

# 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

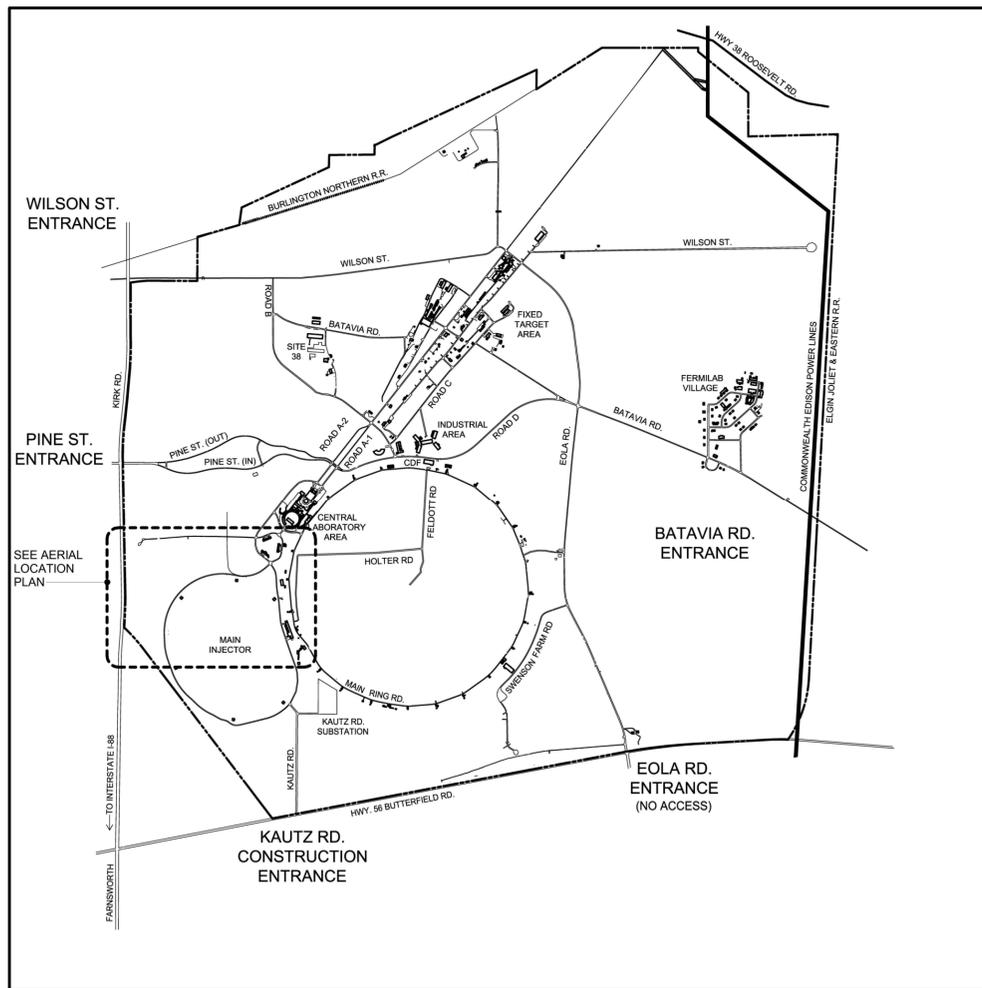
ENCLOSED FOR REFERENCE/BASIS FOR PROPOSAL – DO NOT RETURN

# LBNF NEAR SITE CONVENTIONAL FACILITIES

## WETLAND PERMIT WORK

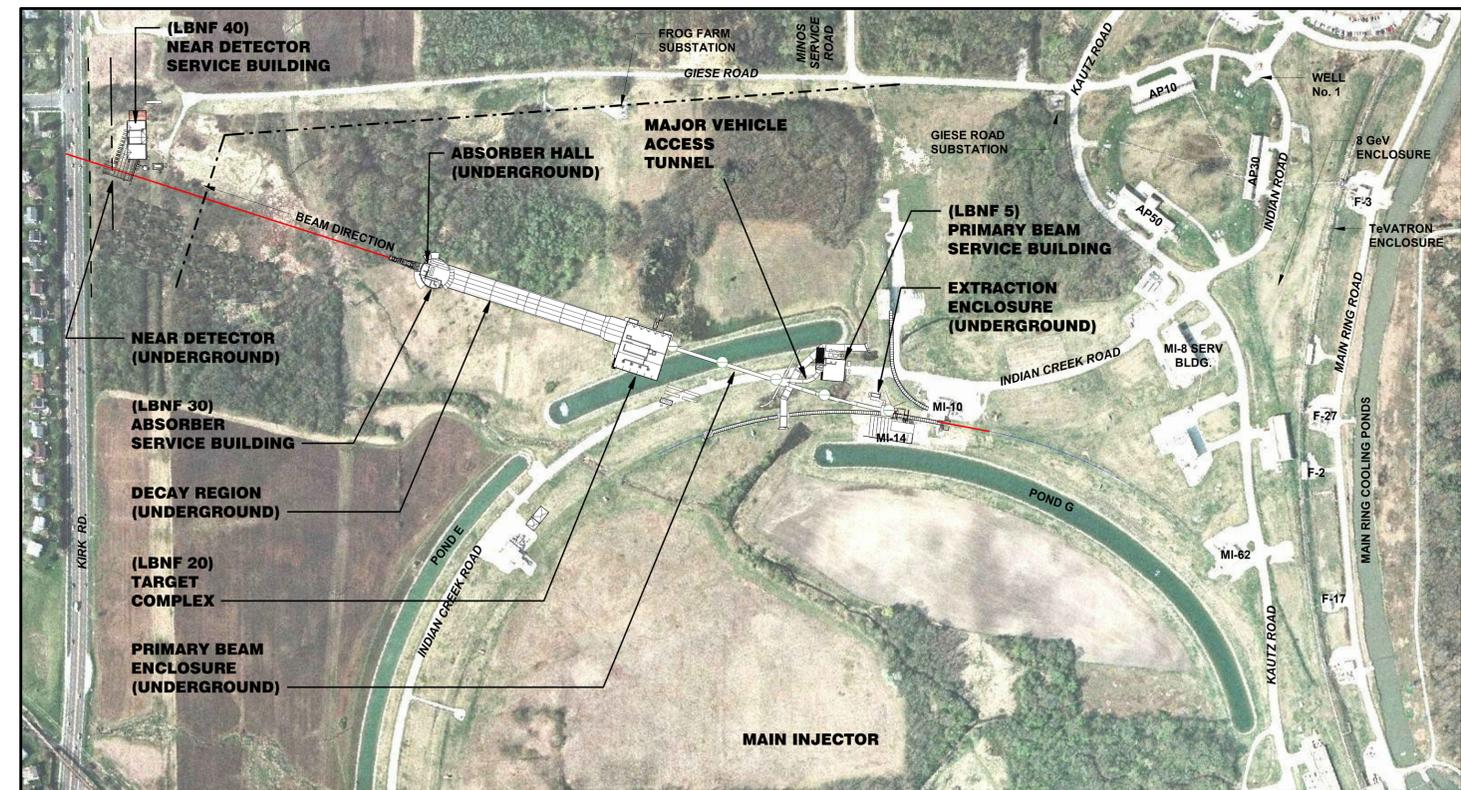
### AT FERMILAB PROJECT 6-15-15

OCTOBER 5, 2022



**VICINITY PLAN**

SCALE: NTS



**LOCATION PLAN**

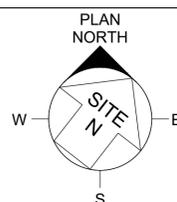
SCALE: 1" = 300'-0"

Z:\Chicago-USCHG\1DCS\Projects\WTR\60691370\_Fermi\_Wetlands\_imp\900\_CAD\_GIS\910\_CAD\20-SHEETS\G-001-6-15-15.dwg

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

**AECOM**

303 East Wacker Drive Suite 1400  
Chicago, IL 60601  
312-373-7700 tel 312-373-6800 fax  
www.aecom.com



SCALE:

**Fermilab**  
Long-Baseline Neutrino Facility

DESIGNED	<b>H. CHU</b>	<b>2022</b>
DRAWN	<b>D. EGGERDING</b>	<b>2022</b>
CHECKED	<b>F. LOUIS</b>	<b>2022</b>

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

DRAWING NO.

**SW-000** REV. **00**

6-15-15

6-15-15.131.01.03.02.04.04.02.01\_05\_SW-000

# 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
	-SEDIMENT TRAP
	- 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

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



303 East Wacker Drive Suite 1400  
Chicago, IL 60601  
312-373-7700 tel 312-373-6800 fax  
www.aecom.com

**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**

Z:\Chicago-USCHG\1DCS\Projects\WTR\6091370\_Fermlab\Wetlands\_imp\900\_CAD\_GIS\910\_CAD\20-SHEETS\G\G-002-6-15-15.dwg 10/6/2022 11:49:21 AM

**SYMBOLS:**

**DETAIL TITLE**

**DETAIL TITLE**

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



**ELEVATION**

**ELEVATION**

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



**PLAN**

**PLAN**

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

**SECTION CALL OUT**



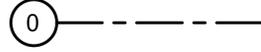
**EXTERIOR ELEVATION REFERENCE**



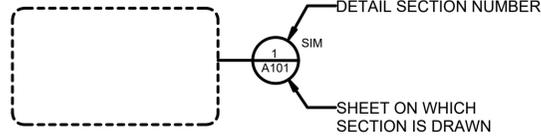
**INTERIOR ELEVATION REFERENCE**



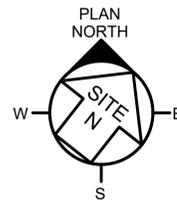
**COLUMN GRID**



**DETAIL CALLOUT REFERENCE**



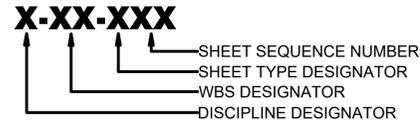
**NORTH ARROW**



**FERMILAB SITE COORDINATE SYSTEM:**  
FERMILAB EMPLOYS A LABORATORY-DEFINED SITE-WIDE COORDINATE SYSTEM (FSCS). UNLESS OTHERWISE STATED, ALL COORDINATES GIVEN IN THESE DRAWINGS ARE EARTH CURVATURE CORRECTED FSCS COORDINATES. FOR MORE INFORMATION, REFER TO THE FERMILAB FACILITIES ENGINEERING SERVICES SECTION ENGINEERING DEPARTMENT'S CAD STANDARD MANUAL.

**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.

**DRAWING IDENTIFICATION**



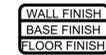
**ROOM NAME**

Room name

**DOOR TAG**

D101A

**FINISH TAG**



**SPOT ELEVATIONS**



**MATCHLINE REFERENCE**

MATCHLINE SEE 1 / A101

**W/ ROOM NUMBER**

Room name  
101

**BORROWED LITE TAG**

(W101A)

**WALL TAG**

W1

**LEVEL HEADS**



**W/ AREA**

Room name  
150 SF SQ. FT.

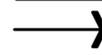
**WINDOW TAG**

(W101A)

**CEILING TAG**

HEIGHT A.F.F.  
CEILING TYPE

**FLOW ARROW REFERENCE**



**W/ OCCUPANCY LOAD**

Room name  
101

**LOUVER TAG**

(L1)

**CENTERLINE TAG**

℄

**KEYNOTES**



**REVISION CALLOUT AND CLOUD**



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



303 East Wacker Drive Suite 1400  
Chicago, IL 60601  
312-373-7700 tel 312-373-6800 fax  
www.aecom.com

**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**  
**LEGEND AND ABBREVIATIONS**

DRAWING NO. **SW-003** REV. **00**

Z:\Chicago-USCHG1\DCS\Projects\WTR60691370\_Fermi\_Wetlands\_imp900\_CAD\_GIS\910\_CAD\20-SHEETS\C\SW-101-6-15-15.dwg

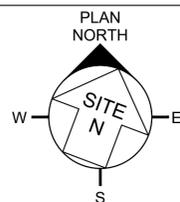


**LEGEND:**

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

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

**AECOM**  
 303 East Wacker Drive Suite 1400  
 Chicago, IL 60601  
 312-373-7700 tel 312-373-6800 fax  
 www.aecom.com



**SCALE:**  
 1" = 200'-0"  
 0 200 400  
 FEET

**Fermilab**  
 Long-Baseline Neutrino Facility

DESIGNED	<b>H. CHU</b>	<b>2022</b>
DRAWN	<b>D. EGGERTING</b>	<b>2022</b>
CHECKED	<b>F. LOUIS</b>	<b>2022</b>

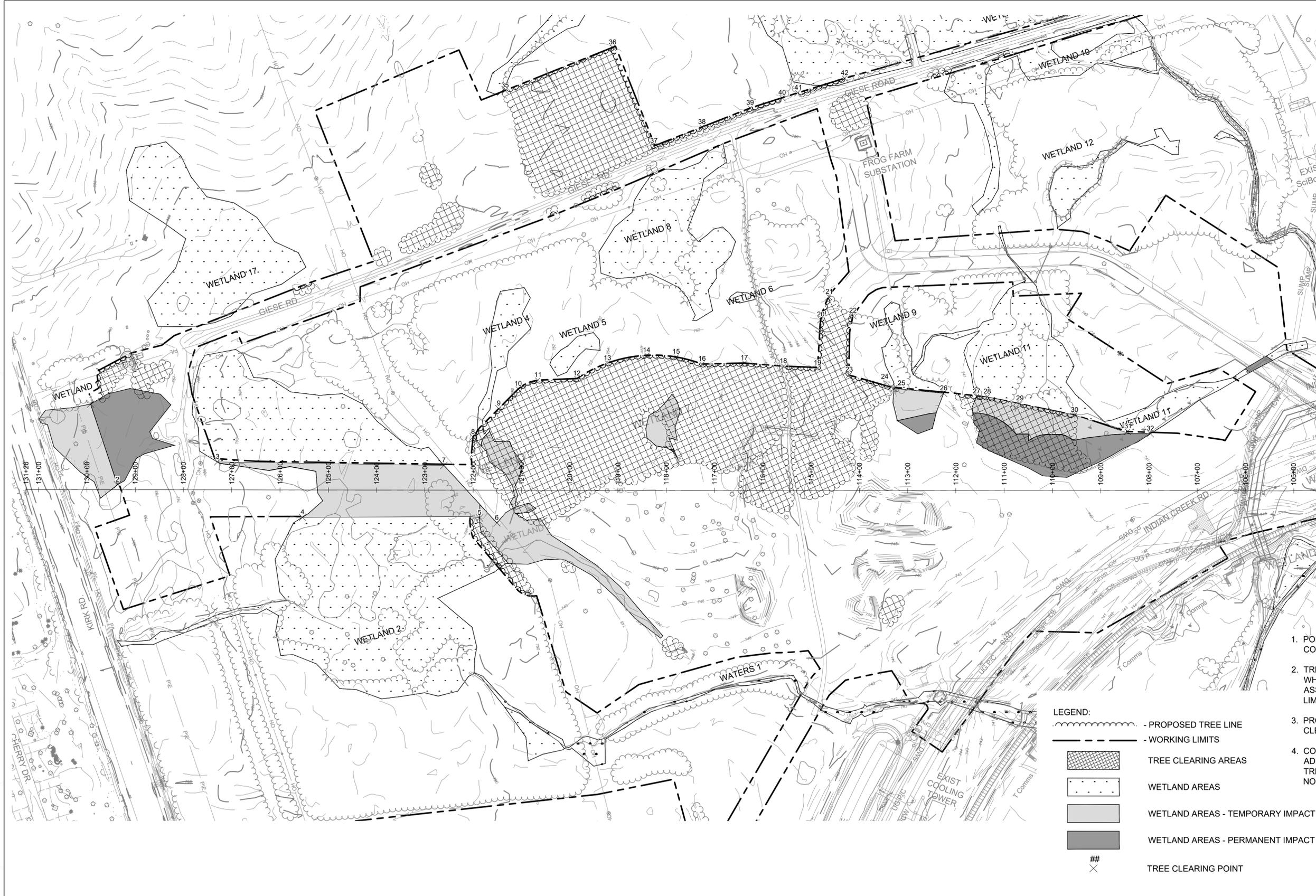
**PROJECT NO. 6-15-15**  
**LBNF NEAR SITE CONVENTIONAL FACILITIES**  
**WETLAND PERMIT WORK**  
**OVERALL DEMOLITION PLAN**

DRAWING NO. **SW-101** REV. **00**

6-15-15\_131.01.03.02.04.03.02.01\_05\_SW-101

6-15-15  
10/05/22

Z:\Chicago-USCHG\1DCS\Projects\WTR60691370\_Fermi\_Wetlands\_imp900\_CAD\_GIS\910\_CAD20-SHEETS\C\SW-101-6-15-15.dwg



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

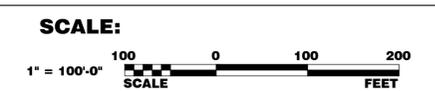
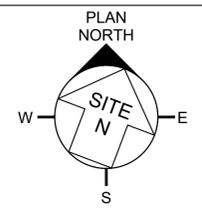
- POINTS ARE IN FSCS(X,Y,H) EARTH CURVATURE CORRECTED COORDINATES.
- TREE CLEARING AND WETLAND DISTURBANCE LIMITS, WHERE NOT DELINEATED BY POINT TABLE, ARE ASSUMED TO EXTEND TO THE TREELINE / WETLAND LIMIT AS SHOWN.
- PROTECT ALL EXISTING TREES NOT DESIGNATED FOR CLEARING AS INDICATED AND SPECIFIED.
- 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

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

**AECOM**  
 303 East Wacker Drive Suite 1400  
 Chicago, IL 60601  
 312-373-7700 tel 312-373-6800 fax  
 www.aecom.com



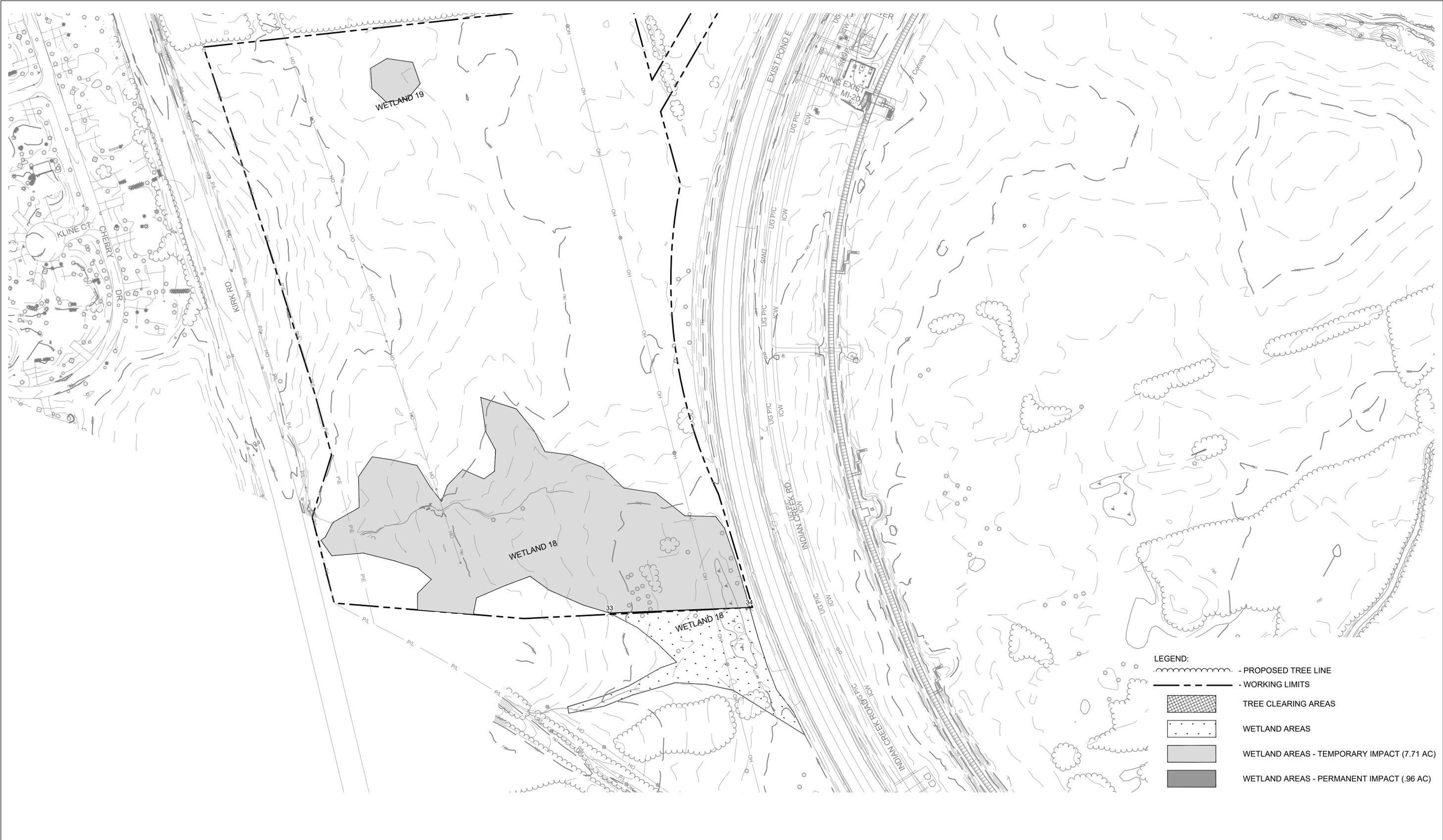
Long-Baseline Neutrino Facility		
DRAWN	<b>D. EGGERTING</b>	<b>2022</b>
CHECKED	<b>F. LOUIS</b>	<b>2022</b>

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

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

Z:\Chicago-USCHG1\DCS\Projects\WTR60691370\_Fermi\_Wetlands\_imp900\_CAD\_GIS\910\_CAD\20-SHEETS\C\SW-101-6-15-15.dwg

10/6/2022 11:50:29 AM

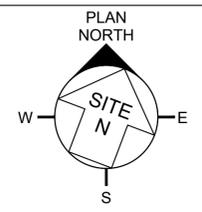


**LEGEND:**

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

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

**AECOM**  
 303 East Wacker Drive Suite 1400  
 Chicago, IL 60601  
 312-373-7700 tel 312-373-6800 fax  
 www.aecom.com



<b>Fermilab</b> Long-Baseline Neutrino Facility		
DESIGNED	<b>H. CHU</b>	<b>2022</b>
DRAWN	<b>D. EGGERTING</b>	<b>2022</b>
CHECKED	<b>F. LOUIS</b>	<b>2022</b>

<b>PROJECT NO. 6-15-15</b> <b>LBNF NEAR SITE CONVENTIONAL FACILITIES</b> <b>WETLAND PERMIT WORK</b> <b>DEMOLITION PLAN - II</b>	
DRAWING NO.	<b>SW-103</b> REV. <b>00</b>

6-15-15

10/9/22

Z:\Chicago-USCHG\1DCS\Projects\WTR\60691370\_Fermi\_Wetlands\_imp\900\_CAD\_GIS\910\_CAD\20-SHEETS\C\SW-104-6-15-15.dwg

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

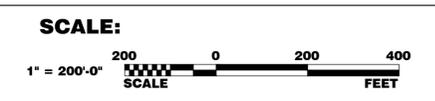
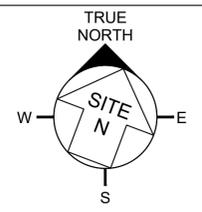


**LEGEND:**

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

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

**AECOM**  
 303 East Wacker Drive Suite 1400  
 Chicago, IL 60601  
 312-373-7700 tel 312-373-6800 fax  
 www.aecom.com



<b>Fermilab</b> Long-Baseline Neutrino Facility		
DESIGNED	<b>H. CHU</b>	<b>2022</b>
DRAWN	<b>D. EGGERTING</b>	<b>2022</b>
CHECKED	<b>F. LOUIS</b>	<b>2022</b>

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

DRAWING NO. **SW-104** REV. **00**

**NOTES:**

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



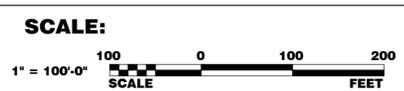
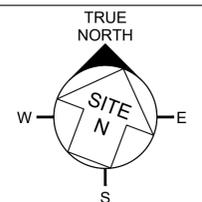
**LEGEND:**

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

Z:\Chicago-USCHG\1DCS\Projects\WTR60691370\_Fermi\_Wetlands\_imp900\_CAD\_GIS\910\_CAD20-SHEETS\C\SW-104-6-15-15.dwg

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

**AECOM**  
 303 East Wacker Drive Suite 1400  
 Chicago, IL 60601  
 312-373-7700 tel 312-373-6800 fax  
 www.aecom.com



<b>Fermilab</b> Long-Baseline Neutrino Facility		
DRAWN	<b>D. EGGERTING</b>	<b>2022</b>
CHECKED	<b>F. LOUIS</b>	<b>2022</b>

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

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

Z:\Chicago-USCHG\1DCS\Projects\WTR60691370\_Fermi\_Wetlands\_imp\900\_CAD\_GIS\910\_CAD\20-SHEETS\C\SW-104-6-15-15.dwg

10/6/2022 11:51:14 AM



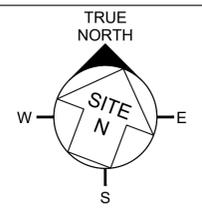
**NOTES:**  
 1. ALL TEMPORARY AND PERMANENT IMPACT WETLAND AREAS SHALL BE EXCAVATED PER DETAIL 2 ON SHEET SW-111

**LEGEND:**

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

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

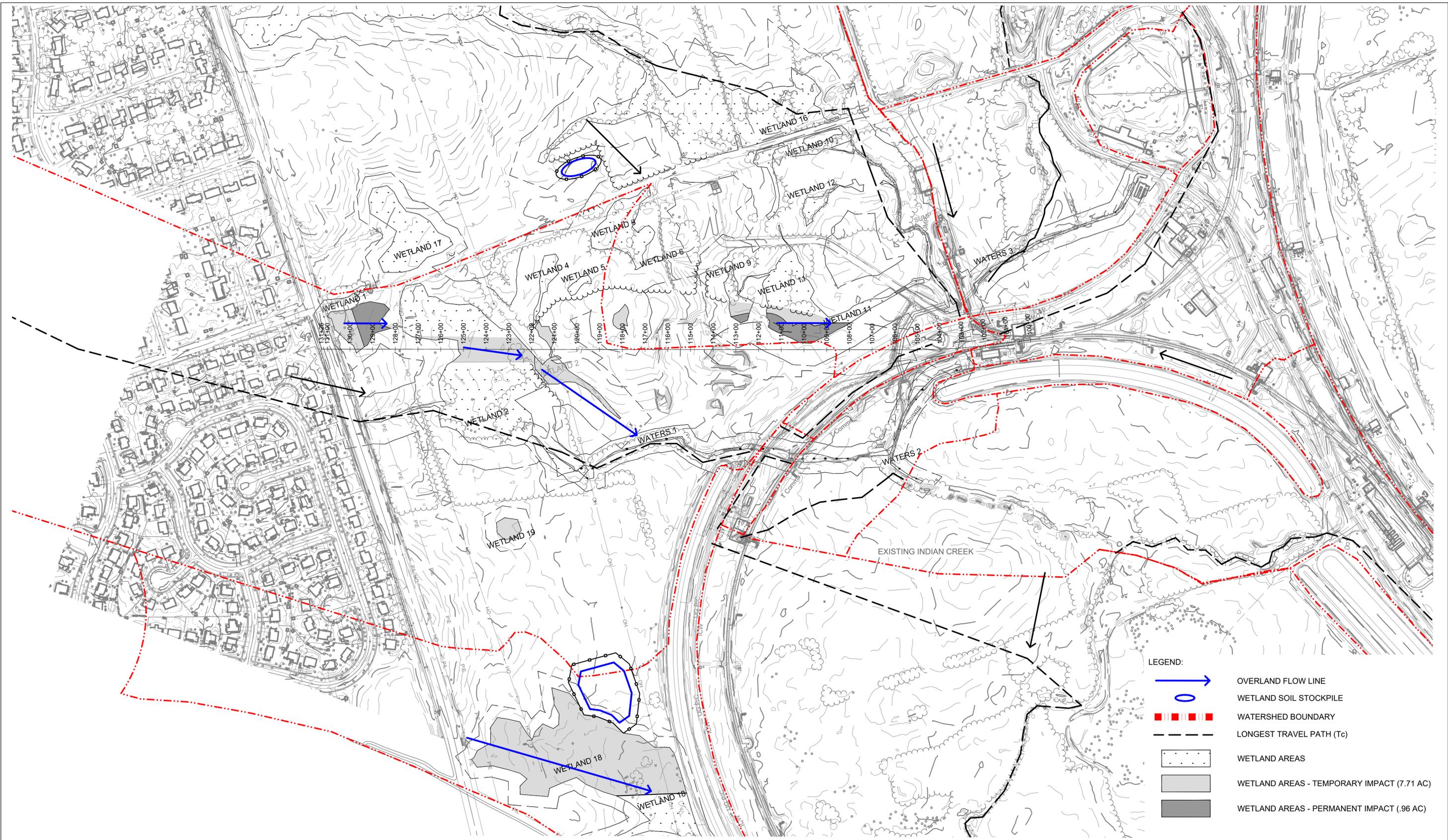
**AECOM**  
 303 East Wacker Drive Suite 1400  
 Chicago, IL 60601  
 312-373-7700 tel 312-373-6800 fax  
 www.aecom.com



<b>Fermilab</b> Long-Baseline Neutrino Facility		
DESIGNED	<b>H. CHU</b>	<b>2022</b>
DRAWN	<b>D. EGGERTING</b>	<b>2022</b>
CHECKED	<b>F. LOUIS</b>	<b>2022</b>

<b>PROJECT NO. 6-15-15</b> <b>LBNF NEAR SITE CONVENTIONAL FACILITIES</b> <b>WETLAND PERMIT WORK</b> <b>EXCAVATION PLAN - II</b>		<b>SW-106</b>	REV. <b>00</b>
DRAWING NO.			

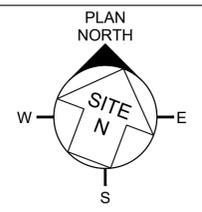
Z:\Chicago-USCHG\1DCS\Projects\WTR\60691370\_Fermi\_Wetlands\_imp\900\_CAD\_GIS\910\_CAD\20-SHEETS\C\SW-107-6-15-15.dwg



- LEGEND:**
- OVERLAND FLOW LINE
  - WETLAND SOIL STOCKPILE
  - WATERSHED BOUNDARY
  - LONGEST TRAVEL PATH (Tc)
  - WETLAND AREAS
  - WETLAND AREAS - TEMPORARY IMPACT (7.71 AC)
  - WETLAND AREAS - PERMANENT IMPACT (.96 AC)

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

**AECOM**  
 303 East Wacker Drive Suite 1400  
 Chicago, IL 60601  
 312-373-7700 tel 312-373-6800 fax  
 www.aecom.com



<b>Fermilab</b> Long-Baseline Neutrino Facility		
DESIGNED	<b>H. CHU</b>	<b>2022</b>
DRAWN	<b>D. EGGERTING</b>	<b>2022</b>
CHECKED	<b>F. LOUIS</b>	<b>2022</b>

<b>PROJECT NO. 6-15-15</b> <b>LBNF NEAR SITE CONVENTIONAL FACILITIES</b> <b>WETLAND PERMIT WORK</b> <b>CONVEYANCE PLAN</b>	
DRAWING NO.	<b>SW-107</b> REV. <b>00</b>

Z:\Chicago-USCHG\1DCS\Projects\WTR60691370\_Fermi\_Wetlands\_imp900\_CAD\_GIS\910\_CAD\20-SHEETS\C\SW-108-6-15-15.dwg

10/6/2022 11:52:31 AM



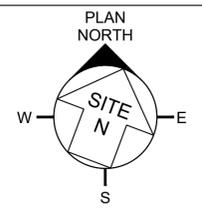
- NOTES:**
1. CONTRACTOR SHALL PROVIDE DOUBLE SILT FENCE AT THE PERIMETER OF WETLANDS SHOWN ON DRAWING. SILT FENCE SHALL EXTEND AT LEAST 50' BEYOND WORK LIMITS AND AS NEEDED TO ACCOUNT FOR DRAINAGE PATTERNS FOR CONSTRUCTION FLOWS.
  2. NO CONSTRUCTION VEHICLES OF ANY KIND WILL BE PERMITTED WITHIN WETLAND LIMITS.
  3. NO MATERIALS MAY BE STORED, PLACED, OR MOVED THROUGH WETLANDS.
  4. LIMITED ENTRY INTO THE WETLAND IS PERMITTED BY FOOT IN ORDER TO PERFORM WORK.
  5. 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)

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

**AECOM**  
 303 East Wacker Drive Suite 1400  
 Chicago, IL 60601  
 312-373-7700 tel 312-373-6800 fax  
 www.aecom.com

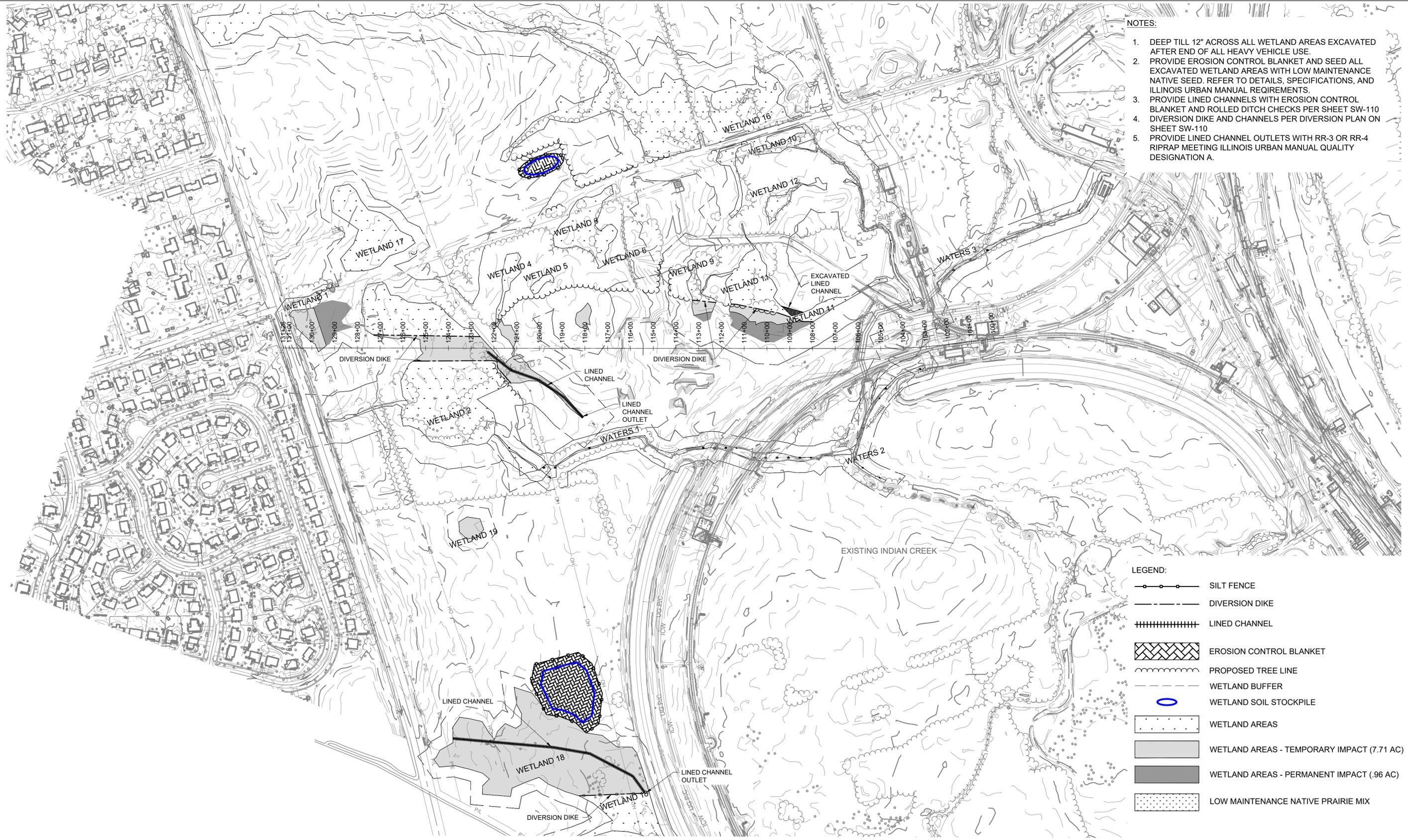


Long-Baseline Neutrino Facility		
DESIGNED	<b>H. CHU</b>	<b>2022</b>
DRAWN	<b>D. EGGERTING</b>	<b>2022</b>
CHECKED	<b>F. LOUIS</b>	<b>2022</b>

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

DRAWING NO.	<b>SW-108</b>	REV. <b>00</b>
-------------	---------------	----------------

10/6/2022 11:53:16 AM Z:\Chicago-USCHG\1DCS\Projects\WTR\60691370\_Fermilab\_Wetlands\_imp\900\_CAD\_GIS\910\_CAD\20-SHEETS\C\SW-109-6-15-15.dwg

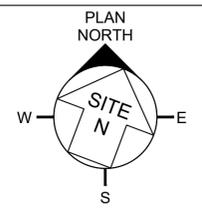


- NOTES:**
1. DEEP TILL 12" ACROSS ALL WETLAND AREAS EXCAVATED AFTER END OF ALL HEAVY VEHICLE USE.
  2. PROVIDE EROSION CONTROL BLANKET AND SEED ALL EXCAVATED WETLAND AREAS WITH LOW MAINTENANCE NATIVE SEED. REFER TO DETAILS, SPECIFICATIONS, AND ILLINOIS URBAN MANUAL REQUIREMENTS.
  3. PROVIDE LINED CHANNELS WITH EROSION CONTROL BLANKET AND ROLLED DITCH CHECKS PER SHEET SW-110
  4. DIVERSION DIKE AND CHANNELS PER DIVERSION PLAN ON SHEET SW-110
  5. PROVIDE LINED CHANNEL OUTLETS WITH RR-3 OR RR-4 RIPRAP MEETING ILLINOIS URBAN MANUAL QUALITY DESIGNATION A.

- LEGEND:**
- SILT FENCE
  - DIVERSION DIKE
  - LINED CHANNEL
  - 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)
  - LOW MAINTENANCE NATIVE PRAIRIE MIX

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

**AECOM**  
 303 East Wacker Drive Suite 1400  
 Chicago, IL 60601  
 312-373-7700 tel 312-373-6800 fax  
 www.aecom.com



<b>Fermilab</b> Long-Baseline Neutrino Facility		
DESIGNED	<b>H. CHU</b>	<b>2022</b>
DRAWN	<b>D. EGGERTING</b>	<b>2022</b>
CHECKED	<b>F. LOUIS</b>	<b>2022</b>

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

DRAWING NO. **SW-109** REV. **00**

10/06/2022 11:53:35 AM Z:\Chicago-USCHG\1DCS\Projects\WTR\60691370\_Fermilab\Wellands\_imp\900\_CAD\_GIS\910\_CAD\20-SHEETS\C\SW-110-6-15-15.dwg

### STABILIZED CONSTRUCTION ENTRANCE PLAN

**PLAN VIEW**

**SIDE ELEVATION**

**NOTES:**

- Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class 1, II or IV and shall be placed over the cleared area prior to the placing of rock.
- Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
- Any drainage facilities required because of washing shall be constructed according to manufacturer's specifications.
- If wash racks are used they shall be installed according to the manufacturer's specifications.

Project	Date
Designed	Date
Checked	Date
Approved	Date

STANDARD DWG. NO. IL-630 SHEET 1 OF 2 DATE 8-16-14

### STABILIZED CONSTRUCTION ENTRANCE PLAN

**SECTION A-A**

**SECTION B-B**

Project	Date
Designed	Date
Checked	Date
Approved	Date

STANDARD DWG. NO. IL-630 SHEET 2 OF 2 DATE 8-16-14

### SILT FENCE PLAN

**ELEVATION**

**FABRIC ANCHOR DETAIL**

**NOTES:**

- Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization. Silt fence shall be placed on the flattest area available.
- Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class with equivalent opening size of at least 30 for nonwoven and 40 for woven.
- Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

Project	Date
Designed	Date
Checked	Date
Approved	Date

STANDARD DWG. NO. IUM-620 SHEET 1 OF 2 DATE 3-16-12

### SILT FENCE WITH WIRE SUPPORT PLAN

**ELEVATION**

**FABRIC ANCHOR DETAIL**

**STATIC SLICE INSTALLATION**

**TRENCH INSTALLATION**

**NOTES:**

- Silt Fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization. Silt fence shall be placed on the flattest area available.
- Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class with equivalent opening size of at least 30 for nonwoven and 40 for woven.
- Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

Project	Date
Designed	Date
Checked	Date
Approved	Date

STANDARD DWG. NO. IUM-620(W) SHEET 1 OF 2 DATE 3-16-12

### SILT FENCE - SPLICING TWO FENCES

**ATTACHING TWO SILT FENCES**

**NOTES:**

- Place the end post of the second fence inside the end post of the first fence.
- Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
- Cut the fabric near the bottom of the stakes to accommodate the 6" flap.
- Drive both posts a minimum of 18 inches into the ground and bury the flap.
- Compact backfill (particularly at splices) completely to prevent stormwater piping.

Project	Date
Designed	Date
Checked	Date
Approved	Date

STANDARD DWG. NO. IUM-620(B)(W) SHEET 1 OF 1 DATE 3-16-12

### SUMP PIT PLAN

**SECTION**

**NOTES:**

- Pit dimensions are optional.
- The standpipe will be constructed by performing a 12"-24" diameter corrugated metal or PVC pipe.
- A base of 2" aggregate will be placed in the pit to a minimum depth of 12". After installing the standpipe, the pit surrounding the standpipe will then be backfilled with 2" aggregate.
- The standpipe will extend 12" to 18" above the lip of the pit.
- If discharge will be pumped directly to a storm drainage system, the standpipe will be wrapped with filter fabric before installation.
- If desired, 1/4"x1/2" hardware cloth may be placed around the standpipe prior to attaching the filter fabric. This will increase the rate of water seepage into the pipe.

Project	Date
Designed	Date
Checked	Date
Approved	Date

STANDARD DWG. NO. IL-650 SHEET 1 OF 1 DATE 8-11-14

### TEMPORARY SOIL STOCKPILE DETAIL

**NOTES:**

- Stockpile slopes should be based on angle of repose of the soil material to avoid potential sloughing of the slope.
- Soil stockpile to be stabilized in accordance with practical standards.
- Do not locate stockpile within overlaid drainage flow path, designated floodways, drip line or over the root crown of adjacent trees.
- Provisions for sediment control practices may be required along haul roads and entrance/exit locations for access to the soil stockpile that can create flow path for stormwater runoff.
- Installation of benches, terraces, or slope interrupters should be considered.
- Avoid building soil stockpiles on impervious surfaces.
- Linear sediment trap surrounding the stockpile base may be used to control sediment.

Project	Date
Designed	Date
Checked	Date
Approved	Date

STANDARD DWG. NO. IUM-627 SHEET 1 OF 4 DATE JANUARY 2017

### ROLLED EROSION CONTROL PRODUCTS

**Staking Pattern Guide**

**Stake Detail**

**NOTES:**

- Overlap minimum is the diameter of the roll.
- 4 spacing for wotiles.
- 2 spacing for rolled excelsior.
- Dr spacing according to manufacturer's specifications.

**NOTES:**

- Drawings are not to scale.
- Ends of wotiles or rolled excelsior shall be turned at least 60° upslope.
- Recommended stakes are 1 1/2" x 1/2" x 1 1/2" x 30" long.
- Stakes shall not extend above the straw wotile more than 2".
- Spacing: The toe of the upstream ditch check shall create a horizontal line with the top of the downslope ditch check.

Project	Date
Designed	Date
Checked	Date
Approved	Date

STANDARD DWG. NO. IUM-514 SHEET 1 OF 1 DATE 2-16-14

### TREE PROTECTION - FENCING

**SIDE VIEW**

**POST AND FENCE DETAIL**

**NOTES:**

- The fence shall be located a minimum of 1 foot outside the drip line of the tree to be saved and in no case closer than 5 feet to the trunk of any tree.
- Fence posts shall be either standard steel posts or wood posts with a minimum cross-sectional area of 3.0 sq. in.
- The fence may be either 40" high snow fence, 40" plastic web fencing or any other material as approved by the engineer/inspector.

Project	Date
Designed	Date
Checked	Date
Approved	Date

STANDARD DWG. NO. IL-690 SHEET 1 OF 1 DATE 4-19-14

### DIVERSION PLAN

Construction Layout Data	
Bottom Width, Ft.	2'
Depth, Ft. (Includes Freeboard & Settlement)	BERM: 2' (TO FINISHED GRADED) CHANNEL: 2' (TO FINISHED GRADE)
Side Slopes, Ft./Ft.	2.5 : 1
Top Width (Berm), Ft.	1'
Seeding Width, Ft.	ALL DISTURBED

**NOTES:**

- All trees stumps, brush and debris shall be removed from the construction area and disposed of properly. All old terraces, fence rows, or other obstructions that will interfere with construction or operation shall be removed. All dead furrows, ditches, or gullies to be crossed shall be filled in prior to construction or as part of construction operations.
- When required topsoil shall be salvaged and spread uniformly over disturbed areas.
- The diversion will be constructed to the specified lines, grades, width and depth.
- Material used for berm construction shall be from on-site stockpile and be:
  - Free of lumps larger than 3 inch, rocks larger than 1 inch, and debris.
  - Conforming to ASTM D2487 Group Symbols, CL, CL-ML, SM, SC, or SC-SM.
  - Free from contamination from hazardous, toxic, or radiological substances.
  - Free of roots, debris, large weeds and foreign matter.
  - Contain less than 5% organic material by ASTM D 2974.

Project	Date
Designed	Date
Checked	Date
Approved	Date

STANDARD DWG. NO. IL-515 SHEET 1 OF 1 DATE 9-26-13

### EROSION CONTROL BLANKET INSTALLATION DETAILS

**DETAIL 1: Staple Detail**

**DETAIL 2: Push Pin Detail**

**NOTES:**

- Staples shall be placed in a diamond pattern at 2 per sq. ft. for attached blankets. Non-stapled shall use 4 staples per sq. ft. of material. This equates to 200 staples with stitched blanket and 400 staples with non-stapled blanket per 100 sq. ft. of material.
- Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
- Erosion control material shall be placed in contact with the soil over a prepared seedbed.
- All anchor slots shall be stapled at approximately 12" intervals.

Project	Date
Designed	Date
Checked	Date
Approved	Date

STANDARD DWG. NO. IL-607 SHEET 1 OF 1 DATE 8-11-14

**GENERAL NOTES:**

- DETAILS ON THIS SHEET ARE PRACTICES REFERENCED ON OTHER SHEETS, SPECIFICATIONS OR ANTICIPATED TO BE USED ON PROJECT. CONTRACTOR IS RESPONSIBLE FOR ALL EROSION CONTROL ON PROJECT.
- ADDITIONAL DETAILS APPLICABLE TO THE PROJECT ARE INCLUDED IN THE PROJECT SPECIFICATIONS.

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

**AECOM**

303 East Wacker Drive Suite 1400  
Chicago, IL 60601  
312-373-7700 tel 312-373-6800 fax  
www.aecom.com

**SCALE:**

**Fermilab**  
Long-Baseline Neutrino Facility

**PROJECT NO. 6-15-15**  
**LBNF NEAR SITE CONVENTIONAL FACILITIES**  
**WETLAND PERMIT WORK**  
**EROSION CONTROL, SWPPP DETAILS**

DESIGNED	<b>H. CHU</b>	<b>2022</b>
DRAWN	<b>D. EGGERTING</b>	<b>2022</b>
CHECKED	<b>F. LOUIS</b>	<b>2022</b>

DRAWING NO. **SW-110** REV. **00**

6-15-15 10/05/22



End of RFP Documents Package No. 2 of 4

THIS PAGE INTENTIONALLY LEFT BLANK