REDISTRIBUTE CAMPUS-WIDE ELECTRICAL LOADS

SMITHSONIAN NATIONAL ZOO AND CONSERVATION BIOLOGY INSTITUTE
3001 CONNECTICUT AVE, NW
WASHINGTON, DC 20008

(PROPOSED EQUIPMENT INSTALLATION SHOWN)

ARCHITECT
QUINN EVANS

2101 L STREET, NW
SUITE 950
WASHINGTON, DC 20036

STRUCTURAL ENGINEER
SIMPSON GUMPERTZ & HEGER INC.

1625 EYE STREET NW
SUITE 900
WASHINGTON, DC 20006

ELECTRICAL ENGINEER
JAMES POSEY ASSOCIATES

11155 RED RUN BOULEVARD
SUITE 310
OWINGS MILLS, MD 21117

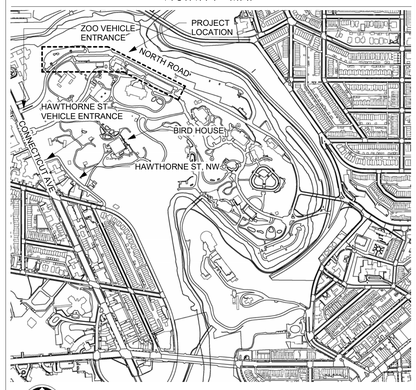
CIVIL ENGINEER
A. MORTON THOMAS & ASSOCIATES

700 KING FARM BOULEVARD
SUITE 300
ROCKVILLE, MD 20852

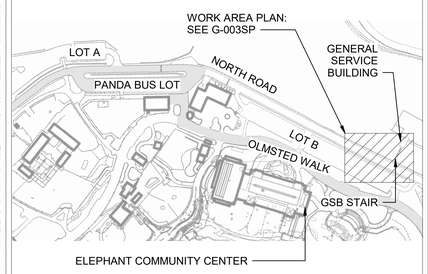
COST ESTIMATOR
DHARAM CONSULTING LLC

1455 PENNYSLVANIA AVENUE, NW
SUITE 400
WASHINGTON, DC 20004

VICINITY MAP



LOCATION MAP



INDEX OF DRAWINGS

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C	1	00	COVER SHEET AND GENERAL NOTES
C	1	01	EXISTING CONDITIONS PLAN
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E	8	01	ELECTRICAL SEQUENCING STEP 1
E	8	02	ELECTRICAL SEQUENCING STEP 2
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E	8	04	ELECTRICAL SEQUENCING STEP 4

Grand total: 24

NZCBI
REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

QUINN EVANS
2101 L STREET, NW
SUITE 950
WASHINGTON, DC 20037
v 202 298 6700
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FOR CONSTRUCTION

STAMP 1: DISTRICT OF COLUMBIA · KATHRYN ANN SLATER · ARC400002729 · LICENSED ARCHITECT · 2/14/25
STAMP 2: DISTRICT OF COLUMBIA · THOMAS M. CLIFFORD · PE905872 · REGISTERED PROFESSIONAL ENGINEER · 2/14/2025
STAMP 4: DISTRICT OF COLUMBIA · DAVID D. PHOENIX · PE905933 · 2/14/2025 · CIVIL · PROFESSIONAL ENGINEER
STAMP 5
STAMP 6
STAMP 7
STAMP 8

SMITHSONIAN OPDC
APPROVAL BLOCK

DM: _____
DESIGN CHIEF: _____
R.E.: _____
OPPM: _____
OFM&R: _____
OSHEM: _____
OPS: _____

THIS PROJECT IS APPROVED AS BEING IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF SMITHSONIAN INSTITUTION DIRECTIVE 410.

MICHAEL J. CARRANCHO, P.E., ASSOCIATE DIRECTOR, OPDC

DATE	SUBMISSION
02/14/25	FINAL DOCUMENTS

REVISION	REVISION

Smithsonian Institution
Smithsonian OPDC
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME	NZCBI
ADDRESS	3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS –WIDE ELECTRICAL LOADS
OPDC PROJ. NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	COVER SHEET
DRAWING TYPE	
WORKING STAFF	NP (DESIGNED BY) · GR (DRAWN BY) · KS (CHECKED BY)
SHEET NO.	1 of 24
	G – 001 (DISCIPLINE · TYPE · SEQUENCE)

Autodesk Docs://24349870 - Redistribute Campus-Wide Electrical Loads/A24349870_R24.rvt
SCALE: 1/2" = 1'-0"

1 G-002

EXISTING CONDITIONS PHOTO 1

2 G-002

EXISTING CONDITIONS PHOTO 2

3 G-002

EXISTING CONDITIONS PHOTO 3

APPLICABLE CODES & STANDARDS

MODEL CODES AS APPLICABLE FOR ALL SMITHSONIAN INSTITUTION FACILITIES:

MODIFICATIONS MADE TO THE FACILITIES AS PART OF THIS PROJECT ARE INTENDED TO CONFORM TO THE FOLLOWING:

INTERNATIONAL CODE COUNCIL (ICC) MODEL CODES, 2021 EDITIONS:
- INTERNATIONAL BUILDING CODE (IBC)
- INTERNATIONAL FIRE CODE (IFC)
- INTERNATIONAL PLUMBING CODE (IPC)

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) INCLUDING:
- LIFE SAFETY CODE (NFPA 101), 2021
- NFPA 70, NATIONAL ELECTRIC CODE (NEC) 2021
- ALL OTHER APPLICABLE NFPA CHAPTERS, CODES, STANDARDS AND RECOMMENDED PRACTICES

PERFORMANCE BASED DESIGN STANDARDS:
- SFPE ENGINEERING GUIDE TO PERFORMANCE BASED FIRE PROTECTION, 2ND EDITION
- INTERNATIONAL CODE COUNCIL PERFORMANCE CODE FOR BUILDINGS AND FACILITIES (ICCPC), 2021
- NFPA 101 (2021), CHAPTER 5

SMITHSONIAN STANDARDS AND GUIDELINES:

SMITHSONIAN DIRECTIVE 215 ACCESSIBILITY FOR PEOPLE WITH DISABILITIES POLICY (SD 215), 2014

SMITHSONIAN DIRECTIVE 422 SI SUSTAINABLE DESIGN OF SMITHSONIAN FACILITIES (SD 422)

SMITHSONIAN ACCESSIBILITY PROGRAM:
- SMITHSONIAN GUIDELINES FOR ACCESSIBLE DESIGN, MARCH 2011

SMITHSONIAN OFFICE OF FACILITIES ENGINEERING AND OPERATIONS (OFEO):
- SMITHSONIAN INSTITUTION DESIGN STANDARDS DATED OCTOBER 2021 - VOLUMES 1, 2 AND 3.
- FOUR EXTERNAL PROCESSES OCCURRING DURING PROJECT DESIGN AND DEVELOPMENT IN THE NATIONAL CAPITAL REGION.

SMITHSONIAN OFFICE OF PROTECTION SERVICES (OPS):
- SMITHSONIAN INSTITUTION SECURITY DESIGN CRITERIA DATED MARCH 27, 2009 (REVISED JULY 1, 2011)

SMITHSONIAN OFFICE OF SAFETY, HEALTH AND ENVIRONMENTAL MANAGEMENT (OSHEM):
- FIRE PROTECTION AND LIFE SAFETY DESIGN MANUAL

OTHER GUIDELINES, CODES, REGULATIONS AND LOCAL UTILITY REQUIREMENTS:

DOEE (DEPARTMENT OF ENERGY & ENVIRONMENT) STORMWATER MANAGEMENT GUIDEBOOK, JANUARY 2020

DOEE EROSION AND SEDIMENT CONTROL MANUAL, SEPTEMBER 2017

DISTRICT OF COLUMBIA REGULATIONS ON OUTDOOR NOISE

STATE AND LOCAL OCCUPATIONAL SAFETY AND HEALTH AGENCIES

STATE AND LOCAL ENVIRONMENTAL PROTECTION AGENCIES

MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 11TH EDITION, 2024 UPDATE

TEMPORARY TRAFFIC CONTROL MANUAL (2006)

FEDERAL GOVERNMENT LEGISLATION, REGULATIONS, STANDARDS AND GUIDELINES:

ACCESSIBILITY – THE SMITHSONIAN GUIDELINES FOR ACCESSIBLE DESIGN REFERENCE THE DOCUMENTS BELOW. WHERE CONFLICTS ARISE BETWEEN THESE TWO DOCUMENTS, THE MOST STRINGENT SHALL APPLY (THAT WHICH PROVIDES THE GREATEST ACCESSIBILITY FOR PUBLIC AND STAFF), UNLESS OTHERWISE DIRECTED BY THE SI.
- DEPARTMENT OF JUSTICE (DOJ) ADA STANDARDS FOR ACCESSIBLE DESIGN (ADAAG), 2010
- GENERAL SERVICES ADMINISTRATION (GSA) ARCHITECTURAL BARRIERS ACT (ABA), 2015

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA):
- ALL STANDARDS AND REGULATIONS

INDUSTRY STANDARDS AND GUIDELINES:

AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM): ALL CODES, STANDARDS, GUIDELINES AND RECOMMENDED PRACTICES INCLUDING:
- ASTM STANDARDS IN BUILDING CODES

AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)

AMERICAN CONCRETE INSTITUTE (ACI) MANUAL OF CONCRETE PRACTICE

AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS (ASLA)

CONCRETE REINFORCING STEEL INSTITUTE (CRSI) MANUAL OF STANDARD PRACTICE

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATIONS & CODES

AMERICAN WELDING SOCIETY (AWS) STANDARDS

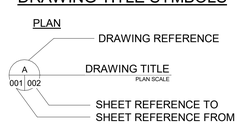
NATIONAL FOREST PRODUCTS ASSOCIATION (NFOPA)

THE ARCHITECTURAL WOODWORK INSTITUTE (AWI) QUALITY STANDARDS

AMERICAN SOCIETY OF PLUMBING ENGINEERS (ASPE)

AUTHORITY HAVING JURISDICTION
THE AUTHORITY HAVING JURISDICTION (AHJ) FOR THIS PROJECT IS THE SI-OFFICE OF SAFETY, HEALTH AND ENVIRONMENTAL MANAGEMENT FIRE PROTECTION ENGINEER.

DRAWING TITLE SYMBOLS

PLAN


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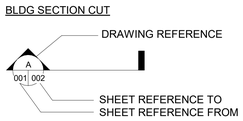
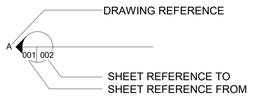


NORTH ORIENTATION:

ELEVATION


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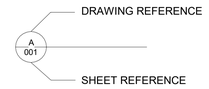

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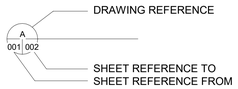
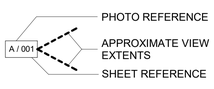
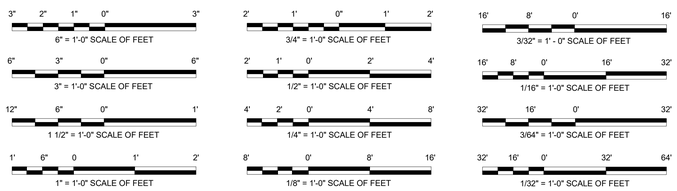
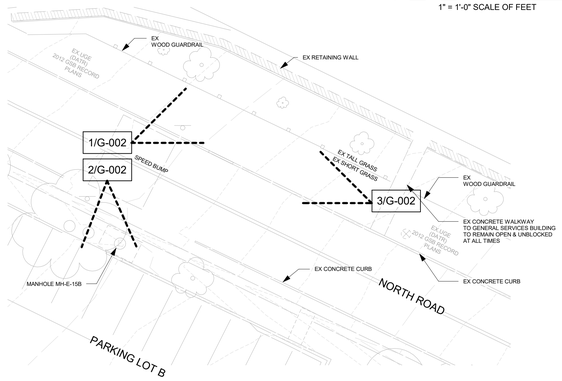


PHOTO REFERENCE


GRAPHIC SCALES

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
ALL EXISTING DIMENSIONS ARE TO BE VERIFIED IN FIELD.





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EXISTING CONDITIONS PHOTO REFERENCE PLAN

SCALE = 1/16" = 1'-0"

PHOTO REFERENCE PLAN NOTES:

1. PHOTOGRAPHS ARE PROVIDED TO SHOW EXISTING SITE CONDTIONS. REFER TO DETAILED DRAWINGS FOR PROJECT WORK AND ADDITIONAL INFORMATION.

2. PHOTOGRAPHS REFLECT EXISTING CONDITIONS DOCUMENTED ON THE DAY OF FIELD SURVEY. THESE CONDITIONS MIGHT HAVE CHANGED AFTER FIELD OBSERVATION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING ACTUAL EXISTING CONDITIONS AT THE TIME OF CONSTRUCTION, AND FOR ADDITIONAL PRE-CONDITION AND PROGRESS DOCUMENTATION AS DEFINED IN THESE DRAWINGS AND SPECIFICATIONS.

PROJECT DEFINITIONS:

The following WORDS & PHRASES are defined as follows:

REMOVE: Dismantle and dispose of identified item unless otherwise noted.

REMOVE AND SALVAGE: Dismantle existing materials or assemblies carefully; provide protection suitable for maintaining existing conditions of materials, and store salvaged material for reinstallation.

REINSTALL: Install existing items which have been removed and salvaged.

REPLACE: Dismantle and dispose of identified item. Provide new item identical to the removed item when noted.

PROVIDE: Supply and install new item.

COMPLETE: 100% of the identified surface plane: wall to wall, floor to ceiling, or corner to corner. OR 100% of the identified assembly.

PAINT: Prepare surface as specified (i.e. remove miscellaneous hardware, patch minor holes and cracks, seal stains, etc.) and paint.

REPAIR: Cut and remove damaged portion of item identified and patch with new material which matches the removed item in material and profile.

TYPICAL: The identified treatment is to be applied at additional locations throughout the drawing where similar conditions exist.

SIMILAR: The referenced detail must be modified to meet the requirements of this specific location. Contractor is to submit red marked detail sketch for review by Architect.

GENERAL NOTES

G-1 OTHER PORTIONS OF THE NZCBI WILL BE OCCUPIED DURING THE CONSTRUCTION. WORK OF OTHER CONTRACTORS MAY OCCUR SIMULTANEOUSLY WITH THIS PROJECT. COORDINATE ACTIVITIES THROUGH COTR.

G-2 PARKING OF CONTRACTOR VEHICLES AND MATERIAL DELIVERIES ARE STRICTLY LIMITED TO AREAS DEFINED BY COTR.

G-3 THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD. INFORMATION CONTAINED ON THESE DRAWINGS WITH REGARD TO EXISTING CONDITIONS OF CONSTRUCTION IS PROVIDED FOR THE CONVENIENCE OF THE GENERAL CONTRACTOR IN EXECUTING THE WORK. THE CONTRACTOR SHALL USE ALL REASONABLE AND CUSTOMARY CARE TO VERIFY ALL EXISTING CONDITIONS IN FIELD. THESE DRAWINGS HAVE BEEN BASED ON RECORD DRAWINGS ON FILE AND FURTHER SUPPLEMENTED BY FIELD MEASUREMENT AND OBSERVATIONS. DO NOT SCALE DRAWINGS.

G-4 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SEQUENCING OF ALL WORK AND FOR THE COORDINATION OF ALL SUBCONTRACTORS. REINSTALLATION OF ANY WORK INSTALLED THAT HAS NOT BEEN COORDINATED AND HAS TO BE REINSTALLED SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

G-5 NOTIFY COTR IN WRITING OF DISCREPANCIES ON DRAWINGS OR BETWEEN DRAWINGS AND SPECIFICATIONS THAT WOULD PROHIBIT EXECUTION OF THE DOCUMENTED DESIGN.

G-6 THE CONTRACTOR'S PROJECT SUPERINTENDENT SHALL BE ON SITE WHENEVER SUB-CONTRACTORS ARE WORKING ON THE PROPERTY.

G-7 NZCBI PERSONNEL WILL ACCESS THE PROPERTY TO OBSERVE AND DOCUMENT THE PROGRESS OF THE PROJECT.

G-8 THE CONTRACTOR'S SCAFFOLDS AND EQUIPMENT STAGING SHALL NOT BLOCK BUILDING EXITS, EXISTING PEDESTRIAN OR VEHICLE PATHWAYS, NOR LIMIT ACCESS TO FIRE DEPARTMENT ACCESS.

G-9 THE CONTRACTOR SHALL DOCUMENT EXISTING CONDITIONS PRIOR TO BEGINNING WORK. CONTRACTOR SHALL PROVIDE PROTECTION AND TAKE PRECAUTION TO AVOID DAMAGE TO ADJACENT ITEMS, MATERIALS AND FINISHES. CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION OR BETTER UNLESS NOTED OTHERWISE.

G-10 AFTER THE DEMOLITION OF MATERIALS, THE RESULTING EXPOSED SURFACE SHALL BE SMOOTH AND FLUSH WITH EXISTING CONDITIONS. PATCH ADJOINING SURFACES AND PREPARE SURFACES TO RECEIVE NEW FINISHES UNLESS NOTED OTHERWISE.

G-11 ALL ITEMS INDICATED TO BE REMOVED SHALL BE LEGALLY DISPOSED OF OFF-SITE AS PER ALL LOCAL AND FEDERAL REQUIREMENTS. REFER TO SPECIFICATION SECTION 01 0000 FOR WASTE TRACKING REQUIREMENTS AND (IF APPLICABLE) ITEMS IDENTIFIED TO BE SALVAGED.

G-12 THE CONTRACTOR SHALL NOT CUT STRUCTURAL WORK IN A MANNER RESULTING IN REDUCTION OF LOAD CARRYING CAPACITY OR LOAD/DEFLECTION RATIO. THE CONTRACTOR SHALL NOTIFY THE COTR FOR COORDINATION WITH THE ARCHITECT OF ALL STRUCTURAL CUTS PRIOR TO EXECUTION SO THAT APPROVAL CAN BE OBTAINED FROM THE STRUCTURAL ENGINEER.

G-13 SCHEDULE ALL UTILITY WORK THROUGH COTR TO MINIMIZE IMPACTS TO OPERATIONS. REQUIRED TEMPORARY CONNECTIONS AND PROVISIONS TO MAINTAIN CONTINUITY OF EXISTING SERVICE ARE THE RESPONSIBILITY OF THE CONTRACTOR.

G-14 ADJACENT VISITOR AREAS, PARKING AREAS, SIDEWALKS, AND SURFACED STREETS SHALL BE MAINTAINED IN A CLEAN CONDITION. MUD AND DUST FREE AT ALL TIMES. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE EXISTING DRIVE THROUGHOUT CONSTRUCTION. ADEQUATE MEANS SHALL BE PROVIDED TO CLEAN TRUCKS AND OTHER EQUIPMENT USING SURFACED STREETS AND PARKING AREAS.

ABBREVIATIONS:

EX - EXISTING
GSB - GENERAL SERVICES BUILDING
NZCBI - NATIONAL ZOO AND CONSERVATION BIOLOGY INSTITUTE (USED INTERCHANGABLY WITH NZP)
NZP - NATIONAL ZOOLOGICAL PARK (SEE ALSO NZCBI)

NZCBI

REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

QUINN EVANS
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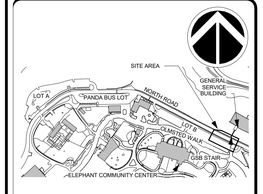
f 202 298 6666
WWW.QUINNEVANS.COM

FOR CONSTRUCTION

DISTRICT OF COLUMBIA · KATHRYN ANN SCHERPF · 2/14/25 · LICENSED ARCHITECT

STAMP 1 | STAMP 2 | STAMP 3 | STAMP 4 | STAMP 5 | STAMP 6



KEY PLAN

0 8' 16' 32'
1/16"=1'-0"

GRAPHIC SCALE(S)

DATE	SUBMISSION
02/14/25	FINAL DOCUMENTS

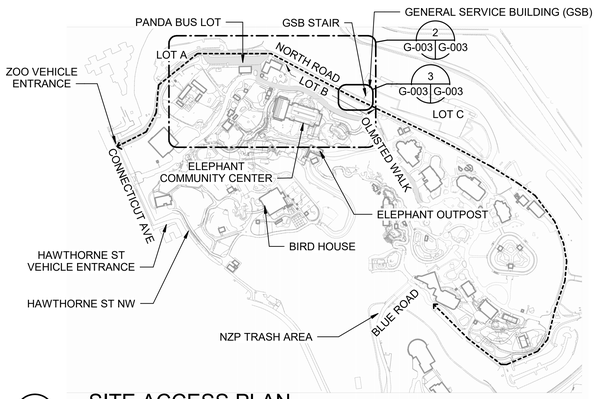
REVISION # DATE	REVISION DESCRIPTION

Smithsonian Institution

Smithsonian OPDC
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME / ADDRESS	NZCBI 3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
OPDC PROJ. NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	PROJECT DATA
WORKING STAFF	NP (DESIGNED BY) · GR (DRAWN BY) · KS (CHECKED BY)
SHEET NO.	2 OF 24
	G-002 (DISCIPLINE · TYPE · SEQUENCE · DRAWING TYPE)

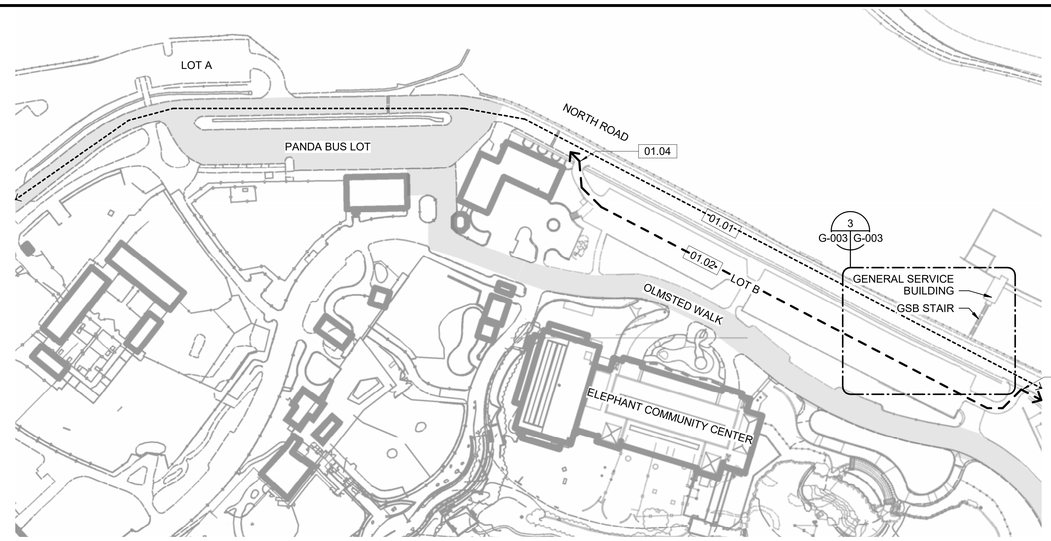
2/14/2025 6:27:02 AM
G-002 BY Approver 12/20/24 FINAL DOCUMENTS



1 G-003

SITE ACCESS PLAN

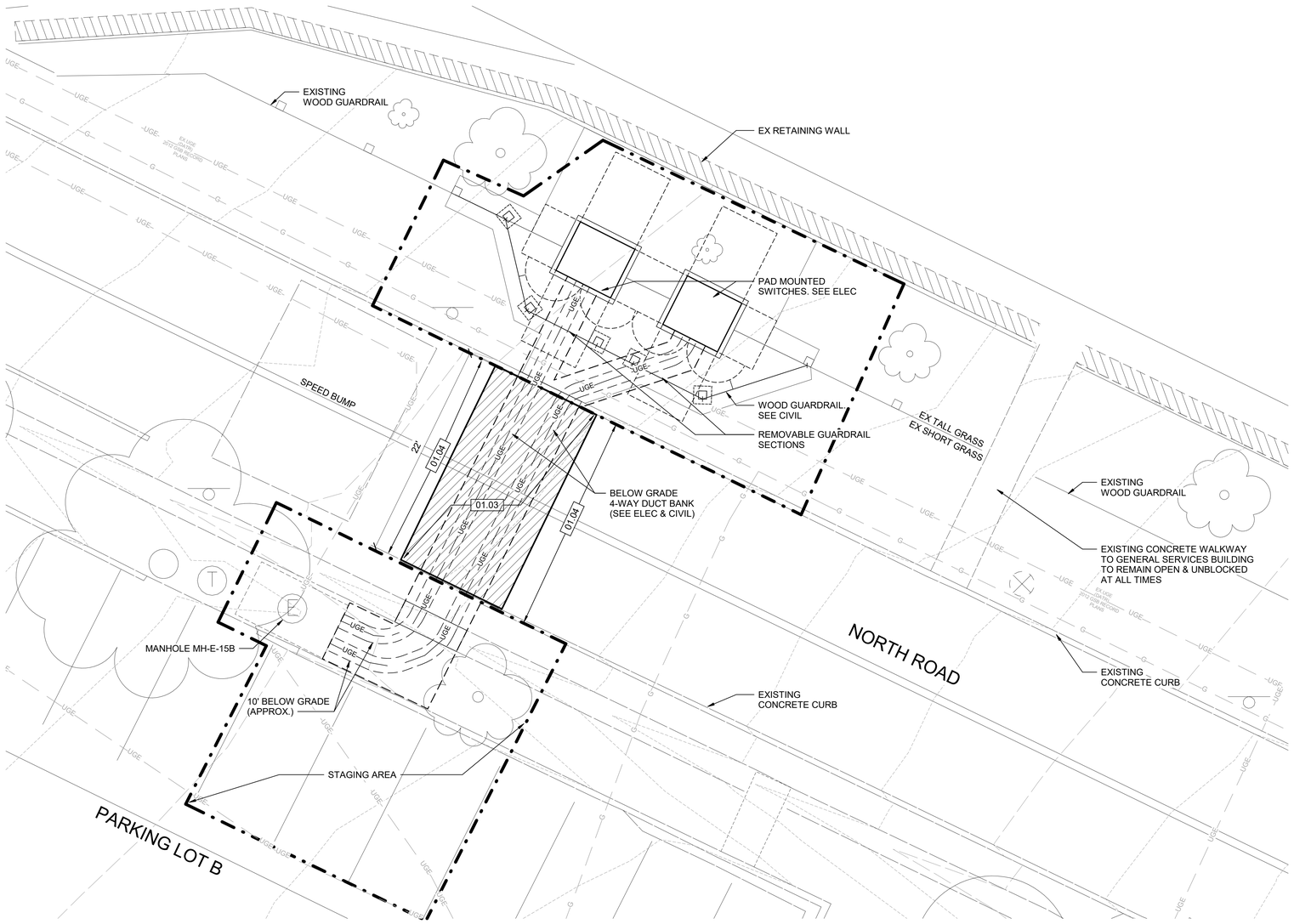
SCALE = 1" = 200'-0"



2 G-003 G-003

ENLARGED SITE ACCESS PLAN

SCALE = 1" = 40'-0"



3 G-003 G-003

WORK AREA PLAN (WITH NEW WORK SHOWN)

SCALE = 3/16" = 1'-0"

SITE ACCESS/ ENLARGED SITE ACCESS PLAN LEGEND

- VEHICLE ROUTE (TO BE MAINTAINED DURING REGULAR NZCBI OPERATING HOURS)
- VEHICLE DETOUR ROUTE (OFF-HOURS ONLY)

WORK AREA PLAN NOTES

1. SEE SPECIFICATIONS FOR NZCBI REGULAR OPERATING HOURS, OFF-HOURS, AND OTHER ACCESS REQUIREMENTS.

2. MAINTAIN FULL VEHICLE TRAFFIC THROUGH-ACCESS ON NORTH ROAD VEHICLE ROUTE DURING NZCBI REGULAR OPERATING HOURS.

3. ALL WORK CREATING OBSTRUCTIONS TO NORTH ROAD SHALL BE PERFORMED OUTSIDE OF NZCBI REGULAR OPERATING HOURS (OFF-HOURS) AND IN ACCORDANCE WITH DC TEMPORARY TRAFFIC CONTROL MANUAL GUIDELINES. COORDINATE THROUGH COTR APPROVED SCHEDULE & SAFETY PLAN.

4. DURING WORK OBSTRUCTING NORTH ROAD, PROVIDE VEHICLE BARRICADES AND SIGNAGE TO ROUTE EMERGENCY AND ANY OFF-HOURS VEHICLE TRAFFIC THROUGH LOT B (VEHICLE DETOUR ROUTE).

5. ALL WORK WITHIN EXISTING ROADWAY AREAS SHALL BE PROPERLY CORDONED OFF WITH THE APPROPRIATE SAFETY AND TRAFFIC CONTROLS IN ACCORDANCE WITH MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.

6. PROVIDE CONSTRUCTION FENCING, FENCE TYPE 1 AT CONTRACTOR STAGING AND WORK AREAS. (SEE 010000)

WORK AREA PLAN LEGEND

- CONTRACTOR STAGING AND WORK AREA
- NORTH ROAD WORK AREA

KEYNOTES	
KEY VALUE	TEXT
01.01	MAINTAIN VEHICLE ROUTE DURING NZCBI REGULAR OPERATING HOURS.
01.02	ESTABLISH VEHICLE DETOUR ROUTE (OFF-HOURS ONLY).
01.03	PROVIDE 1" THICK STEEL PROTECTION PLATING AT NORTH ROAD WORK AREA, SECURED PER DDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE GUIDELINES. MAINTAIN FULL VEHICLE TRAFFIC CONTINUITY ON NORTH ROAD DURING NZCBI REGULAR OPERATING HOURS.
01.04	PROVIDE & REMOVE/REINSTALL TEMPORARY TRAFFIC BARRICADES AND SIGNAGE DURING WORK.

NZCBI

REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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f 202 298 6666
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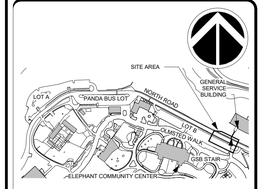
FOR CONSTRUCTION

DISTRICT OF COLUMBIA
KATHRYN ANN SCHEFFEY
ARC000025
2/14/25
LICENSED
ARCHITECT

STAMP 1 | STAMP 2 | STAMP 3 | STAMP 4 | STAMP 5 | STAMP 6



KEY PLAN

0 20' 40' 80'
1"=40'-0"
0 200' 400'
1"=200'-0"
0 2" 4" 8" 12"
3/16"=1"

GRAPHIC SCALE(S)

DATE	SUBMISSION
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600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

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A/E PROJECT NUMBER	42349870
DRAWING TITLE	CONSTRUCTION AREA OF WORK PLAN
WORKING STAFF	NP (DESIGNED BY) GR (DRAWN BY) KS (CHECKED BY)
SHEET NO.	3 of 24
	G-003 (DISCIPLINE TYPE SEQUENCE DRAWING TYPE)

2/14/2025 6:27:04 AM
G-003 BY Approver 12/20/24 FINAL DOCUMENTS

NATIONAL ZOOLOGICAL PARK
REDISTRIBUTE CAMPUS–WIDE ELECTRICAL LOADS

Sheet List Table	
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C100	COVER SHEET AND GENERAL NOTES
C101	EXISTING CONDITIONS PLAN
C103	SITE AND UTILITY PLAN
C501	SITE DETAILS
C801	EROSION AND SEDIMENT CONTROL PLAN
C802	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

GENERAL SITE CONSTRUCTION NOTES

1. GENERAL NOTES ARE FOR TYPICAL CONSTRUCTION ACTIVITIES AND MAY INCLUDE INFORMATION NOT APPLICABLE TO THE SCOPE OF WORK.
2. CALL "MISS UTILITY" (202–265–7177 OR 811) PRIOR TO THE START OF CONSTRUCTION SO THAT EXISTING UTILITIES WITHIN THE PUBLIC RIGHT–OF–WAY CAN BE FIELD–MARKED. COMPLY WITH MISS UTILITY REQUIREMENTS FOR UTILITY LOCATION.
3. ALL EXISTING UTILITIES MAY NOT BE INDICATED ON THE PLANS. AS A FIRST STEP IN CONSTRUCTION, TRACE ALL AREAS WITHIN THE LIMITS OF EXCAVATION TO DETERMINE LOCATIONS OF EXISTING UTILITIES. EXCAVATE TEST PITS FOR UTILITIES TO REMAIN TO DETERMINE LOCATION AND ELEVATION. VERIFY EXISTING UTILITIES WILL NOT CONFLICT WITH THE PROPOSED WORK. NOTIFY THE ENGINEER IF EXISTING UTILITIES DO NOT MATCH THE PLANS OR CONFLICT WITH THE PROPOSED WORK.
4. AMT AND THE ENGINEER OF RECORD ARE NOT RESPONSIBLE FOR JOB SITE SAFETY, SUPERVISION, OR ANY DAMAGE OR INJURY SUSTAINED DURING CONSTRUCTION BY ANY PERSON, VEHICLE, OR EQUIPMENT USED ON OR ADJACENT TO THE SITE.
5. CONTRACTOR SHALL ENGAGE A DC–LICENSED SURVEYOR TO FIELD VERIFY PROJECT PROPERTY BOUNDARY FOR CONSTRUCTION PER DC AGENCY STANDARDS AND COMPLY WITH ALL REQUIRED BUILDING INSPECTIONS. NOTIFY THE ENGINEER IF DISCREPANCIES EXIST WITH THE PLANS.
6. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY AND ALL DISTRICT OF COLUMBIA AGENCY PERMITS NOT PROVIDED WITH THE CONSTRUCTION DOCUMENTS, INCLUDING WORK REQUIRED TO OBTAIN PERMITS, PERMIT PROCESSING, INSPECTIONS, AND PERMIT CLOSEOUTS.
7. REFER TO THE TECHNICAL SPECIFICATIONS FOR ADDITIONAL PROJECT REQUIREMENTS.
8. CODES AND STANDARDS INCLUDED ON THE PLANS ARE FOR GENERAL INFORMATION ONLY AND DO NOT NECESSARILY REPRESENT THE MOST CURRENT OR COMPLETE STANDARDS REQUIRED TO INSTALL THE WORK. REFER TO APPLICABLE CODES AND STANDARDS AT ALL TIMES.
9. MAKE FIELD ADJUSTMENTS AS NECESSARY TO MEET EXISTING CONDITIONS WHEN AUTHORIZED BY THE OWNER'S REPRESENTATIVE.
10. MAINTAIN A WORKING COPY OF CONSTRUCTION PLANS HAND–MARKED IN RED WITH ALL CONSTRUCTED FEATURES, ACCURATELY MEASURED, THAT DEVIATE FROM THE APPROVED CONSTRUCTION PLANS. THIS SET OF RECORD "AS–BUILT" DRAWINGS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE AT THE COMPLETION OF CONSTRUCTION.
11. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA).
12. MAINTAIN FIRE DEPARTMENT, EMERGENCY, SERVICE, DELIVERY, AND PEDESTRIAN (INCLUDING ADA) ACCESS TO THE SURROUNDING AREA. MAINTAIN ACCESS TO EXISTING FIRE HYDRANTS IN AND ADJACENT TO THE SITE.
13. CONTRACTOR SHALL PROVIDE AND MAINTAIN PERMANENT SECURITY AT ALL SITES FOR THE LENGTH OF CONSTRUCTION. COORDINATE TEMPORARY PERIMETER SECURITY MEASURES WITH THE OWNER.

GENERAL SITE DEMOLITION NOTES

1. ITEMS TO BE ABANDONED OR DEMOLISHED ARE NOTED OR SHOWN BOLD/SHADED ON THE DEMOLITION PLAN, BUT ARE SHOWN APPROXIMATE IN LOCATION AND SCALE. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION AND REMOVAL OF ALL EXISTING FEATURES AS REQUIRED FOR INSTALLATION OF PROPOSED IMPROVEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR IN–KIND REPLACEMENT OF ANY EXISTING FEATURE DISTURBED, DAMAGED, OR REMOVED WHICH IS NOT NOTED OR SHOWN TO BE DEMOLISHED. DEMOLITION OF ITEMS TO BE REMOVED AND REPLACED IN KIND (SUCH AS PAVEMENT FOR UTILITY INSTALLATION) IS NOT NECESSARILY DEPICTED ON THE DEMOLITION PLAN.
2. PROTECT ALL SITE FEATURES NOT SHOWN TO BE DEMOLISHED. CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ANY DAMAGED SITE FEATURES NOT SHOWN TO BE DEMOLISHED.
3. COMPLY WITH UTILITY OWNER'S REQUIREMENTS FOR UTILITY DEMOLITION AND ABANDONMENT.
4. SAWCUT EXISTING PAVEMENT TO BE REMOVED WHERE ADJACENT TO EXISTING PAVEMENT TO REMAIN. SAWCUT / REMOVE EXISTING CONCRETE SIDEWALKS AND CURB/GUTTER AT THE NEAREST JOINT. SAWCUTS SHALL BE STRAIGHT AND NEAT.
5. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES, BOTH HORIZONTALLY AND VERTICALLY, WITHIN THE LIMITS OF DISTURBANCE.
6. DEMOLITION DEBRIS SHALL NOT BE USED FOR ONSITE BACKFILL MATERIAL UNLESS APPROVED BY THE PROPERTY OWNER AND GEOTECHNICAL ENGINEER. ALL OTHER DEMOLITION DEBRIS SHALL BE DISPOSED OF OFFSITE IN ACCORDANCE WITH ALL FEDERAL AND LOCAL APPLICABLE CODES AND REGULATIONS.
7. CONTRACTOR IS RESPONSIBLE FOR THE STRUCTURAL STABILIZATION OF FEATURES TO BE DEMOLISHED AND AREAS ADJACENT TO DEMOLITION.

AMT CAD FILES

1. AMT WILL PROVIDE THE GENERAL CONTRACTOR WITH SURVEY AND PROPOSED WORK CAD FILES FOR CONSTRUCTION STAKEOUT UPON RECEIPT OF A SIGNED AMT CAD RELEASE DOCUMENT.

PERMITS & INSPECTIONS

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED TO PERFORM THE WORK THAT ARE NOT PROVIDED WITH THE CONSTRUCTION DOCUMENTS, INCLUDING ADDITIONAL DOCUMENTATION / PLANS REQUIRED TO OBTAIN THESE PERMITS. PERMITS AND ASSOCIATED DOCUMENTS / PLANS MAY INCLUDE INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION TRADE PERMITS, DDOT OCCUPANCY PERMITS, DDOT EXCAVATION PERMITS, TRAFFIC CONTROL PLANS, DOEE DISCHARGE PERMIT, DC WATER DISCHARGE PERMIT, EPA NOTICE OF INTENT / CONSTRUCTION GENERAL PERMIT AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP). PERMITS THAT ARE THE RESPONSIBILITY OF THE CONTRACTOR (AND ASSOCIATED DOCUMENTATION / PLANS REQUIRED TO OBTAIN SUCH PERMITS) ARE NOT NECESSARILY IDENTIFIED IN THE CONSTRUCTION DOCUMENTS.
2. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND OBTAINING ALL INSPECTIONS REQUIRED TO PERFORM THE WORK. INSPECTIONS MAY INCLUDE INCLUDE, BUT ARE NOT LIMITED TO, DC AGENCY INSPECTIONS (DOB, DOEE, DC WATER, DDOT, DCSO WALL TEST) AND UTILITY COMPANY INSPECTIONS (PEPCO, WASHINGTON GAS, VERIZON, COMCAST, RCN, DONET, ETC.). INSPECTIONS THAT ARE THE RESPONSIBILITY OF THE CONTRACTOR ARE NOT NECESSARILY IDENTIFIED IN THE CONSTRUCTION DOCUMENTS.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES SHALL COMPLY WITH DOEE STANDARDS. THE DOEE INSPECTOR IS AUTHORIZED TO MODIFY THE LOCATION AND QUANTITY OF ESC MEASURES AS REQUIRED BASED ON FIELD CONDITIONS WITHOUT PLAN REAPPROVAL. CONTRACTOR SHALL ACCOMMODATE THE DOEE INSPECTOR'S MODIFICATIONS TO THE ESC PLAN.
2. ESC MEASURES SHOWN ON THE ESC PLAN (LIMITS OF DISTURBANCE, SILT FENCE, ETC.) ARE SHOWN AS APPROXIMATE IN LOCATION AND SCALE FOR GRAPHIC CLARITY. CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO THE LIMITS OF DISTURBANCE AS REQUIRED TO ALLOW ADEQUATE ROOM TO PERFORM THE WORK AND SHALL COORDINATE WITH THE DOEE INSPECTOR.
3. INSTALL INLET PROTECTION ON ALL EXISTING AND PROPOSED INLETS ON AND ADJACENT TO THE LIMITS OF DISTURBANCE.
4. SITE RUNOFF FROM DISTURBED AREAS SHALL BE FILTERED THROUGH A SEDIMENT CONTROL MEASURE (PER THE APPROVED ESC PLAN) PRIOR TO DISCHARGE OFF OF THE PROPERTY.
5. PROVIDE TEMPORARY STONE CONSTRUCTION ENTRANCE (SCE) WITH WASH RACK AT THE LIMITS OF DISTURBANCE FOR PUBLIC STREET ACCESS, UNLESS THIS REQUIREMENT IS WAIVED BY THE DOEE INSPECTOR. COORDINATE SCE LOCATION WITH THE DOEE INSPECTOR. SUPPLEMENT STABILIZED CONSTRUCTION ENTRANCES WITH ADDITIONAL STONE AS NEEDED THROUGHOUT CONSTRUCTION. FOR LIMITED–DISTURBANCE PROJECTS, COORDINATE WITH THE DOEE INSPECTOR TO VERIFY IF TEMPORARY STONE CONSTRUCTION ENTRANCES CAN BE ELIMINATED.
6. PROVIDE WATER SOURCE AND HOSE TO CLEAN ALL EQUIPMENT LEAVING SITE.
7. LOCATE TEMPORARY SOIL STOCKPILE ON–SITE IN COORDINATION WITH CONSTRUCTION PHASING AND INSTALL SILT FENCE AROUND THE STOCKPILE.
8. AREAS OF PUBLIC SPACE UTILITY WORK ARE PAVED AND WILL ONLY BE DISTURBED DURING BRIEF PERIODS. PLACE ALL EXCAVATED TRENCH MATERIAL ON THE UP–SLOPE SIDE OF THE TRENCH AND OUT OF THE PATH OF ANY STORMWATER RUNOFF. FILTER WATER PUMPED OUT OF TRENCH EXCAVATIONS THROUGH A SEDIMENT FILTERING DEVICE PRIOR TO DISCHARGING TO THE STORM SEWER SYSTEM.
9. MAINTAIN DRAINAGE FACILITIES ON AND THROUGH THE SITE AT ALL TIMES DURING CONSTRUCTION. PROVIDE TEMPORARY FACILITIES, PUMPS, DRAINAGE PIPES, SUBSURFACE DRAINS, OR PIPE CONNECTIONS AS REQUIRED TO PREVENT PONDING OF WATER DURING CONSTRUCTION. CLEAN OUT, FLUSH, AND MAKE OPERATIONAL ON–SITE DRAINAGE SYSTEMS FOR SITE DRAINAGE USE DURING CONSTRUCTION. DIVERT RUNOFF FROM UPPER AREAS BEYOND THE SITE AWAY FROM ENTERING THE CONSTRUCTION SITE. DEWATER THE SITE AS REQUIRED TO ALLOW EARTHWORK OPERATIONS. INSTALL AND MAINTAIN SEDIMENT FILTERING DEVICES SO THAT SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE. DISCHARGE FILTERED CONCENTRATED RUNOFF DIRECTLY TO THE PUBLIC SEWER SYSTEM PER DOEE AND DC WATER REQUIREMENTS.
10. PUBLIC SPACE SHALL BE MAINTAINED IN A CLEAN CONDITION (MUD AND DUST FREE) AT ALL TIMES. CLEAN TRUCKS AND EQUIPMENT ON–SITE TO PREVENT TRACKING OF DIRT ONTO PUBLIC SPACE.
11. MINIMIZE GENERATION OF DUST DURING CONSTRUCTION IN ACCORDANCE WITH THE SPECIFICATIONS AND DOEE STANDARDS.
12. PROVIDE STABILIZED SURFACE FOR DISTURBED AREAS ASSOCIATED WITH ANY BUILDING RAZE.

GENERAL GRADING, DRAINAGE, & ACCESSIBILITY NOTES

1. MAINTAIN DRAINAGE FACILITIES ON AND THROUGH THE SITE AT ALL TIMES DURING CONSTRUCTION. PROVIDE TEMPORARY FACILITIES, PUMPING ARRANGEMENTS, OR CONNECTIONS AS REQUIRED TO MAINTAIN DRAINAGE.
2. SITE GRADING AND PAVING WORK SHALL BE DONE IN SUCH A MANNER TO ENSURE POSITIVE DRAINAGE TO ALL STORM DRAIN INLETS, AND PREVENT CREATION OF LOW POINTS AND PONDING ON FINISHED SURFACES.
3. SPOT ELEVATIONS WHERE TYING INTO EXISTING PAVING ARE SHOWN AS APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR, WITH DISCREPANCIES NOTED TO THE DESIGN ENGINEER. CONTRACTOR SHALL MATCH EXISTING GRADE AND PROVIDE SMOOTH TRANSITION.
4. CONSTRUCT ACCESSIBLE PEDESTRIAN ROUTES IN COMPLIANCE WITH CURRENT ADA GUIDELINES WHERE LABELED "ACCESSIBLE" OR "ADA" ON THE PLANS, FROM ACCESSIBLE PARKING TO BUILDING ACCESSIBLE ENTRANCES, FROM THE PUBLIC SIDEWALK TO BUILDING ACCESSIBLE ENTRANCES, AND AS REQUIRED BY BUILDING EGRESS REQUIREMENTS.
5. MIN 42" HEIGHT ADA–COMPLIANT PEDESTRIAN GUARDRAILS SHALL BE INSTALLED AT WALLS, CURBS, AND CHANGES IN ELEVATIONS OVER 30" IN HEIGHT.
6. ACCESSIBLE ROUTES SHALL BE INSTALLED WITH 5% MAXIMUM LONGITUDINAL SLOPE AND 2% MAXIMUM CROSS SLOPE. ACCESSIBLE RAMPS AND CURB RAMPS SHALL BE INSTALLED WITH 8.33% MAXIMUM LONGITUDINAL SLOPE AND 2% MAXIMUM CROSS SLOPE. ACCESSIBLE RAMPS SHALL BE MAXIMUM 30' LONG AND HAVE ADA COMPATIBLE HANDRAILS/PEDESTRIAN GUARDRAILS AND LANDINGS. ACCESSIBLE PARKING SPACES, AISLES, AND LANDINGS SHALL BE INSTALLED WITHIN A 2% MAXIMUM SLOPE IN ANY DIRECTION. ACCESSIBLE ROUTES, RAMPS, CURB RAMPS, AND PARKING SPACES/AISLES SHALL BE IN ACCORDANCE WITH CURRENT ADA GUIDELINES.
7. EXISTING ACCESSIBLE PATHS ON SITE SHALL BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL MODIFY ANY EXISTING ACCESSIBLE PATHS TO ENSURE ADA REQUIREMENTS ARE MET, INCLUDING BUT NOT LIMITED TO GRINDING DOWN VERTICAL CHANGES OF ELEVATION GREATER THAN OR EQUAL TO 1/4" (1/2" WITH BEVELED EDGE) SUCH AS AT CONCRETE JOINTS.
8. INSTALL SIDEWALKS WITH A CROSS SLOPE BETWEEN 1% AND 2% SLOPED TO DRAIN AS SHOWN ON THE DRAWING, OR WHERE NOT INDICATED, AWAY FROM THE BUILDING AND TOWARD THE GENERAL DRAINAGE DIRECTION. FOR INTERSECTIONS OF 2 OR MORE SIDEWALKS, INSTALL THE AREA OF INTERSECTION (EQUAL TO THE WIDTH OF SIDEWALK) BETWEEN 1% AND 2% SLOPE.
9. PROVIDE A MINIMUM 5'X5' EXTERIOR LANDING OUTSIDE OF BUILDING DOORS AND AT THE TOP AND BOTTOM OF ACCESSIBLE RAMPS. LANDING SHALL BE SLOPED BETWEEN 1%–2%.
10. NOTIFY THE CIVIL DESIGN ENGINEER WHERE GRADING REDUCES COVER OVER EXISTING UTILITIES BELOW THE MINIMUM REQUIRED BY BUILDING CODE (OR APPLICABLE LOCAL CODE WHERE NOT ON PRIVATE PROPERTY).
11. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.5% MINIMUM SLOPE ALONG ALL CURB / CURB AND GUTTER AND 1.0% MINIMUM SLOPE ON PAVEMENT, UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER.
12. CLEAN, SNAKE, AND FLUSH ALL EXISTING ON–SITE STORM AND SANITARY SEWER PIPING THAT IS TO REMAIN, INCLUDING FROM THE BUILDING/SITE TO THE PUBLIC UTILITY MAIN. PROVIDE THE OWNER WITH A PIPE VIDEO REPORT OF THE PIPE CLEANING. NOTIFY THE OWNER AND ENGINEER OF ANY DEFICIENCIES IN THE EXISTING PIPE SUCH AS BROKEN PIPES, ROOT INTRUSION, OR STANDING WATER.
13. ALL NYLOPLAST STRUCTURE INLETS AND TRENCH DRAIN GRATES SHALL BE LOCKED/BOLTED TO THE STRUCTURE, REMOVABLE ONLY WITH TOOLS (NOT BY HAND).

EARTH WORK NOTES

1. REMOVE AND STOCKPILE TOPSOIL AS REQUIRED FOR INSTALLATION ON LANDSCAPE AND LAWN AREAS. INSTALL SILT FENCE SURROUNDING TOPSOIL STOCKPILE. SEE SPECIFICATIONS.
2. REMOVE AND STOCKPILE SUITABLE SOIL MATERIAL AND PROTECT FROM RAINFALL AND RUNOFF, IF REQUIRED FOR FILL INSTALLATION ONSITE. SEE SPECIFICATIONS.
3. DISPOSE ALL SOIL MATERIAL NOT TO BE REUSED FOR THE PROJECT OFFSITE IN ACCORDANCE WITH ALL FEDERAL AND LOCAL APPLICABLE CODES AND REGULATIONS.
4. ALL UNSUITABLE SUBGRADE MUST BE REMOVED AND REPLACED WITH SUITABLE MATERIAL TO A DEPTH AS DIRECTED BY THE GEOTECHNICAL ENGINEER AND THE OWNER'S REPRESENTATIVE.
5. GEOTECHNICAL ENGINEER SHALL APPROVE ALL FILL MATERIAL FOR THE SPECIFIED LOCATION/APPLICATION PRIOR TO INSTALLATION.
6. INSTALL MIN 4" DEPTH TOPSOIL OVER GRADED AREAS TO BE SEEDED OR SODDED. INSTALL MIN 8" DEPTH TOPSOIL OVER GRADED AREAS TO RECEIVE TREES, SHRUBS, OR PLANTS. REFER TO LANDSCAPE PLANS & SPECS FOR ADDITIONAL TOPSOIL DEPTH REQUIRED.

GENERAL PAVING NOTES

1. PROPOSED PAVING (ASPHALT PAVING, CONCRETE PAVING, SIDEWALK, CURB, CURB AND GUTTER, ETC.) IS SHOWN ONLY FOR THE PROPOSED PAVING DESIGN. REMOVAL AND REPLACEMENT OF EXISTING PAVING REQUIRED TO INSTALL ALL ASPECTS OF THE PROJECT WORK (UTILITIES, UNDERGROUND STRUCTURES, ETC.) IS NOT DEPICTED ON THE PLANS BUT IS INCLUDED IN THE SCOPE OF WORK. REPLACEMENT OF EXISTING PAVEMENT SHALL MATCH EXISTING IN DEPTH AND DESIGN AT A MINIMUM.
2. WHERE PROPOSED CURB, GUTTER OR CURB AND GUTTER ARE SHOWN INSTALLED AGAINST EXISTING ASPHALT PAVEMENT, SAWCUT EXISTING PAVEMENT 1' FROM OUTER EDGE OF CURB/GUTTER FOR REMOVAL AND REPLACEMENT (NOT GRAPHICALLY SHOWN ON THE PLANS). FOR REPLACEMENT OF CURB AND GUTTER IN PUBLIC SPACE WHERE CONCRETE PAVEMENT BASE IS PRESENT, SAWCUT EXISTING PAVEMENT AT EDGE OF CONCRETE BASE.
3. WHERE PROPOSED PAVEMENT IS SHOWN INSTALLED ADJACENT TO EXISTING ASPHALT PAVEMENT, SAWCUT SURFACE COURSE OF EXISTING PAVEMENT 1' FROM PROPOSED PAVEMENT EDGE FOR MILL AND OVERLAY OF EXISTING SURFACE COURSE (NOT GRAPHICALLY SHOWN ON THE PLANS).
4. WHERE REPLACING LIMITED SECTIONS OF EXISTING CURB OR CURB AND GUTTER, THE CURB OR CURB AND GUTTER SECTION SHALL MATCH EXISTING CURB OR CURB AND GUTTER DIMENSIONS.
5. PROPOSED PAVEMENT AND CURB/GUTTER SHALL MATCH ELEVATIONS OF EXISTING PAVEMENT AND CURB/GUTTER AT THEIR CONNECTION.
6. EXISTING PAVEMENT AND CURB/GUTTER ELEVATIONS ARE APPROXIMATE. ADJUST PROPOSED ELEVATIONS, WITH APPROVAL FROM THE DESIGN ENGINEER, AS REQUIRED TO MEET EXISTING ELEVATIONS.
7. ALL PAVEMENT SHALL BE INSTALLED IN A MANNER AS TO ENSURE POSITIVE DRAINAGE IN ALL AREAS.
8. PAVING AND PERMANENT SITE FEATURES (WALLS, CURBS, LIGHTS, ETC.) SHOWN CENTERED ON BUILDING DOORS OR OTHER PROMINENT BUILDING FEATURES SHALL BE LOCATED ON THE CENTER OF THE CONSTRUCTED DOOR / BUILDING FEATURE. BUILDING DOORS / BUILDING FEATURES SHOWN ON THE CIVIL PLANS ARE SCHEMATIC AND MAY DIFFER SLIGHTLY IN LOCATION AND SIZE THAN THE ACTUAL CONSTRUCTED ELEMENT.
9. PAVEMENT RESTORATION FOR UTILITY WORK SHALL COMPLY WITH DDOT STANDARD DRAWINGS 215.01, 215.02, 215.03, & 215.04.
10. MILL & OVERLAY THE FULL WIDTH OF ASPHALT LANE ADJACENT TO NEW/REPLACEMENT CURB (WITHOUT GUTTER), CURB & GUTTER, FLUSH CURB, CURB RAMPS, OR VEHICLE ENTRANCES. EXTEND MILL & OVERLAY TO THE NEAREST TRANSVERSE PAVEMENT JOINT.

GENERAL UTILITY NOTES

1. FIELD VERIFY HORIZONTAL AND VERTICAL EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
2. THE CIVIL UTILITY PLAN APPLIES ONLY TO EXTERIOR WATER, STORM SEWER, AND SANITARY SEWER WORK. ALL OTHER EXTERIOR UTILITY WORK IS THE RESPONSIBILITY OF OTHERS AND, IF DEPICTED ON THE UTILITY PLAN, IS SHOWN AS APPROXIMATE.
3. EXISTING UTILITIES MAY NOT BE INDICATED ON THE PLANS. AS A FIRST STEP IN CONSTRUCTION, TRACE ALL AREAS WITHIN EXCAVATION LIMITS TO DETERMINE EXISTING UTILITY LOCATIONS. EXCAVATE TEST PITS FOR UTILITIES TO REMAIN, TO DETERMINE LOCATION AND ELEVATION. NOTIFY THE ENGINEER IF EXISTING UTILITIES CONFLICT WITH PROPOSED WORK. CONTRACTOR SHALL CONFIRM EXISTING LOCATIONS AND DEPTHS OF AT PROPOSED CROSSINGS AND CONNECTIONS, AS A FIRST STEP IN CONSTRUCTION, TO VERIFY PROPOSED UTILITY LAYOUT AND CONNECTIONS ARE VIABLE. CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE AS SOON AS ANY CONFLICTS ARE DISCOVERED.
4. THE PRICING FOR EXTERIOR UTILITY INSTALLATION SHOULD INCLUDE UP TO 6" DEEPER INSTALLATION THAN AS NOTED ON THE PLANS FOR THE ENTIRE RUN OF PIPES, TO ACCOUNT FOR WORKING AROUND OBSTRUCTIONS IN THE FIELD.
5. COMPLY WITH UTILITY OWNER'S REQUIREMENTS FOR UTILITY ABANDONMENT AND INSTALLATION.
6. REMOVE ABANDONED UTILITIES AS REQUIRED FOR CONSTRUCTION OF PROPOSED IMPROVEMENTS.
7. SNAKE AND FLUSH ALL ON–SITE EXISTING STORM AND SANITARY SEWER PIPING THAT IS TO REMAIN IN SERVICE AFTER THE PROJECT, FROM THE BUILDING TO THE PUBLIC UTILITY MAIN.
8. ADJUST ALL EXISTING AND PROPOSED UTILITY COVERS (FRAME AND LIDS) WITHIN PROJECT LIMITS TO MATCH FINISHED GRADE ELEVATION AND SLOPE. ELEVATIONS INDICATED FOR PROPOSED UTILITY COVERS SHOWN ARE APPROXIMATE.
9. INSTALL ADDITIONAL MANHOLE STEPS AS NEEDED IN EXISTING MANHOLES WITH COVERS TO BE RAISED, TO MAINTAIN CONSISTENT STEP DISTANCE.
10. REMOVE AND REPLACE/REFORM EXISTING CONCRETE MANHOLE BENCH AS REQUIRED TO ACCOMMODATE PIPE CONNECTIONS TO THE MANHOLE.
11. PHASE ALL UTILITY WORK TO MAINTAIN UTILITY SERVICES TO SURROUNDING AREAS DURING ALL PHASES OF DEMOLITION, EXCAVATION, AND CONSTRUCTION. LIMIT REQUIRED UTILITY SHUT–DOWNS IN NUMBER AND DURATION, AND COORDINATE THESE WITH THE UTILITY OWNER AND AFFECTED PARTIES.
12. ALL WATER, SEWER, AND STORM WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH DC WATER STANDARDS AND SPECIFICATIONS. SUBMIT MATERIALS SUBMITTALS OF WATER, SEWER, AND STORM MATERIALS IN PUBLIC SPACE, DC WATER EASEMENTS, OR WITHIN DC WATER'S MAINTENANCE RESPONSIBILITY, TO THE DC WATER INSPECTOR FOR APPROVAL PRIOR TO ORDERING MATERIALS.
13. PREPARE AND SUBMIT UTILITY AS–BUILT PLANS (BOTH PDF & CAD FORMATS) OF CONSTRUCTED WATER LINES, SANITARY SEWERS, AND STORM SEWERS TO DC WATER PER DC WATER REQUIREMENTS.
14. RESTORE OR REPLACE EXISTING FEATURES DISTURBED BY THE UTILITY WORK, INCLUDING SURFACE PAVEMENT.
15. ABANDON BUILDINGS' EXISTING WATER, SANITARY SEWER, AND STORM SEWER LATERALS WHICH ARE TO BE REMOVED FROM SERVICE PER DC WATER STANDARDS, INCLUDING (BUT NOT LIMITED TO) DISCONNECTION OF THE LATERAL AT THE UTILITY MAIN, PLUGGING/SEALING THE UTILITY MAIN, AND REMOVAL/ABANDONMENT OF METERS, VALVES, APPURTENANCES, ETC. REFER TO DC WATER STANDARDS FOR ABANDONMENT PER TYPE OF LATERAL AND UTILITY MAIN AND COORDINATE WITH THE DC WATER INSPECTOR.
16. PROVIDE WATER SYSTEM MATERIALS PER DC WATER SPECIFICATIONS. ALL WATER PIPE 3"–12" DIAMETER SHALL BE THICKNESS CLASS 56 DUCTILE IRON PIPE (DIP) WITH MANUFACTURED RESTRAINED JOINTS ON ALL PIPE JOINTS AND FITTINGS. WATER SERVICES UNDER 3" DIAMETER SHALL BE TYPE K COPPER PIPE. 16" DIAMETER WATER PIPE SHALL BE SPECIAL THICKNESS CLASS 51 DUCTILE IRON PIPE. SEE DC WATER SPECIFICATIONS FOR 20" DIAMETER AND LARGER DUCTILE IRON WATER PIPE.
17. DC WATER DOMESTIC METERS AND DETECTOR CHECK METERS ARE REQUIRED TO BE EQUIPPED WITH A REMOTE AUTOMATED METER READER (AMR) DEVICE BY DC WATER. WHERE DOMESTIC METERS OR DETECTOR CHECK METERS ARE LOCATED IN A BUILDING'S WATER ROOM, A 1" CONDUIT SHALL BE INSTALLED FROM THE WATER ROOM TO THE REMOTE READING STATION ON THE BUILDING FACADE, IN ACCORDANCE WITH DC WATER STANDARDS. COORDINATE LOCATION OF THE REMOTE READING STATION WITH DC WATER INSPECTOR.
18. BACKFLOW PREVENTER FOR DOMESTIC WATER AND FIRE SERVICE LATERALS SHALL BE LOCATED INSIDE THE BUILDING UNLESS SHOWN ON THE PLANS IN A SEPARATE PRIVATELY OWNED/MAINTAINED EXTERIOR VAULT.
19. LOCATE GATE VALVES FOR BUILDING SERVICES AS CLOSE TO THE WATER MAIN TEE AS POSSIBLE BASED ON FIELD LOCATION OF CONFLICTING EXISTING UTILITIES. COORDINATE WITH THE DC WATER INSPECTOR. PROVIDE DIP SWIVEL TEE (AWWA C111) ON EXISTING MAIN IF REQUIRED TO AVOID EXISTING UTILITIES.
20. STORM DRAIN AND SANITARY SEWER BUILDING LATERALS SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE NOTED. CLEANOUTS SHALL MATCH THE PIPE DIAMETER AND SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS AND AT HORIZONTAL AND VERTICAL BENDS. WYE CONNECTIONS TO PUBLIC GRAVITY MAINS SHALL MATCH THE EXISTING PIPE MATERIAL; CONTRACTOR SHALL FIELD–VERIFY PRIOR TO ORDERING MATERIALS.
21. REFER TO DC WATER GENERAL CONSTRUCTION NOTES FOR ADDITIONAL REQUIREMENTS.

1 / C100 COVER SHEET AND GENERAL NOTES
N.T.S.

NZCBI

REDISTRIBUTE CAMPUS - WIDE ELECTRICAL LOADS

QUINN EVANS
2101 L STREET, NW
SUITE 950
WASHINGTON, DC 20037
v 202 298 6700
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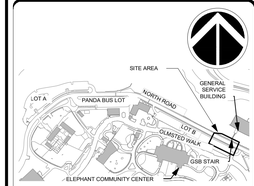
FOR CONSTRUCTION

STAMP 1 | STAMP 2

DISTRICT OF COLUMBIA
DAVID D. RINGEL
REGISTERED
02/14/25
CIVIL
PROFESSIONAL ENGINEER

STAMP 3 | STAMP 4 | STAMP 5 | STAMP 6



KEY PLAN

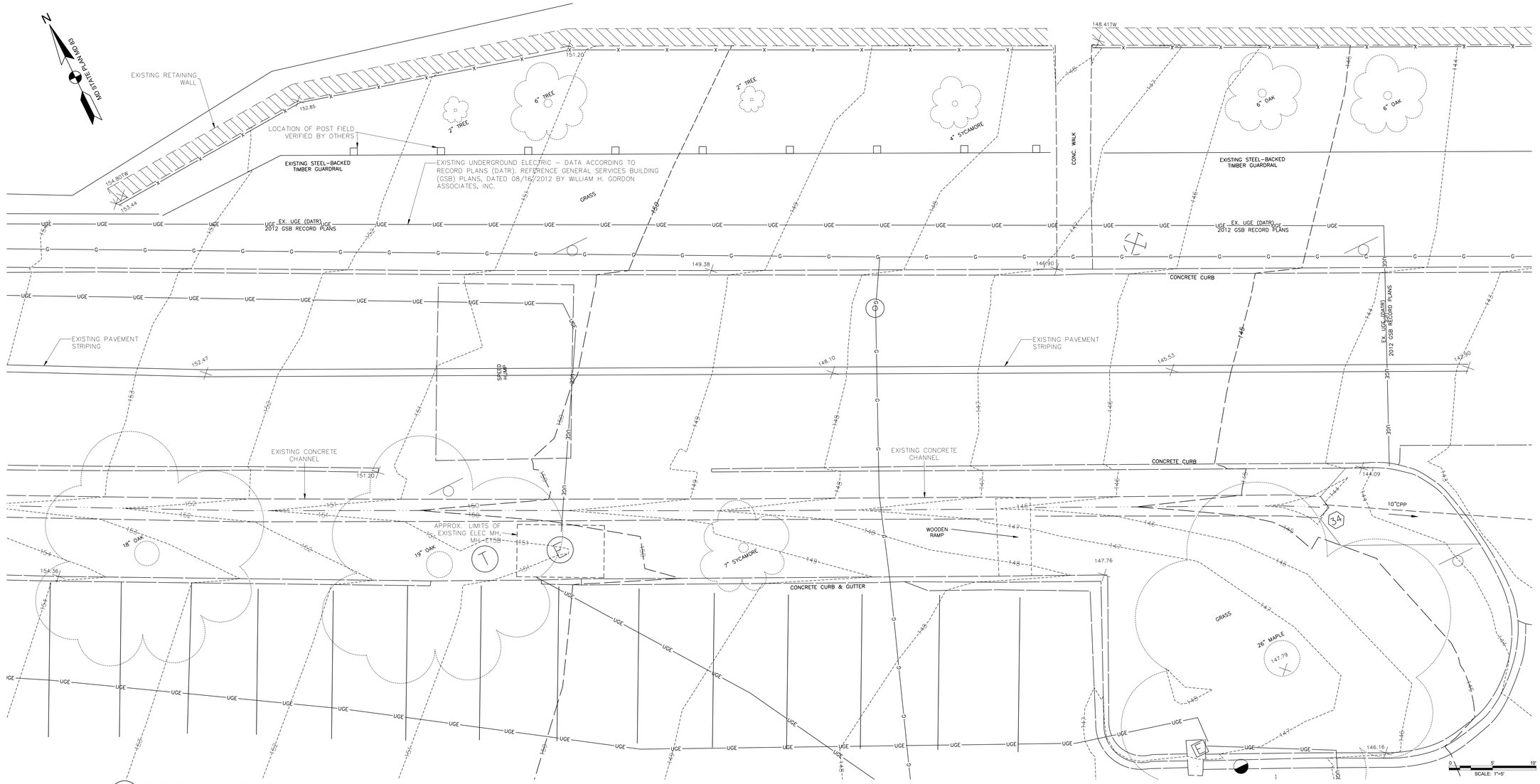
GRAPHIC SCALE(S)

DATE	SUBMISSION
02/14/25	FINAL DOCUMENTS

REVISION # DATE	REVISION DESCRIPTION

Smithsonian Institution
Smithsonian OPDC
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME / ADDRESS	NZCBI 3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS –WIDE ELECTRICAL LOADS
OPDC PROJ. NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	COVER SHEET AND GENERAL NOTES
WORKING STAFF	AJH (DESIGNED BY) / AJH (DRAWN BY) / PDR (CHECKED BY)
SHEET NO.	4 OF 24
	C (DISCIPLINE) / 1 (TYPE) / 00 (SEQUENCE / DRAWING TYPE)



1 EXISTING CONDITIONS PLAN
C101 SCALE: 1"=5'

STORM CHART

1. ROUND GRATE
   TOP=211.74
   INV OUT=207.48
2. MANHOLE
   TOP=205.70
   INV IN=200.50
   INV OUT=200.43
3. MANHOLE
   TOP=204.67
   INV IN(a)=200.03
   (NO STRUCTURE FOUND AT OTHER END)
   INV IN(b)=199.99
   INV IN(c)=201.02(12" PVC)
   INV OUT=199.76
4. GRATE INLET
   TOP=203.80
   INV OUT=201.03
5. MANHOLE
   TOP=202.46
   INV IN=199.02
   INV OUT=198.63
6. GRATE INLET
   TOP=199.67
   INV IN=196.61
   INV OUT=196.56
7. GRATE INLET
   TOP=193.83
   INV IN=190.24
   INV OUT=190.11
8. GRATE INLET
   TOP=187.55
   INV IN=183.76
   INV OUT=183.70
9. MANHOLE
   TOP=186.91
   INV IN(a)=180.64
   INV IN(b)=182.34
   INV OUT=180.36
10. GRATE INLET
    TOP=188.46
    INV OUT=184.31
11. MANHOLE
    TOP=186.12
    INV IN(a)=174.32
    INV IN(b)=*RECESSED, UNABLE TO OBTAIN INVERT
    INV OUT=*UNABLE TO OBTAIN INVERT
    TOP OF FILTER=177.62
    BOTTOM OF STRUCTURE=169.00
    *BOTTOM OF STRUCTURE FULL OF WATER AND DEBRIS
12. GRATE INLET
    TOP=185.36
    INV IN=174.26
    INV OUT=173.96
13. PIPE
    TOP OF PIPE=172.93
    *PIPE EXPOSED, CHANGES DIRECTION ABOVE GROUND
14. MANHOLE
    TOP=185.60
    BOTTOM OF STRUCTURE=166.30
    *BOTTOM OF STRUCTURE FULL OF WATER AND DEBRIS
15. CURB INLET
    TOP=198.47
    INV OUT=193.09
16. CURB INLET
    TOP=194.12
    INV OUT=189.58
17. MANHOLE
    TOP=194.18
    INV IN(a)=188.67
    INV IN(b)=188.75
    INV OUT=188.18
18. HEADWALL
    INV=186.99
19. GRATE INLET
    TOP=184.24
    INV OUT=181.19
20. PIPE INLET
    INV=180.37
21. PIPE OUTLET
    INV=179.39
22. GRATE INLET
    TOP=168.02
    INV OUT=165.66
23. MANHOLE
    TOP=166.02
    INV IN(a)=161.90
    INV IN(b)=161.72
    INV OUT=161.07
24. CURB INLET
    TOP=167.84
    INV IN=164.72
    INV OUT=164.63
25. CURB INLET
    TOP=168.00
    INV IN=163.79
    INV OUT=163.86
26. MANHOLE
    TOP=166.17
    INV IN(a)=158.57(12" TCP)
    INV IN(b)=159.60(12" RCP)
    INV OUT=158.50(12" TCP)
27. MANHOLE
    TOP=161.63
    INV IN=155.01
    INV OUT=150.90
28. CURB INLET
    TOP=153.35
    INV IN(a)=148.83
    INV IN(b)=143.35
    INV OUT=143.43
    *INV OUT HIGHER THAN INV IN
29. CURB INLET
    TOP=154.49
    INV OUT=151.26
30. MANHOLE
    TOP=154.35
    INV IN=149.86
    INV OUT=149.84
31. MANHOLE
    TOP=149.31
    INV IN=142.84
    INV OUT=142.74
32. GRATE INLET
    TOP=146.43
    INV IN=142.61
    INV OUT=142.45
33. MANHOLE
    TOP=139.42
    *UNABLE TO OPEN, RUSTED SHUT
    *CONNECTED TO STRUCTURE 32 BY SOUND CHECK
34. PIPE INLET
    INV=142.96
35. MANHOLE
    TOP=140.74
    INV IN=137.49
    INV OUT=136.74
36. MANHOLE
    TOP=138.45
    INV IN=133.33
    INV OUT=133.17
37. MANHOLE
    TOP=134.77
    INV IN(a)=129.67
    INV IN(b)=129.44
    INV OUT=129.29
38. GRATE INLET
    TOP=134.46
    INV OUT=130.26(15" RCP)
39. MANHOLE
    TOP=125.44
    INV IN(a)=120.22
    INV IN(b)=119.98
    INV OUT=119.90
40. CURB INLET
    TOP=149.84
    INV OUT=143.86
    *CONNECTING STRUCTURE NOT FOUND

TRAVERSE DATA:

NO	NORTHING	EASTING	ELEV	DESCRIPTION
50	460773.6974	1296813.6906	214.37	MAG HUB
51	460816.2107	1297029.2936	209.05	MAG HUB
52	460928.5403	1297337.3241	192.69	MAG HUB
53	460878.6122	1297618.1791	182.78	MAG NAIL
54	460500.8280	1298180.7210	146.74	MAG NAIL
55	460457.0576	1298134.1392	150.11	MAG NAIL
56	460573.3201	1297888.4154	164.19	MAG NAIL
57	460400.4912	1298282.6110	139.05	MAG NAIL
100	460686.2790	1296832.9953	216.91	REBAR & CAP
101	460895.9947	1297076.9143	204.94	MAG NAIL
102	460909.0121	1297551.9649	184.94	MAG NAIL
103	460772.0147	1297824.9205	173.06	MAG NAIL
104	460637.8571	1298081.0821	154.59	MAG NAIL
105	460549.7757	1298265.6702	141.00	REBAR & CAP

LEGEND:

- TREE
- GRATE INLET
- ROUND GRATE INLET
- STORM MANHOLE
- ROOF DRAIN
- GAS VALVE
- SINGLE POST SIGN
- LIGHT POLE
- LAMP
- GROUND LIGHT
- ELECTRIC BOX
- CARD READER/INTERCOM
- TELEPHONE JUCTION BOX
- EMERGENCY CALL BOX
- PARKING BARRIER ARM
- PARKING TICKET MACHINE
- COMMUNICATION MANHOLE
- SECURITY CAMERA POLE
- ELECTRIC OUTLET
- WATER SHUT OFF VALVE
- MONITORING WELL
- DRINKING WATER FOUNTAIN
- WATER VALVE
- FIRE HYDRANT
- SIAMESE CONNECTION
- IRRIGATION VALVE
- UTILITY MANHOLE
- HANDICAP PARKING
- BOLLARD
- TRAVERSE
- CURB AND GUTTER
- SHRUB LINE
- UNDERGROUND GAS LINE PAINT
- UNDEGROUND WATERLINE PAINT
- UNDERGROUND COMMUNICATION LINE PAINT
- UNDERGROUND ELECTRIC PAINT
- OVERHANG
- RAIL
- CHAIN LINK FENCE
- WOOD FENCE
- END OF (QLB) INFORMATION
- BUILDING OR WALL
- TRUNCATED DOMES

GENERAL NOTES

1. HORIZONTAL DATUM: MARYLAND STATE PLANE NAD 83/2011
   VERTICAL DATUM: NAVD 88
   U.S SURVEY FEET
   BASED ON RTK GPS OBSERVATIONS
2. UTILITY DEPICTIONS SHOWN HEREON CONFORM TO QUALITY LEVELS AS DEFINED BY "CI/ASCE STANDARD 38-02". AN EFFORT HAS BEEN MADE TO DEPICT UTILITY AT QL"B". SOME UTILITIES MAY BE SHOWN AT QL "C" OR "D" AS NECESSARY AND ARE LABELED ACCORDINGLY.
3. THE SUBSURFACE UTILITIES DEPICTED HEREON AT QUALITY LEVEL "B" REPRESENT THE REMOTELY SENSED INDICATION OF THE SUBSURFACE UTILITY. UTILITY PIPE SIZES AND CONFIGURATIONS (IF DENOTED) HAVE BEEN TAKEN FROM RECORD DRAWINGS AND ACCESSIBLE FIELD EVIDENCE. THE ACTUAL LOCATION, SIZE AND EXTENT OF ALL SUBSURFACE UTILITIES MUST BE DETERMINED THROUGH TEST HOLE OR OTHER QUALITY LEVEL "A" INVESTIGATION METHODS
4. SURVEY PERFORMED SEPTEMBER 2024.

NZCBI

REDISTRIBUTE CAMPUS - WIDE ELECTRICAL LOADS

QUINN EVANS
2101 L STREET, NW
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WASHINGTON, DC 20037
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f 202 298 6666
WWW.QUINNEVANS.COM

FOR CONSTRUCTION

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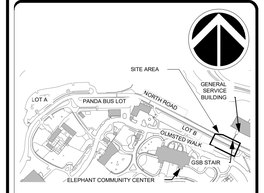
DISTRICT OF COLUMBIA
DAVID D. RINGOLD
REGISTERED
02/14/25
CIVIL
PROFESSIONAL ENGINEER



KEY PLAN

0 5' 10'
SCALE: 1"=5'

GRAPHIC SCALE(S)

DATE	SUBMISSION
02/14/25	FINAL DOCUMENTS

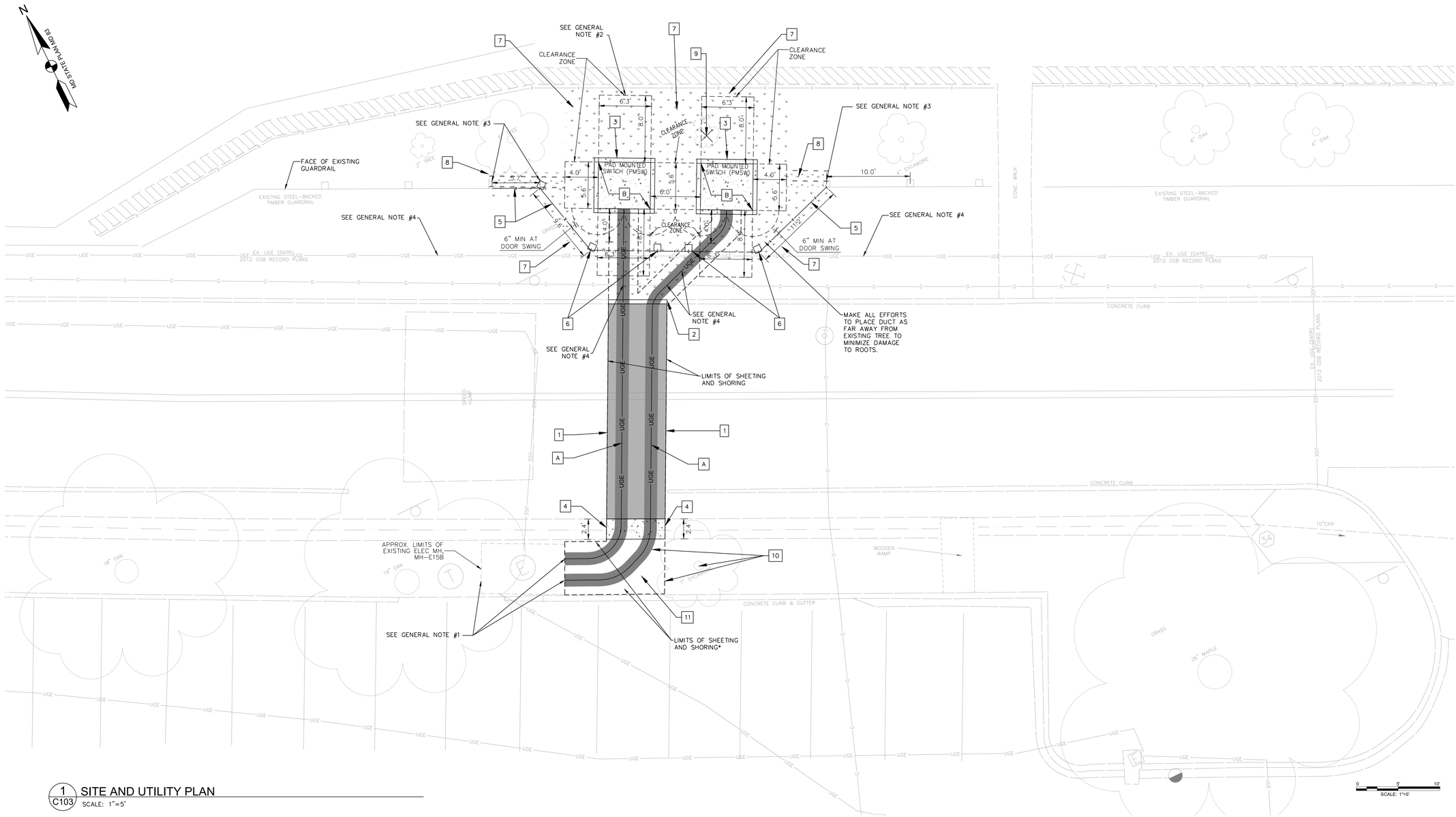
REVISION # DATE	REVISION DESCRIPTION

Smithsonian Institution
Smithsonian OPDC
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME / ADDRESS	NZCBI 3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS –WIDE ELECTRICAL LOADS
OPDC PROJ. NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	EXISTING CONDITIONS PLAN
WORKING STAFF	AJH (DESIGNED BY) / AJH (DRAWN BY) / PDR (CHECKED BY)

SHEET NO. 5 OF 24

C (DISCIPLINE) 1 (TYPE) 01 (SEQUENCE) (DRAWING TYPE)



1 C103 SITE AND UTILITY PLAN

SCALE: 1"=5'

LEGEND:

TREE	BOLLARD
GRATE INLET	TRAVERSE
ROUND GRATE INLET	CURB AND GUTTER
STORM MANHOLE	SHRUB LINE
ROOF DRAIN	UNDERGROUND GAS LINE PAINT
GAS VALVE	UNDEGROUND WATERLINE PAINT
SINGLE POST SIGN	UNDERGROUND COMMUNICATION LINE PAINT
LIGHT POLE	UNDERGOUND ELECTRIC PAINT
LAMP	OVERHANG
GROUND LIGHT	RAIL
ELECTRIC BOX	CHAIN LINK FENCE
CARD READER/INTERCOM	WOOD FENCE
TELEPHONE JUCTION BOX	END OF (OLB) INFORMATION
EMERGENCY CALL BOX	BUILDING
PARKING BARRIER ARM	TRUNCATED DOMES
PARKING TICKET MACHINE	
COMMUNICATION MANHOLE	
SECURITY CAMERA POLE	
ELECTRIC OUTLET	
WATER SHUT OFF VALVE	
MONITORING WELL	
DRINKING WATER FOUNTAIN	
WATER VALVE	
FIRE HYDRANT	
SIAMESE CONNECTION	
IRRIGATION VALVE	
UTILITY MANHOLE	
HANDICAP PARKING	

*SHEETING AND SHORING NOTES:
CONTRACTOR TO ENGAGE A PROFESSIONAL ENGINEER TO PROVIDE A DELEGATED DESIGN FOR TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEMS. SEE 315000 FOR REQUIREMENTS.
SEE 31500 FOR REQUIREMENTS.

SITE KEYNOTES

1. NEW ASPHALT PAVEMENT (REPLACE IN KIND) SEE DETAIL 2 ON SHEET C501
2. NEW CONCRETE CURB (REPLACE IN KIND) SEE DETAIL 4 ON SHEET C501
3. NEW CONCRETE PAD SEE DETAIL 3 ON SHEET C501
4. NEW CONCRETE CHANNEL (REPLACE IN KIND)
5. NEW STEEL-BACKED TIMBER GUARDRAIL (REPLACE IN KIND) SEE DETAIL 1 ON SHEET C501.
6. REMOVABLE BARRIER TO PROVIDE ACCESS TO SWITCHES.
7. EXISTING TALL GRASS PLANTINGS TO BE REPLANTED WITH SHORT GRASS IN AREAS IMPACTED BY PROPOSED ELECTRICAL IMPROVEMENTS AND IN ELECTRICAL CLEARANCE ZONES, SEE DIVISION 1 SPECIFICATIONS.
8. EXISTING TALL GRASS PLANTINGS TO BE REPLANTED IN KIND IN AREAS IMPACTED BY CONSTRUCTION OUTSIDE OF THE CLEARANCE ZONES.
9. REMOVE TREE
10. COORDINATE DUCTBANK ROUTING AND SHORING LOCATION TO MINIMIZE IMPACT TO TREE CRITICAL ROOT ZONE. REVIEW PROPOSED WORK EXTENTS ON-SITE WITH COTR & NZCBI HORTICULTURE PRIOR TO SUBMISSION OF SHORING & SITE PROTECTION SUBMITTALS. IF EXISTING TREE IS IMPACTED BY UTILITY EXCAVATION, REMOVE AND REPLACE WITH 3" SYCAMORE.
11. REPLACE IN KIND PLANTINGS AND MULCH IMPACTED BY UTILITY TRENCHING.

UTILITY KEYNOTES

A. NEW UNDERGROUND ELECTRIC DUCTBANK, 4-WAY, 18"x18" (SEE ELECTRICAL PLANS FOR DETAILS)

B. NEW PAD MOUNTED SWITCH (PMSW) (SEE ELECTRICAL PLANS FOR DETAILS)

SITE LEGEND:

- NEW CURB
- NEW ASPHALT PAVEMENT
- NEW CONCRETE PAVEMENT
- NEW STEEL-BACKED TIMBER GUARDRAIL (MATCH EXISTING)
- REMOVABLE SEGMENT OF STEEL-BACKED TIMBER GUARDRAIL
- REPLANT AREA WITH SHORT GRASS (COORD W/ COTR)
- REPLANT AREA WITH TALL GRASS (COORD W/ COTR)
- LIMITS OF SHEETING AND SHORING

UTILITY LEGEND:

- UGE — PROPOSED UNDERGROUND ELECTRIC DUCTBANK

GENERAL NOTES:
1) CONTRACTOR TO FIELD VERIFY LIMITS OF EXISTING UNDERGROUND ELECTRIC MANHOLE, MH-E15B BEFORE INSTALLING PROPOSED ELECTRIC DUCTBANK.
2) ENSURE ELECTRICAL CLEARANCE ZONES ARE PROVIDED FOR BOTH PROPOSED PAD MOUNTED SWITCHES (PMSW) IN ALL DIRECTIONS.
3) CONTRACTOR TO FIELD VERIFY NEAREST STEEL-BACKED TIMBER GUARDRAIL POST FOR REMOVAL/PLACEMENT BEFORE INSTALLING PROPOSED ALIGNMENT FOR TIMBER GUARDRAIL.
4) CONTRACTOR TO TEST PIT AT ALL UTILITY CROSSINGS. PROVIDE ONE-FOOT VERTICAL CLEARANCE.
5) PROVIDE STEEL PLATE OVER UTILITY TRENCH IN ROAD DURING THE DAY.
6) PERFORM WORK AT NIGHT. ROUTE TRAFFIC THROUGH LOT B AT NIGHT.

NZCBI

REDISTRIBUTE CAMPUS - WIDE ELECTRICAL LOADS

QUINN EVANS
2101 L STREET, NW
SUITE 950
WASHINGTON, DC 20037
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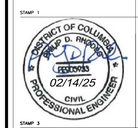

STAMP 3 | STAMP 4

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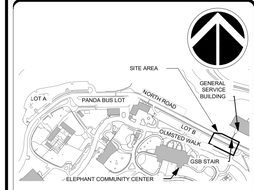


KEY PLAN

0 5' 10'
SCALE: 1"=5'

GRAPHIC SCALE(S)

DATE	SUBMISSION
02/14/25	FINAL DOCUMENTS

REVISION # DATE	REVISION DESCRIPTION

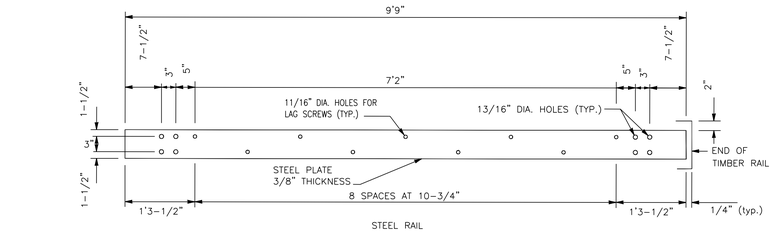
Smithsonian Institution
Smithsonian OPDC
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME	NZCBI
ADDRESS	3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
OPDC PROJ. NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	SITE AND UTILITY PLAN

WORKING STAFF	AJH	AJH	PDR
	DESIGNED BY	DRAWN BY	CHECKED BY

SHEET NO. 6 OF 24

C 1 03
DISCIPLINE TYPE SEQUENCE DRAWING TYPE



STEEL RAIL

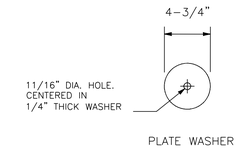
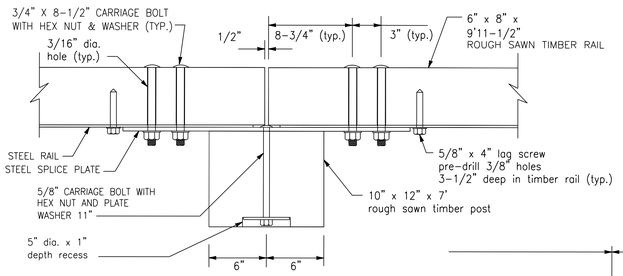
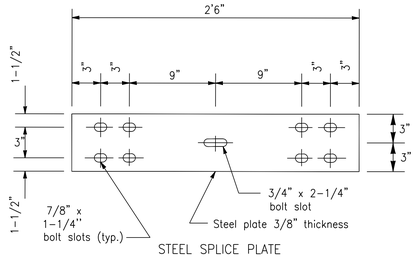


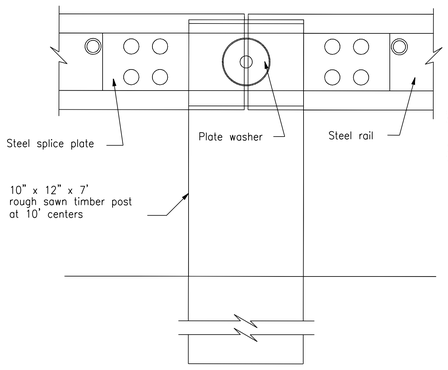
PLATE WASHER



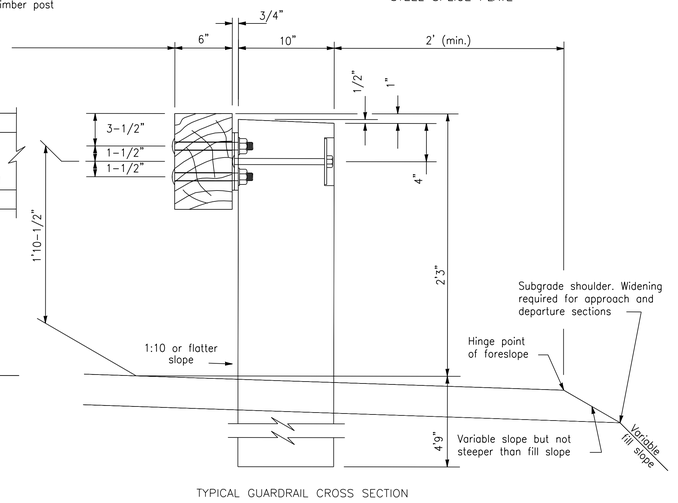
PLAN



STEEL SPLICE PLATE



ELEVATION
POST CONNECTION

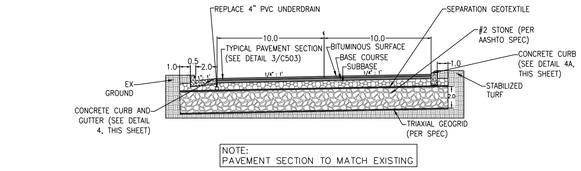


TYPICAL GUARDRAIL CROSS SECTION

NOTES:

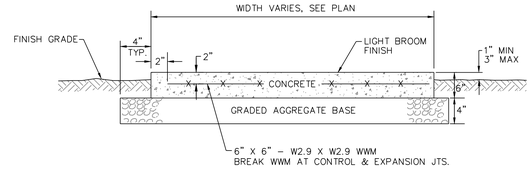
1. USE WEATHERING STEEL FOR ALL STRUCTURAL STEEL AND FASTENER HARDWARE AS SPECIFIED.
2. FURNISH HARDWARE IN THE IMPERIAL SIZES SHOWN.

1 STEEL-BACKED TIMBER GUARDRAIL
C103|C501 NOT TO SCALE

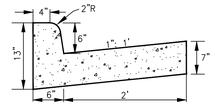


NOTE:
PAVEMENT SECTION TO MATCH EXISTING

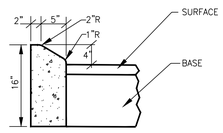
2 TYPICAL PAVEMENT SECTION
C103|C501 NOT TO SCALE



3 REINFORCED CONCRETE PAD
C103|C501 NOT TO SCALE

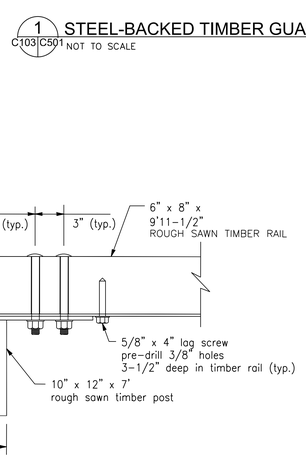


4 CONCRETE CURB & GUTTER
C103|C501 NOT TO SCALE

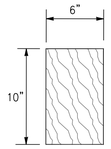


NOTE:
PER RECORD DRAWINGS THERE IS EXISTING TRIAXIAL GEOGRID IN THE EXISTING ROADWAY SECTION.
A) PULL BACK OR REMOVE/REPLACE GEOGRID AS PART OF CONSTRUCTION EFFORT.

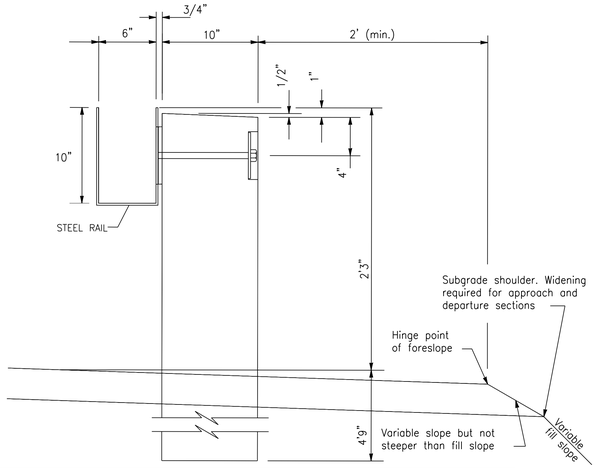
4A STANDARD 4" CURB
C103|C501 NOT TO SCALE



PLAN

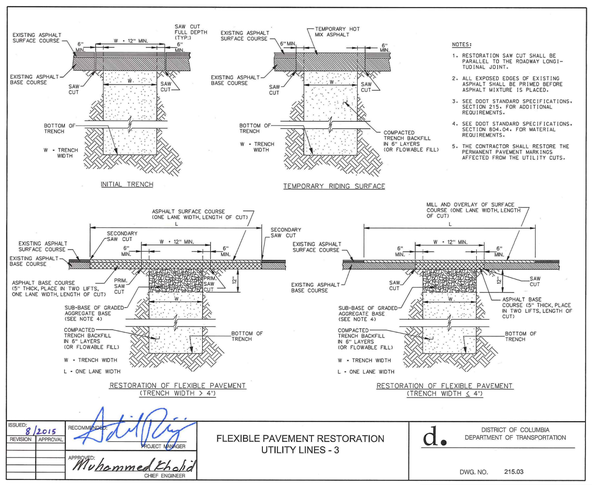


REMOVABLE TIMBER RAILING (6x10 LUMBER)



TYPICAL GUARDRAIL CROSS SECTION

6 REMOVABLE TIMBER GUARDRAIL
C103|C501 NOT TO SCALE



5 UTILITY TRENCHING
C103|C501 NOT TO SCALE

NOTE:
PER RECORD DRAWINGS THERE IS EXISTING TRIAXIAL GEOGRID IN THE EXISTING ROADWAY SECTION.
A) PULL BACK OR REMOVE/REPLACE GEOGRID AS PART OF CONSTRUCTION EFFORT.

NZCBI
REDISTRIBUTE CAMPUS - WIDE ELECTRICAL LOADS

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KEY PLAN

GRAPHIC SCALE(S)

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600 Maryland Avenue S.W. Suite 5001
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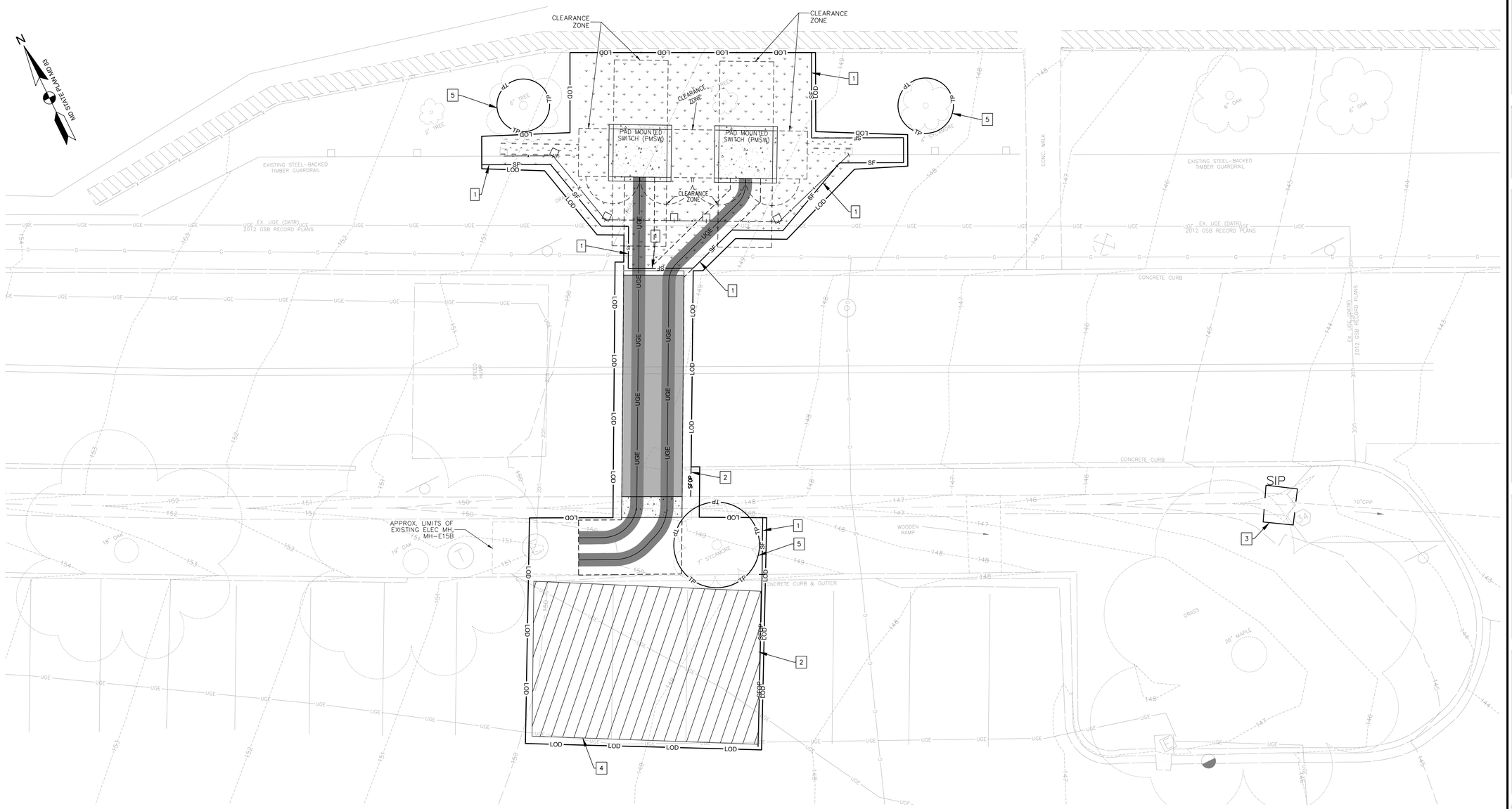
PROJECT TITLE	REDISTRIBUTE CAMPUS –WIDE ELECTRICAL LOADS
OPDC PROJ. NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	SITE DETAILS
WORKING STAFF	AJH (DESIGNED BY) / AJH (DRAWN BY) / PDR (CHECKED BY)
SHEET NO.	7 OF 24
	C (DISCIPLINE) 5 (TYPE) 01 (SEQUENCE) (DRAWING TYPE)



1 C801 EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1"=5'

0 5' 10'

SCALE: 1"=5'

EROSION AND SEDIMENT CONTROL KEYNOTES

1. INSTALL SILT FENCE
2. INSTALL SILT FENCE ON PAVEMENT
3. INSTALL STANDARD INLET PROTECTION
4. STOCKPILE AREA
5. INSTALL TREE PROTECTION

EROSION AND SEDIMENT CONTROL LEGEND:

- LOD — LIMITS OF DISTURBANCE
- SF — SILT FENCE
- SFOP — SILT FENCE ON PAVEMENT
- SIP — STANDARD INLET PROTECTION
- TREE PROTECTION

NZCBI

REDISTRIBUTE CAMPUS - WIDE ELECTRICAL LOADS

QUINN EVANS

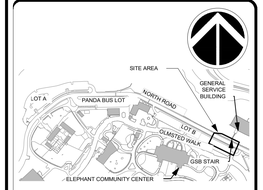
2101 L STREET, NW
SUITE 950
WASHINGTON, DC 20037
v 202 298 6700
f 202 298 6666
WWW.QUINNEVANS.COM

FOR CONSTRUCTION

STAMP 1 | STAMP 2

DISTRICT OF COLUMBIA — DAVID D. RHODES — REGISTERED — 02/14/25 — CIVIL — PROFESSIONAL ENGINEER

STAMP 3 | STAMP 4 | STAMP 5 | STAMP 6



KEY PLAN

0 5' 10'

SCALE: 1"=5'

GRAPHIC SCALE(S)

DATE	SUBMISSION
02/14/25	FINAL DOCUMENTS

REVISION # DATE	REVISION DESCRIPTION

Smithsonian Institution

Smithsonian OPDC
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME	NZCBI
ADDRESS	3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
OPDC PROJ. NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	EROSION AND SEDIMENT CONTROL PLAN
WORKING STAFF	AJH (DESIGNED BY) / AJH (DRAWN BY) / PDR (CHECKED BY)

SHEET NO. 8 OF 24

C (DISCIPLINE) 8 (TYPE) 01 (SEQUENCE) (DRAWING TYPE)

EROSION AND SEDIMENT CONTROL NARRATIVE

THIS PROJECT IS TO BE CONSTRUCTED IN SUCH A MANNER AS TO MINIMIZE THE EFFECTS OF SEDIMENT AND EROSION. THIS CONTROL PLAN IS TO BE STRICTLY ADHERED TO. ALL NECESSARY MEASURES ARE TO BE TAKEN TO ENSURE THAT ALL UNDISTURBED AREAS ARE NOT CONTAMINATED BY RUNOFF FROM THE CONSTRUCTION AREA.

PROJECT NARRATIVE:

PROPOSED IMPROVEMENTS INCLUDES UTILITY CONNECTIONS TO THE EXISTING ELECTRICAL INFRASTRUCTURE FOR NEW PAD MOUNTED SWITCHES (PMSW). PROPOSED SITE IMPROVEMENTS INCLUDE GENERAL REPAIR OF EXISTING CURB, CONCRETE DRAINAGE CHANNEL, ASPHALT AND CONCRETE PAVING AS NEEDED FOR UTILITY TRENCHING. NEW CONCRETE PADS FOR THE PROPOSED ELECTRICAL EQUIPMENT.

EROSION AND SEDIMENT CONTROL MEASURES:

EROSION AND SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY INSTALLING INLET PROTECTION, SILT FENCE, SILT FENCE ON PAVEMENT AS SHOWN ON THE PLAN. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE LATEST EDITION OF THE DISTRICT OF COLUMBIA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. EMBANKMENT OR EXCAVATED SLOPES LEFT IN PLACE FOR A PERIOD GREATER THAN 30 DAYS SHALL BE TEMPORARILY SEEDED AND/OR MULCHED. REVEGETATION SHALL BE ACCOMPLISHED AS SOON AS POSSIBLE THEREAFTER.

EROSION AND SEDIMENT CONTROL SEQUENCE

1. SCHEDULE AND HOLD A PRE-CONSTRUCTION MEETING WITH THE EROSION & SEDIMENT CONTROL INSPECTOR PRIOR TO START OF WORK.
2. NOTIFY SOIL EROSION AND SEDIMENT CONTROL INSPECTOR AT LEAST 72 HOURS PRIOR TO CONSTRUCTION.
3. CLEAR AND GRUB THE MINIMUM AREA NECESSARY TO INSTALL INLET PROTECTION, SILT FENCE, SILT FENCE ON PAVEMENT AND TREE PROTECTION
4. PROVIDE STEEL PLATES DURING THE DAY FOR UTILITY TRENCHING IN ROADWAY.
5. PERFORM WORK AT NIGHT. ROUTE TRAFFIC THROUGH LOT B AT NIGHT.
6. INSTALL INLET PROTECTION AS DIRECTED ON PLAN.
7. PERFORM UTILITY INSTALLATION FOR NEW ELECTRICAL IMPROVEMENT, NEW UNDERGROUND ELECTRICAL DUCTBANK. INSTALL CONCRETE PADS AND INSTALL PAD MOUNTED SWITCHES. INSTALL NEW FIXED SECTIONS OF TIMBER BARRIER. INSTALL NEW REMOVABLE SECTIONS OF TIMBER BARRIER.
8. INSTALL GRASS PLANTING IN ELECTRICAL ACCESS CLEARANCE ZONES AND AREAS DISTURBED BY CONSTRUCTION. INSTALL NEW TREE IN PLANTING AREA ADJACENT TO EXISTING ELECTRICAL MANHOLE MH-E15B.
9. INSTALL NEW ASPHALT PAVEMENT, CURB, AND PARKING STRIPING IN AREAS DISTURBED BY UTILITY TRENCHING FOR ELECTRICAL DUCTBANK INSTALLATION.
10. MAINTAIN SEDIMENT & EROSION CONTROLS THROUGHOUT CONSTRUCTION PERIOD.
11. STABILIZE ALL REMAINING DISTURBED AREAS.
12. UPON COMPLETION OF LAND DISTURBING ACTIVITIES AND WITH THE APPROVAL OF THE EROSION & SEDIMENT CONTROL INSPECTOR, REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES AND PERFORM FINAL SITE CLEAN UP.

DISTRICT OF COLUMBIA GENERAL TECHNICAL REQUIREMENTS

A. FILLS AND CLASSIFICATIONS

THE GRADING PLANS AND SPECIFICATIONS SHALL SPECIFY AND DELINEATE THE USE AND EXTENT OF FILLS IN ACCORDANCE WITH THE FOLLOWING CLASSIFICATIONS:

TYPE I FILL LOAD BEARING FILLS PROPOSED FOR SUPPORT OF BUILDINGS, WALLS, AND OTHER STRUCTURES. THE FUNCTION THEREOF WHICH WOULD BE ESPECIALLY IMPAIRED BY SETTLEMENT.

TYPE II FILL LOAD BEARING FILLS PROPOSED FOR SUPPORT OF ROADWAYS, PAVEMENTS, UTILITY LINES, AND STRUCTURES WHICH WOULD NOT BE ESPECIALLY IMPAIRED BY MODERATE SETTLEMENT.

TYPE III FILL COMMON FILLS PROPOSED FOR LANDSCAPING OR OTHER NON-LOAD BEARING USES.

B. MATERIALS

ALL LOAD BEARING FILLS SHALL MEET THE FOLLOWING REQUIREMENTS:

NO INCLUSIONS OF ORGANIC OR OTHER DELETERIOUS MATERIALS WHICH MAY BE SUBJECT TO DECAY SHALL BE PERMITTED. ALL FILLS SHALL ALSO BE FREE OF INCLUSIONS OF ICE OR SNOW.

NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL WITH A MAXIMUM DIMENSION GREATER THAN 200 mm SHALL BE BURIED OR PLACED IN ANY LOAD BEARING FILL WITHIN TWO 610 mm OF FINISHED GRADE OR WITHIN 610 mm OF FOUNDATION BASE ELEVATION. WHEN SUCH MATERIAL IS PLACED IN FILLS, IT SHALL BE PLACED UNDER THE DIRECTION AND SUPERVISION OF AN ENGINEER.

C. PREPARATION OF GROUND

THE NATURAL GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING ALL ORGANIC SURFACE MATERIALS, NON COMPLYING FILL AND UNSUITABLE SOILS IN ACCORDANCE WITH THE FOLLOWING PROVISIONS EXCEPT AS OTHERWISE APPROVED BY THE DEPARTMENT AND BASED ON THE RECOMMENDATIONS OF THE PROFESSIONAL ENGINEER.

PRIOR TO PLACING TYPE I AND TYPE II FILLS – THE GROUND SURFACE IF WITHIN FIVE (5) FEET IF FINISHED GRADE OR FOUNDATION BASE ELEVATION SHALL BE COMPACTED SO AS TO ACHIEVE A DENSITY NOT LESS THAN NINETY (90%) PERCENT OF MAXIMUM DENSITY AS DEFINED UNDER SECTION i OF ARTICLE V WITHIN THE TOP SIX (6) INCHES.

NO FILL SHALL BE PLACED ON FROZEN GROUND.

D. COMPACTION

ALL FILLS WILL BE COMPACTED IN ACCORDANCE WITH THE FOLLOWING PROVISIONS:

ALL TYPE I AND II FILLS SHALL BE COMPACTED TO A MINIMUM OF NINETY FIVE (95%) AND NINETY (90%) PERCENT RESPECTIVELY, OF MAXIMUM DENSITY AS DETERMINED IN THE LABORATORY BY ASTM TEST D 1557-581, ALSO KNOWN AS THE MODIFIED PROCTOR TEST. TYPE II FILL SHALL BE COMPACTED SUFFICIENTLY SO AS TO BE STABLE AND TO PREVENT AN EROSION HAZARD.

IN PLACE (FIELD) DENSITY SHALL BE DETERMINED BY ASTM TEST OR AMERICAN SOCIETY OF HIGHWAY OFFICIALS EQUIVALENT TESTS METHOD D 1556-64T METHOD OR BY THE EQUIVALENT TEST APPROVED BY THE DEPARTMENT OF INSPECTIONS.

FILLS SHALL BE PLACED IN APPROVED HORIZONTAL LAYERS, EACH HAVING A LOOSE THICKNESS OF NOT MORE THAN EIGHT (8) INCHES.

STANDARDS AND SPECIFICATIONS FOR DUST CONTROL

DEFINITION

CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.

PURPOSES

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

CONDITIONS WHERE PRACTICE APPLIES

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

SPECIFICATIONS

TEMPORARY METHODS:

A. MULCHES- SEE STANDARDS FOR CRITICAL AREA STABILIZATION WITH MULCHES ONLY. CHEMICAL OR WOOD CELLULOSE FIBER BINDERS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIALS.

B. VEGETATIVE COVER- SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.

C. SPRAY-ON ADHESIVES- ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/AC.
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN-IN-WATER EMULSION	4:1	FINE SPRAY	300

D. TILLAGE- TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

E. IRRIGATION – THIS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED.

F. BARRIERS – SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWINGS.

G. CALCIUM CHLORIDE- APPLY AT RATE THAT WILL KEEP SURFACE MOIST. MAY NEED TREATMENT.

PERMANENT METHODS:

A. PERMANENT VEGETATION- SEE STANDARDS FOR PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

B. TOP SOILING- COVERING WITH LESS EROSIVE SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.

C. STONE- COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

REFERENCES:

1. AGRICULTURE HANDBOOK 346. WIND EROSION FORCES IN THE UNITED STATES AND THEIR USE IN PREDICTING SOIL LOSS.
2. AGRICULTURE INFORMATION BULLETIN 354. HOW TO CONTROL WIND EROSION, USDA-ARS.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

1. PREFERRED -- APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ. FT.)
2. ACCEPTABLE -- APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING -- FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY: OPTION 1 -2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION 2 -- USE SOD. OPTION 3 – SEED WITH 60/LBS ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED

MULCHING -- APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

MAINTENANCE -- INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

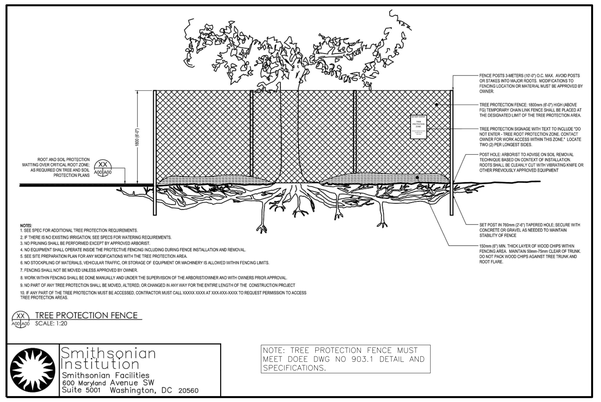
DOEE SOIL EROSION AND SEDIMENT CONTROL PLAN GENERAL NOTES	
1.	Following initial land disturbance or re-disturbance, permanent or interim stabilization must be completed within seven (7) calendar days for the surfaces of all perimeter controls, dikes, swales, ditches, perimeter slopes, and slopes greater than three (3) horizontal to one (1) vertical (3:1); and fourteen (14) days for all other disturbed or graded areas on the project site. These requirements do not apply to areas shown on the plan that are used for material storage other than stockpiling, or for those areas on the plan where actual construction activities are being performed. Maintenance shall be performed as necessary so that stabilized areas continuously meet the appropriate requirements of the District of Columbia Standards and Specifications for Soil Erosion and Sediment Control (ESC). [21 DCMR § 542.9 (a)]
2.	ESC measures shall be in place before and during land disturbance. [21 DCMR § 543.6]
3.	Contact DOEE Inspection (202) 535-2977 to schedule a preconstruction meeting at least three (3) business days before the commencement of a land-disturbing activity. [21 DCMR § 503.7 (a)]
4.	A copy of the approved plan set will be maintained at the construction site from the date that construction activities begin to the date of final stabilization and will be available for DOEE inspectors. [21 DCMR § 542.15]
5.	ESC measures shall be in place to stabilize an exposed area as soon as practicable after construction activity has temporarily or permanently ceased but no later than fourteen (14) days following cessation, except that temporary or permanent stabilization shall be in place at the end of each day of underground utility work that is not contained within a larger development site. [21 DCMR § 543.7]
6.	Stockpiled material being actively used during a phase of construction shall be protected against erosion by establishing and maintaining perimeter controls around the stockpile. [21 DCMR § 543.16 (a)]
7.	Stockpiled material not being actively used or added to shall be stabilized with mulch, temporary vegetation, hydro-seed or plastic within fifteen (15) calendar days after its last use or addition. [21 DCMR § 543.16 (b)]
8.	Fill material must be free of contamination levels of any pollutant that is, or may be considered to represent, a possible health hazard to the public or may be detrimental to surface or ground water quality, or which may cause damage to property or the drainage system. All fill material must be free of hazardous materials and comply with all applicable District and federal regulations.
9.	Protect best management practices from sedimentation and other damage during construction for proper post construction operation. [21 DCMR § 543.5]
10.	Request a DOEE Inspector's approval after the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. [21 DCMR § 542.12 (a)]
11.	Request a DOEE Inspector's approval after final stabilization of the site and before the removal of erosion and sediment controls. [21 DCMR § 542.12 (b)]
12.	Final stabilization means that all land-disturbing activities at the site have been completed and either of the following two criteria have been met: (1) a uniform (for example, evenly distributed, without large bare areas) perennial vegetative cover with a density of seventy percent (70%) of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or (2) equivalent permanent stabilization measures have been employed (such as the use of riprap, gabions, or geotextiles). [21 DCMR § 542.12 (b.1, b.2)]
13.	Follow the requirements of the United States Environmental Protection Agency approved Stormwater Pollution Prevention Plan (SWPPP) and maintain a legible copy of this SWPPP on site. [21 DCMR § 543.10 (b)]
14.	Post a sign that notifies the public to contact DOEE in the event of erosion or other pollution. The sign will be placed at each entrance to the site or as directed by the DOEE inspector. Each sign will be no less than 18 x 24 inches in size and made of material that will withstand weather for the duration of the project. Lettering will be at least 1 inch in height and easily readable by the public from a distance of twelve feet (12 ft). The sign must direct the public, in substantially the following form: "To Report Erosion, Runoff, or Stormwater Pollution" and will provide the construction site address, DOEE's telephone number (202-535-2977), DOEE's e-mail address (IEB.scheduling@dc.gov), and the 311 mobile app heading ("Construction-Erosion Runoff"). [21 DCMR § 543.22]
If a site disturbs 5,000 square feet of land or greater, the ESC plan must contain the following statement:	
15.	A *Responsible Person* must be present or available while the site is in a land-disturbing phase. The *Responsible Person* is charged with being available to (a) inspect the site and its ESC measures at least once biweekly and after a rainfall event to identify and remedy each potential or actual erosion problem, (b) respond to each potential or actual erosion problem identified by construction personnel, and (c) speak on site with DOEE to remedy each potential or actual erosion problem. A *Responsible Person* shall be (a) licensed in the District of Columbia as a civil or geotechnical engineer, a land surveyor, or architect; or (b) certified through a training program that DOEE approves, including a course on erosion control provided by another jurisdiction or professional association. During construction, the *Responsible Person* shall keep on site proof of professional licensing or of successful completion of a DOEE-approved training program. [21 DCMR § 547]

EROSION CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR THE DISTRICT OF COLUMBIA. IF AN ON-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.
2. ALL DEBRIS IS TO BE REMOVED FROM THE SITE DAILY.
3. STREETS AND SIDEWALKS SHALL BE SWEPT & WASHED CLEAN AT ALL TIMES DURING EXCAVATION AND CONSTRUCTION.
4. ALL CATCH BASINS AND DRAIN AREAS SHALL BE PROTECTED DURING EXCAVATION AND CONSTRUCTION.
5. IF ANY CATCH BASINS OR DRAINS BECOME CLOGGED AS A RESULT OF EXCAVATION OR CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING AND COST THEREOF.
6. WHEN SEDIMENT TRAP/SEDIMENT TANK HAS REACHED 67% CAPACITY, CLEANING OUT OF SAME IS REQUIRED.
7. ANY STOCKPILING, REGARDLESS OF LOCATIONS, SHALL BE STABILIZED AND COVERED WITH PLASTIC OR CANVAS, AFTER ITS ESTABLISHMENT AND FOR THE DURATION OF THE PROJECT.
8. AFTER DEMOLITION THERE IS A NEED FOR GROUND COVER TO PREVENT EROSION AND SEDIMENT RUNOFF FROM OCCURRING. SEED, MULCH, OR SOD AS REQUIRED TO STABILIZE THE SITE.
9. NO DISTURBED AREA WILL BE DENUDED FOR MORE THAN 14 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE D.C. INSPECTOR. INSTALL THE NECESSARY TEMPORARY OR PERMANENT VEGETATIVE STABILIZATION MEASURES TO ACHIEVE ADEQUATE EROSION AND SEDIMENT CONTROL.
10. ALL CONSTRUCTION TO BE INSPECTED DAILY BY THE CONTRACTOR, AND ANY DAMAGED SILTATION EROSION CONTROL DEVICES OR MEASURES SHALL BE REPAIRED AT THE CLOSE OF THE DAY.
11. STABILIZED CONSTRUCTION ENTRANCES ARE TO BE PERIODICALLY SUPPLEMENTED WITH ADDITIONAL STONE AS NEEDED.
12. CONTROLS WILL BE REMOVED AFTER CONTRIBUTING AREAS HAVE BEEN PERMANENTLY STABILIZED, SUBJECT TO THE APPROVAL OF THE D.C. EROSION AND SEDIMENT CONTROL INSPECTOR.
13. TEMPORARILY DIVERT ALL EXISTING ROOF DRAIN PIPES TO REMAIN TO THE SEDIMENT TANK, VIA A 12" FLEXIBLE HDPE PIPE AS REQUIRED.
14. SITE ANALYSIS

TOTAL AREA OF SITE	163	ACRES	(NATIONAL ZOO PARK IN WASHINGTON, D.C.)
AREA DISTURBED	1,738	SQ FT	
TOTAL CUT	--	CU.YDS.	
TOTAL FILL	--	CU.YDS.	

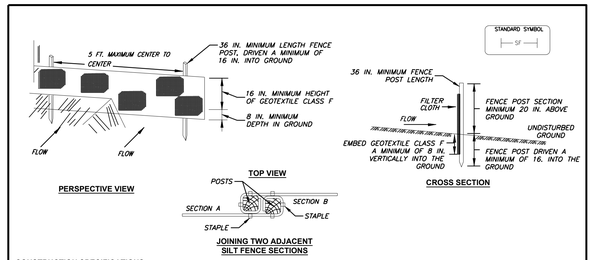
15. WHEN CONDUCTING ROAD WORK, PROVIDE STEEL PLATE DURING THE DAY. PERFORM WORK AT NIGHT. ROUTE TRAFFIC THROUGH LOT B AT NIGHT.
16. WHEN CONDUCTING UNDERGROUND UTILITY WORK, DO NOT OPEN MORE THAN FIVE HUNDRED LINEAR FEET (500 FT) OF TRENCH AT ANY ONE TIME.
17. WHEN CONDUCTING UNDERGROUND UTILITY WORK, PLACE EXCAVATED MATERIAL UPSLOPE OF THE TRENCH.
18. PROVIDE STABILIZATION (INTERIM OR PERMANENT) IMMEDIATELY AFTER THE TRENCH IS REFILLED.
19. STEEL PROTECTION PLATES OR EQUIVALENT SHALL BE USED BY THE CONTRACTOR TO PROTECT OPEN EXCAVATED AREAS. ALL OPEN TRENCHES OR HOLES IN THE PUBLIC SPACE WHICH ARE NOT BACKFILLED AND COMPACTED BY THE END OF EACH WORK DAY SHALL BE COVERED.



TREE PROTECTION FENCE
SCALE: 1:20

NOTE: TREE PROTECTION FENCE MUST MEET DOEE DWG NO 903.1 DETAIL AND SPECIFICATIONS.

Smithsonian Institution
Smithsonian Facilities
600 Maryland Avenue SW
Suite 5001 Washington, DC 20560



CONSTRUCTION SPECIFICATIONS

1. *FENCE POSTS MUST BE A MINIMUM OF .36 IN. LONG DRIVEN 16 IN. MINIMUM INTO THE GROUND. WOOD POSTS MUST BE OF SOUND QUALITY HARDWOOD WITH 1-1/2 IN. MINIMUM WIDTH WHEN SQUARE CUT, OR 1-3/4 IN. MINIMUM DIAMETER WHEN ROUND. STEEL POSTS MUST BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.*
2. *FASTEN GEOTEXTILE SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION. GEOTEXTILE MUST MEET THE FOLLOWING REQUIREMENTS (GEOTEXTILE CLASS F):*

PROPERTY	VALUE	TEST METHOD
TENSILE STRENGTH	*50 LBS/IN (MIN.)*	*ASTM D-4595*
TENSILE MODULUS	*20 LBS/IN (MIN.)*	*ASTM D-4595*
FLOW RATE	*0.3 GAL/FT²/MINUTE (MAX.)*	*ASTM D-5141*
FILTERING EFFICIENCY	*75% (MIN.)*	*ASTM D-5141*

3. *WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, OVERLAP, FOLD, AND STAPLE THEM TO PREVENT SEDIMENT BYPASS.*
4. *INSPECT SILT FENCE AFTER EACH RAINFALL EVENT, AT LEAST DAILY DURING SUSTAINED RAINFALL EVENTS, AND MAINTAIN WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHES 30% OF THE FABRIC HEIGHT.*

DATE	APPR		
REVISED			
ISSUED			
	REFERENCE		

SILT FENCE-1

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 301.1

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

SILT FENCE DESIGN CRITERIA:

TABLE 3.1: SILT FENCE SLOPE LENGTH AND FENCE LENGTH CONSTRAINTS

SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM) (FEET)	SILT FENCE LENGTH (MAXIMUM) (FEET)
FLATTER THAN 50:1 (2%)	*UNLIMITED*	*UNLIMITED*
> 50:1 TO 10:1 (2% to 10%)	*125*	*1,000*
> 10:1 TO 5:1 (10% to 20%)	*100*	*750*
> 5:1 TO 3:1 (20% to 33%)	*60*	*500*
> 3:1 TO 2:1 (33% to 50%)	*40*	*250*
> 2:1 (> 50%)	*20*	*125*

NOTE:
- *IN AREAS OF LESS THAN 2% SLOPE AND SANDY SOILS (USDA GENERAL CLASSIFICATION SYSTEM, SOIL CLASS A) MAXIMUM SLOPE LENGTH AND SILT FENCE LENGTH WILL BE UNLIMITED. IN THESE AREAS A SILT FENCE MAY BE THE ONLY PERIMETER CONTROL REQUIRED.*
- *TO AVOID CIRCUMVENTION, EXTEND THE ENDS OF THE SILT FENCE UPSLOPE TO PREVENT WATER AND SEDIMENT FROM FLOWING AROUND THE ENDS OF THE FENCE.*

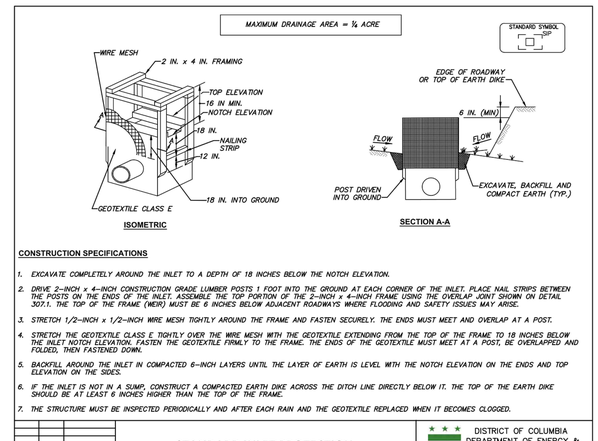
DATE	APPR		
REVISED			
ISSUED			
	REFERENCE		

SILT FENCE-2

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 301.2

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS



CONSTRUCTION SPECIFICATIONS

1. *EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.*
2. *DRIVE 2-INCH x 4-INCH CONSTRUCTION GRADE LUMBER POSTS 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2-INCH x 4-INCH FRAME USING THE OVERLAP JOINT SHOWN ON DETAIL 307.1. THE TOP OF THE FRAME (WEIR) MUST BE 6 INCHES BELOW ADJACENT ROADWAYS WHERE FLOODING AND SAFETY ISSUES MAY ARISE.*
3. *STRETCH 1/2-INCH x 1/2-INCH WIRE MESH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. THE ENDS MUST MEET AND OVERLAP AT A POST.*
4. *STRETCH THE GEOTEXTILE CLASS E TIGHTLY OVER THE WIRE MESH WITH THE GEOTEXTILE EXTENDING FROM THE TOP OF THE FRAME TO 18 INCHES BELOW THE INLET NOTCH ELEVATION. FASTEN THE GEOTEXTILE FIRMLY TO THE FRAME. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED DOWN.*
5. *BACKFILL AROUND THE INLET IN COMPACTED 6-INCH LAYERS UNTIL THE LAYER OF EARTH IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.*
6. *IF THE INLET IS NOT IN A SUMP, CONSTRUCT A COMPACTED EARTH DIKE ACROSS THE DITCH LINE DIRECTLY BELOW IT. THE TOP OF THE EARTH DIKE SHOULD BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.*
7. *THE STRUCTURE MUST BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND THE GEOTEXTILE REPLACED WHEN IT BECOMES CLOGGED.*

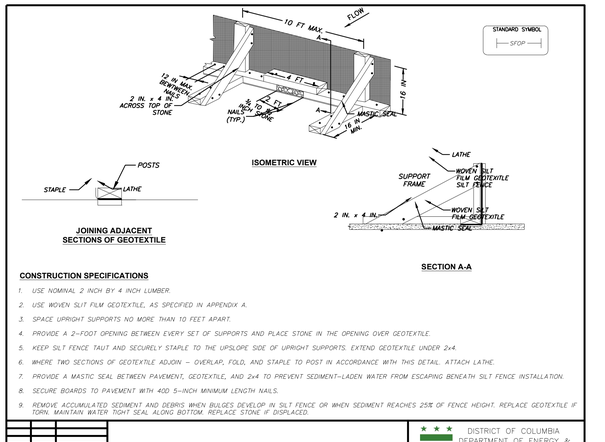
DATE	APPR		
REVISED			
ISSUED			
	REFERENCE		

STANDARD INLET PROTECTION STORM DRAIN INLET PROTECTION

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 307.1

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS


STANDARD SYMBOL
SFOP
10 FT MAX.
FLOW
4 FT
12 IN. MIN. EMBEDMENT
2 IN. x 4 IN. ACROSS TOP OF STONE
NAILS 12 IN. APART (TYP.)
MASTIC SEAL
16 IN MIN.
ISOMETRIC VIEW
POSTS
STAPLE
LATHE
JOINING ADJACENT S

ELECTRICAL SYMBOLS AND ABBREVIATIONS

ONE–LINE AND DETAILS

- TRANSFORMER, SIZE AND TYPE AS INDICATED.
- 15KV LOAD BREAK SWITCH AND FUSE, SIZE AS INDICATED.
- FUSE, SIZE AS INDICATED. TYPICAL OF (3), ONE PER PHASE, UNLESS OTHERWISE NOTED.
- DRAWOUT POWER AIR CIRCUIT BREAKER. SIZE AS INDICATED, 3–POLE, UNLESS OTHERWISE NOTED.
- CIRCUIT BREAKER. SIZE AS INDICATED, 3–POLE, UNLESS OTHERWISE NOTED.
- ECB — ENCLOSED CIRCUIT BREAKER, SIZE AS INDICATED.
- (A) (V) — AMMETER, VOLTMETER.
- (M) — CURRENT TRANSFORMERS AND METERING.
- NON–FUSED 15KV LOAD BREAK SWITCH, SIZE AS INDICATED.
- FUSED DISCONNECT, LOW VOLTAGE (600V OR LESS), SIZE AS INDICATED.
- NON–FUSED DISCONNECT, LOW VOLTAGE (600V OR LESS), SIZE AS INDICATED.
- JUNCTION BOX OR PULL BOX AS INDICATED.
- MAIN LUGS ONLY IN PANEL AS INDICATED.
- MAIN CIRCUIT BREAKER PANEL AS INDICATED.
- GROUND.
- — K — KIRK KEY INTERLOCK.
- CONNECTION POINT.

SITE PLAN AND DETAILS

- (E) E-15 — EXISTING TO REMAIN MANHOLE.
  - E–15 INDICATES HIGH VOLTAGE MANHOLE NUMBER.
- ELECTRICAL DISTRIBUTION EQUIPMENT, AS NOTED.
- R/B — EXISTING TO REMAIN 15KV PRIMARY DUCTBANK. LETTER CORRESPONDS TO FEEDER COLORS:
  - R/B – RED/BLUE FEEDER
  - G/Y – GREEN/YELLOW FEEDER
  - P/O – PURPLE/ORANGE FEEDER
  - SP – SPARE
- GROUND ROD THROUGH FLOOR OR WALL OF MANHOLE.
- G — UNDERGROUND NATURAL GAS LINE
- DUCT – INDICATES SPARE DUCT ENTERING/LEAVING MANHOLE.
- DUCT – INDICATES DUCT ENTERING/LEAVING MANHOLE WITH DISTRIBUTION FEEDER.
- IN–LINE SPLICE VIA 15KV ELBOW CONNECTORS.
- THREE WAY SPLICE VIA 15KV ELBOW CONNECTORS.
- UGE — NEW UNDERGROUND ELECTRICAL DUCTBANK, AS INDICATED.

LIGHT LINE WEIGHT (——) IS EXISTING TO REMAIN.
HEAVY LINE WEIGHT (——) IS PROVIDED NEW, UNLESS OTHERWISE NOTED.

ABBREVIATIONS

A, AMP	AMPERES	MTD	MOUNTED
AIC	AMPERES INTERRUPTING CAPACITY	P	POLE
ATS	AUTOMATIC TRANSFER SWITCH	PNL	PANEL
C	CONDUIT	P/O	PURPLE/ORANGE FEEDER
DWG	DRAWING	PVC	POLY VINYL CHLORIDE
ETR	EXISTING TO REMAIN	R/B	RED/BLUE FEEDER
FDR	FEEDER	RGS	RIGID GALVANIZED STEEL
G, GRD	GROUND	SP	SPARE
G/Y	GREEN/YELLOW FEEDER	SWBD	SWITCHBOARD
HH	HANDHOLE	SWGR	SWITCHGEAR
JB	JUNCTION BOX	TEMP	TEMPORARY
KV	KILOVOLT	TYP	TYPICAL
KVA	KILOVOLT AMPERES	V	VOLTS
KW	KILOWATT	W	WIRE
LV	LOW VOLTAGE	XFMR	TRANSFORMER
MCB	MAIN CIRCUIT BREAKER	ø	PHASE
MH	MANHOLE	1/C	SINGLE CONDUCTOR
MLO	MAIN LUG ONLY	3/C	THREE CONDUCTOR
		3–1/C	THREE SINGLE CONDUCTORS

NZCBI

REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

QUINN EVANS
2101 L STREET, NW
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WASHINGTON, DC 20037
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f 202 298 6666
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FOR CONSTRUCTION

DISTRICT OF COLUMBIA — ADAM M. CLAPPER — 02/14/2025 — REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

GRAPHIC SCALE(S)

DATE	SUBMISSION
02/14/25	FINAL DOCUMENTS

REVISION # DATE	REVISION DESCRIPTION

Smithsonian Institution
Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME	NZCBI
ADDRESS	3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SF PROJECT NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	SYMBOLS AND ABBREVIATIONS
WORKING STAFF	CGC (DESIGNED BY) ACB (DRAWN BY) TMC (CHECKED BY)
SHEET NO.	E 0 01 (DISCIPLINE TYPE SEQUENCE DRAWING TYPE)

10 OF 24

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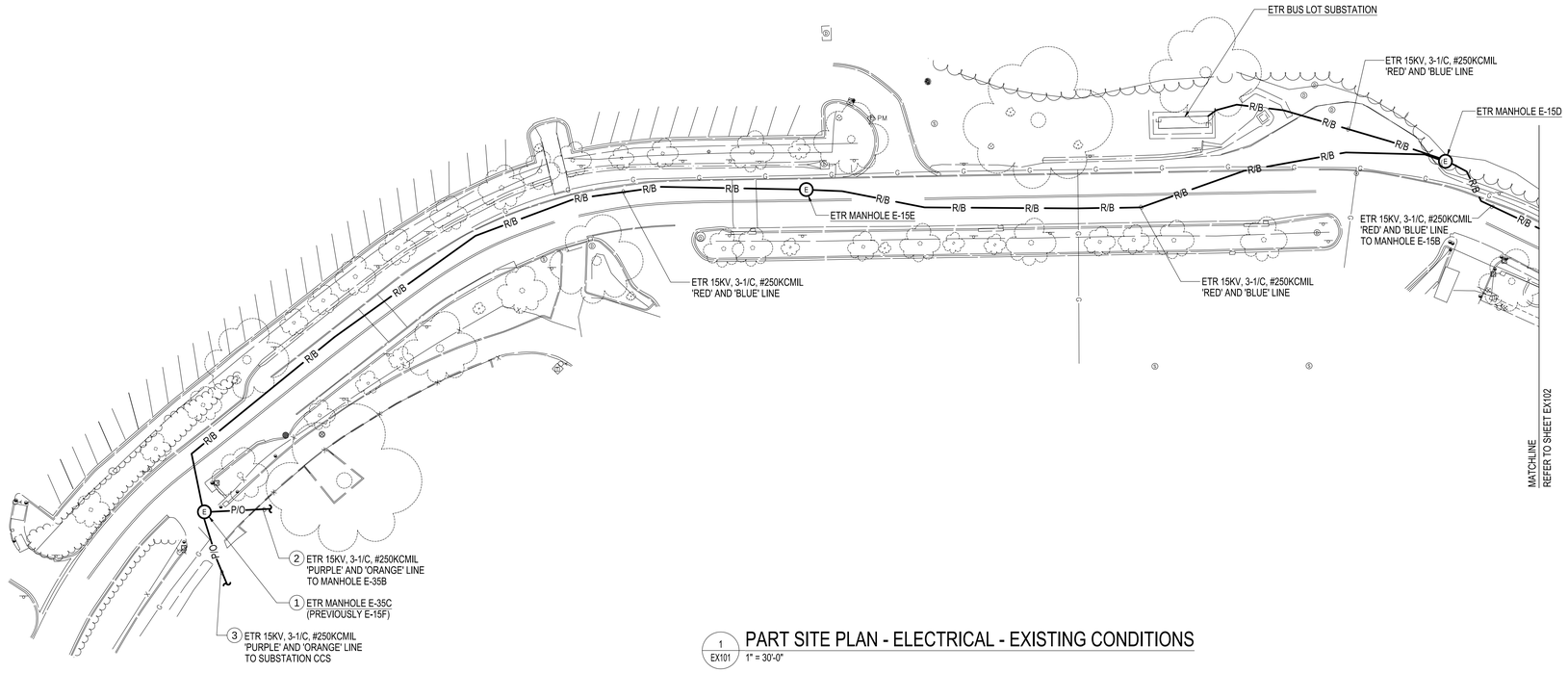
GENERAL NOTES:

A. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE NEW WORK AS INDICATED, IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.

SPECIFIC NOTES:

1. EXISTING MANHOLE E-15F WILL BE RENAMED TO E-35C AS PART OF THE CHEETAH CONSERVATION PROJECT (SF PROJECT NUMBER 2033108).
2. EXISTING 13.2KV PURPLE/ORANGE SYSTEM FEEDERS WILL BE INSTALLED INTO MANHOLE E-35C (E-15F) AS PART OF THE CHEETAH CONSERVATION PROJECT (SF PROJECT NUMBER 2033108).
3. EXISTING 13.2KV PURPLE/ORANGE SYSTEM FEEDERS WILL SERVE EXISTING SUBSTATION CCS AS PART OF THE CHEETAH CONSERVATION PROJECT (SF PROJECT NUMBER 2033108).



1 EX101 PART SITE PLAN - ELECTRICAL - EXISTING CONDITIONS
1" = 30'-0"

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REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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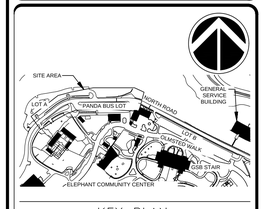

KEY PLAN

0 30' 60'
1"=30'-0"
GRAPHIC SCALE(S)

DATE	SUBMISSION
02/14/25	FINAL DOCUMENTS

REVISION #	DATE	REVISION DESCRIPTION

Smithsonian Institution
Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME	NZCBI
ADDRESS	3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SF PROJECT NUMBER	2433109
K.E PROJECT NUMBER	42349870
DRAWING TITLE	PART SITE PLAN - ELECTRICAL EXISTING CONDITIONS
WORKING STAFF	CGC (DESIGNED BY) · ACB (DRAWN BY) · TMC (CHECKED BY)
SHEET NO.	11 OF 24
	EX · 1 · 01 (DISCIPLINE · TYPE · SEQUENCE · DRAWING TYPE)

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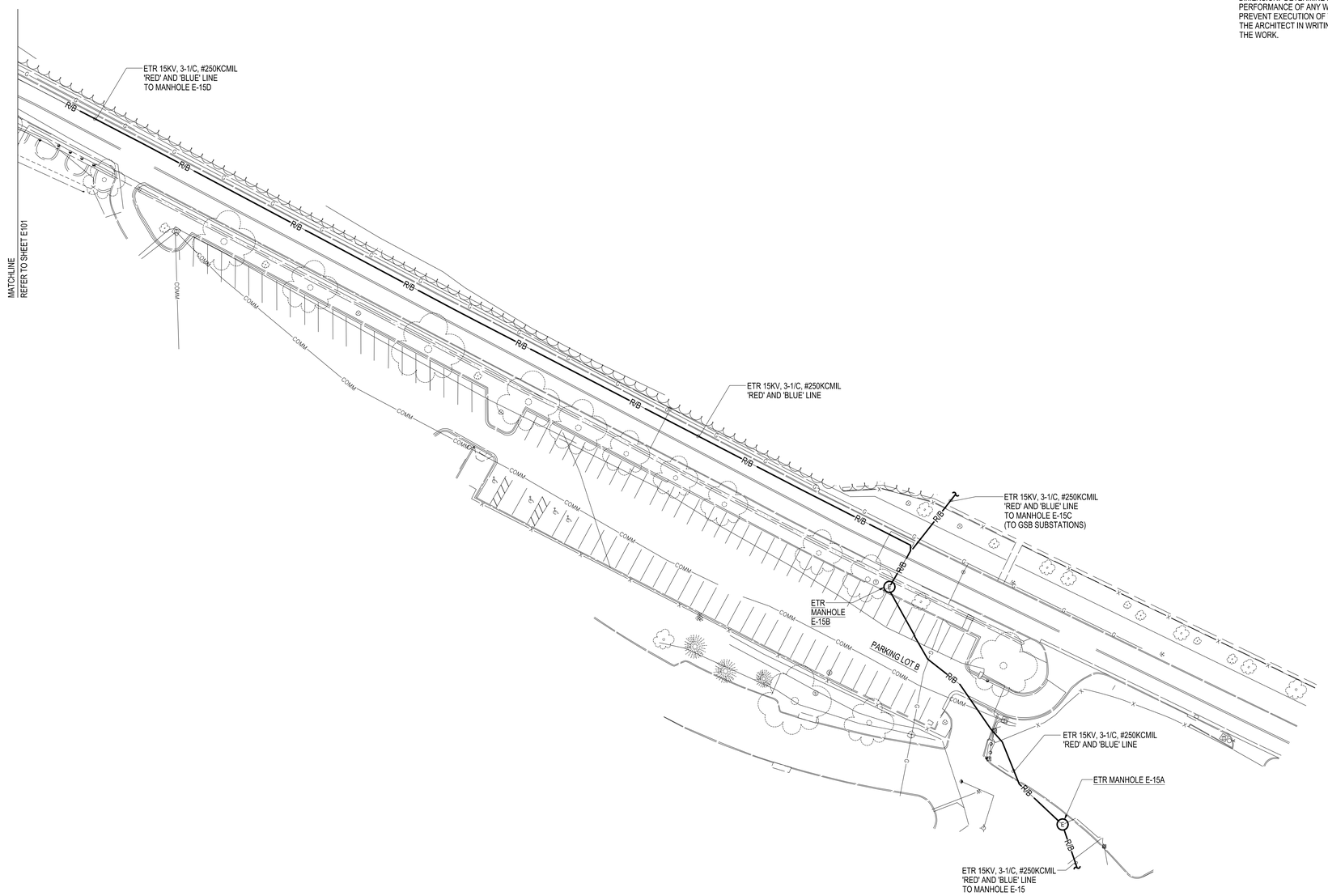

1 EX102 PART SITE PLAN - ELECTRICAL - EXISTING CONDITIONS
1" = 30'-0"

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REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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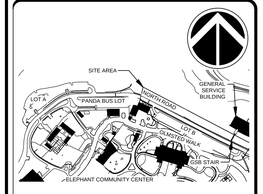
STAMP 1 | STAMP 2 | STAMP 3 | STAMP 4 | STAMP 5 | STAMP 6



KEY PLAN

0 30' 60'
1"=30'-0"
GRAPHIC SCALE(S)

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Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

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PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SF PROJECT NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE / WORKING STAFF	PART SITE PLAN - ELECTRICAL EXISTING CONDITIONS

DESIGNED BY	DRAWN BY	CHECKED BY
CGC	ACB	TMC

SHEET NO. 12 OF 24

DISCIPLINE	TYPE	SEQUENCE	DRAWING TYPE
E	X	1	02

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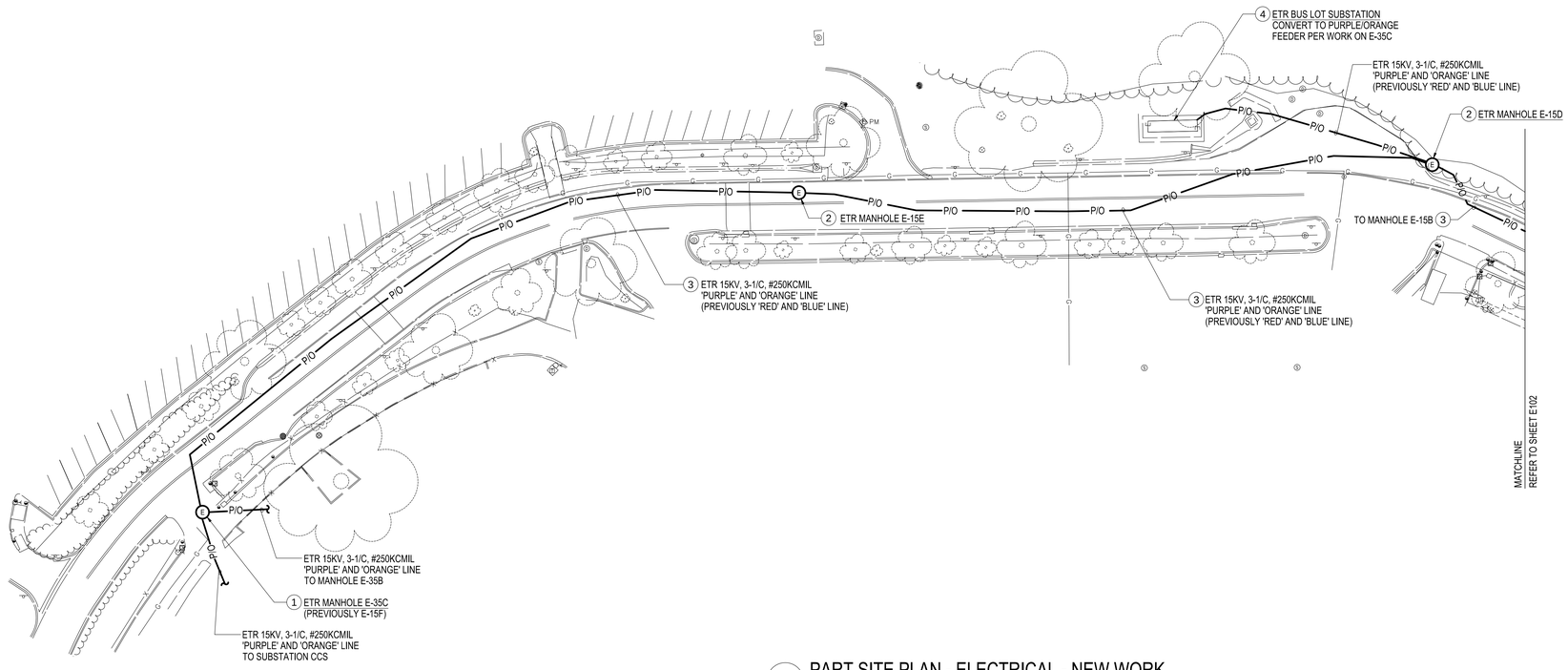
SPECIFIC NOTES:

1. CONNECT EXISTING FEEDERS (PREVIOUSLY RED/BLUE) TO THE EXISTING PURPLE/ORANGE 13.2KV FEEDERS IN MANHOLE E-35C. REFER TO MANHOLE DIAGRAMS E-35C ON SHEETS E501 AND E502.
2. RE-LABEL EXISTING RED/BLUE 13.2KV FEEDERS IN EXISTING MANHOLE TO INDICATE THEY ARE NOW PART OF THE PURPLE/ORANGE 13.2KV SYSTEM. RE-LABEL 'RED' FEEDER AS 'PURPLE' AND RE-LABEL 'BLUE' FEEDER AS 'ORANGE'.
3. EXISTING 13.2KV FEEDERS PREVIOUSLY PART OF RED/BLUE SYSTEM SHALL BE RE-DESIGNATED TO THE PURPLE/ORANGE 13.2KV SYSTEM PER WORK INDICATED AT MANHOLE E-35C (FORMERLY E-15F) AND E-15B.
4. RE-LABEL EXISTING BUS LOT SUBSTATION TO INDICATE IT IS NOW SERVED BY THE PURPLE/ORANGE 13.2KV SYSTEM. RE-LABEL 'RED' FEEDER AS 'PURPLE' AND RE-LABEL 'BLUE' FEEDER AS 'ORANGE'.



1 / E101 PART SITE PLAN - ELECTRICAL - NEW WORK

1" = 30'-0"

NZCBI

REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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ADAM M. CLAPPER
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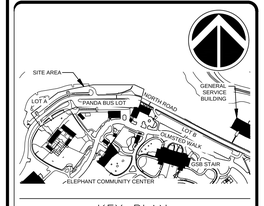
STAMP 1 STAMP 2 STAMP 3 STAMP 4 STAMP 5 STAMP 6



KEY PLAN

0 30' 60'

1"=30'-0"

GRAPHIC SCALE(S)

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SF PROJECT NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	PART SITE PLAN - ELECTRICAL NEW WORK
WORKING STAFF	CGC (DESIGNED BY) ACB (DRAWN BY) TMC (CHECKED BY)
SHEET NO.	13 OF 24
	E (DISCIPLINE) 1 (TYPE) 01 (SEQUENCE) (DRAWING TYPE)

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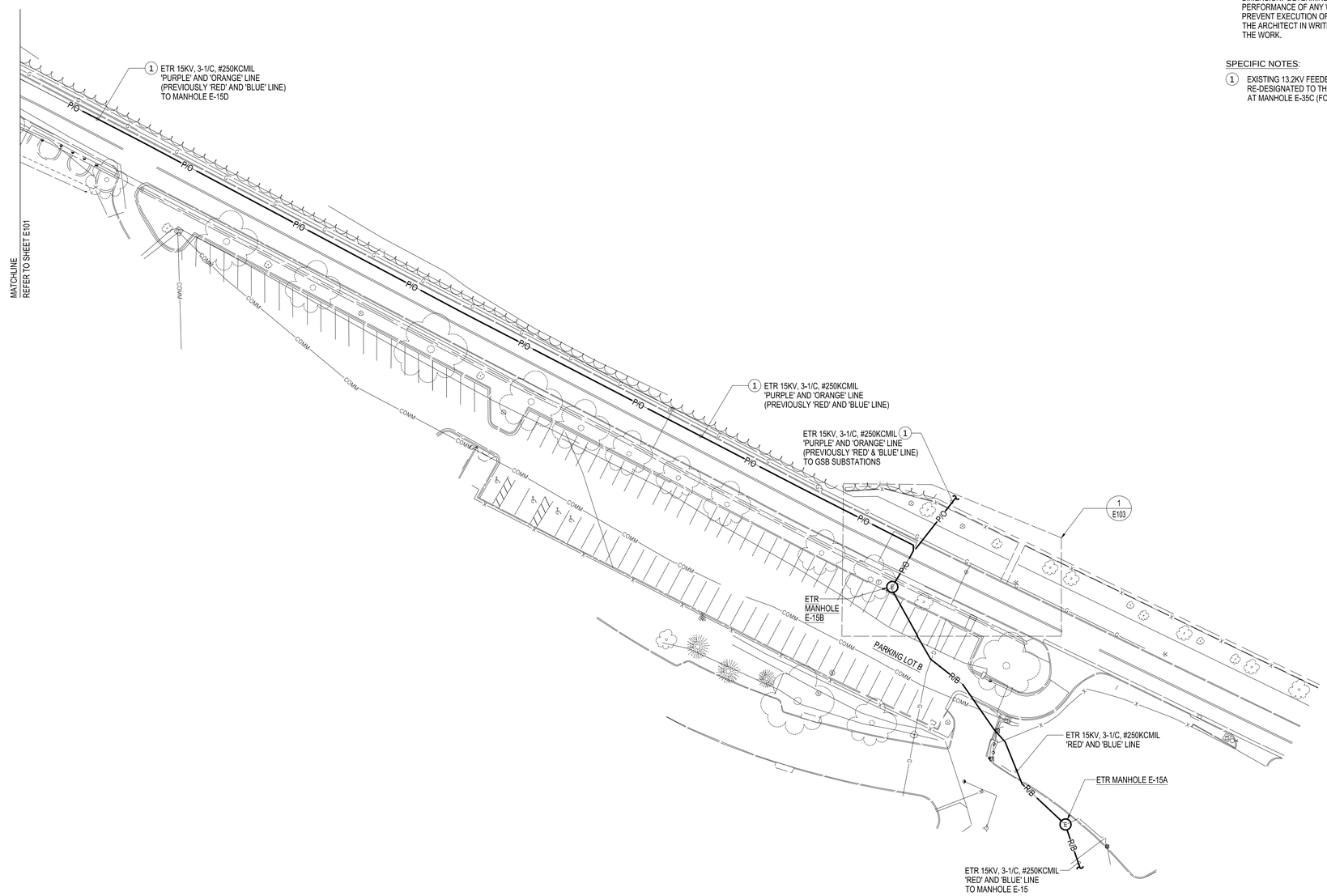
SPECIFIC NOTES:

(1) EXISTING 13.2KV FEEDERS PREVIOUSLY PART OF RED/BLUE SYSTEM SHALL BE RE-DESIGNATED TO THE PURPLE/ORANGE 13.2KV SYSTEM PER WORK INDICATED AT MANHOLE E-35C (FORMERLY E-15F) AND MANHOLE E-15B.



1 E102 PART SITE PLAN - ELECTRICAL - NEW WORK
1" = 30'-0"

NZCBI

REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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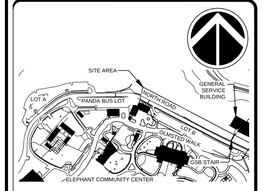

KEY PLAN

0 30' 60'
1"=30'-0"
GRAPHIC SCALE(S)

DATE	SUBMISSION
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REVISION # DATE	REVISION DESCRIPTION

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Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME / ADDRESS	NZCBI 3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SF PROJECT NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	PART SITE PLAN - ELECTRICAL NEW WORK
WORKING STAFF	CGC (DESIGNED BY) · ACB (DRAWN BY) · TMC (CHECKED BY)
SHEET NO.	14 OF 24
	E (DISCIPLINE) · 1 (TYPE) · 02 (SEQUENCE / DRAWING TYPE)

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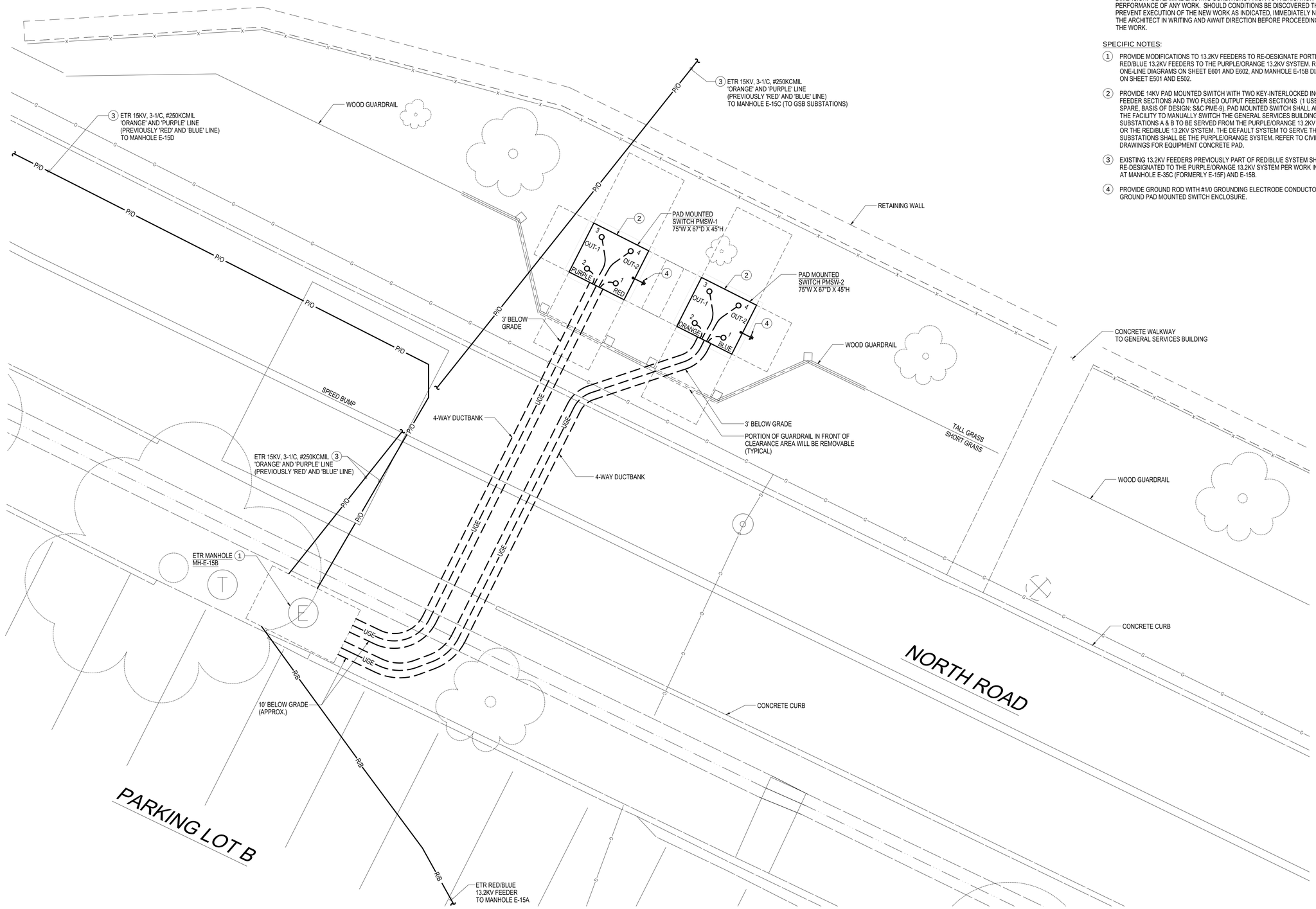

1 E103 PART SITE PLAN MANHOLE E-15B
1/4" = 1'-0"

GENERAL NOTES:

A. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE NEW WORK AS INDICATED, IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.

SPECIFIC NOTES:

1. PROVIDE MODIFICATIONS TO 13.2KV FEEDERS TO RE-DESIGNATE PORTIONS OF RED/BLUE 13.2KV FEEDERS TO THE PURPLE/ORANGE 13.2KV SYSTEM. REFER TO ONE-LINE DIAGRAMS ON SHEET E601 AND E602, AND MANHOLE E-15B DIAGRAMS ON SHEET E501 AND E502.
2. PROVIDE 14KV PAD MOUNTED SWITCH WITH TWO KEY-INTERLOCKED INCOMING FEEDER SECTIONS AND TWO FUSED OUTPUT FEEDER SECTIONS (1 USED & 1 SPARE. BASIS OF DESIGN: S&C PME-9). PAD MOUNTED SWITCH SHALL ALLOW THE FACILITY TO MANUALLY SWITCH THE GENERAL SERVICES BUILDING (GSB) SUBSTATIONS A & B TO BE SERVED FROM THE PURPLE/ORANGE 13.2KV SYSTEM OR THE RED/BLUE 13.2KV SYSTEM. THE DEFAULT SYSTEM TO SERVE THE GSB SUBSTATIONS SHALL BE THE PURPLE/ORANGE SYSTEM. REFER TO CIVIL DRAWINGS FOR EQUIPMENT CONCRETE PAD.
3. EXISTING 13.2KV FEEDERS PREVIOUSLY PART OF RED/BLUE SYSTEM SHALL BE RE-DESIGNATED TO THE PURPLE/ORANGE 13.2KV SYSTEM PER WORK INDICATED AT MANHOLE E-35C (FORMERLY E-15F) AND E-15B.
4. PROVIDE GROUND ROD WITH #1/0 GROUNDING ELECTRODE CONDUCTOR AND GROUND PAD MOUNTED SWITCH ENCLOSURE.

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REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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FOR CONSTRUCTION

DISTRICT OF COLUMBIA · ADAM M. CLIFFORD · 2/14/2025 · REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

0 2' 4' 8'
1/4"=1'-0"

GRAPHIC SCALE(S)

DATE	SUBMISSION
02/14/25	FINAL DOCUMENTS

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Smithsonian Institution
Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME	NZCBI
ADDRESS	3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SI PROJECT NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	PART SITE PLAN MANHOLE E-15B
WORKING STAFF	CGC (DESIGNED BY) · ACB (DRAWN BY) · TMC (CHECKED BY)
SHEET NO.	15 OF 24
	E (DISCIPLINE) · 1 (TYPE) · 03 (SEQUENCE) · (DRAWING TYPE)

9/20/2024 6:34:21 AM
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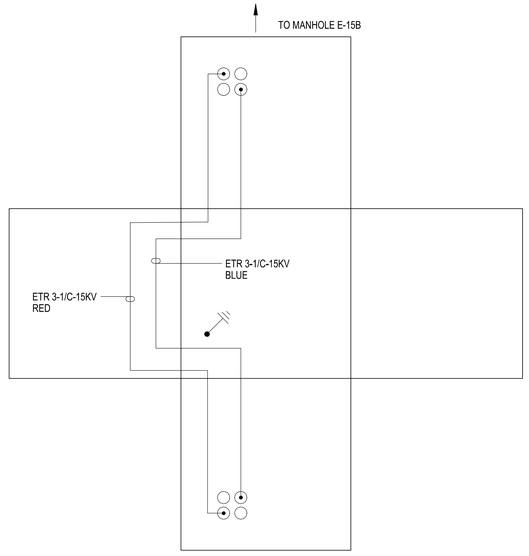
THERE IS NO NEW SCOPE OF WORK ON THIS DRAWING. THE MANHOLE DIAGRAMS ON THIS SHEET REPRESENT EXISTING CONDITIONS FOR REFERENCE.

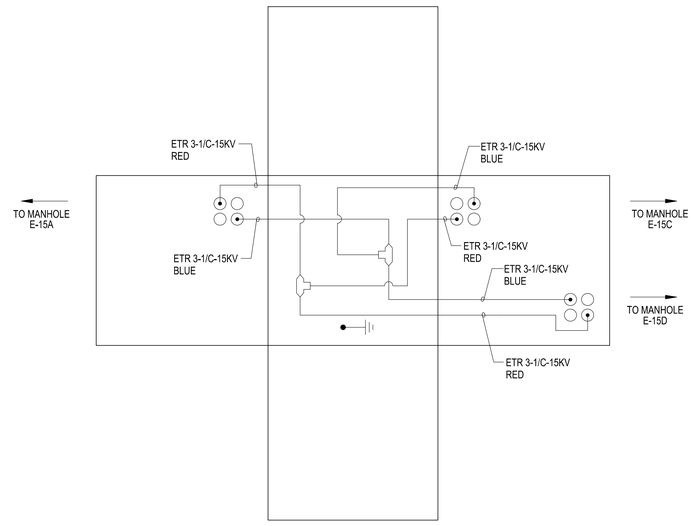
GENERAL NOTES:

A. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE NEW WORK AS INDICATED, IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.



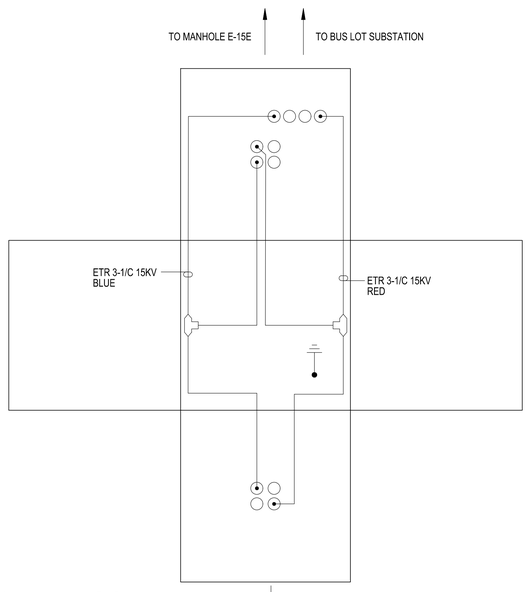
MANHOLE NUMBER: E-15A
MANHOLE LOCATION: OLMSTED WALK, BELOW PARKING LOT 'B'

MANHOLE DIMENSIONS: 10'-2"(L) x 6'-0"(W) x 6'-7"(D)



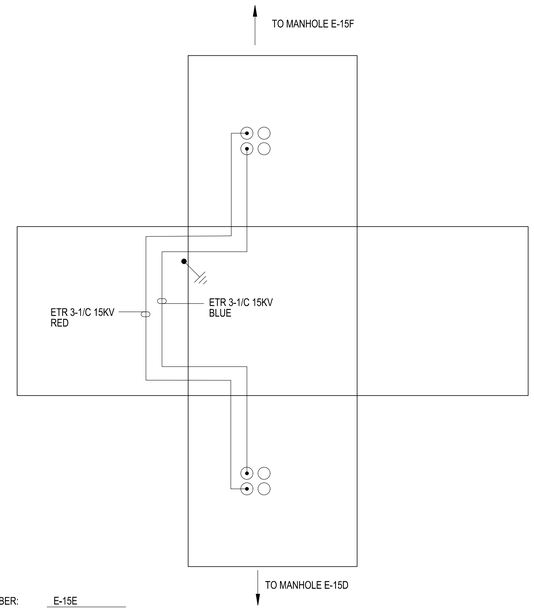
MANHOLE NUMBER: E-15B
MANHOLE LOCATION: PARKING ISLAND, BOTTOM PORTION OF 'B' PARKING LOT

MANHOLE DIMENSIONS: 6'-0"(L) x 10'-1" (W) x 6'-1"(D)



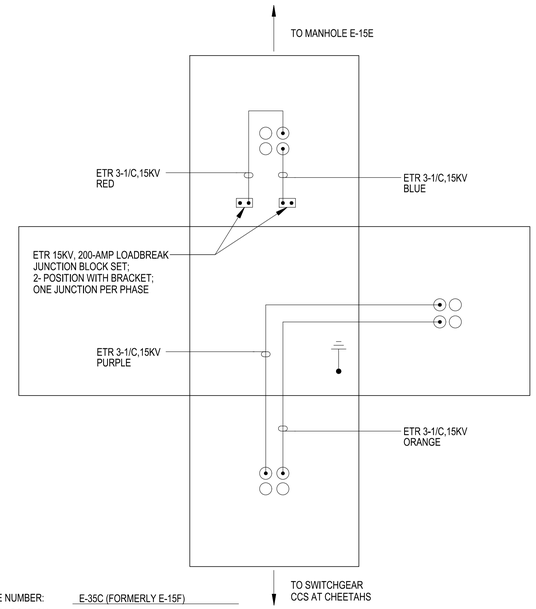
MANHOLE NUMBER: E-15D
MANHOLE LOCATION: NORTH ROAD ACROSS FROM PANDA PLAZA

MANHOLE DIMENSIONS: 8'-0"(L) x 6'-0"(W) x 7'-0"(D)



MANHOLE NUMBER: E-15E
MANHOLE LOCATION: NORTH ROAD BETWEEN BUS LOT AND PARKING LOT 'A'

MANHOLE DIMENSIONS: 8'-0"(L) x 6'-0"(W) x 7'-0"(D)



MANHOLE NUMBER: E-35C (FORMERLY E-15F)
MANHOLE LOCATION: NORTH ROAD BETWEEN PARKING LOT 'A' AND CHEETAHS

MANHOLE DIMENSIONS: 8'-0"(L) x 6'-0"(W) x 7'-0"(D)

	MANHOLE E-15A	MANHOLE E-15B
MANHOLE E-15D	MANHOLE E-15E	MANHOLE E-35C (E-15F)

NZCBI

REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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2101 L STREET, NW
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FOR CONSTRUCTION

DISTRICT OF COLUMBIA — ADAM M. CLEMENTS — 02/14/2025 — REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

GRAPHIC SCALE(S)

DATE	SUBMISSION
02/14/25	FINAL DOCUMENTS

REVISION # DATE	REVISION DESCRIPTION

Smithsonian Institution
Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME / ADDRESS	NZCBI 3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SF PROJECT NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	MANHOLE DETAILS EXISTING
WORKING STAFF	CGC (DESIGNED BY) / ACB (DRAWN BY) / TMC (CHECKED BY)

SHEET NO. 16 OF 24

E 5 01
DISCIPLINE TYPE SEQUENCE DRAWING TYPE

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G-002 BY Approver Enter Issue Date 35% Design Development

GENERAL NOTES:

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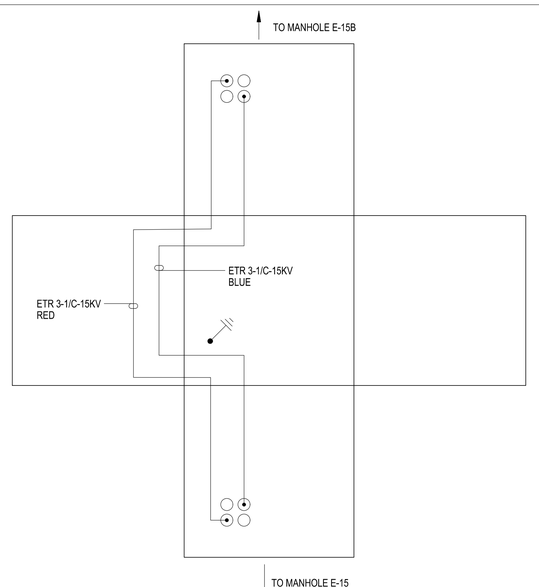
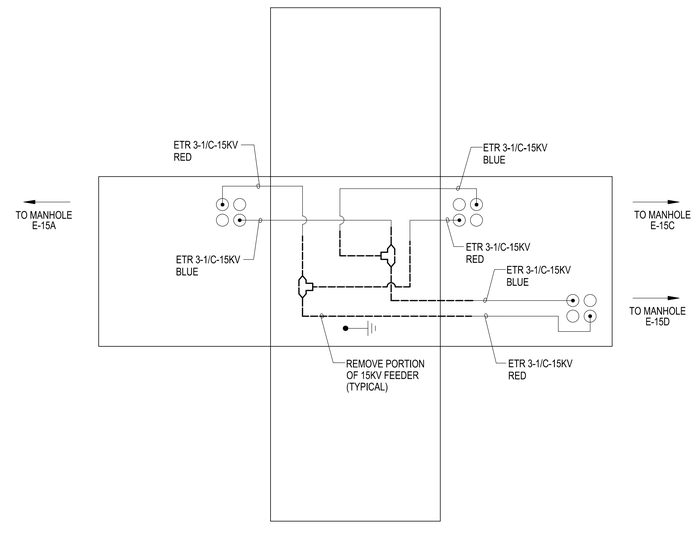
SPECIFIC NOTES:

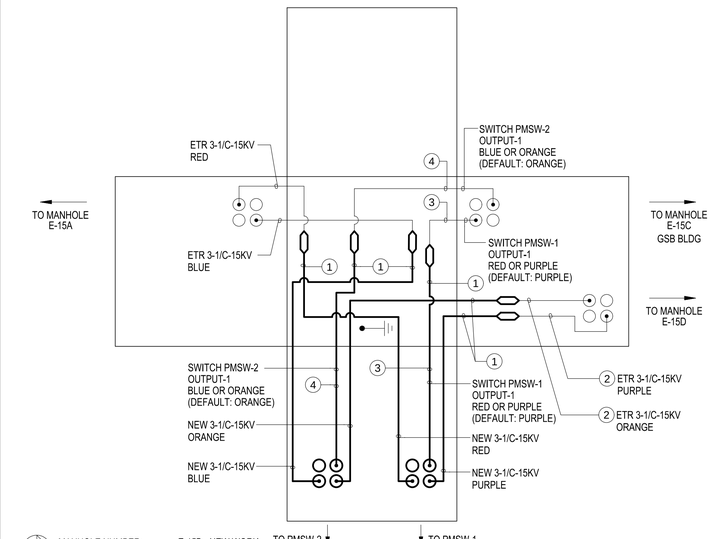
1. PROVIDE NEW #250KCMIL 15KV RATED FEEDERS (3) SINGLE CONDUCTORS AND SPLICE TO EXISTING 15KV FEEDERS.
2. RE-LABEL EXISTING RED/BLUE 13.2KV FEEDERS TO INDICATE THEY ARE NOW PART OF THE PURPLE/ORANGE 13.2KV SYSTEM. RE-LABEL 'RED' FEEDER AS 'PURPLE' AND RE-LABEL 'BLUE' FEEDER AS 'ORANGE'.
3. LABEL 13.2KV FEEDER FROM PMSW-1 OUTPUT-1 AS 'PURPLE' WHICH IS THE DEFAULT DESIGNATION.
4. LABEL 13.2KV FEEDER FROM PMSW-2 OUTPUT-1 AS 'ORANGE' WHICH IS THE DEFAULT DESIGNATION.



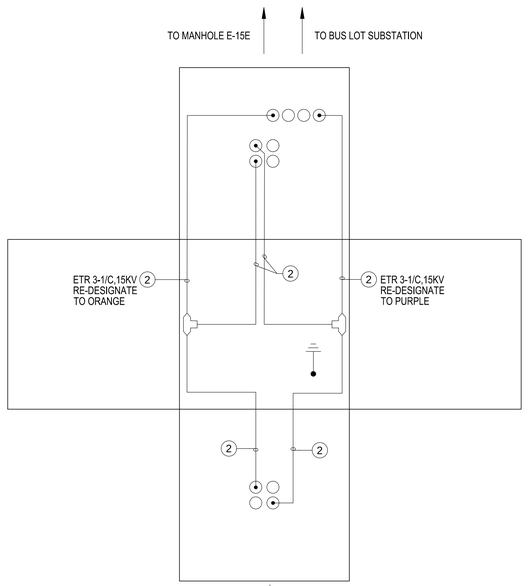
MANHOLE NUMBER: E-15A
MANHOLE LOCATION: OLMSTED WALK, BELOW PARKING LOT 'B'
MANHOLE DIMENSIONS: 10'-2"(L) x 6'-0"(W) x 6'-7"(D)



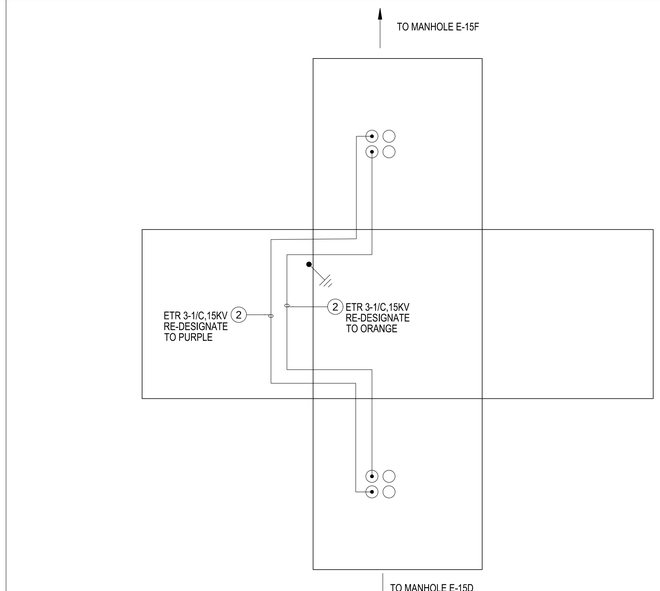
MANHOLE NUMBER: E-15B - DEMOLITION
MANHOLE LOCATION: PARKING ISLAND, BOTTOM PORTION OF 'B' PARKING LOT
MANHOLE DIMENSIONS: 6'-0"(L) x 10'-1" (W) x 6'-1"(D)



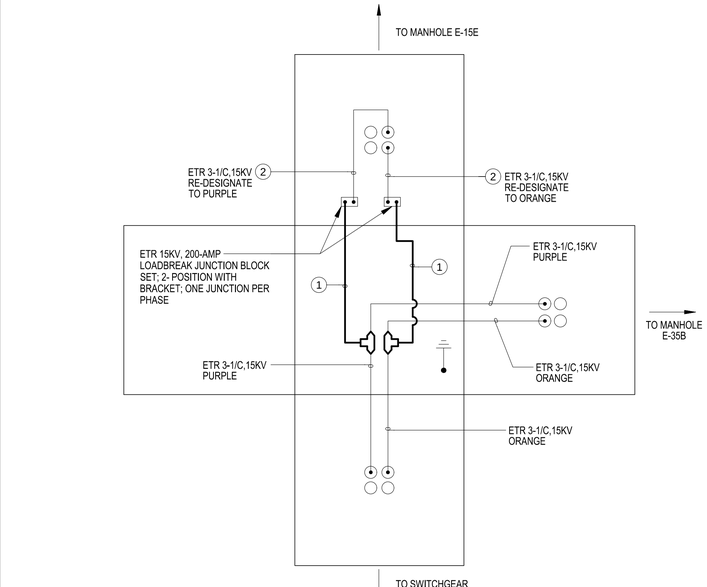
MANHOLE NUMBER: E-15B - NEW WORK
MANHOLE LOCATION: PARKING ISLAND, BOTTOM PORTION OF 'B' PARKING LOT
MANHOLE DIMENSIONS: 6'-0"(L) x 10'-1"(W) x 6'-1"(D)



MANHOLE NUMBER: E-15D
MANHOLE LOCATION: NORTH ROAD ACROSS FROM PANDA PLAZA
MANHOLE DIMENSIONS: 8'-0"(L) x 6'-0"(W) x 7'-0"(D)



MANHOLE NUMBER: E-15E
MANHOLE LOCATION: NORTH ROAD BETWEEN BUS LOT AND PARKING LOT 'A'
MANHOLE DIMENSIONS: 8'-0"(L) x 6'-0"(W) x 7'-0"(D)



MANHOLE NUMBER: E-35C (FORMERLY E-15F)
MANHOLE LOCATION: NORTH ROAD BETWEEN PARKING LOT 'A' AND CHEETAHS
MANHOLE DIMENSIONS: 8'-0"(L) x 6'-0"(W) x 7'-0"(D)

	MANHOLE E-15A	MANHOLE E-15B
MANHOLE E-15D	MANHOLE E-15E	MANHOLE E-35C (E-15F)

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REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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DISTRICT OF COLUMBIA · ADAM M. CLATTERBUCK · 2/14/2025 · REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

GRAPHIC SCALE(S)

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02/14/25	FINAL DOCUMENTS

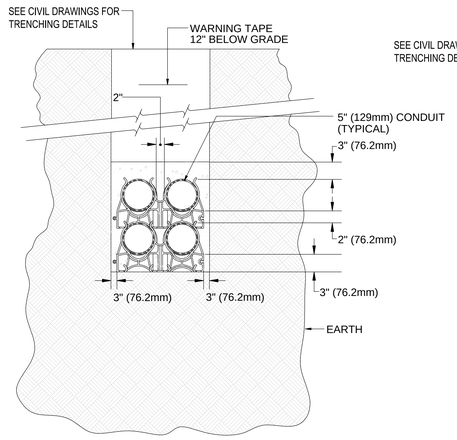
REVISION # DATE	REVISION DESCRIPTION

Smithsonian Institution

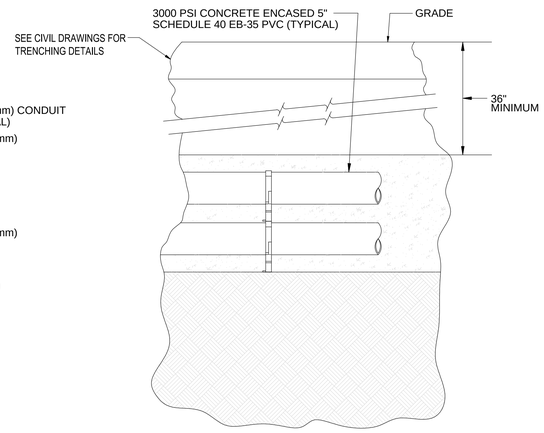
Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME	NZCBI
ADDRESS	3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SI PROJECT NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	MANHOLE DETAILS NEW WORK
WORKING STAFF	CGC (DESIGNED BY) · ACB (DRAWN BY) · TMC (CHECKED BY)
SHEET NO. 17 OF 24	E (DISCIPLINE) · 5 (TYPE) · 02 (SEQUENCE) · DRAWING TYPE

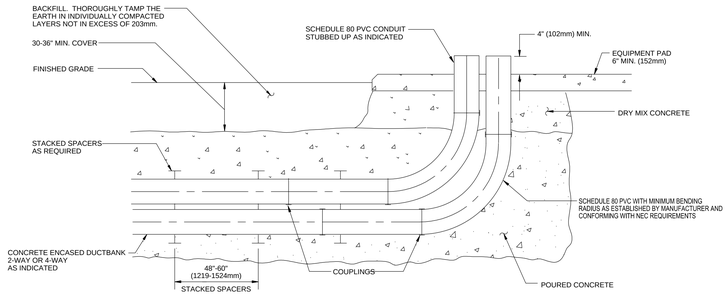
9/20/2024 6:34:21 AM
G-002 BP Approval Enter Issue Date 35% Design Development



1 E103 E503 4-WAY DUCTBANK
NOT TO SCALE

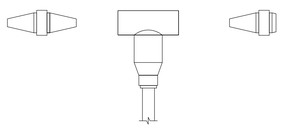


2 E103 E503 4-WAY DUCTBANK - SIDE VIEW
NOT TO SCALE

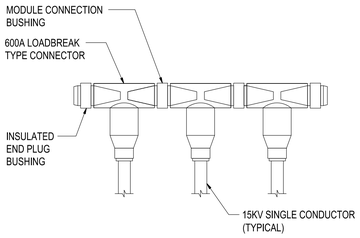


3 E103 E503 DUCTBANK TRANSITION INTO EQUIPMENT PAD
NOT TO SCALE

MEDIUM-VOLTAGE CABLE SPLICE ACCESSORIES



CONNECTION BUSHING | LOADBREAK CONNECTOR | INSULATED END PLUG

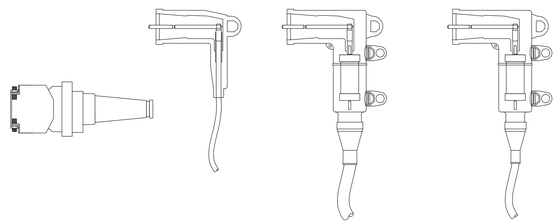


PROCEDURE:
- CUT FEEDER AND PREPARE CABLE ENDS
- INSERT T-CONNECTOR TO FEEDER ENDS
- INSERT END AND CONNECTION PLUGS
- SECURE AND TIGHTEN AS RECOMMENDED BY MANUFACTURER

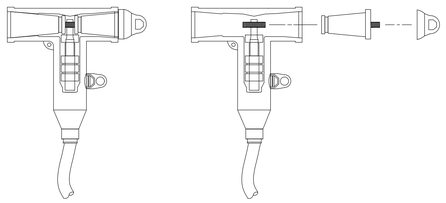
GENERAL NOTE:
- TYPICAL: ONE SPLICE PER PHASE.

4 E502 E503 SPLICE ACCESSORIES
NOT TO SCALE

SECTIONS



JUNCTION | LOADBREAK ELBOW | 200A FUSED LOADBREAK ELBOW (FEED-THRU) | 200A FUSED LOADBREAK ELBOW (REDUCTION: EXAMPLE 200A TO 30A)



DEADDBREAK ELBOW 600A OR 200A | DEADBREAK ELBOW 600A OR 200A

5 E502 E503 ADDITIONAL CABLE ACCESSORIES
NOT TO SCALE

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REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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FOR CONSTRUCTION

DISTRICT OF COLUMBIA · ADAM M. CLIFFORD · 02/14/2025 · REGISTERED PROFESSIONAL ENGINEER

STAMP 1 | STAMP 2 | STAMP 3 | STAMP 4 | STAMP 5 | STAMP 6

KEY PLAN

GRAPHIC SCALE(S)

DATE 02/14/25
SUBMISSION FINAL DOCUMENTS

REVISION # DATE | REVISION DESCRIPTION

Smithsonian Institution
Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

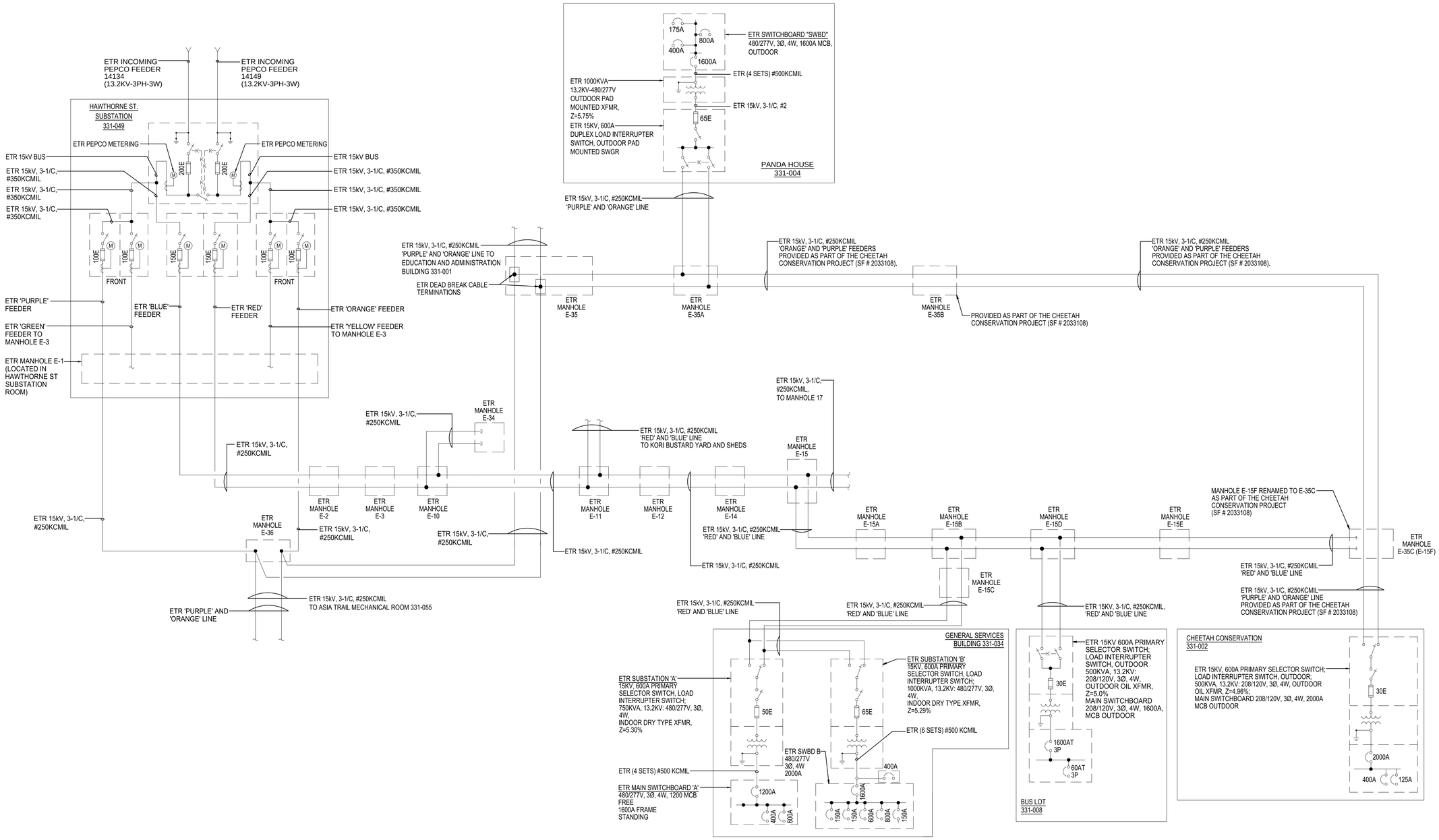
BUILDING NAME / ADDRESS: NZCBI, 3001 CONNECTICUT AVE. NW, WASHINGTON, DC 20008
PROJECT TITLE: REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SF PROJECT NUMBER: 2433109
A/E PROJECT NUMBER: 42349870
DRAWING TITLE: DETAILS
WORKING STAFF: CGC (DESIGNED BY) | ACB (DRAWN BY) | TMC (CHECKED BY)

SHEET NO. 18 OF 24
E 5 03 (DISCIPLINE | TYPE | SEQUENCE | DRAWING TYPE)

THERE IS NO NEW SCOPE OF WORK ON THIS DRAWING. THIS POWER ONE-LINE DIAGRAM REPRESENTS EXISTING CONDITIONS FOR REFERENCE.

GENERAL NOTES:

A. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE NEW WORK AS INDICATED, IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.



1 E601 ELECTRICAL POWER ONE-LINE DIAGRAM - EXISTING
SCALE: NONE

9/20/2024 4:34:21 AM
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REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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STAMP 1 STAMP 2 STAMP 3 STAMP 4 STAMP 5 STAMP 6

KEY PLAN

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02/14/25	FINAL DOCUMENTS

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Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME	NZCBI
ADDRESS	3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SF PROJECT NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	ONE-LINE DIAGRAM EXISTING
WORKING STAFF	CGC (DESIGNED BY) · ACB (DRAWN BY) · TMC (CHECKED BY)
SHEET NO. 19 OF 24	E 6 01 (DISCIPLINE · TYPE · SEQUENCE · DRAWING TYPE)

GENERAL NOTES:

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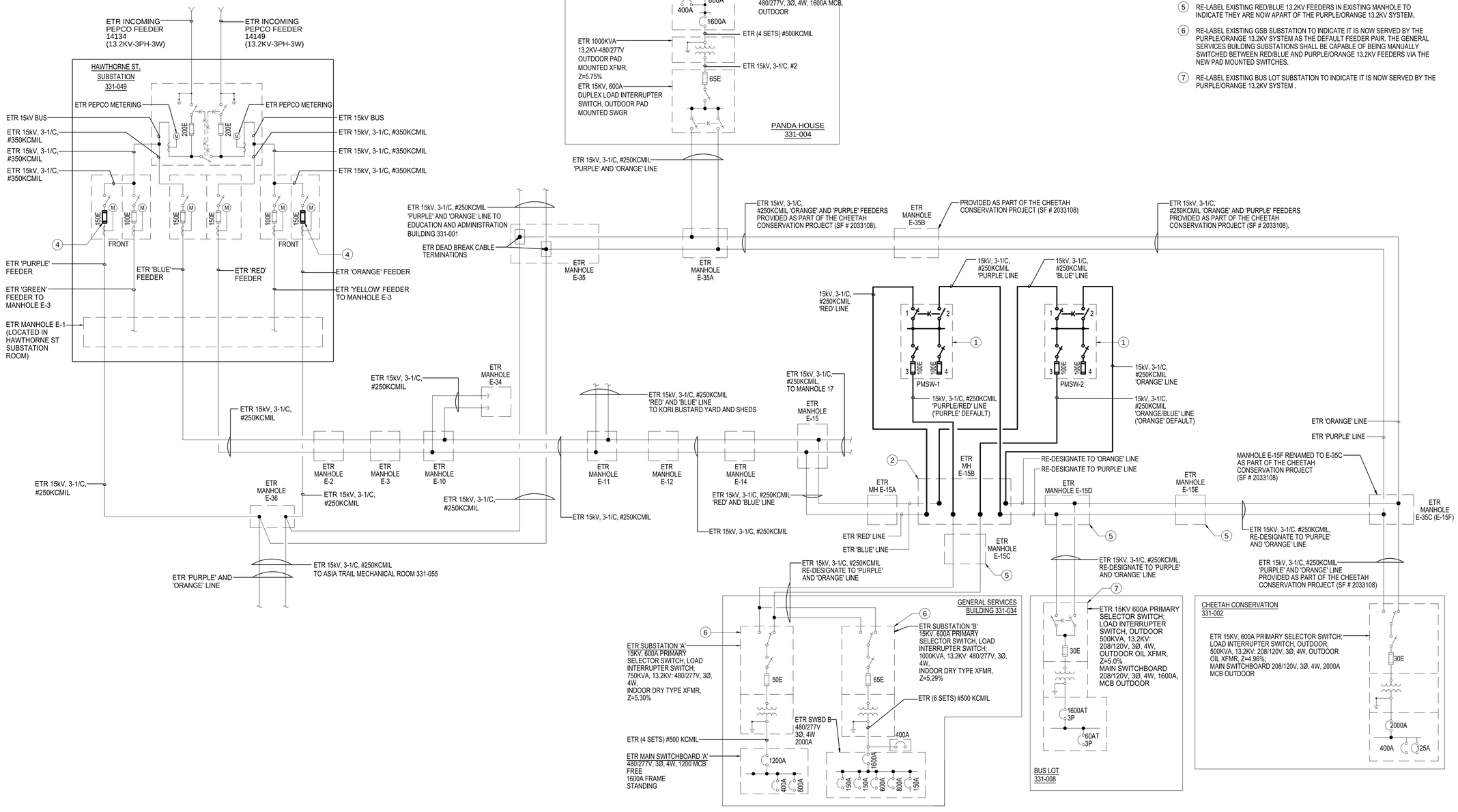
SPECIFIC NOTES:

1. PROVIDE 14KV PAD MOUNTED SWITCH WITH TWO KEY-INTERLOCKED INCOMING FEEDER SECTIONS AND TWO FUSED OUTPUT FEEDER SECTIONS (1 USED & 1 SPARE, BASIS OF DESIGN: S&C PME-9). PAD MOUNTED SWITCH SHALL ALLOW THE FACILITY TO MANUALLY SWITCH THE GENERAL SERVICES BUILDING (GSB) SUBSTATIONS A & B TO BE SERVED FROM THE PURPLE/ORANGE 13.2KV SYSTEM OR THE RED/BLUE 13.2KV SYSTEM. THE PURPLE/ORANGE SYSTEM SHALL BE THE DEFAULT SYSTEM TO SERVE THE GSB SUBSTATIONS. REFER TO SITE PLAN ON SHEET E103 FOR LOCATION OF PAD MOUNTED SWITCHES.
2. PROVIDE NEW 15KV FEEDERS AND SPLICE TO EXISTING 15KV FEEDERS IN EXISTING TO REMAIN MANHOLE E-15B. REFER TO MANHOLE DIAGRAM E-15B ON SHEET E502.
3. CONNECT EXISTING FEEDERS (PREVIOUSLY RED/BLUE) TO THE EXISTING PURPLE/ORANGE 13.2KV FEEDERS IN MANHOLE E-35C. REFER TO MANHOLE DIAGRAMS E-35C ON SHEETS E501 AND E502.
4. REPLACE EXISTING 150A, E-RATED FUSES (S&C SM-5 TYPE, COMPATIBLE WITH EXISTING S&C SWITCHGEAR AT HAWTHORNE STREET SUBSTATION BUILDING). FUSES SHALL HAVE A MINIMUM SYMMETRICAL INTERRUPTING CAPACITY OF 34,000A AT 13.2kV.
5. RE-LABEL EXISTING RED/BLUE 13.2KV FEEDERS IN EXISTING MANHOLE TO INDICATE THEY ARE NOW APART OF THE PURPLE/ORANGE 13.2KV SYSTEM.
6. RE-LABEL EXISTING GSB SUBSTATION TO INDICATE IT IS NOW SERVED BY THE PURPLE/ORANGE 13.2KV SYSTEM AS THE DEFAULT FEEDER PAIR. THE GENERAL SERVICES BUILDING SUBSTATIONS SHALL BE CAPABLE OF BEING MANUALLY SWITCHED BETWEEN RED/BLUE AND PURPLE/ORANGE 13.2KV FEEDERS VIA THE NEW PAD MOUNTED SWITCHES.
7. RE-LABEL EXISTING BUS LOT SUBSTATION TO INDICATE IT IS NOW SERVED BY THE PURPLE/ORANGE 13.2KV SYSTEM .



1 E602 ELECTRICAL POWER ONE-LINE DIAGRAM - NEW WORK
SCALE: NONE

LIGHT LINE WEIGHT (——) IS EXISTING TO REMAIN. HEAVY LINE WEIGHT (——) IS PROVIDED NEW

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REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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KEY PLAN

GRAPHIC SCALE(S)

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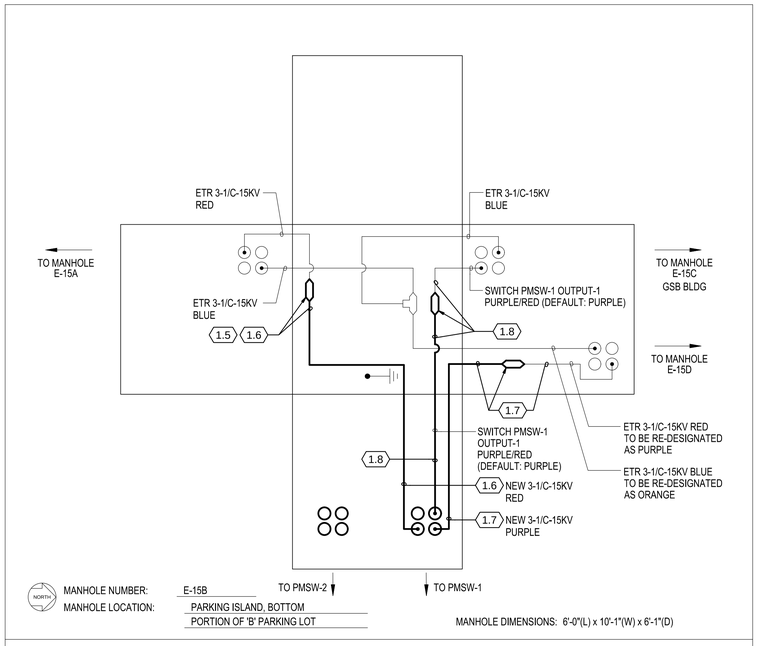
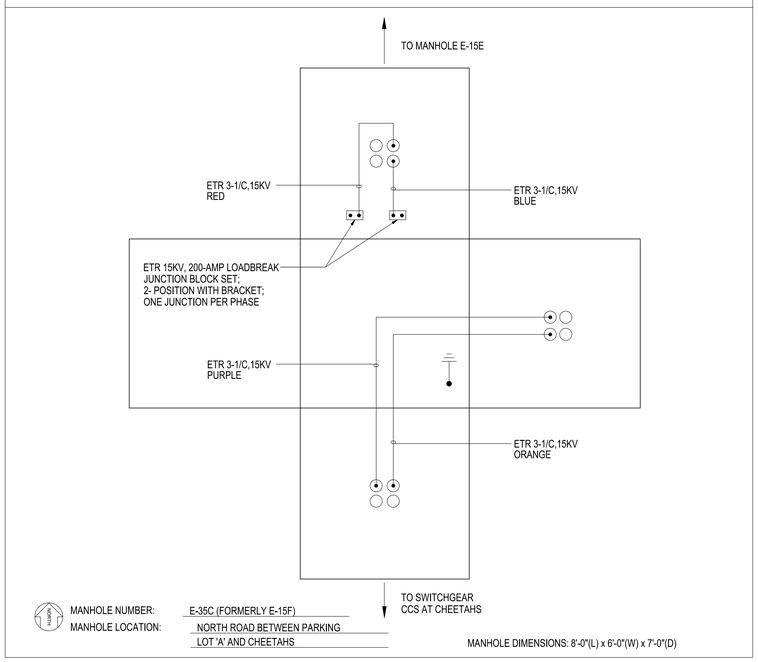
Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME	NZCBI
ADDRESS	3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SF PROJECT NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	ONE-LINE DIAGRAM NEW WORK
WORKING STAFF	CGC (DESIGNED BY) · ACB (DRAWN BY) · TMC (CHECKED BY)
SHEET NO. 20 OF 24	E (DISCIPLINE) · 6 (TYPE) · 02 (SEQUENCE) · (DRAWING TYPE)





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B. RECOMMENDED ELECTRICAL SEQUENCING IS INDICATED ON THIS DRAWING. THE CONTRACTOR SHALL COORDINATE ELECTRICAL SEQUENCING AND POWER OUTAGES WITH THE OWNER THROUGHOUT THE PROJECT. POWER OUTAGES SHALL BE KEPT TO A MINIMUM AND SHALL BE KEPT TO DURATIONS AND TO SPECIFIC TIMES THAT ARE ACCEPTABLE TO THE OWNER.

SEQUENCING STEP 1: FEEDER TIE-INS TO SWITCH PMSW-1

1.1 PROVIDE NEW 4-WAY DUCTBANK FROM EXISTING MANHOLE E-15B TO PAD MOUNTED SWITCHES PMSW-1 AND PMSW-2

1.2 PROVIDE NEW EQUIPMENT PADS FOR PMSW-1 AND PMSW-2 AND INSTALL NEW PAD MOUNTED SWITCHES PMSW-1 AND PMSW-2.

1.3 COORDINATE WITH THE OWNER TO TRANSFER ALL CAMPUS SUBSTATIONS BEING SERVED FROM THE 'RED' 13.2 KV FEEDER TO THE 'BLUE' 13.2KV FEEDER. OWNER'S HIGH VOLTAGE SHOP WILL PERFORM THE TRANSFER. THIS STEP TRANSFERS ALL LOADS OFF OF THE 'RED' 13.2KV FEEDER.

1.4 COORDINATE WITH OWNER TO DE-ENERGIZE THE 'RED' 13.2KV FEEDER AT HAWTHORNE SUBSTATION.

1.5 BREAK 'RED' 13.2KV FEEDER AT 3-WAY T-ELBOW CONNECTORS IN EXISTING MANHOLE E-15B.

1.6 PROVIDE NEW 13.2KV FEEDER LABELED AS 'RED' FROM PMSW-1 TO MANHOLE E-15B IN NEW 4-WAY DUCTBANK. SPLICE NEW 'RED' 13.2KV FEEDER TO EXISTING 'RED' 13.2KV FEEDER FROM MANHOLE E-15A.

1.7 PROVIDE NEW MEDIUM VOLTAGE CONDUCTOR LABELED AS 'PURPLE' FROM PMSW-1 TO MANHOLE E-15B IN NEW 4-WAY DUCTBANK. SPLICE NEW 'PURPLE' CONDUCTOR IN E-15B TO EXISTING 'RED' CONDUCTOR FROM MANHOLE E-15D AND RE-LABEL 'RED' CONDUCTOR TO 'PURPLE'.

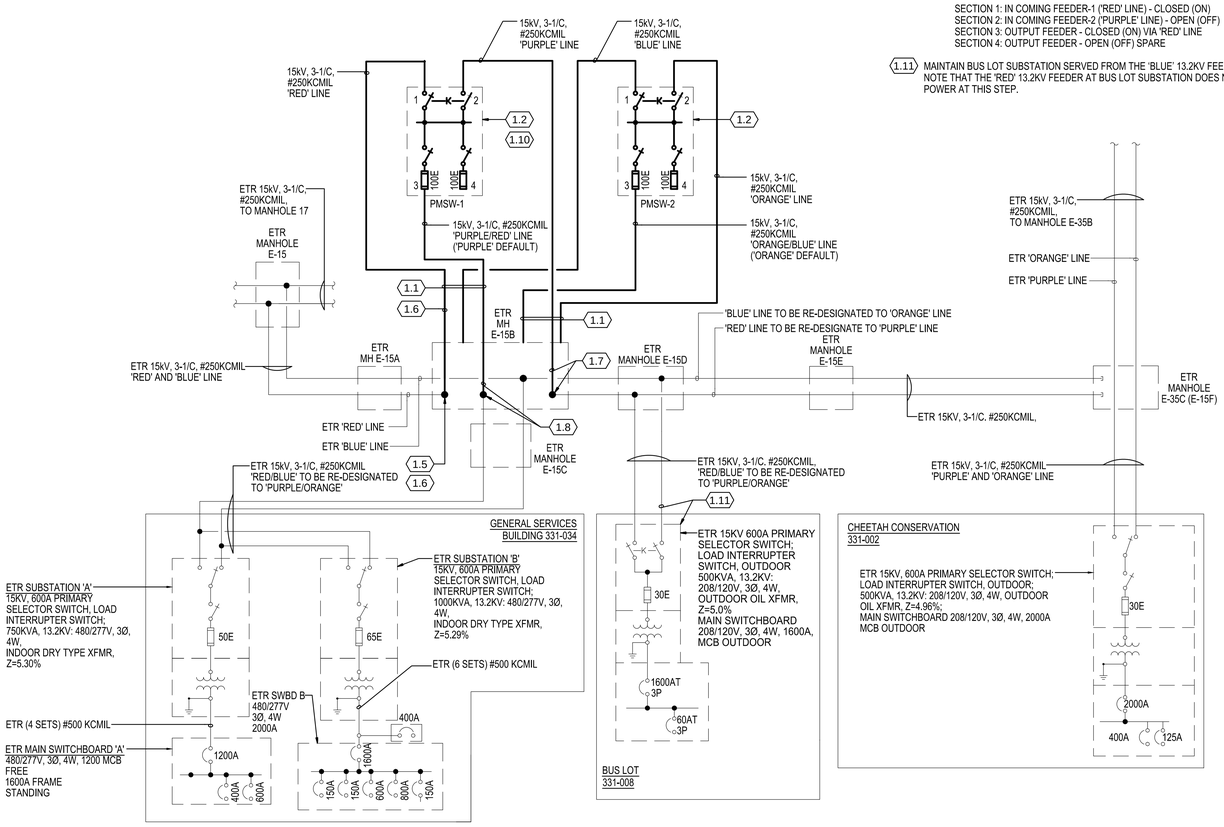
1.8 PROVIDE NEW 13.2KV FEEDER LABELED AS 'PURPLE/RED' FROM PMSW-1 OUTPUT-1 TO MANHOLE E-15B IN NEW 4-WAY DUCTBANK. SPLICE NEW 'PURPLE/RED 13.2KV FEEDER IN MANHOLE E-15B TO EXISTING 'RED' 13.2KV FEEDER FROM MANHOLE E-15C AND RE-LABEL EXISTING 'RED' FEEDER TO 'PURPLE/RED'.

1.9 COORDINATE WITH OWNER TO RE-ENERGIZE EXISTING 'RED' 13.2KV FEEDER AT HAWTHORNE SUBSTATION.

1.10 PAD MOUNTED SWITCH PMSW-1 POSITIONS AT THIS STAGE SHALL BE AS FOLLOWS:

SECTION 1: IN COMING FEEDER-1 ('RED' LINE) - CLOSED (ON)
SECTION 2: IN COMING FEEDER-2 ('PURPLE' LINE) - OPEN (OFF)
SECTION 3: OUTPUT FEEDER - CLOSED (ON) VIA 'RED' LINE
SECTION 4: OUTPUT FEEDER - OPEN (OFF) SPARE

1.11 MAINTAIN BUS LOT SUBSTATION SERVED FROM THE 'BLUE' 13.2KV FEEDER. NOTE THAT THE 'RED' 13.2KV FEEDER AT BUS LOT SUBSTATION DOES NOT HAVE POWER AT THIS STEP.



1 E801 ELECTRICAL POWER ONE-LINE DIAGRAM - SEQUENCING STEP 1
SCALE: NONE

LIGHT LINE WEIGHT (———) IS EXISTING TO REMAIN. HEAVY LINE WEIGHT (━━━) IS PROVIDED NEW

NZCBI

REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

QUINN EVANS
2101 L STREET, NW
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f 202 298 6666
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FOR CONSTRUCTION

DISTRICT OF COLUMBIA · ADAM M. CLEMENTSON · 2134/2025 · REGISTERED · PROFESSIONAL ENGINEER

KEY PLAN

GRAPHIC SCALE(S)

DATE	SUBMISSION
02/14/25	FINAL DOCUMENTS

REVISION #	DATE	REVISION DESCRIPTION

Smithsonian Institution
Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME / ADDRESS	NZCBI 3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SF PROJECT NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	ELECTRICAL SEQUENCING STEP 1
WORKING STAFF	CGC (DESIGNED BY) · ACB (DRAWN BY) · TMC (CHECKED BY)
SHEET NO. 21 OF 24	E 8 01 (DISCIPLINE · TYPE · SEQUENCE · DRAWING TYPE)

9/20/2024 6:34:21 AM
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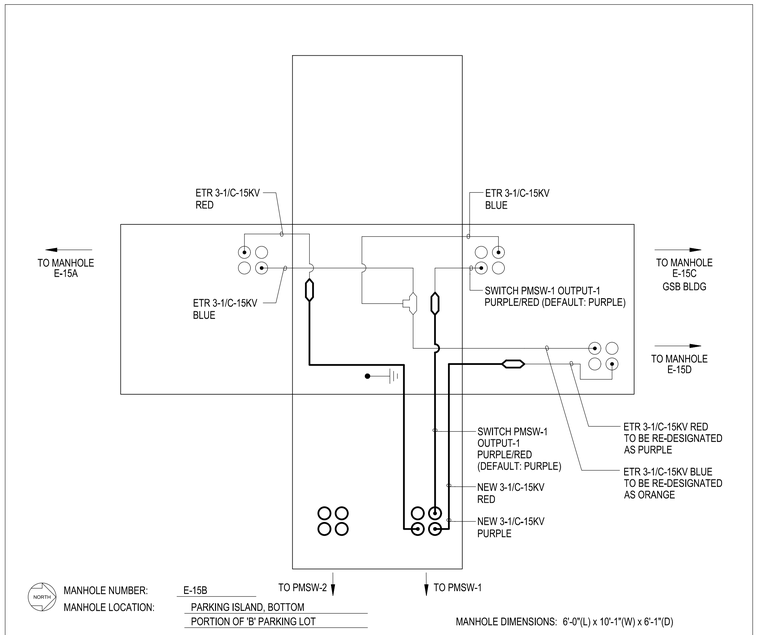

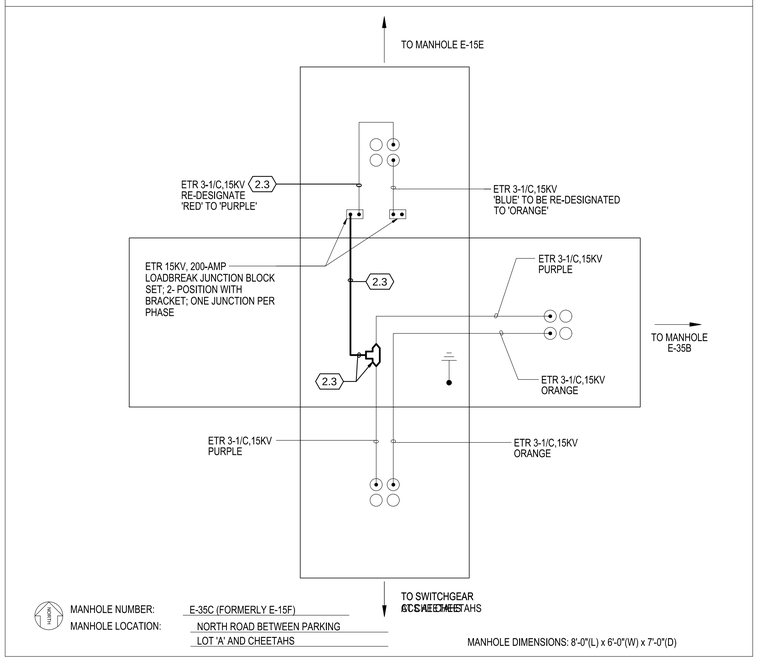

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B. RECOMMENDED ELECTRICAL SEQUENCING IS INDICATED ON THIS DRAWING. THE CONTRACTOR SHALL COORDINATE ELECTRICAL SEQUENCING AND POWER OUTAGES WITH THE OWNER THROUGHOUT THE PROJECT. POWER OUTAGES SHALL BE KEPT TO A MINIMUM AND SHALL BE KEPT TO DURATIONS AND TO SPECIFIC TIMES THAT ARE ACCEPTABLE TO THE OWNER.

SEQUENCING STEP 2: PURPLE FEEDER TIE-IN AT MANHOLE E35C (E-17F)

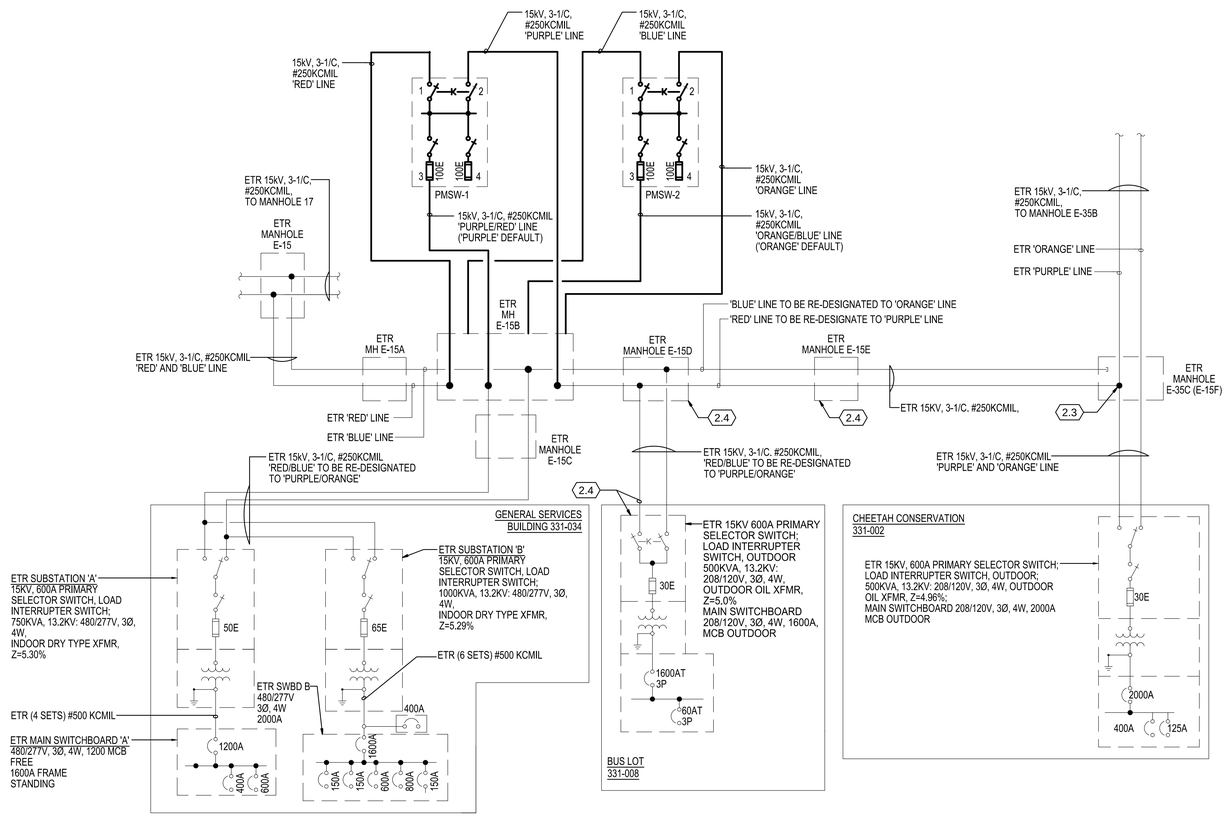
2.1 COORDINATE WITH THE OWNER TO TRANSFER ALL CAMPUS SUBSTATIONS BEING SERVED FROM THE 'PURPLE' 13.2 KV FEEDER TO THE 'ORANGE' 13.2KV FEEDER. OWNER'S HIGH VOLTAGE SHOP WILL PERFORM THE TRANSFER. THIS STEP TRANSFERS ALL LOADS OFF OF THE 'PURPLE' 13.2KV FEEDER.

2.1 COORDINATE WITH OWNER TO DE-ENERGIZE THE 'PURPLE' 13.2KV FEEDER AT HAWTHORNE SUBSTATION.

2.3 AT MANHOLE E-35C, BREAK EXISTING 'PURPLE' 13.2KV FEEDER. PROVIDE NEW SEGMENT OF 13.2KV FEEDER FROM EXISTING 'RED' 2-WAY TERMINAL JUNCTION BLOCKS AND SPLICE TO EXISTING 'PURPLE' 13.2KV FEEDER. RE-LABEL 'RED' 13.2KV FEEDER TO 'PURPLE'. NOTE THAT THIS SEGMENT OF THE 'RED' FEEDER IS DE-ENERGIZED DUE TO WORK IN SEQUENCING STEP 1 (E801).

2.4 RE-LABEL EXISTING 'RED' 13.2KV FEEDER TO 'PURPLE' IN MANHOLES E-15E, E-15D, AND BUS LOT SUBSTATION.

2.5 COORDINATE WITH OWNER TO RE-ENERGIZE THE 'PURPLE' 13.KV FEEDER AT HAWTHORNE SUBSTATION.



1 / E802 ELECTRICAL POWER ONE-LINE DIAGRAM - SEQUENCING STEP 2
SCALE: NONE

LIGHT LINE WEIGHT (——) IS EXISTING TO REMAIN. HEAVY LINE WEIGHT (━━) IS PROVIDED NEW

NZCBI

REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

QUINN EVANS
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DISTRICT OF COLUMBIA
ADAM M. CLIFFORD
02/14/2025
REGISTERED
PROFESSIONAL ENGINEER

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Smithsonian Facilities
600 Maryland Avenue S.W. Suite 5001
Washington, DC 20024-2520

BUILDING NAME / ADDRESS	NZCBI 3001 CONNECTICUT AVE, NW WASHINGTON, DC 20008
PROJECT TITLE	REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS
SI PROJECT NUMBER	2433109
A/E PROJECT NUMBER	42349870
DRAWING TITLE	ELECTRICAL SEQUENCING STEP 2
WORKING STAFF	CGC (DESIGNED BY) / ACB (DRAWN BY) / TMC (CHECKED BY)
SHEET NO. 22 OF 24	E 8 02 (DISCIPLINE / TYPE / SEQUENCE / DRAWING TYPE)

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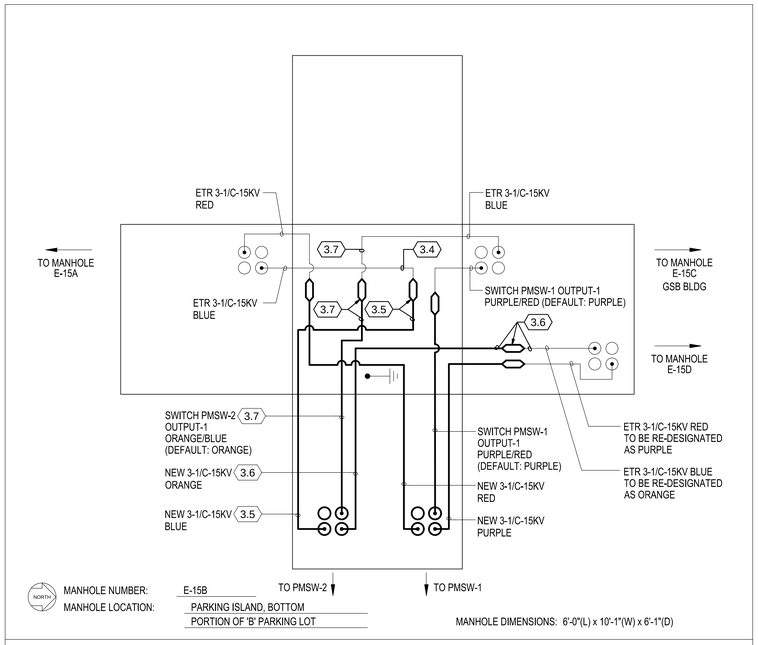

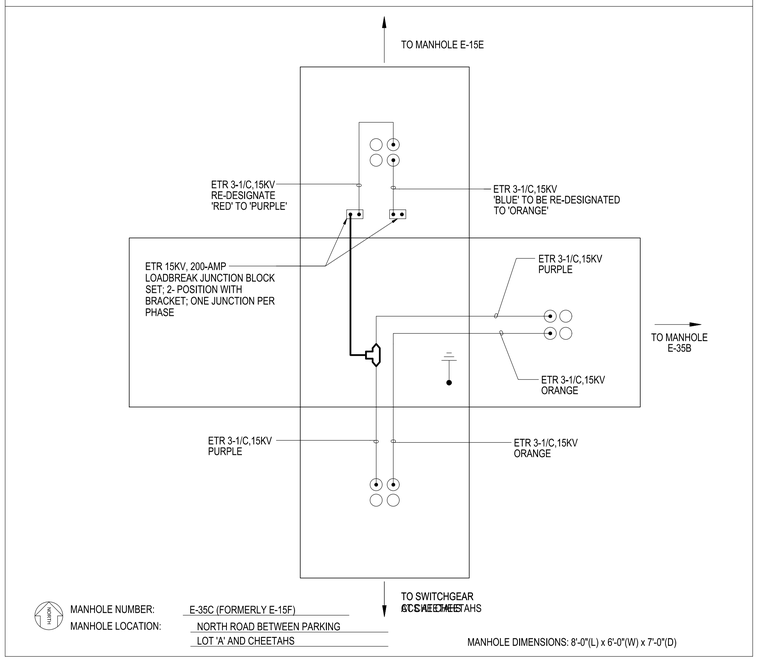

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SEQUENCING STEP 3: FEEDER TIE-INS AT SWITCH PMSW-2

3.1 TRANSFER BUS LOT SUBSTATION FROM THE 'BLUE' 13.2KV FEEDER TO THE 'PURPLE' 13.2 KV FEEDER WHICH WAS RE-DESIGNATED AS PART OF SEQUENCING STEP 2 (E802).

3.2 COORDINATE WITH THE OWNER TO TRANSFER ALL CAMPUS SUBSTATIONS BEING SERVED FROM THE 'BLUE' 13.2 KV FEEDER TO THE 'RED' 13.2KV FEEDER. OWNER'S HIGH VOLTAGE SHOP WILL PERFORM THE TRANSFER. THIS STEP TRANSFERS ALL LOADS OFF OF THE 'BLUE' 13.2KV FEEDER.

3.3 COORDINATE WITH OWNER TO DE-ENERGIZE THE 'BLUE' 13.2KV FEEDER AT HAWTHORNE SUBSTATION.

3.4 BREAK 'BLUE' 13.2KV FEEDER AT 3-WAY T-ELBOW CONNECTORS IN EXISTING MANHOLE E-15B.

3.5 PROVIDE NEW 13.2KV FEEDER LABELED AS 'BLUE' FROM PMSW-2 TO MANHOLE E-15B IN NEW 4-WAY DUCTBANK. SPLICE NEW 'BLUE 13.2KV FEEDER TO EXISTING 'BLUE 13.2KV FEEDER FROM MANHOLE E-15A.

3.6 PROVIDE NEW 13.KV FEEDER LABELED AS 'ORANGE' FROM PMSW-2 TO MANHOLE E-15B VIA NEW 4-WAY DUCTBANK. SPLICE NEW 'ORANGE' 13.KV FEEDER IN MANHOLE E-15B TO EXISTING 'BLUE' 13.2KV FEEDER FROM MANHOLE E-15D. RE-LABEL EXISTING 'BLUE' 13.2KV FEEDER FROM MANHOLE E-15D TO 'ORANGE'.

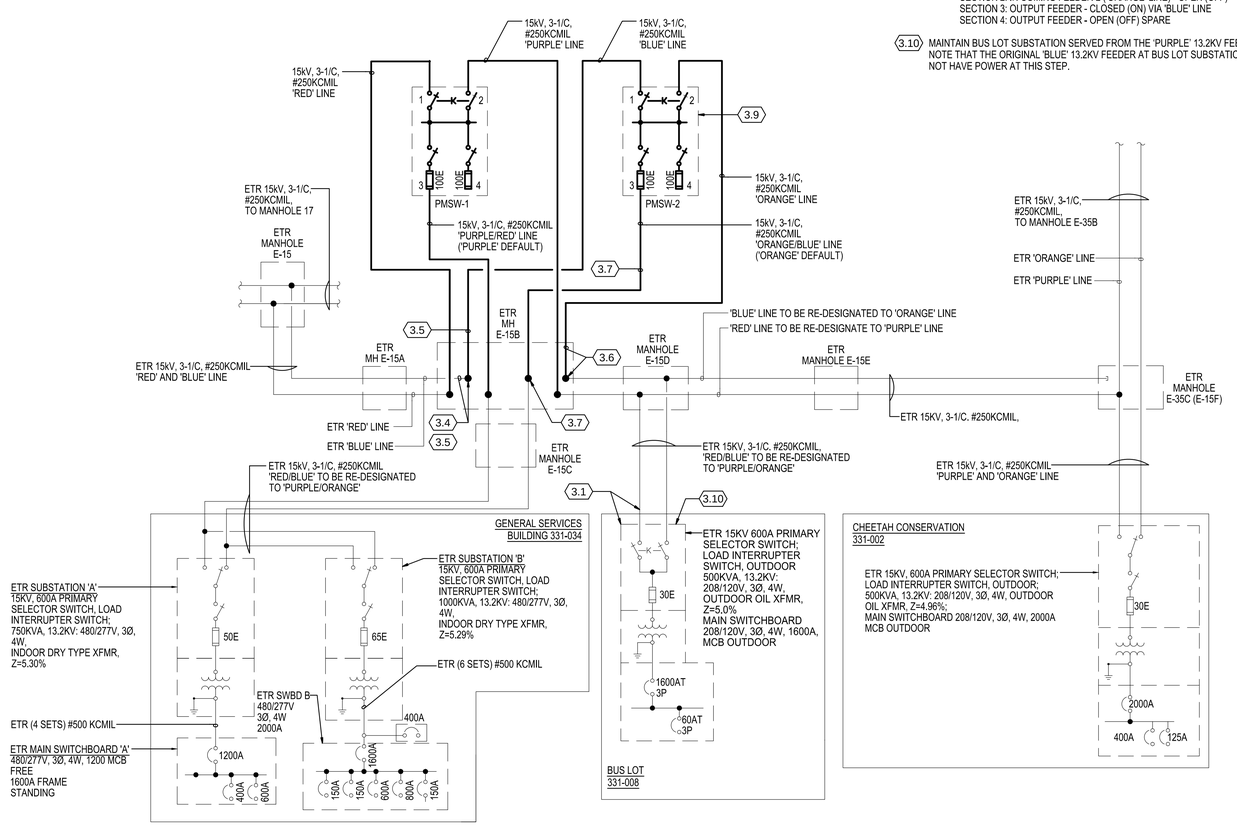
3.7 PROVIDE NEW 13.2KV FEEDER LABELED AS 'ORANGE/BLUE' FROM PMSW-2 OUTPUT-1 TO MANHOLE E-15B IN NEW 4-WAY DUCTBANK. SPLICE NEW 'ORANGE/BLUE' 13.2KV FEEDER IN MANHOLE E-15B TO EXISTING 'BLUE' 13.2KV FEEDER FROM MANHOLE E-15C AND RE-LABEL EXISTING 'BLUE' FEEDER TO 'ORANGE/BLUE'.

3.8 COORDINATE WITH OWNER TO RE-ENERGIZE THE 'BLUE' 13.KV FEEDER AT HAWTHORNE SUBSTATION.

3.9 PAD MOUNTED SWITCH PMSW-2 POSITIONS AT THIS STAGE SHALL BE AS FOLLOWS:

SECTION 1: IN COMING FEEDER-1 ('BLUE' LINE) - CLOSED (ON)
SECTION 2: IN COMING FEEDER-2 ('ORANGE' LINE) - OPEN (OFF)
SECTION 3: OUTPUT FEEDER - CLOSED (ON) VIA 'BLUE' LINE
SECTION 4: OUTPUT FEEDER - OPEN (OFF) SPARE

3.10 MAINTAIN BUS LOT SUBSTATION SERVED FROM THE 'PURPLE' 13.2KV FEEDER. NOTE THAT THE ORIGINAL 'BLUE' 13.2KV FEEDER AT BUS LOT SUBSTATION DOES NOT HAVE POWER AT THIS STEP.



1 E803 ELECTRICAL POWER ONE-LINE DIAGRAM - SEQUENCING STEP 3
SCALE: NONE

LIGHT LINE WEIGHT (——) IS EXISTING TO REMAIN. HEAVY LINE WEIGHT (━━) IS PROVIDED NEW

NZCBI

REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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DRAWING TITLE	ELECTRICAL SEQUENCING STEP 3
WORKING STAFF	CGC (DESIGNED BY) · ACB (DRAWN BY) · TMC (CHECKED BY)
SHEET NO. 23 OF 24	E 8 03 (DISCIPLINE · TYPE · SEQUENCE · DRAWING TYPE)

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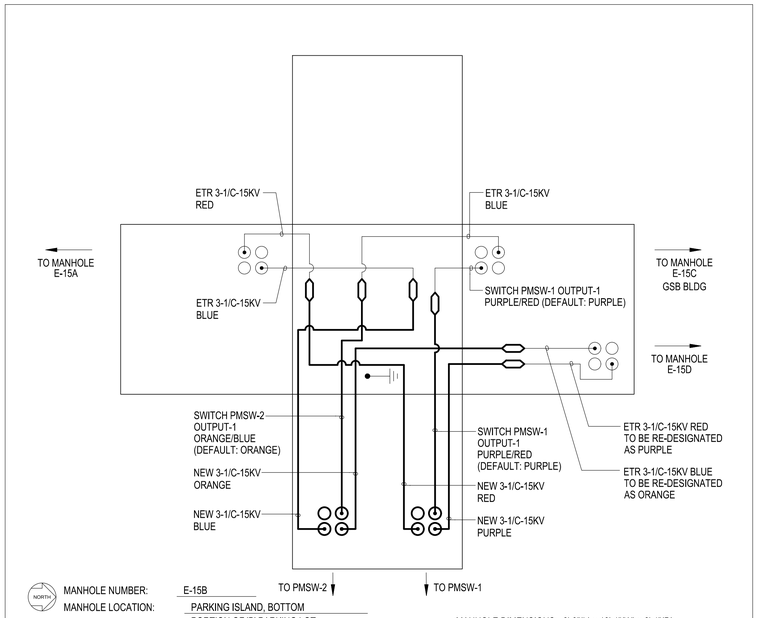
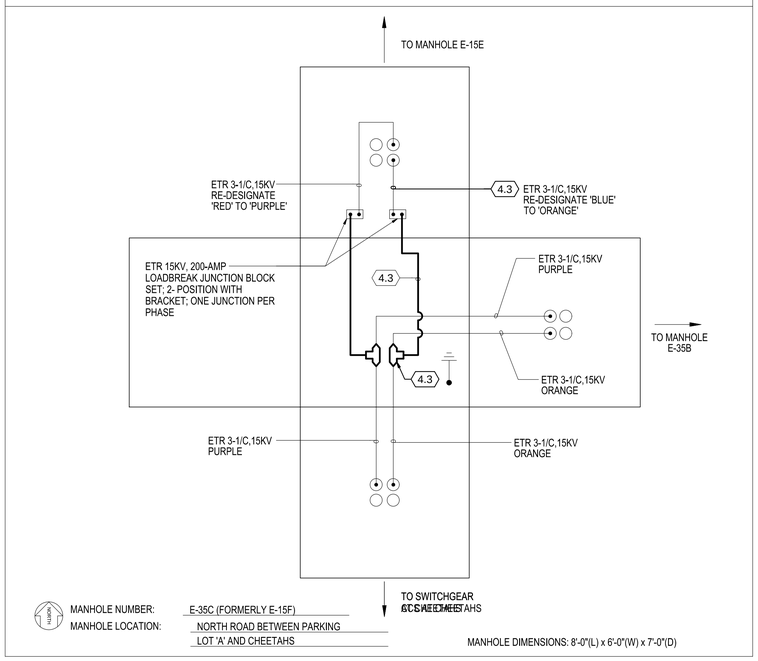


MANHOLE NUMBER: E-15B
MANHOLE LOCATION: PARKING ISLAND, BOTTOM PORTION OF 'B' PARKING LOT

MANHOLE DIMENSIONS: 6'-0"(L) x 10'-1"(W) x 6'-1"(D)



MANHOLE NUMBER: E-35C (FORMERLY E-15F)
MANHOLE LOCATION: NORTH ROAD BETWEEN PARKING LOT 'A' AND CHEETAHS

MANHOLE DIMENSIONS: 8'-0"(L) x 6'-0"(W) x 7'-0"(D)

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SEQUENCING STEP 4: ORANGE FEEDER TIE-IN AT MANHOLE E35C (E-17F)

4.1 COORDINATE WITH THE OWNER TO TRANSFER ALL CAMPUS SUBSTATIONS BEING SERVED FROM THE 'ORANGE' 13.2 KV FEEDER TO THE 'PURPLE' 13.2KV FEEDER. OWNER'S HIGH VOLTAGE SHOP WILL PERFORM THE TRANSFER, THIS STEP TRANSFERS ALL LOADS OFF OF THE 'ORANGE' 13.2KV FEEDER.

4.2 COORDINATE WITH OWNER TO DE-ENERGIZE THE 'ORANGE' 13.2KV FEEDER AT HAWTHORNE SUBSTATION.

4.3 AT MANHOLE E-35C, BREAK EXISTING 'ORANGE' 13.2KV FEEDER. PROVIDE NEW SEGMENT OF 13.2KV FEEDER FROM EXISTING 'BLUE' 2-WAY TERMINAL JUNCTION BLOCKS AND SPLICE TO EXISTING 'ORANGE' 13.2KV FEEDER. RE-LABEL 'BLUE' 13.2KV FEEDER TO 'ORANGE'. NOTE THAT THIS SEGMENT OF THE 'BLUE' FEEDER IS DE-ENERGIZED DUE TO WORK IN SEQUENCING STEP 3 (E803).

4.4 RE-LABEL EXISTING 'BLUE' 13.2KV FEEDER TO 'ORANGE' IN MANHOLES E-15E, E-15D, AND BUS LOT SUBSTATION.

4.5 COORDINATE WITH OWNER TO RE-ENERGIZE THE 'ORANGE' 13.KV FEEDER AT HAWTHORNE SUBSTATION.

4.6 RE-LABEL EXISTING 'RED' 13.2KV FEEDER TO 'PURPLE/RED', AND EXISTING 'BLUE' 13.2KV FEEDER TO 'ORANGE/BLUE' IN MANHOLE E-15C.

4.7 RE-LABEL EXISTING GSB SUBSTATIONS A & B TO INDICATE THEY ARE NOW SERVED BY THE PURPLE/ORANGE 13.2KV FEEDER SYSTEM AS DEFAULT AND CAPABLE OF BEING SWITCHED MANUALLY TO THE RED/BLUE 13.2KV FEEDER SYSTEM VIA PAD MOUNTED SWITCHES PMSW-1 & PMSW-2.

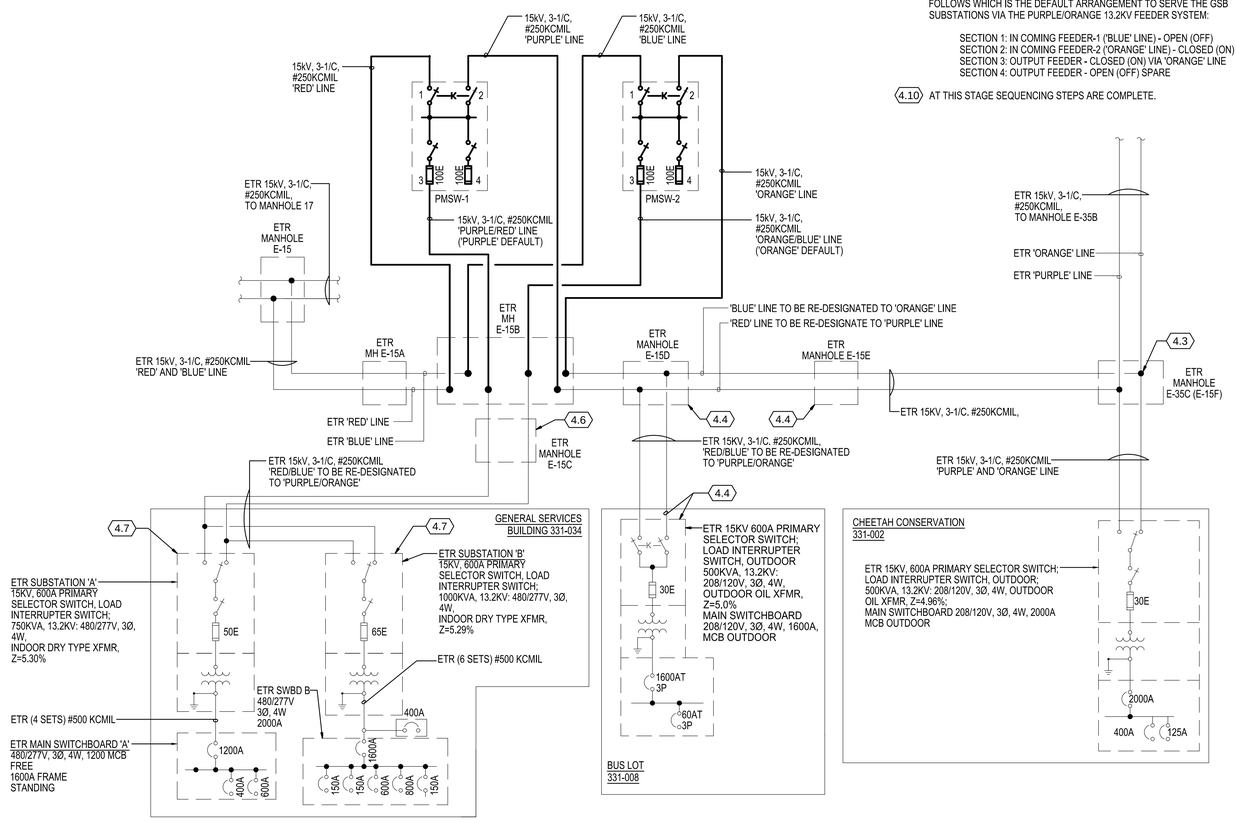
4.8 PAD MOUNTED SWITCH PMSW-1 POSITIONS AT THIS STAGE SHALL BE AS FOLLOWS WHICH IS THE DEFAULT ARRANGEMENT TO SERVE THE GSB SUBSTATIONS VIA THE PURPLE/ORANGE 13.2KV FEEDER SYSTEM:

SECTION 1: IN COMING FEEDER-1 ('RED' LINE) - OPEN (OFF)
SECTION 2: IN COMING FEEDER-2 ('PURPLE' LINE) - CLOSED (ON)
SECTION 3: OUTPUT FEEDER - CLOSED (ON) VIA 'PURPLE'
SECTION 4: OUTPUT FEEDER - OPEN (OFF) SPARE

4.9 PAD MOUNTED SWITCH PMSW-2 POSITIONS AT THIS STAGE SHALL BE AS FOLLOWS WHICH IS THE DEFAULT ARRANGEMENT TO SERVE THE GSB SUBSTATIONS VIA THE PURPLE/ORANGE 13.2KV FEEDER SYSTEM:

SECTION 1: IN COMING FEEDER-1 ('BLUE' LINE) - OPEN (OFF)
SECTION 2: IN COMING FEEDER-2 ('ORANGE' LINE) - CLOSED (ON)
SECTION 3: OUTPUT FEEDER - CLOSED (ON) VIA 'ORANGE' LINE
SECTION 4: OUTPUT FEEDER - OPEN (OFF) SPARE

4.10 AT THIS STAGE SEQUENCING STEPS ARE COMPLETE.



4 / E804 ELECTRICAL POWER ONE-LINE DIAGRAM - SEQUENCING STEP 4

SCALE: NONE

LIGHT LINE WEIGHT (——) IS EXISTING TO REMAIN. HEAVY LINE WEIGHT (━━) IS PROVIDED NEW

NZCBI

REDISTRIBUTE CAMPUS -WIDE ELECTRICAL LOADS

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FOR CONSTRUCTION

DISTRICT OF COLUMBIA — ADAM M. CLEMENTSEN — 2124/2025 — REGISTERED PROFESSIONAL ENGINEER

STAMP 1 | STAMP 2 | STAMP 3 | STAMP 4 | STAMP 5 | STAMP 6

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WORKING STAFF	CGC (DESIGNED BY) / ACB (DRAWN BY) / TMC (CHECKED BY)
SHEET NO.	24 OF 24
	E (DISCIPLINE) 8 (TYPE) 04 (SEQUENCE) (DRAWING TYPE)

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