

CRESCENT RESOURCES INC.	Due Diligence Checklist		Project No.
			Date:
	Project Name:		
	Client:		

		Item	Remarks
	1	Survey	
		Review survey for compliance with Crescent Resources, Inc.'s "Instructions to Surveyors" (see below):	
		<p>All surveys shall be submitted on an AutoCAD drawing in a .DWG file format on one (1) 3.5 inch high density disk. Also submit two (2) blue-line prints.</p> <p>Include the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Site boundary complete with reference to the surveyor and date of boundary survey. <input type="checkbox"/> Existing spot elevations and contours (if needed) extending forty (40) feet beyond property lines on all sides. <input type="checkbox"/> Topography shown by contours at one (1) foot intervals (if less than one (1) foot in relief, then spot elevations on a fifty (50) foot grid system.) <input type="checkbox"/> Benchmark brought to property, datum based on U.S.G.C.-M.S.L. <input type="checkbox"/> Locations of all existing curbs, walks, grass strips, edges of pavement, medians, median breaks, etc. <input type="checkbox"/> Elevations of all roads at the centerline and existing edges of pavement every twenty-five (25) feet. <input type="checkbox"/> Locations and sizes of all existing storm and sanitary sewers on and adjacent to site with elevations of grates of catch basins, rims of manholes, invert elevations (in and out) for storm and sanitary sewers. For storm drain pipe provide material type. <input type="checkbox"/> Water main locations, sizes, valves, meters and fire hydrants. <input type="checkbox"/> Gas line locations, sizes, valves, and meters. <input type="checkbox"/> Power line locations within the general proximity of site showing all poles and transformers. <input type="checkbox"/> High points of ditches and swales. <input type="checkbox"/> Locations of hedges and fences and walls (top of wall elevations on retaining walls). <input type="checkbox"/> Lakes, ditches, streams or rivers within 100 feet of site. <input type="checkbox"/> Elevations of established flood levels (floodway district and fringe lines) that may be applicable with frequency and identification of establishing authority. <input type="checkbox"/> Wells and septic fields within 100 feet of site. <input type="checkbox"/> All on-site improvements. 	

	Item	Remarks
	<input type="checkbox"/> Roads, streets, or drives on or adjacent to site or across street (public or private). Label right-of-ways and dedicated names, street or highway numbers, city or state. Indicate existing travel lanes/pavement markings. Widths of adjoining streets, highways, pavements, and how paved; also location of curbs and sidewalk lines, location of catch basins, manholes, telephone, and electric poles, fire hydrants, etc.; also any underground power cables, fiber optics, etc. <input type="checkbox"/> Buildings on site with finished floor elevations (FFE). <input type="checkbox"/> North arrow with grid, magnetic, true or assumed orientation noted. <input type="checkbox"/> Vicinity map. <input type="checkbox"/> Property zoning, setbacks, and side and rear yards. <input type="checkbox"/> All existing right-of-ways, easements, restrictive covenants or deed restrictions. <input type="checkbox"/> Approximate distance to nearest intersection(s) (name of intersecting street/road). <input type="checkbox"/> Names of Owners and deed references for adjacent properties. <input type="checkbox"/> Location of wetlands (if delineated on the site). <input type="checkbox"/> Location of test borings (if made). <input type="checkbox"/> Trees. <input type="checkbox"/> All trees in right-of-way (2" caliber and above). <input type="checkbox"/> All trees 8" and above in setback. <input type="checkbox"/> Tree line. <input type="checkbox"/> Specimen trees.	
2	Site Visit	
	A. Compare site with survey, i.e., storm drainage, all improvements shown, utilities located, street trees, trees in setback, specimen trees, etc.	
	B. Evaluate proposed use with existing conditions.	

		Item	Remarks
		C. Photograph/video site (use panoramic views).	_____
		D. Review items not shown on survey:	_____
		1. Adjacent land use/contact.	_____
		2. Condition of existing vegetation.	_____
		3. Condition of improvements, i.e., curb and gutter, sidewalk, drainage structures, etc.	_____
		4. Poor drainage areas.	_____
		5. Off-site drainage areas.	_____
	3	Zoning	_____
		A. Obtain and Reference Zoning Ordinance and Maps	_____
		B. Supplemental ordinances (tree)	_____
		C. Meet <input type="checkbox"/> or Telephone <input type="checkbox"/> Zoning Official	_____
		D. Straight <input type="checkbox"/> or Conditional <input type="checkbox"/> If conditional, obtain stamped "approved plan"	_____
		E. Zoning Classification	_____
		F. Standard Lot <input type="checkbox"/> Corner <input type="checkbox"/> Thru <input type="checkbox"/>	_____
		G. Building Zoning:	_____
		1. Building Use (office, medical, warehouse, etc.)	_____
		2. Front Setback	_____
		3. Side	_____

		Item	Remarks
		4. Rear	
		5. Corner lot condition	
		6. Height	
		7. Floor Area Ratio (Total Building SF ÷ Site S.F.)	
		H. Transitional Setback Required for Future Street Widening/ Thoroughfare Map	
		I. Adjacent Zoning/Adjacent Use	
		J. Tax Maps	
		K. Subdivision Ordinance	
		L. Special Zoning Criteria (Small Area Plans, etc.)	
		M. Covenants and Restrictions	
		N. Buffer Required: Yes <input type="checkbox"/> No <input type="checkbox"/> Type _____ Location _____ Width _____ Width w/Fence _____ or Berm _____ Minimum Planting Requirements _____ _____ _____ Undisturbed Yes <input type="checkbox"/> No <input type="checkbox"/> Required by Conditional Rezoning Yes <input type="checkbox"/> No <input type="checkbox"/>	

		Item	Remarks
		O. Screening Required: Yes <input type="checkbox"/> No <input type="checkbox"/> Parking Yes <input type="checkbox"/> No <input type="checkbox"/> Dumpster Yes <input type="checkbox"/> No <input type="checkbox"/> Service Yes <input type="checkbox"/> No <input type="checkbox"/> Other Yes <input type="checkbox"/> No <input type="checkbox"/> Min Ht of Plant Material _____ Min Spacing _____	_____ _____ _____ _____ _____ _____
	4	Parking	_____
		A. Parking in Setback Allowed:	
		1. Front Yes <input type="checkbox"/> No <input type="checkbox"/>	_____
		2. Side Yes <input type="checkbox"/> No <input type="checkbox"/>	_____
		3. Rear Yes <input type="checkbox"/> No <input type="checkbox"/>	_____
		B. Parking:	
		1. Required Spaces _____ Required by Code _____ Required by Owner _____	_____ _____ _____
	2. Handicap Spaces Required _____ Standard HC Spaces _____ Van Accessible Spaces _____	_____ _____ _____	
	3. Standard Spaces and Size _____ Compact Spaces and Size _____ Visitor Spaces and Size _____ Loading Spaces _____	_____ _____ _____ _____	
	4. Shared Parking with Adjacent Property Yes <input type="checkbox"/> No <input type="checkbox"/>	_____ _____	

		Item	Remarks
		5. Dimension of Space and Lot	_____
		6. Curb and Gutter _____ Wheel Stops _____	_____ _____ _____
		7. Future Parking Yes <input type="checkbox"/> No <input type="checkbox"/>	_____
	5	Roads and Driveways	_____
		A. One-way or Two-way (26' minimum at setback in Mecklenburg County)	_____
		B. Type of Driveway: Drop Curb (Type II) <input type="checkbox"/> Street Type (Type III) <input type="checkbox"/> UMUD Driveway <input type="checkbox"/>	_____ _____ _____
		C. Curb and Gutter Type and Size	_____
		D. Type of Vehicle for Use in Design	_____
		E. Medians Required	_____
		F. Impacts on Existing Streets/Walks, Etc.	_____
		G. Driveway Permits	_____
		H. Signage Stop <input type="checkbox"/> No Left Turn <input type="checkbox"/> Keep Right <input type="checkbox"/> Internal Directional Signage <input type="checkbox"/>	_____ _____ _____ _____

		Item	Remarks
	6	Sidewalks	_____
		A. Location of All Walks	_____
		B. Width	_____
		C. Material Type	_____
		D. Handicap Accessible Routes	_____
		E. Handicap Ramp Locations (Including Intersection and Drives)	_____ _____
	7	Miscellaneous	_____
		A. Thoroughfare plan requiring additional right-of-way	_____
		B. Improvements required by Ordinance in public street right-of-way, i.e., street widening, curb and gutter, sidewalks, storm drainage, etc. Impact on existing storm drain in street.	_____ _____ _____
		C. Improvements required in public street right-of-way turn lanes, i.e., turn lanes, deceleration lanes, etc.	_____ _____ _____
		D. Trash Collection Yes <input type="checkbox"/> No <input type="checkbox"/> Dumpster <input type="checkbox"/> Compactor <input type="checkbox"/>	_____ _____
		E. Exterior Mechanical Equipment: Condenser, Transformer, Generator, Etc. Yes <input type="checkbox"/> No <input type="checkbox"/>	_____ _____ _____
		F. Hardscape: Yes <input type="checkbox"/> No <input type="checkbox"/> Special Paving, Courtyards, etc.	_____ _____

		Item	Remarks
		G. Retaining Walls Yes <input type="checkbox"/> No <input type="checkbox"/>	
		H. Site Lighting Yes <input type="checkbox"/> No <input type="checkbox"/>	
		I. Irrigation Yes <input type="checkbox"/> No <input type="checkbox"/> Sleeving Yes <input type="checkbox"/> No <input type="checkbox"/> Irrigation Sleeves Yes <input type="checkbox"/> No <input type="checkbox"/>	
		J. Signage & Graphics Yes <input type="checkbox"/> No <input type="checkbox"/>	
		K. Other Site Features, i.e., Fountains, etc. Yes <input type="checkbox"/> No <input type="checkbox"/>	
		L. Title Block CJS Yes <input type="checkbox"/> No <input type="checkbox"/> Client Title Block Yes <input type="checkbox"/> No <input type="checkbox"/> Project/Owner Logo Yes <input type="checkbox"/> No <input type="checkbox"/>	
		M. Letter of Compliance Yes <input type="checkbox"/> No <input type="checkbox"/> Landscape	
		N. Fence Permit Yes <input type="checkbox"/> No <input type="checkbox"/>	
	8	Building	
		A. Plans on AutoCAD Disk Yes <input type="checkbox"/> No <input type="checkbox"/>	
		B. Architectural Elevations Yes <input type="checkbox"/> No <input type="checkbox"/>	
		C. Building Orientation: Horizontal Yes <input type="checkbox"/> No <input type="checkbox"/> Vertical (FFE) Yes <input type="checkbox"/> No <input type="checkbox"/>	

	Item	Remarks
	D. Entrances (Doors)	
	E. Windows	
	F. Stoops, Patios, Stairs	
	G. Square Footage: Gross _____ SF Rentable _____ SF (94% gross) Useable _____ SF (86% gross)	
	H. Roof Drainage: Roof leaders _____ or down spouts _____ Tie into storm drainage system Yes <input type="checkbox"/> No <input type="checkbox"/> Outlet at grade Yes <input type="checkbox"/> No <input type="checkbox"/> Size of leaders Yes <input type="checkbox"/> No <input type="checkbox"/> Location of leaders Yes <input type="checkbox"/> No <input type="checkbox"/> Roof drainage areas	
	I. Building on slab _____ or crawl space _____	
	J. Foundation Condition: Outside Grade Minimum _____ Maximum _____ Foundation Wall _____	
	K. Handicap Access to Building Railings required Yes <input type="checkbox"/> No <input type="checkbox"/>	

		Item	Remarks
		L. Load/Service Parking lot or driveway _____ Dock Height _____ Number of Dock Spaces _____ Drive-up Access _____ Type of truck to use in design _____ Number of loading spaces required _____	_____ _____ _____ _____ _____ _____
		M. Future Expansion Yes <input type="checkbox"/> No <input type="checkbox"/>	_____ _____
		N. Other Special Conditions	_____ _____
	9	Planting	_____ _____
		A. Budget	_____ _____
		B. Client Preference	_____ _____
		C. Sod Yes <input type="checkbox"/> No <input type="checkbox"/> Seed Yes <input type="checkbox"/> No <input type="checkbox"/>	_____ _____
		D. Ordinance Only	_____ _____
		E. Maintenance	_____ _____
		F. Irrigation	_____ _____
		G. Right-of-Way Encroachment	_____ _____
		H. Review with Grading Plan Yes <input type="checkbox"/> No <input type="checkbox"/>	_____ _____

		Item	Remarks
		I. Review of Utility Plan Underground Yes <input type="checkbox"/> No <input type="checkbox"/> Overhead Yes <input type="checkbox"/> No <input type="checkbox"/>	_____ _____ _____
		J. Existing Vegetation to Remain Yes <input type="checkbox"/> No <input type="checkbox"/>	_____
		K. Mitigation Required Yes <input type="checkbox"/> No <input type="checkbox"/>	_____
	10	Utilities - Water	_____
		A. Review Agency: Local <input type="checkbox"/> State <input type="checkbox"/>	_____ _____
		B. Water Supply: Location _____ Size _____ Fire Hydrant _____ Use Existing Water Service to Site Yes <input type="checkbox"/> No <input type="checkbox"/>	_____ _____ _____ _____
		C. Utility Department:	
		1. Obtain or reference water main as-built plan.	_____
		2. Standards, specifications, and guidelines.	_____
		D. Water Distribution/Service:	
		1. Meters: Domestic <input type="checkbox"/> Irrigation <input type="checkbox"/> Fire <input type="checkbox"/>	_____ _____
		2. Procedure for placing meter (contractor, utility department, etc.).	_____ _____
		3. Encroachments for DOT	_____

		Item	Remarks
		4. Cost of connection and meters (connection fee, capacity charges, etc.).	_____ _____
		5. Design flow, size, and location of building service (reference plumbing consultant). Note: Site criteria should dictate location of water service.	_____ _____ _____
		6. Backflow preventers: Required _____ Location _____ Type required _____ Standards and guidelines _____	_____ _____ _____ _____
	11	Utility - Fire Protection	_____
		A. Review Agency (local fire department) Obtain reference guidelines.	_____ _____
		B. Fire Hydrants: Location _____ Fire Flow Test (if needed) _____	_____ _____ _____
		C. Criteria:	
		1. Required Fire Flow	_____
		2. Spacing of Hydrants	_____
		3. Distance of Hydrants to Building _____	_____
		4. Fire Truck Site Maneuverability Truck Access to Bldg _____ Maximum Backing Distance _____	_____ _____ _____
		5. Exemption from requirement for backflow/ installation requirement if fire hydrant located within 100' of tap to utility department water main (CMUD Regulation).	_____ _____ _____

		Item	Remarks
		D. Connections:	
		1. Fire Meters	_____
		2. Procedure for placing meter.	_____
		3. Cost of connection.	_____
		4. Design flow, size, and location of fire protection line (reference fire protection design).	_____ _____
		5. Backflow preventers: Required _____ Location _____ Type Required _____ Standards and guidelines _____	_____ _____ _____ _____
		E. Fire Protection Plans	
		1. Coordination with fire protection system designer.	_____
		2. Distance of hydrant to fire department connection.	_____
	12	Utility - Sanitary Sewer	_____
		A. Review Agency (local, state, etc.): Local <input type="checkbox"/> State <input type="checkbox"/>	_____ _____
		B. Availability of Existing Sewer: Location _____ Size _____ Invert _____ Material _____ Use Existing Sanitary Sewer to Site Yes <input type="checkbox"/> No <input type="checkbox"/>	_____ _____ _____ _____ _____

		Item	Remarks
		C. Utility Department:	
		1. Obtain or reference as-built plan.	_____
		2. Standards, specifications, and guidelines.	_____
		D. Sanitary Sewer Collection System:	
		1. Connection Responsibility: Contractor <input type="checkbox"/> Utility Department <input type="checkbox"/>	_____ _____
		2. Encroachments for DOT	_____
		3. Cost of Connection	_____
		4. Size and location of sewer laterals (reference plumbing consultant). Note: Site criteria should dictate above.	_____ _____ _____
		5. Easements	_____
	13	Other Utilities (gas, electric, telephone, etc.) 1. Coordination with electrical engineer on site lighting.	_____
	14	Wetlands	_____
		A. Wetland Study Available Yes <input type="checkbox"/> No <input type="checkbox"/>	_____
	15	Geotechnical	
		A. Obtain and Read Report	_____
		B. Review boring logs for unsuitable materials (clay, plastic soil, fill material, etc.) and rock relative to site work grading; consult with client .	_____ _____
		C. Paving Specifications 1. Per geotechnical.	_____

		Item	Remarks
		2. Per Owner.	
	16	Phase I - Environmental Site Assessment	
		A. Obtain and Reference	
	17	Floodway	
		A. Obtain and reference flood maps for regulated floodways (County, FEMA).	
		B. 100+1 Flood Study Requirements.	
	18	Landscape Ordinance	
		A. Obtain and reference Ordinance	
		B. Obtain and reference Tree Ordinance	
		C. Overhead power lines Yes <input type="checkbox"/> No <input type="checkbox"/>	
	19	Topographic Maps	
		A. Obtain and reference topography (City, County, USGS).	
		B. Obtain storm drainage topography map, if available.	
	20	Storm Drainage and Stormwater Detention	
		A. Obtain and reference ordinance manuals, guidelines, etc.	
		B. Obtain and reference City Storm Drainage Maps, if available.	

		Item	Remarks
		C. Stormwater detention required. Can we avoid detention because of proximity to regulated floodway or by piped system in drainage easement to regulated floodway?	_____ _____ _____
		D. Impact of off-site drainage.	_____ _____
		E. Storm drainage discharge points.	_____ _____
		F. Existing storm drainage and detention on and adjacent to site.	_____ _____
	21	Watershed Requirements	_____ _____
	22	Transportation, Impact Studies, Etc.	_____ _____
	23	Obtain and Reference Pre-design Checklist and Proposal/Contract	_____ _____
	24	Master Plans for Future Development	_____ _____
	25	Phasing of Design and Construction	_____ _____

Checklist Completed By:

Signature

Date