UNIVERSITY OF MAINE
KEYO BUILDING
ELECTRICAL SERVICE
UPGRADE

CONSTRUCTION DOCUMENTS

JANUARY 5, 2026

LIST OF DRAWINGS

Harriman

UNIVERSITY OF MAINE
KEYO BUILDING
ELECTRICAL SERVICE
UPGRADE

ORONO, MAINE

Harriman Project No.	24265

Graphic Scale
0" 1"
(scale measures 1" when plotted at full size)

CONSTRUCTION DOCUMENTS

JANUARY 5, 2026

Revision Date	Revision Description

Drawn by: PRA

COVER SHEET

G00-1

1. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION IS NOT GUARANTEED. VERIFY SITE CONDITIONS INCLUDING TEST PITS FOR LOCATIONS AND INVERTS OF UTILITIES AND REPORT ANY DISCREPANCIES TO ARCHITECT PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
2. SEDIMENT SHALL BE REMOVED FROM NEW STORM DRAINS AND CATCH BASINS, AND ALSO FROM EXISTING STORM DRAINS AND CATCH BASINS THAT DIRECTLY RECEIVE RUNOFF FROM THE WORK AREA.
3. COORDINATE WORK ON UTILITY LINES OR WITHIN ROAD RIGHT-OF-WAY WITH THE UTILITY COMPANIES, LOCAL ROAD DEPARTMENT, AND STATE DOT.
4. SLOPE CONDUITS AWAY FROM BUILDING TO HANDHOLE OR UTILITY POLE TO AVOID GROUND WATER SEEPAGE INTO BUILDING.
5. PRIOR TO REMOVAL OF UTILITIES, VERIFY UTILITY FUNCTION, MATERIAL, USE, AND CURRENT ACTIVITY. REPORT DISCREPANCIES TO THE ARCHITECT FOR DIRECTION PRIOR TO COMMENCING THE WORK ON THAT UTILITY.

C1 UTILITY NOTES
SCALE: N.T.S

1. THE LANDSCAPE CONTRACTOR SHALL SUPPLY AND INSTALL ALL PLANTS IN SUFFICIENT QUANTITIES TO COMPLETE WORK AS SHOWN ON THE DRAWINGS. DISCREPANCIES BETWEEN QUANTITIES SHOWN ON THE DRAWING AND THE PLANT LIST SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT AND SHALL NOT ENTITLE THE CONTRACTOR TO ADDITIONAL COMPENSATION.
2. THE LANDSCAPE CONTRACTOR IS ADVISED THAT BOTH ABOVE AND BELOW GROUND UTILITIES MAY EXIST ON THE SITE, THE LOCATIONS OF WHICH SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF HIS OPERATIONS. SHOULD THE LOCATION OF ANY PROPOSED PLANTING CONFLICT WITH ANY UTILITY, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
3. PAVING, CURBING, UTILITIES, GRASS, ETC., DAMAGED AS A RESULT OF THE LANDSCAPE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.

C3 LANDSCAPING NOTES
SCALE: N.T.S

EXISTING		NEW
	BUILDING	
	DOOR	
BIT. PVMT.	BIT. PAVEMENT	
CONC.	CONCRETE	
	CURB	CURB FLUSH CURB
	CHAIN-LINK FENCE	
	HAND RAIL / OTHER FENCE	
	GUIDE RAIL / STOCKADE FENCE	
	STEEL GUARDRAIL	
	SIGN	
	PIPE BOLLARD	
	WETLAND LIMIT	
	STREAM CENTERLINE	
	TREES	
	TREE LINE	
-98-	CONTOUR	98
x 99.8	SPOT ELEVATION	688.2
	GRADE TO DRAIN	GTD
	SOIL BORING, TEST PIT	
	SILT FENCE	
	BARK / STONE CHECK DAM	
	RIP-RAP	
	CATCH BASIN / DRAIN INLET	
	STEAM MANHOLE	
	STORM DRAIN MANHOLE	
	SEWER MANHOLE	
	TELEPHONE MANHOLE	
	ELECTRIC MANHOLE / PULLBOX	
	WATER VALVE	
	CURB STOP VALVE	
	HYDRANT	
	UTILITY POLE	
	GUY WIRE	
	LIGHT POLE BASE	
	LIGHT BOLLARD	
	FLAG POLE	
T	TRANSFORMER PAD	T
	GEOTHERMAL WELL	
SD	STORM DRAIN LINE	NSD
UD	UNDER DRAIN LINE	NUD
S S	SANITARY SEWER LINE	NS
FM	FORCE MAIN LINE	NFM
W W	WATER LINE	NW
UG	GAS / PROPANE LINE	NUG
ST	STEAM LINE	
GT	GEOTHERMAL WATER LINE	NGT
UC	UNDERGROUND COMMUNICATION LINE	NUC
UE	UNDERGROUND ELECTRICAL LINE	
	UNDERGROUND LIGHTING LINE	NUL
AE	AERIAL ELECTRICAL, TELEPHONE, AND CABLE LINE	NAE
	PROPERTY LINE	
	SETBACK LINE	
	EASEMENT LINE	
	NOT IN CONTRACT	N.I.C.

A1 STANDARD SITE LEGEND
SCALE: N.T.S

1. RELOCATE EXISTING TBM INFORMATION ONTO NEW TBM OF CONTRACTORS CHOICE, FOR CONSTRUCTION USE, PRIOR TO REMOVAL OF EXISTING TBM.
2. IF EXISTING ASBESTOS CEMENT PIPE IS ENCOUNTERED, HANDLE AND DISPOSE OF ASBESTOS MATERIALS WITH CARE AND IN ACCORDANCE WITH APPLICABLE CODES AND SAFETY STANDARDS.
3. EXCAVATE AND STOCKPILE ON-SITE TOPSOIL.TOPSOIL IS TO REMAIN THE PROPERTY OF THE OWNER DURING CONSTRUCTION. AFTER FINAL LOAM AND SEED EXCESS TOPSOIL SHALL BE REMOVED FROM SITE BY CONTRACTOR UNLESS INDICATED OTHERWISE.
4. DIMENSIONS ARE TO FACE OF CURB AND TO FACE OF FOUNDATION UNLESS OTHERWISE INDICATED.
5. PAVEMENT EDGES SHALL BE TRUE TO LINE. SAWCUT EXISTING PAVEMENT IN SMOOTH STRAIGHT LINE WHERE NEW PAVEMENT JOINS. PROVIDE TACK COAT LAYER AS SPECIFIED.
6. CONTRACTOR SHALL VERIFY SITE CONDITIONS, INCLUDING TEST PITS TO CONFIRM THE LOCATIONS AND INVERTS OF UTILITIES. REPORT DISCREPANCIES TO ARCHITECT PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
7. PROVIDE TRAFFIC CONTROL SIGNAGE AND STRIPING AS SHOWN, IN ACCORDANCE WITH THE CURRENT REVISION OF THE F.H.W.A MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

B2 GENERAL SITE NOTES
SCALE: N.T.S

1. PERFORM GPR (GROUND-PENETRATING RADAR) IN ADVANCE OF ANY EXCAVATION.
2. PROVIDE 4" LOAM, SEED AND MULCH TO DISTURBED AREAS UNLESS OTHERWISE NOTED. PROVIDE EROSION CONTROL MESH ON ALL SLOPES 6:1 OR STEEPER, AND ALONG DITCH CHANNELS.
3. GRADE SURFACES TO DRAIN AWAY FROM BUILDING. PUDDLING OF WATER IN PAVED OR UNPAVED AREAS WILL NOT BE ACCEPTABLE EXCEPT FOR AREAS DESIGNATED AS PONDS.
4. MAINTAIN TEMPORARY EROSION CONTROL MEASURES FOR THE FULL DURATION OF CONSTRUCTION. INSPECT WEEKLY AND AFTER EACH STORM AND REPAIR AS NEEDED. REMOVE SEDIMENTS FROM THE SITE, PLACE IN AREA OF LOW EROSION POTENTIAL, AND STABILIZE WITH SEED AND MULCH.
5. PLACE TEMPORARY SOIL STABILIZATION WITHIN 30 DAYS OF INITIAL DISTURBANCE. PLACE PERMANENT SOIL STABILIZATION WITHIN 7 DAYS OF FINAL GRADING.

B3 GRADING NOTES
SCALE: N.T.S

PRIOR TO EXCAVATION, VERIFY THE UNDERGROUND UTILITIES, PIPES, STRUCTURES, AND FACILITIES. PROVIDE THE FOLLOWING MINIMUM MEASURES:

1. PRE-MARK THE BOUNDARIES OF YOUR PLANNED EXCAVATION WITH WHITE PAINT, FLAGS OR STAKES, SO UTILITY CREWS KNOW WHERE TO MARK THEIR LINES.
2. CALL DIG SAFE, AT EITHER 811 OR 1-888-DIGSAFE, AT LEAST 72 BUSINESS HOURS - BUT NO MORE THAN 30 CALENDAR DAYS - BEFORE STARTING WORK. DON'T ASSUME SOMEONE ELSE WILL MAKE THE CALL.
3. THE CONTRACTOR SHALL NOTIFY ALL NON-MEMBER MUNICIPALITIES AND UTILITIES THROUGH WWW.OKTODIG.COM OR AS OTHERWISE REQUIRED BY THE MAINE PUBLIC UTILITIES COMMISSION.
4. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER(S) DIRECTLY TO LOCATE ANY UNDERGROUND UTILITIES LOCATED OUTSIDE OF THE PUBLIC RIGHT OF WAY ON PRIVATE PROPERTY.
5. IF BLASTING, NOTIFY DIG SAFE AT LEAST 24 BUSINESS HOURS IN ADVANCE.
6. WAIT 72 HOURS FOR LINES TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAGS OR STAKES. NOTE THE COLOR OF THE MARKS AND THE TYPE OF UTILITIES THEY INDICATE. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
7. CONTACT THE LANDOWNER AND OTHER "NON-MEMBER" UTILITIES (WATER, SEWER, GAS, ETC.), FOR THEM TO MARK THE LOCATIONS OF THEIR UNDERGROUND FACILITIES. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
8. RE-NOTIFY DIG SAFE AND THE NON-MEMBER UTILITIES IF THE DIGGING, DRILLING OR BLASTING DOES NOT OCCUR WITHIN 30 CALENDAR DAYS, OR IF THE MARKS ARE LOST DUE TO WEATHER CONDITIONS, SITE WORK ACTIVITY OR ANY OTHER REASON.
9. HAND DIG WITHIN 18 INCHES IN ANY DIRECTION OF ANY UNDERGROUND LINE UNTIL THE LINE IS EXPOSED. MECHANICAL METHODS MAY BE USED FOR INITIAL SITE PENETRATION, SUCH AS REMOVAL OF PAVEMENT OR ROCK.
10. DIG SAFE REQUIREMENTS ARE IN ADDITION TO TOWN, CITY AND/OR STATE DOT STREET OPENING PERMIT REQUIREMENTS.
11. FOR COMPLETE DIG SAFE REQUIREMENTS, VISIT THEIR WEBSITE.
12. IF YOU DAMAGE, DISLOCATE OR DISTURB ANY UNDERGROUND UTILITY LINE, IMMEDIATELY NOTIFY THE AFFECTED UTILITY. IF DAMAGE CREATES SAFETY CONCERNS, CALL THE FIRE DEPARTMENT AND TAKE IMMEDIATE STEPS TO SAFEGUARD HEALTH AND PROPERTY.
13. ANY TIME AN UNDERGROUND LINE IS DAMAGED OR DISTURBED, OR IF LINES ARE IMPROPERLY MARKED, YOU MUST CALL DIGSAFE.

B4 UNDERGROUND UTILITY EXPLORATION NOTES
SCALE: N.T.S

CURB ABBREVIATIONS

VGC	NEW VERTICAL GRANITE CURB
SGC	NEW SLOPED GRANITE CURB
FGC	NEW GRANITE CURB FLUSH WITH PAVEMENT
TCE	NEW TAPERED CURB ENDS (TIP DOWNS)
TRC	NEW TRANSITIONAL CURB
BC	NEW BITUMINOUS CURB
CCBC	NEW CAPE COD BITUMINOUS CURB
PCC	NEW PRE-CAST CONCRETE CURB
CCC	NEW CAST-IN-PLACE CONCRETE CURB

PAINT STRIPING ABBREVIATIONS

SWSL	SINGLE WHITE SOLID LINE
SWDL	SINGLE WHITE DASHED LINE
SYSL	SINGLE YELLOW SOLID LINE
SYDL	SINGLE YELLOW DASHED LINE
DYSL	DOUBLED YELLOW SOLID LINE

GENERAL ABBREVIATIONS

NS	NEW SEWER
BIT.	BITUMINOUS
NSD	NEW STORM DRAIN
C.O.	CLEAN-OUT
NSFM	NEW SEWER FORCE MAIN
CONC.	CONCRETE
NSL	NEW SPOT LIGHT
DI.	DRAIN INLET
NUD	NEW UNDERDRAIN
ELEV.	ELEVATION
NUE	NEW UNDERGROUND ELECTRICAL
EXG.	EXISTING
NUG	NEW UNDERGROUND GAS
F.F.E.	FINISHED FLOOR ELEVATION
NUF	NEW UNDERGROUND FUEL
FT	FEET
IN.	INCHES
INV.	INVERT
NW	NEW WATER
MAX.	MAXIMUM
NWF	NEW WALL FIXTURE
MIN.	MINIMUM
P.C.	PRECAST
N.I.C.	NOT IN CONTRACT
R	RADIUS
NCB	NEW CATCH BASIN
S	STRUCTURAL PAD
NFO	NEW FIBER OPTIC
SQ	SQUARE
NGT	NEW GEOTHERMAL WATER
SF	SQUARE FEET
NLP	NEW LIGHT POLE
AC	ACRE
T	TRANSFORMER PAD
TBM	TEMPORARY BENCH MARK
TYP	TYPICAL
W/	WITH
UNO	UNLESS NOTED OTHERWISE

A2 STANDARD SITE ABBREVIATIONS
SCALE: N.T.S

Harriman

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ORONO, MAINE

Harriman Project No.	24265

Graphic Scale	Plan North	True North
0' 20' (line measures 1" when plotted at full size)		

STATE OF MAINE
DAVID P LATHAM
No. 17064
LICENSED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

JANUARY 5, 2026

Revision Date	Revision Description

Drawn by: DPL

SITE NOTES

C00-1

1. GENERAL

A. PLAN THE SEQUENCE OF CONSTRUCTION SO THAT THE SMALLEST PRACTICAL AREA OF LAND IS EXPOSED AT ANY ONE TIME DURING CONSTRUCTION. SCHEDULE THE WORK SUCH THAT SEDIMENTATION BARRIERS ARE INSTALLED EARLY IN THE CONSTRUCTION SEQUENCE, TO PREVENT SEDIMENTS FROM UPHILL AREAS REACHING STREAMS, WETLANDS OR PROPERTY LINES. THE AREA DISTURBED BY STRIPPING OF VEGETATION, SOIL REMOVAL, AND REGARDING SHALL BE THE MINIMUM NECESSARY AT ANY ONE TIME. THE DURATION OF EXPOSURE OF THE DISTURBED AREA SHALL BE KEPT TO A PRACTICAL MINIMUM. UNTIL A DISTURBED AREA IS STABILIZED, SEDIMENT IN RUN-OFF SHALL BE TRAPPED BY THE USE OF SEDIMENT BASINS, SILT TRAPS OR OTHER ACCEPTABLE METHODS.

B. TAKE NECESSARY STEPS TO PREVENT SOIL EROSION. REFER TO PUBLICATION OF MAINE DEP PARTICULARLY CHAPTER 500, AND THE MAINE SOIL AND WATER CONSERVATION COMMISSION FOR ADDITIONAL PREVENTION MEASURES TO STOP SOIL EROSION AND FOLLOW DEP MAINE EROSION AND SEDIMENT CONTROL BMP'S. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN CONFORMITY WITH ALL FEDERAL AND STATE PERMIT REQUIREMENTS CONCERNING WATER, AIR OR NOISE POLLUTION, OR THE DISPOSAL OF CONTAMINATED OR HAZARDOUS MATERIALS. EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE MINIMUM ONLY. SATISFY THE CURRENT REQUIREMENTS OF THE REGULATORY AGENCIES. REPAIR ALL AREAS OF INSTABILITY AND EROSION IMMEDIATELY AND MAINTAIN UNTIL THE SITE IS FULLY STABILIZED.

C. WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES TAKE PLACE BETWEEN 30 FEET AND 50 FEET OF ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITH 7 DAYS.

D. EROSION CONTROL MESH: INTENDED AS A TEMPORARY EROSION CONTROL MEASURE THAT WILL DECOMPOSE AFTER STABILIZATION. OPEN WEAVE, SINGLE JUTE YARN OF LOOSELY TWISTED CONSTRUCTION, NOT VARYING IN THICKNESS BY MORE THAN ½ ITS NORMAL DIAMETER. THE WOVEN MATERIALS SHALL WEIGH 0.9 POUNDS PER SQUARE YARD. SYNTHETIC MESH MATERIAL MAY BE USED AS APPROVED. STAPLES: NO. 11 (OR HEAVIER) PLAIN IRON WIRE, MADE 6 INCHES IN LENGTH.

E. EROSION CONTROL BLANKET: INTENDED AS A PERMANENT EROSION CONTROL MEASURE THAT WILL REINFORCE THE TOPSOIL AND VEGETATION AGAINST EROSION AFTER CONSTRUCTION. SYNTHETIC FIBER MATRIX SANDWICHED BETWEEN HEAVY DUTY UV STABILIZED NETTING. BLANKET SHALL WEIGH NOT LESS THAN 0.9 POUNDS PER SQUARE YARD. NORTH AMERICAN GREEN P300 OR APPROVED EQUAL. STAPLES: NO. 11 (OR HEAVIER) PLAIN IRON WIRE, MADE 6 INCHES IN LENGTH.

F. SILT FENCE:

POST: 1"X1" HARDWOOD POST, 4.5 FEET IN LENGTH.

FABRIC: PERVIOUS 36" WIDE SHEET OF SYNTHETIC POLYMER OF 12-MIL THICKNESS, SUCH AS MIRAFI 100X; TERRA TEX-SC OR APPROVED EQUAL. THE BOTTOM OF THE FABRIC SHALL BE TRENCHED INTO THE EXISTING GROUND A MINIMUM OF 6 INCHES. IN ADDITION, HAY BALES OR DITCH CHECKS SHALL BE INSTALLED ALONG THE SILT FENCE TO CREATE SEDIMENTATION POOLS IN LOW AREAS WHERE RUN-OFF CONCENTRATES.

G. EROSION CONTROL SOIL/BARK MIX: SHALL CONSIST OF A MIX OF RECYCLED COMPOSTED BARK, FLUME GRIT, AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLING SYSTEMS. CONFORMING TO THE FOLLOWING:

1. PH - 5.0 TO 6.0.
2. SCREEN SIZE - 6 INCHES MINUS.
3. NO LESS THAN 25 PERCENT ORGANIC MATERIAL.
4. NO STONES LARGER THAN 2 INCHES IN DIAMETER.

H. HAY BALES: BALES SHALL BE AT LEAST 14" X 18" X 30" IN SIZE, STAKED TWICE PER BALE. STAKES SHALL BE 1" X 1" X 36" WOODEN. PLACE BALES WITH TWINE ON SIDES OF BALE, NOT TOP OR BOTTOM.

I. CATCH BASIN SEDIMENT FILTER SACK: A FILTER FABRIC BAG WHICH HANGS UNDER THE GRATE TO CATCH SEDIMENTS. PROVIDE "STREAMGUARD MODEL 3003," "BASIN BAG" BY EMCO DISTRIBUTION, "SILT SACKS HIGH FLOW" BY ACF ENVIRONMENTAL, OR APPROVED EQUAL. INSTALL THE BAG DEVICE PER MANUFACTURER'S RECOMMENDATION.

J. BEFORE EARTHWORK IS STARTED, A SILT FENCE, FILTER BERM, OR STONE SEDIMENT DAM SHALL BE INSTALLED ALONG THE DOWN-SLOPE SIDE OF THE CONSTRUCTION SITE, AS NECESSARY, TO PREVENT SOIL SEDIMENT MIGRATION AWAY FROM THE SITE. INSTALL SILT FENCE OR FILTER BERM ALONG THE DOWN-SLOPE SIDE OF ALL TOP-SOIL AND SUBSOIL STOCKPILES.

K. EROSION CONTROLS BARRIERS SHALL BE REMOVED AFTER CONSTRUCTION IS COMPLETE, BUT NOT UNTIL FINISH GRADING, FINAL SEEDING, AND MULCHING HAS BEEN COMPLETED AND THE ESTABLISHED GRASS HAS STABILIZED THE SOIL. MAINTAIN BARRIERS IN GOOD CONDITION UNTIL REMOVED.

L. INSPECT EROSION AND SEDIMENTATION CONTROL WEEKLY AND AFTER STORM AND MAINTAIN IN GOOD WORKING CONDITION FOR PROJECT DURATION. REMOVE SILT DEPOSITS FROM THE SITE, PLACE IN AN AREA OF LOW EROSION POTENTIAL SO IT WILL NOT WASH INTO A WETLAND OR WATER BODY, SEED WITH EROSION CONTROL MIX, AND MULCH.

M. FILTER BERM: PLACE UNCOMPACTED EROSION CONTROL MIX IN A WINDROW AT LOCATIONS SHOWN ON THE PLAN OR AS DIRECTED BY THE ARCHITECT. AT A MINIMUM THE BERM SHALL BE 3 FEET WIDE AT THE BASE AND 2 FEET HIGH AT THE CENTER OF ALL POINTS ALONG ITS LENGTH. BERM MATERIAL, WHERE THE BERM IS STILL REQUIRED, WHICH HAS DECOMPOSED, CLOGGED WITH SEDIMENT, ERODED, OR BECOMES INEFFECTIVE, SHALL BE REPLACED. THE BERM SHALL BE REMOVED FROM THE SITE OR RAKED INTO NEARBY WOODS TO A DEPTH NO GREATER THAN 1", WHEN NO LONGER REQUIRED, AS APPROVED BY THE ARCHITECT.

N. TEMPORARY STABILIZATION: WITHIN 7 DAYS OF THE CESSATION OF CONSTRUCTION ACTIVITIES IN AN AREA THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS, STABILIZE EXPOSED SOIL WITH MULCH, OR OTHER NON-ERODIBLE COVER. STABILIZE AREAS WITHIN 75 FEET OF A WETLAND OR WATERBODY WITHIN 48 HOURS OF THE INITIAL DISTURBANCE OF THE SOIL OR PRIOR TO A STORM EVENT, WHICHEVER COMES FIRST. REMOVE TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE. MAINTAIN TEMPORARY EROSION CONTROL MEASURES FOR THE FULL DURATION OF CONSTRUCTION. INSPECT WEEKLY AND AFTER EACH STORM AND REPAIR AS NEEDED. REMOVE SEDIMENTS FROM THE SITE, PLACE IN AREA OF LOW EROSION POTENTIAL, AND STABILIZE WITH SEED AND MULCH.

O. PERMANENT STABILIZATION: IF THE AREA WILL NOT BE WORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, THEN PERMANENTLY STABILIZE THE AREA WITHIN 7 DAYS BY PLANTING VEGETATION, SEEDING, SOD, OR THROUGH THE USE OF PERMANENT MULCH, OR RIPRAP, OR ROAD SUB-BASE. "IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS; AMEND AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDED AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING SO TO AVOID DIE-OFF FROM SUMMER DROUGHT AND FALL FROSTS." NEWLY SEEDED OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL VEGETATION IS WELL-ESTABLISHED WITH 90% COVER BY HEALTHY VEGETATION. IF NECESSARY, AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE, PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. PERMANENT STABILIZATION IS DEFINED AS FOLLOWS:

1. SEEDED AREAS: PERMANENT STABILIZATION MEANS A 90% COVER OF THE DISTURBED AREA WITH MATURE, HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.
2. SODDED AREAS: PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.
3. PERMANENT MULCH: PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE APPROVED APPLICATION RATES AND LIMITATIONS.
4. RIPRAP: PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.
5. PAVED AREAS: PERMANENT STABILIZATION MEANS PLACEMENT OF THE COMPACTED SUBBASE GRAVEL IS COMPLETED, PROVIDED IT IS FREE OF FINE MATERIALS THAT MAY RUNOFF WITH A RAIN EVENT.
6. DITCHES, CHANNELS, AND SWALES: PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH A 90% COVER OF HEALTHY VEGETATION, WITH A WELL-GRADED RIPRAP LINING, TURF REINFORCEMENT MAT, OR WITH ANOTHER NON-EMSIVE LINING SUCH AS CONCRETE OR ASPHALT PAVEMENT. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE CHANNEL LINING, UNDERCUTTING OF THE CHANNEL BANKS OR DOWN-CUTTING OF THE CHANNEL.

2. TEMPORARY SEEDING AND MULCHING

A. TOPSOIL STRIPPED AND STOCKPILED ON SITE SHALL BE IMMEDIATELY SEEDED WITH EROSION CONTROL SEED MIX AND MULCHED WITH HAY. MULCH SHALL BE CURED STRAW FREE FROM NOXIOUS WEED SEEDS AND ROUGH OR WOODY MATERIALS.

B. EROSION CONTROL SEED:

Seed Type	% Weight	% Purity	% Germination
Domestic Rye	70	85	80
Perennial Rye	30	85	80

C. EXPOSED EARTHWORK AREAS WHICH WILL NOT BE WORKED ON FOR ONE WEEK SHALL BE MULCHED WITH STRAW.

D. UNFINISHED AREAS WHICH ARE NOT TO BE WORKED ON FOR ONE MONTH OR WILL BE WINTERED SHALL BE SEEDED WITH EROSION CONTROL MIX AT A RATE OF 3 POUNDS OF SEED PER 1,000 SQ. FT. AND MULCHED WITH STRAW. APPLY STRAW MULCH AT THE RATE OF 75 POUNDS PER 1,000 SQ. FT. ANCHOR MULCH TO PREVENT WIND BLOWN MOVEMENT.

E. IN SENSITIVE AREAS (WITHIN 25 FT. OF STREAM OR WETLAND EDGE) TEMPORARY MULCH MUST BE APPLIED AT THE END OF EACH WORK DAY AND PRIOR TO ANY STORM EVENT. NO FILL SHALL BE PLACED ON HAY MULCH.

3. PERMANENT SEEDING AND MULCHING

A. GRASS SEED SHALL BE FREE FROM NOXIOUS WEED SEEDS AND RECLEANED, GRADE A RECENT CROP SEED, TREATED WITH APPROPRIATE FUNGICIDE AT TIME OF MIXING, DELIVERED TO THE SITE IN SEALED CONTAINERS WITH DEALER'S GUARANTEED ANALYSIS AND EACH VARIETY OF SEED SHALL HAVE PERCENTAGES OF GERMINATION OF NOT LESS THAN 80% AND A PERCENTAGE OF PURITY OF NOT LESS THAN 85%.. SOW SEEDS AT A RATE OF 5lbs PER 1,000s.f.

B. WEED SEED CONTENT SHALL NOT EXCEED 0.25%. WET, MOLDY OR OTHERWISE DAMAGED SEED WILL BE REJECTED.

C. SEED MIX PROPORTIONS BY WEIGHT:

Seed Type	% Weight	% Purity	% Germination
Chewing Fesue	35	85	80
Creeping Red Fescue	35	85	80
Perennial Rye	30	85	80

4. WINTER CONSTRUCTION

A. WINTER CONSTRUCTION" IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 15. IF DISTURBED AREAS ARE NOT STABILIZED WITH PERMANENT MEASURES BY NOVEMBER 1 OR NEW SOIL DISTURBANCE OCCURS AFTER NOVEMBER 1, BUT BEFORE APRIL 15, THEN THESE AREAS MUST BE PROTECTED AND RUNOFF FROM THEM MUST BE CONTROLLED BY ADDITIONAL MEASURES AND RESTRICTIONS.

B. SITE STABILIZATION: FOR WINTER STABILIZATION, HAY MULCH IS APPLIED AT TWICE THE STANDARD TEMPORARY STABILIZATION RATE. AT THE END OF EACH CONSTRUCTION DAY, AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE STABILIZED. MULCH MAY NOT BE SPREAD ON TOP OF SNOW.

C. SEDIMENT BARRIERS: ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS.

D. DITCH: ALL VEGETATED DITCH LINES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1 OR WILL BE WORKED DURING THE WINTER CONSTRUCTION PERIOD MUST BE STABILIZED WITH AN APPROPRIATE STONE LINING BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE UNLESS SPECIFICALLY RELEASED FROM THIS STANDARD BY THE DEPARTMENT.

E. SLOPES: MULCH NETTING MUST BE USED TO ANCHOR MULCH ON ALL SLOPES GREATER THAN 8% UNLESS EROSION CONTROL BLANKETS OR EROSION CONTROL MIX IS BEING USED ON THESE SLOPES.

5. DRAINAGE DITCHES AND EMBANKMENTS

A. DRAINAGE DITCHES SHALL BE PROVIDED WITH TEMPORARY STONE CHECK DAMS SPACED NO GREATER THAN 100 FEET APART. TEMPORARY DITCH CHECK DAMS SHALL BE CONSTRUCTED WHERE INDICATED. ADDITIONAL TEMPORARY DITCH DAMS SHALL BE INSTALLED DURING THE CONSTRUCTION, WHERE NECESSARY TO PREVENT SOIL FROM LEAVING THE WORK AREA.

B. GRASSED DRAINAGE DITCHES AND SWALES SHALL BE LINED WITH A CONTINUOUS MAT OF EROSION CONTROL MESH FOR FULL BOTTOM WIDTH AND SIDE SLOPES TO 12" ABOVE BOTTOM, WITHIN 48 HOURS OF FINAL GRADING AND PRIOR TO A STORM EVENT, IN ORDER TO STABILIZE THE LOAM, SEED AND MULCH.

C. WHERE EROSIVE VELOCITIES IN DITCHES OR EMBANKMENTS ARE ANTICIPATED OR EXPERIENCED AND SOIL CANNOT BE STABILIZED WITH MULCH AND MESH, SUBSTITUTE EROSION CONTROL SOIL/BARK MIX IN PLACE OF LOAM. SCREEN THE EROSION CONTROL SOIL/BARK MIX TO REMOVE WOOD, BARK AND STONES ONE INCH IN SIZE AND GREATER. IF EROSIVE VELOCITIES ARE EXCESSIVE, PROVIDE A 12" THICK STONE RIP-RAP LINING ALONG DITCH BOTTOM AND UP SIDE SLOPES TO ONE FOOT ABOVE THE BOTTOM ELEVATION. PLACE NON-WOVEN GEOTEXTILE BENEATH RIP-RAP.

D. STABILIZE POND EMBANKMENT (INTERIOR AND EXTERIOR), SLOPES STEEPER THAN THREE HORIZONTAL TO ONE VERTICAL AND DRAINAGE DITCHES BY SEPTEMBER 15, CONSISTING OF PERMANENT SEEDING AND MULCH. IF THIS DATE CANNOT BE MET, PROVIDE ALTERNATIVE PERMANENT OR TEMPORARY STABILIZATION DESCRIBED AS FALL AND WINTER STABILIZATION.

E. INSTALL EROSION CONTROL MESH OVER MULCH ON SLOPES STEEPER THAN SIX HORIZONTAL TO ONE VERTICAL (16%) AND IN CONFORMANCE TO DOT STANDARD SPECIFICATION, LATEST EDITION, SECTION 9.48, PARAGRAPHS 613.03 THROUGH 613.06. ANCHOR MESH AS RECOMMENDED BY MANUFACTURER.

F. PERMANENTLY RIP-RAP INLETS AND OUTLETS OF CULVERTS AND PIPE OUTFALLS WITHIN 48 HOURS OF INSTALLATION, AS SPECIFIED IN SECTION 312000 - EARTH MOVING AND AS SHOWN ON THE DRAWINGS.

G. INSTALL PERMANENT EROSION CONTROL BLANKET AROUND CULVERT INLETS AND OUTLETS AS SHOWN ON THE DRAWINGS AND ACCORDING TO MANUFACTURERS' RECOMMENDATIONS.

4. PREPARE SOIL WITH LOAM, FERTILIZER AND SEED AS SPECIFIED IN SECTION 329200 PRIOR TO INSTALLING THE EROSION CONTROL BLANKET.
5. INSTALL PERMANENT EROSION CONTROL BLANKET FIVE FEET MINIMUM IN ALL DIRECTIONS AROUND CULVERT INLETS.
6. INSTALL PERMANENT EROSION CONTROL BLANKET FIVE FEET MINIMUM IN ALL DIRECTIONS AROUND CULVERT OUTLETS AND A SIX FOOT WIDTH CENTERED ALONG THE OUTLET CHANNEL FOR TEN FEET.
7. INSTALL STAPLES AS SHOWN ON THE EROSION CONTROL BLANKET DETAIL ON THE DRAWINGS AND THROUGHOUT THE BLANKET IN AN 18 BY 18 INCH GRID.

6. PARKING AND DRIVES

A. PLACE A TEMPORARY STABILIZED CONSTRUCTION EXITS WHERE VEHICLES LEAVE THE SITE AND ENTER EXISTING PAVED ROADS; CONSISTING OF A 6" LAYER OF 1 1/2" TO 3" CRUSHED STONE. TRACKING A SPILLING OF EARTH AND/OR DEBRIS ON PUBLIC STREETS SHALL BE AVOIDED TO THE MAXIMUM EXTENT POSSIBLE. CLEAN UP AND REMOVE SUCH SPILLAGE.

B. AS THE CRUSHED STONE STABILIZED CONSTRUCTION EXITS CONTINUE TO SCRUB THE SOIL FROM THE TRUCKS, THE STONE LAYER WILL TEND TO FILL WITH SEDIMENTS. WHEN THIS OCCURS, REMOVE THE STONE AND SEDIMENT AND REPLACE IT WITH A CLEAN LAYER OF STONE.

C. AS SOON AS POSSIBLE AFTER ROADS AND PARKING AREAS ARE CLEARED, GRUBBED AND GRADED TO THE REQUIRED SUBGRADE, THE BASE GRAVEL SHALL BE PLACED.

7. REMOVAL AND DISPOSAL

WHEN PERMANENT SOIL STABILIZATION HAS BEEN ACHIEVED, TEMPORARY MATERIALS AND DEVICES THAT ARE NOT READILY DEGRADABLE SHALL BE REMOVED AND DISPOSED OF OFF SITE. SILT FENCES, FILTER BERMS AND CATCH BASIN SEDIMENT FILTERS MUST BE FULLY REMOVED. REUSABLE MATERIALS ARE AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

8. STONES FOR RIP-RAP

A. SIZE THE STONE MIXTURE SUCH THAT 50% OF THE STONES, BY WEIGHT, ARE LARGER THAN THE SPECIFIED D50 SIZE. STONES SHALL NOT BE SCHISTOSIC.

B. PLAIN RIP-RAP: 4" TO 12" DIAMETER, HARD, SOUND ANGULAR STONES, D50 = 6".

C. SPECIAL RIP-RAP: 8" TO 18" WIDE SOUND STONES WITH FLAT TOP SURFACE, D50 = 11".

D. THE STONES SHALL BE PLACED WITH THEIR BENDS AT RIGHT ANGLES TO THE SLOPE, THE LARGER STONES BEING USED IN BOTTOM COURSES.

E. THE FINISHED WORK SHALL PRESENT AN EVEN, TIGHT AND REASONABLY SMOOTH SURFACE CONFORMING TO THE REQUIRED CONTOUR AND HAVE A NEAT ORDERLY APPEARANCE WITHOUT SCATTERED STONES.

F. SPECIAL" RIP-RAP SHALL BE HAND-PLACED IN CLOSE CONTACT TO FORM AN EVEN, TIGHT AND REASONABLY SMOOTH SURFACE WITH RELATIVELY FLAT TOP SURFACES. USE NO SMALL STONES OR SPALL.

9. PLANTING TIME

A. SEEDING: SEEDING SHALL BE DONE BETWEEN AUGUST 15TH TO SEPTEMBER 15TH AND/OR APRIL 15TH TO JUNE 15TH.

B. SODDING: SODDING MAY BE DONE BETWEEN APRIL 15TH AND NOVEMBER 15TH.

C. VARIANCE: IF SPECIAL CONDITIONS EXIST WHICH MAY WARRANT A VARIANCE IN THE ABOVE PLANTING DATES, A WRITTEN REQUEST SHALL BE SUBMITTED TO THE ARCHITECT STATING THE SPECIAL CONDITIONS FOR THE PROPOSED VARIANCE. PERMISSION FOR THE VARIANCE WILL BE GIVEN IF WARRANTED IN THE OPINION OF THE ARCHITECT. REGARDLESS OF THE TIME OF SEEDING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR A FULL GROWTH OF GRASS.

D. PLACE PERMANENT SOIL STABILIZATION WITHIN 15 DAYS OF FINAL GRADING.

10. SPILL PREVENTION AND GROUNDWATER PROTECTION

A. AREAS INSIDE AND OUTSIDE THE CONTRACT WORK LIMITS SHALL BE PROTECTED FROM LUBRICANTS, FUEL, SEDIMENT, LITTER, CONSTRUCTION DEBRIS, CHEMICALS AND OTHER POLLUTANTS.

B. TAKE PRECAUTIONS AND CONFORM TO ALL FEDERAL, STATE AND LOCAL REGULATIONS TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. IMPLEMENT SPILL PREVENTION, CONTAINMENT AND RESPONSE.

C. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BE DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. IMPERVIOUS LINERS OR MATERIALS MUST BE USED TO STORE OR CONTAIN THE HAZARDOUS MATERIALS AND PREVENT THEM FROM ENTERING THE GROUNDWATER.

11. FUGITIVE SEDIMENT AND DUST

A. USE TRAFFIC CONTROL TO RESTRICT TRAFFIC TO PREDETERMINED ROUTES. MAINTAIN AS MUCH NATURAL VEGETATION AS IS PRACTICABLE. USE PHASING OF CONSTRUCTION TO REDUCE THE AREA OF LAND DISTURBED AT ANY ONE TIME. THE USE OF TEMPORARY MULCHING, PERMANENT MULCHING, TEMPORARY VEGETATIVE COVER, PERMANENT VEGETATIVE COVER, OR SODDING WILL REDUCE THE NEED FOR DUST CONTROL. USE MECHANICAL SWEEPERS ON PAVED SURFACES WHERE NECESSARY TO PREVENT DUST BUILDUP. STATIONARY SOURCES OF DUST, I.E. ROCK CRUSHERS, SHOULD UTILIZE FINE WATER SPRAYS TO CONTROL DUST.

B. THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

C. CALCIUM CHLORIDE SHALL BE EITHER LOOSE DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH A SPREADER AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. LIQUID CALCIUM CHLORIDE CAN ALSO BE USED. TO REDUCE POTENTIAL FOR ENVIRONMENTAL DEGRADATION, USE ONLY WHEN OTHER METHODS ARE NOT PRACTICAL.

D. COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. IN AREAS ADJACENT TO WATERWAYS, USE CHEMICALLY STABLE AGGREGATE.

E. WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

12. DEBRIS AND OTHER MATERIALS

MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF.

13. EXCAVATION DE-WATERING

A. WATER FROM CONSTRUCTION DEWATERING OPERATIONS SHALL BE CLEANED OF SEDIMENT BEFORE REACHING WETLANDS, WATER BODIES, STREAMS, OR SITE BOUNDARIES. UTILIZE TEMPORARY SEDIMENT BASINS, EROSION CONTROL SOIL FILTER BERMS BACKED BY STAKED HAY BALES, A DIRT BAG 55" SEDIMENT FILTER BAG BY ACF ENVIRONMENTAL, INC. OR OTHER APPROVED BEST MANAGEMENT PRACTICES (BMP's).

B. IN SENSITIVE AREAS, NEAR STREAMS OR PONDS, DISCHARGE THE WATER FROM THE DE-WATERING OPERATION INTO A TEMPORARY SEDIMENT BASIN CREATED BY A SURROUNDING FILTER BERM OF UNCOMPACTED EROSION CONTROL MIX IMMEDIATELY BACKED BY STAKED HAY BALES (SEE THE SITE DETAILS). LOCATE THE TEMPORARY SEDIMENT BASIN AT LEAST 100 FEET FROM THE NEAREST WATER BODY, SUCH THAT THE FILTERED WATER WILL FLOW THROUGH UNDISTURBED VEGETATED SOIL AREAS PRIOR TO REACHING THE WATER BODY OR PROPERTY LINE.

C. PREPARE A DE-WATERING PLAN TO ADDRESS EXCAVATION DE-WATERING FOLLOWING HEAVY RAINFALL EVENTS OR WHERE THE EXCAVATION MAY INTERCEPT THE GROUNDWATER TABLE DURING CONSTRUCTION. THE COLLECTED WATER NEEDS TREATMENT AND A DISCHARGE POINT THAT WILL NOT CAUSE DOWNGRADIENT EROSION AND OFFSITE SEDIMENTATION OR WITHIN A RESOURCE. FOLLOW THE DETAIL OF THE PLAN THROUGHOUT CONSTRUCTION DURATION.

D. THE OWNER OR REGULATORY AGENCIES DO NOT AUTHORIZE A WATER DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, INCLUDING THE FOLLOWING: WASTEWATER FROM CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS; FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; SOAPS, SOLVENTS OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

14. UNAUTHORIZED NON-STORMWATER DISCHARGES

THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEAN OUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS.
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE.
- SOAPS, SOLVENTS OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING.
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

15. AUTHORIZED NON-STORMWATER DISCHARGES

IMPLEMENT APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE FOLLOWING DISCHARGES:

- FIREFIGHTING ACTIVITY.
- FIRE HYDRANT FLUSHINGS.
- VEHICLE WASH-WATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED.
- DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND DEP CHAPTER 500 APPENDIX (C)(3)
- ROUTINE EXTERNAL BUILDING WASH-DOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS.
- PAVEMENT WASH-WATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOTE USED
- UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE.
- UNCONTAMINATED GROUNDWATER OR SPRING WATER.
- FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED.
- UNCONTAMINATED EXCAVATION DE-WATERING (SEE REQUIREMENTS IN DEP CHAPTER 500 APPENDIX C(5)).
- POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS.
- LANDSCAPING IRRIGATION.

16. CONSTRUCTION INSPECTION AND MAINTENANCE

A. INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL BEST MANAGEMENT PRACTICES (BMP'S), MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A RAIN EVENT AND PRIOR TO COMPLETING PERMANENT STABILIZATION. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL AND STANDARDS AND CONDITIONS OF ANY APPLICABLE PERMITS, SHALL CONDUCT THE INSPECTIONS.

B. UPON DISCOVERY OF A PROBLEM, REPAIR BMPS NO LATER THAN THE END OF THE NEXT WORK DAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIRS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO A RAIN EVENT.

C. KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND CORRECTIVE ACTION TAKEN, INCLUDING THE NAME AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE OF THE INSPECTIONS AND MAJOR OBSERVATIONS OF OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS AND VEHICLES ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPS THAT NEED MAINTENANCE, BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED. NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN. THE LOG MUST BE MADE ACCESSIBLE TO THE OWNER, ARCHITECT AND REGULATORY AGENCIES' STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

Harriman

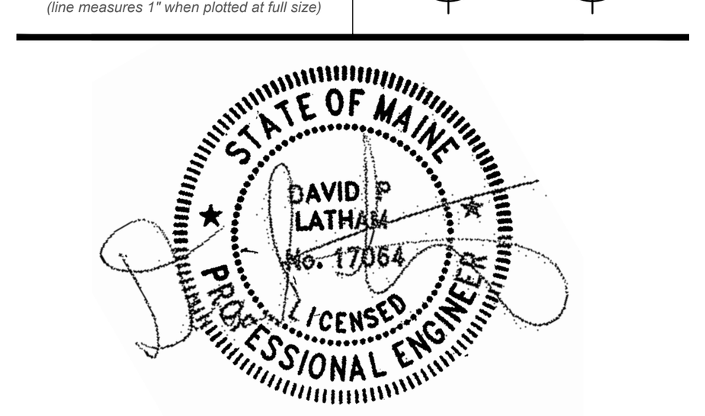
UNIVERSITY OF MAINE
KEYO BUILDING
ELECTRICAL SERVICE
UPGRADE

ORONO, MAINE

Harriman Project No.	24265

Graphic Scale 0' 20'
(line measures 1" when plotted at full size)

Plan North True North



CONSTRUCTION DOCUMENTS

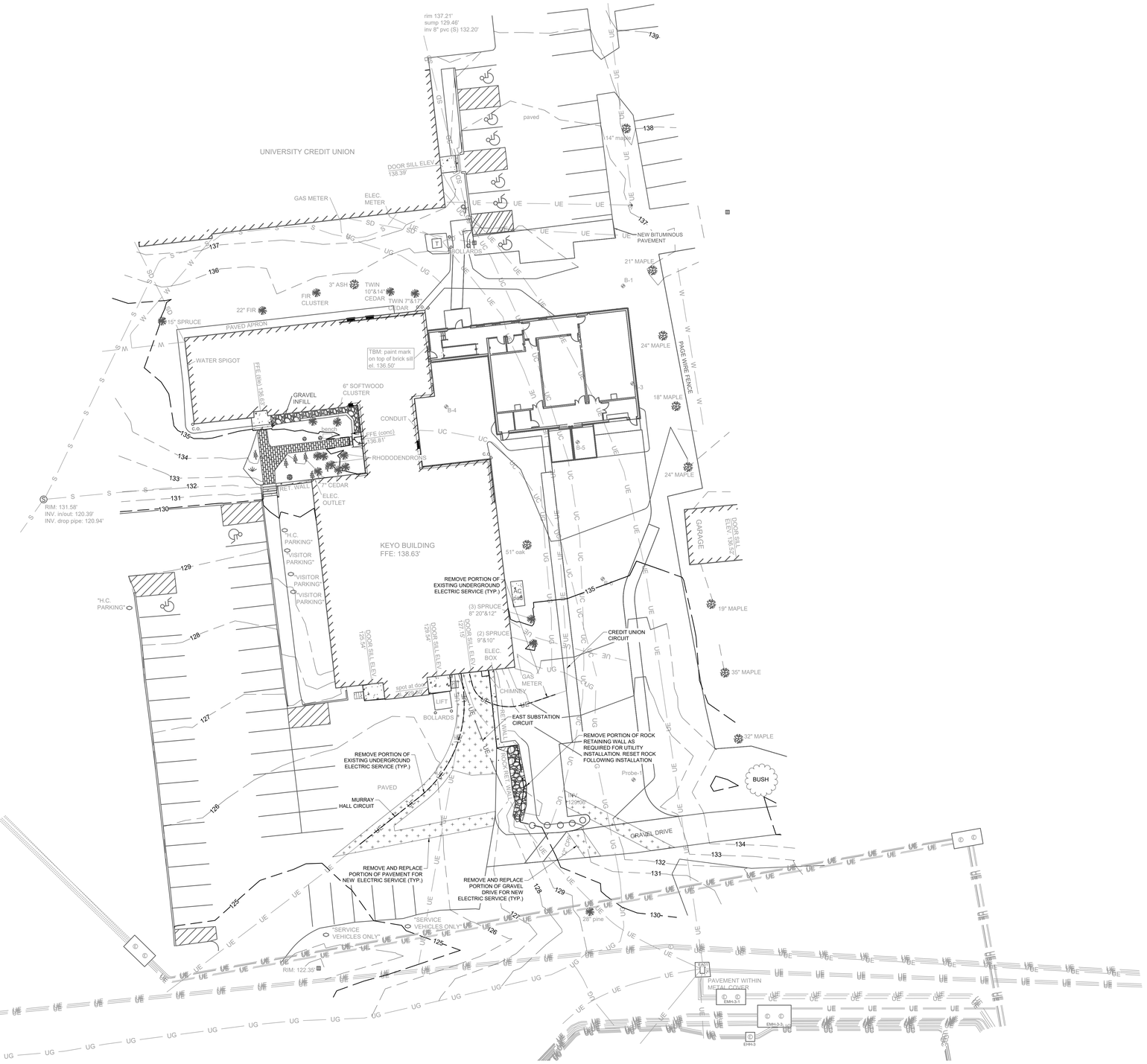
JANUARY 5, 2026

Revision Date	Revision Description

Drawn by: DPL

SITE EROSION
CONTROL NOTES

C00-2



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ORONO, MAINE

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Graphic Scale 0' 20' (one measures 1" when plotted at full size)

Plan North

True North

STATE OF MAINE
DAVID P LATHAM
No. 17084
LICENSED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

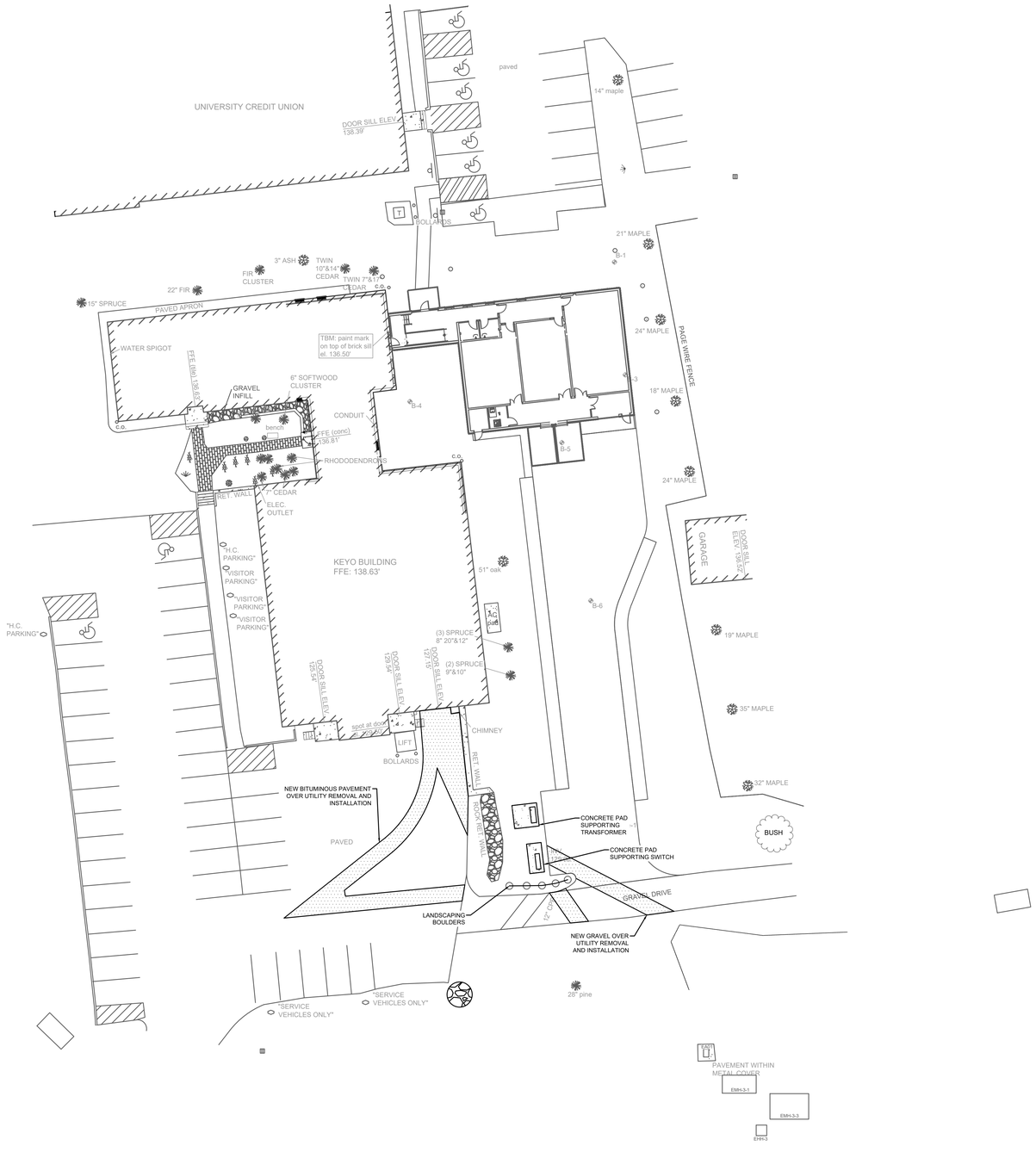
JANUARY 5, 2026

Revision Date	Revision Description

Drawn by: DPL

EXISTING SITE CONDITIONS AND DEMOLITION PLAN

C10-1



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Harriman Project No.	24265

Graphic Scale 0' 20' (one measures 1" when plotted at full size)

Plan North

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DAVID P LATHAM
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LICENSED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

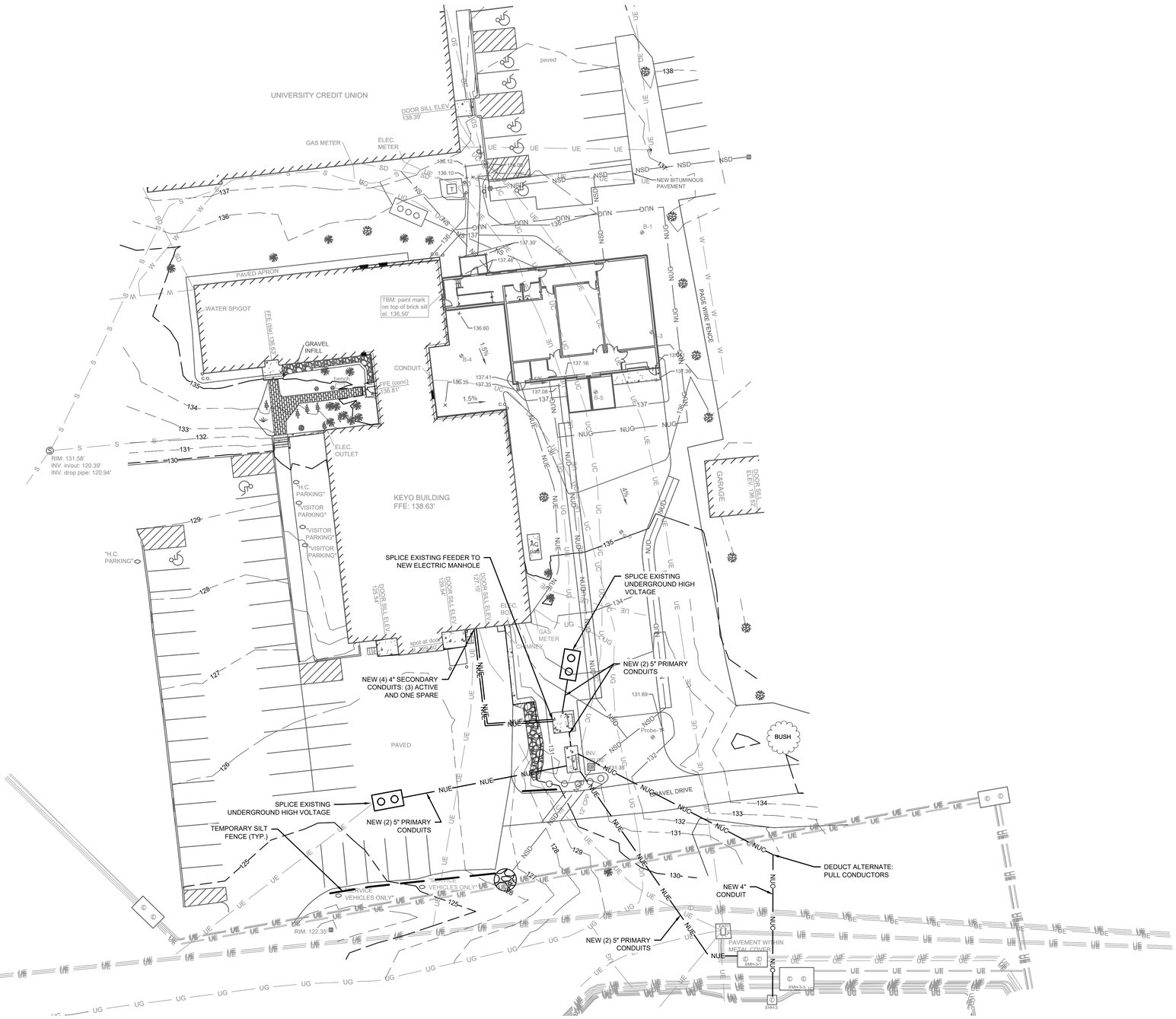
JANUARY 5, 2026

Revision Date	Revision Description

Drawn by: DPL

SITE LAYOUT PLAN

C20-1



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UPGRADE

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Harriman Project No.	24265

Graphic Scale 0' 20' (this measures 1" when plotted at full size)

Plan North

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CONSTRUCTION DOCUMENTS

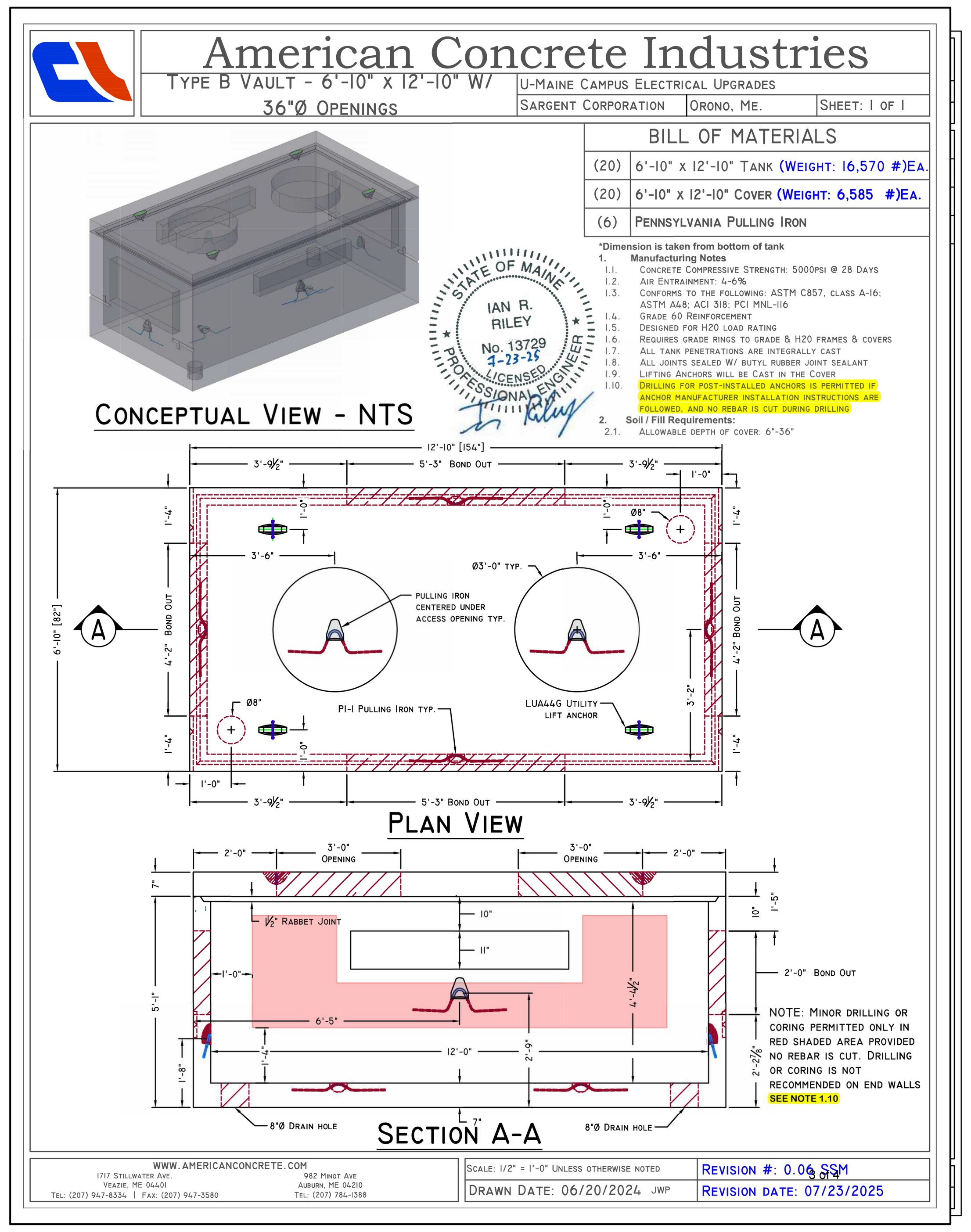
JANUARY 5, 2026

Revision Date	Revision Description

Drawn by: DPL

SITE UTILITY PLAN

C40-1



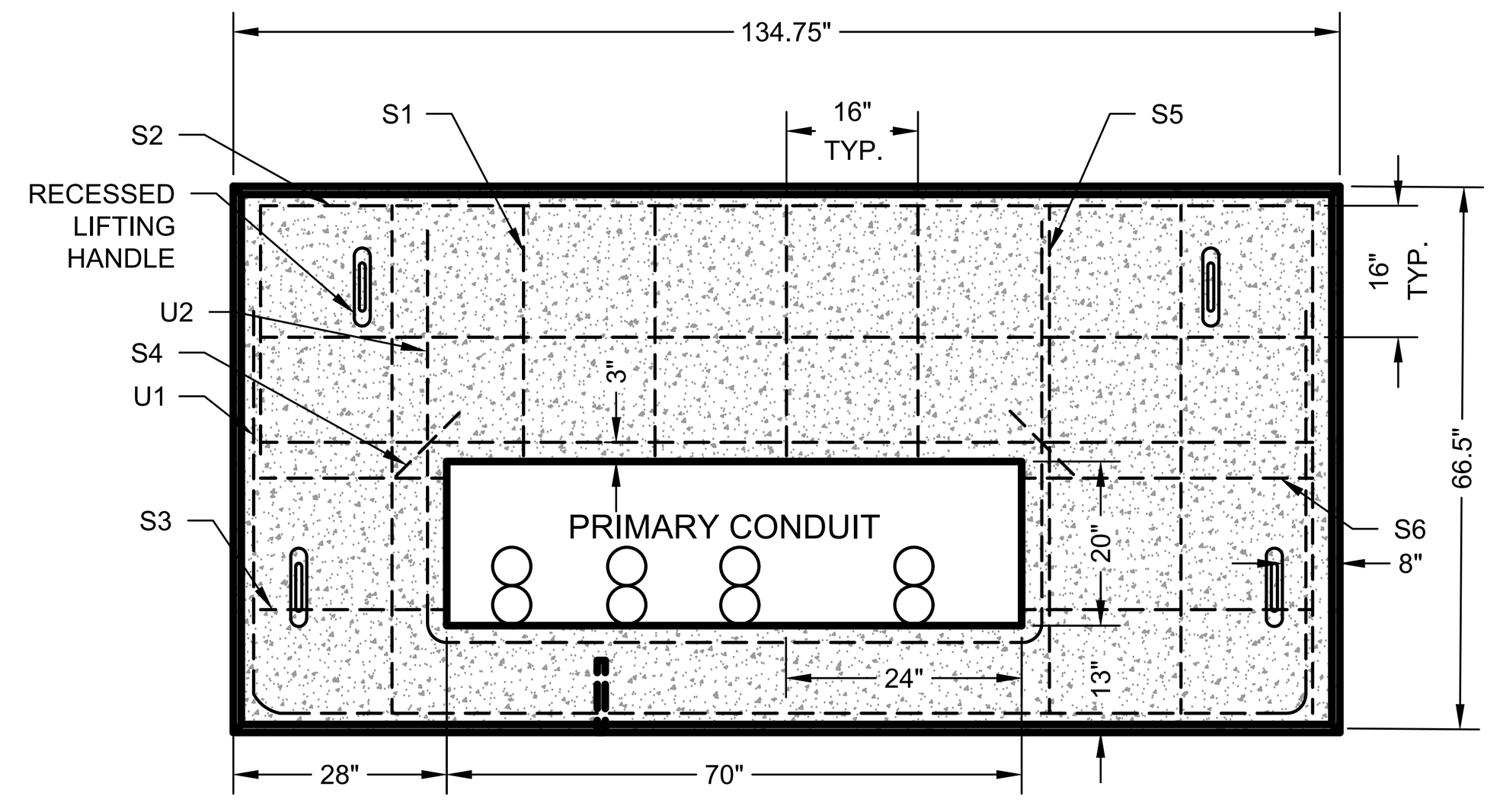
American Concrete Industries
Type B Vault - 6'-10" x 12'-10" W/ 36"Ø Openings
U-Maine Campus Electrical Upgrades
Sargent Corporation
Orono, ME.
Sheet: 1 of 1
BILL OF MATERIALS
(20) 6'-10" x 12'-10" Tank (Weight: 16,570 #)Ea.
(20) 6'-10" x 12'-10" Cover (Weight: 6,585 #)Ea.
(6) Pennsylvania Pulling Iron
Conceptual View - NTS
Plan View
Section A-A
NOTE: Minor drilling or coring permitted only in red shaded area provided no rebar is cut. Drilling or coring is not recommended on end walls
www.americanconcrete.com
Drawn Date: 06/20/2024
Revision date: 07/23/2025

C1 ELECTRIC MANHOLE DETAIL
SCALE: N.T.S

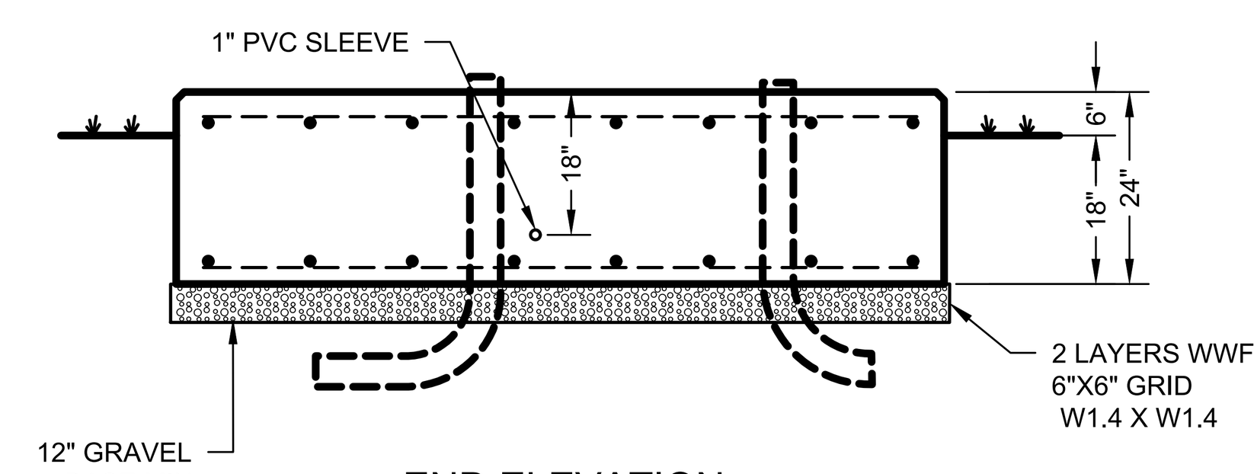
NOTES:

1. SET CONCRETE BOX PAD ON SUITABLE GRAVEL BASE AND PROVIDE ADEQUATE DRAINAGE AWAY FROM PAD. REINFORCE AS SHOWN. LOCATION TO BE ACCESSIBLE BY TRUCK AND SUITABLY PROTECTED FROM PLOW AND TRAFFIC DAMAGE.
2. COORDINATE AND VERIFY ALL INFORMATION WITH EQUIPMENT FURNISHED.

REINFORCING SCHEDULE (#6 BAR)			
TYPE	QTY	LENGTH	DIAGRAM
S1	10	28"	STRAIGHT
S2	6	130"	STRAIGHT
S3	12	23"	STRAIGHT
S4	4	24"	STRAIGHT
S5	6	60"	STRAIGHT
S6	4	31"	STRAIGHT
U1	2	229"	50 129 50
U2	2	176"	50 76 50

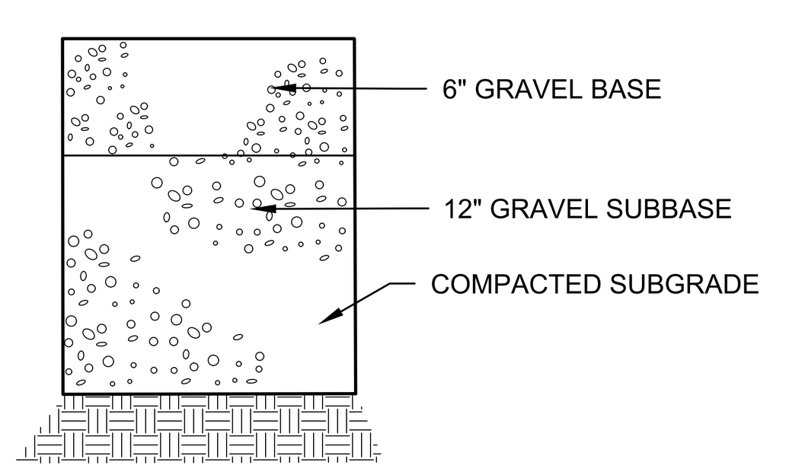


PLAN

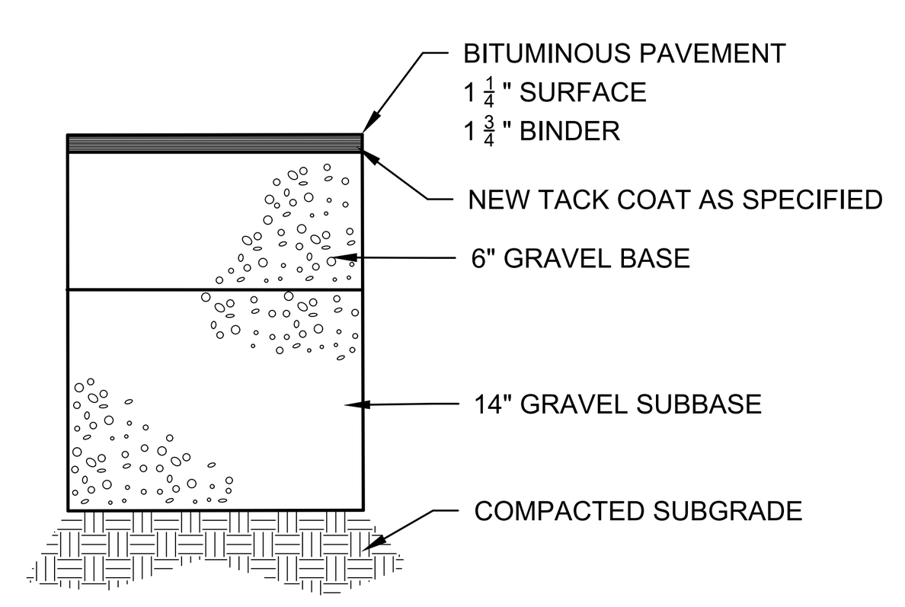


END ELEVATION

C2 3 PHASE PAD-MOUNTED SWITCH SLAB
SCALE: N.T.S



B1 GRAVEL DRIVE DETAIL
SCALE: N.T.S



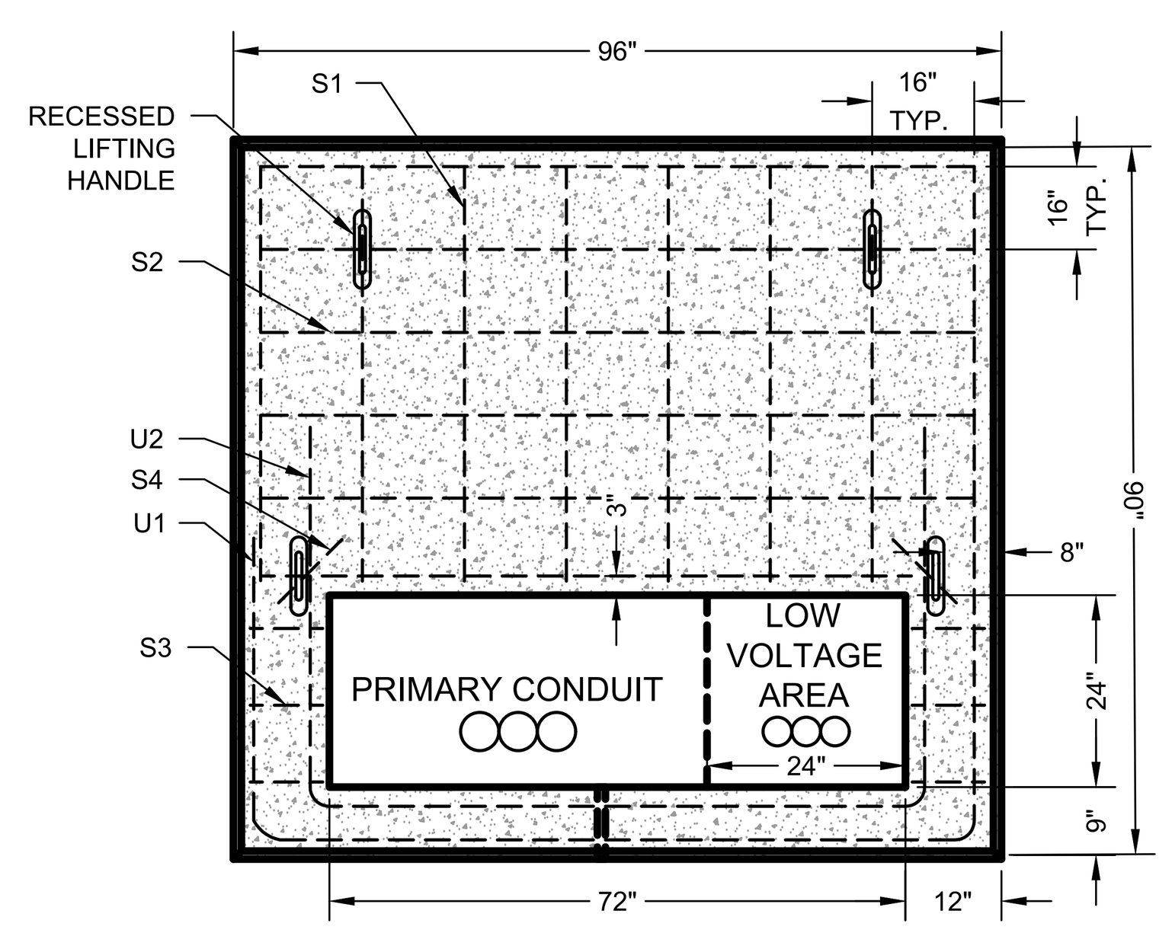
BITUMINOUS ROADS & PARKING

B2 BITUMINOUS PAVEMENT DETAIL
SCALE: N.T.S

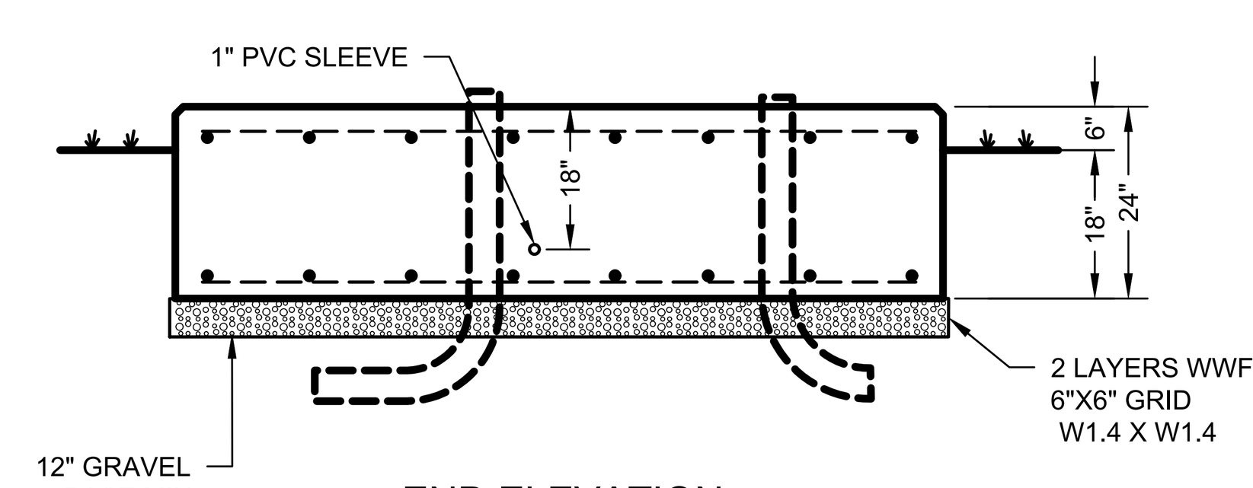
NOTES:

1. SET CONCRETE BOX PAD ON SUITABLE GRAVEL BASE AND PROVIDE ADEQUATE DRAINAGE AWAY FROM PAD. REINFORCE AS SHOWN. LOCATION TO BE ACCESSIBLE BY TRUCK AND SUITABLY PROTECTED FROM PLOW AND TRAFFIC DAMAGE.
2. COORDINATE AND VERIFY ALL INFORMATION WITH THE UNIVERSITY.
3. REFER TO SHEA PRECAST CONCRETE EVERSOURCE 53-111 3 PHASE TRANSFORMER PAD 75-500 KVA (OR APPROVED EQUAL).

REINFORCING SCHEDULE (#6 BAR)			
TYPE	QTY	LENGTH	DIAGRAM
S1	10	51"	STRAIGHT
S2	10	90"	STRAIGHT
S3	12	7"	STRAIGHT
S4	4	24"	STRAIGHT
U1	2	198"	54 90 54
U2	2	186"	54 78 54



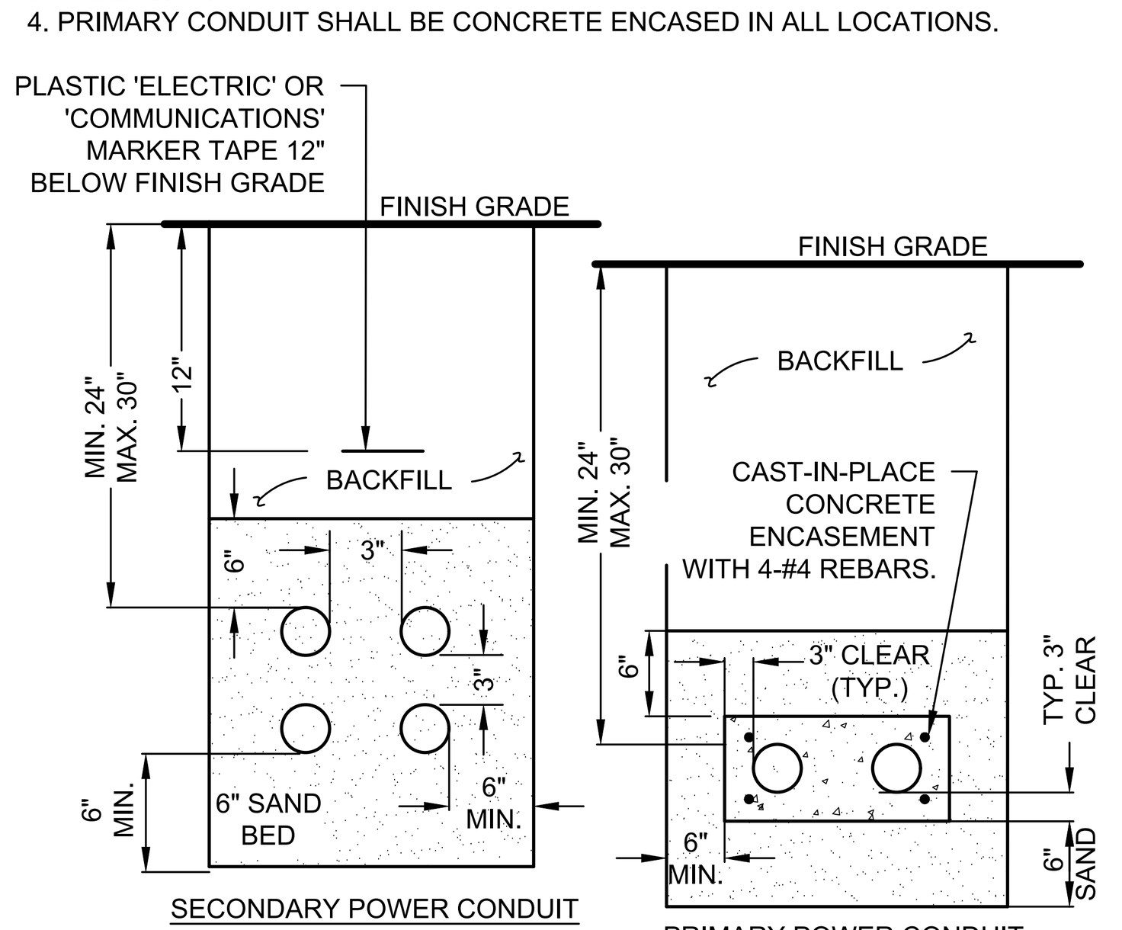
PLAN



END ELEVATION

B4 3 PHASE PAD-MOUNTED TRANSFORMER SLAB
SCALE: N.T.S

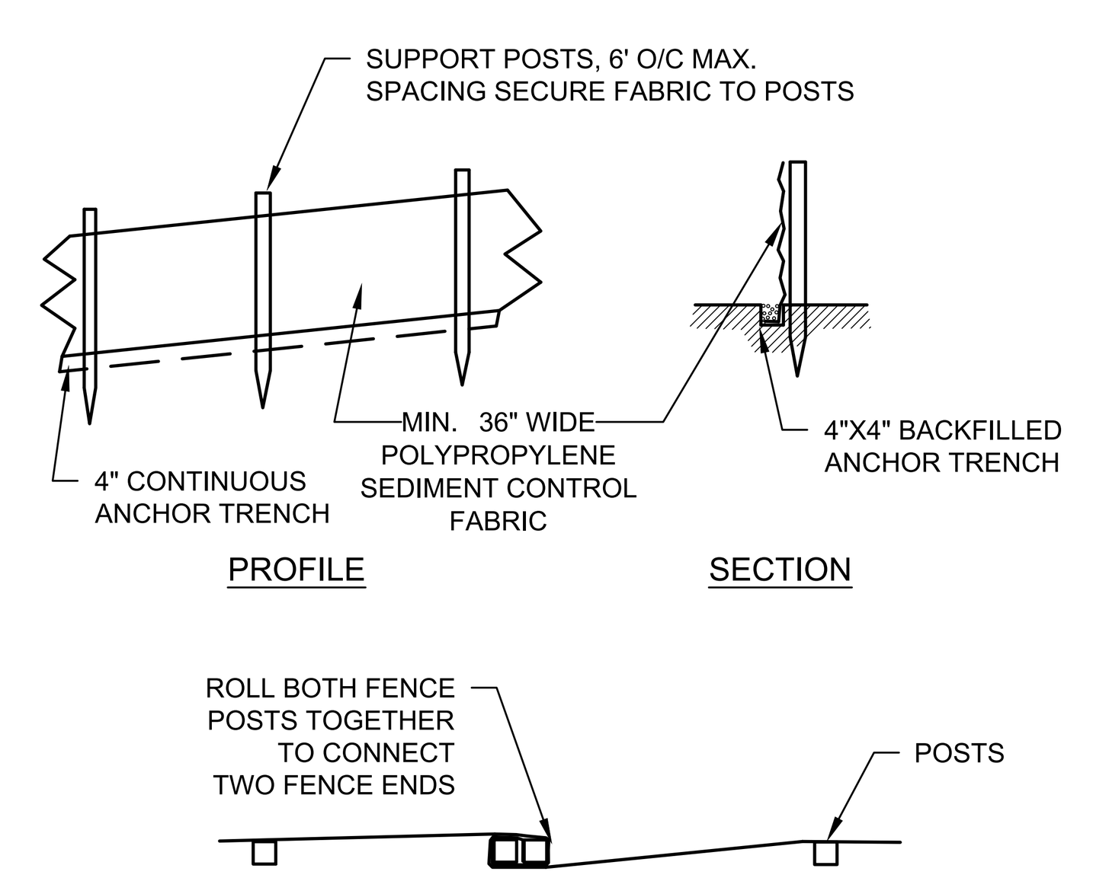
NOTES:
1. CONDUITS AND WIRING SUPPLIED AND INSTALLED BY DIV. 26.
2. DESIGNATION, NUMBER AND SIZE OF CONDUITS SHOWN ON ELECTRICAL PLANS.
3. COMPACT SAND BEDDING AND EXCAVATED SOIL BACKFILL TO 95% MAXIMUM DRY DENSITY.
4. PRIMARY CONDUIT SHALL BE CONCRETE ENCASED IN ALL LOCATIONS.



PLASTIC 'ELECTRIC' OR 'COMMUNICATIONS' MARKER TAPE 12" BELOW FINISH GRADE
FINISH GRADE
MIN. 24" MAX. 30"
BACKFILL
6" SAND BED
SECONDARY POWER CONDUIT
FINISH GRADE
BACKFILL
CAST-IN-PLACE CONCRETE ENCASEMENT WITH 4-#4 REBARS.
3" CLEAR (TYP.)
TYP. 3" CLEAR
6" SAND
PRIMARY POWER CONDUIT

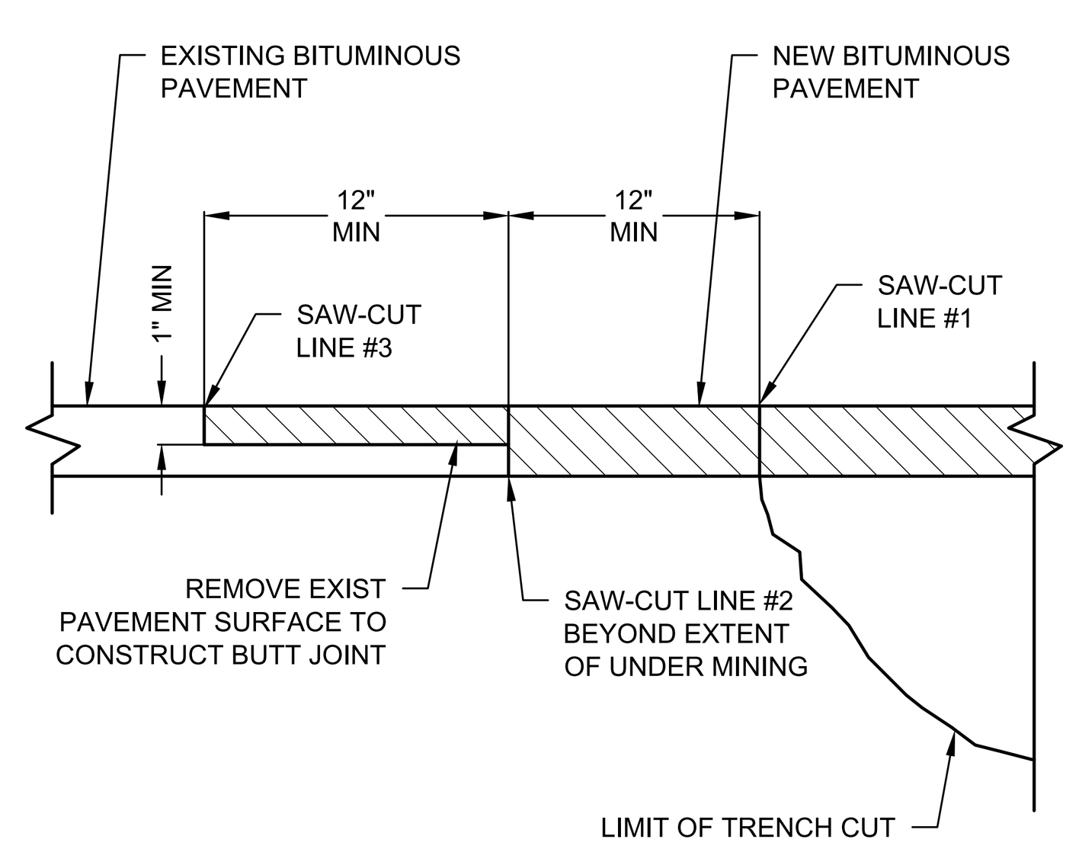
A1 (TYP) DUCT BANK SECTION
SCALE: N.T.S

NOTE:
1. PLACE SILT FENCE OR FILTER BERMS ALONG UNIFORMLY SLOPED SURFACE.
2. EROSION CONTROL MIX FILTER BERM MAY BE SUBSTITUTED FOR A SILTFENCE. SEE THE SITE GRADING AND EROSION CONTROL PLAN.

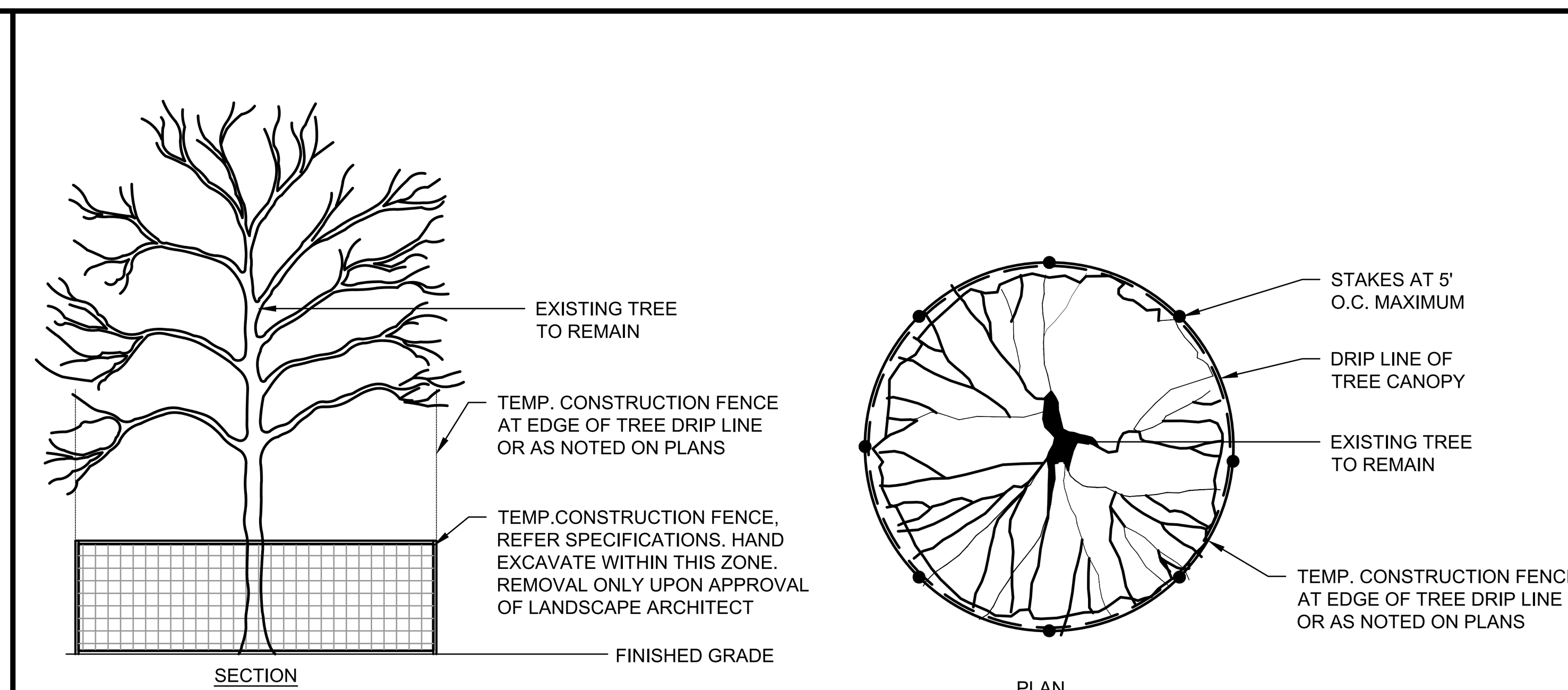


SUPPORT POSTS, 6' O/C MAX. SPACING SECURE FABRIC TO POSTS
4" CONTINUOUS ANCHOR TRENCH
MIN. 36" WIDE POLYPROPYLENE SEDIMENT CONTROL FABRIC
4"X4" BACKFILLED ANCHOR TRENCH
PROFILE
SECTION
ROLL BOTH FENCE POSTS TOGETHER TO CONNECT TWO FENCE ENDS
POSTS
CONNECTION PLAN VIEW

A2 SILT FENCE
SCALE: N.T.S



B3 PAVEMENT SAW-CUT JOINT
SCALE: N.T.S



EXISTING TREE TO REMAIN
TEMP. CONSTRUCTION FENCE AT EDGE OF TREE DRIP LINE OR AS NOTED ON PLANS
TEMP.CONSTRUCTION FENCE, REFER SPECIFICATIONS. HAND EXCAVATE WITHIN THIS ZONE. REMOVAL ONLY UPON APPROVAL OF LANDSCAPE ARCHITECT
FINISHED GRADE
SECTION
STAKES AT 5' O.C. MAXIMUM
DRIP LINE OF TREE CANOPY
EXISTING TREE TO REMAIN
TEMP. CONSTRUCTION FENCE AT EDGE OF TREE DRIP LINE OR AS NOTED ON PLANS
PLAN

NOTE:
1. DO NOT STORE ANY MACHINERY OR MATERIALS WITHIN FENCED AREAS UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS

A4 EXISTING TREE PROTECTION
SCALE: N.T.S

Harriman

UNIVERSITY OF MAINE
KEYO BUILDING
ELECTRICAL SERVICE
UPGRADE

ORONO, MAINE

Harriman Project No. 24265

Graphic Scale 0' 20'
Plan North True North

STATE OF MAINE DAVID P. LATHAM No. 17064 LICENSED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

JANUARY 5, 2026

Revision Date | Revision Description

Drawn by: DPL

SITE DETAILS

C50-1

ABBREV / DESCRIPTION

ABBREV	DESCRIPTION
ACV	AUTOMATIC CONTROL VALVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ALD	ACOUSTICAL LINED DUCT
AMS	AIRFLOW MEASURING STATION
APD	AIR PRESSURE DROP
ATC	AUTOMATIC TEMPERATURE CONTROL
B	BAROMETRIC DAMPER
BD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BPD	BYPASS DAMPER
BTU	BRITISH THERMAL UNITS
CBD	COUNTERBALANCED BACKDRAFT DAMPER
CFM	CUBIC FEET PER MINUTE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CO	CLEANOUT
CTE	CONNECT TO EXISTING
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DCW	DOMESTIC COLD WATER
DEG.F	DEGREES FAHRENHEIT
DHW	DOMESTIC HOT WATER
DIA	DIAMETER
DN	DOWN
DTR	DUAL TEMPERATURE RETURN
DTS	DUAL TEMPERATURE SUPPLY
EAT	ENTERING AIR TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
EXG	EXISTING
EXH	EXHAUST
F&T	FLOAT & THERMOSTATIC TRAP
F/S	FIRE AND SMOKE COMBINATION DAMPER
FC	FLEXIBLE CONNECTION
FD	FIRE DAMPER
FL	FINNED LENGTH OF RADIATION
FM	FLOW METER
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FPF	FINS PER FOOT
FPI	FINS PER/INCH
FPM	FEET PER MINUTE
FT	FEET
FT-HD	FEET OF HEAD
FT-WG	FEET WATER GAUGE
FTR	FIN TUBE RADIATOR
GAL	GALLONS
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HPCR	HIGH PRESSURE CONDENSATE RETURN (OVER 30 PSIG)
HPS	HIGH PRESSURE STEAM (OVER 30PSIG)
HRR	HEAT RECOVERY RETURN
HRS	HEAT RECOVERY SUPPLY
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY

ABBREV / DESCRIPTION

ABBREV	DESCRIPTION
IN	INCHES
LAT	LEAVING AIR TEMPERATURE
LPCR	LOW PRESSURE CONDENSATE RETURN (LESS THAN 15 PSI)
LPS	LOW PRESSURE STEAM(LESS THAN 15 PSI)
LRA	LOCKED ROTOR AMPS
LSGV	LOCK & SHIELD GATE VALVE
LWT	LEAVING WATER TEMPERATURE
M	MOTORIZED DAMPER
MAX	MAXIMUM
MBH	1000 BRITISH THERMAL UNITS
MCA	MINIMUM CIRCUIT AMPS
MIN	MINIMUM
MOPD	MAXIMUM OVERCURRENT PROTECTIVE DEVICE
MPCR	MEDIUM PRESSURE CONDENSATE RETURN(16-30 PSIG)
MPS	MEDIUM PRESSURE STEAM (16-30 PSIG)
NA	NOT APPLICABLE
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER
OED	OPEN END DUCT
OS&Y	OUTSIDE SCREW & YOKE GATE VALVE
PD	PRESSURE DROP
PRD	PRESSURE RELIEF DAMPER
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
RET	RETURN
RL	REFRIGERANT LIQUID
RLA	RATED LOAD AMPERES
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
S	SMOKE DAMPER
SP	STATIC PRESSURE
SS	STAINLESS STEEL
SUP	SUPPLY
TEMP	TEMPERATURE
TT	THERMOSTATIC TRAP
TYP	TYPICAL
V	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
W/	WITH
W/O	WITHOUT
WC	WATER COLUMN
WG	WATER GAUGE
WMS	WELDED WIRE MESH SCREEN
WPD	WATER PRESSURE DROP
Z	ZONE DAMPER
PREFIX OF X	EXISTING

PIPING LEGEND

SYMBOL	DESCRIPTION
	EXISTING SUPPLY PIPING TO REMAIN
	EXISTING RETURN PIPING TO REMAIN
	NEW SUPPLY PIPING
	NEW RETURN PIPING
	ACV 2 - WAY
	ACV 3 - WAY
	BUTTERFLY VALVE
	CAP - PIPE
	CHECK VALVE
	COMBINATION BALANCING, FLOW MEASURING & TIGHT SHUT-OFF VALVE
DPS	DIFFERENTIAL PRESSURE SENSOR
	FLOAT & THERMOSTATIC TRAP
	ISOLATION VALVE
	GLOBE VALVE
	INVERTED BUCKET TRAP
	LOCKSHIELD GATE VALVE
V	MANUAL AIR VENT
	OS&Y GATE VALVE
	PETCOCK FOR GAUGE CONNECTION
	PIPE ANCHOR
	PIPE DOWN
	PIPE UP
	PIPE GUIDE
	PLUG VALVE
P	PRESSURE GAUGE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	REDUCER - CONCENTRIC
	REDUCER - ECCENTRIC
	STRAINER
	TAKE - OFF FROM BOTTOM OF PIPE
	TAKE - OFF FROM TOP OF PIPE
	THERMOMETER
	THERMOMETER WELL
T	THERMOSTATIC TRAP
	UNION
A 10'-0" FL/D 1.2 GPM	RADIATION I.D. (TYPE A, 10'-0" FINNED LENGTH, BALANCED TO 1.2 GPM) WITH DAMPER
A 10'-0" FL 1.2 GPM	RADIATION I.D. (TYPE A, 10'-0" FINNED LENGTH, BALANCED TO 1.2 GPM) WITHOUT DAMPER

DUCTWORK LEGEND

SYMBOL	DESCRIPTION
	EXISTING DUCTWORK TO REMAIN
	NEW DUCTWORK
	ACOUSTICALLY LINED DUCT
AMS	AIRFLOW MEASURING STATION
BD	BACKDRAFT DAMPER
CBD	COUNTERBALANCED DAMPER
ø	SPIRAL DUCT DIAMETER
	DUCT SECTION - SUPPLY/OUTDOOR AIR
	DUCT SECTION - RETURN AIR
	DUCT SECTION - EXHAUST AIR
	DUCT TURNING VANES
F	FIRE DAMPER (1 1/2 HOUR RATED)
F/S	FIRE AND SMOKE DAMPER (1 1/2 HOUR RATED)
FD (3 HR)	FIRE DAMPER (3 HOUR RATED)
	FLEXIBLE DUCT
	LOUVER
M	MOTORIZED DAMPER
PRD	PRESSURE RELIEF DAMPER
	RETURN OR EXHAUST AIR
S	SMOKE DAMPER
SD	DUCT MOUNTED SMOKE DETECTOR
SPS	STATIC PRESSURE SENSOR
	SUPPLY OR OUTSIDE AIR
V	VOLUME DAMPER

S (SUPPLY) R (RETURN)
E (EXHAUST) T (TRANSFER)
SUPPLY DIFFUSER (TYPE 2)

DIFFUSER DESCRIPTION
(SEE REG., GRILLES & DIFF SCHEDULE)

SA 4 / 400

QUANTITY

400 CFM EA

CONTROLS LEGEND

SYMBOL	DESCRIPTION
H	HUMIDISTAT
HS	HUMIDITY SENSOR
TS	TEMPERATURE SENSOR
T	THERMOSTAT
T_C	THERMOSTAT COOLING
T_H	THERMOSTAT HEATING
T_N	THERMOSTAT - NIGHT
T_{H-C}	THERMOSTAT - HEATING/COOLING

GENERIC LEGEND

SYMBOL	DESCRIPTION
	CONNECT NEW TO EXISTING
	COMPLETELY REMOVE EQUIPMENT, DUCTWORK, OR PIPING
	EXISTING EQUIPMENT TO REMAIN
	NEW EQUIPMENT
A M10.1	SECTION I.D. (SECTION A SHOWN ON DWG. M10.1)

GENERAL NOTES

1 VISIT THE BUILDING SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS, AND TO TAKE MEASUREMENTS AS NECESSARY FOR COMPLETION OF THE WORK ASSOCIATED WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.
2 COORDINATE WORK OF MECHANICAL SUBCONTRACTOR WITH WORK OF OTHER TRADES.
3 DUCTWORK, PIPING AND EQUIPMENT ARE INDICATED DIAGRAMMATICALLY. FIELD-VERIFY LOCATIONS.
4 PRIOR TO FABRICATING DUCTWORK, COORDINATE WITH OTHER TRADES TO ENSURE THAT THE DUCTWORK CAN BE INSTALLED WITH THE INDICATED SIZES AND LOCATIONS.FIELD-VERIFY EXISTING DUCT SIZES AND CONDITIONS.SUBMIT ANY DISCREPANCIES OR PROPOSED CHANGES.
5 REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATIONS OF CEILING DIFFUSERS AND REGISTERS.
6 DUCT ELBOWS SHALL BE LONG-RADIUS TYPE (THROAT RADIUS EQUAL TO OR GREATER THAN DUCT WIDTH IN THE PLANE OF THE TURN) WHEREVER SPACE ALLOWS. IF SPACE IS NOT ADEQUATE, PROVIDE MITERED ELBOWS WITH TURNING VANES.
7 PROVIDE 16 GAUGE SINGLE-THICKNESS TURNING VANES AT MITERED DUCT ELBOWS. VANE EDGES (LEADING AND TRAILING) SHALL BE TANGENTIAL TO AIRFLOW.
8 FLEXIBLE DUCT LENGTHS SHALL NOT EXCEED 5'-0"
9 PAINT DUCTWORK VISIBLE THRU CEILING OPENINGS, DUCT OPENINGS, AND REGISTERS, GRILLES, AND DIFFUSERS WITH BLACK PAINT IN ACCORDANCE WITH DIVISION 09 SECTION "PAINTING."
10 MOUNT THERMOSTATS AND TEMPERATURE AND HUMIDITY SENSORS AT 48 INCHES AFF TO TOP OF ITEM. PROVIDE ELECTRICAL WALL BOX ATTACHED TO FRAMING.
11 WHERE THERMOSTATS/TEMPERATURE SENSORS ARE LOCATED NEAR LIGHT SWITCHES, INSTALL SO THAT LIGHT SWITCHES ARE NEARER TO THE DOOR JAMBS. THE INTENT IS TO LOCATE THERMOSTATS/ TEMPERATURE SENSORS SO THEY WILL NOT INTERFERE WITH ACCESSIBILITY OF LIGHT SWITCHES.
12 PIPING INDICATED IN OUTSIDE WALLS SHALL BE RUN ON THE WARM SIDE OF BUILDING INSULATION AND VAPOR BARRIER. BUILDING INSULATION BEHIND SUCH PIPING SHALL BE CONTINUOUS, WITHOUT JOINTS OR GAPS.
13 PIPING SHALL BE CONCEALED EXCEPT IN MECHANICAL ROOMS AND AS INDICATED. WHERE PIPES DROP IN BLOCK WALLS, PROVIDE 1/2" THICK INSULATION MINIMUM.
14 SEAL DUCTWORK AND PIPING THRU MECHANICAL ROOM FLOORS AND PARTITIONS, AND THRU FIRE-RATED ASSEMBLIES, WITH FIRESTOP MATERIAL AS SPECIFIED.
15 PROVIDE ALL REQUIRED PENETRATIONS IN RATED ASSEMBLIES, INCLUDING BUT LIMITED TO WALLS AND FLOORS WITH A UL APPROVED FIRESTOPPING ASSEMBLY INCLUDING LISTING LABEL OF PENETRATION AFTER PASSING THROUGH UTILITIES.
16 UNLESS SPECIFICALLY NOTED ON DRAWINGS PIPING SHALL ONLY BE ATTACHED TO TOP OF STEEL BAR JOISTS AT PANEL POINTS, TOP OR BOTTOM FLANGES OF STEEL BEAMS AND SIDE OF WODEN BEAMS. PIPING SHALL NOT BE ATTACHED TO STEEL DECK UNDER ANY CIRCUMSTANCES

DEMOLITION NOTES

1 DURING DEMOLITION PROPERLY CAP AND PROTECT ALL PIPING & DUCTWORK THAT WILL REMAIN IN OPERATION

2 WHERE EXISTING INSULATION TO REMAIN IS DAMAGED BY THE REQUIREMENTS OF WORK, REPLACE ANY DAMAGED INSULATION IN KIND

3 MECHANICAL CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR DISTRIBUTION OF RESPONSIBILITY AMONGST CONTRACTORS FOR SPECIFIC PORTIONS OF CUTTING AND PATCHING WORK. PLUMBING CONTRACTOR SHALL COORDINATE ALL CUTTING AND PATCHING WORK WITH ALL OTHER CONTRACTORS INVOLVED AS DEFINED IN THE SPECIFICATIONS

4 LOCATION OF EXISTING PIPING & DUCTWORK AS SHOWN ON DRAWINGS IS APPROXIMATE

5 COMPLETELY REMOVE ALL EQUIPMENT AS INDICATED & OR MISCELLANEOUS ARTICLES IN THEIR ENTIRETY INCLUDING AUXILLARY EQUIPMENT, PIPING, WIRING & CONDUIT

6 INCLUDE ALL DEMOLITION OF SYSTEMS AND COMPONENTS WHERE SYSTEMS SHALL BE REPLACED BY NEW WORK. REFER TO THE DRAWINGS & SPECIFICATIONS FOR SCOPE OF NEW & RECONNECTED WORK. THE INTENT OF THIS REQUIREMENT IS TO HAVE THE CONTRACTOR DISCONNECT, DEMOLISH & REMOVE ALL EXPOSED & CONCEALED WORK WHERE BEING REPLACED OR CONNECTED TO THE PROPOSED LAYOUTS

7 COORDINATE ELECTRICAL POWER DISCONNECTION PRIOR TO DEMOLITION WITH ELECTRICAL CONTRACTOR

8 ALL PIPING & DUCTWORK TO REMAIN SHALL HAVE ENDS TERMINATED IN A NEAT MANNER READY FOR CONNECTION OF NEW WORK. ALL EXPOSED ENDS OF PIPING SHALL BE CAPPED

9 EXISTING PIPING NOT TO BE REUSED, NOT SUPPLYING ANY EQUIPMENT AND NOT SPECIFICALLY NOTED OR SHOWN ON DRAWINGS TO BE ABANDONED, SHALL BE COMPLETELY REMOVED

10 CONTRACTOR SHALL CLEAN UP, REMOVE AND DISPOSE OF ALL DEBRIS AND DISCARDED ITEMS UPON COMPLETION OF CONSTRUCTION TO BE READY FOR A NEW OCCUPANCY CONDITION

11 DEMOLISH & COMPLETLY REMOVE EXISTING CONDITIONS DESIGNATED BY A HEAVY DASHED LINE UNLESS NOTED OTHERWISE. REFER TO LEGEND AND DEMOLITION PLANS FOR SCOPE OF WORK

Harriman

UNIVERSITY OF MAINE
KEYO BUILDING
ELECTRICAL SERVICE UPGRADE

ORONO, MAINE

Harriman Project No.	24265

Graphic Scale
0" 1"
(scale measures 1" when plotted at full size)

STATE OF MAINE
DAVID W. STORY
NO. 12653
LICENSED
PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

JANUARY 5, 2026

Revision Date	Revision Description

Drawn by: ERD

LEGEND & GENERAL NOTES

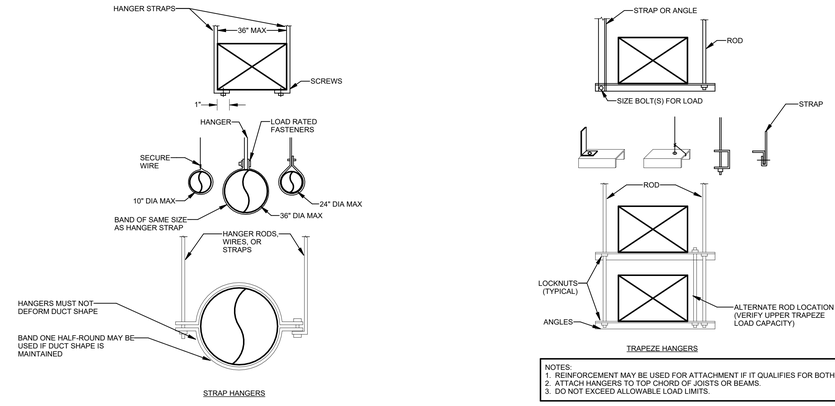
M00-1

FAN SCHEDULE

TAG	MANUFACTURER	MODEL	AIRFLOW (CFM)	ESP (IN.WG)	RPM	POWER (HP)	BRAKE POWER (BHP)	DRIVE TYPE	OUTLET VELOCITY (FPM)	DAMPER	SOUND (SONES)	ELECTRICAL		FAN GEOMETRY				NOTES
														DIMENSIONS				
												VOLTAGE	PHASE	HEIGHT (FT - IN)	LENGTH (FT - IN)	WIDTH (FT - IN)	WEIGHT (LBS)	
EF-1	GREENHECK	SQ-9-M1-VG	850	0.3	1316	1/4	0.08	DIRECT	538	NONE	6.7	115	1	18	17	18	52	

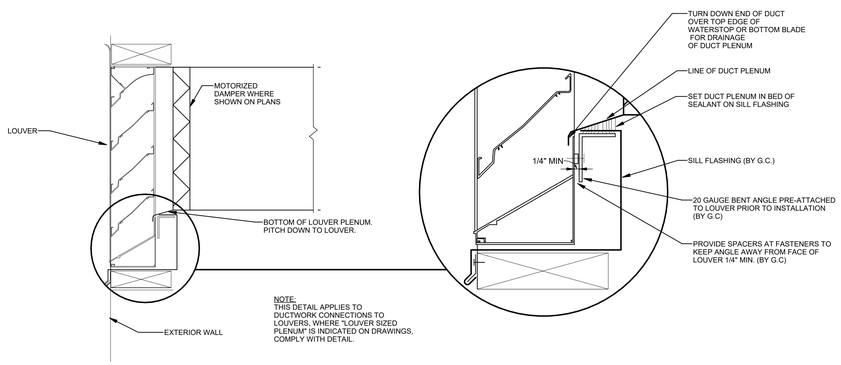
LOUVER SCHEDULE

TAG	MANUFACTURER	MODEL	AIR FLOW (CFM)	MIN. FREE AREA (SF)	APD (IN-WG)	VELOCITY (FPM)	GEOMETRY			FINISH	NOTES
							HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)		
L-1	GREENHECK	ESD-403	850	2.3	0.02	373	30	24	4		
L-2	GREENHECK	ESD-403	850	1.4	0.06	622	22	22	4		



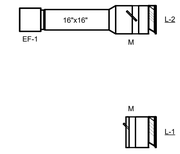
NOTES:
1. REINFORCEMENT MAY BE USED FOR ATTACHMENT IF IT QUALIFIES FOR BOTH DUTIES.
2. ATTACH HANGERS TO TOP CHORD OF JOISTS OR BEAMS.
3. DO NOT EXCEED ALLOWABLE LOAD LIMITS.

B1 LOWER HANGER ATTACHMENT
NO SCALE

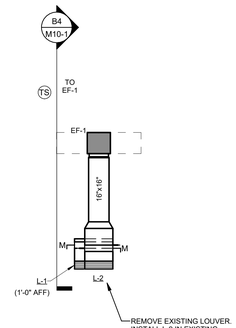


NOTE:
THIS DETAIL APPLIES TO DUCTWORK CONNECTIONS TO LOUVERS, WHERE "LOUVER SIZED PLENUM" IS INDICATED ON DRAWINGS, COMPLY WITH DETAIL.

A1 LOUVER CONNECTION
NO SCALE



B4 Section 1
SCALE: 1/4" = 1'-0"



A4 HVAC PLAN
NO SCALE

Harriman

UNIVERSITY OF MAINE
KEYO BUILDING
ELECTRICAL SERVICE UPGRADE

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0" 1"
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CONSTRUCTION DOCUMENTS

JANUARY 5, 2026

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Drawn by: ERD

FIRST FLOOR DUCTWORK

M10-1

Edit for each project

ABBREVIATIONS LIST

1P	1 POLE (2P, 3P, 4P, ETC.)
A	AMPERE
AC	ABOVE COUNTER OR AIR CONDITIONAR
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI/AFCI	ARC FAULT CIRCUIT INTERRUPTER
AHU	AIR HANDLING UNIT
AIC	APMERE INTERRUPTING CAPACITY
AL	ALUMINUM
ALT	ALTERNATE
AMP	AMPERE
AMPL	AMPLIFIER
ANN	ANNUNCIATOR
ARCH	ARCHITECT, ARCHITECTURAL
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GUAGE
BATT	BATTERY
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CAB	CABINET
CAT	CATALOG
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CLG	CEILING
COMB	COMBINATION
CONT	CONTINUATION / CONTINUOUS
CP	CIRCUILATING PUMP/CONTROL PANEL
CRT	CATHODE-RAY TUBE
CT	CURRENT TRANSFORMER
CTR	CENTER
CU	COPPER
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER
DB	DECIBEL
DC	DIRECT CURRENT
DCP	DOMESTIC WATER CIRCULATING PUMP
DEPT	DEPARTMENT
DET	DETAIL
DIA	DIAMETER
DISC	DISCONNECT/SAFETY SWITCH
DIST	DISTRIBUTION
DN	DOWN
DT	DOUBLE THROW
DWG	DRAWINGEGC ELECTRICAL GROUND CONDUCTOR
ELEC	ELECTRIC / ELECTRICAL
ELEV	ELEVATOR
EM	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
EV	ELECTRIC VEHICLE
EWC	ELECTRIC WATER COOLER
EX / EXIST	EXISTING
EXH	EXHAUST
FA	FIRE ALARM
FACP	FIRE ALARM SYSTEM CONTROL PANEL
FAPS	FIRE ALARM SYSTEM POWER SUPPLY
FCU	FAN COIL UNIT
FC	FOOT CANDLE
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FLR	FLOOR
FU	FUSE
FT	FOOT
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GEC	GROUND ELECTRODE CONDUCTOR
GEN	GENERATOR
GFI / GFCI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT PROTECTOR
GND	GROUND
GRS	GALVANIZED RIGID STEEL (CONDUIT)
GWPD /	
GYP BD	GYPSUM BOARD
HDPG	HIGH DENSITY POLYETHYLENE
HOA	HANDS-OFF-AUTO SWITCH
HP	HORSEPOWER
HT	HEIGHT
HTG	HEATING
HTR	HEATER
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATING AND AIR-CONDITIONING
HWP	HYDRONIC WATER PUMP
IC	INTERRUPTING CAPACITY
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IR	INFRARED
IT	INFORMATION TECHNOLOGY
I/W	INTERLOCK WITH
JB	JUNCTION BOX
KCMIL	ONE THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KVAR	KILOVOLT-AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
LTG	LIGHTING
LV	LOW-VOLTAGE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE
MI	MINERAL INSULATED
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LOGS ONLY
MOCP	MAXIMUM OVER CURRENT PROTECTION
MSBD	MAIN SWITCHBOARD
MT	MOUNT
MT C	EMPTY CONDUIT
MTS	MANUAL TRANSFER SWITCH
MTR	MOTOR / MOTORIZED
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
N.O.	NORMALLY OPEN
NTS	NOT TO SCALE
OH	OVERHEAD
OL	OVERLOADS
PA	PUBLIC ADDRESS
PB	PULL BOX / PUSHBUTTON
PF	POWER FACTOR
PH	PHASE
PNL	PANEL / PANELBOARD
PR	PAIR
PRI	PRIMARY
PRV	POWER ROOF VENTILATOR
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE (CONDUIT)
PWR	POWER
QTY / QUAN	QUANTITY
RCPT	RECEPTACLE
REQD	REQUIRED
RM	ROOM
RSC	RIGID STEEL CONDUIT
RTU	ROOF TOP UNIT
SC	SURFACE
SEC	SECONDARY
SHT	SHEET
SIM	SIMILAR
SPEC	SPECIFICATION
SPKR	SPEAKER
SP	SPARE
SPD	SURGE PROTECTION DEVICE
SS	STAINLESS STEEL
S/S	STOP / START PUSHBUTTONS
STA	STATION
STD	STANDARD
SW	SWITCH
SWBD	SWITCHBOARD
SYM	SYMETRICAL
SYS	SYSTEM
TEL	TELEPHONE
TL	TWIST LOCK
TR	TAMPER RESISTANT
T-STAT	THERMOSTAT
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESOR
TYP	TYPICAL
UC	UNDER COUNTER
UE	UNDERGROUND ELECTRICAL
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORY
UPS	UNINTERUPTABLE POWER SUPPLY
USB	UNIVERSAL SERIAL BUS
UT	UNDERGROUND TELEPHONE
UTIL	UTILITY
UV	ULTRAVILOT
V	VOLT
VA	VOLT-AMPERES
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W	WATT
W/	WITH
WG	WIRE GUARD
WH	WATER HEATER
W/O	WITHOUT
WP	WEATHERPROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
∠	ANGLE
@	AT
Δ	DELTA
Y	WYE
'	FEET
"	INCHES
#	NUMBER
Ø	PHASE
CL / ℄	CENTER LINE
&	AND
P	PLATE

SEQUENCING NOTES

SEQUENCING NOTES:

1A. UMAINE TO RE-ENERGIZE MURRAY LINE TO BACK FEED GEM BLDG DURING CONSTRUCTION ON THAT BLDG. KEYO TO BE BACK FED FROM OTHER END OF LINE/LOOP BY UMAINE.

2. INSTALL CONDUIT/DUCTBANK TO FUTURE TRANSFORMER AND SWITCH LOCATIONS UP TO THE POINT OF KEYO BLDG.

3. UNIVERISTY TO PROVIDE BACKUP GENERATOR FOR TEMPORARY POWER OF KEYO. CONTRACTOR TO MAKE CONNECTIONS.

4. MAINTAIN POWER TO KEYO AT ALL TIMES (MINIMUM 48 HOURS NOTICE FOR SHORT OUTAGES TO SWAP POWER SOURCES). SEE OPTIONS BELOW.

A. INSTALL SWITCH AND TRANSFORMER TO BACK FEED KEYO AT 120/208 (OR 480V) AS CONDITIONS ALLOW, BY UTILIZING EXISTING CONDUITS AND/ OR CONNECTING GENERATOR TO NEW DISCONNECT AND 300KVA XFMR.

B. REMOVE EXISTING XFMR AND ASSOCIATED EQUIPMENT FROM KEYO BLDG AND INSTALL ALL NEW EQUIPMENT. MAXIMUM TIME TO RUN ON GENERATOR IS 20 DAYS TO MEET AIR EMISSIONS LICENSING REQUIREMENTS.

C. IF MEDIUM VOLTAGE SWITCHGEAR SHIP DATE WILL CAUSE PROJECT DELAY THEN AS A TEMPORAY MEASURE INSTALL MEDIUM VOLTAGE BUSSING, LOAD BREAK ELBOWS, ETC. IN AN EXTERIOR ENCLOSURE. REPLACE WITH MEDIUM VOLTAGE SWITCHGEAR.

5. PULL ALL WIRES.

6. DE-ENERGIZE POWER TO MURRAY LINE FOR GEM BUILDING WHEN GEM RECEIVES PERMANENT POWER. COORDINATE WITH UNIVERSITY.

7. COORDINATE FINAL CONNECTIONS AT MANHOLE EMH-3-1 INCLUDING ANY REQUIRED SPLICING WITH HONEYWELL.

DEMOLITION NOTES

*** NOTES APPLY TO ALL DEMOLITION DRAWINGS ***

1. THIS PROJECT INCLUDES THE SELECTIVE DEMOLITION OF THE FOLLOWING SYSTEMS:
   a. POWER DISTRUBUTION SYSTEM.
2. PROVIDE ALL WORK NECESSARY TO ALLOW FOR PHASING. COORDINATE WITH DIVISION 01.
3. IN ADDITION TO THE ELECTRICAL DEMOLITION DRAWINGS, REFER TO AND COORDINATE REMOVAL OF EQUIPMENT REMOVED BY OTHER DIVISIONS.
4. IN AREAS OUT OF THE CURRENT PHASE OF CONSTRUCTION, VERIFY THAT ELECTRICAL POWER AND SYSTEMS ARE NOT AFFECTED BY THE ALTERATIONS. PROVIDE ALL WORK REQUIRED TO MAINTAIN POWER AND PROPER OPERATION OF ALL SYSTEMS.
5. THE INTENT OF THE DEMOLITION DRAWINGS IS TO DOCUMENT THE EXISTING CONDITIONS AND NOTE REMOVAL OF ITEMS TO BE DEMOLISHED. HOWEVER, ALL EXISTING ITEMS MAY NOT NECESSARILY BE INDICATED ON THE DRAWINGS. FIELD VERIFY AND ADJUST WORK TO SUIT ALL FOUND.
6. REFER TO ALL ELECTRICAL PLANS TO DETERMINE EXTENT OF WORK IN EACH AREA, INCLUDING WETHER APPLIANCES/DEVICES ARE TO REMAIN, BE REMOVED, REPLACED, ETC.. EXCEPT AS NOTED, GENERALLY THE INTENT IS THAT IF EXISTING APPLIANCES/DEVICES ARE SHOWN ON THE DEMOLITION PLANS AND NEW APPLIANCES/DEVICES ARE SHOWN ON THE FLOOR PLANS THEN EXISTING APPLIANCES/DEVICES ARE TO BE REMOVED. IF EXISTING APPLIANCES/DEVICES ARE SHOWN ON BOTH THEN APPLIANCES/DEVICES ARE TO REMAIN. IF AN ITEM IS FOUND THAT IS NOT SHOWN ON THE DEMOLITION OR NEW PLANS AND THERE IS NO CLEAR INTENT, CONTACT THE ARCHITECT FOR CLARIFICATION.
7. ALL EXISTING ITEMS INTENDED FOR REMOVAL SHALL BE COMPLETELY REMOVED WITH ALL ASSOCIATED HARDWARE INCLUDING, BUT NOT LIMITED TO: CONDUIT, BOXES, WIRING, CABLES, HANGERS. ETC...
8. CONDUIT IN GOOD CONDITION AND PROPERLY LOCATED MAY BE REUSED WHERE APPLICABLE, UNLESS NOTED OTHERWISE.
9. PROVIDE FINISH BLANK PLATES ON ALL BOXES WHICH CANNOT BE REMOVED.
10. REFER TO PLANS FOR ADDITIONAL ITEMS/ROOM SPECIFIC NOTES.

SYMBOL LEGEND

HEIGHT AFF	SYMBOL	DESCRIPTION
	LP-1,3	CIRCUIT HOMERUN TO PANELBOARD - CROSS LINES INDICATE NUMBER OF CONDUCTORS OTHER THAN TWO (PROVIDE NUMBER OF CONDUCTORS REQUIRED TO ALLOW SWITCHING SHOWN ON E10 SERIES DRAWING)
		CIRCUIT NUMBER(S)
		PANELBOARD NAME
		WIRING CONCEALED IN WALL OR CEILING
		WIRING IN RACEWAY CONCEALED UNDERFLOOR / UNDERGROUND
		CABLE TRAY WITH FITTINGS AS SHOWN (TYPE AS DENOTED)
46"	$	TOGGLE SWITCH - SINGLE POLE - WHERE SHOWN SERVING EQUIPMENT, LOCATE ABOVE ACCESSIBLE CEILING DIRECTLY ABOVE EQUIPMENT
46"	$2	TOGGLE SWITCH - DOUBLE POLE
46"	$3	TOGGLE SWITCH - THREE-WAY
46"	$4	TOGGLE SWITCH - FOUR-WAY
46"	$P	TOGGLE SWITCH - PILOT LIGHT
46"	$T	TOGGLE SWITCH - TIMMER
46"	$K	TOGGLE SWITCH - KEY OPERATED
46"	$D	DIMMER SWITCH
46"	$OC	OCCUPANT SENSOR SWITCH
46"	$M	MOMENTARY-CONTACT SWITCH
46"	$MD	MOMENTARY-CONTACT DIMMER SWITCH
46"	$MOC	MOMENTARY OCCUPANT SENSOR SWITCH
46"	$MK	MOMENTARY KEY OPERATED SWITCH
		OCCUPANT SENSOR AND POWER PACK/S - WALL MOUNTED - PROVIDE NUMBER OF POWER PACKS REQUIRED TO ALLOW FOR NUMBER OF OCCUPANT SENSORS AND ZONES OF CONTROL - REFER TO OCCUPANT SENSOR CONTROL DETAIL ON E70 SERIES DRAWING
		OCCUPANT SENSOR AND POWER PACK/S - CEILING MOUNTED - PROVIDE NUMBER OF POWER PACKS REQUIRED TO ALLOW FOR NUMBER OF OCCUPANT SENSORS AND ZONES OF CONTROL - REFER TO OCCUPANT SENSOR CONTROL DETAIL ON E70 SERIES DRAWING
46"		LIGHTING CONTROL STATION - REFER TO TYPICAL DAYLIGHT HARVESTING DIMMING CONTROL DETAIL ON E70 SERIES DRAWING
		DAYLIGHT SENSOR - CEILING MOUNTED - REFER TO TYPICAL DAYLIGHT HARVESTING DIMMING CONTROL DETAIL ON E70 SERIES DRAWING
		OUTDOOR PHOTOELECTRONIC SWITCH
	LC	ROOM LIGHTING CONTROLLER - REFER TO TYPICAL DAYLIGHT HARVESTING DIMMING CONTROL DETAIL ON E70 SERIES DRAWING
		NETWORKED LIGHTING CONTROL SYSTEM (RELAY) PANEL - REFER TO LOW-VOLTAGE LIGHTING CONTROL DETAIL ON E70 SERIES DRAWING AND LOW-VOLTAGE RELAY SCHEDULES ON E## SERIES DRAWINGS
46"	$LV	NETWORKED LIGHTING CONTROL SYSTEM MANUAL SWITCH - REFER TO LOW-VOLTAGE LIGHTING CONTROL DETAIL ON E70 SERIES DRAWINGS
	E	EMERGENCY SHUNT (U.L. 924 BY-PASS) RELAY - REFER TO LIGHTING BY-PASS DETAIL ON E70 SERIES DRAWING
	TS	ELECTRONIC TIME SWITCH
		EXIT SIGN WITH ARROWS AS INDICATED AND HATCH INDICATING FACE - CEILING MOUNTED / PENDANT WHERE NOTED
102" / *		EXIT SIGN WITH ARROWS AS INDICATED AND HATCH INDICATING FACE - WALL MOUNTED
102"		EMERGENCY LIGHTING UNIT WITH TWO HEADS - SELF-CONTAINED - WALL MOUNTED
		EMERGENCY LIGHTING UNIT WITH TWO HEADS - SELF-CONTAINED - CEILING MOUNTED
102"		REMOTE EMERGENCY LIGHTING UNIT WITH TWO HEADS - WALL MOUNTED
102"	BATT	INTERNAL TYPE EMERGENCY POWER UNIT - WALL MOUNTED
		LIGHTING FIXTURE ON EMERGENCY / NIGHT LIGHT CIRCUIT (ALL FIXTURE TYPES)
		LIGHTING FIXTURE - SURFACE MOUNT - REFER TO LIGHTING FIXTURE SCHEDULE
		LIGHTING FIXTURE - PENDANT MOUNT - REFER TO LIGHTING FIXTURE SCHEDULE
		LIGHTING FIXTURE - INDUSTRIAL / STRIP - REFER TO LIGHTING FIXTURE SCHEDULE
		LIGHTING FIXTURE - RECESSED - REFER TO LIGHTING FIXTURE SCHEDULE
		LIGHTING FIXTURE - RECESSED DOWNLIGHT - REFER TO LIGHTING FIXTURE SCHEDULE
		LIGHTING FIXTURE - WALL PACK - REFER TO LIGHTING FIXTURE SCHEDULE
		LIGHTING FIXTURE - WALL SCONCE - REFER TO LIGHTING FIXTURE SCHEDULE
		LIGHTING FIXTURE - POLE MOUNTED SITE LIGHT - REFER TO LIGHTING FIXTURE SCHEDULE
	VFD	VARIABLE FREQUENCY DRIVE (VFD) PROVIDED BY DIVISION 23 - LINE-VOLTAGE CONNECTIONS PROVIDED BY DIVISION 26 - CARRY WIRE SIZE BETWEEN VFD AND MOTOR
		NONFUSIBLE SWITCH
		FUSIBLE SWITCH
		MOLDED CASE ENCLOSED CIRCUIT BREAKER
		PANELBOARD - 208/120V (REFER TO PANELBOARD SCHEDULES ON E6# SERIES DRAWINGS)
		PANELBOARD - 480/277V (REFER TO PANELBOARD SCHEDULES ON E6# SERIES DRAWINGS)
	"T-##"	DRY-TYPE TRANSFORMER - LABELED "T-##" - REFER TO POWER RISER FOR SIZE
	ATS-##	AUTOMATIC TRANSFER SWITCH (ATS) WHERE LABELED AS "ATS-##"
	VSS / SPD	TRANSIENT VOLTAGE SURGE SUPPRESSOR / SURGE PROTECTIVE DEVICE
	M	UTILITY COMPANY METER - COORDINATE ALL REQUIREMENTS WITH LOCAL UTILITY COMPANY

HEIGHT AFF	SYMBOL	DESCRIPTION
	CP	CONTROL PANEL - TYPE AS NOTED ON DRAWINGS
	HP/M	ELECTRICAL MOTOR - HORSE POWER AND EQUIPMENT SERVED AS NOTED ON PLANS
		EMERGENCY POWER OFF (EPO) STATION - REFER TO APPLICABLE KEY NOTES
	J	JUNCTION BOX
	R	RELAY
	A	COOKING HOOD SUPPRESSION SYSTEM (ANSUL) PULL STATION - REFER TO ANSUL SYSTEM MANUAL PULL BOX DETAIL ON E70 SERIES DRAWING
		FLOOR / SURFACE MOUNTED - DUPLEX STRAIGHT BLADE RECEPTACLE SHOWN
		PENDANT / CEILING MOUNTED RECEPTACLE - DUPLEX STRAIGHT BLADE RECEPTACLE SHOWN - REFER TO PENDANT RECEPTACLE DETAIL ON E70 SERIES DRAWINGS
18"		SINGLE STRAIGHT BLADE RECEPTACLE
18"		DUPLEX STRAIGHT BLADE RECEPTACLE
18"		ISOLATED GROUND DUPLEX STRAIGHT BLADE RECEPTACLE
18"		CONTROLLED DUPLEX STRAIGHT BLADE RECEPTACLE
18"		GROUND FAULT CIRCUIT INTERRUPTER (GFCI) DUPLEX STRAIGHT BLADE RECEPTACLE
18"		CONTROLLED GROUND FAULT CIRCUIT INTERRUPTER (GFCI) DUPLEX STRAIGHT BLADE RECEPTACLE
18"	USB	DUPLEX STRAIGHT BLADE RECEPTACLE WITH DUPLEX USB PLUGS
18"		DOUBLE DUPLEX STRAIGHT BLADE RECEPTACLE
18"		ISOLATED GROUND DOUBLE DUPLEX STRAIGHT BLADE RECEPTACLE
18"		CONTROLLED DOUBLE DUPLEX STRAIGHT BLADE RECEPTACLE
18"		GROUND FAULT CIRCUIT INTERRUPTER (GFCI) DOUBLE DUPLEX STRAIGHT BLADE RECEPTACLE
18"		CONTROLLED GROUND FAULT CIRCUIT INTERRUPTER (GFCI) DOUBLE DUPLEX STRAIGHT BLADE RECEPTACLE
18"	USB	DOUBLE DUPLEX STRAIGHT BLADE RECEPTACLE WITH DUPLEX USB PLUGS
VARIES		LOCKING / SPECIAL PURPOSE RECEPTACLE - UNLESS NOTED OTHERWISE COORDINATE NEMA CONFIGURATION AND MOUNTING HEIGHT WITH EQUIPMENT FURNISHED
18"		DATA OUTLET - 4 11/16" SQUARE JUNCTION BOX WITH SINGLE GANG RAISED RING / FACEPLATE, SINGLE DATA JACK AND TWO 1" CONDUITS TO ABOVE AN ACCESSIBLE CEILING - SINGLE JACK UNLESS INDICATED OTHERWISE
18"		VOICE OUTLET - 4 11/16" SQUARE JUNCTION BOX WITH SINGLE GANG RAISED RING / FACEPLATE, SINGLE VOICE JACK AND TWO 1" CONDUITS TO ABOVE AN ACCESSIBLE CEILING - SINGLE JACK UNLESS INDICATED OTHERWISE
18"		VOICE / DATA OUTLET - 4 11/16" SQUARE JUNCTION BOX WITH SINGLE GANG RAISED RING / FACEPLATE, SINGLE DATA / SINGLE VOICE JACK AND TWO 1" CONDUITS TO ABOVE AN ACCESSIBLE CEILING - SINGLE JACK UNLESS INDICATED OTHERWISE
46"		PUBLIC ADDRESS SYSTEM CALL BUTTON - 4 11/16" SQUARE JUNCTION BOX WITH SINGLE GANG RAISED RING / FACEPLATE, CALL BUTTON AND ONE 3/4" CONDUIT TO RELAY SCHEDULES ON E## SERIES DRAWINGS
		CEILING MOUNTED PUBLIC ADDRESS SYSTEM SPEAKER - BACK BOX FURNISHED WITH SPEAKER, PROVIDE ONE 3/4" CONDUIT FROM BACK BOX TO ABOVE AN ACCESSIBLE CEILING
102"		WALL MOUNTED PUBLIC ADDRESS SYSTEM SPEAKER - BACK BOX FURNISHED WITH SPEAKER, PROVIDE ONE 3/4" CONDUIT FROM BACK BOX TO ABOVE AN ACCESSIBLE CEILING

NOTES:
1. MOUNTING HEIGHTS ARE C/L UP UNLESS NOTED OTHERWISE.
2. ALL MOUNTING HEIGHTS ARE AS NOTED ABOVE UNLESS OTHERWISE CALLED OUT ON PLANS.
3. * = MOUNT 12" ABOVE FRAME WHERE FRAME DOES NOT ALLOW 102" MOUNTING HEIGHT.

SYMBOL NOTES

A4 / d — THE LIGHTING FIXTURE TYPE IS INDICATED BY AN UPPER CASE LETTER. THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER.
- EXAMPLE: LIGHTING FIXTURE TYPE IS "A4" AND IS CONTROLLED BY SWITCH LEG "d".

$Me — CONTROL DEVICE SWITCH LEG (CONTROL) INDICATED BY A LOWER CASE LETTER.
- EXAMPLE: SINGLE POLE MOMENTARY SWITCH CONTROLLING SWITCH LEG "e".

3/1 — QUANTITY OF DROPS (JACKS) AT DATA, VIOCE AND VOICE DATA SYMBOL.
EXAMPLE: NO NUMBER INDICAES QUANTITY OF DROPS AS DEFINED IN SYMBOL LEGEND.
NUMBER INDICATES QUANTITY OTHER THAN AS DEFINED IN SYMBOL LEGEND.
AT VOICE / DADA SYMBOL - FIRST NUMBER INDICATES QUANTITY OF VOICE DROPS, SECOND NUMBER INSIDCATES QUANTITY OF DATA DROPS. THE EXAMPLE SHOWS THREE VOICE / ONE DATA DROP.

P01 — KEY NOTE AS DEFINED ON EACH DRAWING.

WR — WEATHER RESISTANT / WHILE IN USE COVER WITH WEATHER RESISTANT GFCI RECEPTACLE WHERE INDICATED AT RECEPTACLE

LINE WEIGHT INDICATES EXISTING TO REMAIN.

LINE WEIGHT INDICATES NEW WORK.

LINE WEIGHT INDICATES DEMOLISH.

SPECIFIC CODE NOTES

1. PENETRATIONS IN RATED ASSEMBLIES, INCLUDING BUT NOT LIMITED TO WALLS AND FLOORS WITH A U.L. APPROVED FIRESTOPPING ASSEMBLY INCLUDING LISTING LABEL OF PENETRATION AFTER PASSING THROUGH UTILITY.

GENERAL NOTES

1. COORDINATE LOCATIONS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND DETAILS. ALERT ARCHITECT WHERE DISCREPANCY EXIST PRIOR TO ROUGH-IN.
2. VERIFY LOCATIONS AND ROUGH-IN REQUIREMENTS OF EQUIPMENT FURNISHED / PROVIDED BY OTHER DIVISIONS AND OWNER PRIOR TO ROUGH-IN.
3. NOT ALL DETAILS ARE SPECIFICALLY REFEREED TO, REVIEW ALL DETAILS ON E70 SERIES DRAWINGS AND APPLY TO THE DOCUMENTS.
4. COORDINATE LOCATION OF ALL CIVIL(DIVISION 31, 32 AND 33) TRENCHING.
5. ROOM NAMES AND NUMBERS IN THE CONSTRUCTION DOCUMENTS ARE FOR COORDINATION OF THE CONSTRUCTION DOCUMENTS AND ARE NOT TO BE APPLIED TO NAMEPLATES OR LABELS. REQUEST OWNER DESIGNATED ROOM NAMES AND NUMBERS PRIOR TO GENERATING ANY NAMEPLATES OR LABELS.
6. CONDUIT AND WIRE SHALL NOT BE INSTALLED BELOW SLAB UNLESS INDICATED ON PLANS BY DASHED CONDUIT.

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UNIVERSITY OF MAINE
KEYO BUILDING
ELECTRICAL SERVICE
UPGRADE

ORONO, MAINE

Harriman Project No. 24265

Graphic Scale
0" 1"
(scale measures 1" when plotted at full size)

STATE OF MAINE
CHELSEA L. HADSEL
No. 17097
LICENSED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

JANUARY 5, 2026

Revision Date	Revision Description

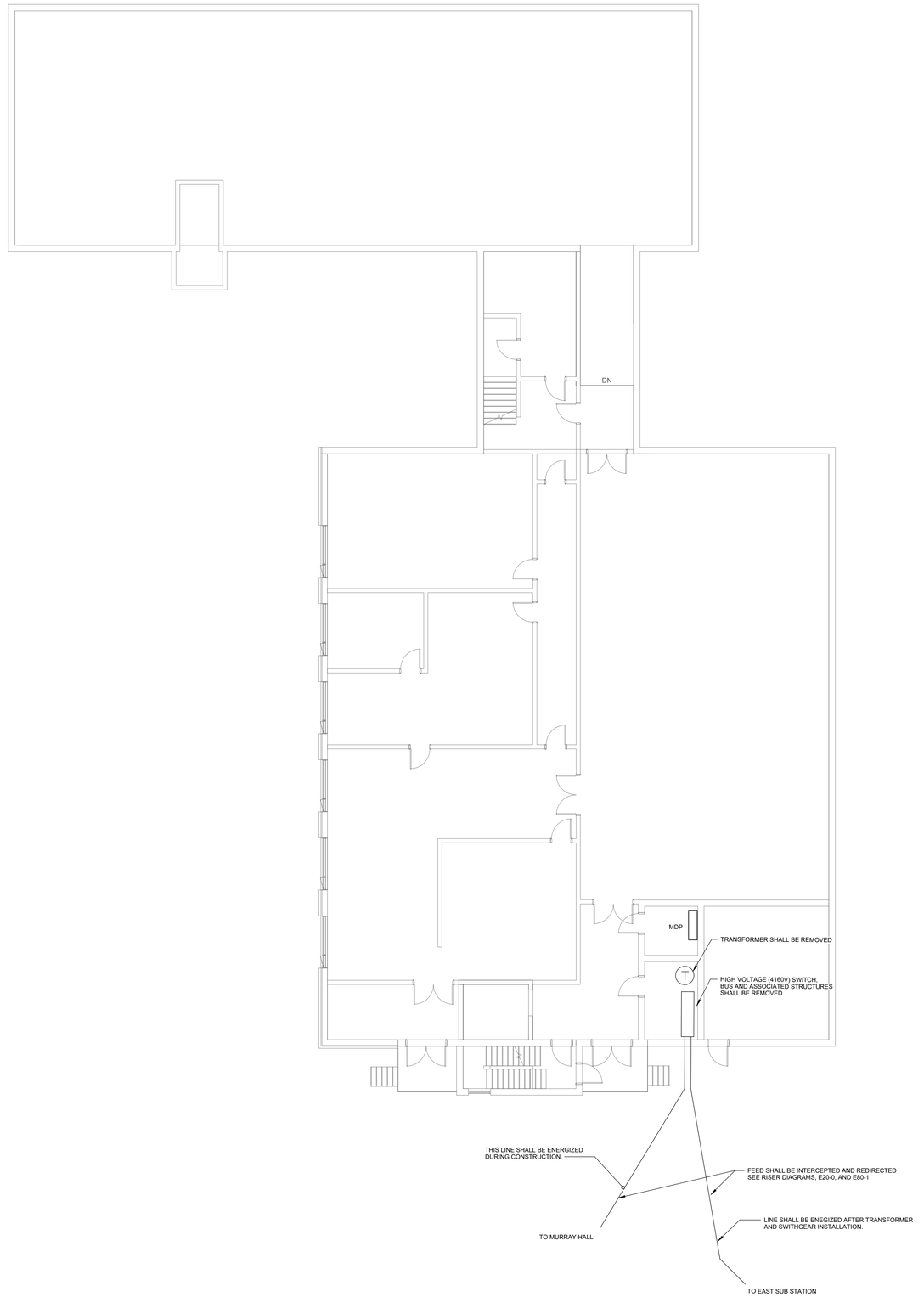
Drawn by: PRA

SYMBOLS AND ABBREVIATIONS

E00-1

GENERAL NOTES

1. THE INTENT OF THIS PLAN IS TO DOCUMENT EXISTING CONDITIONS AND SCOPE OF DEMOLITION, HOWEVER ALL ELECTRICAL DEVICES MAY NOT BE INDICATED ON THE DRAWINGS, FIELD VERIFY ALL CONDITIONS AND ADJUST WORK TO SUIT ALL FOUND.



1 BASEMENT FLOOR PLAN DEMOLITION
SCALE: 1/8" = 1'-0"

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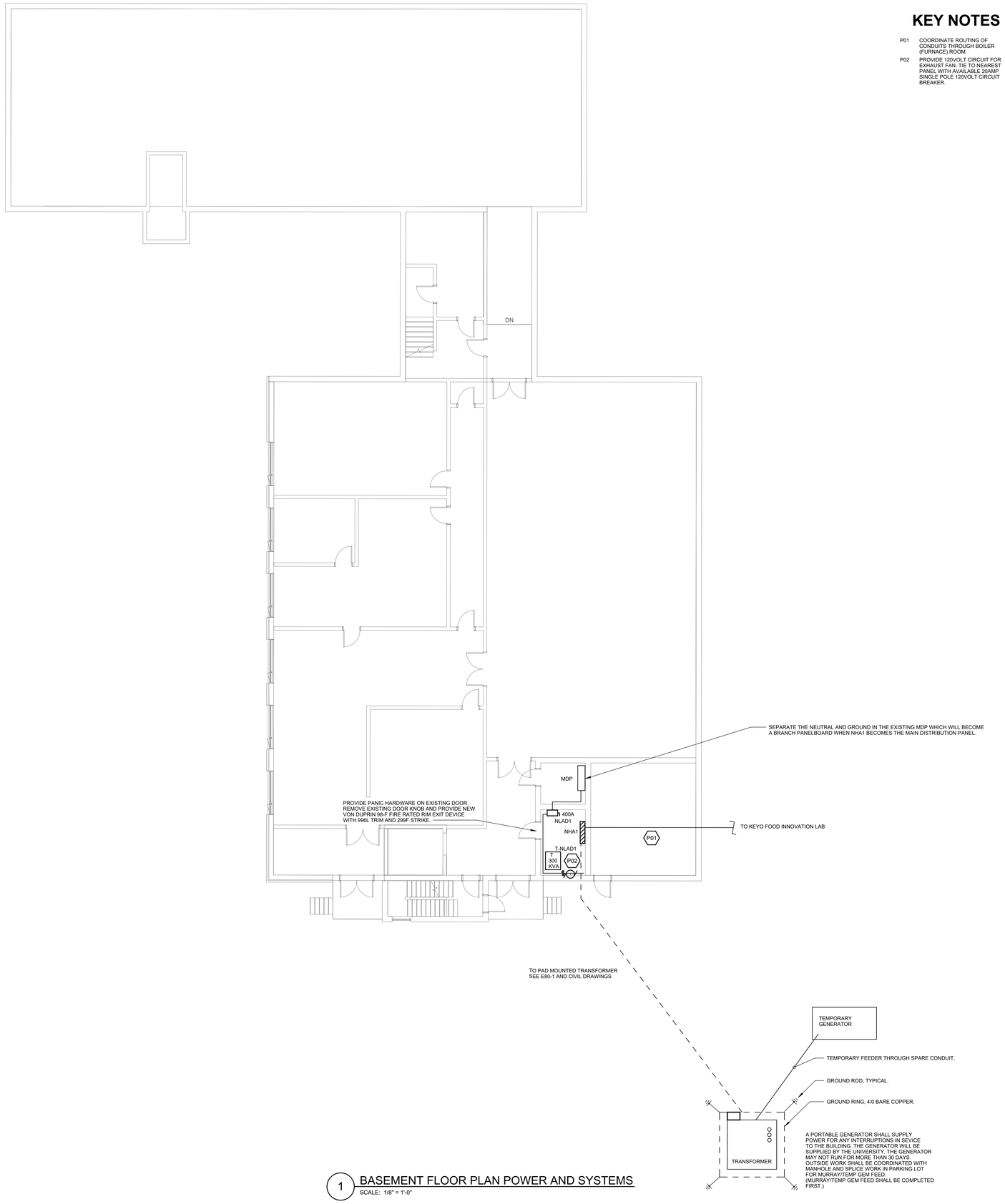
BASEMENT FLOOR PLAN DEMOLITION

E05-0



1 BASEMENT FLOOR PLAN POWER AND SYSTEMS
SCALE: 1/8" = 1'-0"

KEY NOTES

P01 COORDINATE ROUTING OF CONDUITS THROUGH BOILER (FURNACE) ROOM.

P02 PROVIDE 120VOLT CIRCUIT FOR EXHAUST FAN. TIE TO NEAREST PANEL WITH AVAILABLE 20AMP SINGLE POLE 120VOLT CIRCUIT BREAKER.

GENERAL NOTES

1. PROVIDE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED AND GRADE MOUNTED ELECTRICAL EQUIPMENT. MINIMUM REQUIREMENTS: 4" HIGH, 4% AIR ENTRAINED, POLYFIBER REINFORCED CONCRETE. 4" WIDER AND 4" LONGER THAN EQUIPMENT TO BE PLACED ON IT. REFER TO ELECTRICAL DETAIL DRAWINGS FOR TRANSFORMER, OR SWITCHBOARD PADS THAT MAY EXCEED THESE REQUIREMENTS.

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BASEMENT FLOOR PLAN
POWER AND SYSTEMS

E20-0

FEEDER SCHEDULE: 3 WIRE			
SYMBOL	PHASE CONDUCTOR	EGC	CONDUIT
20Δ	(3) #12	(1) #12	3/4"
30Δ	(3) #10	(1) #10	3/4"
40Δ	(3) #8	(1) #10	1"
50Δ	(3) #6	(1) #10	1"
60Δ	(3) #4	(1) #10	1"
70Δ	(3) #4	(1) #8	1"
80Δ	(3) #3	(1) #8	1"
90Δ	(3) #2	(1) #8	1-1/2"
100Δ	(3) #2	(1) #8	1-1/2"
125Δ	(3) #1	(1) #6	2"
150Δ	(3) #1/0	(1) #6	2"
175Δ	(3) #2/0	(1) #6	2"
200Δ	(3) #3/0	(1) #6	2"
225Δ	(3) #4/0	(1) #4	2-1/2"
250Δ	(3) #250 KCMIL	(1) #4	2-1/2"
300Δ	(3) #350 KCMIL	(1) #4	3"
350Δ	(3) #500 KCMIL	(1) #3	3"
400Δ	(3) #600 KCMIL	(1) #3	3-1/2"
500Δ	(2) SETS OF (3) #250 KCMIL	(1) #2	(2) 2-1/2"
600Δ	(2) SETS OF (3) #350 KCMIL	(1) #1	(2) 3"
800Δ	(3) SETS OF (3) #300 KCMIL	(1) #1/0	(3) 3"
1000Δ	(3) SETS OF (3) #400 KCMIL	(1) #2/0	(3) 3"
1200Δ	(4) SETS OF (3) #350 KCMIL	(1) #3/0	(4) 3"
1600Δ	(5) SETS OF (3) #400 KCMIL	(1) #4/0	(5) 3"
2000Δ	(6) SETS OF (3) #500 KCMIL	(1) #250 KCMIL	(6) 3"
2500Δ	(7) SETS OF (3) #500 KCMIL	(1) #350 KCMIL	(7) 3"
3000Δ	(8) SETS OF (3) #500 KCMIL	(1) #400 KCMIL	(8) 3"
4000Δ	(10) SETS OF (3) #600 KCMIL	(1) #500 KCMIL	(10) 4"
5000Δ	(12) SETS OF (3) #600 KCMIL	(1) #700 KCMIL	(12) 4"

FEEDER SCHEDULE: 4 WIRE			
SYMBOL	PHASE CONDUCTOR	EGC	CONDUIT
20Y	(4) #12	(1) #12	3/4"
30Y	(4) #10	(1) #10	3/4"
40Y	(4) #8	(1) #10	1"
50Y	(4) #6	(1) #10	1"
60Y	(4) #4	(1) #10	1-1/4"
70Y	(4) #4	(1) #8	1-1/4"
80Y	(4) #3	(1) #8	1-1/4"
90Y	(4) #2	(1) #8	1-1/2"
100Y	(4) #2	(1) #8	1-1/2"
125Y	(4) #1	(1) #6	2"
150Y	(4) #1/0	(1) #6	2"
175Y	(4) #2/0	(1) #6	2"
200Y	(4) #3/0	(1) #6	2"
225Y	(4) #4/0	(1) #4	2-1/2"
250Y	(4) #250 KCMIL	(1) #4	2-1/2"
300Y	(4) #350 KCMIL	(1) #4	3"
350Y	(4) #500 KCMIL	(1) #3	3"
400Y	(4) #600 KCMIL	(1) #3	4"
500Y	(2) SETS OF (4) #250 KCMIL	(1) #2	(2) 2-1/2"
600Y	(2) SETS OF (4) #350 KCMIL	(1) #1	(2) 3"
800Y	(3) SETS OF (4) #300 KCMIL	(1) #1/0	(3) 3"
1000Y	(3) SETS OF (4) #400 KCMIL	(1) #2/0	(3) 3"
1200Y	(4) SETS OF (4) #350 KCMIL	(1) #3/0	(4) 3"
1600Y	(5) SETS OF (4) #400 KCMIL	(1) #4/0	(5) 3"
2000Y	(6) SETS OF (4) #500 KCMIL	(1) #250 KCMIL	(6) 4"
2500Y	(7) SETS OF (4) #500 KCMIL	(1) #350 KCMIL	(7) 4"
3000Y	(8) SETS OF (4) #500 KCMIL	(1) #400 KCMIL	(8) 4"
4000Y	(10) SETS OF (4) #600 KCMIL	(1) #500 KCMIL	(10) 4"
5000Y	(12) SETS OF (4) #600 KCMIL	(1) #700 KCMIL	(12) 4"

DRY-TYPE TRANSFORMER SCHEDULE			
KVA	480V OCPD RATING	208V OCPD RATING	GROUNDING SIZE
15	40A-3P	50A-3P	(1) #6AWG
30	70A-3P	100A-3P	(1) #6AWG
45	100A-3P	150A-3P	(1) #4AWG
75	175A-3P	225A-3P	(1) #2AWG
112.5	225A-3P	400A-3P	(1) #1/0AWG
150	300A-3P	500A-3P	(1) #1/0AWG
225	500A-3P	800A-3P	(1) #2/0AWG
300	800A-3P	1200A-3P	(1) #3/0AWG

TRANSFORMER SCHEDULE NOTES

1. PROVIDE SECONDARY CIRCUIT BREAKER IN NEMA 1 ENCLOSURE AT TRANSFORMER, EXCEPT, IF PANEL IS LESS THAN 10 FEET FROM TRANSFORMER, PROVIDE THE SECONDARY BREAKER AS A MAIN IN THE PANELBOARD.
2. DRY TYPE TRANSFORMER SECONDARIES SHALL BE GROUNDED TO BUILDING STEEL & PER NFPA 70 AS A SEPARATELY DERIVED SOURCE.

Panel: NHA1

Location:
Supply From:
Mounting: SURFACE
Enclosure: Type 1

Volts: 480Y/277
Phases: 3
Wires: 4

A.I.C. Rating: 65,000
Mains Type: BRANCH MOUNTED
Mains Rating: 1200 A

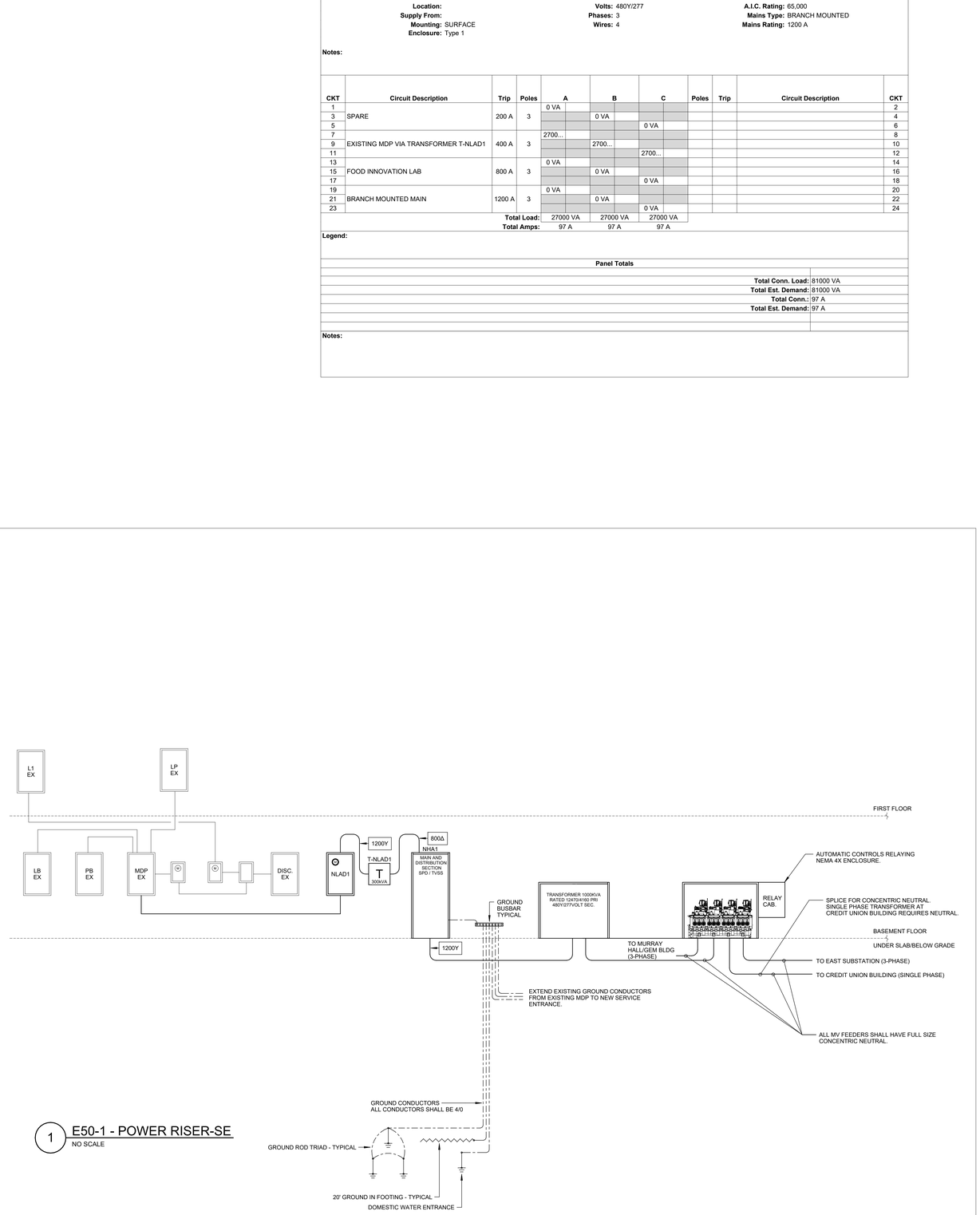
Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1				0 VA						2
3	SPARE	200 A	3		0 VA					4
5						0 VA				6
7				2700...						8
9	EXISTING MDP VIA TRANSFORMER T-NLAD1	400 A	3		2700...					10
11						2700...				12
13				0 VA						14
15	FOOD INNOVATION LAB	800 A	3		0 VA					16
17						0 VA				18
19				0 VA						20
21	BRANCH MOUNTED MAIN	1200 A	3		0 VA					22
23						0 VA				24
			Total Load:	27000 VA	27000 VA	27000 VA				
			Total Amps:	97 A	97 A	97 A				

Legend:

Panel Totals	
Total Conn. Load:	81000 VA
Total Est. Demand:	81000 VA
Total Conn.:	97 A
Total Est. Demand:	97 A

Notes:



1 E50-1 - POWER RISER-SE
NO SCALE

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(scale measures 1" when plotted at full size)

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CONSTRUCTION DOCUMENTS

JANUARY 5, 2026

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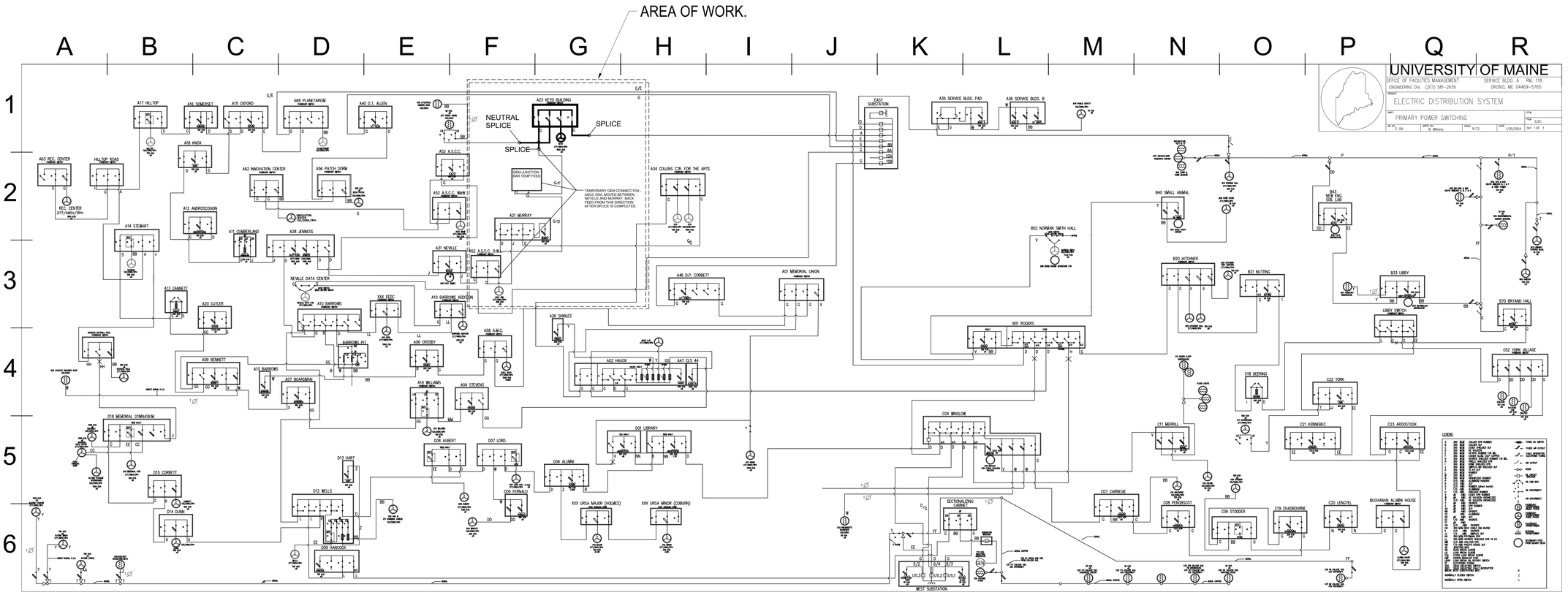
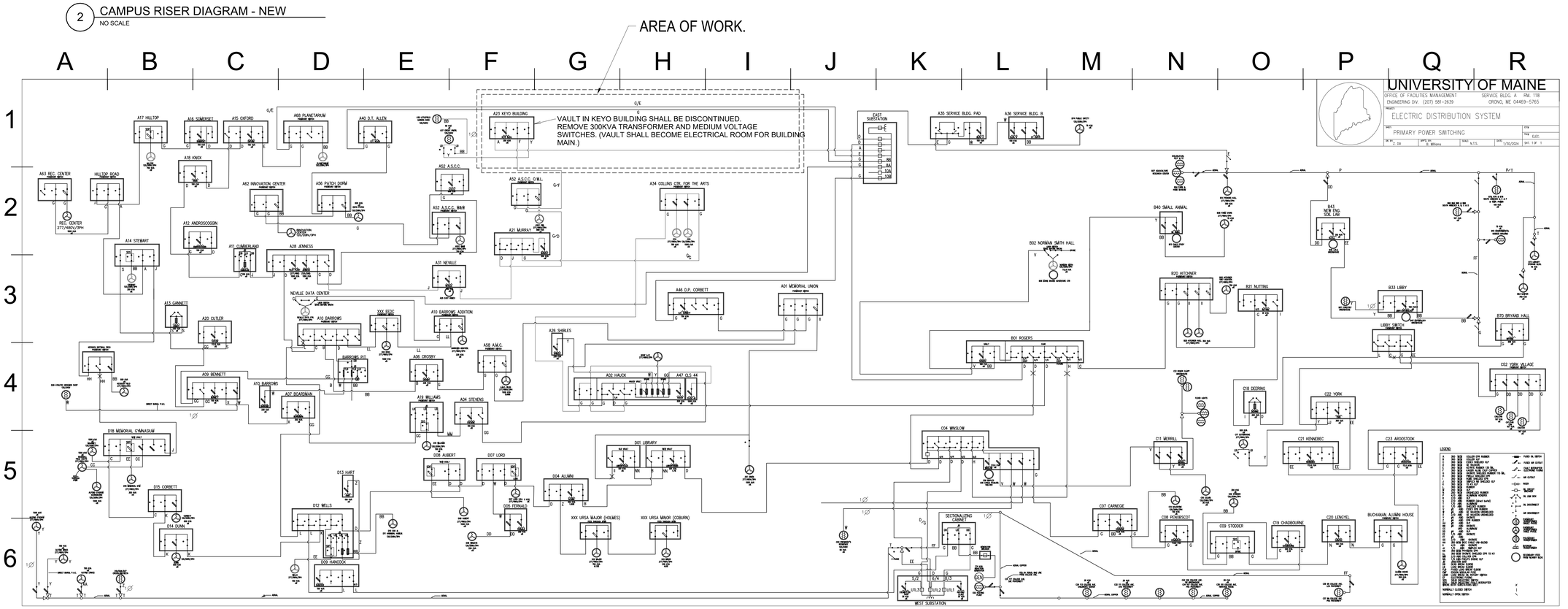
Drawn by: PRA

DIAGRAMS

E50-1



2 CAMPUS RISER DIAGRAM - NEW
NO SCALE



1 CAMPUS RISER DIAGRAM - EXISTING
NO SCALE

Harriman

UNIVERSITY OF MAINE
KEYO BUILDING
ELECTRICAL SERVICE UPGRADE

ORONO, MAINE

Harriman Project No.	24265

Graphic Scale
0" 1"
(scale measures 1" when plotted at full size)

STATE OF MAINE
CHELSEA L HADSEL
No. 17097
LICENSED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

JANUARY 5, 2026

Revision Date	Revision Description

Drawn by: PRA

DIAGRAMS

E50-2

POWER AND COMMUNICATIONS
(CONCRETE ENCASED ENTIRE LENGTH)

P = 5" POWER CONDUIT
FROM SWITCHGEAR TO PAD MOUNTED TRANSFORMER
VIA PULL BOXES/MANHOLES.

NOTE:
CONCRETE ENCASEMENT BY DIVISION 32 / 33.
COORDINATE WITH DIVISIONS 32 & 33.

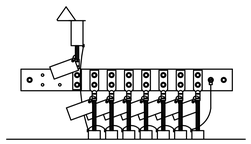
5 DUCT BANK SECTION - UTILITY
NO SCALE

POWER (CONCRETE ENCASED TO FOUNDATION)

S = SECONDARY FEEDER FROM PAD MOUNTED
TRANSFORMER TO SWITCHBOARD
REFER TO POWER RISER FOR SIZE

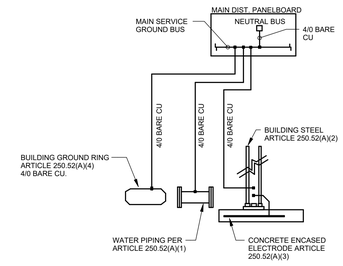
NOTE:
CONCRETE ENCASEMENT BY DIVISION 32 / 33.
COORDINATE WITH DIVISIONS 32 & 33.

6 DUCT BANK SECTION - COMMUNICATION, SECONDARY AND GENERATOR
NO SCALE

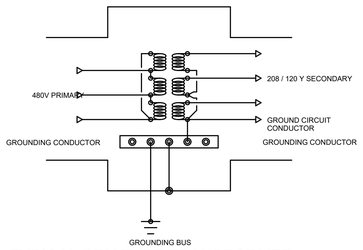


NOTES:
1. PROVIDE COPPER GROUNDING BUS (ERICO EGBA SERIES OR APPROVED EQUAL) WHERE INDICATED ON PLANS.
2. PROVIDE PERMANENT PHENOLIC TAG ON EACH CONDUCTOR INDICATING ORIGIN OF EACH CONDUCTOR.
3. GROUND TO ITEMS INDICATED ON POWER RISERS.
4. BOND TO THE FOLLOWING ITEMS:
   a. STRUCTURAL STEEL
   b. METALLIC PIPING.

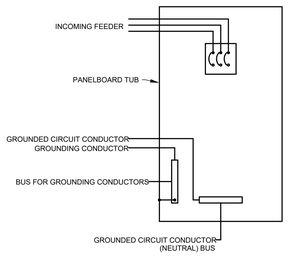
7 GROUNDING BUS DETAIL
NO SCALE



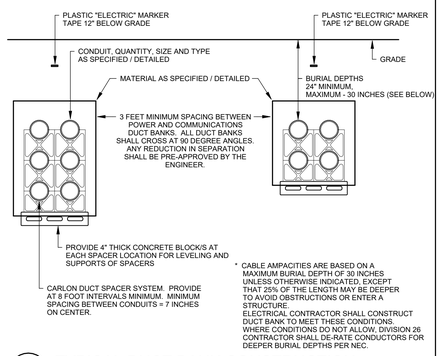
8 GROUNDING SYSTEM
NO SCALE



1 TYPICAL DRY-TYPE TRANSFORMER GROUNDING DETAIL
NO SCALE

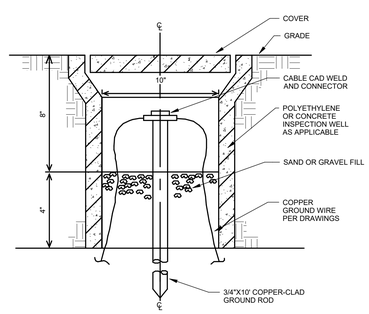


2 TYPICAL PANELBOARD SERVED SECONDARY DRY-TYPE TRANSFORMER
NO SCALE



* CABLE AMPACITIES ARE BASED ON A MAXIMUM BURIAL DEPTH OF 30 INCHES UNLESS OTHERWISE INDICATED. EXCEPT THAT 25% OF THE LENGTH MAY BE DEEPER TO AVOID OBSTRUCTIONS OR ENTER A STRUCTURE. ELECTRICAL CONTRACTOR SHALL CONSTRUCT DUCT BANK TO MEET THESE CONDITIONS. WHERE CONDITIONS DO NOT ALLOW, DIVISION 26 CONTRACTOR SHALL DE-RATE CONDUCTORS FOR DEEPER BURIAL DEPTHS PER NEC.

3 TYPICAL DUCT BANK CONSTRUCTION
NO SCALE



NOTES:
1. INSPECTION WELLS IN ROADWAYS SHALL ADHERE TO AASHTO H20 LOADING REQUIREMENTS.
2. WELLS SHALL BE FLUSH TYPE PRECAST CONCRETE, OR POLYMER CONCRETE PER AREA OF INSTALLATION. PROVIDE BOLTED DOWN COVERS WITH DESCRIPTION "GROUND ROD". PROVIDE STEEL COVERS FOR WELLS IN TRAFFIC AREAS.

4 TYPICAL GROUNDING WELL DETAIL
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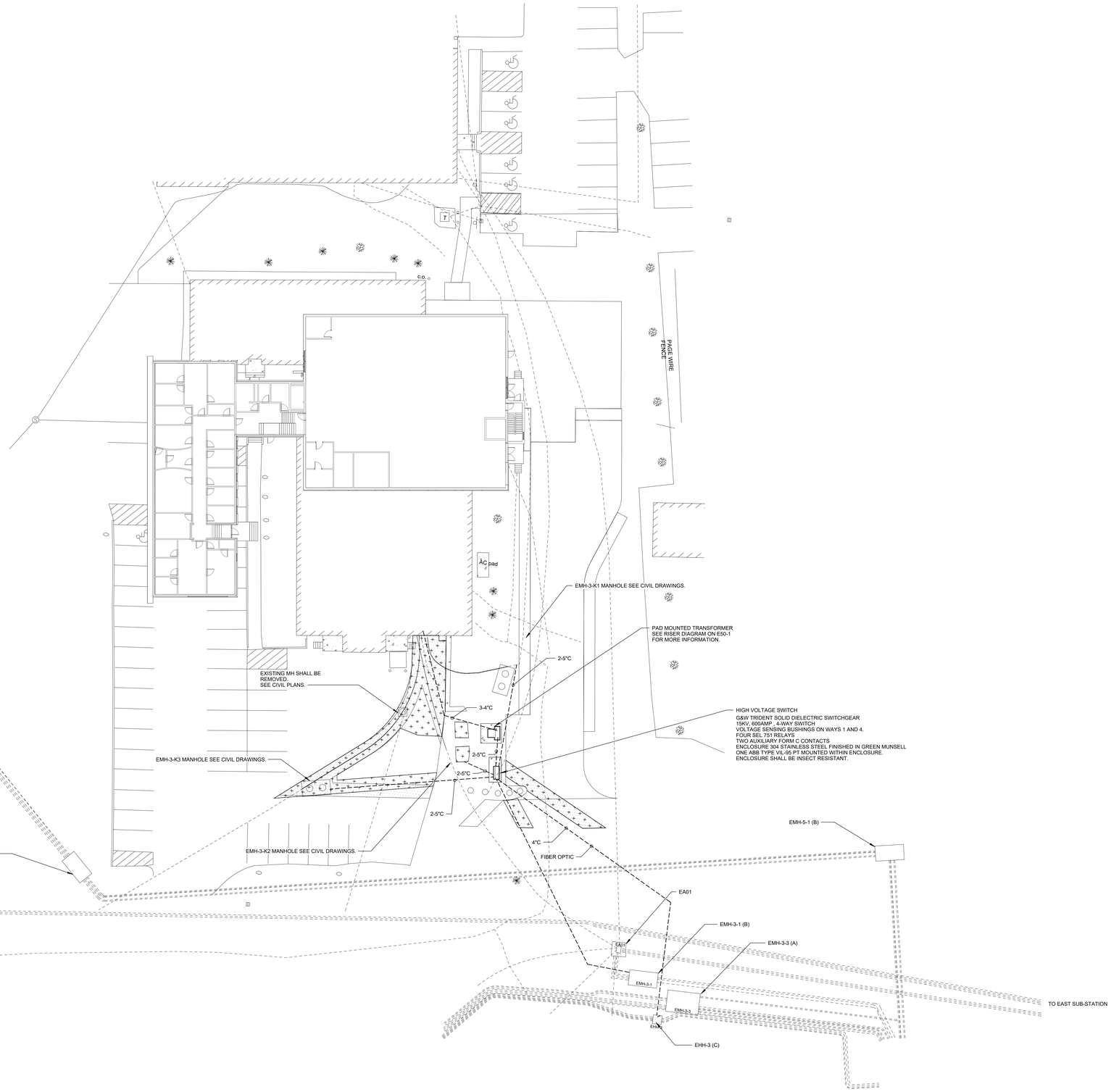
DETAILS

E70-1

GENERAL NOTES

1. ENCASE PRIMARY CONDUITS IN CONCRETE.
2. ENCASE SECONDARY CONDUITS IN CONCRETE.
3. COORDINATE ALL SHUTDOWNS WITH UNIVERSITY. PROVIDE TEMPORAY POWER FOR GEM BUILDING DURING ALL POWER OUTAGES.
4. PROVIDE PORTABLE GENERATOR TO SUPPLY POWER FOR ANY INTERRUPTIONS IN SEVICE TO THE BUILDING. OUTSIDE WORK SHALL BE COORDINATED WITH MANHOLE AND SPLICE WORK IN PARKING LOT FOR MURRARY/TEMP GEM FEED. (MURRARY/TEMP GEM FEED SHALL BE COMPLETED FIRST.)



1 SITE PLAN
SCALE: 1" = 20'-0"

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SITE PLAN

E80-1