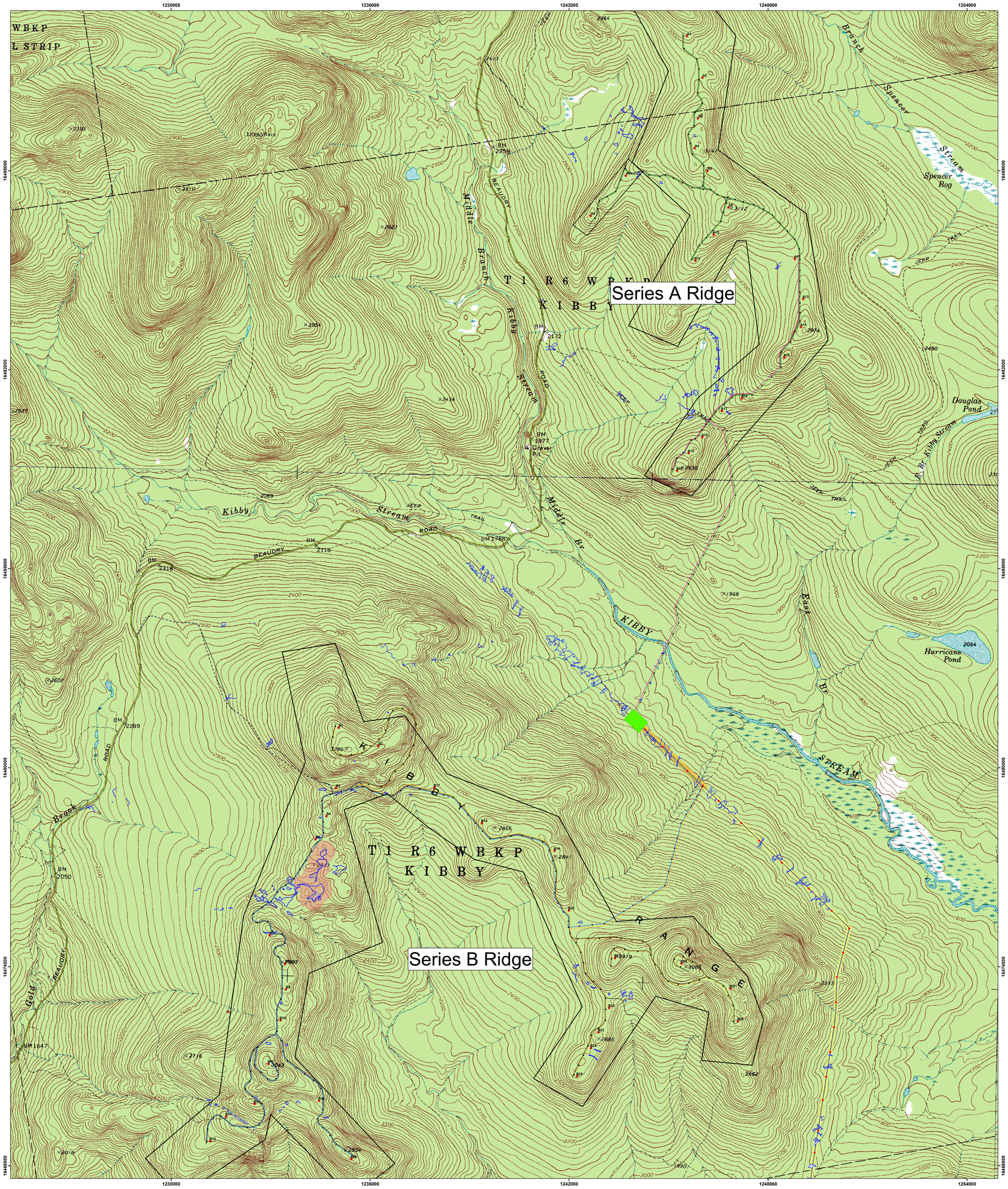

LEGEND

- Turbines
- Proposed Collector Line 34.5 kV Poles*
- 34.5 kV Poles Inside Wetland/Stream
- 115kV Transmission Line Pole
- Delineated Wetland
- Delineated Stream
- Goldbrook Road
- Project Boundary
- Proposed Kibby Substation
- Series A1 Collector Line (34.5 kV)
- Series A2 Collector Line (34.5 kV)
- Series B1 Collector Line (34.5 kV)
- Series B2 Collector Line (34.5 kV)
- Bigelow Transmission Line (115 kV)
- Turbine Road
- Transmission Line Corridor (125 ft wide)
- Transmission Line Corridor (185 ft wide)
- 250' Buffer of Critical Habitat

* 34.5 kV Transmission Poles are spaced on average, 100 meters up to a maximum of 400 meters. Number of Poles = 286.

FIGURE 2

34.5 kV Collector Lines
Series A & B Ridge
Kibby Wind Power Project
Franklin County, ME

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amec
AMEC EARTH & ENVIRONMENTAL, INC.
11676 Perry Highway, Suite 3101
Wexford, Pennsylvania 15090

1 inch equals 1,000 feet

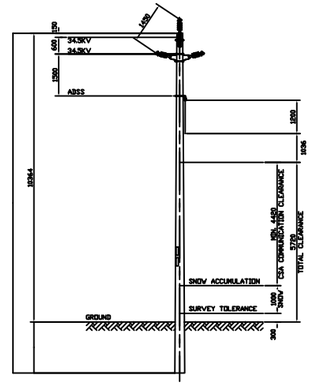
0 500 1,000 2,000 3,000 4,000
Feet

NOTES

1. This map supercedes all previous maps. Site boundaries and surface features are approximate only and are subject to location by an actual field survey.

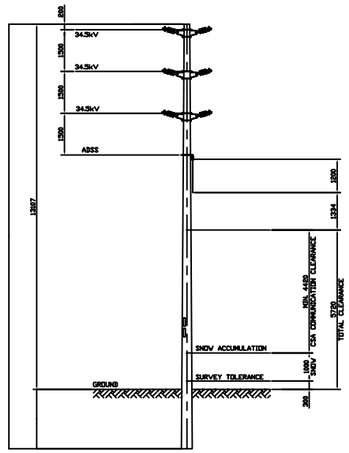
2. Coordinate system:UTM NAD83 Zone 19 Feet

Date Revised: 04 Jan 07	Drawn By: Jason Boni
Reviewed By: Cathy Kent & Keith Penfold	
Preliminary	Map Size: ANSI E (34" x 44")
	Project File: Kibby_34.5kVTransmissionLine.mxd



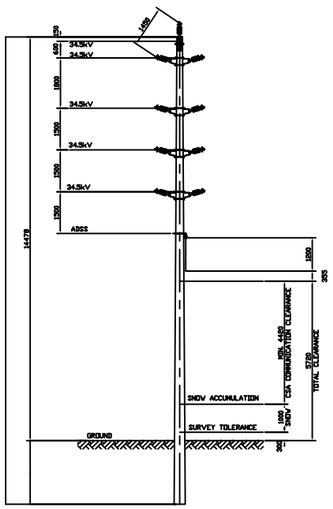
34.5kV 1CCT - TANGENT POLE
(0° - 2°)
WS44-02

Q6019-P101



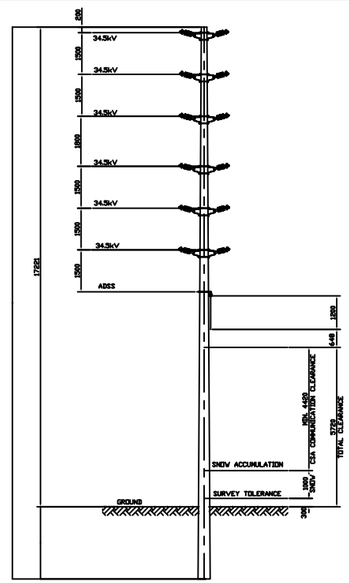
34.5kV 2CCT - TANGENT POLE
(0° - 2°)
WD44-02

Q6019-P108



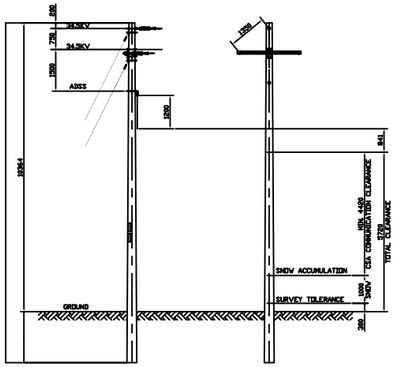
34.5kV 3CCT - TANGENT POLE
(0° - 2°)
WT44-02

Q6019-PXXX



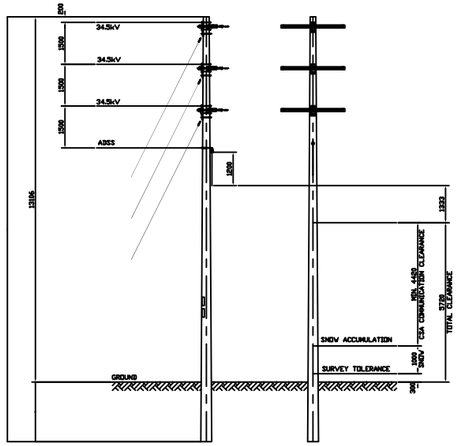
34.5kV 4CCT - TANGENT POLE
(0° - 2°)
WQ44-02

Q6019-PXXX



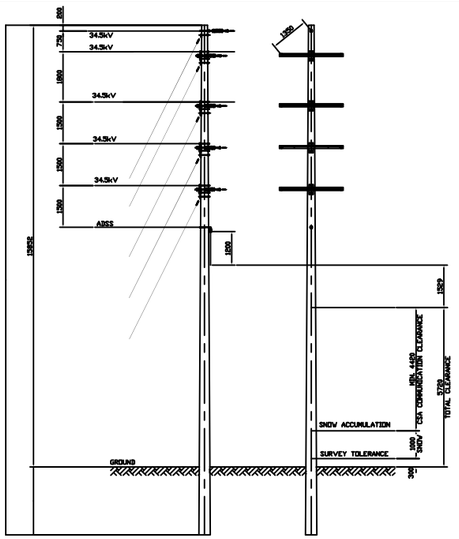
34.5kV 1CCT - DEAD END POLE
WS44-DE

0656-P102



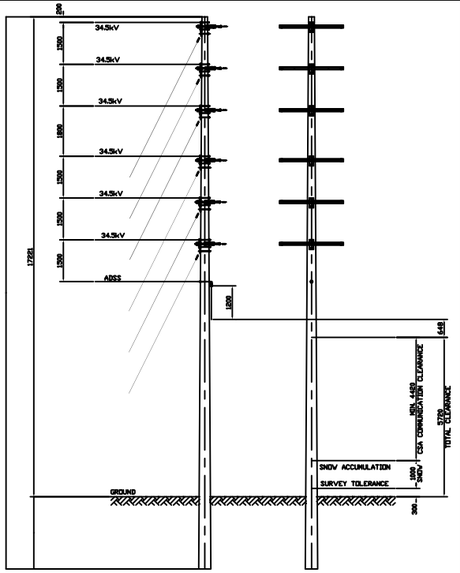
34.5kV 2CCT - DEAD END POLE
WD44-DE

Q6019-P113



34.5kV 3CCT - DEAD END POLE
WT44-DE

Q6019-PXXX



34.5kV 4CCT - DEAD END POLE
WQ44-DE

Q6019-PXXX

REV	D/M/Y	REVISION	DRN	CHK	APP	APP	APP	APP
A	20/12/06	PRELIMINARY	PS	MP	KP			

ISS	D/M/Y	ISSUED FOR	APP
A	20/12/06	FOR INFORMATION ONLY	KP

REF	NUMBER	TITLE

REFERENCES

PRELIMINARY

STAMP/SEAL

APPROVED FOR CONSTRUCTION

CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR.

PROJECT PHASE

PROJECT NO.	ACTIVITY NO.	PACKAGE CODE
150422		

SCALE: N.T.S.

	BY	D/M/Y
DSN.	M.PANNU	20/12/06
DRN.	P.SERBAN	20/12/06

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AREA 00 — KIBBY WIND POWER PROJECT

SUBJECT: 34.5kV TANGENT STRUCTURE

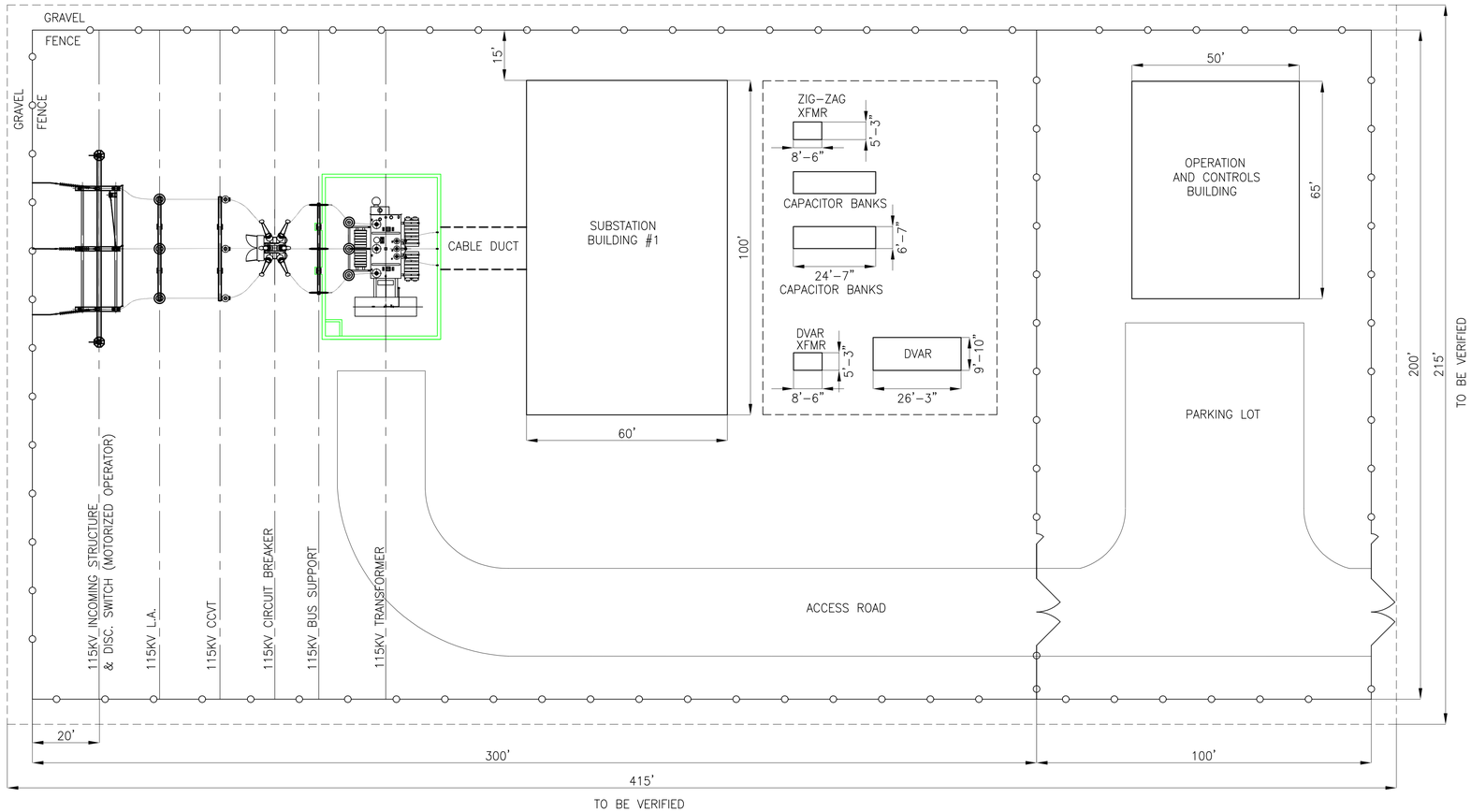
amec

CLIENT DWG. NO.

DRAWING NO. D-150422-00-141-0900

REV. A

CADD FILE ADDRESS



PLAN VIEW

NOTES

1. ALL DIMENSIONS ARE STATED IN FEET UNLESS OTHERWISE SPECIFIED AND NEED TO BE VERIFIED IN THE DETAILED DESIGN STAGE.
2. THE SUBSTATION LAYOUT IS ONLY PRELIMINARY AND MAY CHANGE DURING THE DETAILED DESIGN STAGE.
3. THE FOLLOWING CONFIGURATION IS BASED ON A ONE TRANSFORMER FEED TO THE SUBSTATION FROM THE 115KV BIGELOW STATION.
4. THE FOOTPRINT SIZE MAY CHANGE DUE TO THE GROUNDING GRID REQUIREMENTS FOR THE SOIL TYPE IN THE AREA AND DETAILED DESIGN OF THE STATION.
5. THE FOLLOWING ASSUMPTIONS HAVE BEEN MADE REGARDING THE CURRENTLY SHOWN SIZE OF THE SUBSTATION FOOTPRINT:

5A. THE 115KV, LINE TO GROUND FAULT LEVEL IS AT 10KA.

5B. A GROUNDED OVERHEAD SHIELD WIRE WILL BE PROVIDED ON THE TRANSMISSION LINE BETWEEN THE BIGELOW SUBSTATION AND THE KIBBY WF COLLECTOR SUBSTATION AND WILL BE CONNECTED TO THE SUBSTATION GROUND GRID.

5C. THE MAXIMUM SOIL RESISTIVITY IN THE SUBSTATION AREA IS 50 OHM-METER, INCLUDING REMOTE GROUNDING.

6. SUBSTATION BUILDING #1 IS EXPECTED TO HOUSE THE 34.5kV SWITCHGEAR, PROTECTION AND CONTROL PANELS, SCADA SYSTEM, STATION SERVICE TRANSFORMER, TELEMETRY EQUIPMENT AND DC SYSTEM.
7. PROVISION FOR CAPACITOR BANKS AND DVAR EQUIPMENT HAVE BEEN INCLUDED, IN CASE THEY ARE REQUIRED FOR THE END DESIGN OF THE SUBSTATION.

LEGEND

- CENTER LINE FOR EQUIPMENT
- CABLE FEED TO/FROM EQUIPMENT
- FENCE

BAR SCALE

0 5' 10' 20' 40' 60'

SCALE: 1"=20'-0"
(UNLESS NOTED OTHERWISE)

KEYPLAN

REV	D/M/Y	REVISION	DRN	CHK	APP	APP	APP	APP
E	08/12/06	RE-ISSUED FOR LURC PROPOSAL	CK	BJN	KP			
D	07/12/06	RE-ISSUED FOR LURC PROPOSAL	CK	MK	KP			
C	07/12/06	RE-ISSUED FOR LURC PROPOSAL	CK	MK	KP			
B	29/11/06	RE-ISSUED FOR LURC PROPOSAL	CK	BJN	KP			
A	24/11/06	ISSUED FOR LURC PROPOSAL	CK	BJN	KP			

ISS	D/M/Y	APP	ISSUED FOR
E	08/12/06	KP	LURC PROPOSAL
D	07/12/06	KP	LURC PROPOSAL
C	07/12/06	KP	LURC PROPOSAL
B	29/11/06	KP	LURC PROPOSAL
A	24/11/06	KP	LURC PROPOSAL

REF	NUMBER	TITLE

REFERENCES

PRELIMINARY

STAMP/SEAL

APPROVED FOR CONSTRUCTION

CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR.

PROJECT PHASE

PROJECT NO.	ACTIVITY NO.	PACKAGE CODE
150422		

SCALE: 1" = 20'-0"

	BY	D/M/Y
DSN.	C.KENT	13/11/06
DRN.	C.KENT	13/11/06

TransCanada
In business to deliver

AREA	
01	KIBBY WIND POWER PROJECT

SUBJECT

KIBBY WIND POWER PROJECT
115kV - 34.5kV KIBBY SUBSTATION
LAYOUT - PLAN

amec

CLIENT DWG. NO.

DRAWING NO. D-150422-01-141-0201

REV. E

CADD FILE ADDRESS

Figure 2-25. Photograph of Representative Substation

2.4.3.6 Service Building

The project will include a service building where tools and associated material necessary for the maintenance of the project (cleaning oils, greases, lubricants, products, etc), a company vehicle, as well as spare parts for the wind turbines and associated equipment are stored. The building will also house the project control center, and will function as an office for the project's operational management. A representative photograph is provided in Figure 2-26.

The approximately 3,600 square foot (335 square meter) building will be located on an approximately 1-acre lot adjacent to the Kibby Substation. A portion of the grounds may be set aside for temporary storage of turbine components for maintenance activities. This area will be appropriate secured and visually screened. Communications equipment will be required at this location, as well as a potable groundwater well and septic system for sanitary purposes.

Perimeter lighting and equipment lighting will be provided at the substation but it will normally be shut off. The lighting will be set up to be turned on manually or by motion sensors to allow for emergency inspection or repair. Portable generators and lights will be used for lighting in difficult areas.

2.4.3.7 Transmission Line

A 115 kV transmission corridor will be required to provide electrical connection between the proposed Kibby Substation and the existing Bigelow Substation (as shown in Figure 1-1). Details of this corridor are provided in Volume V.

2.4.3.8 Construction-Only Facilities

There are a number of facilities required for the installation the project that are only necessary in the construction phase. These include:

- A construction control center;
- A concrete batch plant;
- Rock crushing plants;
- Material handling and storage areas; and
- Worker parking areas (located at the construction control center).

Each is shown in Figure 2-5 and discussed below. The locations shown are reasonable representations of where each use may be located. If locations shift, the new locations will be outside of wetland areas and include appropriate setbacks from other natural features.

Figure 2-26. Photograph of Representative Service Building

Construction Control Center

A temporary construction control center will be established at the intersection of Route 27 and Gold Brook Road to provide a central location from which construction management logistics can be controlled. Construction trailers will be used. A potable water well will be developed at this site for supplying water use during construction. Sanitary waste will be managed by use of portable storage tanks. A communications system will also be required at the facility and approximately 150 parking spaces for construction workers will be included at this location.

The main project staging area will be co-located with the construction control center. A variety of equipment and supplies can be temporarily stored at this site until they are need for construction.

Temporary erosion control measures are planned for the staging area, consisting of siltation fencing along the downslope boundary of the area where gradients are sufficient to result in soil transport (> 5 percent).

After construction is completed, debris and unused material will be removed, and the staging areas returned to essentially the same conditions as existed prior to construction.

The construction specifications will include procedures intended to prevent spills and minimize any damage that may occur. Fuel storage areas within the staging area boundaries will be provided with containment facilities and spill prevention plans.

Concrete Batch Plant and Material Handling/Storage Area

A concrete batch plant will be required for use during foundation installation activities. It is proposed to locate this facility at the intersection of Route 27 and Gold Brook Road, in the vicinity of the proposed construction control center. This location has been recently used as a laydown area by the Maine Department of Transportation (MDOT) during its Route 27 widening project, and is relatively flat. The batch plant will require approximately 1.5 acres and additional area may be utilized for materials storage. Since the batch plant will require a water source, a potable groundwater well will be established during the construction phase. It is anticipated that approximately 28,000 gallons of water will be required during an 8-hour day. A water storage tank is anticipated to be used so that demand on the well can be regulated.

Rock Crushing Plants and Temporary Material Storage Areas

The rock crushing plants, used to process excavate into appropriately sized gravel for on-site construction purposes, will be co-located with the material handling and storage areas. Three locations have been (as shown on Figure 2-5), located throughout the site for ease of logistics. Approximately 3 acres is required for each rock crushing operation. These areas accommodate a total of 20 additional acres of storage. This may be used for additional construction worker parking, temporary equipment storage, or stockpiling of gravel or other non-hazardous materials.

2.5 Construction Methods and Procedures

2.5.1 Nature of Construction

Construction of the Kibby Wind Power Project will include the following activities:

- Preparation of the construction site (site mobilization);
- Transportation of the equipment and construction workers;
- Clearing and grubbing for the construction of the access roads, improvement of the existing roads and preparation of the work areas;
- Construction of concrete foundations;
- Installation of the wind turbines;
- Installation of the electrical lines and construction of the transformer substation; and
- Rehabilitation of the work areas.

Each one of these activities will be detailed in the following sections.

Note that the linear nature of the construction of the facilities has allowed the routing to avoid sensitive resources and a limited footprint of each project element. The construction effort is intended to most efficiently complete basic infrastructure, then move in a sequenced fashion through the installation process. Details regarding construction sequence are provided below.

2.5.2 Construction Sequence

Construction of the Kibby Wind Power Project will generally occur over two construction years. The schedule assumes that most types of construction efforts will be curtailed during winter months through the spring mud season, and that work would recommence once suitable ground conditions for heavy loads are available in late spring. Table 2-6 provides details with regard to the normal sequence of construction efforts, and includes a description of each activity. Table 2-7 summarizes the transportation requirements associated with major project components.

Table 2-6: Construction Efforts

Activities	Description
1. Site Preparation	
Surveying	- Measurement and identification using Global Positioning System (GPS), flagging tape and other survey markers the exact site of the access roads, the wind turbines and the electrical interconnection lines. This makes it possible to determine with accuracy that work will proceed inside the limits of the project. (If necessary, this work will include some minor center line and traverse line clearing to make the survey possible.
Signage and Traffic Control	- Installation of the road signage required within the limits of the project and a reasonable surrounding area. - Special signage will be developed in conjunction with Plum Creek for any shared roads and facilities. Traffic control and communication protocols will be developed to ensure safe and efficient movement of both construction equipment and logging vehicles. - Determination and identification of the exact sites for storage and work areas.
Site technical evaluation	- Various expert evaluations of the technical needs for site preparation (clearing, grubbing, etc). - Geotechnical evaluation of the project site.
Site mobilization	- Mobilization and installation of construction trailers and first aid facilities for the employees.
Pre-clearing	- Minimal clearing of trails to allow geotechnical testing equipment to drill boreholes at wind turbine sites and other areas requiring specifics of subsurface conditions for design purposes.
2. Clearing	- It should be noted that a large proportion of the project area is under ongoing active forest management. Consequently, a significant area has already been cleared of tress and other cuts are planned as part of the ongoing forest management activities. Accordingly, TransCanada expects to use, to the extent possible, areas already cleared to facilitate the installation of project equipment and related infrastructure and to reduce the new clearing required. TransCanada will work closely with Plum Creek to coordinate the removal of merchantable timber from the project area.
3. Grubbing	- Earthwork in which stumps and topsoil are removed in order to prepare the ground. Grubbing will be necessary to prepare the access roads, the wind turbine sites and the transformer substation. (Topsoil and stumps will be kept on-site (stumps will be ground) for use in the erosion control materials.)
4. Construction and improvement of roads	- Since the project area is currently under active forest management, several logging roads already exist. TransCanada will, therefore, utilize, whenever possible, the existing logging roads in order to decrease the additional clearing required to create new access roads. Some local widening of existing roads will be required.
Construction of the road travelling surfaces and rights of way; improvements to existing roads	- Installation using standard road construction equipment (bulldozers, backhoes, graders, compactors) in order to allow the passage of heavy vehicles, such as concrete trucks, cranes and trucks transporting heavy equipment. - Construction with materials existing on the site, if possible (such as previously excavated materials). If necessary, materials from acceptable sources either on or off-site could be used (envisioned to use all on-site sources).

Activities	Description
Spoil/materials management	- The construction standard is to re-use excavated materials to the extent possible. For initial road improvements, materials will be purchased or obtained from on-site earth-cut areas but during the construction of new roads and turbine foundations, excavated rock from the new construction will be crushed and re-used for the roads and work areas. Any surplus rock will be made available to Plum Creek and others for maintenance or construction of forestry roads. Any organic material removed during construction will be re-used in preparing erosion control material.
Installation of new or augmentation of existing watercourse crossings	- Some existing water crossing locations will have to be modified to allow the passage of the heavy/oversized machinery/equipment. - Culvert installation.
5. Installation of new meteorological towers	- New towers will be erected.
6. Installation of wind turbines	
Installation of work area/final operating area	- Each wind turbine site will require clearing of approximately 1.0 acre of land but only a small portion of that land will be levelled, compacted and prepared for the wind turbine foundation and a permanent crane pad. The remaining acres will be cleared and grubbed such that it can be used for component laydown and assembly of the crawler crane boom, but following construction the laydown and assembly area will be allowed to revegetate.
Mechanical excavation and blasting	- Mechanical excavation using backhoes and other earthmoving equipment will be performed according to site specific ground conditions related to each wind turbine site. Controlled blasting methods will be employed to remove rock in specific areas such as wind turbine foundations or difficult road cuts.
Foundation installation	- The casting of the concrete foundation is generally carried out in one continuous pour. Up to 400 cubic yards (306 cubic meters) of concrete could be required, depending on conditions at each specific wind turbine site.
Turbine erection	- Once turbine foundations have been installed, mid-sized cranes (75 tons) will proceed to the first wind turbine site in a “cluster” or grouping of turbines where they will be used to erect the first two tower sections. These cranes will then move ahead to the next turbine site to repeat the operation. A heavy lift crane, with a capacity of 600 tons or more, will be used for the next step in the erection sequence. This large crane will be delivered to the initial turbine site on special transport vehicles and then it will be assembled at the prepared crane pad before it is used to erect the top tower sections and the nacelle. The hub and blades will be installed individually and in sequence either by the heavy lift crane or by the mid-sized cranes depending on the requirements of the erection contractor. Once the heavy lift crane has completed its work, it can be partially disassembled and then “walked” or driven along the ridgeline access roads to the other turbine sites.
7. Installation of the medium voltage electrical collection system	- Medium voltage electrical lines will be buried within the turbine pad area to connect the wind turbine to the electrical switch on the wooden pole structure at the edge of the road. The collector lines will then be strung on wooden poles along the side of the road and terminated at the transformer substation.

Activities	Description
8. Installation of high voltage overhead transmission lines (as addressed in Volume V)	- High voltage electrical lines will exit the substation on wooden poles and will ultimately go cross country over a pre-cleared right-of-way to connect with Central Maine Power's existing Bigelow Substation.
9. Transformer substation installation	- Preparation and grading of surface, installation of grounding equipment and security fencing. - Installation of transformers and electrical protection devices.
10. Service Building installation	- Excavation and casting of a concrete slab foundation, then construction of the building, the dimensions of which are approximately 60 feet by 60 feet (18 m by 18 m).
11. Transportation & logistics	- Transport of the individual components of the wind turbines will be by convoy. Oversize load permits will be obtained whenever necessary. - Due to their potential length and width, convoys will need to be escorted, with escort vehicles keeping a certain distance in front and behind, and traffic may be stopped when a turn is necessary. - Special vehicles may be required to transport cranes and the construction equipment to the project area, the individual turbine sites and between turbine sites. - Between 100 and 200 workers are expected to access the site daily with light vehicles (vans, etc).
12. Revegetation/ restoration	- After construction, the majority of the area used for the installation of the wind turbines will be allowed to revegetate; only the areas occupied by turbine foundations and the crane pad will be permanently disturbed area. Road widths will be maintained only to a final width of 20–25 feet. All other temporary work areas (such as overburden and other materials storage, etc.) will be allowed to revegetate. - The specific restoration measures, where appropriate, will be done according to the specific characteristics of the site.

Table 2-7: Transportation Associated with the Wind Turbines and Other Project Components

Component	Typical Load	Average Number of Truckloads Per Day
Turbines [to reflect erection of one turbine/day]		
Blades (3 blades, each 144 feet (44 m) in length)	One to two blades per truck	3
Tower (4 sections, each 65 feet (20 m) in length)	One section per truck	4
Nacelle (heaviest piece at 70 tons)	One nacelle per truck	1
Hub	One hub per truck	1
Miscellaneous Components	One "Lot" per truck	1
Total		10
Concrete		
From on-site batch plant	Up to 50 concrete truckloads per foundation	50 concrete trucks
Cut and Fill		
Fill material from within site area	Ten to 100 cubic yards (76 cubic meters) per dump truck	To suit site conditions
Wood		
To be trucked off site	To be determined by Plum Creek	To be determined

2.5.3 Summary of Construction-Related Mitigation Measures

Mitigation during construction will be employed in the following general areas, as discussed in detail in following sections:

- Erosion control and stormwater management measures (Section 2.4 and Appendix 2-K);
- Dust suppression as necessary (Section 6);
- Delineation of sensitive habitat areas (e.g., rare plants and potential northern bog lemming habitat) as well as wetland areas (Sections 7.4 and 8.5);
- Implementation of spill prevention and control plans;
- Signage and other measures for traffic control; and
- Communication with local officials to ensure ongoing activities are known.

2.6 Operation and Maintenance Requirements

The operation of a wind project includes ensuring the safe and reliable operation of the wind turbines and the associated electrical and control systems. The wind turbines are intended to operate all the time, except in periods of very weak or very strong winds or during maintenance work.

Company staff will organize maintenance work and will involve outside suppliers for specialty work. The maintenance of the wind turbines is planned out in advance with a comprehensive preventative maintenance program which aims at anticipating and minimizing the potential for mechanical or technical problems. A thorough preventive maintenance plan will be developed for the project prior to operation that would specify the frequency and types of inspections and maintenance to be conducted.

Routine maintenance will typically be conducted during periods when operation is less likely (perhaps through the summer and early fall months). Roads will be maintained in good order and plowed throughout the winter. Routine inspection visits will be made to each turbine on a year-round basis. Through a regular program of preventive maintenance, TransCanada will optimize the project's performance.

TransCanada will operate the wind turbines and related facilities with emphasis on employee safety, responsible environmental practices, efficient and effective Operations and Maintenance (O&M) practices and procedures, and with regard to financial objectives. O&M will be performed according to documented procedures and a long-term O&M plan.

It is TransCanada's philosophy to design the project with a high level of automation, such that remote monitoring and control is possible. The project will be capable of operating automatically and shutting down safely when system upsets occur.

Wind facility permanent staff will consist of one manager, and a staff of trades' people to carry out operating and daily routine maintenance tasks. Staff will be versatile to operate and perform routine maintenance and inspection tasks.

The wind facility will include administrative office space, communications equipment, local monitoring and control facilities, parking for personal and company vehicles, inventory storage area, basic lunch and washroom facilities and minor repair workshop.

Maintenance services (annual or periodic maintenance) will be carried out by contractors. Such services include but are not restricted to inspection and repairs to rotor blades, gearboxes, generators, braking systems, substation and controls.

Major equipment maintenance of the turbines and generating equipment may be performed by the Original Equipment Manufacturer (OEM) or qualified contractors. This work will typically be done according to the OEM's recommended work scopes and intervals. Major maintenance requiring equipment outages will be scheduled to occur as much as possible during periods of low wind conditions or low electricity demand.

Spare parts will be carried at the facility to enable performance of routine maintenance, and to support rectification of common failure modes.

2.6.1 Environmental Monitoring

TransCanada has conducted extensive environmental work to identify resources in the project area, and has selected a project location – and incorporated numerous revisions – that have minimized potential impact on the environmental. Four areas have been identified for follow-up monitoring activities.

2.6.1.1 Stormwater Management

Detailed stormwater management design has been prepared for both project construction and operation. Throughout the construction effort, regular inspections will be undertaken to ensure that systems are functioning in the intended manner and to conduct any necessary housekeeping. Appropriate engineering decisions will be made during the roadway construction effort to select design approaches to respond to observed field conditions and maintain existing drainage functions. Following completion of construction, operational staff will conduct periodic inspections of roads and stormwater management systems to determine the need for additional maintenance or improvements. Refer to Appendix 2-K for a more detailed description of the stormwater system.

2.6.1.2 Erosion Control Measures

Soil stabilization is a priority for project design to ensure the control of erosion and sedimentation during the project's operational life. Temporary and permanent erosion control measures will be employed during the construction effort to treat sediment-laden runoff before leaving the site and prevent erosion. Temporary measures include sediment barriers (filter berms), sediment traps, and temporary diversion berms. Permanent measures include level spreaders, culvert outlet protection, and diversion channels. Disturbed areas, outside areas covered with gravel or rock, will be stabilized with seeding or Erosion Control Mix to control erosion during the project's operational life. Erosion control features will be inspected on a regular basis throughout construction and appropriate maintenance performed. When final stabilization is established (at least 70 percent in seeded areas), temporary erosion and sediment control measures will be removed. A monitoring program will be implemented to ensure that such stabilization measures are functioning as intended and to monitor for non-native invasive species.

2.6.1.3 Avian and Bat Mortality

TransCanada will develop, in consultation with MDIFW, a proposed post-construction monitoring plan to assess avian and bat mortality. The plan will focus on migratory seasons during the immediate years following project operation. Representative locations will be selected for the survey, focusing largely on cleared areas but including some more densely forested portions of the site as well. The challenges of such a program in wooded mountain

areas are well understood, and TransCanada will identify measures specific to the site and species anticipated to be present in the project area. It is anticipated that the post-construction monitoring plan will also include procedures in the unanticipated event of a significant mortality incident. TransCanada would, under such conditions, notify LURC and MDIFW within 24 hours of identifying such an event, and immediately implement a "root cause analysis" to determine the likely cause. TransCanada would consult with LURC and MDIFW within a 7-day period to determine an appropriate response.

2.6.1.4 Northern Bog Lemming Habitat

The area of potential northern bog lemming habitat on the site has been avoided by project elements, and significant re-routing of roadways has been undertaken to ensure that the potential habitat and its drainage is not inappropriately disturbed or segmented. TransCanada will work with MDIFW to determine a scope for habitat monitoring to confirm that opportunities for this species continue to be provided at the project site.

2.7 Decommissioning

Due to the continuing need for low cost zero-emission power, it is expected that the Kibby Wind Power Project would be repowered at the end of its expected 25 year life, thus extending its operating period for an additional 25 years or more. While the moving parts in the turbines are subject to wear and tear over their expected life, the non-moving parts, including the collector system, turbine pads and transmission line are expected to have an almost limitless life with proper maintenance. For the turbines themselves, design improvements should be expected that would justify replacing the current model with a newer, more efficient one at the end of the 25 year period.

During its initial 25 year period, a wind project is expected to have a high market value, since the capital costs of the project have been made and the operating costs are extremely low. Thus the project should never be required to be dismantled or decommissioned during that period.

If in the unlikely event the project should be required to be decommissioned, the market value of the turbines, whether as complete units or as parts, would be expected to be high, as the demand for wind projects is expected to remain strong for the foreseeable future.

Nevertheless, in the unlikely event that the project had to be decommissioned, TransCanada would take all appropriate steps and make available the necessary funds to ensure that the towers and associated infrastructure were removed and appropriately disposed of.

Decommissioning of the project would consist of the dismantlement, removal and appropriate disposal of:

- The nacelles, blades, and towers;
- All above ground collector system structures;

- The substation; and
- The portion of the transmission line between the project and the Bigelow Substation that is not used by other projects.

The removal activities would occur in accordance with all regulatory standards in place at that time to minimize potential environmental or other impacts.

It is difficult to accurately estimate the costs necessary to decommission a wind project in the future and, as noted above, it is likely that a project would be repowered instead of decommissioned. However, TransCanada appreciates that the LURC has voiced concerns in the past over decommissioning of wind farms and associated meteorological towers and is committed to providing the necessary assurances that funds will be available for decommissioning activities should that need arise.

As a result, TransCanada Corporation, the parent entity, will put in place a parental guaranty to fund the necessary decommissioning activities associated with the Kibby Wind Power Project. TransCanada has over $20 billion of assets and an “A” credit rating. To backstop its parental guaranty, TransCanada will provide a Letter of Credit (LC) from a financial institution of investment grade standing should TransCanada's own credit rating ever fall below investment grade. The amount of the LC would be based on the net cost (after consideration of the value of the turbines or parts) of decommissioning the wind farm and associated facilities. This cost would be determined by a qualified third-party engineering firm that is mutually acceptable to both the LURC and TransCanada.

2.8 Project Schedule

Assuming that all appropriate permits are received by July 31, 2007, it is TransCanada’s intention to proceed to construct the project in two phases, with some turbines operational late in 2008 and the remainder fully operational by September 2009. A detailed construction schedule is provided in Figure 2-27. The schedule reflects steps to minimize overall impacts by limiting winter construction to clearing and other non-earth disturbing activities. Activities near or across wetlands may also be undertaken in winter conditions to limit impacts to these resources. As reflected in the schedule, most earth-disturbing activities, including road construction and turbine installation, will not occur during sensitive winter conditions.

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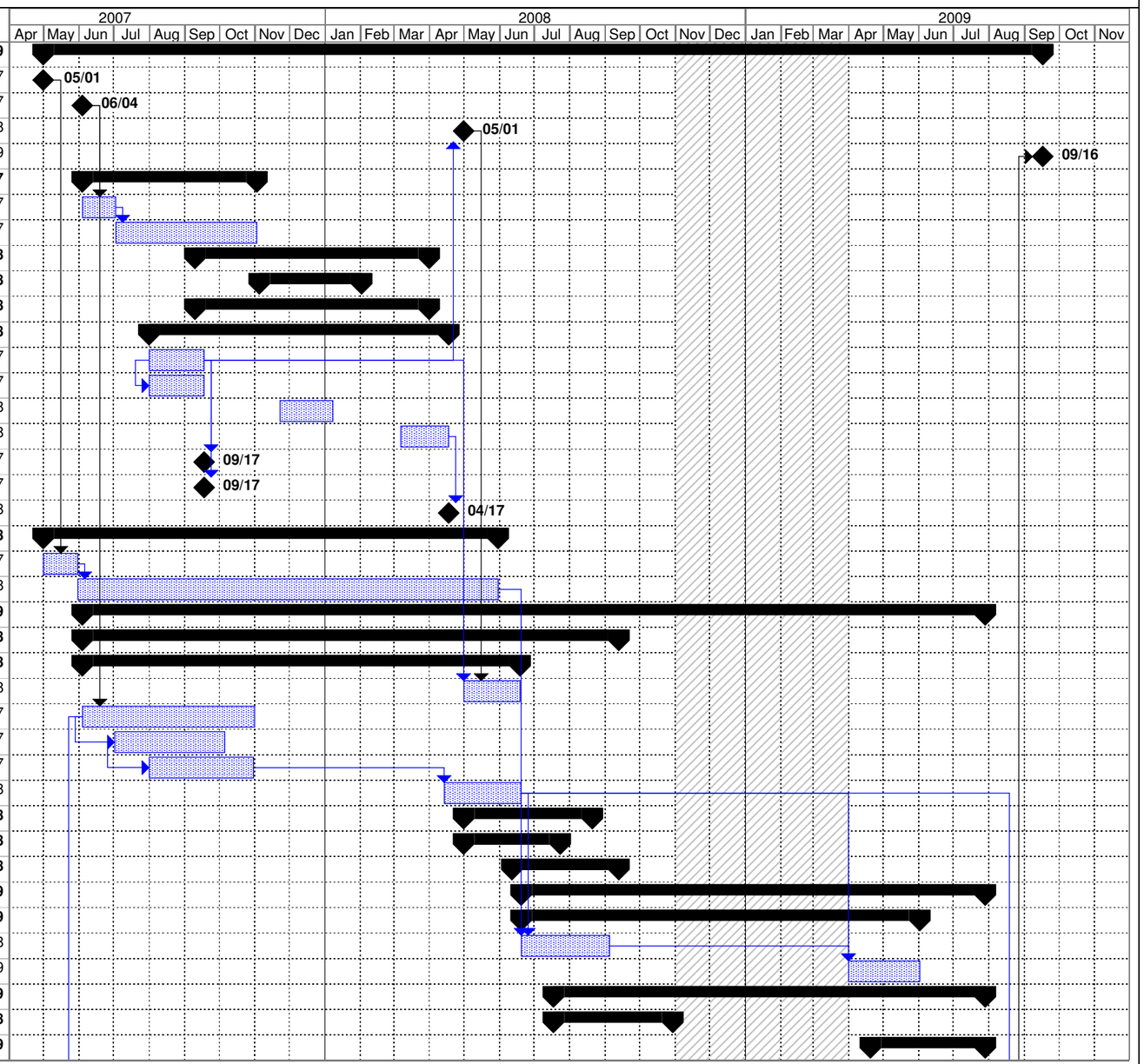
KIBBY WIND POWER PROJECT
PRELIMINARY SCHEDULE

amec

ID	Task Name	Duration	Start	Finish
1	**MILESTONES**	**515 days**	**May 01 '07**	**Sep 16 '09**
2	LURC Conditional Approval issued	0 days	May 01 '07	May 01 '07
3	Contract Award	0 days	Jun 04 '07	Jun 04 '07
4	BOP Construction Notice to Proceed	0 days	May 01 '08	May 01 '08
5	Project Final Acceptance	0 days	Sep 16 '09	Sep 16 '09
6	**PRELIMINARY ENGINEERING & GEOTECH. SURVEYS**	**110 days**	**Jun 04 '07**	**Nov 02 '07**
7	Preliminary Engineering	21 days	Jun 04 '07	Jul 02 '07
8	Geotech & Topography Surveys	89 days	Jul 03 '07	Nov 02 '07
9	**DETAILED ENGINEERING**	**146 days**	**Sep 10 '07**	**Mar 31 '08**
10	**CIVIL ENGINEERING**	**65 days**	**Nov 05 '07**	**Feb 01 '08**
16	**ELECTRICAL ENGINEERING**	**146 days**	**Sep 10 '07**	**Mar 31 '08**
28	**PERMITTING**	**187 days**	**Aug 01 '07**	**Apr 17 '08**
29	Permits / Legal Surveys (by Owner)	34 days	Aug 01 '07	Sep 17 '07
30	Environment Assessment Agency Approval	34 days	Aug 01 '07	Sep 17 '07
31	Aeronautical Clearance & Lights	32 days	Nov 23 '07	Jan 07 '08
32	O&M Building Permit	30 days	Mar 07 '08	Apr 17 '08
33	Environmental Assessment Approved	0 days	Sep 17 '07	Sep 17 '07
34	Permits & Legal surveys Issued	0 days	Sep 17 '07	Sep 17 '07
35	O&M Building Permit Received	0 days	Apr 17 '08	Apr 17 '08
36	**PROCUREMENT**	**284 days**	**May 01 '07**	**May 30 '08**
37	Order WTGs	22 days	May 01 '07	May 30 '07
38	Fabrication of WTGs	262 days	May 31 '07	May 30 '08
39	**WTG INSTALLATION / CONSTRUCTION**	**455 days**	**Jun 04 '07**	**Jul 28 '09**
40	**CIVIL WORKS**	**335 days**	**Jun 04 '07**	**Sep 12 '08**
41	**Road Upgrade & Site Access Roads**	**273 days**	**Jun 04 '07**	**Jun 18 '08**
42	Mobilization and Install Temp. Site Facilities	35 days	May 01 '08	Jun 18 '08
43	Goldbrook Road Upgrades	108 days	Jun 04 '07	Oct 31 '07
44	Clearing & Grubbing	70 days	Jul 02 '07	Oct 05 '07
45	Site Access Roads	65 days	Aug 01 '07	Oct 30 '07
46	Complete Balance of Site Access Road	49 days	Apr 14 '08	Jun 19 '08
47	**WTG Area Preparation**	**80 days**	**May 01 '08**	**Aug 20 '08**
51	**Service Access Roads**	**60 days**	**May 01 '08**	**Jul 23 '08**
53	**WTG Foundations**	**67 days**	**Jun 12 '08**	**Sep 12 '08**
56	**WTG DELIVERIES & ERECTION**	**181 days**	**Jun 20 '08**	**Jul 28 '09**
57	**WTG DELIVERIES (From FOB point)**	**140 days**	**Jun 20 '08**	**Jun 01 '09**
58	Deliver WTG Towers & Components (2008 Deliveries)	55 days	Jun 20 '08	Sep 04 '08
59	Balance of WTG Towers & Components (2009 Deliveries)	44 days	Apr 01 '09	Jun 01 '09
60	**WTG ERECTION / INSTALLATION**	**161 days**	**Jul 18 '08**	**Jul 28 '09**
61	**2008 WTG Erection**	**74 days**	**Jul 18 '08**	**Oct 29 '08**
69	**2009 WTG Erection**	**72 days**	**Apr 20 '09**	**Jul 28 '09**



Project: KIBBY WIND POWER
Print Date: Dec 06 '06

Task | Progress | Milestone | Summary | Split

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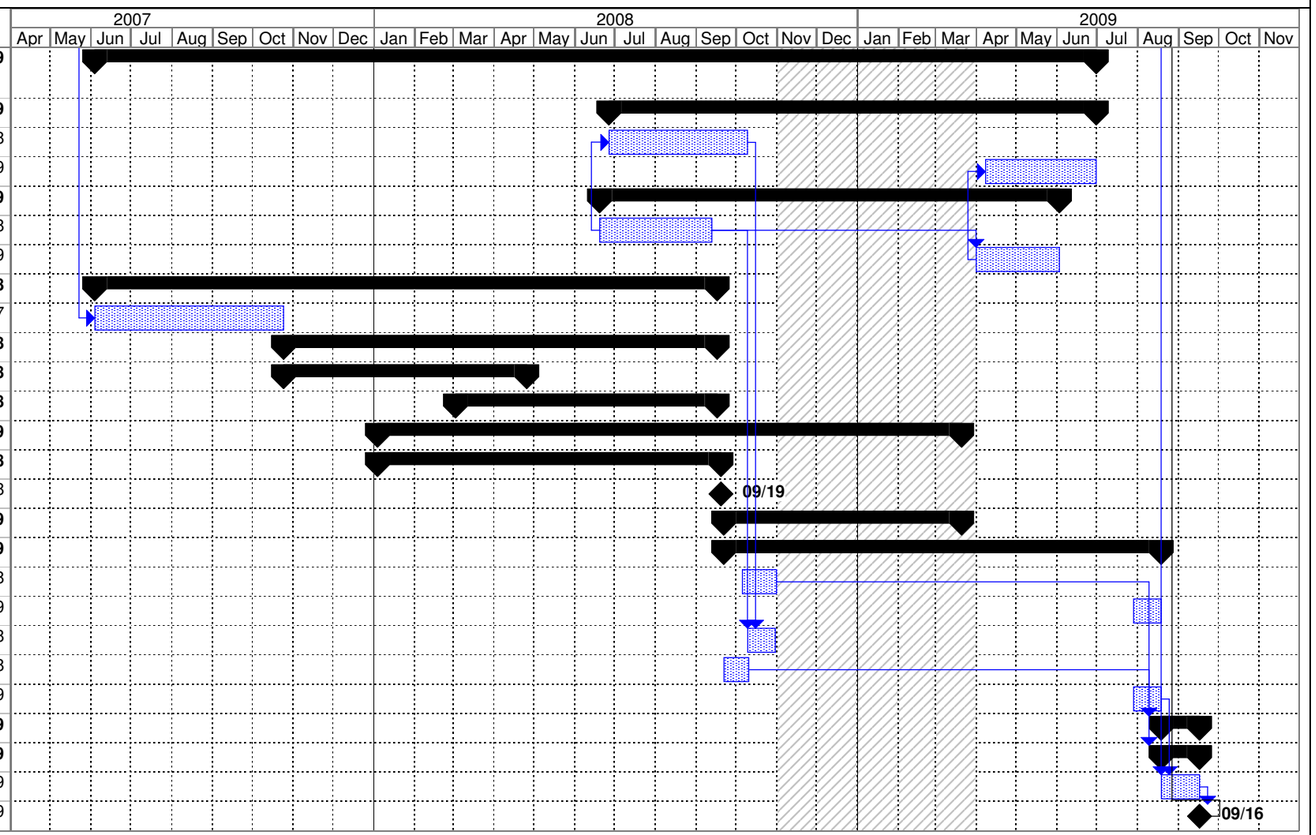
KIBBY WIND POWER PROJECT
PRELIMINARY SCHEDULE

amec

ID	Task Name	Duration	Start	Finish
78	**ELECT. COLLECTOR, TRANSMISSION LINES CONSTRUCTION & SUBSTATION**	**435 days**	**Jun 04 '07**	**Jun 30 '09**
79	**COLLECTOR LINES**	**156 days**	**Jun 27 '08**	**Jun 30 '09**
80	Lay U/G Power & Fiber Optic Cables (2008 WTGs)	75 days	Jun 27 '08	Oct 09 '08
81	Lay U/G Power & Fiber Optic Cables (2009 WTGs)	60 days	Apr 08 '09	Jun 30 '09
82	**GROUNDING**	**141 days**	**Jun 20 '08**	**Jun 02 '09**
83	Tower Grounding Grid (for 2008 WTGs)	61 days	Jun 20 '08	Sep 12 '08
84	Tower Grounding Grid (for 2009 WTGs)	45 days	Apr 01 '09	Jun 02 '09
85	**115 kV TRANSMISSION LINE**	**337 days**	**Jun 04 '07**	**Sep 16 '08**
86	Tree Clearing and Grubbing	103 days	Jun 04 '07	Oct 24 '07
87	Transmission Line and Substation	**234 days**	**Oct 25 '07**	**Sep 16 '08**
88	**Transmission Line**	**132 days**	**Oct 25 '07**	**Apr 25 '08**
94	**Substation Construction**	**142 days**	**Mar 03 '08**	**Sep 16 '08**
97	**O&M BUILDING**	**216 days**	**Jan 04 '08**	**Mar 20 '09**
98	**TENDER, PRE-FAB and ERECT O&M BUILDING**	**186 days**	**Jan 04 '08**	**Sep 19 '08**
106	**O&M Buidling Substantial Completion**	0 days	Sep 19 '08	Sep 19 '08
107	**O&M STAFFING & TRAINING**	**30 days**	**Sep 22 '08**	**Mar 20 '09**
109	**PHASED START-UP, COMMISSIONING and DEMOBILIZATION**	**130 days**	**Sep 22 '08**	**Aug 18 '09**
110	Phased Start-up & Commissioning (2008 WTGs)	20 days	Oct 06 '08	Oct 31 '08
111	Phased Start-up & Commissioning (2009 WTGs)	15 days	Jul 29 '09	Aug 18 '09
112	Demobilization (Substation/Collector Lines)	15 days	Oct 10 '08	Oct 30 '08
113	Demobilization (O&M Building Contract)	15 days	Sep 22 '08	Oct 10 '08
114	Final Demobilization (WTGs)	15 days	Jul 29 '09	Aug 18 '09
115	**SUBSTANTIAL COMPLETION OF THE WORK**	**21 days**	**Aug 19 '09**	**Sep 16 '09**
116	**Site Remediation**	**21 days**	**Aug 19 '09**	**Sep 16 '09**
117	Site Remediation Works	21 days	Aug 19 '09	Sep 16 '09
118	Final Acceptance	0 days	Sep 16 '09	Sep 16 '09



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Task Progress Milestone Summary Split

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