

REQUEST FOR PROPOSAL

FRA RFP NO. LBNF-342297-BWQ

for the Construction of the

Long-Baseline Neutrino Facility (LBNF)
Near Site Conventional Facilities (NSCF)
Wetland Permit Work Construction

Package No. 2 of 4:
RFP REFERENCE DOCUMENTS (DRAWINGS)

TABLE OF CONTENTS

Request for Proposal (FRA RFP No. LBNF-342297-BWQ) Package No. 2 of
4

- Reference Drawings
 - ENCLOSED FOR REFERENCE/BASIS FOR PROPOSAL – DO NOT RETURN**
 - 6-15-15_Wetland Permit Work_Drawings Set, October 5, 2022, R2

Reference Drawings

ENCLOSED FOR REFERENCE/BASIS FOR PROPOSAL – DO NOT RETURN

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MAIN INJECTOR

NEAR DETECTOR (UNDERGROUND)

ABSORBER HALL (UNDERGROUND)

MAJOR VEHICLE ACCESS TUNNEL

(LBNF 40) NEAR DETECTOR SERVICE BUILDING

(LBNF 30) ABSORBER SERVICE BUILDING

DECAY REGION (UNDERGROUND)

(LBNF 20) TARGET COMPLEX

PRIMARY BEAM ENCLOSURE (UNDERGROUND)

(LBNF 5) PRIMARY BEAM SERVICE BUILDING

EXTRACTION ENCLOSURE (UNDERGROUND)

FROG FARM SUBSTATION

GIESE ROAD

KAUTZ ROAD

INDIAN CREEK ROAD

POND E

POND G

AP10

AP30

MI-10

MI-14

MI-8 SERV BLDG.

F-27

F-2

F-17

F-3

8 GeV ENCLOSURE

TEVATRON ENCLOSURE

MAIN RING COOLING PONDS

WELL No. 1

BEAM DIRECTION

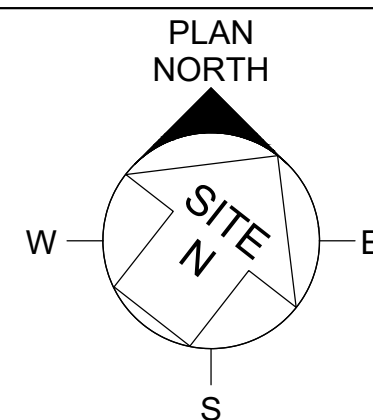
SCALE: 1" = 300'-0"



SCALE: 1" = 300'-0"



SCALE: 1" = 300'-0"



Fermilab
Long-Baseline Neutrino Facility

PROJECT NO. 6-15-15
LBNF NEAR SITE CONVENTIONAL FACILITIES
WETLAND PERMIT WORK
COVER SHEET

SW-000

REV. 00

10/05/22	6-15-15
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GENERAL NOTES

GENERAL

- 1. THE SUBCONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE STARTING WORK. IF CONDITIONS VARY FROM THOSE INDICATED ON THE DRAWINGS, THE FERMLAB CONSTRUCTION COORDINATOR (FCC) SHALL BE NOTIFIED AND NO WORK SHALL BE DONE IN THE AREA WITHOUT HIS APPROVAL.
- 2. SUBCONTRACTOR'S WORK ACTIVITIES SHALL BE RESTRICTED TO AREAS WITHIN THE LIMITS OF CONSTRUCTION AS NOTED ON THE DRAWING. SUBCONTRACTOR'S ACTIVITIES AND VEHICLES SHALL NOT BE ALLOWED OUTSIDE OF THESE LIMITS UNLESS APPROVED BY THE FCC.
- 3. THE SUBCONTRACTOR SHALL COORDINATE WORK AND COOPERATE WITH OTHER SUBCONTRACTORS ON ADJACENT AND CONCURRENT WORK.
- 4. SCALE FOR THE DRAWINGS IS FOR GENERAL INFORMATION ONLY. LOCATIONS AND DIMENSIONS SHALL BE TAKEN AS SHOWN AND NOT SCALED.
- 5. IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS PROJECT, ORDERING MATERIALS, OR BEGINNING CONSTRUCTION.

SURVEY AND LAYOUT

- 1. ELEVATION, BENCHMARK AND ALIGNMENT MONUMENTS HAVE BEEN ESTABLISHED WITHIN THE SITE, AND ARE SHOWN IN DRAWINGS. ALL ELEVATIONS ARE BASED ON FERMI SITE COORDINATE SYSTEM (FCCS:XYH) SURVEY DATUM. ALL SUBSEQUENT LAYOUT AND ELEVATION CONTROL, USING THESE REFERENCES, IS THE RESPONSIBILITY OF THE SUBCONTRACTOR.
- 2. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR PROPER ALIGNMENT (VERTICAL AND HORIZONTAL) AT ALL INTERFACES BETWEEN NEW AND EXISTING WORK TO ASSURE PROPER INSTALLATION AND USAGE.
- 3. THE FERMLAB ALIGNMENT GROUP MAY, AT THE DISCRETION OF OWNER, RUN SPOT CHECKS ON CRITICAL PARTS OF THE CONSTRUCTION.

UTILITIES

- 1. THE APPROXIMATE LOCATIONS OF KNOWN UTILITIES ARE SHOWN ON THE DRAWINGS. HOWEVER, OWNER DOES NOT GUARANTEE THEIR ACCURACY. THE SUBCONTRACTOR SHALL VERIFY THE LOCATIONS OF THESE UTILITIES AND IMPLEMENT REASONABLE DUE DILIGENCE TO LOCATE UNMARKED UTILITIES WITHIN THE WORK LIMITS.
- 2. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES. ANY UTILITY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE SUBCONTRACTOR'S EXPENSE TO THE COMPLETE SATISFACTION OF OWNER.
- 3. WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE SUBCONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL DRAINS, SEWERS OR CATCH BASINS.
- 4. PROVIDE 4" x 4" TREATED WOOD MARKER POST AT THE TERMINATION OF ALL BURIED UTILITIES. SEE TYP. DETAIL DWGS.
- 5. VERIFY EXISTING UTILITY SIZES AND MATERIALS IN FIELD. GENERALLY, EXISTING UTILITIES ARE:

-ICW: DUCTILE IRON

-CPTP: REINFORCED CONCRETE

-CPWS/R: DUCTILE IRON

-DWS: PVC

-SUMP: DUCTILE IRON

-POND SCREEN: STEEL

EARTHWORK

- 1. SUBCONTRACTOR SHALL LOCATE ALL EXISTING STRUCTURES AND UTILITIES BY HAND. OTHER METHODS MUST BE APPROVED IN ADVANCE BY OWNER. FOLLOW ON EXCAVATION WORK MUST PROCEED WITH CAUTION.
- 2. SLOPES IN OPEN EXCAVATIONS SHALL BE NO STEEPER THAN 1.5H:1V IN SAND AND SILT ALLUVIAL SOILS. IN STIFF GLACIAL TILL, SIDE SLOPES NO GREATER THAN 0.75H:1V CAN BE USED UNLESS OTHERWISE DIRECTED.
- 3. SWALE AND DITCHES SHOWN ARE INTENDED TO INDICATE THE DIRECTION OF RUNOFF. EXACT PROFILES HAVE NOT BEEN ESTABLISHED DUE TO THE SHALLOW NATURE OF THESE DITCHES AND THE SURROUNDING GROUND. THE INTENT OF THESE DITCHES IS TO GRADE TO DRAIN AND THEIR PROFILE SHALL BE ADJUSTED ACCORDINGLY.
- 4. IT SHALL BE THE SUBCONTRACTOR'S RESPONSIBILITY TO MAINTAIN DRAINAGE FLOWS AT ALL TIMES DURING THE PERFORMANCE OF THE WORK. SURFACE WATER RUNOFF SHALL BE CONTROLLED IN SUCH A MANNER TO PREVENT PONDING. AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE GRADED IN SUCH A WAY THAT THE SURFACE WATER WILL FREELY FLOW TOWARD A COLLECTING SYSTEM OF DITCHES, SWALES, AND SEDIMENT BASINS.
- 5. BACKFILL SHALL BE PLACED AND COMPACTED IN UNIFORM HORIZONTAL LAYERS IN ACCORDANCE WITH THE SPECIFICATIONS.
- 6. SUBCONTRACTOR SHALL REMOVE ALL TREES ROOTS, DEBRIS, SHRUBS, AND OTHER UNSUITABLE ORGANIC MATERIAL AND DISPOSE OFFSITE.
- 7. TO THE MAXIMUM EXTENT PRACTICABLE, THE WORK SITE SHALL BE EXCAVATED, GRADED AND STABILIZED IN STAGES SO THAT UNPROTECTED, DENUDED AREAS ARE MINIMIZED.
- 8. CLEARING AND GRUBBING SHALL ALSO BE STAGED TO THE GREATEST EXTENT POSSIBLE SO THAT AREAS ARE CLEARED ONLY AS REQUIRED FOR SEQUENCE OF OPERATIONS. CLEARING AND GRUBBING SHALL WHOLLY OCCUR BETWEEN NOVEMBER 15 AND MARCH 15.
- 9. ALL SOILS EXCAVATED SHALL BE STOCKPILED SEPARATELY BY SOIL TYPE. STOCKPILE HYDRIC SOILS EXCAVATED TO A DEPTH OF 2' SEPARATE FROM OTHER TOPSOIL OR SUITABLE SOILS. STOCKPILE AREA IS AS INDICATED. NO MATERIAL SHALL BE DISPOSED OF OFFSITE WITHOUT WRITTEN PERMISSION BY OWNER.
- 10. PROVIDE EROSION CONTROL AROUND STOCKPILES AND MAKE AVAILABLE FOR TESTING BY OWNER.

CONSTRUCTION TRAFFIC

- 1. CONSTRUCTION VEHICLES CROSSING THE MAIN INJECTOR ON KAUTZ ROAD SHALL HAVE VEHICLE LOADS NOT TO EXCEED 44 TONS AND MAXIMUM AXLE LOAD OF 16 TONS.
- 2. CONSTRUCTION VEHICLES CROSSING THE MAIN INJECTOR ON KAUTZ ROAD SHALL CROSS SINGLY. VEHICLES SHALL NOT PASS, OVERTAKE, OR MEET WITHIN 100 FEET OF THE CENTERLINE OF A CROSSING. VEHICLES SHALL MAINTAIN THEIR SPEED WHILE WITHIN 100 FEET OF THE CROSSING WITH NO BRAKING (PROVIDED IT IS SAFE TO DO SO).
- 3. CONSTRUCTION VEHICLES CROSSING THE MAIN INJECTOR ON KAUTZ ROAD SHALL NOT TRAVEL IN CONVOYS.
- 4. CONSTRUCTION VEHICLES SHALL ADHERE TO POSTED SPEED LIMITS WHEN TRAVELING ANYWHERE ON SITE.
- 5. OWNER MAY PROHIBIT THE USE OF ANY HAUL ROUTE WHILE THE MAIN INJECTOR BEAM IS ENERGIZED.
- 6. IF CONSTRUCTION ACTIVITIES CAUSE THE MAIN INJECTOR BEAM TO BE ADVERSELY IMPACTED TO A SIGNIFICANT DEGREE, FERMLAB WILL HALT CONSTRUCTION ACTIVITIES AND DEVELOP A REVISED PLAN TO PROCEED.
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO EXISTING PAVEMENTS CAUSED BY HIS OPERATIONS. ALL DAMAGE CAUSED BY THE CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF OWNER.

EROSION CONTROL


- 1. SUBCONTRACTOR SHALL PROVIDE A COMPLETE EROSION CONTROL PROGRAM FOR MINIMIZING EROSION AND SILTATION DURING AND AS A RESULT OF HIS CONSTRUCTION OPERATIONS.
- 2. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING SOIL AND EROSION CONTROL MEASURES NECESSARY TO MEET THE REQUIREMENTS OF THE MAIN INJECTOR POLLUTION PREVENTION PLAN AND THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA) "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL." IEPA/WPC/87-012 TO CONTROL AND MINIMIZE CONSTRUCTION STORMWATER DISCHARGES.
- 3. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY INSTALLED, INSPECTED BY THE ENGINEER, AND FUNCTIONING PRIOR TO CONSTRUCTION IN AN AREA.
- 4. SUBCONTRACTOR SHALL IMPLEMENT A DAILY INSPECTION PROGRAM OF THE EROSION AND SEDIMENT CONTROL MEASURES AND TO MAINTAIN THESE MEASURES IN A FUNCTIONAL CONDITION. EARTHEN STRUCTURES SUCH AS DIKES, BERMS, AND SWALES SHALL BE STABILIZED BEFORE BEING CONSIDERED FUNCTIONAL.
- 5. STRIPPING OF VEGETATION, GRADING OR OTHER SOIL AND HYDROLOGIC DISTURBANCE SHALL BE DONE IN A MANNER TO MINIMIZE SOIL EROSION.
- 6. TEMPORARY GROUND COVER, SODDING OR EROSION BLANKET SHALL BE USED TO PROTECT ALL EXPOSED AREAS DURING CONSTRUCTION. APPROPRIATE SEED SHALL BE USED FOR TEMPORARY GROUND COVER AND STABILIZATION DEPENDENT UPON THE TIME OF YEAR THAT CONSTRUCTION IS TAKING PLACE.
- 7. SEDIMENT SHALL BE RETAINED ON SITE AND NOT ALLOWED TO ENTER THE DRAINAGE WAYS.
- 8. CUT AND FILL SLOPES AND STOCKPILED MATERIAL SHALL BE PROTECTED TO PREVENT EROSION.
- 9. ALL ACCESS ROADS INSTALLED BY THE SUBCONTRACTOR FOR HIS CONVENIENCE MUST HAVE STABILIZED CONSTRUCTION ENTRANCES.
- 10. STOCKPILES SHALL BE STABILIZED AND SEEDED WITH LOW MAINTENANCE SEED FOR LONG-TERM (MULTIPLE YEAR) TEMPORARY STORAGE.
- 11. STRAW BALES SHALL BE INSPECTED FREQUENTLY AND MAINTAINED OR REPLACED AS REQUIRED TO MAINTAIN BOTH THEIR EFFECTIVENESS AND ESSENTIALLY THEIR ORIGINAL CONDITION. UNDERSIDE OF BALES SHALL BE KEPT IN CLOSE CONTACT WITH THE EARTH BELOW AT ALL TIMES TO PREVENT WATER FROM WASHING BENEATH.
- 12. STABILIZATION OF DISTURBED AREAS WHICH MAY OR MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 60 DAYS SHALL BE STABILIZED WITHIN 7 DAYS OF INITIAL DISTURBANCE.
- 13. DUST CONTROL SHALL BE PROVIDED BY THE SUBCONTRACTOR AND SHALL BE ACHIEVED BY WATERING OR OTHER APPROVED METHOD. SUBCONTRACTOR SHALL PROVIDE A FULL-TIME OPERATING WATER TRUCK DURING ALL HOURS OF CONSTRUCTION.
- 14. SILT FENCES, HAY BALES, AND OTHER EROSION CONTROL MEASURES SPECIFICALLY SHOWN ON THE DRAWINGS SHALL BE INSTALLED AS SHOWN IN ADDITION TO IEPA OR OTHER REGULATORY REQUIREMENTS.
- 15. STREAM FLOWS MOVING THROUGH AN IN-STREAM WORK AREA MAY BE REDUCED BY ISOLATING AND DEWATERING THE WORK AREA OR BY OTHER METHODS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO REVIEW THE METHODS THAT WILL BE USED TO REDUCE STREAM FLOWS MOVING THROUGH IN-STREAM WORK AREAS PRIOR TO THE START OF THE WORK.
- 16. THE CONTRACTOR SHALL HAVE A COPY OF THE MOST CURRENT VERSION OF THE STORMWATER POLLUTION PREVENTION PLAN ON SITE AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN SUCH PLAN TO REFLECT ANY SIGNIFICANT CHANGES IN THE SOIL EROSION AND SEDIMENT CONTROL MEASURES USED ON SITE.
- 17. IF INSTALLED SOIL EROSION AND SEDIMENT CONTROL MEASURES DO NOT MINIMIZE SEDIMENT LEAVING THE DEVELOPMENT SITE, ADDITIONAL MEASURES SUCH AS ANIONIC POLYMERS OR FILTRATION SYSTEMS MAY BE REQUIRED BY THE ENFORCEMENT OFFICER.

- 18. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER, ENFORCEMENT OFFICER OR GOVERNING AGENCY
- 19. IN CASE OF REPEATED FAILURE ON THE PART OF THE CONTRACTOR TO TAKE STEPS PRESCRIBED BY THE ENGINEER TO CONTROL EROSION, THE ENGINEER RESERVES THE RIGHT TO EMPLOY OUTSIDE ASSISTANCE, OR TO USE HIS/HER OWN FORCES TO PROVIDE THE NECESSARY CORRECTIVE MEASURES AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL MEASURES FROM CONTRACT ISSUANCE UNTIL FINAL STABILIZATION IS ACHIEVED, WHICH IS DEFINED AS GREATER THAN 80% VEGETATIVE COVERAGE ON ALL DISTURBED AREAS NOT PERMANENTLY STABILIZED BY AGGREGATE OR OTHER MEANS.


DESIGN CRITERIA AND REFERENCES - CURRENT EDITIONS

- 1. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).
- 2. ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 3. U.S. DEPARTMENT OF ENERGY GENERAL DESIGN CRITERIA-DOE 6430.1A.
- 4. FERMLAB DESIGN GUIDE

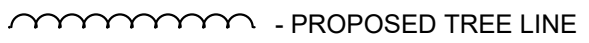
TYPICAL CIVIL LEGEND ITEMS:



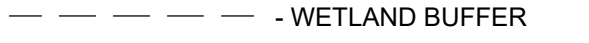
-EROSION CONTROL BLANKET




- PROPOSED GRAVEL




- PROPOSED TREE LINE




- WETLAND BUFFER




- PROPOSED GRAVEL ROAD




- PROPOSED TREE LINE



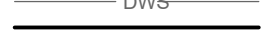
- UNDERGROUND POWER/COMMUNICATION



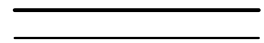
- INDUSTRIAL COOLING WATER SUMP LINE



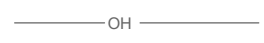
- DOMESTIC WATER SUPPLY / RETURN



- COOLING POND TRANSFER PIPE



- OVERHEAD ELECTRIC



- WETLAND BUFFER

00	10/05/2022	ISSUED FOR CONSTRUCTION
REV.	DATE	DESCRIPTIONS
REVISIONS		



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SCALE:



DESIGNED	H. CHU	2022
DRAWN	D. EGGERDING	2022
CHECKED	F. LOUIS	2022

PROJECT NO. 6-15-15
LBNF NEAR SITE CONVENTIONAL FACILITIES
WETLAND PERMIT WORK
GENERAL NOTES

DRAWING NO.	SW-002	REV.	00
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6-15-15
10/05/22

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SYMBOLS:

DETAIL TITLE

SCALE: 1 1/2" = 1'-0" [REF: 1/ A4-1]

DETAIL TITLE

A

ELEVATION

SCALE: 1 1/2" = 1'-0"

ELEVATION

A

PLAN

SCALE: 1 1/2" = 1'-0"

PLAN

SECTION CALL OUT

EXTERIOR ELEVATION REFERENCE

INTERIOR ELEVATION REFERENCE

COLUMN GRID

0

DETAIL CALLOUT REFERENCE

NORTH ARROW

DRAWING IDENTIFICATION

X-XX-XXX

DETAIL SECTION NUMBER

SIM

SHEET ON WHICH SECTION IS DRAWN

PLAN NORTH

SITE

NORTH ARROW USAGE:
SITE NORTH = FSCS NORTH
PLAN NORTH PROVIDES CONVENIENT REFERENCE DIRECTIONS FOR PLAN VIEWS THAT ARE ORIENTED OBLIQUELY WITH RESPECT TO SITE NORTH. FOR SITE PLANS WHERE PLANS ARE ORIENTED WITH TRUE NORTH UP, PLAN NORTH = TRUE NORTH.

SHEET SEQUENCE NUMBER

SHEET TYPE DESIGNATOR

WBS DESIGNATOR

DISCIPLINE DESIGNATOR

ROOM NAME

Room name

DOOR TAG

D101A

FINISH TAG

WALL FINISH
BASE FINISH
FLOOR FINISH

SPOT ELEVATIONS

EL: 00.00' AFF

MATCHLINE REFERENCE

MATCHLINE SEE 1 / A101

W/ ROOM NUMBER

Room name

BORROWED LITE TAG

W101A

WALL TAG

W1

LEVEL HEADS

LEVEL NAME
EL 0'-0"

REVISION CALLOUT AND CLOUD

W/ AREA

Room name

150 SF SQ. FT.

WINDOW TAG

W101A

CEILING TAG

HEIGHT A.F.F.
CEILING TYPE

FLOW ARROW REFERENCE

W/ OCCUPANCY LOAD

Room name

101

150 SFSQ. FT.
OCC = #

LOUVER TAG

L1

CENTERLINE TAG

℄

KEYNOTES

LEGEND

SCALE: 1" = 1'-0"

BATT INSULATION

CONCRETE MASONRY UNIT

RIGID INSULATION

METAL GRATING

REINFORCED CONCRETE

CONTROLLED LOW STRENGTH MATERIAL (CLSM)

STRUCTURAL FACING TILE

EARTH

PRECAST CONCRETE

METAL

ROUGH WOOD

FINISH WOOD

PLYWOOD

COMPRESSIBLE FILLER

DEMOLISH

ABBREVIATIONS:

@	AT	CONC	CONCRETE	FEC	FIRE EXTINGUISHER CABINET	IL	INTERMEDIATE LEVEL	NAT	NATURAL	REQD OR REQ	REQUIRE / REQUIRED	TEMP	TEMPORARY
A/C	AIR CONDITIONER / CONDITIONING	CONT	CONTINUOUS	FIN	FINISH / FINISHED	INCL	INCLUDE / INCLUDED	NDH	NEAR DETECTOR HALL	RET	RETAINING	TH2DK	TARGET HALL COMPLEX
AB	ANCHOR BOLT	CPTP	COOLING POND TRANSFER PIPE	FIRUS	FACILITY INCIDENT REPORTING UTILITY SYSTEM	INSUL	INSULATION	NDSB	NEAR DETECTOR SERVICE BUILDING	REV	REVISION	THK	THICK / THICKNESS
AC	ACOUSTICAL	CPWR	COOLING POND WATER RETURN	FL	FLOOR	INT	INTERIOR	NIC	NOT IN CONTRACT	RF	RESILIENT FLOOR	TOC	TOP OF CONCRETE
ACFL	ACCESS FLOOR	CS	COUNTERSINK	FND	FOUNDATION	INV	INVERT	NOM	NOMINAL	RFG	ROOFING	TOM	TOP OF MASONRY
ACP	ACOUSTICAL CEILING PANEL	CSMT	CASEMENT	FOC	FACE OF CONCRETE	J OR JB	JUNCTION BOX	NTS	NOT TO SCALE	RFL	REFLECTED	TOS	TOP OF STEEL
ACT	ACOUSTICAL CEILING TILE	CT	CERAMIC TILE	FOM	FACE OF MASONRY	JST	JOIST	OC	ON CENTER	RH	RIGHT HAND	TOSL	TOP OF SLAB
ADJ	ADJACENT	CTR	COUNTER	FOS	FACE OF STUDS	JT	JOINT	OD	OUTSIDE DIAMETER	RM	ROOM	TYP	TYPICAL
AFF	ABOVE FINISH FLOOR	D	DRAIN	FPG	FIREPROOFING	L	LENGTH	OH	OVERHEAD	RMKS	REMARKS	UC	UNDERCOUNTER
AH	ABSORBER HALL	DEMO	DEMOLITION	FRT	FIRE RETARDANT TREATED	L/S	LIFE SAFETY	OL	OPERATING LEVEL	RO	ROUGH OPENING	UG P/C	UNDERGROUND POWER & COMMUNICATION
ALT	ALTERNATE	DET	DETAIL / DETAILS	FTG	FOOTING	LAB	LABORATORY	OPG OR OPNG	OPENING	ROW	RIGHT OF WAY		
ALUM	ALUMINUM	DI	DUCTILE IRON	G	GAS	LAr	LOW ANTERIOR RESECTION	OPP	OPPOSITE	RS	RISER(S)	UNO OR UON	UNLESS NOTED OTHERWISE / UNLESS OTHERWISE NOTED
AP	ACCESS PANEL	DIA	DIAMETER	GA	GAUGE	LAV OR L	LAVATORY	P	PAINT	RV	ROOF VENT	UR	URINAL
APROX	APPROXIMATE	DK	DECAY REGION	GHM	GALVANIZED HOLLOW METAL	LBNF	LONG BEAM NEAR FACILITY	PB	PANIC BAR	S	SOUTH	UV	ULTRA VIOLET
ARCH	ARCHITECT / ARCHITECTURAL	DN	DOWN	GL	GLASS / GLAZING	LCW	LOW CONDUCTIVITY WATER	PBSB	PRIMARY BEAM SERVICE BUILDING	SCHED	SCHEDULE	VB	VAPOR BARRIER
ASB	ABSORBER HALL SERVICE BUILDING	DP	DAMP PROOFING	GND	GROUND	LF	LINEAR FOOT / FEET	PC	PROTECTIVE COATING	SECT	SECTION	VCT	VINYL COMPOSITION TILE
ASPH	ASPHALT	DPS	DUST PROOF SEALER	GRT	GROUT	LG	LONG	PCC	PRECAST CONCRETE	SF	SQUARE FOOT	VERT	VERTICAL
BB	BOND BEAM	DS	DOWNSPOUT	GRV	GRAVEL	LL	LOWER LEVEL	SFGL	SAFETY GLASS	SHT	SHEET	VEST	VESTIBULE
BD	BOARD	DWG	DRAWING	GW	GYPSUM WALL BOARD	LP	LOW POINT	SHTG	SHEATHING	SK	SINK	VIF	VERIFY IN FIELD
BIT	BITUMINOUS	DWLS	DOWELS	GYP OR GYB	GYPSUM BOARD	LTCS	LOCAL TUNNEL COORDINATE SYSTEM. H, X, Y = EARTH CURVATURE CORRECTED COORDINATES.	SIM	SIMILAR	SKLT	SKYLIGHT	VNB	VINYL BASE
BLDG	BUILDING	E	EAST	GYP SHTG	GYPSUM SHEATHING			PLW OR PLYWD	PLYWOOD	SLNT	SEALANT	VTR	VENT THROUGH ROOF
BM	BEAM	EA	EACH	H	HIGH	LTL	LINTEL	PLAS	PLASTER	SP	SOUNDPROOF	VWC	VINYL WALL COVERING
BOT	BOTTOM	EE	EXTRACTION ENCLOSURE	HB	HOSE BIB	LVR	LOUVER	PLW OR PLYWD	PLYWOOD	SN	SOUNDPROOF	W	WEST
BPL	BEARING PLATE	EIFS	EXTERIOR INSUL AND FINISH SYSTEM	HC	HANDICAP(PED)	MAS	MASONRY	PSF	POUNDS PER SQUARE FOOT	SP	SOUNDPROOF	W/	WITH
BSMT	BASEMENT	EJ OR EJT	EXPANSION JOINT	HK	HOOK	MAX	MAXIMUM	PSI	POUNDS PER SQUARE INCH	SPEC	SPECIFICATIONS	WBS	WORK BREAKDOWN STRUCTURE
BW	BOTH WAYS	EL OR ELEV	ELEVATION	HM	HOLLOW METAL	MECH	MECHANICAL	PVMT	PAVEMENT	SQ	SQUARE	WC	WATER CLOSET
CAB	CABINET	ELEC	ELECTRICAL	HMI	HOLLOW METAL INSULATED	MET	METAL	QT	QUARRY TILE	SS	STAINLESS STEEL	WD	WOOD
CB	CATCH BASIN	EPDM	ETHYLENE-PROPYLENE-DIENE-ME MBRANE	HORIZ	HORIZONTAL	MEZZ	MEZZANINE	R	RISER	STA	STATION	WH	WATER HEATER
CF	CUBIC FOOT			HPC	HIGH PERFORMANCE COATING	MFR	MANUFACTURER	R OR RAD	RADIUS	STD	STANDARD	WM	WIRE MESH
CFM	CUBIC FEET PER MINUTE	EQ	EQUAL	HT, HGT	HEIGHT	MH	MANHOLE	RCP	REFLECTED CEILING PLAN OR REINFORCED CONCRETE PIPE	STL	STEEL	WP	WATERPROOF / WATERPROOFING
CJ OR CJT	CONTROL JOINT	EQUIPT	EQUIPMENT	HTR	HEATER	MIN	MINIMUM			STRUCT	STRUCTURAL / STRUCTURE	WWF	WELDED WIRE FABRIC
CL	CENTER LINE	EWC	ELECTRIC WATER COOLER	HW	HOT WATER	MISC	MISCELLANEOUS	RCP	REFLECTED CEILING PLAN	SYS	SYSTEM	XPS	EXPANDED POLYSTYRENE
CLG	CEILING	FB	FACE BRICK	HWC	HANDICAPPED WATER CLOSET	MO	MASONRY OPENING	RD	ROOF DRAIN	T&B	TOP AND BOTTOM	YD	YARD
CLR	CLEAR	FBO	FURNISHED BY OTHERS	HWH	HOT WATER HEATER	MP	METAL PANEL	REF	REFERENCE	T/	TOP	ZVB	ZONE VALVE BOX
CLSM	CONTROLLED LOW STRENGTH MATERIAL	FD	FLOOR DRAIN	HYD	HYDRANT	MTD	MOUNTED	REINF	REINFORCE/-ED/-ING	TBD	TO BE DETERMINED	ZVC	ZONE VALVE CABINET
CMP	CORRUGATED METAL PIPE	FE	FIRE EXTINGUISHER	ICW	INDUSTRIAL COOLING WATER	N	NORTH	REM	REMOVE / REMOVABLE	TBS	TO BE SELECTED		
COL	COLUMN			ID	INSIDE DIAMETER								

SCALE:



Long-Baseline Neutrino Facility

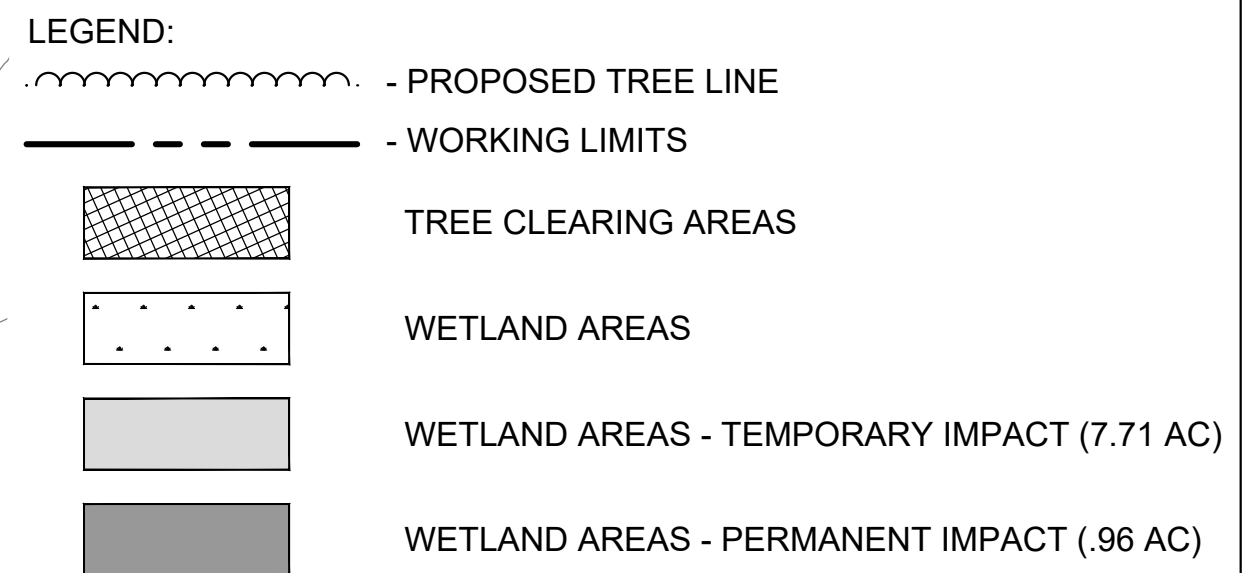
DESIGNED	H. CHU	2022
DRAWN	D. EGGERDING	2022
CHECKED	F. LOUIS	2022

PROJECT NO. 6-15-15
LBNF NEAR SITE CONVENTIONAL FACILITIES
WETLAND PERMIT WORK
LEGEND AND ABBREVIATIONS

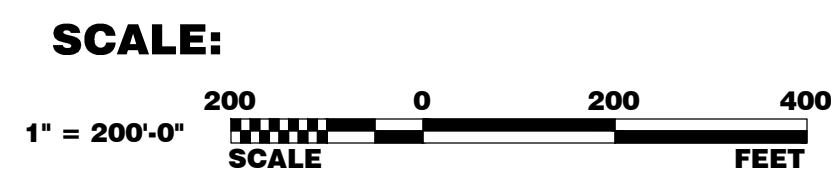
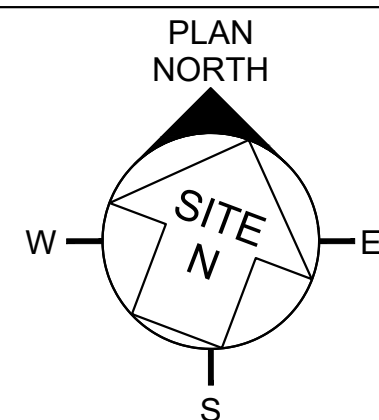
DRAWING NO.	SW-003	REV.	00
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6-15-15

10/05/22



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		REVISIONS



DESIGNED	H. CHU	2022
DRAWN	D. EGGERDING	2022
CHECKED	F. LOUIS	2022

PROJECT NO. 6-15-15
LBNF NEAR SITE CONVENTIONAL FACILITIES
WETLAND PERMIT WORK
OVERALL DEMOLITION PLAN

DRAWING NO.	SW-101	REV.	00
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Clearing Limits Point Table		
Point Number	X - Coordinates	Y - Coordinates
1	96815.04	96373.12
2	96925.73	96236.67
3	97103.32	96353.96
4	97308.15	96308.59
5	97651.97	96436.57
6	97689.12	96439.51
7	97544.64	96512.04
8	97580.57	96588.29
9	97609.71	96662.10
10	97633.30	96714.29
11	97664.48	96745.49
12	97739.50	96777.25
13	97787.76	96829.44
14	97858.09	96873.23
15	97916.55	96891.44
16	97971.82	96896.74
17	98053.08	96929.58
18	98131.08	96951.82
19	98198.83	96972.95
20	98169.49	97068.82
21	98168.33	97119.04
22	98228.81	97100.08
23	98264.62	96982.83
24	98354.52	96990.27
25	98361.39	96989.23
26	98461.28	97016.03
27	98527.48	97033.84
28	98548.17	97041.32
29	98616.57	97051.86
30	98730.96	97069.41
31	98845.63	97076.28
32	98891.41	97088.47
33	98659.78	94780.56
34	98944.52	94900.82
35	97390.65	97281.92
36	97567.70	97443.81
37	97719.54	97283.20
38	97798.97	97354.86
39	97878.53	97426.86
40	97933.20	97469.97
41	97959.73	97491.07
42	98039.91	97553.37

- POINTS ARE IN FSCS(X,Y,H) EARTH CURVATURE CORRECTED COORDINATES.
- TREE CLEARING AND WETLAND DISTURBANCE LIMITS, WHERE NOT DELINEATED BY POINT TABLE, ARE ASSUMED TO EXTEND TO THE TREELINE / WETLAND LIMIT AS SHOWN.
- PROTECT ALL EXISTING TREES NOT DESIGNATED FOR CLEARING AS INDICATED AND SPECIFIED.
- CONTRACTOR MAY BE DIRECTED TO CLEAR ADDITIONAL TREES ON DRAWINGS WITHIN 30' OF TREELINE DEPICTED. THIS WORK SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.

LEGEND:

- PROPOSED TREE LINE

- WORKING LIMITS

TREE CLEARING AREAS

WETLAND AREAS

WETLAND AREAS - TEMPORARY IMPACT (7.71 AC)

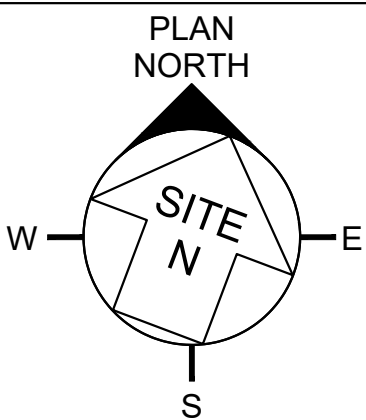
WETLAND AREAS - PERMANENT IMPACT (.96 AC)

X TREE CLEARING POINT

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SCALE:

1" = 100'-0"

SCALE FEET

Long-Baseline Neutrino Facility		
DESIGNED	H. CHU	2022
DRAWN	D. EGGERDING	2022
CHECKED	F. LOUIS	2022

PROJECT NO. 6-15-15
LBNF NEAR SITE CONVENTIONAL FACILITIES
WETLAND PERMIT WORK
DEMOLITION PLAN - I

DRAWING NO. **SW-102** REV. **00**

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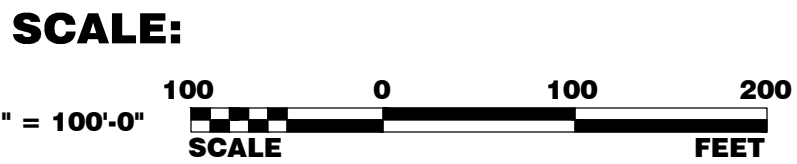
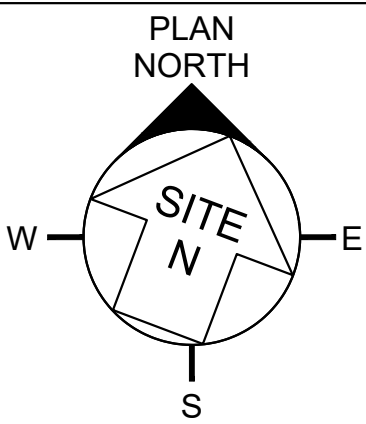


- LEGEND:
- PROPOSED TREE LINE
 - WORKING LIMITS
 - TREE CLEARING AREAS
 - WETLAND AREAS
 - WETLAND AREAS - TEMPORARY IMPACT (7.71 AC)
 - WETLAND AREAS - PERMANENT IMPACT (.96 AC)

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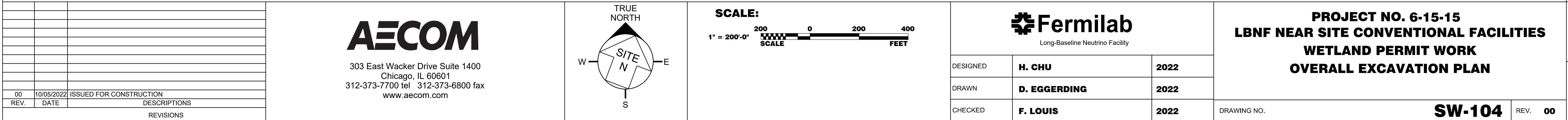


Fermilab
Long-Baseline Neutrino Facility

DESIGNED	H. CHU	2022
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CHECKED	F. LOUIS	2022

PROJECT NO. 6-15-15
LBNF NEAR SITE CONVENTIONAL FACILITIES
WETLAND PERMIT WORK
DEMOLITION PLAN - II

DRAWING NO. **SW-103** REV. **00**



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NOTES:

1. ALL TEMPORARY AND PERMANENT IMPACT WETLAND AREAS SHALL BE EXCAVATED PER DETAIL 2 ON SHEET SW-111



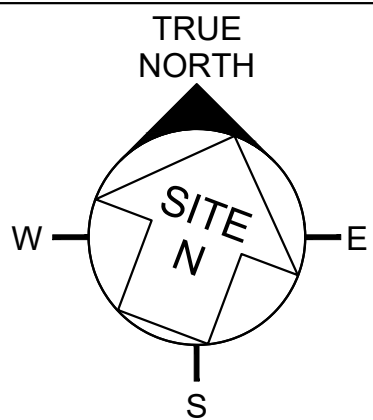
LEGEND:

- WORKING LIMITS
- [Pattern] WETLAND AREAS
- [Light Gray] WETLAND AREAS - TEMPORARY IMPACT (7.71 AC)
- [Dark Gray] WETLAND AREAS - PERMANENT IMPACT (.96 AC)

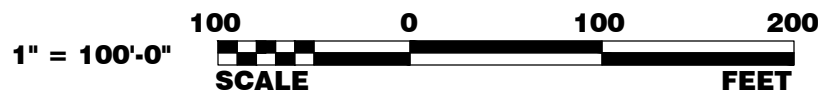
00	10/05/2022	ISSUED FOR CONSTRUCTION
REV.	DATE	DESCRIPTIONS
REVISIONS		

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SCALE:



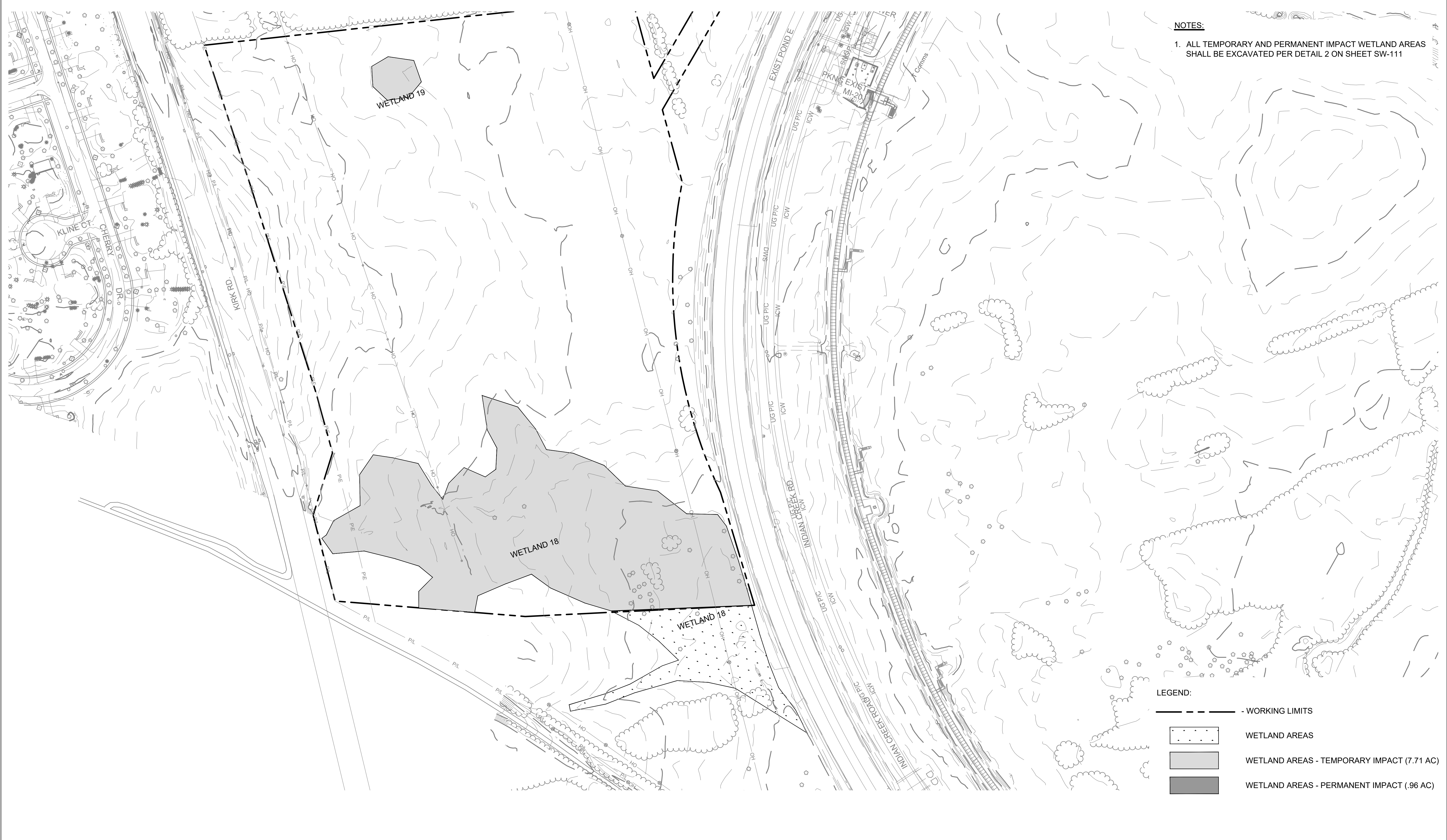
DESIGNED	H. CHU	2022
DRAWN	D. EGGERDING	2022
CHECKED	F. LOUIS	2022

PROJECT NO. 6-15-15
LBNF NEAR SITE CONVENTIONAL FACILITIES
WETLAND PERMIT WORK
EXCAVATION PLAN - II

DRAWING NO. **SW-105** REV. **00**

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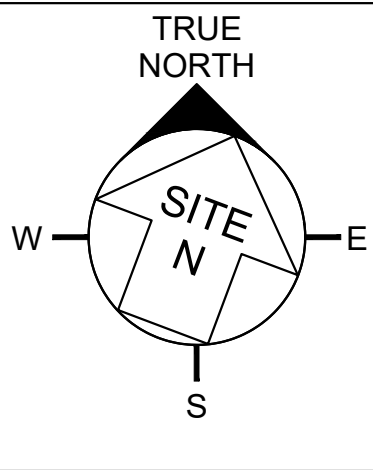


NOTES:
1. ALL TEMPORARY AND PERMANENT IMPACT WETLAND AREAS SHALL BE EXCAVATED PER DETAIL 2 ON SHEET SW-111

- LEGEND:**
- WORKING LIMITS
 - WETLAND AREAS
 - WETLAND AREAS - TEMPORARY IMPACT (7.71 AC)
 - WETLAND AREAS - PERMANENT IMPACT (.96 AC)

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SCALE:
1" = 100'-0"
100 0 100 200
SCALE FEET

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Long-Baseline Neutrino Facility

DESIGNED	H. CHU	2022
DRAWN	D. EGGERDING	2022
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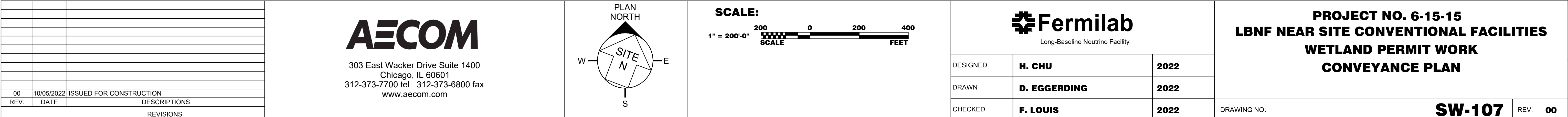
PROJECT NO. 6-15-15
LBNF NEAR SITE CONVENTIONAL FACILITIES
WETLAND PERMIT WORK
EXCAVATION PLAN - II

DRAWING NO. **SW-106** REV. **00**

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6-15-15

10/05/22



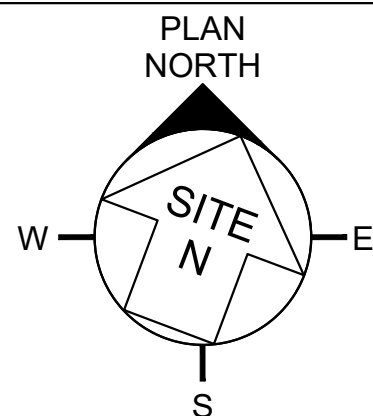
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SCALE:

1" = 200'-0"

200 0 200 400

SCALE FEET



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DRAWING NO. **SW-108** REV. **00**

PROJECT NO. 6-15-15
LBNF NEAR SITE CONVENTIONAL FACILITIES
WETLAND PERMIT WORK
EROSION CONTROL PLAN

6-15-15

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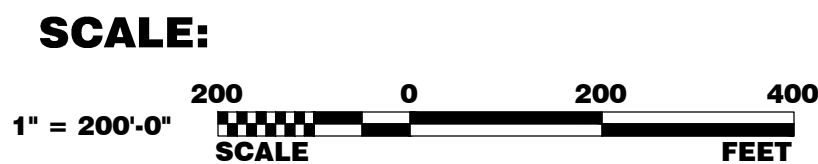
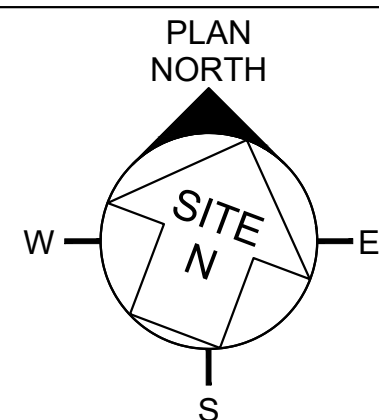


- NOTES:
- CONTRACTOR SHALL PROVIDE DOUBLE SILT FENCE AT THE PERIMETER OF WETLANDS SHOWN ON DRAWING. SILT FENCE SHALL EXTEND AT LEAST 50' BEYOND WORK LIMITS AND AS NEEDED TO ACCOUNT FOR DRAINAGE PATTERNS FOR CONSTRUCTION FLOWS.
 - NO CONSTRUCTION VEHICLES OF ANY KIND WILL BE PERMITTED WITHIN WETLAND LIMITS.
 - NO MATERIALS MAY BE STORED, PLACED, OR MOVED THROUGH WETLANDS.
 - LIMITED ENTRY INTO THE WETLAND IS PERMITTED BY FOOT IN ORDER TO PERFORM WORK.
 - STOCKPILE AREAS SHOWN ARE INTENDED TO INDICATE GENERAL LOCATION AND NOT THE SIZE REQUIRED. COORDINATE FINAL STOCKPILE SIZE AND LOCATION WITH FERMLAB AS CONSTRUCTION PROGRESSES.

- LEGEND:
- SILT FENCE
 - EROSION CONTROL BLANKET
 - PROPOSED TREE LINE
 - WETLAND BUFFER
 - WETLAND SOIL STOCKPILE
 - WETLAND AREAS
 - WETLAND AREAS - TEMPORARY IMPACT (7.71 AC)
 - WETLAND AREAS - PERMANENT IMPACT (.96 AC)



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REV.	DATE	DESCRIPTIONS
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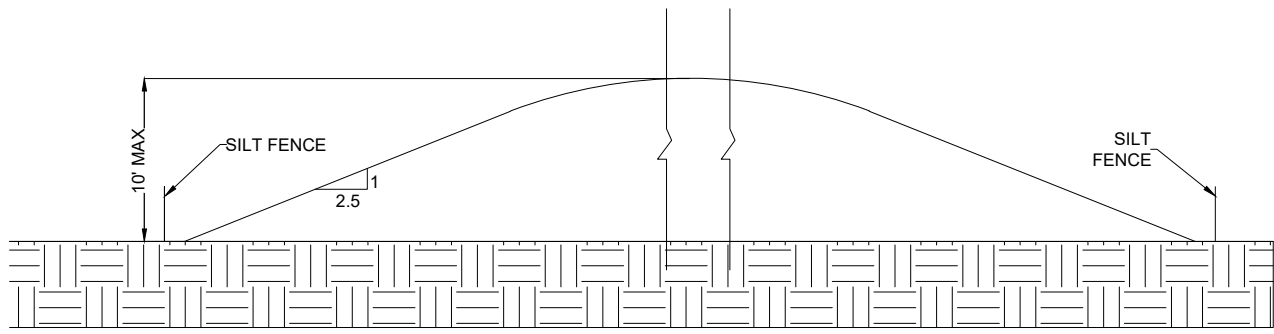


DESIGNED	H. CHU	2022
DRAWN	D. EGGERDING	2022
CHECKED	F. LOUIS	2022

PROJECT NO. 6-15-15
LBNF NEAR SITE CONVENTIONAL FACILITIES
WETLAND PERMIT WORK
SITE RESTORATION PLAN

DRAWING NO.	SW-109	REV.	00
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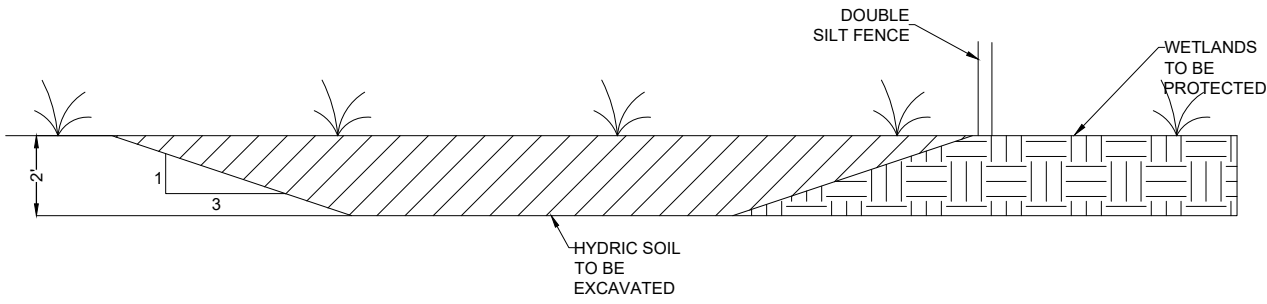
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STOCKPILE

SCALE: NONE

1
SW-111



WETLAND EXCAVATION

SCALE: NONE

2
SW-111

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SCALE:

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PROJECT NO. 6-15-15
LBNF NEAR SITE CONVENTIONAL FACILITIES
WETLAND PERMIT WORK
CIVIL DETAILS

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End of RFP Documents Package No. 2 of 4

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