

## Weihemuller, Wendy - DNR

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**From:** Schmoller, Michael R - DNR  
**Sent:** Friday, February 21, 2020 10:01 AM  
**To:** Weihemuller, Wendy - DNR  
**Subject:** FW: [Non-DoD Source] RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)  
**Attachments:** Site Photo #1.jpg; Site Photo #2.jpg; Site Photo #3.jpg; F-35 Flight Sim - Type B-2 - Vol 2 Drawings 2.pdf; F-35 Flight Sim - Type B-2 - Vol 2 Drawings 11.pdf; F-35 Flight Sim - Type B-2 - Vol 2 Drawings 14.pdf

Add to 02-13-585319

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R. Michael Schmoller  
Phone: 608-275-3303  
[Michael.schmoller@wisconsin.gov](mailto:Michael.schmoller@wisconsin.gov)

-----Original Message-----

From: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <[michael.j.dunlap10.mil@mail.mil](mailto:michael.j.dunlap10.mil@mail.mil)>  
Sent: Thursday, February 20, 2020 12:03 PM  
To: Schmoller, Michael R - DNR <[Michael.Schmoller@wisconsin.gov](mailto:Michael.Schmoller@wisconsin.gov)>  
Cc: Dunlap, Mike J - DMA <[michael.j.dunlap10.mil@mail.mil](mailto:michael.j.dunlap10.mil@mail.mil)>  
Subject: RE: [Non-DoD Source] RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

Mike,

Photo #1 is looking to the NE towards B401 which will be demolished. Photo #2 is looking to the SE. Photo #3 is looking to the NW. PDF drawing #2 shows the site in relation to the rest of the base. Drawing 11 shows demolition extents. Drawing 14 shows the finished site. To the north end of the project a stormwater retention basin will be installed to meet EISA 438 requirements.

MICHAEL J. DUNLAP, Lt Col, WI ANG  
Commander, 115 CES/Base Civil Engineer, 115 FW Comm 608-245-4342, DSN 724-8342 Cell 608-286-0010  
[michael.j.dunlap10.mil@mail.mil](mailto:michael.j.dunlap10.mil@mail.mil)

-----Original Message-----

From: Schmoller, Michael R - DNR <[Michael.Schmoller@wisconsin.gov](mailto:Michael.Schmoller@wisconsin.gov)>  
Sent: Wednesday, February 19, 2020 9:14 AM  
To: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <[michael.j.dunlap10.mil@mail.mil](mailto:michael.j.dunlap10.mil@mail.mil)>  
Subject: RE: [Non-DoD Source] RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

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Ok give me a call when you get a chance

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R. Michael Schmoller  
Phone: 608-275-3303  
Michael.schmoller@wisconsin.gov

-----Original Message-----

From: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>  
Sent: Wednesday, February 19, 2020 9:08 AM  
To: Schmoller, Michael R - DNR <Michael.Schmoller@wisconsin.gov>  
Subject: RE: [Non-DoD Source] RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

Copy. I'm checking w/ NGB on their availability next week. I'm open every day all day, Monday - Friday.

MICHAEL J. DUNLAP, Lt Col, WI ANG  
Commander, 115 CES/Base Civil Engineer, 115 FW Comm 608-245-4342, DSN 724-8342 Cell 608-286-0010  
michael.j.dunlap10.mil@mail.mil

-----Original Message-----

From: Schmoller, Michael R - DNR <Michael.Schmoller@wisconsin.gov>  
Sent: Wednesday, February 19, 2020 8:19 AM  
To: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>  
Subject: [Non-DoD Source] RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

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W  
Mike  
We are still organizing out thoughts on soil management, NR 700, etc. We probably will not be in a position to discuss this until next week sometime. I will keep in touch as we proceed internally.

Mike

We are committed to service excellence.

Visit our survey at Caution-Caution-<http://dnr.wi.gov/customersurvey> to evaluate how I did.

R. Michael Schmoller  
Phone: 608-275-3303

Michael.schmoller@wisconsin.gov

-----Original Message-----

From: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>  
Sent: Wednesday, February 12, 2020 3:55 PM  
To: Schmoller, Michael R - DNR <Michael.Schmoller@wisconsin.gov>  
Subject: FW: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

Mike - Does next Thursday anytime from 1000 - 1330 work for you guys? I know that's not a huge window.

MICHAEL J. DUNLAP, Lt Col, WI ANG  
Commander, 115 CES/Base Civil Engineer, 115 FW Comm 608-245-4342, DSN 724-8342 Cell 608-286-0010  
michael.j.dunlap10.mil@mail.mil

-----Original Message-----

From: Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>  
Sent: Wednesday, February 12, 2020 3:21 PM  
To: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>; Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil>; Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil>  
Cc: Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil>; Chambers, Randy S CIV NG NGB (US) <randy.s.chambers.civ@mail.mil>  
Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

I am available Thursday

Elaine Magdinec, PE  
Chief, Structures Branch  
NGB/A4OT  
Shepperd Hall  
3501 Fetchet Avenue  
Joint Base Andrews, MD 20762-5157  
Phone: 240-612-9609  
DSN: 612-9609

-----Original Message-----

From: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>  
Sent: Wednesday, February 12, 2020 3:54 PM  
To: Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil>; Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil>  
Cc: Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>; Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil>; Chambers, Randy S CIV NG NGB (US) <randy.s.chambers.civ@mail.mil>  
Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

Keith/Elaine/Robert - Either of Thang's times below work for you guys?

MICHAEL J. DUNLAP, Lt Col, WI ANG

Commander, 115 CES/Base Civil Engineer, 115 FW Comm 608-245-4342, DSN 724-8342 Cell 608-286-0010  
michael.j.dunlap10.mil@mail.mil

-----Original Message-----

From: Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil>  
Sent: Wednesday, February 12, 2020 9:21 AM  
To: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>; Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil>  
Cc: Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>; Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil>; Chambers, Randy S CIV NG NGB (US) <randy.s.chambers.civ@mail.mil>  
Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans  
(UNCLASSIFIED)

Hi Mike,

My availability: Tuesday afternoon (after your A2 brief) and Thursday (1100-1430).

v/r

Thang  
THANG D. NGUYEN, Maj, USAF  
Project Manager, NGB/A4OT  
JB Andrews, MD 20762  
Comm: 240-612-7091  
DSN: 312-612-7091

-----Original Message-----

From: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>  
Sent: Wednesday, February 12, 2020 10:14 AM  
To: Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil>; Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil>  
Cc: Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>; Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil>; Chambers, Randy S CIV NG NGB (US) <randy.s.chambers.civ@mail.mil>; Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>  
Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans  
(UNCLASSIFIED)

Mike Schmoller our WI DNR rep for PFOS wants us to all get in on a teleconference together next week? I'm looking for your availability. I'm open Tuesday and Wednesday all afternoon. Thursday and Friday all day.

MICHAEL J. DUNLAP, Lt Col, WI ANG  
Commander, 115 CES/Base Civil Engineer, 115 FW Comm 608-245-4342, DSN 724-8342 Cell 608-286-0010  
michael.j.dunlap10.mil@mail.mil

-----Original Message-----

From: Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil>  
Sent: Thursday, February 6, 2020 9:56 AM  
To: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>; Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil>

Cc: Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>; Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil>  
Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

Good morning Mike,

I'm just thinking out loud with your proposals below. Thoughts?

Option 1: I see a lot of positive with this one being with the airport authority which will likely has the remediation avenue figure out as well when their MMP is complete. This will pave way for future 115 FW MCA with the airport authority if the need arises to take care of the soil, water, and/or re-writing the MMP if/when the WIDNR changes its mind.

Option 2: Easily executable. However, future alteration of the plan and any water/soil remediation will need to be managed by the 115 FW via a separate contract.

I'm thinking of leaning toward the MCA avenue more so that relationship will help the 115 FW in the future with respect to PFOS/PFOA. Additionally, the WIDNR will have a hard time non-concur with the plan if the airport authority has already work it out with them.

As for funding, we can provide additional local funds, pending availability of course and you have expended your authority, in the future if you need it.

v/r  
Thang

THANG D. NGUYEN, Maj, USAF  
Project Manager, NGB/A4OT  
JB Andrews, MD 20762  
Comm: 240-612-7091  
DSN: 312-612-7091

-----Original Message-----

From: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>  
Sent: Wednesday, February 05, 2020 10:20 PM  
To: Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil>; Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil>  
Cc: Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>; Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil>; Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>  
Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

Keith,

We actually never got a soil sample from a future construction site. We did take a water sample at the site of our future medical readiness facility (site to the north of our track) where the combined PFOS/PFOA was 27 PPT.

Thang - For moving forward on getting a MMP started/completed, I've had a couple of ideas.

1) Use Local SRM on Appendix 21 to have the State contract this out for me. They would route the money through the MCA to the Airport who has Mead & Hunt on retainer. Mead & Hunt is currently writing work plans for the Airport to deal w/ PFOS in their storm water system.

2) Send a MIPR to the USACE for them to put AECOM (who the WI DNR has recommended based on previous MMP's that AECOM has written and gotten approved) on a task order. AECOM is currently a contractor that USACE has as one of their National IDIQ A&E firms.

Would either of those two options work from your perspective?

MICHAEL J. DUNLAP, Lt Col, WI ANG  
Commander, 115 CES/Base Civil Engineer, 115 FW Comm 608-245-4342, DSN 724-8342 Cell 608-286-0010  
michael.j.dunlap10.mil@mail.mil

-----Original Message-----

From: Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil>  
Sent: Tuesday, February 4, 2020 9:09 AM  
To: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil>; Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil>  
Cc: Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>; Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil>  
Subject: FW: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

Lt Col Dunlap, Maj Thang,

Below is an e-mail chain with Randy on the MMP requirement. If you start at the bottom of this e-mail chain you will find Randy's legal opinion on the MMP followed by Robert's comments and Randy's response. In a nutshell, a WIDNR MMP will be required. The challenge there will be whether the WIDNR will accept us using the US EPA RSL for soil (1.26 ppm) cited in

AFGM2019-32-01 and if they reject that number how do they justify a lower number...I realize they already indicated they will not accept 1.26 ppm.

Based on the soil samples collected to date, do you have an estimate of the volumes of soil to be removed that are above or below 1.26 ppm?

Thanks,  
-Keith

-----Original Message-----

From: Chambers, Randy S CIV NG NGB (US) <randy.s.chambers.civ@mail.mil>  
Sent: Tuesday, February 04, 2020 9:56 AM  
To: Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil>; Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>  
Cc: Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil>; DEFEQ, Richard L (Rich) Lt Col USAF NGB A4 (USA) <richard.l.defeo.mil@mail.mil>; Sarmina, Manuel CIV USAF NGB A7 (USA) <manuel.sarmina.civ@mail.mil>  
Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Hi Robert. You have zeroed in on a subject that I suspected would cause friction. The short answer is that we would follow the EPA/AF standard.

Shouldn't be an issue as long as the soil remains on-site. Even under WI rules soil that remains on-site appears to be exempt. The issue will be soil that is transported off-site as landfills will probably not accept soil at any level of contamination until standards are established because of a fear of liability if they accept soil that is later classified as being hazardous.

-----Original Message-----

From: Subasavage, Robert J CIV USAF NGB A4 (USA)

Sent: Tuesday, February 4, 2020 9:32 AM

To: Chambers, Randy S CIV NG NGB (US) <randy.s.chambers.civ@mail.mil>; Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>

Cc: Freihofner, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofner.civ@mail.mil>; DEFEO, Richard L (Rich) Lt Col USAF NGB A4

(USA) <richard.l.defeo.mil@mail.mil>; Sarmina, Manuel CIV USAF NGB A7 (USA) <manuel.sarmina.civ@mail.mil>

Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

Randy,

Thank you for sending along this legal opinion. It is quite insightful.

If the base were to move forward with the below approach, at what levels would PFAS constituents in soil (PFOS and PFOA) need to be managed and removed as such? I realize you wouldn't know the numerical value, but would guidance would need to be followed?

The attached AFGM2019-32-01 (dated 5 Sep 2019 and issued prior to the FY20 NDAA language) provides a tiered approach for addressing soil impacted by PFOS/PFOA:

- 1) PFOS/PFOA in soil detected above the US EPA risk-based screening level (RSL) for soil of 1.26 parts per million (ppm), determined by calculation using the US EPA oral reference dose for PFOS/PFOA, must use Incineration/thermally destructive technology at an approved permitted facility. Thermal regeneration temperature must reach and be sustained above 1,700 degrees Fahrenheit throughout destruction process. An alternative option for large volumes of soil with higher concentrations of PFOS/PFOA is the RCRA Subtitle C landfill option. Used for disposal of hazardous solid waste. AFFF product or if AFFF-related waste is co-mingled with another COC with concentrations exceeding regulatory standards and regulated hazardous waste was identified and properly managed for disposal.
- 2) PFOS/PFOA in soil detected at less than or equal to the US EPA RSL for soil (1.26 ppm) can utilize a RCRA Subtitle D landfill. Used for disposal of non-hazardous municipal, industrial, and construction and demolition (C&D) solid waste. This treatment option is practical for low volume, low concentration waste, with little probability for drinking water contamination.

From an exchange of e-mails with Lt Col Dunlap from the 115 FW at Truax, the WI DNR has indicated that the US EPA risk-based screening level (RSL) for soil of 1.26 parts per million (ppm) would not be an acceptable threshold. They didn't indicate what their threshold would be, but that it would be lower than this. In addition, the WI DNR indicated that the 115 FW is unlikely to find any RCRA Subtitle D landfills in WI willing to take soil impacted with PFOS/PFOA. I see where this is headed but for the sake of the base and the associated construction costs, what level/threshold of PFOS/PFOA in soil would be the trigger for requiring incineration/thermally destructive technology or the RCRA Subtitle C landfill option of that removed soil? Any detectable level? And is relocating it somewhere else on base an option for consideration?

Thank you again for your insight and attention to detail on this issue.

Robert

Robert J. Subasavage, GS-14  
Chief, Environmental Branch  
NGB/A4AN

Shepperd Hall  
3501 Fetchet Ave  
Joint Base Andrews, MD 20762-5157  
240.612.8265 (voice)  
612.8265 (DSN)

-----Original Message-----

From: Chambers, Randy S CIV NG NGB (US) <randy.s.chambers.civ@mail.mil>  
Sent: Monday, February 3, 2020 5:56 PM  
To: Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil>; Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>  
Cc: Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil>  
Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

The situation in Wisconsin presents an interesting legal issue. The Air Force/Air National Guard (AF/ANG) have proposed the beddown of F-35 aircraft at Truax Field Air National Guard Base (ANGB). The beddown would require construction projects on the ANGB. The Wisconsin Department of Natural Resources (WI DNR) is saying that the AF/ANG must prepare a soil management plan (also called a Media Management Plan (MMP)) to provide details on how the contaminated soil and other solid waste will be characterized and ultimately managed. The question asked is whether the AF/ANG is required to prepare a MMP. The answer is yes.

The AF/ANG is currently conducting a CERCLA investigation for PFAS releases.

Under CERCLA the federal government is the lead agency and must remediate sites under federal law and in compliance with state requirements that qualify as an applicable or relevant and appropriate requirement (ARAR).

For purposes of CERCLA, the state of WI does not currently have state standards that are recognized as ARARs. But in the case at hand the issue is not a CERCLA cleanup action so much as how do we address construction waste. In the state of WI, the management of contaminated soil or other solid wastes encountered during construction or utility projects are considered "response actions." Part of the confusion in this case is that a "response action" is normally a CERCLA term, but in this case the state of WI has also adopted the term for the management of contaminated soil encountered during construction.

Applicable Legal Requirements:

1. Federal agencies, and state Guards utilizing federal contracting procedures, who use MILCON for construction are not required to obtain state construction or zoning permits. While substantive requirements will generally be met, the



federal government is not required to follow procedural requirements (permits are procedural) as long as it follows "one of the nationally recognized model building codes and with other applicable nationally recognized codes, including electrical codes, fire and life safety codes, and plumbing codes...." 40 U.S.C. § 3312. State authorities are to be consulted with and provided a reasonable opportunity to submit comments; but at the end of the day permits are procedural, not substantive requirements.

Therefore, if the MMP is required as part of a construction permit, then the federal government is not specifically required to receive approval from the state before proceeding. We would need to fulfill the substantive requirements, i.e. have a plan in place on what to do with contaminated media, but that plan would not necessarily require state approval.

2. The above, however, does not apply to environmental permits. The federal government, including Guard facilities, is required to obtain environmental permits that would be required of any other private party performing construction activities. The reason why environmental permits are different from general construction permits is because the federal government has waived its sovereign immunity in relation to most environmental statutes.

Therefore, if the MMP is an environmental requirement, then the federal government would need to understand if the particular environmental statute that mandates a MMP is one in which the federal government has waived sovereign immunity. If so, then state approval would be required; if not, then state approval would not be required.

3. Contaminated soil and other solid wastes that are generated as part of a response action under the state's cleanup rules may be eligible for an exemption from state solid waste laws in Wis. Stat. § 292 and Wis. Admin. Code §§ NR 500 to 538. The Wis. Admin. Code § NR 700 rule series governs the response to and cleanup of hazardous substance discharges and environmental pollution. Exemptions to solid waste management are granted under Wis. Admin. Code §§ NR 500.08(6), NR 718.12 and NR 718.15. The federal equivalent to these statutory and administrative codes would be CERCLA (restoration of releases of hazardous substances, pollutants and contaminants) and RCRA (management of solid and hazardous waste). The federal government has not generally waived sovereign immunity under CERCLA but it has waived sovereign immunity for RCRA.

Therefore, whether WI DNR can require that they approve the MMP would depend on whether the contaminated soil is or is not a federally recognized solid or hazardous waste.

4. The federal government has not established at what levels PFAS contaminated soil would be considered a solid or hazardous waste. Congress, however, has provided guidance to DoD facilities in the 2020 National Defense Authorization Act (NDAA). According to Section 330 of the NDAA, DoD will dispose or incinerate PFAS containing material as a hazardous waste IAW RCRA standards.

Therefore, if any soil is contaminated with PFAS and is to be disposed of off-site, it will need to be disposed of under Hazardous Waste rules.

Section 330 does not address disposal on-site but common sense would indicate that some plan to manage the soil would be prudent, at least until such time as the CERCLA process has been completed and a Record of Decision has been signed determining what actions are to be taken to remediate any PFAS releases.

Conclusion:

1. A MMP would be required under any normal construction project in which there was an expectation of contaminated soil and other solid waste.

Therefore a MMP should be prepared for the F-35 beddown construction.

2. If the only contamination of concern is PFAS, the issue isn't settled whether WI DNR can require/mandate disposal requirements, but under the NDAA disposal off-site must be in accordance with hazardous waste requirements.

If the parties cannot agree on the contents of the MMP, the parties can attempt to negotiate mutually acceptable terms. If terms cannot be mutually agreed on then additional administrative or legal steps can be reviewed.

Recommendation: Inform WI DNR that a MMP will be accomplished to address construction wastes.

Let me know if you have any questions.

Randy Chambers  
Chief, Environmental Law  
Office of Chief Counsel  
National Guard Bureau  
703-607-2729 or DSN 327-2729

-----Original Message-----

From: Subasavage, Robert J CIV USAF NGB A4 (USA)  
Sent: Friday, January 31, 2020 4:14 PM  
To: Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>  
Cc: Chambers, Randy S CIV NG NGB (US) <randy.s.chambers.civ@mail.mil>; Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil>  
Subject: FW: F-35, PFOS, AFGM on PFOS, and Media Management Plans

Elaine,

Here's the traffic on the Truax F-35 construction situation. It appears that the WI DNR is trying to hold them hostage and call the removal of soil for construction (grading, etc.) a removal action which drives all sorts of required actions. Lt Col Dunlap has been persistent in trying to get a path forward.

Robert

Robert J. Subasavage, GS-14  
Chief, Environmental Branch  
NGB/A4AN  
Shepperd Hall  
3501 Fetchet Ave  
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From: Subasavage, Robert J CIV USAF NGB A4 (USA)  
Sent: Monday, January 27, 2020 2:43 PM  
To: Chambers, Randy S CIV NG NGB (US) <randy.s.chambers.civ@mail.mil>; Gray, Philip B CIV NG NGB (USA) <philip.b.gray.civ@mail.mil>  
Cc: Chambers, Scott P Col USAF NG NGB (US) <scott.p.chambers2.mil@mail.mil>; Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil>; Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil>;

Sattazahn, Joel D Lt Col USAF NGB A4 (USA) <joel.d.sattazahn.mil@mail.mil>; Sundy, Joseph T (Joe) Lt Col USAF NGB A4 (USA) <joseph.t.sundy2.mil@mail.mil>; Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil>  
Subject: FW: F-35, PFOS, AFGM on PFOS, and Media Management Plans

Randy/Burton,

Hope you guys can help us out with this one. You are likely familiar with the overall situation regarding the 115 FW at Truax and F-35 and PFOS/PFOA.

Lt Col Dunlap's e-mail all the way below frames the problem statement quite well. In the attached, the State EM sent over some references to where the Media Management Plan (MMP) comes from. At first glance to me it seems associated with a Response Action, which is not what the BCE is trying to do. The BCE is trying to do construction in areas that may/may not be impacted with PFOS/PFOA and is trying to plan accordingly. The WI DNR seems to want them to follow the State of Wisconsin NR 700 process for that which I don't believe applies to construction soils. Can you all help us here?

Keith Freihofer is the Restoration PM for Wisconsin. I'm pushing this as a holdover from my Restoration days last month.

Thank you for any insight you all can provide.

Robert

Robert J. Subasavage, GS-14  
Chief, Environmental Branch  
NGB/A4AN  
Shepperd Hall  
3501 Fetchet Ave  
Joint Base Andrews, MD 20762-5157  
240.612.8265 (voice)  
612.8265 (DSN)

From: Gustke, Susan J NFG USAF 115 MSG (USA) <susan.j.gustke.nfg@mail.mil <Caution-Caution-mailto:susan.j.gustke.nfg@mail.mil> >  
Sent: Friday, January 24, 2020 12:15 PM  
To: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil <Caution-Caution-mailto:michael.j.dunlap10.mil@mail.mil> >; Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil <Caution-Caution-mailto:robert.j.subasavage.civ@mail.mil> >; Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil <Caution-Caution-mailto:thang.d.nguyen4.mil@mail.mil> >; Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil <Caution-Caution-mailto:elaine.a.magdinec.civ@mail.mil> >; Sattazahn, Joel D Lt Col USAF NGB A4 (USA) <joel.d.sattazahn.mil@mail.mil

<Caution-Caution-mailto:joel.d.sattazahn.mil@mail.mil> >

Cc: Sundy, Joseph T (Joe) Lt Col USAF NGB A4 (USA) <joseph.t.sundy2.mil@mail.mil <Caution-Caution-mailto:joseph.t.sundy2.mil@mail.mil> >; Merkel, Charles C Lt Col USAF (USA) <charles.c.merkel.mil@mail.mil <Caution-Caution-mailto:charles.c.merkel.mil@mail.mil> >; Statz, Daniel Phillip (Dan) Lt Col USAF 115 MSG (USA) <daniel.p.statz.mil@mail.mil <Caution-Caution-mailto:daniel.p.statz.mil@mail.mil> >; Shaw, Matthew L Capt USAF 115 MSG (USA) <matthew.l.shaw4.mil@mail.mil <Caution-Caution-mailto:matthew.l.shaw4.mil@mail.mil> >; Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil <Caution-Caution-mailto:keith.e.freihofer.civ@mail.mil> >  
Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans

Robert,

I know NGB keeps saying "We are following the CERCLA process", but the State of Wisconsin is expecting the 115FW to follow the NR 700 process.

NR 700-754 are the implementing regulations for the state CERCLA law, Wisconsin Statute ch 292.

In Wisconsin law, the definitions of "environmental pollution" and "discharge" of a "hazardous substance" are not the same as the definition of a hazardous substance in the federal Superfund law and in some other states' laws.

According to information on the WDNR website (see attached '1802PFCarticle') "In Wisconsin, persons responsible for the discharge of PFASs to the air, land or waters of the state will need to immediately notify the state, conduct a site investigation, determine the appropriate clean-up standards for the PFAS compounds in each media impacted (e.g. soil, groundwater, surface water and sediment), and conduct the necessary response actions."

The 115FW has been identified as a "Responsible Party" and has been instructed to take certain steps required by state law (see attached RP letter). My interpretation of the WDNR's point of view is that construction sites anywhere on the installation meet the definition of a "response action site". Chapter NR 718, Wis. Adm. Code, governs the management of contaminated soils originating at response action sites. NR 718.12(2)(b) requires that "Prior to managing contaminated soil under s. NR 718.12, responsible parties shall submit a soil management plan to the department for review and approval."

I've attached some reference documents:

Wisconsin Administrative Code NR718

A flow chart of the NR 700 process

Guidance document on Management of Contaminated Soil (RR060)

Guidance document on Exempt Soil Management (RR103)

Article re WDNR's authority to regulate emerging contaminants (1802)

RP letter dated 22 June 2018

I feel like this is more information than is necessary, but I have a hard time navigating these regulations, and just wanted to provide some resources and background.

V/R,

Susan J. Gustke, P.E.

State Environmental Manager

115 CES/CEIE

Truax Field | Madison WI

(608) 245-4697

DSN: 724-8697

P.S. Apologies if you received this twice. Outlook locked up the first time I sent, and the message was not in my 'sent' folder.

From: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil <Caution-Caution-mailto:michael.j.dunlap10.mil@mail.mil> >  
Sent: Thursday, January 23, 2020 10:12 PM  
To: Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil <Caution-Caution-mailto:robert.j.subasavage.civ@mail.mil>  
>; Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil  
<Caution-Caution-mailto:thang.d.nguyen4.mil@mail.mil> >; Magdinec, Elaine A CIV NG NGB (USA)  
<elaine.a.magdinec.civ@mail.mil <Caution-Caution-mailto:elaine.a.magdinec.civ@mail.mil> >; Sattazahn, Joel D Lt Col  
USAF NGB A4 (USA) <joel.d.sattazahn.mil@mail.mil <Caution-Caution-mailto:joel.d.sattazahn.mil@mail.mil> >; Gustke,  
Susan J NFG USAF 115 MSG  
(USA) <susan.j.gustke.nfg@mail.mil <Caution-Caution-mailto:susan.j.gustke.nfg@mail.mil> >  
Cc: Sundy, Joseph T (Joe) Lt Col USAF NGB A4 (USA) <joseph.t.sundy2.mil@mail.mil <Caution-Caution-  
mailto:joseph.t.sundy2.mil@mail.mil> >; Merkel, Charles C Lt Col USAF (USA) <charles.c.merkel.mil@mail.mil <Caution-  
Caution-mailto:charles.c.merkel.mil@mail.mil> >; Statz, Daniel Phillip (Dan) Lt Col USAF 115 MSG (USA)  
<daniel.p.statz.mil@mail.mil <Caution-Caution-mailto:daniel.p.statz.mil@mail.mil> >; Shaw, Matthew L Capt USAF 115  
MSG  
(USA) <matthew.l.shaw4.mil@mail.mil <Caution-Caution-mailto:matthew.l.shaw4.mil@mail.mil> >; Freihofer, Keith E  
CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil <Caution-Caution-mailto:keith.e.freihofer.civ@mail.mil> >  
Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans

Robert,

Yes the Media Management Plan (MMP) is a State of WI thing that can be found in WI State Statuettes 700 series. They also understand that this is not a clean-up, but rather management of any impacted media we disturb. I've cc:'d Sue Gutske our State Environmental employee. She can explain more to this group what the NR 700 series discusses. My basic understanding of it is that the State of WI devised the law that in the absence of promulgated standards, a known contaminant needs to be evaluated from a public's risk of contact perspective and manage as necessary to reduce public risk. I do know that they thought the 1,200 micrograms/L was too high of an acceptable level, but didn't provide a number that they felt protected human exposure.

They were open to just doing one material management plan for the entire base so that additional plans would not be necessary in the future to manage materials found in any future projects.

Sue - on to you for your expertise.

MICHAEL J. DUNLAP, Lt Col, WI ANG

Commander, 115 CES/Base Civil Engineer, 115 FW

Comm 608-245-4342, DSN 724-8342

Cell 608-286-0010

michael.j.dunlap10.mil@mail.mil <Caution-Caution-mailto:michael.j.dunlap10.mil@mail.mil>

From: Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil <Caution-Caution-mailto:robert.j.subasavage.civ@mail.mil>

>

Sent: Thursday, January 23, 2020 1:54 PM

To: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil <Caution-Caution-mailto:michael.j.dunlap10.mil@mail.mil> >; Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil <Caution-Caution-mailto:thang.d.nguyen4.mil@mail.mil> >; Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil <Caution-Caution-mailto:elaine.a.magdinec.civ@mail.mil> >; Sattazahn, Joel D Lt Col USAF NGB A4 (USA) <joel.d.sattazahn.mil@mail.mil <Caution-Caution-mailto:joel.d.sattazahn.mil@mail.mil> >

Cc: Sundry, Joseph T (Joe) Lt Col USAF NGB A4 (USA) <joseph.t.sundry2.mil@mail.mil <Caution-Caution-mailto:joseph.t.sundry2.mil@mail.mil> >; Merkel, Charles C Lt Col USAF (USA) <charles.c.merkel.mil@mail.mil <Caution-Caution-mailto:charles.c.merkel.mil@mail.mil> >; Statz, Daniel Phillip (Dan) Lt Col USAF 115 MSG (USA) <daniel.p.statz.mil@mail.mil <Caution-Caution-mailto:daniel.p.statz.mil@mail.mil> >; Shaw, Matthew L Capt USAF 115 MSG

(USA) <matthew.l.shaw4.mil@mail.mil <Caution-Caution-mailto:matthew.l.shaw4.mil@mail.mil> >; Freihofer, Keith E CIV USAF NGB A4 (USA) <keith.e.freihofer.civ@mail.mil <Caution-Caution-mailto:keith.e.freihofer.civ@mail.mil> >

Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans

Lt Col Dunlap,

Has the DNR provided a reference for the Material Management Plan (MMP)?

I'm guessing that is a State of WI specific thing. It will be helpful to know and understand the requirements of a MMP.

I hope the DNR realizes you are not cleaning up any PFOS. That's not the intent of your efforts you just have to manage any impacted media you disturb. I don't know how they can require anything lower than the AFGM without any state promulgated standards. In addition, I don't recall if you all had any elevated levels of PFOS in soil? I know it's in the groundwater and don't know your depth to groundwater to know if the construction activities will impact groundwater or not.

On the landfill part of it, we have been hearing this more and more as well.

I know there was an AF project in Alaska that had to spend millions to truck PFOS impacted soil from a MILCON project a long distance to get someone to take it. But there the State of AK had a promulgated standard.

Having and understanding the legal requirement for the MMP would be helpful.

We pinged Randy Chambers again last week when he was here for the finalized letter. He realizes it is in his queue and just needs to incorporate AFLOA/JACE's comments into his draft version. We will continue to follow-up with him for a status.

Robert

Robert J. Subasavage, GS-14

Chief, Environmental Branch

NGB/A4AN

Shepperd Hall

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Joint Base Andrews, MD 20762-5157

240.612.8265 (voice)

612.8265 (DSN)

From: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil <Caution-Caution-mailto:michael.j.dunlap10.mil@mail.mil> >  
Sent: Thursday, January 23, 2020 2:16 PM  
To: Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil <Caution-Caution-mailto:thang.d.nguyen4.mil@mail.mil> >; Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil <Caution-Caution-mailto:robert.j.subasavage.civ@mail.mil> >; Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil <Caution-Caution-mailto:elaine.a.magdinec.civ@mail.mil> >; Sattazahn, Joel D Lt Col USAF NGB A4 (USA) <joel.d.sattazahn.mil@mail.mil <Caution-Caution-mailto:joel.d.sattazahn.mil@mail.mil> >  
Cc: Sundry, Joseph T (Joe) Lt Col USAF NGB A4 (USA) <joseph.t.sundry2.mil@mail.mil <Caution-Caution-mailto:joseph.t.sundry2.mil@mail.mil> >; Merkel, Charles C Lt Col USAF (USA) <charles.c.merkel.mil@mail.mil <Caution-Caution-mailto:charles.c.merkel.mil@mail.mil> >; Statz, Daniel Phillip (Dan) Lt Col USAF 115 MSG (USA) <daniel.p.statz.mil@mail.mil <Caution-Caution-mailto:daniel.p.statz.mil@mail.mil> >; Shaw, Matthew L Capt USAF 115 MSG (USA) <matthew.l.shaw4.mil@mail.mil <Caution-Caution-mailto:matthew.l.shaw4.mil@mail.mil> >; Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil <Caution-Caution-mailto:michael.j.dunlap10.mil@mail.mil> >  
Subject: RE: F-35, PFOS, AFGM on PFOS, and Media Management Plans

FYI - Forgot to say this in my earlier e-mail.

- 1) WI DNR stated the first thing we need to do is hire a firm that is familiar w/ WI Stat. NR 700 series that has a Professional Geologist and Professional Engineer.
- 2) They provided me w/ a list of firms that have produced satisfactory work for them in the past. AECOM (who's on the National IDIQ) was one of them for building material management plans.
- 3) They stated if I had a firm on contract starting today, we're roughly 6 months away from having the Material Management Plan approved.
- 4) We've planned to have the F-35 Sim project start construction mid-September 2020 (8 months away) to meet first aircraft arrival (April 2023). That allows for 1.5 years for construction, 6 months of simulator install (LM stated timeline), and 6 months of pilots flying the sim (AF stated timeline) prior to FAA.
- 5) Simulator design is 95% complete.



MICHAEL J. DUNLAP, Lt Col, WI ANG

Commander, 115 CES/Base Civil Engineer, 115 FW

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Cell 608-286-0010

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From: Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil <Caution-Caution-mailto:thang.d.nguyen4.mil@mail.mil> >  
Sent: Thursday, January 23, 2020 11:55 AM  
To: Subasavage, Robert J CIV USAF NGB A4 (USA) <robert.j.subasavage.civ@mail.mil <Caution-Caution-mailto:robert.j.subasavage.civ@mail.mil>  
>; Magdinec, Elaine A CIV NG NGB (USA) <elaine.a.magdinec.civ@mail.mil  
<Caution-Caution-mailto:elaine.a.magdinec.civ@mail.mil> >  
Cc: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil <Caution-Caution-mailto:michael.j.dunlap10.mil@mail.mil> >  
Subject: FW: F-35, PFOS, AFGM on PFOS, and Media Management Plans

Good afternoon Ms. Elaine and Robert,

FYSA, please see Lt Col Dunlap's email below concerning WI DNR requirement with respect to PFOS and clean up. If you have specific guidance in helping addressing WI DNR issues, it's greatly appreciated.

v/r  
Thang

THANG D. NGUYEN, Maj, USAF

Project Manager, NGB/A40T

JB Andrews, MD 20762

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From: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil <Caution-Caution-mailto:michael.j.dunlap10.mil@mail.mil> >  
Sent: Thursday, January 23, 2020 12:29 PM

To: Sattazahn, Joel D Lt Col USAF NGB A4 (USA) <joel.d.sattazahn.mil@mail.mil <Caution-Caution-mailto:joel.d.sattazahn.mil@mail.mil> >; Sundy, Joseph T (Joe) Lt Col USAF NGB A4 (USA) <joseph.t.sundy2.mil@mail.mil <Caution-Caution-mailto:joseph.t.sundy2.mil@mail.mil> >  
Cc: Dunlap, Michael J (Mike) Lt Col USAF 115 MSG (USA) <michael.j.dunlap10.mil@mail.mil <Caution-Caution-mailto:michael.j.dunlap10.mil@mail.mil> >; Merkel, Charles C Lt Col USAF (USA) <charles.c.merkel.mil@mail.mil <Caution-Caution-mailto:charles.c.merkel.mil@mail.mil> >; Shaw, Matthew L Capt USAF 115 MSG (USA) <matthew.l.shaw4.mil@mail.mil <Caution-Caution-mailto:matthew.l.shaw4.mil@mail.mil> >; Statz, Daniel Phillip (Dan) Lt Col USAF 115 MSG (USA) <daniel.p.statz.mil@mail.mil <Caution-Caution-mailto:daniel.p.statz.mil@mail.mil> >; Nguyen, Thang D Maj USAF NG NGB (USA) <thang.d.nguyen4.mil@mail.mil <Caution-Caution-mailto:thang.d.nguyen4.mil@mail.mil> >  
Subject: F-35, PFOS, AFGM on PFOS, and Media Management Plans

Joel,

I called what I believe is your number but got a weird voicemail. I left a message on Joe's phone, but he's out till Friday. Please call regarding this e-mail so we can discuss.

I met with the DNR yesterday concerning our plan for dealing w/ PFOS on F-35 (and other) construction sites. Plan was we test during design like we've started doing, put those numbers into the plans and specs for contractors to bid on using the PFOS AFGM disposal requirements as what we clean up to for any material disturbed during construction.

DNR said that won't work.

They view each construction site as contaminated w/ PFOS since the RI found it at the release locations and at the base boundary. As such, they want a media management plan for soil and water and that the clean-up will be lower than the AFGM. They didn't say how low that that would be determined in the MMP. However, I'm not sure NGB is willing to bite off on that being lower than the AFGM. We do not have promulgated standards. This is a much larger conversation than just the two of us. A MMP would drastically impact our timeline for construction. Not doing a MMP and claiming we're doing the AFGM would be a public relations nightmare. We have the RoD coming up.

Regardless of the F-35, this MMP will impact any construction we try and do that disturbs earth. We were planning to do a fencing project this year.

Right now, that can't happen. The 115th needs NGB to have this discussion with us and decisions made so that we can either move forward with a MMP or move forward with the AFGM. To make matters worse, the DNR stated yesterday that there are no landfills in WI that are willing to accept PFOS contaminated material due to concerns about leachate concentrations at a later date.

In related news, I saw the question you posed to the Randy/Keith back on 8 January as to the status of the letter they were going to provide us back in October. It's been 2 weeks and I haven't gotten any response from them again. I'm afraid that the current situation that we're facing w/ MMP's will be a repeat of what we've had on getting a letter out of Randy/Keith on a DNR letter sent to us in Oct.

MICHAEL J. DUNLAP, Lt Col, WI ANG

Commander, 115 CES/Base Civil Engineer, 115 FW

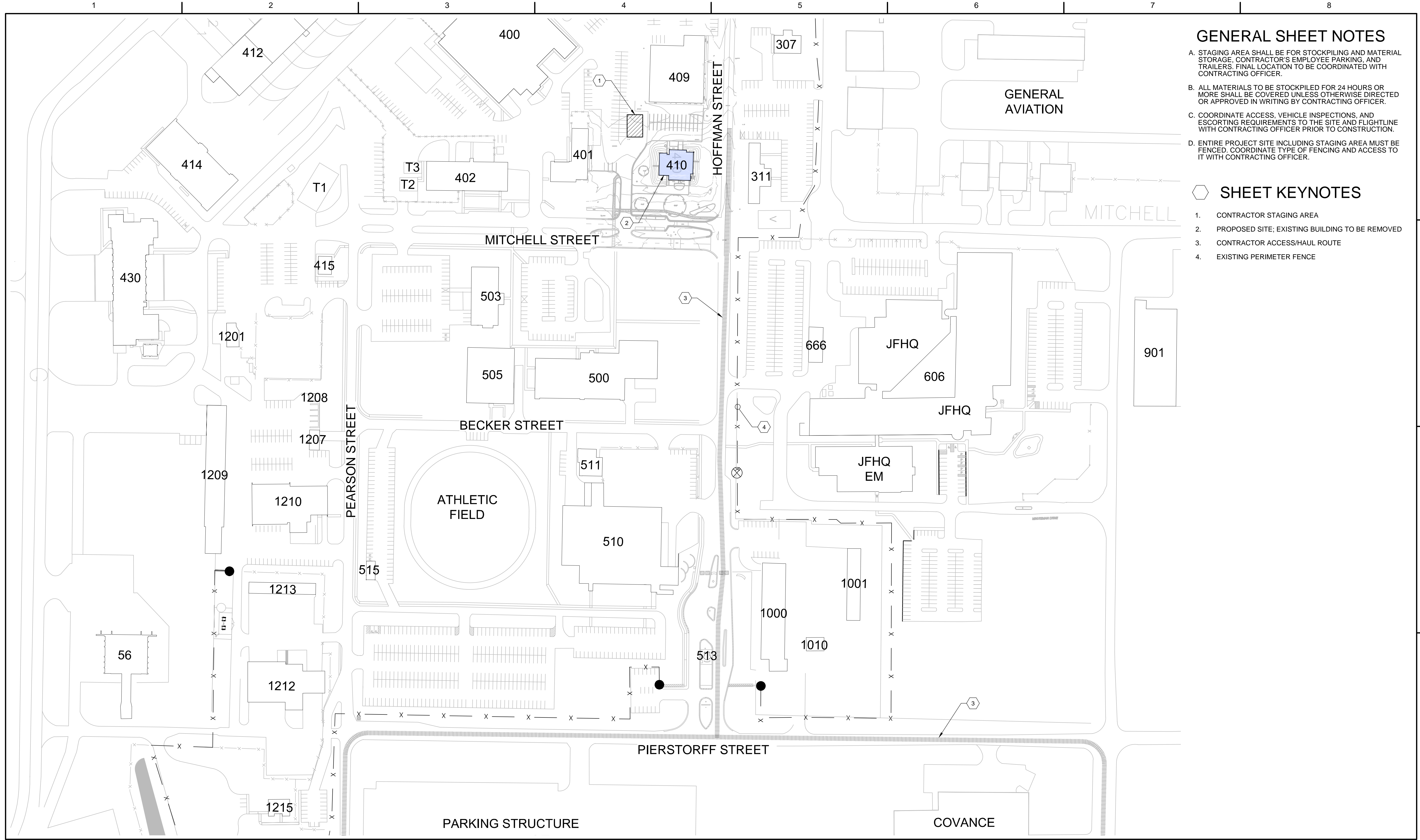
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CLASSIFICATION: UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED



**GENERAL SHEET NOTES**

- A. STAGING AREA SHALL BE FOR STOCKPILING AND MATERIAL STORAGE, CONTRACTOR'S EMPLOYEE PARKING, AND TRAILERS. FINAL LOCATION TO BE COORDINATED WITH CONTRACTING OFFICER.
- B. ALL MATERIALS TO BE STOCKPILED FOR 24 HOURS OR MORE SHALL BE COVERED UNLESS OTHERWISE DIRECTED OR APPROVED IN WRITING BY CONTRACTING OFFICER.
- C. COORDINATE ACCESS, VEHICLE INSPECTIONS, AND ESCORTING REQUIREMENTS TO THE SITE AND FLIGHTLINE WITH CONTRACTING OFFICER PRIOR TO CONSTRUCTION.
- D. ENTIRE PROJECT SITE INCLUDING STAGING AREA MUST BE FENCED. COORDINATE TYPE OF FENCING AND ACCESS TO IT WITH CONTRACTING OFFICER.

**SHEET KEYNOTES**

- 1. CONTRACTOR STAGING AREA
- 2. PROPOSED SITE; EXISTING BUILDING TO BE REMOVED
- 3. CONTRACTOR ACCESS/HAUL ROUTE
- 4. EXISTING PERIMETER FENCE

**CH2M HILL – HDR JV**

ISSUE	DATE	DESCRIPTION
4	10/23/2019	B-2 SUBMITTAL
1	4/25/2019	B-1 SUBMITTAL

<b>PROJECT MANAGER</b> CHRIS MANZ (CH2M)	
CIVIL	A. THOMPSON (CH2M)
STRUCTURAL	B. BRADLEY (HDR)
ARCHITECTURAL	S. HEANEY (HDR)
ELECTRICAL	M. OSSANNA (CH2M)
MECHANICAL	T. PRICE (CH2M)
FIRE PROTECTION	R. RICHTER (HDR)
COMMUNICATIONS	M. ADKINS (CH2M)
<b>PROJECT NUMBER</b>	10126384

**PRELIMINARY  
NOT FOR  
CONSTRUCTION  
OR  
RECORDING**



**TRUAX F-35 FLIGHT  
SIMULATOR  
(BUILDING B424)**

**SITE ACCESS, STAGING,  
AND HAUL ROUTE**

**SCALE** 1" = 100'

**FILENAME** 10126384-C001\_OV.DWG

**SHEET  
C001**



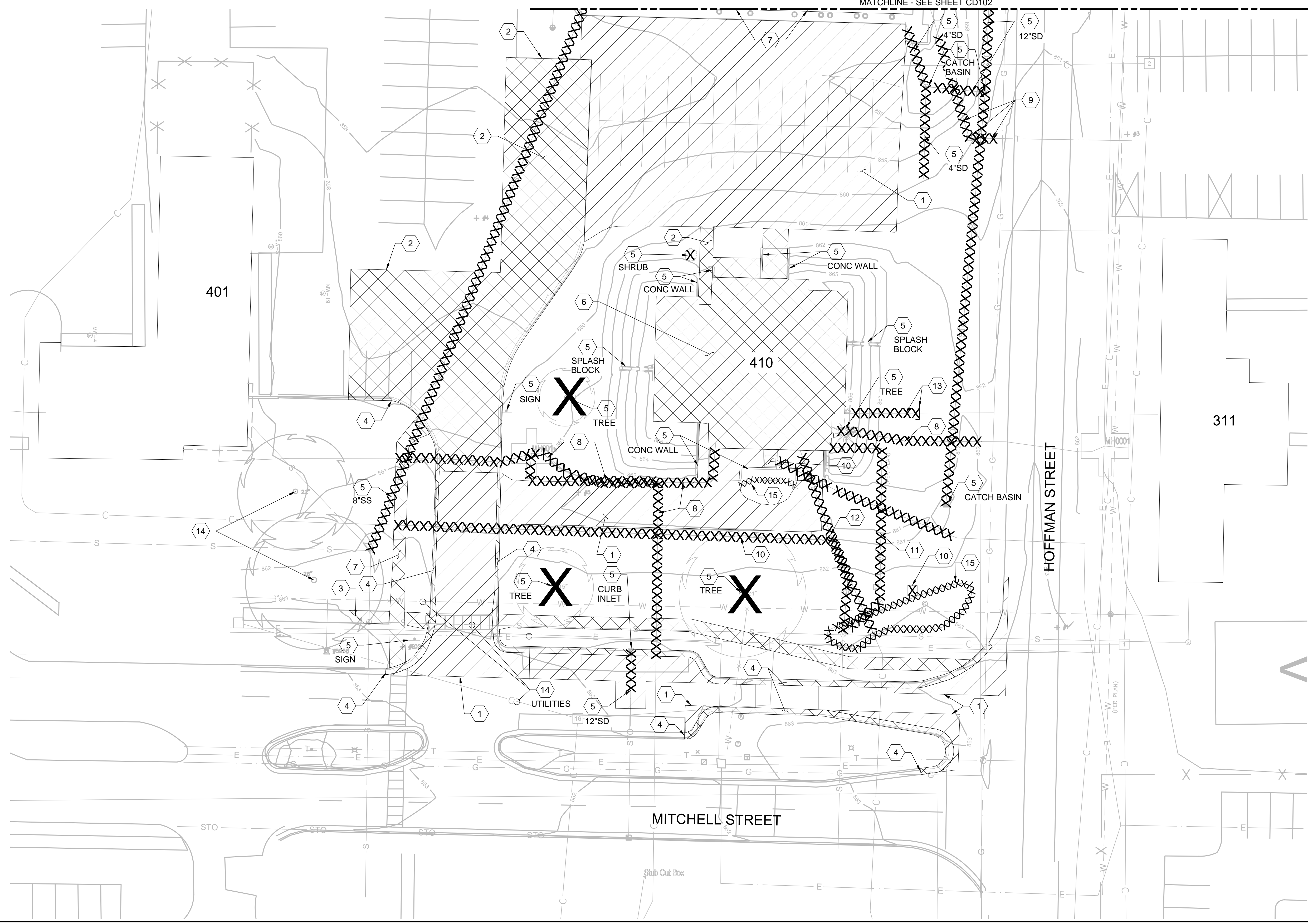
MATCHLINE - SEE SHEET CD102

**GENERAL SHEET NOTES**

- A. CONTRACTOR TO RETAIN AND PROTECT ALL EXISTING UTILITIES AND SURFACES NOT SCHEDULED FOR DEMOLITION.
- B. CONCRETE DEMOLITION TO OCCUR AT NEAREST EXISTING JOINT.
- C. ELECTRICAL AND COMMUNICATIONS UTILITIES WITHIN THE SITE WILL BE DEMOLISHED BY OTHERS PRIOR TO CONSTRUCTION. COORDINATE EXTENT OF DEMOLITION WITH CONTRACTING OFFICER.
- D. RETAIN AND PROTECT AGGREGATE BASE COURSES BELOW CONCRETE AND ASPHALT PAVEMENT TO RECEIVE NEW PAVEMENT. IN AREAS WHERE FURTHER IMPROVEMENT IS PLANNED, REMOVE AND STOCKPILE AGGREGATE BASE COURSES FOR REUSE ON SITE.

**SHEET KEYNOTES**

- 1. SAWCUT AND DEMOLISH ASPHALT PAVEMENT
- 2. SAWCUT AND DEMOLISH CONCRETE PAVEMENT
- 3. SAWCUT AND DEMOLISH CONCRETE SIDEWALK
- 4. SAWCUT AND DEMOLISH CURB AND GUTTER
- 5. DEMOLISH
- 6. BUILDING 410 TO BE DEMOLISHED AND EXISTING UTILITY SERVICES TO BE CAPPED. DEMOLISH ALL MATERIALS TO A DEPTH OF 1 FOOT BELOW THE FOUNDATION
- 7. RETAIN AND PROTECT EXISTING GARAGE DOORS AND BOLLARDS FOR BUILDING 409
- 8. COMMUNICATIONS DEMOLISHED PRIOR TO CONSTRUCTION, BY OTHERS
- 9. TELEPHONE SERVICE TO BE DEMOLISHED AND RELOCATED PRIOR TO CONSTRUCTION, BY OTHERS
- 10. ELECTRICAL DEMOLISHED PRIOR TO CONSTRUCTION, BY OTHERS
- 11. DEMOLISH WATER SERVICE BACK TO MAIN
- 12. DEMOLISH SANITARY SEWER SERVICE BACK TO MAIN, PLUG AT MANHOLE
- 13. CAP GAS SERVICE, DEMOLISH PIPE
- 14. RETAIN AND PROTECT
- 15. DEMOLISH PLANTER/PLANTINGS



**CH2M HILL – HDR JV**

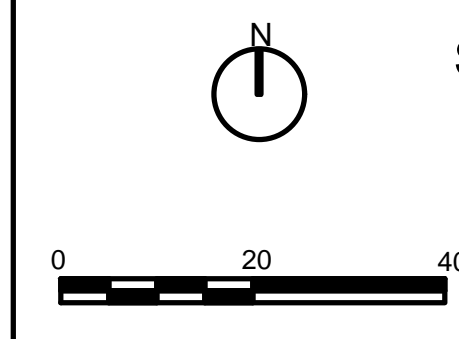
ISSUE	DATE	DESCRIPTION
4	10/23/2019	B-2 SUBMITTAL
1	4/25/2019	B-1 SUBMITTAL

PROJECT MANAGER	CHRIS MANZ (CH2M)
CIVIL	A. THOMPSON (CH2M)
STRUCTURAL	B. BRADLEY (HDR)
ARCHITECTURAL	S. HEANEY (HDR)
ELECTRICAL	M. OSSANNA (CH2M)
MECHANICAL	T. PRICE (CH2M)
FIRE PROTECTION	R. RICHTER (HDR)
COMMUNICATIONS	M. ADKISON (CH2M)
PROJECT NUMBER	10126384

**PRELIMINARY  
NOT FOR  
CONSTRUCTION  
OR  
RECORDING**



**TRUAX F-35 FLIGHT  
SIMULATOR  
(BUILDING B424)**



**DEMOLITION  
SITE PLAN - AREA A**

FILENAME | 10126384-CD101\_DM.DWG | SHEET  
SCALE | 1" = 20' |

**CD101**

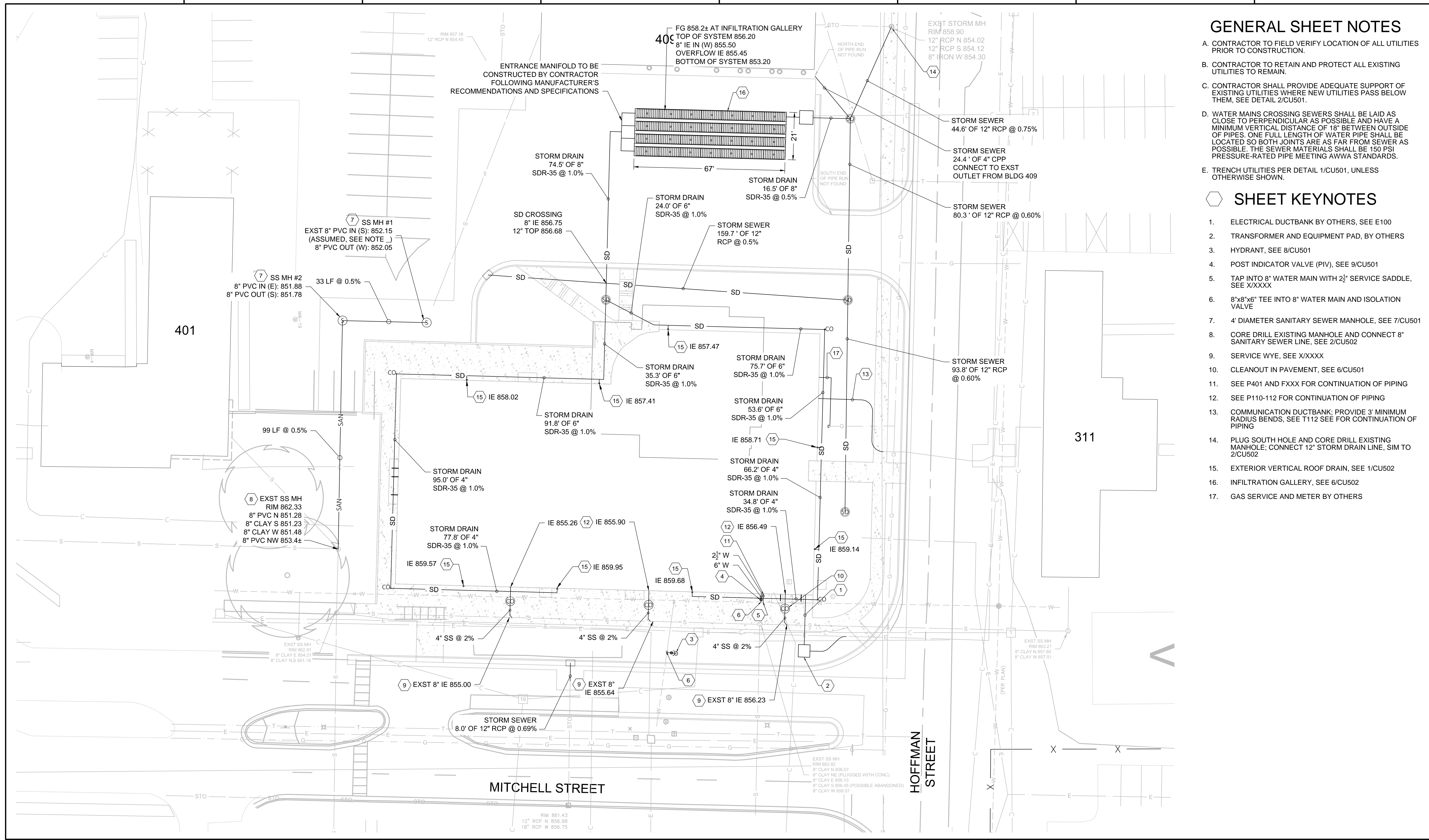


### GENERAL SHEET NOTES

- A. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- B. CONTRACTOR TO RETAIN AND PROTECT ALL EXISTING UTILITIES TO REMAIN.
- C. CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORT OF EXISTING UTILITIES WHERE NEW UTILITIES PASS BELOW THEM, SEE DETAIL 2/CU501.
- D. WATER MAINS CROSSING SEWERS SHALL BE LAID AS CLOSE TO PERPENDICULAR AS POSSIBLE AND HAVE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN OUTSIDE OF PIPES. ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS ARE AS FAR FROM SEWER AS POSSIBLE. THE SEWER MATERIALS SHALL BE 150 PSI PRESSURE-RATED PIPE MEETING AWWA STANDARDS.
- E. TRENCH UTILITIES PER DETAIL 1/CU501, UNLESS OTHERWISE SHOWN.

### SHEET KEYNOTES

- 1. ELECTRICAL DUCTBANK BY OTHERS, SEE E100
- 2. TRANSFORMER AND EQUIPMENT PAD, BY OTHERS
- 3. HYDRANT, SEE 8/CU501
- 4. POST INDICATOR VALVE (PIV), SEE 9/CU501
- 5. TAP INTO 8" WATER MAIN WITH 2 1/2" SERVICE SADDLE, SEE XXXXX
- 6. 8"x8"x6" TEE INTO 8" WATER MAIN AND ISOLATION VALVE
- 7. 4' DIAMETER SANITARY SEWER MANHOLE, SEE 7/CU501
- 8. CORE DRILL EXISTING MANHOLE AND CONNECT 8" SANITARY SEWER LINE, SEE 2/CU502
- 9. SERVICE WYE, SEE XXXXX
- 10. CLEANOUT IN PAVEMENT, SEE 6/CU501
- 11. SEE P401 AND FXXX FOR CONTINUATION OF PIPING
- 12. SEE P110-112 FOR CONTINUATION OF PIPING
- 13. COMMUNICATION DUCTBANK: PROVIDE 3' MINIMUM RADIUS BENDS, SEE T112 SEE FOR CONTINUATION OF PIPING
- 14. PLUG SOUTH HOLE AND CORE DRILL EXISTING MANHOLE; CONNECT 12" STORM DRAIN LINE, SIM TO 2/CU502
- 15. EXTERIOR VERTICAL ROOF DRAIN, SEE 1/CU502
- 16. INFILTRATION GALLERY, SEE 6/CU502
- 17. GAS SERVICE AND METER BY OTHERS



**CH2M HILL – HDR JV**

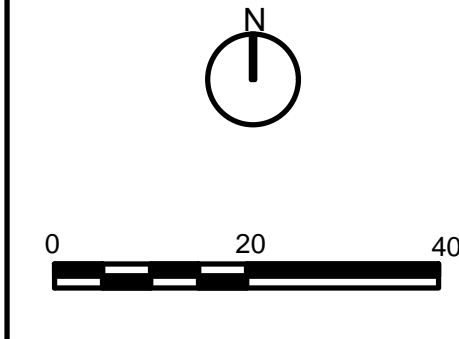
ISSUE	DATE	DESCRIPTION
4	10/23/2019	B-2 SUBMITTAL
1	4/25/2019	B-1 SUBMITTAL

<b>PROJECT MANAGER</b> CHRIS MANZ (CH2M)	
CIVIL	A. THOMPSON (CH2M)
STRUCTURAL	B. BRADLEY (HDR)
ARCHITECTURAL	S. HEANEY (HDR)
ELECTRICAL	M. OSSANNA (CH2M)
MECHANICAL	T. PRICE (CH2M)
FIRE PROTECTION	R. RICHTER (HDR)
COMMUNICATIONS	M. ADKISON (CH2M)
<b>PROJECT NUMBER</b>	10126384

**PRELIMINARY  
NOT FOR  
CONSTRUCTION  
OR  
RECORDING**



**TRUAX F-35 FLIGHT  
SIMULATOR  
(BUILDING B424)**



**UTILITY PLAN**

<b>FILENAME</b>	10126384-CU101_UT.DWG	<b>SHEET</b>	CU101
<b>SCALE</b>	1" = 20'		





ecm pod shop



ecm pod shop





