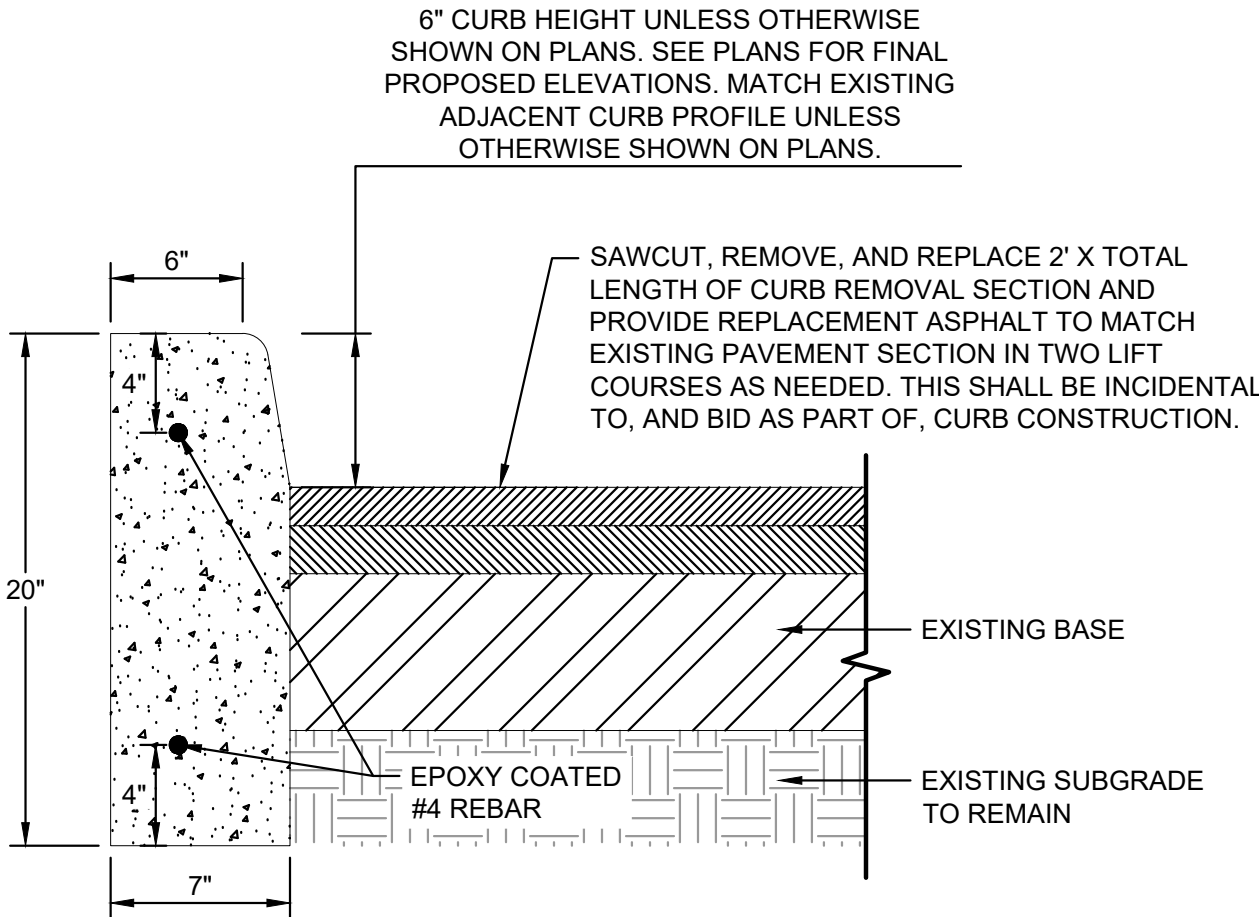
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TYPICAL PARKING STRIPING



SCALE
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5

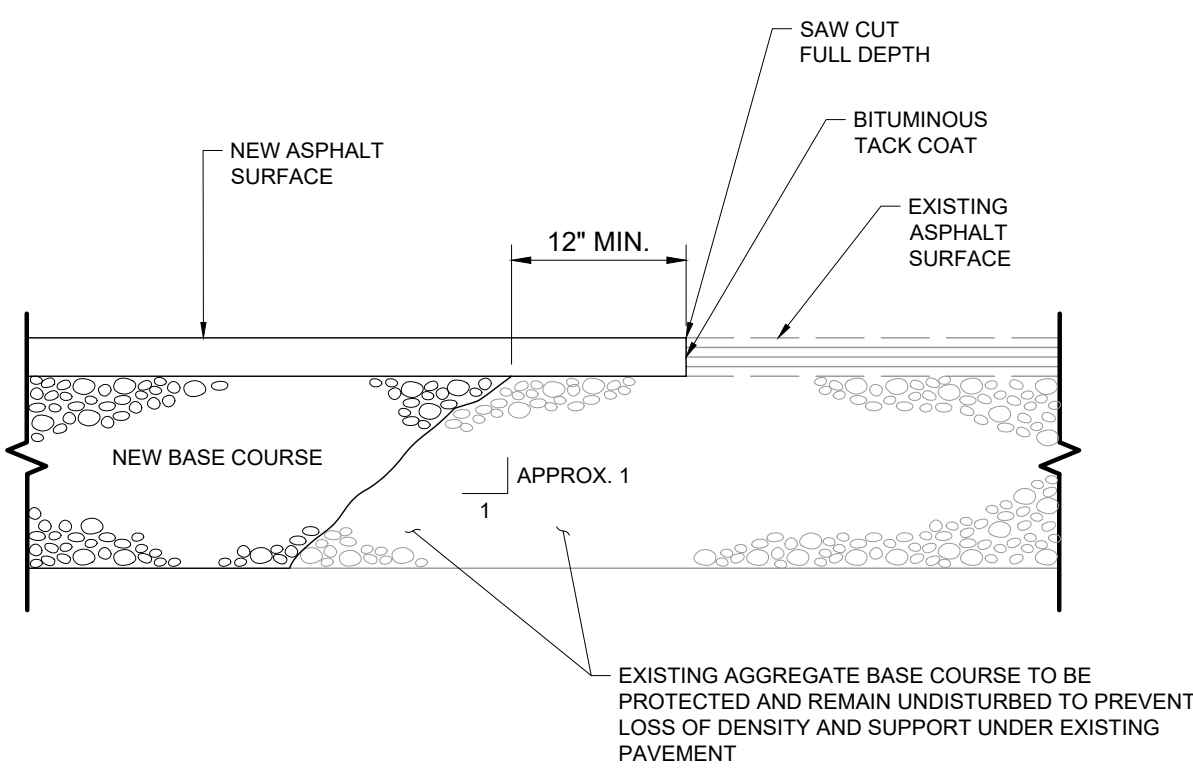


- NOTES:
1. DETAIL SHOWN FOR REFERENCE ONLY. FIELD CONSTRUCTION SHALL MATCH EXISTING CURB TYPE, INCLUDING DIMENSIONS AND REINFORCEMENT, AS WELL AS ELEVATION, UNLESS OTHERWISE SPECIFICALLY SHOWN ON PLANS.
 2. VERTICAL SAWCUT SHALL BE MADE AT ALL LIMITS OF REMOVAL TO CREATE A CLEAN EDGE.
 3. GRADING, ADDITIONAL AGGREGATE/CONCRETE REQUIRED TO MATCH EXISTING CROSS SECTION GRADES, AND SEEDING OF ADJACENT LANDSCAPE AREA SHALL BE INCIDENTAL TO, AND BID AS PART OF, CURB CONSTRUCTION.

REMOVE & REPLACE VERTICAL CURB

SCALE
N.T.S.

6

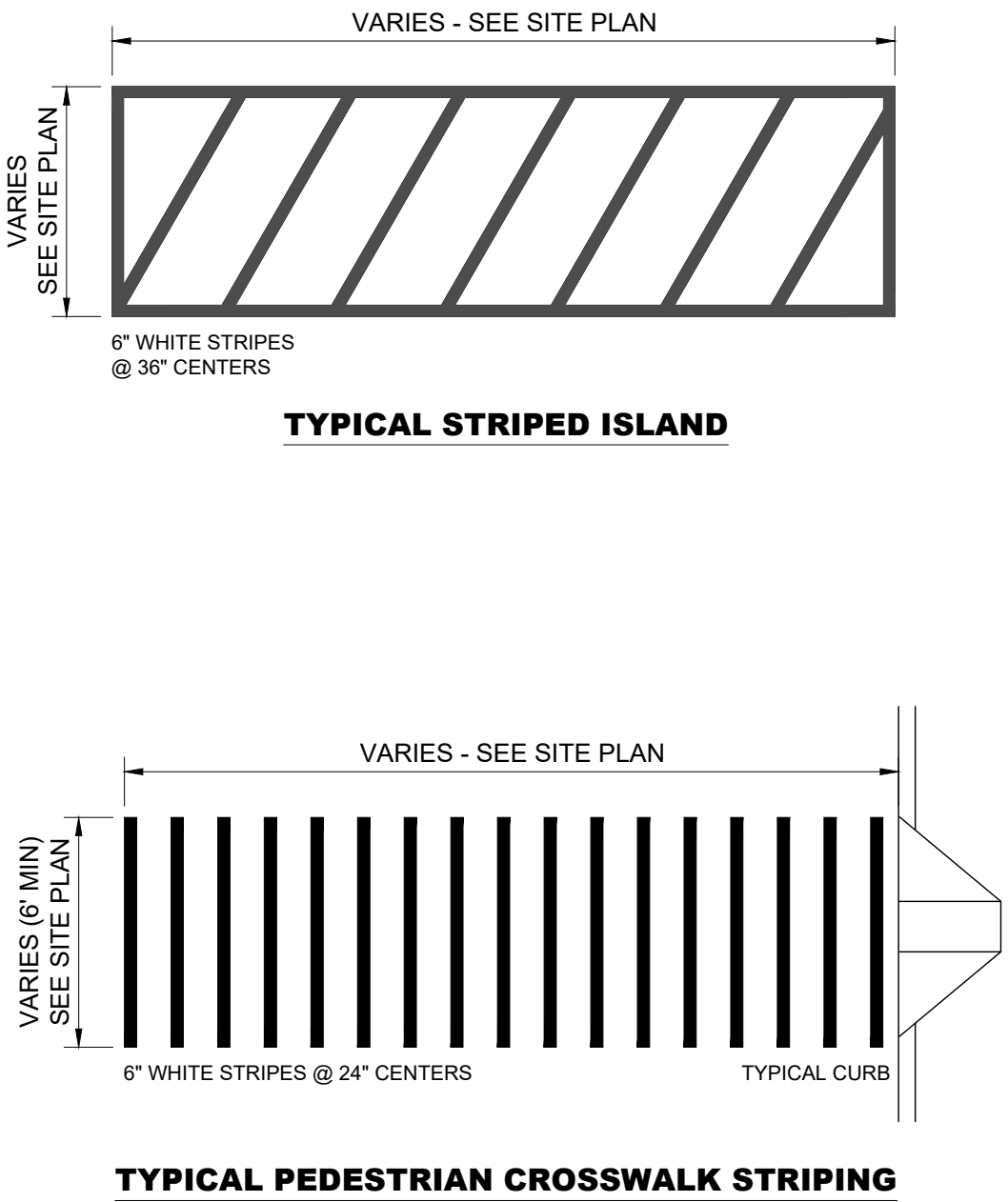


ASPHALT PAVEMENT JOINT

SCALE
N.T.S.

7

TYPICAL PAVEMENT STRIPING



SCALE
N.T.S.

8

NOT USED

SCALE
N.T.S.

9

DKO1_EV
EV INFRASTRUCTURE PLAN

151 TAYLOR STREET
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8/6/2024

BY	
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REVISIONS	
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DESIGNED BY:	LKC
DRAWN BY:	JWG
CHECKED BY:	AA
DATE:	07/19/2024
KIMLEY-HORN PROJECT NO. 115319067	

CIVIL DETAILS

SHEET NUMBER

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SPECIAL INSPECTIONS

- SPECIAL INSPECTIONS SHALL BE PROVIDED PER 2021 INTERNATIONAL BUILDING CODE (IBC) CHAPTER 17.
 - CONCRETE CONSTRUCTION (TABLE 1705.3)
 - SOILS (TABLE 1705.6)
- OWNER WILL ENGAGE A SPECIAL INSPECTOR AND QUALIFIED TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS, AND PREPARE TEST REPORTS.
- THE GENERAL CONTRACTOR SHALL ASSIST AND COOPERATE WITH AN INDEPENDENT TESTING LABORATORY (TO BE RETAINED BY THE OWNER) WHICH SHALL CONDUCT ALL THE SPECIFIED TESTS REQUIRED FOR THE PROJECT AND REPORT THE RESULTS OF THESE TESTS DIRECTLY AND PROMPTLY TO THE ENGINEER FOR HIS REVIEW.
- CONTRACTOR SHALL NOTIFY SPECIAL INSPECTOR AND TESTING AGENCY 48 HOURS IN ADVANCE OF ITEMS REQUIRED FOR SPECIAL INSPECTION.
- ALL SPECIAL INSPECTION MONTHLY REPORTS SHALL BE SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF THE PROJECT, WHO HAS RESPONSIBLE CHARGE OF THE SPECIAL INSPECTIONS PROGRAM.
- A SPECIAL INSPECTIONS MEETING SHALL BE HELD ON SITE WITH ENGINEER OF RECORD, CONSTRUCTION COORDINATOR, INDEPENDENT TESTING AGENCY, AND SPECIAL INSPECTOR TO CLARIFY ALL SPECIAL INSPECTION REQUIREMENTS PRIOR TO BEGINNING TO WORK.

CONCRETE AND REINFORCEMENT

- CAST-IN-PLACE CONCRETE SHOULD BE F'C = 4,500 PSI MIN (CLASS F2), W/C = 0.45 MAX, AND TARGET AIR CONTENT OF 6% ± 1.5%, UNLESS NOTED OTHERWISE. MAXIMUM AGGREGATE SIZE IS 1".
- REINFORCING SHOULD CONFORM TO ASTM A615, GRADE 60, F_y = 60,000 PSI.
- HOOKS AND BENDS FOR REINFORCING BARS SHOULD CONFORM TO THE REQUIREMENTS OF THE ADOPTED ACI 318.
- ALL BEND DIMENSIONS FOR REINFORCING STEEL SHOULD BE OUT-TO-OUT OF BARS. ALL PLACEMENT DIMENSIONS FOR REINFORCING STEEL SHOULD BE TO CENTER OF BARS UNLESS NOTED OTHERWISE.
- ALL REINFORCING SHOULD HAVE 2" CLEAR COVER UNLESS NOTED OTHERWISE.
- ALL EXPOSED CONCRETE CORNERS SHOULD BE CHAMFERED 3/4".
- TRIM ALL REINFORCING 2" CLEAR OF OPENINGS. USE #4X4 CENTERED ON CORNER OF OPENINGS.

POST-INSTALLED ANCHORS

- UNLESS OTHERWISE INDICATED ON PLANS, POST-INSTALLED ANCHORS SHOULD CONSIST OF THE FOLLOWING ANCHOR TYPES, OR APPROVED EQUIV.:
HILTI KH-EZ SS316
- SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHOULD PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT AND CURRENT BUILDING CODE.

FOUNDATIONS

- FOUNDATIONS ARE DESIGNED USING PRESUMPTIVE SOIL VALUES IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE.
- ALL FOOTING EXCAVATIONS SHOULD BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
- IBC PRESUMPTIVE VERTICAL BEARING CAPACITY: 1,500 PSF
- IBC PRESUMPTIVE LATERAL BEARING CAPACITY: 100 PCF
- CONTRACTOR SHOULD ENGAGE A GEOTECHNICAL TESTING LABORATORY LICENSED IN THE STATE OF THE PROJECT TO CONFIRM SOIL PREPARATION AND SPECIFY PROCEDURES AND SPECIFY COMPACTING REQUIREMENTS NECESSARY TO OBTAIN THE DESIGN SOIL PROPERTIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ENGINEER OF RECORD IF ASSUMED SOIL PROPERTIES CANNOT BE OBTAINED ON SITE.

PROJECT GENERAL NARRATIVE AND REQUIREMENTS

- THESE CONSTRUCTION DOCUMENTS ARE SPECIFICALLY APPLICABLE TO FOUNDATIONS SUPPORTING THE COMPONENTS LISTED BELOW. THE INFORMATION IN THIS TABLE MAY VARY DEPENDING ON FINAL CLIENT PROCUREMENT DECISIONS. CONTRACTOR AND CLIENT TO CONFIRM FINAL PROCUREMENT SELECTIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

COMPONENT NAME	COMPONENT DIMENSIONS (WxHxD, FT)	COMPONENT WEIGHT (LBS)	EQUIVALENT UNIFORM AREA LOAD (PSF)
SWITCHGEAR	19'-6"x8'-9"x6'-0"	17,900	152.99
MV TAP SWITCH	8'-8 1/2"x4'-8 1/2"x6'-4 1/2"	6,400	115.43
MV TRANSFORMER	6'-0"x6'-1"x8'-3"	14,500	292.93

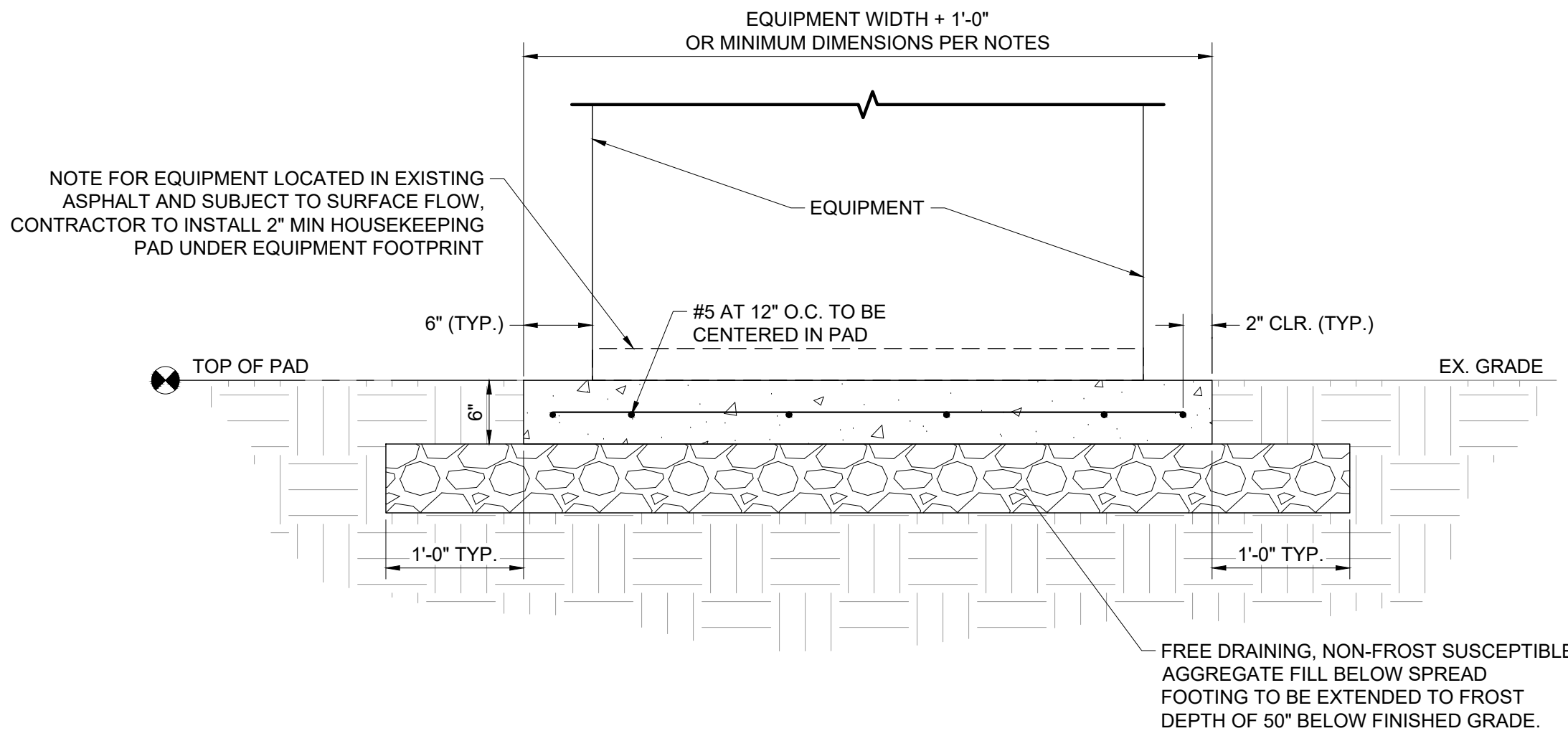
- EQUIPMENT YIELDING MAXIMUM EQUIVALENT UNIFORM AREA LOAD WAS USED IN DESIGN OF EQUIPMENT PADS.
- FOUNDATION DESIGN IS BASED ON THE DESIGN CRITERIA.
- IF THE PROJECT IS LOCATED IN AN AREA CLASSIFIED AS SITE CLASS E OR F, A SITE-SPECIFIC GEOTECHNICAL ANALYSIS IS REQUIRED AND THE ENGINEER OF RECORD SHOULD BE CONTACTED IMMEDIATELY.
- THE CONTRACTOR'S SCOPE OF WORK FOR THIS PROJECT SHOULD INCLUDE ALL COORDINATION, MATERIALS, LABOR, AND OVERHEAD NECESSARY FOR COMPLETION OF THE FOLLOWING:
 - ALL STRUCTURES ARE DESIGNED TO ACT AS A STRUCTURAL UNIT UPON COMPLETION; CONTRACTOR SHOULD DESIGN AND PROVIDE NECESSARY BRACING, TEMPORARY SUPPORTS, AND SHORING TO RESIST FORCES ON THE STRUCTURE DURING CONSTRUCTION.
 - VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO STARTING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
 - VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO STARTING WORK.
 - CONTRACTOR MUST EXERCISE EXTREME CARE DURING THE EXCAVATION AND CONSTRUCTION FOR NEW STRUCTURE TO AVOID DAMAGE TO EXISTING STRUCTURES. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL MEANS AND METHODS REQUIRED TO FACILITATE CONSTRUCTION OF THE WORK AND ENSURING THE SAFETY, STABILITY AND INTEGRITY OF ADJACENT STRUCTURES AND FACILITIES.
 - CONTRACTOR MUST ENGAGE A GEOTECHNICAL ENGINEER TO FIELD VERIFY SOIL PARAMETERS NOTED IN THE FOUNDATION NOTES AND CONCRETE CLASS NOTED UNDER CONCRETE NOTES.

DESIGN CRITERIA

- DESIGN CRITERIA IS BASED ON THE CONTROLLING GEOGRAPHICAL LOADINGS CONSIDERING CLIENT-PROVIDED PROJECT LOCATIONS IN THE UNITED STATES.
- THE DESIGN CRITERIA PERTAINING TO EACH SPECIFIC SITE WILL DIFFER FROM THE DESIGN CRITERIA LISTED BELOW. THE DESIGN CRITERIA LISTED BELOW IS CONSERVATIVE RELATIVE TO THE SITE SPECIFIC DESIGN WITH THE CONSIDERATION OF PROJECT GENERAL NARRATIVE AND REQUIREMENTS OF NOTE 4, ABOVE.
- BUILDING CODE: 2021 INTERNATIONAL BUILDING CODE
- DESIGN LOADS:
RISK CATEGORY = II
DEAD LOAD:
SELF WEIGHT OF MATERIAL
WIND:
DESIGN WIND SPEED (3 SEC. GUST) = 130 MPH (ULTIMATE)
WIND EXPOSURE = C
SEISMIC:
SEISMIC IMPORTANCE FACTOR, I_E = 1.0
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS:
S_s = 0.30g
S₁ = 0.071g
SITE CLASS = D, DEFAULT
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS:
S_{MS} = 0.30g
S_{M1} = 0.113g
SEISMIC DESIGN CATEGORY = C
RESPONSE MODIFICATION COEFFICIENT (R_a) = 3.0
FROST DEPTH = 50"

CONSTRUCTION NOTES

- FOUNDATION DIMENSIONS ARE BASED ON STANDARD EQUIPMENT SIZING AND WILL REQUIRE 6" CLEAR FROM EDGE OF EQUIPMENT TO EDGE OF PAD ON ALL SIDES. IF THE PROCURED EQUIPMENT IS LARGER IN SIZE THAN WHAT THE PAD WILL ALLOW, ENGINEER OF RECORD SHOULD BE CONTACTED AND LARGER PAD WILL BE REQUIRED.
- TOP OF EQUIPMENT PAD IS INTENDED TO BE LEVEL. GC TO COORDINATE PAD EMBEDMENT DEPTH WITH ACTUAL SITE GRADING PLANS.
- SOIL COMPACTION AND SUBBASE REQUIREMENTS TO BE COMPLETED BASED ON THE LATEST GEOTECHNICAL REPORT WHICH WAS NOT PROVIDED TO THE ENGINEER AS PART OF THIS DESIGN.
- WHEN EMBEDDED BOLLARDS ARE REQUIRED PER SITE LAYOUT, CONTRACTOR SHALL PLACE BOLLARD(S) IN ACCORDANCE WITH PROVISIONS ON DETAIL 6 - THIS SHEET. FOUNDATIONS TO BE SPACED WITH A MINIMUM OF 6" BETWEEN EDGE OF FOUNDATION.



FOUNDATION FOR LV TRANSFORMER AND LVSB

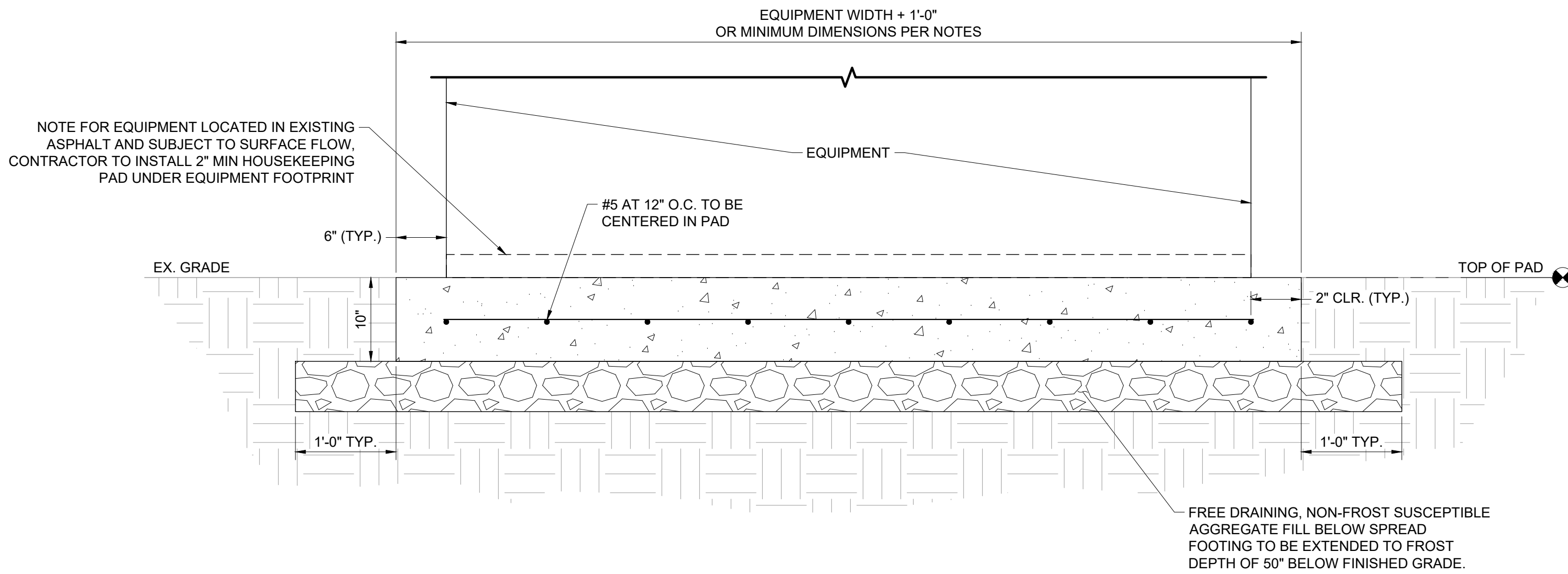
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NOT USED

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3



FOUNDATION FOR SWITCHGEAR, MV TRANSFORMER, AND MV SWITCH

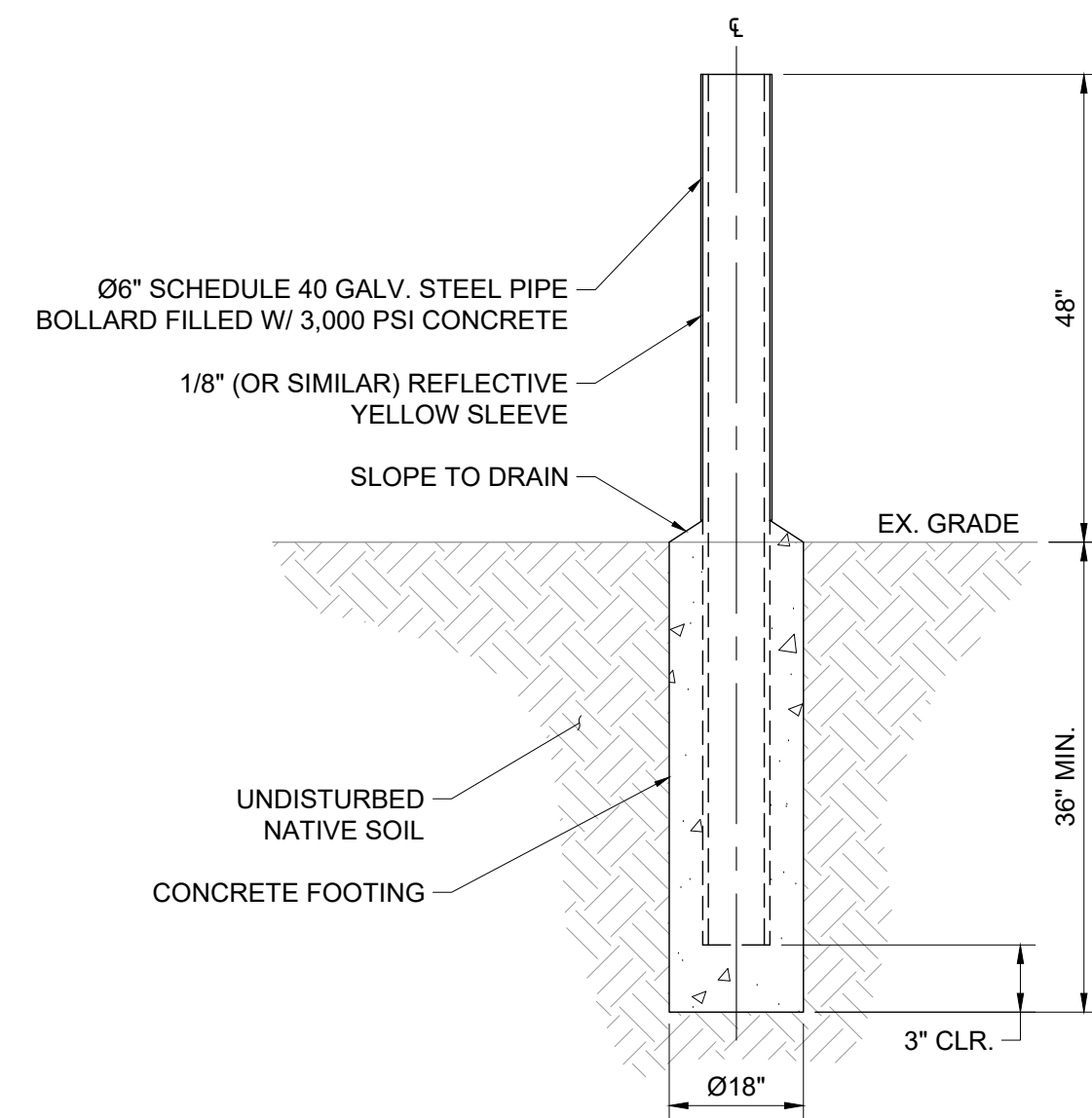
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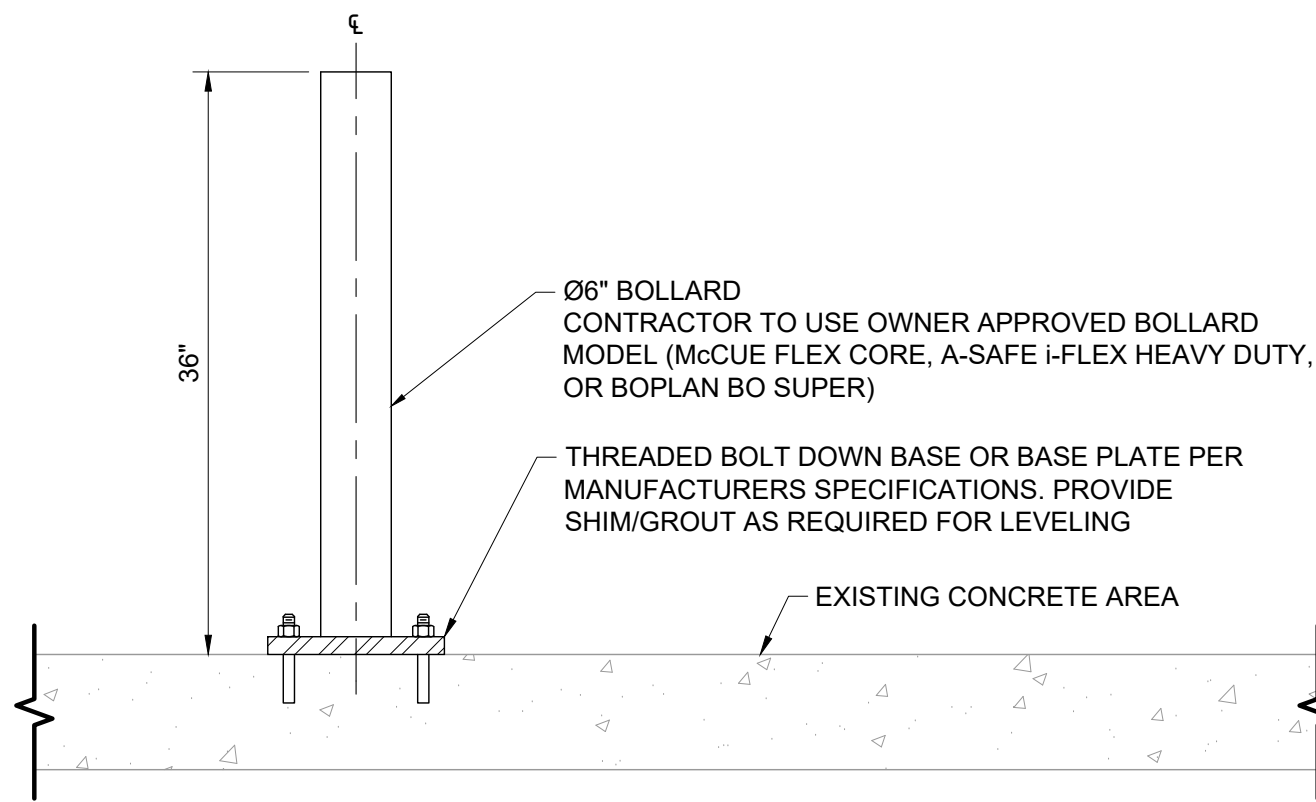
NOTES:

- CONTRACTOR TO ENSURE PLACEMENT OF BOLLARD DOES NOT INTERFERE WITH ANY EQUIPMENT DOOR OPENINGS OR RESTRICT ACCESS TO SERVICE EQUIPMENT.
- CONTRACTOR TO ENSURE BOLLARD PLACEMENT DOES NOT OBSTRUCT EQUIPMENT CLEARANCE REQUIREMENTS.
- THIS DETAIL SHALL ONLY BE USED BOLLARD INSTALLATIONS WITHIN AN EXTERIOR PARKING LOT.
- THIS BOLLARD IS NOT RATED FOR VEHICULAR IMPACT.**
- EMBEDDED CONCRETE BOLLARDS ARE REQUIRED FOR PROTECTION OF ALL ELECTRICAL GEAR AND MUST BE PLACED IN A LOCATION TO AVOID ANY CONFLICT WITH EQUIPMENT DOOR OPENINGS OR RESTRICT ACCESS TO SERVICE THE EQUIPMENT. BOLLARDS ARE REQUIRED AT ALL GEAR LOCATIONS UNLESS GEAR IS PLACED ON A 6" MINIMUM RAISED CURB AND AT LEAST 10FT FROM THE FACE OF THE CURB.

SCALE
N.T.S.

6

BOLLARD - EMBEDDED



NOTES:

- CONTRACTOR SHALL X-RAY CONCRETE SLAB TO FIELD VERIFY EXISTING REINFORCEMENT LOCATIONS PRIOR TO DRILLING. CONTRACTOR SHALL TAKE GREAT CARE TO ENSURE AT LEAST 3" GAP BETWEEN ANCHORS AND EXISTING REINFORCEMENT AND STRESSING TENDONS.
- CONTRACTOR TO ENSURE BOLLARD PLACEMENT DOES NOT OBSTRUCT 3' DOOR SWING ON BOTH SIDES OF MEDIA STATION.
- THIS BOLLARD IS NOT RATED FOR VEHICULAR IMPACT.**
- IMPACT-RATED BOLT DOWN BOLLARDS TO BE USED FOR PROTECTION FOR CHARGERS AND ABOVEGROUND SOLUTIONS ONLY.

SCALE
N.T.S.

7

BOLLARD - POST INSTALLED

SCALE
N.T.S.

8

NOT USED

STRUCTURAL NOTES

SCALE
N.T.S.

1

DKO1_EV
EV INFRASTRUCTURE PLAN
151 TAYLOR STREET
LITTLETON, MA 01460



8/6/2024

REVISIONS		DATE	BY
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DATE:		07/19/20	

KIMLEY-HORN PROJECT NO.
115319967

STRUCTURAL DETAILS

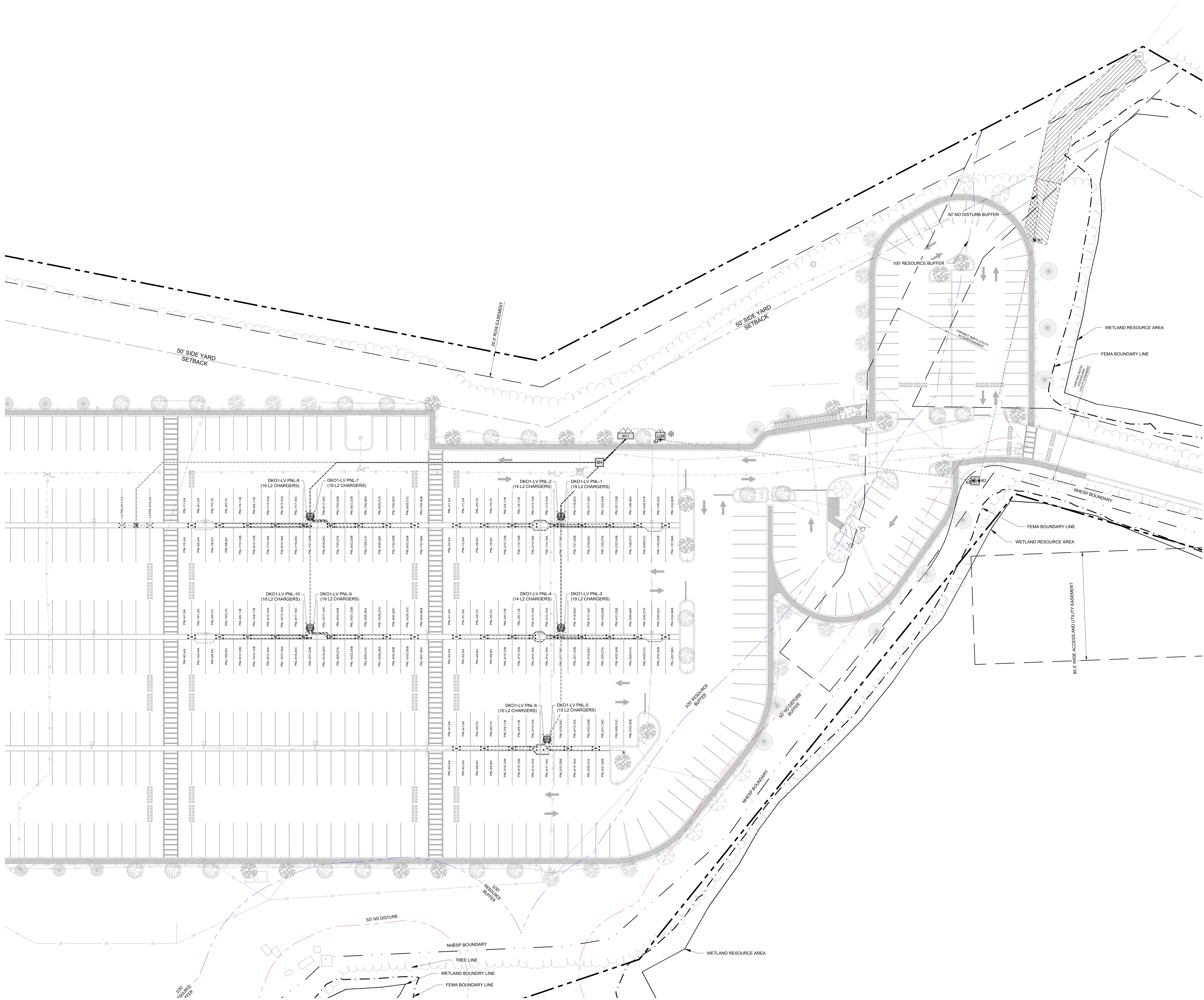
SHEET NUMBER

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Kimley»Horn

404 WYMAN ST., SUITE 395, WALTHAM, MASSACHUSETTS 02451
Main: 781-222-0676 | www.kimley-horn.com
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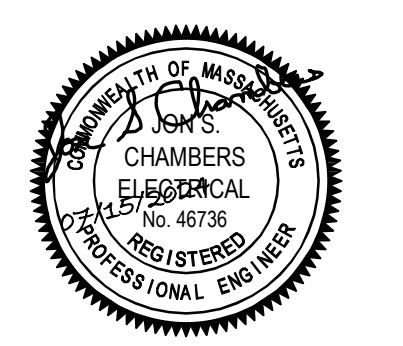
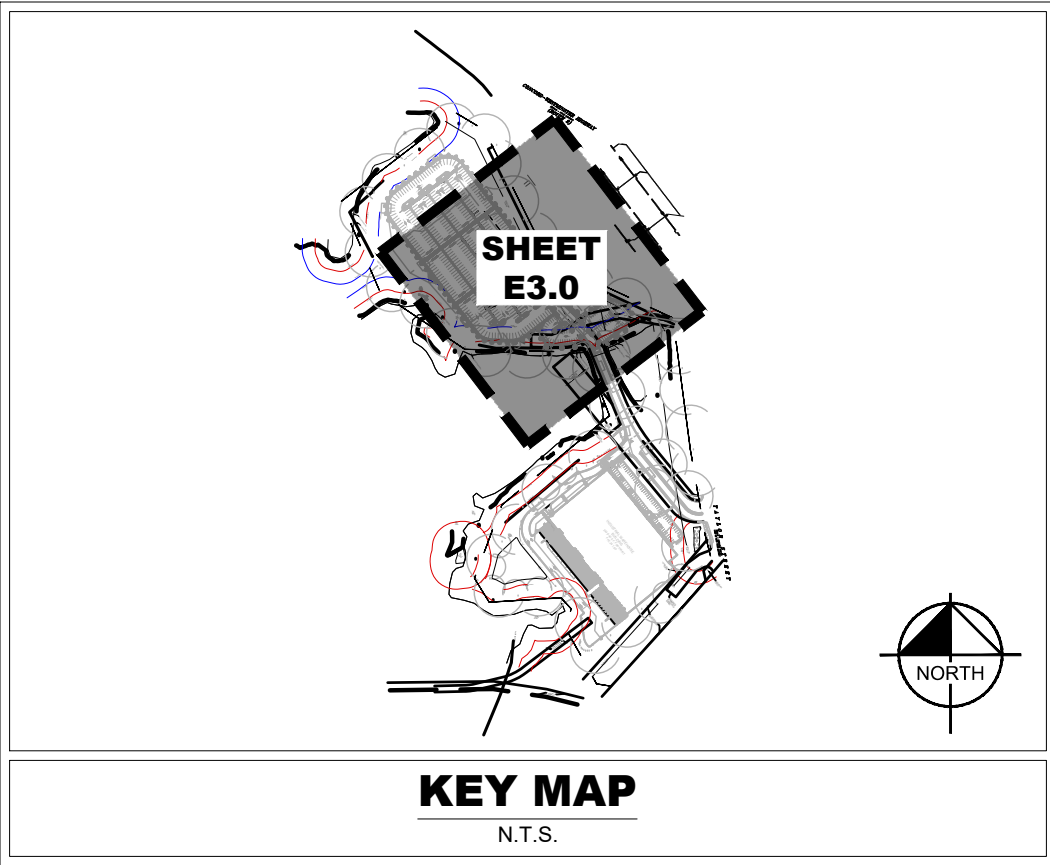
LEGEND	
ITEM	DESCRIPTION
Ⓢ	CONDUIT AND CONDUCTOR FEEDER CALLOUT
Ⓢ	EV VAN STALL PARKING COUNT
---	POWER CONDUIT - UNDERGROUND
Ⓢ	EXISTING UTILITY MANHOLE
Ⓢ	UTILITY SWITCHING CABINET - PAD MOUNTED
Ⓢ	UTILITY METER
Ⓢ	UTILITY TRANSFORMER - PAD MOUNTED
Ⓢ	ELECTRICAL MANHOLE
Ⓢ	480V LV SWITCHBOARD - PAD MOUNTED
Ⓢ	LV TRANSFORMER - PAD MOUNTED
Ⓢ	LV PANEL - UNISTRUT MOUNTED (U.O.N.)
Ⓢ	NEMA 3R JUNCTION BOX
Ⓢ	L3 DC FAST CHARGING STATION (DCFC)
Ⓢ	L2 EVCS - POST-MOUNTED W/ JUNCTION BOX
Ⓢ	EMBEDDED BOLLARD
Ⓢ	POST INSTALLED BOLLARD

SETBACK NOTE:
CONTRACTOR TO VERIFY THAT LOCATIONS OF ALL PROPOSED EV ELECTRICAL EQUIPMENT ARE IN COMPLIANCE WITH ALL LOCAL CODES, SETBACKS, AND BUFFERS.

- CONSTRUCTION NOTES:**
- SEE ADDITIONAL ELECTRICAL NOTES AND SPECIFICATIONS ON SHEET Q1.0.
 - CONTRACTOR TO BORE OR HAND TRENCH CONDUIT AS REQUIRED PER NEC.
 - ALL EQUIPMENT SHALL BE INSTALLED PER CLIENT DESIGN STANDARDS.
 - LOW VOLTAGE SWITCHBOARD (277/480V-3PH), CONDUITS STUBBED TO THIS LOCATION SHALL BE GROUPED TOGETHER TO SUPPORT SWITCHBOARD CONFIGURATION (SECONDARY ENTRANCE WINDOW AND DISTRIBUTION WINDOWS). REFER TO ELECTRICAL SHEETS FOR PROPOSED AMPACITY RATINGS OF SWITCHBOARD EQUIPMENT.
 - PAD MOUNTED TRANSFORMER (277/480V-3PH SECONDARY), CONDUITS STUBBED TO THIS LOCATION SHALL BE GROUPED TOGETHER TO SUPPORT TRANSFORMER CONFIGURATION (SECONDARY ENTRANCE WINDOW AND PRIMARY WINDOW). REFER TO ELECTRICAL SHEETS FOR PROPOSED RATINGS OF TRANSFORMER EQUIPMENT.

EV GENERAL NOTES:

- CONTRACTOR SHALL ROUTE A MAXIMUM OF 4 CIRCUITS IN A CONDUIT FROM LV PANELBOARD TO CHARGING STATION LOCATIONS.



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- 2 PROVIDE SUPPLY SIDE BONDING JUMPER PER NEC 250.30(A)(2), NEC 250.16(B).
- 3 PROVIDE MAIN BONDING JUMPER PER NEC 250.24(1)(4), 250.28(C), AND 250.67.
- 4 GROUNDING CONDUCTOR (NEUTRAL) INSTALLED IN SAME CONDUITS AS UNGROUNDED CONDUCTORS PER NEC 250.30(A)(3).
- 4 PROVIDE EQUIPMENT GROUNDING CONDUCTOR PER NEC 250.16(C). SEE ONE LINE DIAGRAM ON SHEETS E6-0-6.3 FOR SIZING.
- 5 SEE ONE-LINE DIAGRAM ON SHEETS E6-0-1 TO E6-3 FOR GROUNDING ELECTRODE CONDUCTOR SIZING.
- 6 EXTERIOR EQUIPMENT: GROUNDING ELECTRODE CONDUCTOR TO BE BONDED TO 5/8" X 8'-0" COPPER CLAD GROUND ROD PER NEC 250.52(A)(5), 250.53(A), AND 250.68.
- 7 INTERIOR EQUIPMENT: GROUNDING ELECTRODE CONDUCTOR TO BE BONDED TO EXISTING GROUNDING SYSTEM PER NEC 250.52(A)(5), 250.53(A), AND 250.68.



CONCRETE EDGE DISTANCE TO ANCHOR SHOULD BE 2" MIN



ELECTRICAL PANEL AREA: 6 SF
ELECTRICAL PANEL WEIGHT: 200 LBS
MINIMUM DIMENSION OF BASEPLATE:
3/8"x6"x6" WITH 1-1/2" EDGE DISTANCE

CONTACT ENGINEER IF EQUIPMENT
EXCEEDS BASIS OF DESIGN.

RETE EDGE DISTANCE TO ANCHOR SHOULD BE 2" MIN.

SCALE
N.T.S.



1. BOX SHALL BE RATED T8 FOR USE IN GRASSY AREAS NOT SUBJECT TO VEHICULAR TRAFFIC, OR RATED T22 FOR USE IN SIDEWALKS OR PARKING LOTS SUBJECT TO OCCASIONAL NON-DELIBERATE HEAVY VEHICULAR TRAFFIC.
2. BOXES TO BE USED IN ROADWAYS OR AREAS FREQUENTLY SUBJECT TO HEAVY VEHICULAR TRAFFIC SHALL BE SUBMITTED TO EOR FOR APPROVAL.
3. BOX SHALL BE QUATIZE PG TYPE "STACKABLE" POLYMER CONCRETE WITH BOLT DOWN COVER, OR APPROVED EQUAL.
4. PROVIDE 12" CRUSHED STONE BENEATH BOX.
5. CONDUITS SHALL ENTER ON SIDES OR BOTTOM. MINIMUM BURIAL DEPTHS OF CONDUIT IS 24" BELOW FINISHED GRADE. CONDUIT SIDE KNOCKOUTS SHALL BE DRILLED OR PUNCHED ON SIDE, QUANTITIES AND SIZES TO MATCH PLANS.
6. PROVIDE PULLBOXES AS REQUIRED IF TOTAL CONDUIT LENGTH EXCEEDS 300' OR IF TOTAL BENDS EXCEED 360 DEGREES.
- 6.1. PULLBOX SIZE SHALL BE BASED ON QUANTITY OF CONDUITS SERVED AS DEFINED IN NEC.

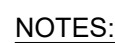


NOTES

1. ALL DIMENSIONS ARE MINIMUMS, UNLESS OTHERWISE NOTED ON PLANS.
2. SEE PLANS FOR REQUIRED CONDUIT/DUCT QUANTITY, TYPE, AND SIZE.
3. PROVIDE MANUFACTURER'S DRAWINGS AND STRUCTURAL CALCULATIONS FOR ALL CONCRETE ELEMENTS OF VAULTS AND FABRICATED LIDS.
4. GROUT ALL CONDUIT PENETRATIONS.
5. ALL STEEL, OTHER THAN REBAR, TO BE HOT DIPPED GALVANIZED AFTER FABRICATION.
6. ALL NEW MANHOLES SHALL BE FURNISHED WITH RACKS AND HOOKS INSTALLED.
7. ALL NEW MANHOLES SHALL BE FURNISHED WITH PULLING IRONS (4 TYPICAL).
8. PROVIDE 10"x3/4" GROUND ROD AND KNOCKOUT THROUGH FLOOR FOR GROUND ROD INSTALLATION. GROUT AFTER INSTALLATION OF GROUND ROD. (LOCATE GROUND ROD IN NORTHEAST CORNER OF MANHOLE.)
9. ALL STEEL AND METAL SHALL BE TIED TO GROUND RING.
10. GROUT ALL CONDUIT PENETRATIONS.
11. MANHOLE OPENING SHALL BE ORIENTED TO BE PARALLEL TO CONDUIT ENTRANCES.
12. PROVIDE THAT MANHOLE RINGS ARE INSTALLED FOR MANHOLE COVER TO BE FLUSH WITH FINAL GRADE.



SCALE
N.T.S.



1. BURY CONDUITS 24" MINIMUM BELOW FINISHED GRADE.
2. ALL PVC SWEEPS TO BE A MINIMUM 36" SWEEPS.
3. REFERENCE ONE LINE DIAGRAM FOR CONDUIT SIZES.

SCALE
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SCALE
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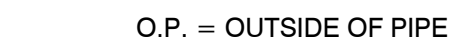
EXACT CONDUIT DIAMETERS MAY VARY UPON INSTALLATION. REFERENCE ONE LINE DIAGRAM FOR CONDUIT SIZES.

SCALE
N.T.S.



EXACT CONDUIT DIAMETERS MAY VARY UPON INSTALLATION. REFERENCE ONE LINE DIAGRAM FOR CONDUIT SIZES.

SCALE
N.T.S.



NOTE:

A MINIMUM HORIZONTAL AND VERTICAL CLEARANCE OF 12" IS REQUIRED FOR ALL CROSSINGS. ANY DEVIATIONS WILL REQUIRE WRITTEN APPROVAL FROM PROJECT ENGINEER OR OWNER'S REPRESENTATIVE.

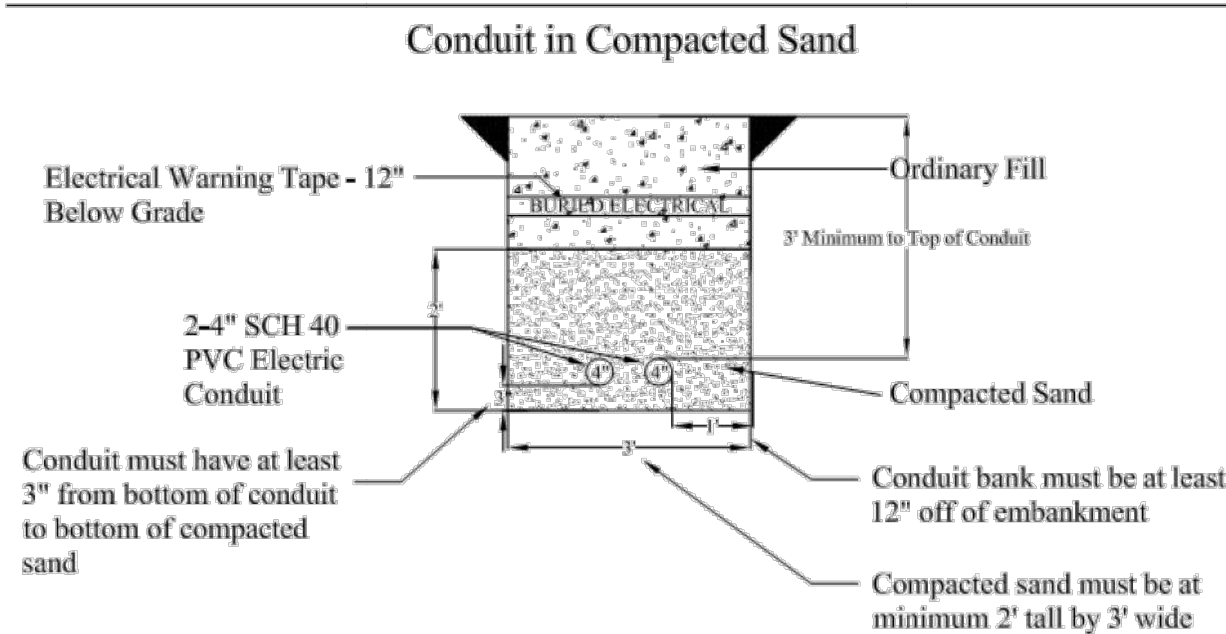
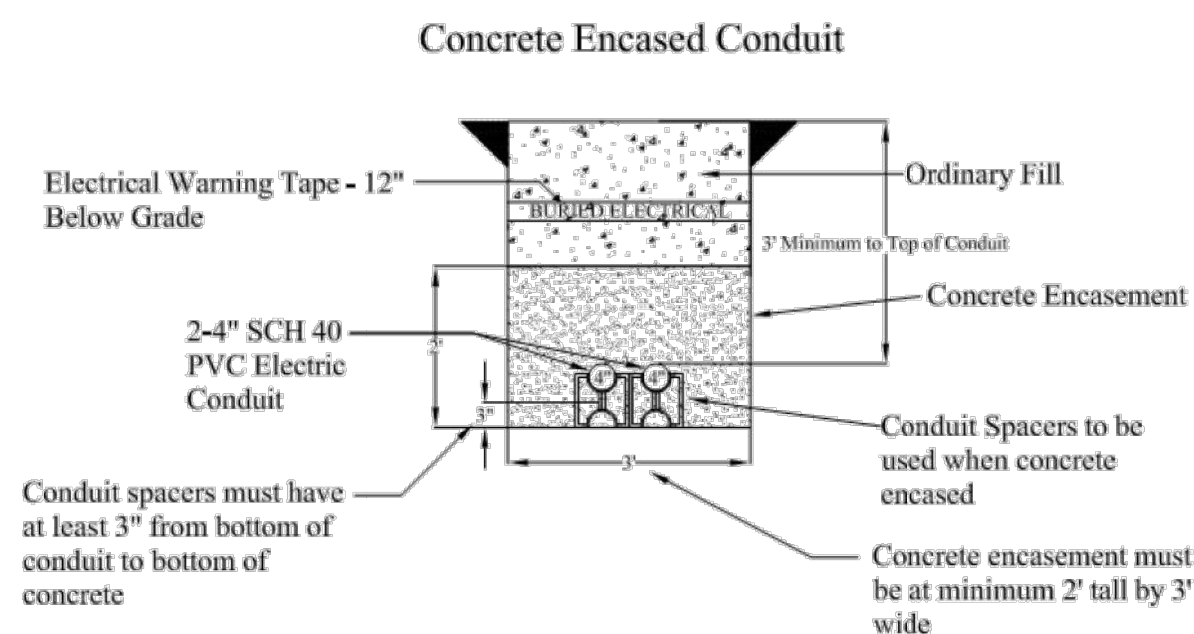
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ELECTRICAL DETAILS

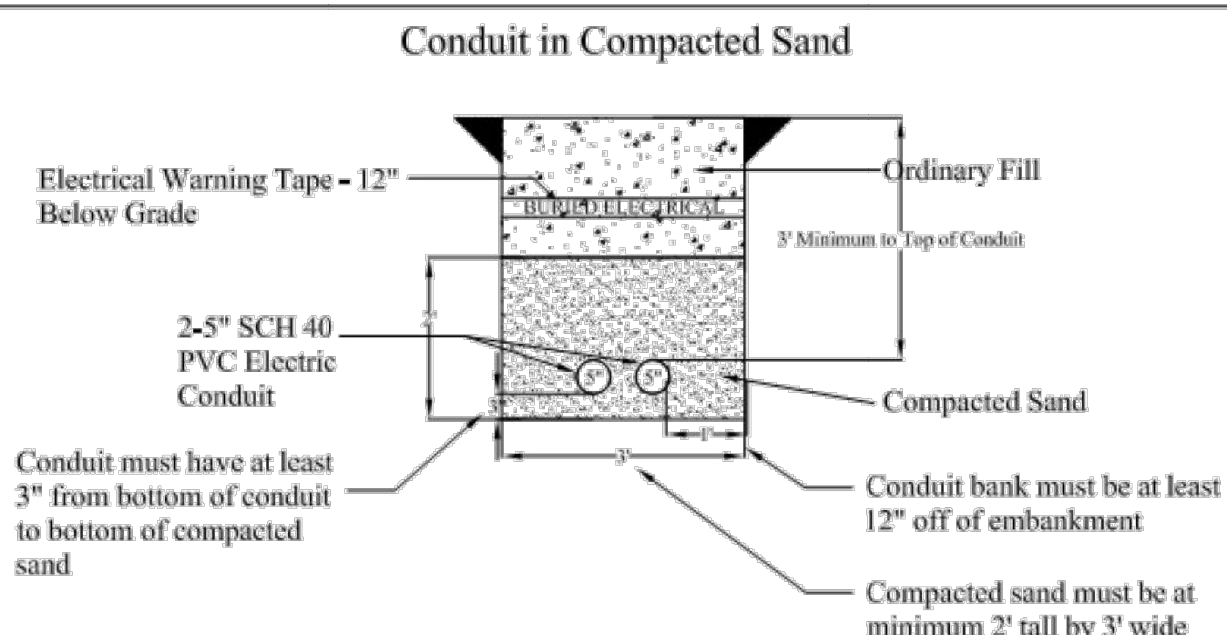
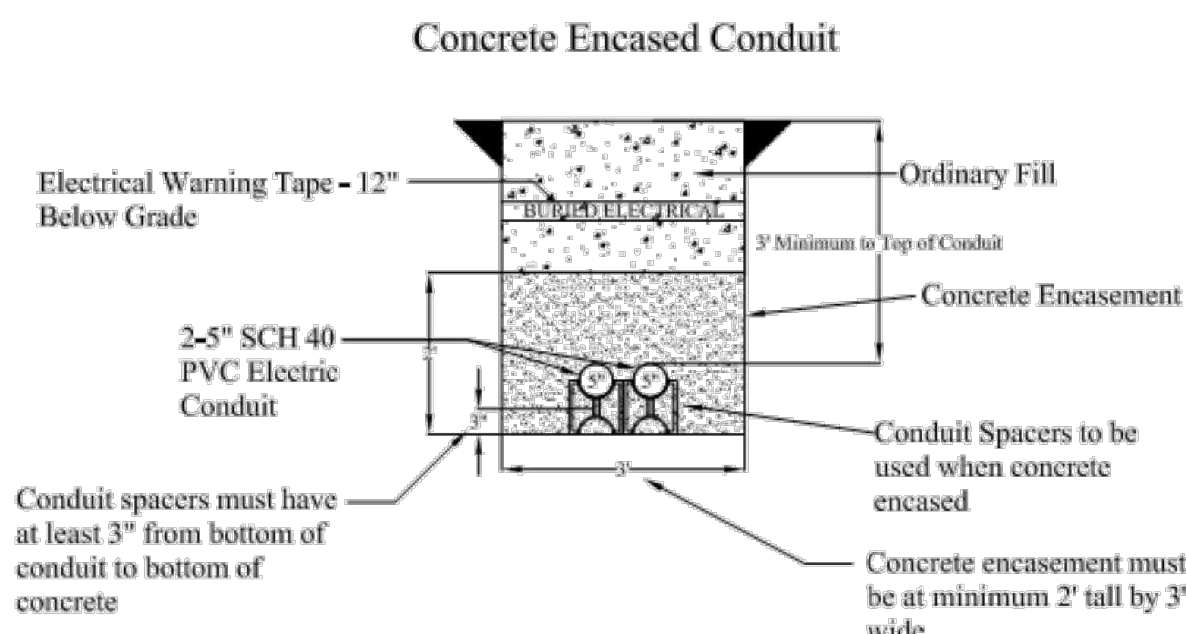
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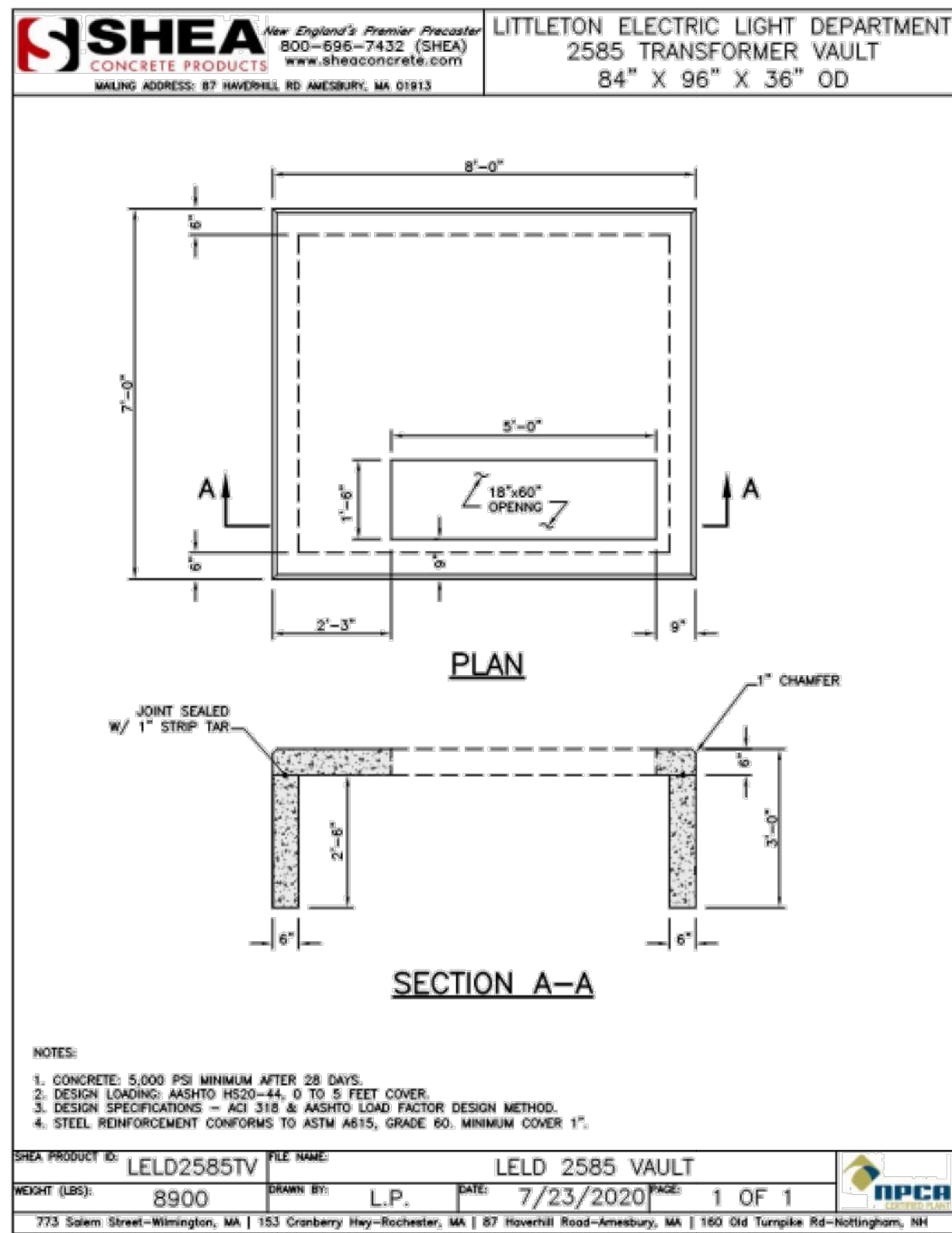
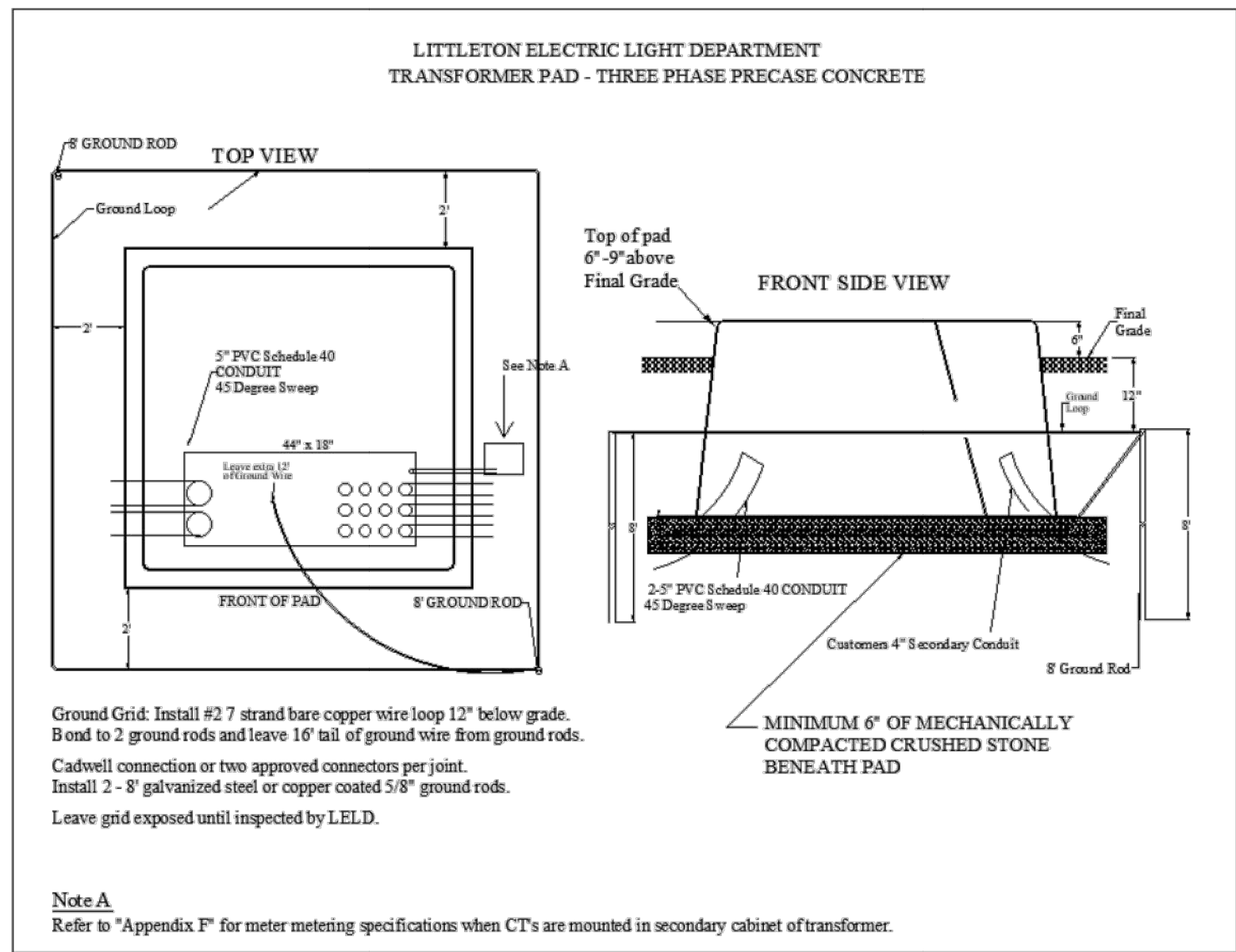
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Note: Under a traveled way, conduit bank to be concrete encased using 2500 PSI mix with a minimum cover of 6", galvanized rigid steel, or SCH 80 PVC conduit



Note: Under a traveled way, conduit bank to be concrete encased using 2500 PSI mix with a minimum cover of 6", galvanized rigid steel, or SCH 80 PVC conduit



4" TRENCH DETAIL (BY OTHERS)

SCALE
N.T.S.

1

5" TRENCH DETAIL (BY OTHERS)

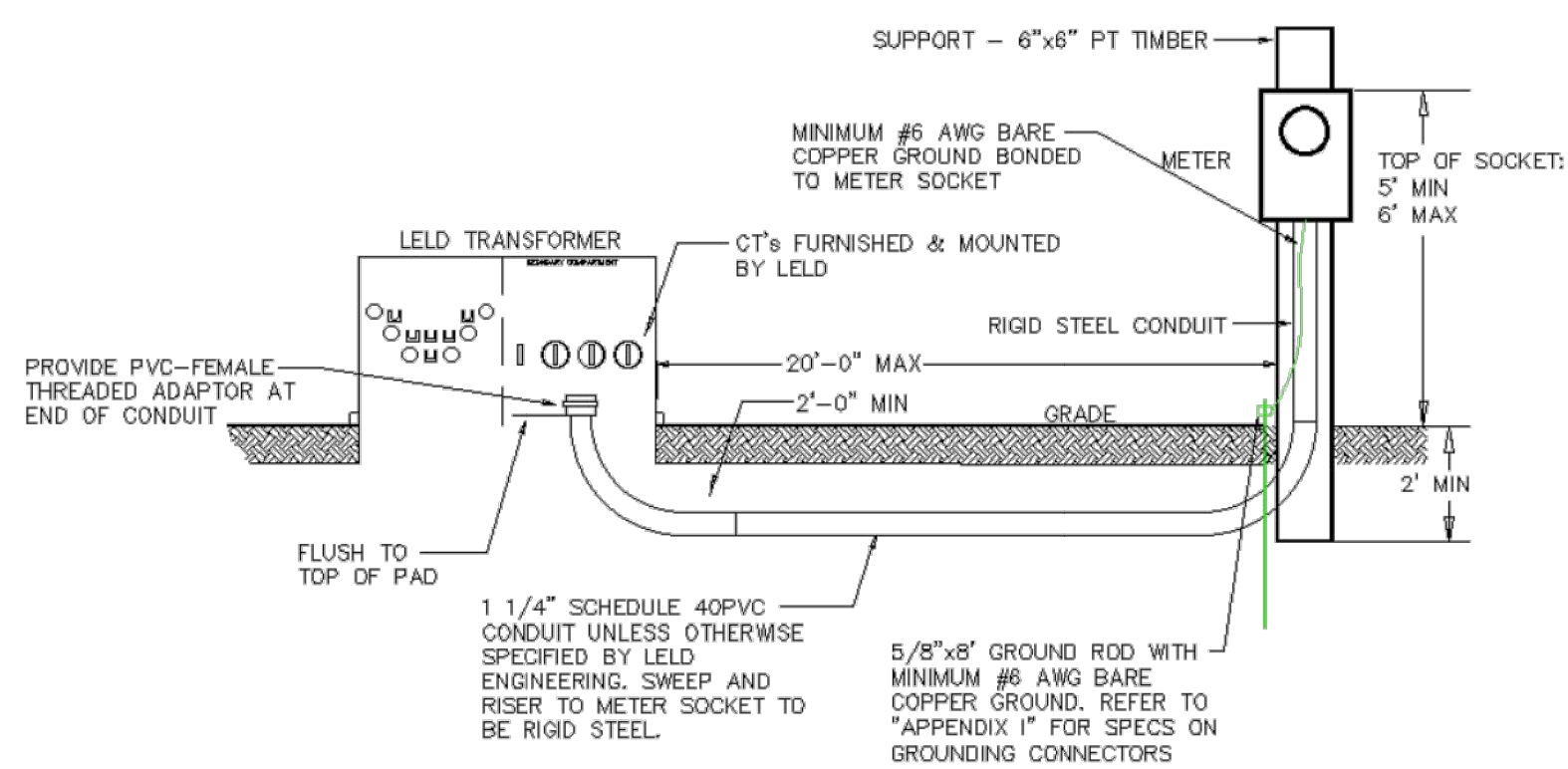
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3-PHASE PAD SPECIFICATIONS DETAILS (BY OTHERS)

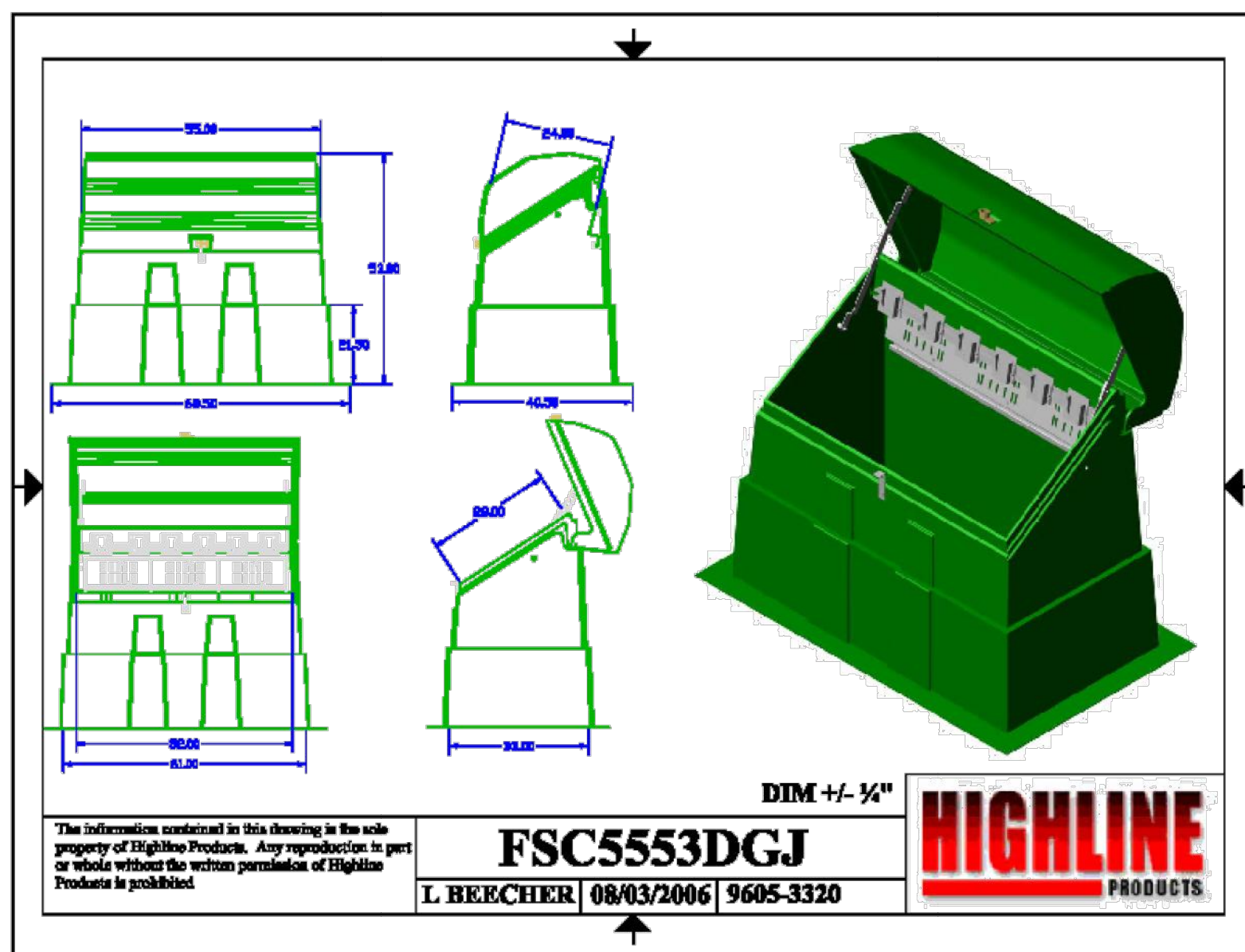
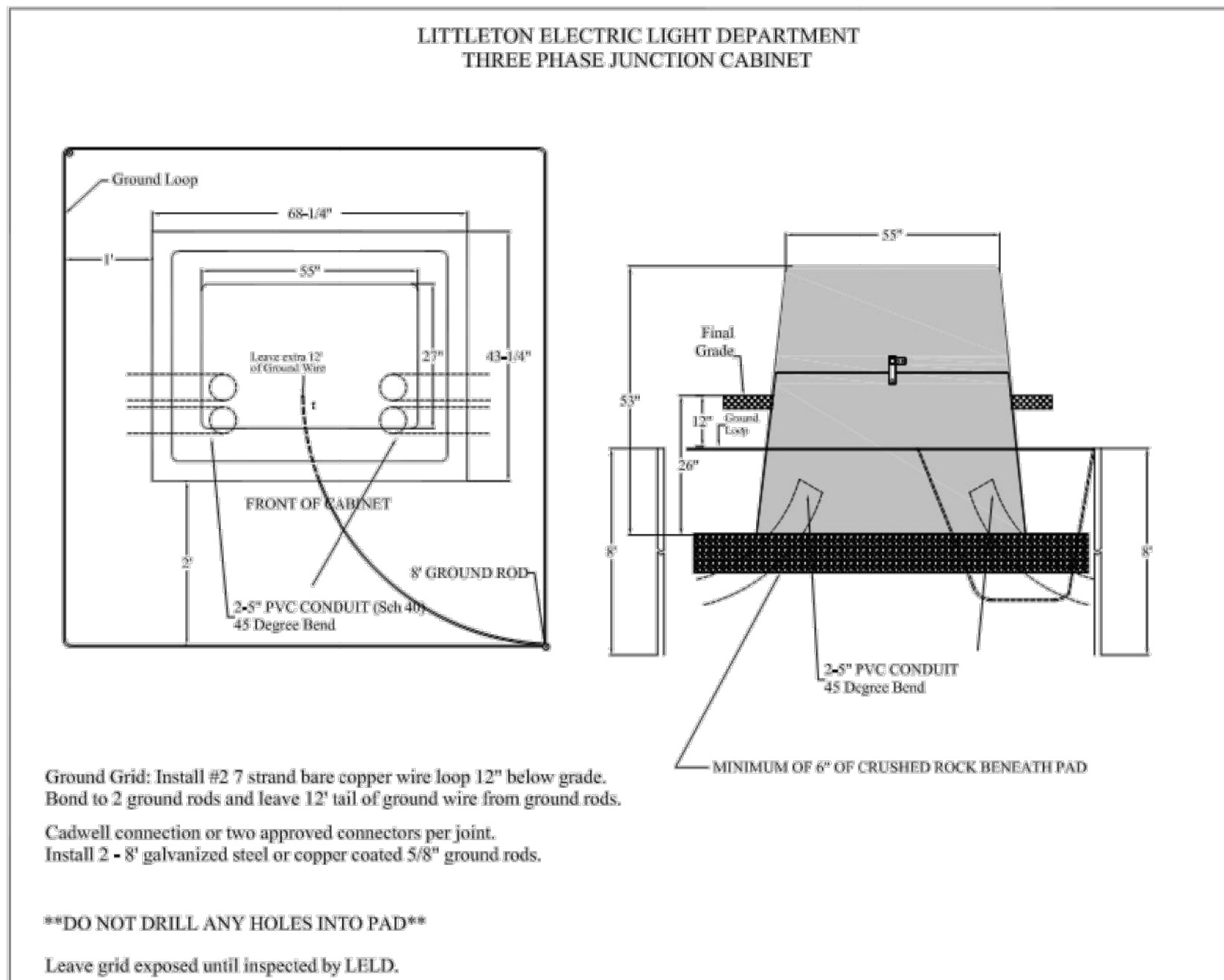
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Notes:

1. Refer to Appendix D & E details for location of conduit within pad.
2. Meter socket location to be approved by LELD engineering.



METERING FROM PADMOUNT TRANSFORMER SPECIFICATIONS DETAIL (BY OTHERS)

SCALE
N.T.S.

4

3-PHASE JUNCTION CABINET DETAILS (BY OTHERS)

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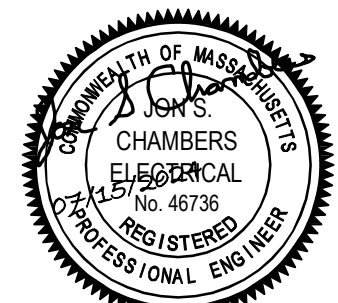
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DKO1_EV
EV INFRASTRUCTURE PLAN

151 TAYLOR STREET
LITTLETON, MA 01460

Kimley»Horn

404 WYMAN ST, SUITE 305, WALTHAM, MASSACHUSETTS 02451
Main: 781-822-0676 | www.kimley-horn.com
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