DICKINSON WRIGHT PLLC

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CHRISTINE M.T. PIRIK
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(614) 591-5461

June 17, 2019

Ms. Tanowa Troupe, Secretary
Ohio Power Siting Board
Docketing Division
180 East Broad Street, 11th Floor
Columbus, OH 43215

Re: Case Nos. 09-479-EL-BGN, 11-3446-EL-BGA, 16-469-EL-BGA, and 16-2404-EL-BGA
In the Matter of the Application of Hardin Wind Energy LLC for a Certificate of Environmental Compatibility and Public Need for the Hardin Wind Farm.

Phase 3 – Compliance with Condition 57(a), Case No. 09-479-EL-BGN – Final Engineering Drawings

Dear Ms. Troupe:

Hardin Wind Energy LLC ("Applicant") is certified to construct a wind-powered electric generation facility in Hardin County, Ohio, in accordance with the orders issued by the Ohio Power Siting Board ("OPSB") in the above-referenced cases.

The Applicant is currently preparing to begin Phase 3 of the project, which will entail construction of the access roads and turbine foundations that were not included in Phases 1 and 2.

At this time, for purposes of complying with the certificate conditions for Phase 3, the Applicant is filing the attached Final Engineering Drawings. This information provides the wetland delineations for the locations of the turbine foundations and the access roads. The Applicant will also be filing the wetland delineations for the laydown yard in the near future. This document is being provided in compliance with Condition 57(a) of OPSB's March 22, 2010 Order in Case No. 09-479-EL-BGN.

We are available, at your convenience, to answer any questions you may have.

Respectfully submitted,

/s/ Christine M.T. Pirik
Christine M.T. Pirik (0029759)
William V. Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
Attorneys for Hardin Wind Energy LLC

cc: Ed Steele
Derek Collins

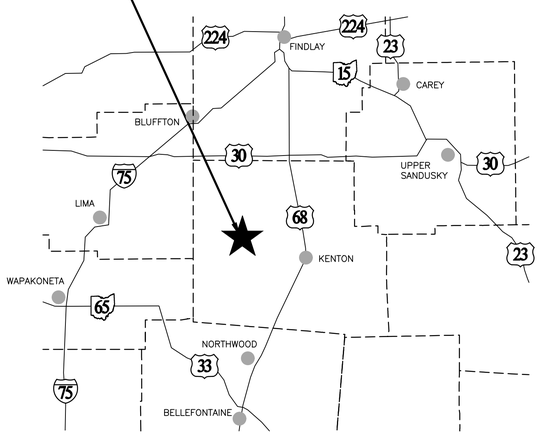
COLUMBUS 39579-20 117493v1

HARDIN WIND PROJECT

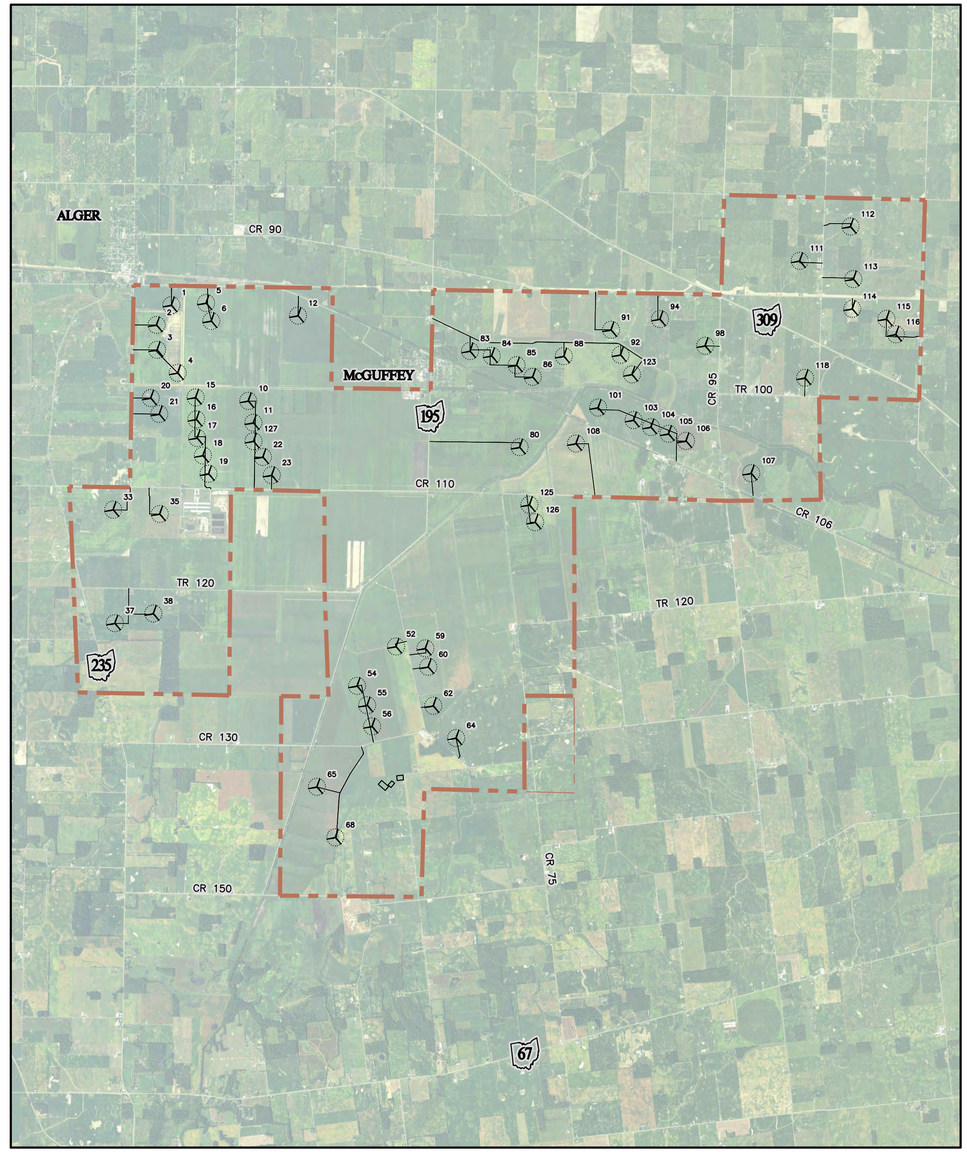
HARDIN COUNTY, OHIO

STATE MAP

PROJECT LOCATION



COUNTY MAP



VICINITY MAP

0 4000 8000

SCALE IN FEET

DRAWING INDEX

SHEET NO.	TITLE
C-01.....	TITLE SHEET, DRAWING INDEX AND LOCATION MAPS
C-02.....	OVERALL SITE PLAN AND SHEET LAYOUT
C-03.....	TURBINE DELIVERY PLAN
C-04.....	ACCESS ROADS SECTIONS AND DETAILS
C-05.....	TURBINE LAYOUT SECTIONS AND DETAILS
C-06.....	DRAINAGE SECTIONS AND DETAILS
C-07.....	MISCELLANEOUS SECTIONS AND DETAILS
C-08.....	EROSION CONTROL FEATURES SECTIONS AND DETAILS
C-09.....	SPECIFICATIONS
C-10.....	SECTION 09, T04S, R10E TURBINE 111
C-11.....	SECTION 10, T04S, R10E TURBINES 112 & 113
C-12.....	SECTION 16, T04S, R09E TURBINES 1, 2, 3, 4, 5, & 6
C-13.....	SECTION 15, T04S, R09E TURBINE 12
C-14.....	SECTION 13, T04S, R09E TURBINES 83, 84, & 85
C-15.....	SECTION 18, T04S, R10E TURBINES 86, 88, 91, & 92
C-16.....	SECTION 17, T04S, R10E TURBINES 94, 98, & 123
C-17.....	SECTION 16, T04S, R10E TURBINE 118
C-18.....	SECTION 15, T04S, R10E TURBINES 114, 115, &116
C-19.....	SECTION 21, T04S, R09E TURBINES 15, 16, 17, 18, 19, 20, & 21
C-20.....	SECTION 22, T04S, R09E TURBINES 10, 11, 22, 23, & 127
C-21.....	SECTION 23, T04S, R09E COLLECTOR LINE
C-22.....	SECTION 24, T04S, R09E TURBINE 80
C-23.....	SECTION 19, T04S, R10E TURBINES 101 & 108
C-24.....	SECTION 20, T04S, R10E TURBINES 103, 104, 105, & 106
C-25.....	SECTION 21, T04S, R10E TURBINE 107
C-26.....	SECTION 29, T04S, R09E TURBINE 33
C-27.....	SECTION 28, T04S, R09E TURBINE 35
C-28.....	SECTION 26, T04S, R09E COLLECTOR LINE
C-29.....	SECTION 25, T04S, R09E COLLECTOR LINE
C-30.....	SECTION 30, T04S, R10E TURBINES 125 & 126
C-31.....	SECTION 32, T04S, R09E TURBINE 37
C-32.....	SECTION 33, T04S, R09E TURBINE 38
C-33.....	SECTION 35, T04S, R09E TURBINES 52, 54, 59, & 60
C-34.....	SECTION 36, T04S, R09E COLLECTOR LINE
C-35.....	SECTION 02, T05S, R09E TURBINES 55, 56, & 65
C-36.....	SECTION 01, T05S, R09E TURBINES 62 & 64
C-37.....	SECTION 11, T05S, R09E TURBINE 68

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NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

CLIENT	05/31/19	06/14/19					
BID							
CONSTRUCTION							
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	DATE RELEASED						

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Date	05/13/19
Drawn	NJB2
Checked	MBJ
Designed	CAD
Approved	MBJ

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

TITLE SHEET, DRAWING INDEX, AND LOCATION MAPS

BARR PROJECT No. 35/33-1001.10

CLIENT PROJECT No. –

DWG. No. C-01

REV. No. B

CADD USER: Cristian A. Diaz FILE: M:\DESIGN\35331001.02\35331001.02\35331001.10_C-01.DWG PLOT SCALE: 1:1 PLOT DATE: 6/14/2019 9:02 AM
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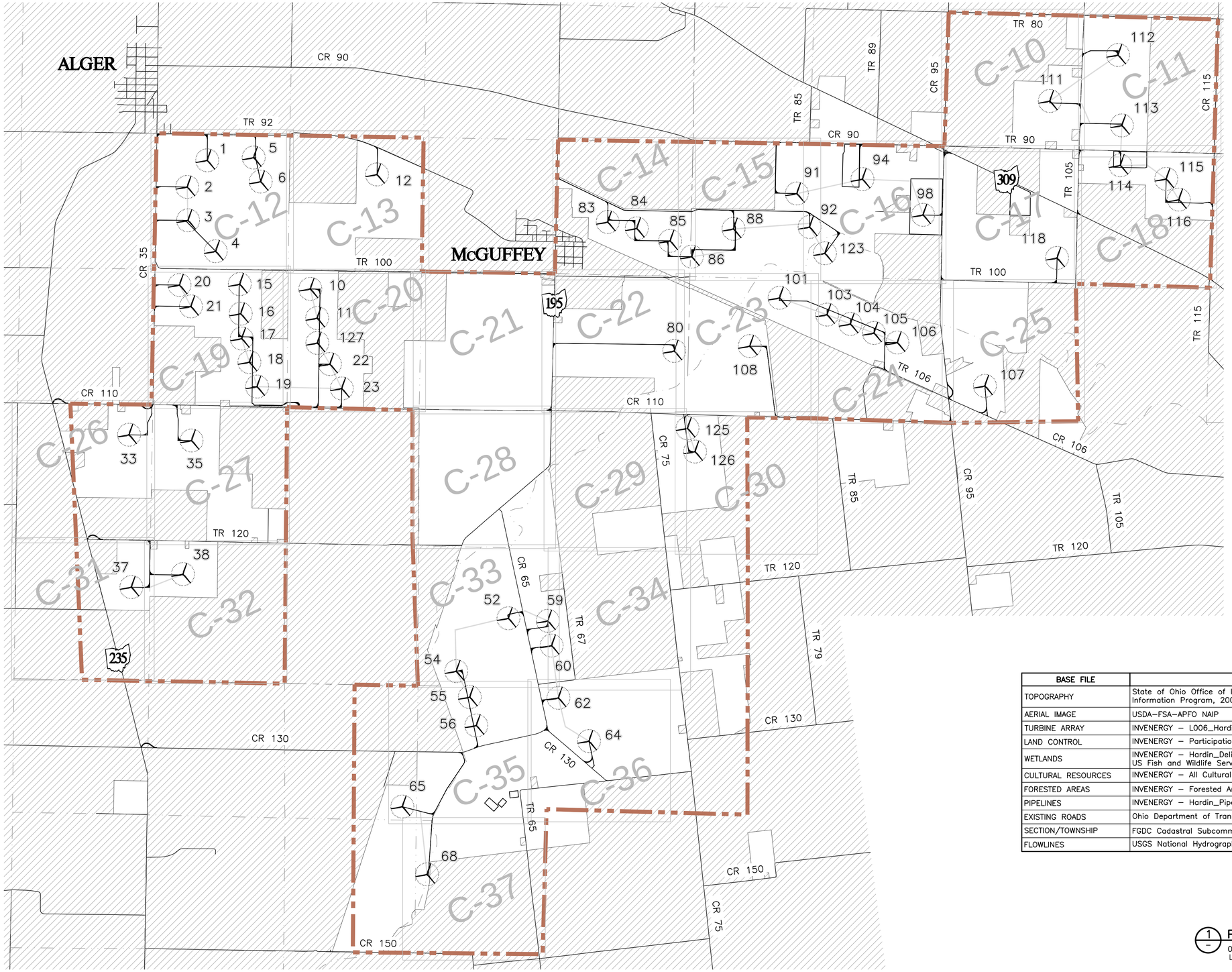
NJB2 M:\Design\35331001.02\35331001.10_C-01.dwg Plot at 1000 05/14/2019 15:52:33



LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- TEMPORARY TURNING RADIUS
- PROPOSED TURBINE NUMBER AND LOCATION (XX)
- NON–EASEMENT PROPERTY'S
- POSSIBLE LAYDOWN YARD LOCATIONS
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- SHEET NUMBER REFERENCE (C-XX)

BASIS OF DRAWING FILE:

DATE OF SURVEY:

ORIGIN/DATE OF BASE:

COORDINATE SYSTEM: **Ohio State Planes, North Zone, US Foot**

HORIZONTAL DATUM: **North American Datum of 1983**

VERTICAL DATUM: **North American Vertical Datum of 1988**

ADDITIONAL FILE INFORMATION:

BASE FILE	SOURCE AND VERSION	DATE OBTAINED
TOPOGRAPHY	State of Ohio Office of Information Technology, Ohio Geographically Referenced Information Program, 2006	9/27/2016
AERIAL IMAGE	USDA–FSA–APFO NAIP	5/16/2019
TURBINE ARRAY	INVENERGY – L006_Hardin_60 WTGs_20190328.kmz	5/17/2019
LAND CONTROL	INVENERGY – Participation for Turning Radii_avoid red boundary if possible.kmz	5/17/2019
WETLANDS	INVENERGY – Hardin_Delineated Wetlands_2016–2018–2019.kmz US Fish and Wildlife Service	5/21/2019
CULTURAL RESOURCES	INVENERGY – All Cultural Resources in Project Area.kmz	5/21/2019
FORESTED AREAS	INVENERGY – Forested Areas_Bat Habitat.kmz	5/21/2019
PIPELINES	INVENERGY – Hardin_Pipelines_ALTA.kmz	5/21/2019
EXISTING ROADS	Ohio Department of Transportation	5/16/2019
SECTION/TOWNSHIP	FGDC Cadastral Subcommittee	5/16/2019
FLOWLINES	USGS National Hydrography Dataset	5/16/2019

1 – PLAN: OVERALL SITE PLAN

0 2000 4000
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Designed	CAD
Approved	MBJ

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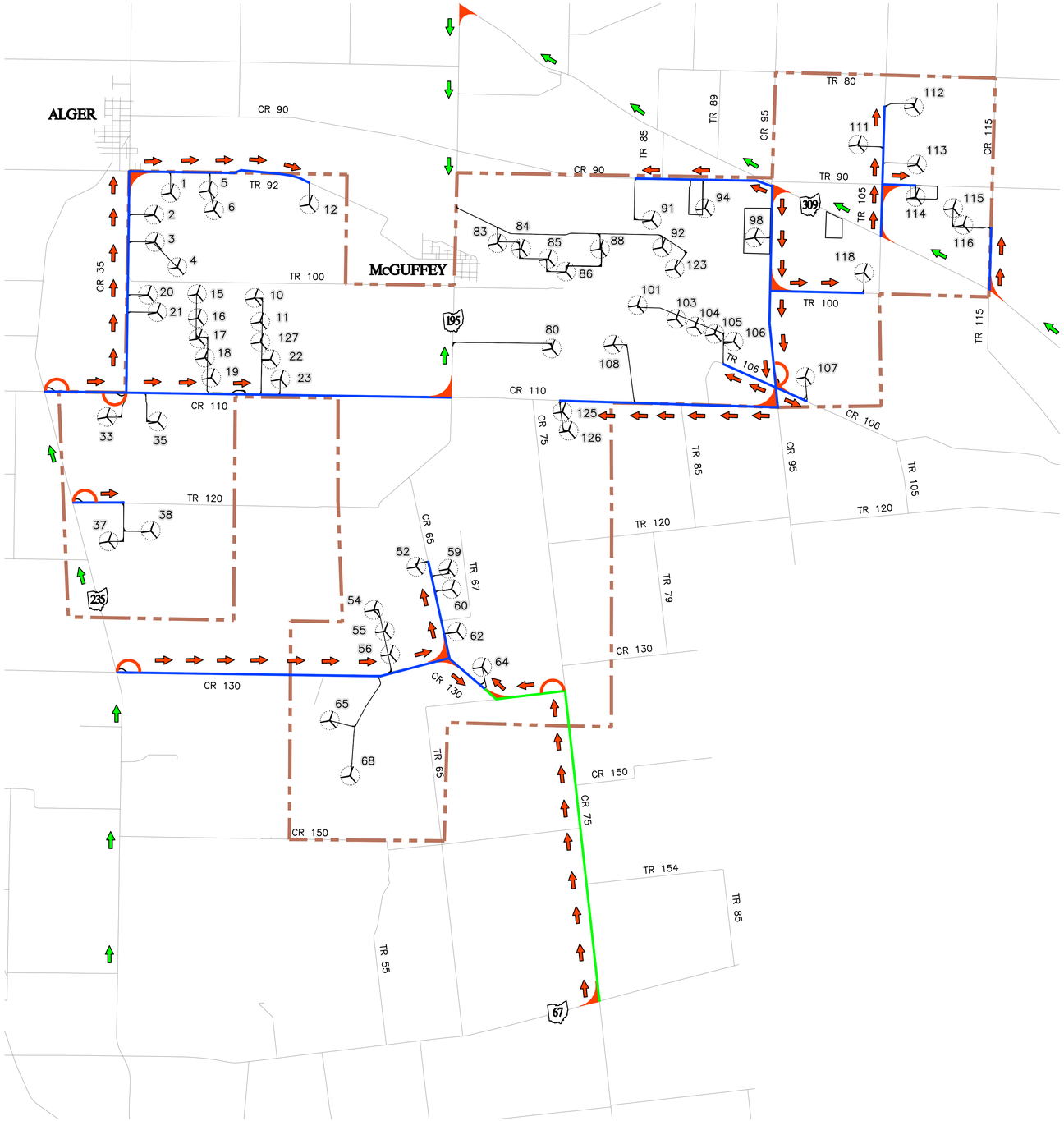
HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

OVERALL SITE PLAN AND SHEET LAYOUT

BARR PROJECT No. 35/33–1001
CLIENT PROJECT No. –
DWG. No. C–02
REV. No. B

CADD USER: Cristian A. Diaz FILE: M:\DESIGN\35331001.02\35331001.02\35331001.02



LEGEND

- DELIVERY ROUTE
- ALTERNATE DELIVERY ROUTE
- DELIVERY ROUTE DIRECTION
- HIGHWAY DELIVERY DIRECTION
- INTERSECTION IMPROVEMENT
- PROPOSED TURBINE ACCESS ROAD
- EXISTING ROAD
- PROPOSED TURBINE NUMBER AND LOCATION (XX)
- PROJECT BOUNDARY
- POSSIBLE LAYDOWN YARD LOCATIONS

1 PLAN: TURBINE DELIVERY PLAN

0 3000 6000
SCALE IN FEET

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NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

	A	B	C	D	0	1	2
CLIENT	05/18/19	05/31/19	06/14/19				
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CONSTRUCTION							
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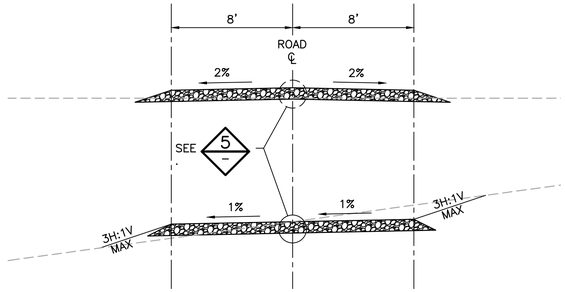
HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

TURBINE DELIVERY PLAN

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-03
REV. No. C

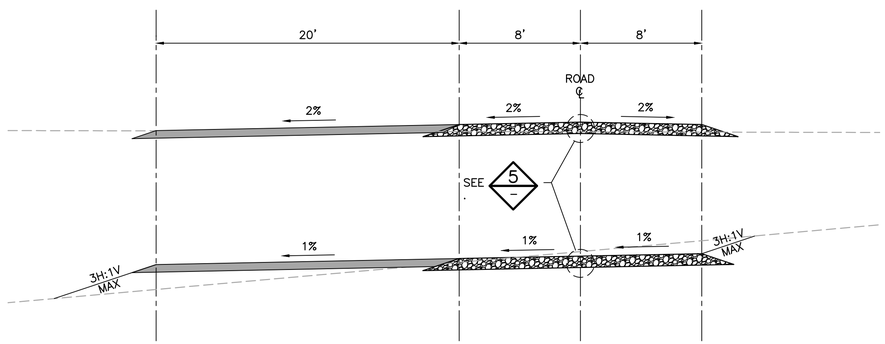
CADD USER: Cristian A. Diaz FILE: M:\DESIGN\35331001.02\35331001.02\35331001.02



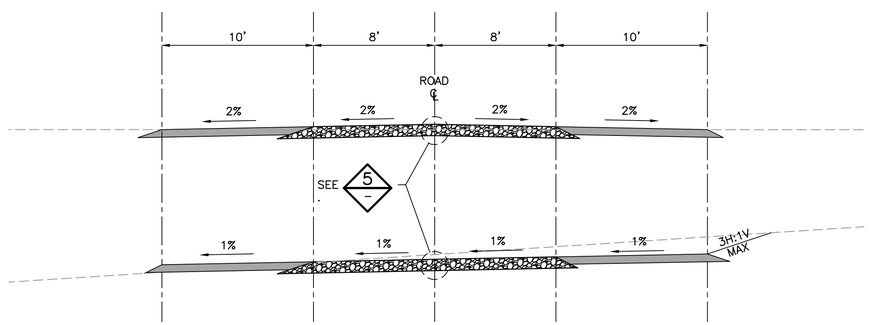
ACCESS ROAD NOTES:

1. MAINTENANCE OF THE ROAD WILL LIKELY BE NECESSARY DURING CONSTRUCTION TO MAINTAIN A DRIVABLE SURFACE, PARTICULARLY FOLLOWING A RAIN EVENT. SEE GEOTECHNICAL REPORT FOR ADDITIONAL RECOMMENDATIONS.
2. DITCHES AS NEEDED TO PROVIDE DRAINAGE.
3. CRANE PATHS WILL LIKELY REQUIRE THE USE OF CRANE MATS, TO OFFSET THE LOW BEARING CAPACITY OF EXISTING SOILS. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
4. GRADES GREATER THAN 8.0% MAY BE APPROVED BY OWNER. A VEHICLE ASSIST MAY BE REQUIRED THAT MUST BE PROVIDED BY THE ERECTION CONTRACTOR FOR FREIGHT TRAFFIC.

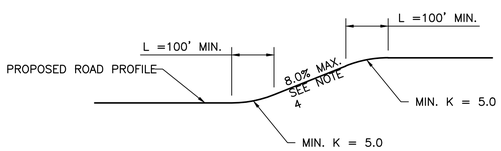
1 SECTION: TYPICAL ACCESS ROAD
NOT TO SCALE



2 SECTION: TYPICAL ACCESS ROAD WITH OFFSET CRANE PATH
NOT TO SCALE



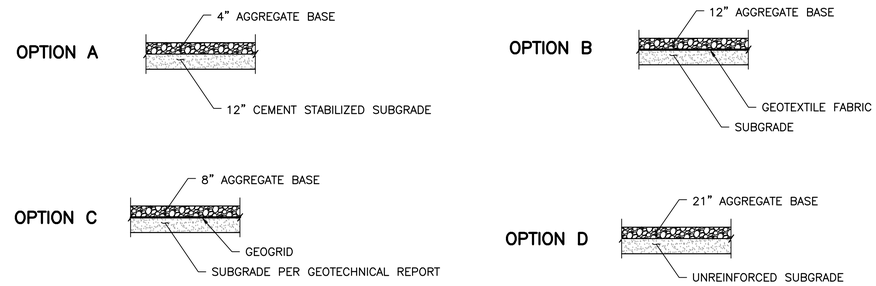
3 SECTION: TYPICAL ACCESS ROAD WITH CRANE PATH
NOT TO SCALE



LEGEND

- AGGREGATE BASE
- SUBGRADE
- EXISTING GROUND
- COMPACTED NATIVE GROUND

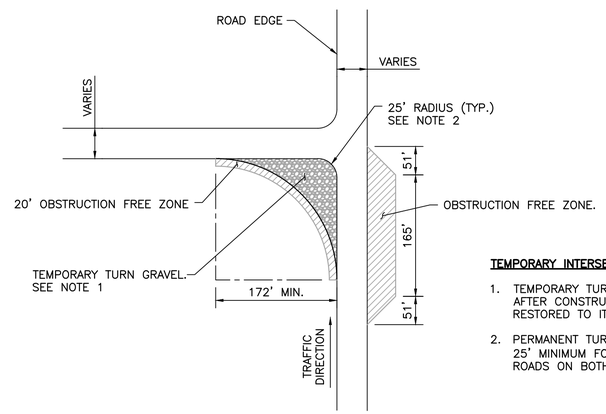
4 DETAIL: TYPICAL ROAD ALLOWABLE GRADES
NOT TO SCALE



NOTES:

1. SECTIONS SHOWN ARE PRELIMINARY.
2. FINAL SECTION TO BE DETERMINED PRIOR TO IFC.
3. FINAL CEMENT STABILIZATION MIXTURE TO BE DETERMINED.

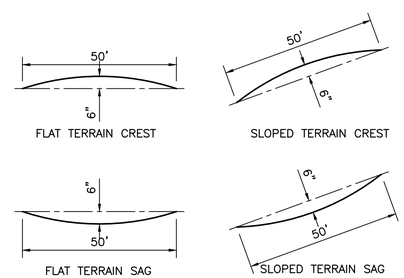
5 DETAIL: TYPICAL ACCESS ROAD MATERIALS
NOT TO SCALE



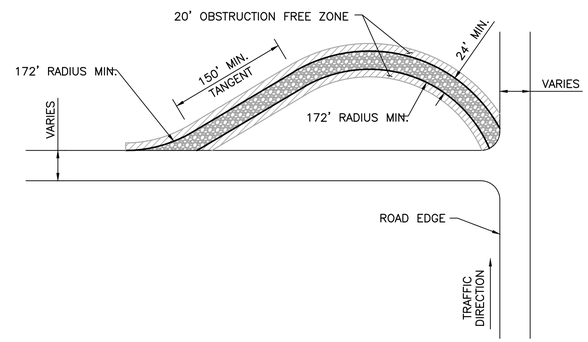
TEMPORARY INTERSECTION NOTES:

1. TEMPORARY TURNS SHALL BE REMOVED AFTER CONSTRUCTION AND THE AREA RESTORED TO ITS ORIGINAL CONDITION.
2. PERMANENT TURNING RADIUS SHALL BE 25' MINIMUM FOR PROPOSED ACCESS ROADS ON BOTH SIDES.

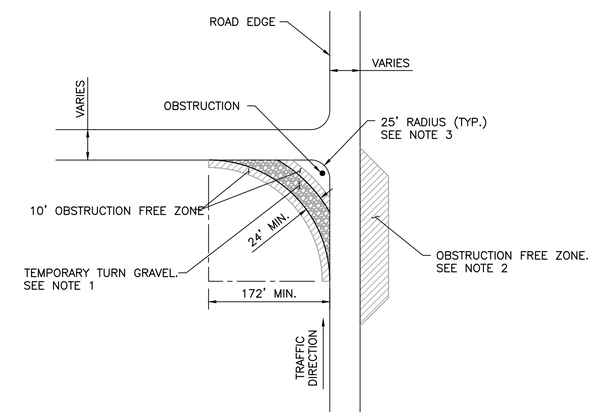
6 PLAN: TYPICAL TEMPORARY INTERSECTION IMPROVEMENT
NOT TO SCALE



7 DETAIL: TYPICAL ROAD ALLOWABLE BUMPS AND DIPS
NOT TO SCALE



8 PLAN: TYPICAL TEMPORARY OUTSIDE TURN IMPROVEMENT
NOT TO SCALE



9 PLAN: ALTERNATE TEMPORARY INTERSECTION IMPROVEMENT
NOT TO SCALE

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

ACCESS ROADS
SECTIONS AND DETAILS

BARR PROJECT No. 35/33-1001
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REV. No. B

CADD USER: Cristian A. Diaz FILE: M:\DESIGN\35331001.02\35331001 10_C-04.DWG PLOT SCALE: 1:1 PLOT DATE: 6/14/2019 9:02 AM
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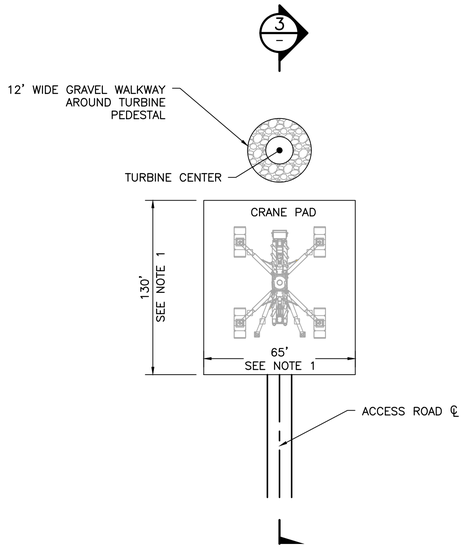
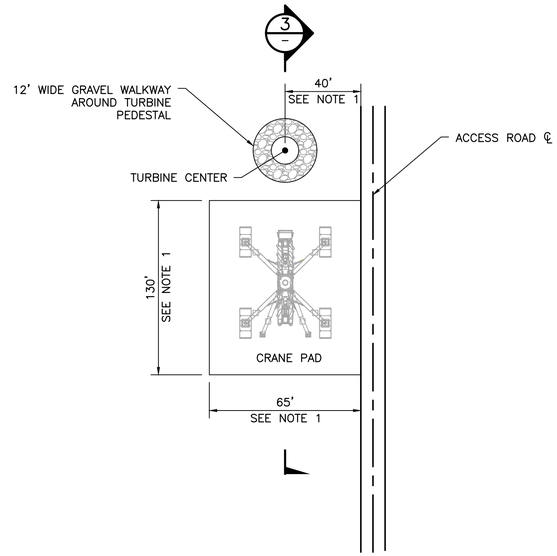


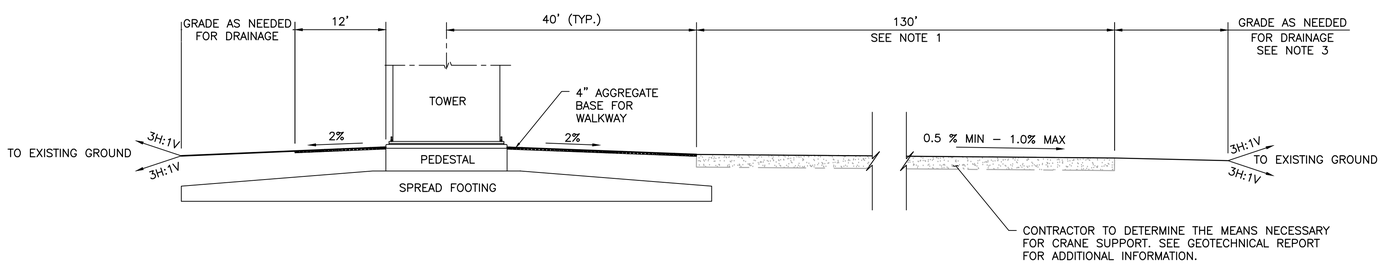
1 DETAIL: TYPICAL DEAD-END CRANE PAD
NOT TO SCALE



2 DETAIL: TYPICAL CRANE PAD
NOT TO SCALE

CRANE PAD NOTES:

1. FINAL CRANE PAD DIMENSIONS AND CONFIGURATION TO BE DETERMINED BY CONTRACTOR.
2. COMPACT CRANE PAD WITH SMOOTH DRUM ROLLER GRADED WITHIN 1" (INCH) FLATNESS TRANSVERSALLY AND WITHIN 1' (FOOT) ± OF FOUNDATION PEDESTAL ELEVATION.
3. CRANE PADS WILL REQUIRE THE USE OF CRANE MATS TO OFFSET THE LOW BEARING CAPACITY OF EXISTING SOILS. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.



3 SECTION: TURBINE FOUNDATION AND CRANE PAD GRADING
NOT TO SCALE

TURBINE NAME	UTM NAD83 Z17N METERS		GEOGRAPHIC NAD83		STATE PLANE NAD83	
	X_UTM83m	Y_UTM83m	X_LON83	Y_LAT83	EASTING	NORTHING
1	260490.9	4509449.0	−83.835	40.701	1598388.951	379720.975
2	260246.0	4509134.0	−83.838	40.698	1597603.336	378674.387
3	260249.0	4508733.0	−83.838	40.695	1597635.493	377359.586
4	260574.0	4508356.5	−83.834	40.691	1598722.194	376143.044
5	261049.0	4509473.0	−83.828	40.702	1600217.684	379830.746
6	261128.0	4509183.0	−83.827	40.699	1600492.888	378884.165
10	261702.0	4507886.0	−83.820	40.687	1602447.360	374662.931
11	261778.0	4507534.0	−83.819	40.684	1602716.169	373512.862
12	262525.0	4509245.0	−83.811	40.700	1605070.549	379165.250
15	260856.0	4507957.0	−83.830	40.688	1599669.169	374848.683
16	260862.0	4507603.0	−83.830	40.685	1599708.540	373688.167
17	260869.0	4507304.0	−83.830	40.682	1599748.129	372708.064
18	260956.0	4507020.0	−83.828	40.679	1600049.221	371781.600
19	261043.0	4506725.0	−83.827	40.677	1600350.924	370819.062
20	260133.0	4507959.0	−83.839	40.688	1597298.174	374815.013
21	260266.0	4507700.0	−83.837	40.685	1597748.721	373973.094
22	261922.0	4506980.0	−83.817	40.679	1603219.203	371704.165
23	262059.0	4506685.0	−83.815	40.677	1603684.871	370744.403
33	259497.0	4506173.0	−83.845	40.671	1595311.931	368922.951
35	260246.0	4506091.0	−83.837	40.671	1597772.630	368695.702
37	259494.0	4504345.0	−83.845	40.655	1595403.704	362928.369
38	260116.0	4504490.0	−83.837	40.656	1597435.327	363438.423
52	264012.0	4503894.0	−83.791	40.652	1610244.501	361700.498
54	263375.0	4503270.0	−83.798	40.646	1608190.258	359618.811
55	263532.0	4502957.0	−83.797	40.644	1608722.500	358601.112
56	263605.0	4502615.0	−83.796	40.641	1608980.889	357483.644
59	264484.0	4503856.0	−83.786	40.652	1611794.451	361602.116
60	264525.0	4503558.0	−83.785	40.649	1611945.464	360627.157
62	264596.0	4502930.0	−83.784	40.644	1612213.193	358571.686
64	264954.0	4502405.0	−83.780	40.639	1613416.361	356869.927
65	262701.0	4501657.0	−83.806	40.632	1606069.607	354291.863
68	262984.0	4500839.0	−83.802	40.624	1607043.067	351625.108
80	266056.0	4507067.0	−83.768	40.681	1616770.986	372219.466
83	265284.0	4508628.0	−83.778	40.695	1614152.462	377295.528
84	265631.0	4508545.0	−83.774	40.694	1615295.007	377042.663
85	266029.0	4508389.0	−83.769	40.693	1616608.865	376553.244
86	266285.0	4508195.0	−83.766	40.692	1617459.174	375931.304
88	266792.0	4508520.0	−83.760	40.695	1619103.707	377025.316
91	267559.0	4508931.0	−83.751	40.699	1621596.086	378415.837
92	267705.0	4508527.0	−83.749	40.695	1622097.369	377099.104
94	268349.0	4509090.0	−83.742	40.700	1624177.931	378981.250
98	269069.0	4508649.0	−83.733	40.696	1626563.644	377575.139
101	267330.0	4507683.0	−83.753	40.687	1620914.594	374310.447
103	267897.0	4507472.0	−83.747	40.685	1622785.738	373650.061
104	268175.0	4507355.0	−83.743	40.685	1623703.916	373281.847
105	268456.0	4507242.0	−83.740	40.684	1624631.711	372926.917
106	268735.0	4507123.0	−83.737	40.683	1625553.283	372552.199
107	269776.0	4506585.0	−83.724	40.678	1628997.078	370845.818
108	266963.0	4507110.0	−83.758	40.682	1619742.960	372410.950
111	270613.0	4509989.0	−83.715	40.709	1631552.399	382055.537
112	271441.0	4510527.0	−83.706	40.714	1634237.779	383866.003
113	271473.0	4509681.0	−83.705	40.706	1634389.860	381093.390
114	271446.0	4509203.0	−83.705	40.702	1634327.945	379524.319
115	271994.0	4509031.0	−83.699	40.701	1636134.656	378990.782
116	272141.0	4508780.0	−83.697	40.698	1636630.715	378175.830
118	270668.0	4508105.0	−83.714	40.692	1631837.703	375880.181
123	267884.0	4508208.0	−83.747	40.692	1622702.136	376062.953
125	266199.0	4506137.0	−83.766	40.673	1617291.674	369177.635
126	266285.0	4505856.0	−83.765	40.670	1617589.329	368260.922
127	261775.0	4507236.0	−83.819	40.682	1602722.911	372535.477

4 TABLE: TURBINES COORDINATES

NOTES:

1. TURBINES BASED ON FILE "L006_Hardin_60 WTGs_20190328.kmz" RECEIVED ON 05/17/2019.

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NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

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CONSTRUCTION							
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Drawn	NJB2
Checked	MBJ
Designed	CAD
Approved	MBJ

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

TURBINE LAYOUT
SECTIONS AND DETAILS

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-05
REV. No. B

CADD USER: Cristian A. Diaz FILE: M:\DESIGN\35331001.02\35331001 10_C-05.DWG PLOT SCALE: 1:1 PLOT DATE: 6/14/2019 9:02 AM
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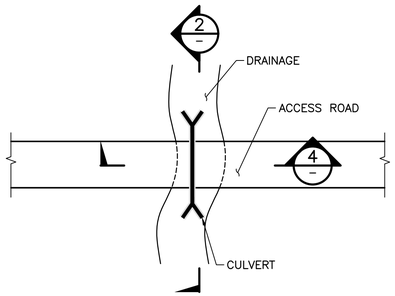
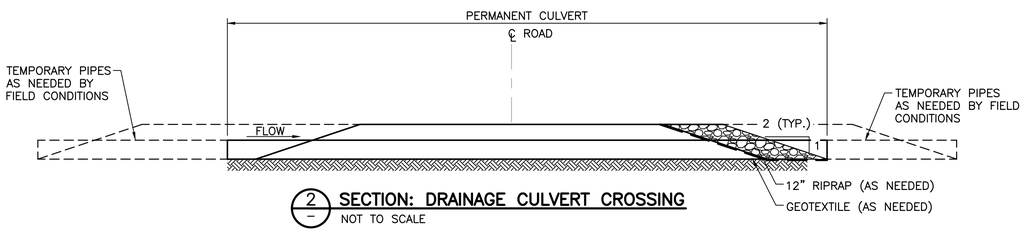
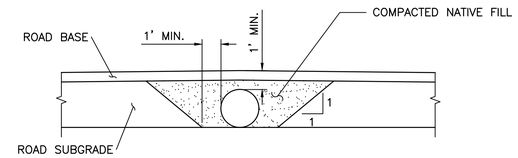


1 SECTION: DRAINAGE CROSSING
NOT TO SCALE



2 SECTION: DRAINAGE CULVERT CROSSING
NOT TO SCALE



4 SECTION: CULVERT CROSSING
0 1 4
SCALE

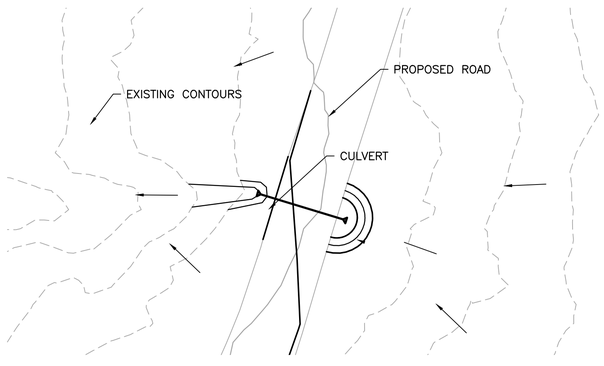
NOTES:

1. PROPOSED CULVERT LOCATIONS SHALL BE CONSIDERED APPROXIMATE. ADJUST LOCATIONS AND GRADES AS NEEDED TO PROVIDE POSITIVE DRAINAGE.
2. SWALE CROSSING AT GRADE MAY BE USED FOR LOCATIONS WHERE CULVERTS MAY IMPEDE FARMING OPERATIONS.
3. REMOVE DEBRIS AND ALL DELETERIOUS MATERIAL FROM UNDER THE CULVERT, AND PREPARE SUBGRADE AS PER MANUFACTURER RECOMMENDATIONS.
4. INSTALL BMP'S IN ACCORDANCE TO THE SWPPP.
5. ALL CULVERTS ARE CIRCULAR CORRUGATED METAL PIPE, GAUGE 12, 2 2/3 x 1/2 in CORRUGATIONS, UNLESS OTHERWISE NOTED.
6. MAINTAIN EXISTING DITCH SLOPES. CONTRACTOR TO FIELD VERIFY AND PROVIDE POSITIVE DRAINAGE, PREFERABLY AT 0.50% MIN.
7. MAINTAIN 12" MINIMUM COVER OVER ALL CULVERTS IN ACCORDANCE TO MANUFACTURER RECOMMENDATIONS WHICHEVER IS GREATER.

CULVERT TABLE

ID	ROAD	APPROX. STATION	SUGGESTED SIZE
1	A–01	0+20	15"
2	A–02	0+20	15"
3	A–02	14+40	18"
4	A–03	0+20	15"
5	B–01	0+20	15"
6	B–02	0+20	15"
7	B–03	0+20	15"
8	B–04	0+20	15"
9	B–05	0+20	15"
10	B–06	0+20	15"
11	B–06	116+40	30"
12	B–09	0+20	15"
13	B–09	21+40	18"
14	B–11	0+20	15"
15	B–12	0+20	15"
16	B–13	0+20	15"
17	B–13	4+20	18"
18	B–14	0+20	15"
19	B–15	0+20	24"
20	C–01	0+20	15"
21	C–02	0+20	15"
22	C–03	0+20	EXISTING
23	C–04	0+20	15"
24	C–06	0+20	15"
25	C–07	0+20	15"
26	C–08	0+20	15"
27	C–09	0+20	15"
28	C–09	23+80	18"
29	C–10	2+90	18"
30	C–11	0+20	15"
31	D–01	0+20	24"
32	D–02	0+20	15"
33	D–03	0+20	15"
34	E–01	0+20	18"
35	E–01	11+50	24"
36	E–02	3+70	18"
37	E–03	0+20	15"
38	E–04	0+20	15"
39	E–05	0+20	15"
40	G–01	0+20	15"
41	F–01	0+20	15"
42	F–02	0+20	15"
43	F–03	0+20	15"

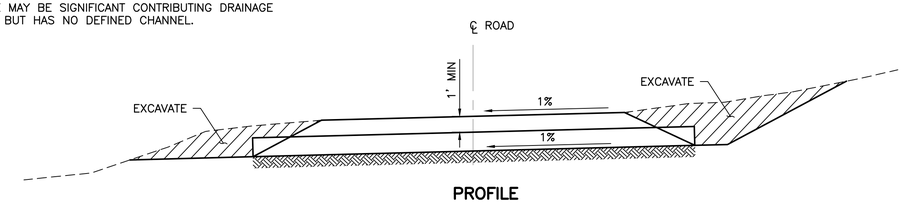
5 TABLE: CULVERT SCHEDULE



PLAN

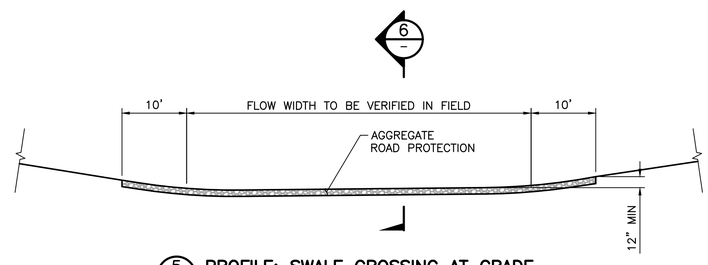
NOTE:

MINOR CULVERT CROSSINGS AT LOCATIONS WHERE THERE MAY BE SIGNIFICANT CONTRIBUTING DRAINAGE AREA, BUT HAS NO DEFINED CHANNEL.

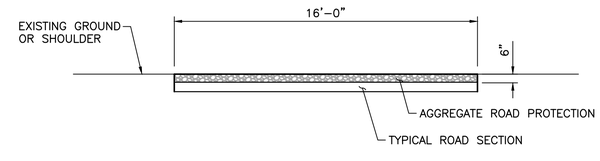


PROFILE

3 SECTION: MINOR DRAINAGE CULVERT CROSSING
NOT TO SCALE



5 PROFILE: SWALE CROSSING AT GRADE
NO SCALE



6 SECTION: SWALE CROSSING AT GRADE
NO SCALE

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Designed	CAD
Approved	MBJ

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PREVAILING WINDS PROJECT
AVON, SOUTH DAKOTA

DRAINAGE
SECTIONS AND DETAILS

BARR PROJECT No. 35/33–1001
CLIENT PROJECT No. –
DWG. No. C–06
REV. No. B

CADD USER: Cristian A. Diaz FILE: M:\DESIGN\35331001.02\35331001.10_C–06.DWG PLOT SCALE: 1:1 PLOT DATE: 6/14/2019 9:02 AM
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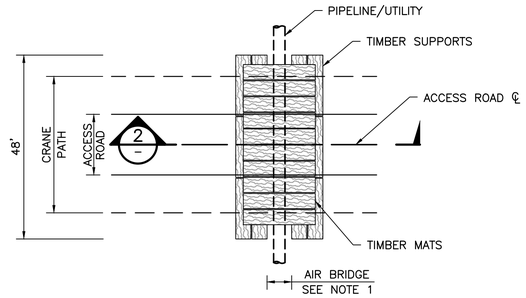
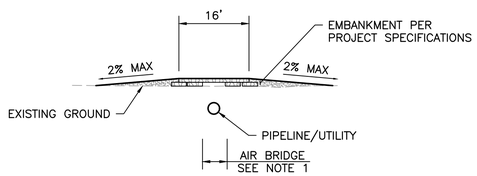


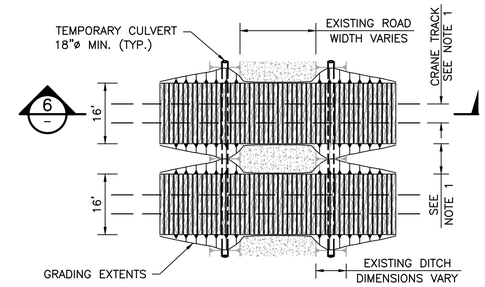
1 PLAN: UTILITY/PIPELINE CROSSING WITH AIR BRIDGE
NOT TO SCALE



2 SECTION: UTILITY/PIPELINE CROSSING WITH AIR BRIDGE
NOT TO SCALE

NOTES:

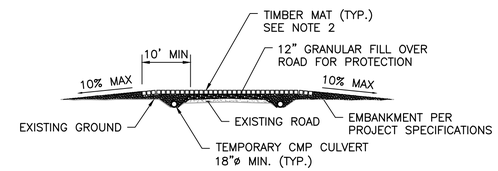
1. AIR BRIDGE SHALL BE 4 FT WIDE OR PER THE SPECIFICATIONS OF UTILITY/PIPELINE OWNER.
2. LOCATION OF UTILITY/PIPELINE SHALL BE FIELD VERIFIED.
3. TIMBER MAT DIMENSIONS SHALL BE 16' LONG BY 1' THICK, OR AS SPECIFIED IN THE FINAL UTILITY AGREEMENT.
4. SUBGRADE SHALL BE PROOF–ROLLED PRIOR TO PLACEMENT OF TIMBER MATS SOIL EMBANKMENT.
5. SOIL PLACEMENT AND COMPACTION SHALL FOLLOW THE PROJECT SPECIFICATIONS.



5 PLAN: CRANE – TEMPORARY ROAD CROSSING
NOT TO SCALE

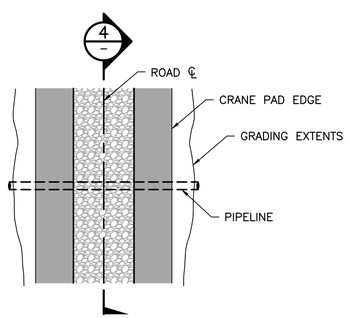
NOTES:

1. DIMENSION TO BE DETERMINED BY CONTRACTOR UPON SELECTION OF CRANE.
2. TIMBER MAT DIMENSIONS SHALL BE 1'x16', WIDTH TBD BY CONTRACTOR.
3. TRAFFIC CONTROL PROVIDED BY CONTRACTOR IN ACCORDANCE TO THE LATEST MUTCD VERSION.
4. DISTURBED AREA SHALL BE STABILIZED IN ACCORDANCE TO THE PROJECT SWPPP.
5. DISTURBED AREA TO BE RESTORED TO PRE–CONSTRUCTION CONDITION.

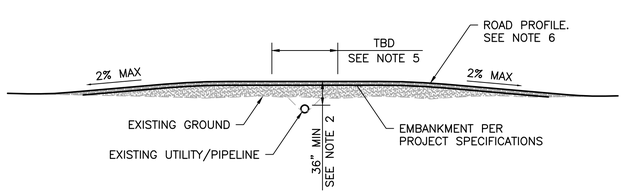


6 SECTION: CRANE – TEMPORARY ROAD CROSSING
NOT TO SCALE

PRELIMINARY CROSSINGS
PENDING APPROVAL
BY UTILITY



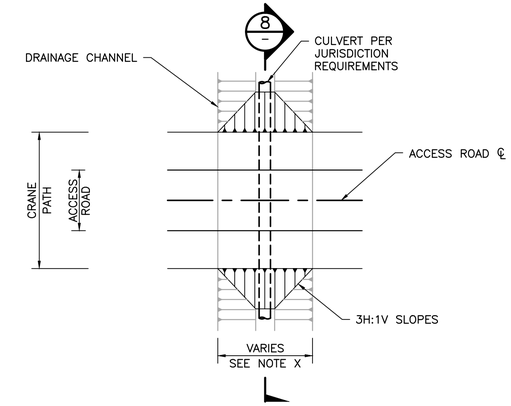
3 PLAN: UTILITY/PIPELINE CROSSING WITH EARTH COVER
NOT TO SCALE



4 SECTION: UTILITY/PIPELINE CROSSING WITH EARTH COVER
NOT TO SCALE

NOTES:

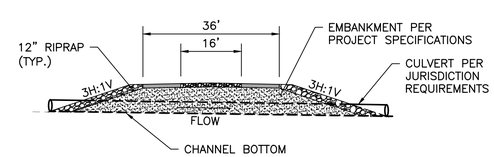
1. LOCATION OF PIPELINE SHALL BE FIELD VERIFIED.
2. MINIMUM SOIL COVER SHALL BE 36" OR AS SPECIFIED BY THE UTILITY/PIPELINE COMPANY.
3. SUBGRADE SHALL BE PROOF ROLLED PRIOR TO PLACING SOIL COVER.
4. SOIL COVER SHALL BE COMPACTED PER THE PROJECT SPECIFICATIONS.
5. AREA OF INFLUENCE AS DIRECTED BY THE UTILITY/PIPELINE OWNER.
6. COVER PROFILE SHALL FOLLOW THE PROJECT SPECIFICATIONS FOR BUMPS, DIPS, VERTICAL CURVES AND ALLOWABLE GRADES.



7 PLAN: ROAD/CRANE – DRAINAGE CHANNEL CROSSING
NOT TO SCALE

NOTES:

1. DRAINAGE CHANNEL DIMENSIONS VARY.
2. CULVERT DIMENSION AND TYPE TO BE DETERMINED DURING FINAL DESIGN AND PER JURISDICTION REQUIREMENTS.
3. SUBGRADE SHALL BE PREPARED PER THE PROJECT SPECIFICATIONS
4. DISTURBED AREA SHALL BE STABILIZED IN ACCORDANCE TO THE PROJECT SWPPP



8 SECTION: ROAD/CRANE – DRAINAGE CHANNEL CROSSING
NOT TO SCALE

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

MISCELLANEOUS
SECTIONS AND DETAILS

BARR PROJECT No. 35/33–1001
CLIENT PROJECT No. –
DWG. No. C–07
REV. No. B

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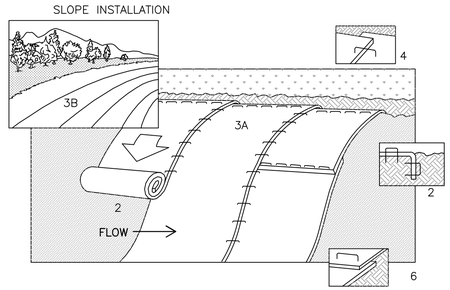
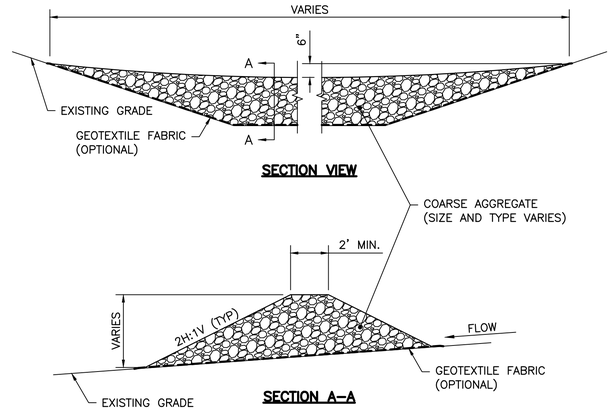


NOTES:

1. REFER TO MANUFACTURER RECOMMENDATIONS FOR STAPLE PATTERNS FOR SLOPE INSTALLATIONS.
2. PREPARE SOIL BY LOOSENING TOP 1–2 INCHES AND APPLY SEED (AND FERTILIZER WHERE REQUIRED) PRIOR TO INSTALLING BLANKETS. GROUND SHOULD BE SMOOTH AND FREE OF DEBRIS.
3. BEGIN (A) AT THE TOP OF THE SLOPE AND ROLL THE BLANKETS DOWN OR (B) AT ONE END OF THE SLOPE AND ROLL THE BLANKETS HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP, WITH THE UPHILL BLANKET ON TOP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. ALL EROSION CONTROL BLANKETS MUST BE RATED FOR A MINIMUM 2 YR LIFE EXPECTANCY.

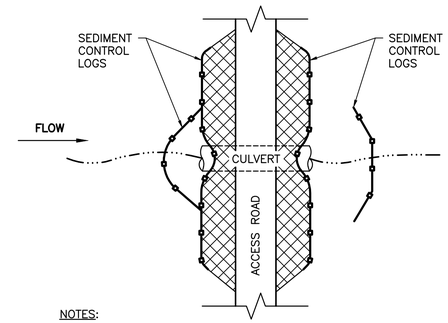
1 DETAIL: EROSION CONTROL BLANKET – INSTALLATION
NOT TO SCALE



NOTES:

1. AGGREGATE SIZE MAY VARY AND DEPENDING ON CHANNEL SIZE, FLOW, SEDIMENT LOAD OR OTHER SITE CONDITIONS. AGGREGATE USED SHOULD BE RELATIVELY FREE OF SEDIMENT PRIOR TO INSTALLATION.
2. CLEAN OR REPLACE ROCK FILTER DIKE WHEN SEDIMENT BUILD UP REACHES 1/3 OF THE DIKE HEIGHT. ALTERNATIVELY A SECOND ROCK FILTER DIKE MAY BE INSTALLED DOWNSTREAM OF THE EXISTING DIKE AT A SUITABLE DISTANCE.
3. MAINTAIN ROCK FILTER DIKE THROUGHOUT THE CONSTRUCTION PERIOD. REMOVE ALL ROCK, GEOTEXTILE AND ANY ACCUMULATED SEDIMENT IN CONJUNCTION WITH FINAL GRADING AND SITE STABILIZATION.

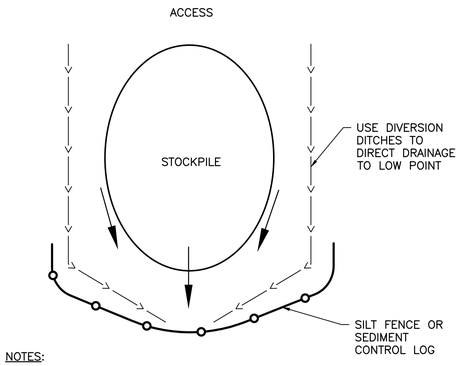
2 DETAIL: ROCK FILTER DIKE
NOT TO SCALE



NOTES:

1. SLOPES WITH GRAVEL OR 2 YR RATED EROSION CONTROL BLANKETS WITH SEED.
2. KEY IN TOP EDGE OF BLANKET (IF BLANKETS ARE USED).

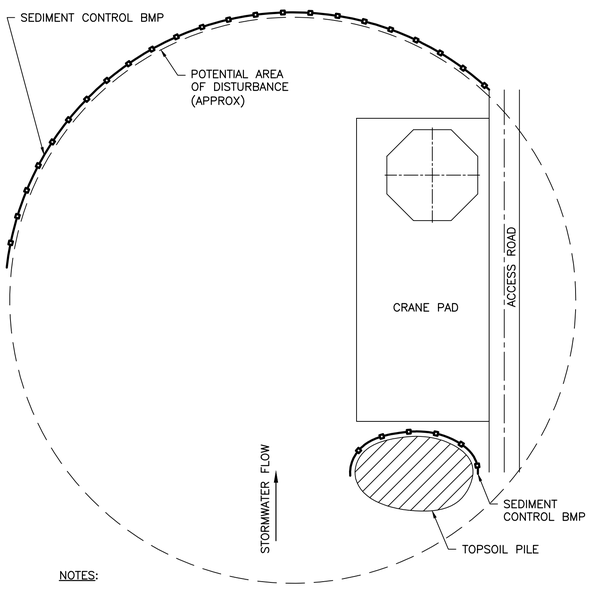
3 DETAIL: NEW CULVERT INSTALLATION
NOT TO SCALE



NOTES:

1. USE WATER, TARP, TEMPORARY SEEDING, OR SURFACE ROUGHENING FOR EROSION CONTROL ON SOIL STOCKPILES.

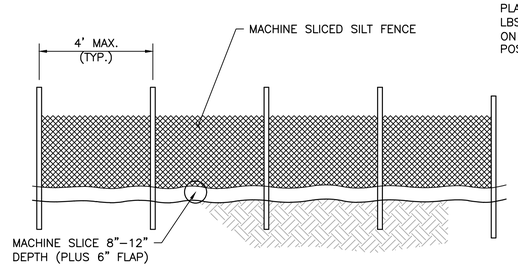
4 DETAIL: SOIL STOCKPILES BMPs
NOT TO SCALE



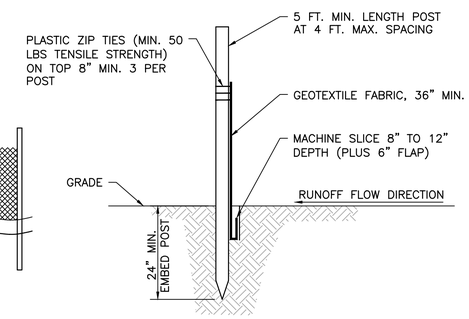
NOTES:

1. SEDIMENT CONTROL BMP CAN BE SEDIMENT CONTROL LOGS, DIVERSION DITCHES, SILT FENCE, ETC.
2. EROSION CONTROL BMP WILL BE USED AS NEEDED, SUCH AS SURFACE ROUGHENING OR EROSION CONTROL BLANKET.
3. PLACE TOPSOIL STOCKPILES OUT OF DRAINAGEWAYS. ADD SEDIMENT CONTROL BMP AROUND BASE OF PILE. USE EROSION CONTROL BMP AS NEEDED.

5 DETAIL: WIND TURBINE LOCATION BMPs
NOT TO SCALE



DOWNSTREAM VIEW

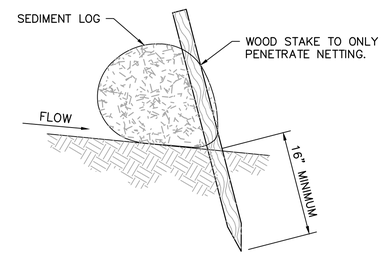


SECTION VIEW

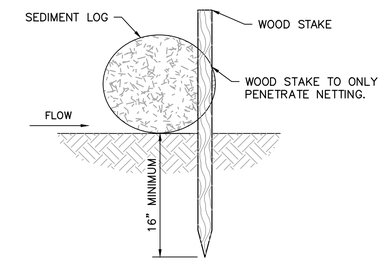
NOTES:

1. INSTALL SILT FENCE PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED AND MAINTAIN THROUGHOUT THE CONSTRUCTION PERIOD. REMOVE SILT FENCE AND ANY ACCUMULATED SEDIMENT IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS. NO HOLES OR GAPS SHALL BE PRESENT IN/UNDER SILT FENCE.
3. WHEN SPLICES ARE NECESSARY MAKE SPLICE AT POST ACCORDING TO SPLICE DETAIL. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE. ROTATE BOTH POSTS TOGETHER AT LEAST 180 DEGREES TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL. CUT THE FABRIC NEAR THE BOTTOM OF THE POSTS TO ACCOMMODATE THE 6 INCH FLAP. THEN DRIVE BOTH POSTS AND BURY THE FLAP. COMPACT BACKFILL.
4. REMOVE ACCUMULATED SEDIMENT WHEN BUILD UP REACHES 1/3 OF FENCE HEIGHT, OR INSTALL A SECOND SILT FENCE UPSTREAM OF THE EXISTING FENCE AT A SUITABLE DISTANCE.

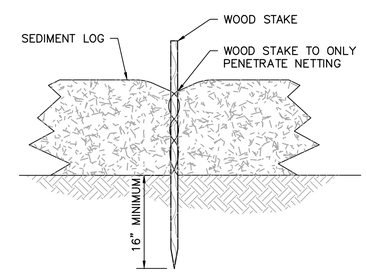
6 DETAIL: SILT FENCE – MACHINE SLICED
NOT TO SCALE



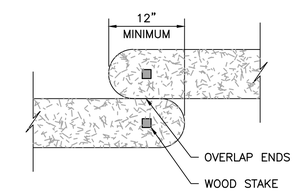
SIDE VIEW ON SLOPE



SIDE VIEW FLAT



FRONT VIEW



TOP VIEW

NOTES:

1. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS. NO GAPS SHALL BE PRESENT UNDER SEDIMENT LOG.
2. INSTALL SEDIMENT CONTROL LOG ALONG CONTOURS (CONSTANT ELEVATION).
3. REMOVE ACCUMULATED SEDIMENT WHEN REACHING 1/3 OF LOG HEIGHT.
4. MAINTAIN SEDIMENT CONTROL LOG THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIR OR REPLACE AS REQUIRED.
5. 9" MINIMUM SIZE FOR ALL SEDIMENT CONTROL LOGS.

7 DETAIL: SEDIMENT CONTROL LOG – STAKING
NOT TO SCALE

90% ISSUED FOR REVIEW

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

CLIENT	05/31/19	06/14/19					
BID							
CONSTRUCTION							
RELEASED TO/FOR	A	B	C	D	0	1	2
	DATE RELEASED						

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Scale	AS SHOWN
Date	05/13/19
Drawn	NJB2
Checked	MBJ
Designed	CAD
Approved	MBJ

Invenergy

HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

EROSION CONTROL FEATURES
SECTIONS AND DETAILS

BARR PROJECT No. 35/33–1001
CLIENT PROJECT No. –
DWG. No. C–08
REV. No. B

CADD USER: Cristian A. Diaz FILE: M:\DESIGN\35331001.02\35331001 10_C–08.DWG PLOT SCALE: 1:1 PLOT DATE: 6/14/2019 9:02 AM
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NJB2 M:\Design\35331001.02\35331001 10_C–09.dwg Plot at 0 05/14/2019 15:49:17

1.0. ROAD DESIGN PARAMETERS

A. ROAD DESIGN

ROAD SECTION IN ACCORDANCE TO GEOTECHNICAL REPORT.

B. MAINTENANCE

A PROGRAM OF ROAD MAINTENANCE WILL BE REQUIRED TO REPAIR RUTS CREATED BY TRAFFIC USE. THIS MAINTENANCE COULD INCLUDE REGULAR GRADING, ADDITION OF CRUSHED TOP SURFACING AND REDRESSING AFTER SEVERE RAIN EVENTS.

2.0. SUBMITTALS

A. SUBMIT ONE ELECTRONIC COPY OF THE SPECIFIED SUBMITTALS TO THE CIVIL ENGINEER OF RECORD.

B. THE CIVIL ENGINEER OF RECORD WILL REVIEW THE SUBMITTALS FOR CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS.

C. THE REVIEW DOES NOT RELIEVE THE CONSTRUCTION CONTRACTOR OF THE RESPONSIBILITY FOR CORRECTING DEFECTIVE CONSTRUCTION.

3.0. TESTING AND INSPECTION REQUIREMENTS

A. SUBMIT A LIST OF THE QUALIFIED TESTING COMPANIES THAT WILL BE UTILIZED ON THE PROJECT FOR PERFORMANCE OF TESTS SPECIFIED.

B. SUBMIT ONE ELECTRONIC COPY OF TESTING AND INSPECTION RECORDS SPECIFIED TO THE CIVIL ENGINEER OF RECORD.

D. THE CIVIL ENGINEER WILL REVIEW THE TESTING AND INSPECTION RECORDS TO CHECK CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS. HIS REVIEW DOES NOT RELIEVE THE CONSTRUCTION CONTRACTOR FROM THE RESPONSIBILITY FOR CORRECTING DEFECTIVE WORK.

4.0. ROADS

A. GENERAL

1. GENERAL SOIL CONDITIONS ARE DESCRIBED IN GEOTECHNICAL REPORT.

B. SUBMITTALS

1. FOR SUBGRADE SOILS THAT ARE ENCOUNTERED IN CONSTRUCTION OF THE ROADS, AND AT THE CONTRACTOR'S OPTION, SUBMIT GRAIN SIZE ANALYSIS, NATURAL MOISTURE CONTENT, AND STANDARD PROCTOR MAXIMUM DRY DENSITY TEST.

2. FOR ROAD BASE MATERIAL, SUBMIT GRAIN SIZE ANALYSIS, NATURAL MOISTURE CONTENT, AND STANDARD PROCTOR MAXIMUM DRY DENSITY TEST FOR EVERY 4,000 CUBIC YARDS OF ROAD BASE THAT IS PLACED.

C. PRODUCTS

1. **ROAD BASE:** ROAD BASE SHALL CONSIST OF AASHTO M43 SIZE 68 WITH LESS THAN 10 PERCENT FINES MEETING THE REQUIREMENTS OHIO DOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 703.

2. **ROAD SUBGRADE OR ROAD SHOULDER FILL:** COMPACTED NATIVE SOIL.

3. **AGGREGATE ROAD PROTECTION:** CRUSHED AGGREGATE SLOPE PROTECTION MEETING THE REQUIREMENTS OF OHIO DOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 703.19.

4. **GEOTEXTILE:** GEOTEXTILE FABRIC CONSISTING OF SEPARATION AND STABILIZATION WOVEN FABRIC MEETING REQUIREMENTS OF AASHTO M288 CLASS 3.

5. **GEOGRID:** GEOGRID MEETING THE REQUIREMENTS OF TRIAX TX5 GEOGRID BY TENSAR OR APPROVED EQUAL.

6. **CULVERT:** METALLIC COATED CORRUGATED STEEL UNDERDRAIN MEETING THE REQUIREMENTS OF OHIO DOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 707.01.

7. **RIPRAP:** CRUSHED AGGREGATE SLOPE PROTECTION MEETING THE REQUIREMENTS OF OHIO DOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 703.19.

8. **SEED:** SEEDING IN ACCORDANCE TO SWPPP, LANDOWNER, OR GOVERNING AGENCY.

D. EXECUTION

1. INSTALL ADEQUATE MEANS TO CONTROL SOIL EROSION IN ACCORDANCE WITH THE PROJECT STORM WATER POLLUTION PREVENTION PLAN.

2. CLEAR AND GRUB GRASSY VEGETATION AND SHRUBS FROM THE ROAD SECTION, STOCKPILE OR DISPOSE OD MATERIAL AS MUTUALLY AGREED WITH OWNER.

3. SCRAPE TOPSOIL AND ORGANICS FROM THE ROAD SECTION EXTENDING 1 FEET BEYOND THE EDGES OF NEW PAVEMENT TO A MINIMUM 4 INCH DEPTH. STOCKPILE TOPSOIL IN APPROVED AREA FOR FUTURE SITE RESTORATION.

4. WHERE REQUIRED TO PROVIDE ADEQUATE CROSS DRAINAGE OF THE ROAD, CUT DITCHES AND INSTALL CULVERTS AS DETERMINED IN FIELD OR AS NOTED IN DRAWINGS.

5. PREVENT DISTURBANCE OF CULTURALLY SENSITIVE AREAS IDENTIFIED AND MARKED BY THE OWNER AND REALIGN ROAD, AS DIRECTED AND APPROVED BY OWNER.

6. IF HISTORIC, CULTURAL OR ARCHEOLOGICAL RESOURCES ARE DISCOVERED IN THE COURSE OF CONSTRUCTION, STOP WORK AND NOTIFY OWNER IMMEDIATELY.

7. ALIGN AND GRADE ROADS IN ACCORDANCE WITH THE ENGINEERING PLANS AND DETAILS PROVIDED.

8. **ROAD SUBGRADE:** COMPACT THE ENTIRE ROADWAY LENGTH AND WIDTH INCLUDING SHOULDERS TO A DEPTH OF 12 INCHES AND TO A MINIMUM OF 95% STANDARD PROCTOR MAXIMUM DRY DENSITY AT ±2% OF OPTIMUM MOISTURE CONTENT.

9. PROOF ROLL SUBGRADE, WHEREBY THE ENTIRE ROADWAY LENGTH AND WIDTH IS ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK OR APPROVED EQUIVALENT WITH A MINIMUM GROSS WEIGHT OF 25 TONS. PERFORM PROOF ROLLING IN THE PRESENCE OF ON–SITE GEOTECHNICAL ENGINEER. THE SUBGRADE IS DEEMED ACCEPTABLE IF RUTTING NO GREATER THAN 1.5 INCHES, NOR "PUMPING" OF THE SOIL BEHIND THE LOADED TRUCK IS OBSERVED BY THE ON–SITE GEOTECHNICAL ENGINEER. IF THE SUBGRADE FAILS PROOF ROLLING, DETERMINE AND UNDERTAKE ALL MEANS NECESSARY UNTIL THE SUBGRADE PASSES THE TEST.

10. **ROAD FILL:** PLACE FILL IN MAXIMUM 8" LIFTS COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR MAXIMUM DRY DENSITY AT –2% +3% OF OPTIMUM MOISTURE CONTENT.

11. **GEOGRID:** PLACE GEOGRID OVER ENTIRE ROAD WIDTH, EXCLUDING SHOULDERS.

12. **ROAD BASE:** COMPACT ROAD BASE TO MINIMUM THICKNESS AND WIDTH SPECIFIED AND TO A MINIMUM OF 98% STANDARD PROCTOR MAXIMUM DRY DENSITY AT –2% +3% OF OPTIMUM MOISTURE CONTENT. CROWN AND CROSS GRADE THE ROAD AS SPECIFIED TO PROVIDE POSITIVE LATERAL DRAINAGE.

13. DURING THE CONSTRUCTION AND ERECTION PERIOD, REPAIR DAMAGE TO ROADS.

14. AFTER COMPLETION OF THE TURBINE ERECTION, REGRADE ROADS AND MAINTAIN SPECIFIED ROAD BASE AND TOP THICKNESS.

15. AT THE COMPLETION OF THE PROJECT, REMOVE AND RECLAIM ROAD SHOULDERS BY SCARIFYING, APPLY TOPSOIL AND RESEED AS APPROPRIATE.

16. SEED SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF OHIO DOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 659, LANDOWNER, OR GOVERNING AGENCY.

17. USE ONLY CERTIFIED WEED FREE OVERLAY STRAW OR HAY.

E. TESTING AND INSPECTION

1. TESTING SHALL BE PERFORMED BY A DESIGNATED INDEPENDENT TESTING AGENCY.

2. FOR SUBGRADE SOILS THAT ARE ENCOUNTERED IN CONSTRUCTION OF THE ROADS, AND AT THE CONTRACTOR'S OPTION, PERFORM GRAIN SIZE ANALYSIS, MOISTURE CONTENT, AND STANDARD PROCTOR MAXIMUM DRY DENSITY TEST.

3. OBTAIN SAMPLES OF SOILS USED AS FILL AND PERFORM GRAIN SIZE ANALYSIS, MOISTURE CONTENT, ATTERBERG LIMITS ON FINES CONTENT, AND STANDARD PROCTOR MAXIMUM DRY DENSITY TEST. PERFORM ONE SET OF TESTS FOR EVERY 2000 CUBIC YARDS OF FILL PLACED.

4. FOR ALL SUBGRADE AND SHOULDER REQUIRING PROOF ROLL SUBMIT A RECORD OF PROOF ROLL INDICATING LOCATION, DATE, IF THE PROOF ROLLING PASSED, AND ANY STEPS TAKEN TO BRING THE SUBGRADE OR SHOULDER INTO COMPLIANCE IF THE PROOF ROLLING FAILED.

5. FOR PLACED AND COMPACTED FILLS, PERFORM ONE FIELD DENSITY TEST FOR EVERY COMPACTED 8" LIFT/1000' LENGTH THAT IS PLACED. INDICATE TEST LOCATION, DRY DENSITY, MOISTURE CONTENT AND PERCENT STANDARD PROCTOR MAXIMUM DRY DENSITY ON RESULTS OF FIELD DENSITY TESTS.

6. FOR COMPACTED SUBGRADE, PERFORM ONE FIELD DENSITY TEST FOR EVERY 1000 FEET OF ROAD WITH NOT LESS THAN TWO (2) TESTS PER TURBINE ACCESS ROAD THAT IS PREPARED. INDICATE TEST LOCATION, DRY DENSITY, MOISTURE CONTENT AND PERCENT STANDARD PROCTOR MAXIMUM DRY DENSITY ON RESULTS OF FIELD DENSITY TESTS.

7. FOR ROAD BASE MATERIAL, PERFORM GRAIN SIZE ANALYSIS, MOISTURE CONTENT, AND STANDARD PROCTOR MAXIMUM DRY DENSITY TEST FOR EVERY 6,000 CUBIC YARDS OF ROAD BASE THAT IS PLACED.

8. FOR PLACED AND COMPACTED ROAD BASE, PROVIDE FIELD DENSITY TEST FOR EVERY 1000 FEET OF ROAD WITH NOT LESS THAN TWO (2) TESTS PER TURBINE ACCESS ROAD THAT IS PREPARED, INDICATE TEST LOCATION, DRY DENSITY, MOISTURE CONTENT AND PERCENT STANDARD PROCTOR MAXIMUM DRY DENSITY ON RESULTS OF FIELD DENSITY TESTS. VERIFY AGGREGATE DEPTH EVERY 200 FEET OF ROAD OR AS DIRECTED BY OWNER.

5.0. CEMENT STABILIZATION

A. GENERAL

1. GENERAL SOIL CONDITIONS ARE DESCRIBED IN GEOTECHNICAL REPORT.

B. SUBMITTALS

1. FOR SUBGRADE SOILS THAT ARE ENCOUNTERED IN CONSTRUCTION OF THE ROADS, AND AT THE CONTRACTOR'S OPTION, SUBMIT GRAIN SIZE ANALYSIS, NATURAL MOISTURE CONTENT, AND STANDARD PROCTOR MAXIMUM DRY DENSITY TEST.

2. SUBMIT DENSITY TEST RESULTS, DCP RESULTS, AND FINAL MIX RATIONS INDICATING LOCATIONS.

C. PRODUCTS

1. **ROAD BASE:** ROAD BASE SHALL CONSIST OF AASHTO M43 SIZE 68 WITH LESS THAN 10 PERCENT FINES MEETING THE REQUIREMENTS OHIO DOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 703.

2. **CEMENT:** PORTLAND CEMENT TYPE II.

D. EXECUTION

1. INSTALL ADEQUATE MEANS TO CONTROL SOIL EROSION IN ACCORDANCE WITH THE PROJECT STORM WATER POLLUTION PREVENTION PLAN.

2. SCRAPE TOPSOIL AND ORGANICS FROM THE ROAD SECTION EXTENDING 1 FEET BEYOND THE EDGES OF NEW PAVEMENT TO A MINIMUM 4 INCH DEPTH. STOCKPILE TOPSOIL IN APPROVED AREA FOR FUTURE SITE RESTORATION.

3. PERFORM A STANDARD PROCTOR TEST TO DETERMINE THE OPTIMUM MOISTURE CONTENT AND DENSITY ON A REPRESENTATIVE SAMPLE OF THE SUBGRADE.

4. DETERMINE THE IN–SITU MOISTURE CONTENT USING A NUCLEAR DENSITY GAUGE OR EQUIVALENT MOISTURE TEST IMMEDIATELY IN FRONT OF RECLAIMER. ADJUST CONTENT IF MOISTURE IS BELOW OPTIMUM MOISTURE, IF MOISTURE CONTENT IS ABOVE OR BELOW THE RANGES PROVIDED, CONTACT THE ENGINEER BEFORE PROCEEDING.

5. SELECT MIX RATIO FROM TABLE PROVIDED.

6. COMPLETELY BLEND SUBGRADE WITH APPROPRIATE AMOUNT OF CEMENT TO A DEPTH OF 12 INCHES.

7. ESTABLISH A ROLLING PATTERN USING A NUCLEAR DENSITY GAUGE. COMPACTION IS ACHIEVED AT 95% OF MAXIMUM DRY DENSITY. THE ROLLING PATTERN MUST BE ESTABLISHED FOR EACH TYPE OF MATERIAL ENCOUNTERED AND/OR MOISTURE CONTENT CHANGES BY MORE THAN 2%.

8. CURE THE STABILIZED MATERIAL FOR A MINIMUM OD 24 HOURS BY APPLYING WATER EVERY 2 TO 3 HOURS AND AT DUSK AT END OF WORK DAY.

9. PERFORM SUBGRADE STRENGTH TESTING OF THE STABILIZED SUBGRADE BY DYNAMIC CONE PENETROMETER (DCP) AFTER 24 HOURS OF FINAL COMPACTION. DCP FREQUENCY SHALL BE AT RANDOM SPACING WITH A MINIMUM OF TWO TESTS PER ROAD OR APPROXIMATELY 500 LINEAL FEET APART. PERFORM STRENGTH TESTING FOR THE ENTIRE SUBGRADE STABILIZATION THICKNESS. MINIMUM REQUIRED UNCONFINED STRENGTH OF 150 PSI MUST BE ACHIEVED PRIOR TO PROOF ROLLING. IF REQUIRED STRENGTH IS NOT ACHIEVED WITHIN 72 HOURS OF FINAL COMPACTION, ADDITIONAL AGGREGATE SURFACING OR RE–STABILIZATION MAY BE REQUIRED.

10. ROOF ROLL STABILIZED SUBGRADE, WHEREBY THE ENTIRE ROADWAY LENGTH AND WIDTH IS ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK OR APPROVED EQUIVALENT WITH A MINIMUM GROSS WEIGHT OF 25 TONS. PERFORM PROOF ROLLING IN THE PRESENCE OF ON–SITE GEOTECHNICAL ENGINEER. IF PROOF ROLL FAILS, RE–STABILIZATION MAY BE REQUIRED WITH ADDITIONAL CEMENT OR NEW ROLLING PATTERN.

11. PLACE ROAD BASE OVER STABILIZED SUBGRADE AFTER PASSING PROOF ROLL TEST. COMPACT ROAD BASE TO MINIMUM THICKNESS AND WIDTH SPECIFIED AND TO A MINIMUM OF 98% STANDARD PROCTOR MAXIMUM DRY DENSITY AT –2% +3% OF OPTIMUM MOISTURE CONTENT. CROWN AND CROSS GRADE THE ROAD AS SPECIFIED TO PROVIDE POSITIVE LATERAL DRAINAGE.

TESTING AND INSPECTION

1. TESTING SHALL BE PERFORMED BY A DESIGNATED INDEPENDENT TESTING AGENCY.

2. FOR SUBGRADE SOILS THAT ARE ENCOUNTERED IN CONSTRUCTION OF THE ROADS, AND AT THE CONTRACTOR'S OPTION, PERFORM GRAIN SIZE ANALYSIS, MOISTURE CONTENT, AND STANDARD PROCTOR MAXIMUM DRY DENSITY TEST.

3. RECORD OF PROOF ROLL INDICATING LOCATION, DATE, IF THE PROOF ROLLING PASSED, AND ANY STEPS TAKEN TO BRING THE SUBGRADE OR SHOULDER INTO COMPLIANCE IF THE PROOF ROLLING FAILED.

4. DCP TEST FOR EVERY 500 FEET OF ROAD WITH NOT LESS THAN TWO (2) TESTS PER TURBINE ACCESS ROAD THAT IS PREPARED. INDICATE TEST LOCATION AND MIX RATIOS SELECTED FOR AREA.

6.0. CRANE PADS AND TURBINE SITES

A. GENERAL

1. CONTRACTOR TO DETERMINE MEANS NECESSARY FOR CRANE SUPPORT AT TURBINE SITES.

B. SUBMITTALS

1. THIS SECTION IS NOT USED.

C. PRODUCTS

1. **SUBGRADE OR FILL:** COMPACTED NATIVE SOIL.

D. EXECUTION

1. INSTALL ADEQUATE MEANS TO CONTROL SOIL EROSION IN ACCORDANCE WITH THE PROJECT STORM WATER POLLUTION PREVENTION PLAN.

2. CLEAR AND GRUB GRASSY VEGETATION AND SHRUBS FROM TURBINE SITES, STOCKPILE OR DISPOSE OF MATERIAL AS MUTUALLY AGREED TO WITH OWNER.

3. SCRAPE TOPSOIL AND ORGANICS. STOCKPILE TOP SOIL AS AGREED BY THE OWNER. USE TOPSOIL FOR FUTURE SITE RESTORATION.

4. IF HISTORIC, CULTURAL OR ARCHEOLOGICAL RESOURCES ARE DISCOVERED IN THE COURSE OF CONSTRUCTION, STOP WORK AND NOTIFY OWNER IMMEDIATELY.

5. GRADE TURBINE SITES IN ACCORDANCE WITH THE ENGINEERING PLANS AND DETAILS PROVIDED.

6. **SUBGRADE:** THE ENTIRE LENGTH AND WIDTH SHOULD BE COMPACTED A DEPTH OF 12 INCHES TO A MINIMUM OF 95% STANDARD PROCTOR MAXIMUM DRY DENSITY AT –2% +3% OF OPTIMUM MOISTURE CONTENT.

7. **FILL:** PLACE FILL IN MAXIMUM 8" LIFTS COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR MAXIMUM DRY DENSITY AT –2% +3% OF OPTIMUM MOISTURE CONTENT.

8. AT THE COMPLETION OF THE PROJECT, SCARIFYING AREAS NOT RECEIVING GRAVEL, APPLY TOPSOIL AND RESEED AS APPROPRIATE.

9. SEED SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF OHIO DOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 659, LANDOWNER, OR GOVERNING AGENCY.

E. TESTING AND INSPECTION

1. TESTING SHALL BE PERFORMED BY A DESIGNATED INDEPENDENT TESTING AGENCY.

2. OBTAIN SAMPLES OF SOILS USED AS FILL AND PERFORM GRAIN SIZE ANALYSIS, MOISTURE CONTENT, ATTERBERG LIMITS ON FINES CONTENT, AND PROCTOR TESTS. PERFORM ONE SET OF TESTS FOR EVERY 2000 CUBIC YARDS OF FILL PLACED.

3. FOR PLACED AND COMPACTED FILLS, PERFORM ONE FIELD DENSITY TEST FOR EVERY 8" LIFT THAT IS PLACED. INDICATING TEST LOCATION, DRY DENSITY, MOISTURE CONTENT AND PERCENT STANDARD PROCTOR MAXIMUM DRY DENSITY.

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CONSTRUCTION							
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Scale	AS SHOWN
Date	05/13/19
Drawn	NJB2
Checked	MBJ
Designed	CAD
Approved	MBJ

Invenergy

HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SPECIFICATIONS

BARR PROJECT No. 35/33–1001
CLIENT PROJECT No. –
DWG. No. C–09
REV. No. B

CADD USER: Cristian A. Diaz FILE: M:\DESIGN\35331001.02\35331001 10_C–09.DWG PLOT SCALE: 1:1 PLOT DATE: 6/14/2019 9:02 AM
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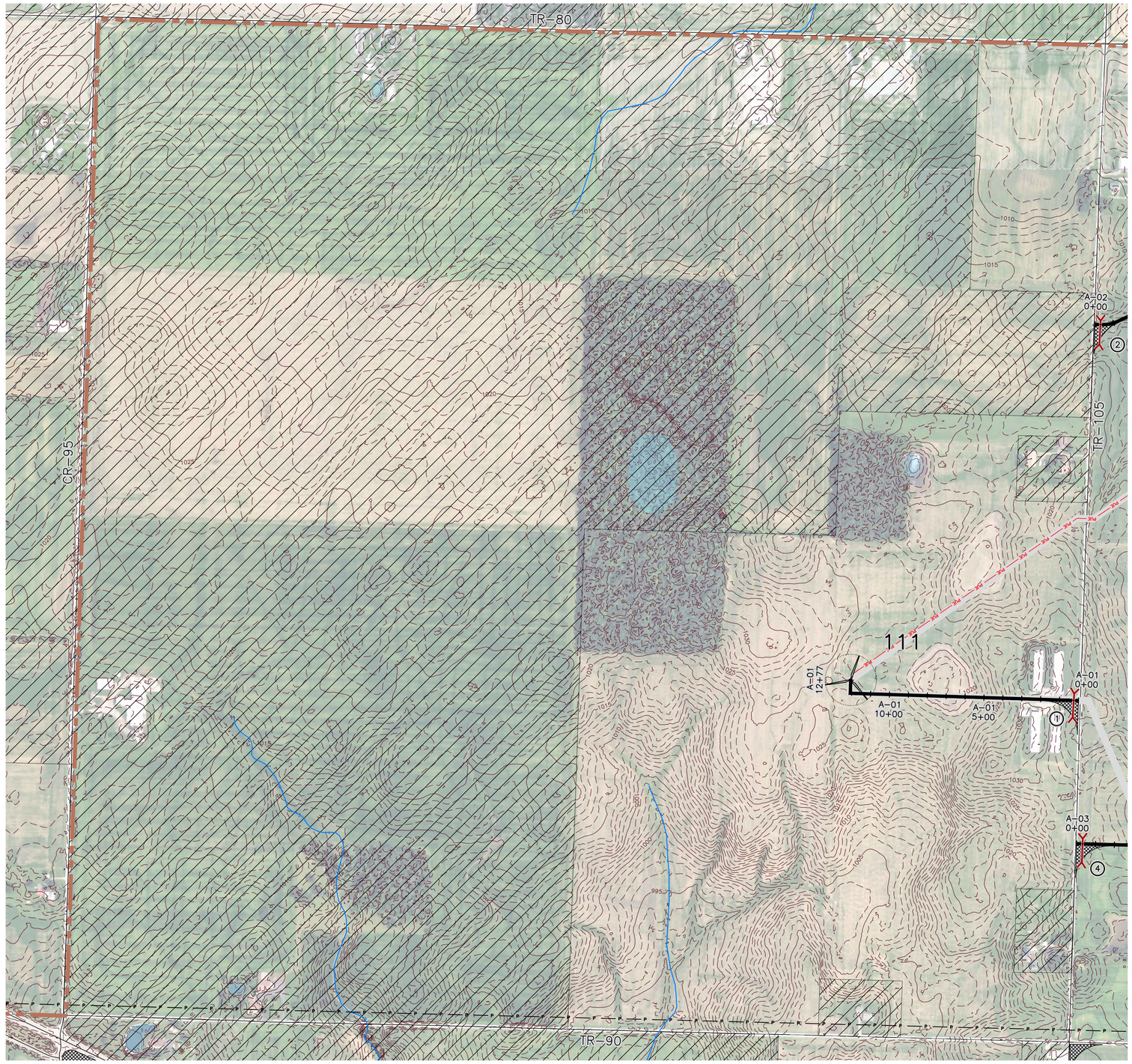

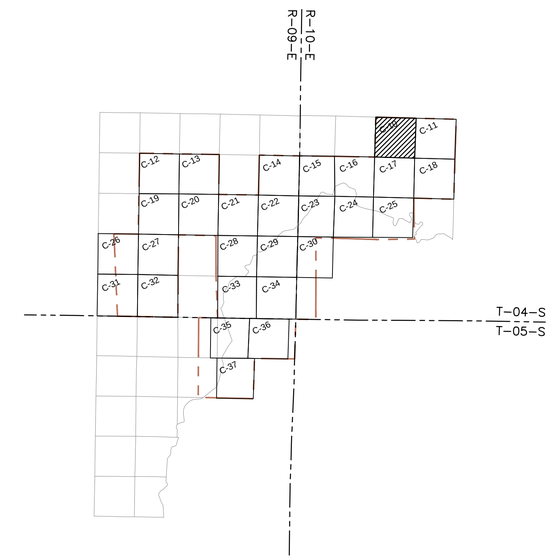

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 09, T04S, R10E

0 300 600
SCALE IN FEET

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CONSTRUCTION							

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Scale	AS SHOWN
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Checked	MBJ
Designed	CAD
Approved	MBJ

Invenergy

HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 09, T04S, R10E
TURBINE 111

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-10
REV. No. B

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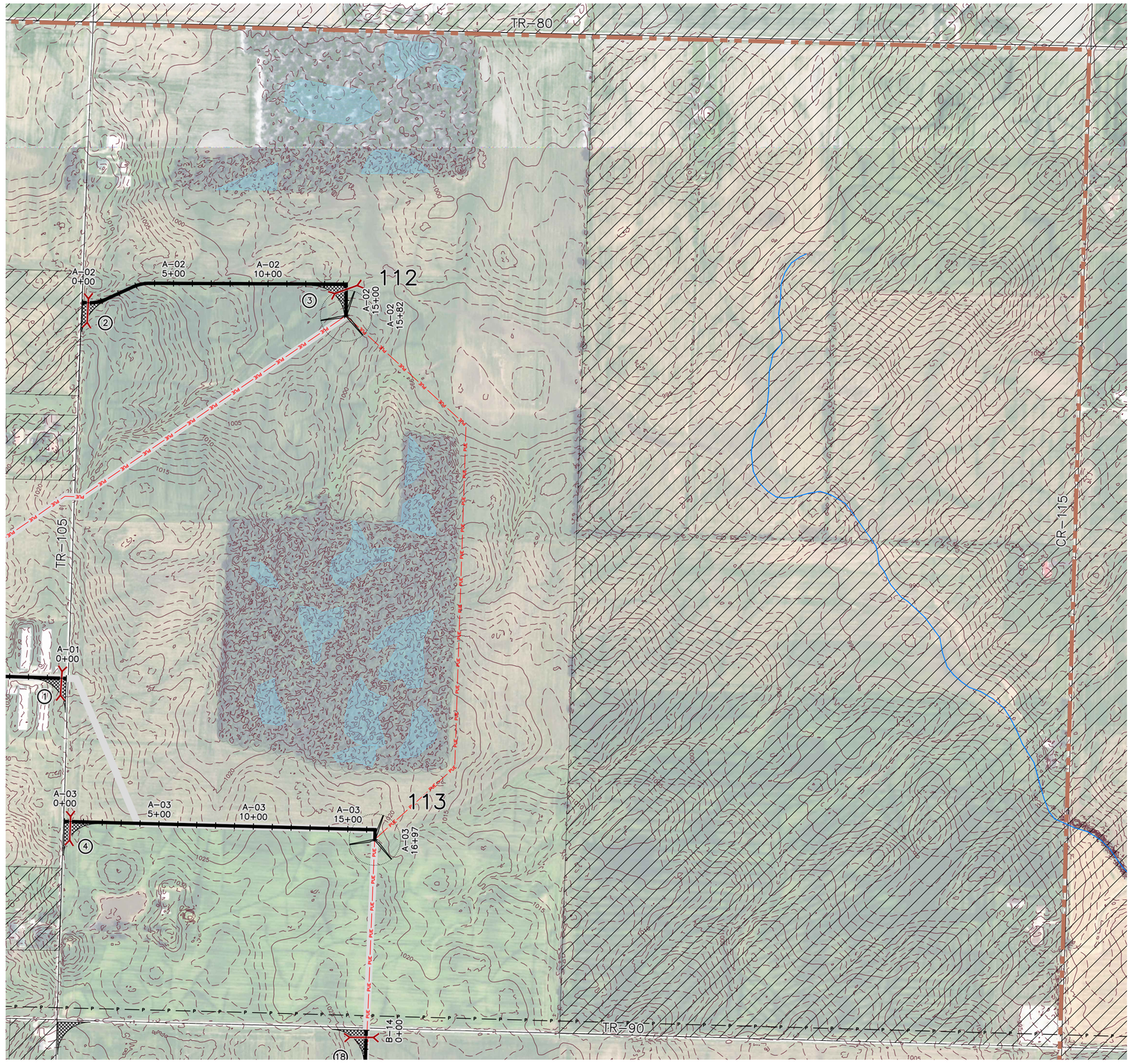

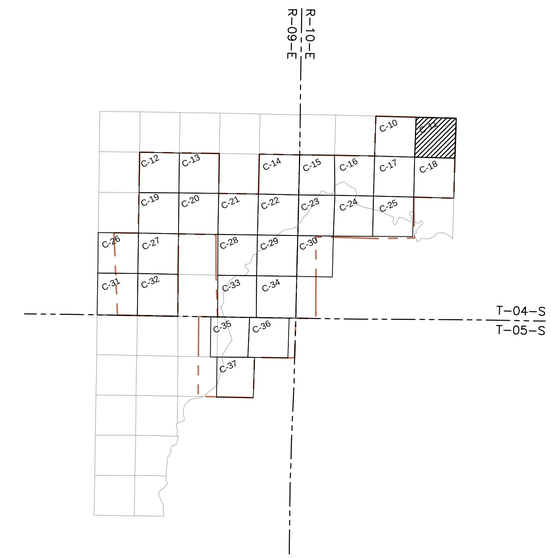

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 10, T04S, R10E

0 300 600
SCALE IN FEET

90% ISSUED FOR REVIEW

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

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CLIENT	05/31/19	06/14/19					
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Scale	AS SHOWN
Date	05/16/19
Drawn	NJB2
Checked	MBJ
Designed	CAD
Approved	MBJ

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

PLAN: SECTION 10, T04S, R10E
TURBINES 112 & 113

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-11
REV. No. B

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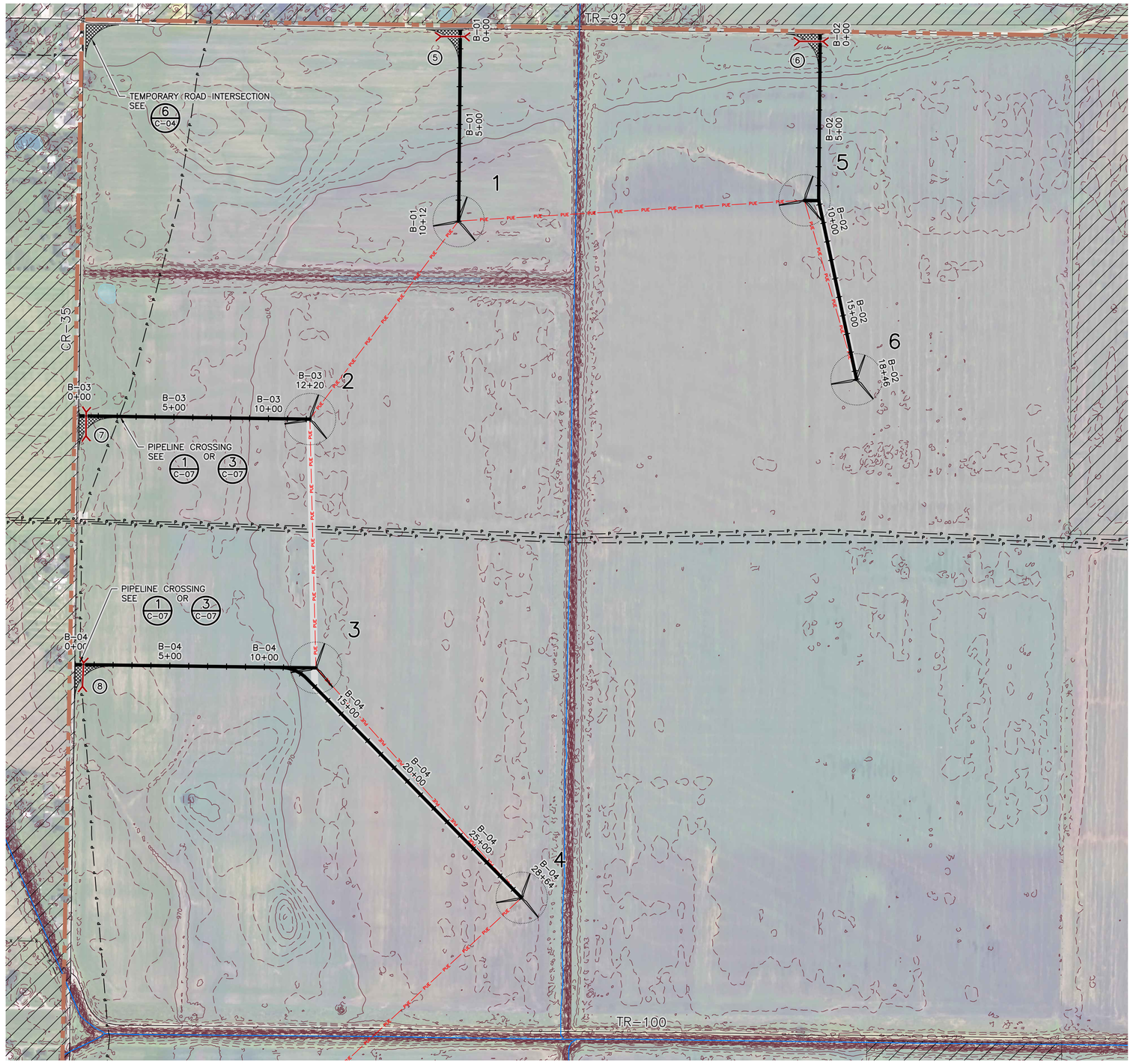

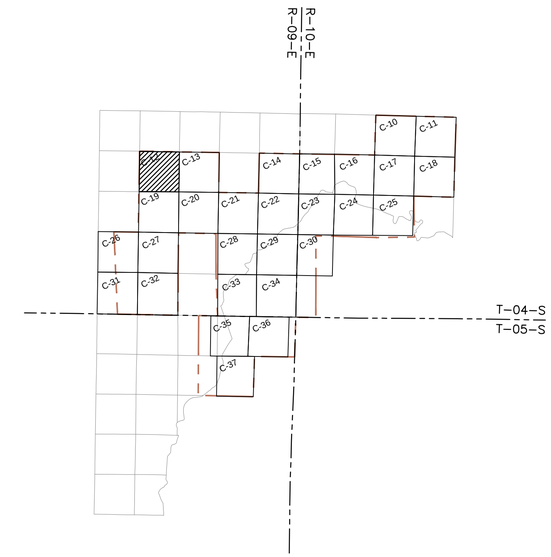

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 16, T04S, R09E

0 300 600
SCALE IN FEET

90% ISSUED FOR REVIEW

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

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Designed	CAD
Approved	MBJ

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 16, T04S, R09E
TURBINES 1, 2, 3, 4, 5, & 6

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-12
REV. No. B

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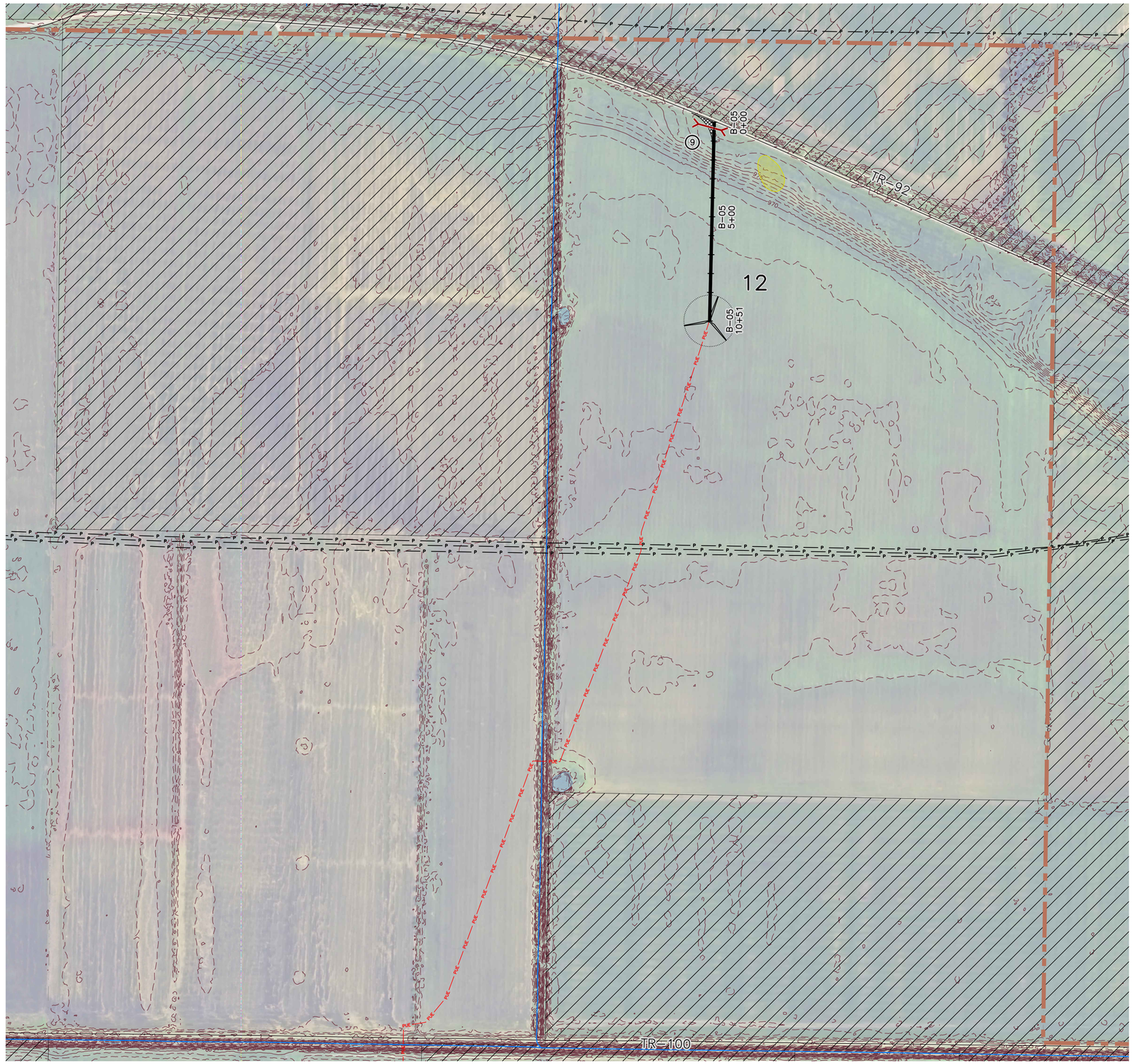

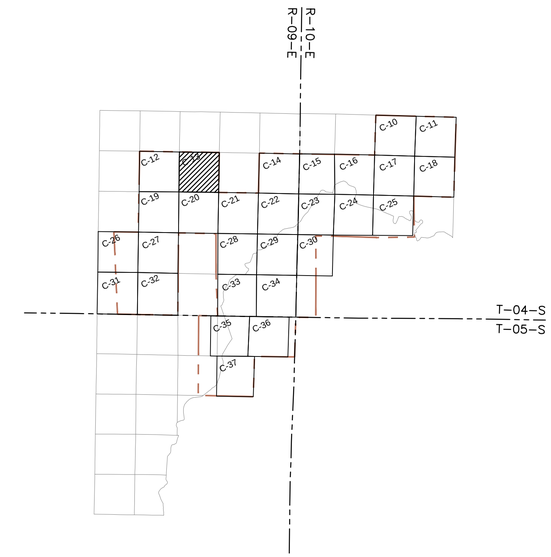

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 15, T04S, R09E

0 300 600
SCALE IN FEET

90% ISSUED FOR REVIEW

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Date	05/16/19
Drawn	NJB2
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Designed	CAD
Approved	MBJ

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 15, T04S, R09E
TURBINE 12

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-13
REV. No. B

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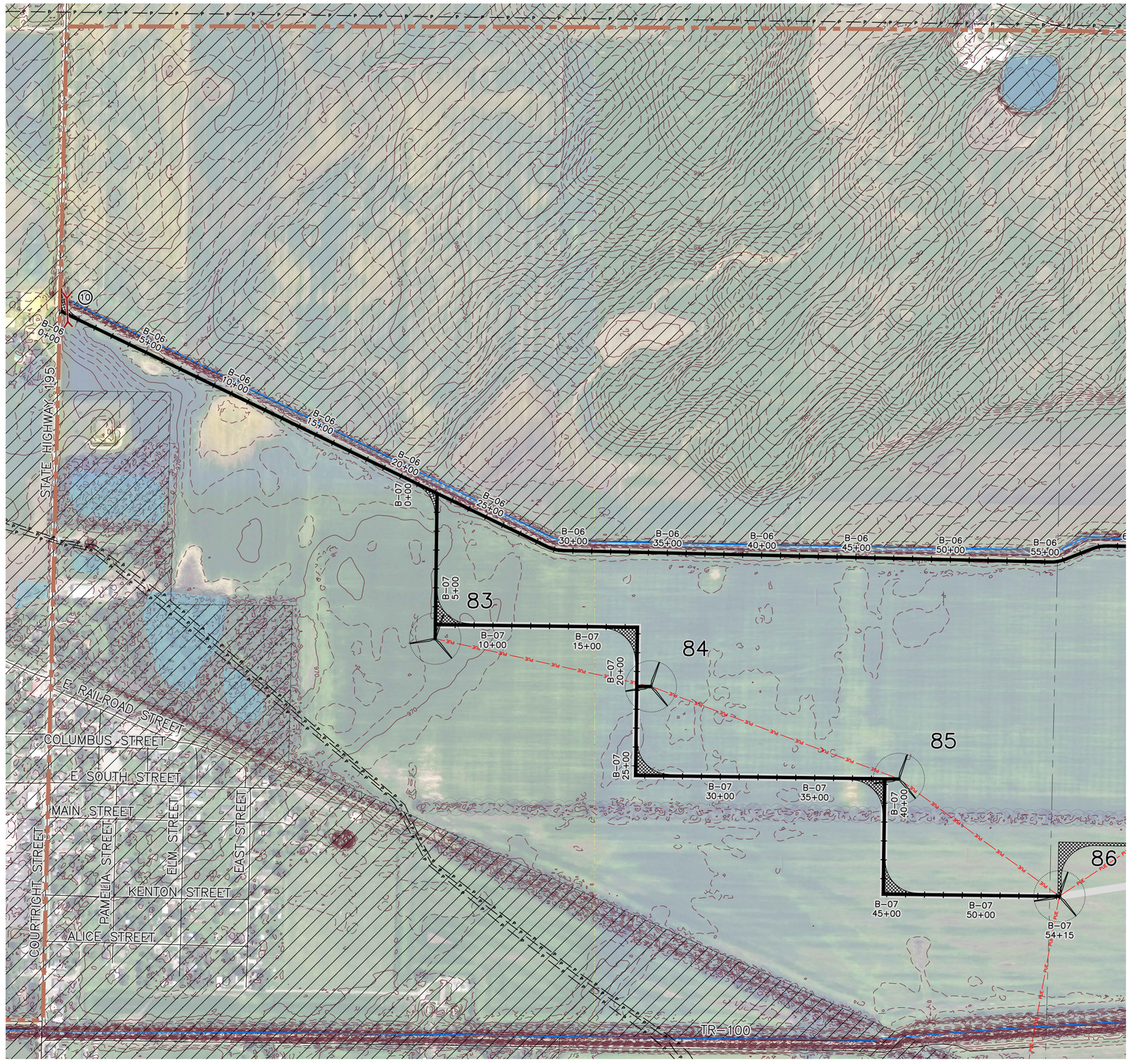

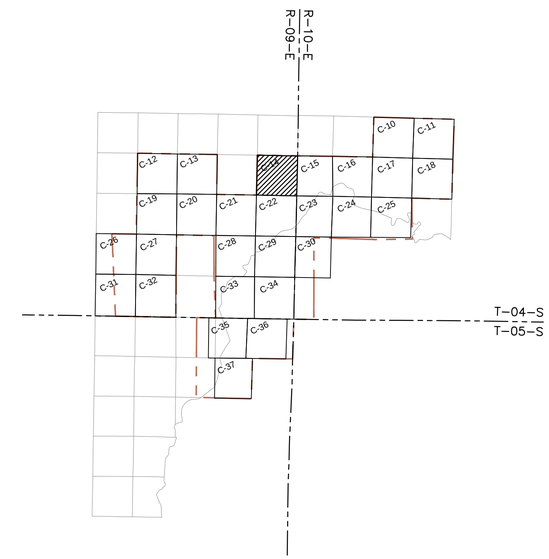

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 13, T04S, R09E

0 300 600
SCALE IN FEET

90% ISSUED FOR REVIEW

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Scale	AS SHOWN
Date	05/16/19
Drawn	NJB2
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Designed	CAD
Approved	MBJ

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 13, T04S, R09E
TURBINES 83, 84, & 85

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-14
REV. No. B

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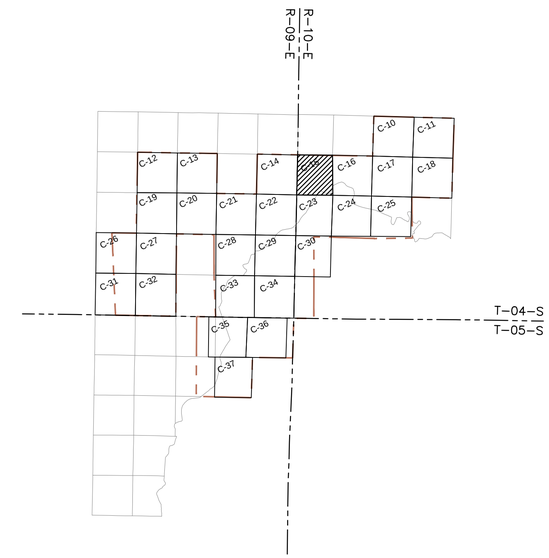

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 18, T04S, R10E

0 300 600
SCALE IN FEET

90% ISSUED FOR REVIEW

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Date	05/16/19
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Designed	CAD
Approved	MBJ

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 18, T04S, R10E
TURBINES 86, 88, 91, & 92

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-15
REV. No. B

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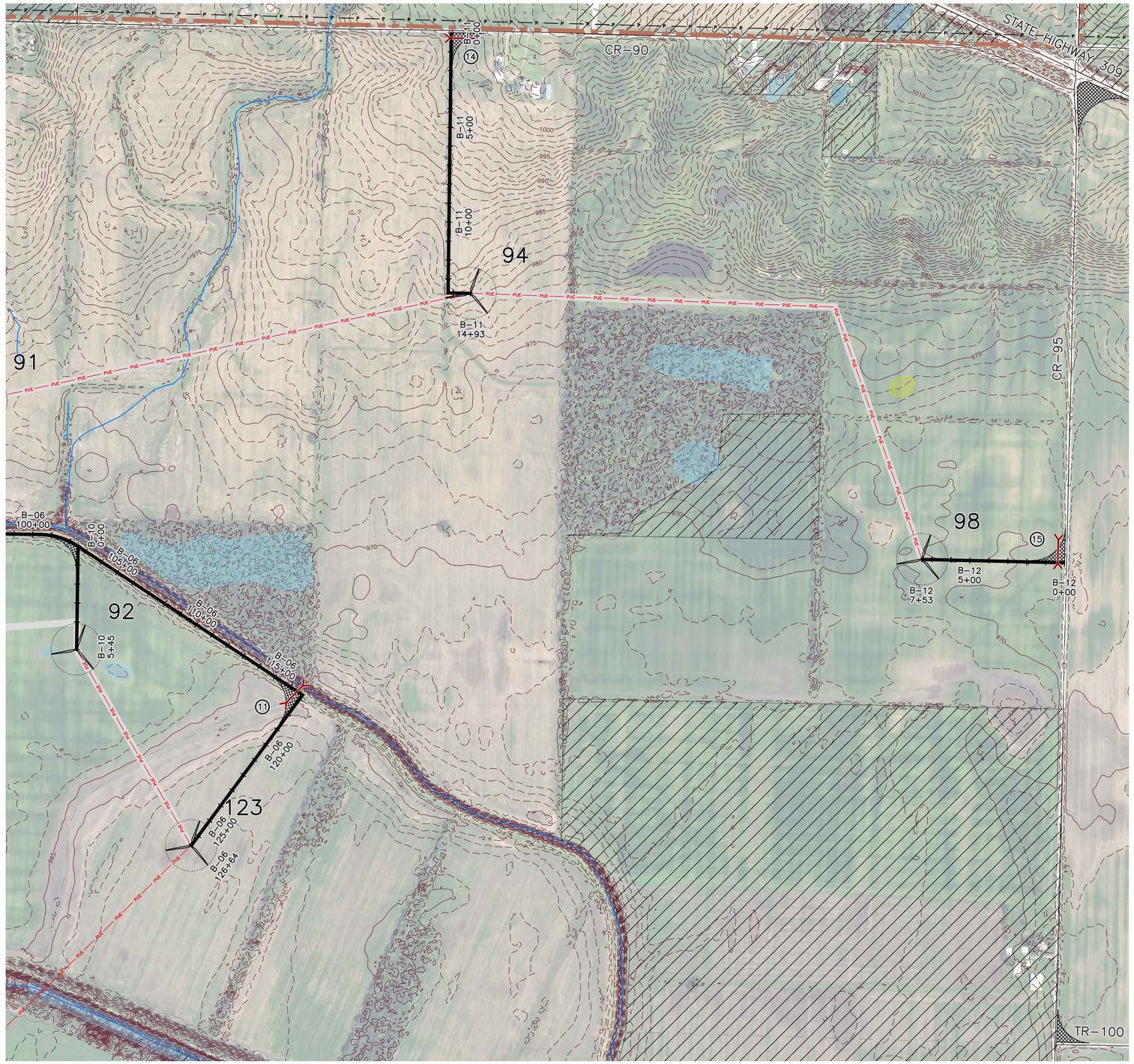

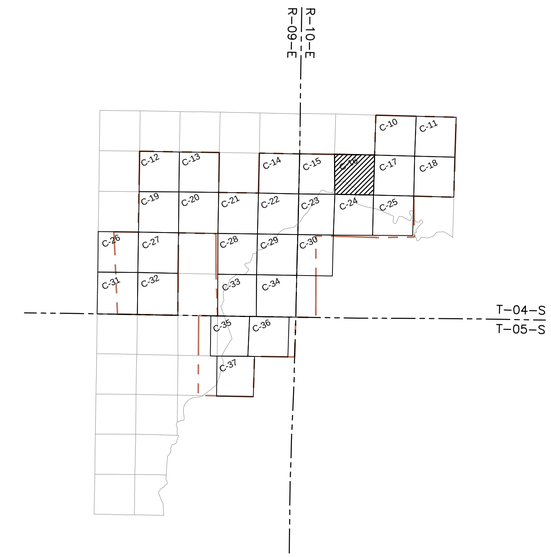

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 17, T04S, R10E

0 300 600
SCALE IN FEET

90% ISSUED FOR REVIEW

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 17, T04S, R10E
TURBINES 94, 98, & 123

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-16
REV. No. B

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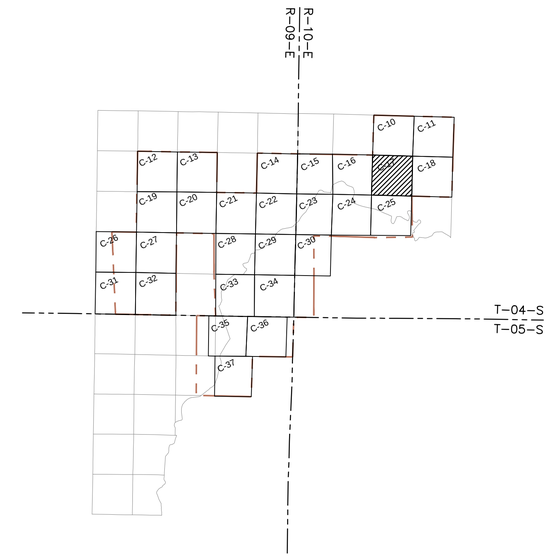

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS
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- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 16, T04S, R10E

0 300 600
SCALE IN FEET

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Approved	MBJ

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 16, T04S, R10E
TURBINE 118

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-17
REV. No. B

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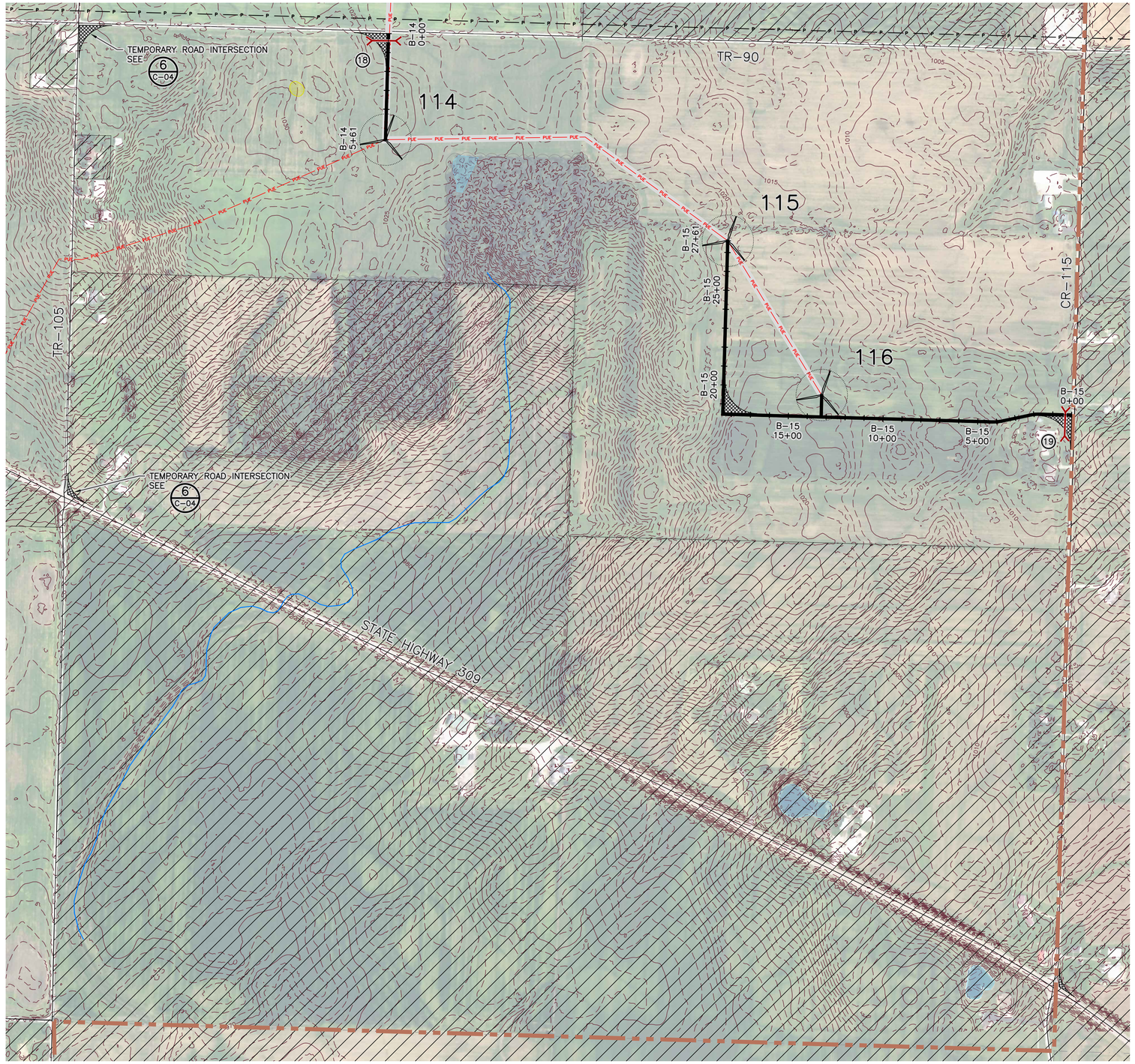

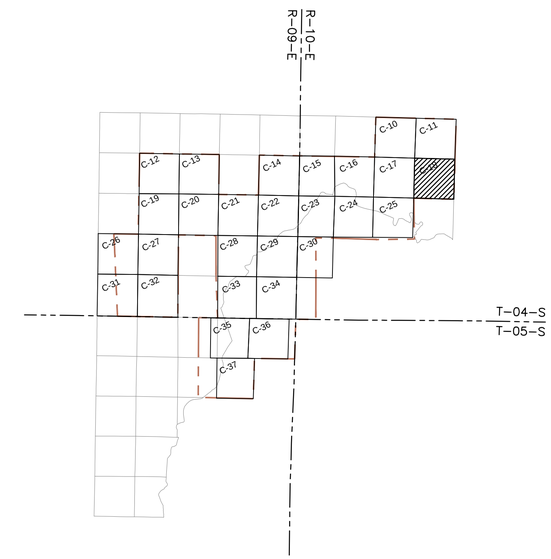

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
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- EXISTING 10FT MAJOR CONTOURS
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 15, T04S R10E

0 300 600
SCALE IN FEET

90% ISSUED FOR REVIEW

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 15, T04S R10E
TURBINES 114, 115, & 116

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-18
REV. No. B

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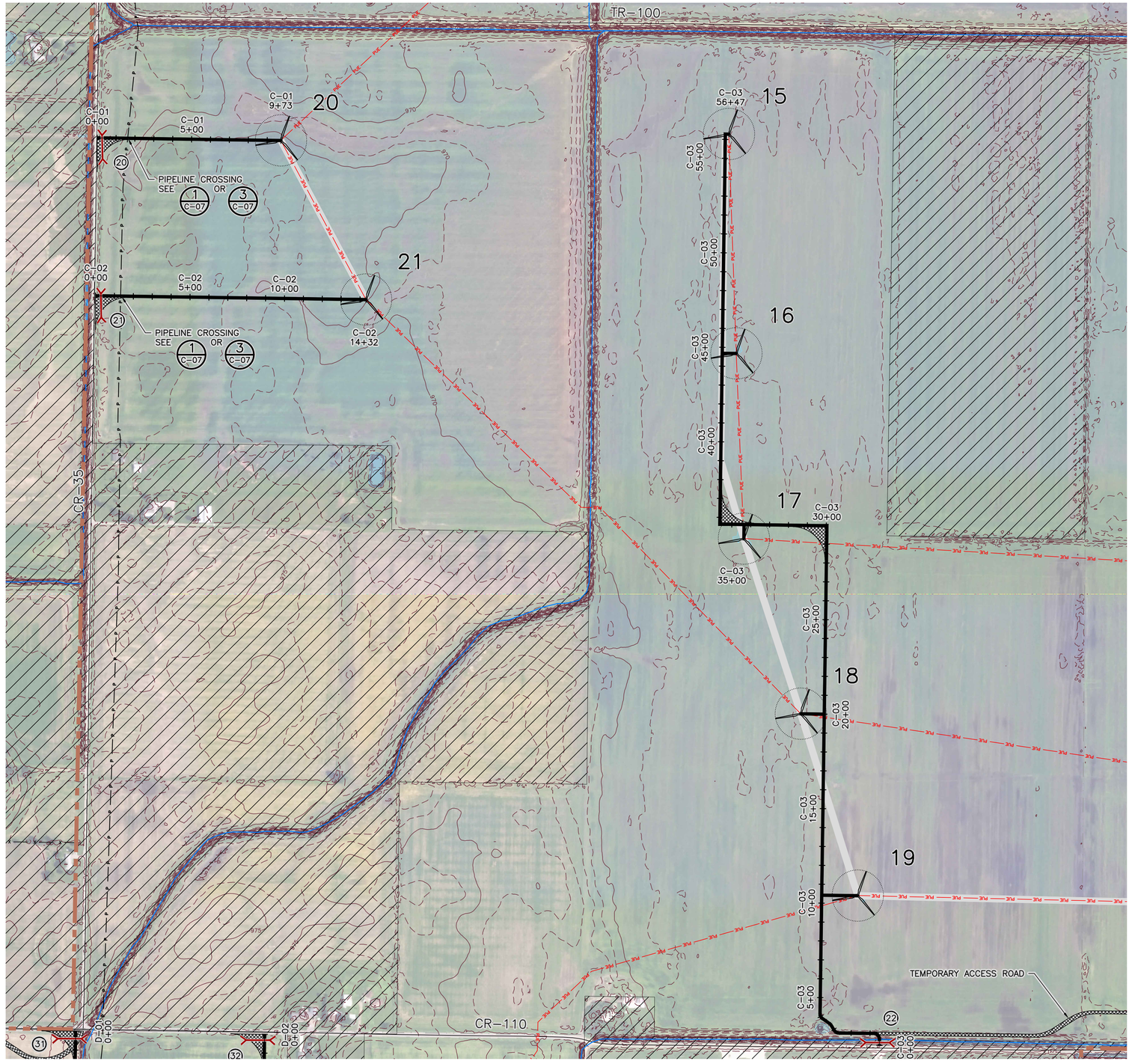

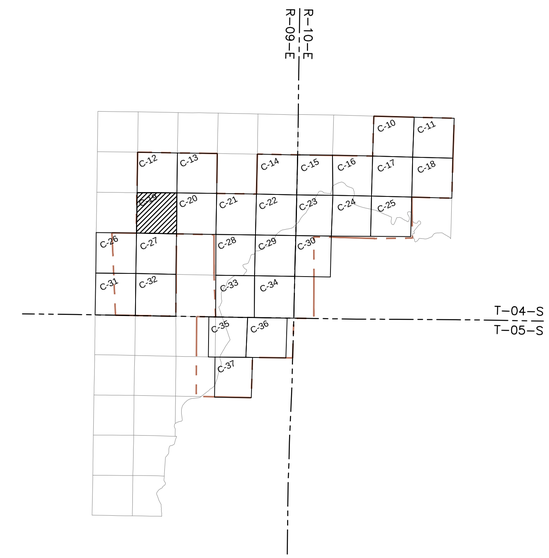

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 21, T04S, R09E

0 300 600
SCALE IN FEET

90% ISSUED FOR REVIEW

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

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CLIENT	05/31/19	06/14/19					
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Scale	AS SHOWN
Date	05/16/19
Drawn	NJB2
Checked	MBJ
Designed	CAD
Approved	MBJ

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 21, T04S, R09E
TURBINES 15, 16, 17, 18, 19, 20, & 21

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-19
REV. No. B

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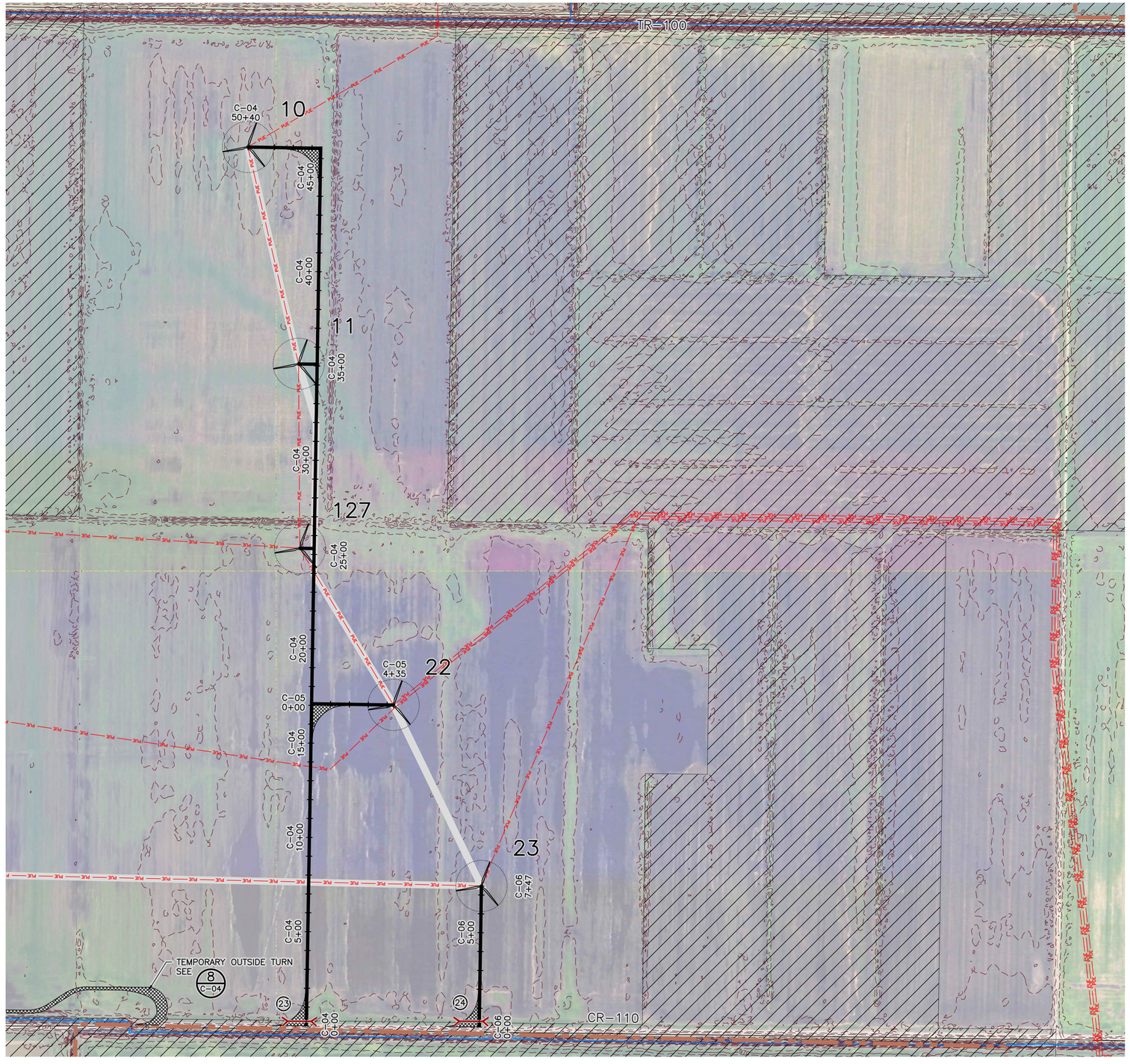

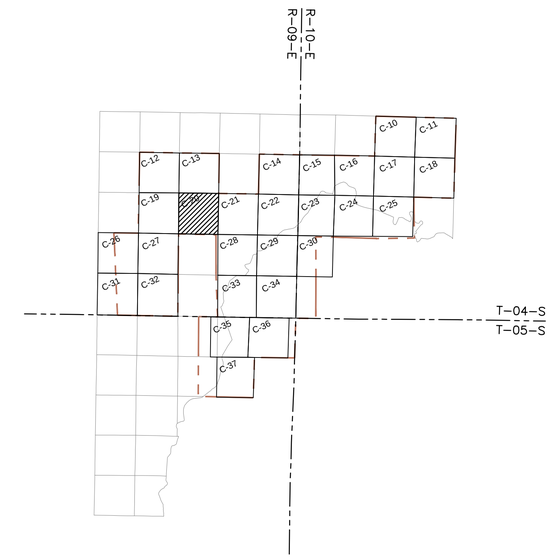

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE — PUE —
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION — 1
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS — XXXX
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE — P —
- EXISTING OVERHEAD ELECTRIC — OE —
- EXISTING FENCE — X —
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 22, T04, R09E

0 300 600
SCALE IN FEET

N

90% ISSUED FOR REVIEW

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

CLIENT	05/31/19	06/14/19						
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CONSTRUCTION								
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	DATE RELEASED							

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Date	05/16/19
Drawn	NJB2
Checked	MBJ
Designed	CAD
Approved	MBJ

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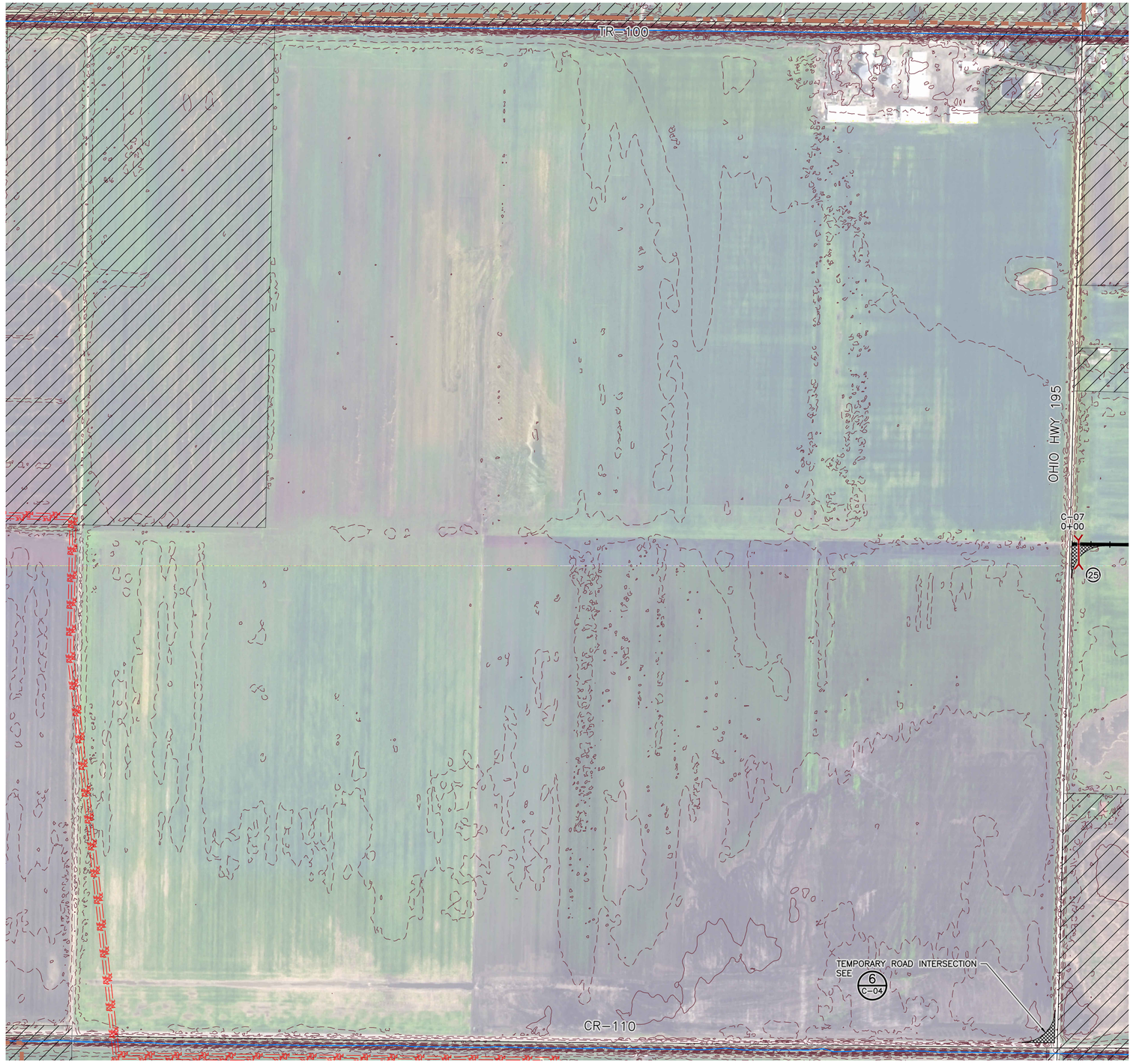
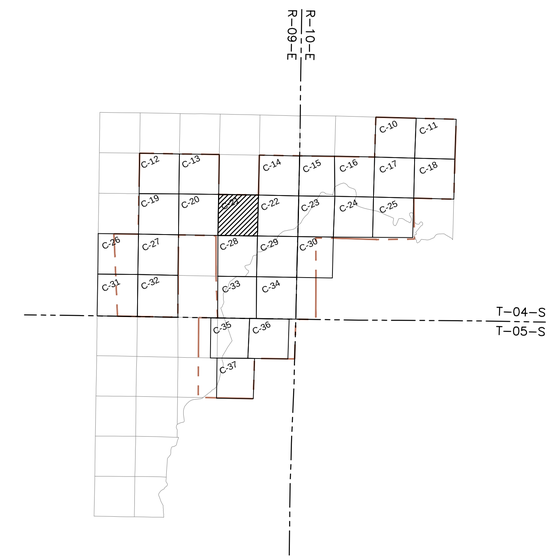
HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 22, T04, R09E
TURBINES 10, 11, 22, 23, & 127

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-20
REV. No. B

CADD USER: Cristian A. Diaz FILE: M:\DESIGN\35331001.02\35331001.02\35331001.02





2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 23, T04S, R09E

0 300 600
SCALE IN FEET

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CLIENT	05/31/19	06/14/19					
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CONSTRUCTION							

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Date	05/16/19
Drawn	NJB2
Checked	MBJ
Designed	CAD
Approved	MBJ

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 23, T04S, R09E
COLLECTOR LINE

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-21
REV. No. B

CADD USER: Cristian A. Diaz FILE: M:\DESIGN\35331001.02\35331001 10_C-21.DWG PLOT SCALE: 1:1 PLOT DATE: 6/14/2019 9:11 AM
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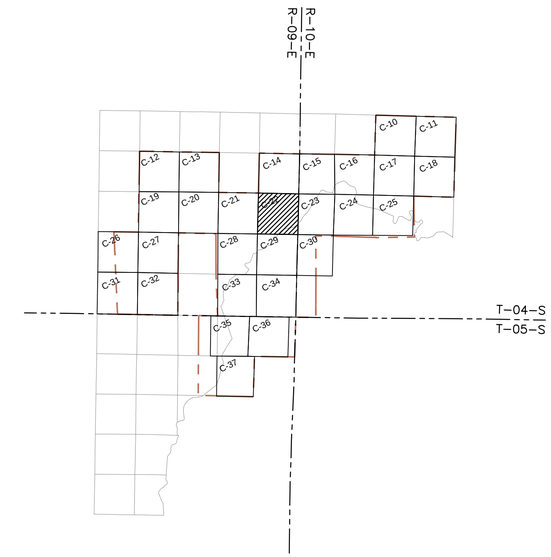

2 PLAN: KEY PLAN

LEGEND

- PROPOSED TURBINE ACCESS ROAD
- TEMPORARY ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED COLLECTOR LINE
- PROPOSED TEMPORARY TURNING RADIUS — SEE SHEET C-04
- PROPOSED TURBINE NUMBER AND LOCATION
- PROPOSED CULVERT NUMBER AND LOCATION
- NON-EASEMENT PROPERTIES
- SECTION LINE
- TOWNSHIP LINE
- PROJECT BOUNDARY
- EXISTING 10FT MAJOR CONTOURS
- EXISTING 2FT MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- STREAM
- WETLAND
- CULTURAL RESOURCE AREA
- FORESTED AREAS

1 PLAN: SECTION 24, T04S, R09E

0 300 600
SCALE IN FEET

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Scale	AS SHOWN
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Checked	MBJ
Designed	CAD
Approved	MBJ

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HARDIN WIND PROJECT
HARDIN COUNTY, OHIO

SECTION 24, T04S, R09E
TURBINE 80

BARR PROJECT No. 35/33-1001
CLIENT PROJECT No. –
DWG. No. C-22
REV. No. B

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in

Case No(s). 09-0479-EL-BGN, 11-3446-EL-BGA, 16-0469-EL-BGA, 16-2404-EL-BGA

Summary: Notification of Phase 3 – Compliance with Condition 57(a), Final Engineering Drawings (Part 1 of 2) electronically filed by Christine M.T. Pirik on behalf of Hardin Wind Energy LLC