

K12 Tech Properties, LLC Site Plan

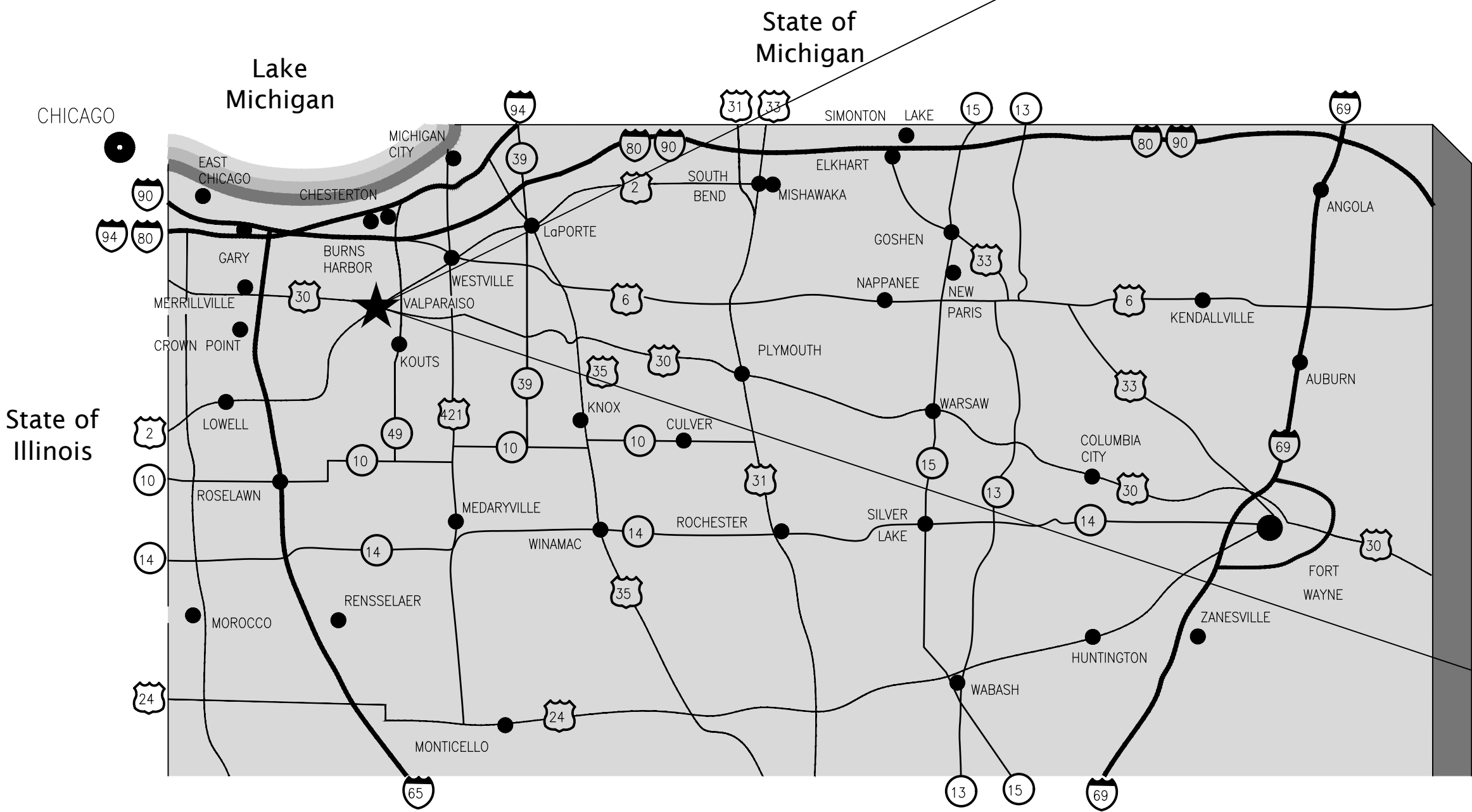
City of Valparaiso, Center Township, Porter County, Indiana

Property Address

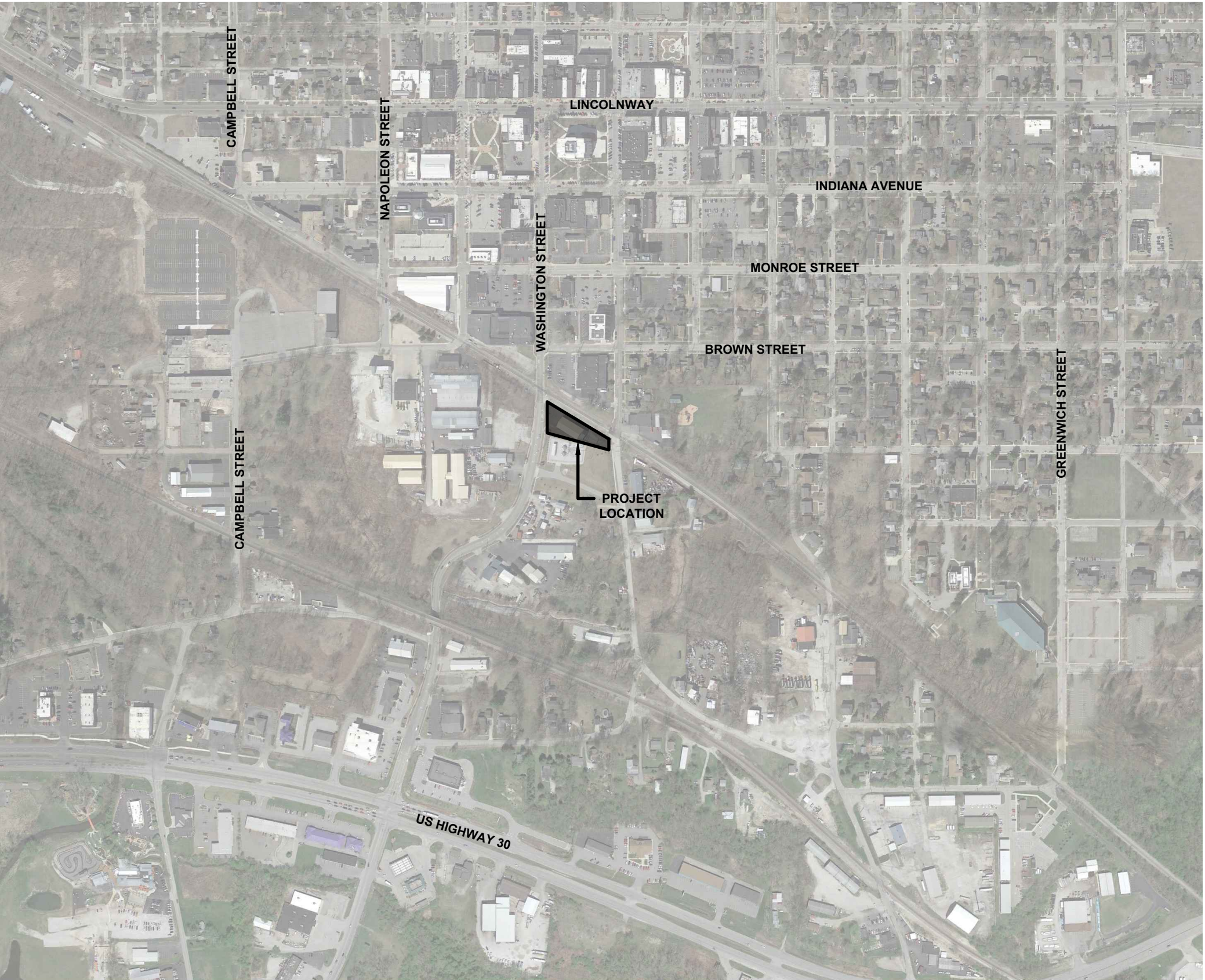
351 Washington Street, Valparaiso, Indiana 46383

Legal Description (Per ALTA/ACSM Land Title Survey by McMAHON Associates, dated October 4, 2002)

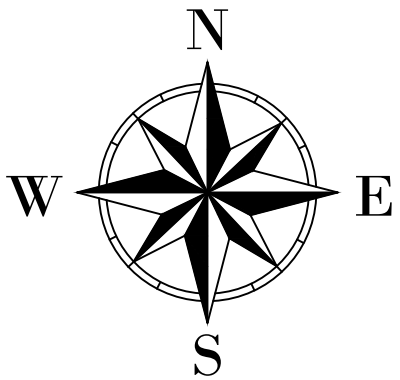
ALL THE PART OF LOT 8 IN BLOCK 35 IN THE ORIGINAL SURVEY OF THE TOWN, NOW CITY, OF VALPARAISO, AS PER PLAT THEREOF RECORDED IN DEED RECORD: "A", PAGE 13 IN THE OFFICE OF RECORDER OF PORTER COUNTY, INDIANA, LYING NORTH OF THE RIGHT OF WAY OF THE PITTSBURGH, FT. WAYNE AND CHICAGO RAILROAD COMPANY, ALSO LOT 5,6,7, AND 8 IN BLOCK 34 IN THE ORIGINAL SURVEY OF THE TOWN, NOW CITY OF VALPARAISO, ALONG WITH EAST-WEST VACATED ALLEY ADJOINING LOT 5 AND 6 ON THE NORTH, THE NORTH-SOUTH ALLEY LYING BETWEEN LOTS 6 AND 7 AND NORTH 20 FOOT VACATED BROWN STREET ADJOINING LOTS 6 AND 7 AND 8 ON THE SOUTH, AS EVIDENCED IN COURT ORDER UNDER CAUSE NO. 13203, RECORDED FEBRUARY 6, 1940 IN QUIET TITLE RECORD 4, PAGES 227, 228 AND 229, AS PER PLAT THEREOF RECORDED IN DEED RECORDS "A", PAGE 13, IN THE OFFICE OF THE RECORDER OF PORTER COUNTY, INDIANA, EXCEPTING THEREFROM THOSE PARTS OF SAID LOTS 5 AND 8 DEEDED TO PITTSBURGH, FT. WAYNE AND CHICAGO RAILROAD COMPANY, ALSO A PART OF OUTLOT 10 IN THE ORIGINAL SURVEY OF OUTLOTS TO THE TOWN, NOW CITY, OF VALPARAISO, AS PER PLAT THEREOF RECORDED IN DEED RECORD "A", PAGE 621, IN THE OFFICE OF THE RECORDER IN PORTER COUNTY, INDIANA, BOUNDED AS FOLLOWS COMMENCING AT A POINT ON THE WEST LINE OF SAID OUT LOT 9, 5 RODS AND 6 FEET NORTH OF THE SOUTHWEST CORNER THEREOF AND RUNNING THENCE EASTLY IN A DIRECT LINE TO THE SOUTHEAST CORNER OF SAID OUTLOT, BEING ON THE EAST LINE OF SAID OUTLOT AND THE WEST LINE OF FRANKLIN STREET; THENCE NORTH ALONG THE WEST LINE OF FRANKLIN STREET TO THE SOUTH LINE OF THE RIGHT OF WAY OF THE PITTSBURGH, FT. WAYNE AND CHICAGO RAILROAD; THENCE IN A NORTHWESTERLY DIRECTION ALONG SAID SOUTH LINE OF RIGHT OF WAY TO THE WEST OF SAID OUT LOT OR THE EAST LINE OF WASHINGTON STREET EXTENDED; AND THENCE SOUTH 126 FEET, MORE OR LESS, TO THE PLACE OF BEGINNING, ALL IN PORTER COUNTY, INDIANA.



Northern Indiana



Site Location Map



Sheet Index	
Sheet No.	Sheet Description
C00	Title Sheet
C1.0	Existing Site and Demolition Plan
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C3.0	Proposed Site Utility Plan
C4.0	Proposed Drainage and Grading Plan
C4.1	Proposed Watershed Drainage Area
C5.0	Proposed Erosion and Sediment Control Plan
C6.0	General Site Details and Specifications
C7.0	General Site Details and Specifications
C8.0	General Site Details and Specifications
C9.0	General Site Details and Specifications
C10.0	General Site Technical Specifications

Engineer / Surveyor

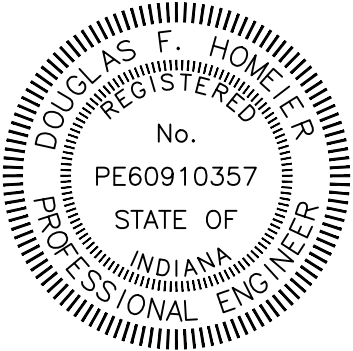
McMahon Associates, Inc.
952 South State Road 2
Valparaiso, Indiana 46385
mcm@mcmgrp-in.com
Tel: (219) 462-7743

Owner / Developer

K12 Tech Properties, LLC
7100 E. Pleasant Valley Road
Independence, Ohio 44131
zmarvel@k12techrepairs.com
Tel: (219) 916-2135

I, the undersigned, an Indiana Professional Engineer, hereby certify that on the date shown, I supervised the inspection of the real estate described herein at the address indicated. This site plan was prepared for use by the designated parties only and for no one else. If a more accurate or detailed land survey is desired or if corner monuments are required, an Indiana land title survey should be ordered.

Douglas F. Homeier
Douglas F. Homeier, Professional Engineer #PE60910357



PROJECT NUMBER: K5009-05-21-00161.00
REVISION #1: MARCH 02, 2022
SUBMIT DATE: JANUARY 05, 2022

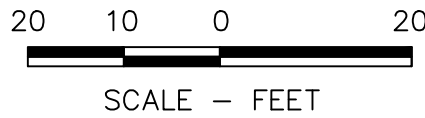
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Existing Site and Demolition Plan

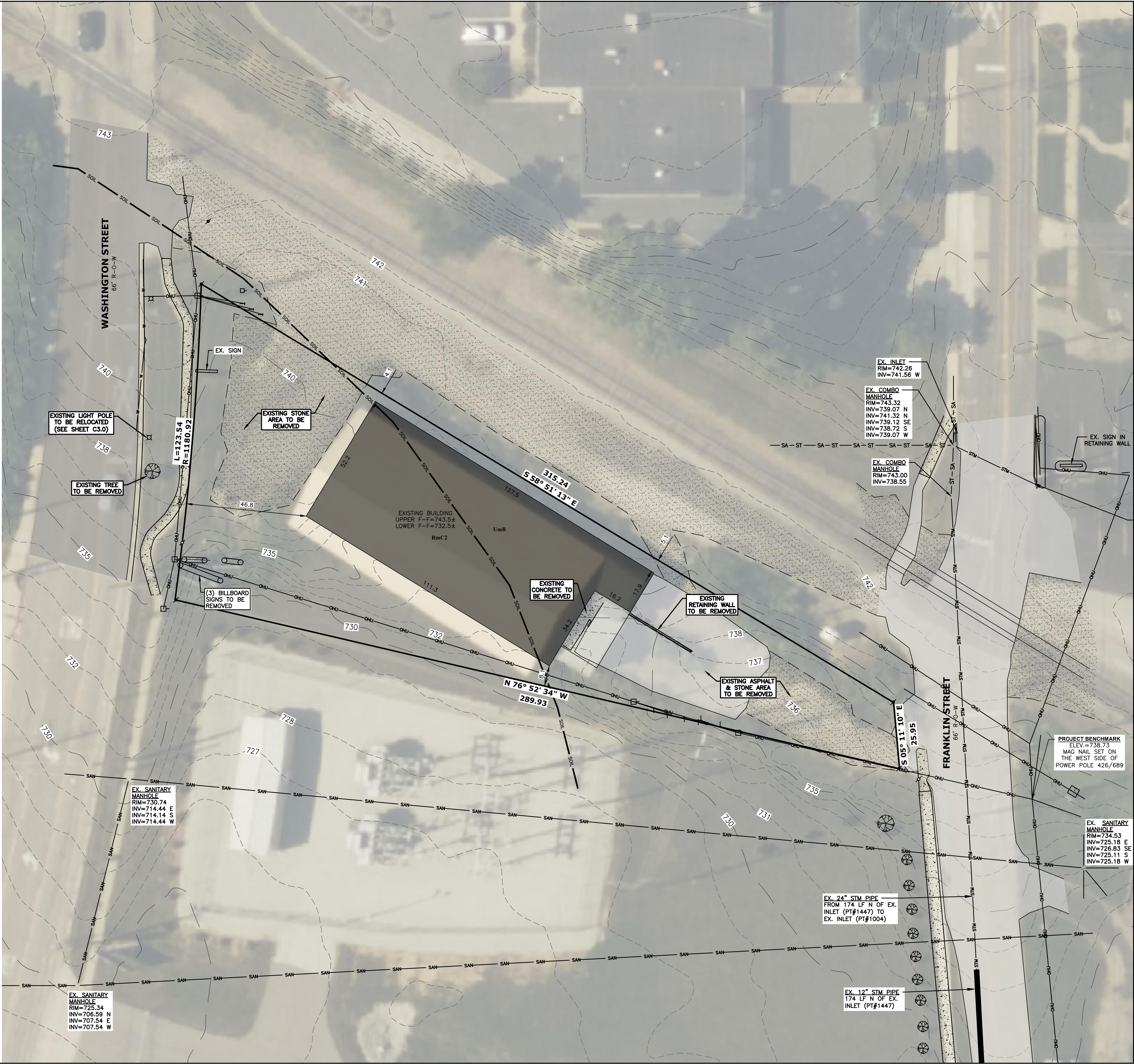
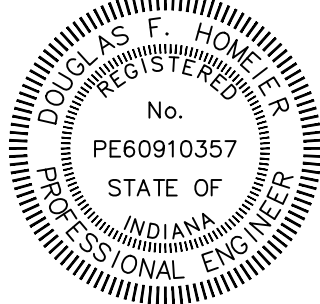


Existing Site & Demolition Notes

- Subject Property Information:
Parcel No.: 64-09-24-385-001.000-004
Site Area: 20,871.51 sq.ft. (0.48 Acres)
Impervious Area: 12,825± sq.ft. (61.4%±)
Green Area: 8,047± sq.ft. (38.6%±)
Building Coverage: 29.2%
Floor Area Ratio: 0.585 (gross) 0.688 (net)
Property lies within 'Highest Priority Signature Streets' as 'Washington Street from Morthland to Lincolnway'.
- Boundary information shown per survey completed by McMAHON Associates, Inc dated October 4, 2002, Project No.: F0508-52-0167.02, by Anthony Kallak. Another survey performed by Marbach, Grady & Weaver, Inc. for the adjacent property directly to the south was completed on October 3, 2016 showing a different common line.
- Property is zoned Commercial, General (CG) (Use defined as "Office/Service")
Lot Area: 10,000 sq.ft.
Lot Width: 50 feet
Build-to Line: N/A
Minimum Front Yard: 20 feet
Minimum Side Yard: 10 feet
Minimum Rear Yard: 10 feet
Maximum Height: 50 feet
- Existing contours shown per Porter County Tiles E10 and verified by manual field work.
- The utilities shown in plan are indicated in accordance with available records and field evidence and Indiana 811, Ticket No. 2106245018 dated June 24, 2021. The contractor shall be responsible for obtaining exact locations and elevations of all utilities, including any private utilities, from the owners of the respective utilities. All utilities shall be notified 72 hours prior to excavation.
- Flood zones shown per FEMA Flood Map Service Center. The accuracy of any flood hazard data shown on this report is subject to map scale uncertainty and to any other uncertainty in location or elevation on the referenced Flood Insurance Rate Map. All of the within described land appears to lie within special flood hazard zone 'X & AE' as said tract plots by scale on community-panel #18127C0210D of the flood insurance rate maps for the City of Valparaiso (maps dated September 30, 2015).
- No wetland areas existing on property U.S. Fish and Wildlife Service National Wetlands Inventory.
- City of Valparaiso Board of Zoning Appeals (BZA) Variances for subject property were sought and approved.

Existing Site and Demolition Legend	
Asphalt Pavement	
Building	
Concrete	
Demolition Area	
Electrical Line	
Fence Line	
Flag Pole	
Force Main	
Gas Line	
Light Pole	
Mailbox	
Over-Head Utilities	
Power Pole	
Sanitary Line	
Soil Line	
Telephone Box	
Telephone Line	
Tree	
Well	

Soil Legend	
Soil Symbol	Soil Description
RmC2	Riddles Loam, 6%-12% slopes, eroded
UmB	Urban Land-Morley Complex, 2%-6% slopes



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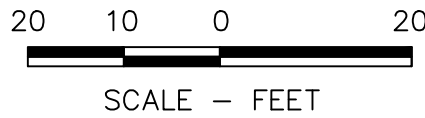
NO.	DATE	REVISION	STORM WATER REVISIONS PER CITY ENGINEERING
1	03/02/22		

K12 Tech Properties, LLC
251 Washington Street, Valparaiso, Indiana 46383
Existing Site and Demolition Plan

DESIGNED DFH	DRAWN KMC
PROJECT NO. K5009-05-21-00161	
DATE 01/05/2022	
SHEET NO. C1.0	



Proposed Commercial Building Site Plan

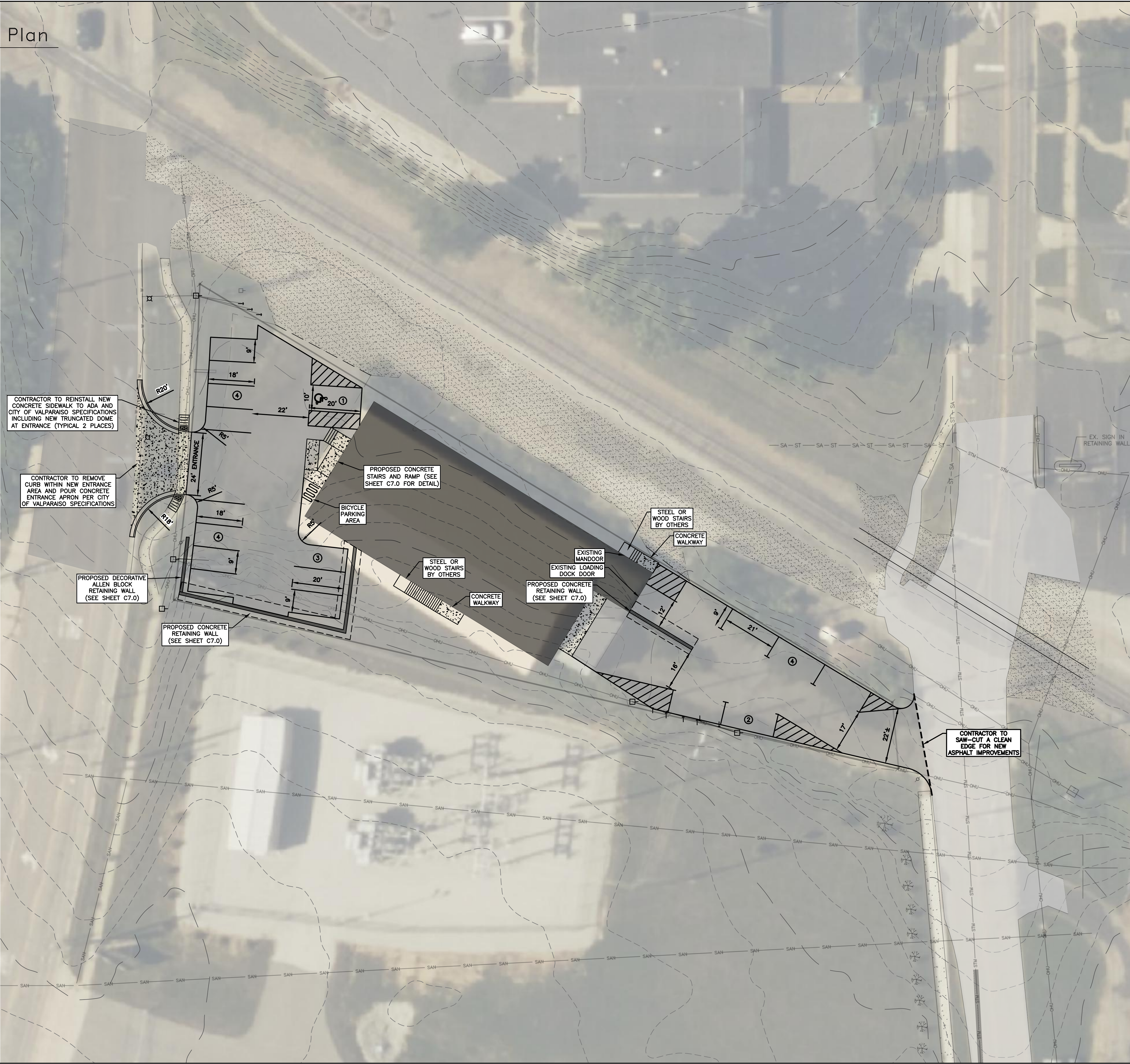
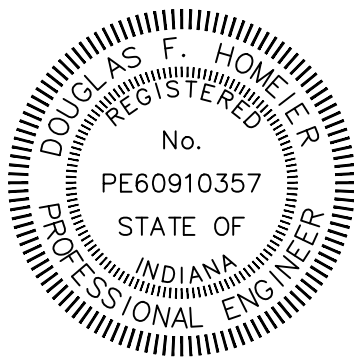


Proposed Site and Utility Notes

- Subject property No.: 64-09-24-385-001.000-004
- Boundary information shown per survey completed by McMAHON Associates, Inc dated October 4, 2002, Project No.: F0508-52-0167.02, by Anthony Kollak.
- Property is zoned Commercial, General (CG) (Use defined as "Services")
 - Lot Area: 10,000 sq.ft.
 - Lot Width: 50 feet
 - Build-to Line: N/A
 - Minimum Front Yard: 15 feet
 - Minimum Side Yard: 10 feet
 - Minimum Rear Yard: 10 feet
 - Maximum Height: 50 feet
 - Landscape Ratio: 0.15 (15%)
 - Gross Floor Area Ratio: 0.356
 - Net Floor Area Ratio: 0.421
- Existing contours shown per Porter County Tiles E10 and verified by manual field work.
- The utilities shown in plan are indicated in accordance with available records and field evidence and Indiana 811, Ticket No. 2106245018 dated June 24, 2021. The contractor shall be responsible for obtaining exact locations and elevations of all utilities, including any private utilities, from the owners of the respective utilities. All utilities shall be notified 72 hours prior to excavation.
- Flood zones shown per FEMA Flood Map Service Center. The accuracy of any flood hazard data shown on this report is subject to map scale uncertainty and to any other uncertainty in location or elevation on the referenced Flood Insurance Rate Map. All of the within described land appears to lie within special flood hazard zone "X" as said tract plots by scale on community-panel #18127C0210D of the flood insurance rate maps for the City of Valparaiso (maps dated September 30, 2015).
- No wetland areas existing on property U.S. Fish and Wildlife Service National Wetlands Inventory.
- Property is within a Signature Corridor (Washington Street from Morthland to Lincolnway)
- Parking Information:
 - Parking Calculation**
 - Office: 3 spaces per 1,000 sq.ft.
4,000 sq.ft. / 1,000 = 4 * 3 = 12 spaces
 - Services: 2.5 spaces per 1,000 sq.ft. + 1 FTE + 1 fleet car
2,500 sq.ft. / 1,000 sq.ft. = 2.5 * 2.5 = 6.25 + 8 + 2 = 16.26 spaces
 - Gross Total: 12 + 16.26 = 28.25 spaces
 - Reduction: 10% of spaces because of bicycle parking
28.25 + 0.10 = 2.825
 - Net Total: 28.25 - 2.825 = 25.4 = 26 spaces
 - Parking Provided**
 - 16 Standard Stalls
 - 1 Handicap Stall
 - 17 total spaces added
- Site will utilize rolling trash bins.
- Proposed Site Area Information:
 - Site Area: 20,871.51 sq.ft. (0.48 Acres)
 - Impervious Area: 16,520± sq.ft. (79.2%±)
 - Green Area: 4,352± sq.ft. (20.8%±)
 - Floor Area Ratio: 29.2%
 - Building Coverage: 29.2%
 - Floor Area Ratio: 0.585 (gross) 0.688 (net)
- Variances for subject property were sought and approved on August 18, 2021 (VAR21-032), please see meeting minutes for additional information.
- All work shall be performed in accordance with all local, state and federal codes.
- The contractor shall obtain all necessary permits for construction.
- Timely notification of necessary governmental agencies regarding the commencement of construction activity is required.
- All work performed on the site shall conform to the site construction plans and specifications.
- The contractor shall be responsible for maintaining safe traffic control on the site and adjacent public streets, as related to both physical site improvements and the movement of construction traffic.
- All necessary inspections and certifications, as required by ordinance, code, utility companies or government agencies shall be completed before the final connection of services.

Proposed Building Site Legend	
Benchmark	◆
Building	■
Building Light	☀
Concrete	■
Curb Radius	R10.00
Hard-Packed Gravel	■
Light Pole	⊠

Douglas F. Homeier



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REVISION		STORM WATER REVISIONS PER CITY ENGINEERING
NO.	DATE	
1	03/02/22	

K12 Tech Properties, LLC
251 Washington Street, Valparaiso, Indiana 46383
Proposed Commercial Building Site Plan

DESIGNED DFH	DRAWN KMC
PROJECT NO. K5009-05-21-00161	
DATE 01/05/2022	
SHEET NO. C2.0	



Proposed Site Utility Plan



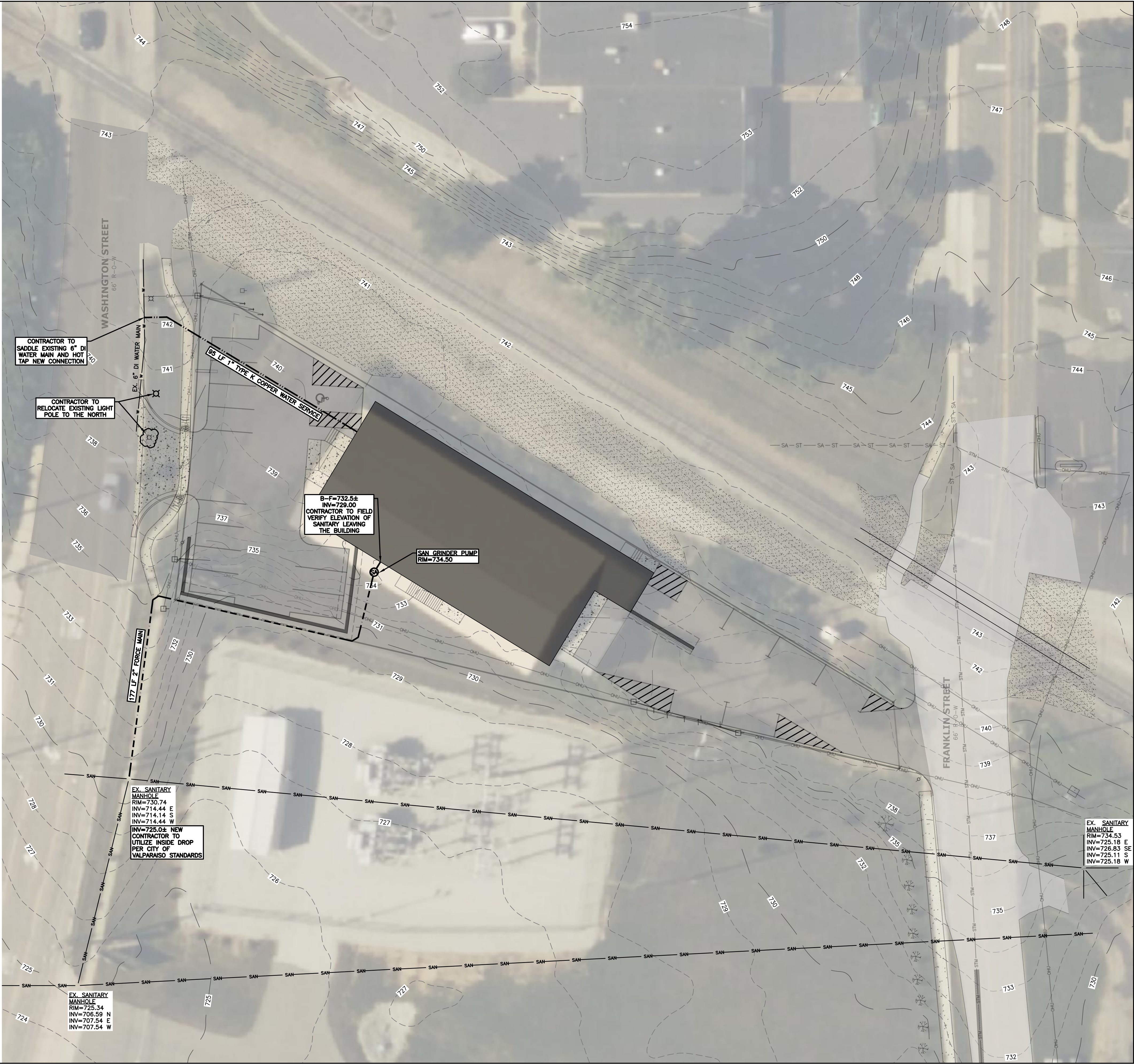
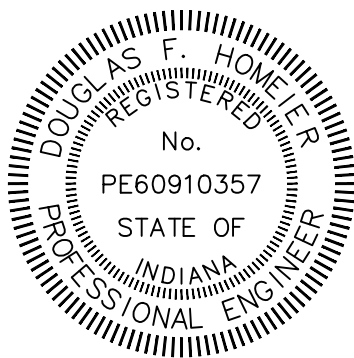
Proposed Site Utility Notes

1. The utilities shown in plan are indicated in accordance with available records and field evidence and Indiana 811, Ticket No. 2106245018 dated June 24, 2021. The contractor shall be responsible for obtaining exact locations and elevations of all utilities, including any private utilities, from the owners of the respective utilities. All utilities shall be notified 72 hours prior to excavation.
2. All work shall be performed in accordance with all local, state and federal codes.
3. The contractor shall obtain all necessary permits for construction.
4. Timely notification of necessary governmental agencies regarding the commencement of construction activity is required.
5. All work performed on the site shall conform to the site construction plans and specifications.
6. The contractor shall be responsible for maintaining safe traffic control on the site and adjacent public streets, as related to both physical site improvements and the movement of construction traffic.
7. All necessary inspections and certifications, as required by ordinance, code, utility companies or government agencies shall be completed before the final connection of services.
8. Contractor to verify location of all utilities as this plan was produced prior to architectural plans.
9. Contractor to verify electric and gas service tie-in with appropriate utility companies and verify service runs with Owner.

Proposed Site Utility Legend

- | | |
|------------------|------|
| Clean-Out | —E— |
| Light Pole | ⊗ |
| Sanitary Lateral | — — |
| Sanitary Manhole | ⊙ |
| Water Lateral | — — |

Douglas F. Homan



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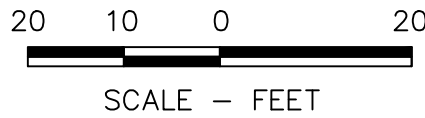
REVISION		STORM WATER REVISIONS PER CITY ENGINEERING	
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K12 Tech Properties, LLC
251 Washington Street, Valparaiso, Indiana 46383
Proposed Drainage and Grading Plan

DESIGNED DFH	DRAWN KMC
PROJECT NO. K5009-05-21-00161	
DATE 01/05/2022	
SHEET NO. C3.0	



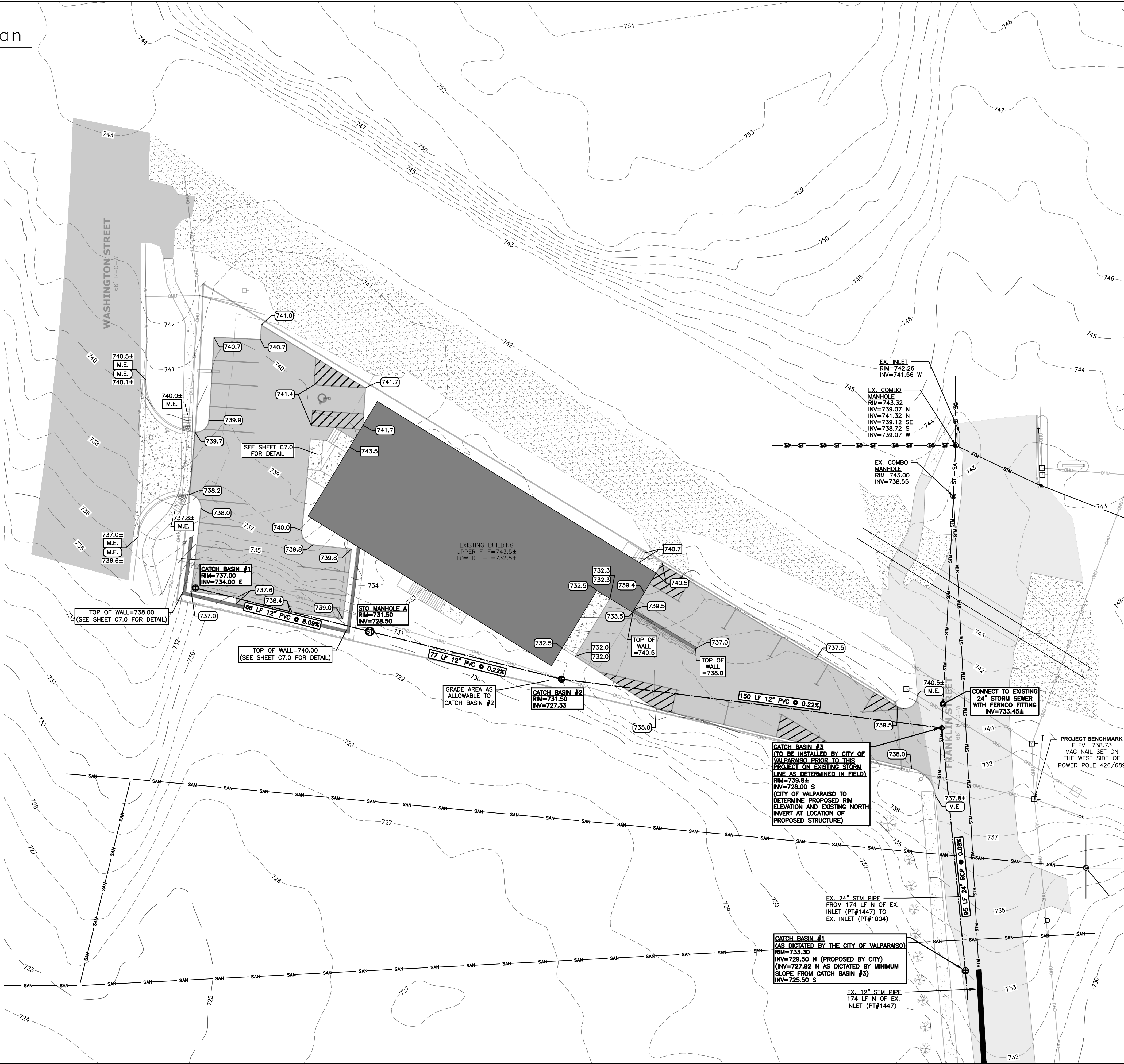
Proposed Drainage and Grading Plan



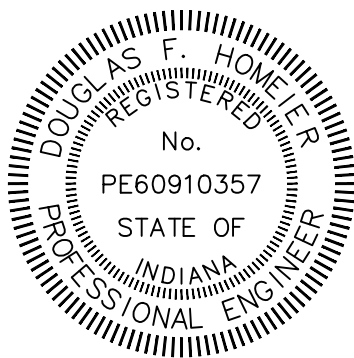
Proposed Drainage and Grading Notes

- Existing contours shown per Porter County Tiles E10 and verified by manual field work.
- Flood zones shown per FEMA Flood Map Service Center. The accuracy of any flood hazard data shown on this report is subject to map scale uncertainty and to any other uncertainty in location or elevation on the referenced Flood Insurance Rate Map. All of the within described land appears to lie within special flood hazard zone 'X' & 'AE' as said tract plots by scale on community-panel #1812700210D of the flood insurance rate maps for the City of Valparaiso (maps dated September 30, 2015).
- All work shall be performed in accordance with all local, state and federal codes.
- The contractor shall obtain all necessary permits for construction.
- Timely notification of necessary governmental agencies regarding the commencement of construction activity is required.
- All work performed on the site shall conform to the site construction plans and specifications.
- The contractor shall be responsible for maintaining safe traffic control on the site and adjacent public streets, as related to both physical site improvements and the movement of construction traffic.
- All necessary inspections and certifications, as required by ordinance, code, utility companies or government agencies shall be completed before the final connection of services.

Proposed Site Drainage Legend	
Catch Basin	
Drainage Flow	
Drainage High Ridge	
Elevation - Concrete	
Elevation - Finish Floor	
Elevation - Ground	
Elevation - Match Existing	
Elevation - Pavement	
Storm Pipe	



Douglas F. Homann



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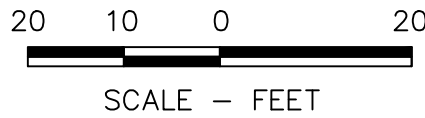
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Proposed Drainage and Grading Plan

DESIGNED DFH	DRAWN KMC
PROJECT NO. K5009-05-21-00161	
DATE 01/05/2022	
SHEET NO. C4.0	



Proposed Watershed Drainage Area



Coverage Type	'C' Value	Catch Basin #1	Catch Basin #2	Site (Pre-Construction) (Overall Leaving Site)	Site (Post-Construction) (Not Captured Leaving Site)
Grass (2%-7% Clay)	0.21	0.06 Ac.	0.01 Ac.	0.18 Ac.	0.05 Ac.
Impervious	0.85	0.33 Ac.	0.07 Ac.	0.30 Ac.	0.13 Ac.
Total Area	N/A	0.39 Ac.	0.08 Ac.	0.48 Ac.	0.18 Ac.
'C' Average	N/A	0.75	0.77	0.61	0.67
Time of Concentration	N/A	10 Minutes (Assumed)	10 Minutes (Assumed)	10 Minutes (Assumed)	10 Minutes (Assumed)

Drainage Calculations

1100 @ 10 Minutes = 9.00 inches/hour

Rate leaving site un-captured (C x I x A)

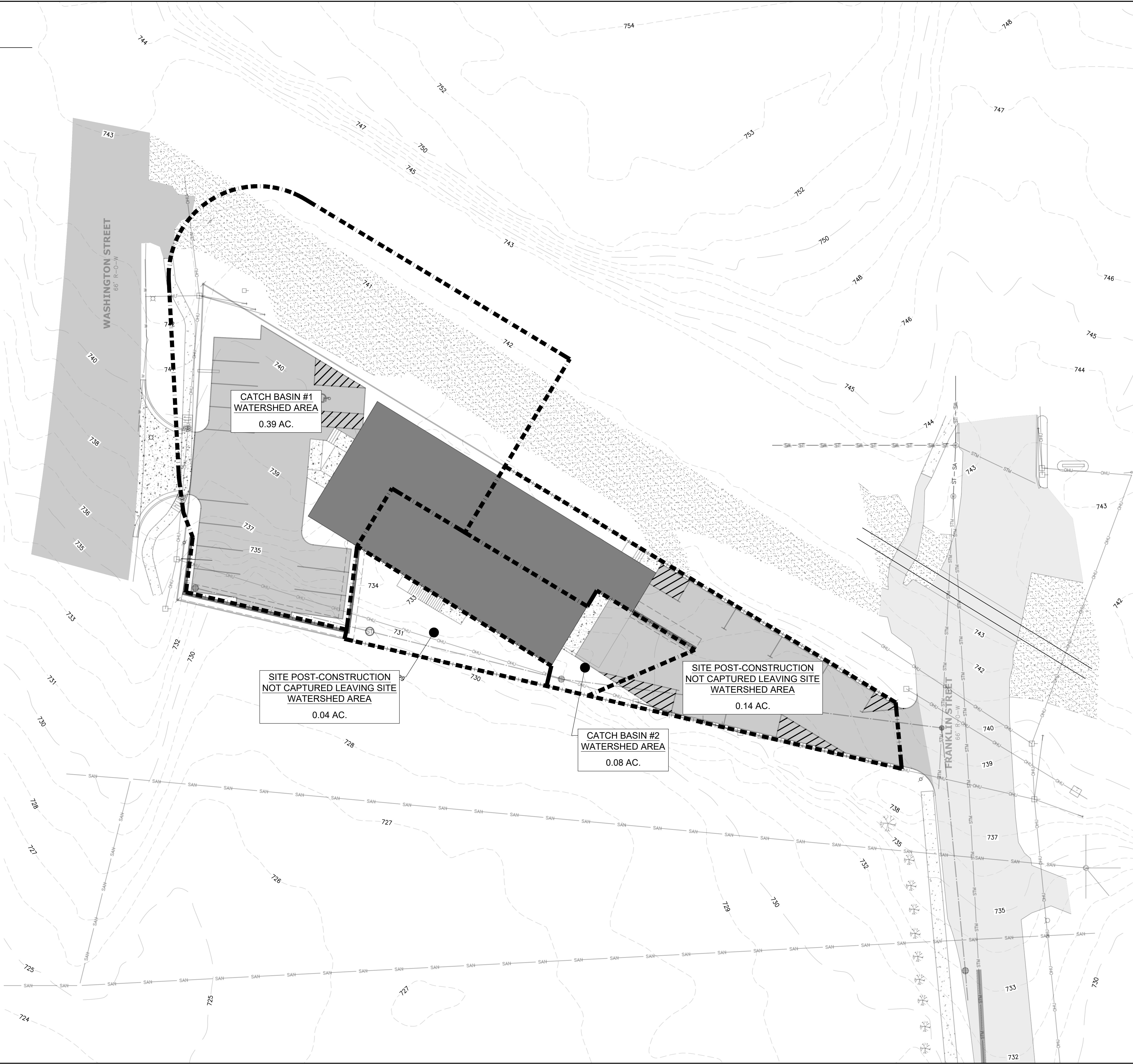
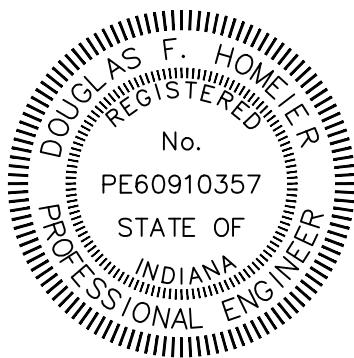
Pre-Construction

0.61 x 9.00 inches/hour x 0.48 acres = 2.64 CFS

Post-Construction

0.67 x 9.00 inches/hour x 0.18 acres = 1.09 CFS

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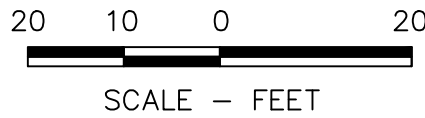
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Proposed Watershed Drainage Area

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PROJECT NO. K5009-05-21-00161	
DATE 01/05/2022	
SHEET NO. C4.1	



Proposed Erosion and Sediment Control Plan



Erosion and Sediment Control Notes

1. Total disturbed area = 0.48± Acres.
2. Permanently seed all final grade areas (e.g., landscape berms, drainage berms, drainage swales, erosion control structures, etc.) as each is completed and temporary seed all areas where additional work is not scheduled for a period of more than 14 days. If areas are left undisturbed for more than 14 days, they are to be temporary seeded.
3. Existing vegetation, trees and shrubs, are to be removed as necessary. If existing trees are desirable, the owner/developer should enact a tree conservation and protection plan (not anticipated and therefore not included on this plan) to ensure survival of desirable trees from the effects of compaction, grading damage, wound prevention and a plan for tree repairs from construction activities. The owner/developer should see the Soil Conservation Service or the State Forester for assistance if enacting this plan.
4. Erosion from all temporary soil storage piles shall be controlled by placing silt fence and/or other appropriate means of sedimentation control around these storage facilities. If stockpile is left undisturbed for more than 15 days, it is to be temporary seeded.
5. Except as prevented by inclement weather conditions or other conditions or circumstances beyond control, appropriate vegetative sedimentation control practices shall be initiated within 15 days of the area being inactive (or 15 days of the area scheduled to be inactive). Appropriate vegetative practices include, but are not limited to, seeding, sodding, mulching, covering, or other erosion control measures. Areas to be inactive for said 15 days or more shall be vegetatively stabilized (i.e. temporary seeding).
6. Sediment accumulation onto off site roadways shall be minimized, and where necessary, kept cleared every day. Bulk clearing of accumulated sediment shall be returned to the point of likely origin or other suitable on site location(s). Accumulated sediment should be removed by scraping and/or sweeping.
7. Appropriate measures shall be taken to minimize or eliminate wastes, unused building materials, and/or other substances from being carried from the site by storm water runoff. proper disposal or management of all wastes, appropriate to the nature of the waste, is required. Contact operating authority (information located this page) for verification of waste removal during building construction.
8. All erosion and sediment control measures are to be implemented immediately following the start of construction activity and be maintained and inspected weekly during construction as well as after each 1/2" rain event.
9. Developer to maintain silt fence around building during construction and install permanent seeding when construction is complete. All erosion and sediment control measures shall be inspected and maintained until permanent stabilization has been achieved (i.e. 70% vegetative cover).
10. All appropriate erosion control measures shall be implemented in accordance with all applicable requirements and standards of the City of Valparaiso.
11. All spoils are to remain onsite and utilized during the course of construction. If for any reason spoil needs to be hauled offsite (not anticipated), Owner/Developer is to be responsible for the activity. Owner/Developer is to track the amount of spoil given or sold to each individual/company and the location at which the spoil will be used. If at any time spoil from subject site is used to disturb more than minimum required amount of site disturbance (based on municipality), that individual/company is responsible for establishing a local erosion control permit or Rule 5 permit.

Post-Construction Storm Water Pollution Prevention Plan

1. After construction is completed, including buildings, parking lots constructed, and landscaping, the property owner will take possession of the property. When the property becomes occupied, it is no longer the responsibility of the developer/contractor to maintain the site. The responsibility for maintaining the erosion and sediment control measures belongs to the current owner/s of the property. Pollutants associated with the proposed land use will most likely be very typical of commercial/retail developments. Most expected pollutants will be associated with automobiles: oil, grease, antifreeze, brake dust, rubber fragments, gasoline, diesel fuel, metals, and improper disposal of trash. It is the responsibility of the property owner/s or owners association to provide routine maintenance. Some maintenance items may include trimming vegetation, picking up litter, monitoring and cleaning catch basins, pond outlet structure and culverts. The sediment control basins protecting the storm water quality of the site will require periodic cleaning of sediments that accumulate. After vegetation has been established (i.e. 70% vegetative cover), temporary erosion and sediment control measures such as silt fence and straw bales will be removed by the installing contractor.
2. The post-construction storm water quality measures will be installed as a part of the normal construction activities for the site. They shall be fully operational and be complete by the finalization of construction.
3. Green spaces - The green space areas of the site should receive routine mowing and trimming.
4. Catch basins - Catch basins should be routinely inspected for build up of sediment. Mechanical cleaners or hand cleaning will be required to maintain the function of the catch basin (refer to Operation and Maintenance Manual).
5. Storm drain flushing - In the event that the storm drains cease to function properly due to excessive sediment buildup, flushing of the storm drains may be required.

Proposed Erosion Control Legend

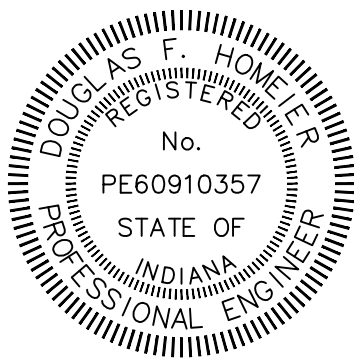
- | | |
|--------------------------------|--|
| Concrete Washout | |
| Inlet Protection Basket | |
| Permanent Seeding | |
| Silt Fence (sediment fence) | |
| Temporary Gravel Entrance/Exit | |

Operating Authority
K12 Tech Properties, LLC
c/o Mr. Zachary Marvel
7100 E. Pleasant Valley Road
Independence, Ohio 44131
(219) 916-2135

Developer / Owner
K12 Tech Properties, LLC
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Design Company
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Douglas F. Homan



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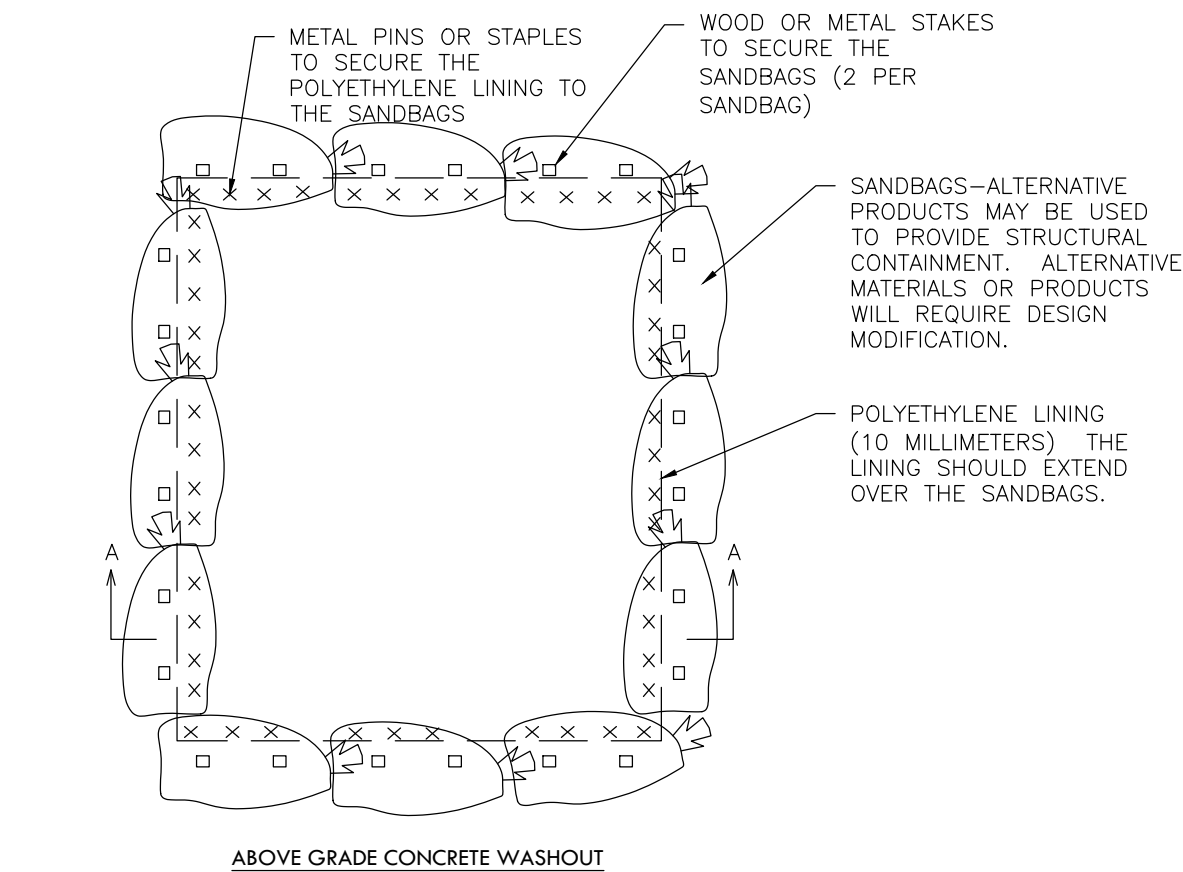
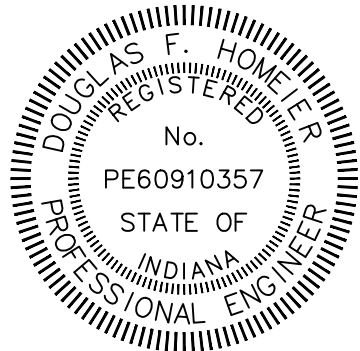
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NO.	DATE	REVISION	STORM WATER REVISIONS PER CITY ENGINEERING
1	03/02/22		

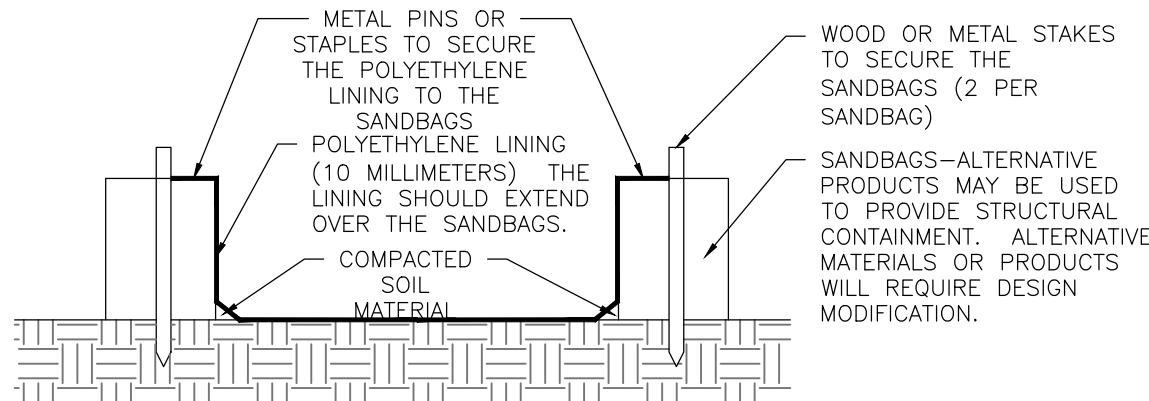
K12 Tech Properties, LLC
251 Washington Street, Valparaiso, Indiana 46383
Proposed Erosion and Sediment Control Plan

DESIGNED DFH	DRAWN KMC
PROJECT NO. K5009-05-21-00161	
DATE 01/05/2022	
SHEET NO. C5.0	

Douglas F. Homeier



ABOVE GRADE CONCRETE WASHOUT



SECTION A-A

NOTE: SIZE OF WASHOUT IS TO BE 10'x10' MINIMUM

LOCATION

- LOCATE CONCRETE WASHOUT SYSTEMS AT LEAST 50 FEET FROM ANY CREEKS, WETLANDS, DITCHES, KARST FEATURES, OR STORM DRAINS/UNMADE CONVEYANCE SYSTEMS.
- LOCATE CONCRETE WASHOUT SYSTEMS IN RELATIVELY FLAT AREAS THAT HAVE ESTABLISHED VEGETATIVE COVER AND DO NOT RECEIVE RUNOFF FROM ADJACENT LAND AREAS.
- LOCATE AWAY FROM OTHER CONSTRUCTION TRAFFIC IN AREAS THAT PROVIDE EASY ACCESS FOR CONCRETE TRUCKS.

MATERIALS

- MINIMUM OF TEN MILLIMETER POLYETHYLENE SHEETING, FREE OF HOLES, TEARS, AND OTHER DEFECTS.
- ORANGE SAFETY FENCING OR EQUIVALENT.
- SANDBAGS
- METAL PINS OR STAPLES SIX INCHES IN LENGTH MINIMUM.

INSTALLATION

- A BASE SHALL BE CONSTRUCTED AND PREPARED THAT IS FREE OF ROCKS AND OTHER DEBRIS THAT MAY CAUSE TEARS OR PUNCTURES IN THE POLYETHYLENE LINING.
- INSTALL THE POLYETHYLENE LINING. FOR EXCAVATED SYSTEMS, THE LINING SHOULD EXTEND OVER THE ENTIRE EXCAVATION. THE LINING FOR BERMED SYSTEMS SHOULD BE INSTALLED OVER THE POOLING AREA WITH ENOUGH MATERIAL TO EXTEND THE LINING OVER THE BERM OR CONTAINMENT SYSTEM. THE LINING SHOULD BE SECURED WITH PINS, STAPLES, OR OTHER FASTENERS.
- PLACE FLAGS, SAFETY FENCING, OR EQUIVALENT TO PROVIDE A BARRIER TO CONSTRUCTION EQUIPMENT AND OTHER TRAFFIC.
- INSTALL SIGN THAT IDENTIFIES CONCRETE WASHOUT AREAS.
- WHERE NECESSARY, PROVIDE STABLE INGRESS AND EGRESS OR ALTERNATIVE APPROACH PAD.

COMMON CONCERNS

- COMPLETE CONSTRUCTION/INSTALLATION OF THE SYSTEM AND HAVE WASHOUT LOCATIONS OPERATIONAL PRIOR TO CONCRETE DELIVERY.
- IT IS RECOMMENDED THAT WASHOUT SYSTEMS BE RESTRICTED TO WASHING CONCRETE FROM MIXER AND PUMP TRUCKS AND NOT USED TO DISPOSE OF EXCESS CONCRETE OR RESIDUAL LOADS DUE TO POTENTIAL TO EXCEED THE DESIGN CAPACITY OF THE WASHOUT SYSTEM.
- INSTALL SYSTEMS AT STRATEGIC LOCATIONS THAT ARE CONVENIENT AND IN CLOSE PROXIMITY TO WORK AREAS AND IN SUFFICIENT NUMBER TO ACCOMMODATE THE DEMAND FOR DISPOSAL.
- INSTALL SIGN IDENTIFYING THE LOCATION OF CONCRETE WASHOUT SYSTEMS.

MAINTENANCE

- INSPECT DAILY AND AFTER EACH STORM EVENT.
- INSPECT THE SYSTEM FOR LEAKS, SPILLS, AND TRACKING OF SOIL BY EQUIPMENT.
- INSPECT THE POLYETHYLENE LINING FOR FAILURE, INCLUDING TEARS AND PUNCTURES.
- ONCE CONCRETE WASTES HARDEN, REMOVE AND DISPOSE OF THE MATERIAL.
- EXCESS CONCRETE SHOULD BE REMOVED WHEN THE WASHOUT SYSTEM REACHES 50 PERCENT OF THE DESIGN CAPACITY. USE OF THE SYSTEM SHOULD BE DISCONTINUED UNTIL APPROPRIATE MEASURES CAN BE INITIATED TO CLEAN THE STRUCTURE.
- UPON REMOVAL OF THE SOLIDS, INSPECT THE STRUCTURE. REPAIR THE STRUCTURE AS NEEDED OR CONSTRUCT A NEW SYSTEM.
- DISPOSE OF ALL CONCRETE IN A LEGAL MANNER. REUSE THE MATERIAL ON SITE, RECYCLE, OR HAUL THE MATERIAL TO AN APPROVED CONSTRUCTION/DEMOLITION LANDFILL SITE. RECYCLING OF MATERIAL IS ENCOURAGED. THE WASTE MATERIAL CAN BE USED FOR MULTIPLE APPLICATIONS INCLUDING BUT NOT LIMITED TO ROADBEDS AND BUILDING. THE AVAILABILITY FOR RECYCLING SHOULD BE CHECKED LOCALLY.
- THE PLASTIC LINER SHOULD BE REPLACED AFTER EVERY CLEANING; THE REMOVAL OF MATERIAL WILL USUALLY DAMAGE THE LINING.
- THE CONCRETE WASHOUT SYSTEM SHOULD BE REPAIRED OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE.
- CONCRETE WASHOUT SYSTEMS ARE DESIGNED TO PROMOTE EVAPORATION. HOWEVER, IF THE LIQUIDS DO NOT EVAPORATE AND THE SYSTEM IS NEAR CAPACITY IT MAY BE NECESSARY TO VACUUM OR REMOVE THE LIQUIDS AND DISPOSE OF THEM IN AN ACCEPTABLE METHOD. DISPOSAL MAY BE ALLOWED AT THE LOCAL SANITARY SEWER AUTHORITY PROVIDED THEIR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITS ALLOW FOR ACCEPTANCE OF THIS MATERIAL. ANOTHER OPTION WOULD BE TO UTILIZE A SECONDARY CONTAINMENT SYSTEM OR BASIN FOR FURTHER DEWATERING.
- INSPECT CONSTRUCTION ACTIVITIES ON A REGULAR BASIS TO ENSURE SUPPLIERS, CONTRACTORS, AND OTHERS ARE UTILIZING DESIGNATED WASHOUT AREAS. IF CONCRETE WASTE IS BEING DISPOSED OF IMPROPERLY, IDENTIFY THE VIOLATORS AND TAKE APPROPRIATE ACTION.
- WHEN CONCRETE WASHOUT SYSTEMS ARE NO LONGER REQUIRED, THE CONCRETE WASHOUT SYSTEMS SHALL BE CLOSED. DISPOSE OF ALL HARDENED CONCRETE AND OTHER MATERIALS USED TO CONSTRUCT THE SYSTEM.
- HOLES, DEPRESSIONS, AND OTHER LAND DISTURBANCES ASSOCIATED WITH THE SYSTEM SHOULD BE BACKFILLED, GRADED, AND STABILIZED.

PLAN SYMBOL:

NOT TO SCALE

PERMANENT SEEDING

PERMANENTLY SEED ALL FINAL GRADE AREAS (E.G. LANDSCAPE BERMS, DRAINAGE SWALES, EROSION CONTROL STRUCTURES, ETC.) AS EACH IS COMPLETED AND ALL AREAS WHERE ADDITIONAL WORK IS NOT SCHEDULED FOR A PERIOD OF MORE THAN A YEAR.

SITE PREPARATION

- THESE INSTALLATION PRACTICES ARE NEEDED TO CONTROL EROSION, SEDIMENTATION, AND WATER RUNOFF, SUCH AS TEMPORARY
- GRADE THE SITE AS SPECIFIED IN THE CONSTRUCTION PLAN AND FILL IN DEPRESSIONS THAT CAN COLLECT WATER.
- ADD TOPSOIL TO ACHIEVE NEEDED DEPTH FOR ESTABLISHMENT OF VEGETATION.

SEEDBED PREPARATION

- FERTILIZE AS REQUIRED
- TILL THE SOIL TO OBTAIN A UNIFORM SEEDBED, WORKING THE FERTILIZER INTO THE SOIL 2-4 IN. DEEP WITH A DISK OR RAKE OPERATED ACROSS THE SLOPE.

SEEDING

OPTIMUM SEEDING DATES ARE MARCH 1-MAY 10 AND AUGUST 10-SEPTEMBER 30. PERMANENT SEEDING DONE BETWEEN MAY 10 AND AUGUST 10 MAY NEED TO BE IRRIGATED. AS AN ALTERNATIVE, USE TEMPORARY SEEDING UNTIL THE PREFERRED DATE FOR PERMANENT SEEDING.

- SELECT A SEEDING MIXTURE AND RATE FROM THE TABLE AND PLANT AT DEPTH AND ON DATES SHOWN.
- APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER-SEEDER OR BY BROADCASTING, AND COVER TO THE DEPTH SHOWN.
- IF DRILLING OR BROADCASTING, FIRM THE SEEDBED WITH A ROLLER OR CULTIPACKER.
- MULCH SEEDBED AREAS. USE EROSION CONTROL BLANKETS ON SLOPING AREAS. IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.

MAINTENANCE

- INSPECT PERIODICALLY AFTER PLANTING TO SEE THAT VEGETATIVE STANDS ARE ADEQUATELY ESTABLISHED, RE-SEED
- CHECK FOR EROSION DAMAGE AFTER STORM EVENTS AND REPAIR, RESEED AND MULCH IF NECESSARY.

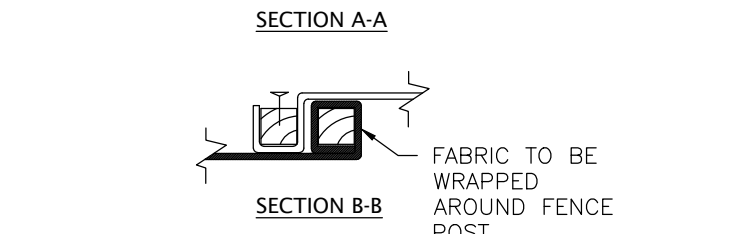
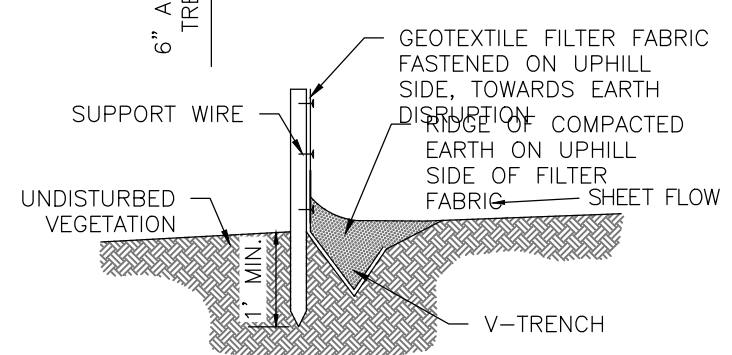
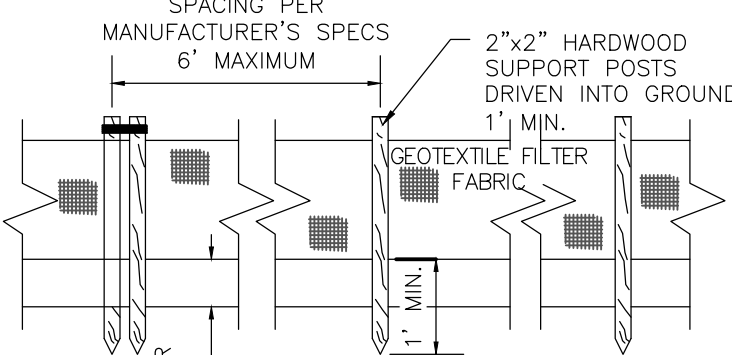
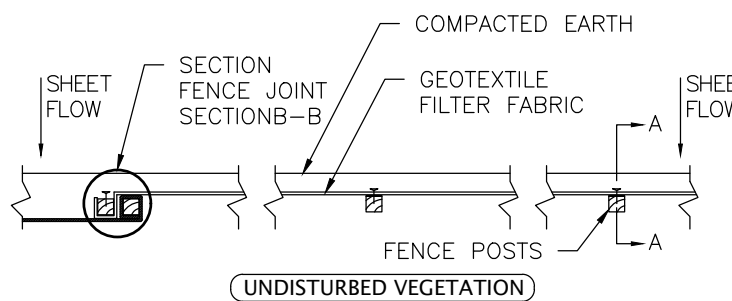
PERMANENT SEEDING RECOMMENDATIONS

THIS TABLE PROVIDES SEVERAL SEEDING OPTIONS. ADDITIONAL SEED SPECIES AND MIXTURES ARE AVAILABLE COMMERCIALY. WHEN SELECTING A MIXTURE, CONSIDER SITE CONDITIONS, INCLUDING SOIL PROPERTIES (E.G., SOIL PH AND DRAINAGE), SLOPE ASPECT AND THE TOLERANCE OF EACH SPECIES TO SHADE AND DROUGHT.

SEED SPECIES AND MIXTURES	RATE/ACRE	OPTIMUM SOIL PH
OPEN AND DISTURBED AREAS (REMAINING IDLE FOR MORE THAN ONE YEAR)		
PERENNIAL RYEGRASS	35 TO 50 LBS	5.6 TO 7.0
+WHITE OR LADINO COVER	1 TO 2 LBS	
KENTUCKY BLUEGRASS	20 LBS	5.5 TO 7.5
+SMOOTH BROMEGRASS	10 LBS	
+SWITCHGRASS	3 LBS	
+TIMOTHY	4 LBS	
+PERENNIAL RYEGRASS	10 LBS	
+WHITE OR LADINO CLOVER	1 TO 2 LBS	

PLAN SYMBOL:

Permanent Seeding Specifications



APPROACH

POOL AREA FLAT (LESS THAN 1% SLOPE), WITH SEDIMENT STORAGE OF 945 CU.FT./ACRE DISTURBED.

MATERIAL

AMOCO NO. 2130 SILT STOP WITH POSTS, MANUFACTURED BY MD-WEST CONSTRUCTION PRODUCTS AT 1-800-426-9647 OR 1-317-781-2380, OR APPROVED EQUAL.

ANCHORING

2 X 2 IN. HARDWOOD STAKES WITH A LENGTH EQUAL TO THE HEIGHT OF THE SILT FENCE PLUS 1 FT.

INSTALLATION

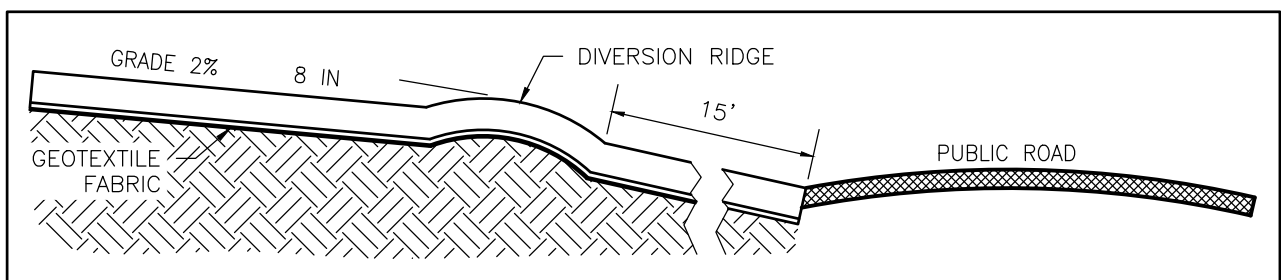
- DRIVE STAKES 1 FT. MIN. INTO GROUND AND ATTACH FABRIC TO STAKES WITH STAPLER.
- BOTTOM OF FABRIC SHALL BE PLACED UNDER 6 INCHES OF COMPACTED SOIL TO PREVENT SEDIMENT FLOW UNDERNEATH THE FENCE.
- ENSURE THAT ALL SUPPORTING POSTS ARE ON THE DOWN SLOPE SIDE OF THE FENCING.

MAINTENANCE

- INSPECT WITHIN 24 HOURS OF A STORM EVENT OF 0.5" OF RAINFALL OR GREATER AND AT LEASE ONCE EVERY SEVEN CALENDAR DAYS.
- REMOVE BUILT-UP SEDIMENT AND REPAIR/REPLACE THE SILT FENCE AS NEEDED.
- SILT FENCES WILL BE PERIODICALLY INSPECTED AND AFTER EACH STORM EVENT TO ENSURE IT IS FUNCTIONING PROPERLY AND TO MAKE ANY REPAIRS IF NECESSARY. DEPOSITED SEDIMENTS WILL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE FENCE OR IS CAUSING THE FENCE TO BULGE.

PLAN SYMBOL:

NOT TO SCALE



MATERIAL

2-3 IN. WASHED STONE (I.N.D.O.T. CA NO. 2) OVER STABLE FOUNDATION

THICKNESS

6 IN. MINIMUM

WIDTH

12 FT. MINIMUM OR FULL WIDTH OF ENTRANCE/EXIT ROADWAY (WHICHEVER IS GREATER)

LENGTH

50 FT. MINIMUM (THE LENGTH CAN BE SHORTER FOR SMALL SITES SUCH AS INDIVIDUAL HOMES)

WASHING FACILITY (OPTIONAL)

LEVEL AREA WITH 3 IN. WASHED STONE MINIMUM OR A COMMERCIAL RACK, AND WASTE WATER DIVERTED TO A SEDIMENT TRAP OR BASIN (PRACTICE 3.72)

GEOTEXTILE FABRIC UNDERLINER

MAY BE USED UNDER WET CONDITIONS OR FOR SOILS WITHIN A HIGH SEASONAL WATER TABLE TO PROVIDE GREATER BEARING STRENGTH

INSTALLATION

- AVOID LOCATING ON STEEP SLOPES OR AT CURBS IN PUBLIC ROADS
- REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA, AND GRADE AND CROWN FOR POSITIVE DRAINAGE.
- IF SLOPE TOWARDS THE ROAD EXCEEDS 2%, CONSTRUCT A 6-8 IN. HIGH WATER BAR (RIDGE) WITH 3:1 SIDE SLOPES ACROSS THE FOUNDATION ARE ABOUT 15 FT. FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE ROAD (PRACTICE 3.24) SEE EXHIBIT.
- INSTALL PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE
- IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY
- PLACE STONE TO DIMENSIONS AND GRADE SHOWN IN THE EROSION/SEDIMENT CONTROL PLAN, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE
- DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN

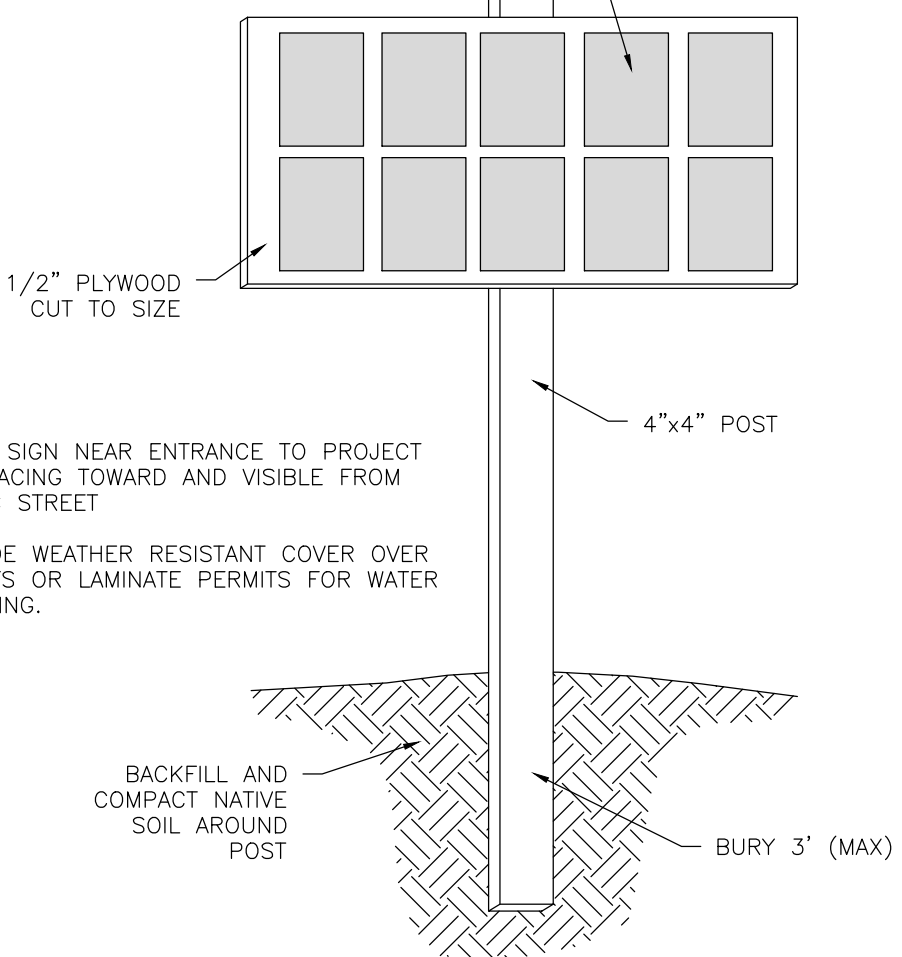
MAINTENANCE

- INSPECT ENTRANCE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER STORM EVENTS OR HEAVY USE
- RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL
- TOPDRESS WITH CLEAN STONE AS NEEDED
- IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED IF THE WATER IS CONVEYED INTO A SEDIMENT TRAP OR BASIN
- REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY

PLAN SYMBOL:

NOT TO SCALE

DISPLAY LOCAL BUILDING PERMITS, NOTICE OF INTENT, NOTICE OF SUFFICIENCY AND ANY DOCUMENT REQUIRED BY LOCAL JURISDICTION.



- NOTES:
- PLACE SIGN NEAR ENTRANCE TO PROJECT SITE FACING TOWARD AND VISIBLE FROM PUBLIC STREET
 - PROVIDE WEATHER RESISTANT COVER OVER PERMITS OR LAMINATE PERMITS FOR WATER PROOFING.

PLAN SYMBOL:

NOT TO SCALE

Concrete Washout

Silt Fence (Silt Saver SS-700)

Temporary Construction Entrance (Stone)

Permit Posting Detail

McMAHON
ENGINEERS-ARCHITECTS

962 South State Road 2
Valparaiso, Indiana 46385
Tel: (219) 462-7743 Fax: (219) 464-8248
mcm@mcmgrp-in.com

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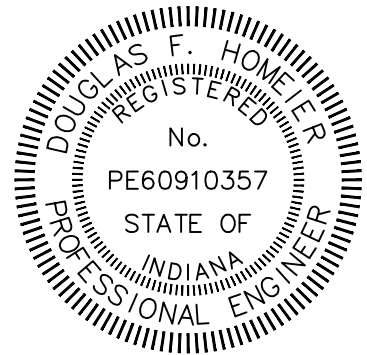
NO.	DATE	REVISION	STORM WATER REVISIONS PER CITY ENGINEERING
1	03/02/22		

K12 Tech Properties, LLC
251 Washington Street, Valparaiso, Indiana 46383
General Site Details and Specifications

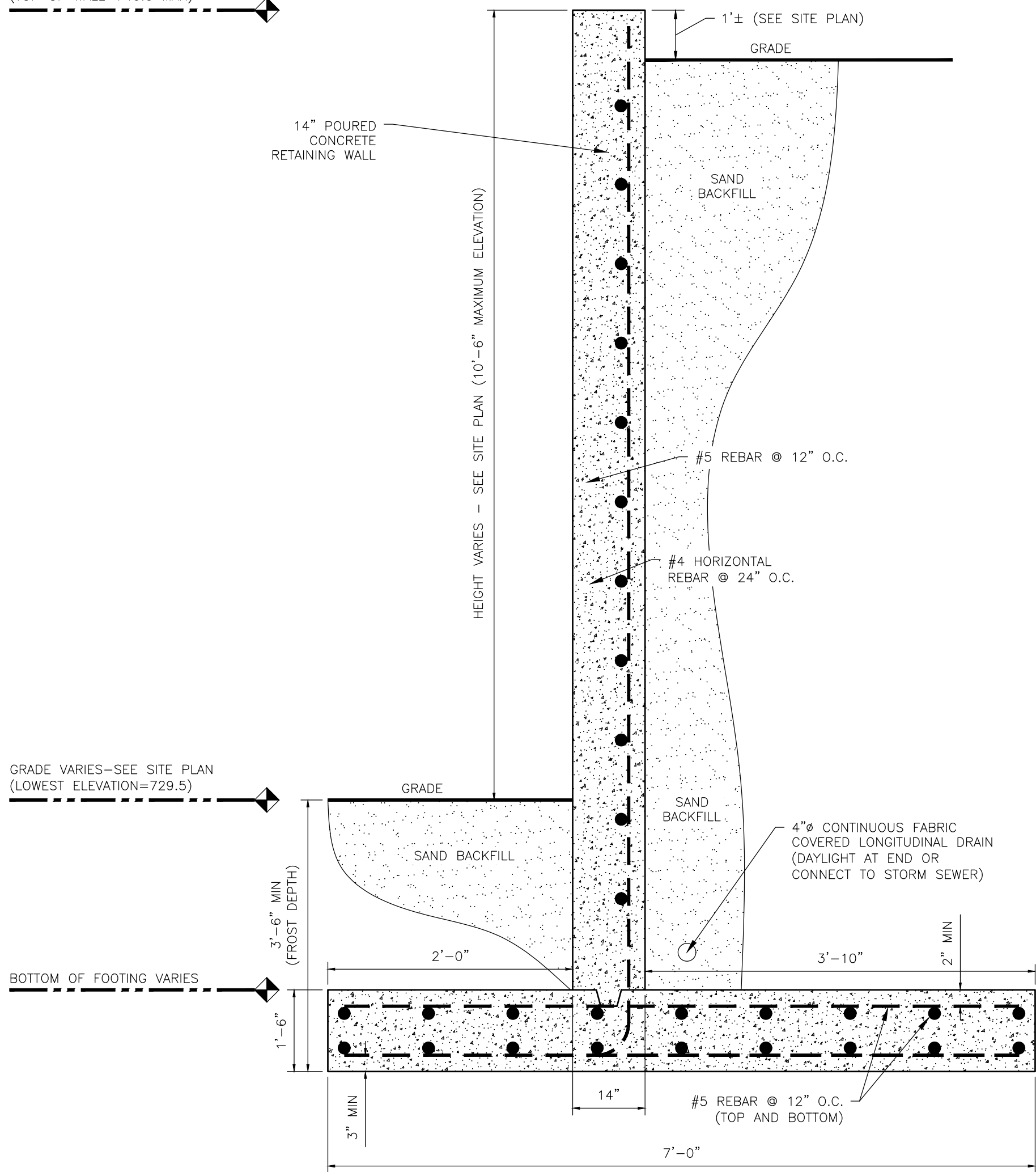
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DFH	KWC
PROJECT NO.	
K5009-05-21-00161	
DATE	
01/05/2022	
SHEET NO.	

C6.0

Douglas F. Homeier



TOP OF RETAINING WALL VARIES
SEE SITE PLAN FOR ELEVATIONS
(TOP OF WALL=740.0 MAX)

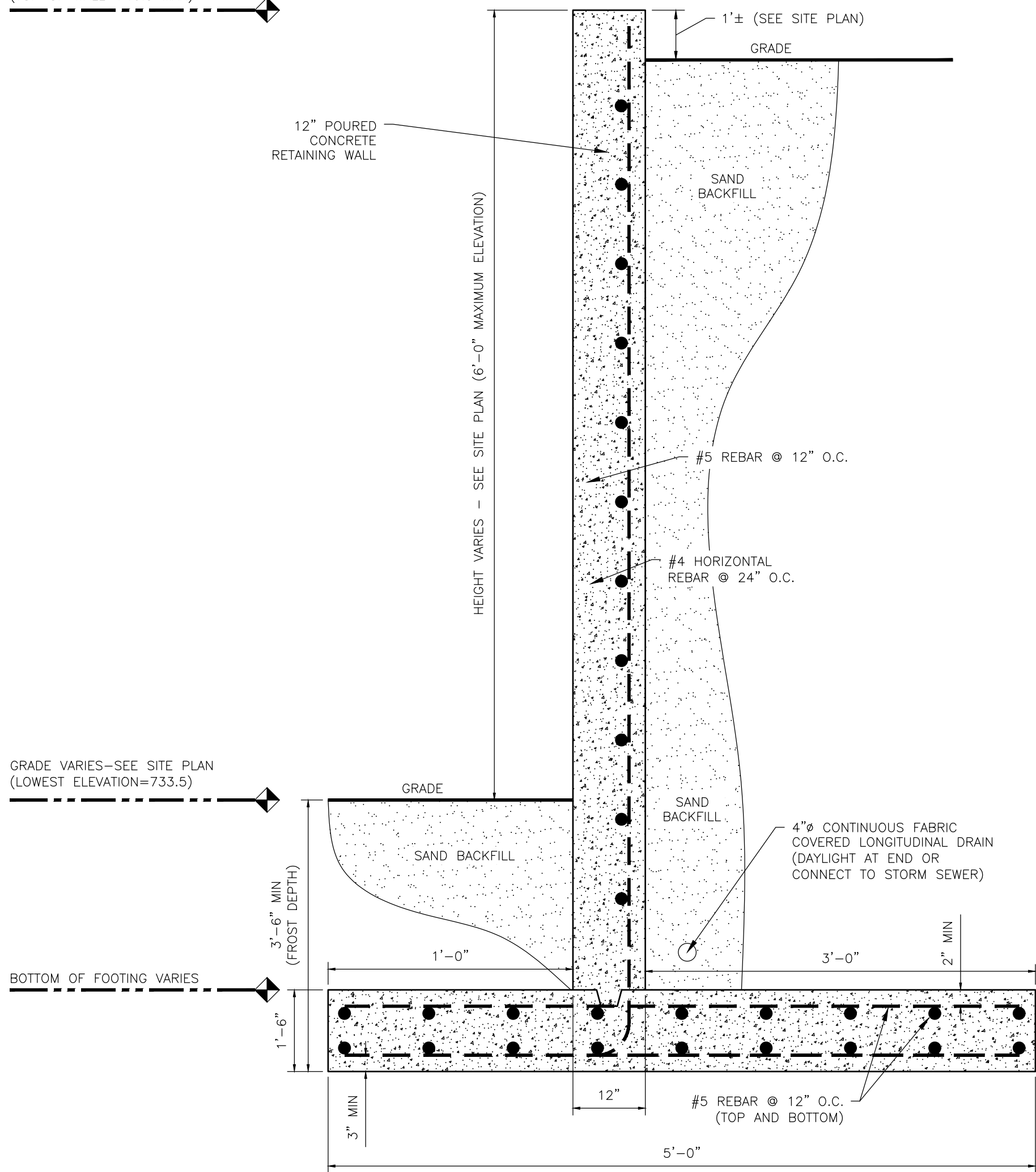


- RETAINING WALL GENERAL NOTES:
1. MATERIALS AND CONSTRUCTION PRACTICES FOR CONCRETE RETAINING WALLS SHOULD COMPLY WITH "BUILDING CODE REQUIREMENTS FOR CONCRETE STRUCTURES (ACI 531)"
 2. STEEL REINFORCEMENT SHOULD BE CLEAN, FREE FROM HARMFUL RUST, AND IN COMPLIANCE WITH APPLICABLE ASTM STANDARDS FOR DEFORMED BARS AND STEEL WIRE.
 3. ALTERNATE VERTICAL BARS MAY BE STOPPED AT WALL MID-HEIGHT.
 4. HEAVY EQUIPMENT USED IN BACKFILLING SHOULD NOT APPROACH CLOSER TO THE TOP OF THE WALL THAN A DISTANCE EQUAL TO THE HEIGHT OF THE WALL.
 5. F'c = 3000 PSI / REBAR GRADE = 60

West Concrete Retaining Wall

NOT TO SCALE

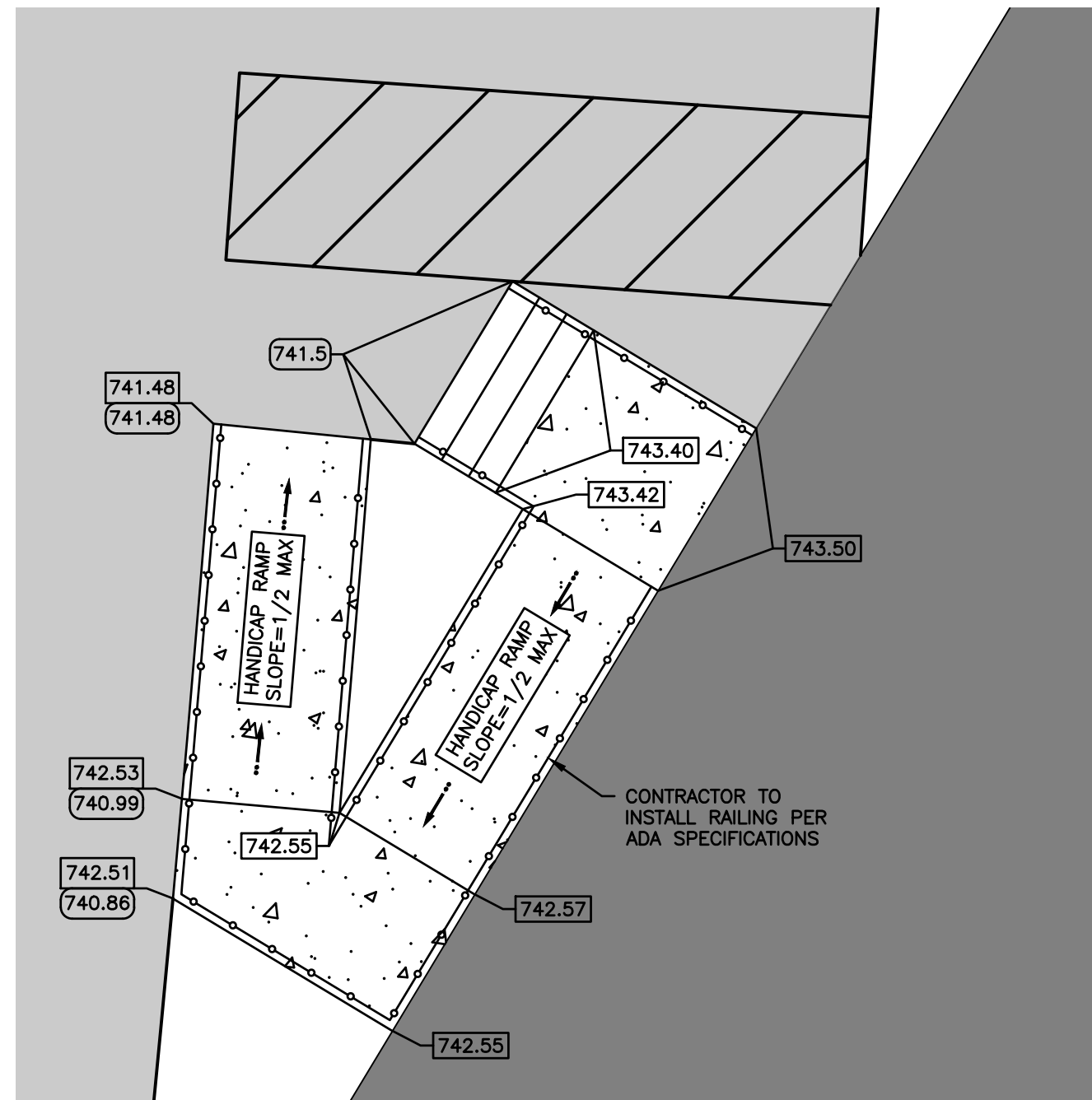
TOP OF RETAINING WALL VARIES
SEE SITE PLAN FOR ELEVATIONS
(TOP OF WALL=740.5 MAX)



- RETAINING WALL GENERAL NOTES:
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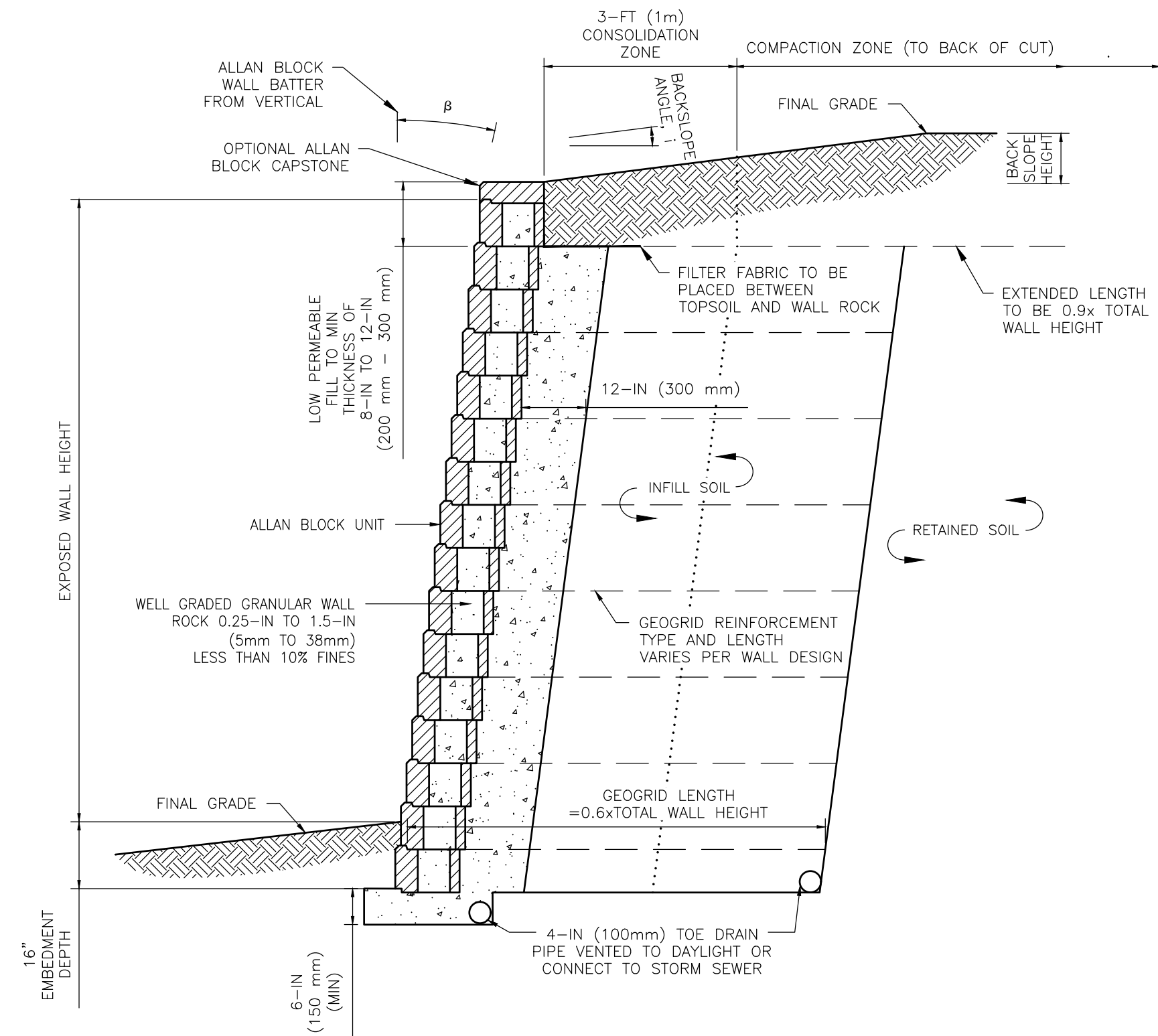
East Concrete Retaining Wall

NOT TO SCALE



West Entrance Handicap Ramp

NOT TO SCALE



Allen Block Retaining Wall

NO SCALE

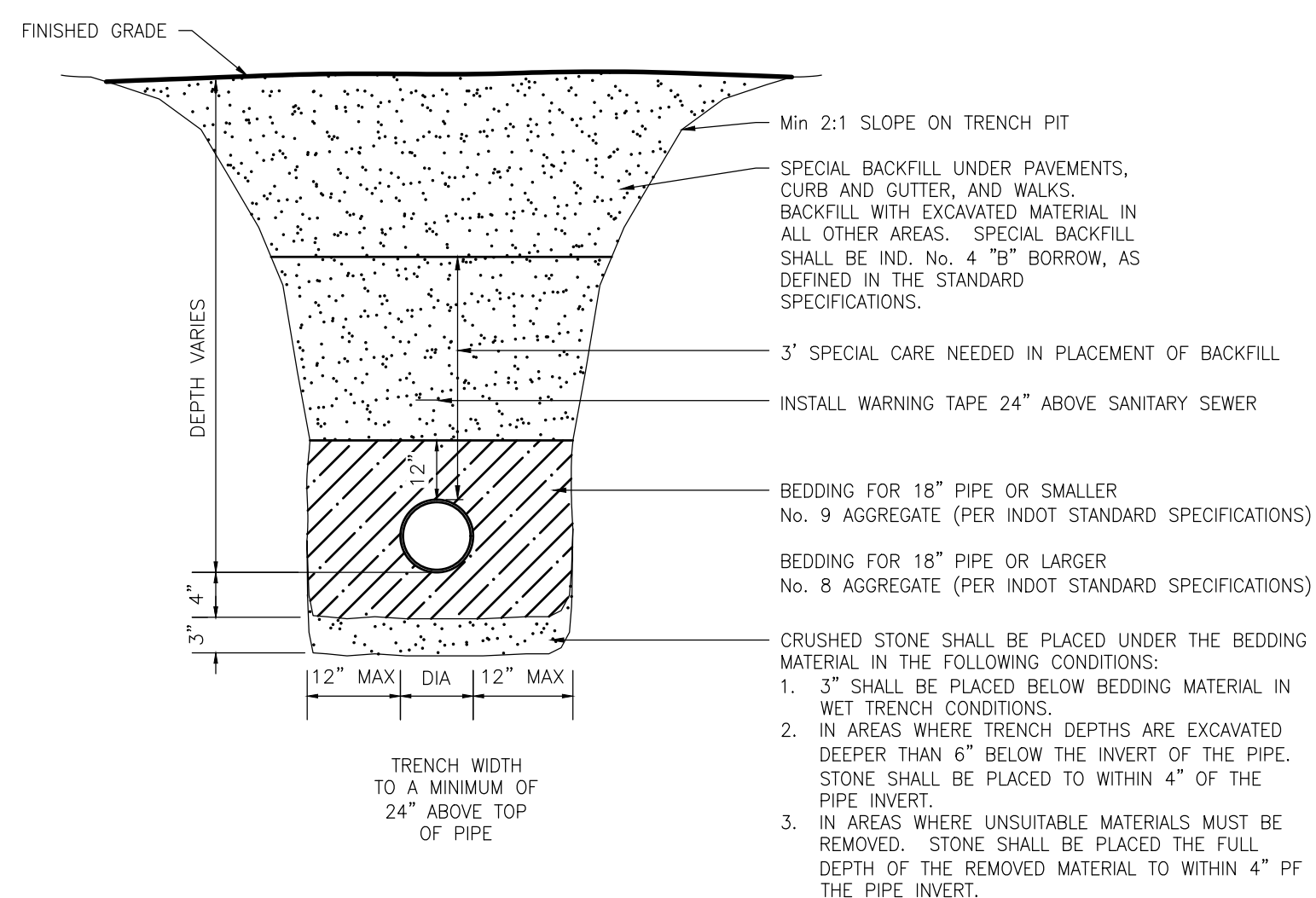
McMAHON
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251 Washington Street, Valparaiso, Indiana 46383
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PROJECT NO. K5009-05-21-00161	
DATE 01/05/2022	
SHEET NO. C7.0	



NOT TO SCALE

NOTE

1. CURB AND PAVEMENT TO BE MONOLITHIC POUR

NOT TO SCALE

NOTES

1. OR AS ACCEPTED BY LOCAL AUTHORITIES
2. ALL PAVEMENT WITHIN RIGHTS-OF-WAY MUST CONFORM TO STATE AND LOCAL SPECIFICATIONS

NOT TO SCALE

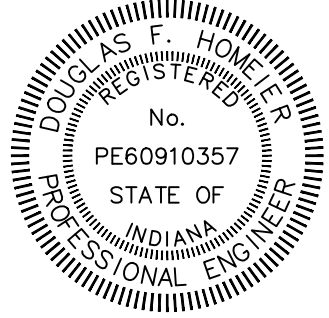
NOTES:

1. LETTERING, SYMBOL AND BORDER SHALL BE REFLECTIVE BLUE, ON WHITE BACKGROUND, WITH STANDARD 3M SCOTCHLITE SIGN FACE
2. PLACE IN FRONT OF EACH ACCESSIBLE PARKING STALL WITHIN CLEAR VIEW, BUT NOT TO OBSTRUCT PASSAGE FROM PARKING STALL OR ANY WALKWAY
3. MINIMUM VAN ACCESSIBLE VERTICAL CLEARANCE IS 8'-2"
4. SIGN MAY BE PLACED ON BUILDING IN LIEU OF POST

NOT TO SCALE

CATCH BASIN DETAIL PER CITY OF VALPARAISO DETAIL G04

NOT TO SCALE



STANDARD CONNECTION

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

DEEP CONNECTION

CLEAN-OUT DETAIL PER CITY OF VALPARAISO DETAIL H05

NO SCALE

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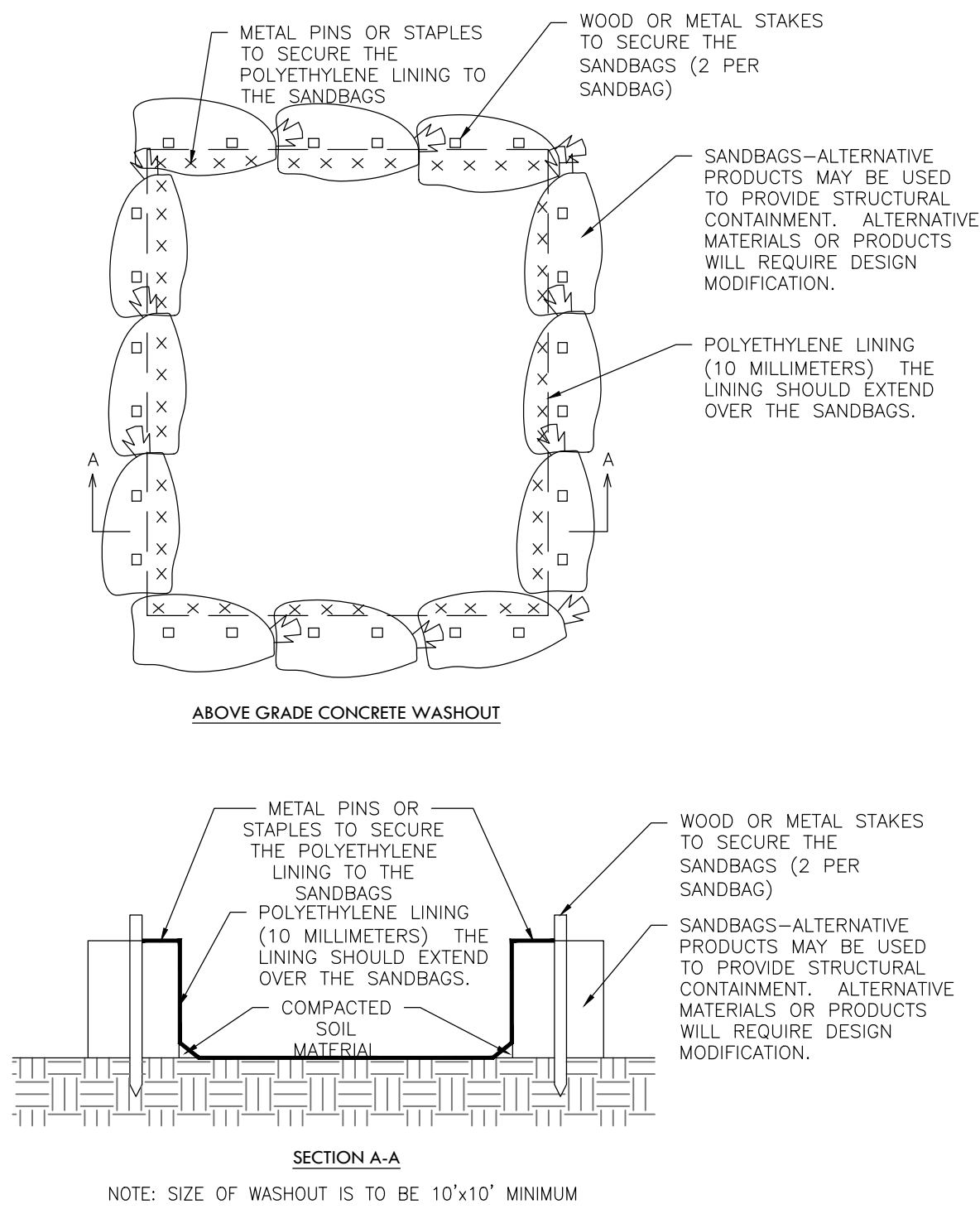
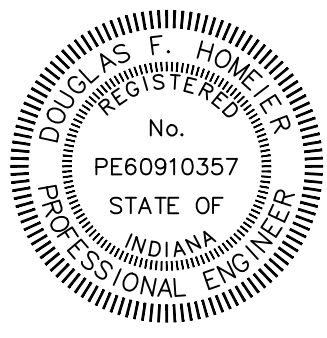
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PROJECT NO. K5009-05-21-00161	
DATE 01/05/2022	
SHEET NO.	

C8.0

Douglas F. Homan



- LOCATION**
- LOCATE CONCRETE WASHOUT SYSTEMS AT LEAST 50 FEET FROM ANY CREEKS, WETLANDS, DITCHES, KARST FEATURES, OR STORM DRAINS/MANMADE CONVEYANCE SYSTEMS.
 - LOCATE CONCRETE WASHOUT SYSTEMS IN RELATIVELY FLAT AREAS THAT HAVE ESTABLISHED VEGETATIVE COVER AND DO NOT RECEIVE RUNOFF FROM ADJACENT LAND AREAS.
 - LOCATE AWAY FROM OTHER CONSTRUCTION TRAFFIC IN AREAS THAT PROVIDE EASY ACCESS FOR CONCRETE TRUCKS.

- MATERIALS**
- MINIMUM OF TEN MILLIMETER POLYETHYLENE SHEETING, FREE OF HOLES, TEARS, AND OTHER DEFECTS.
 - ORANGE SAFETY FENCING OR EQUIVALENT.
 - SANDBAGS
 - METAL PINS OR STAPLES SIX INCHES IN LENGTH MINIMUM.

- INSTALLATION**
- A BASE SHALL BE CONSTRUCTED AND PREPARED THAT IS FREE OF ROCKS AND OTHER DEBRIS THAT MAY CAUSE TEARS OR PUNCTURES IN THE POLYETHYLENE LINING.
 - INSTALL THE POLYETHYLENE LINING. FOR EXCAVATED SYSTEMS, THE LINING SHOULD EXTEND OVER THE ENTIRE EXCAVATION. THE LINING FOR BERMED SYSTEMS SHOULD BE INSTALLED OVER THE POOLING AREA WITH ENOUGH MATERIAL TO EXTEND THE LINING OVER THE BERM OR CONTAINMENT SYSTEM. THE LINING SHOULD BE SECURED WITH PINS, STAPLES, OR OTHER FASTENERS.
 - PLACE FLAGS, SAFETY FENCING, OR EQUIVALENT TO PROVIDE A BARRIER TO CONSTRUCTION EQUIPMENT AND OTHER TRAFFIC.
 - INSTALL SIGN THAT IDENTIFIES CONCRETE WASHOUT AREAS.
 - WHERE NECESSARY, PROVIDE STABLE INGRESS AND EGRESS OR ALTERNATIVE APPROACH PAD.

- COMMON CONCERNS**
- COMPLETE CONSTRUCTION/INSTALLATION OF THE SYSTEM AND HAVE WASHOUT LOCATIONS OPERATIONAL PRIOR TO CONCRETE DELIVERY.
 - IT IS RECOMMENDED THAT WASHOUT SYSTEMS BE RESTRICTED TO WASHING CONCRETE FROM MIXER AND PUMP TRUCKS AND NOT USED TO DISPOSE OF EXCESS CONCRETE OR RESIDUAL LOADS DUE TO POTENTIAL TO EXCEED THE DESIGN CAPACITY OF THE WASHOUT SYSTEM.
 - INSTALL SYSTEMS AT STRATEGIC LOCATIONS THAT ARE CONVENIENT AND IN CLOSE PROXIMITY TO WORK AREAS AND IN SUFFICIENT NUMBER TO ACCOMMODATE THE DEMAND FOR DISPOSAL.
 - INSTALL SIGN IDENTIFYING THE LOCATION OF CONCRETE WASHOUT SYSTEMS.

- MAINTENANCE**
- INSPECT DAILY AND AFTER EACH STORM EVENT.
 - INSPECT THE SYSTEM FOR LEAKS, SPILLS, AND TRACKING OF SOIL BY EQUIPMENT.
 - INSPECT THE POLYETHYLENE LINING FOR FAILURE, INCLUDING TEARS AND PUNCTURES.
 - ONCE CONCRETE WASTES HARDEN, REMOVE AND DISPOSE OF THE MATERIAL.
 - EXCESS CONCRETE SHOULD BE REMOVED WHEN THE WASHOUT SYSTEM REACHES 50 PERCENT OF THE DESIGN CAPACITY. USE OF THE SYSTEM SHOULD BE DISCONTINUED UNTIL APPROPRIATE MEASURES CAN BE INITIATED TO CLEAN THE STRUCTURE.
 - UPON REMOVAL OF THE SOLIDS, INSPECT THE STRUCTURE. REPAIR THE STRUCTURE AS NEEDED OR CONSTRUCT A NEW SYSTEM.
 - DISPOSE OF ALL CONCRETE IN A LEGAL MANNER. REUSE THE MATERIAL ON SITE, RECYCLE, OR HAUL THE MATERIAL TO AN APPROVED CONSTRUCTION/DEMOLITION LANDFILL SITE. RECYCLING OF MATERIAL IS ENCOURAGED. THE WASTE MATERIAL CAN BE USED FOR MULTIPLE APPLICATIONS INCLUDING BUT NOT LIMITED TO ROADBEDS AND BUILDING. THE AVAILABILITY FOR RECYCLING SHOULD BE CHECKED LOCALLY.
 - THE PLASTIC LINER SHOULD BE REPLACED AFTER EVERY CLEANING; THE REMOVAL OF MATERIAL WILL USUALLY DAMAGE THE LINING.
 - THE CONCRETE WASHOUT SYSTEM SHOULD BE REPAIRED OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE.
 - CONCRETE WASHOUT SYSTEMS ARE DESIGNED TO PROMOTE EVAPORATION. HOWEVER, IF THE LIQUIDS DO NOT EVAPORATE AND THE SYSTEM IS NEAR CAPACITY IT MAY BE NECESSARY TO VACUUM OR REMOVE THE LIQUIDS AND DISPOSE OF THEM IN AN ACCEPTABLE METHOD. DISPOSAL MAY BE ALLOWED AT THE LOCAL SANITARY SEWER AUTHORITY PROVIDED THEIR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITS ALLOW FOR ACCEPTANCE OF THIS MATERIAL. ANOTHER OPTION WOULD BE TO UTILIZE A SECONDARY CONTAINMENT SYSTEM OR BASIN FOR FURTHER DEWATERING.
 - INSPECT CONSTRUCTION ACTIVITIES ON A REGULAR BASIS TO ENSURE SUPPLIERS, CONTRACTORS, AND OTHERS ARE UTILIZING DESIGNATED WASHOUT AREAS. IF CONCRETE WASTE IS BEING DISPOSED OF IMPROPERLY, IDENTIFY THE VIOLATORS AND TAKE APPROPRIATE ACTION.
 - WHEN CONCRETE WASHOUT SYSTEMS ARE NO LONGER REQUIRED, THE CONCRETE WASHOUT SYSTEMS SHALL BE CLOSED. DISPOSE OF ALL HARDENED CONCRETE AND OTHER MATERIALS USED TO CONSTRUCT THE SYSTEM.
 - HOLES, DEPRESSIONS, AND OTHER LAND DISTURBANCES ASSOCIATED WITH THE SYSTEM SHOULD BE BACKFILLED, GRADED, AND STABILIZED.

PLAN SYMBOL:

NOT TO SCALE

PERMANENT SEEDING

PERMANENTLY SEED ALL FINAL GRADE AREAS (E.G. LANDSCAPE BERMS, DRAINAGE SWALES, EROSION CONTROL STRUCTURES, ETC.) AS EACH IS COMPLETED AND ALL AREAS WHERE ADDITIONAL WORK IS NOT SCHEDULED FOR A PERIOD OF MORE THAN A YEAR.

SITE PREPARATION

- THESE INSTALLATION PRACTICES ARE NEEDED TO CONTROL EROSION, SEDIMENTATION, AND WATER RUNOFF, SUCH AS TEMPORARY
- GRADE THE SITE AS SPECIFIED IN THE CONSTRUCTION PLAN AND FILL IN DEPRESSIONS THAT CAN COLLECT WATER.
- ADD TOPSOIL TO ACHIEVE NEEDED DEPTH FOR ESTABLISHMENT OF VEGETATION.

SEEDBED PREPARATION

- FERTILIZE AS REQUIRED
- FILL THE SOIL TO OBTAIN A UNIFORM SEEDBED, WORKING THE FERTILIZER INTO THE SOIL 2-4 IN. DEEP WITH A DISK OR RAKE OPERATED ACROSS THE SLOPE.

SEEDING

- OPTIMUM SEEDING DATES ARE MARCH 1-MAY 10 AND AUGUST 10-SEPTEMBER 30. PERMANENT SEEDING DONE BETWEEN MAY 10 AND AUGUST 10 MAY NEED TO BE IRRIGATED. AS AN ALTERNATIVE, USE TEMPORARY SEEDING UNTIL THE PREFERRED DATE FOR PERMANENT SEEDING.
- SELECT A SEEDING MIXTURE AND RATE FROM THE TABLE AND PLANT AT DEPTH AND ON DATES SHOWN.
 - APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER-SEEDER OR BY BROADCASTING, AND COVER TO THE DEPTH SHOWN.
 - IF DRILLING OR BROADCASTING, FIRM THE SEEDBED WITH A ROLLER OR CULTIPACKER.
 - MULCH SEEDED AREAS. USE EROSION CONTROL BLANKETS ON SLOPING AREAS. IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.

MAINTENANCE

- INSPECT PERIODICALLY AFTER PLANTING TO SEE THAT VEGETATIVE STANDS ARE ADEQUATELY ESTABLISHED, RE-SEED
- CHECK FOR EROSION DAMAGE AFTER STORM EVENTS AND REPAIR, RESEED AND MULCH IF NECESSARY.

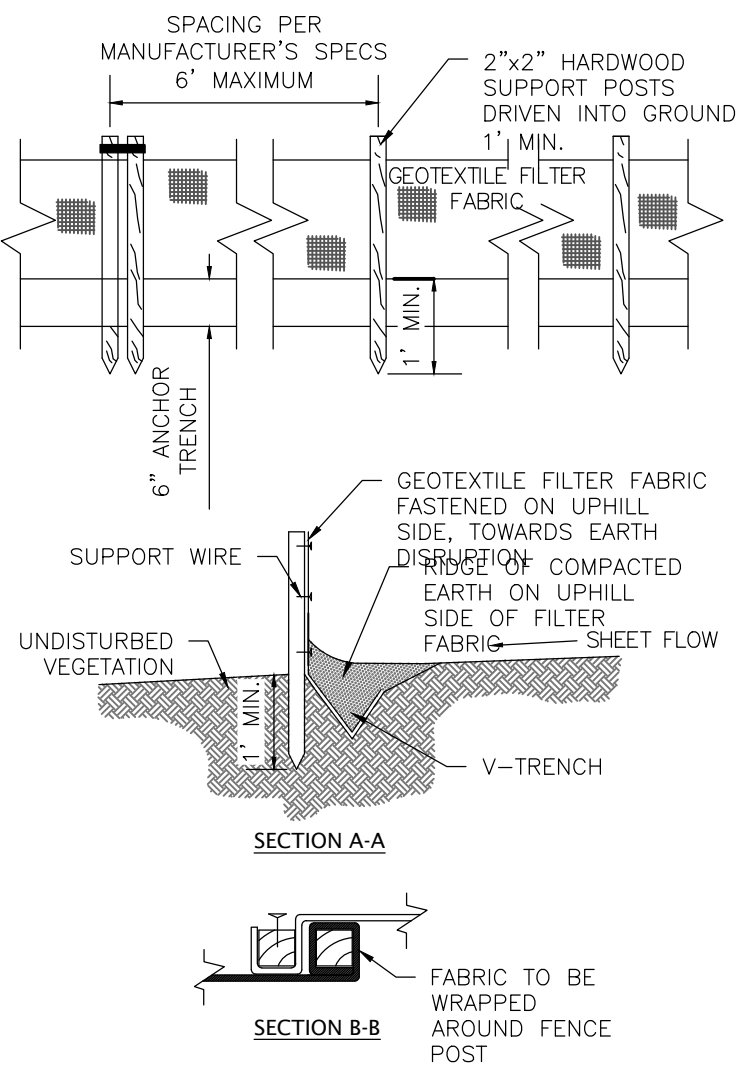
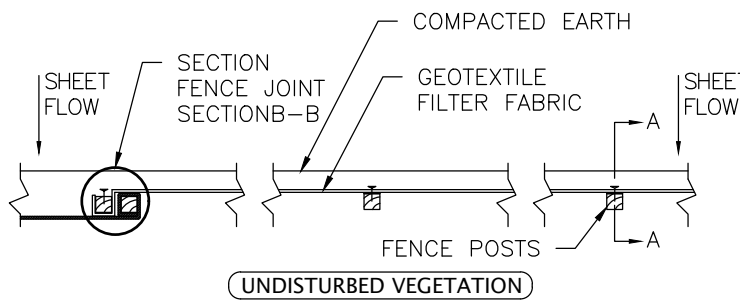
PERMANENT SEEDING RECOMMENDATIONS

THIS TABLE PROVIDES SEVERAL SEEDING OPTIONS. ADDITIONAL SEED SPECIES AND MIXTURES ARE AVAILABLE COMMERCIALY. WHEN SELECTING A MIXTURE, CONSIDER SITE CONDITIONS, INCLUDING SOIL PROPERTIES (E.G., SOIL PH AND DRAINAGE), SLOPE ASPECT AND THE TOLERANCE OF EACH SPECIES TO SHADE AND DROUGHT.

SEED SPECIES AND MIXTURES	RATE/ACRE	OPTIMUM SOIL PH
OPEN AND DISTURBED AREAS (REMAINING IDLE FOR MORE THAN ONE YEAR)		
PERENNIAL RYEGRASS	35 TO 50 LBS	5.6 TO 7.0
+WHITE OR LADINO COVER	1 TO 2 LBS	
KENTUCKY BLUEGRASS	20 LBS	5.5 TO 7.5
+SMOOTH BROMEGRASS	10 LBS	
+SWITCHGRASS	3 LBS	
+TIMOTHY	4 LBS	
+PERENNIAL RYEGRASS	10 LBS	
+WHITE OR LADINO CLOVER	1 TO 2 LBS	

PLAN SYMBOL:

Permanent Seeding Specifications



SECTION B-B

FABRIC TO BE WRAPPED AROUND FENCE POST

APPROACH

POOL AREA FLAT (LESS THAN 1% SLOPE), WITH SEDIMENT STORAGE OF 945 CU.FT./ACRE DISTURBED.

MATERIAL

AMOCO NO. 2130 SILT STOP WITH POSTS, MANUFACTURED BY MID-WEST CONSTRUCTION PRODUCTS AT 1-800-426-9647 OR 1-317-781-2380, OR APPROVED EQUAL.

ANCHORING

2 X 2 IN. HARDWOOD STAKES WITH A LENGTH EQUAL TO THE HEIGHT OF THE SILT FENCE PLUS 1 FT.

INSTALLATION

- DRIVE STAKES 1 FT. MIN. INTO GROUND AND ATTACH FABRIC TO STAKES WITH STAPLER.
- BOTTOM OF FABRIC SHALL BE PLACED UNDER 6 INCHES OF COMPACTED SOL TO PREVENT SEDIMENT FLOW UNDERNEATH THE FENCE.
- ENSURE THAT ALL SUPPORTING POSTS ARE ON THE DOWN SLOPE SIDE OF THE FENCING.

MAINTENANCE

- INSPECT WITHIN 24 HOURS OF A STORM EVENT OF 0.5" OF RAINFALL OR GREATER AND AT LEASE ONCE EVERY SEVEN CALENDAR DAYS.
- REMOVE BUILT-UP SEDIMENT AND REPAIR/REPLACE THE SILT FENCE AS NEEDED.
- SILT FENCES WILL BE PERIODICALLY INSPECTED AND AFTER EACH STORM EVENT TO ENSURE IT IS FUNCTIONING PROPERLY AND TO MAKE ANY REPAIRS IF NECESSARY. DEPOSITED SEDIMENTS WILL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE FENCE OR IS CAUSING THE FENCE TO BULGE.

PLAN SYMBOL:

NOT TO SCALE

CONTRIBUTING DRAINAGE AREA

1/4 ACRE MAXIMUM.

LOCATION

AT CURB INLETS WHERE BARRIERS SURROUNDING THEM WOULD BE IMPRACTICAL OF UNSAFE.

MATERIAL

CATCH-ALL STORMWATER INLET PROTECTOR OR APPROVED EQUAL. MARATHON MATERIALS, INC. 1-800-963-9493 OR WWW.MARATHONMATERIALS.COM

CAPACITY

RUNOFF FROM A 2-YR FREQUENCY, 24-HR DURATION STORM EVENT ENTERING A STORM DRAIN WITHOUT BY-PASS FLOW.

BASKET

FABRICATED METAL WITH TOP WIDTH-LENGTH DIMENSIONS SUCH THAT THE BASKET FITS INTO THE INLET WITHOUT GAPS.

GEOTEXTILE FABRIC

FOR FILTRATION

INSTALLATION

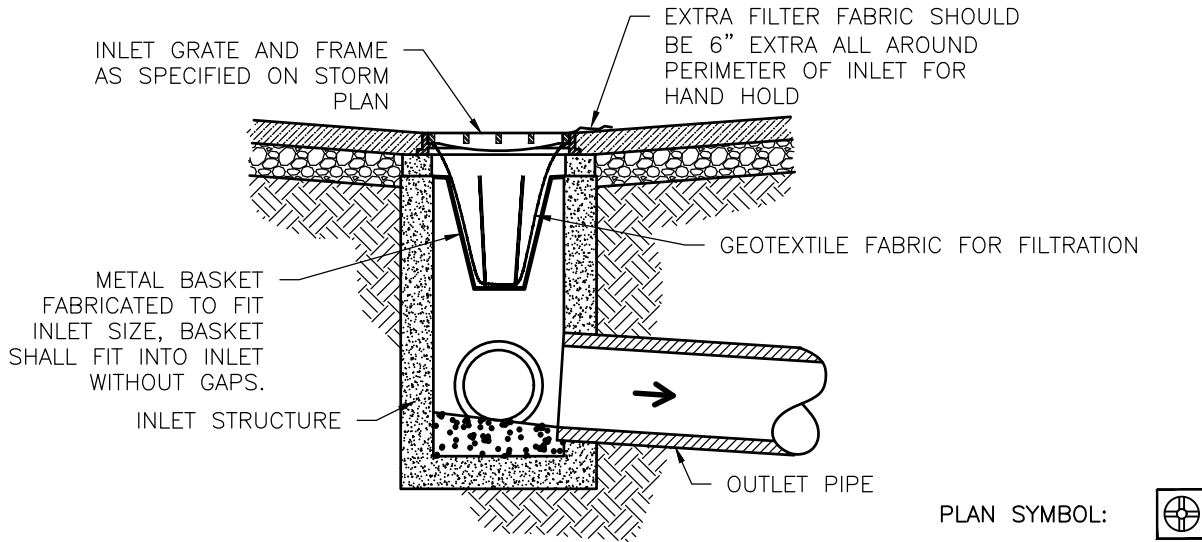
- INSTALL BASKET CURB INLET PROTECTIONS AS SOON AS INLET BOXES ARE INSTALLED IN THE NEW DEVELOPMENT OR BEFORE LAND DISTURBING ACTIVITIES BEGIN IN A STABILIZED AREA.
- IF NECESSARY, ADAPT BASKET DIMENSIONS TO FIT INLET BOX DIMENSIONS, WHICH VARY ACCORDING TO THE MANUFACTURER AND/OR MODEL.
- SEAL THE SIDE INLETS ON THOSE TYPES OF INLET BOXES THAT HAVE THEM.
- REMOVE THE GRATE AND PLACE THE BASKET IN THE INLET.
- CUT AND INSTALL A PIECE OF FILTER FABRIC LARGE ENOUGH TO LINE THE INSIDE OF THE BASKET AND EXTEND AT LEAST 6 INCHES BEYOND THE FRAME.
- REPLACE THE INLET GRATE, WHICH ALSO SERVES TO ANCHOR THE FABRIC.

MAINTENANCE

- INSPECT AFTER EACH STORM EVENT.
- REMOVE BUILT-UP SEDIMENT AND REPLACE THE GEOTEXTILE FABRIC AFTER EACH STORM EVENT.
- PERIODICALLY REMOVE SEDIMENT AND TRACKED-ON SOIL FROM THE STREET (BUT NOT BY FLUSHING WITH WATER) TO REDUCE THE SEDIMENT LOAD ON THIS CURB INLET PRACTICE.

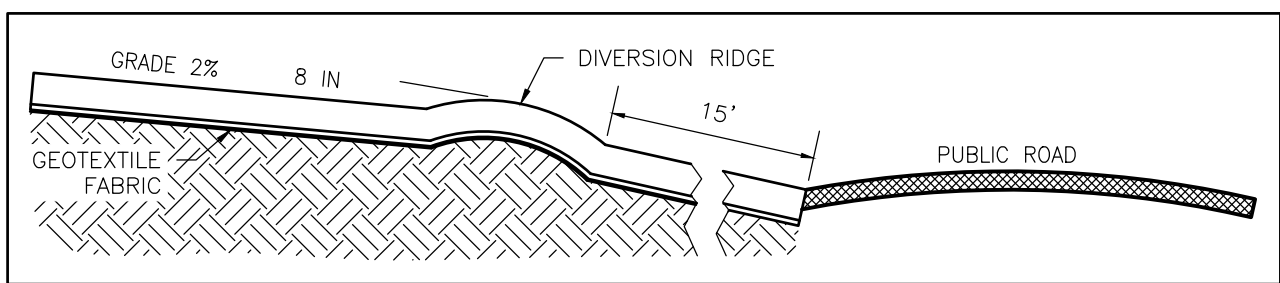
COMMON CONCERNS

- SEDIMENT NOT REMOVED AND GEOTEXTILE FABRIC NOT REPLACED FOLLOWING A STORM EVENT - RESULTS IN INCREASED SEDIMENT, TRACKING, TRAFFIC HAZARD, AND EXCESSIVE PONDING.
- GEOTEXTILE FABRIC PERMITTIVITY TOO LOW - RESULTS IN RAPID CLOGGING, THUS SEVERE PONDING, SEDIMENT ENTERS THE DRAIN IF THE FABRIC BREAKS.
- DRAINAGE AREA TOO LARGE - RESULTS IN SEDIMENT OVERLOAD AND SEVERE PONDING; SEDIMENT ENTERS THE DRAIN IF THE FABRIC BREAKS.



NOT TO SCALE

Inlet Protection Basket



MATERIAL

2-3 IN. WASHED STONE (I.N.D.O.T. CA NO. 2) OVER STABLE FOUNDATION

THICKNESS

6 IN. MINIMUM

WIDTH

12 FT. MINIMUM OR FULL WIDTH OF ENTRANCE/EXIT ROADWAY (WHICHEVER IS GREATER)

LENGTH

50 FT. MINIMUM (THE LENGTH CAN BE SHORTER FOR SMALL SITES SUCH AS INDIVIDUAL HOMES)

WASHING FACILITY (OPTIONAL)

LEVEL AREA WITH 3 IN. WASHED STONE MINIMUM OR A COMMERCIAL RACK, AND WASTE WATER DIVERTED TO A SEDIMENT TRAP OR BASIN (PRACTICE 3.72)

GEOTEXTILE FABRIC UNDERLINER

MAY BE USED UNDER WET CONDITIONS OR FOR SOILS WITHIN A HIGH SEASONAL WATER TABLE TO PROVIDE GREATER BEARING STRENGTH

INSTALLATION

- AVOID LOCATING ON STEEP SLOPES OR AT CURBS IN PUBLIC ROADS
- REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA, AND GRADE AND CROWN FOR POSITIVE DRAINAGE.
- IF SLOPE TOWARDS THE ROAD EXCEEDS 2%, CONSTRUCT A 6-8 IN. HIGH WATER BAR (RIDGE) WITH 3:1 SIDE SLOPES ACROSS THE FOUNDATION ARE ABOUT 15 FT. FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE ROAD (PRACTICE 3.24) SEE EXHIBIT.
- INSTALL PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE
- IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY
- PLACE STONE TO DIMENSIONS AND GRADE SHOWN IN THE EROSION/SEDIMENT CONTROL PLAN, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE
- DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN

MAINTENANCE

- INSPECT ENTRANCE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER STORM EVENTS OR HEAVY USE
- RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL
- TOPDRESS WITH CLEAN STONE AS NEEDED
- IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED IF THE WATER IS CONVEYED INTO A SEDIMENT TRAP OR BASIN
- REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY

PLAN SYMBOL:

NOT TO SCALE

Temporary Construction Entrance (Stone)

McMAHON
ENGINEERS-ARCHITECTS

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Valparaiso, Indiana 46385
Tel: (219) 462-7743 Fax: (219) 464-8248
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NO.	DATE	REVISION	STORM WATER REVISIONS PER CITY ENGINEERING
1	03/02/22		

K12 Tech Properties, LLC
251 Washington Street, Valparaiso, Indiana 46383
General Site Details and Specifications

DESIGNED DFH	DRAWN KMC
PROJECT NO. K5009-05-21-00161	

DATE 01/05/2022
SHEET NO. C9.0

