

CONTRIBUTION AND PARTICIPATION AGREEMENT

This Contribution and Participation Agreement (“Agreement”) is made this ____ day of _____, 2017 (the “Effective Date”) between BPC County Land LLC, a Wisconsin limited liability company (“Buyer”), and the County of Milwaukee, Wisconsin (“Milwaukee County” or “Seller”) (collectively, the “Parties”).

RECITALS

WHEREAS, Seller has granted to Buyer an option to purchase certain real property in the City of Franklin, Wisconsin (the “Option”), which property is depicted on **Exhibit A** (“Property”), and Buyer has, upon the Effective Date, acted upon the Option and taken title to the Property;

WHEREAS, Milwaukee County formerly operated a municipal solid waste landfill on the Property (“Landfill”) pursuant to Solid Waste Facility License No. 00881 issued by the Wisconsin Department of Natural Resources (“WDNR”) (the “Landfill License”);

WHEREAS, the Landfill was closed in November 1981 with oversight from WDNR and has not accepted waste since that time;

WHEREAS, the County wishes to transfer the Landfill License to Buyer, WDNR has agreed to transfer the Landfill License pursuant to certain conditions to be reflected in a Landfill License Transfer Agreement (“Landfill License Transfer Agreement”) between Buyer and WDNR, and Buyer wishes to accept this transfer, provided that there are adequate means to pay for the ongoing maintenance and capital needs associated with the Landfill and ownership of the Landfill License;

WHEREAS, WDNR has continuing authority to regulate the Landfill, including construction on the Property, uses of the Property, maintenance of the Landfill cap and methane control system, and the monitoring of environmental conditions at the Property;

WHEREAS, a methane control system (the “Methane Control System”) was installed at the Property pursuant to approval by WDNR to control migration of methane at and from the Landfill, which became operational in March 1995, and as expanded, replaced, improved or modified under this Agreement or otherwise;

WHEREAS, in 1997, WDNR approved a Remedial Action Plan to mitigate gas and groundwater impacts at the Landfill, and the Remedial Action Plan was subsequently implemented in 1997 and 1998;

WHEREAS, as of the Effective Date, the Methane Control System includes, among other components, 26 gas extraction wells, 18 gas monitoring probes around the perimeter of the Landfill, 6 underground, double-walled condensate tanks, a flare system that includes an automatic telephone dialer to alert of malfunctions, and methane detectors in the basements of certain homes surrounding the Landfill, and as expanded, replaced, improved or modified;

WHEREAS, this Agreement shall be recorded on title;

WHEREAS, as of the Effective Date, the performance of the Methane Control System is assessed through monthly inspections, quarterly monitoring of the gas wells, annual condensate tank integrity testing, and an annual overall performance evaluation;

WHEREAS, a May 2014 Franklin Landfill Infrastructure Pre-Design Report prepared by AECOM for Milwaukee County (the “Pre-Design Report”), attached hereto as **Exhibit B**, concludes, among other things, that the existing Methane Control System has served Milwaukee County well by providing Methane migration control but that certain improvements to the system are recommended in order to extend its long-term life;

WHEREAS, portions of the Property were previously developed with WDNR approval for a variety of commercial and recreational uses, including baseball fields, a ski hill and chalet, skiing, tubing and snowboarding facilities, biking areas, and an umbrella bar and patio;

WHEREAS, Buyer intends to further develop the Property with certain improvements described more particularly herein; and

WHEREAS, the Parties wish to provide a means for funding for the ongoing maintenance and capital needs associated with the Landfill, making improvements to, expanding or replacing as needed the Methane Control System, and other costs that may arise from environmental conditions on the Property;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties, intending to be legally bound hereby, agree as follows:

**ARTICLE 1
INCORPORATION OF RECITALS; DEFINITIONS**

Section 1.1 Incorporation of Recitals. The above recitals are true and correct and are incorporated herein by reference.

Section 1.2 Definitions.

- (a) “Agreement” means this Contribution and Participation Agreement.
- (b) “Annual Escalated Cost” has the meaning set forth in Section 3.3(b).
- (c) “Annual Landfill Lifecycle Cost” has the meaning set forth in Section 4.3(c).
- (d) “BPC Association” has the meaning set forth in Section 4.2.
- (e) “BPC Project Area” means the boundaries of the TIF District, except that portion of the TIF District east of 76th Street.
- (f) “Buyer Affiliate” has the meaning set forth in Section 5.1.

- (g) “Buyer Contribution Claim” has the meaning set forth in Section 5.3.
- (h) “Buyer Default” has the meaning set forth in Section 6.1.
- (i) “Buyer Environmental Default” has the meaning set forth in Section 6.1.
- (j) “Buyer Indemnified Loss” has the meaning set forth in Section 5.1.
- (k) “Buyer Indemnified Parties” has the meaning set forth in Section 5.1.
- (l) “City” means the City of Franklin, Wisconsin, or any successor entity

thereto.

(m) “Closure Plan” means the plan approved by WDNR for the closure in November 1981 of the Landfill and related documents, as amended or supplemented from time to time in accordance with WDNR regulations and requirements. The Closure Plan includes the Pre-Design Report and all reports referenced therein, along with proposals, reports and documents referenced in or submitted as part of Milwaukee County Project No. V022-15803. The Closure Plan is available for viewing at the headquarters for the Southeast Region of the WDNR or the Milwaukee County Department of Administrative Services Environmental Services Unit.

- (n) “Consultation Period” has the meaning set forth in Section 6.3(a).
- (o) “Contemplated Improvements” has the meaning set forth in Section 2.1.
- (p) “Cure Period” has the meaning set forth in Section 6.1(b).

(q) “Environmental Contamination” means, without limitation, Hazardous Substances released to the air, soil, soil vapor, groundwater, or surface water on, at, under or from the Property. For the avoidance of doubt, “Environmental Contamination” includes the constituents and breakdown or parent product of each such Hazardous Substance.

(r) “Environmental Laws” means all laws (including common law) relating to pollution; protection of the environment, human health, or natural resources; occupational safety and health; or sanitation, including but not limited to laws relating to emissions, spills, discharges, generation, treatment, transport, arrangement for treatment or transport, disposal, storage, leaks, injection, leaching, seepage, vaporizing, releases or threatened releases of Hazardous Substances into the environment (including ambient air, surface water, groundwater, soil vapor, land surface or subsurface strata) or otherwise relating to the manufacture, processing, distribution, use, treatment, release, threatened release, transport, arrangement for treatment or transport, storage, disposal, emission, vaporizing, or handling of Hazardous Substances, together with any regulation, code, plan, order, decree, judgment, injunction, notice or demand letter issued, entered, promulgated or approved thereunder.

- (s) “Financial Assurance Status” has the meaning set forth in Section 2.3.

(t) “Hazardous Substances” means (i) any petroleum, hazardous or toxic petroleum-derived substance or petroleum product, flammable or explosive material, asbestos,

asbestos-containing materials, or presumed asbestos-containing materials in any form, or polychlorinated biphenyls and (ii) any chemical or other material or substance that is now regulated, classified or defined as or included in the definition of “hazardous substance,” “hazardous waste,” “hazardous material,” “extremely hazardous substance,” “restricted hazardous waste,” “toxic substance,” “toxic pollutant,” “pollutant” or “contaminant” under any Environmental Law, or any similar denomination intended to classify substance by reason of toxicity, carcinogenicity, ignitability, corrosivity or reactivity under any Environmental Law.

(u) “Landfill” has the meaning set forth in the Recitals.

(v) “Landfill Capital Project” has the meaning set forth in Section 4.5.

(w) “Landfill Infrastructure” means, collectively, (i) the clay layer or cap component of the Landfill cover system; (ii) the Methane Control System; (iii) the network of monitoring wells at the Property; and (iv) the system used to collect and capture leachate from the Landfill. “Landfill Infrastructure” also includes all related appurtenances to each component of the Landfill Infrastructure at and in the vicinity of the Landfill, as described with additional particularity in the Pre-Design Report and/or required by WDNR to operate the Landfill.

(x) “Landfill License” has the meaning set forth in the Recitals.

(y) “Landfill License Transfer Agreement” has the meaning set forth in the Recitals.

(z) “Landfill Operating Costs” has the meaning set forth in Section 3.3(a).

(aa) “LIC Fund” means the fund established pursuant to Article 4 of this Agreement.

(bb) “LIC Fund Records” has the meaning set forth in Section 4.1.

(cc) “Losses” means, without limitation: loss, cost, expense, or damage arising out of claims, losses, liabilities (including without limitation strict liability), suits, obligations, fines, judgments, injuries, administrative orders, consent agreements and orders, costs of Remedial Work, cleanup, or other remedial action, penalties, actions, causes of action, charges, costs and expenses, including without limitation reasonable attorneys’ fees, engineers’ fees and consultants’ fees.

(dd) “Methane Control System” or “MCS” has the meaning set forth in the Recitals.

(ee) “Option” has the meaning set forth in the Recitals.

(ff) “Oversight Committee” has the meaning set forth in Section 4.3.

(gg) “Pre-Design Report” has the meaning set forth in the Recitals.

(hh) “Project Scope” has the meaning set forth in Section 4.6(a).

(ii) “Property” has the meaning set forth in the Recitals.

(jj) “Purchase Price Offset” has the meaning set forth in Section 4 of the Option to Purchase Agreement of even date herewith.

(kk) “Remedial Work” means any investigation, site monitoring, abatement, treatment, containment, cleanup, removal, or other work or process of any kind or nature necessary or required because of, or in connection with, the current or future presence, suspected presence, release, or suspected release of Hazardous Substances on the Property. Remedial Work does not include the routine operations and maintenance of the Landfill Infrastructure but does include, and is not limited to, additional non-routine work or additional infrastructure that is not part of the existing Landfill Infrastructure that must be implemented to remedy or prevent Environmental Contamination from the Landfill.

(ll) “Seller Default” has the meaning set forth in Section 6.2.

(mm) “Seller Indemnified Loss” has the meaning set forth in Section 5.2.

(nn) “Seller Indemnified Parties” has the meaning set forth in Section 5.2.

(oo) “Services Agreement” has the meaning set forth in Section 7.1.

(pp) “Site Consultant” has the meaning set forth in Section 3.1.

(qq) “Third-Party Claim” has the meaning set forth in Section 5.5(b).

(rr) “TIF District” the Tax Incremental Financing (TIF) District No. 5, established by the City of Franklin, Wisconsin for the Ballpark Commons Development Proposal, as amended, and such other TIF districts as the City may subsequently develop or create in order to benefit the Ballpark Commons development or the Contemplated Improvements. The boundaries of the TIF District for purposes of this Agreement are shown on Exhibit C.

(ss) “WDNR” means the Wisconsin Department of Natural Resources and any successor entity thereto.

ARTICLE 2 PROPERTY AND CONTEMPLATED IMPROVEMENTS

Section 2.1 Contemplated Improvements. Buyer intends to make improvements that enhance the use of the Property for recreational and commercial purposes, and which may include golf, baseball, soccer, bicycling, skiing, offices, restaurants and other activities (the “Contemplated Improvements”). Contemplated Improvements do not include improvements that are primarily intended to function as Landfill Infrastructure. With respect to the Contemplated Improvements:

(a) Buyer shall be responsible for the cost of the Contemplated Improvements.

(b) Buyer shall conduct investigation activities and Remedial Work to the extent required by WDNR in conjunction with the construction of the Contemplated

Improvements, including but not limited to design and installation of appropriate geotechnical engineering structures and disposal of excavated wastes.

(c) Buyer will seek any necessary regulatory approvals from WDNR, including an amendment to the Closure Plan and/or an exemption under WIS. ADMIN. CODE NR § 506.085 to the extent required by WDNR to construct the Contemplated Improvements.

(d) Buyer reserves the right to request WDNR concurrence that portions of the Property that do not contain waste materials are outside of the Landfill and therefore not subject to WDNR regulation. Seller shall cooperate in withdrawing any such property from WDNR regulation.

Section 2.2 Landfill License Transfer. The Parties hereby acknowledge the transfer of the Landfill License, as set forth in the Landfill License Transfer Agreement between Buyer and WDNR.

Section 2.3 Financial Responsibility. Seller hereby represents and warrants that the applicable “Proof of Financial Responsibility” category from Table 1 of WIS. ADMIN. CODE NR § 520.04 is category 2(a) for a municipal solid waste landfill, which did not accept waste after October 8, 1993 (the “Financial Assurance Status”), and that, pursuant to § 520.04, no financial assurance for the Landfill is required.

Section 2.4 Grant Funding. Seller agrees to reasonably cooperate with Buyer if Buyer identifies and elects to pursue grant funding from the City, the State of Wisconsin, and/or other third-party sources for the purpose of reducing Buyer’s cost of acquiring the Property and/or developing the Contemplated Improvements and/or Landfill Infrastructure. In the event that such funding sources are useful for purposes consistent with Buyer’s development of the Contemplated Improvements, but can only be awarded to, or with the support of, a local unit of government, Seller agrees to make reasonable accommodations to pass through such funding to Buyer or use such funding for Buyer’s benefit, provided that Seller does not incur any additional unfunded cost in doing so and that such use is consistent with applicable law.

ARTICLE 3 RESPONSIBILITIES; COSTS

Section 3.1 Site Consultant. The Parties hereby agree that The Sigma Group, Inc. shall be Buyer’s designated consultant for the Landfill (the “Site Consultant”). Any replacement Site Consultant must be qualified as an environmental professional under WDNR regulations and be approved in writing by the Oversight Committee.

Section 3.2 Landfill Operating Responsibilities. From the Effective Date, Buyer will operate the Landfill in accordance with all applicable laws (including, for the avoidance of doubt, the Landfill License and the Closure Plan), permits, industry standards, and other operating requirements, and in accordance with the terms of this Agreement. Buyer’s operational duties with respect to the Landfill shall include, but not necessarily be limited to:

(a) conducting routine oversight of the closure and maintenance activities associated with the Landfill, including through employment of the Site Consultant or other third parties, as may be determined by Buyer in its reasonable discretion;

(b) functioning as the primary contact with the WDNR and any other applicable governmental entities with respect to the Landfill, including coordinating routine inspections and other interactions with governmental entities as may occur in the normal course of Landfill operations;

(c) responding to, and promptly correcting, any actual or alleged deficiencies or actual or alleged violations of laws, permits, or applicable operating standards, whether alleged by a governmental entity or any other third party;

(d) performing all recordkeeping, reporting, monitoring, notification, and data collection activities associated with the Landfill as may be required under laws, permits, or applicable operating standards, including (but not limited to) the preparation and submission of reports and other documentation to the WDNR or other governmental entities; and

(e) ensuring that there remain in place reasonable controls and/or restrictions on public access to the Landfill as required by applicable laws and permits, and commensurate with the Contemplated Improvements or other subsequent changes in use at the Property.

Section 3.3 Landfill Operating Costs.

(a) From the Effective Date, and except as otherwise set forth below, Buyer will be responsible for the ongoing and day-to-day costs associated with the routine inspection, operation, maintenance, and restoration of the surficial features of the Landfill, consistent with the requirements of the Closure Plan, the Landfill License, and any other legal obligations, and to a standard of care that is usual and customary for similar facilities (collectively, the “Landfill Operating Costs”). Without limiting the generality of the foregoing, Landfill Operating Costs shall include:

(i) all costs reasonably incurred by Buyer in the course of retaining, employing, contracting with, or otherwise directing third parties in the course of performance of Buyer’s duties pursuant to this Section 3.3;

(ii) the costs of operating the Landfill Infrastructure, which includes but is not limited to the Methane Control System, the Leachate System and Monitoring Wells, and maintaining the Landfill cap; and

(iii) the costs of conducting routine water quality monitoring.

(b) The Parties hereby acknowledge and agree that the annual Landfill Operating Costs are estimated to be \$167,000 in 2018 and is expected to increase at a rate of 2.5% per year (the “Annual Escalated Cost”). Buyer agrees that it will pay the actual annual Landfill Operating Costs in full. The actual Landfill Operating Costs paid by Buyer during the term of the TIF District shall be a Purchase Price Offset. Seller shall have the same Access to Books and Records set forth in Section 4.7 for Landfill Operating Costs that it does for the LIC Fund.

(c) If any actual Landfill Operating Costs exceed the Annual Escalated Cost in any given year by 120% or more, then Buyer shall have the right to use funds from the LIC Fund to cover the difference between the Annual Escalated Cost and the actual Landfill Operating Costs.

Section 3.4 Landfill Infrastructure Responsibilities. The Parties agree that, in conjunction with the Contemplated Improvements, Buyer will construct and operate a new Methane Control System at the Landfill, as set forth with particularity in the Pre-Design Report, at an estimated construction cost of \$3,700,000 as of the Effective Date.

ARTICLE 4 FUNDING

Section 4.1 Landfill Infrastructure Capital (“LIC”) Fund. Buyer and Seller shall create and contribute to a fund to be used to maintain, improve and periodically replace the Landfill Infrastructure (“LIC Fund”), pursuant to the terms and conditions of this Article 4. The named holder of the LIC Fund accounts shall be BPC County Land, LLC, which shall have the right and obligation to administer the LIC Fund subject to the terms and conditions of this Article 4.

Section 4.2 BPC Association Contributions. As of the Effective Date, Buyer shall have caused to be created an association (the “BPC Association”) that shall have the authority to assess and collect funds from third parties who own parcels of land and/or operate businesses that are within the BPC Project Area. As of the Effective Date, Buyer shall have entered into a BPC Association Contribution Agreement with the BPC Association in which the BPC Association shall have agreed to contribute funds to the LIC Fund. Funds received from the BPC Association for this purpose shall be deposited into the LIC Fund no less frequently than annually. The initial annual amounts due from the BPC Association are set forth on **Exhibit D**, hereto.

Section 4.3 LIC Fund Governance. On or after the Effective Date, the Parties shall cause to be created a committee that shall have the authority to oversee the administration and investment of the LIC Funds (the “Oversight Committee”). The Parties shall have the discretion to determine how the Oversight Committee is established and how it operates, provided that:

(a) except as otherwise set forth in Section 6.1, a representative of Buyer, Seller (which shall be selected by and be a representative of the Milwaukee County Office of the Comptroller), and the BPC Association with a business operating in the BPC Project Area, shall each have a seat on the Oversight Committee; each party may, in its absolute discretion, designate its representative, and no party shall have veto power over another party’s choice of representative;

(b) The Oversight Committee shall elect a chairperson, whose duties shall include calling regular meetings, ensuring that committee books and records are properly kept, and otherwise conducting the regular business of the committee;

(c) the Oversight Committee shall, on at least an annual basis, set a projected budget that accounts for then-current and reasonably foreseeable Landfill Operating Costs; costs associated with Landfill Capital Projects over a twenty (20) year cycle representing the presumed useful life of the Landfill Infrastructure; and other costs associated with the operation, maintenance, upgrade, or replacement of the Landfill Infrastructure (collectively, “Annual Landfill Lifecycle Cost”);

(d) the Oversight Committee shall have the power to approve Landfill Capital Projects, as further set forth in Section 4.6;

(e) the Oversight Committee shall, on at least an annual basis, determine the amounts of the annual contribution to be made by the BPC Association to the LIC Fund in the forthcoming year, pursuant to the BPC Association Contribution Agreement;

(f) the Oversight Committee shall, on at least an annual basis, report to Buyer and Seller the annual Landfill Operating Costs actually incurred and the status of the Purchase Price Offset (until fully offset), against the purchase price by no later than February 1 each year; and

(g) the Oversight Committee shall establish a policy that governs the investment decisions made by the committee with respect to the LIC Fund.

Section 4.4 Fund Contributions by the Parties. After the Effective Date, the Parties shall make the following contributions to the LIC Fund on an annual basis, beginning on February 1, 2019, and every February 1 thereafter:

(a) Seller shall contribute annually, to the extent that funds have been received from real and personal property taxes paid (and if in arrears, once received), within the current TIF District:

(i) until the TIF District is closed, an amount equal to the tax share collected by the County for real and personal property located within the current TIF District; and

(ii) including such insurance premiums and deductibles as necessary to comply with the requirements of Section 5.8; and

(iii) when the TIF District closes and thereafter an amount equal to 30% of the taxes received by the County for real and personal property within the former TIF District, and in no event shall the County's annual contribution exceed 200% of the Annual Landfill Lifecycle Cost.

(b) Buyer shall contribute funds as determined by the Oversight Committee, adjusted in accordance with Section 4.2, to fund the anticipated replacement cycle of the Landfill Infrastructure, as determined by the Oversight Committee.

Section 4.5 Use of Funds. Except as set forth in Section 3.3(c) above, LIC Funds may be used only as follows:

(a) for replacement or improvement of the Methane Control System, when such replacement or improvement is required in the opinion of the Site Consultant; or

(b) for any other Landfill Infrastructure costs or improvements:

(i) that WDNR or any other governmental agency directs to be implemented; or

(ii) that the Site Consultant in its reasonable discretion (x) deems to be necessary to comply with applicable laws or to protect human health, the environment, or natural resources or (y) determines would realize substantial operational cost savings by virtue of newer or more efficient technologies, or otherwise.

Each of the costs and improvements set forth in Section 4.5(a) and Section 4.5(b) above shall be deemed a "Landfill Capital Project."

Section 4.6 Review and Approval of Landfill Capital Projects. The following procedures shall govern the review and approval of Landfill Capital Projects, in addition to any other procedures as the Oversight Committee may implement from time to time:

(a) Prior to the implementation of any Landfill Capital Project, the Site Consultant shall prepare a detailed scope of work and accompanying budget for each such project (collectively, the "Project Scope") and submit it to the Oversight Committee for review and approval.

(b) Each final Project Scope shall be accompanied by an opinion from the Site Consultant (and/or, as appropriate, the opinion of other professional engineers) that the Project Scope is appropriate to protect the health and safety of individuals on or adjacent to the Property.

(c) The Site Consultant shall coordinate with WDNR or other governmental authorities to determine whether approval by those authorities is needed prior to project implementation and, if so, to coordinate the approval process.

(d) Upon receipt of a draft Project Scope, the Oversight Committee shall determine whether the Landfill Capital Project can reasonably be implemented in the timeline proposed in light of the projected cost of the project and the then-current budget for the LIC Fund. Depending upon the Oversight Committee's determination, the Committee shall, as appropriate:

(i) approve the Project Scope as proposed, or with modifications;

(ii) approve and agree to borrow against future revenues to fund the Project Scope; or

(iii) defer and raise the revenues needed to fund the proposed Project Scope.

Section 4.7 Access to Books and Records. Upon reasonable notice and showing of reasonable need, Seller shall have the right to audit, access and copy any non-privileged books, records, data, and other documents related to the LIC Fund that have been prepared by or on behalf of, maintained, or otherwise in the possession of Buyer ("LIC Fund Records"). Such records shall include, but not be limited to, accounting records, written policies and procedures, contract or subcontract files, paid vouchers and other reimbursements supported by invoices, ledgers,

canceled checks, deposit slips, bank statements, journals, estimates and worksheets, contract amendments and change order files, back-charge logs and supporting documentation, insurance documents, payroll documents, timesheets, memoranda, and correspondence. This section is solely and exclusively limited to Landfill Operating Costs and Landfill Capital Project Costs.

Section 4.8 Dissolution of LIC Fund. If there are any remaining proceeds in the LIC Fund after February 1, 2078, then:

(a) The Site Consultant (or its successor or assign) shall provide its opinion as to whether there is a continuing or foreseeable need to operate or replace the Landfill Infrastructure in accordance with all applicable laws, regulations, or other binding requirements beyond the year 2080.

(i) If, pursuant to Section 4.8, the Site Consultant determines that there is a continuing requirement to operate or replace the Landfill Infrastructure after 2080, then both Seller and Buyer shall continue to make their respective contributions set forth in Section 4.4(b) from February 1, 2079, and continuing annually until such time as the Consultant determines that operation or replacement of the Landfill Infrastructure is no longer required.

(ii) If the Site Consultant determines that operations can cease, then the Site Consultant's opinion (and any additional documentation, as necessary) shall be submitted to WDNR for its concurrence, along with a notice that the Parties intend to dissolve the LIC Fund. If WDNR concurs with the proposed dissolution, or does not object to it within 180 days of the initial submission, then the Parties shall cause the LIC Fund to be dissolved. If WDNR objects or otherwise does not concur, then the LIC Fund shall not be dissolved until such time as the Site Consultant and WDNR agree that there is no longer a continuing or foreseeable need to operate or replace the Landfill Infrastructure.

(b) Any remaining LIC Funds shall be distributed, after all liabilities and expenses are fully satisfied, as follows and no further contribution shall be required by the County: 70% to County and 30% to Buyer (if the LIC Fund closes on, or before, 2080); 80% to County and 20% to Buyer (if the LIC Fund closes between 2081 and 2090); 90% to County and 10% to Buyer (if the LIC Fund closes between 2091 and 2100); and 100% to County (if the LIC Fund closes after 2100).

ARTICLE 5 INDEMNIFICATION; INSURANCE

Section 5.1 Buyer's Release, Indemnification and Hold Harmless. Except for matters covered in Section 5.2, and for matters arising from the failure of the Seller to satisfy its obligations under this Agreement, Buyer forever releases and agrees to defend, indemnify and hold harmless Seller, its directors, officers, elected officials, employees, agents, contractors, subcontractors, licensees, invitees, successors and assigns ("Buyer Indemnified Parties"), from and against any and all Losses incurred in connection with, arising out of, or in any way related to any of the following indemnified acts (each a "Buyer Indemnified Loss"):

(a) The construction and maintenance of the Property and/or any improvements undertaken by Buyer at the Property (including the areas in the Village of Greendale) by the Buyer, Buyer's Affiliates¹, and/or Buyer's third-party assigns, vendors, contractors, or subcontractors during the term of the Sports Park Maintenance and Operations Services Agreement ("Services Agreement"), which commenced on or about September 24, 2012, including damage caused by Buyer, Buyer's Affiliates, and/or Buyer's third-party assigns, vendors, contractors, or subcontractors of the Buyer to the Landfill Infrastructure, any release of methane gas from the Landfill resulting from construction and maintenance activities at the Property (including the areas in the Village of Greendale) by Buyer, Buyer's Affiliates, and/or Buyer's third-party assigns, vendors, contractors, or subcontractors; and any Environmental Contamination resulting therefrom;

(b) The construction and maintenance of any Contemplated Improvements, including damage caused to Landfill Infrastructure by Buyer, Buyer's Affiliates, and/or Buyer's any third-party assigns, vendors, contractors, or subcontractors; Buyer's, Buyer's Affiliates, and/or Buyer's any third-party assigns, vendors, contractors, or subcontractors construction and maintenance of the Methane Control System, the Leachate System and Monitoring Wells, and the Landfill cap; any release of methane gas or leachate from the Landfill following construction of the Contemplated Improvements; and any Environmental Contamination disturbed or excavated during construction of the Contemplated Improvements or the MCS;

(c) New releases of Environmental Contamination onto the Property after the Effective Date; and

(d) claims relating to managing and properly disposing of materials excavated during the construction of the Contemplated Improvements or the MCS; and

(e) claims resulting from Buyer's, Buyer's Affiliates, and/or Buyer's third-party assigns, vendors, contractors, or subcontractors operation of the Landfill as set forth in Section 3.2.

Section 5.2 Seller's Release, Indemnification and Hold Harmless. Except for matters covered in Section 5.1, and for matters arising from the failure of the Buyer to satisfy its obligations under this Agreement, Seller forever releases and agrees to defend, indemnify and hold harmless Buyer, its directors, officers, employees, agents, contractors, subcontractors, licensees, invitees, successors and assigns ("Seller Indemnified Parties"), from and against any and all Losses incurred in connection with, arising out of, or in any way related to any of the following indemnified acts (each a "Seller Indemnified Loss"):

¹ "Affiliate" shall mean, as to any entity, any person which directly or indirectly controls, is controlled by, or is under common control with, such entity. One person shall be deemed to control another person if the controlling person owns directly or indirectly 50% or more of any class of voting stock or membership interest of the controlled person or possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of the controlled person, whether through ownership of stock or membership interest, by contract or otherwise.

(a) Environmental Contamination at, arising from, or affecting the Landfill or the Property prior to the Buyer's operation of the Property, which commenced on approximately September 24, 2012; and

(b) any violation or alleged violation of Environmental Laws as the result of the act or omission of Seller with respect to the Landfill or the Property prior to the Buyer's operation of the Property, which commenced on approximately September 24, 2012.

Section 5.3 Buyer Contribution Claims. Seller acknowledges and agrees that Buyer retains an absolute right under this Agreement to assert claims against any party other than Seller who may be responsible for having caused or contributed to Environmental Contamination, or who may have disposed of, transported, or otherwise contributed to, waste or Hazardous Substances at, to, or from the Landfill or the Property (a "Buyer Contribution Claim"). If Buyer elects to assert a Buyer Contribution Claim, Seller will reasonably cooperate with Buyer with respect to such claim, including, at Seller's option, the assignment of Seller's rights for contribution against any third party. Seller may require, as a condition of Seller's assignment of its rights to any Buyer Contribution Claim, that Buyer defend and hold Seller harmless against, and reimburse Seller for any damages or losses incurred as a result of any counterclaims or other claims related to any Buyer Contribution Claim.

Section 5.4 Limits on Indemnification. Except as otherwise set forth in this Article 5, nothing in this Agreement is intended to, or does, create an obligation by either Party to indemnify the other Party for any requirement to comply with an order or directive of the State of Wisconsin or the United States relating to Environmental Laws. Notwithstanding the foregoing, the Parties agree to reasonably cooperate with one another in complying with any such order or directive.

Section 5.5 Procedures for Indemnification.

(a) A Party may invoke its indemnification rights under this Article 5 by providing written notice to the other Party of the event or circumstance giving rise to the indemnification claim within thirty (30) days from the occurrence thereof, or if later, the date upon which the indemnitee Party becomes aware (or should have become aware, but for a lack of reasonably thorough due diligence or investigation) of the existence of such claim. The notice shall include a request for indemnification and specify in reasonable detail the basis upon which indemnification is sought and, to the extent then ascertainable, the amount and nature of the asserted Losses. Notwithstanding the foregoing, the failure of the indemnitee to provide notice within the time period specified in this Section 5.5(a) shall not prejudice the right of the indemnitee to indemnification unless, and then only to the extent that, the indemnitor is substantially prejudiced by the indemnitee's failure to provide timely notice.

(b) If an indemnification claim is a claim against either Party for Losses incurred or allegedly incurred by a third party or parties (a "Third-Party Claim"), then the procedures set forth in Section 5.6 shall apply.

(c) If the indemnification claim is not a Third-Party Claim, the indemnitor shall have thirty (30) days to object to such claim by delivery of written notice of such objection to the indemnitee specifying in reasonable detail the basis for such objection. Failure to timely so object

shall constitute a final and binding acceptance of the indemnification claim by indemnitor, and the claim shall be paid in accordance with Section 5.5(e).

(d) If an objection is timely interposed by the indemnitor, then the Parties shall proceed pursuant to Section 6.3 of this Agreement.

(e) If it is finally determined that a claim for indemnification is binding upon the indemnitor, then the claim shall be due and payable by the indemnitor by wire transfer of funds within ten (10) business days of the date that such amount is finally determined, subject to the limitations set forth in Section 5.7.

Section 5.6 Third-Party Indemnification Claims.

(a) In the event of a Third-Party Claim, the indemnitor shall have forty-five (45) days (or such lesser time as may be required to comply with statutory response requirements for certain litigation claims) from receipt of the tendered Third-Party Claim to notify the indemnitee (i) whether the indemnitor disputes its liability to indemnitee with respect to such claim and (ii) notwithstanding any such dispute, whether indemnitor will, at its sole cost and expense, defend the indemnitee against such claim. If the indemnitor both disputes its liability and declines to defend the claim, then the procedures set forth in Section 6.3 shall apply.

(b) In the event that the indemnitor timely notifies the indemnitee that it will defend the indemnitee against a Third-Party Claim, then the indemnitor shall proceed with the defense by appropriate proceedings. The indemnitee shall have the right, but not the obligation, to participate in such proceedings with counsel of indemnitee's own choice, but the indemnitor shall not, so long as it diligently conducts such defense, be liable to the indemnitee under this Section 5.6 for any fees of indemnitee's counsel or any other expenses with respect to the defense of such Third-Party Claim that have been incurred by the indemnitee after the assumption of the defense by the indemnitor.

(c) The Parties shall cooperate with each other in all reasonable respects in connection with the defense of any Third-Party Claim, including making available records relating to such claim.

(d) With respect to any Third-Party Claim subject to indemnification under this Section 5.6, the Parties agree to cooperate in such a manner so as to preserve in full (and to the extent possible under law) the confidential nature of any information deemed by the Parties to be confidential, as well as the applicable attorney-client and work product privileges.

(e) If an indemnitor assumes the defense of a Third-Party Claim under this Section 5.6, then it shall not settle or compromise such claim, or consent to the entry of judgment thereupon, without the express written consent of the indemnitee, which consent shall not be unreasonably withheld, conditioned, or delayed. To the extent reasonably possible, the Parties shall attempt to provide in any settlement of a Third-Party Claim that both Parties shall each be released from all liability in respect of such claim (excluding any liability for claim defense or other costs that have not been invoiced).

Section 5.7 Duty to Mitigate Losses. Both Parties shall take all reasonable steps to mitigate any Loss upon becoming aware of any event or circumstance that would be reasonably expected to, or does, give rise to a claim for indemnification; provided, however, that a Party's failure to mitigate Losses shall not prejudice the right of that Party to indemnification unless, and then only to the extent that, the indemnitor is substantially prejudiced by the indemnitee's failure to mitigate Losses.

Section 5.8 Insurance. Buyer agrees to maintain policies of insurance to cover costs as may arise from claims for damages to property of and/or claims which may arise out of result from Buyer's activities, by whomever performed, in such coverage amounts as required and approved by the County. Buyer shall cause its consultants, contractors and subcontractors to have and maintain in connection with any Remedial Work or Contemplated Improvements being performed at the Property one more insurance policies with at least the following coverage and limits:

<u>Type of Coverage</u>	<u>Minimum Limits</u>
Wisconsin Workers' Compensation and Employers Liability & Disease	Statutory / Waiver of Subrogation \$100,000/\$500,000/100,000
General Liability Bodily Injury and Property Damage to include: Personal Injury, Fire Legal, Liquor, Products & Completed Operations	\$1,000,000 Per Occurrence \$2,000,000 General Aggregate
Umbrella Liability (Over General Liability, Employer's Liability, and Automobile Liability)	\$5,000,000 General Aggregate
Automobile Liability – Bodily Injury & Property Damage All Autos Uninsured Motorist	\$1,000,000 per Accident Per Wisconsin Requirements
<u>Environmental Legal Liability</u> (Claims made policy)	\$5,000,000 Per Occurrence \$5,000,000 General Aggregate
Contractor's Pollution Liability (Occurrence policy)	\$5,000,000 Per Occurrence \$5,000,000 General Aggregate
Professional Liability	\$1,000,000 Per Occurrence \$1,000,000 General Aggregate

Milwaukee County will be named as an additional insured for the Environmental Legal Liability, the Contractor's Pollution Liability, General Liability, Employer's Liability, Automobile Liability and Umbrella Liability. A waiver of subrogation for the Environmental Legal Liability, the Contractor's Pollution Liability, General Liability, Employer's Liability, Automobile Liability, Umbrella Liability, and Workers' Compensation by endorsement in favor of Milwaukee County

shall be provided. A thirty (30) day written notice of cancellation or non-renewal shall be afforded to Milwaukee County.

The Buyer is required to evidence Contractor's Pollution Liability insurance for any and all site development, construction and improvement activities, including the construction of the new Methane Control System, operation and maintenance of the Leachate System, Monitoring Wells, and Landfill cap, related to any work done at, or in relation to, the Property and Landfill. Contractor's Pollution Liability shall be obtained on an occurrence based policy to include 10-year completed operations coverage. The definition of pollution on the Contractor's Pollution Liability policy shall include, and not be limited to, methane gas and leachate. The concussive / explosive effects of pollutants and/or methane gas shall be a covered event. The Buyer and all contractors and all subcontractors shall be Named Insureds on the Contractor's Pollution Liability policy.

Upon substantial completion of the Project, Buyer agrees to contribute one half of the premium cost, up to \$150,000, of an Environmental Legal Liability policy. The Seller shall be responsible for the remainder of any premium cost of the Environmental Legal Liability policy. The Environmental Legal Liability policy shall only be required as long as the Seller contributes its share of the premium.

Disclosure must be made of any non-standard or restrictive additional insured endorsement, and any use of non-standard or restrictive additional insured endorsement will not be acceptable. A certificate indicating the above coverages shall be submitted for review and approval by the County for each successive period of coverage for the duration of this Agreement. Coverages shall be placed with an insurance company approved by the State of Wisconsin and rated "A" per Best's Key Rating Guide.

Additional information as to policy form, retroactive date, discovery provisions and applicable retentions shall be submitted to County, if requested, to obtain approval of insurance requirements. Any deviations, including use of purchasing groups, risk retention groups, etc., or requests for waiver from the above requirements shall be submitted in writing to the County for approval prior to the commencement of activities under this Agreement.

The insurance requirements contained within this Agreement are subject to periodic review and adjustment by the County Risk Manager.

ARTICLE 6 REMEDIES

Section 6.1 Seller's Remedies for Buyer's Environmental Default. In the event that Seller alleges that Buyer has materially defaulted on its obligations pursuant to this Agreement (a "Buyer Default"), then the provisions of this Section 6.1(a) through Section 6.1(c) shall apply, except that if WDNR or any other applicable government agency formally determines in writing that Buyer or the Landfill is in violation of applicable Environmental Laws ("Buyer Environmental Default") and Seller further alleges that the Buyer Environmental Default is not timely being corrected or cured, or Seller alleges that a material Buyer Environmental Default is imminent and foreseeable and is not timely being corrected or cured, the provisions of this Section 6.1(a) through Section 6.1(e) shall apply:

(a) Seller shall notify Buyer in writing that Seller is invoking the Buyer Default provisions of this Agreement. The notice shall include all supporting documentation that forms the basis for Seller's claim.

(b) Upon Buyer's receipt of the notice set forth in Section 6.1(a), Buyer shall be given a reasonable amount of time to contest the alleged Buyer Default or to cure, or initiate and diligently work to cure, the alleged Buyer Default (the "Cure Period"). During the Cure Period, Seller shall work cooperatively with Buyer as may be necessary to effect a cure or remedial action, including meetings or correspondence with WDNR, as appropriate.

(c) If, after the expiration of the Cure Period, Seller still asserts that Buyer is in material default, then Seller shall institute formal dispute resolution proceedings under this section.

(d) If the arbitrating neutral determines pursuant to Section 6.1(c) that an ongoing and material Buyer Environmental Default exists, then Seller shall have the right to appoint, in its absolute discretion, an additional representative on the Oversight Committee, which shall be selected by and be a representative of the Milwaukee County Office of the Comptroller. Further, beginning on the date upon which the arbitrating neutral determines that a Buyer Environmental Default exists, Buyer's Oversight Committee representative shall remain on the committee, but in a non-voting capacity only.

(e) At any time thereafter, if WDNR issues a written determination that the Landfill is operating in compliance with the Landfill License and Closure Plan or Buyer otherwise evidences to the reasonable satisfaction of the arbitrating neutral that the Buyer Environmental Default has been adequately cured, then Buyer shall regain its voting seat on the Oversight Committee, and the Seller representative appointed pursuant to Section 6.1(d) shall cease to serve on the Committee.

Section 6.2 Buyer's Remedies for Seller Default. In the event that Buyer alleges that Seller has materially defaulted on its obligations pursuant to this Agreement (a "Seller Default"), then the following provisions shall apply:

(a) Buyer shall promptly notify Seller in writing that Buyer is invoking the Seller Default provisions of this Agreement. The notice shall include all supporting documentation that forms the basis for Buyer's claim.

(b) Upon Seller's receipt of the notice set forth in Section 6.2(a), Seller shall be given a reasonable amount of time to contest the alleged Seller Default or to cure, or initiate and diligently work to cure, the alleged Seller Default (the "Cure Period"). During the Cure Period, Buyer shall work cooperatively with Seller as may be necessary to effect a cure or remedial action, including meetings or correspondence with WDNR, as appropriate.

(c) If, after the expiration of the Cure Period, Buyer still asserts that Seller is in material default, then Buyer shall institute formal dispute resolution proceedings under this section.

Section 6.3 Dispute Resolution. In the event the Parties disagree regarding any Indemnified Losses, a Buyer Default, Buyer Environmental Default, Seller Default or regarding any other aspect of the implementation of this Agreement:

(a) The Parties agree to consult with one another in good faith and attempt to reach a mutually satisfactory resolution of such dispute prior to the commencement of litigation (the “Consultation Period”); provided, however, that either party may declare the Consultation Period as terminated by providing five (5) days prior written notice and may submit the dispute pursuant to Section 6.3(b) upon expiration of said five (5) day period.

(b) In the event that a dispute cannot be settled during the Consultation Period, then it shall be finally resolved by arbitration administered by JAMS (or a similar third-party arbitration neutral) in accordance with JAMS’ then-current Comprehensive Arbitration Rules and any other terms such as the Parties may agree upon prior to the arbitration; provided, however, that any arbitration conducted pursuant to this Section 6.3(b) shall be subject to so-called “baseball” rules in that the arbitrating neutral shall not have the discretion to select or award any relief other than that proposed by one of the Parties. In no event shall the Seller be required to take back or repurchase the Property.

(c) Each Party shall be entitled to select counsel of its own choice in any proceeding or action under this Section 6.3, and each Party shall bear its own legal fees and costs, except for in the case of any proceeding regarding any Indemnified Losses, in which case reasonable legal fees and expenses of shall be part of the indemnity contained in this Agreement.

(d) For the avoidance of doubt, the dispute resolution procedures specified in this Article 6 do not prejudice or otherwise affect Buyer’s rights pursuant to Section 5.3 of this Agreement.

ARTICLE 7 RELATIONSHIP OF PARTIES; ASSIGNMENT; SURVIVAL

Section 7.1 Prior Agreements. Seller and Buyer, or Buyer’s affiliate, entered into a Sports Park Maintenance and Operations Services Agreement on or about September 24, 2012 (“Services Agreement”) for the operation of Property owned by Seller. The Services Agreement is hereby mutually terminated and, subject to the Section 5.1(a) of this Agreement, any continuing obligations of the Parties to each other shall be governed solely and exclusively by the terms of the Option to Purchase, the Development Agreement, this Agreement, and any ancillary agreements.

Section 7.2 Continuing Obligations; Survival. This Agreement shall survive the Effective Date and shall be deemed continuing for the benefit of, and binding upon, the Buyer and Seller, and any respective successors and permitted assigns.

Section 7.3 Assignment. Except as otherwise expressly set forth herein, neither Party may assign, transfer, or otherwise encumber this Agreement or its rights and obligations hereunder, in whole or in part, whether voluntarily or by operation of law, to any third party without prior written consent of the other Party, such consent not to be unreasonably withheld, and any attempted

assignment without such consent shall be void and without legal effect. Notwithstanding the foregoing, Buyer shall have the right to collaterally assign this Agreement to lenders.

Section 7.4 No Agency or Partnership. The Parties hereto agree that this Agreement in no way shall be deemed to create a partnership or joint venture between the Parties for any purpose. This Agreement does not make or appoint, and nothing contained in this Agreement shall be construed to make or appoint, each Party as an agent of the other. Neither Party shall act or represent itself as an agent of the either Party, and shall not bind or obligate the other Party in any manner.

Section 7.5 Notices. All notices, requests, demands, and other communications under this Agreement shall be given in writing and shall be delivered in person; or by registered or certified mail, return receipt requested and postage prepaid; or by private overnight mail courier service, and addressed as follows:

(a) If to Buyer:

BPC County Land, LLC
c/o Michael Zimmerman
510 West Kilbourn Avenue, 2nd Floor
Milwaukee, WI 53202

With a copy to:

Bruce A. Keyes
Foley & Lardner LLP
777 East Wisconsin Avenue
Milwaukee, WI 53202-5306

(b) If to Seller:

Department of Administrative Services
901 North 9th Street, Room 308
Milwaukee, WI 53233

With copy to:

Office of Corporation Counsel
901 North 9th Street, Room 303
Milwaukee, WI 53233

ARTICLE 8 MISCELLANEOUS PROVISIONS

Section 8.1 Governing Law. This Agreement shall be governed by the laws of the State of Wisconsin, without regard to the choice-of-law provisions of any other state.

Section 8.2 Injunctive Relief and Specific Performance. Each Party hereby acknowledges and agrees that each Party hereto will be irreparably damaged in the event that any of the provisions of this Agreement are not performed by the Parties in accordance with their specific terms, or are otherwise breached. Accordingly, it is agreed that each of Seller and Buyer shall be entitled to an injunction or specific performance to prevent or cure breaches of this Agreement, and to specific enforcement of this Agreement and its terms and provisions in any action instituted in any court of the United States or any state having subject matter jurisdiction.

Section 8.3 Changes and Modifications. This Agreement constitutes the entire agreement between the Parties with respect to the matters contemplated herein. No waiver, amendment, release or modification of this Agreement or the obligations herein shall excuse the either from the obligations hereunder, and nor shall the same be established by conduct, custom or course of dealing, but only by an instrument in writing duly executed by both Parties.

Section 8.4 Severability. If any court of competent jurisdiction determines that any provision of this Agreement is invalid, illegal, or excessively broad, whether on its face or as-applied, then such provisions shall, to the full extent possible, be construed such that the remaining provisions of this Agreement shall remain in full force and effect.

Section 8.5 Authority to Enter Into Agreement. Each person signing this Agreement represents and warrants that he or she has the full power and authority to enter into and be bound by this Agreement.

Section 8.6 Headings and Subheadings. Headings and subheadings used herein are solely for the convenience of the reader and have no independent legal effect upon the meaning or interpretation of this Agreement.

Section 8.7 Construction of Agreement. Neither Party to this Agreement shall be considered the drafter. Rather, this Agreement has been reviewed, negotiated, and accepted by the Parties, and shall be construed and interpreted according to the ordinary meaning of the words herein, so as to fairly accomplish the purposes and intentions of the Parties.

Section 8.8 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which taken together shall constitute but one and the same instrument.

[Remainder of this page intentionally left blank]

[Signature page follows]

[NOTARY PAGES]

IN WITNESS WHEREOF, Buyer and Seller have caused this Agreement to be executed as of the day, month and year first above written.

BUYER:

BPC COUNTY LAND LLC

By _____

Name _____

Its _____

SELLER:

MILWAUKEE COUNTY, WISCONSIN

By _____

Name _____

Its _____

EXHIBIT A

DESCRIPTION OF PROPERTY

EXHIBIT B
PRE-DESIGN REPORT



Environment

Prepared for:
Milwaukee County

Prepared by:
AECOM
Sheboygan, WI
60305147
March 2014

Franklin Landfill Infrastructure Pre-Design Report

Milwaukee County, Wisconsin
Project No. V022-13803



Prepared by:

AECOM
4135 Technology Parkway
Sheboygan, WI 53083

MAY 2014

Contents

1.0	Project Background	1-1
1.1	Introduction	1-1
1.2	Sports Complex Development	1-1
1.3	Landfill Gas System.....	1-2
2.0	Existing System Assessment.....	2-1
2.1	Existing Landfill Gas System Operation.....	2-1
2.1.1	Blower	2-1
2.1.2	Flare	2-1
2.1.3	Header.....	2-2
2.1.4	Gas Wells	2-2
2.1.5	Condensate Collection.....	2-3
2.1.6	Gas Probes	2-3
2.1.7	Compatibility with The Rock	2-3
3.0	Storm Water Assessment	3-1
3.1	Current Storm Water System	3-1
4.0	Conceptual Design Alternatives.....	4-1
4.1	Introduction	4-1
4.2	Passive Gas Migration Control System	4-1
4.3	Landfill Gas System Modifications for The Rock	4-2
4.4	Complete Landfill Gas System Reconstruction	4-2
5.0	Interim Modification Design.....	5-1
5.1	Proposed Improvements to The Rock	5-1
5.2	Description of Interim Improvements	5-1
5.3	Estimated Construction Cost.....	5-2
6.0	Preliminary Design of Selected Alternative	6-1
6.1	Overview of Alternatives.....	6-1
6.2	Basis of Design	6-2
6.3	Estimated Construction Cost.....	6-3
6.4	Summary	6-3

Figures

Figure 1 Proposed Interim Modifications Site Plan

Figure 2 Proposed Long-Term Site Plan

Tables

1	LFG System Interim Improvements (Modifications for “The Rock”)* Budget Cost Estimate
2A	LFG System LFG System Long-Term Improvements* Budget Cost Estimate
2B	LFG System Long-Term Improvements Required Due to the Rock Development* Budget Cost Estimate

CERTIFICATION

I, Donald F. Pirrung, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in Chapters NR 500 to 536 Wis. Adm. Code.

Donald F. Pirrung

Donald F. Pirrung, P.E.
Registration No. E-16736
AECOM Technical Services, Inc.



AECOM
4135 Technology Parkway
Sheboygan, WI 53083

Project No. 60305147

1.0 Project Background

1.1 Introduction

Franklin Landfill, Wisconsin Department of Natural Resources (WDNR) License No. 881, located in Franklin, Wisconsin, was closed in November 1981. Milwaukee County owns the landfill and monitors landfill gas, groundwater quality, surface water quality, and leachate levels at the site.

In response to a possible release to groundwater, the WDNR issued a Draft Notice of Intent on May 2, 1992, to modify the plan approval for the landfill. The Draft Notice of Intent requested further investigation of the site and a review of additional engineering modifications to the site, if necessary, to limit impacts of the landfill to the environment. A Work Plan was submitted on February 21, 1994, to the WDNR for conducting the field program at the landfill. The "Site Investigation Report," dated May 1995, prepared by Camp Dresser & McKee (CDM), presents the results of the investigation (CDM, 1998 Annual Report, Milwaukee County Landfill, February 1999).

During the site investigation, methane concentrations exceeding the lower explosive limit were recorded in gas monitoring probes located in the median of South 76th Street, adjacent to the east perimeter of the landfill. To mitigate landfill gas migration to the east, Milwaukee County implemented design and construction of an interim active gas extraction and flare system on the east perimeter of the landfill. In March 1995, the east perimeter gas extraction system became operational and has been effective at mitigating gas migration to the east of the site (CDM, February 1999). The WDNR approved the monitoring system for the landfill in a letter dated May 4, 1994.

In 1997, a Remedial Action Plan to mitigate gas migration and groundwater impacts was prepared by CDM and approved by WDNR. This remedial action plan included a new final cover system over the Ace Scavenger and O'Malley areas, perimeter gas extraction on the west side, relocation of the blower/ flare system, a header pipe connecting the east and west extraction systems, and surface water control. Construction of the remedial action plan was carried out in 1997 and 1998.

Milwaukee County retains an operation and maintenance contractor to perform services at Franklin Landfill. An annual report is prepared summarizing the events and trends for the groundwater, leachate levels, surface water, and landfill gas monitoring. AECOM was involved with the O&M services from 1999 through 2010. SCS Consultants has been providing the O&M services since 2011.

The Franklin Landfill is generally described as consisting of the East Landfill and West Landfill. The general dividing line between the two landfills is the access road from Crystal Ridge Drive to the Chalet building.

1.2 Sports Complex Development

In 2012, a sports complex known as "The Rock" was built on the East Landfill as part of Phase 1 of the sports complex development. Phase 2 of The Rock is proposed for construction in 2014 to include the West Landfill area. A third area known as the Wisconsin DOT Landfill is located south of Crystal Ridge Drive and north of Loomis Road. The Rock developer is considering purchase of the DOT landfill to develop the property into retail and apartment space. Crystal Ridge Drive may also become the responsibility of the developer and the road layout may change. The developer's plans for these areas directly affect the County's landfill gas system as well as the need to expand the gas

collection system to the area along Crystal Ridge Drive for the County's East Landfill. The developer has provided the County with a master plan for The Rock and it contains two potential layouts of the development. Those sports complex layouts are referred to as Options 5B and 5C, dated July 30, 2013.

1.3 Landfill Gas System

The existing landfill gas management system consists of 26 gas extraction wells, a blower, a flare, approximately 5,600 feet of header, 18 gas monitoring probes, and 6 condensate tanks.

The blower/flare system is operated on a timer. The blower is turned on and continues to run as long as there is sufficient methane present to maintain a flame with the flare. An ultraviolet sensor is used to detect the flame. When the flame goes out due to insufficient methane, the blower shuts down until a down timer reactivates the blower. The down timer is adjustable and usually set for 8 to 12 hours of down time. A dialer notifies the County's O&M Contractor when the blower does not turn on as programmed.

The 18 gas monitoring probes are sampled quarterly to determine if landfill gas is migrating off-site to nearby homes. Almost without exception, the gas system has successfully controlled landfill gas from migrating off-site for Franklin Landfill. Gas probe GP-10, located in the Wisconsin DOT Landfill, is the one exception which consistently has methane levels at about 50 percent by volume. There is no landfill gas extraction system serving the Wisconsin DOT Landfill. Because there are no buildings on that property, the presence of methane has not been a concern.

2.0 Existing System Assessment

2.1 Existing Landfill Gas System Operation

The existing landfill gas system operation has been an active system. A timer is used to start the blower. Additional instrumentation is provided to control the blower/flare operation. The adjustable timer is used to control how long the blower is off before the operation is initiated again. The timer allows for the landfill gas to be generated to sustain the flare flame. The timer is usually set for about 10 hours.

The gas extraction system is a perimeter landfill gas migration control system to restrict gas from migrating off-site to nearby homes. The landfill does not have interior wells because gas recovery does not appear to be cost-effective.

In general, the gas system has successfully controlled landfill gas from migrating off-site. The gas system is getting older and landfill settlement has affected the gas collection system by creating low spots in the collection header resulting in condensate accumulation which restricts gas flow. To alleviate this recurring problem, some changes to the landfill gas management system will be necessary to reduce or eliminate re-occurrence of these problems.

2.1.1 Blower

The blower has performed well with no major breakdowns. The settlement of the gas header has created more head loss in the gas piping system which results in less available vacuum available at the far ends of the piping network. Wisconsin Administrative Code Chapter NR 504.08(2)(j) requires a minimum vacuum of 10 inches water column in the header at the farthest well from the blower. The existing blower currently has capacity to provide a fraction of 1 inch at the farthest well, which directly limits the zone of influence at these wells, which can result in methane gas migrating off-site. In this case, the well cannot pull landfill gas from enough of the waste in the vicinity to be effective. Additional vacuum capacity is recommended to meet the WDNR code.

Commercial development of the former Wisconsin DOT Landfill area, as currently proposed, will require the County to expand the landfill gas system along Crystal Ridge Drive to control landfill gas migration on to that property from the East Landfill. These wells would be installed to prevent migration of landfill gas from the East Landfill on to the former Wisconsin DOT Landfill property, but would not alleviate gas production resulting from waste within that property. These additional wells will require the blower to have increased flow capacity.

2.1.2 Flare

The flare's capacity will be evaluated to determine if the additional gas wells will require the flare size to be increased. In general, flares have a relatively large range of operating flow rates.

The blower/flare control panel has functioned well over the years. Some electrical and instrumentation components have been replaced, but the control system has worked well. New control systems have similar features as the existing system, so technology for this system has not changed appreciably.

The Rock developer had initially shown interest in the County relocating or eliminating the blower/flare station because it could be detrimental to the sports activity due to noise or the flame. These matters were discussed with the developer, and the County could operate the blower/flare system using the existing control panel to run the blower/flare during periods when the sports complex is not in use such as during the night time and early morning hours.

This approach seems reasonable to the developer. Some aesthetic improvements to the blower/flare enclosure could be considered using landscaping and a different fence.

Relocation of the blower/flare station is not recommended because the current location provided approximately equal distances from the east and west header networks which is ideal for operation and to minimize header pipe friction loss. Locating the blower/flare station on the north side of the County property and north of the ski chalet would require an extensive header network which would be expensive to construct and would not be cost-effective.

2.1.3 Header

The header network is extensive and is about 5,600 feet long. Landfill settlement continues to affect the header slope which generally has been constructed at about 3 percent. The header for the West Landfill was constructed before the final cover was built. The cover consists of a grading layer, soil fill, a clay layer, a sand layer, rooting zone, and topsoil which can total about 4.5 feet or more. Based on past header repairs, the actual cover thickness is about 8 feet for the West Landfill.

Differential settlement of the header results in low points in the pipe, which accumulates condensate, resulting in more pipe friction loss, less flow capacity in the header, and less vacuum available to the wells.

Where possible, the replacement header should be designed with more slope by placing the header within the cover rather than below the cover as currently constructed. This will only be possible on an overall header replacement program where the header start and end points are not limited by existing pipe conditions.

Some header access points are provided in the header along Crystal Ridge Drive to allow condensate to be removed by vacuum truck as needed to restore the flow and vacuum capacity in this segment of the header. These access points were installed to eliminate the need to relay this stretch of header which is in close proximity to We Energies' buried electrical cable which services a large metropolitan area.

The addition of wells along Crystal Ridge Drive will require a new 12-inch diameter header. The current header is 8-inch diameter HDPE pipe.

2.1.4 Gas Wells

The 26 vertical gas extraction wells continue in service. The gas wells have functioned as designed. No wells have been added or replaced. Liquid levels in the gas wells have not been an issue. Leachate level measurements over the years have shown that most of the gas wells have less than 2 feet of liquid in them. The screened interval for gas collection is about 15 feet. At times, a well or two has had 7 or 8 feet of liquid in it, but there is ample slotted pipe remaining above the liquid level for gas extraction. The gas wells have a LFG Specialties well head which provides a means to check well temperature and to connect sampling equipment to check for gas quality. Some of the

connections on these well heads have been replaced over the years, and the rest may soon reach the limits of their expected life. The well heads are located in concrete vaults which have a manhole cover for access. Monitoring of the well heads is performed from above the vault and without entry into the vault. The vaults have worked well by keeping the public from tampering with the well heads, by being more aesthetically pleasing than an above ground well head, and by providing a safer, contained system.

2.1.5 Condensate Collection

The six condensate tanks are pumped out periodically, at a frequency of about two times per year. The capacity of each tank is 500 gallons. Some tanks are pumped out more frequently than others because some serve larger areas of the gas collection system or occasionally loose flexible hoses on a well in a flooded vault can cause water to enter the well and gas header which would cause the downstream tank to fill prematurely.

The County is interested in adding a liquid level sensor in each of the tanks to alarm when the tank is nearly full. This feature would reduce the potential for water to back up into the header and thereby restrict landfill gas flow. These sensors will be incorporated in future improvements. It is expected that solar panels will be utilized to provide power for level sensors and alarms.

2.1.6 Gas Probes

The 18 gas monitoring probes are sampled quarterly to determine if landfill gas is migrating off-site toward nearby homes. In general, the gas system has controlled landfill gas migration. One gas probe, GP-10, located at the Wisconsin DOT Landfill south of Crystal Ridge Drive, has consistently had methane levels of about 50 percent by volume throughout the period spanning 14 years. There is no gas extraction system serving the Wisconsin DOT Landfill. This is the site under consideration by The Rock to construct a commercial and apartment development.

2.1.7 Compatibility with The Rock

Phase 1 of The Rock sports complex was constructed in 2012 and consists of baseball and softball fields, parking areas, access road, and concession stands on the East Landfill. The sports complex design and construction was coordinated with the County. Leachate monitoring wells were placed in vaults to blend into the surroundings and to protect the wells from damage. The landfill gas system in the area was along the site perimeter, so changes to the gas system were not necessary. The concession stands are slabs on grade with a passive vent system.

Phase 2 of The Rock development is proposed to include additional baseball fields on the West Landfill and possibly an inflated sports complex dome in the southwest corner of the West Landfill. The dome would provide for year-round baseball activities.

Other potential development for The Rock includes a commercial and apartment area on the Wisconsin DOT Landfill and possibly realigning Crystal Ridge Drive to accommodate the commercial development.

The following is a discussion on the County's landfill gas system, proposed interim improvements to the gas system, and compatibility with The Rock development. The improvements to the gas system are considered interim because the long-term objective of the County is to have no gas wells and

header below the Phase 2 sports fields. The objective for the long-term is to replace these wells with new wells outside the sports fields.

West Landfill - The proposed baseball fields will affect gas wells G-23, G-24, and G-25, and condensate tank CT-4. The gas wells G-23 and G-25 can remain in place and a new lateral built with a remote well head located outside of the baseball fields for each. Gas well G-24 is located between two baseball fields and does not require a remote wellhead. The gas header from the new G-23 wellhead to near the blower will be rerouted to prevent having the header within the baseball fields. The remote wellheads allow the gas well to be monitored for gas quality and can be adjusted for gas flow. The remote wellhead will not allow for leachate level monitoring as currently practiced, but leachate levels have not been an issue with these particular wells.

The approach with remote gas wellheads is very practical and cost-effective. The existing wells are strategically located to be near the limits of waste, but within the waste mass sufficiently so that they produce good quality landfill gas and have a zone of influence to capture the gas and thereby control landfill gas migration. The remote wellhead approach will require a lateral from the gas well to the remote wellhead of approximately 120 feet or less.

The existing header from gas well G-24 to the blower is sloped toward G-24 and ultimately to condensate tank CT-4. Condensate tank CT-4 would be abandoned and filled with flowable concrete. Condensate which formerly went to condensate tank CT-4 will now flow back into gas wells G-24 and G-25. This matter will need to be discussed with WDNR to obtain their permission. WDNR prefers the condensate to be collected but has allowed for condensate to be returned to the gas well in special cases requiring a retrofit such as a gas well at Doyne Park Landfill. If WDNR does not allow routing the condensate back to the gas well, a new condensate tank would be required near the well and outside the playing fields.

The alternative to the remote gas wellheads for G-23 and G-25 would be to drill new wells outside the baseball fields to replace these two gas wells. There are locations to accommodate these wells. Additional header would be required for gas well G-25. If additional gas wells are planned for the dome area or along Crystal Ridge Drive, then the economics of drilling these wells would be more favorable.

The sports complex dome has gas wells G-19, G-20, G-21, G-22, and G-26, and tank CT-5 located within the dome. The County's objective is to have no header, gas wells, or condensate tanks within the dome. The proposed solution would be to relocate the gas wells along the west and east sides of the dome and to provide new headers. Two condensate tanks, one on the west and one on the east sides of the dome are proposed. The gas wells would be about 30 feet east of the limits of waste, which should be far enough from the landfill sidewalls to allow the gas wells to be 20 to 30 feet deep. Gas wells in the area are currently about 22 to 40 feet deep.

Leachate head wells LW-83 and LW-84 may conflict with a baseball field. If possible, lower the well height to make it flush with the ground and place in a vault. If the well is within the playing field, abandon the well and drill a new well outside the playing field.

Wisconsin DOT Landfill - If The Rock develops on the Wisconsin DOT Landfill with retail stores and apartments, the County will need to expand the landfill gas well network along Crystal Ridge Drive to control landfill gas migration from the County's East Landfill. The Rock developer will be responsible for either removal of the waste, or creation of a landfill gas collection system to serve the Wisconsin

DOT Landfill. As previously noted in this report, gas probe GP-10 has consistently had methane levels of 50 percent by volume for over 14 years. Methane gas is explosive in the 5 to 15 percent range, and when levels exceed 15 percent, there will be levels in the explosive range in the vicinity as the landfill gas gets diluted with air.

The County's landfill gas header will be increased in size to 12-inch diameter if the additional gas wells are installed along Crystal Ridge Drive.

3.0 Storm Water Assessment

3.1 Current Storm Water System

McClure Engineering Associates, Inc. prepared Storm Water Management Design Reports for The Rock at Crystal Ridge to address Phases 1 and 2 of the sports complex development. The Phase 1 storm water management plan dated April 1, 2013, has been approved by both the City of Franklin and MMSD. The Phase 1 development is served by a storm water detention basin at the southeast corner of Phase I near the intersection of Crystal Ridge Drive and South 76th Street.

The Phase 2 preliminary report is dated July 2, 2013. Phase 2 will be served by the Field 7 detention basin, Field 8 detention basin, and Field 12 swale. The report indicates since the property is a closed solid waste landfill and therefore previously developed, the proposed sports complex is classified as a redevelopment. The storm water management plans address a 2-year, 24-hour storm event and a 100-year, 24-hour storm event. The allowable site discharge based on MMSD requirements for the site will be achieved by the proposed detention basins according to the McClure report. Secondly, the McClure report addresses Chapter NR 151 for storm water runoff requirements in terms of total suspended solids, peak discharge, and infiltration. The site is to achieve 40 percent total suspended solids removal, which is accomplished by evaluating the performance of the two detention basins and one swale and the weighted areas contributing to these detention features. McClure used the WinSLAMM 9.3.3 model to assess total suspended solids removal.

Regarding the 2-year, 24-hour design storm and the 100-year, 24-hour design storm, the site meets the criterion for landfill post-development because the resulting flows are less than the existing discharge rates for Phases 1 and 2.

Infiltration is addressed in the McClure report and found to be not applicable or minimal to the site due to the clay cover.

The McClure reports document that the 40 percent total suspended solids removal will be achieved for both Phase 1 and Phase 2. From a landfill standpoint, storm water sediment management is most critical when the final cover is being constructed. Now that the landfill cover is already built, the primary storm water sediment objectives have been achieved. The proposed storm water detention basins will continue to accomplish sediment capture and retention of storm water to maintain storm water discharges for the sports complex less than the discharge flows during pre-development.

The Phase 2 report is still draft and the Phase 2 development remains under review by the developer. The final version of the Phase 2 storm water management design report should be reviewed to determine if it complies with the requirements.

4.0 Conceptual Design Alternatives

4.1 Introduction

The existing landfill gas network consists of an active system with 26 gas extraction wells, and a blower and flare to control landfill gas migration to nearby homes. Phase 1 of The Rock sports complex was developed in 2012 and is located on the East Landfill. Phase 2 is proposed for the West Landfill in 2014. The Rock is considering development of retail and apartments on the former Wisconsin DOT Landfill located between Crystal Ridge Drive and Loomis Road.

Milwaukee County requested AECOM to address the feasibility of a passive gas migration control system, to evaluate landfill gas system modifications for The Rock sports complex, and to consider a complete landfill gas system reconstruction to extend the system life for another 20 years. The following is a discussion of these topics.

4.2 Passive Gas Migration Control System

A perimeter passive gas migration control system would be used to vent landfill gas to the atmosphere. The passive gas system would require a cut-off trench. The system for Franklin Landfill would consist of a stone trench with a perforated pipe at the bottom and a geomembrane along the outside wall of the trench. The geomembrane will be on the side closest to the homes. A key element to the success of the passive gas trench is to tie the trench and geomembrane into either the groundwater or a clay layer to seal off any pathways and prevent the landfill gas from migrating below the trench.

Franklin Landfill soil borings and landfill cross-sections prepared by Donohue for Milwaukee County in 1977 were reviewed to determine depth of waste, groundwater levels, potential clay layers, and information on the original quarry sideslopes.

The results from the review of the site soil borings and landfill cross sections indicate the depth to either groundwater or a clay layer is highly variable and ranges from about 18 to 50 feet deep. The specifics are as follows:

1. From the Wolf Preservation Center on the northeast side of the site to the intersection of South 76th Street and Crystal Ridge Drive, the approximate depth to either groundwater or a clay layer is 18 to 22 feet.
2. Along Crystal Ridge Drive, the depth to either groundwater or a clay layer is about 50 feet.
3. From Crystal Ridge Drive to near the existing blower, the depth to either groundwater or a clay layer is about 45 to 50 feet.
4. There is no known subsurface data along the west side of Franklin Landfill to assess the feasibility of a passive gas trench.

For the passive gas trench to be cost-effective and practical, the maximum depth is about 25 feet. If the depth to groundwater or a clay layer is greater than 25 feet, the passive gas trench may not be a suitable option due to costs, constructability issues, or would not be effective to control gas migration if it is not properly tied into a barrier layer such as clay or groundwater.

Based on a review of the technical literature, the maximum trench depth appears to vary with the installer depending on the equipment available. Some trench contractors can reach 25 feet deep, but cannot install a geomembrane. Another trench contractor claims to be able to reach 40 feet and install a geomembrane which can also be sealed with a vertical seam. The Franklin Landfill project would require trench depths of about 50 feet and available technology does not seem to meet this requirement. For the passive gas trench to be effective, the trench must be continuous and extend around the entire area where there is residential or commercial development. Secondly, the trench must terminate in either groundwater or clay. These two criteria are not possible to achieve at this site. Therefore, the passive gas trench is not a feasible option for this site.

4.3 Landfill Gas System Modifications for The Rock

Phase 1 of The Rock sports complex has been completed and the landfill gas system has been successfully incorporated into the development. Some minor modifications were made to lower leachate head wells including placing them in vaults to protect the well from damage and to allow continued monitoring. The landfill gas system is primarily located along the east perimeter of the sports complex for Phase 1 and, therefore, conflicts with the sports fields were avoided.

Phase 2 consists of development of the sports complex on the West Landfill. Additional baseball fields and an inflated sports complex dome are proposed. The actual layout for Phase 2 is still being determined by The Rock developer. Section 2.1.7 of this report presents the proposed approach for landfill gas system modifications for Phase 2.

A third phase of The Rock is being considered by the developer to build retail and apartments on the Wisconsin DOT Landfill as discussed in Section 2.1.7 of this report. If this third phase is implemented, Milwaukee County will need to expand the landfill gas system for the East Landfill along Crystal Ridge Drive to control landfill gas migration from the East Landfill. In addition, the developer will need to address landfill gas collection on their property due to the historic elevated levels documented at gas probe GP-10 located on the Wisconsin DOT Landfill property.

The addition of more gas wells along Crystal Ridge Drive may require adding another header or replacing the existing gas header with a larger pipe to accommodate the increased landfill gas flow. Blower and flare capacity will likewise need to be evaluated.

4.4 Complete Landfill Gas System Reconstruction

The landfill gas collection system along South 76th Street was constructed in 1995. The balance of the landfill gas system was constructed in 1998. Milwaukee County is interested in determining the extent of improvements necessary to upgrade the landfill gas system to serve the site for the next 20 years.

In general, the landfill gas system has performed well and has controlled landfill gas migration. There have been isolated elevated methane levels in some gas probes and incidents of header sagging and clogging. Corrective action was taken to determine the cause for the elevated levels in affected gas probes and then the header was repaired, or the gas wells were adjusted to improve the gas system performance. Gas probe GP-10, located in the Wisconsin DOT Landfill, consistently has 50 percent methane by volume which is understandable because this landfill does not contain a landfill gas collection system.

The challenges with the existing landfill gas system are as follows:

1. **Differential Settlement of the Waste** – The landfill waste continues to decompose, which results in differential settlement. The settlement can cause the gas header to settle, which creates a low point in the pipe in which condensate can collect resulting in a restriction or plugging of the header pipe. Depending on the location of the blockage, it can have a detrimental effect on the gas system performance. The corrective action is typically to relay the header, which is an on-going O&M issue and can be costly.
2. **Header Slope Limitations** – The landfill gas system is located along the landfill perimeter which is relatively flat. The header slope is about 3 percent, which is considered on the lower end of preferred slope. A steeper slope on the header would better accommodate pipe settlement, but must be balanced against additional condensate tanks or layout of a new header using the final cover soils to increase header slope where possible. On the West Landfill, the header was installed at the top of waste, and then clay fill plus the final cover were installed above the header. This soil layer varies from 4.5 to about 10 feet. We recommend installation of new headers with better slopes and additional condensate collection tanks because there will be more low points in the header. Also, we recommend replacing all of the well heads and vaults; the well heads because of age and the vaults because the 4-foot diameter vaults are too restrictive and 6-foot diameter vaults are preferred.
3. **Blower Capacity** – The header settlement causes pipe restrictions which results in increased frictional losses in the header. The Wisconsin Administrative Code NR 504.08(2)(j) requires 10 inches of available vacuum at the farthest well from the blower. The blower currently provides a fraction of 1 inch at the farthest well from the blower, resulting in smaller zones of influence in the extraction wells located at the farther reaches of the gas system.

We recommend the existing blower be overhauled or replaced to improve performance, whether or not any additional wells are installed. The existing blower is Lamson Model 403-GB, 7.5 HP, 3-phase, 230/460-volt, 60 Hz. The blower capacity is 500 scfm, 30 inches W.C. inlet vacuum, and 8 inches discharge pressure.

The additional wells proposed along Crystal Ridge Drive will increase the gas flow and require more flow capacity for the blower. The result will be a need for more flow capacity at a higher vacuum for the blower.

4. **Flare Capacity** – The existing flare is a 4-inch diameter steel pipe with a 6-inch diameter tip having a maximum capacity of 750 scfm and manufactured by LFG Specialties, Inc. The flare will be replaced with an 8-inch diameter utility flare based on the anticipated increase in gas flow. The existing flare is a 4-inch diameter flare. The larger flare is needed if The Rock development on the DOT Landfill occurs.
5. **Gas System Coverage** – The future retail and apartment development of the Wisconsin DOT Landfill by The Rock will require a gas system expansion along Crystal Ridge Drive to control landfill gas migration from the East Landfill toward the proposed development.

6. **No Looped Landfill Gas System** – Ideally, a landfill gas system should be looped to allow landfill gas to travel more than one route in case the primary route encounters a pipe blockage. In the Franklin Landfill case, the gas system is along the perimeter and looping the header would add more than \$500,000 to the project cost. For this reason, a looped system is not recommended.
7. **Landfill Gas System Network** – The existing landfill gas system consists of a header along the east, south, and west sides of Franklin Landfill. Extraction wells are located along the east and west sides to control landfill gas migration because of the nearby homes.

The north and central part of Franklin Landfill does not have any landfill gas collection system because there has not been a need. There has been new development in this area. However, the development does not include sizable enclosed buildings. The sports complex consists of baseball fields which do not require gas migration control. Small concession stands have passive gas venting below the concrete slab. Based on the current sports complex layout, there does not appear to be a need to expand the active gas collection system to the central part of Franklin Landfill.

8. **Gas Quality** – The landfill continues to generate landfill gas. Waste composition seems to include a lot of wood products which decay slowly. Gas quality over the last 14 years has been fairly consistent and there does not appear to be any appreciable decrease in the methane quality. This trend is fairly consistent and the methane gas quality is expected to continue based on the site history.

5.0 Interim Modification Design

5.1 Proposed Improvements to The Rock

Phase 2 of The Rock sports complex development is proposed for 2014. Interim modifications to the landfill gas system are proposed to alleviate conflicts with Phase 2 development until a long-term reconstruction can occur. Section 2.1.7 of this report discusses the proposed interim improvements.

Phase 2 of The Rock development will include additional baseball fields on the West Landfill and possibly an inflated sports complex dome in the southwest corner of the West Landfill. The dome will provide for year-round baseball activities.

The improvements to the gas system are considered interim because the long-term objective of the County is to have no gas wells and header below the Phase 2 sports fields. The objective for the long-term is to replace these wells with new wells outside the sports fields.

5.2 Description of Interim Improvements

The interim gas system improvements for Phase 2 of The Rock development are as follows:

- Provide a remote well head for gas wells G-23 and G-25.
- Provide a lateral from the G-23 and G-25 well to the remote well head which requires about 120 feet or less of lateral.
- Abandon condensate tank CT-4 by filling the tank with flowable concrete.
- Leachate head wells LW-83 and LW-84 may conflict with the baseball field. If possible, lower the well height to make it flush with the ground and place it in a vault. If the well is within a playing field, abandon the well and drill a new well outside of the playing field.
- DNR approval will be necessary to allow condensate to be drained back to the gas wells G-23 and G-25.

If the inflatable dome is implemented, the following gas system improvements are proposed:

- Provide new gas wells G-19R, G-20R, G-21R, G-22R, and G-26R.
- Abandon condensate tank CT-5 using flowable concrete.
- Abandon gas wells G-19, G-20, G-21, G-22, and G-26.
- Replace the gas header with a new header located on the west and east sides of the dome.
- Maintain access to allow a septic tank hauler truck to pump out condensate from the two new condensate tanks.
- Provide two new condensate tanks on the west and east sides of the dome.

5.3 Estimated Construction Cost

See estimated construction costs for LFG system interim improvements on Table 1. This cost estimate does not include the gas system improvements to accommodate the inflatable dome. Refer to Table 2B for costs associated with the dome.

6.0 Preliminary Design of Selected Alternative

6.1 Overview of Alternatives

Alternatives to control landfill gas migration were assessed including a passive gas system and an active gas system. An active gas system is currently in operation at the site.

A passive gas system consisting of a cut-off trench was evaluated. The trench would follow the Franklin Landfill site boundary starting in the northeast corner of the site near the Wolf Preservation Society, and continue along South 76th Street to the Crystal Ridge Drive to the blower/flare station, and continue along the western site boundary. The passive gas system was eliminated from consideration because the cut-off trench should terminate in either groundwater or a clay layer. The depth to either groundwater or clay is in the range of 18 to 50 feet for most of the site. Information on the west side of the site on subsurface conditions is not available. Trenching technology does not meet the project requirements. Trenching machines do not reach this deep.

Continuation of the active gas system is proposed for the long-term control of landfill gas migration. Interim gas system improvements are proposed to accommodate the Phase 2 development of The Rock. Long-term gas system improvements are proposed to extend the gas system life for the next 20 years. The following landfill gas system improvements are proposed for the long-term:

A. Wisconsin DOT Landfill Development

If The Rock develops the Wisconsin DOT Landfill into commercial businesses and apartments, the County will need to expand the gas well network along Crystal Ridge Drive to control landfill gas from migrating from the East Landfill. A series of gas wells placed approximately 100 feet on center are proposed. A new header is proposed to have the flow capacity to handle the additional wells. The new header would start near gas well G-7 and end near the blower.

B. Blower/Flare Capacity

A new blower is proposed to increase the flow capacity to handle the additional wells along Crystal Ridge Drive. In addition, the blower will have increased vacuum capability to provide a minimum of 10 inches water column of vacuum at the farthest well from the blower.

The flare will be replaced with a larger flare if the DOT Landfill is developed, resulting in more LFG flow.

C. Other Header Improvements

The header along the west side of the site could be relaid by placing the header within the final cover and clay fill. This final cover soil layer is about 4.5 to 10 feet thick. This could increase the header slope.

The header on the east side near South 76th Street has less cover which will limit the header slope. Within the last several years, this header required pipe repairs due to sags in the header. A new header is proposed to provide improvements and reliability to the header.

6.2 Basis of Design

The basis for the gas design for the long-term is as follows:

- **Blower:** Increase the blower capacity to include the additional wells along Crystal Ridge Drive, and to provide 10 inches water column of vacuum as per the code. If the wells along Crystal Ridge Drive are not required because the adjacent DOT Landfill is not developed, then keep the blower capacity the same as currently provided, but increase the vacuum capability. Current blower capacity is 500 scf. Consider 1,000 scf capacity if the DOT Landfill is developed. The associated vacuum requirements will be finalized during design but will be in the range of 50 inches W.C. inlet vacuum, and 10 inches W.C. discharge pressure.
- **Flare:** If The Rock development occurs on the DOT Landfill, more LFG flow will result and the flare will be increased in size from the existing 4-inch diameter to an 8-inch diameter flare.
- **Header:** Relay the header for the entire collection system to increase its slope. Increase the header size along Crystal Ridge Drive from 8-inch diameter to 12-inch diameter if the DOT Landfill gets developed. The goal is to keep the header outside of structures and minimize header below roads and parking lots. The header along South 76th Street will be increased from 6-inch to 8-inch diameter.
- **DOT Landfill:** The developer would be responsible for landfill gas control within the DOT Landfill. The County is responsible for landfill gas control from the East Landfill.
- **Condensate Tanks:** Provide additional condensate tanks necessary to increase the header slope. Consider 500-gallon capacity, steel, A-100 double-wall tanks with a minimum 6-month storage capacity. Provide solar-powered level sensor and alarm for new and existing tanks.
- **Blower Controls:** Consider upgrade to the current controls, use cell phone for dialer, and consider similar control strategy for the operation.
- **Access Points:** Additional header access points are proposed at approximately a 500-foot spacing. The access points will consist of long sweep bends to access the header. The long sweep bends will be placed to allow accessing the header from two directions. Similar access points along Crystal Ridge Drive have allowed staff to inspect the header with a video camera to observe for condensate blockage, plus the access points allowed a commercial tanker truck to use hoses to pump out the condensate from the header as a temporary measure to regain vacuum in the header until a permanent repair could be made. The access points will be capped in a valve vault at the ground surface.
- **Flare Exemption:** A field test can be performed to determine if the flare operation is necessary. A gas sample from the blower will be collected in a Suma canister and analyzed at a lab for vinyl chloride and benzene, which are the two primary emission constituents of concern by DNR. The estimated hours of operation, flow rate, and constituent concentration will be used to compare the tested emission to the DNR air emission limits. If the test values are less than the DNR allowable emissions, the site would be eligible for a flare exemption. We did this approach for Doyme Park and were successful in eliminating the flare from the design. The estimated fee for this flare test is about \$10,000.

- Well Heads: New well heads will replace the existing well heads to provide long-term reliability. New 6-foot diameter concrete vaults will replace the 4-foot diameter vaults. The new vaults will provide more room to access the well heads.

6.3 Estimated Construction Cost

See estimated construction costs for LFG system long-term improvements on Tables 2A and 2B. The long-term gas system improvements are shown in these two tables. Table 2A considers the County's cost for long-term improvements for the entire site (i.e., replacement of existing system). The costs for The Rock development are separate and are contained in Table 2B. The total long-term estimated construction costs including The Rock development and the County's planned improvements are the sum of the costs contained in Tables 2A and 2B. The County's investment for the long-term use of the gas system, as shown in Table 2A, is estimated at \$1,369,000. The cost for The Rock development is separate from this estimate.

If The Rock wishes to develop the DOT Landfill, the County's gas system along Crystal Ridge Drive will need to be upgraded to include about 21 additional wells and a 12-inch diameter header to replace the existing 8-inch diameter header. The gas system improvements required for Franklin Landfill if the Rock development occurs are summarized in Table 2B. Key considerations are summarized as follows:

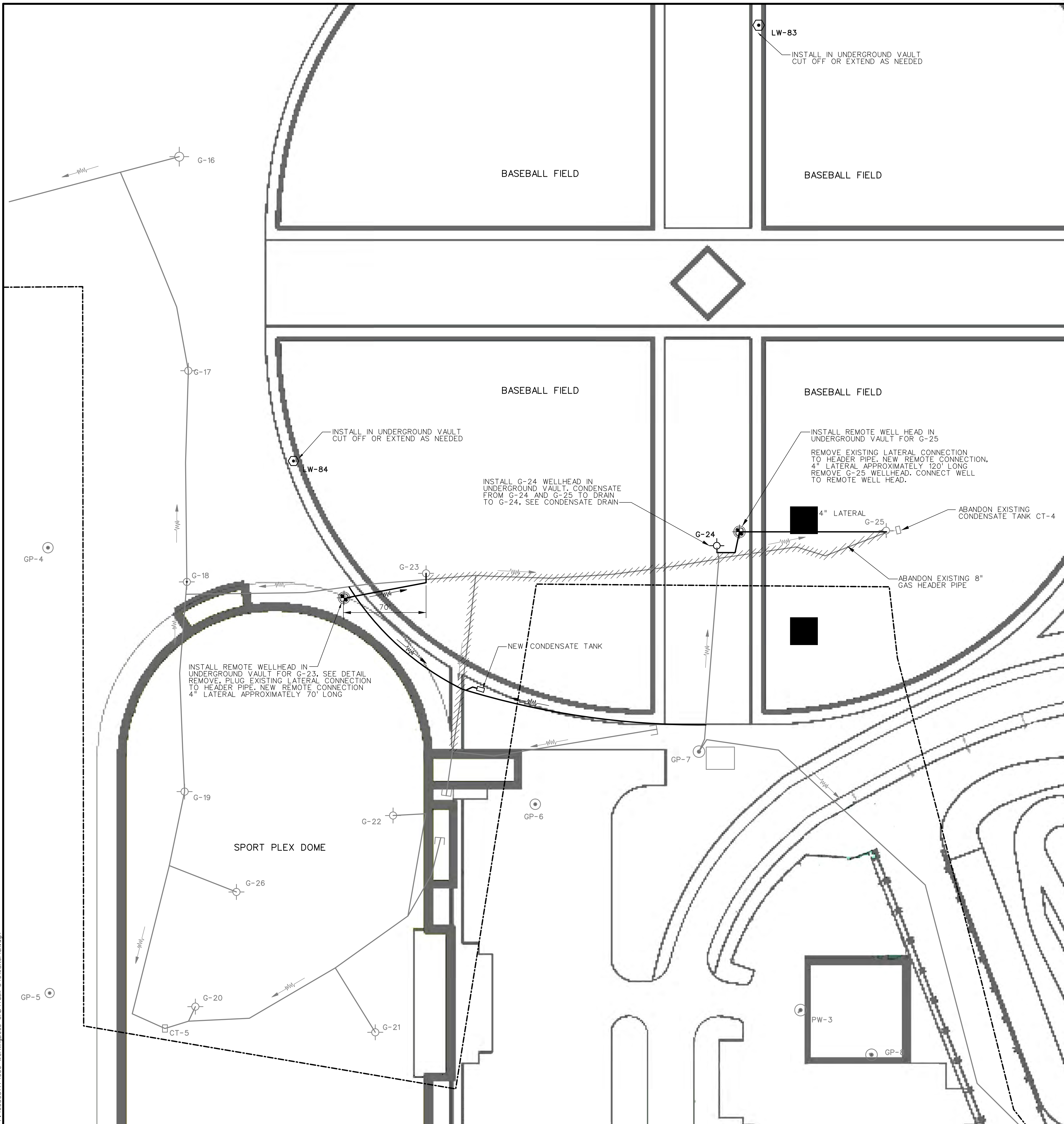
- The estimated cost for the gas system improvements is \$1,273,000.
- These costs are the incremental costs above the amount shown in Table 2A for the Rock development to be implemented and would be the responsibility of The Rock to pay.
- The scope of the gas system improvements includes the Sport Plex Dome and development on the DOT Landfill.
- The Rock developer would need to address landfill gas control on the DOT Landfill and these costs are not part of the Table 2B cost estimate.
- The estimated costs shown in Table 1 for interim improvements to develop baseball fields in Phase 2 are exclusive of the costs shown in Tables 2A and 2B. These baseball fields are shown in the Rock's Master Plan 5B and 5C.

6.4 Summary

In summary, major improvements are recommended for the landfill gas system to extend its long-term life. The existing system has served the County well by providing landfill gas migration control. As the landfill settles, relaying the header will be necessary. The Rock development will require gas system improvements as presented in this report. Improvements to the blower/flare system are recommended to increase the blower's flow and vacuum capacity as well as to upgrade the instrumentation and controls to develop a dependable, robust gas system.

Figures

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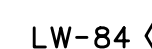








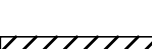
- EXISTING TOPOGRAPHY
- APPROXIMATE LIMITS OF WASTE
- GP-4 EXISTING GAS MONITORING PROBE
- G-24 EXISTING ACTIVE GAS EXTRACTION WELL
- LW-84 LEACHATE HEAD WELL
- CONDENSATE STORAGE TANK AND LOADOUT STATION
- CONDENSATE FLOW DIRECTION
- EXISTING HDPE GAS HEADER
- HDPE PIPE CAP
- REMOTE GAS WELL HEAD IN VAULT

NOTES:

1. ELEVATIONS SHOWN ARE BASED ON USGS MEAN SEA LEVEL DATUM. TO CONVERT ELEVATIONS TO CITY OF MILWAUKEE DATUM, SUBTRACT 580.603'.
2. HORIZONTAL DATUM IS BASED ON WISCONSIN STATE PLANE COORDINATE SYSTEM.
3. THE PROPOSED SITE FEATURES ARE FROM FRANKLIN ROCK MASTER SITE PLAN (VERSION 5B), PREPARED BY ESP U.S. SERVICES, INC., DATED JUNE 7, 2013.
4. IF THE SPORTS PLEX DOME IS BUILT, ADDITIONAL LFG PIPING CHANGES WILL BE REQUIRED. REFER TO THE PROPOSED LONG TERM SITE PLAN FOR ADDITIONAL INFORMATION.

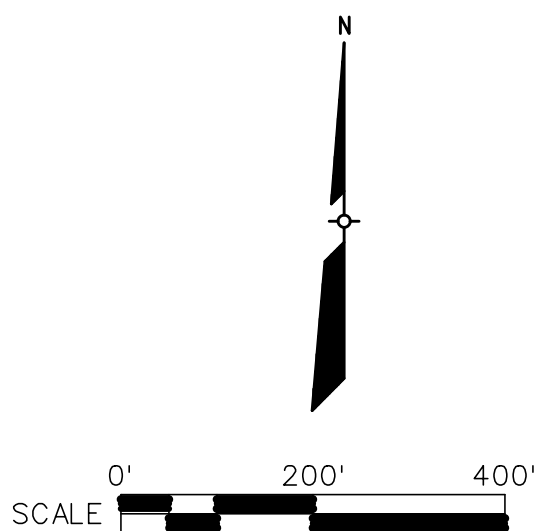
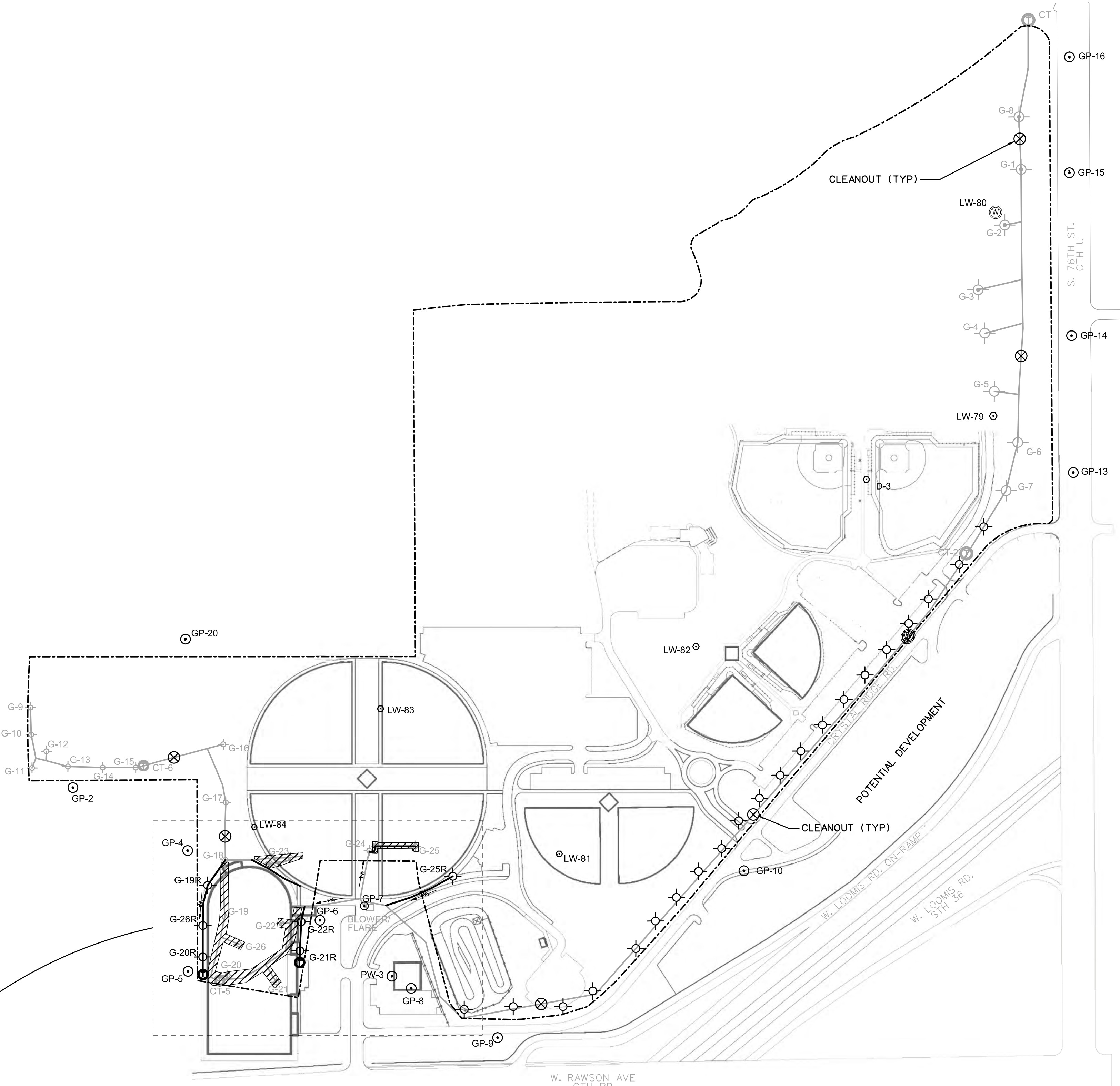
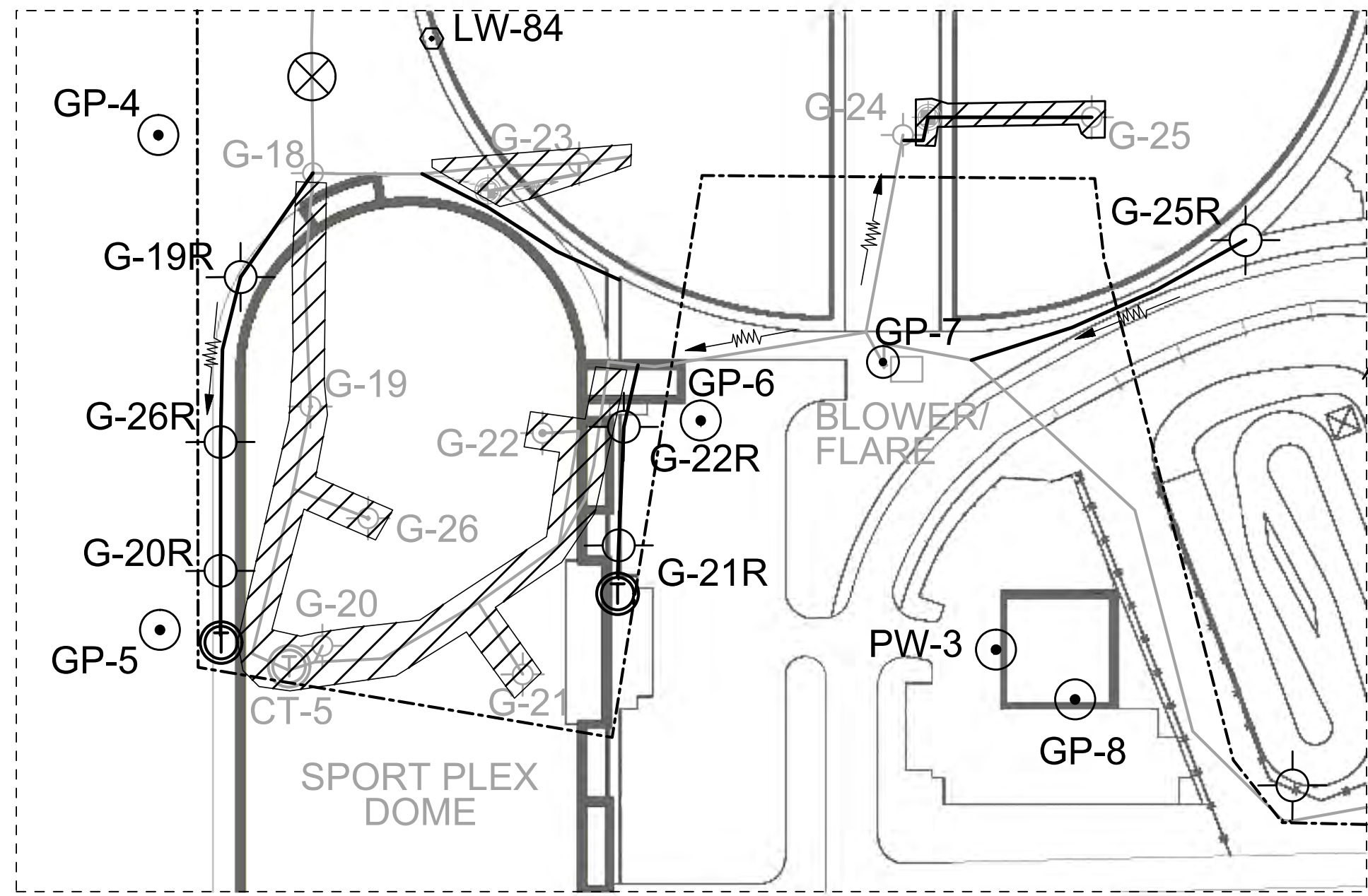
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-  EXISTING TOPOGRAPHY
-  APPROXIMATE LIMITS OF WASTE
-  GP-4 EXISTING GAS MONITORING PROBE
-  LW-84 LEACHATE HEAD WELL
-  G-24 EXISTING ACTIVE GAS EXTRACTION WELL
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-  EXISTING HDPE GAS HEADER
-  PROPOSED HDPE GAS HEADER
-  FACILITIES TO BE ABANDONED

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<p>Prepared for: MILWAUKEE COUNTY DEPARTMENT OF ADMINISTRATIVE SERVICES FACILITIES MANAGEMENT DIVISION <small>CITY CAMPUS 201 W. WILSON ST. SECOND FLOOR MILWAUKEE, WI 53208</small></p>	<p style="font-size: 2em; font-weight: bold; text-align: center;">AECOM</p>								
<p>Prepared by: MILWAUKEE COUNTY DEPARTMENT OF ADMINISTRATIVE SERVICES FACILITIES MANAGEMENT DIVISION FRANKLIN LANDFILL INFRASTRUCTURE PRE-DESIGN REPORT</p>	<p style="text-align: center; font-weight: bold;">PROPOSED LONG TERM SITE PLAN</p>								
<p>DATE: MARCH 2014</p>	<p>PROJECT NO: 60305147</p>								
<p>FILENAME: 02_SitePlan.dgn</p>	<p>SHEET NO:</p>								
<p>FIGURE NO: 2</p>	<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO</th> <th>DATE</th> <th>CHK</th> <th>DRN</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO	DATE	CHK	DRN				
NO	DATE	CHK	DRN						

Tables

Table 1
Milwaukee County
Franklin Landfill
LFG System Interim Improvements
(Modifications for "The Rock") *
Budget Cost Estimate
March 2014

Item	Quantity	Unit	Unit Price	Total
1. Mobilization/Demobilization	1	Lump Sum	\$3,000	\$3,000
2. Abandon Condensate Tank	1	Each	\$3,000	\$3,000
3. Well Head Assembly	2	Each	\$1,500	\$3,000
4. Install Remote Well Head in Vault	2	Each	\$3,000	\$6,000
5. 6'Φ Precast Concrete Vaults	2	Each	\$2,500	\$5,000
6. Install Interim 6" Remote Laterals	250	Lin. Ft.	\$50	\$12,500
7. Install New Header	260	Lin. Ft.	\$70	\$18,200
8. Install New Condensate Tank, Solar Panel, and Level Alarm	1	Each	\$12,000	\$12,000
9. Install Leachate Wells and 12" Vaults at Grade	2	Each	\$1,500	\$3,000
10. Site Restoration	1	Lump Sump	\$5,000	\$5,000
11. Waste Relocation On Site	1	Lump Sump	\$5,000	\$5,000
12. Construction Administration	1	Lump Sump	\$5,300	\$5,300
			Subtotal	\$81,000
			Contingency (30%)	\$25,000
			Owner Services (1%)	\$1,000
			Construction Management (5.5%)	\$5,000
			Permitting	\$5,000
			Construction Observation (10%)	\$8,000
			Engineering Design (8%)	\$7,000
			Total Budget Estimate	\$132,000

* Based on The Rock proposed improvements in western area for baseball fields and excludes the Sport Plex Dome.

Note: The estimated costs in Table 1 are exclusive from the costs in Table 2B.

Table 2A

**Milwaukee County
Franklin Landfill
LFG System Long-Term Improvements *
Budget Cost Estimate
May 2014**

Item	Quantity	Unit	Unit Price	Total
1. Mobilization/Demobilization	1	Lump Sum	\$20,000	\$20,000
2. Replace Well Head Assembly on Existing Wells	26	Each	\$1,500	\$39,000
3. Install New Condensate Tank, Solar Panel, and Level Alarm	6	Each	\$12,000	\$72,000
4. Install 8" Header	7,000	Lin. Ft.	\$70	\$490,000
5. Install Laterals	1,000	Lin. Ft.	\$50	\$50,000
6. Install Header Access Points	10	Each	\$4,000	\$40,000
7. 6' Φ Precast Concrete Vaults	26	Each	\$2,500	\$104,000
8. Blower & Controls Improvements	1	Lump Sum	\$370,000	\$370,000
9. Electrical Work & Upgrades	1	Lump Sum	\$60,000	\$60,000
10. Site Restoration	1	Lump Sum	\$80,000	\$80,000
11. Waste Relocation On-Site	1	Lump Sum	\$50,000	\$50,000
12. Clearing	1	Lump Sum	\$30,000	\$30,000
13. Construction Administration	1	Lump Sum	\$40,000	\$40,000
			Subtotal	\$1,445,000
			Contingency (30%)	\$434,000
			Owner Services (1%)	\$15,000
			Construction Management (5.5%)	\$80,000
			Permitting	\$60,000
			Construction Observation (10%)	\$145,000
			Engineering Design(8%)	\$116,000
			Total Budget Estimate	\$2,295,000

* This table shows estimated costs for the County to upgrade the LFG system for the long-term without The Rock development.

Table 2A Cost Components
Milwaukee County
Franklin Landfill
LFG System Long-Term Improvements *
Budget Cost Estimate
May 2014

* This table shows estimated costs for the County to upgrade the LFG system for the long-term without The Rock development.

1. Mobilization/Demobilization: Costs to mobilize construction equipment and demobilize.
2. Replace Well Head Assembly on Existing Wells: Cost associated with 26 existing wells.
3. Install New Condensate Tank, Solar Panel, Level Alarm: Install 6 new tanks and associated equipment to serve the LFG system. More tanks are necessary due to proposed increased header slopes resulting in more low points needing condensate collection.
4. Install 8" Header: 7,000 feet of header is estimated to replace the entire LFG system.
5. Install Laterals: 1,000 feet of LFG laterals are estimated to replace the existing laterals.
6. Install Header Access Points: 10 access points are estimated over the entire system.
7. 6-Foot Φ Precast Concrete Vaults: All the 4-foot diameter concrete vaults will be replaced with 6-foot diameter vaults at 26 locations.
8. Blower & Controls Improvements: System upgrades are proposed to extend the life by 20 years. A new flare, blower, and controls are proposed.
9. Electrical Work and Upgrades: Electrical work will upgrade the existing system.
10. Site Restoration: The site will be restored following the LFG system construction.
11. Waste Relocation On-Site: Waste relocated on-site and covered with clay and topsoil.
12. Clearing: Site clearing for construction.
13. Construction Administration: Contractor's cost for insurance, submittals, and administration of contract.

Table 2B

**Milwaukee County
Franklin Landfill
LFG System Long-Term Improvements Required Due to The Rock Development *
Budget Cost Estimate
March 2014**

Item	Quantity	Unit	Unit Price	Total
1. Mobilization/Demobilization	1	Lump Sum	\$10,000	\$10,000
2. Vertical Gas Wells: 3' ø Boring, Dispose Waste On-Site; Average 40' Deep x 27 Wells	1,080	Vert. Ft.	\$110	\$118,800
3. Well Head Assembly	25	Each	\$1,500	\$37,500
4. 6' ø Precast Concrete Vault	27	Each	\$2,500	\$67,500
5. Relocate Well Head Assemblies	2	Each	\$1,000	\$2,000
6. Abandon Wells	7	Each	\$1,000	\$7,000
7. Abandon Header – Plug and Leave	8	Locations	\$500	\$4,000
8. Abandon Condensate Tank	2	Each	\$3,000	\$6,000
9. Cost Upgrade to install 12" Header Instead of 8" Header **	2,300	Lin. Ft.	\$30	\$69,000
10. Install New Blower/New Flare & Controls	1	Lump Sum	\$270,000***	\$270,000***
11. Electrical Work for New Blower	1	Lump Sum	\$40,000	\$40,000
12. Site Restoration	1	Lump Sum	\$60,000	\$60,000
13. Waste Relocation On-Site	1	Lump Sum	\$60,000	\$60,000
14. Clearing	1	Lump Sum	\$30,000	\$30,000
15. Construction Administration	1	Lump Sum	\$25,200	\$25,200
			Subtotal	\$807,000
			Contingency (30%)	\$242,000
			Owner Services (1%)	\$8,000
			Construction Management (5.5%)	\$45,000
			Permitting	\$25,000
			Construction Observation	\$81,000
			Engineering Design (8%)	\$65,000
			Total Budget Estimate	\$1,273,000

* Assumes Phase 5C Rock development on DOT Landfill and western area including Sport Complex Dome. The costs shown in this table are The Rock development's share for LFG system improvements.

** Cost is incremental cost for installing 12" header instead of 8" header.

*** Cost is incremental cost for new larger blower, new larger flare and controls.

Table 2B Cost Components

**Milwaukee County
Franklin Landfill
LFG System Long-Term Improvements Required Due to The Rock Development *
Budget Cost Estimate
March 2014**

* Assumes Phase 5C Rock development on DOT Landfill and western area including Sports Complex Dome. The costs shown in this table are The Rock development's share for the LFG improvements. These costs are in addition to the costs shown on Table 1 and Table 2A.

1. Mobilization/Demobilization: Costs to mobilize construction equipment and demobilize.
2. Vertical Gas Wells: Install 25 gas wells. Most of the wells will be located along Crystal Ridge Drive if development occurs on the DOT Landfill. These wells will be primarily located on the East Landfill.
3. Well Head Assembly: Provided for the new vertical wells.
4. 6-Foot Φ Precast Concrete Vaults: Provided for the proposed wells and relocated wells.
5. Relocate Well Head Assemblies: Relocate two well head assemblies on the west side.
6. Abandon Wells: Abandon 7 wells on the west side.
7. Abandon Header – Plug and Leave: Abandon header and plug to accommodate new header.
8. Abandon Condensate Tank: Abandon two tanks by filling with flowable grout located on the west side.
9. Cost Upgrade to Install 12-Inch Header Instead of 8-Inch Header: This cost is the incremental cost to install a 12-inch header instead of the 8-inch header along Crystal Ridge Drive. The larger header is proposed due to the additional wells along Crystal Ridge Drive.
10. Install New Blower/New Flare and Controls: Cost includes new blower for larger gas flows, new flare due to larger gas flows, and controls. Cost is the incremental cost for a new larger blower and new larger flare and controls.
11. Electrical Work for New Blower: Electrical work for improvements.
12. Site Restoration: Restoring the grass in the disturbed area.
13. Waste Relocation On-Site: Waste relocated on-site and covered with clay and top soil.
14. Clearing: Site clearing for construction.
15. Construction Administration: Contractor's cost for insurance, submittals, and administration of contract.

EXHIBIT C
TIF DISTRICT BOUNDARIES

EXHIBIT D

BPC ASSOCIATION AND INITIAL CONTRIBUTION AMOUNT