*Appendix N – Batch Plant Inspection Form*

# Batch Plant Inspection Report

| General Information | |
|---|---|
| **Project Name** | |
| **Date of Inspection** | |
| **Inspector's Name(s)** | |
| **Inspector's Title(s)** | |
| **Inspector's Contact Information** | |

| General Information | | |
|---|---|---|
| **List areas of inspected** | **Issues found** | **Actions to be taken** |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**If no issues are found during Batch Plant Inspection, please state this finding in the space provided below:**

_____
_____
_____
_____
_____
_____
_____

**CERTIFICATION STATEMENT**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

**Print name and title: _____**

**Signature:_____ Date:_____**

60% DESIGN SUBMITTAL

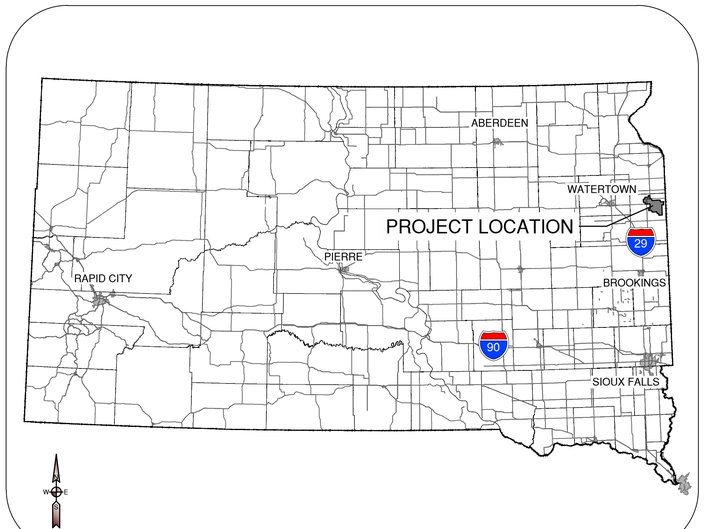
# CIVIL CONSTRUCTION DRAWINGS

FOR

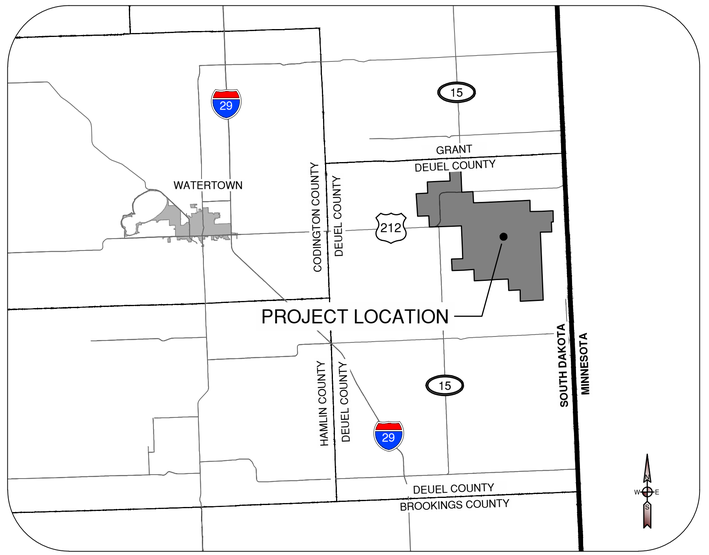
# DEUEL HARVEST WIND PROJECT

DEUEL COUNTY, SOUTH DAKOTA

OCTOBER, 2019




STATE MAP




VICINITY MAP

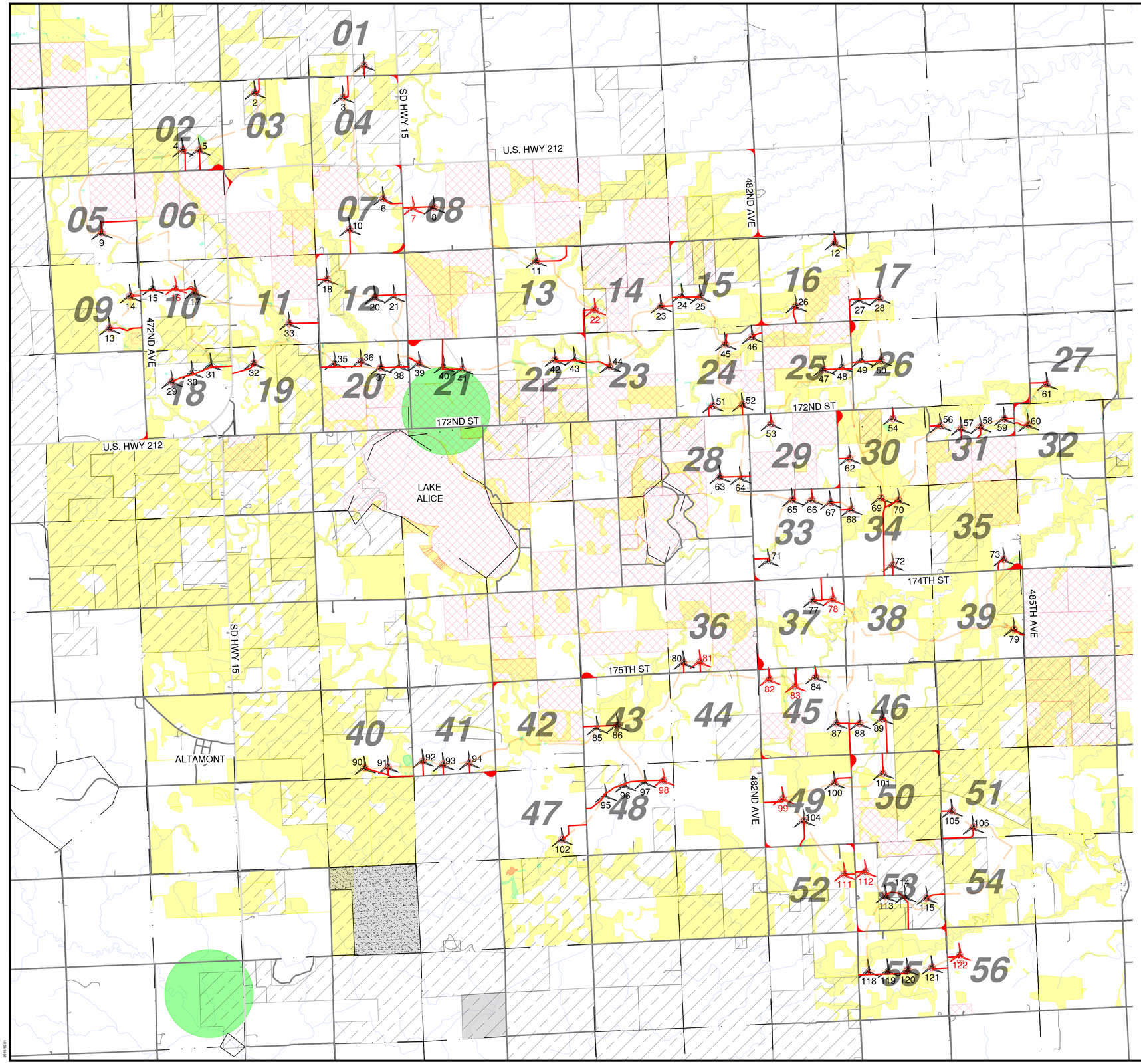
| INDEX OF DRAWINGS | | |
|---|---|---|
| DWG # | TITLE | REV # |
| DHW-CVR-001 | Cover | 0A |
| DHW-OSP-001 | OVERALL SITE PLAN | 0A |
| DHW-OSP-002 | DELIVERY FLOW PLAN | 0A |
| DHW-SCH-001 | WTG SCHEDULE | 0A |
| DHW-SCH-002 | DRAINAGE CROSSING SCHEDULE | 0A |
| DHW-CND-001 | Construction Notes | 0A |
| DHW-CND-002 | Construction Notes | 0A |
| DHW-CND-003 | DETAILS AND TYPICAL SECTIONS | 0A |
| DHW-CND-004 | MET TOWER AND ACCESS ROAD DETAILS | 0A |
| DHW-CND-005 | WTG CRANE PAD DETAILS | 0A |
| DHW-CND-006 | CRANE PAD DETAILS | 0A |
| DHW-CND-007 | ACCESS ROAD DETAILS | 0A |
| DHW-CND-008 | EROSION CONTROL DETAILS | 0A |
| DHW-CND-009 | EROSION CONTROL DETAILS | 0A |
| DHW-CND-010 | UTILITY CROSSING DETAILS | 0A |
| DHW-CVL-001 | CIVIL SITE PLAN (WTG 1) | 0A |
| DHW-CVL-002 | CIVIL SITE PLAN (WTG 4-5) | 0A |
| DHW-CVL-003 | CIVIL SITE PLAN (WTG 2) | 0A |
| DHW-CVL-004 | CIVIL SITE PLAN (WTG 3) | 0A |
| DHW-CVL-005 | CIVIL SITE PLAN (WTG 9) | 0A |
| DHW-CVL-006 | CIVIL SITE PLAN | 0A |
| DHW-CVL-007 | CIVIL SITE PLAN (WTG 6, WTG 10) | 0A |
| DHW-CVL-008 | CIVIL SITE PLAN (WTG 7-8) | 0A |
| DHW-CVL-009 | CIVIL SITE PLAN (WTG 13-14) | 0A |
| DHW-CVL-010 | CIVIL SITE PLAN (WTG 15-17) | 0A |
| DHW-CVL-011 | CIVIL SITE PLAN (WTG 33) | 0A |
| DHW-CVL-012 | CIVIL SITE PLAN (WTG 18, WTG 20-21) | 0A |
| DHW-CVL-013 | CIVIL SITE PLAN (WTG 11) | 0A |
| DHW-CVL-014 | CIVIL SITE PLAN (WTG 22-23) | 0A |
| DHW-CVL-015 | CIVIL SITE PLAN (WTG 24-25) | 0A |
| DHW-CVL-016 | CIVIL SITE PLAN (WTG 12, WTG 26) | 0A |
| DHW-CVL-017 | CIVIL SITE PLAN (WTG 27-28) | 0A |
| DHW-CVL-018 | CIVIL SITE PLAN (WTG 29-31) | 0A |
| DHW-CVL-019 | CIVIL SITE PLAN (WTG 32) | 0A |
| DHW-CVL-020 | CIVIL SITE PLAN (WTG 35-38) | 0A |
| DHW-CVL-021 | CIVIL SITE PLAN (WTG 39-41) | 0A |

| INDEX OF DRAWINGS | | |
|---|---|---|
| DWG # | TITLE | REV # |
| DHW-CVL-022 | CIVIL SITE PLAN (WTG 42-43) | 0A |
| DHW-CVL-044 | CIVIL SITE PLAN (WTG 44) | 0A |
| DHW-CVL-024 | CIVIL SITE PLAN (WTG 45-46, WTG 51-52) | 0A |
| DHW-CVL-025 | CIVIL SITE PLAN (WTG 47-48) | 0A |
| DHW-CVL-026 | CIVIL SITE PLAN (WTG 49-50) | 0A |
| DHW-CVL-027 | CIVIL SITE PLAN (WTG 61) | 0A |
| DHW-CVL-028 | CIVIL SITE PLAN (WTG 63-64) | 0A |
| DHW-CVL-029 | CIVIL SITE PLAN (WTG 53) | 0A |
| DHW-CVL-030 | CIVIL SITE PLAN (WTG 54, WTG 62) | 0A |
| DHW-CVL-031 | CIVIL SITE PLAN (WTG 56-59) | 0A |
| DHW-CVL-032 | CIVIL SITE PLAN (WTG 60) | 0A |
| DHW-CVL-033 | CIVIL SITE PLAN (WTG 65-67, WTG 71) | 0A |
| DHW-CVL-034 | CIVIL SITE PLAN (WTG 68-70, WTG 72) | 0A |
| DHW-CVL-035 | CIVIL SITE PLAN (WTG 73) | 0A |
| DHW-CVL-036 | CIVIL SITE PLAN (WTG 80-81) | 0A |
| DHW-CVL-037 | CIVIL SITE PLAN (WTG 77-78) | 0A |
| DHW-CVL-038 | CIVIL SITE PLAN | 0A |
| DHW-CVL-039 | CIVIL SITE PLAN (WTG 79) | 0A |
| DHW-CVL-040 | CIVIL SITE PLAN (WTG 90-91) | 0A |
| DHW-CVL-041 | CIVIL SITE PLAN (WTG 92-94) | 0A |
| DHW-CVL-042 | CIVIL SITE PLAN (WTG ) | 0A |
| DHW-CVL-043 | CIVIL SITE PLAN (WTG 85-86) | 0A |
| DHW-CVL-044 | CIVIL SITE PLAN | 0A |
| DHW-CVL-045 | CIVIL SITE PLAN (WTG 82-84, 87) | 0A |
| DHW-CVL-046 | CIVIL SITE PLAN (WTG 88-89) | 0A |
| DHW-CVL-047 | CIVIL SITE PLAN (WTG 102) | 0A |
| DHW-CVL-048 | CIVIL SITE PLAN (WTG 95-98) | 0A |
| DHW-CVL-049 | CIVIL SITE PLAN (WTG 99-100, 104) | 0A |
| DHW-CVL-050 | CIVIL SITE PLAN (WTG 101) | 0A |
| DHW-CVL-051 | CIVIL SITE PLAN (WTG 105-106) | 0A |
| DHW-CVL-052 | CIVIL SITE PLAN (WTG 111) | 0A |
| DHW-CVL-053 | CIVIL SITE PLAN (WTG 112-115) | 0A |
| DHW-CVL-054 | CIVIL SITE PLAN | 0A |
| DHW-CVL-055 | CIVIL SITE PLAN (WTG 118-121) | 0A |
| DHW-CVL-056 | CIVIL SITE PLAN (WTG 122) | 0A |

## PROJECT DATA INFORMATION

| BASE FILE | FILE TYPE | FILE NAME | PROVIDER | DATE |
|---|---|---|---|---|
| TURBINE ARRAY | ShapeFile | L051_97xGE 2.82-127 + 12x GE 2.3-116_301.14MW.shx | Invenergy | 190911 |
| ACCESS ROAD | ShapeFile | SD_Deuel_Layout 51_Access Roads.shx | Invenergy | 190911 |
| SURVEY CORRIDOR | ShapeFIle | North_Deuel_Survey_Corridor_9Oct2018.shx | Invenergy | 190911 |
| PROTECTED SPECIES TARGET AREAS | ShapeFile | NorthDeuel_Protected_Species_Target_Areas_9Oct2018.shx | Invenergy | 190911 |
| STREAMS | ShapeFile | NorthDeuel_Streams_9Oct2018.shx | Invenergy | 190911 |
| WETLANDS | ShapeFile | NorthDeuel_Wetlands_9Oct2018.shx | Invenergy | 190911 |
| LATEST LAND OWNER INFORMATION | ShapeFile | deuel_parcels_20190912.shx | Invenergy | 190911 |
| ENVIRONMENTAL AREAS | ShapeFile | 2019_DeuelNorth_StickNest_Survey.shx; 2019_NorthDeuel_800m_EagleSetbacks.shx; DakotaSkipper_CriticalHabitat.shx; Potentially_Undisturbed_Grassland.shx; PotentiallySuitable_Habitat.shx; PoweshiekSkipperling_CriticalHabitat.shx; Streams_North_Deuel_09.21.2018.shx; Waterfowl_Production_Areas.shx; Wetlands_North_Deuel_09.21.2018.shx | Invenergy | 190911 |
| USFWS EASEMENTS | ShapeFile | USFWS Easements 20180727.shx | Invenergy | 190911 |

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## LEGEND

- GE 2.82-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- PROJECT FACLITY
- *EXISTING COUNTY ROAD*
- *EXISTING STATE/FEDERAL HIGHWAY*
- *EXISTING GRAVEL ROAD/TRAIL*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING FEMA 100 YEAR FLOOD ZONE*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
- *POWESHEIK SKIPPERLING CRITICAL HABITAT*
- *DAKOTA SKIPPER CRITICAL HABITAT*
- NON-PARTICIPATING (DO NOT DISTURB)
- XX DENOTES CIVIL SITE PLAN SHEET NUMBER

# DEUEL HARVEST WIND

DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

2020 ONE SOUTH WACKER DR STE 1800
CHICAGO, IL 60606

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0 1500 3000 6000

NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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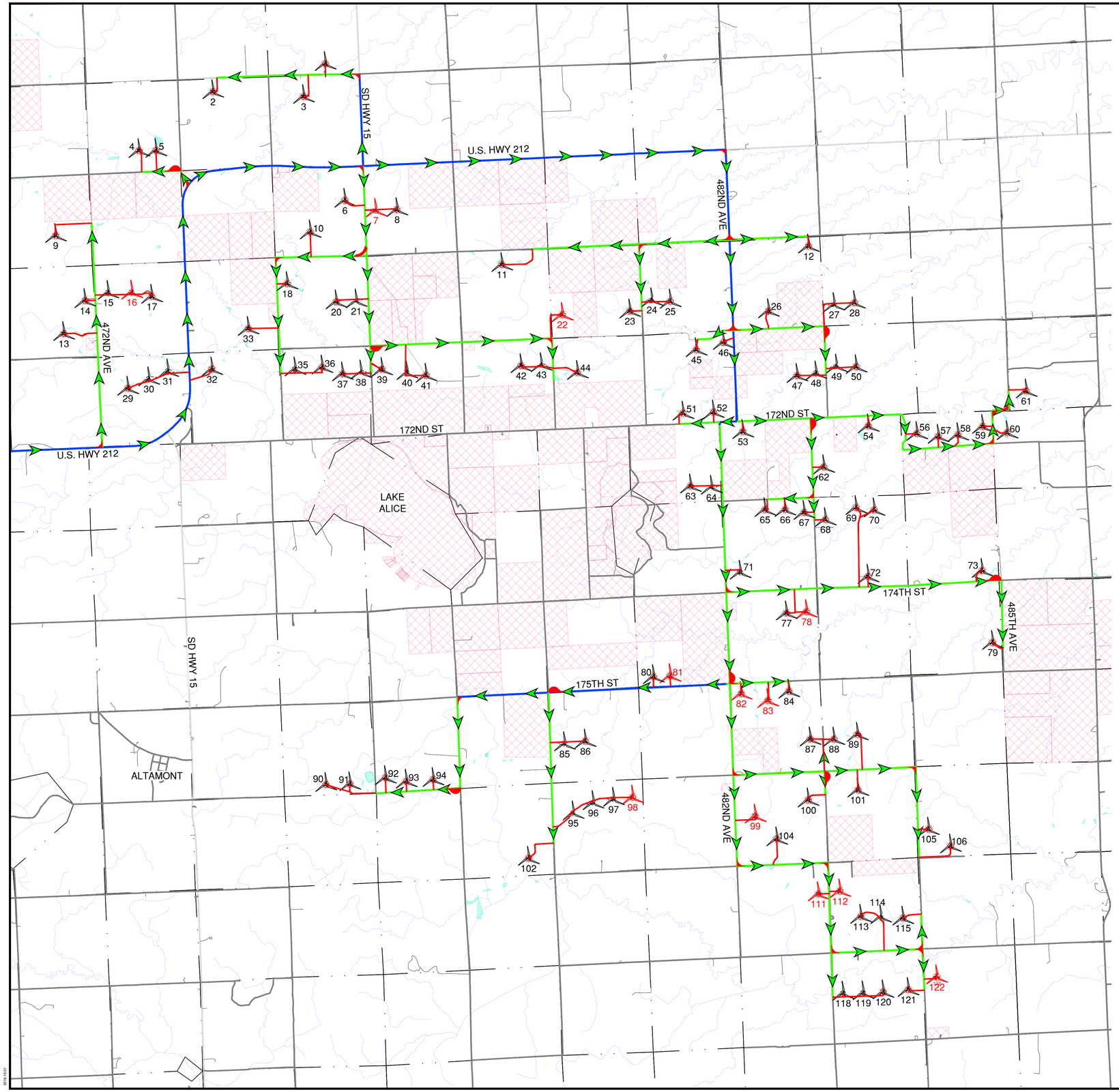

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## OVERALL SITE PLAN

DWG #: DHW-OSP-001
REVISION: 0A

2019.10.01

G:\2019\19.01167\Drawings\Civil\01 - Drawings\02 - Overall Site Plan\19.01167 Overall Site Plan.dwg OVERALL SITE PLAN




LEGEND

- GE 2.82-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- *EXISTING HWY – DELIVERY ROUTE*
- *EXISTING GRAVEL ROADS (UPGRADE / MAINTAIN)*
- *EXISTING COUNTY ROAD*
- *EXISTING STATE/FEDERAL HIGHWAY*
- *EXISTING GRAVEL ROAD/TRAIL*
- *SECTION LINES*
- PROJECT FACLITY
- DELIVERY FLOW DIRECTION
- PROPOSED INTERSECTION IMPROVEMENT
- DEAD-END TURN AROUND
- NON-PARTICIPATING PROPERTY
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING FEMA 100 YEAR FLOOD ZONE*
- *EXISTING LAKE/WATER BODY*

# DEUEL HARVEST WIND

DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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2020 ONE SOUTH WACKER DR STE 1800
CHICAGO, IL 60606

N
W E
S

0 1500 3000 6000

NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## DELIVERY FLOW PLAN

DWG #: DHW-OSP-002
REVISION: 0A

2019.10.01

G:\2019\19.01167\Drawings\Civil\01 - Drawings\02 - Overall Site Plan\19.01167 Overall Site Plan.dwg DELIVERY FLOW PLAN

| WIND TURBINE COORDINATES (NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT) | | | | | |
|---|---|---|---|---|---|
| Turbine ID | Turbine Type | Latitude | Longitude | Northing | Easting |
| 1 | GE 2.82-127 @ 88.6mHH | 44.94971117 | -96.64620447 | 424984.1962 | 2836529.704 |
| 2 | GE 2.82-127 @ 88.6mHH | 44.94597764 | -96.67164458 | 423352.4361 | 2830004.962 |
| 3 | GE 2.82-127 @ 88.6mHH | 44.94462569 | -96.65137214 | 423076.3523 | 2835269.639 |
| 4 | GE 2.82-127 @ 88.6mHH | 44.93709567 | -96.68873053 | 419935.604 | 2825717.353 |
| 5 | GE 2.82-127 @ 88.6mHH | 44.93702361 | -96.68491656 | 419949.7625 | 2826705.233 |
| 6 | GE 2.82-127 @ 88.6mHH | 44.92783147 | -96.64309328 | 417047.5391 | 2837665.154 |
| 7 | GE 2.3-116 @ 80mHH | 44.92602156 | -96.63627925 | 416461.485 | 2839455.826 |
| 8 | GE 2.82-127 @ 88.6mHH | 44.92602489 | -96.63150642 | 416514.0823 | 2840690.875 |
| 9 | GE 2.82-127 @ 88.6mHH | 44.92412847 | -96.70816383 | 415006.7738 | 2820881.445 |
| 10 | GE 2.82-127 @ 88.6mHH | 44.92303967 | -96.65112486 | 415215.9193 | 2835659.063 |
| 11 | GE 2.82-127 @ 88.6mHH | 44.91657736 | -96.6085415 | 413320.9958 | 2846777.875 |
| 12 | GE 2.82-127 @ 88.6mHH | 44.91744914 | -96.53972981 | 414392.6311 | 2864573.548 |
| 13 | GE 2.82-127 @ 88.6mHH | 44.90847117 | -96.70724706 | 409312.8373 | 2821350.812 |
| 14 | GE 2.82-127 @ 88.6mHH | 44.91357358 | -96.70218969 | 411224.8395 | 2822584.233 |
| 15 | GE 2.82-127 @ 88.6mHH | 44.91473242 | -96.69695103 | 411702.2872 | 2823922.983 |
| 16 | GE 2.3-116 @ 80mHH | 44.91463164 | -96.691634 | 411721.8032 | 2825300.722 |
| 17 | GE 2.82-127 @ 88.6mHH | 44.913825 | -96.68720539 | 411474.8677 | 2826459.034 |
| 18 | GE 2.82-127 @ 88.6mHH | 44.91498039 | -96.65676419 | 412219.8303 | 2834320.949 |
| 20 | GE 2.82-127 @ 88.6mHH | 44.91175083 | -96.64597783 | 411158.9591 | 2837161.539 |
| 21 | GE 2.82-127 @ 88.6mHH | 44.911746 | -96.641496 | 411205.3219 | 2838321.7 |
| 22 | GE 2.3-116 @ 80mHH | 44.90821025 | -96.59548633 | 410415.1333 | 2850284.998 |
| 23 | GE 2.82-127 @ 88.6mHH | 44.90832517 | -96.58034014 | 410622.3342 | 2854203.834 |
| 24 | GE 2.82-127 @ 88.6mHH | 44.90997156 | -96.57532694 | 411276.9219 | 2855476.112 |
| 25 | GE 2.82-127 @ 88.6mHH | 44.90961003 | -96.57118886 | 411190.5995 | 2856552.798 |
| 26 | GE 2.82-127 @ 88.6mHH | 44.90742144 | -96.54930444 | 410634.2405 | 2862251.382 |
| 27 | GE 2.82-127 @ 88.6mHH | 44.90796125 | -96.53457842 | 410993.7841 | 2866054.765 |
| 28 | GE 2.82-127 @ 88.6mHH | 44.90813711 | -96.52997167 | 411108.9485 | 2867244.449 |
| 29 | GE 2.82-127 @ 88.6mHH | 44.89935964 | -96.69339119 | 406140.022 | 2825073.249 |
| 30 | GE 2.82-127 @ 88.6mHH | 44.90072186 | -96.68861642 | 406686.7982 | 2826289.15 |
| 31 | GE 2.82-127 @ 88.6mHH | 44.90183928 | -96.68427736 | 407139.8484 | 2827395.843 |
| 32 | GE 2.82-127 @ 88.6mHH | 44.90186244 | -96.67440733 | 407253.1557 | 2829950.766 |
| 33 | GE 2.82-127 @ 88.6mHH | 44.90808678 | -96.66589667 | 409611.1646 | 2832060.664 |
| 35 | GE 2.82-127 @ 88.6mHH | 44.901336 | -96.65581036 | 407259.8337 | 2834773.258 |
| 36 | GE 2.82-127 @ 88.6mHH | 44.90146306 | -96.64973181 | 407371.2199 | 2836345.02 |
| 37 | GE 2.82-127 @ 88.6mHH | 44.90024794 | -96.64522756 | 406976.9125 | 2837529.475 |
| 38 | GE 2.82-127 @ 88.6mHH | 44.90041753 | -96.64109189 | 407083.11 | 2838597.611 |
| 39 | GE 2.82-127 @ 88.6mHH | 44.90069186 | -96.63634906 | 407234.049 | 2839821.342 |
| 40 | GE 2.82-127 @ 88.6mHH | 44.90002272 | -96.63077442 | 407050.3557 | 2841274.715 |
| 41 | GE 2.82-127 @ 88.6mHH | 44.89946472 | -96.62654061 | 406892.7707 | 2842379.295 |
| 42 | GE 2.82-127 @ 88.6mHH | 44.90037086 | -96.60520225 | 407453.9029 | 2847889.821 |
| 43 | GE 2.82-127 @ 88.6mHH | 44.90038186 | -96.60066381 | 407507.2417 | 2849064.601 |

| WIND TURBINE COORDINATES (NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT) | | | | | |
|---|---|---|---|---|---|
| Turbine ID | Turbine Type | Latitude | Longitude | Northing | Easting |
| 44 | GE 2.82-127 @ 88.6mHH | 44.89890461 | -96.59263106 | 407056.6224 | 2851166.84 |
| 45 | GE 2.82-127 @ 88.6mHH | 44.90173472 | -96.56584803 | 408380.6515 | 2858056.988 |
| 46 | GE 2.82-127 @ 88.6mHH | 44.90269533 | -96.55969903 | 408798.1787 | 2859633.942 |
| 47 | GE 2.82-127 @ 88.6mHH | 44.89693517 | -96.54352936 | 406878.4753 | 2863909.433 |
| 48 | GE 2.82-127 @ 88.6mHH | 44.8972185 | -96.53928597 | 407028.6391 | 2865003.613 |
| 49 | GE 2.82-127 @ 88.6mHH | 44.89816236 | -96.5346355 | 407423.9675 | 2866192.864 |
| 50 | GE 2.82-127 @ 88.6mHH | 44.89795486 | -96.53022694 | 407397.3031 | 2867337.431 |
| 51 | GE 2.82-127 @ 88.6mHH | 44.89172897 | -96.56939728 | 404697.0771 | 2857292.703 |
| 52 | GE 2.82-127 @ 88.6mHH | 44.89170425 | -96.56259653 | 404762.8102 | 2859053.951 |
| 53 | GE 2.82-127 @ 88.6mHH | 44.88839592 | -96.55619053 | 403628.2947 | 2860763.894 |
| 54 | GE 2.82-127 @ 88.6mHH | 44.88844256 | -96.52807839 | 403956.3866 | 2868042.351 |
| 56 | GE 2.82-127 @ 88.6mHH | 44.88691606 | -96.51728167 | 403520.5287 | 2870861.891 |
| 57 | GE 2.82-127 @ 88.6mHH | 44.88630619 | -96.51253814 | 403351.2993 | 2872099.74 |
| 58 | GE 2.82-127 @ 88.6mHH | 44.88644603 | -96.50810806 | 403451.7124 | 2873244.662 |
| 59 | GE 2.82-127 @ 88.6mHH | 44.88758239 | -96.50251392 | 403928.1851 | 2874675.303 |
| 60 | GE 2.82-127 @ 88.6mHH | 44.88642172 | -96.49707447 | 403566.361 | 2876102.053 |
| 61 | GE 2.82-127 @ 88.6mHH | 44.89291292 | -96.49241697 | 405982.9324 | 2877205.546 |
| 62 | GE 2.82-127 @ 88.6mHH | 44.88222853 | -96.53843344 | 401578.0777 | 2865457.931 |
| 63 | GE 2.82-127 @ 88.6mHH | 44.88008231 | -96.56842519 | 400465.4625 | 2857724.329 |
| 64 | GE 2.82-127 @ 88.6mHH | 44.87975133 | -96.56376539 | 400396.1217 | 2858936.219 |
| 65 | GE 2.82-127 @ 88.6mHH | 44.87583317 | -96.55199756 | 399098.6039 | 2862044.614 |
| 66 | GE 2.82-127 @ 88.6mHH | 44.87570275 | -96.5475045 | 399100.723 | 2863210.305 |
| 67 | GE 2.82-127 @ 88.6mHH | 44.87511267 | -96.54329006 | 398932.3954 | 2864310.992 |
| 68 | GE 2.82-127 @ 88.6mHH | 44.87384517 | -96.53857453 | 398522.9319 | 2865552.036 |
| 69 | GE 2.82-127 @ 88.6mHH | 44.87553469 | -96.53160928 | 399215.5833 | 2867329.643 |
| 70 | GE 2.82-127 @ 88.6mHH | 44.87503728 | -96.52757025 | 399079.2762 | 2868383.487 |
| 71 | GE 2.82-127 @ 88.6mHH | 44.86603953 | -96.55812944 | 395463.6829 | 2860608.261 |
| 72 | GE 2.82-127 @ 88.6mHH | 44.86450608 | -96.52957458 | 395221.1065 | 2868028.919 |
| 73 | GE 2.82-127 @ 88.6mHH | 44.86465997 | -96.50402881 | 395562.0497 | 2874643.82 |
| 77 | GE 2.82-127 @ 88.6mHH | 44.85923692 | -96.54818811 | 393095.578 | 2863289.136 |
| 78 | GE 2.3-116 @ 80mHH | 44.85931333 | -96.54367878 | 393173.2829 | 2864456.16 |
| 79 | GE 2.82-127 @ 88.6mHH | 44.85314358 | -96.50238861 | 391385.7354 | 2875250.029 |
| 80 | GE 2.82-127 @ 88.6mHH | 44.85000836 | -96.57851558 | 389400.3454 | 2855574.413 |
| 81 | GE 2.3-116 @ 80mHH | 44.85004322 | -96.57476667 | 389454.1441 | 2856545.26 |
| 82 | GE 2.3-116 @ 80mHH | 44.84671644 | -96.55904983 | 388415.1786 | 2860669.184 |
| 83 | GE 2.3-116 @ 80mHH | 44.84543656 | -96.55315306 | 388014.0294 | 2862217.035 |
| 84 | GE 2.82-127 @ 88.6mHH | 44.84677572 | -96.54838039 | 388554.5346 | 2863432.96 |
| 85 | GE 2.82-127 @ 88.6mHH | 44.83992322 | -96.59902169 | 385502.7769 | 2850415.431 |
| 86 | GE 2.82-127 @ 88.6mHH | 44.84022503 | -96.59436692 | 385663.4544 | 2851617.131 |
| 87 | GE 2.82-127 @ 88.6mHH | 44.83903183 | -96.54407078 | 385781.5487 | 2864670.158 |
| 88 | GE 2.82-127 @ 88.6mHH | 44.83886075 | -96.53876861 | 385777.9732 | 2866046.912 |

| WIND TURBINE COORDINATES (NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT) | | | | | |
|---|---|---|---|---|---|
| Turbine ID | Turbine Type | Latitude | Longitude | Northing | Easting |
| 89 | GE 2.82-127 @ 88.6mHH | 44.83944625 | -96.53346294 | 386050.1042 | 2867412.771 |
| 90 | GE 2.82-127 @ 88.6mHH | 44.83503975 | -96.65273958 | 383143.3389 | 2836567.317 |
| 91 | GE 2.82-127 @ 88.6mHH | 44.83499478 | -96.64737575 | 383184.5187 | 2837958.239 |
| 92 | GE 2.82-127 @ 88.6mHH | 44.83573533 | -96.63936253 | 383540.4355 | 2840023.964 |
| 93 | GE 2.82-127 @ 88.6mHH | 44.83502853 | -96.63475203 | 383332.6446 | 2841229.638 |
| 94 | GE 2.82-127 @ 88.6mHH | 44.83512806 | -96.62873436 | 383433.8293 | 2842787.824 |
| 95 | GE 2.82-127 @ 88.6mHH | 44.82886872 | -96.59773042 | 381490.2147 | 2850919.399 |
| 96 | GE 2.82-127 @ 88.6mHH | 44.83036922 | -96.5931815 | 382086.3905 | 2852075.506 |
| 97 | GE 2.82-127 @ 88.6mHH | 44.83077642 | -96.58859378 | 382284.8187 | 2853258.397 |
| 98 | GE 2.3-116 @ 80mHH | 44.83096936 | -96.58430069 | 382402.0451 | 2854368.195 |
| 99 | GE 2.3-116 @ 80mHH | 44.82715108 | -96.55708761 | 381310.223 | 2861480.904 |
| 100 | GE 2.82-127 @ 88.6mHH | 44.82934792 | -96.54510231 | 382242.8383 | 2864553.453 |
| 101 | GE 2.82-127 @ 88.6mHH | 44.83059775 | -96.53388319 | 382822.4557 | 2867441.937 |
| 102 | GE 2.82-127 @ 88.6mHH | 44.821957 | -96.60816078 | 378859.0744 | 2848321.289 |
| 104 | GE 2.82-127 @ 88.6mHH | 44.82338633 | -96.55248481 | 379989.7412 | 2862732.433 |
| 105 | GE 2.82-127 @ 88.6mHH | 44.82390175 | -96.51848392 | 380554.897 | 2871538.252 |
| 106 | GE 2.82-127 @ 88.6mHH | 44.82106433 | -96.51374306 | 379574.3247 | 2872811.713 |
| 111 | GE 2.3-116 @ 80mHH | 44.81434147 | -96.54372006 | 376792.1624 | 2865145.234 |
| 112 | GE 2.3-116 @ 80mHH | 44.81466217 | -96.53888194 | 376962.5974 | 2866394.602 |
| 113 | GE 2.82-127 @ 88.6mHH | 44.81047328 | -96.53446572 | 375485.8491 | 2867604.926 |
| 114 | GE 2.82-127 @ 88.6mHH | 44.81029669 | -96.52998975 | 375471.2706 | 2868768.229 |
| 115 | GE 2.82-127 @ 88.6mHH | 44.80991125 | -96.525071 | 375385.6162 | 2870049.608 |
| 118 | GE 2.82-127 @ 88.6mHH | 44.79838575 | -96.53914517 | 371031.1473 | 2866579.953 |
| 119 | GE 2.82-127 @ 88.6mHH | 44.7983045 | -96.53467714 | 371051.1505 | 2867739.951 |
| 120 | GE 2.82-127 @ 88.6mHH | 44.79831706 | -96.53019083 | 371105.5903 | 2868903.225 |
| 121 | GE 2.82-127 @ 88.6mHH | 44.79852342 | -96.524568 | 371243.3427 | 2870358.205 |
| 122 | GE 2.3-116 @ 80mHH | 44.80033797 | -96.51806906 | 371976.7337 | 2872015.166 |

NOTE:
1. TURBINE COORDINATES WERE PROVIDED BY INVENERGY ON SEPTEMBER 11, 2019.

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |


Invenergy

2020 ONE SOUTH WACKER DR STE 1800
CHICAGO, IL 60606


NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

WTG SCHEDULE

DWG #: DHW-SCH-001
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\02 - Overall Site Plan\19.01167 Schedules.dwg WTG SCHEDULE

| CULVERT CROSSING SCHEDULE (NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT) | | | | |
|---|---|---|---|---|
| Culvert ID | Latitude | Longitude | Northing | Easting |
| C-1 | 44.94807482 | -96.64625314 | 424387.6047 | 2836541.8203 |
| C-2 | 44.93376399 | -96.68829844 | 418726.5325 | 2825878.8247 |
| C-3 | 44.93375591 | -96.68491642 | 418759.4272 | 2826754.0404 |
| C-4 | 44.94814039 | -96.67058932 | 424151.4944 | 2830245.5308 |
| C-5 | 44.94802510 | -96.65013424 | 424327.9042 | 2835538.6093 |
| C-6 | 44.92587518 | -96.70004076 | 415728.6915 | 2822957.7027 |
| C-7 | 44.91914283 | -96.65117194 | 413795.9246 | 2835705.6316 |
| C-8 | 44.92693868 | -96.63873977 | 416769.0963 | 2838805.2213 |
| C-9 | 44.92615700 | -96.63860591 | 416485.7980 | 2838851.6888 |
| C-10 | 44.91357882 | -96.69988730 | 411251.0461 | 2823180.1103 |
| C-11 | 44.90836884 | -96.69986289 | 409353.4365 | 2823263.8358 |
| C-12 | 44.91442877 | -96.69975581 | 411562.0494 | 2823201.5154 |
| C-13 | 44.90797822 | -96.65914681 | 409643.6938 | 2833809.5755 |
| C-14 | 44.91501409 | -96.65903000 | 412207.8826 | 2833733.9833 |
| C-15 | 44.91201422 | -96.63878257 | 411332.1910 | 2839019.9920 |
| C-16 | 44.91876384 | -96.60155030 | 414193.3608 | 2848553.8526 |
| C-17 | 44.90456579 | -96.59820600 | 409058.0057 | 2849636.8194 |
| C-18 | 44.90832583 | -96.57769115 | 410651.5686 | 2854889.5126 |
| C-19 | 44.90968778 | -96.57752425 | 411149.4874 | 2854911.7306 |
| C-20 | 44.90467003 | -96.54945865 | 409630.3474 | 2862254.2051 |
| C-21 | 44.90468463 | -96.53695065 | 409774.0033 | 2865491.8104 |
| C-22 | 44.91897369 | -96.53973438 | 414947.8895 | 2864548.6162 |
| C-23 | 44.90153493 | -96.67961934 | 407078.4357 | 2828606.3180 |
| C-24 | 44.90029280 | -96.67926206 | 406629.7605 | 2828717.3843 |
| C-25 | 44.90073919 | -96.65895817 | 407008.7667 | 2833967.2941 |
| C-26 | 44.90022513 | -96.63882864 | 407037.3587 | 2839186.4636 |
| C-27 | 44.90167705 | -96.63867650 | 407567.8780 | 2839203.8777 |
| C-28 | 44.90443879 | -96.63080419 | 408658.6400 | 2841200.0229 |

| CULVERT CROSSING SCHEDULE (NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT) | | | | |
|---|---|---|---|---|
| Culvert ID | Latitude | Longitude | Northing | Easting |
| C-29 | 44.89975833 | -96.59806389 | 407308.2674 | 2849747.4592 |
| C-30 | 44.89975833 | -96.59788333 | 407310.4335 | 2849794.1490 |
| C-31 | 44.90334126 | -96.56543939 | 408970.3219 | 2858137.9350 |
| C-32 | 44.90327956 | -96.55748593 | 409035.3537 | 2860197.7979 |
| C-33 | 44.89008338 | -96.57034992 | 404087.2143 | 2857071.4523 |
| C-34 | 44.89014508 | -96.56260002 | 404194.8472 | 2859077.1762 |
| C-35 | 44.89683221 | -96.53704501 | 406912.7613 | 2865589.8060 |
| C-36 | 44.89786049 | -96.53691923 | 407288.6999 | 2865606.3383 |
| C-37 | 44.89321061 | -96.49630089 | 406047.7886 | 2876195.2771 |
| C-38 | 44.87998807 | -96.56149746 | 400507.3080 | 2859519.8934 |
| C-39 | 44.88999306 | -96.55617012 | 404210.2734 | 2860744.4167 |
| C-40 | 44.88225556 | -96.54089582 | 401560.6508 | 2864819.8494 |
| C-41 | 44.89000098 | -96.52801702 | 404524.7097 | 2868033.8816 |
| C-42 | 44.88688982 | -96.51969247 | 403484.1070 | 2870238.0552 |
| C-43 | 44.88461157 | -96.51257590 | 402733.6326 | 2872116.5689 |
| C-44 | 44.88470148 | -96.50882571 | 402808.2601 | 2873086.2549 |
| C-45 | 44.88757204 | -96.50030801 | 403949.1133 | 2875246.6475 |
| C-46 | 44.88682989 | -96.50010901 | 403681.0240 | 2875309.8666 |
| C-47 | 44.87738779 | -96.55139299 | 399671.5402 | 2862177.0568 |
| C-48 | 44.87738901 | -96.54748314 | 399715.1708 | 2863189.6273 |
| C-49 | 44.87510619 | -96.54111586 | 398954.0993 | 2864874.1964 |
| C-50 | 44.87385798 | -96.54092604 | 398501.5510 | 2864942.7962 |
| C-51 | 44.86645861 | -96.56130178 | 395581.3908 | 2859780.0198 |
| C-52 | 44.86292299 | -96.53164556 | 394621.4749 | 2867517.1719 |
| C-53 | 44.86287456 | -96.52962675 | 394626.2607 | 2868040.8944 |
| C-54 | 44.86299295 | -96.50537257 | 394939.8220 | 2874321.9661 |
| C-55 | 44.84846200 | -96.57858761 | 388836.2942 | 2855579.5686 |
| C-56 | 44.84845772 | -96.57476366 | 388876.6588 | 2856570.4890 |

| CULVERT CROSSING SCHEDULE (NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT) | | | | |
|---|---|---|---|---|
| Culvert ID | Latitude | Longitude | Northing | Easting |
| C-57 | 44.86286508 | -96.54617427 | 394439.3771 | 2863754.4380 |
| C-58 | 44.85216281 | -96.50017401 | 391053.3160 | 2875839.2563 |
| C-59 | 44.83338056 | -96.64176003 | 382656.8847 | 2839438.1725 |
| C-60 | 44.83338037 | -96.63937310 | 382682.5011 | 2840056.8553 |
| C-61 | 44.83342944 | -96.63476215 | 382750.0532 | 2841251.2423 |
| C-62 | 44.83353526 | -96.62867521 | 382854.2787 | 2842827.3297 |
| C-63 | 44.84023245 | -96.60211473 | 385581.7342 | 2849609.1094 |
| C-64 | 44.84827253 | -96.55905431 | 388981.9301 | 2860643.9161 |
| C-65 | 44.84827876 | -96.55288389 | 389052.2574 | 2862242.6764 |
| C-66 | 44.84830179 | -96.54835255 | 389110.7029 | 2863416.4589 |
| C-67 | 44.83389632 | -96.54118010 | 383942.9928 | 2865499.2629 |
| C-68 | 44.83386802 | -96.53271619 | 384026.5816 | 2867693.3667 |
| C-69 | 44.82420933 | -96.60243494 | 379741.7731 | 2849771.2117 |
| C-70 | 44.82683438 | -96.60226534 | 380699.8029 | 2849775.0223 |
| C-71 | 44.82660976 | -96.56150199 | 381064.3872 | 2860345.0241 |
| C-72 | 44.81932602 | -96.55350849 | 378499.4921 | 2862530.0663 |
| C-73 | 44.83007866 | -96.54123486 | 382551.8338 | 2865544.5174 |
| C-74 | 44.83375860 | -96.53382746 | 383974.3838 | 2867407.0583 |
| C-75 | 44.82394717 | -96.52071695 | 380546.5404 | 2870958.6926 |
| C-76 | 44.81951364 | -96.52074096 | 378931.4154 | 2871021.9130 |
| C-77 | 44.81433502 | -96.54129880 | 376816.6385 | 2865773.0869 |
| C-78 | 44.81466823 | -96.54113396 | 376939.8351 | 2865810.6356 |
| C-79 | 44.80493612 | -96.52957863 | 373523.3172 | 2868958.5784 |
| C-80 | 44.81043525 | -96.52102428 | 375621.5667 | 2871090.6528 |
| C-81 | 44.79782935 | -96.54136848 | 370803.8264 | 2866012.0271 |
| C-82 | 44.79832290 | -96.52102402 | 371209.8051 | 2871280.4255 |
| C-83 | 44.80008245 | -96.52082814 | 371852.8822 | 2871303.6651 |

| CRANE WATER CROSSING SCHEDULE (NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT) | | | | |
|---|---|---|---|---|
| CWC ID | Latitude | Longitude | Northing | Easting |
| CWC-1 | 44.93612321 | -96.69347378 | 419531.1711 | 2824504.5870 |
| CWC-2 | 44.93819920 | -96.68386789 | 420389.1182 | 2826959.0077 |
| CWC-3 | 44.92418179 | -96.71026052 | 415004.1272 | 2820338.0402 |
| CWC-4 | 44.92244513 | -96.70231464 | 414455.2119 | 2822420.1762 |
| CWC-5 | 44.92585685 | -96.61950284 | 416582.4241 | 2843799.6695 |
| CWC-6 | 44.90920166 | -96.70609508 | 409591.0740 | 2821638.1883 |
| CWC-7 | 44.91106300 | -96.66979812 | 410653.7186 | 2831006.1037 |
| CWC-8 | 44.91621332 | -96.65459141 | 412692.1929 | 2834864.7594 |
| CWC-9 | 44.91376735 | -96.65335696 | 411814.4196 | 2835221.1167 |
| CWC-10 | 44.90762800 | -96.64124019 | 409708.0313 | 2838450.1838 |
| CWC-11 | 44.91677104 | -96.60948589 | 413381.3001 | 2846530.4954 |
| CWC-12 | 44.91383689 | -96.60366717 | 412375.6771 | 2848081.3309 |
| CWC-13 | 44.90543759 | -96.56808850 | 409704.8130 | 2857419.7703 |
| CWC-14 | 44.91658494 | -96.53855010 | 414090.9105 | 2864892.3261 |
| CWC-15 | 44.91379290 | -96.53575665 | 413104.8685 | 2865658.8359 |
| CWC-16 | 44.90504473 | -96.53080528 | 409973.3183 | 2867076.9731 |
| CWC-17 | 44.90407186 | -96.68526690 | 407942.6186 | 2827106.3416 |
| CWC-18 | 44.90539083 | -96.66648576 | 408622.8295 | 2831948.6321 |
| CWC-19 | 44.90195428 | -96.63996159 | 407655.0415 | 2838866.9921 |
| CWC-20 | 44.90000775 | -96.63349285 | 407015.6069 | 2840571.1575 |
| CWC-21 | 44.90305845 | -96.65845704 | 407858.9553 | 2834062.1424 |
| CWC-22 | 44.89973889 | -96.59513611 | 407333.4754 | 2850505.4279 |
| CWC-23 | 44.90437364 | -96.59298873 | 409044.8441 | 2850990.3551 |
| CWC-24 | 44.89948488 | -96.56768238 | 407540.9964 | 2857616.8826 |
| CWC-25 | 44.89338063 | -96.56385784 | 405359.5564 | 2858701.4377 |
| CWC-26 | 44.89118462 | -96.56480171 | 404549.2841 | 2858491.0166 |
| CWC-27 | 44.90199521 | -96.58545254 | 408260.7333 | 2852977.7973 |
| CWC-28 | 44.89110145 | -96.55387748 | 404639.2780 | 2861320.8500 |
| CWC-29 | 44.89499408 | -96.54692780 | 406133.8709 | 2863059.7663 |
| CWC-30 | 44.89536136 | -96.53761508 | 406370.6939 | 2865465.1435 |
| CWC-31 | 44.89095778 | -96.49552935 | 405235.8796 | 2876430.5760 |

| CRANE WATER CROSSING SCHEDULE (NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT) | | | | |
|---|---|---|---|---|
| CWC ID | Latitude | Longitude | Northing | Easting |
| CWC-32 | 44.88715789 | -96.56245443 | 403108.3686 | 2859161.1014 |
| CWC-33 | 44.88755984 | -96.53709274 | 403534.8306 | 2865722.0052 |
| CWC-34 | 44.87972492 | -96.53329016 | 400723.1858 | 2866828.9131 |
| CWC-35 | 44.87521109 | -96.52898151 | 399126.9013 | 2868015.2661 |
| CWC-36 | 44.88044074 | -96.52344677 | 401093.2971 | 2869366.8622 |
| CWC-37 | 44.88893351 | -96.49735543 | 404478.0932 | 2875989.6938 |
| CWC-38 | 44.87491176 | -96.55356267 | 398745.7146 | 2861653.5591 |
| CWC-39 | 44.86850997 | -96.55640132 | 396382.5792 | 2861017.6085 |
| CWC-40 | 44.84854511 | -96.57283732 | 388929.6305 | 2857068.2903 |
| CWC-41 | 44.85661273 | -96.53921922 | 392238.9959 | 2865653.5511 |
| CWC-42 | 44.85197095 | -96.52170654 | 390742.8433 | 2870263.3407 |
| CWC-43 | 44.85358238 | -96.51135617 | 391445.2494 | 2872919.7533 |
| CWC-44 | 44.85555376 | -96.50767775 | 392204.4124 | 2873841.7858 |
| CWC-45 | 44.85365461 | -96.50504004 | 391542.1830 | 2874555.0366 |
| CWC-46 | 44.85403532 | -96.50434540 | 391688.6294 | 2874729.0149 |
| CWC-47 | 44.83503942 | -96.64469259 | 383229.6063 | 2838653.0087 |
| CWC-48 | 44.83566232 | -96.63739052 | 383535.0765 | 2840536.1832 |
| CWC-49 | 44.83867731 | -96.61662369 | 384857.6893 | 2845872.6578 |
| CWC-50 | 44.84121351 | -96.58972614 | 386074.1697 | 2852804.6464 |
| CWC-51 | 44.84774795 | -96.57177022 | 388650.9792 | 2857357.0981 |
| CWC-52 | 44.84755674 | -96.56633956 | 388641.0040 | 2858767.2495 |
| CWC-53 | 44.84704303 | -96.55580759 | 388569.8854 | 2861504.2601 |
| CWC-54 | 44.84668037 | -96.54546162 | 388552.0818 | 2864190.7606 |
| CWC-55 | 44.83924050 | -96.53532771 | 385954.4605 | 2866932.7182 |
| CWC-56 | 44.82770928 | -96.55404298 | 381547.1411 | 2862261.4475 |
| CWC-57 | 44.82891297 | -96.54309429 | 382106.6442 | 2865080.7001 |
| CWC-58 | 44.80906873 | -96.52540930 | 375074.9713 | 2869975.0720 |
| CWC-59 | 44.80007847 | -96.53923615 | 371646.6949 | 2866529.9854 |
| CWC-60 | 44.81232514 | -96.51076906 | 376424.4368 | 2873719.9494 |

| LOW WATER CROSSING SCHEDULE (NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT) | | | | |
|---|---|---|---|---|
| LWC ID | Latitude | Longitude | Northing | Easting |
| LWC-1 | 44.92587312 | -96.70109748 | 415716.7875 | 2822684.2665 |
| LWC-2 | 44.92108129 | -96.65114852 | 414502.2930 | 2835682.4669 |
| LWC-3 | 44.92692062 | -96.64094482 | 416738.8209 | 2838234.8860 |
| LWC-4 | 44.90802297 | -96.70316742 | 409192.5752 | 2822413.5419 |
| LWC-5 | 44.90801483 | -96.66141999 | 409632.7392 | 2833220.5862 |
| LWC-6 | 44.91202638 | -96.64425574 | 411277.8135 | 2837603.1270 |
| LWC-7 | 44.90747100 | -96.59819719 | 410116.3406 | 2849594.6078 |
| LWC-8 | 44.90512996 | -96.53695272 | 409936.1864 | 2865484.3315 |
| LWC-9 | 44.90150339 | -96.68243218 | 407037.0767 | 2827878.5633 |
| LWC-10 | 44.90151452 | -96.68144071 | 407051.6548 | 2828135.0810 |
| LWC-11 | 44.89995792 | -96.59926065 | 407368.0827 | 2849434.3526 |
| LWC-12 | 44.89974167 | -96.59524444 | 407332.6027 | 2850477.4551 |
| LWC-13 | 44.86556357 | -96.53153908 | 395584.4660 | 2867503.5237 |
| LWC-14 | 44.83431851 | -96.53271240 | 384190.7082 | 2867687.3179 |
| LWC-15 | 44.83182689 | -96.53386152 | 383270.3971 | 2867428.3726 |

NOTES:

1. CONTRACTOR SHALL MAKE FINAL DETERMINATION OF WHICH LOW WATER CROSSING (LWC) IS UTILIZED BASED ON FIELD CONDITIONS, AND FLOW CONCENTRATION.
2. REFER TO CIVIL SITE PLANS FOR DRAINAGE CROSSING PROPOSED LOCATIONS.
3. REFER TO CONSTRUCTION DETAILS FOR CULVERT AND LWC INSTALLATION INSTRUCTIONS.

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
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NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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Approved By: B. BUCHOLZ
Project Number: 19.01167

DRAINAGE CROSSING SCHEDULE

DWG #: DHW-SCH-002
REVISION: 0A

2019.10.01

## GENERAL NOTES

1. THE PLANS UTILIZE HORIZONTAL DATUM: NAD83 SOUTH DAKOTA STATE PLANES. NORTH ZONE, US FOOT.
2. GROUND SURFACE CONTOURS AND ELEVATIONS ARE BASED ON DATA OBTAINED FROM PUBLIC SOURCES. THE VERTICAL CONTOURS SHOWN ON THE PLANS MEET THE NATIONAL MAP ACCURACY STANDARDS FOR DIGITAL TERRAIN MODELS (NOT MORE THAN 10% OF THE ELEVATIONS ARE IN ERROR BY MORE THAN ONE FOOT).
3. THE ACCURACY OF THE ELEVATIONS AND CONTOURS ARE NOT AS ACCURATE AS USING TRADITIONAL FIELD SURVEYING METHODS. ELEVATIONS DETERMINED DURING FIELD STAKING MAY VARY FROM PLAN ELEVATION. WHERE MAJOR VARIATIONS ARE FOUND, THE OWNER AND ENGINEER SHALL BE NOTIFIED. ADDITIONAL GRADING MAY BE REQUIRED, AS WELL AS ADDITIONAL EXISTING INFRASTRUCTURE, UTILITIES, AND OBSTACLES WHICH DO NOT APPEAR RECOGNIZABLE ON THE PLANS AND WERE NOT DIGITIZED FOR THIS PLAN MAY BE ENCOUNTERED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE MINOR ADJUSTMENTS WHILE STAYING WITHIN THE CONSTRUCTION LIMITS TO AVOID THESE ITEMS WHEN REQUIRED. CONTRACTOR SHALL BE ENTITLED TO RELIEF FOR DISCREPANCIES OF A MAJOR NATURE. CONTRACTOR SHALL FOLLOW ALL NOTICE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
4. PROPERTY LINES, EASEMENTS AND OTHER LINE WORK WERE OBTAINED FROM THE ALTA SURVEY COMPLETED BY INSERT COMPANY NAME HERE ONCE RECEIVED.
5. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE OWNER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. IF MONUMENT CANNOT BE AVOIDED, THE CONTRACTOR SHALL NOT REMOVE THE MONUMENT UNTIL THE OWNER, AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED AND DOCUMENTED ITS LOCATION. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING DAMAGED PROPERTY MARKERS AND MONUMENTS.
6. THE CONTRACTOR SHALL NOTIFY SOUTH DAKOTA ONE CALL (1-800-781-7474 OR 811) AT LEAST 48 HOURS BEFORE EXCAVATION ACTIVITIES COMMENCE.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO CONSTRUCTION. IF UTILITIES ARE DETERMINED TO EXIST THAT ARE NOT SHOWN ON THE PLANS THE ENGINEER SHALL BE CONTACTED IMMEDIATELY. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES AND RELOCATE AS REQUIRED IN COORDINATION WITH UTILITY AND LANDOWNER. ALL UTILITIES NOT IDENTIFIED BUT REQUIRED TO BE RELOCATED SHALL BE LOCATED ON THE AS-BUILT DOCUMENTS. CONTRACTOR SHALL BE ENTITLED TO COST & SCHEDULE RELIEF FOR RELOCATION OF UTILITIES NOT SHOWN ON THE PLANS
8. THE CONTRACTOR SHALL NOTIFY AND COORDINATE ALL WORK WITH THE UTILITY COMPANIES.
9. CONTRACTOR SHALL VERIFY CROSSING DESIGNS WITH ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION AND IS RESPONSIBLE FOR DAMAGES TO UTILITIES DURING CONSTRUCTION.
10. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF THERE ARE ANY DISCREPANCIES.
11. ANY STRUCTURES REMOVED OR RELOCATED TO ALLOW FOR CONSTRUCTION (MAILBOXES, SIGNS, FENCES, LIGHTING, ETC.) SHALL BE REPLACED BY THE CONTRACTOR TO THE EXISTING CONDITION AT THE TIME OF REMOVAL.
12. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE AND MINIMIZING PONDING THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT. CONSTRUCTION ACTIVITIES SHALL NOT BLOCK NATURAL OR MANMADE CREEKS OR DRAINAGE SWALES.
13. CONTRACTOR SHALL MINIMIZE DISTURBANCE DURING CULVERT REPLACEMENT ACTIVITIES AND REVIEW ENVIRONMENTAL REPORTS PRIOR TO WORK IN STREAM/WETLAND AREAS.
14. THE CONSTRUCTION OF THE ROADS AND EXCAVATING THE TURBINE FOUNDATIONS MAY RESULT IN EXCESS MATERIAL. THE CONTRACTOR SHALL DISPOSE OF THIS EXCESS MATERIAL IN AN APPROVED MANNER. EXCESS TOPSOIL SHALL BE PLACED ON LAND IMMEDIATELY ADJACENT TO WHERE THE TOPSOIL ORIGINATED. NO TOPSOIL SHALL LEAVE THE PROPERTY AND THE CONTRACTOR SHALL CREATE A FINAL SURFACE OF DISTURBED TOPSOIL WHICH SHALL BE SMOOTH AND FOLLOW THE NATURAL CONTOUR OF THE LAND.
15. ALL DISTURBED AREAS OUTSIDE THE FINAL ROADWAY SHALL BE RETURNED TO THEIR ORIGINAL CONDITION. GRASSY AREAS SHALL BE SEEDED, CROPLAND SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION.
16. FINALIZE GRADING AROUND THE BASE OF TURBINES IN ACCORDANCE WITH DETAILS (25' TYP. FROM EDGE OF PEDESTAL). CONTRACTOR TO VERIFY PEDESTAL HEIGHT, PRIOR TO EXCAVATING THE FOUNDATION TO ELIMINATE DISCREPANCIES BETWEEN THE INDEX AND OWNER AIRSPACE SUBMITTALS.
17. UNLESS OTHERWISE NOTED, ALL PROPOSED TURBINE SITES, ROADS, TEMPORARY DISTURBANCE AREAS, ETC. SHALL BE CONSTRUCTED AT OR NEAR EXISTING GRADE. CONTRACTOR SHALL FOLLOW GEOTECHNICAL RECOMMENDATIONS AND REMOVE TOPSOIL, COMPACT & PROOF-ROLL SUBGRADE, AND PLACE AN AGGREGATE BASE COURSE.
18. ALL CONSTRUCTION ACTIVITY SHALL TAKE PLACE WITHIN THE GRADING LIMITS AS SHOWN IN THE PLANS. GRADING LIMITS FOR CRANE PATHS ARE 80 FEET WIDE, 50 FEET FOR ACCESS ROADS, 50 FEET FOR COLLECTION SYSTEM, AND A 200 FOOT RADIUS FROM THE CENTER PIN FOR TURBINES. REFER TO THE CONSTRUCTION DOCUMENTS FOR EXACT DIMENSIONS. AS SHOWN FOR TURBINE SITES & ACCESS ROADS, TEMPORARY DISTURBANCE AREAS SHALL RECEIVE BASE COURSE AT CONTRACTORS DISCRETION
19. AS SOON AS PRACTICAL AND WITHOUT IMPACTING DELIVERIES OR DEMOBILIZING EQUIPMENT, THE TEMPORARY INTERSECTION WIDENING SHALL BE REMOVED, UNLESS OTHERWISE NOTIFIED BY THE ENGINEER, CONSTRUCTION MANAGER, OR GOVERNMENT OFFICIALS. THE DISTURBED AREA FROM THE INTERSECTION WIDENING SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION.
20. CRANE PATHS ARE SHOWN ON THE CONSTRUCTION PLANS. IF THE CONTRACTOR PROPOSES ALTERNATE CRANE PATHS, THEY SHALL VERIFY THAT WETLAND AND CULTURAL RESOURCE CORRIDORS ARE NOT DISTURBED. FINAL CRANE PATH ALIGNMENTS SHALL BE DETERMINED BY THE CONTRACTOR BASED UPON FIELD CONDITIONS TO AVOID WETLAND AND CULTURAL RESOURCE IMPACTS, ACCOMMODATE SPECIAL LANDOWNER AGREEMENTS AND STAY WITHIN THE PROJECT BOUNDARY.
21. TURBINE SETBACKS ARE NOT IDENTIFIED ON THE CONSTRUCTION PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND/OR PROJECT OWNER TO ENSURE THAT ALL TURBINE SETBACKS MEET PROJECT REQUIREMENTS.
22. THE CONTRACTOR SHALL REVIEW AND BE FAMILIAR WITH THE GEOTECHNICAL REPORT(S) PREPARED FOR THE PROJECT, AND ADHERE TO THE RECOMMENDATIONS MADE FOR THE PROJECT. ALL GRADING SHALL CONFORM TO THE GEOTECHNICAL REPORT AND RECOMMENDATIONS.
23. WIND TURBINE TOWER DOOR ORIENTATION SHALL BE DIRECTED DOWNWIND OF PREVAILING WINDS.

## GRADING AND DRAINAGE NOTES

1. GENERAL GRADING AND SURFACE DRAINAGE
   a. ALL NON-SUITABLE MATERIAL (MUCK, ROCK, PEAT, ETC.) SHALL BE REMOVED BELOW ANY NEW ACCESS ROADS, TURBINE ERECTION SITES, AND FACILITIES, OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. ALL REMOVED MATERIAL SHALL BE STOCKPILED IN AN APPROVED ON-SITE LOCATION (NO TRUCKING OF MATERIAL) LOCATION BY THE OWNER AND/OR CONTRACTOR.
   b. THE CONTRACTOR SHALL ENSURE THAT POSITIVE DRAINAGE IS MAINTAINED THROUGHOUT CONSTRUCTION AND POST-CONSTRUCTION. THE CONTRACTOR SHALL UTILIZE DRAINAGE SWALES OR V-DITCHES ALONG ACCESS ROADS AND TURBINE SITES AS NECESSARY.
   c. THE CONTRACTOR SHALL HAVE THE OPTION OF ADJUSTING TURBINE AND CRANE PAD GRADING TO MEET ACTUAL FIELD CONDITIONS. PRIOR TO ANY CHANGES THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL.
2. CULVERTS:
   a. SEE THE DRAINAGE SCHEDULE FOR CULVERT LOCATIONS. CULVERTS PLANNED FOR PRIVATE ENTRANCES SHALL BE CORRUGATED METAL PIPE AND MEET H20 LOADING.
   b. CULVERTS EXTENSIONS SHALL BE OF THE EXISTING PIPE MATERIAL AND DIAMETER.
   c. PERMANENT AND TEMPORARY DRAINAGE CULVERTS HAVE BEEN DESIGNED TO CONVEY STORM WATER FOR A MINIMUM 24-HR 5-YR STORM EVENT AND TO WITHSTAND A 24-HR 25-YR STORM EVENT.
   d. REUSED CORRUGATED METAL PIPE (CMP) OR CORRUGATED HIGH-DENSITY POLYETHYLENE (HDPE) MAY BE USED AS TEMPORARY CULVERTS. ALL CULVERTS USED FOR TEMPORARY CROSSINGS SHALL MEET H20 LOADING.
   e. THE CONTRACTOR SHALL VERIFY WITH PIPE SUPPLIER THAT THE MINIMUM COVER SHOWN IS ADEQUATE FOR H20 LOADING OR CONSTRUCTION EQUIPMENT LOADING WHICHEVER IS GREATER.
   f. ALL PERMANENT CULVERTS SHALL BE INSTALLED TO SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION (SDOT) AND/OR COUNTY REQUIREMENTS.
3. LOW WATER CROSSINGS (LWC)
   a. ALL PERMANENT LOW WATER CROSSINGS ARE SHOWN ON THE PLANS, AND HAVE BEEN SIZED TO WITHSTAND A 24-HR 25-YR RAIN EVENT WITHOUT FAILURE. SEE THE DRAINAGE SCHEDULE FOR THE LOW WATER CROSSING LOCATIONS AND REQUIRED INSTALLATION DETAILS.
   b. TEMPORARY LOW WATER CROSSINGS SHALL BE CONSTRUCTED TO MEET REQUIREMENTS FOR CRANE TRAVEL OR ANY OTHER REQUIRED CONSTRUCTION TRAFFIC TO MEET PROJECT REQUIREMENTS. THE CONTRACTOR SHALL REMOVE ANY NON-SUITABLE MATERIAL AND COMPACT AND/OR UTILIZE CRANE MATTING TO MEET TRAVEL REQUIREMENTS.
   c. LOW WATER CROSSINGS HAVE BEEN DESIGNED TO ALLOW NATURAL DRAINAGE TO OCCUR POST CONSTRUCTION OF THE ACCESS ROADS. IT IS ANTICIPATED THAT DURING RAIN STORMS GREATER THAN A 24-HR 25-YR EVENTS THAT SOME ACCESS ROADS MAY BECOME IMPASSABLE. MAINTENANCE OF THE ACCESS ROADS MAY BE REQUIRED DUE TO THE NATURAL DRAINAGE.

## EARTHWORK NOTES

1. CLEARING AND GRUBBING
   a. THE CONTRACTOR SHALL BE REQUIRED AS NECESSARY TO FACILITATE CONSTRUCTION OPERATIONS, TO REMOVE ALL TREES, STUMPS, BRUSH, AND DEBRIS WITHIN THE GRADING AREAS SHOWN ON THE PLANS. THE CONTRACTOR IS TO REMOVE ONLY THOSE TREES WHICH ARE DESIGNATED BY THE OWNERS REPRESENTATIVE FOR REMOVAL, AND SHALL EXERCISE EXTREME CARE AROUND EXISTING TREES TO BE SAVED.
2. TOPSOIL STRIPPING
   a. TOPSOIL SHALL BE STRIPPED FROM ALL ROADWAY AREAS THROUGH THE ROOT ZONE. TOPSOIL SHALL NOT BE STRIPPED OUTSIDE OF THE DESIGNATED DISTURBANCE AREAS. AVERAGE REMOVAL DEPTH OF 4"-6", IF DEEPER AREAS ARE OBSERVED THE MATERIAL SHALL BE REMOVED AS REQUIRED.
   b. ANY TOPSOIL THAT HAS BEEN STRIPPED SHALL BE RE-SPREAD OR STOCKPILED WITHIN GRADING AREAS AS DESIGNATED ON THE PLAN. IF USED AS FILL OUTSIDE THE DISTURBED AREA, PRIOR APPROVAL IS REQUIRED. TOPSOIL STOCKPILES SHALL BE SEGREGATED FROM THE NATIVE SOIL STOCKPILES. ALL TOPSOIL SHALL BE REDISTRIBUTED ON THE LANDOWNERS PROPERTY WHERE IT ORIGINATED FROM.
3. EMBANKMENT
   a. EMBANKMENT CONSTRUCTION SHALL CONSIST OF THE PLACING OF SUITABLE FILL MATERIAL AFTER TOPSOIL STRIPPING, ABOVE THE EXISTING GRADE. GENERALLY, EMBANKMENTS SHALL HAVE COMPACTED SUPPORT SLOPES OF THREE FEET HORIZONTAL TO ONE FOOT VERTICAL. THE MATERIAL FOR EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE ACCESS ROAD EXCAVATION (SEE GEOTECHNICAL REPORT FOR RESTRICTIONS), OR ANY SUITABLE, APPROVED SOIL OBTAINED OFFSITE BY CONTRACTOR, AS DIRECTED OR APPROVED BY THE ENGINEER. THIS MATERIAL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 8" FOR COHESIVE SOILS OR 12" FOR GRANULAR SOILS.
      a.a. THE MAXIMUM STONE SIZE TO BE UTILIZED FOR EMBANKMENTS MAY NOT BE GREATER THAN ½ THE FILL HEIGHT ND OR A MAXIMUM OF 9" IN DIAMETER FOR FILLS BETWEEN 1'-3'. FOR FILLS GREATER THAN 3' IN DEPTH, THE MAXIMUM SIZE STONE SHALL BE NO LARGER THAN 14" IN DIAMETER.
   b. ACCESS ROADS SHALL BE CONSTRUCTED OF SUITABLE, NATIVE FILL MATERIAL EXCAVATED FROM THE PROPOSED ROADWAY ALIGNMENT, WIND TURBINE SITE, AND/OR TURBINE FOUNDATIONS. EMBANKMENTS SHALL BE CONSTRUCTED AND COMPACTED TO SUPPORT TURBINE COMPONENT DELIVERY TRUCKS, CRANE TRAVEL, AND OTHER REQUIRED CONSTRUCTION TRAFFIC.
   c. ALL COLLECTION OR NEW UTILTY CROSSING TRENCHES THAT CROSS ACCESS ROADS SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR (ASTM D 698)
   d. SIDE SLOPES FOR PERMANENTLY STABILIZED SLOPES STEEPER THAN 3:1 WILL NOT BE PERMITTED, UNLESS OTHERWISE NOTED ON THE PLAN.

## ROAD DESIGN PARAMETERS AND CONSTRUCTION NOTES

1. ACCESS ROADS ARE TO BE CONSTRUCTED FOR YEAR ROUND ACCESS. HOWEVER, PERIODIC ROADWAY MAINTENANCE SUCH AS GRADING IN THE SPRING IS REQUIRED TO MAINTAIN POSITIVE DRAINAGE.
2. VERTICAL AND HORIZONTAL DESIGN PARAMETERS SHALL BE PER THE GE 2.3-116 80M HH AND 2.82-127 89M HH DELIVERY SPECIFICATIONS.
3. VERTICAL DESIGN PARAMETERS SHALL BE BETWEEN 0.5% - 8% SLOPE AND A MINIMUM K-VALUE OF 16.5 PER GE DELIVERY SPECIFICATIONS.
4. ACCESS ROADS SHALL MAINTAIN A 1% (MIN.) - 2% (MAX.) CROWN OR A 0.5% (MIN.) TO 1% (MAX.) CROSS SLOPE TO PROVIDE PROPER DRAINAGE FOR THE SITE. THE ROAD AGGREGATE THICKNESS SHALL BE PER THE TYPICAL SECTIONS PROVIDED IN THE CONSTRUCTION DETAILS.
5. SURFACE AGGREGATE FOR NEW AND EXISTING ROADS AND PROJECT FACILITIES SHALL MEET THE REQUIREMENTS PROVIDED IN TABLE 1, OR AN APPROVED EQUAL.

## EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES AS PLANNED AND SPECIFIED FOLLOWING BEST MANAGEMENT PRACTICES AS OUTLINED BY THE SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES (SD DNR), AND BEING IN CONFORMANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL STORMWATER PERMIT. SEE THE ASSOCIATED STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR EROSION CONTROL AND RESTORATION SPECIFICATION. UNLESS OTHERWISE NOTED OR MODIFIED HEREIN, ALL SECTIONS OF THE GENERAL CONDITIONS SHALL APPLY.
2. ANY AREAS DISTURBED DUE TO CONSTRUCTION ACTIVITIES AND NOT WITHIN AN ACTIVE CONSTRUCTION AREA SHOULD BE STABILIZED WITHIN 14 DAYS OF INACTIVITY. TEMPORARY OR PERMANENT STABILIZATION SHALL BE COMPLETED PER THE PROJECT SWPPP.
3. DECOMPACTION OF ANY AREAS WITHIN THE PROJECT SITE TO BE RESTORED SHALL BE DECOMPACTED TO A MINIMUM DEPTH OF 12" BELOW GRADE. ALL RESTORATION SHALL MEET REQUIREMENTS OF PROJECT SWP3 FOR SOIL DECOMPACTION.
4. SEED AND FERTILIZER
   d. PROVIDE AND USE SEEDS IN ACCORDANCE WITH THE STATE OF SOUTH DAKOTA AND DEUEL COUNTY SEED LAWS AND THE FEDERAL SEED ACT. PURCHASE SEEDS THROUGH A DEALER LICENSED WITH THE SOUTH DAKOTA DEPARTMENT OF AGRICULTURE. PROVIDE AND USE FERTILIZER IN ACCORDANCE WITH THE SOUTH DAKOTA FERTILIZER PROGRAM.
   e. SEED MIXTURE SHALL BE AN APPROVED SEED MIXTURE OF THE SOUTH DAKOTA DEPARTMENT OF AGRICULTURE AND/OR SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.

## STORM WATER POLLUTION PREVENTION PLAN (SWP3)

1. THE CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT PRACTICES (BMPs) AS OUTLINED IN THE SWPPP DOCUMENT AND IN ACCORDANCE WITH SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES (SD DENR).
2. THE SWPPP DOCUMENT WAS DEVELOPED BY ULTEIG ENGINEERS, INC. FOR THE PROJECT. THE SWPPP OUTLINES EROSION CONTROL AND RESTORATION SPECIFICATIONS, EROSION AND SEDIMENT CONTROL PROCEDURES, AND INSPECTION GUIDELINES.
3. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE SWP3 DOCUMENT AND GUIDELINES. THE CONTRACTOR MAY CHOOSE TO UTILIZE ADDITIONAL BMPs AS NECESSARY TO ENSURE THAT EROSION AND SEDIMENT IS MANAGED THROUGHOUT CONTRUCTION AND AFTER THE COMPLETION OF THE PROJECT.
4. THE CONTRACTOR SHALL PERFORM RESTORATION AND/OR SEEDING TO AREAS TEMPORARILY DISTURBED BY CONSTRUCTION ACTIVITIES THROUGHOUT THE PROJECT AS REQUIRED BY THE PROJECT SWPPP.
5. NON-STORM WATER POLLUTANTS SUCH AS CONCRETE, FLY ASH, LIME, ETC. AND/OR OTHER MATERIAL S SHALL BE CONTAINED ON-SITE AND DISPOSED OF PROPERLY PER THE REQUIREMENTS OF THE PROJECT SWPPP.
6. NATURAL BUFFERS SHOULD BE THE FIRST OPTION FOR ALL SEDIMENT AND EROSION CONTROL WITHIN THE PROJECT. A NATURAL BUFFER SHOULD PROVIDE A 50-FOOT BUFFER FROM SURFACE WATERS, WATER OF THE UNITED STATES, AND DEFINED DRAINAGE CHANNELS WHEN FEASIBLE.
7. ANY DISTURBANCES ON THE PROJECT THAT ARE PERMANENTLY SEEDED OR RESTORED WITHIN A 24 HOUR PERIOD FROM START OF CONSTRUCTION TO COMPLETION ARE NOT REQUIRED TO TEMPORARILY STABILIZED OR PROTECTED BY PROJECT BMPs.
8. ANY ERODIBLE MATERIAL WITHIN PROJECT NEW OR EXISTING DRAINAGE WAYS OR CONVEYANCE SYSTEMS INCLUDING CULVERTS, DITCHES, AND/OR TRENCHES SHALL BE PROTECTED UTILIZING TEMPORARY BERMS, SILT FENCE, EROSION BLANKETS, BIOROLLS, AND/OR SEEDING. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL AND MONITOR THE BMPs THROUGHOUT CONSTRUCTION UNTIL PERMANENT STABILIZATION IS REACHED FOR THE PROJECT.
9. IF MORE THAN 10 ACRES DRAIN TO A COMMON POINT WITHIN THE PROJECT A SEDIMENT BASIN SHALL BE CONSTRUCTED TO FILTER SEDIMENT.
10. NO "INDIAN COUNTRY LANDS" ARE EXPECTED TO BE IMPACTED WITH THE CONSTRUCTION OF THIS PROJECT.

2019.10.01

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Project Number: 19.01167

CONSTRUCTION NOTES

DWG #: DHW-CND-001
REVISION: 0A

**TABLE 1: AGGREGATE GRADATION REQUIREMENTS (SDDOT SPECIFICATION 882.2 AGGREGATE BASE COURSE)**

| SIEVE SIZE | PERCENT PASSING (TARGET) |
|---|---|
| 1" | 100 |
| 3/4" | 80-100 |
| 1/2" | 68-91 |
| NO. 4 | 46-70 |
| NO. 8 | 34-58 |
| NO. 40 | 13-35 |
| NO. 200 | 3-12 |
| LIQUID LIMIT (MAX) | 25 |
| PLASTICITY INDEX | 0-6 |
| LA ABRASION LOSS (MAX) | 40 |
| CRUSHED PARTICLES (MIN) +#4 SIEVE | 30% 1-CF |

1. CRUSHED ROCK MAY BE USED AS AN APPROVED EQUAL TO AGGREGATE BASE COURSE AS LONG AS THE MATERIAL MEETS THE SPECIFICATIONS LISTED IN TABLE 1.

**TABLE 2: CONSTRUCTION TESTING SCHEDULE SUMMARY**

| MATERIAL | TEST REQUIRED | REFERENCE | FREQUENCY | REQUIREMENTS |
|---|---|---|---|---|
| COMPACTED SUBGRADE | PROOF-ROLL | N/A | ENTIRE LENGTH | PROOF-ROLL SHALL BE COMPLETED USING A FULLY LOADED 25 TON TANDEM AXLE TRUCK, WATER TRUCK, OR EQUIVALENT. ALL TESTS SHOULD BE COMPLETED IN THE PRESENTS OF A QUALIFIED GEOTECHNICAL REPRESENTATIVE, AND SHALL PRODUCE NO RUTTING GREATER THAN 1.5 INCHES AND NO PUMPING OF THE SOIL BENEATH AND/OR BEHIND THE WHEELS. |
| | DCP/STATIC CONE | ASTM D6951 | 4 PER LIFT EVERY 1000 LF OF NEW ACCESS ROAD (ONLY IF PROOF ROLL FAILS) | MEET CRANE/TURBINE MANUFACTURE'S SPECIFICATIONS |
| EMBANKMENT | PROOF-ROLL | N/A | ENTIRE LENGTH | PROOF-ROLL SHALL BE COMPLETED USING A FULLY LOADED 25 TON TANDEM AXLE TRUCK, WATER TRUCK, OR EQUIVALENT. ALL TESTS SHOULD BE COMPLETED IN THE PRESENTS OF A QUALIFIED GEOTECHNICAL REPRESENTATIVE, AND SHALL PRODUCE NO RUTTING GREATER THAN 1.5 INCHES AND NO PUMPING OF THE SOIL BENEATH AND/OR BEHIND THE WHEELS. |
| | STANDARD PROCTOR | ASTM D698 | 1 PER NEW SOURCE (ONLY ON IMPORTED FILL) | |
| | DCP/STATIC CONE | ASTM D6951 | 1 PER 1,000 LF (IF PROOF ROLL FAILS | MEET CRANE/TURBINE MANUFACTURE'S SPECIFICATIONS |
| | MOISTURE DENSITY COMPACTION TEST (NUCLEAR DENSITY) | ASTM D6938 | 4 PER LIFT EVERY 1000 LF OF NEW ACCESS ROAD (ONLY IF PROOF ROLL FAILS) | MINIMUM OF 95% STANDARD PROCTOR MAXIMUM DRY DENSITY AT -3/+2% OF OPTIMUM MOISTURE CONTENT |
| AGGREGATE BASE | PROOF-ROLL | N/A | ENTIRE LENGTH | RECOVERABLE AND NON-RECOVERABLE DEFLECTION LESS THAN 1/2" |
| | MOISTURE DENSITY COMPACTION TEST (NUCLEAR DENSITY) | ASTM D6938 | 1 PER 1,000 LF (ONLY IF PROOF ROLL FAILS) | MINIMUM OF 95% STANDARD PROCTOR MAXIMUM DRY DENSITY AT -3/+2% OF OPTIMUM MOISTURE CONTENT |
| | STANDARD PROCTOR | ASTM D698 | 1 PER NEW SOURCE AND PER 10,000 CY PRODUCTION | |
| | LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX | ASTM D4318 | 1 PER NEW SOURCE AND PER 10,000 CY PRODUCTION | 40% LIQUID LIMIT (MAX), 12 (MAX) PLASTICITY INDEX |
| | SOUNDNESS OF AGGREAGATES | ASTM C88 | 1 PER NEW SOURCE AND PER 10,000 CY PRODUCTION | |
| | SIEVE ANALYSIS | ASTM C136 | 1 PER NEW SOURCE AND PER 10,000 CY PRODUCTION | SEE PROJECT AGGREGATE GRADATION SPECIFICATIONS |
| CRANE PADS | MOISTURE DENSITY COMPACTION TEST (NUCLEAR DENSITY) | ASTM D6938 | MIN. 4 PER CRANE PAD | MINIMUM OF 95% STANDARD PROCTOR MAXIMUM DRY DENSITY AT -3/+2% OF OPTIMUM MOISTURE CONTENT |
| | DCP/STATIC CONE | ASTM D6951 | MIN. 4 PER CRANE PAD | TESTING SHALL BE COMPLETED TO A MINIMUM OF 4 FEET BELOW THE FINISHED GRADE. BASED ON TESTING GEOTECHNICAL ENGINEER SHALL DETERMINE A SITE SPECIFIC ALLOWABLE BEARING CAPACITY OF COMPACTED IN-SITU SOILS.<br><br>CONTRACTOR SHALL UTILIZE ADDITIONAL CRANE MATTING PER SITE PICK PLAN FOR ANY ADDITIONAL ALLOWABLE BEARING CAPACITY REQUIRED. |
| | PROOF-ROLL | N/A | ENTIRE CRANE PAD | PROOF-ROLL SHALL BE COMPLETED USING A FULLY LOADED 25 TON TANDEM AXLE TRUCK, WATER TRUCK, OR EQUIVALENT. ALL TESTS SHOULD BE COMPLETED IN THE PRESENTS OF A QUALIFIED GEOTECHNICAL REPRESENTATIVE, AND SHALL PRODUCE NO RUTTING GREATER THAN 1.5 INCHES AND NO PUMPING OF THE SOIL BENEATH AND/OR BEHIND THE WHEELS. |

**TABLE 3: SEED MIX DESIGN (SDDOT STANDARD TYPE B MIX)**

| SPECIES | VARIETY | PLS (LBS / ACRE) |
|---|---|---|
| WESTERN WHEATGRASS | ARRIBA, FLINTLOCK, RODAN, ROSANA, WALSH | 7 |
| SWITCHGRASS | DACOTAH, FORESTBURG, NEBRASKA 28, PATHFINDER, SUMMER, SUNBURST, TRAILBLAZER | 3 |
| INDIANGRASS | HOLT, TOMAHAWK, CHIEF, NEBRASKA 54 | 3 |
| BIG BLUESTEM | BISON, BONILLA, CHAMP, SUNNYVIEW, ROUNTREE, BONANZA | 3 |
| CANADA WILDREYE | MANDAN | 2 |
| | TOTAL | 18 |

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NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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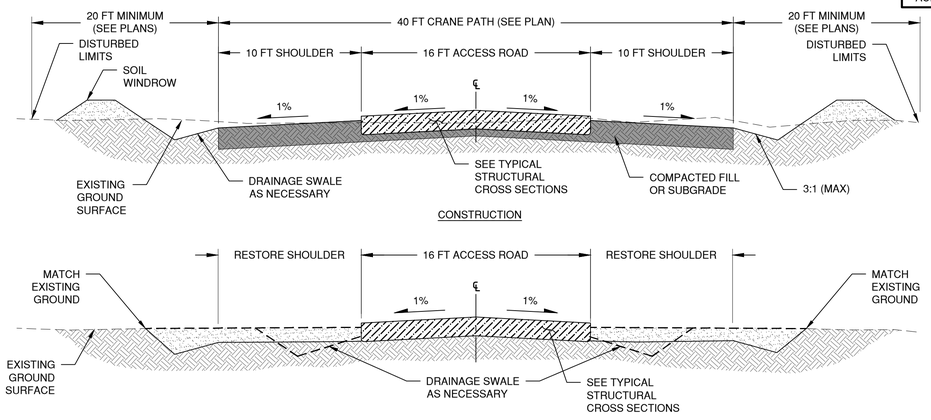
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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

CONSTRUCTION NOTES

DWG #: DHW-CND-002
REVISION: 0A

2019.10.01

DETAIL # ACR-101




CONSTRUCTION



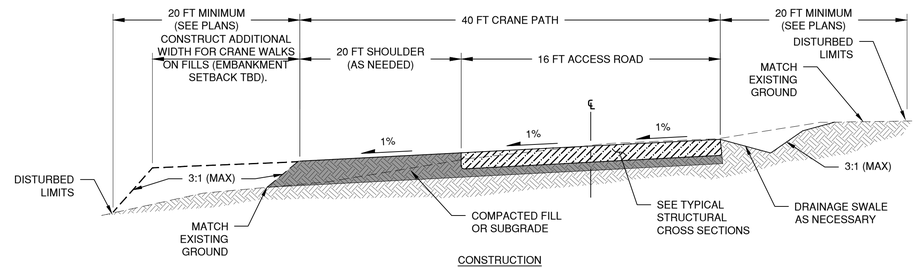

RESTORATION

**NOTES:**
1. ROADS SHALL BE CONSTRUCTED WITH THE SLOPES SHOWN IN THE TYPICAL SECTIONS, OR AS SHOWN ON THE PLANS IN ORDER TO MAINTAIN SITE DRAINAGE.
2. UNLESS IF SHOWN ON THE PLANS, THE CONTRACTOR SHALL MAKE THE DETERMINATION AS TO WHICH TYPICAL SECTION SHALL BE USED FOR CONSTRUCTION.
3. SLOPES SHOWN ARE IN HORIZONTAL TO VERTICAL (H:V) FORMAT.
4. SLOPES SHOWN ARE TYPICAL. SOME ROAD LOCATIONS MAY REQUIRE VARIATIONS IN SLOPE, SEE PLANS.
5. CROWN/CROSS SLOPE IS 1% MAXIMUM FOR CRANE TRAVEL.

REVISION
DATE: 2019.10.01
BY: B. BUCHOLZ

TYPICAL ACCESS ROAD / CRANE WALK CROSS SECTION (CROWNED)

DETAIL # ACR-102



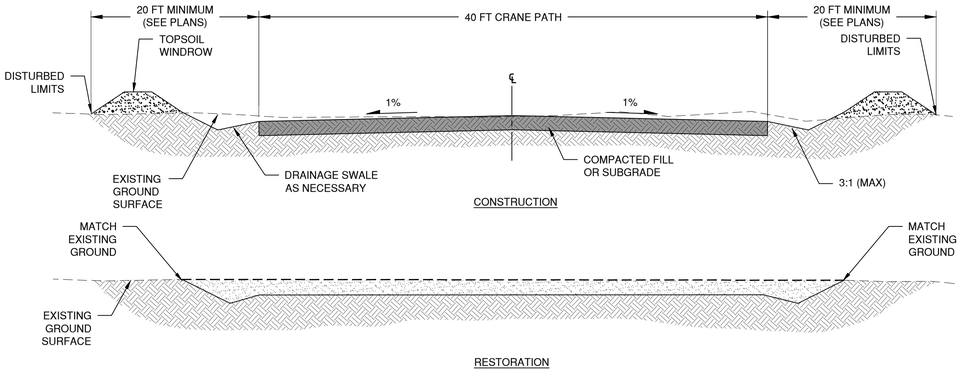

CONSTRUCTION

**NOTES:**
1. ROADS SHALL BE CONSTRUCTED WITH THE SLOPES SHOWN IN THE TYPICAL SECTIONS, OR AS SHOWN ON THE PLANS IN ORDER TO MAINTAIN SITE DRAINAGE.
2. UNLESS IF SHOWN ON THE PLANS, THE CONTRACTOR SHALL MAKE THE DETERMINATION AS TO WHICH TYPICAL SECTION SHALL BE USED FOR CONSTRUCTION.
3. SLOPES SHOWN ARE IN HORIZONTAL TO VERTICAL (H:V) FORMAT.
4. SLOPES SHOWN ARE TYPICAL. SOME ROAD LOCATIONS MAY REQUIRE VARIATIONS IN SLOPE, SEE PLANS.
5. CROWN/CROSS SLOPE IS 1% MAXIMUM FOR CRANE TRAVEL.

REVISION
DATE: 2019.10.01
BY: B. BUCHOLZ

TYPICAL ACCESS ROAD / CRANE WALK CROSS SECTION (CROSS-SLOPED)

DETAIL # ACR-103




CONSTRUCTION



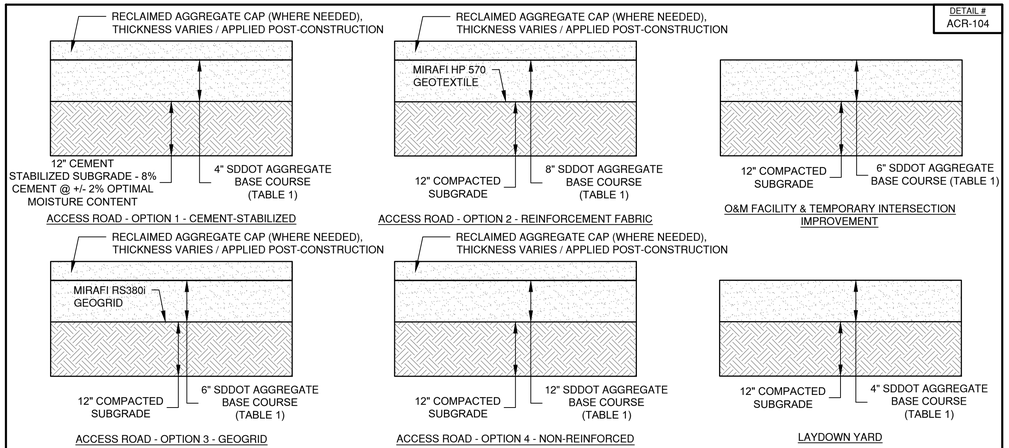

RESTORATION

**NOTES:**
1. ROADS SHALL BE CONSTRUCTED WITH THE SLOPES SHOWN IN THE TYPICAL SECTIONS, OR AS SHOWN ON THE PLANS IN ORDER TO MAINTAIN SITE DRAINAGE.
2. UNLESS IF SHOWN ON THE PLANS, THE CONTRACTOR SHALL MAKE THE DETERMINATION AS TO WHICH TYPICAL SECTION SHALL BE USED FOR CONSTRUCTION.
3. SLOPES SHOWN ARE IN HORIZONTAL TO VERTICAL (H:V) FORMAT.
4. SLOPES SHOWN ARE TYPICAL. SOME ROAD LOCATIONS MAY REQUIRE VARIATIONS IN SLOPE, SEE PLANS.
5. CROWN/CROSS SLOPE IS 1% MAXIMUM FOR CRANE TRAVEL.

REVISION
DATE: 2019.10.01
BY: B. BUCHOLZ

TYPICAL CRANE WALK CROSS SECTION

DETAIL # ACR-104




**NOTES:**
1. TYPICAL SECTIONS SHOWN ARE BASED ON NORMAL FIELD CONDITIONS, ACTUAL FIELD CONDITIONS MAY REQUIRE ADDITIONAL AGGREGATE OR CHANGES TO THE SUBGRADE.
2. CONTRACTOR SHALL MAINTAIN THE TYPICAL SECTIONS AND THE AGGREGATE SURFACES THROUGHOUT THE LIFE OF THE PROJECT.
3. DEPENDING ON ACTUAL SUBGRADE CONDITIONS ENCOUNTERED AND EXCESSIVE GRAVEL SURFACE RUTTING, ADDITIONAL GRAVEL THICKNESS OR OTHER SUBGRADE IMPROVEMENTS MAY BE REQUIRED AS DIRECTED BY ENGINEER.
4. CONTRACTOR SHALL ENSURE THAT ALL STRUCTURAL FILL SECTIONS FOR THE PROJECT MEETS OR EXCEEDS BEARING CAPACITY REQUIREMENTS FOR TURBINE DELIVERY.
5. GEOTECHNICAL ENGINEER SHALL COMPLETE FIELD TESTING THROUGHOUT THE PROJECT TO INSURE THAT VARYING FIELD CONDITIONS MEET TURBINE COMPONENT DELIVERY REQUIREMENTS FOR BEARING CAPACITY.
6. SUBGRADE SHALL BE COMPACTED TO 95% MAX DRY DENSITY AT +/- 2% OPTIMAL MOISTURE CONTENT.
7. REFER TO TESTING REQUIREMENTS OF SUBGRADE TESTING FOR ACCESS ROADS AND CRANE PADS.

REVISION
DATE: 2019.10.01
BY: B. BUCHOLZ

TYPICAL STRUCTURAL CROSS SECTIONS

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |


Invenergy
2020 ONE SOUTH WACKER DR STE 1800
CHICAGO, IL 60606


NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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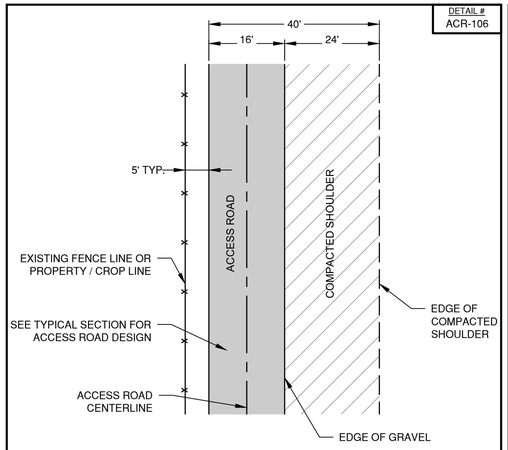

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

DETAILS AND TYPICAL SECTIONS

DWG #: DHW-CND-003
REVISION: 0A

2019.10.01

DETAIL # ACR-106

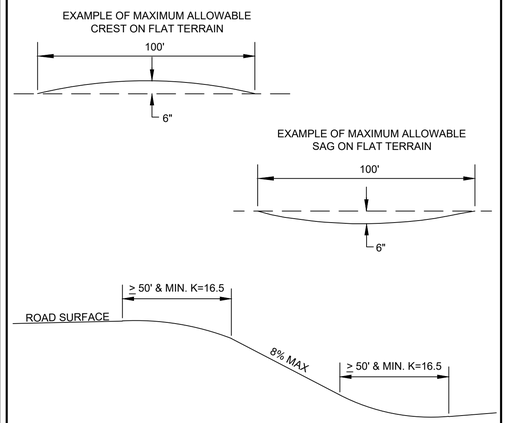



**NOTES:**
1. COMPACTED SHOULDER SHALL BE RETURNED TO ORIGINAL CONDITION FOLLOWING TURBINE CONSTRUCTION.
2. THE ACCESS ROAD MAY NEED TO BE CONSTRUCTED FURTHER FROM THE PROPERTY LINE IF OBSTRUCTIONS SUCH AS TREES FOLLOW ALONG THE PROPERTY LINE.

REVISION
DATE: 2019.10.01
BY: B. BUCHOLZ

## TURBINE ACCESS ROAD ALONG FENCE/PROPERTY/CROP LINE

DETAIL # ACR-108

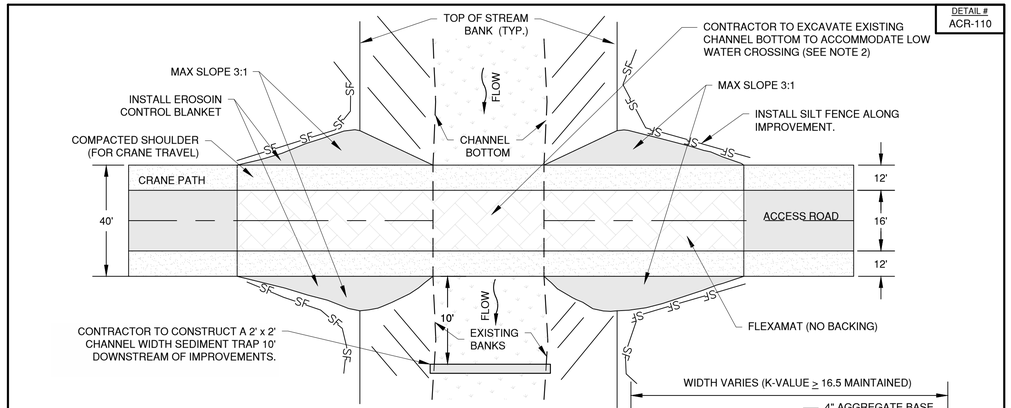



**NOTES:**
1. ACCESS ROAD VERTICAL CURVES SHALL BE CONSTRUCTED SUCH THAT THE MAXIMUM CREST AND SAG CURVES HAVE A MINIMUM OF A K=16.5.
2. ROAD CENTERLINE SHALL NOT EXCEED A MAXIMUM OF 8% GRADE LONGITUDINALLY, BUT SHALL HAVE A MINIMUM GRADE OF 0.5% GRADE TO MAINTAIN DRAINAGE.

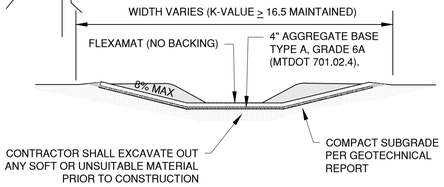
REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

## TYPICAL ACCESS ROAD ALLOWABLE VEHICLE GRADES

DETAIL # ACR-110




**PLAN VIEW**



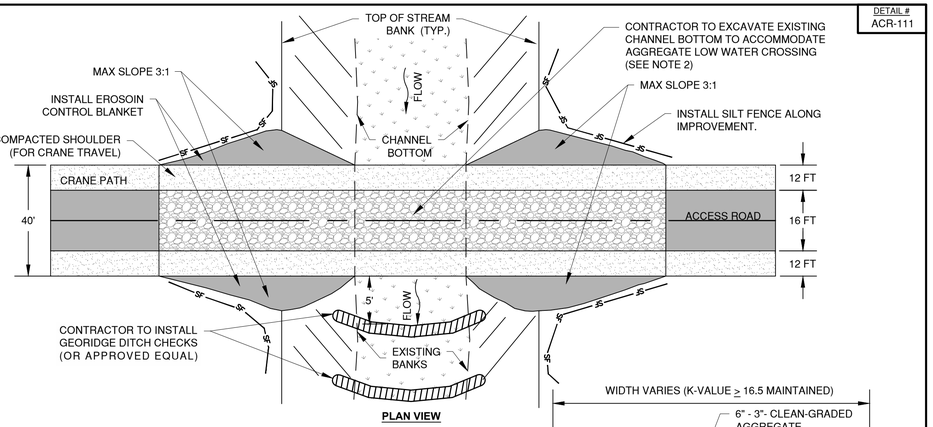

**PROFILE VIEW**

**NOTES:**
1. CHANNEL SLOPES TO BE MODIFIED DURING CONSTRUCTION TO ALLOW FOR ADEQUATE TURBINE COMPONENT DELIVERY AND STABILIZED NEW SLOPES CREATED
2. CROSSING SHALL HAVE THE TOP-MOST SURFACE LAYER A MINIMUM OF 2.5" BELOW THE STREAM CHANNEL BOTTOM.
3. THE ACCESS ROAD SHALL CROSS THE DITCH AT 90° ANGLE AND MEET TURBINE DEFLECTION REQUIREMENTS.
4. MINIMIZE DISTURBANCE TO THE STREAM/DITCH DURING INSTALLATION. RESTORE DISTURBED AREA TO NATIVE CONDITIONS IN ACCORDANCE WITH THE SWPPP
5. ROCK CHECK DAMS MAY BE NECESSARY IF FLOWS AND DRAINAGE AREAS REQUIRE.
6. COMPACTED SHOULDER SHALL BE SEEDED AFTER CONSTRUCTION TO NATIVE CONDITIONS IN ACCORDANCE WITH THE SWPPP.

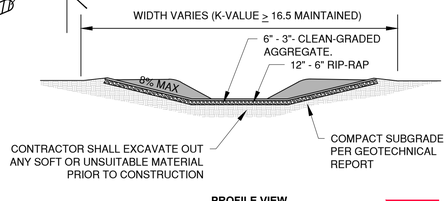
REVISION
DATE: 2019.10.01
BY: B. BUCHOLZ

## PERMANENT TURBINE ACCESS ROAD LOW WATER CROSSING (FLEXAMAT)

DETAIL # ACR-111




**PLAN VIEW**



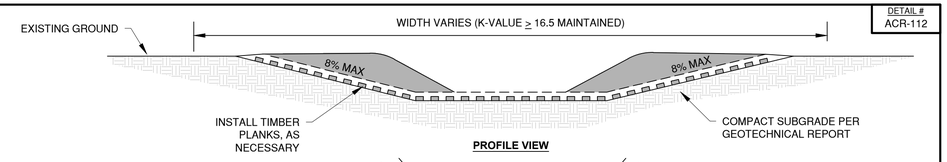

**PROFILE VIEW**

**NOTES:**
1. CHANNEL SLOPES TO BE MODIFIED DURING CONSTRUCTION TO ALLOW FOR ADEQUATE TURBINE COMPONENT DELIVERY AND STABILIZED NEW SLOPES CREATED
2. CROSSING SHALL HAVE THE TOP-MOST SURFACE LAYER A MINIMUM OF 2.5" BELOW THE STREAM CHANNEL BOTTOM.
3. THE ACCESS ROAD SHALL CROSS THE DITCH AT 90° ANGLE AND MEET TURBINE DEFLECTION REQUIREMENTS.
4. MINIMIZE DISTURBANCE TO THE STREAM/DITCH DURING INSTALLATION. RESTORE DISTURBED AREA TO NATIVE CONDITIONS IN ACCORDANCE WITH THE SWPPP
5. ROCK CHECK DAMS MAY BE NECESSARY IF FLOWS AND DRAINAGE AREAS REQUIRE.
6. COMPACTED SHOULDER SHALL BE SEEDED AFTER CONSTRUCTION TO NATIVE CONDITIONS IN ACCORDANCE WITH THE SWPPP.

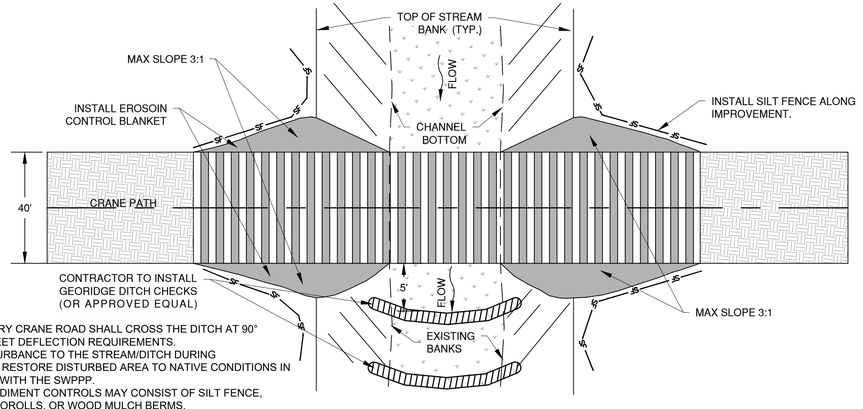
REVISION
DATE: 2019.10.01
BY: B. BUCHOLZ

## PERMANENT TURBINE ACCESS ROAD LOW WATER CROSSING (AGGREGATE)

DETAIL # ACR-112




**PROFILE VIEW**




**PLAN VIEW**

**NOTES:**
1. THE TEMPORARY CRANE ROAD SHALL CROSS THE DITCH AT 90° ANGLE AND MEET DEFLECTION REQUIREMENTS.
2. MINIMIZE DISTURBANCE TO THE STREAM/DITCH DURING INSTALLATION. RESTORE DISTURBED AREA TO NATIVE CONDITIONS IN ACCORDANCE WITH THE SWPPP.
3. PERIMETER SEDIMENT CONTROLS MAY CONSIST OF SILT FENCE, FIBER LOGS, BIOROLLS, OR WOOD MULCH BERMS.
4. ROAD SURFACE AT CROSSINGS SHALL HAVE THE TOP-MOST SURFACE LAYER A MINIMUM OF 2.5 INCHES BELOW THE STREAM CHANNEL BOTTOM.

REVISION
DATE: 2019.10.01
BY: B. BUCHOLZ

## TEMPORARY LOW WATER CROSSING (CRANE ONLY)

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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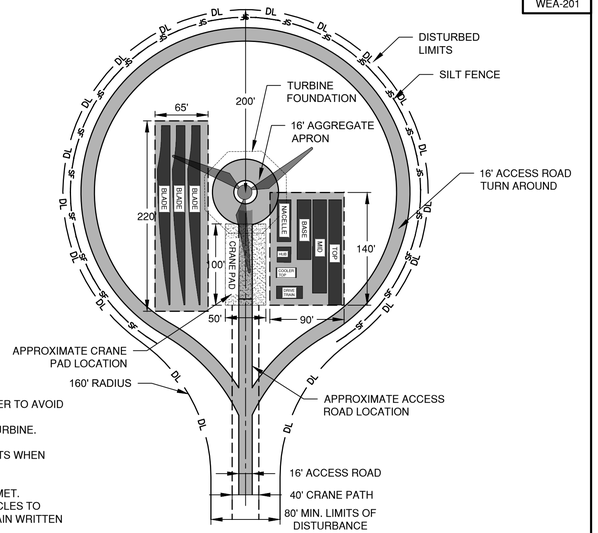

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## MET TOWER AND ACCESS ROAD DETAILS

DWG #: DHW-CND-004
REVISION: 0A

2019.10.01

DETAIL # WEA-201

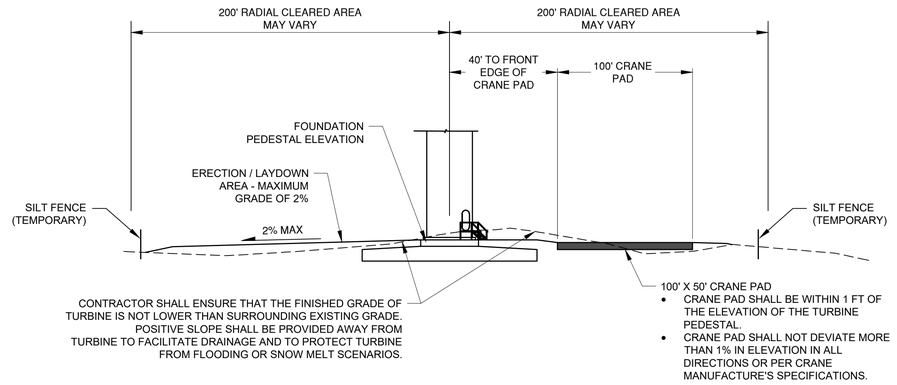



**NOTES:**
1. CLEAR & GRUB ENTIRE AREA.
2. COORDINATE CRANE PAD LOCATION WITH ELECTRICAL DESIGN IN ORDER TO AVOID CONSTRUCTION CONFLICTS.
3. CONTRACTOR IS TO REMOVE CRANE PAD AFTER CONSTRUCTION OF TURBINE.
4. GRADE TO 2% MAX IN ANY DIRECTION.
5. INSTALL SILT FENCE ALONG DOWNSTREAM SIDE OF DISTURBANCE LIMITS WHEN TURBINE IS LOCATED NEAR A STREAM OF DRAINAGE CONVEYANCE. PLANS SHOW MINIMUM SILT FENCE INSTALLATION REQUIREMENTS.
6. CONTRACTOR TO ENSURE ALL ALLOWABLE BEARING CAPACITIES ARE MET.
7. DURING TURBINE ERECTION IT MAY BE NECESSARY FOR MANNED VEHICLES TO TRAVEL BEYOND THE LIMITS OF DISTURBANCE. CONTRACTOR TO OBTAIN WRITTEN PERMISSION FROM OWNER AND TO RESTORE DISTURBED AREAS TO PRE-CONSTRUCTION CONDITIONS .
8. CONTRACTOR TO FIELD ALIGN CRANE PAD
9. EXACT LOCATION OF SILT FENCE TO BE FOUND ON SITE CIVIL PLAN.

REVISION
DATE: 2019.10.01
BY: B. BUCHOLZ

## TYPICAL CRANE PAD (DEAD-END)

DETAIL # WEA-206

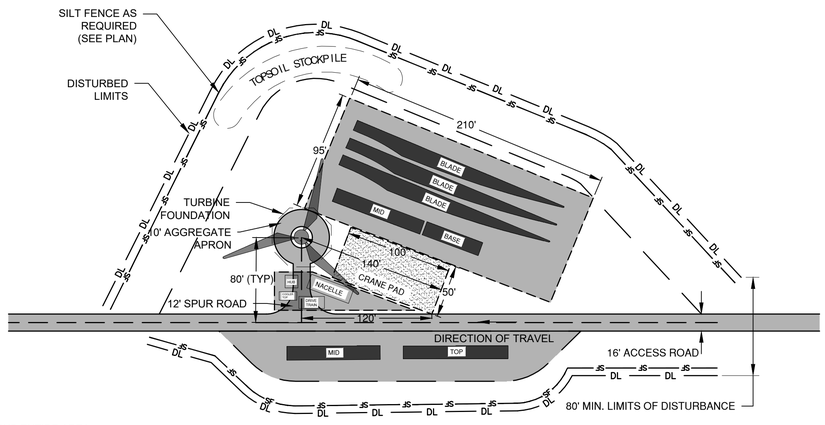



**NOTES:**
1. CONTRACTOR SHALL REFER TO GEOTECHNICAL FOR RECOMMENDATIONS RELATING TO CRANE PADS & CONSTRUCTION RECOMMENDATIONS.
2. WIND TURBINE ACCESS DOOR SHALL BE ORIENTED PER OWNER REQUIREMENTS.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

## TYPICAL WTG SITE - PROFILE VIEW

DETAIL # WEA-202

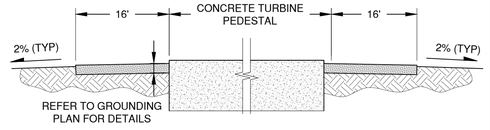



**NOTES:**
1. CLEAR & GRUB ENTIRE AREA.
2. COORDINATE CRANE PAD LOCATION WITH ELECTRICAL DESIGN IN ORDER TO AVOID CONSTRUCTION CONFLICTS.
3. CONTRACTOR IS TO REMOVE CRANE PAD AFTER CONSTRUCTION OF TURBINE.
4. GRADE TO 2% MAX IN ANY DIRECTION.
5. INSTALL SILT FENCE ALONG DOWNSTREAM SIDE OF DISTURBANCE LIMITS WHEN TURBINE IS LOCATED NEAR A STREAM OF DRAINAGE CONVEYANCE. PLANS SHOW MINIMUM SILT FENCE INSTALLATION REQUIREMENTS.
6. CONTRACTOR TO ENSURE ALL ALLOWABLE BEARING CAPACITIES ARE MET.
7. DURING TURBINE ERECTION IT MAY BE NECESSARY FOR MANNED VEHICLES TO TRAVEL BEYOND THE LIMITS OF DISTURBANCE. CONTRACTOR TO MINIMIZE ALL TRAFFIC OUTSIDE OF DISTURBED LIMITS. CONTRACTOR SHALL RESTORE DISTURBED AREAS TO PRE-CONSTRUCTION CONDITIONS .
8. CONTRACTOR TO FIELD ALIGN CRANE PAD.
9. SILT FENCE SHOWN ON THE DETAILS IS FOR GENERAL REFERENCE. EXACT LOCATION OF SILT FENCE TO BE FOUND ON SITE CIVIL PLAN.
10. SPUR ROAD TO BE BUILT WITH 12' WIDTH.

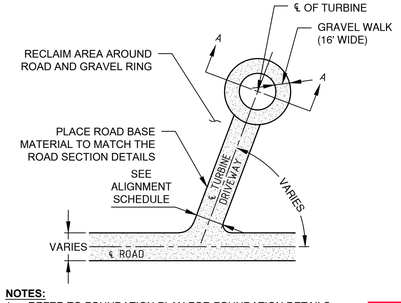
REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

## TYPICAL CRANE PAD/ERECTION LAYDOWN AREA (ANGLED)

DETAIL # WEA-207




SECTION A-A

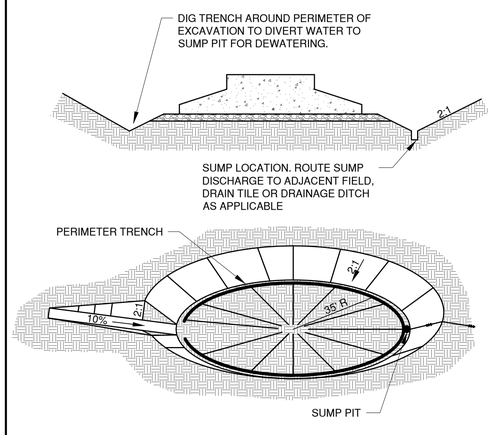



**NOTES:**
1. REFER TO FOUNDATION PLAN FOR FOUNDATION DETAILS

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

## TURBINE PAD AFTER CONSTRUCTION

DETAIL # WEA-208




**NOTE:**
1. SUMP EXCAVATION FOR DRAINTILE TO DRAIN TO LOW POINT OF TURBINE SITE
2. CONTRACTOR SHALL INSTALL DRAINTILE IN PLACE OF TRENCH PER GEOTECHNICAL AND/OR FOUNDATION ENGINEERS REQUIREMENTS.

REVISION
DATE: 2019.10.01
BY: B. BUCHOLZ

## TYPICAL TURBINE FOUNDATION EXCAVATION AND DEWATERING (DITCH)

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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CHICAGO, IL 60606

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

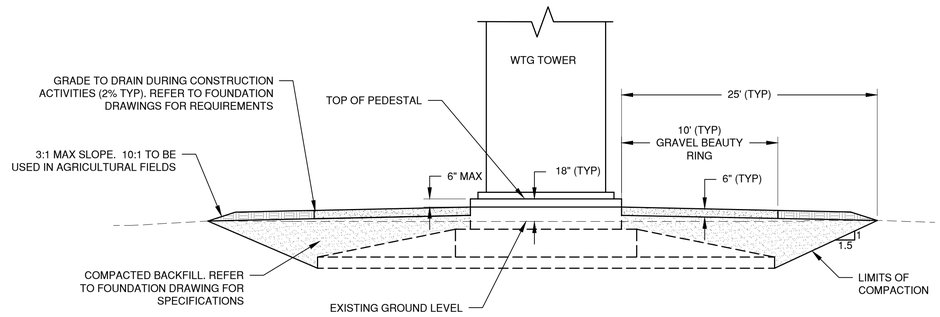
# WTG CRANE PAD DETAILS

DWG #: DHW-CND-005
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\03 - Construction Notes, Specifications & Details\19.01167 Details and Typical Sections.dwg WTG CRANE AD DETAILS

DETAIL #
WEA-209

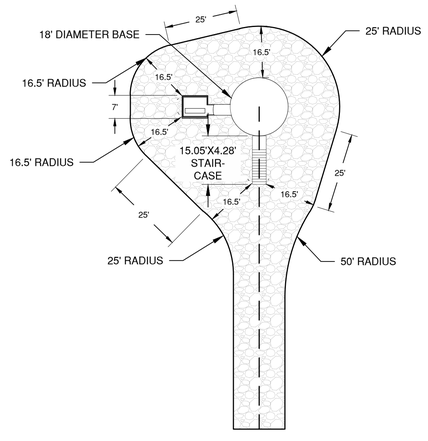



**NOTES:**
1. CONTRACTOR TO REFER TO FOUNDATION DRAWINGS FOR BACKFILL REQUIREMENTS.
2. PEDESTAL ELEVATION ABOVE EXISTING GROUND MAY BE ALTERED UPON CONFIRMATION FROM FOUNDATION ENGINEER.
3. GRADE BEAUTY RING AND TOP OF BACKFILL MATERIAL TO 2% (TYP) IN ALL DIRECTIONS AWAY FROM FOUNDATION TO ACHIEVE PROPER DRAINAGE. REFER TO FOUNDATION DRAWINGS FOR SPECIFIC BACKFILL AND GRADING REQUIREMENTS.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

TYPICAL WTG GRADED PAD PROFILE VIEW (FLAT TERRAIN)

DETAIL #
WEA-211




**NOTES:**
1. GRADE BEAUTY RING AND TOP OF BACKFILL MATERIAL TO 2% (TYP) IN ALL DIRECTIONS AWAY FROM FOUNDATION TO ACHIEVE PROPER DRAINAGE. REFER TO FOUNDATION DRAWINGS FOR SPECIFIC BACKFILL AND GRADING REQUIREMENTS.
2. UPON COMPLETION THE WTG BEAUTY RING SHALL MAINTAIN A MINIMUM OF 16 FEET OF DRIVABLE SURFACE AROUND EACH WTG WITHOUT ANY OBSTRUCTIONS. THE CONTRACTOR SHALL MAKE ANY NECESSARY FIELD ADJUSTMENTS TO THE BEAUTY RING LAYOUT TO ACCOMMODATE FIELD CHANGES TO THE LOCATION OF THE WTG BASE AND STAIRS.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

TYPICAL WTG BEAUTY RING W/GROUND TRANSFORMER DETAIL

2019.10.01

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |


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2020 ONE SOUTH WACKER DR STE 1800
CHICAGO, IL 60606


NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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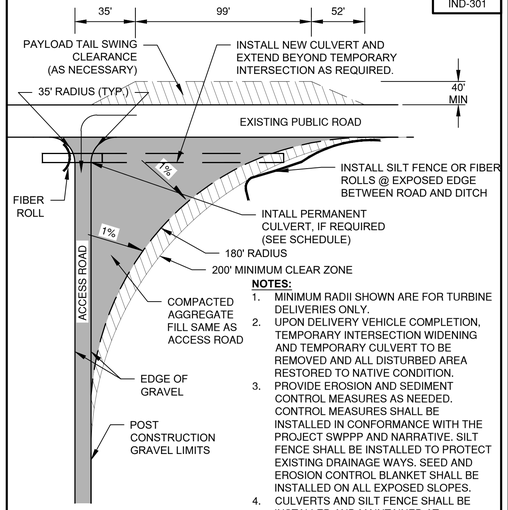

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

CRANE PAD DETAILS

DWG #: DHW-CND-006
REVISION: 0A

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\03 - Construction Notes, Specifications & Details\19.01167 Details and Typical Sections.dwg CRANE PAD DETAILS

DETAIL # IND-301



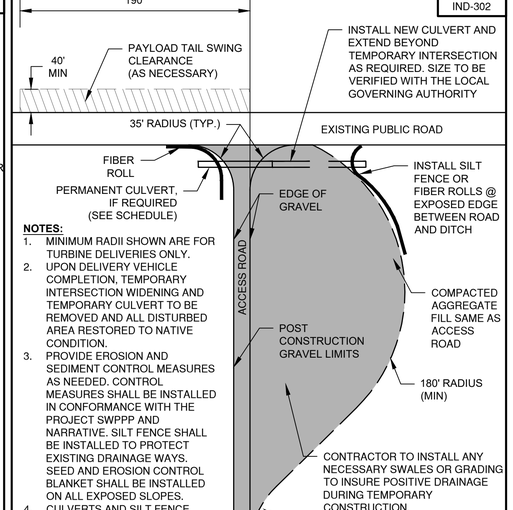

**NOTES:**

1. MINIMUM RADII SHOWN ARE FOR TURBINE DELIVERIES ONLY.
2. UPON DELIVERY VEHICLE COMPLETION, TEMPORARY INTERSECTION WIDENING AND TEMPORARY CULVERT TO BE REMOVED AND ALL DISTURBED AREA RESTORED TO NATIVE CONDITION.
3. PROVIDE EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED. CONTROL MEASURES SHALL BE INSTALLED IN CONFORMANCE WITH THE PROJECT SWPPP AND NARRATIVE. SILT FENCE SHALL BE INSTALLED TO PROTECT EXISTING DRAINAGE WAYS. SEED AND EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL EXPOSED SLOPES.
4. CULVERTS AND SILT FENCE SHALL BE INSTALLED AND MAINTAINED AT INTERSECTIONS WHERE THE ACCESS ROAD IS CROSSING AN EXISTING COUNTY DITCH.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

ACCESS ROAD ENTRANCE - RADIUS

DETAIL # IND-302



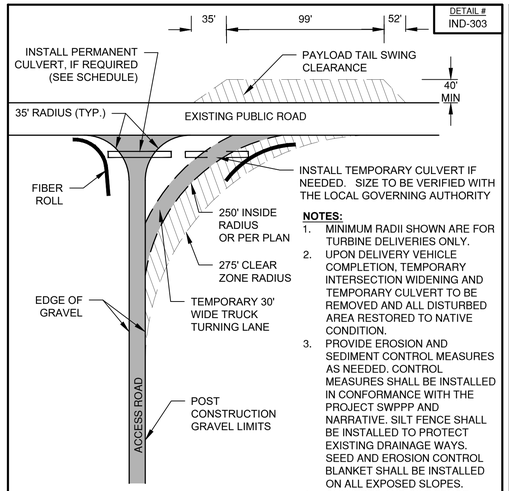

**NOTES:**

1. MINIMUM RADII SHOWN ARE FOR TURBINE DELIVERIES ONLY.
2. UPON DELIVERY VEHICLE COMPLETION, TEMPORARY INTERSECTION WIDENING AND TEMPORARY CULVERT TO BE REMOVED AND ALL DISTURBED AREA RESTORED TO NATIVE CONDITION.
3. PROVIDE EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED. CONTROL MEASURES SHALL BE INSTALLED IN CONFORMANCE WITH THE PROJECT SWPPP AND NARRATIVE. SILT FENCE SHALL BE INSTALLED TO PROTECT EXISTING DRAINAGE WAYS. SEED AND EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL EXPOSED SLOPES.
4. CULVERTS AND SILT FENCE SHALL BE INSTALLED AND MAINTAINED AT INTERSECTIONS WHERE THE ACCESS ROAD IS CROSSING AN EXISTING COUNTY DITCH.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

ACCESS ROAD ENTRANCE - JUG HANDLE

DETAIL # IND-303



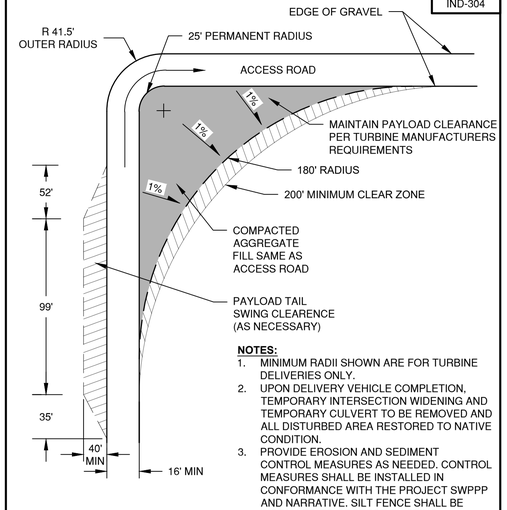

**NOTES:**

1. MINIMUM RADII SHOWN ARE FOR TURBINE DELIVERIES ONLY.
2. UPON DELIVERY VEHICLE COMPLETION, TEMPORARY INTERSECTION WIDENING AND TEMPORARY CULVERT TO BE REMOVED AND ALL DISTURBED AREA RESTORED TO NATIVE CONDITION.
3. PROVIDE EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED. CONTROL MEASURES SHALL BE INSTALLED IN CONFORMANCE WITH THE PROJECT SWPPP AND NARRATIVE. SILT FENCE SHALL BE INSTALLED TO PROTECT EXISTING DRAINAGE WAYS. SEED AND EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL EXPOSED SLOPES.
4. CULVERTS AND SILT FENCE SHALL BE INSTALLED AND MAINTAINED AT INTERSECTIONS WHERE THE ACCESS ROAD IS CROSSING AN EXISTING COUNTY DITCH.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

ACCESS ROAD ENTRANCE - SHOOFLY

DETAIL # IND-304



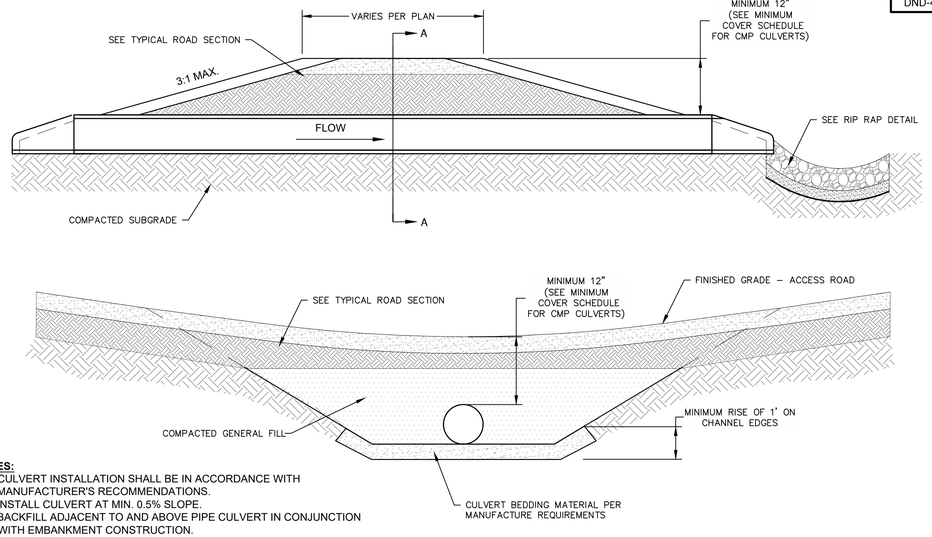

**NOTES:**

1. MINIMUM RADII SHOWN ARE FOR TURBINE DELIVERIES ONLY.
2. UPON DELIVERY VEHICLE COMPLETION, TEMPORARY INTERSECTION WIDENING AND TEMPORARY CULVERT TO BE REMOVED AND ALL DISTURBED AREA RESTORED TO NATIVE CONDITION.
3. PROVIDE EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED. CONTROL MEASURES SHALL BE INSTALLED IN CONFORMANCE WITH THE PROJECT SWPPP AND NARRATIVE. SILT FENCE SHALL BE INSTALLED TO PROTECT EXISTING DRAINAGE WAYS. SEED AND EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL EXPOSED SLOPES.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

TYPICAL INTERIOR ACCESS ROAD CORNER

DETAIL # DND-401




**NOTES:**

1. CULVERT INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. INSTALL CULVERT AT MIN. 0.5% SLOPE.
3. BACKFILL ADJACENT TO AND ABOVE PIPE CULVERT IN CONJUNCTION WITH EMBANKMENT CONSTRUCTION.
4. CULVERTS SHOULD HAVE A MINIMUM COVER IN ACCORDANCE WITH THE MINIMUM COVER SCHEDULE FOR CMP CULVERTS TABLE .

SECTION A-A

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

TYPICAL CULVERT PROFILE AND CROSS SECTION

DETAIL # DND-402

**MINIMUM COVER SCHEDULE FOR CMP CULVERTS**

| STEEL ROUND PIPE 2 2/3" x 1/2" CORRIGATIONS | | | | | |
|---|---|---|---|---|---|
| DIAMETER OF PIPE (IN) | MINIMUM ALLOWABLE COVER (FT) | | | | |
| | 16 GAGE | 14 GAGE | 12 GAGE | 10 GAGE | 8 GAGE |
| 12 | 1.0 | 1.0 | | | |
| 18 | 1.0 | 1.0 | | | |
| 24 | 1.0 | 1.0 | 1.0 | | |
| 30 | 1.0 | 1.0 | 1.0 | | |
| 36 | 2.0 | 1.0 | 1.0 | 1.0 | |
| 48 | | 3.0 | 1.0 | 1.0 | 1.0 |
| 60 | | | 2.5 | 1.0 | 1.0 |
| STEEL ROUND PIPE 3" x 1" AND 5" x 1" CORRIGATIONS | | | | | |
| DIAMETER OF PIPE (IN) | MINIMUM ALLOWABLE COVER (FT) | | | | |
| | 16 GAGE | 14 GAGE | 12 GAGE | 10 GAGE | 8 GAGE |
| 36 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 48 | 4.0 | 1.5 | 1.0 | 1.0 | 1.0 |
| 60 | | 3.5 | 1.0 | 1.0 | 1.0 |

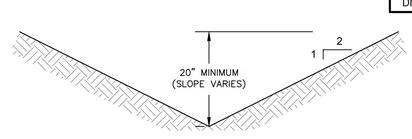
BASED ON "SEWER MANUAL FOR CORRIGATED STEEL PIPE," BY NATIONAL CORRUGATED STEEL PIPE ASSOCIATION, USING DESIGN THEROY USED IN THE "HANDBOOK OF STEEL DRAINAGE AND HIGHWAY CONSTRUCTION PRODUCTS," BY AMERICAN IRON AND STEEL INSTITUTE, ASSUMING 4,500 PSF CRANE LOADING WITH A 30 DEGREE DISTRIBUTION ANGLE, COVER SOIL UNIT WIEGHT OF 120 PCF, AND CRANE TRACK WIDTH OF 5', SAFTEY FACTOR = 3.0

FOR 66" CULVERT, PROVIDE MINIMUM COVER THICKNESS AS RECOMMENDED BY MANUFACTURER.

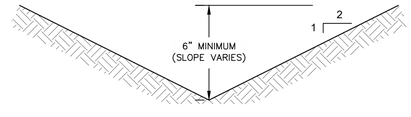
REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

MINIMUM COVER FOR CMP CULVERTS

DETAIL # DND-403




GRASS AND EROSION CONTROL LINED




LOW VOLUME GRASS

**NOTES:**

1. INSTALL SWALE IN LOCATIONS DEPICTED ON DRAWINGS.
2. INSTALL TEMPORARY EROSION CONTROL BLANKET IN ANY SWALE WITH SLOPES GREATER THAN 2 PERCENT AND LESS THAN 8 PERCENT SLOPE OR AS INDICATED ON PLANS.
3. INSTALL PERMANENT EROSION CONTROL FABRIC IN ANY SWALE WITH SLOPES GREATER THAN 8 PERCENT OR AS INDICATED ON THE PLANS.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

TYPICAL SWALE DETAIL

# DEUEL HARVEST WIND

DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

2020 ONE SOUTH WACKER DR STE 1800
CHICAGO, IL 60606

NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

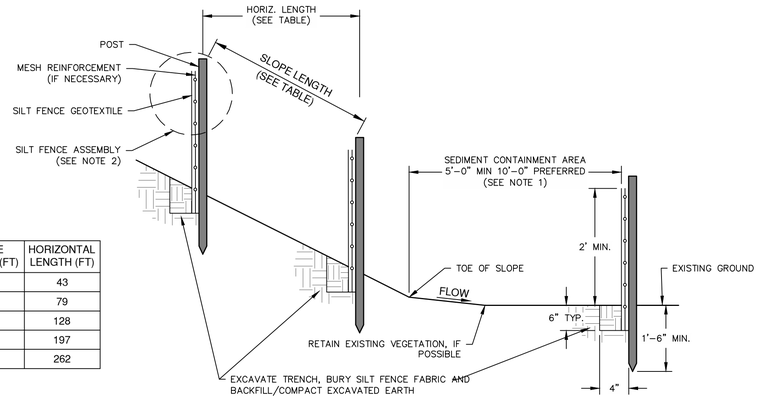
## ACCESS ROAD DETAILS

DWG #: DHW-CND-007
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\03 - Construction Notes, Specifications & Details\19.01167 Details and Typical Sections.dwg ACCESS ROAD DETAILS 1

DETAIL # ECD-501




| SLOPE | SLOPE LENGTH (FT) | HORIZONTAL LENGTH (FT) |
|---|---|---|
| 2:1 | 50 | 43 |
| 3:1 | 80 | 79 |
| 4:1 | 130 | 128 |
| 5:1 | 197 | 197 |
| > 5:1 | 262 | 262 |

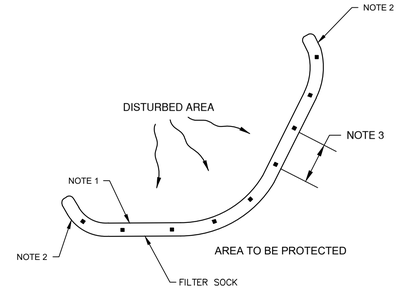
**NOTES:**

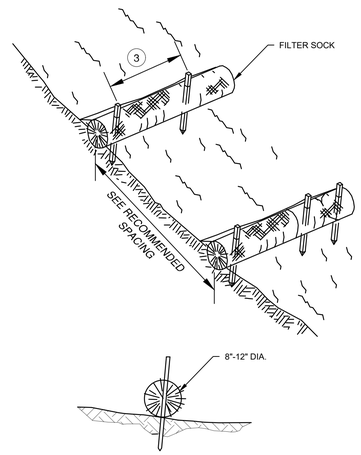
1. SILT FENCE OR STRAWBALE DIKE SHALL BE PLACED A MINIMUM OF 5'-0" FROM TOE OF SLOPE, 10'-0" PREFERRED. TO PROVIDE ADEQUATE AREA FOR SEDIMENT STORAGE AND FACILITATE MAINTENANCE OR SEDIMENT CONTROL AREA.
2. POST MAY BE 1 1/4" x 1 1/4" (MINIMUM) HARDWOOD, 1 1/2" x 3 1/2" (MINIMUM) SOFTWOOD, OR 4LB/FT (MIN) STEEL. SPACING FOR THE PROVIDED SILT FENCE SHALL BE AS DESIGNATED ON THE DEPARTMENT APPROVED LIST FOR SILT FENCE.
3. THE BOTTOM EDGE OF SILT FENCE SHALL BE BURIED A MINIMUM OF 6" BELOW GROUND. THE FENCE SHALL BE INSTALLED WITH THE POSTS ON THE DOWNSTREAM SIDE OF THE FABRIC.
4. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

SILT FENCE DETAIL

DETAIL # ECD-502




**NOTES:**

1. INSTALL FILTER SOCK ALONG CONTOUR OF SLOPE.
2. TURN ENDS OF FILTER SOCK UPHILL TO PREVENT WATER FROM FLOWING AROUND ENDS.
3. INSTALL WOOD STAKES AS NECESSARY TO PREVENT MOVEMENT AND UNDERMINING. STAKES SHALL BE SPACED AT 10' MAX. INTERVALS WITH WIRE SUPPORTED FENCE AND 6' MAX INTERVALS WITHOUT WIRE SUPPORT.
4. SEE SILT FENCE SPECIFICATIONS FOR APPLICABILITY AND MAINTENANCE.

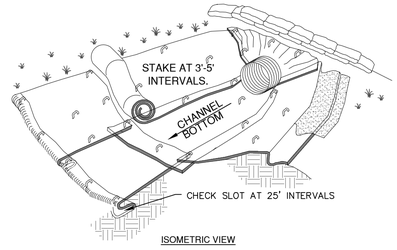
RECOMMENDED SPACING

| SLOPE | SPACING |
|---|---|
| <4:1 | 20' |
| 2:1 TO 4:1 | 15' |
| 2:1 OR GREATER | 10' |

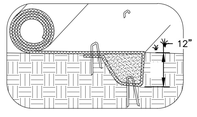
REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

FIBER ROLL DETAIL

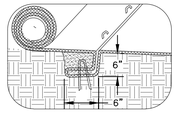
DETAIL # ECD-503



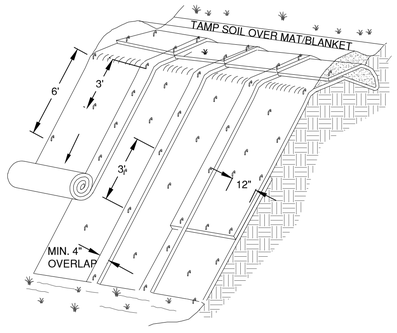

ISOMETRIC VIEW




INITIAL CHANNEL ANCHOR TRENCH




INTERMITTENT CHECK SLOT



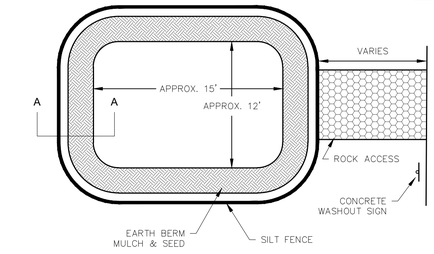

ISOMETRIC VIEW

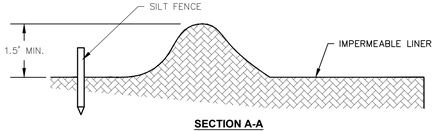
NOTES:
1. SLOPE SURFACE SHALL BE SMOOTH BEFORE PLACEMENT FOR PROPER SOIL CONTACT.
2. STAMPING PATTERN AS PER MANUFACTURER'S RECOMMENDATIONS.
3. IF THERE IS A BERM AT THE TOP OF SLOPE, ANCHOR UPSLOPE OF THE BERM.
4. DO NOT STRETCH BLANKETS/MATTINGS TIGHT, ALLOW THE ROLLS TO MOLD TO ANY IRREGULARITIES. FOR SLOPES LESS THAN 3H:1V ROLLS MAY BE PLACED IN HORIZONTAL STRIPS.
5. LIME, FERTILIZE, AND SEED BEFORE INSTALLATION. PLANTING OF SHRUBS, TREES, ETC. SHOULD OCCUR AFTER INSTALLATION.
6. CHECK SLOTS TO BE CONSTRUCTED PER MANUFACTURERS SPECIFICATIONS.
7. STACKING OR STAPLING LAYOUT PER MANUFACTURERS SPECIFICATIONS.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

EROSION CONTROL BLANKET DETAIL

DETAIL # ECD-504



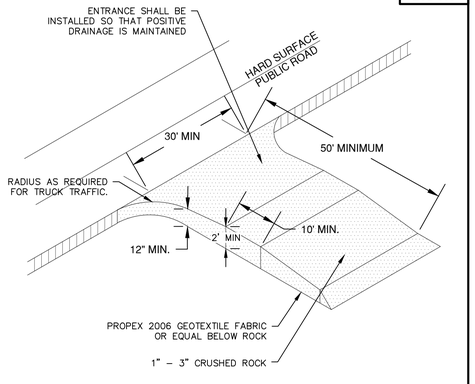

**SECTION A-A**

NOTE:
1. CONCRETE WASHOUT AREAS SHALL HAVE AN IMPERMEABLE LINER TO PREVENT CONCRETE WASHOUT WATER FROM INFILTRATING/CONTACTING WITH SOIL. IMPERMEABLE LINER INCLUDES 10 MIL. POLYLINER OR COMPACTED CLAY LINER. WASHOUT SYSTEMS CAN BE USED AS ALTERNATE WASHOUT AREAS.
2. AN APPROVED ALTERNATE MAY BE USED.
3. CONCRETE WASHOUT SHALL BE LOCATED AT THE BATCH PLANT AND/OR EACH TURBINE SITE.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

TYPICAL CONCRETE WASHOUT AREA

DETAIL # ECD-505




**NOTES:**

1. TRACKED SEDIMENT ONTO PUBLIC ROADS SHALL BE REMOVED BY THE END OF THE WORK DAY OR WITHIN 24 HOURS OF DISCOVERY.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

TYPICAL VEHICLE TRACKING PAD

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

2020 ONE SOUTH WACKER DR STE 1800
CHICAGO, IL 60606

NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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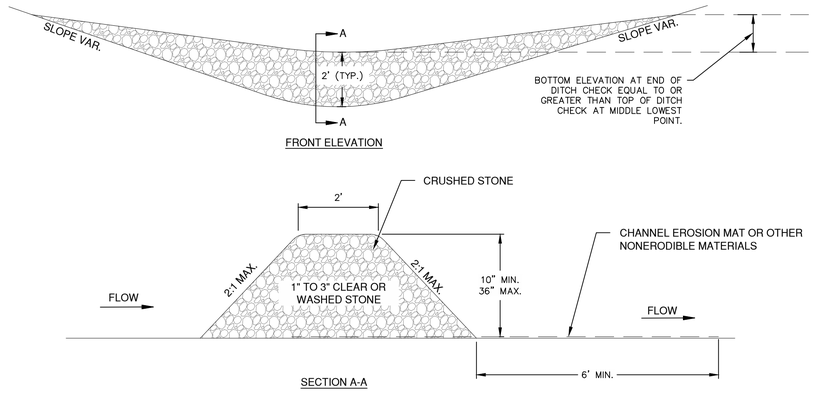

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

EROSION CONTROL DETAILS

DWG #: DHW-CND-008
REVISION: 0A

2019.10.01

DETAIL # ECD-506

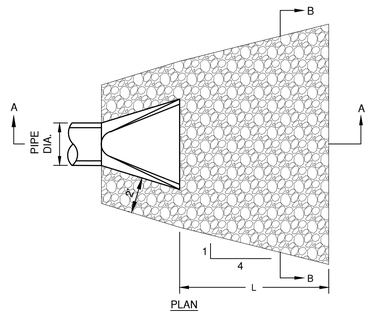


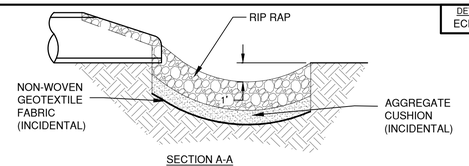

**NOTES:**
1. ROCK CHECK DAM SHALL BE PLACED AT A DISTANCE AND HEIGHT TO ALLOW SMALL POOLS TO FORM BEHIND THEM.
2. ROCK SHALL BE PLACED INDIVIDUALLY BY HAND OR BY MECHANICAL METHODS (NO DUMPING OF ROCK) TO ACHIEVE COMPLETE DITCH OR SWALE COVERAGE.
3. ROCK CHECK DAMS ARE TO BE USED FOR VELOCITY REDUCTION AND EROSION PREVENTION IN AREAS WHERE CONCENTRATED FLOW EXISTS. ROCK CHECK DAMS SHALL NOT BE USED IN STREAMS OR OTHER NATURAL WATER RESOURCES.
4. SEDIMENT SHALL BE REMOVED FROM BEHIND THE ROCK CHECK DAMS WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL ROCK CHECK DAM HEIGHT IN THE CENTER.

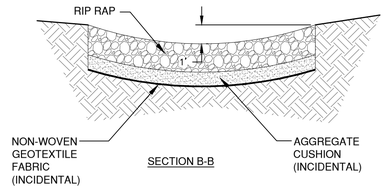
REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

ROCK CHECK DAM

DETAIL # ECD-507




**RIP RAP TABLE (CLASS I)**

| PIPE DIAMTER (IN) | L (FT) | 24 IN DEPTH RIP RAP (CY) | 12 IN DEPTH AGG. CUSH. (CY) |
|---|---|---|---|
| 12 | 8 | 5.5 | 2.8 |
| 15 | 8 | 5.8 | 2.9 |
| 18 | 10 | 7.8 | 3.9 |
| 21 | 10 | 8.4 | 4.2 |
| 24 | 12 | 11.0 | 5.5 |
| 27 | 12 | 11.6 | 5.8 |
| 30 | 14 | 14.5 | 7.3 |
| 36 | 16 | 18.3 | 9.2 |
| 42 | 18 | 21.7 | 10.9 |
| 48 | 20 | 25.8 | 12.9 |

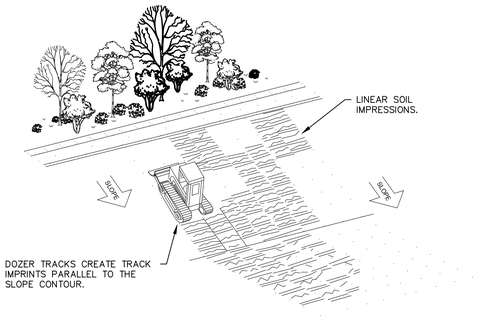
ROCK RIPRAP GRADATION TABLE

| ROCK RIPRAP CLASS BY MEDIAN PARTICLE DIAMETER (D50) | | D15 (IN) | | D50 (IN) | | D85 (IN) | | D100 (IN) |
|---|---|---|---|---|---|---|---|---|
| CLASS | DIAMETER (IN) | MIN | MAX | MIN | MAX | MIN | MAX | MAX |
| I | 6 | 3.7 | 5.2 | 5.7 | 6.9 | 7.8 | 9.2 | 12.0 |
| II | 9 | 5.3 | 7.8 | 8.5 | 10.5 | 11.5 | 14.0 | 18.0 |
| III | 12 | 7.3 | 10.5 | 11.5 | 14.0 | 15.5 | 18.5 | 24.0 |

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

RIP RAP DETAIL

DETAIL # ECD-508

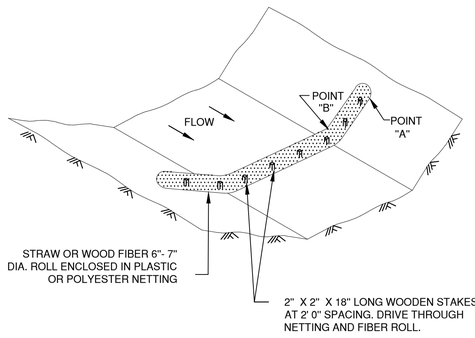



**NOTES:**
1. PERFORM VERTICAL TRACKING ON SLOPES TO TEMPORARILY STABILIZE SOIL.
2. PROVIDE EQUIPMENT WITH A TRACK UNDERCARRIAGE CAPABLE OF PRODUCING LINEAR SOIL IMPRESSIONS MEASURING A MINIMUM OF 12" IN LENGTH BY 2" TO 4" IN WIDTH BY 1/2" TO 2" IN DEPTH.
3. DO NOT EXCEED 12" BETWEEN TRACK IMPRESSIONS.
4. INSTALL CONTINUOUS LINEAR TRACK IMPRESSIONS WHERE THE MINIMUM 12" LENGTH IMPRESSIONS ARE PERPENDICULAR TO THE SLOPE OR DIRECTION OF WATER FLOW.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

VERTICAL TRACKING

DETAIL # ECD-509

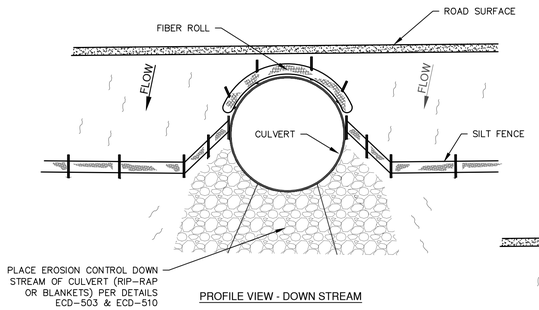


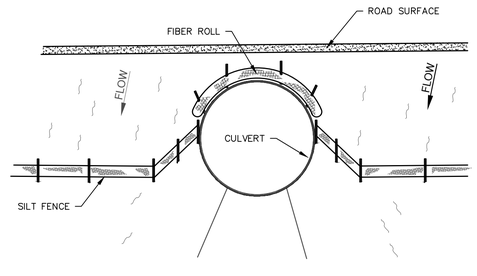

**NOTES:**
1. POINT "A" MUST BE AT LEAST 1 HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND ENDS.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

FIBER ROLL (DITCH APPLICATION)

DETAIL # ECD-510




**NOTES:**
1. CONTRACTOR TO INSTALL AND MAINTAIN EROSION CONTROL AT CULVERTS THROUGHOUT DURATION OF CONSTRUCTION.
2. EXTENT OF DOWN STREAM EROSION CONTROL REQUIRED TO BE FIELD VERIFIED BY ON-SITE FIELD ENGINEER.
3. RETURN STREAMBED TO PRE-CONSTRUCTION CONDITIONS AFTER CULVERT INSTALLATION.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

EROSION CONTROL (CULVERT END TREATMENTS)

DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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CHICAGO, IL 60606

NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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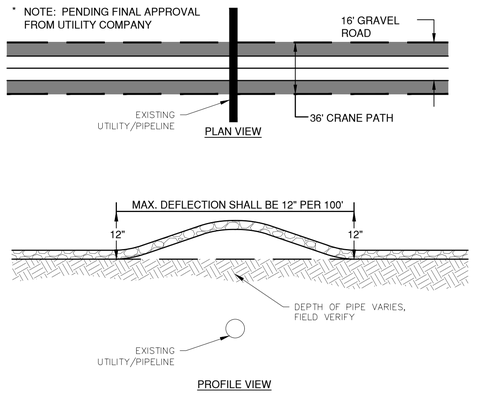

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

EROSION CONTROL DETAILS

DWG #: DHW-CND-009
REVISION: 0A

2019.10.01

DETAIL # UCD-701

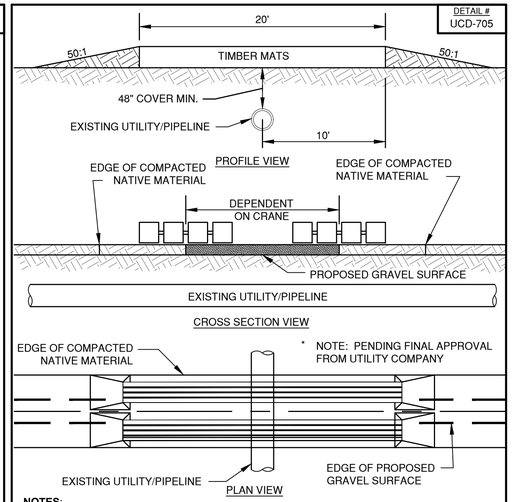



**NOTES**:
1. CROSSING DETAIL FOR INFORMATION ONLY. CROSSING MUST BE APPROVED BY UTILITY COMPANY PRIOR TO CROSSING.
2. LOCATION AND DEPTH OF EXISTING UTILITY SHALL BE FIELD VERIFIED BY EXISTING UTILITY OWNER/OPERATOR.
3. EARTH COVER PROTECTION FOR EXISTING UTILITIES SHALL BE USED WHERE THE COVER OVER EXISTING UTILITY IS LESS THAN 48".
4. CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

## EARTH COVER PROTECTION FOR UTILITY CROSSING

DETAIL # UCD-705




**NOTES**:
1. CROSSING DETAIL FOR INFORMATION ONLY. CROSSING MUST BE APPROVED BY UTILITY COMPANY PRIOR TO CROSSING.
2. LENGTH AND DEPTH OF FILL VARIES PER UTILITY/PIPELINE COMPANY'S RECOMMENDATION.
3. CRANE MAT PROTECTION FOR UTILITY CROSSING SHALL BE USED WHERE THE COVER OVER THE EXISTING UTILITY IS 48" OR GREATER.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

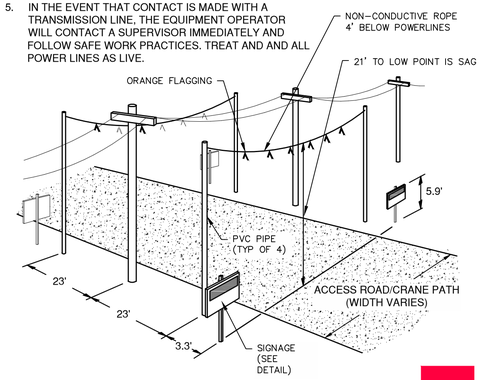
## CRANE MAT PROTECTION FOR UTILITY CROSSING

DETAIL # UCD-711

NOTES:
1. CONTACT UTILITY COMPANY PRIOR TO CROSSING.
2. OSHA CLEARANCE REQUIREMENTS SHALL BE FOLLOWED FOR ALL UTILITY CROSSINGS.
3. WARNING SIGNS SHALL BE ERECTED ACCORDING TO THE DIAGRAM BELOW PRIOR TO CROSSING UNDERNEATH POWERLINES.
4. ALL EQUIPMENT OPERATORS AND MACHINERY MUST REMAIN A MINIMUM OF 20 FEET AWAY FROM TRANSMISSION LINES AND POLES AT ALL TIMES.
5. IN THE EVENT THAT CONTACT IS MADE WITH A TRANSMISSION LINE, THE EQUIPMENT OPERATOR WILL CONTACT A SUPERVISOR IMMEDIATELY AND FOLLOW SAFE WORK PRACTICES. TREAT AND AND ALL POWER LINES AS LIVE.



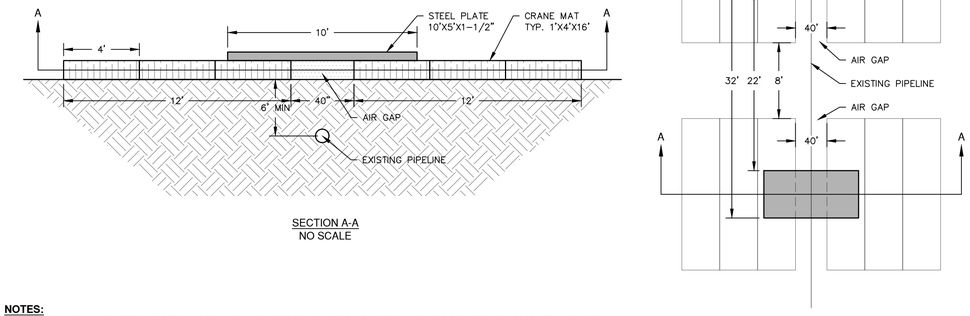

SIGNAGE DETAIL




REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

## POWERLINE CROSSING REQUIREMENTS

DETAIL # UCD-703




SECTION A-A
NO SCALE



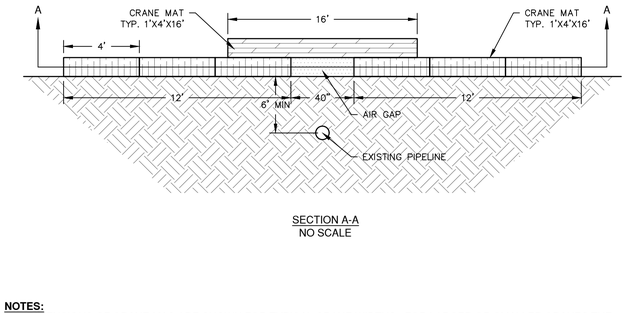

PLAN VIEW
NO SCALE

**NOTES:**
1. DIMENSIONS OF STEEL PLATES ARE SHOWN FOR TYPICAL CRANE WIDTHS. FOR LARGER OR SMALLER CRANES THE PLATES MAY NEED TO BE MOVED TO ACCOMMODATE ADEQUATE SPACING FOR CRANE TRACKS. FIELD ADJUSTMENT MAY BE NECESSARY.
2. CONTRACTOR TO FIELD VERIFY EXACT STEEL PLATE THICKNESS REQUIRED.

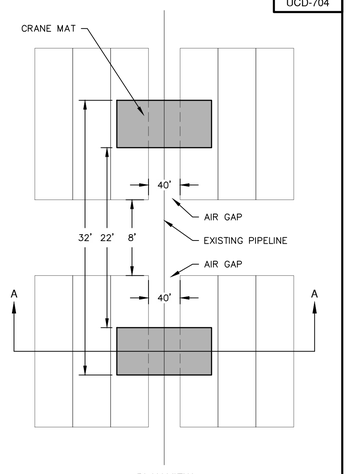
REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

## PIPELINE CROSSING W/AIR BRIDGE W/STEEL PLATE DETAIL

DETAIL # UCD-704




SECTION A-A
NO SCALE




PLAN VIEW
NO SCALE

**NOTES:**
1. DIMENSIONS OF CRANE MAS ARE SHOWN FOR TYPICAL CRANE WIDTHS. FOR LARGER OR SMALLER CRANES THE MATS MAY NEED TO BE MOVED TO ACCOMMODATE ADEQUATE SPACING FOR CRANE TRACKS. FIELD ADJUSTMENT MAY BE NECESSARY.
2. CONTRACTOR TO FIELD VERIFY EXACT CRANE MAT THICKNESS REQUIRED.

REVISION
DATE: 2019.07.30
BY: C. SMAALADEN

## PIPELINE CROSSING W/AIR BRIDGE W/CRANE MAT DETAIL

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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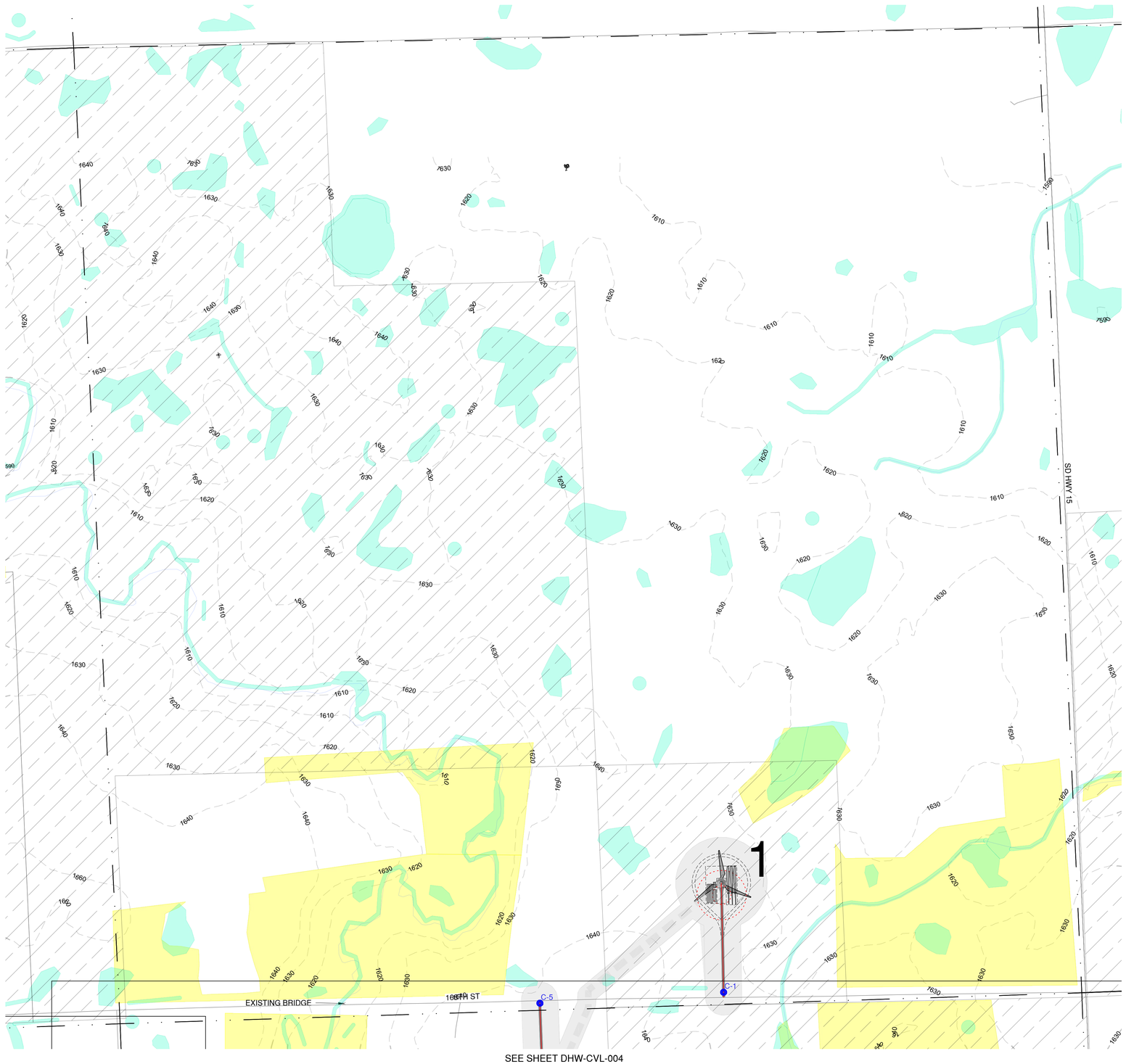

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## UTILITY CROSSING DETAILS

DWG #: DHW-CND-010
REVISION: 0A

2019.10.01



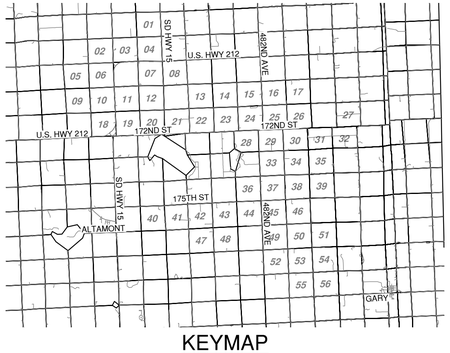

SEE SHEET DHW-CVL-004

## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
- *CULTURAL SURVEY CORRIDOR*

* ANTICIPATED DRAINAGE CROSSINGS ARE SHOWN ON THE CONSTRUCTION PLANS BASED LARGELY ON OBSERVATION OF DRAINAGE CHANNELS/DRAINAGE EROSION FROM THE AERIAL IMAGERY, SUPPLEMENTED BY GIS STREAM LINEWORK AND EXISTING CONTOUR DATA AVAILABLE. ADDITIONAL CROSSINGS (LOW WATER CROSSINGS/CULVERTS) MAY NEED TO BE INSTALLED IN AREAS WHERE CONCENTRATED FLOE IS EXPECTED DUE TO CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL USE DISCRETION IF A LOW WATER CROSSING OR CULVERT (REFER TO DETAILS ON SHEET 6) IS NEEDED BASED ON THE TOPOGRAPHY OF THE DRAINAGE CROSSING.

** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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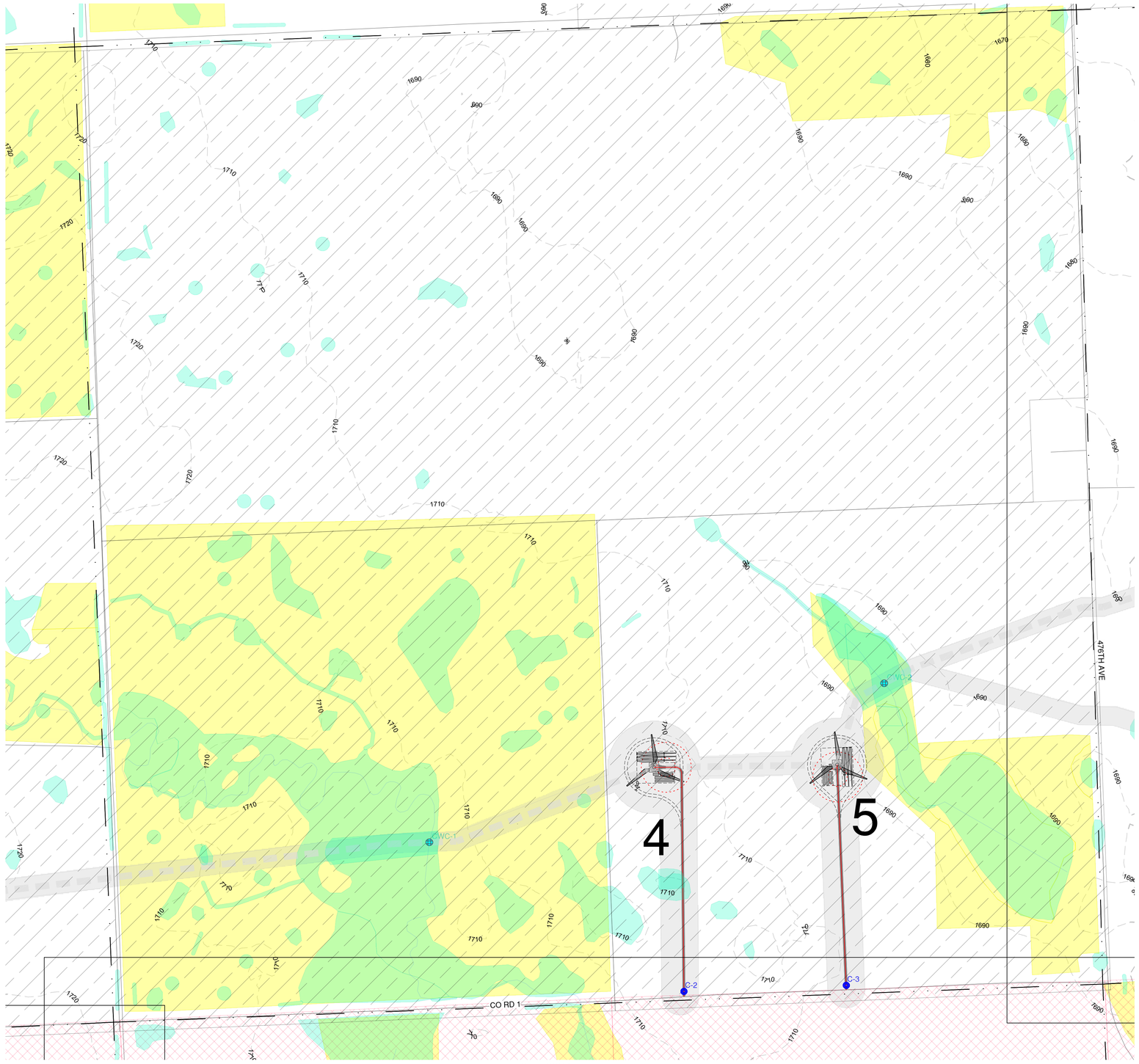

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 1)

DWG #: DHW-CVL-001
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 1)

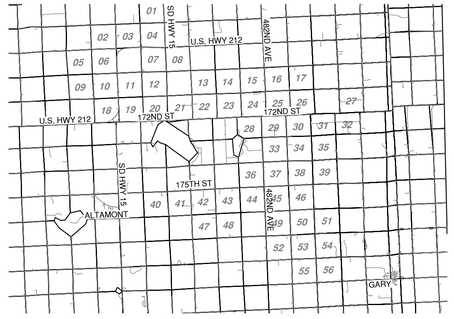



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
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* ANTICIPATED DRAINAGE CROSSINGS ARE SHOWN ON THE CONSTRUCTION PLANS BASED LARGELY ON OBSERVATION OF DRAINAGE CHANNELS/DRAINAGE EROSION FROM THE AERIAL IMAGERY, SUPPLEMENTED BY GIS STREAM LINEWORK AND EXISTING CONTOUR DATA AVAILABLE. ADDITIONAL CROSSINGS (LOW WATER CROSSINGS/CULVERTS) MAY NEED TO BE INSTALLED IN AREAS WHERE CONCENTRATED FLOE IS EXPECTED DUE TO CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL USE DISCRETION IF A LOW WATER CROSSING OR CULVERT (REFER TO DETAILS ON SHEET 6) IS NEEDED BASED ON THE TOPOGRAPHY OF THE DRAINAGE CROSSING.

** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

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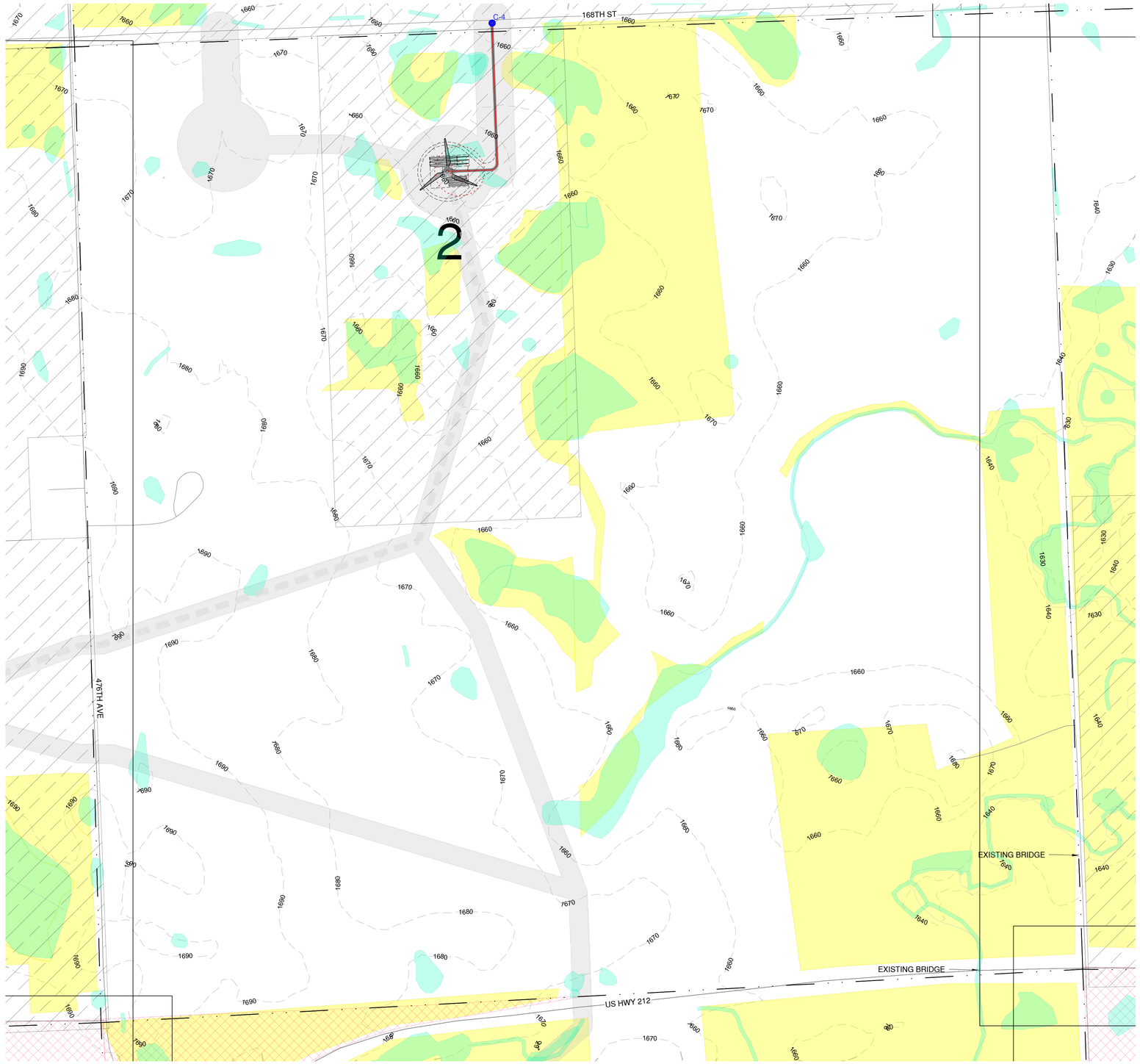
Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 4-5)

DWG #: DHW-CVL-002
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 4-5)

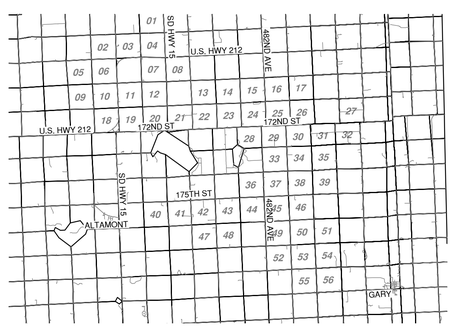



## LEGEND (CIVIL SITE PLANS)

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- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
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- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
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- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
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* ANTICIPATED DRAINAGE CROSSINGS ARE SHOWN ON THE CONSTRUCTION PLANS BASED LARGELY ON OBSERVATION OF DRAINAGE CHANNELS/DRAINAGE EROSION FROM THE AERIAL IMAGERY, SUPPLEMENTED BY GIS STREAM LINEWORK AND EXISTING CONTOUR DATA AVAILABLE. ADDITIONAL CROSSINGS (LOW WATER CROSSINGS/CULVERTS) MAY NEED TO BE INSTALLED IN AREAS WHERE CONCENTRATED FLOE IS EXPECTED DUE TO CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL USE DISCRETION IF A LOW WATER CROSSING OR CULVERT (REFER TO DETAILS ON SHEET 6) IS NEEDED BASED ON THE TOPOGRAPHY OF THE DRAINAGE CROSSING.

** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY. SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

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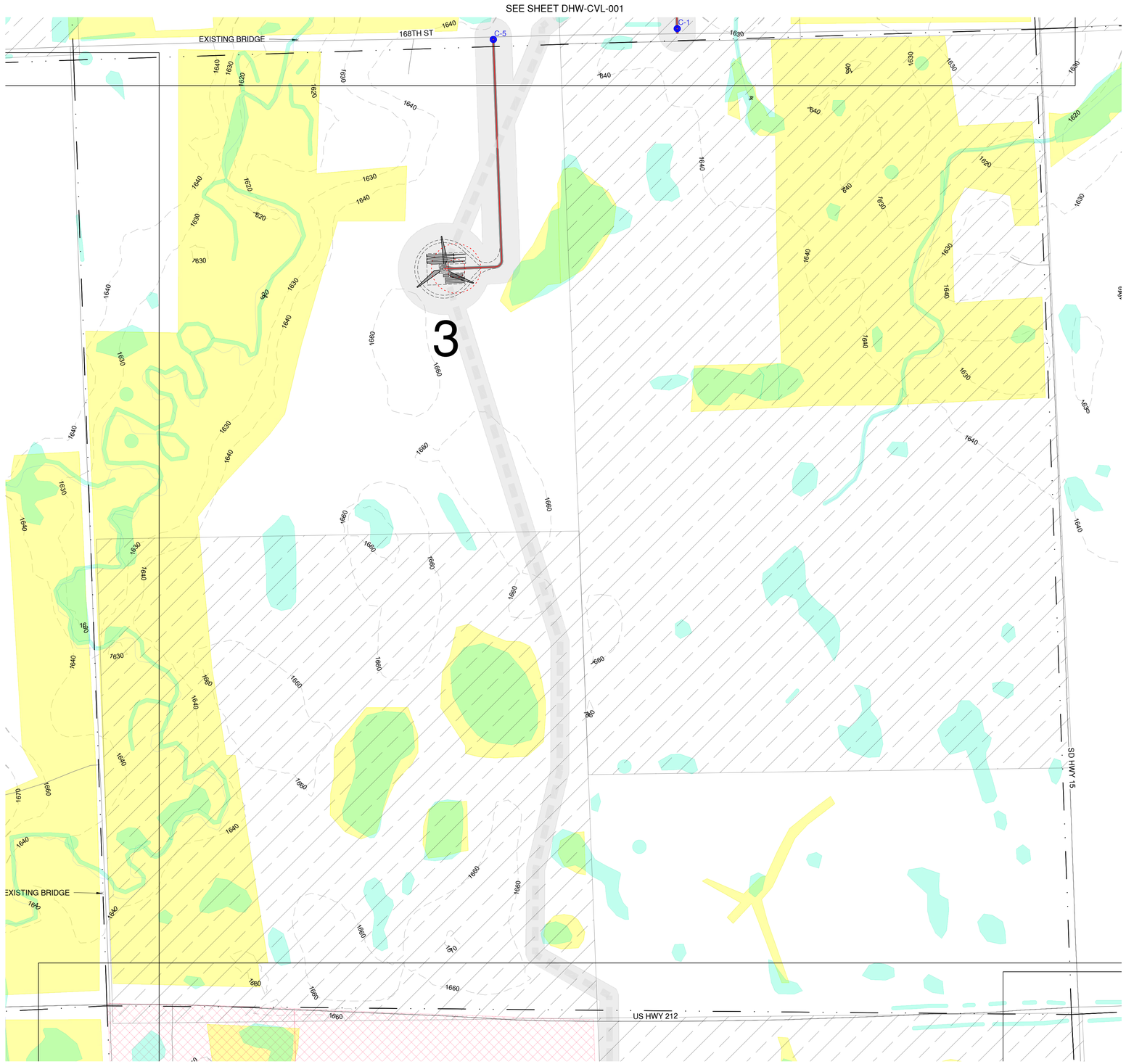
Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 2)

DWG #: DHW-CVL-003
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 2)

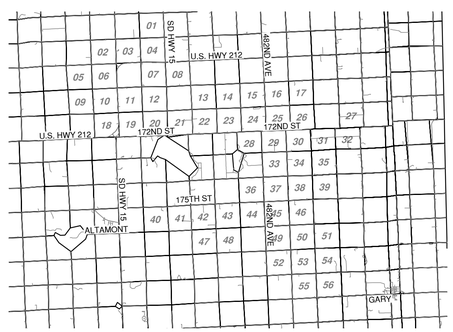



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
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- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
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- 2500' *EXISTING COUNTOUR*
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- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
- *CULTURAL SURVEY CORRIDOR*

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** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

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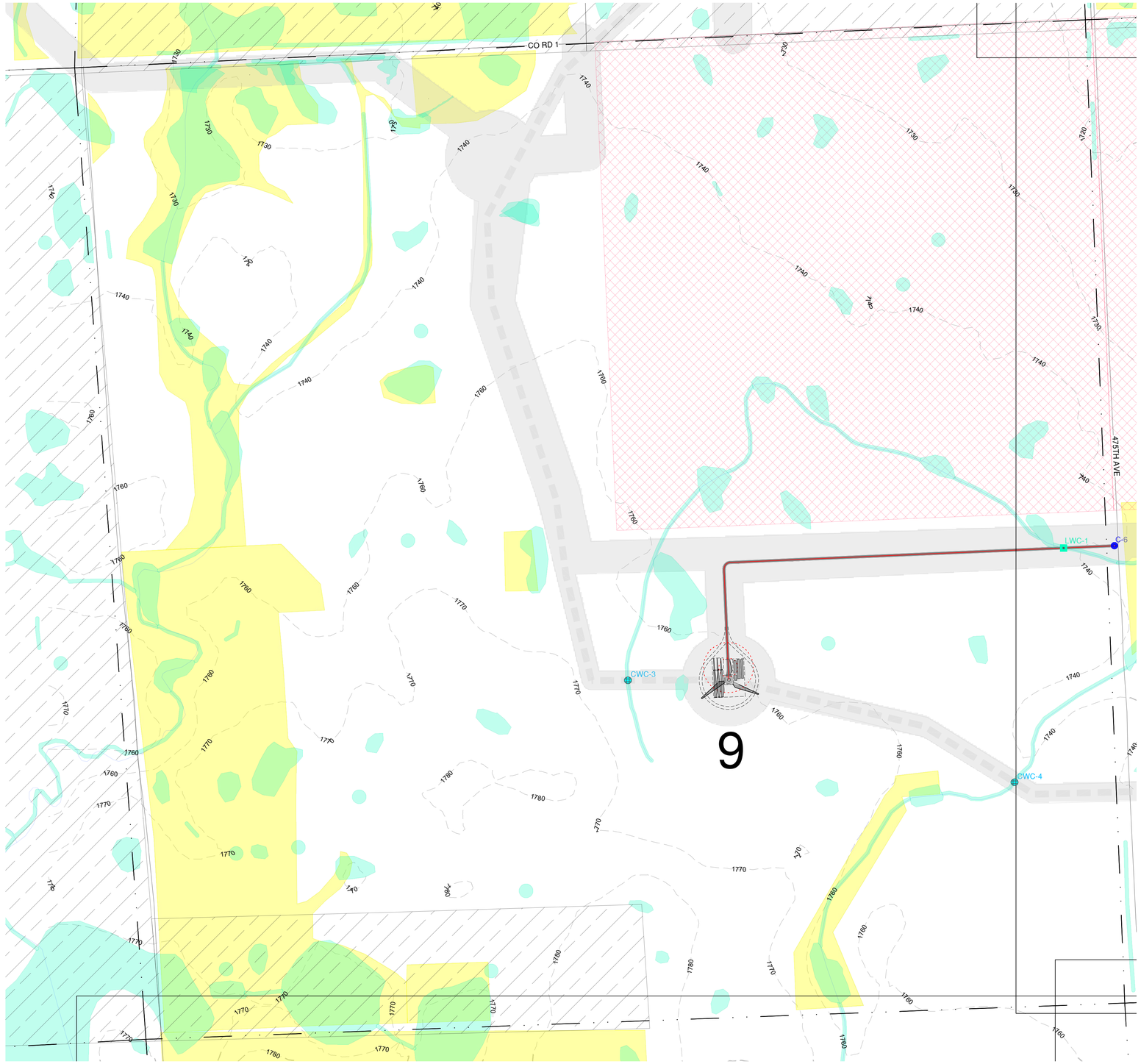

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 3)

DWG #: DHW-CVL-004
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 3)

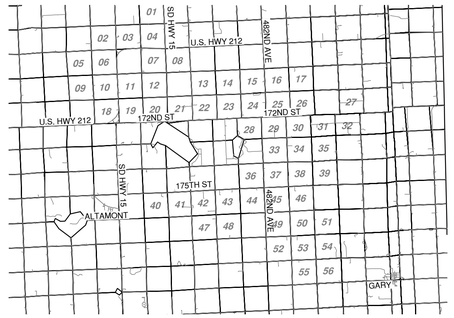



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
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- *EXISTING WETLANDS/PLAYAS*
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KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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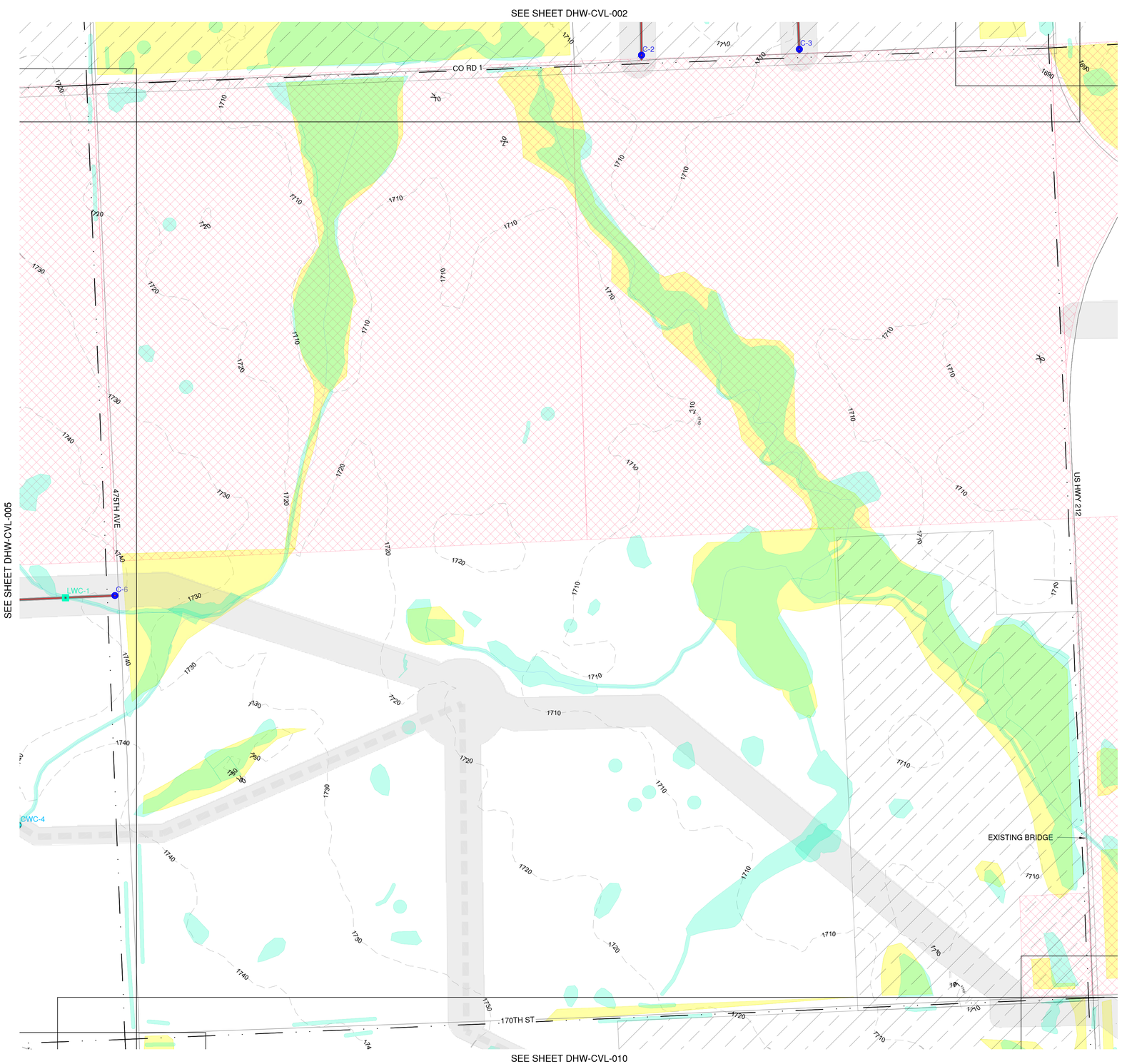

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 9)

DWG #: DHW-CVL-005
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 9)

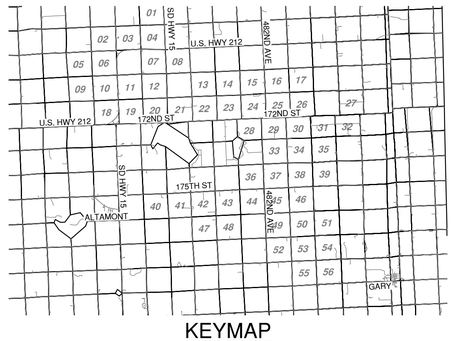



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
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- *EXISTING CATTLE GUARD*
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- *EXISTING CULVERT*
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DEUEL COUNTY,
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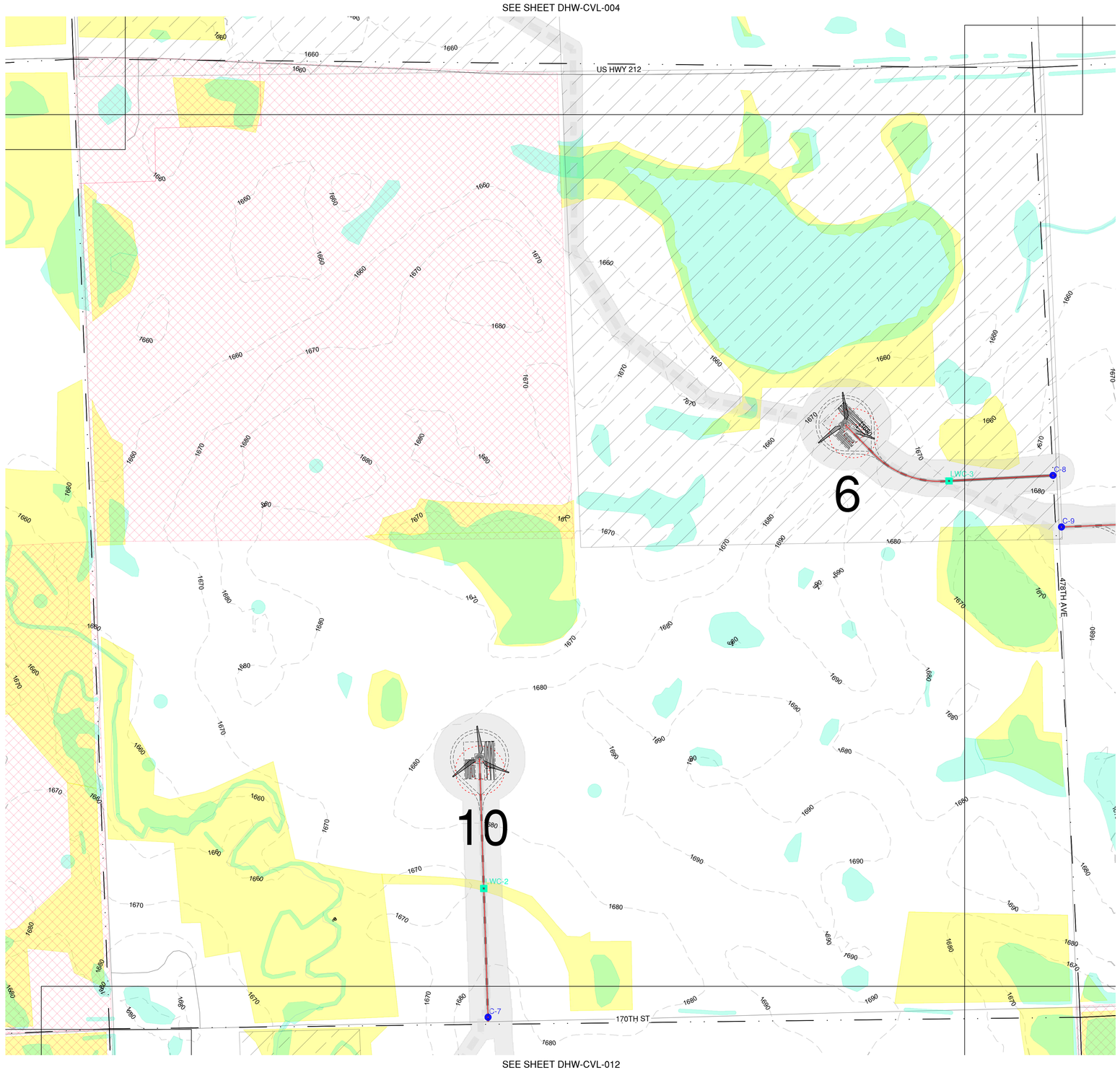

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN

DWG #: DHW-CVL-006
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (1)

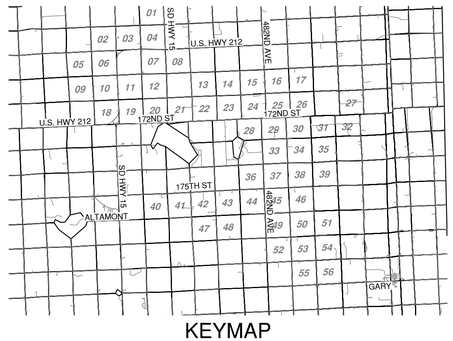



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
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- 2500' *EXISTING COUNTOUR*
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KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
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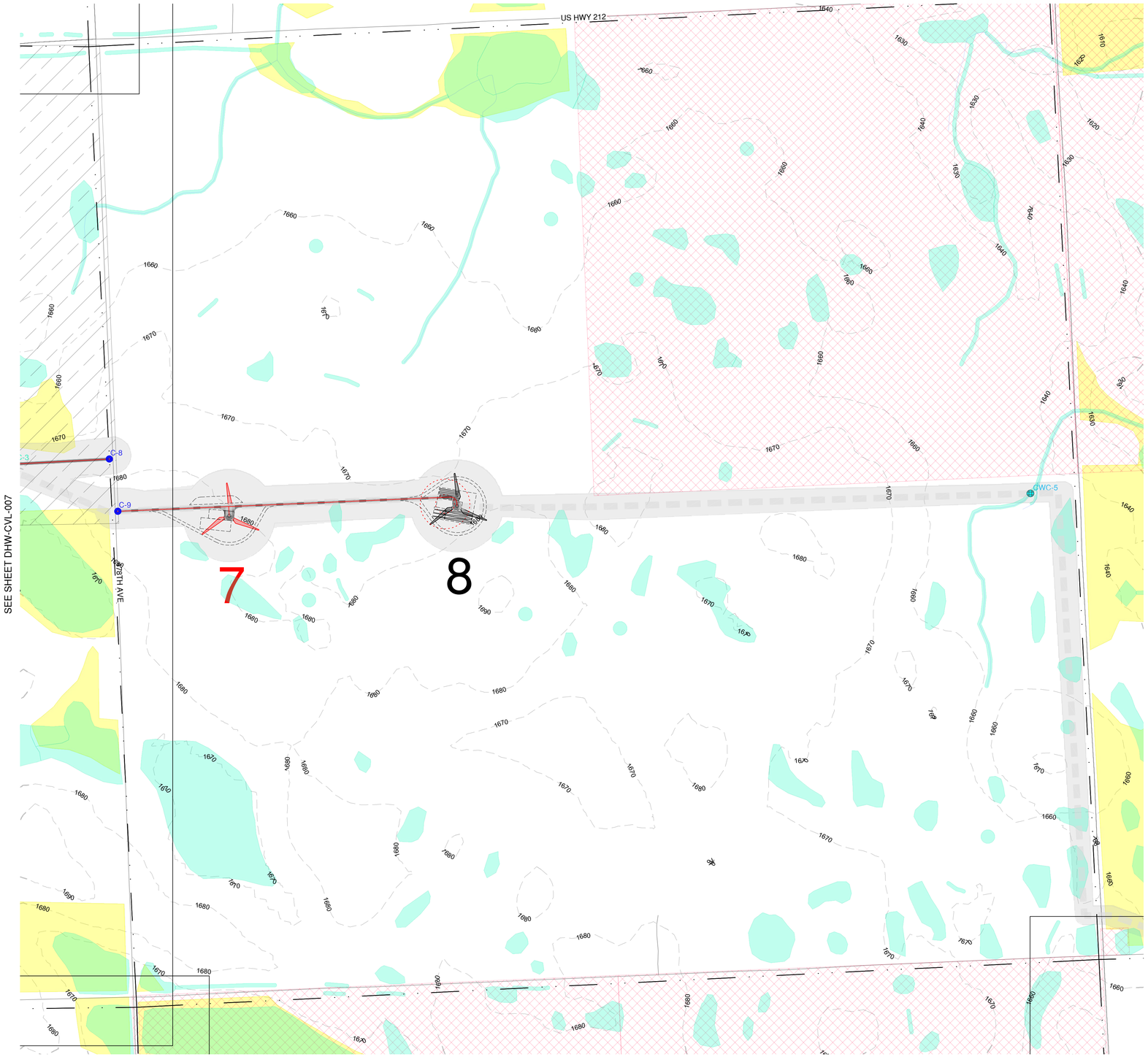

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 6, WTG 10)

DWG #: DHW-CVL-007
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 6 WTG 10)

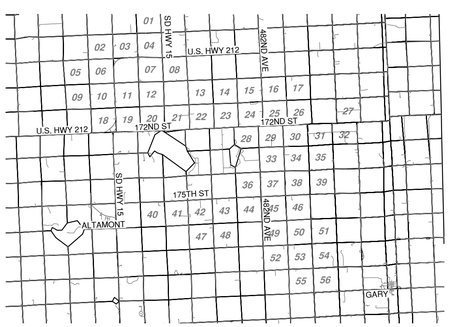



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
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- PROPOSED CRANE PATH
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- SF — SILT FENCE
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- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
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- PROPOSED LOW WATER CROSSING
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- NON-PARTICIPATING (DO NOT DISTURB)
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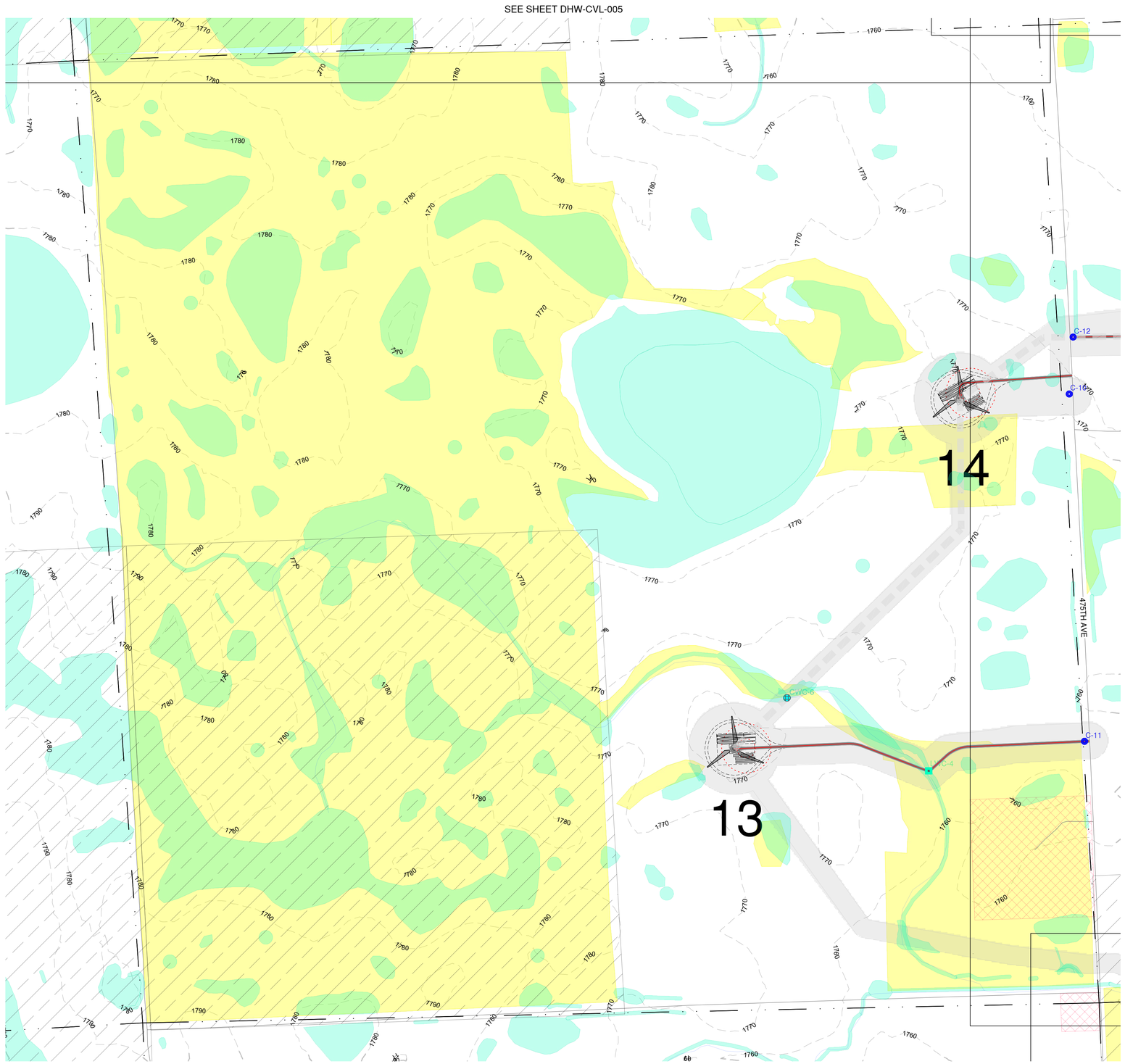
Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 7-8)

DWG #: DHW-CVL-008
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 7-8)

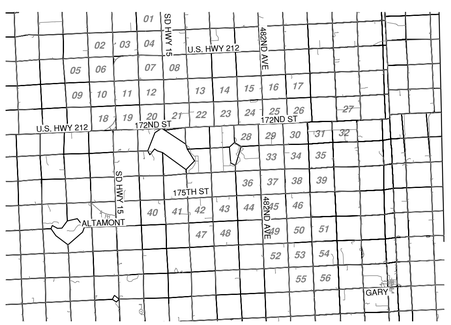



## LEGEND (CIVIL SITE PLANS)

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- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
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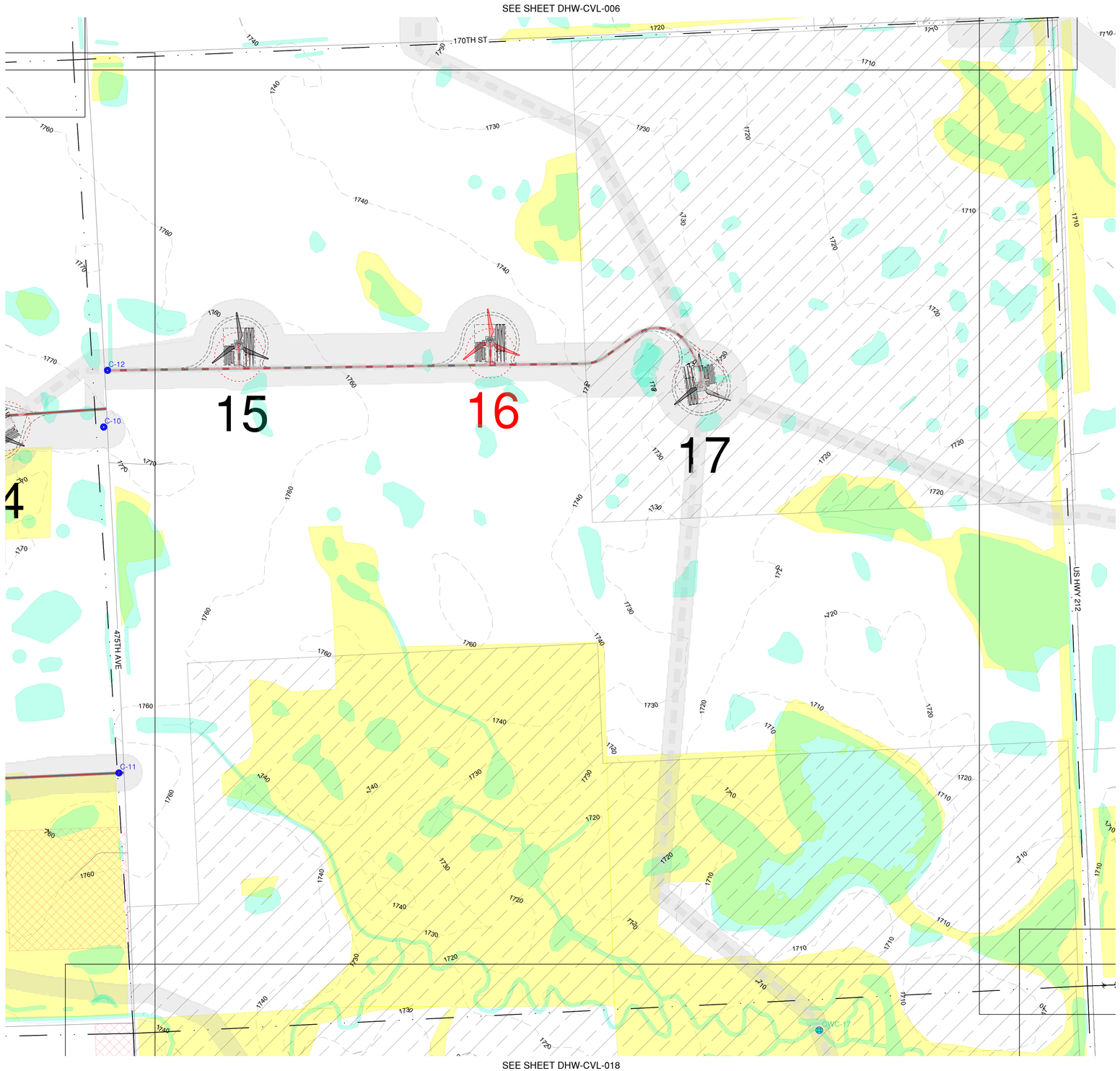
Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 13-14)

DWG #: DHW-CVL-009
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 13-14)

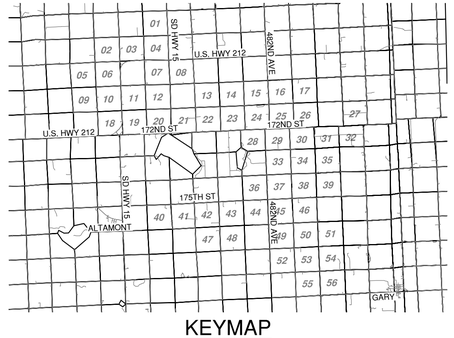



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
- *CULTURAL SURVEY CORRIDOR*

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** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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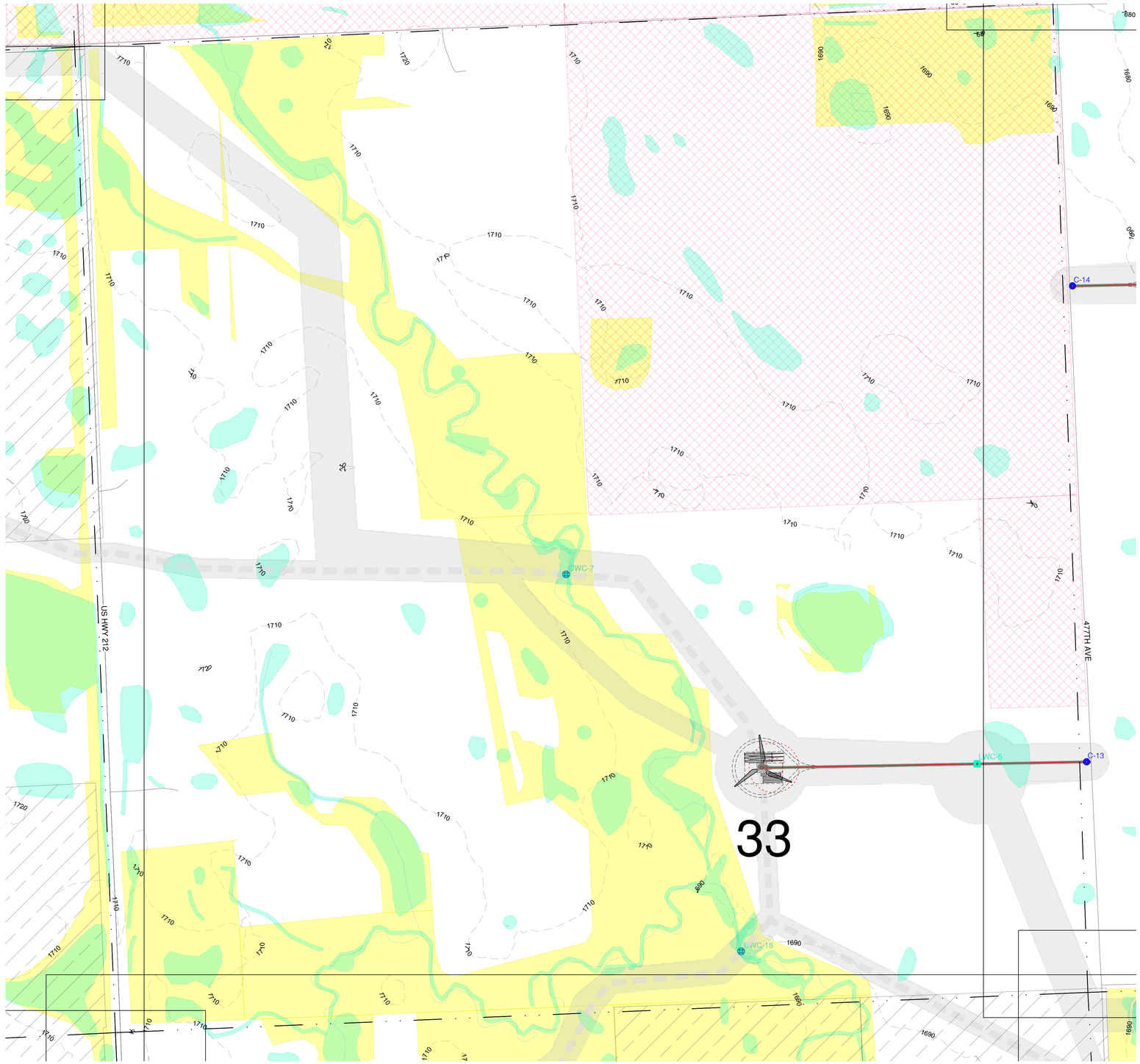

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 15-17)

DWG #: DHW-CVL-010
REVISION: 0A

2019.10.01

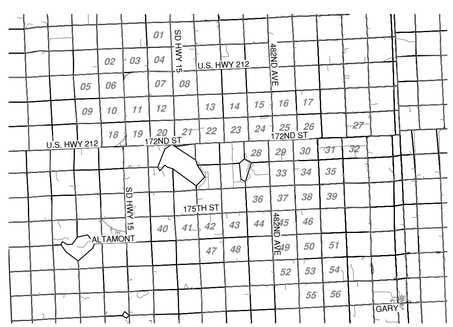



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
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- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- # FENCE CROSSING
- # PIPELINE CROSSING
- # PROPOSED LOW WATER CROSSING
- # PROPOSED CRANE LOW WATER CROSSING
- # PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
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- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
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- *EXISTING STREAM*
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- *EXISTING CULVERT*
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KEYMAP

# DEUEL HARVEST WIND

DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |


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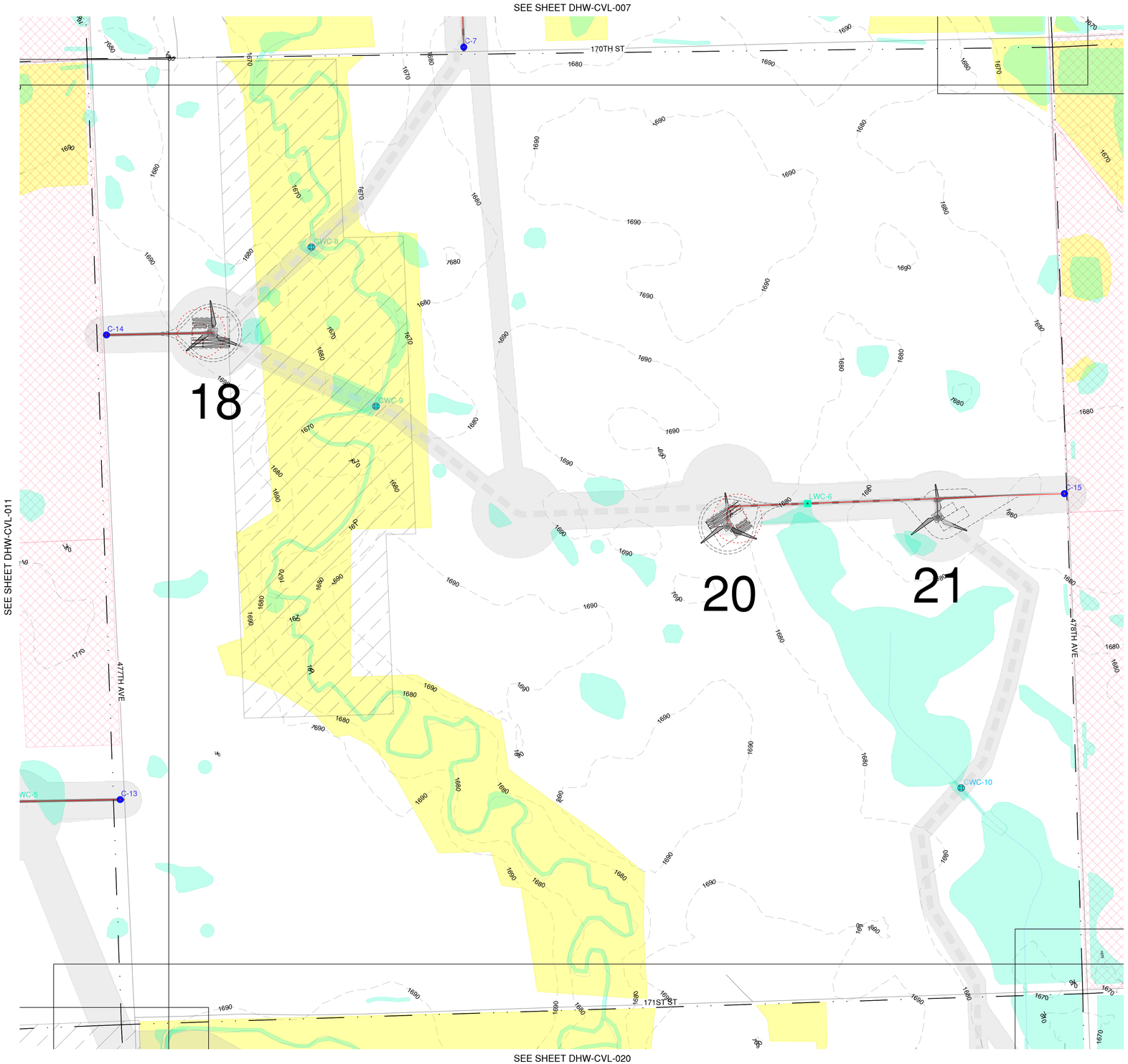

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 33)

DWG #: DHW-CVL-011
REVISION: 0A

2019.10.01

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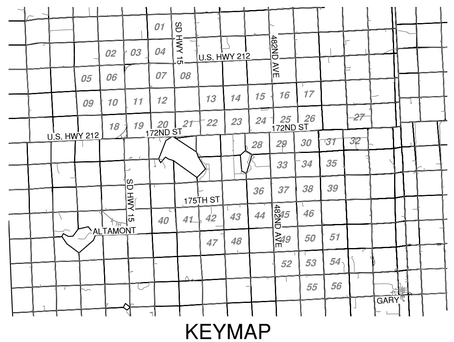



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- # FENCE CROSSING
- # PIPELINE CROSSING
- # PROPOSED LOW WATER CROSSING
- # PROPOSED CRANE LOW WATER CROSSING
- # PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
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- 2500' *EXISTING COUNTOUR*
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KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
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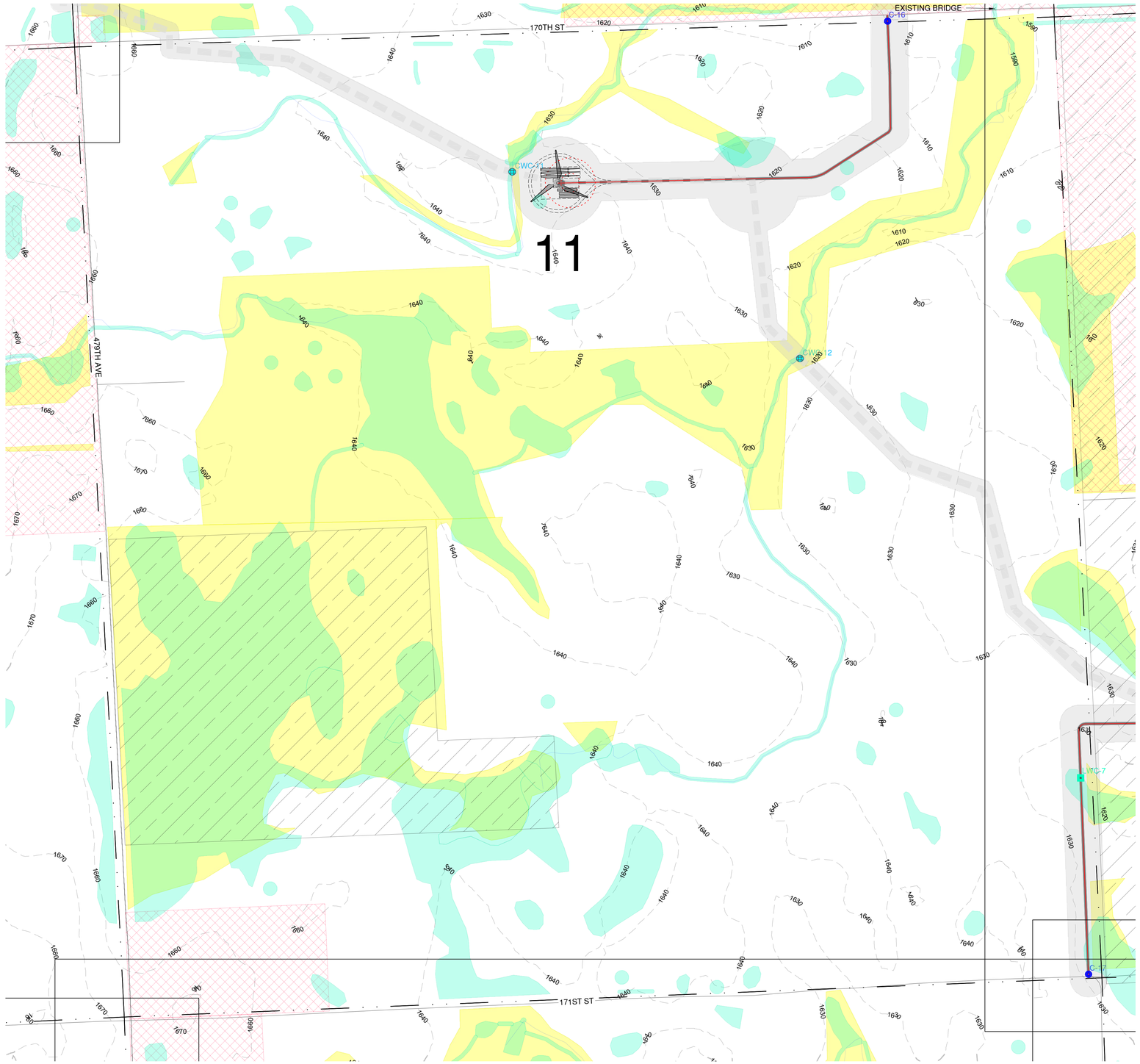

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

CIVIL SITE PLAN (WTG 18, WTG 20-21)

DWG #: DHW-CVL-012
REVISION: 0A

2019.10.01

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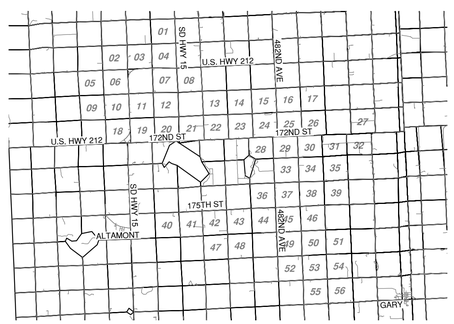



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
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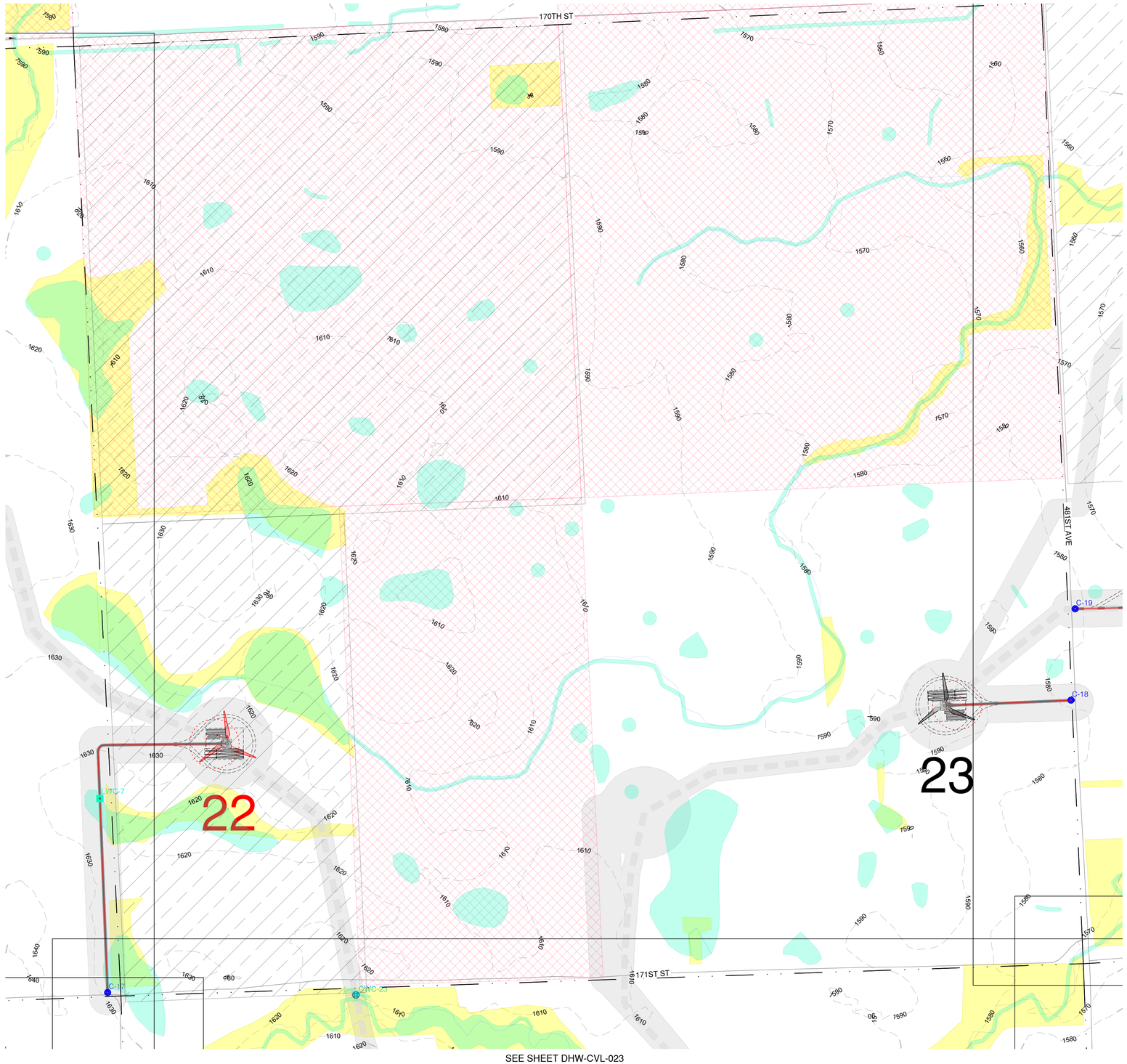
Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 11)

DWG #: DHW-CVL-013
REVISION: 0A

2019.10.01

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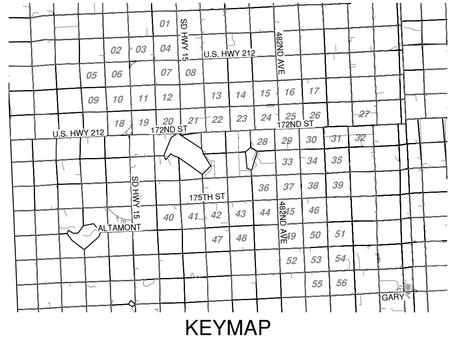



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
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- 2500' — PROPOSED CONTOUR
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- NON-PARTICIPATING (DO NOT DISTURB)
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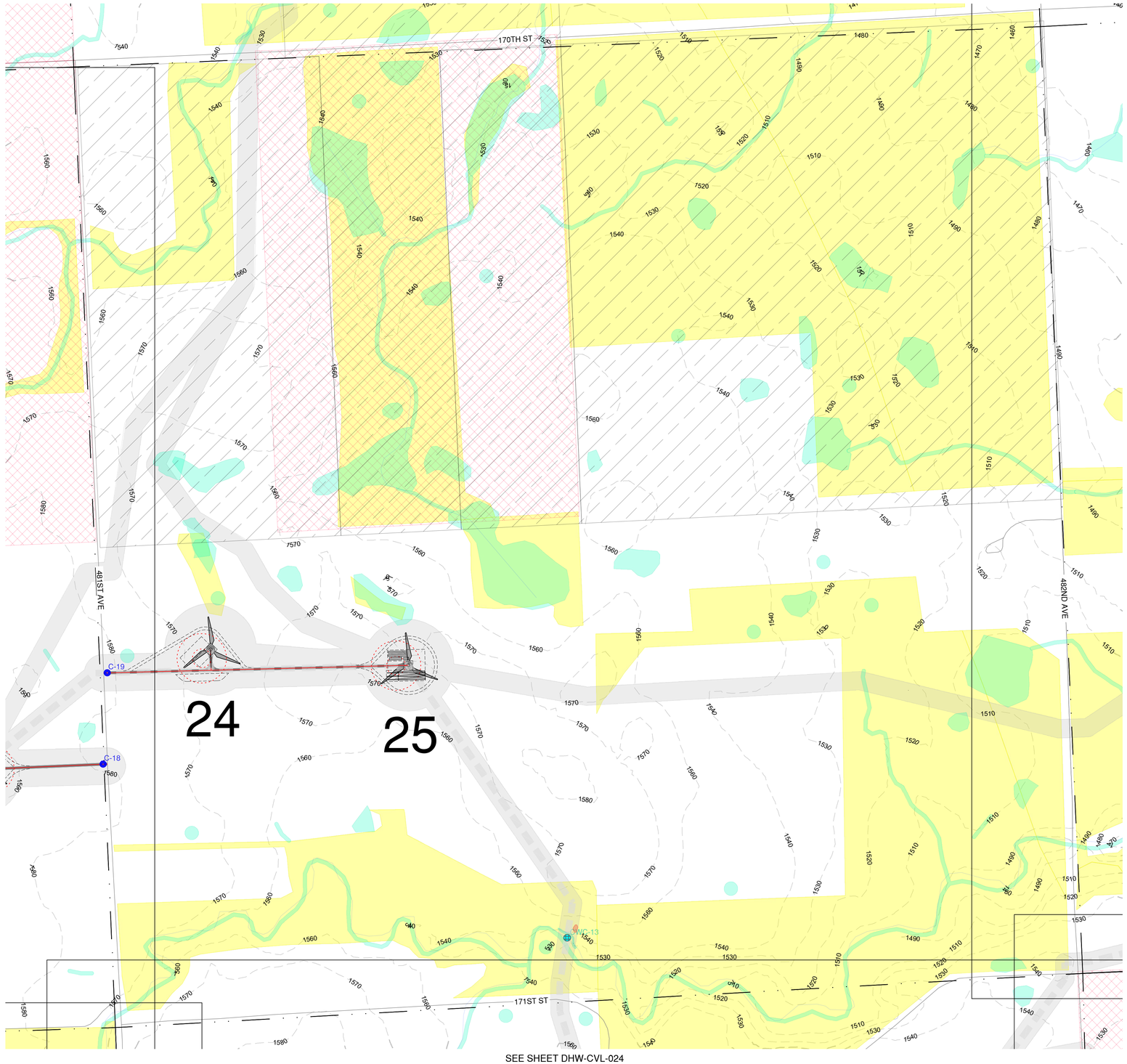

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 22-23)

DWG #: DHW-CVL-014
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 22-23)

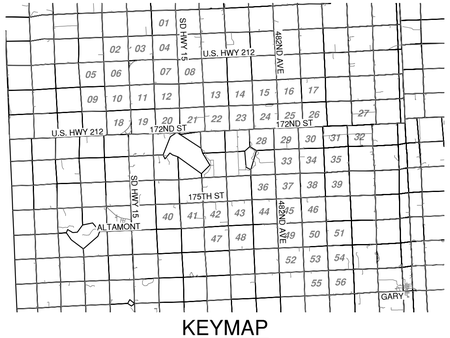



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
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- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
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- 2500' — PROPOSED CONTOUR
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- T *EXISTING TELEPHONE LINE*
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- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
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** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

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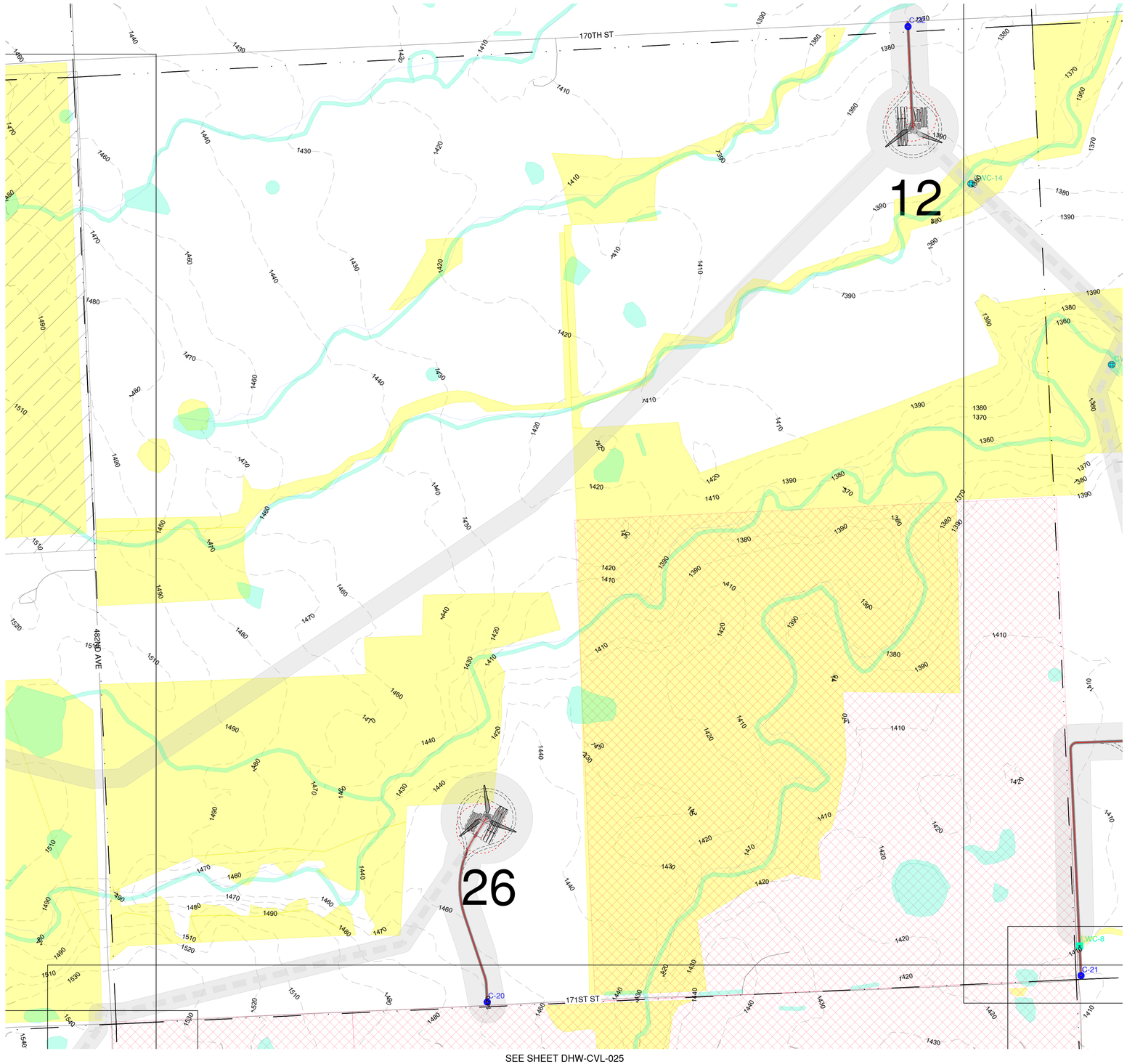

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 24-25)

DWG #: DHW-CVL-015
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 24-25)

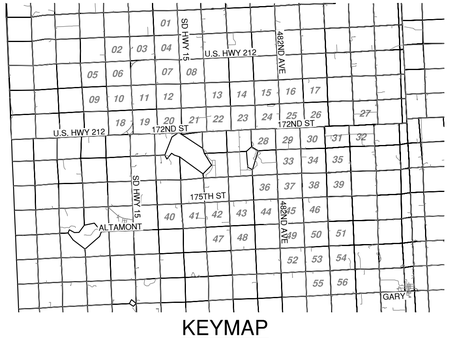



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
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- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
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KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
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| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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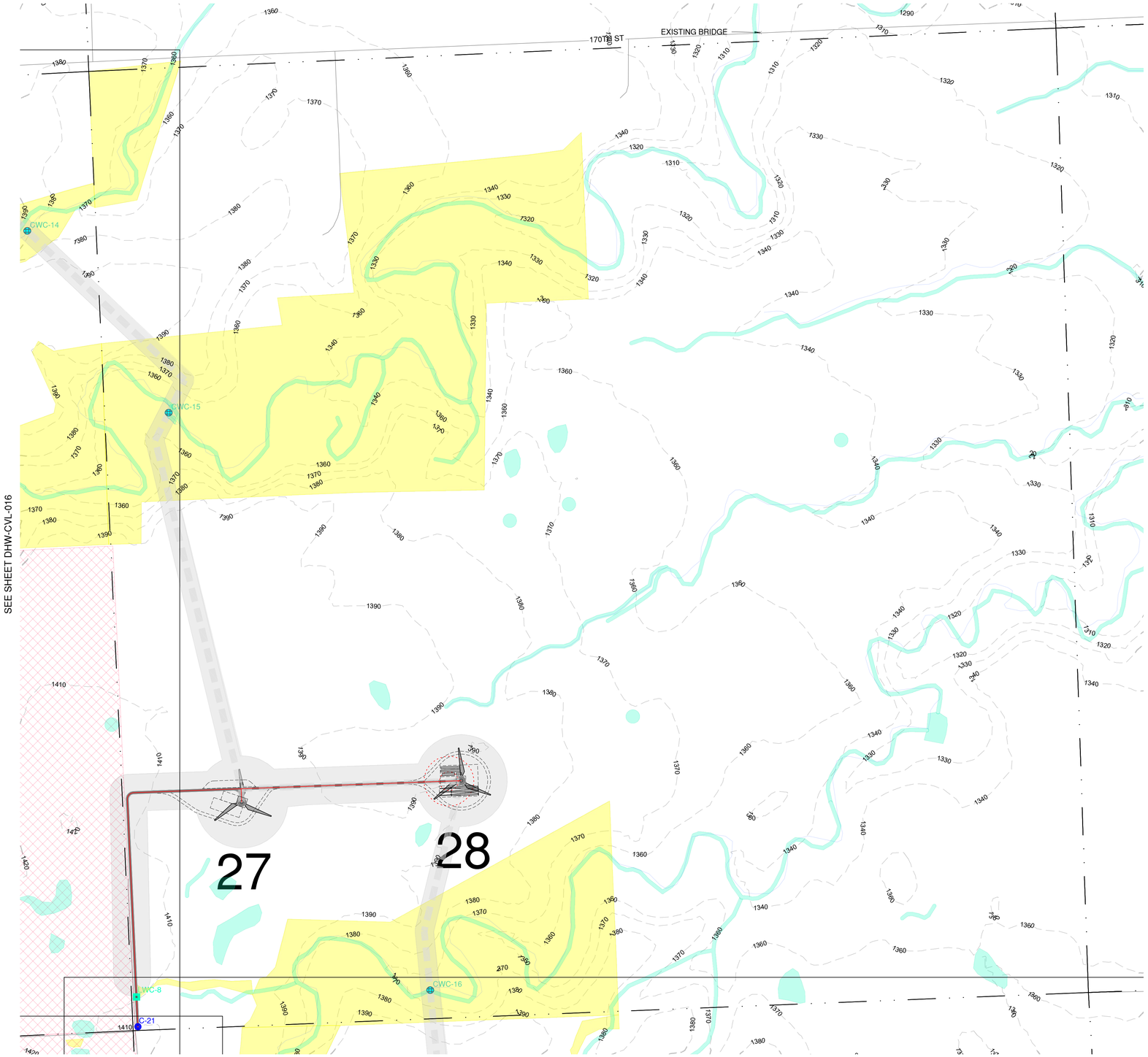
Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 12, WTG 26)

DWG #: DHW-CVL-016
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 12 WTG 26)

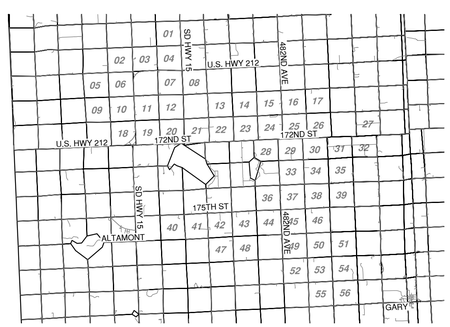



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
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- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
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- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
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KEYMAP

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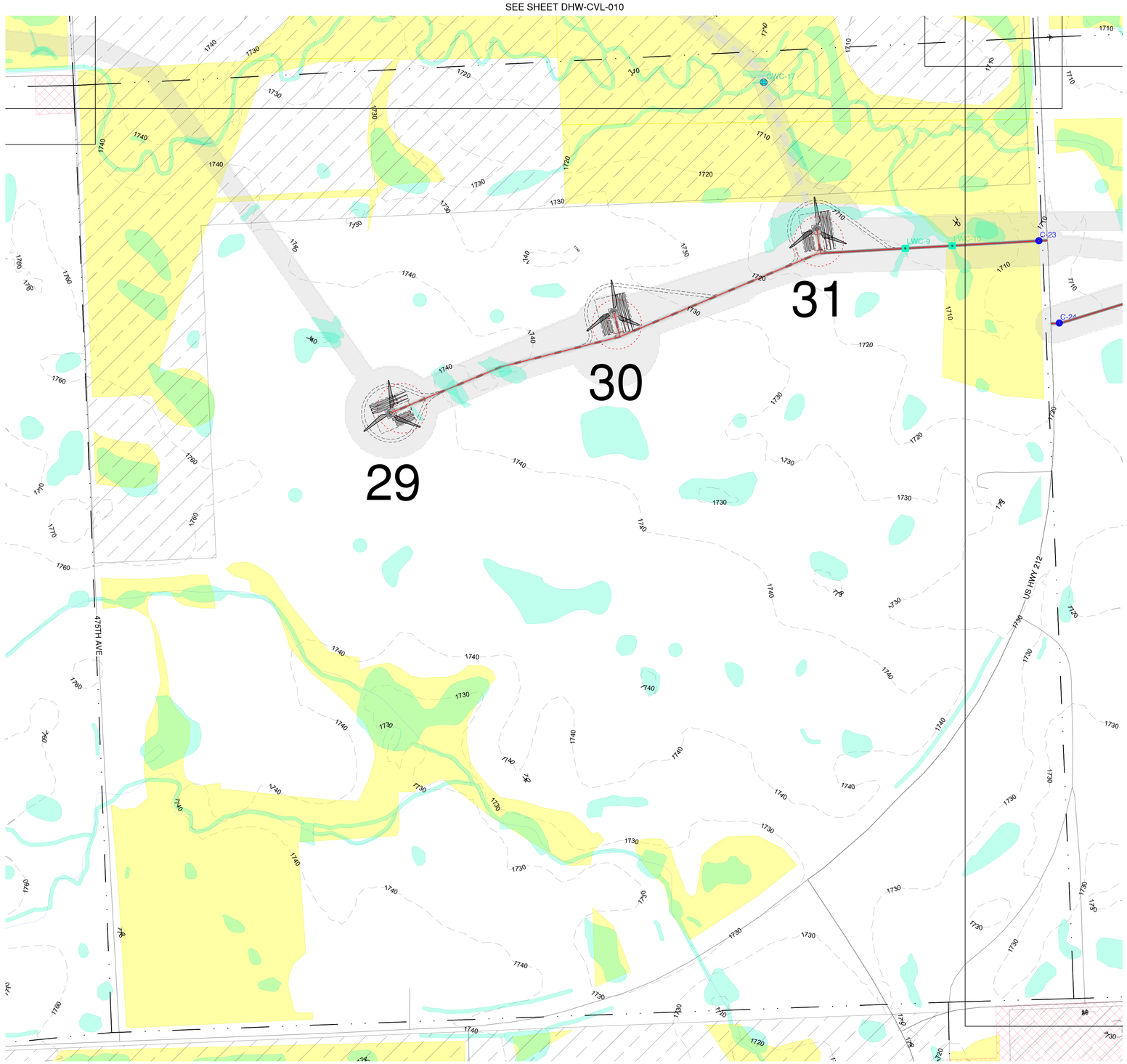

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 27-28)

DWG #: DHW-CVL-017
REVISION: 0A

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 27-28)

2019.10.01

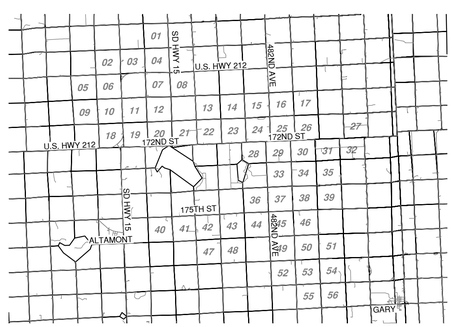



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
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KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

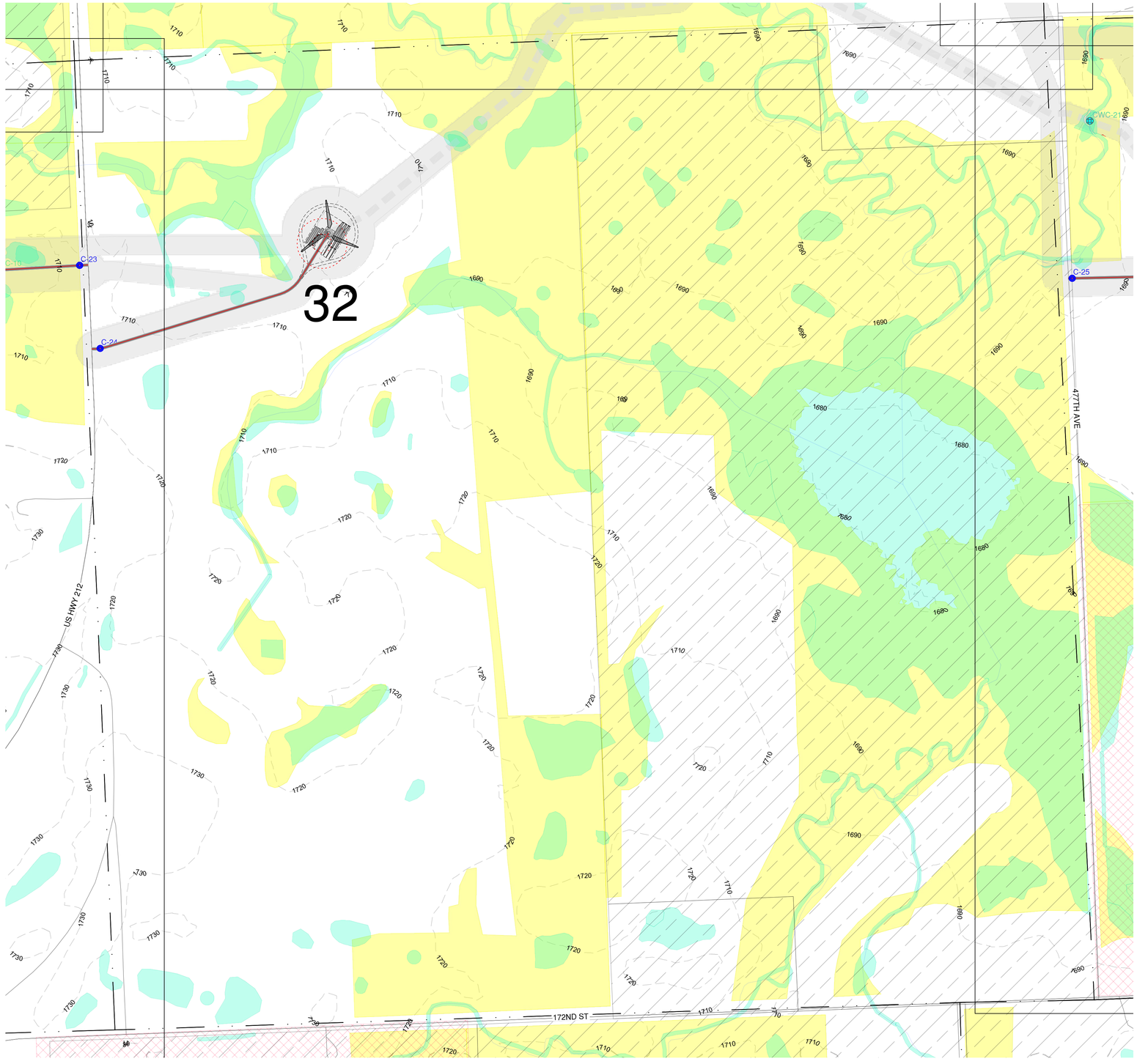
## CIVIL SITE PLAN (WTG 29-31)

DWG #: DHW-CVL-018
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 29-31)

SEE SHEET DHW-CVL-011




SEE SHEET DHW-CVL-018

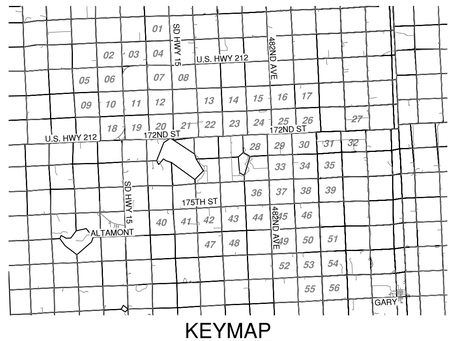
SEE SHEET DHW-CVL-020

## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
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- NON-PARTICIPATING (DO NOT DISTURB)
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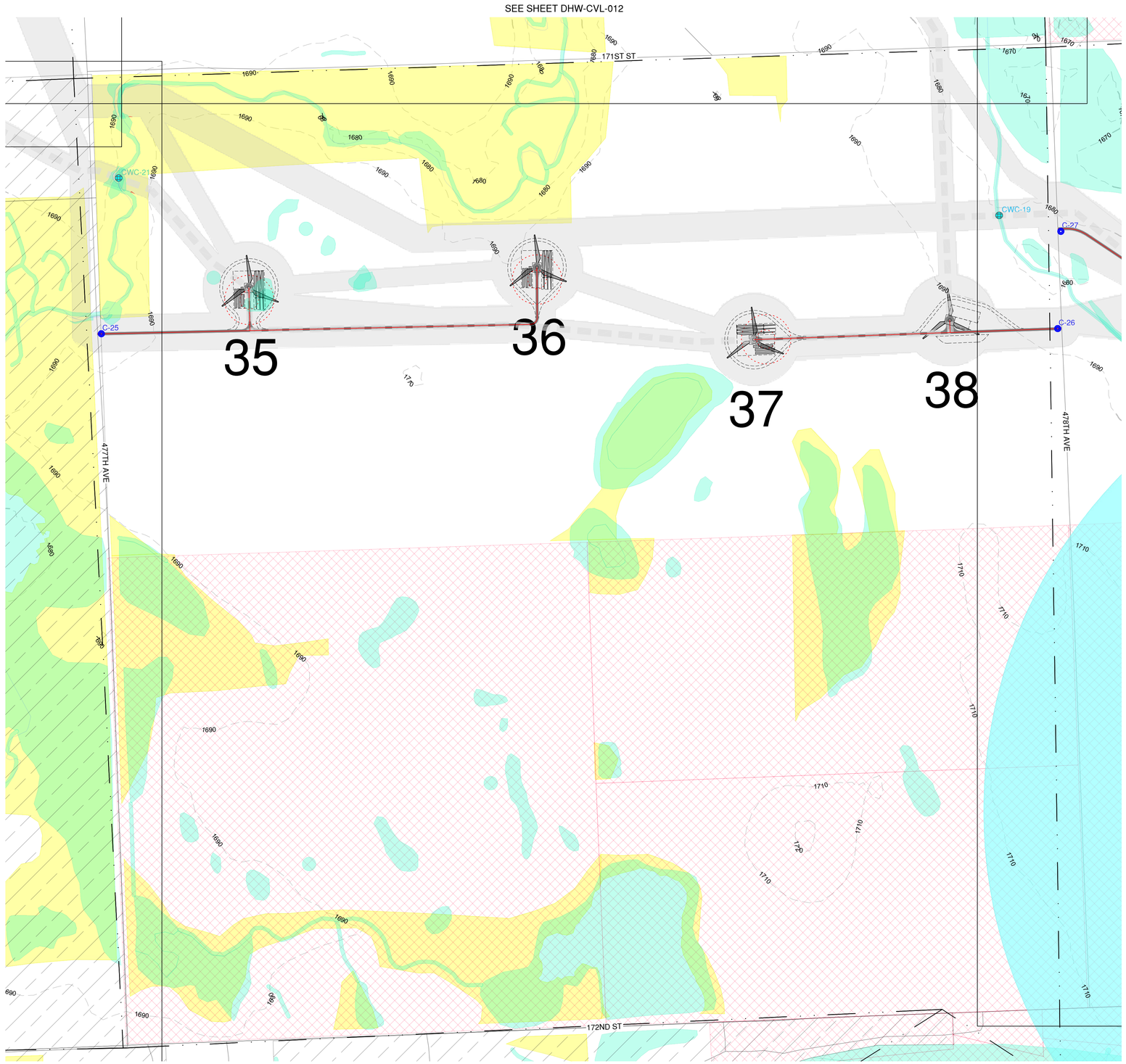

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

CIVIL SITE PLAN (WTG 32)

DWG #: DHW-CVL-019
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 32)

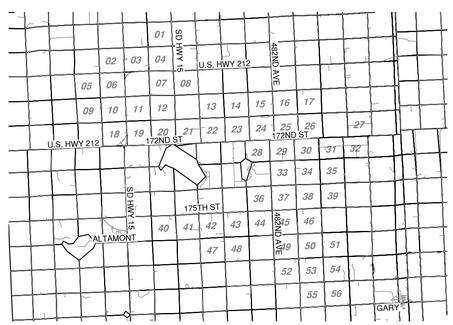



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
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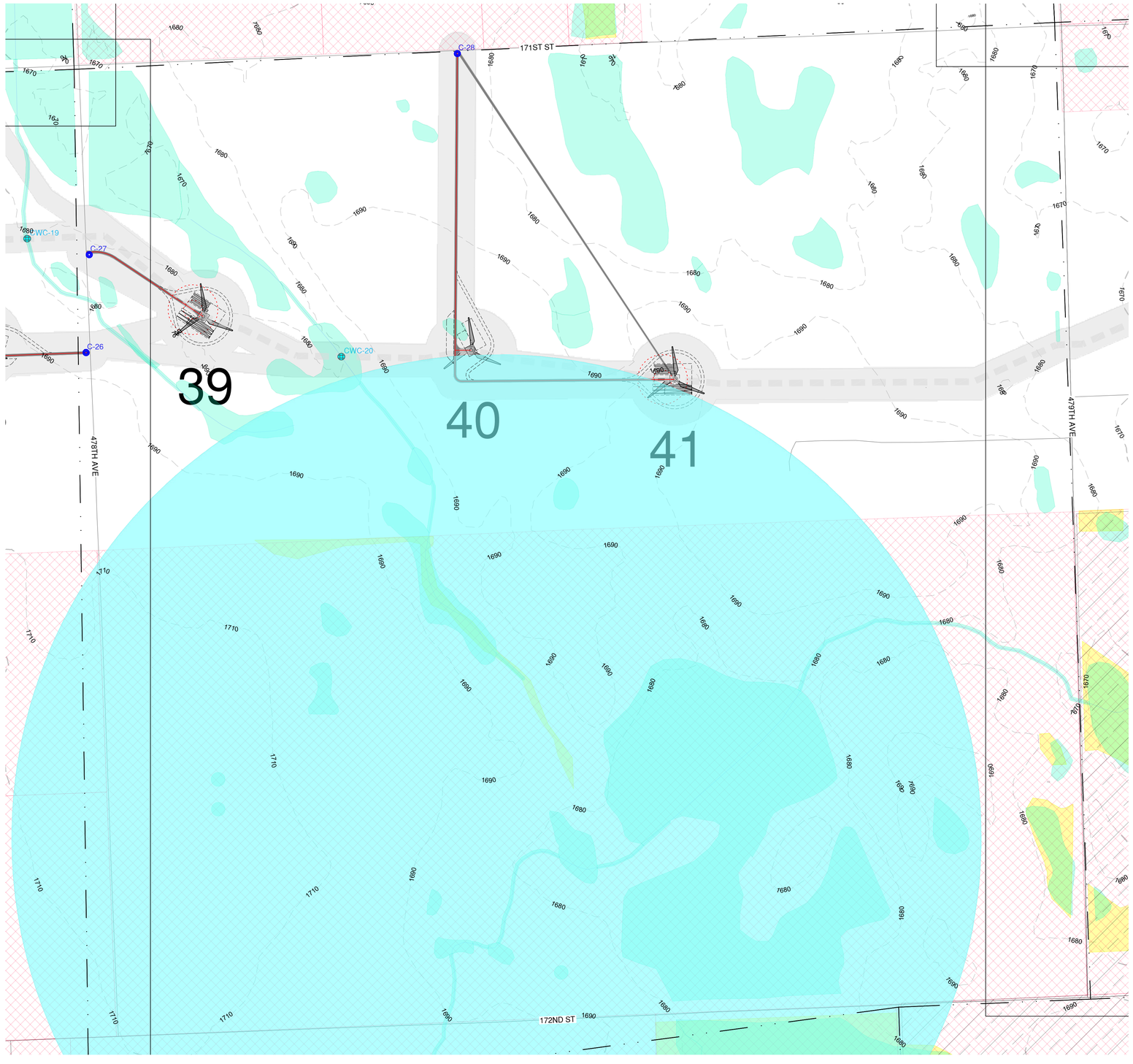

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

CIVIL SITE PLAN (WTG 35-38)

DWG #: DHW-CVL-020
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 35-38)

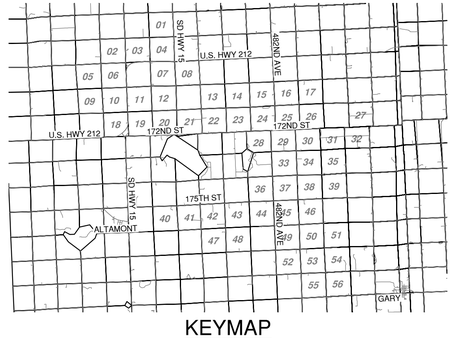



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
- *CULTURAL SURVEY CORRIDOR*

* ANTICIPATED DRAINAGE CROSSINGS ARE SHOWN ON THE CONSTRUCTION PLANS BASED LARGELY ON OBSERVATION OF DRAINAGE CHANNELS/DRAINAGE EROSION FROM THE AERIAL IMAGERY, SUPPLEMENTED BY GIS STREAM LINEWORK AND EXISTING CONTOUR DATA AVAILABLE. ADDITIONAL CROSSINGS (LOW WATER CROSSINGS/CULVERTS) MAY NEED TO BE INSTALLED IN AREAS WHERE CONCENTRATED FLOE IS EXPECTED DUE TO CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL USE DISCRETION IF A LOW WATER CROSSING OR CULVERT (REFER TO DETAILS ON SHEET 6) IS NEEDED BASED ON THE TOPOGRAPHY OF THE DRAINAGE CROSSING.

** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

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CHICAGO, IL 60606

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0 150 300 600

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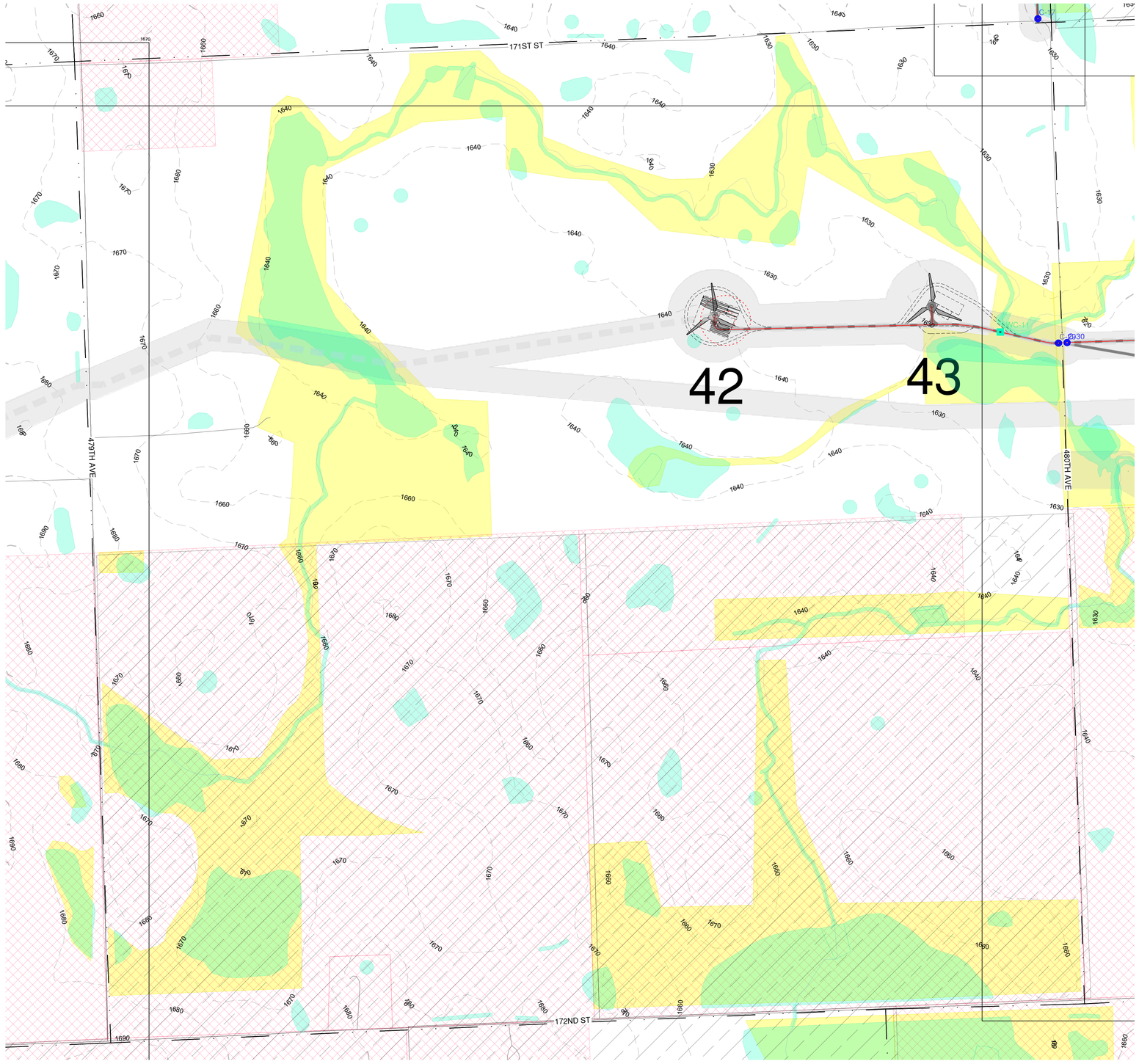

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 39-41)

DWG #: DHW-CVL-021
REVISION: 0A

2019.10.01

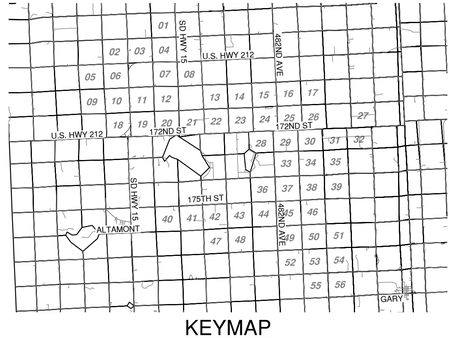



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
- *CULTURAL SURVEY CORRIDOR*

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** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |


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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

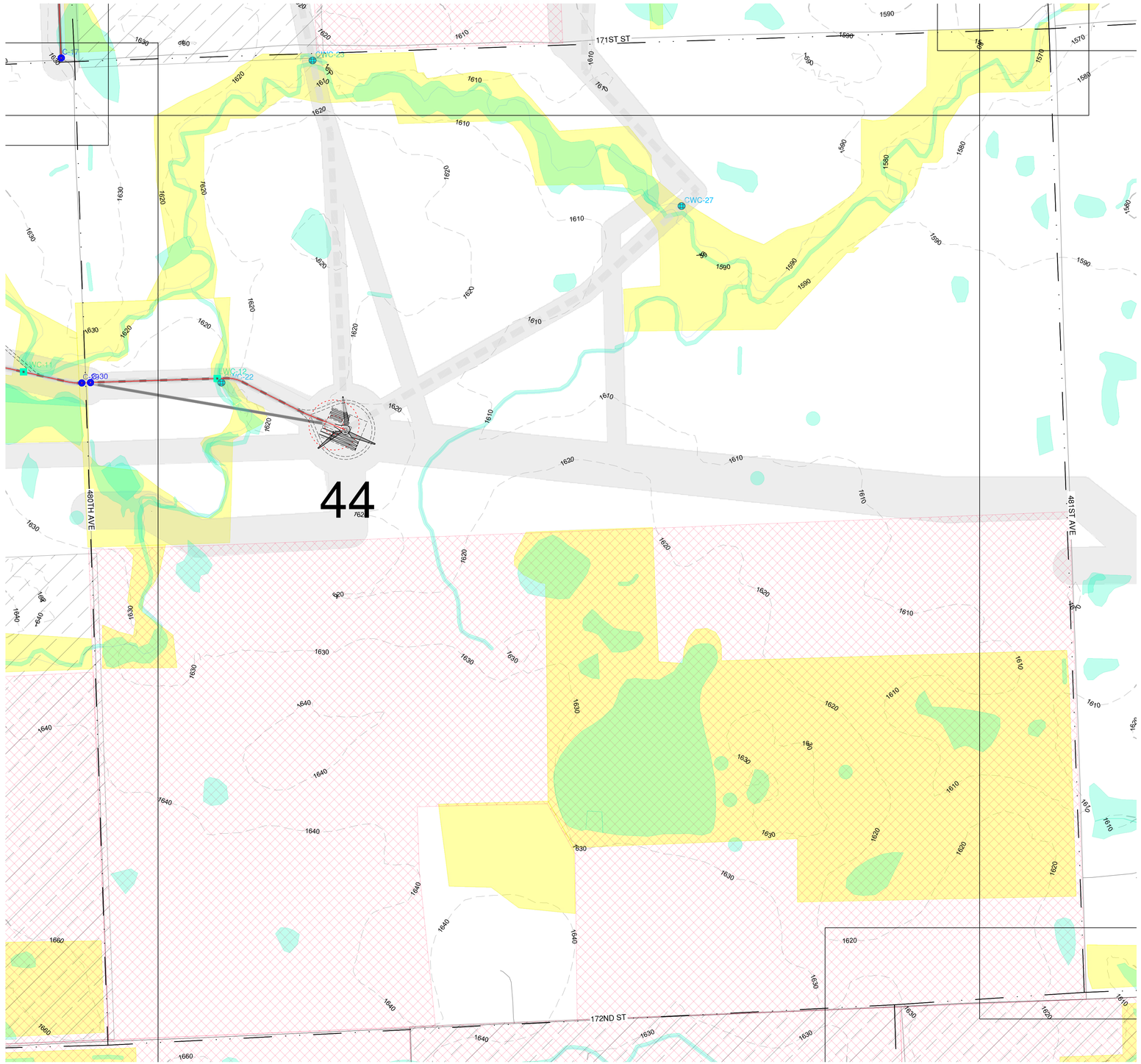
# CIVIL SITE PLAN (WTG 42-43)

DWG #: DHW-CVL-022
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 42-43)

SEE SHEET DHW-CVL-014




SEE SHEET DHW-CVL-022

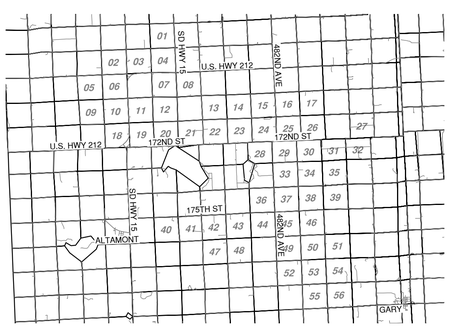
SEE SHEET DHW-CVL-024

## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
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- *EXISTING CULVERT*
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** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY. SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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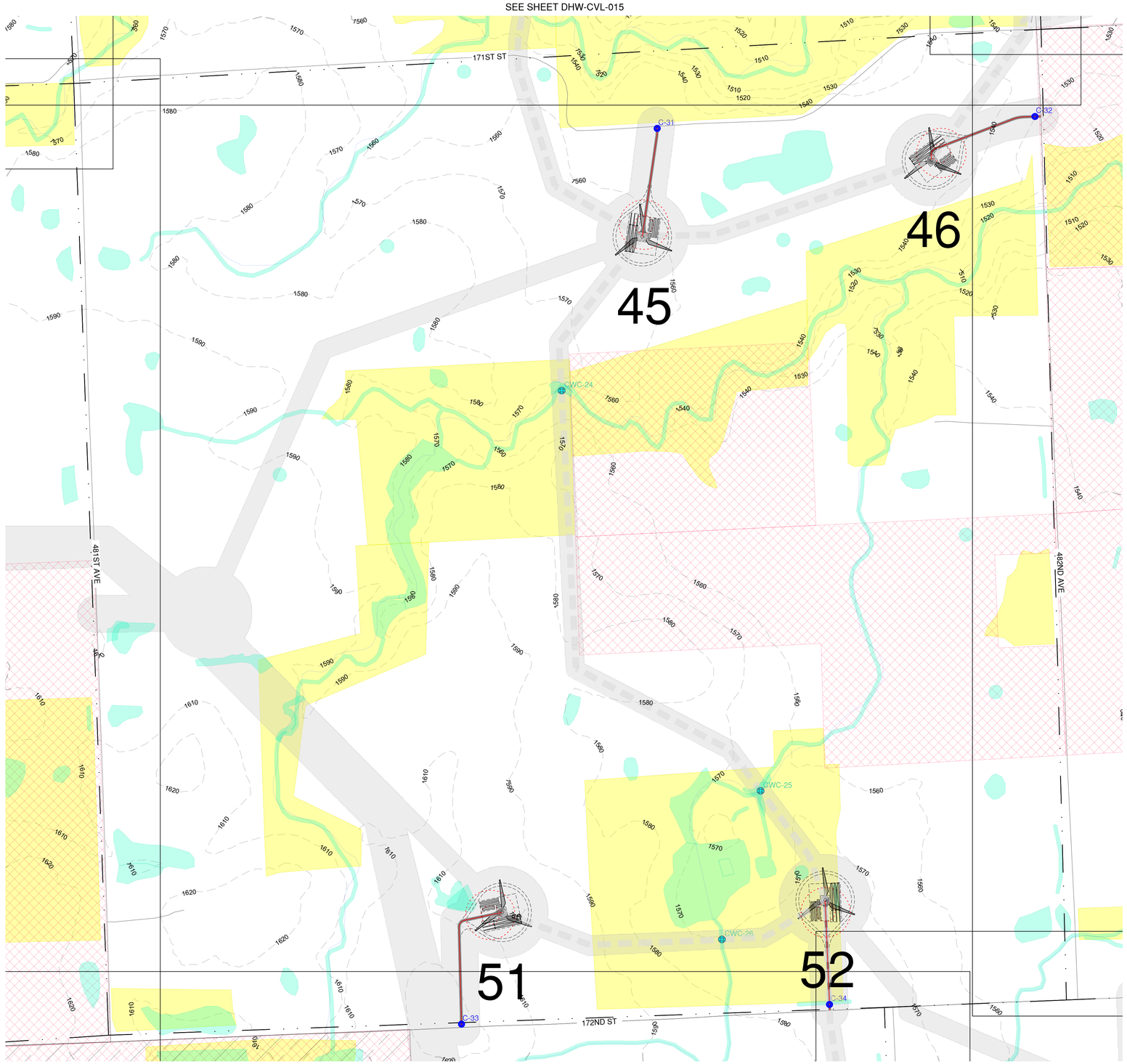
Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 44)

DWG #: DHW-CVL-044
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 44)

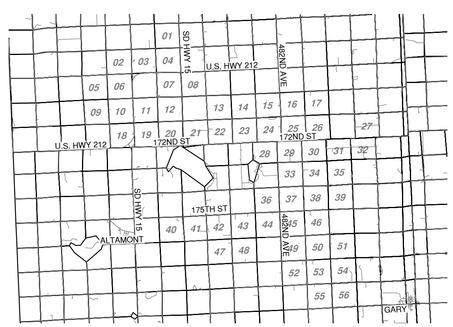



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
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- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
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** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY. SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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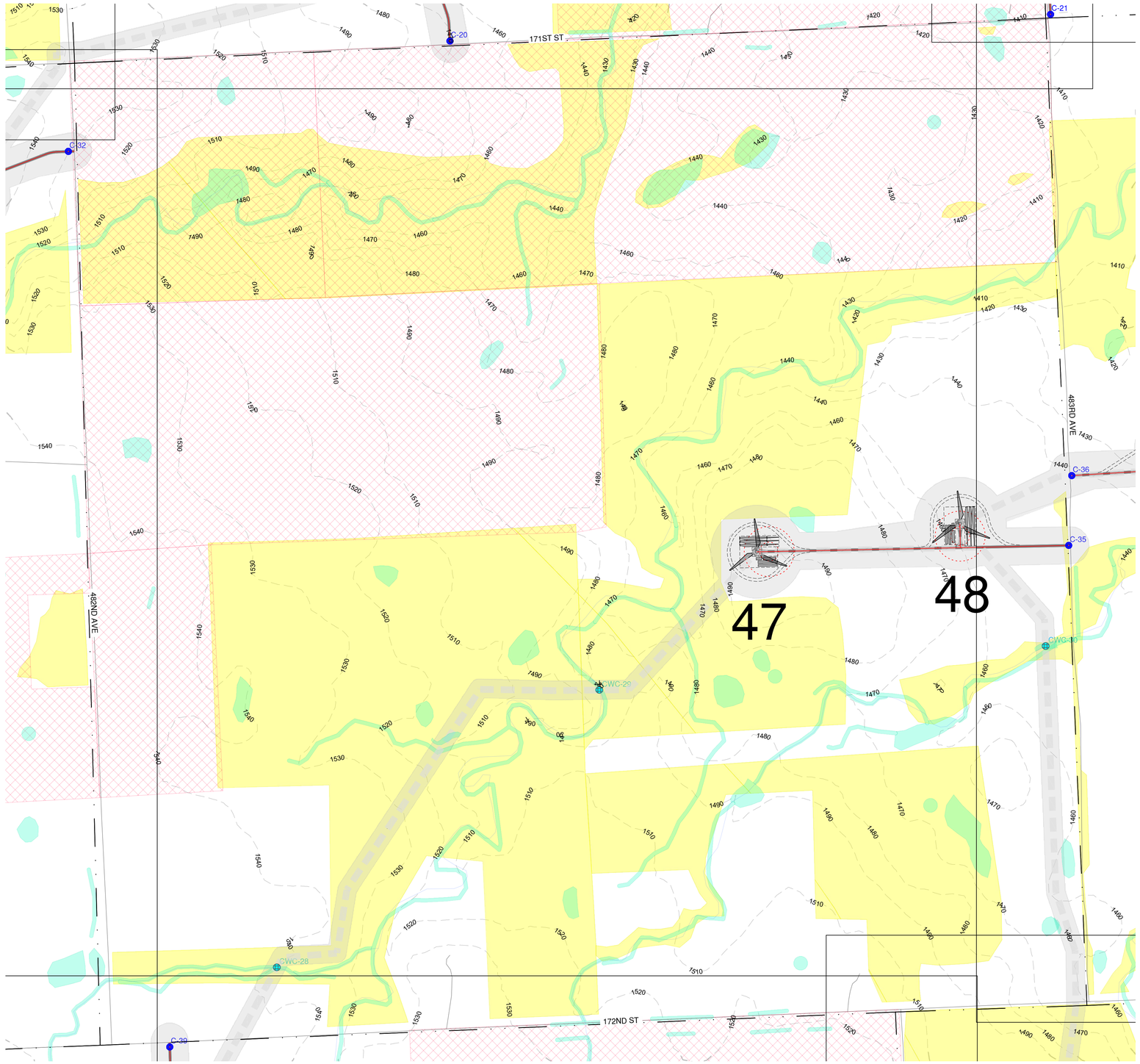
Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 45-46, WTG 51-52)

DWG #: DHW-CVL-024
REVISION: 0A

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 45-46 WTG 51-52)

2019.10.01

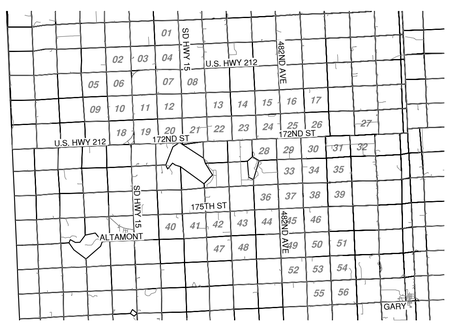



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
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- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
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- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
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- *EXISTING WETLANDS/PLAYAS*
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** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
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| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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Design By: T. DEJONG
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Project Number: 19.01167

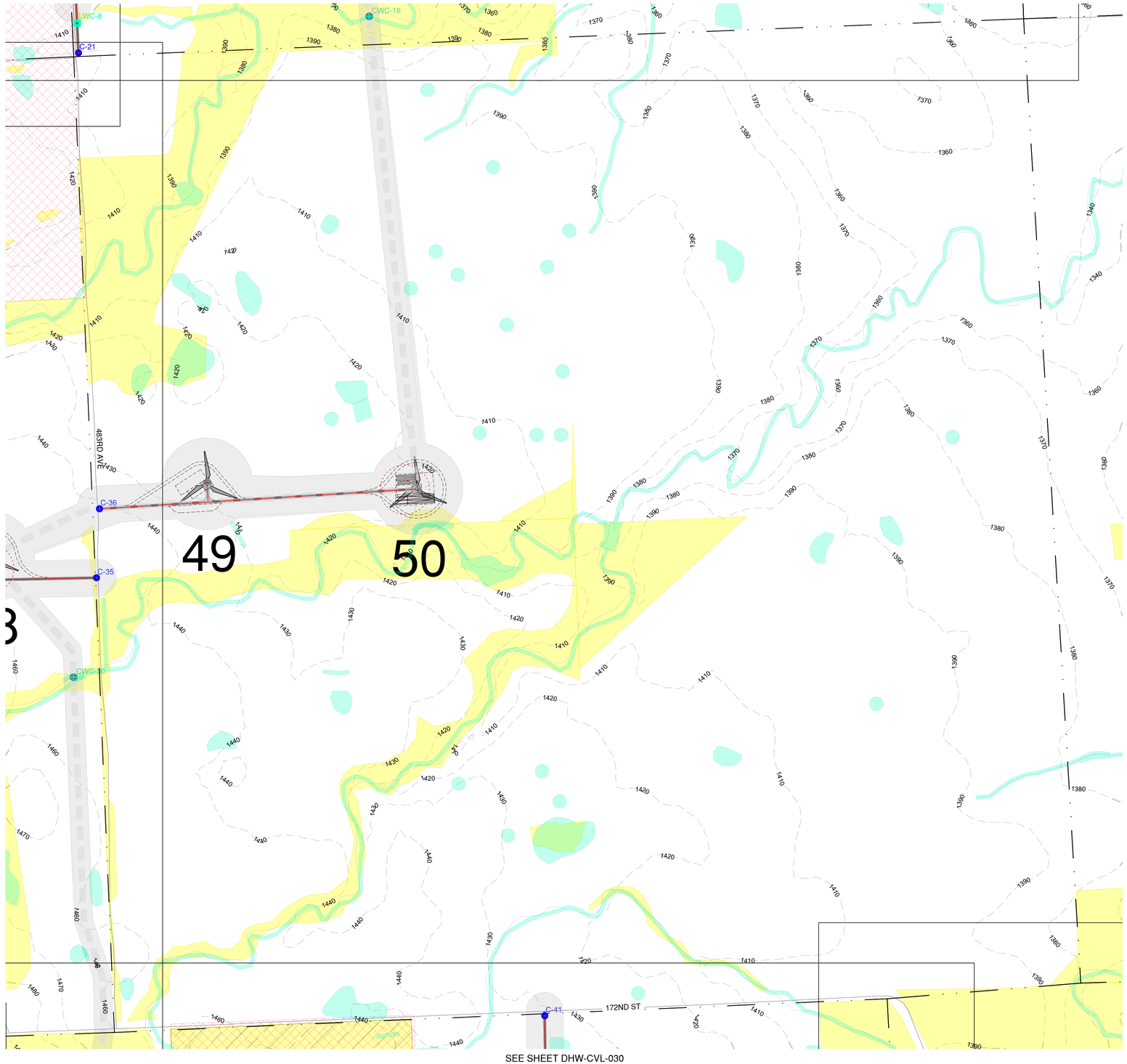
# CIVIL SITE PLAN (WTG 47-48)

DWG #: DHW-CVL-025
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 47-48)

SEE SHEET DHW-CVL-017




SEE SHEET DHW-CVL-025

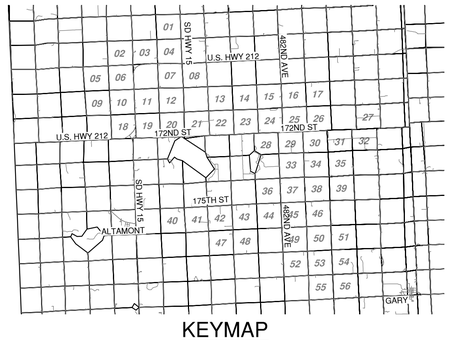
SEE SHEET DHW-CVL-030

## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- # FENCE CROSSING
- # PIPELINE CROSSING
- # PROPOSED LOW WATER CROSSING
- # PROPOSED CRANE LOW WATER CROSSING
- # PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
- *CULTURAL SURVEY CORRIDOR*

* ANTICIPATED DRAINAGE CROSSINGS ARE SHOWN ON THE CONSTRUCTION PLANS BASED LARGELY ON OBSERVATION OF DRAINAGE CHANNELS/DRAINAGE EROSION FROM THE AERIAL IMAGERY, SUPPLEMENTED BY GIS STREAM LINEWORK AND EXISTING CONTOUR DATA AVAILABLE. ADDITIONAL CROSSINGS (LOW WATER CROSSINGS/CULVERTS) MAY NEED TO BE INSTALLED IN AREAS WHERE CONCENTRATED FLOE IS EXPECTED DUE TO CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL USE DISCRETION IF A LOW WATER CROSSING OR CULVERT (REFER TO DETAILS ON SHEET 6) IS NEEDED BASED ON THE TOPOGRAPHY OF THE DRAINAGE CROSSING.

** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

2020 ONE SOUTH WACKER DR STE 1800
CHICAGO, IL 60606

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NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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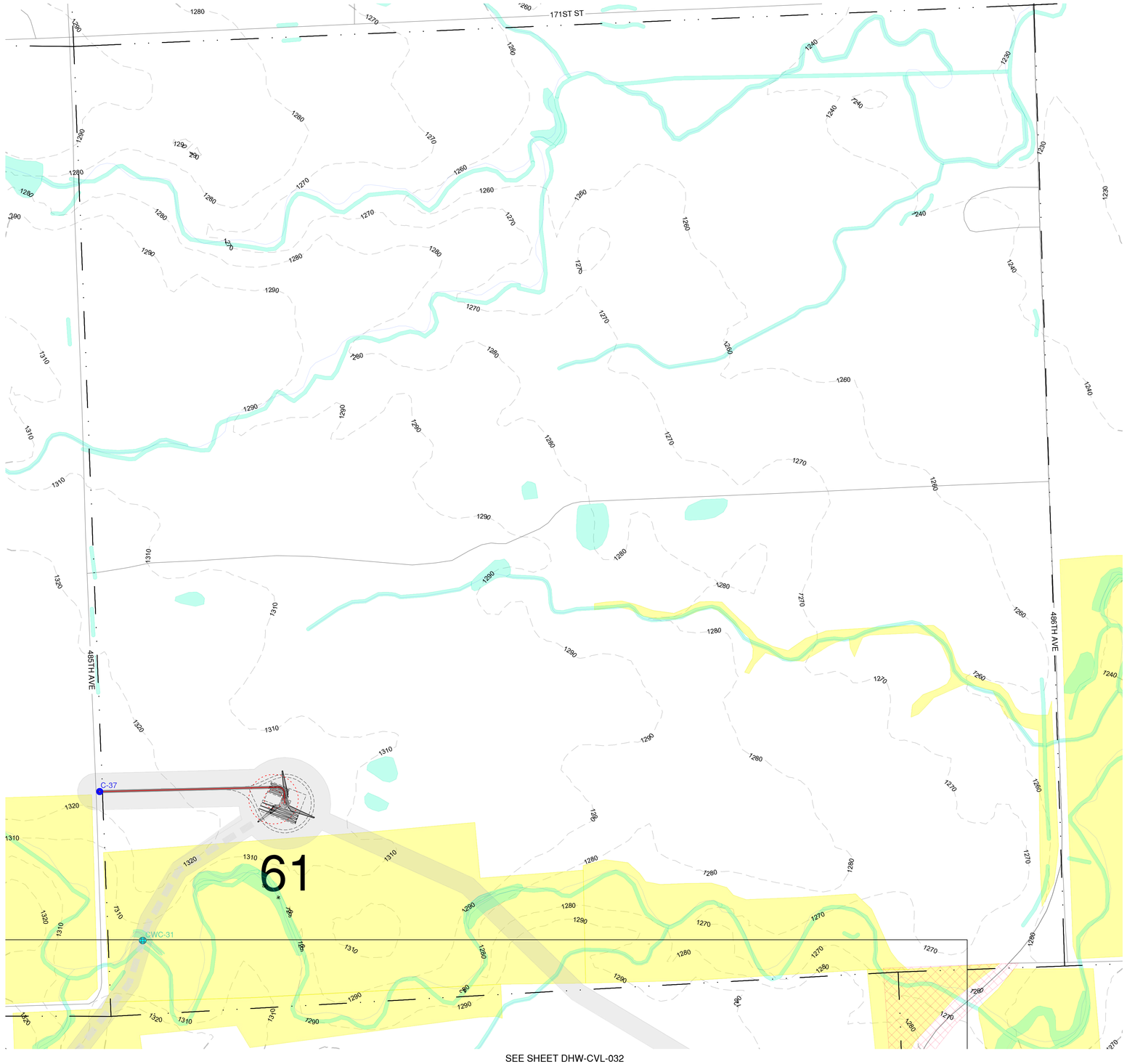

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 49-50)

DWG #: DHW-CVL-026
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 49-50)



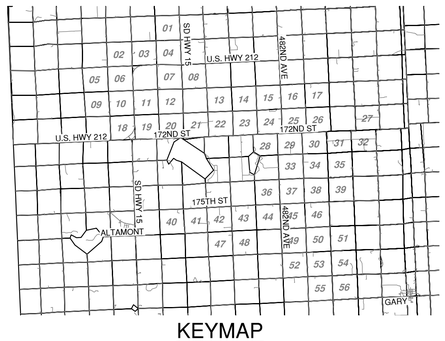

SEE SHEET DHW-CVL-032

## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
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- *EXISTING CATTLE GUARD*
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KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

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NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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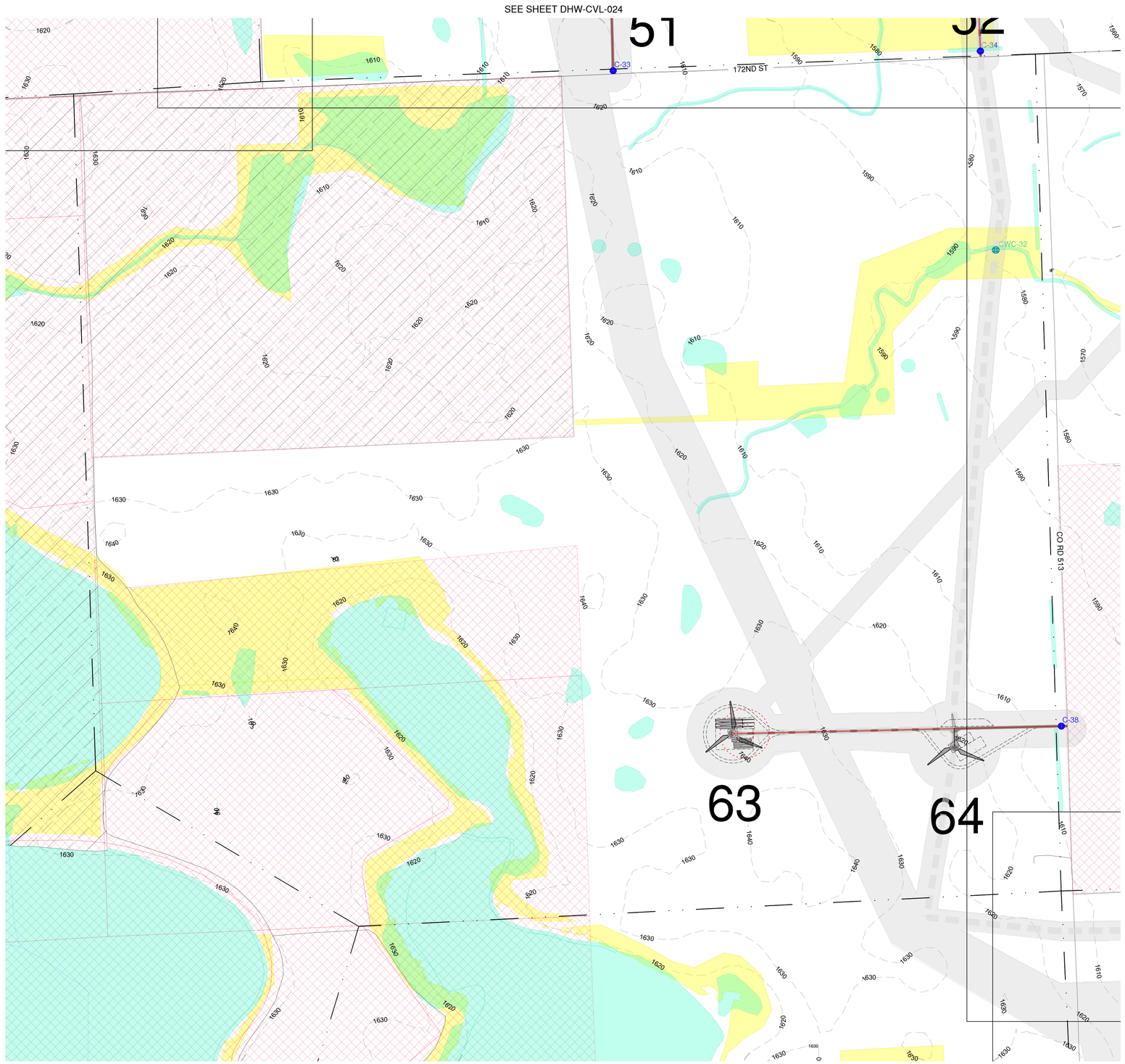

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 61)

DWG #: DHW-CVL-027
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 61)

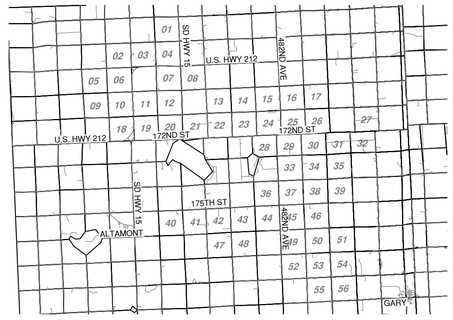



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- # FENCE CROSSING
- # PIPELINE CROSSING
- # PROPOSED LOW WATER CROSSING
- # PROPOSED CRANE LOW WATER CROSSING
- # PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
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- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
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- *EXISTING PROPERTY LINE*
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KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

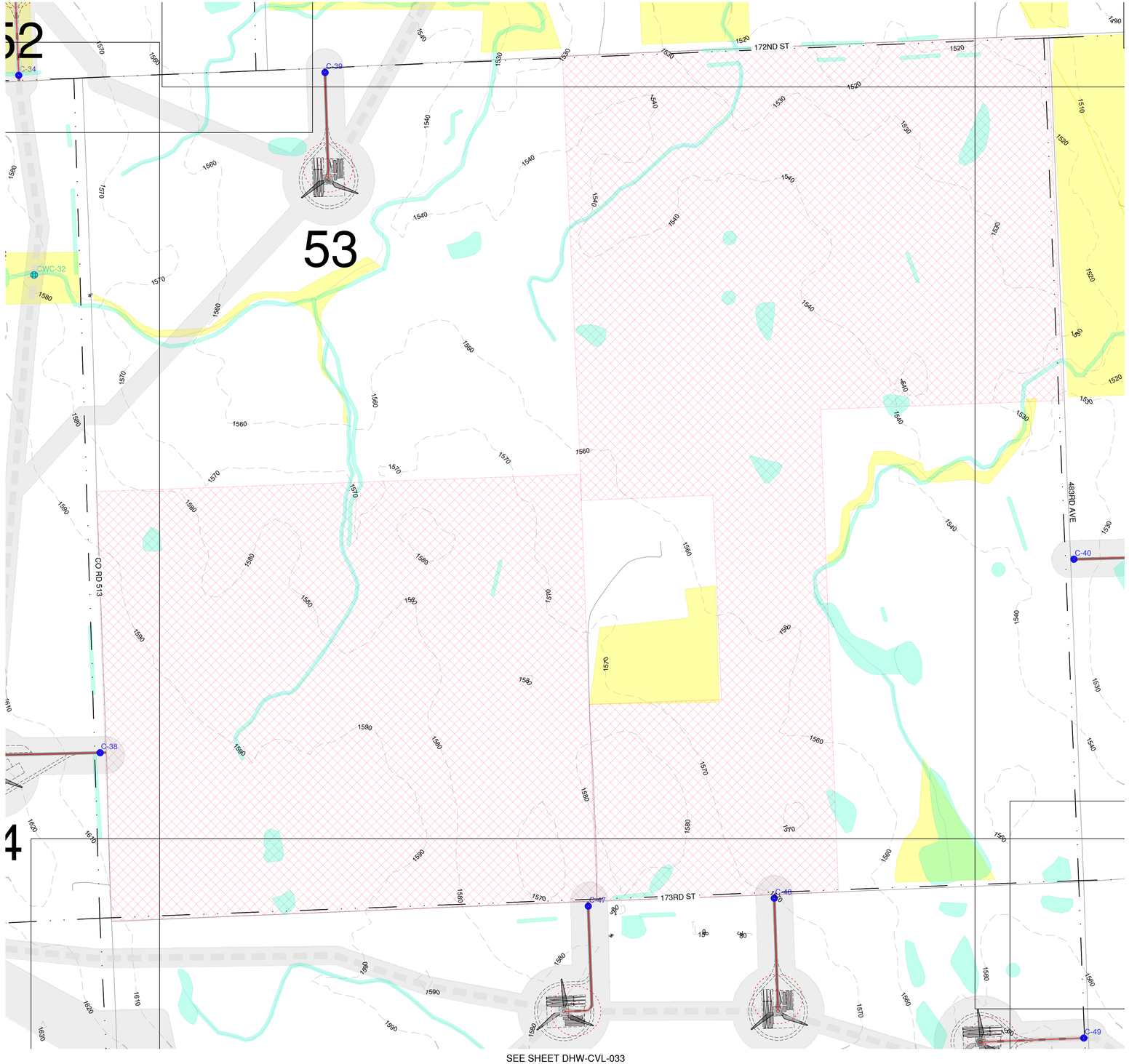
## CIVIL SITE PLAN (WTG 63-64)

DWG #: DHW-CVL-028
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 63-64)

SEE SHEET DHW-CVL-025




SEE SHEET DHW-CVL-028

SEE SHEET DHW-CVL-030

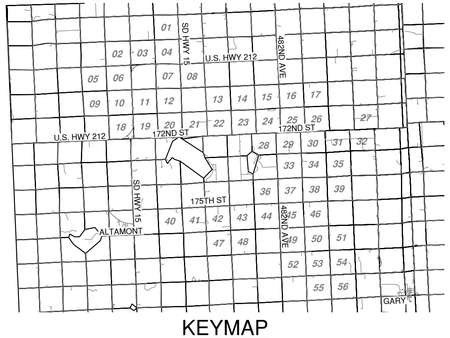
SEE SHEET DHW-CVL-033

## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- # FENCE CROSSING
- # PIPELINE CROSSING
- # PROPOSED LOW WATER CROSSING
- # PROPOSED CRANE LOW WATER CROSSING
- # PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
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KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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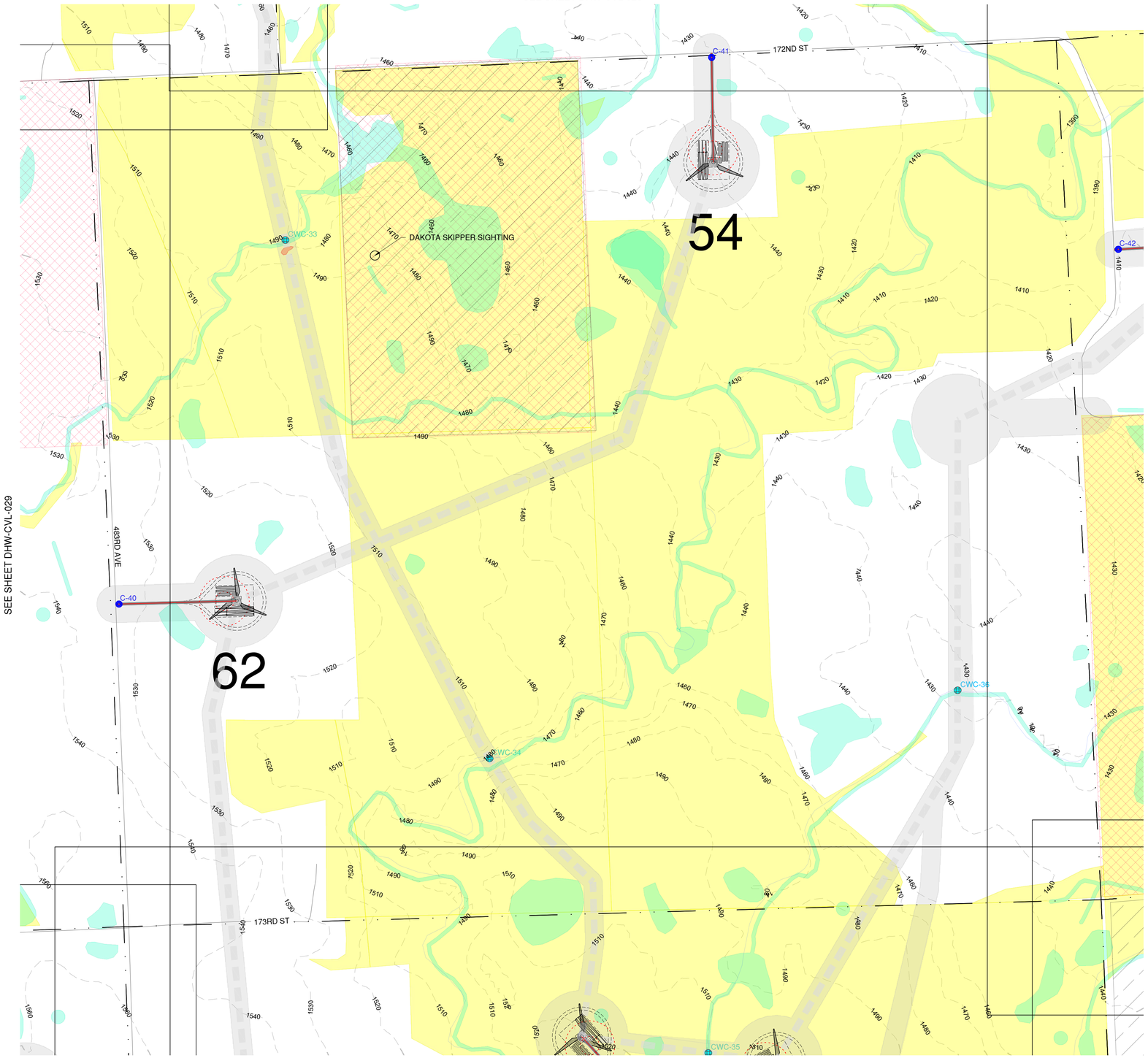

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 53)

DWG #: DHW-CVL-029
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 53)

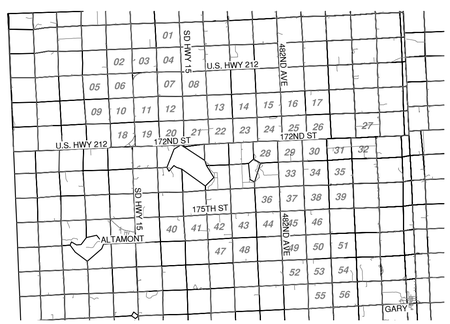



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
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- 2500' *EXISTING COUNTOUR*
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KEYMAP

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## DEUEL COUNTY, SOUTH DAKOTA

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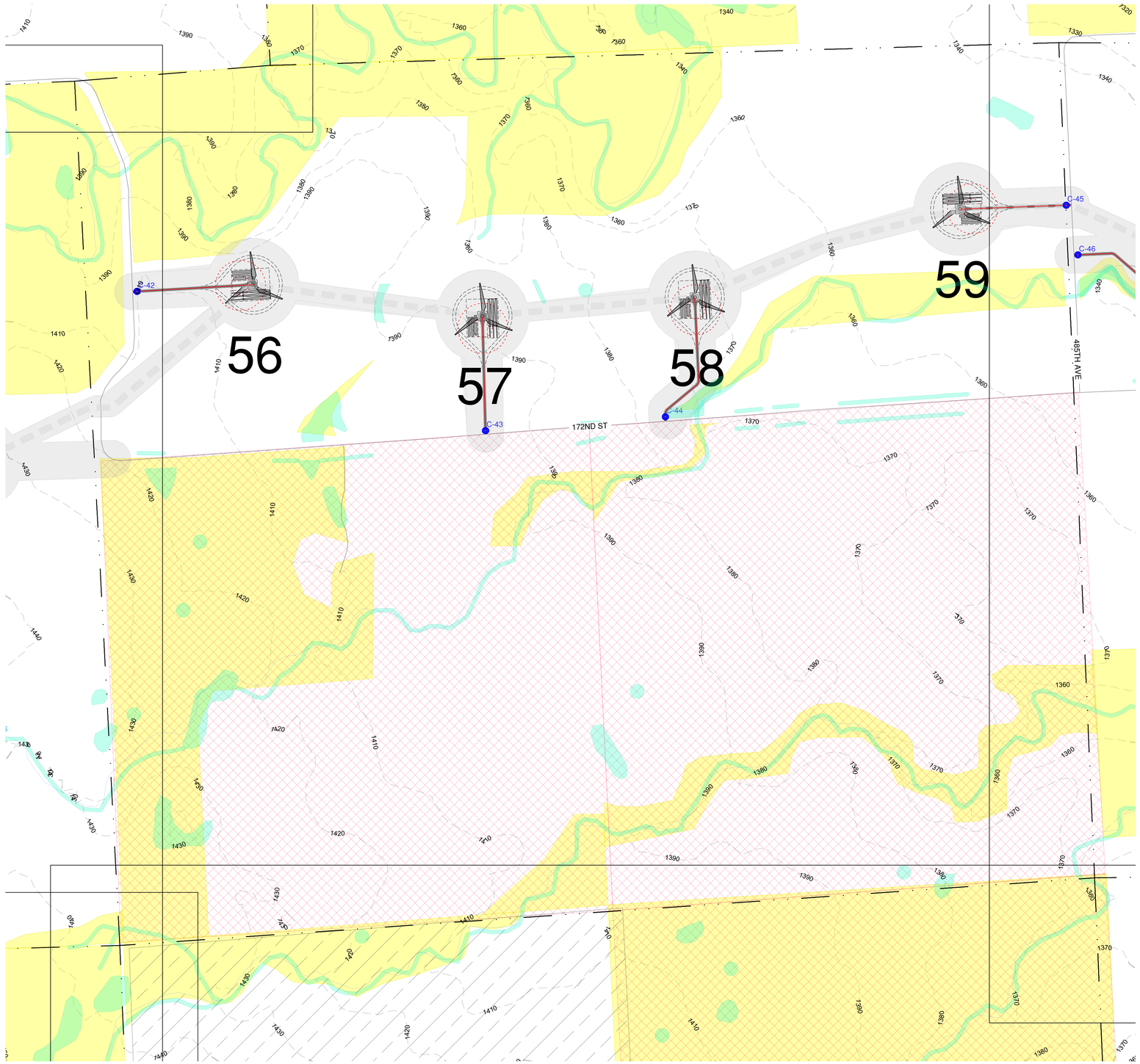

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 54, WTG 62)

DWG #: DHW-CVL-030
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 54 WTG 62)

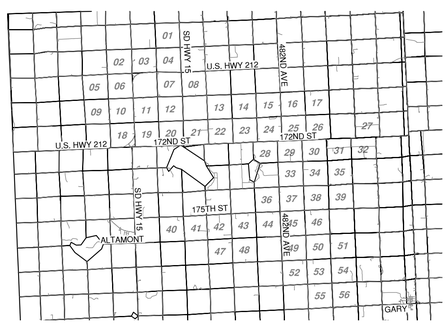



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
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- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
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KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
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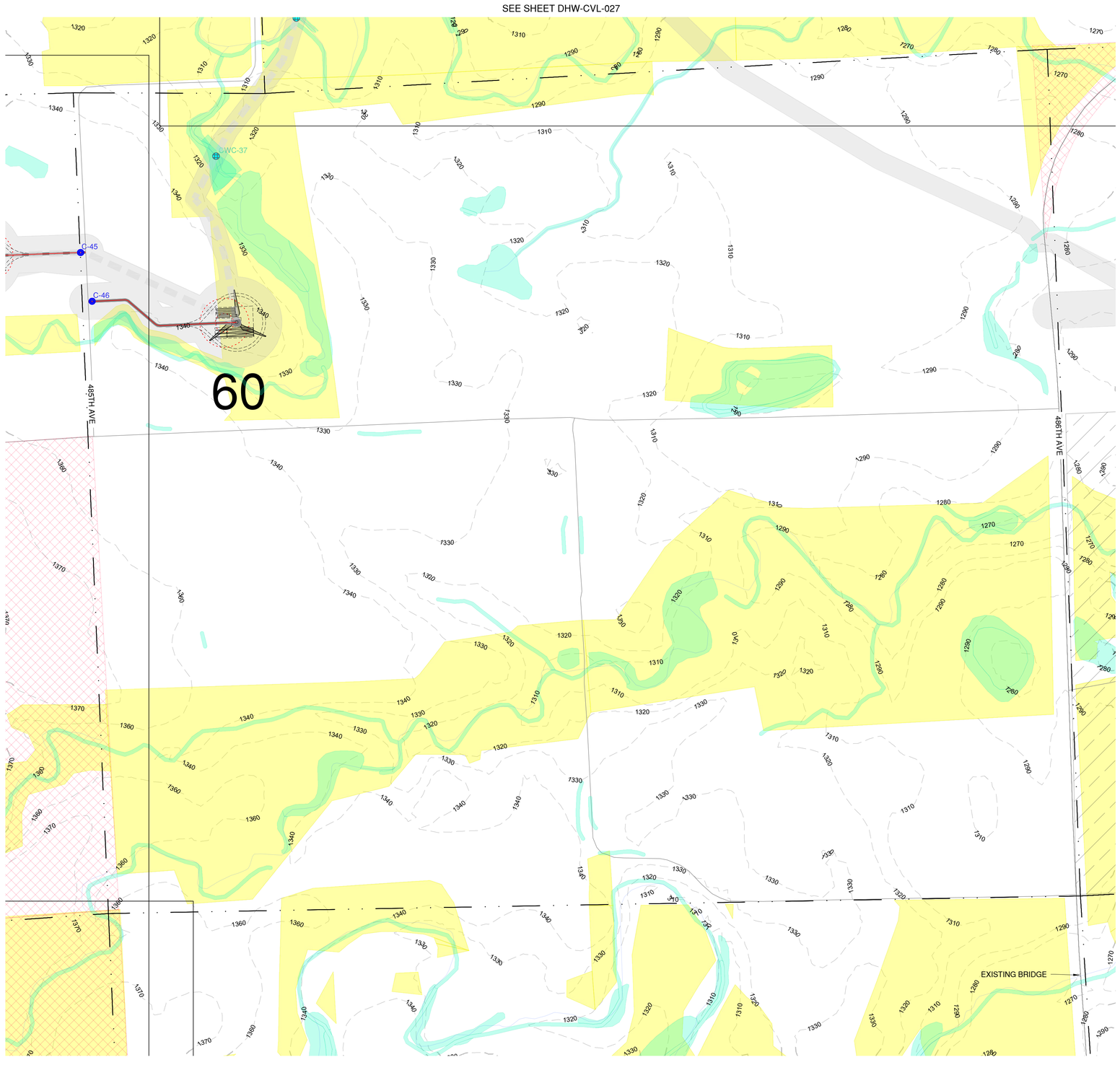

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 56-59)

DWG #: DHW-CVL-031
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 56-59)

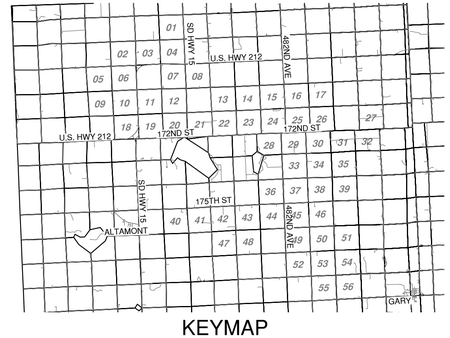



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
- *CULTURAL SURVEY CORRIDOR*

* ANTICIPATED DRAINAGE CROSSINGS ARE SHOWN ON THE CONSTRUCTION PLANS BASED LARGELY ON OBSERVATION OF DRAINAGE CHANNELS/DRAINAGE EROSION FROM THE AERIAL IMAGERY, SUPPLEMENTED BY GIS STREAM LINEWORK AND EXISTING CONTOUR DATA AVAILABLE. ADDITIONAL CROSSINGS (LOW WATER CROSSINGS/CULVERTS) MAY NEED TO BE INSTALLED IN AREAS WHERE CONCENTRATED FLOE IS EXPECTED DUE TO CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL USE DISCRETION IF A LOW WATER CROSSING OR CULVERT (REFER TO DETAILS ON SHEET 6) IS NEEDED BASED ON THE TOPOGRAPHY OF THE DRAINAGE CROSSING.

** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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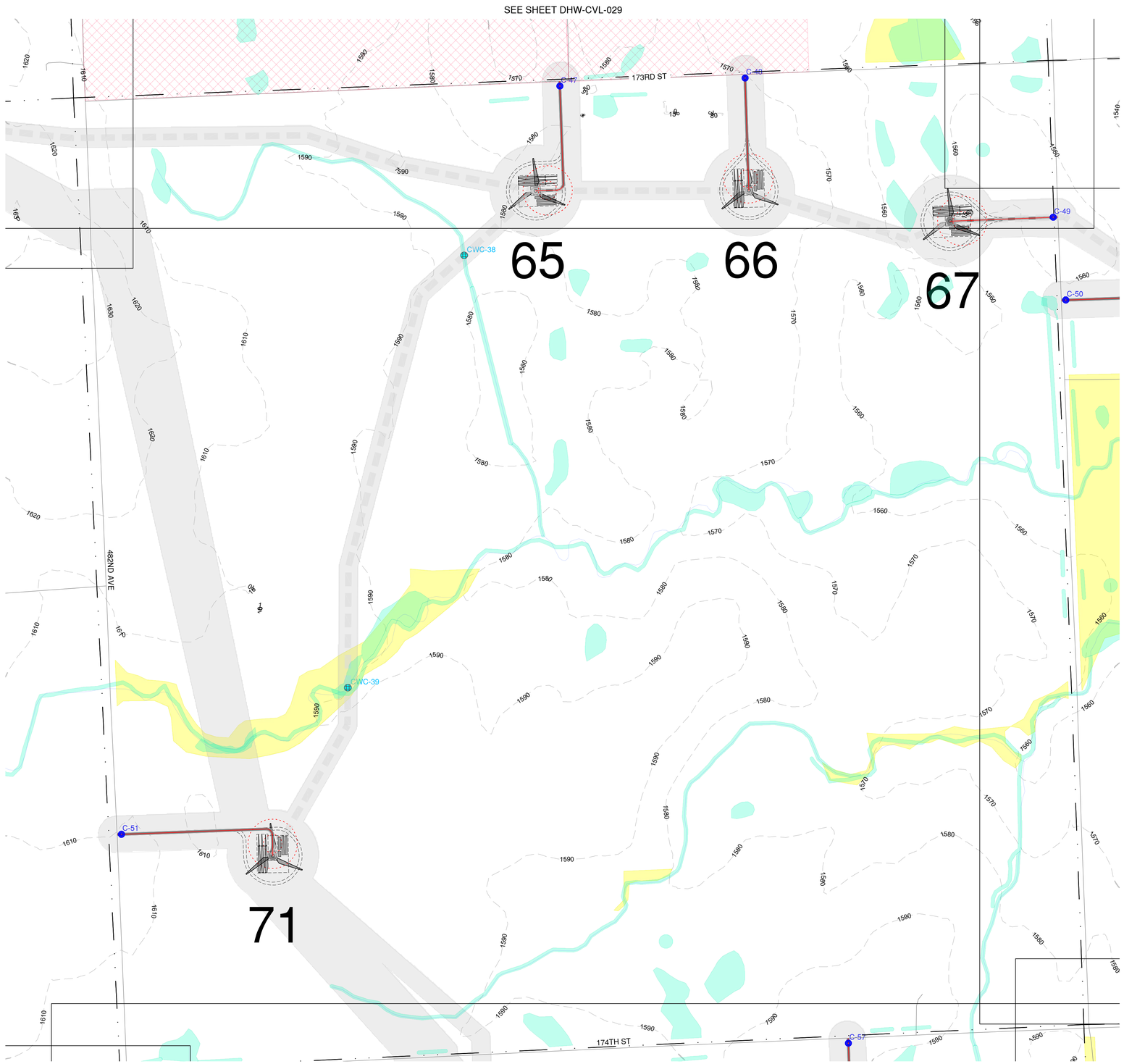
Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 60)

DWG #: DHW-CVL-032
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 60)

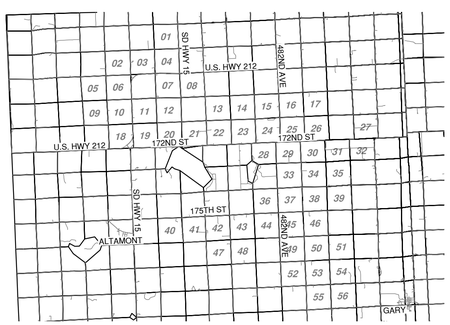



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
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- *CULTURAL SURVEY CORRIDOR*

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KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

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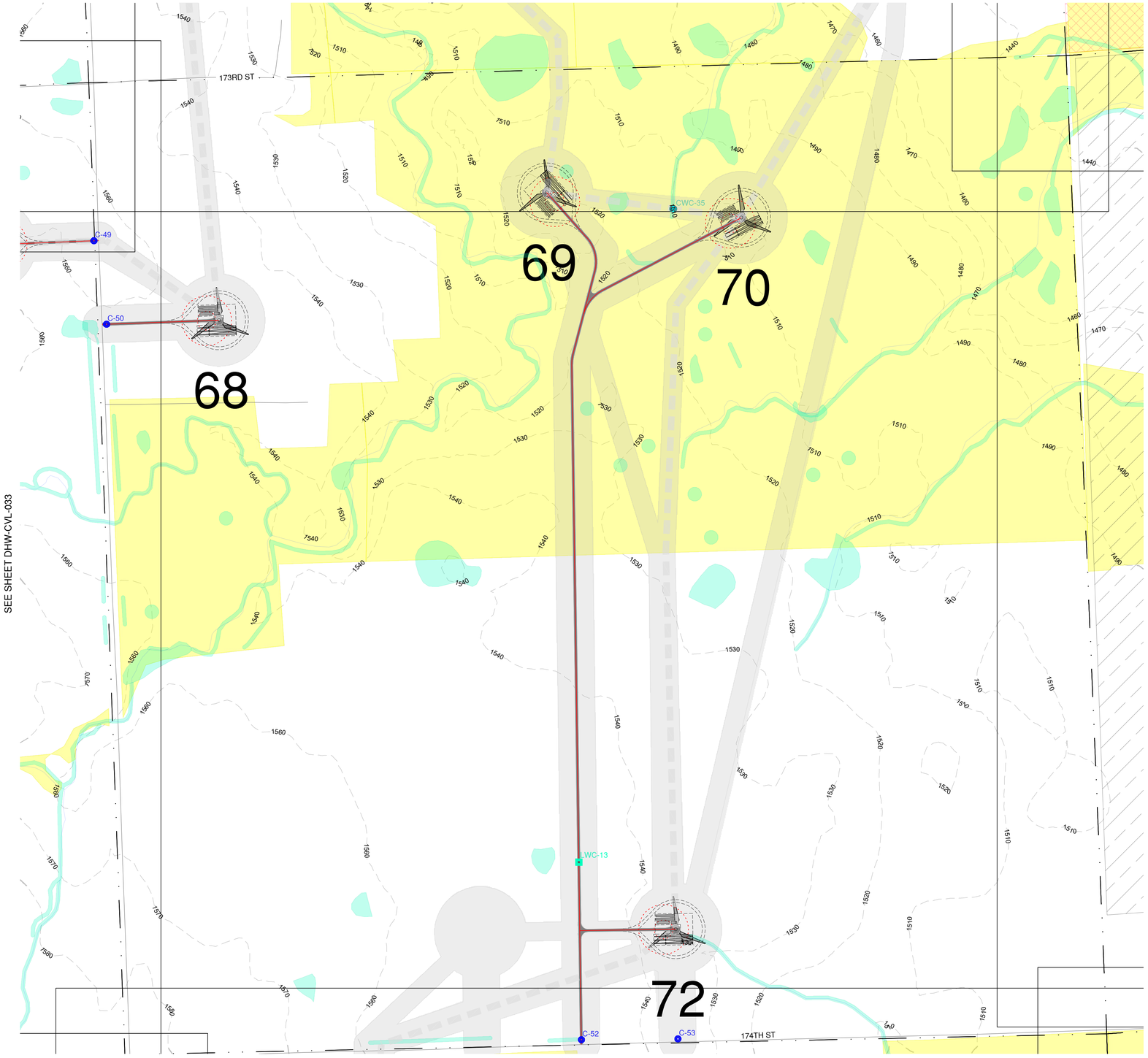

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 65-67, WTG 71)

DWG #: DHW-CVL-033
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 65-67 WTG 71)

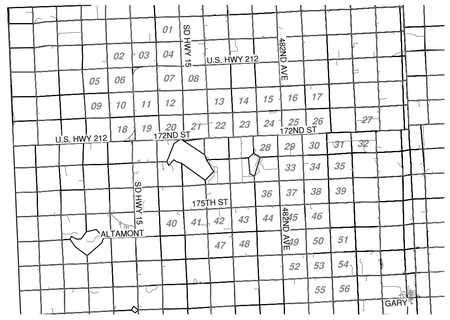



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
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- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
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KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 68-70, WTG 72)

DWG #: DHW-CVL-034
REVISION: 0A

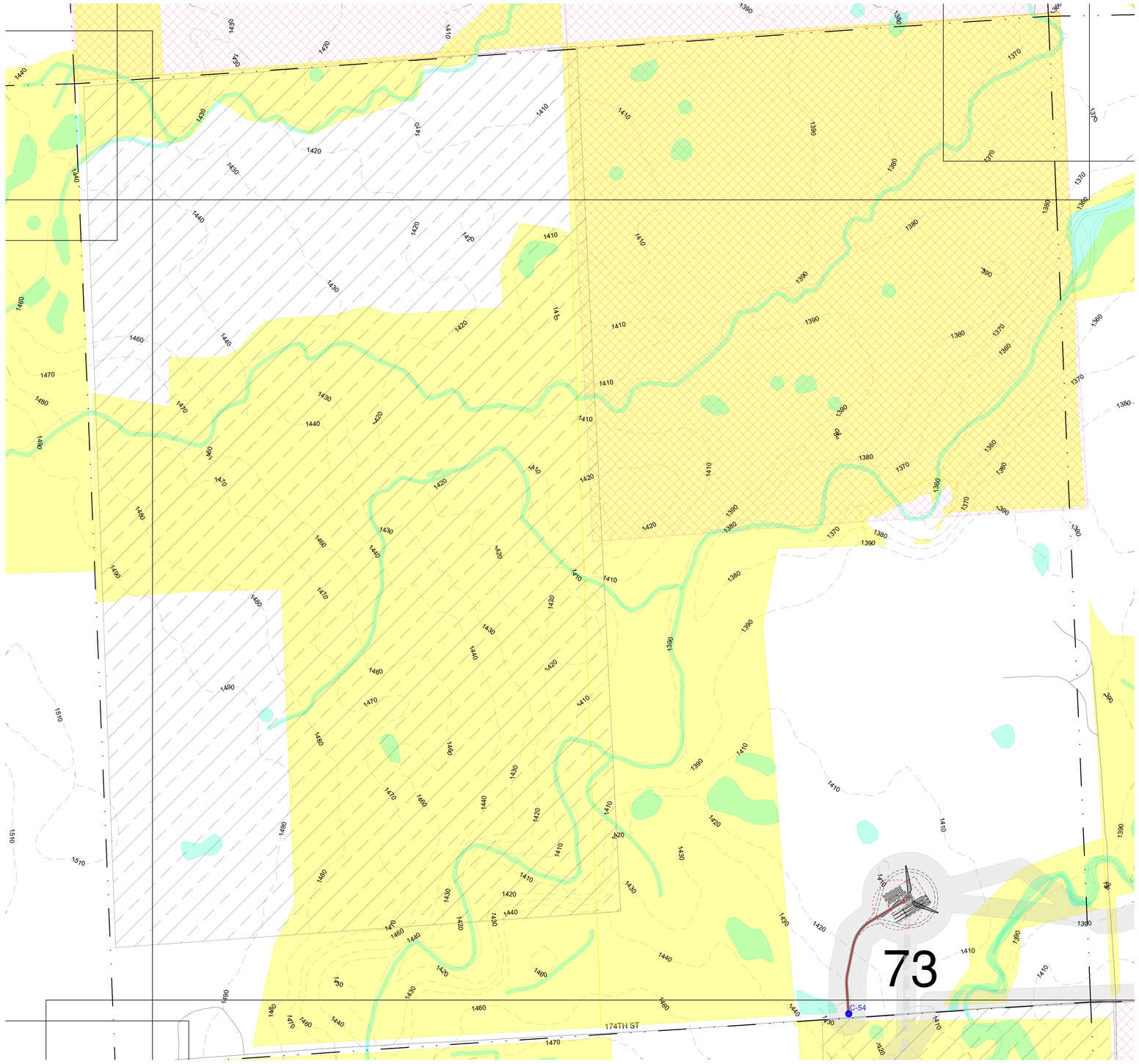
2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 68-70 WTG 72)

SEE SHEET DHW-CVL-031

SEE SHEET DHW-CVL-035

SEE SHEET DHW-CVL-039

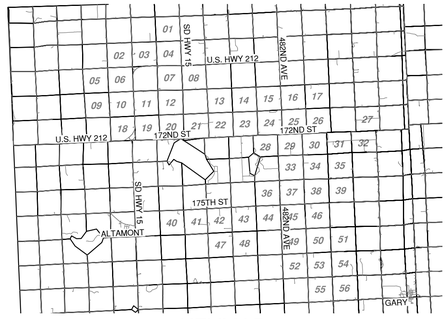



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
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KEYMAP

# DEUEL HARVEST WIND

DEUEL COUNTY,
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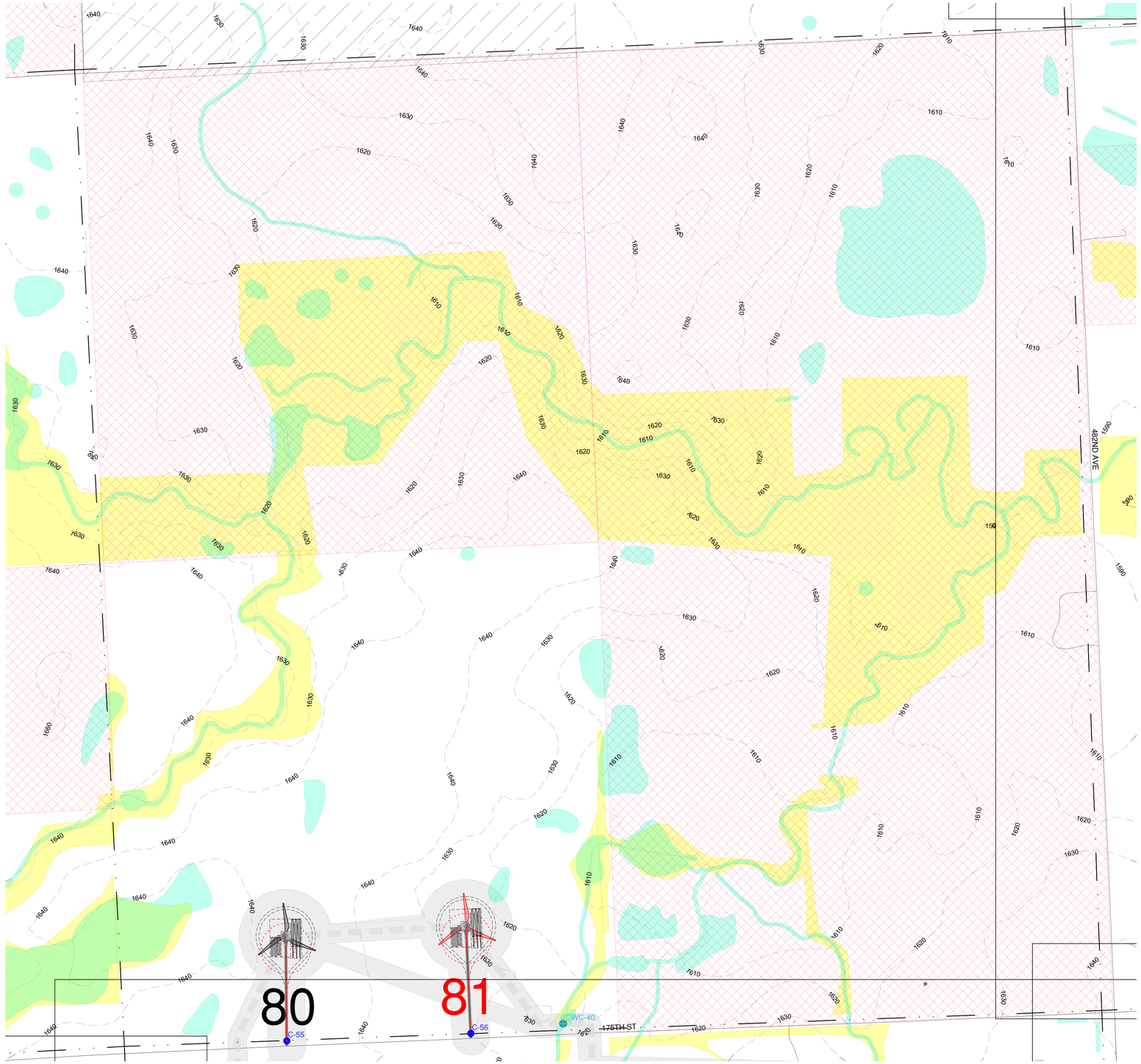

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 73)

DWG #: DHW-CVL-035
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 73)

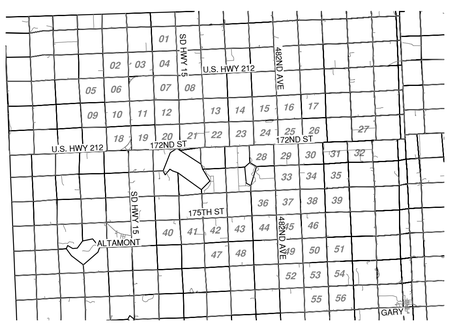



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
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- 2500' — PROPOSED CONTOUR
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- NON-PARTICIPATING (DO NOT DISTURB)
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KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

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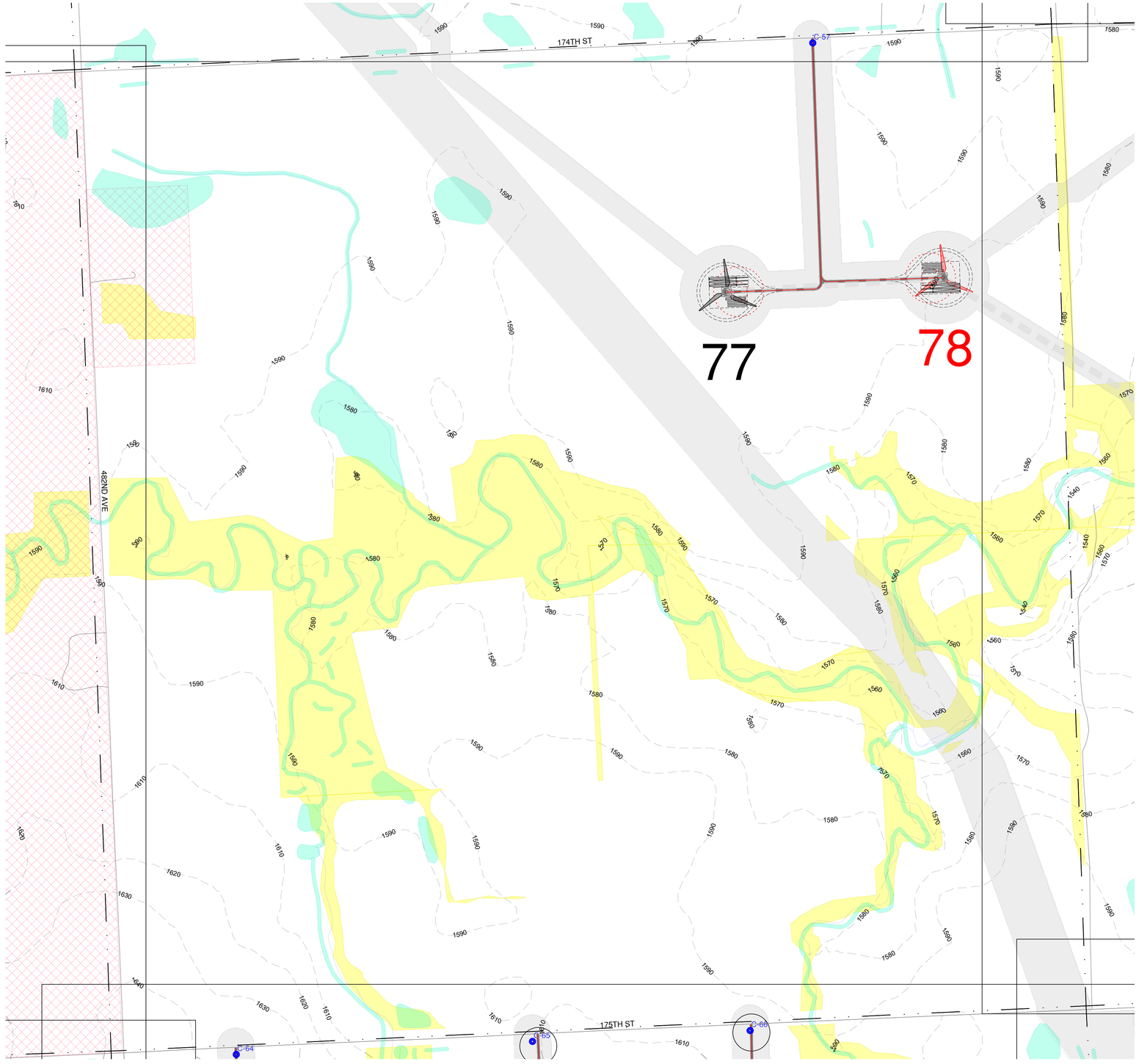

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

CIVIL SITE PLAN (WTG 80-81)

DWG #: DHW-CVL-036
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 80-81)

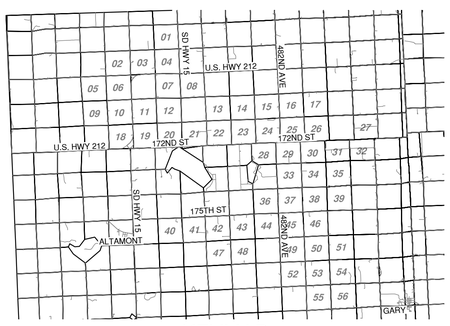



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
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- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
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- *EXISTING CULVERT*
- *EXISTING BUILDING*
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- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
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- *CULTURAL SURVEY CORRIDOR*

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** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

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NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

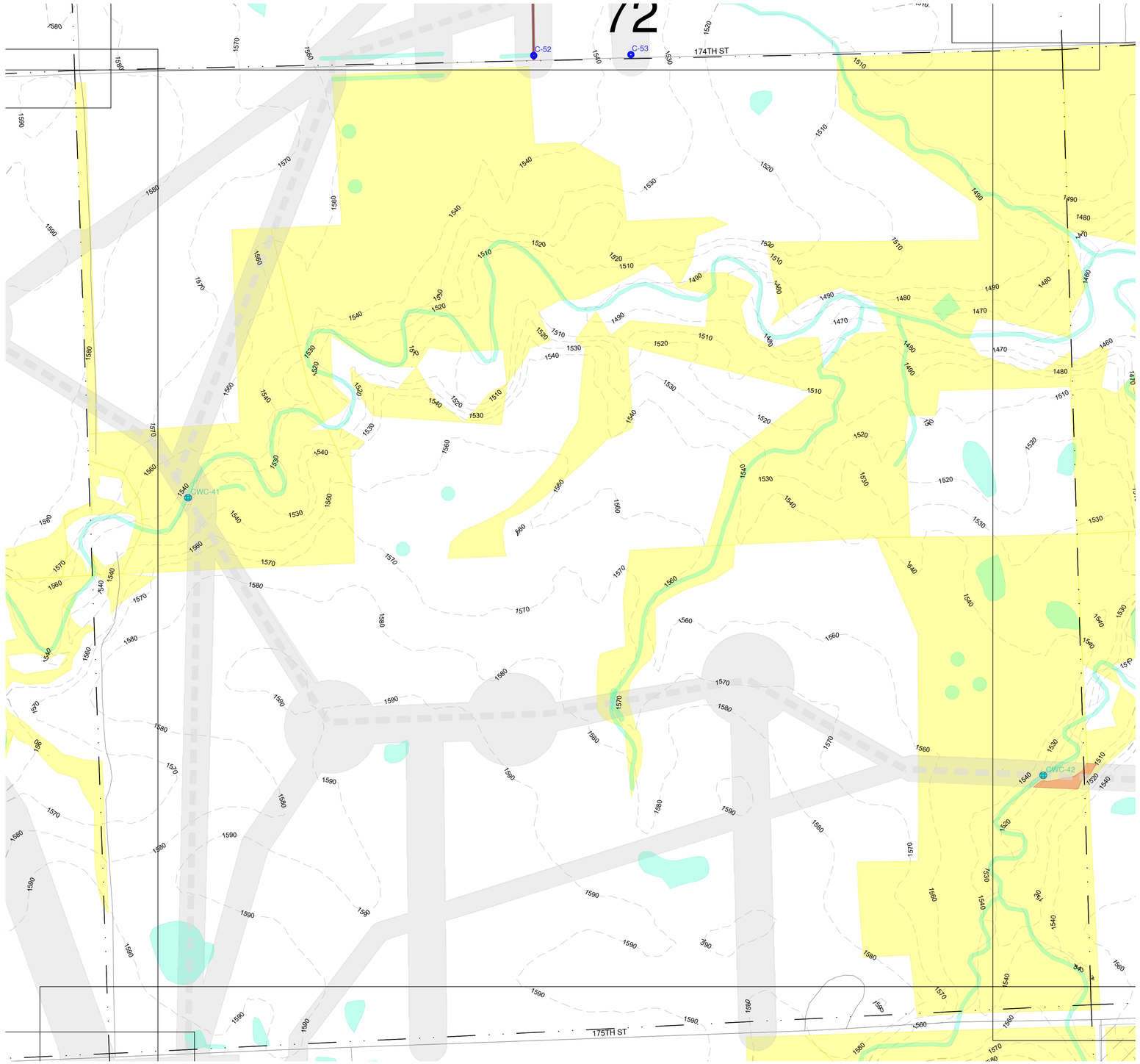
CIVIL SITE PLAN (WTG 77-78)

DWG #: DHW-CVL-037
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 77-78)

SEE SHEET DHW-CVL-034




SEE SHEET DHW-CVL-037

SEE SHEET DHW-CVL-039

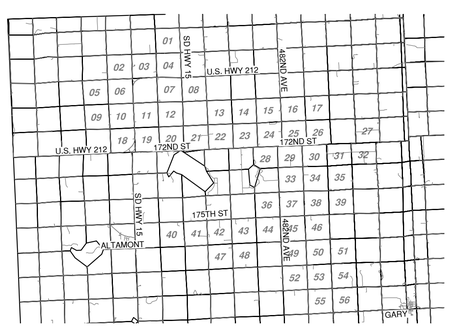
SEE SHEET DHW-CVL-046

## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
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- DL — DISTURBANCE LIMITS
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Design By: T. DEJONG
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Project Number: 19.01167

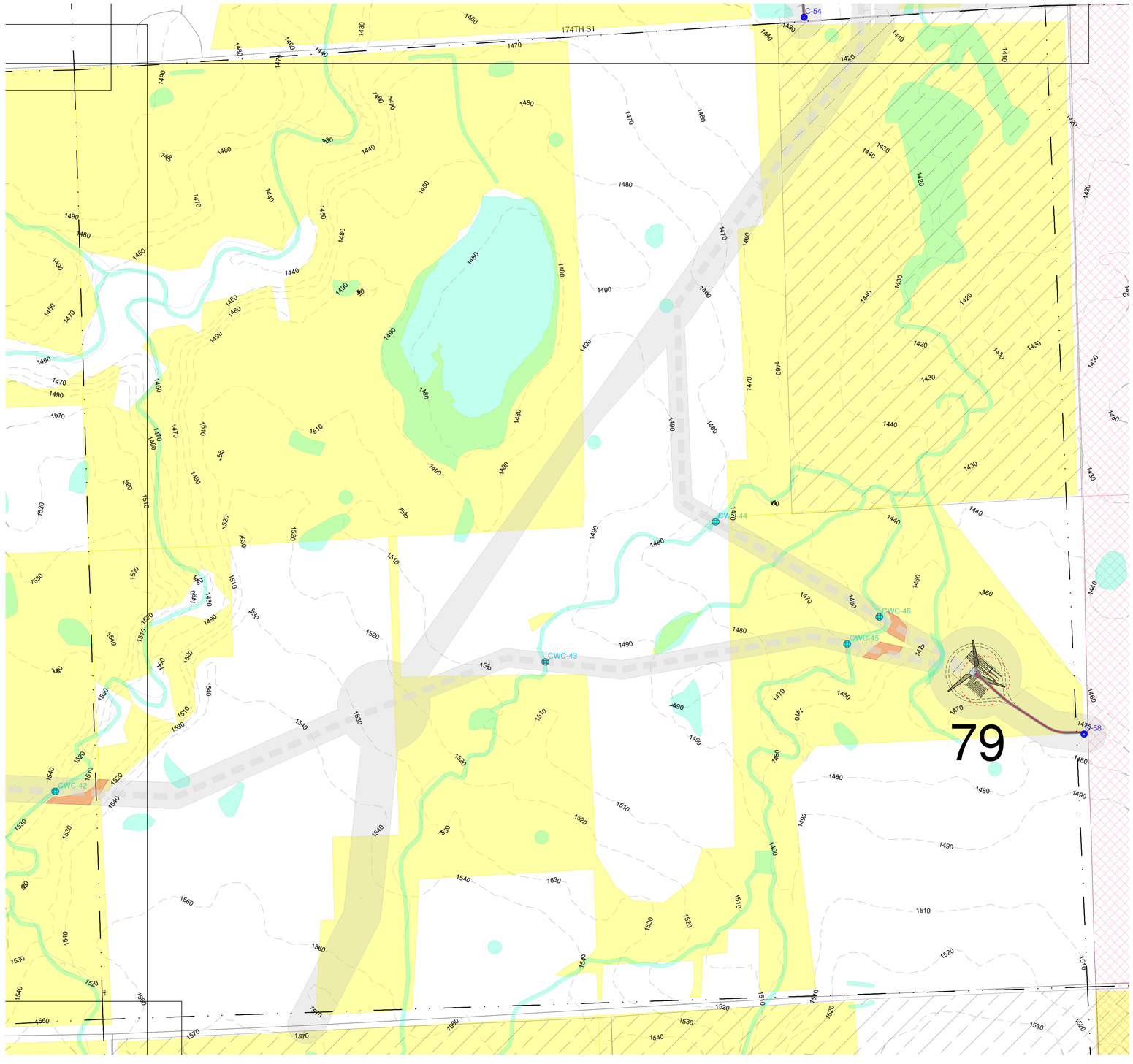
CIVIL SITE PLAN

DWG #: DHW-CVL-038
REVISION: 0A

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg DHW-CSP-38

2019.10.01

SEE SHEET DHW-CVL-035



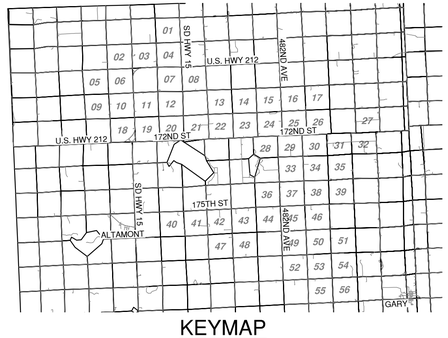

SEE SHEET DHW-CVL-038

## LEGEND (CIVIL SITE PLANS)

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- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
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- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
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- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
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DEUEL COUNTY,
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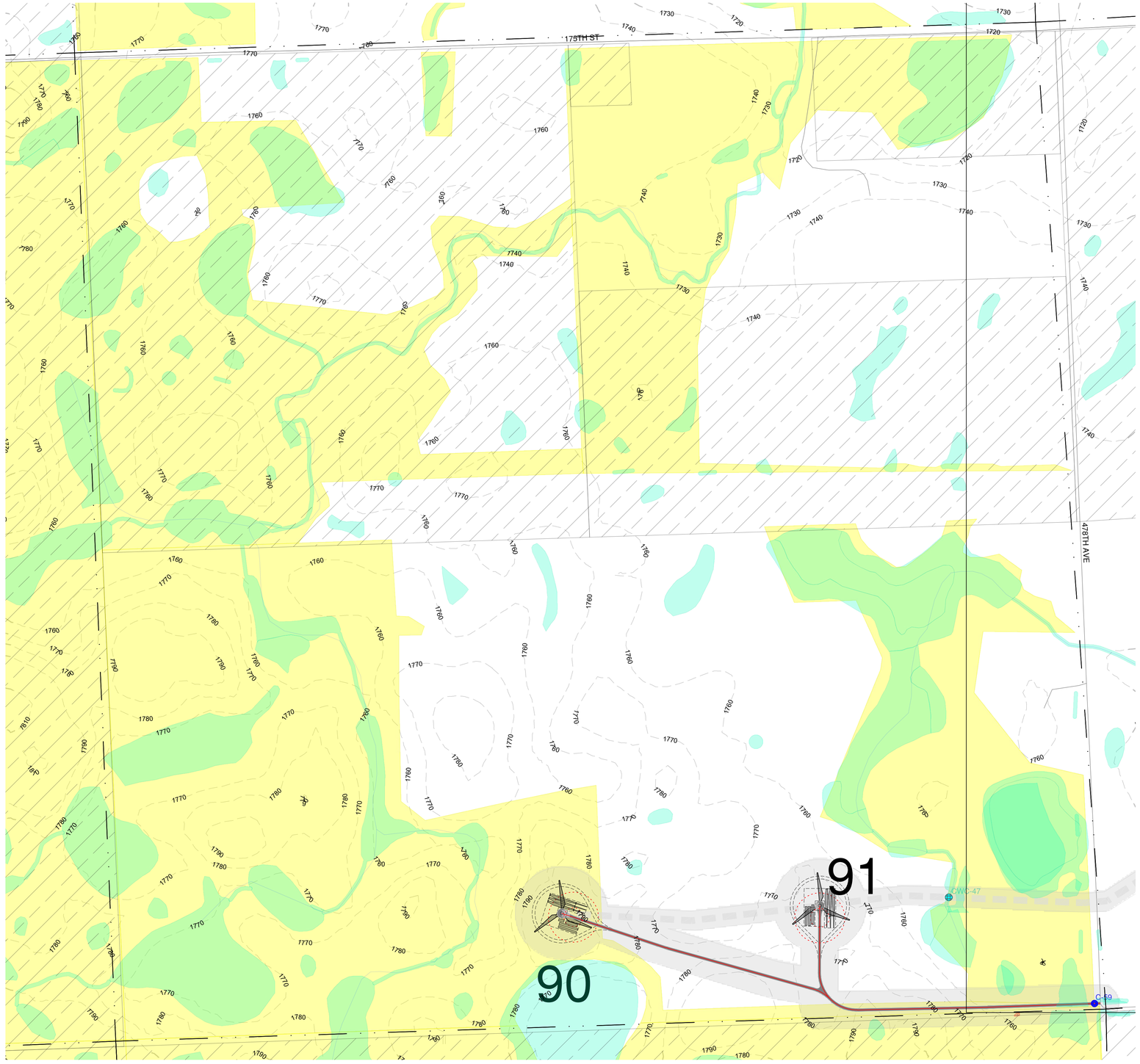

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 79)

DWG #: DHW-CVL-039
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 79)



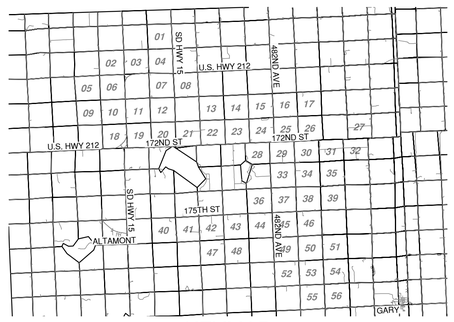

SEE SHEET DHW-CVL-041

## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
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- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
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- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
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- 2500' *EXISTING COUNTOUR*
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- *EXISTING WETLANDS/PLAYAS*
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- *USFWS EASEMENTS*
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KEYMAP

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DEUEL COUNTY,
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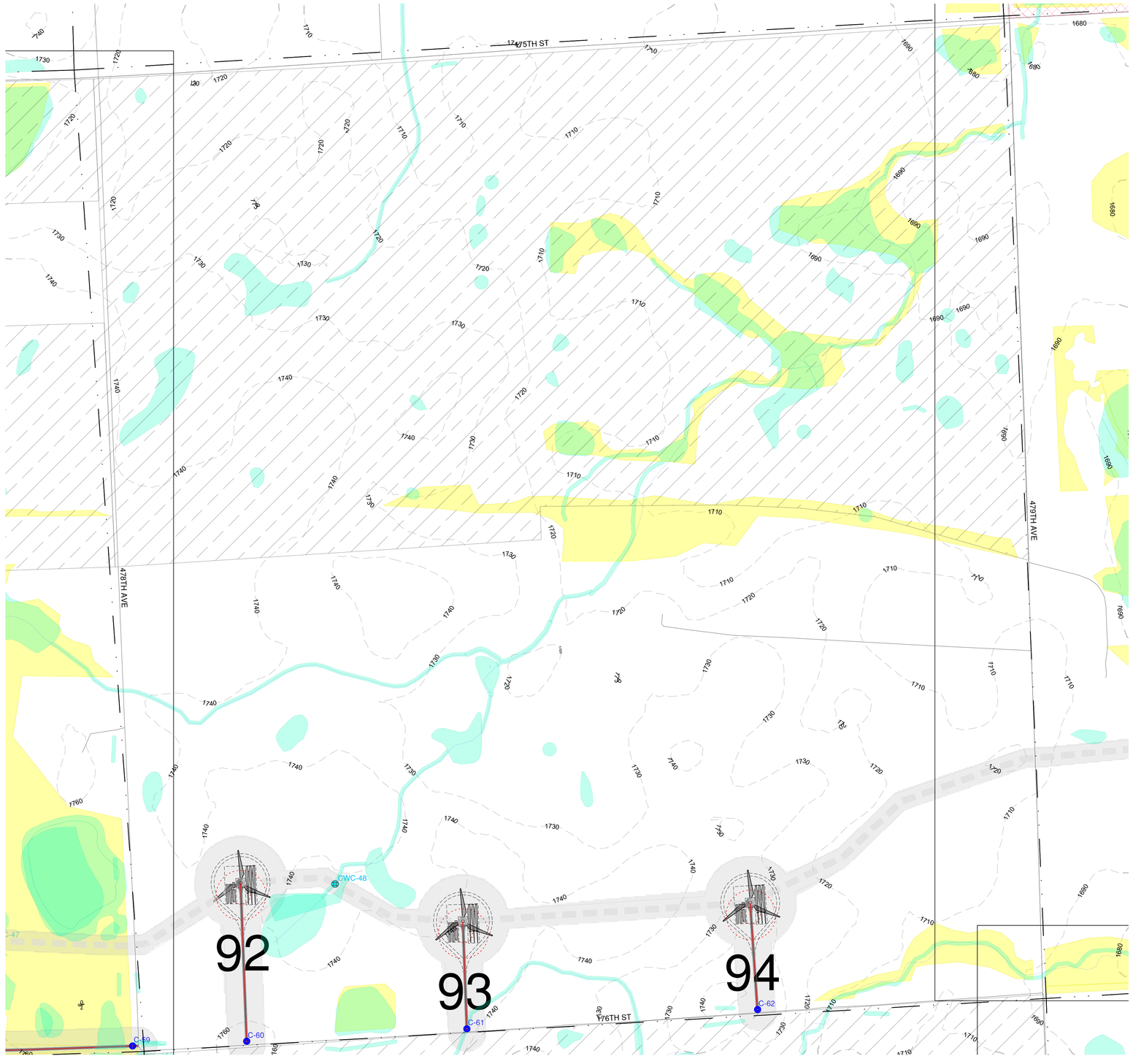
Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 90-91)

DWG #: DHW-CVL-040
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 90-91)

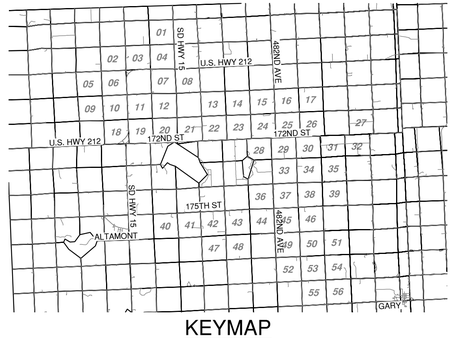



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
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- 2500' — PROPOSED CONTOUR
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## DEUEL COUNTY, SOUTH DAKOTA

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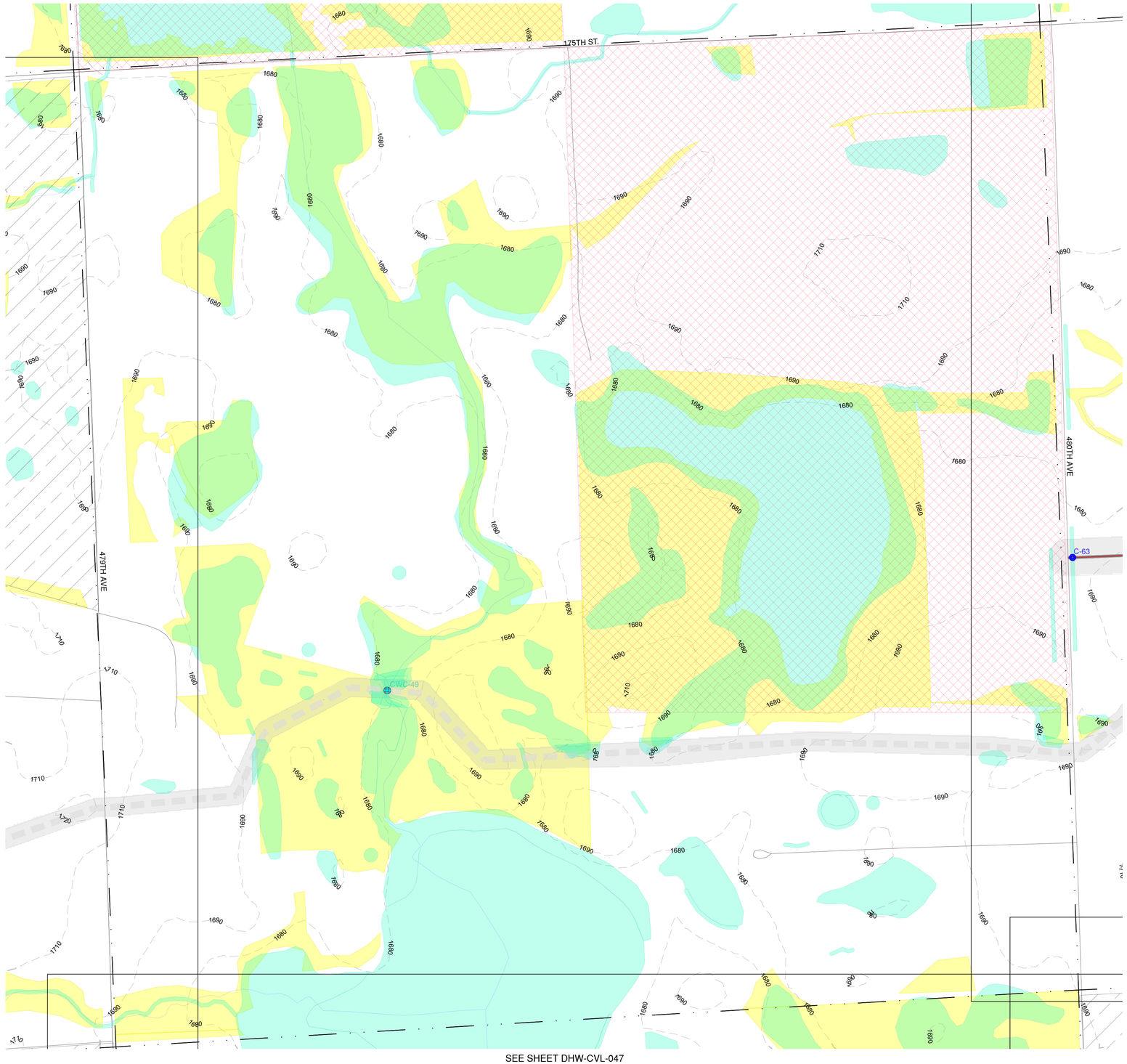

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

CIVIL SITE PLAN (WTG 92-94)

DWG #: DHW-CVL-041
REVISION: 0A

2019.10.01

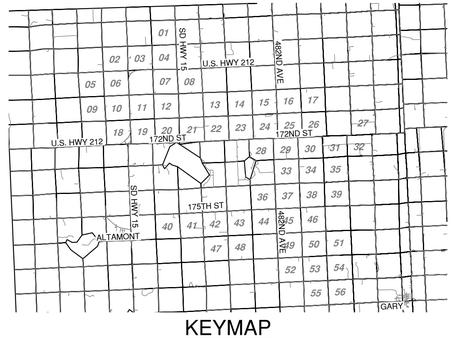



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- GE 2.5-127 TURBINE LOCATION
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** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

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CHICAGO, IL 60606

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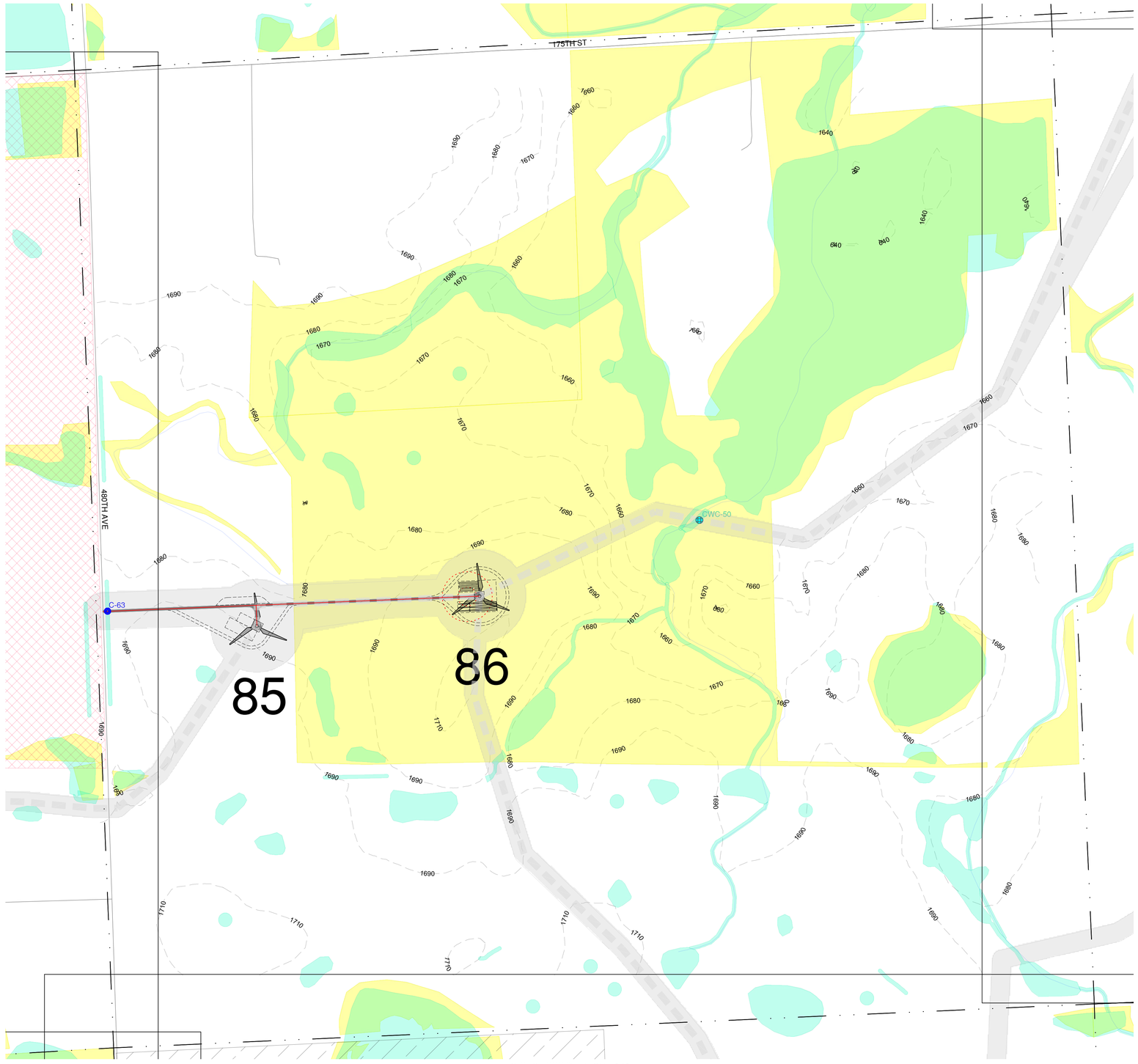

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG )

DWG #: DHW-CVL-042
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg DHW-CVL-042

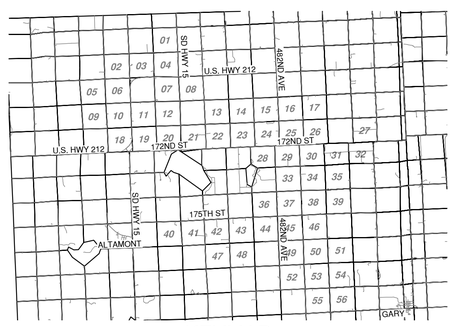



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
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- OIL *EXISTING OIL PIPELINE*
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- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
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- *EXISTING WETLANDS/PLAYAS*
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- *USFWS EASEMENTS*
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KEYMAP

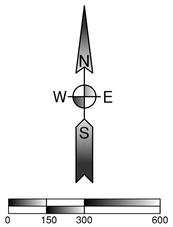
# DEUEL HARVEST WIND

DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
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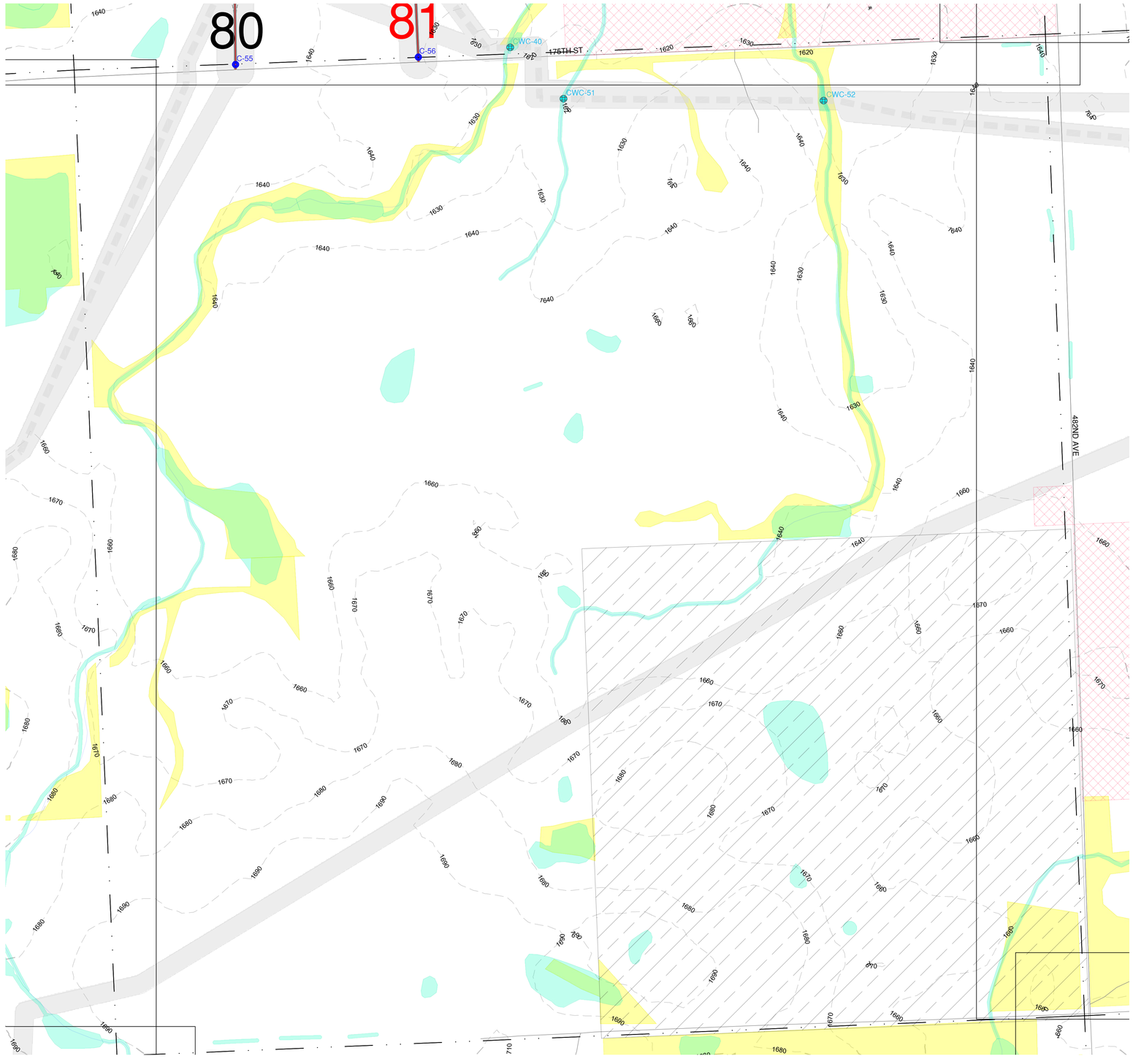

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

CIVIL SITE PLAN (WTG 85-86)

DWG #: DHW-CVL-043
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 85-86)

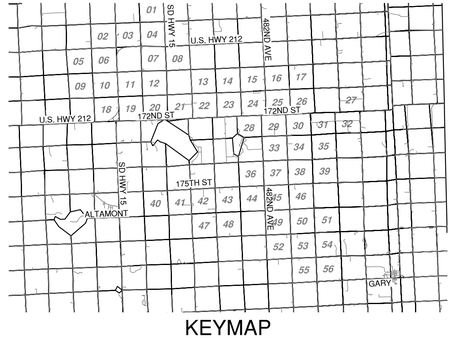



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
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- 2500' *EXISTING COUNTOUR*
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- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
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- *USFWS EASEMENTS*
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KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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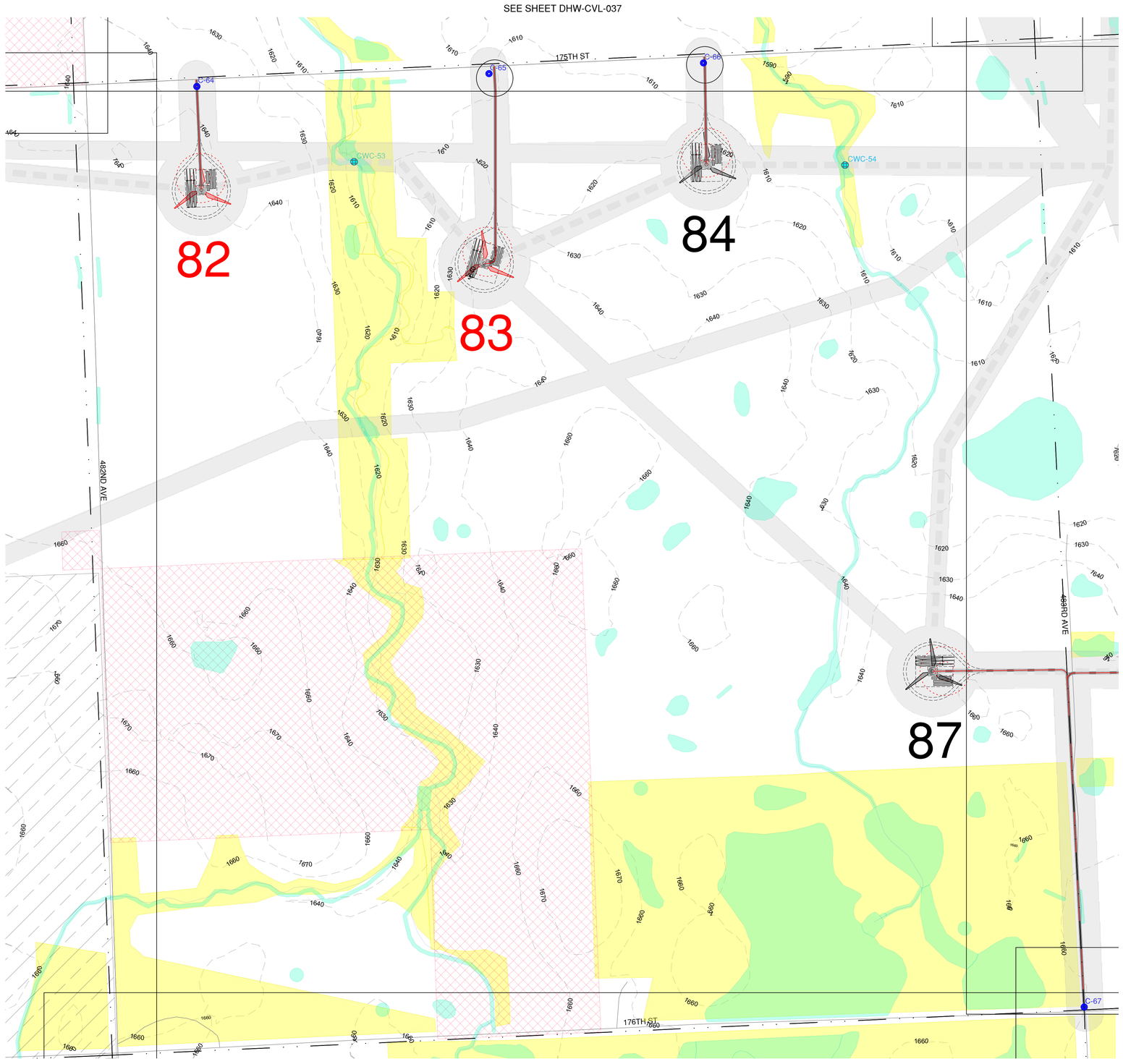
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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN

DWG #: DHW-CVL-044
REVISION: 0A

2019.10.01

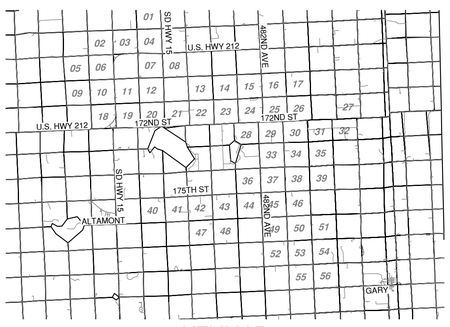



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
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- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
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KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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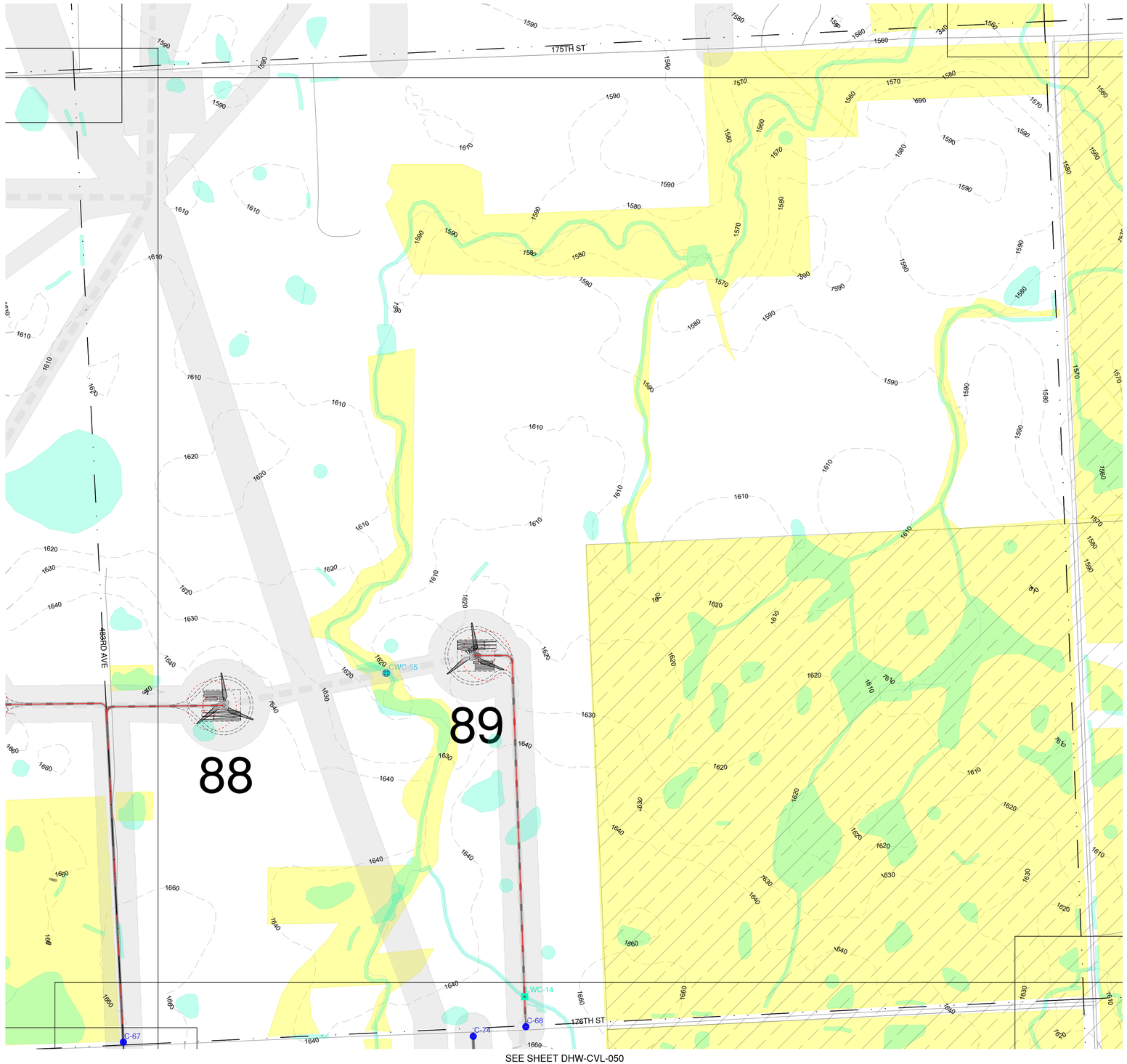

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

# CIVIL SITE PLAN (WTG 82-84, 87)

DWG #: DHW-CVL-045
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 82-84 87)

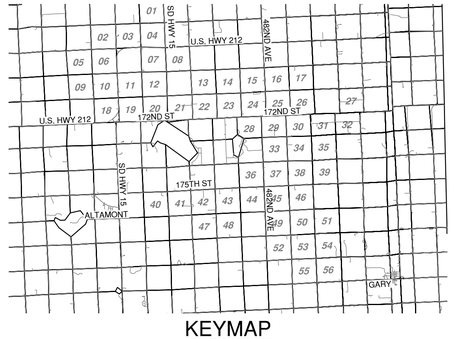



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
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- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
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- PROPOSED LOW WATER CROSSING
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- NON-PARTICIPATING (DO NOT DISTURB)
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KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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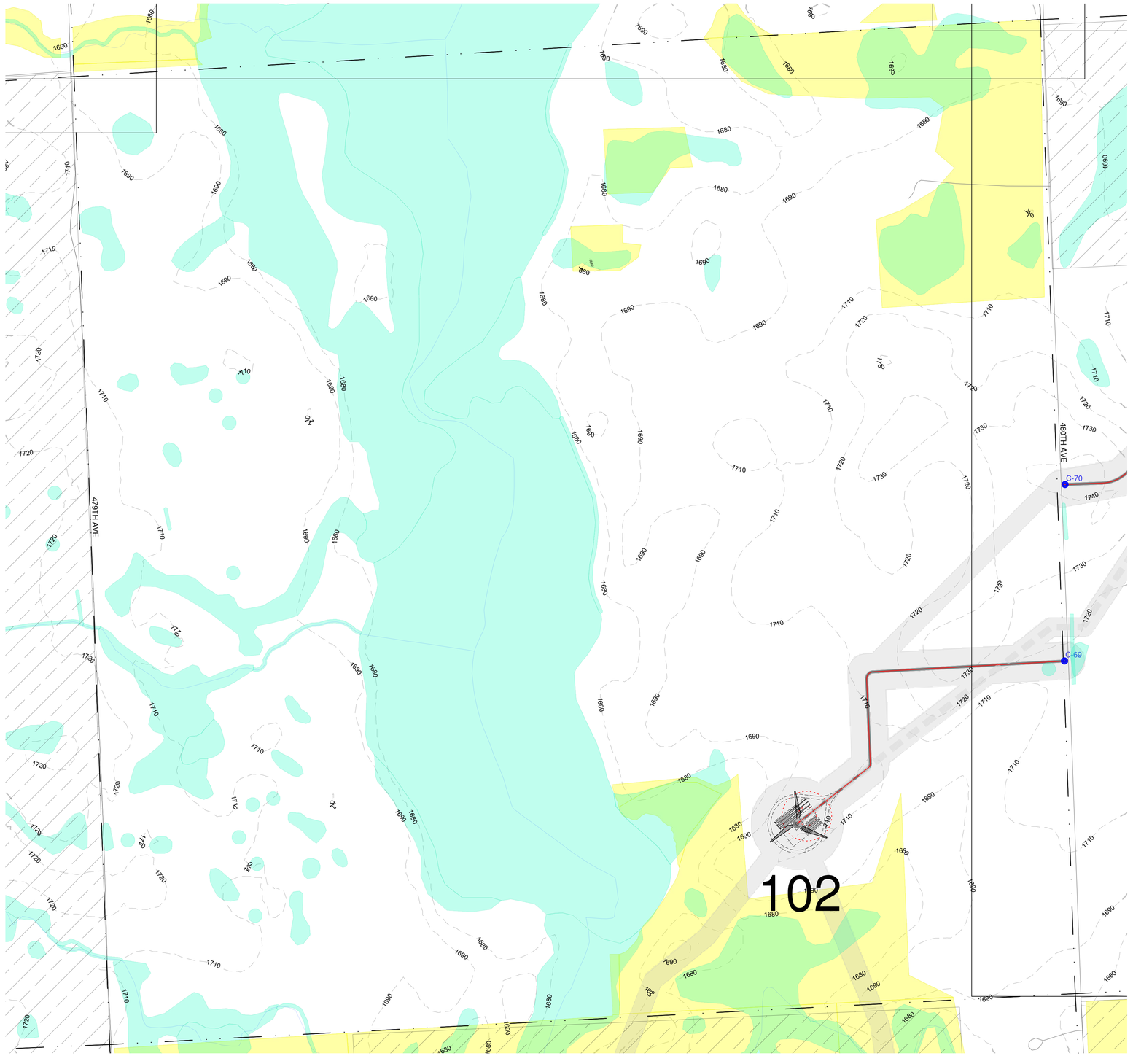

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 88-89)

DWG #: DHW-CVL-046
REVISION: 0A

2019.10.01

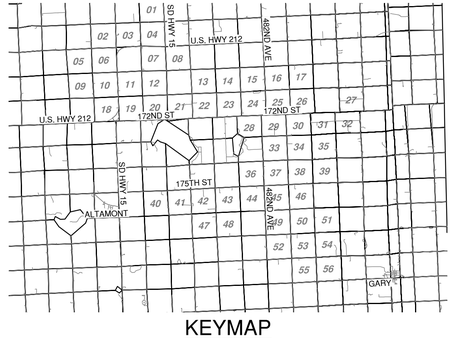



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
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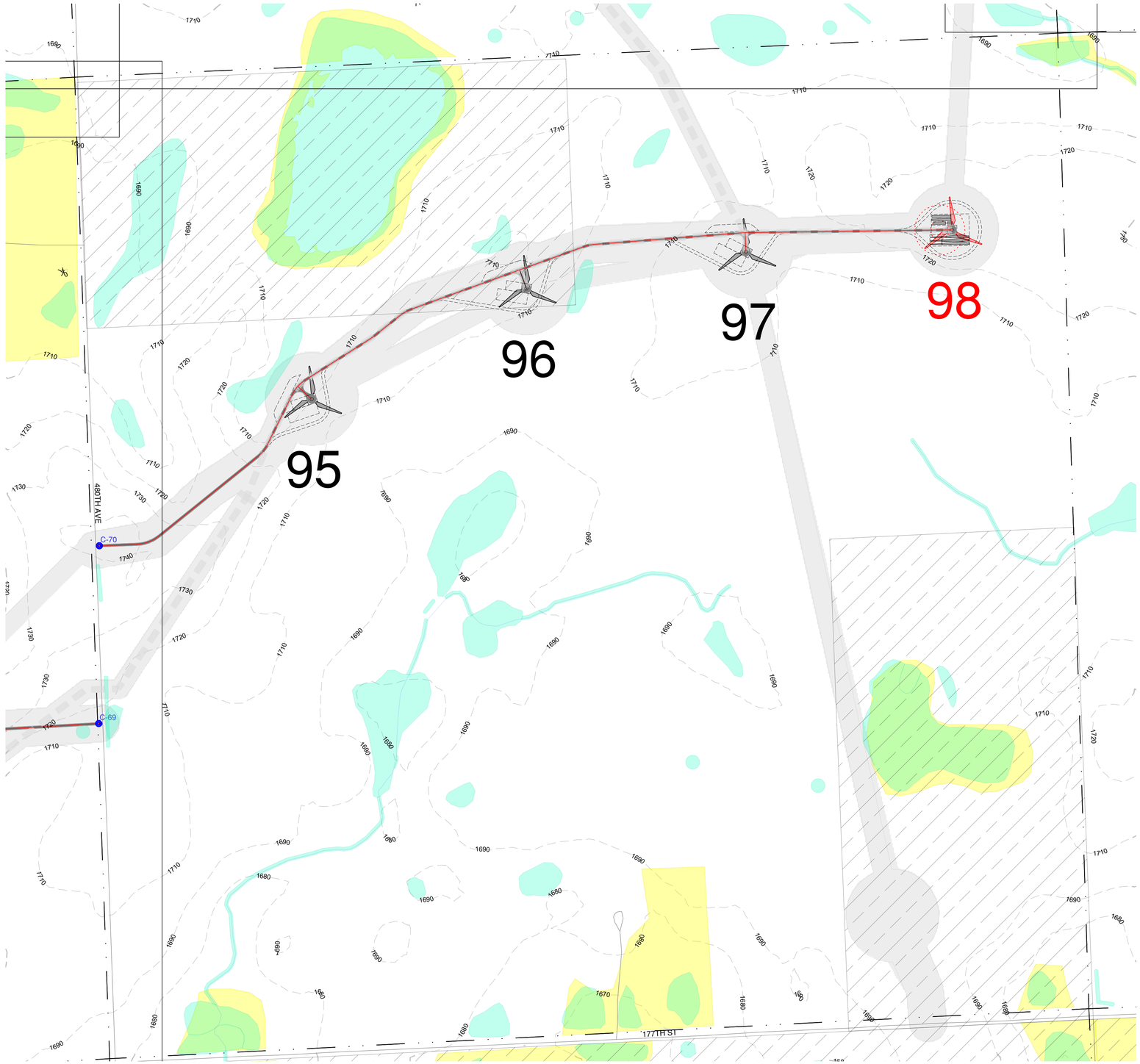

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 102)

DWG #: DHW-CVL-047
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 102)

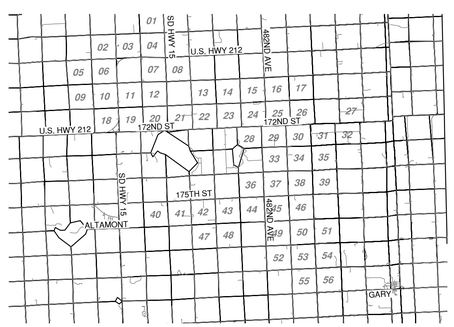



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
- *CULTURAL SURVEY CORRIDOR*

* ANTICIPATED DRAINAGE CROSSINGS ARE SHOWN ON THE CONSTRUCTION PLANS BASED LARGELY ON OBSERVATION OF DRAINAGE CHANNELS/DRAINAGE EROSION FROM THE AERIAL IMAGERY, SUPPLEMENTED BY GIS STREAM LINEWORK AND EXISTING CONTOUR DATA AVAILABLE. ADDITIONAL CROSSINGS (LOW WATER CROSSINGS/CULVERTS) MAY NEED TO BE INSTALLED IN AREAS WHERE CONCENTRATED FLOE IS EXPECTED DUE TO CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL USE DISCRETION IF A LOW WATER CROSSING OR CULVERT (REFER TO DETAILS ON SHEET 6) IS NEEDED BASED ON THE TOPOGRAPHY OF THE DRAINAGE CROSSING.

** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY. SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

2020 ONE SOUTH WACKER DR STE 1800
CHICAGO, IL 60606

0 150 300 600

NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

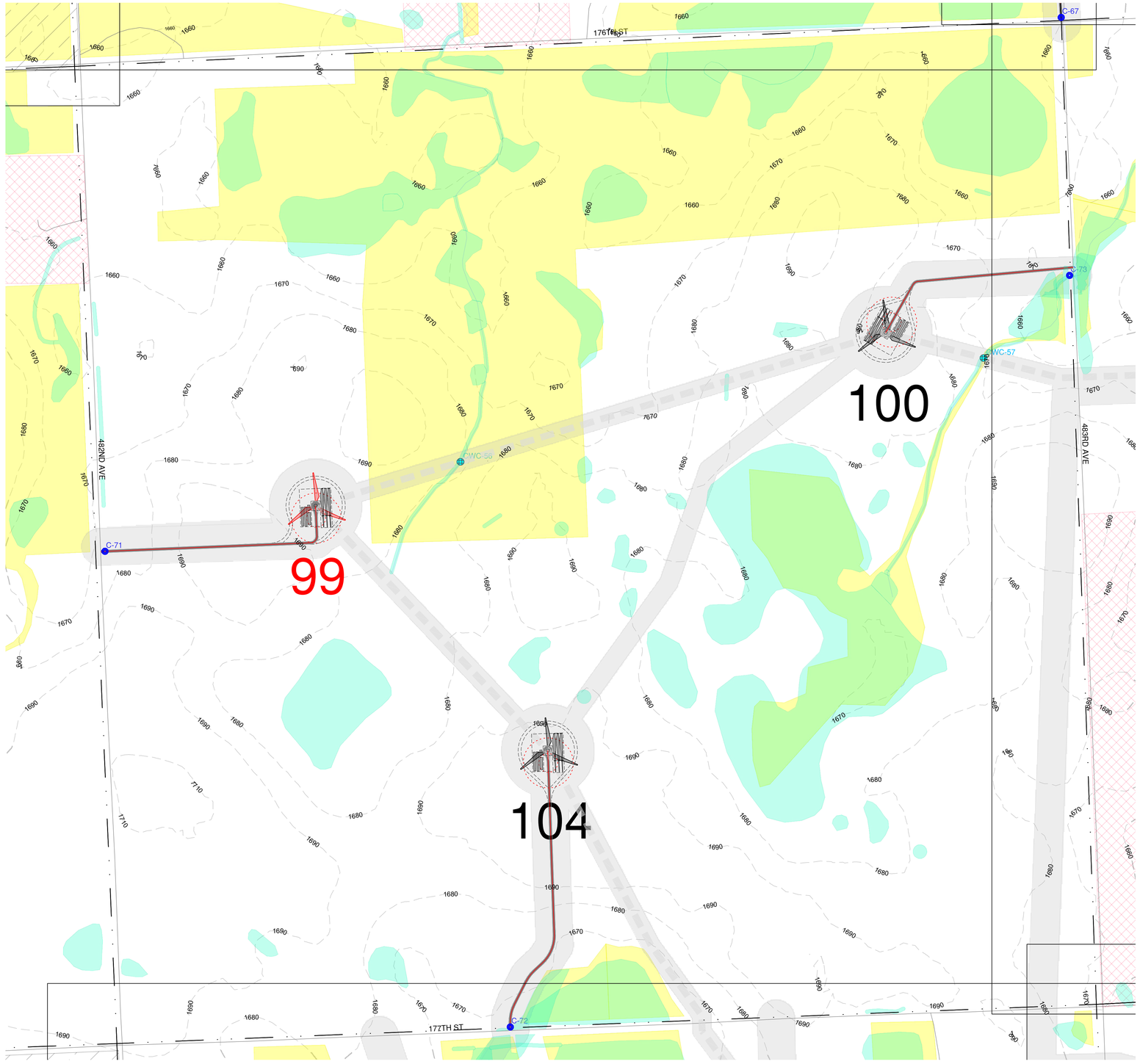
## CIVIL SITE PLAN (WTG 95-98)

DWG #: DHW-CVL-048
REVISION: 0A

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 95-98)

2019.10.01

SEE SHEET DHW-CVL-045



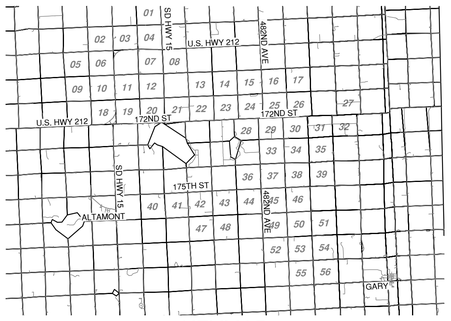

SEE SHEET DHW-CVL-050

## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
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- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
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** UNDERGROUND COLLECTION LINE IS FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR CONSTRUCTION DETAILS.




KEYMAP

# DEUEL HARVEST WIND
## DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

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CHICAGO, IL 60606

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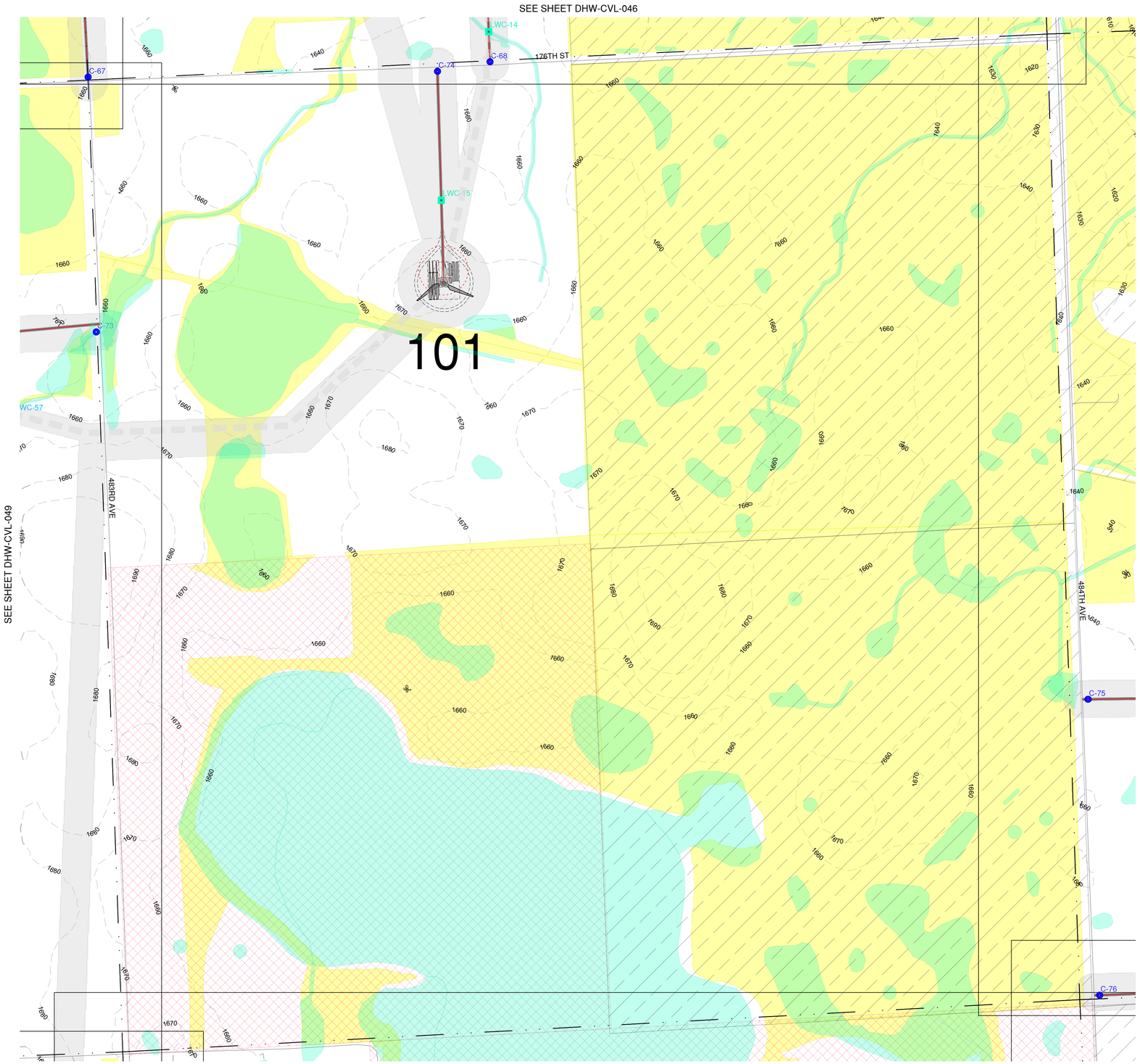

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

CIVIL SITE PLAN (WTG 99-100, 104)

DWG #: DHW-CVL-049
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 99-100 104)

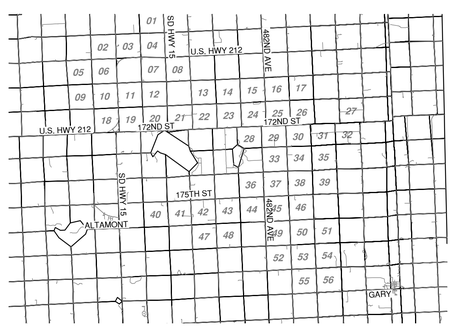



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
- *EXISTING OIL PAD SITE*
- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
- *CULTURAL SURVEY CORRIDOR*

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KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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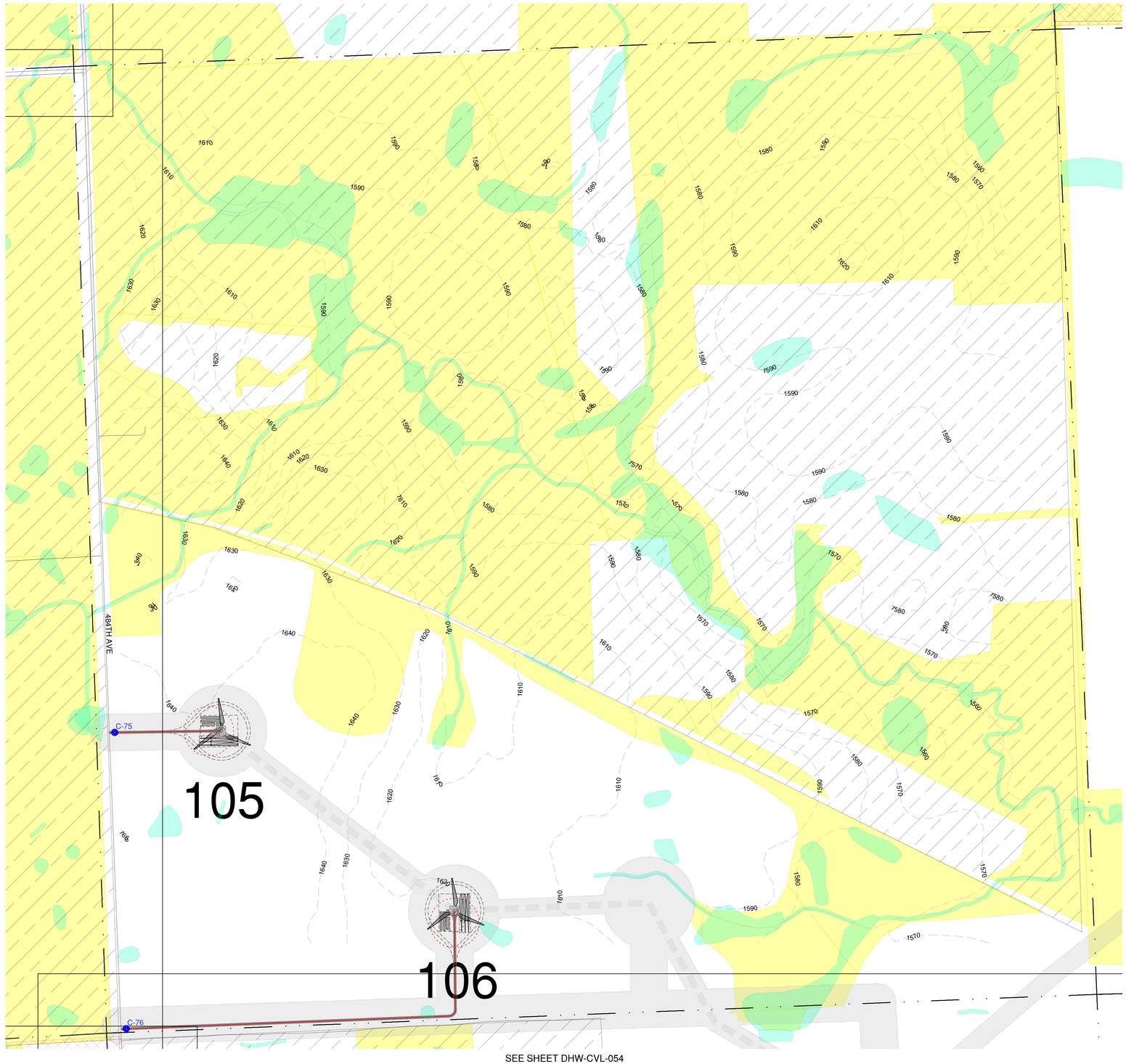
Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 101)

DWG #: DHW-CVL-050
REVISION: 0A

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 101)

2019.10.01

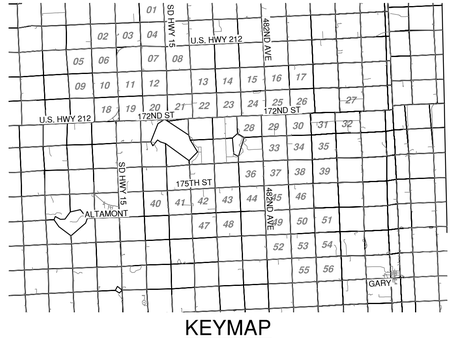



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
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- *EXISTING WETLANDS/PLAYAS*
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KEYMAP

# DEUEL HARVEST WIND

DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

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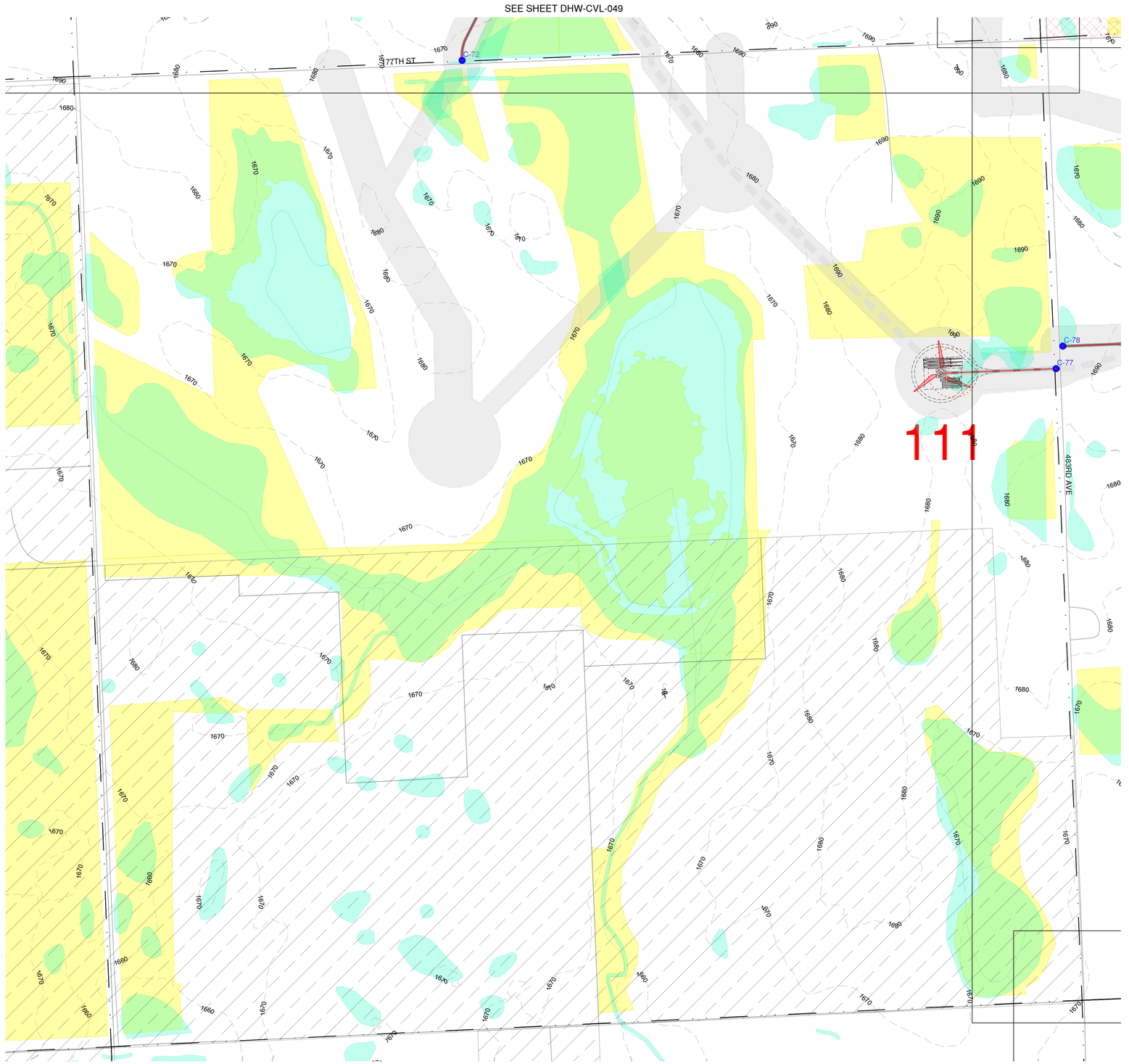

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 105-106)

DWG #: DHW-CVL-051
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 105-106)

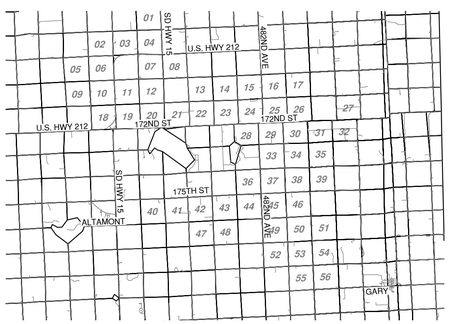



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
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- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- *EXISTING COUNTOUR* (2500')
- X — *EXISTING FENCE*
- OHP — *EXISTING OVERHEAD POWER*
- UGP — *EXISTING UNDERGROUND POWER*
- T — *EXISTING TELEPHONE LINE*
- FOP — *EXISTING FIBER OPTIC LINE*
- W — *EXISTING WATER LINE*
- GAS — *EXISTING GAS LINE*
- OIL — *EXISTING OIL PIPELINE*
- P — *EXISTING PIPELINE*
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- *EXISTING POWER POLE*
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KEYMAP

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## DEUEL COUNTY, SOUTH DAKOTA

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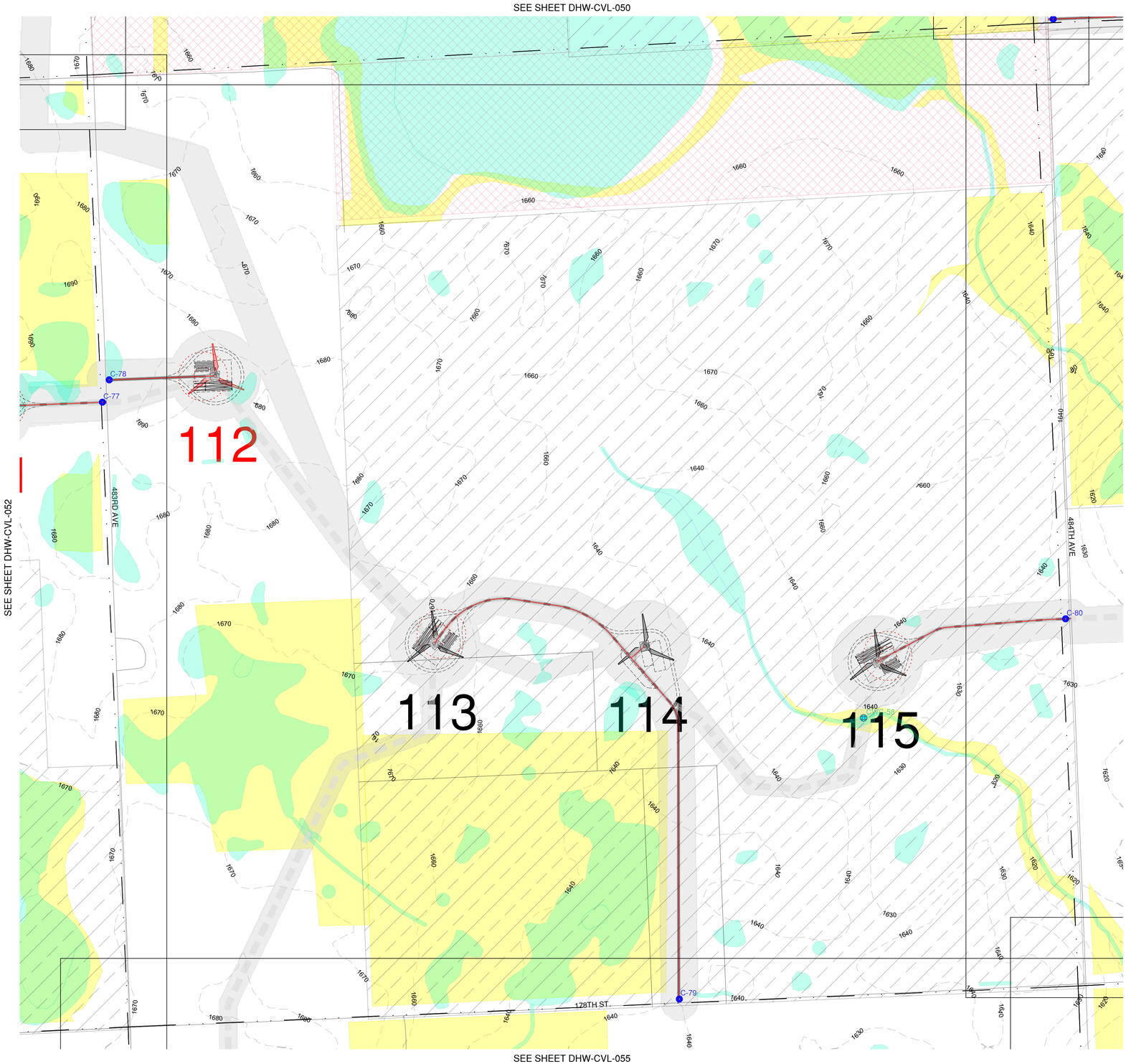

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

CIVIL SITE PLAN (WTG 111)

DWG #: DHW-CVL-052
REVISION: 0A

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 111)

2019.10.01

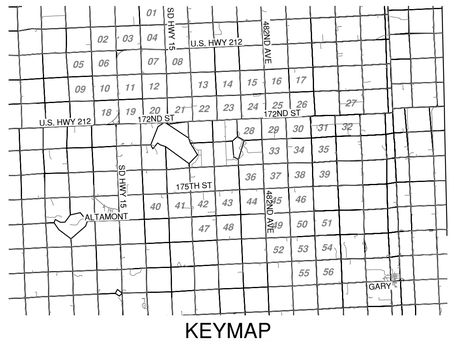



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
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- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
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- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
- *POTENTIALLY UNDISTURBED GRASSLAND*
- *EAGLE HABITAT SETBACK*
- *POTENTIALLY SUITABLE FOR BUTTERFLY HABITAT*
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KEYMAP

# DEUEL HARVEST WIND
DEUEL COUNTY, SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

2020 ONE SOUTH WACKER DR STE 1800
CHICAGO, IL 60606

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0 150 300 600

NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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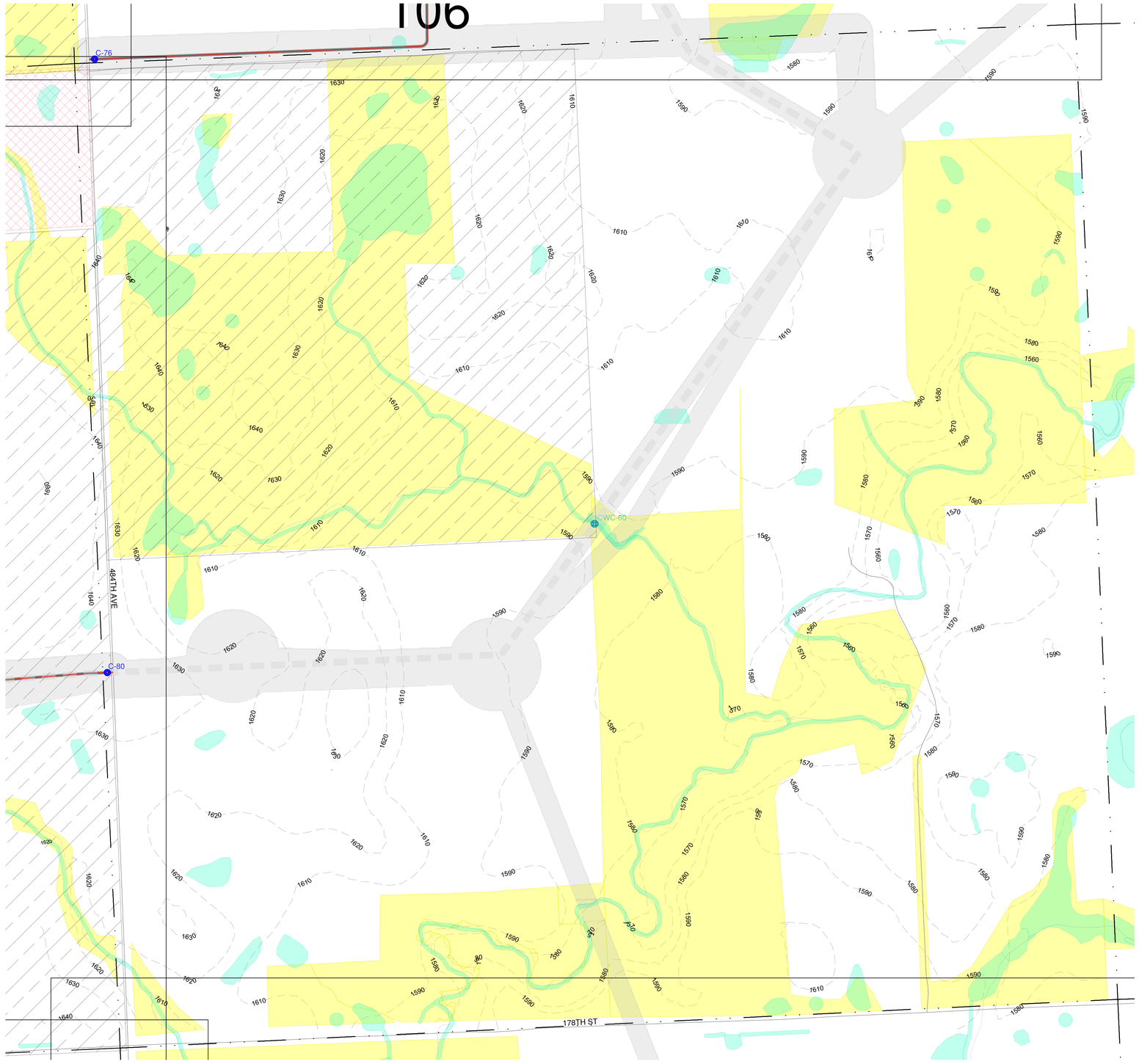

Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

CIVIL SITE PLAN (WTG 112-115)

DWG #: DHW-CVL-053
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 112-115)

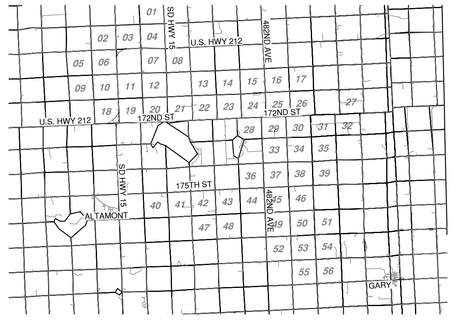



## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- FENCE CROSSING
- PIPELINE CROSSING
- PROPOSED LOW WATER CROSSING
- PROPOSED CRANE LOW WATER CROSSING
- PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
- *RIGHT-OF-WAY LINES*
- 2500' *EXISTING COUNTOUR*
- X *EXISTING FENCE*
- OHP *EXISTING OVERHEAD POWER*
- UGP *EXISTING UNDERGROUND POWER*
- T *EXISTING TELEPHONE LINE*
- FOP *EXISTING FIBER OPTIC LINE*
- W *EXISTING WATER LINE*
- GAS *EXISTING GAS LINE*
- OIL *EXISTING OIL PIPELINE*
- P *EXISTING PIPELINE*
- *EXISTING TREES*
- *EXISTING PROPERTY LINE*
- *EXISTING STREAM*
- *EXISTING CATTLE GUARD*
- *EXISTING POWER POLE*
- *EXISTING CULVERT*
- *EXISTING BUILDING*
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- *EXISTING WETLANDS/PLAYAS*
- *EXISTING LAKE/WATER BODY*
- *USFWS EASEMENTS*
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KEYMAP

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DEUEL COUNTY,
SOUTH DAKOTA

| Rev. | Date | Description | By |
|---|---|---|---|
| 0A | 10/01/19 | 60% SUBMITTAL | UEI |

Invenergy

2020 ONE SOUTH WACKER DR STE 1800
CHICAGO, IL 60606

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NAD83 SOUTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT

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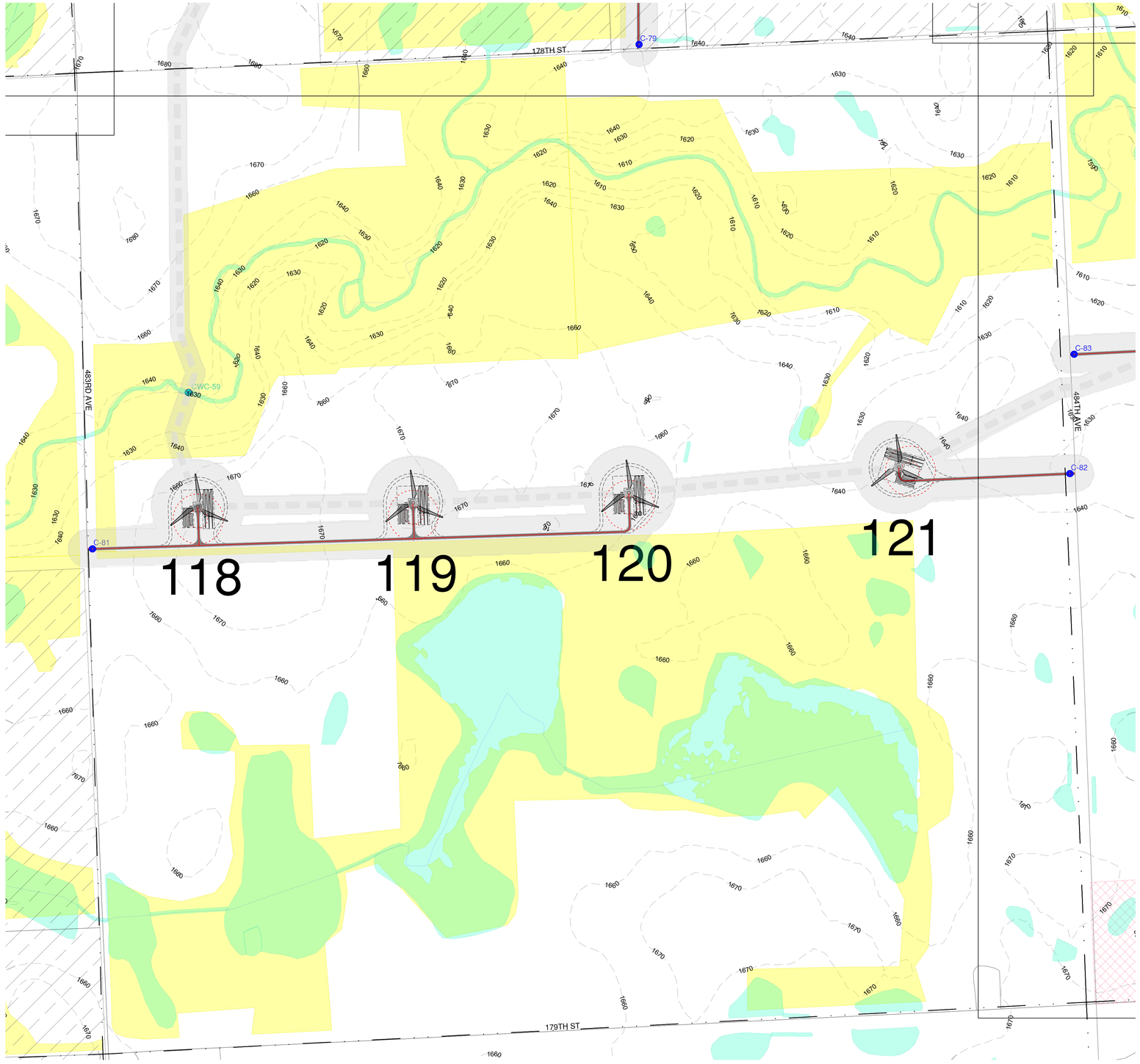
## CIVIL SITE PLAN

DWG #: DHW-CVL-054
REVISION: 0A

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2019.10.01

SEE SHEET DHW-CVL-053



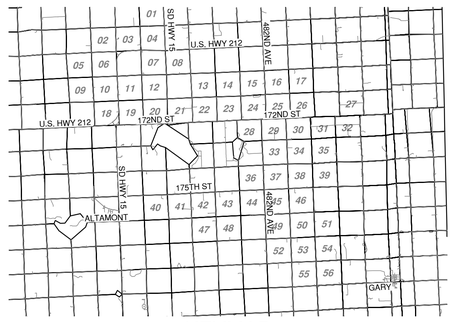

SEE SHEET DHW-CVL-056

## LEGEND (CIVIL SITE PLANS)

- GE 2.5-127 TURBINE LOCATION
- ## TURBINE NUMBER
- GE 2.3-116 TURBINE LOCATION
- ## TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- OHP — PROPOSED OVERHEAD POWER
- UGP — PROPOSED UNDERGROUND POWER
- SF — SILT FENCE
- FR — FIBER ROLLS
- DL — DISTURBANCE LIMITS
- 2500' — PROPOSED CONTOUR
- # FENCE CROSSING
- # PIPELINE CROSSING
- # PROPOSED LOW WATER CROSSING
- # PROPOSED CRANE LOW WATER CROSSING
- # PROPOSED CULVERT
- NON-PARTICIPATING (DO NOT DISTURB)
- *SECTION LINES*
- *EXISTING CENTER LINE*
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- 2500' *EXISTING COUNTOUR*
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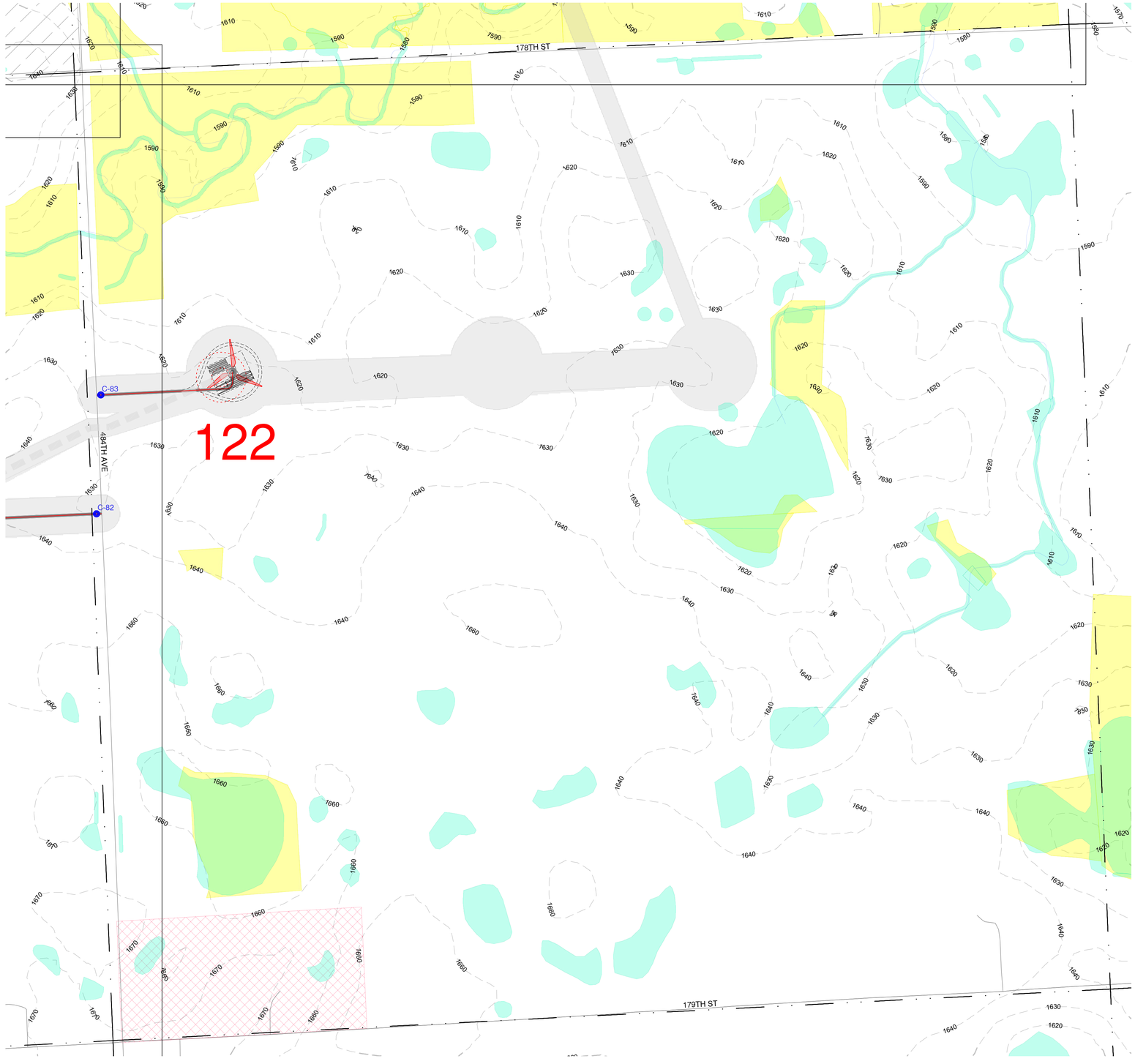
## CIVIL SITE PLAN (WTG 118-121)

DWG #: DHW-CVL-055
REVISION: 0A

2019.10.01

\\uei.com\ulteig$\Projects\2019\19.01167\Drawings\Civil\01 - Drawings\04 - Civil Site Plans\19.01167 Civil Site Plans.dwg CIVIL SITE PLAN (WTG 118-121)

SEE SHEET DHW-CVL-054

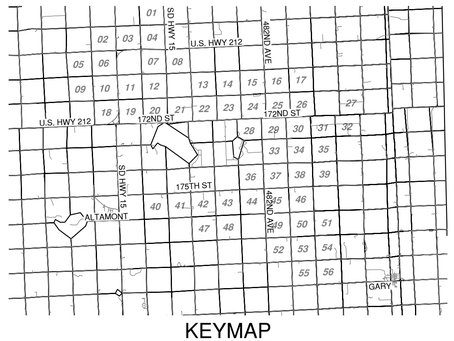



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Design By: T. DEJONG
Reviewed By: P. PEBLER
Approved By: B. BUCHOLZ
Project Number: 19.01167

## CIVIL SITE PLAN (WTG 122)

DWG #: DHW-CVL-056
REVISION: 0A

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2019.10.01