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From:
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Date:
July 31, 2019

Arcadis Project No.:
30016352 (MI001454.0007)

Subject:
Livonia Transmission Plant
36200 Plymouth Road, Livonia, Wayne County, Michigan
EGLE Site ID No. 82002970
Offsite Interim Preemptive Mitigation Installation Monthly Update

On behalf of Ford Motor Company (Ford), Arcadis of Michigan, LLC (Arcadis) has prepared this monthly update to the interim preemptive mitigation system installation for the Livonia Transmission Plant (LTP) site (the site) as requested by Michigan Department of Environment, Great Lakes, and Energy (EGLE) via email on May 26, 2019 and on July 26, 2019. As of July 31, 2019, the following progress has been made at 30 residential properties in the Alden Village subdivision:

- 18 of 30 interim preemptive mitigation systems are installed and operating as designed
- 30 of 30 interim preemptive mitigation system are designed
- 9 of 30 interim preemptive mitigation system are designed and currently being installed or are scheduled
- 3 of 30 current property owners are unwilling to allow the mitigation system to be installed at their properties

Arcadis continues to work diligently to coordinate and install the interim preemptive mitigation systems. In addition, Arcadis is providing an update to EGLE on the current status of properties that require additional work due to the presence of a basement. Details are provided below for all 30 locations.

Interim Preemptive Mitigation Systems Operating as Designed

- **12088 Brewster** – Interim preemptive mitigation system was installed as designed and has been in operation since March 8, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling was completed on April 19, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 10, 2019. In order to meet performance metrics for the garage, numerous cracks had to be sealed with caulk. The garage floor was also sealed with an epoxy coating at the property owners request. The final condition of the garage is provided below.



12088 Brewster garage floor after painting

- 12075 Brewster** – Interim preemptive mitigation system was installed as designed and has been in operation since March 11, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling was completed on April 18, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 11, 2019.
- 12089 Boston Post** – Interim preemptive mitigation system installed as designed and has been operational since March 13, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling was completed on April 24, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 10, 2019. As indicated in the letter EGLE provided on July 26, 2019, “gurgling” was observed in the piping associated with the sub-slab depressurization system (SSDS) installed at property 12089 Boston Post. It was determined that the “gurgling” was due to the presence of water within the mitigation system piping. This observation occurred during extreme high water levels that were observed in April, May, and June 2019. During that period, 11.74 inches of rain fell within the Alden Village area. Water has not been observed in the SSDS since the water levels resided in the middle of June 2019; consequently, Arcadis does not expect further impacts from water. On July 8, 2019, all sub-slab monitoring points were measured and were meeting the performance metric established by EGLE of -0.02 in water column (wc).
- 34450 Beacon** - Interim preemptive mitigation system was installed as designed and has been in operation since March 14, 2019. An additional piping leg was installed on April 15, 2019, to the geo membrane to produce more efficient vacuum. Post mitigation sampling was completed on April 26, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 12, 2019. On June 11, 2019, Arcadis removed all standing water and repaired the liner. On June 14, 2019, all monitoring points were measured and were meeting the performance metric established by EGLE of -0.02 in wc.
- 34401 Capitol** – Interim preemptive mitigation system was installed as designed and has been in operation since March 17, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling was completed April 18, 2019. The analytical data package was provided to all parties consistent with the access agreement on May 18, 2019. While installing the liner in the crawl space for the interim preemptive mitigation system, a leak in the sanitary line was identified. The compromised sanitary line was replaced by a licensed plumber, a picture is provided below.

On June 8, 2019, Arcadis repaired all compromised seams for the liner and observed no water within the crawl space. On July 24, 2019, Arcadis measured strong vacuum influence at the sub-membrane monitoring points, -0,012 in wc at MP-1 and -0.028 in wc at MP-2. However, since the vacuum was

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found to be lower than the performance metric established by EGLE of -0.02 in wc at MP-1, further evaluation and repair of any potential leaks in the barrier will be performed.



34401 Capitol new sanitary line

- **34380 Beacon** - Interim preemptive mitigation system was installed as designed and began operation on April 2, 2019. The preemptive mitigation system stopped operating unexpectedly on April 4, 2019. After resolving access issues with the property owner, the mitigation system was turned on and has been operating continuously since April 19, 2019. Post mitigation sampling was conducted on May 22, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 30, 2019.
- **12091 Brewster** – Interim preemptive mitigation system was installed as designed and has been in operation since May 9, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling was completed the week of May 9, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 17, 2019.

In order to gain access to the crawlspace, a number of deck boards had to be removed. The property owner did not like the appearance of the new deck lumber next to the existing weathered lumber. Therefore, the entire deck was replaced at the property owner's request. A picture of the new deck is shown below.



12091 Brewster new deck

- **34424 Beacon** – Interim preemptive mitigation system was installed as designed and has been in operation since April 12, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling was completed on May 15, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 30, 2019.

- **34920 Beacon** – Interim preemptive mitigation system was installed as designed and has been in operation since May 15, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling was completed on June 21, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 30, 2019.
- **34950 Beacon** – Interim preemptive mitigation system was installed as designed and has been in operation since April 19, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling is currently schedule for the week of June 3, 2019. The property owner contacted Arcadis via telephone on June 3, 2019 and indicated that they would not be home for the post mitigation sampling event. Arcadis attempted to reschedule the post mitigation sampling via phone call on June 11, 2019, but the property owner did not answer. Arcadis coordinated the post mitigation sampling on June 20th, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 30, 2019.
- **12017 Brewster** – Interim preemptive mitigation system was installed as designed and has been in operation since April 19, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling was completed on May 30, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 11, 2019.
- **34600 Beacon** – The sub-slab depressurization system continues to extract from beneath the garage and from within the basement sump. On June 28, 2019, Arcadis completed the application of RetroCoat on the basement walls and floor and on the garage floor. In order to apply the RetroCoat the two hot water heaters in the basement had to be removed. The homeowner requested for the hot water heaters to be disposed of and new hot water heaters to be installed. The new hot water heaters were installed at no cost to the property owner. Below are pictures of the finished basement and garage post RetroCoat application. Arcadis coordinated temporary lodging for the property owner including a daily per diem for 3 days when the hot water heaters were disconnected. Post mitigation sampling occurred on July 24, 2019. Once the laboratory reports have been reviewed and validated, the data package containing the results will be provided to all parties.



34600 Beacon Garage after RetroCoat application



34600 Beacon replacement water heater

- **12131 Boston Post** – The interim preemptive mitigation system was installed as designed and is in operation since March 13, 2019. An interim air purifier unit was also provided for the basement. On July 3, 2019, Arcadis completed the application of RetroCoat on the basement walls, installation and depressurization of the Cupolex sub-flooring plenum, and resealing of the sumps in the basement. In order to install the barrier and flooring in the basement, the hot water heater and the furnace were disconnected and moved. Arcadis coordinated temporary lodging for the property owners including a

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daily per diem for 5 days when the hot water tank and furnace were not in operation. On July 25, all monitoring points, including the new Cupolex monitoring point, were measured and were meeting the performance metric established by EGLE of -0.02 in wc. Post mitigation sampling is scheduled for August 30, 2019. Once the results have been received, reviewed and validated, the data package will be submitted to all parties as outlined in the access agreement.



12131 Boston Post basement after RetroCoat



12131 Boston Post basement after RetroCoat

- **12101 Brewster** – Interim preemptive system was installed as designed and has been in operation since June 7, 2019. The system is currently in routine operation and maintenance, which will include additional evaluation of vacuum performance in the attached garage area. On June 10, 2019, MP-2 was measured at -0.003 in wc. However, the other 11 monitoring points installed at this property meet the performance metric established by EGLE of -0.02 in wc. Post mitigation sampling is scheduled to be completed on August 12th. Numerous improvements were made at the property owners request during the installation of the interim preemptive mitigation system. Arcadis also identified multiple repairs that were needed in order to install the interim preemptive mitigation system. Below is a summary of the additions and repairs.
 - The fan for the mitigation system was installed in the garage attic space at the request of the property owner. A pull-down attic ladder was installed to provide easy access to the garage attic space.
 - The existing electrical overhead service line was in poor condition and did not meet code, therefore the electrical line was replaced. The property owner also requested that the current overhead service line be replaced with an underground service line. Arcadis is working with DTE to install the underground service line.
 - The ducts within the crawl space were degraded and in poor condition and were replaced.



12101 Brewster garage attic ladder

- **12067 Boston Post** – Interim preemptive mitigation system was installed as designed and has been in operation since July 3, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling is currently being scheduled with the property owner. Once the results have been received, reviewed and validated, the data package will be submitted to all parties as outlined in the access agreement. During the installation of the interim preemptive mitigation system, several water leaks were observed and determined to be originating from the living space of the home. A licensed plumber made multiple repairs to prevent water building up on the liner.
- **34550 Beacon** – Interim preemptive mitigation system was installed as designed and has been in operation since July 3, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling is scheduled for August 13, 2019. Once the results have been received, reviewed and validated, the data package will be submitted to all parties as outlined in the access agreement.
- **34940 Beacon** – The interim preemptive mitigation system has been in operation as of March 27, 2019. On July 8, 2019, the additional work, which consisted of RetroCoat application on the basement floor and poured concrete walls began. Arcadis coordinated temporary lodging for property owners including a daily per diem for 7 days when the HVAC system was disconnected. The application of RetroCoat was completed on July 24, 2019. Post mitigation samples will be collected on August 26, 2019. Prior to the removal of the furnace a certified HVAC contractor inspected the furnace and identified that the heat exchanger was cracked and would not be able to be reinstalled. The HVAC contractor also indicated that the air conditioning unit was also not operational, which the property owner confirmed. A new furnace and air conditioner were purchased for the property owners and reinstalled, below are pictures of the new units. In addition, pictures also show application of RetroCoat.



34940 Beacon new air conditioner, furnace and basement after RetroCoat application

- **12141 Boston Post** – Interim preemptive mitigation system was installed as designed and has been in operation since April 9, 2019 for both the home and the attached garage. On May 20, 2019, sub-membrane monitoring point MP-1 was measured at -0.012 in wc and sub-slab monitoring point SSMP-01 (located in the attached garage) was measured at -0.005 in wc. However, the other three monitoring points installed at this property meet the performance metric established by EGLE of -0.02 in wc. The system is currently in routine operation and maintenance. Post mitigation sampling was conducted in the garage and the home during the week of May 20, 2019. The laboratory reports have been received, the results are currently being validated and the data package will be provided to all parties consistent with the access agreement.

Several attempts have been made to obtain access to the attached garage floor to perform the crack and expansion joint sealing that was include in the design of the mitigation system. During a phone conversation on May 15, 2019, the property owner indicated that they preferred the cracks in the garage floor to be sealed in June 2019. Arcadis made several attempts to schedule this activity to be completed in June, with the latest attempt made on June 18, 2019. On July 23, 2019, Arcadis was approached by the property owner while working at a residence nearby and they wanted to discuss the crack sealing for the garage. The property owner has concerns regarding the appearance of the proposed crack sealing and requested that the floor be coated after the caulking work has been completed. Arcadis called the property owners on July 26 to coordinate access, but the property owner was on vacation and did not have time to discuss. Arcadis will continue to coordinate access to the attached garage and to the crawlspace to evaluate the vacuum performance at MP-1. Expected completion date is by August 31, 2019, pending property owner approval.

Thus far, performance metrics have not been collected for the interim preemptive mitigation system within the slab on grade portion of the home. Monitoring points have not been installed in the finished spaces (e.g., through carpeted and/or finished floors) per the property owner's request, as documented in the March 29, 2019 field notes. Therefore, indoor air samples will be collected and analyzed within 90 days after the initial post mitigation sampling event to verify performance in areas that do not currently have a monitoring points installed.

Interim Preemptive Mitigation System Currently Being Designed

Initial designs for the interim preemptive mitigations systems have been completed for the 30 properties. Modifications to the design and construction of the systems installed at a few residential properties are ongoing to accommodate property owner requests, and as deviations from target performance metrics are identified in the field.

Interim Preemptive Mitigation System is Designed and Currently Being Installed or is Scheduled

Mitigation systems at 9 of the 30 properties are either in the process of being installed, are currently scheduled, or require additional mitigation activities. The properties with basements have an active air purifier within the basement or in the home that runs 24 hours per day. Per the Vapor Intrusion (VI) Response Activity Plan (RespAp), and EGLE VI Guidance Section 5.5 dated May 2013, indoor air sampling will continue a monthly basis for the homes with a basement until the mitigation systems are fully operational. The request for monthly indoor air sampling was received by Ford on May 8, 2019 from EGLE. Details are provided below regarding the status of the work at the individual properties.

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- **12066 Boston Post** - Interim preemptive mitigation system was installed as designed and has been in operation since March 17, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling was performed on May 31, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 11, 2019. Flooding response was conducted on June 14, 2019, during which time Arcadis inspected the liner for water and evaluated system performance. Performance metrics were not being met within the crawl space. Therefore, a stronger fan was procured. On July 11, 2019, the fan was replaced with a stronger fan (AMG Legend). Initial readings on the U-tube increased from -0.6 to -1.2 inches of water column (IWC). However, the three monitoring points remained under EGLE's recommend vacuum of -0.02 IWC. Below are the readings that were observed on July 11, 2019 for the three sub-membrane monitoring points (MP):

- MP-01 = -0.011 IWC
- MP-02 = -0.007 IWC
- MP-03 = -0.012 IWC

On July 24, 2019, Arcadis conducted another operation and Maintenance visit at the property located at 12066 Boston Post. The visit was to confirm the initial readings for the three MPs. Below is a summary of the data collected.

- U-tube = -1.2 IWC
- MP-01 = -0.008 IWC
- MP-02 = -0.008 IWC
- MP-03 = -0.010 IWC

Based on the readings, Arcadis is scheduling an inspection to evaluate additional sealing of the barrier to enhance the vacuum performance. Estimated completion date if the inspection and sealing of the liner is by August 31, 2019.

- **12100 Boston Post** – Interim preemptive mitigation system was installed as designed and has been in operation since March 25, 2019. Post mitigation sampling was completed on May 3, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 13, 2019.

A vacuum transmitter was installed on the monitoring point located in the attached garage addition on May 4, 2019, to continuously monitor vacuum levels at SSMP-04 and confirm that vacuum is being maintained, since the vacuum level is less than the performance metric established by EGLE of -0.02 in wc.

On June 11, 2019, sub-slab monitoring point SSMP-01 (located in the slab addition) was measured at -0.002 in wc. However, both of the sub-membrane monitoring point (MP-1 and MP-2) and the sub-slab monitoring points in the attached garage (SSMP-01 and SSMP-03) meet the performance metric established by EGLE of -0.02 in wc. Arcadis is currently evaluating if duct work is located beneath the slab and affecting the vacuum influence. Arcadis spoke to the property owner on July 26, 2019 and addressed the questions provided to Arcadis in an email on July 15, 2019. The property owner has agreed to have a qualified HVAC professional inspect the ducts servicing the slab addition to

determine if lining of the ducts is warranted. Arcadis is currently scheduling that inspection. Anticipated completion date is August 31, 2019 but is dependent on the property owner's availability.

- **12070 Boston Post** – Interim preemptive mitigation system was installed as designed with an interim air purifier unit for the basement and has been in operation since March 13, 2019. A picture of the liner installed in the crawl space is shown below. The property owner reviewed the alternate system design that addressed their concerns. The property owner requested on June 28, 2019 that EGLE provide third party to evaluate the interim preemptive mitigation system. EGLE denied this request on July 5, 2019 indicating that the interim preemptive mitigation system will be reviewed in its entirety once Ford/Arcadis submit the Vapor Intrusion Assessment and Mitigation Plan.

Arcadis and a certified HVAC contractor met with the property owner on July 10, 2019 to evaluate the current furnace and potential positioning of a new tankless water heater, which the property owner would like placed in the area that will be converted from a basement to a crawl space. On July 25, 2019, Arcadis selected a residential licensed builder to complete the additional work as required by the City of Livonia. The contractor is reviewing the scope of work and will apply for the building permit through the City of Livonia. Once the permit has been received, Arcadis will provide the final design to the property owners along with the permit for approval. Arcadis anticipates this work to be completed by September 13, 2019 but is dependent on access and approval from the property owner.



12070 Boston Post liner installed in crawl space

- **34990 Beacon** – Interim preemptive mitigation system is currently in operation with an interim air purifier unit for the basement. Arcadis met the resident on May 21, 2019 and discussed the steps for the application of the RetroCoat. A preconstruction meeting was completed with the property owner on June 5, 2019. The meeting was conducted with Arcadis and Arcadis's subcontractor to review current building conditions and confirm duration of construction and application of RetroCoat. Arcadis finalized the schedule and met with the property owners on July 24, 2019. In order to apply the RetroCoat the furnace and hot water heater will need to be removed. The property owner has stated he works from home and has requested to be put up in a hotel for the entire 5-week period. Arcadis will coordinate temporary lodging for the property owners including a daily per diem for the construction period. The schedule was approved by the resident and the start date of August 12, 2019 was confirmed. The estimated completion date is the week of September 16, 2019.
- **12036 Brewster** - Interim preemptive mitigation system is currently in operation as of April 2, 2019, in combination with an air purifier unit that was deployed on March 17, 2019 for the basement. The block wall depressurization for the basement was not meeting target performance metrics, therefore, Arcadis proposed another design to the property owner and EGLE the week of May 27, 2019.

Subsequently, Arcadis met the property owners on June 3, 2019. Based on that meeting, Arcadis revised the design for the interim preemptive mitigation system and provided the draft design to the property owner on June 6, 2019. The new design includes the application of RetroCoat on the basement floor and walls. Two preconstruction meetings were completed with the property owner on June 5, 2019 and on July 11, 2019 to discuss overall logistics and temporary lodging. The additional work was implemented on July 17, 2019. In order to apply the RetroCoat the furnace and hot water heater will be removed on August 1. Arcadis will coordinate temporary lodging for property owners from August 1 thru August 7th including a daily per diem. In order to apply the RetroCoat the basement was completely emptied and the existing walls, and bathroom were demolished. Arcadis provided three PODs for the storage of the items from the basement. At the homeowner's request, Arcadis worked very closely with the property owner to go through unwanted items which were placed in the dumpster with the demolition materials. Estimated completion is scheduled for the week of August 12, 2019.



12036 Brewster Pods and dumpster



12036 Brewster basement after first application of RetroCoat

- 34682 Beacon** - Interim preemptive mitigation system is currently in operation and has been in operation since May 3, 2019. The system is currently in routine operation and maintenance. Post mitigation sampling will be scheduled 30 days from when the mitigation system started. The sub-slab monitoring points (located in the slab/former attached garage area) SSMP-01 and SSMP-04 were measured at -0.007 in wc and 0.000 in wc respectively. However, both of the sub-membrane monitoring point (MP-4 and MP-5) and the sub-slab monitoring points in the attached garage (SSMP-02 and SSMP-03) meet the performance metric established by EGLE of -0.02 in wc. The slab in the former garage area currently cannot be accessed for crack sealing. However, the property owner indicated on April 17, 2019, that the former garage living space is potentially going to be remodeled in 2019. Arcadis contacted the resident on June 18, 2019 to inquire about when a potential remodel would occur. The property owner indicated that there is no set date for when, or if, the remodeling will occur, therefore Arcadis anticipates moving forward with additional measures.

Arcadis discussed modifications to the current mitigation system with EGLE vapor intrusion expert (Matt Williams) on July 22, 2019. Based on that discussion Arcadis is currently revising the design, which will require a new mitigation system to provide additional vacuum influence under the slab area. Arcadis expects the additional work to be completed by August 31, 2019 but will be dependent on approval from the property owner.

- 34591 Beacon** – Interim preemptive mitigation system is currently in operation and has been in operation since April 19, 2019. The sub-slab monitoring point (located in the slab area) fluctuates

between -0.002 in wc and 0.002 in wc. However, all three of the sub-membrane monitoring point (MP-1, MP-2, and MP-3) meet the performance metric established by EGLE of -0.02 in wc. The renovated living space has a floor that has been built over a concrete slab, which cannot be visually inspected to determine if cracks are present. On July 24, 2019 Arcadis, with the assistance on an HVAC contractor, determined that the duct work servicing the slab area is located above the slab and is therefore not affecting vacuum propagation under the slab. Arcadis is evaluating modifications to the existing interim preemptive mitigation system as described below. Post mitigation sampling was completed the week of May 22, 2019. The laboratory reports have been received, the results are currently being validated and the data package will be provided to all parties consistent with the access agreement.

Arcadis discussed modifications to the current mitigation system with EGLE vapor intrusion expert (Matt Williams) on July 22, 2019. Based on that discussion Arcadis is currently revising the design, which will include an additional suction point installed under the slab area which will be connected to the current mitigation system. Arcadis expects the additional work to be completed by August 31, 2019 but will be dependent on approval from the property owner.

- **34367 Capitol** – The installation of the preemptive mitigation system began on May 13, 2019 but has been delayed due to concerns over the structural integrity of the home construction and safety of working in the crawlspace. On May 16, 2019, Arcadis identified wood bracing in the crawl space that appeared to be supporting a portion of the sub-floor. Arcadis discussed the concern with the homeowner and sent pictures of the bracing supports to the City of Livonia on May 23, 2019. The City of Livonia replied on May 29, 2019 and indicated that the wood bracing would need to be replaced with concrete bases and treated lumber to meet the City of Livonia building code. During this time Arcadis revised the structural design for the supports and requested quotes to complete the work from a licensed contractor. On July 8, 2019, Arcadis supplied the property owners with the remedy to replace the wood bracing with code-compliant structural supports. The property owners approved the design pending city of Livonia approval. Arcadis has contracted a licensed residential builder to install the new supports for the floor. The building permit application was filed on July 29, 2019 and is awaiting inspector approval. Arcadis has tentatively scheduled the repair of the floor supports for the week of August 19th, 2019. Once the new floor supports have been installed and the City of Livonia has inspected the repair, Arcadis will coordinate with the property owners for the completion of the mitigation system. Anticipated completion date is mid-September 2019 but is dependent on the property owner's availability.
- **34480 Capitol** – The installation of the preemptive mitigation system began on April 29, 2019. The property owner is only available Mondays and Tuesdays of each week. Arcadis completed the installation of the initial interim preemptive mitigation system on June 11, 2019. On July 16, 2019, the sub-slab monitoring point SSMP-02 (located in the slab area) was measured between -0.002 in wc and -0.001 in wc. However, all three of the sub-membrane monitoring point (MP-1, MP-2, and MP-3) meet the performance metric established by EGLE of -0.02 in wc.

Arcadis discussed modifications to the current mitigation system with EGLE vapor intrusion expert (Matt Williams) on July 22, 2019. Based on that discussion Arcadis is coordinating with the property owner to line the duct work under the slab addition that is affecting the propagation of vacuum under the slab. Arcadis met with the property owner on July 26, 2019 to inspect the duct underneath the slab addition. Arcadis is currently working with the property owner to schedule the lining of the duct

work. Anticipated completion date is by August 31, 2019 but is dependent on the property owner's availability.

Interim Preemptive Mitigation Systems Declined – Extension Requested

- **12121 Boston Post** –The homeowner was presented with an air purifier on March 21, 2019 as part of the initial preemptive mitigation approach. The air purifier remained on the front porch until March 24, 2019, when an Arcadis employee retrieved the unit. The air purifier was retrieved from the location, so damage did not occur to the unit from being outside and exposed to the weather. The draft design for the preemptive mitigation system was provided on March 29, 2019. On April 16, 2019, the property owners sent an email indicating that Ford nor Arcadis had access to the property any longer. A complaint was filed on July 10, 2019 in the Michigan state court to gain access to this home to complete the installation of the interim preemptive mitigation system.
- **12124 Boston Post** – This property was scheduled for installation of the preemptive mitigation system on March 23, 2019. On March 19, 2019, Arcadis received an email from the property owner declining the installation of the preemptive mitigation system. The property owner indicated that he wanted to discuss in further detail with his attorney. The property owner also declined the air purifier on March 18, 2019, citing the purifier would make too much noise and take up too much space. As of April 16, 2019, Arcadis has been unable to schedule further the installation of the interim preemptive mitigation system. However, the homeowner is allowing Arcadis to complete vapor intrusion sampling. A complaint was filed on July 10, 2019 in the Michigan state court to gain access to this home to complete the installation of the interim preemptive mitigation system.
- **34644 Beacon** - The interim preemptive mitigation system was tentatively scheduled to begin on May 15, 2019. However, the property owner has refused the installation of the interim preemptive mitigation system until the noise of the fans at the adjacent neighbor's property is reduced. In addition, the property owner is only allowing construction activities to occur when they are home, which is after 4:00 PM. The property owner has requested a white liner instead of the black liner in the past.

Arcadis has been working with the property owner to address their concerns, but on June 1, 2019 the property owner contacted Arcadis via telephone indicating that he is not ready to have the system installed and needs to think it over. On July 10, 2019, Arcadis contacted the property owner and again indicated he is not ready for the installation of the interim preemptive mitigation system and asked Arcadis send him the design again so his friend who owns a radon business can review. On July 10, 2019, Arcadis sent the property owner the design, as requested. On July 26, 2019, Arcadis's community liaison met with the property owner to determine if he had any further questions or concerns regarding the design. The property owner indicated that he sent our design to his friend who was a radon installer. Based on the radon installers evaluation of the Arcadis design, the property owner indicated that the interim mitigation system will not do anything to remove vapors and he feels it is unnecessary. The property owner indicated that he does not want his home to be tore up for a system that is not needed, does not work, and indicated that Arcadis will not be installing one in his home.

Because the property owner has now rejected the installation of an interim preemptive mitigation system, Ford's outside counsel plans to amend the complaint seeking access to the properties at

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12121 Boston Post and 12124 Boston Post to also seek access to 34644 Beacon to complete the installation of an interim preemptive mitigation system.

In the July 26, 2019 letter EGLE requested an update for the property located at 12034 Brewster. On April 19, 2019, Arcadis provided EGLE documentation based on groundwater data that had been collected from a newly installed shallow monitoring well MW-192S. Monitoring well MW-192S analytical results showed no presence of vinyl chloride or any other constituent of concern. Based upon that data the 100-foot buffer was moved to the north. Subsequently, 12034 Brewster no longer resided in the 100-foot buffer, therefore the installation of the interim preemptive mitigation system was put on hold. Although the interim preemptive mitigation system installation was put on hold vapor intrusion sampling continues.

Arcadis continues to work diligently to install the interim preemptive mitigation systems and anticipates the installations/modifications of the remaining systems to be completed by the end of August 2019. Due to additional work associated with 34367 Capitol, 34990 Beacon, and 12070 Boston Post, the additional work is expected to be completed by mid-September.