SITE IMPROVEMENT PLANS FOR

K & K 230 ENTERPRISES, LLC

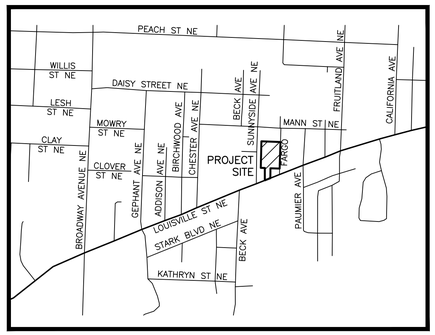
WAREHOUSE / STORAGE BUILDING

4175 FARGO AVE
NIMISHILLEN TOWNSHIP
SW QTR. SECTION 29
TOWNSHIP 19, RANGE 7

AUGUST 2024

LEGEND

- R/W — RIGHT OF WAY
- ℄ — PROPERTY LINE
- ℄ — CENTERLINE DRIVE/ROAD
- ℄ — BASELINE
- DRAINAGE DITCH/SWALE
- x — EXISTING FENCE
- T — EXISTING UNDERGROUND TELEPHONE
- G — EXISTING GAS LINE
- E — EXISTING UNDERGROUND ELECTRIC
- STM — EXISTING STORM SEWER
- SAN — EXISTING SANITARY SEWER
- W — EXISTING WATERLINE
- OH — EXISTING ABOVEGROUND ELECTRIC
- EXISTING GUARDRAIL
- X — PROPOSED FENCE
- T — PROPOSED UNDERGROUND TELEPHONE
- G — PROPOSED GAS LINE
- E — PROPOSED UNDERGROUND ELECTRIC
- STM — PROPOSED STORM SEWER
- SAN — PROPOSED SANITARY SEWER
- W — PROPOSED WATERLINE
- OHE — PROPOSED ABOVEGROUND ELECTRIC
- PROPOSED GUARDRAIL
- EDGE OF BRUSH/TREES
- RAILROAD TRACKS
- S — EXISTING SANITARY/STORM SEWER MANHOLE
- UTILITY POLE WITH GUY
- LIGHT POLE
- EXISTING FIRE HYDRANT
- PROPOSED/RELOCATED FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING GAS VALVE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- PROPOSED SANITARY/STORM MANHOLE
- PROPOSED WATER VALVE
- RELOCATED VALVE (EXISTING)
- PROPOSED GAS VALVE
- EXISTING CATCH BASIN/MANHOLE TO BE REMOVED AND REPLACED
- STREET SIGN
- MB — MAILBOX
- M — MONUMENT BOX
- GAS MARKER
- SOIL BORING
- E — ELECTRIC METER/JUNCTION BOX
- G — GAS METER
- W — WELL HEAD
- × 1208.75 — EXISTING SPOT ELEVATION
- × 8.75 — PROPOSED SPOT ELEVATION
- FLOW LINE
- TREE
- TREE TO BE REMOVED/REPLACED



LOCATION MAP
NOT TO SCALE

INDEX OF SHEETS

TITLE SHEET	1
EXISTING CONDITIONS & REMOVALS PLAN	2
SITE PLAN	3
GRADING PLAN	4
UTILITY PLAN	5
STORM WATER POLLUTION PREVENTION PLAN	6
GENERAL NOTES	7
GENERAL DETAILS	8
	9

OWNER:
K & K 230 ENTERPRISES, LLC
230 15TH STREET, SE
CANTON, OH 44707
CHRIS KERZAN
330-453-0060
CHRIS@NLCONSTRUCTIONCORP.COM

STATE OF OHIO
J. RICHARD LARGENT
E-62744
REGISTERED PROFESSIONAL ENGINEER
AUGUST 16, 2024

HETTLER · LARGENT
Civil & Construction Consultants
1225 North Main Street | Suite A | North Canton, OH 44720
PH: (330) 966-1776 | MOBILE: (330) 388-2521
rlargent@hettlerlargenteng.com | www.hettlerlargenteng.com

SURVEYING SERVICES BY

TERRA LOGIC, INC.
2418 STATE STREET NW
UNIONTOWN, OH 44685
(330) 324-9999

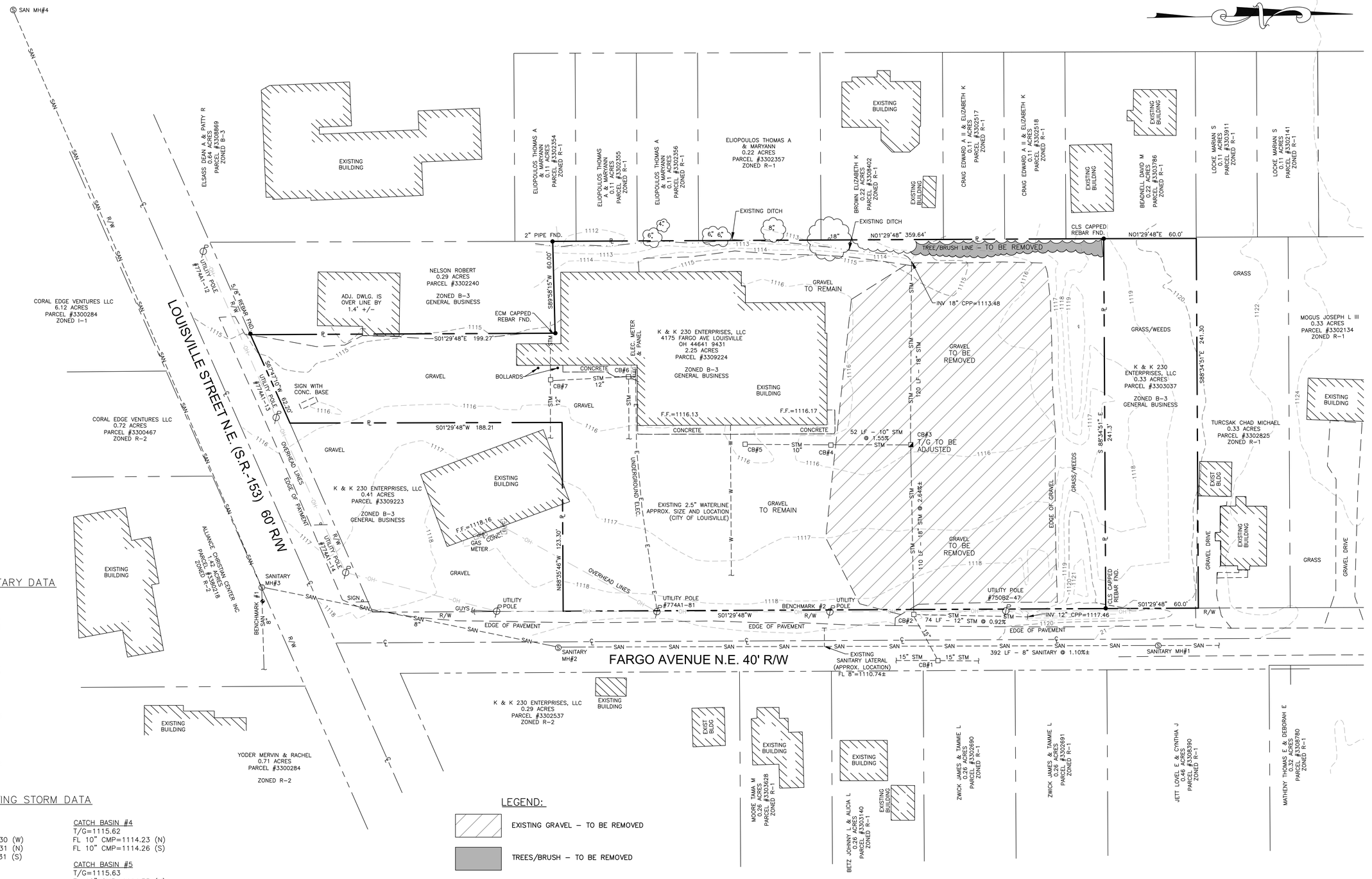
CALL 2 WORKING DAYS
BEFORE YOU DIG
1-800-362-2764
OHIO811, 8-1-1
OHIO UTILITIES PROTECTION SERVICE
(CONTACT NON-MEMBERS DIRECTLY)

DATE: AUGUST 2024

AUGUST 17 2024 10:04AM

NO	DATE	DESCRIPTION	BY

EXISTING CONDITIONS & REMOVALS PLAN



EXISTING SANITARY DATA

SANITARY MH#1
T/C=1121.56
INV 8" S.=1113.14
INV 8" N.=1114.06

SANITARY MH#2
T/C=1119.04
INV 8" S.=1108.75
INV 8" N.=1108.77

SANITARY MH#3
T/C=1116.98
INV 8" W.=1107.93
INV 8" N.=1108.01

SANITARY MH#4
T/C=1112.17
INV 8" W.=1103.42
INV 8" E.=1103.42

EXISTING STORM DATA

CATCH BASIN #1
T/G=1119.11
FL 15" CPP=1117.30 (W)
FL 15" CPP=1117.31 (N)
FL 15" VCP=1117.31 (S)

CATCH BASIN #2
T/G=1118.87
FL 18" CPP=1116.35 (W)
FL 15" CPP=1116.35 (E)
FL 12" CPP=1116.78 (N)

CATCH BASIN #3
T/G=1115.92
FL 18" CPP=1113.40 (W)
FL 18" CPP=1113.44 (E)
FL 12" CPP=1113.42 (S)

CATCH BASIN #4
T/G=1115.62
FL 10" CMP=1114.23 (N)
FL 10" CMP=1114.26 (S)

CATCH BASIN #5
T/G=1115.63
FL 10" CMP=1114.35 (N)

CATCH BASIN #6
T/G=1115.40 FL
FL 12" RCP=1112.85 (E)
FL 12" RCP=1112.85 (S)
FL 4" VCP=1114.04 (NE)

CATCH BASIN #7
T/G=1115.27
FL 14" BOX=1112.27 (W)
FL 12" RCP=1112.32 (N)
FL 12" RCP=1112.52 (E)

BENCKMARK #1:
NORTH BONNET BOLT OF FIRE HYDRANT LOCATED ON THE SOUTH SIDE OF LOUISVILLE ST ACROSS FROM FARGO AVE.
ELEVATION=1119.58

BENCKMARK #2:
MAG SET ON WEST SIDE OF UTILITY POLE LOCATED ON THE WEST SIDE OF FARGO AVE APPROXIMATELY 300' NORTH OF THE INTERSECTION OF LOUISVILLE ST AND FARGO AVE.
ELEVATION=1118.79

LEGEND:

EXISTING GRAVEL – TO BE REMOVED

TREES/BRUSH – TO BE REMOVED

NOTES

1. ALL UTILITY LOCATIONS ARE APPROXIMATE BASED ON FIELD SURVEY DATA/OBSERVATIONS OR EXISTING RECORDS AND/OR PLANS. FIELD VERIFY ALL INFORMATION.
2. TOPOGRAPHIC & BOUNDARY INFORMATION PROVIDED BY TERRA LOGIC, INC. BASED ON ACTUAL FIELD SURVEY COMPLETED IN MARCH 3, 2022.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

DATE: AUGUST 2024

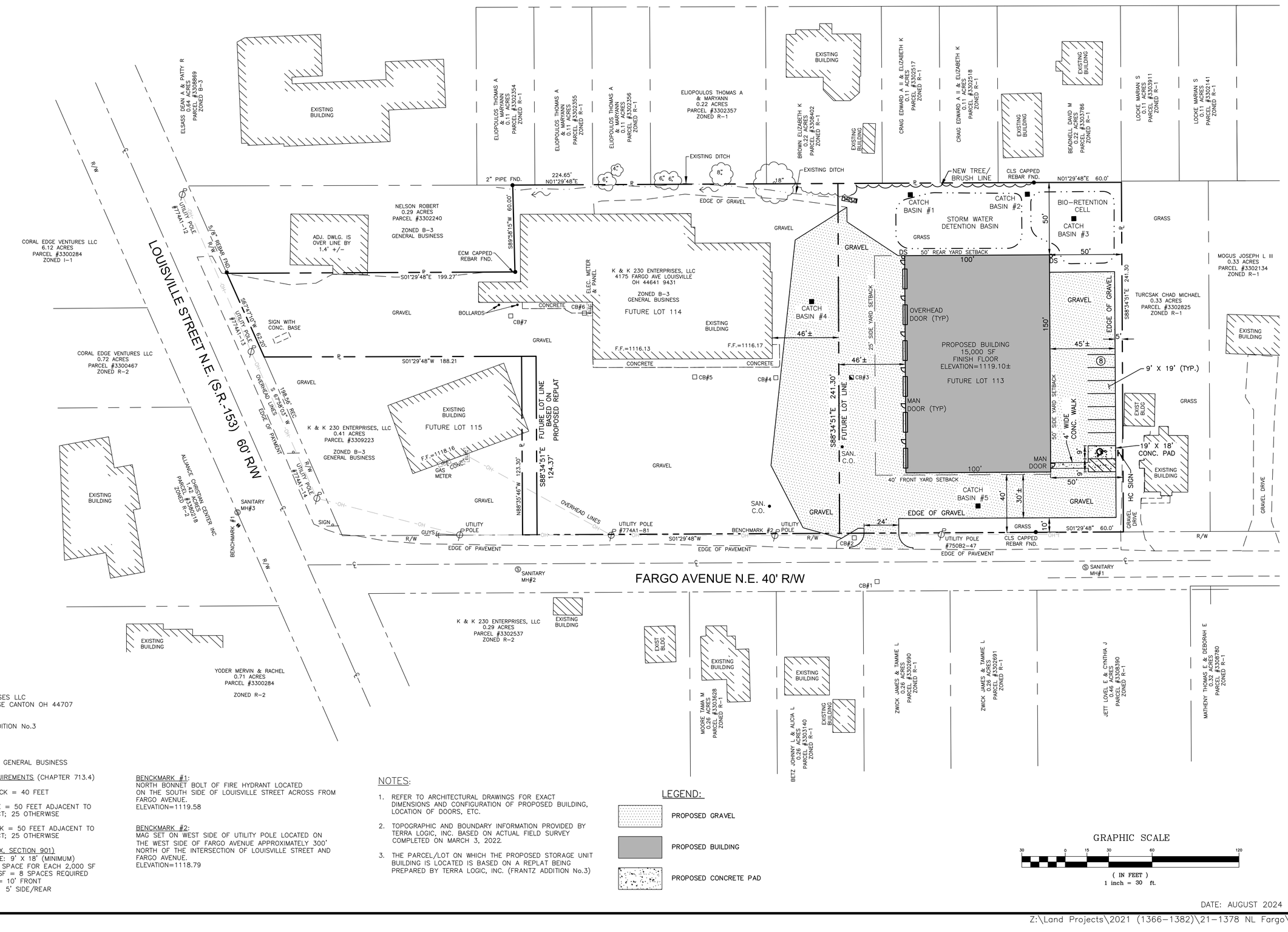
HETTLER · LARGENT
Civil & Construction Consultants
1225 North Main Street | Suite A | North Canton, OH 44720
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WAREHOUSE / STORAGE BUILDING
K&K 230 ENTERPRISES, LLC
4175 FARGO AVENUE
NIMISHILLEN TOWNSHIP
STARK COUNTY, OHIO

AUGUST 17 2024 10:04AM

NO	DATE	DESCRIPTION	BY

SITE PLAN



OWNER:
K&K 230 ENTERPRISES LLC
230 15TH STREET SE CANTON OH 44707

SITE ACREAGE:
REPLAT-FRANTZ ADDITION No.3
LOT 113 1.083 AC.
LOT 114 1.442 AC.
LOT 115 0.460 AC.

ZONING: ZONED B3: GENERAL BUSINESS

MINIMUM YARD REQUIREMENTS (CHAPTER 713.4)

FRONT YARD SETBACK = 40 FEET

SIDE YARD SETBACK = 50 FEET ADJACENT TO RESIDENTIAL DISTRICT; 25 OTHERWISE

REAR YARD SETBACK = 50 FEET ADJACENT TO RESIDENTIAL DISTRICT; 25 OTHERWISE

PARKING (ARTICLE IX, SECTION 901)
PARKING SPACE SIZE: 9' X 18' (MINIMUM)
WAREHOUSE – ONE SPACE FOR EACH 2,000 SF BLDG. 15,000 SF = 8 SPACES REQUIRED
PARKING SETBACK = 10' FRONT
5' SIDE/REAR

BENCKMARK #1:
NORTH BONNET BOLT OF FIRE HYDRANT LOCATED ON THE SOUTH SIDE OF LOUISVILLE STREET ACROSS FROM FARGO AVENUE.
ELEVATION=1119.58

BENCKMARK #2:
MAG SET ON WEST SIDE OF UTILITY POLE LOCATED ON THE WEST SIDE OF FARGO AVENUE APPROXIMATELY 300' NORTH OF THE INTERSECTION OF LOUISVILLE STREET AND FARGO AVENUE.
ELEVATION=1118.79

NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS AND CONFIGURATION OF PROPOSED BUILDING, LOCATION OF DOORS, ETC.
2. TOPOGRAPHIC AND BOUNDARY INFORMATION PROVIDED BY TERRA LOGIC, INC. BASED ON ACTUAL FIELD SURVEY COMPLETED ON MARCH 3, 2022.
3. THE PARCEL/LOT ON WHICH THE PROPOSED STORAGE UNIT BUILDING IS LOCATED IS BASED ON A REPLAT BEING PREPARED BY TERRA LOGIC, INC. (FRANTZ ADDITION No.3)

LEGEND:

PROPOSED GRAVEL

PROPOSED BUILDING

PROPOSED CONCRETE PAD

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

DATE: AUGUST 2024

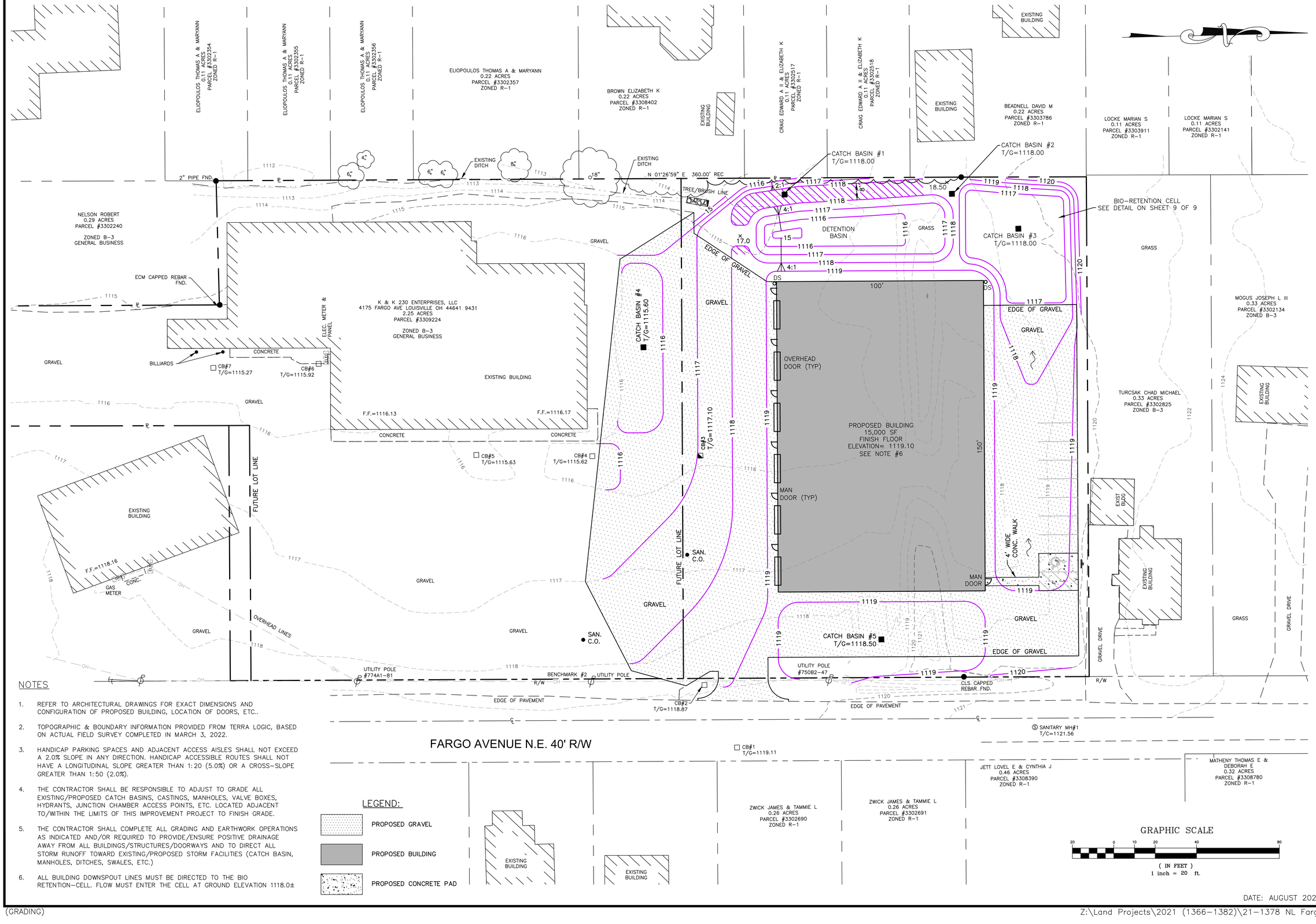
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4175 FARGO AVENUE
NIMISHILLEN TOWNSHIP
STARK COUNTY, OHIO

AUGUST 17 2024 10:04AM

GRADING PLAN

NO	DATE	DESCRIPTION	BY



NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS AND CONFIGURATION OF PROPOSED BUILDING, LOCATION OF DOORS, ETC..
2. TOPOGRAPHIC & BOUNDARY INFORMATION PROVIDED FROM TERRA LOGIC, BASED ON ACTUAL FIELD SURVEY COMPLETED IN MARCH 3, 2022.
3. HANDICAP PARKING SPACES AND ADJACENT ACCESS AISLES SHALL NOT EXCEED A 2.0% SLOPE IN ANY DIRECTION. HANDICAP ACCESSIBLE ROUTES SHALL NOT HAVE A LONGITUDINAL SLOPE GREATER THAN 1:20 (5.0%) OR A CROSS-SLOPE GREATER THAN 1:50 (2.0%).
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST TO GRADE ALL EXISTING/PROPOSED CATCH BASINS, CASTINGS, MANHOLES, VALVE BOXES, HYDRANTS, JUNCTION CHAMBER ACCESS POINTS, ETC. LOCATED ADJACENT TO/WITHIN THE LIMITS OF THIS IMPROVEMENT PROJECT TO FINISH GRADE.
5. THE CONTRACTOR SHALL COMPLETE ALL GRADING AND EARTHWORK OPERATIONS AS INDICATED AND/OR REQUIRED TO PROVIDE/ENSURE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS/STRUCTURES/DOORWAYS AND TO DIRECT ALL STORM RUNOFF TOWARD EXISTING/PROPOSED STORM FACILITIES (CATCH BASIN, MANHOLES, DITCHES, SWALES, ETC.)
6. ALL BUILDING DOWNSPOUT LINES MUST BE DIRECTED TO THE BIO RETENTION-CELL. FLOW MUST ENTER THE CELL AT GROUND ELEVATION 1118.0±

LEGEND:

- PROPOSED GRAVEL
- PROPOSED BUILDING
- PROPOSED CONCRETE PAD

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

DATE: AUGUST 2024

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STARK COUNTY, OHIO

AUGUST 17 2024 10:03AM

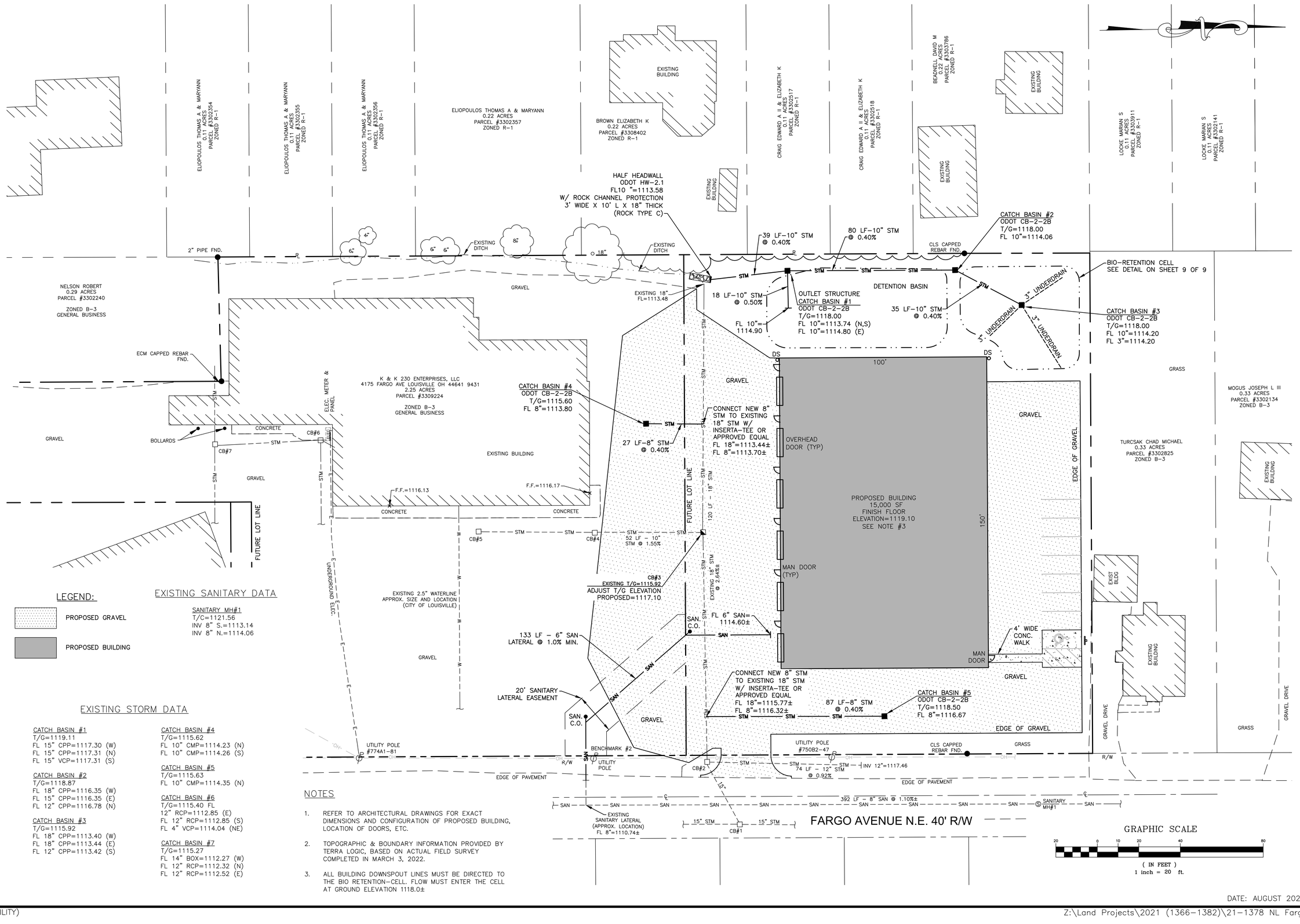
UTILITY PLAN

NO	DATE	DESCRIPTION	BY

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4175 FARGO AVENUE
NIMISHILLEN TOWNSHIP
STARK COUNTY, OHIO

AUGUST 17 2024 10:03AM



LEGEND:

- PROPOSED GRAVEL
- PROPOSED BUILDING

EXISTING SANITARY DATA

SANITARY MH#1
T/C=1121.56
INV 8" S.=1113.14
INV 8" N.=1114.06

EXISTING STORM DATA

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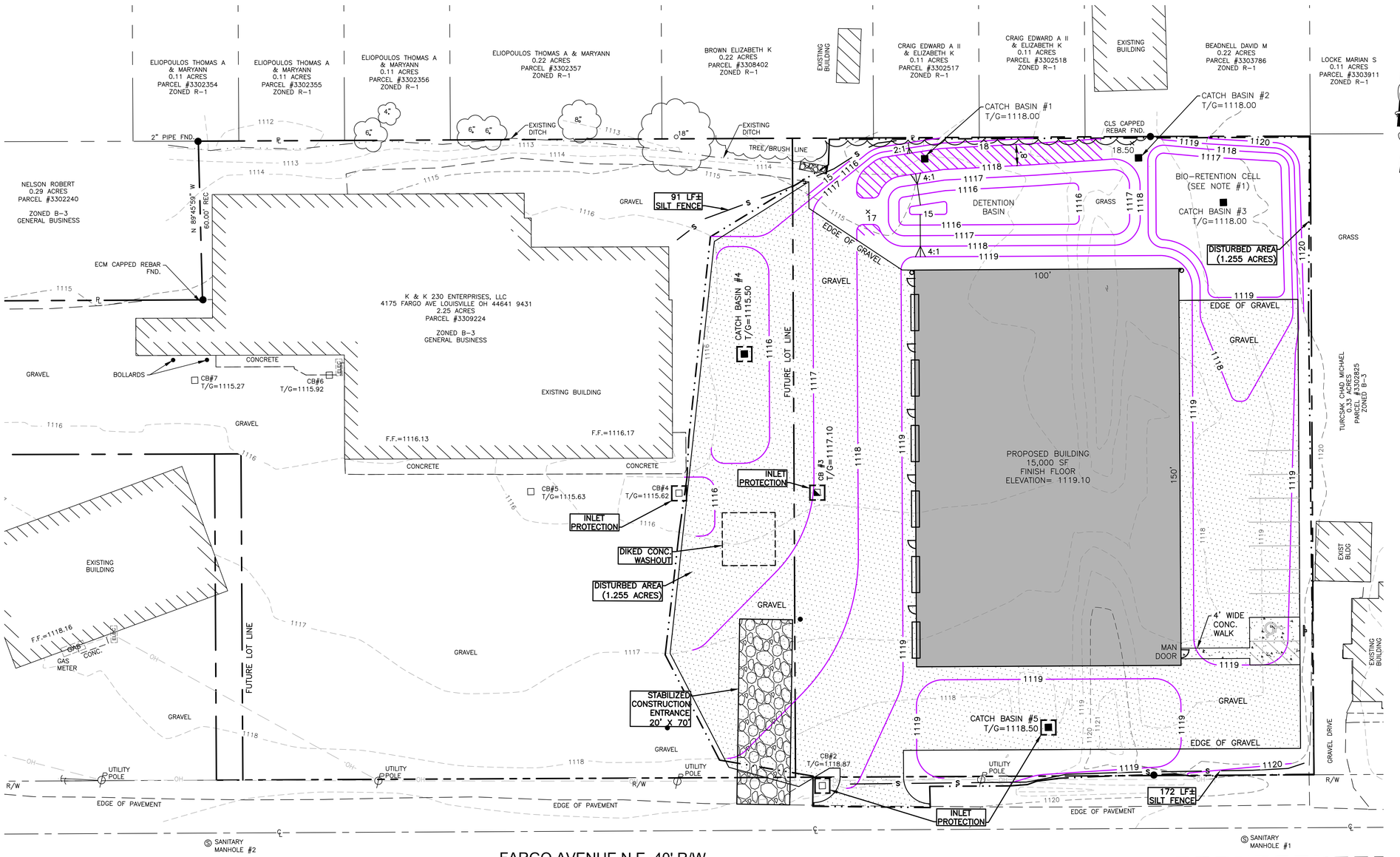
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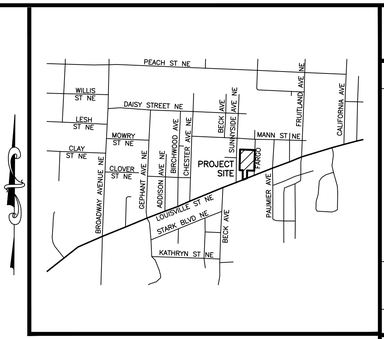
1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS AND CONFIGURATION OF PROPOSED BUILDING, LOCATION OF DOORS, ETC.
2. TOPOGRAPHIC & BOUNDARY INFORMATION PROVIDED BY TERRA LOGIC, BASED ON ACTUAL FIELD SURVEY COMPLETED IN MARCH 3, 2022.
3. ALL BUILDING DOWNSPOUT LINES MUST BE DIRECTED TO THE BIO RETENTION-CELL. FLOW MUST ENTER THE CELL AT GROUND ELEVATION 1118.0±

GRAPHIC SCALE

20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

DATE: AUGUST 2024





LOCATION MAP
NOT TO SCALE

OWNER: K & K 230 ENTERPRISES, LLC
OWNER/RESPONSIBLE PARTY PLAN CERTIFICATION

I, THE UNDERSIGNED, CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL THE ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGED THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE.
I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

OWNER/RESPONSIBLE PARTY SIGNATURE: DATE

SITE DATA

DISTURBED AREA = 1.255 ACRES±
DRAINAGE AREA = 1.575 ACRES±

SOIL TYPES

RAVENNA-URBAN COMPLEX (Rn)

CONTACT INFORMATION

OWNER:
K & K 230 ENTERPRISES, LLC
230 15TH STREET, SE
CANTON, OH 44707
CHRIS KERZAN
330-453-0060
CHRIS@NLCONSTRUCTIONCORP.COM

NOTES

1. THE CONSTRUCTION OF THE PROPOSED BIO-RETENTION CELL MUST BE COMPLETED ONLY AFTER THE ENTIRE SITE HAS BEEN STABILIZED. IN ADDITION NO HEAVY EQUIPMENT CAN BE USED TO CONSTRUCT THE CELL AREA/GROUND CANNOT BE OVER COMPACTED. SEE DETAIL ON SHEET 9 OF 9
2. TOPOGRAPHIC AND BOUNDARY INFORMATION PROVIDED BY TERRA LOGIC, INC. BASED ON ACTUAL FIELD SURVEY COMPLETED ON MARCH 3, 2022.

LEGEND

- S — SILT FENCE
- CONSTRUCTION ENTRANCE
- LIMITS OF DISTURBANCE
- INLET PROTECTION

GRAPHIC SCALE

20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

DATE: AUGUST 2024

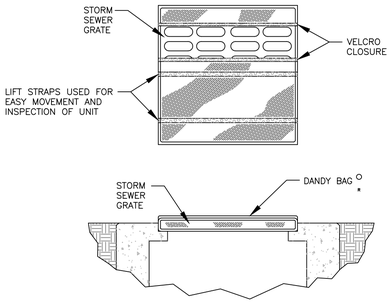
NO	DATE	DESCRIPTION	BY

STORM WATER POLLUTION PREVENTION PLAN

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STARK COUNTY, OHIO

AUGUST 17 2024 10:03AM



DANDY BAG® DETAIL

NOT TO SCALE

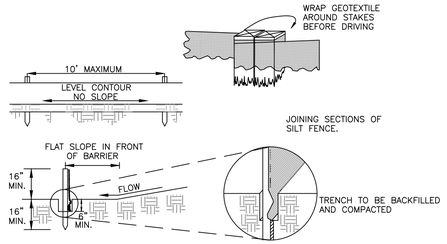
HI–FLOW DANDY BAG® (SAFETY ORANGE)

MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	kN (LBS)	1.62 (365) X 0.89 (200)
GRAB TENSILE ELONGATION	ASTM D 4632	%	24 X 10
PUNCTURE STRENGTH	ASTM D 4833	kN (LBS)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	kPa (PSI)	3097 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	kN (LBS)	0.51 (115) X 0.33 (75)
UV RESISTANCE	ASTM D 4355	%	90
APPARENT OPENING SIZE	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
FLOW RATE	ASTM D 4491	$l/MIN/M^2$(GAL/MIN/FT^2)	5907 (145)
PERMITTIVITY	ASTM D 4491	SEC^{-1}	2.1

NOTE:

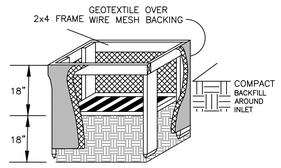
THE DANDY BAG® WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE ABOVE SPECIFICATIONS.

DANDY BAGS® CAN BE ORDERED WITH OPTIONAL ABSORBENT PILLOWS.



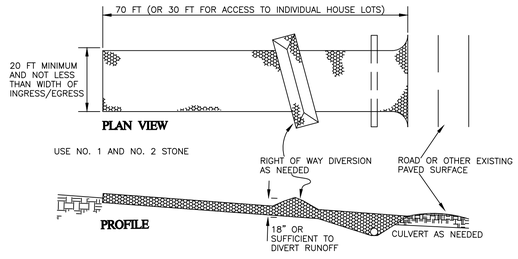
SILT FENCE DETAIL

NOT TO SCALE



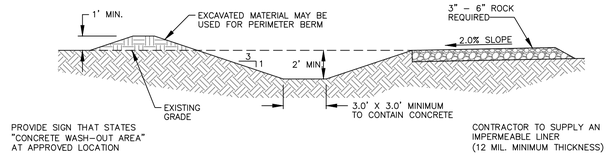
INLET PROTECTION DETAIL

NOT TO SCALE



STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



CONCRETE WASH-OUT AREA DETAIL

NOT TO SCALE

AMENDMENT LOG

THIS SWP3 SHALL BE AMENDED WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, SCHEDULE, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OF THE STATE OR IF THE SWP3 PROVES TO BE INEFFECTIVE IN ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES OR TO CORRECT DEFICIENCIES AS DIRECTED BY OHIO EPA OR THE LOCAL MS4. THE SIGNATURE OF THE AUTHORIZED OPERATOR ATTESTS THAT THE AMENDMENT INFORMATION IS TRUE AND ACCURATE. PREVIOUS AUTHORS ARE NOT RESPONSIBLE FOR THE REVISIONS BY OPERATORS.

NO.	DESCRIPTION OF THE AMENDMENT	DATE OF AMENDMENT	AMENDMENT PREPARED BY [NAME AND TITLE]

PERMANENT STABILIZATION	
AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE	WITHIN TWO DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE	WITHIN SEVEN DAYS OF REACHING FINAL GRADE WITHIN THAT AREA

TEMPORARY STABILIZATION	
AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE	WITHIN TWO DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A SURFACE WATER OF THE STATE.	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABILIZED AT LEAST SEVEN DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOT(S)
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER WEATHER

GRADING AND STABILIZATION ACTIVITIES LOG

DESCRIPTION AND LOCATION OF GRADING ACTIVITY	DATE GRADING ACTIVITY INITIATED	DATE GRADING ACTIVITY CEASED	DATE WHEN STABILIZATION MEASURES INITIATED AND TYPE	DESCRIPTION OF STABILIZATION MEASURE
			☐ TEMPORARY ☐ PERMANENT	
			☐ TEMPORARY ☐ PERMANENT	
			☐ TEMPORARY ☐ PERMANENT	
			☐ TEMPORARY ☐ PERMANENT	
			☐ TEMPORARY ☐ PERMANENT	
			☐ TEMPORARY ☐ PERMANENT	
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PROJECT DESCRIPTION AND NARRATIVE:

THE PROPOSED IMPROVEMENTS ASSOCIATED WITH THIS PROJECT INCLUDE CONSTRUCTION OF A NEW STORAGE/WAREHOUSE BUILDING, STORM SEWERS, WATER QUALITY BMPS (BIO–RETENTION CELL), REMOVALS, AND EROSION SEDIMENT CONTROL MEASURES.

CONSTRUCTION SEQUENCE:

1. MEET ON–SITE WITH STARK COUNTY SOIL AND WATER CONSERVATION DISTRICT, OWNER, CONTRACTOR, SITE CONTRACTOR, AND ENGINEER TO DISCUSS SWPPP PLAN AND EROSION CONTROL MEASURES TO BE IMPLEMENTED PRIOR TO/DURING CONSTRUCTION. CONTACT THE STARK COUNTY SOIL AND WATER CONSERVATION DISTRICT OFFICE AT (330) 451–7644 TO SCHEDULE PRE–CONSTRUCTION MEETING.
2. INSTALL ALL SEDIMENT CONTROL DEVICES (SILT FENCE, STABILIZED CONSTRUCTION ENTRANCE, AND INLET PROTECTION) AS PER THE OHIO STANDARDS FOR STORM WATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION, RAINWATER AND LAND DEVELOPMENT MANUAL.
3. THE STARK COUNTY SOIL AND WATER CONSERVATION DISTRICT MUST INSPECT AND APPROVE ALL SEDIMENT CONTROL DEVICES PRIOR TO ANY SITE DISTURBANCES, REMOVALS, OR EARTH MOVING ACTIVITY. CONTACT THE STARK COUNTY SOIL AND WATER CONSERVATION DISTRICT OFFICE.
4. COMPLETE REMOVALS, PERFORM EARTHWORK AND GRADING, INSTALL/RELOCATE UTILITIES AND SERVICES, CONSTRUCT NEW BUILDING AND GRAVEL AREA, STABILIZE SITE.
5. PERMANENTLY STABILIZE ALL DISTURBED AREAS (ODOT 659). THE STARK COUNTY SOIL AND WATER CONSERVATION DISTRICT MUST APPROVE ALL STABILIZATION PRIOR TO THE REMOVAL OF ANY SEDIMENT CONTROL DEVICES.
6. INSTALL POST CONSTRUCTION WATER QUALITY BEST MANAGEMENT PRACTICES (BIO–RETENTION CELL) ONCE SITE HAS BEEN STABILIZED AND APPROVED BY STARK COUNTY SOIL AND WATER CONSERVATION DISTRICT.
7. START CONSTRUCTION (APPROXIMATE) OCTOBER 2024, COMPLETE CONSTRUCTION APRIL, 2025.

REFER TO THE STORM WATER MANAGEMENT REPORT FOR INFORMATION REGARDING THE DESIGN OF POST CONSTRUCTION WATER QUALITY BEST MANAGEMENT PRACTICES.

STORMWATER POLLUTION PREVENTION PLAN NOTES

GENERAL NOTES:

1. TEMPORARY SOIL STABILIZATION (ODOT ITEM 207) SHALL OCCUR WITHIN SEVEN (7) DAYS AFTER ROUGH GRADING IF A DISTURBED AREA WILL REMAIN IDLE LONGER THAN FOURTEEN (14) DAYS. PERMANENT SOIL STABILIZATION (ODOT ITEM 659) SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE (2 DAYS FOR AREAS WITHIN 50' OF STREAM). PERMANENT VEGETATION IS A GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE AND MATURE ENOUGH TO SURVIVE WINTER WEATHER CONDITION.
2. ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL. A WRITTEN LOG OF THESE INSPECTIONS MUST BE KEPT. (DATES OF INSPECTION, WEATHER CONDITIONS, OBSERVATIONS, ACTIONS TAKEN TO CORRECT PROBLEM, AND DATE INFORMATION WAS TAKEN. WHEN SEDIMENT AND EROSION CONTROL STRUCTURES/DEVICES NEED REPAIRED/ALTERED, THE WORK SHALL BE COMPLETED WITHIN THREE (3) DAYS OF INSPECTION (SEDIMENT PONDS – REPAIR WITHIN 10 DAYS). IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWPPP SHALL BE AMENDED AND THE NEW CONTROL PRACTICE SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH OHIO EPA PERMIT NO. OHC000006 PART III.G.1.H, THE CONTROL PRACTICE SHALL BE IMPLEMENTED WITHIN 10 DAYS FROM THE DATE OF THE INSPECTION. IF THE INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD SHALL CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.
3. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.
4. CONSTRUCTION VEHICLES ARE LIMITED TO ACCESS THE PROJECT SITE FROM FARGO AVENUE. FINAL LOCATION OF STABILIZED ENTRANCE MUST BE APPROVED BY STARK COUNTY SOIL AND WATER CONSERVATION DISTRICT.
5. OTHER EROSION CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
6. THE SOIL EROSION FROM THE SITE WILL BE CONTROLLED WITH THE USE OF SILT FENCE, A CONSTRUCTION DRIVE ENTRANCE(S), AND INLET PROTECTION.
7. FOR DRAINAGE AREAS AND CALCULATIONS, SEE THE DRAINAGE REPORT FOR THIS PROJECT.

DISPOSAL OF SOLID, SANITARY AND TOXIC WASTE:

SOLID, SANITARY AND TOXIC WASTE MUST BE DISPOSED OF IN A PROPER MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. IT IS PROHIBITED TO BURN, BURY OR POUR OUT ONTO THE GROUND OR INTO STORM SEWERS ANY SOLVENTS, PAINTS, STAINS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT CURING COMPOUNDS AND OTHER SUCH TOXIC OR HAZARDOUS WASTES. WASH OUT OF CEMENT TRUCKS SHOULD OCCUR IN A DIKED, DESIGNATED AREA WHERE THE WASTE CAN BE COLLECTED AND DISPOSED OF PROPERLY WHEN THEY HARDEN. STORAGE TANKS SHOULD BE LOCATED IN DIKED AREAS AWAY FROM DRAINAGE CHANNELS. THE DIKED AREA SHOULD HOLD A VOLUME 110% OF THE LARGEST TANK.

STABILIZE

SEED, MULCH, FERTILIZE AND LIME REQUIREMENTS SHALL MEET THE OHIO DEPARTMENT OF TRANSPORTATION – CONSTRUCTION MATERIAL SPECIFICATIONS – ITEM 659 SEEDING AND MULCHING. SEEDING METHODS SHALL BE PER ODOT 659.12 (INCLUDING SEEDING SCHEDULE INFORMATION).

SEQUENCING OF EROSION CONTROL MEASURES:

EROSION CONTROL MEASURES MAY NEED TO BE ADJUSTED, SUPPLEMENTED, AND/OR RELOCATED THROUGHOUT THE PROJECT SITE AS CONSTRUCTION PROGRESSES.

IF EXCESS EARTHEN MATERIAL INCLUDING TOPSOIL IS TO BE REMOVED FROM THE PROJECT SITE, THE FINAL LOCATION MUST BE PROVIDED TO AND APPROVED BY SCSWCD. THE CONTRACTOR SHALL PROVIDE SILT FENCE AROUND ALL STOCKPILE AREAS WHERE EXCESS/UNSUITABLE MATERIAL IS PLACED TO CONTROL EROSION AND SEDIMENT ISSUES.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL PREVENT AND/OR REDUCE AND CONTROL SOIL EROSION RESULTING FROM THE PROPOSED IMPROVEMENTS. THE USE OF SILT FENCING, JUTE MATTING, TEMPORARY SEEDING, SOD, SILT CHECKS, INLET PROTECTION AROUND ALL CATCH BASINS, STABILIZED CONSTRUCTION ENTRANCE(S), ETC. WILL BE REQUIRED. SEDIMENT CONTROL STRUCTURES/DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL RAINWATER AND LAND DEVELOPMENT – OHIO'S STANDARDS FOR STORMWATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION, LATEST EDITION. SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUED INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS SET FORTH ON THE APPROVED STORM WATER POLLUTION PREVENTION PLAN IF APPLICABLE, OR ON THE DETAILED CONSTRUCTION PLANS.

DUST CONTROL

CONTRACTOR WILL PROVIDE A WATER TRUCK AS NEEDED TO CONTROL DUST AND A SWEEPER FOR OFF–SITE TRACKING (REFER TO DUST CONTROL NOTE ON SHEET 8 OF 9)

DATE: AUGUST 2024

SHEET 7 OF 9

NO	DATE	DESCRIPTION	BY

SWPPP NOTES & DETAILS

HETTLER · LARGENT
Civil & Construction Consultants
1225 North Main Street | Suite A | North Canton, OH 44720
PH: (330) 966-1776 | MOBILE: (330) 388-2521
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WAREHOUSE / STORAGE BUILDING
K&K 230 ENTERPRISES, LLC
4175 FARGO AVENUE
NIMISHILLEN TOWNSHIP
STARK COUNTY, OHIO

AUGUST 17 2024 10:03AM

GENERAL NOTES AND SPECIFICATIONS:

PROJECT SPECIFICATIONS

ALL WORK REQUIRED TO COMPLETE THIS IMPROVEMENT SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILED CONSTRUCTION DRAWINGS, THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, EXCEPT AS HEREIN AMENDED, AND PER THE STARK COUNTY SPECIFICATIONS/REQUIREMENTS/STANDARDS. THE CONSTRUCTION DRAWINGS WILL TAKE PRECEDENCE OVER THE OTHER REQUIREMENTS. IN THE CASE OF A CONFLICT BETWEEN THE COUNTY AND THE OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS/REQUIREMENTS, THE MORE STRICT OF THE TWO SPECIFICATIONS WILL GOVERN, AS DETERMINED BY THE ENGINEER. STATE OF OHIO, DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWINGS SHALL APPLY TO THIS IMPROVEMENT EXCEPT AS OTHERWISE PROVIDED.

PROJECT SAFETY

THE CONTRACTOR SHALL MAINTAIN A SAFE WORKING ENVIRONMENT AT/ALONG THE PROJECT SITE AT ALL TIMES. THE CONTRACTOR SHALL PROPERLY SUPPORT AND/OR MAINTAIN ALL EXCAVATIONS PER APPLICABLE SAFETY REQUIREMENTS AND COMPLY WITH ALL O.S.H.A. REGULATIONS. THIS SHALL INCLUDE STRICT COMPLIANCE WITH ALL APPLICABLE REGULATIONS/REQUIREMENTS REGARDING TRENCH SAFETY. ADEQUATE BARRICADES, WARNING LIGHTS, SIGNS, FENCING, ETC. SHALL BE ERECTED AROUND THE CONSTRUCTION AREA DURING ALL NON-WORKING HOURS TO ALERT PERSONS OF THE POTENTIAL DANGER ASSOCIATED WITH THE AREA UNDER CONSTRUCTION AS WELL AS TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL TO THE CONSTRUCTION SITE/AREA. TRENCHES SHALL BE BACKFILLED AT THE END OF EACH WORK DAY OR PROPERLY SECURED AS APPROVED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE SAFETY OF THE GENERAL PUBLIC AS WELL AS ALL CONSTRUCTION PERSONNEL. PUBLIC STREETS SHALL BE KEPT CLEAN AND FREE OF DEBRIS (MUD, STONE, ETC.) AT ALL TIMES. THE CONTRACTOR SHALL ALERT ALL LOCAL EMERGENCY AGENCIES/SERVICES (FIRE, POLICE, AMBULANCE, ETC.) OF THE NATURE OF THE PROPOSED PROJECT PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

AT NO TIME SHALL ANY PERSONNEL ENTER EXISTING STRUCTURES/CHAMBERS WITHOUT PROPER SAFETY EQUIPMENT, INCLUDING BUT NOT LIMITED TO AIR PACKS, AIR MONITORS AND/OR AIR SENSORS, PROTECTIVE CLOTHING, BODY HARNESS WITH POSITIVE MEANS OF REMOVING A PERSON FROM THE STRUCTURE/CHAMBER, ETC. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH APPLICABLE O.S.H.A. REQUIREMENTS INCLUDING THOSE SPECIFIED FOR ENTERING CONFINED SPACES.

UNDERGROUND UTILITIES

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED BY FIELD OBSERVATIONS, FROM EXISTING RECORDS, AND/OR FROM THE OWNERS OF THE RESPECTIVE UTILITIES. THE INFORMATION AS SHOWN IS BELIEVED TO BE CORRECT, HOWEVER, THE COMPLETENESS AND ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL THE VARIOUS UTILITY COMPANIES (PUBLIC AND PRIVATE) TO VERIFY THE EXISTENCE, LIMITS, AND/OR LOCATION OF ANY UTILITIES WHICH MAY BE ALONG THE ROUTE, WITHIN, AND/OR ADJACENT TO THIS IMPROVEMENT.

UTILITY NOTIFICATION

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING OPERATIONS ON THIS PROJECT THE CONTRACTOR(S) SHALL NOTIFY THE ENGINEER, THE REGISTERED UTILITY PROTECTION AGENCY/SERVICE, AND THE OWNERS OF ANY OTHER UTILITIES (PUBLIC AND/OR PRIVATE) THAT MAY HAVE UTILITY LINES OR FACILITIES WITHIN THE VICINITY OF THIS PROJECT BUT WHO ARE NOT MEMBERS OF THE REGISTERED UTILITY PROTECTION SERVICE OF HIS/HER INTENTION TO BEGIN CONSTRUCTION ACTIVITY ON THIS PROJECT. THE OWNERS OF ANY UNDERGROUND UTILITY FACILITY SHALL, WITHIN 48 HOURS AFTER NOTICE IS RECEIVED, EXCLUDING SATURDAYS, SUNDAYS, AND OTHER LEGAL HOLIDAYS; STAKE, MARK OR OTHERWISE DESIGNATE THE EXISTENCE AND/OR LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING AND/OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY FIVE WORKING DAYS AHEAD OF THE PLANNED CONSTRUCTION. OHIO UTILITIES PROTECTION SERVICE: 1-800-362-2764 (CONTACT NON-MEMBERS DIRECTLY).

VERIFICATION OF UNDERGROUND UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES/FACILITIES WITHIN AND/OR ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINES, SANITARY AND STORM SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. PRIOR TO ORDERING MATERIALS OR BEGINNING WORK. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK UNTIL THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES WHICH COULD EFFECT COMPLETION OF THIS IMPROVEMENT HAVE BEEN FIELD CHECKED AND VERIFIED. THIS WILL LIKELY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE DIRECTLY REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME THAT EXISTING UTILITIES/CONDUITS WERE INSTALLED AT TYPICAL/STANDARD DEPTHS OR AT UNIFORM SLOPES/GRADES/DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTION CHAMBERS, ETC.). WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE, GRADE, AND ELEVATION BEFORE STARTING TO INSTALL THE PROPOSED CONDUIT. ANY CONFLICTS AND/OR DISCREPANCIES FROM THE PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER SO THAT THE APPROPRIATE ADJUSTMENTS IN ALIGNMENT AND/OR GRADE MAY BE MADE PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO VERIFY AND/OR DETERMINE EXISTING INFORMATION AS INDICATED/REQUIRED WILL RESULT IN THE CONTRACTOR BEING RESPONSIBLE FOR ANY CHANGES NECESSARY TO COMPLETE THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION.

PROTECTION OF UTILITIES

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS/MEASURES NECESSARY TO PROTECT AND SUPPORT ANY EXISTING UTILITIES/FACILITIES LOCATED ALONG THE ROUTE OF THE PROPOSED IMPROVEMENTS, WITHIN THE GENERAL PROJECT LIMITS, AND/OR ENCOUNTERED DURING THE COMPLETION OF THE PROPOSED IMPROVEMENTS AS DIRECTED/APPROVED BY THE OWNERS OF THE RESPECTIVE UTILITIES AND THE ENGINEER. UTILITIES MUST BE KEPT IN SERVICE AT ALL TIMES.

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY COORDINATE THEIR WORK WITH ALL UTILITY COMPANIES TO MINIMIZE/AVOID POSSIBLE DELAYS IN THE COMPLETION OF THE REQUIRED IMPROVEMENTS. DELAYS WILL NOT BE THE RESPONSIBILITY OF THE OWNER NOR THE ENGINEER.

MAINTENANCE OF UTILITY SERVICES

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN UTILITY SERVICES ALONG/WITHIN THE PROJECT AREA AT ALL TIMES. WATER SERVICE SHALL NOT BE INTERRUPTED AT ANY TIME FOR ANY REASON. STORM, SANITARY, AND OTHER UTILITIES SHALL BE MAINTAINED/ PROVIDED WITHOUT INTERRUPTION.

DISPOSAL OF EXCESS, UNSUITABLE, AND/OR UNUSABLE MATERIALS

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DISPOSE OF ANY EXCESS, UNSUITABLE AND/OR UNUSABLE MATERIALS RESULTING FROM THE COMPLETION OF THE PROPOSED IMPROVEMENTS THAT ARE NOT OTHERWISE NEEDED/REQUIRED WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN WRITTEN PERMISSION FROM ANY PROPERTY OWNER PRIOR TO PLACEMENT OF ANY MATERIALS FROM THIS PROJECT ONTO OTHER PROPERTIES AND SHALL FURNISH THE OWNER/ENGINEER WITH COPIES OF THESE WRITTEN AGREEMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL CLAIMS RESULTING FROM THE PLACEMENT/DISPOSAL OF EXCESS, UNSUITABLE, AND/OR UNUSABLE MATERIALS ONTO OTHER PROPERTIES, INCLUDING BUT NOT LIMITED TO ENVIRONMENTAL ISSUES. NO MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE WITHOUT PERMISSION OF THE CONSTRUCTION MANAGER OR ENGINEER.

MAINTAINING TRAFFIC- GENERAL

THE CONTRACTOR SHALL SAFELY AND PROPERLY MAINTAIN TRAFFIC ADJACENT TO, THROUGH, AND/OR ALONG THE PROJECT ROUTE/SITE AS DESCRIBED BELOW AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION MANUAL OF CONSTRUCTION AND MATERIALS SPECIFICATIONS ITEM 614 MAINTAINING TRAFFIC. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE ALL SIGNS, FLAGS, FLAGMEN, WATCHMEN, BARRICADES, SIGN SUPPORTS, CONES, BARRELS, AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISIONS OF THE CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES. ALL OPEN TRENCHES AND EXCAVATIONS SHALL BE PROTECTED WITH DRUMS, BARRICADES, BARRIERS, ETC. ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY AND FIRE DEPARTMENT VEHICLES. ANY TEMPORARY LANE CLOSING MUST BE APPROVED BY THE ENGINEER AND THE PUBLIC AGENCY HAVING JURISDICTION OF THE ROADWAY IN WRITING WITH PRIOR NOTIFICATION GIVEN TO FIRE, POLICE AND OTHER EMERGENCY AGENCIES. TRAFFIC MUST BE MAINTAINED AT ALL TIMES IN A SAFE MANNER.

RESTORATION OF DISTURBED AREAS

EXISTING DRIVES, BERMS, LAWNS, TELEPHONE/POWER POLES, PAVEMENTS, RETAINING WALLS, CURBS, SIDEWALKS, SIGNS, MAILBOXES, FENCING, PAPER BOXES, STORM SEWERS, UTILITIES, LANDSCAPING ITEMS/AREAS OR OTHER APPURTENANCES DISTURBED/DAMAGED DURING CONSTRUCTION BUT NOT SPECIFICALLY DESIGNATED FOR REMOVAL AND/OR REPLACEMENT SHALL BE RESTORED TO A CONDITION EQUAL TO THAT WHICH EXISTED PRIOR TO CONSTRUCTION AND TO THE COMPLETE SATISFACTION OF THE ENGINEER/OWNER. COST FOR THE RESTORATION OF THESE ITEMS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE OR PROVIDED FOR IN THE PLANS/SPECIFICATIONS.

RESTORATION OF EXISTING ROADWAYS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWNSHIP, COUNTY, CITY, AND/OR OTHER AGENCIES HAVING AUTHORITY. COST FOR THE RESTORATION OF ROADWAYS WILL BE THE CONTRACTOR'S RESPONSIBILITY. NO PUBLIC ROADWAY SHALL BE DISTURBED WITHOUT PRIOR WRITTEN APPROVAL AND ACQUISITION OF ANY AND ALL NECESSARY PERMITS.

EASEMENTS AND RIGHTS-OF-WAY

THE CONTRACTOR SHALL STAY WITHIN THE PROPERTIES, EASEMENTS, AND RIGHTS- OF-WAY PROVIDED AT ALL TIMES. NO MATERIAL SHALL BE STORED NOR ANY WORK PERFORMED ON PRIVATE PROPERTY. DISTURBANCE OF EXISTING FEATURES AND/OR IMPROVEMENTS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND AS APPROVED BY THE ENGINEER/OWNER.

INSPECTION

ANY WORK REQUIRED/ASSOCIATED WITH THIS PROJECT THAT IS WITHIN A ROAD RIGHT-OF-WAY OR CONNECTIONS/EXTENSIONS OF UTILITY MAINS OR SERVICES SHALL BE INSPECTED BY COUNTY, TOWNSHIP AND/OR CITY HAVING JURISDICTION OR THEIR DESIGNATED REPRESENTATIVE AND THE OWNER OF THE RESPECTIVE UTILITY IF DIFFERENT. THE CONTRACTOR SHALL GIVE A 48 HOUR NOTICE BEFORE STARTING ANY WORK ON THIS PROJECT AND SHALL KEEP ALL PARTIES INFORMED OF HIS/HER CONSTRUCTION SCHEDULE. NO WORK AS SPECIFIED ABOVE SHALL BE PERFORMED UNLESS AN AUTHORIZED INSPECTOR IS PRESENT.

SUITABILITY OF SITE

THE ENGINEER/OWNER WILL NOT BE RESPONSIBLE FOR THE TYPE AND/OR SUITABILITY OF THE MATERIAL UNDERLYING THE LIMITS OF THE PROJECT. THE CONTRACTOR MUST APPRAISE HIMSELF OF ANY EXISTING SITE CONDITIONS WHICH MAY EFFECT HIS BID OR PERFORMANCE OF THE REQUIRED WORK. THE CONTRACTOR SHALL PERFORM WHATEVER INVESTIGATIONS AND/OR TESTING WHICH MAY BE NECESSARY TO ADEQUATELY DETERMINE/ESTIMATE TO THE SATISFACTION OF THE CONTRACTOR HIMSELF ANY AND ALL SITE CONDITIONS WHICH COULD EFFECT THE PERFORMANCE/COMPLETION OF THE PROPOSED IMPROVEMENTS. THIS COULD INCLUDE BUT NOT BE LIMITED TO UNSUITABLE AND/OR UNSTABLE SOIL/SUBSURFACE CONDITIONS, ROCK, WATER (PERCHED OR FREE), SPRINGS, ETC. IF THE CONTRACTOR IS UNSURE OR UNABLE TO DETERMINE THE NATURE OF THE SUBSURFACE CONDITIONS, HE SHALL ASSUME THE WORST CASE. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR UNANTICIPATED AND/OR UNFORESEEN CONDITIONS.

DUST CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY CONTROL DUST FROM THE PROJECT SITE AS NECESSARY/REQUIRED TO MAINTAIN SAFE VISIBILITY WITHIN AND/OR ADJACENT TO THE SITE AND TO AVOID IMPACT ON ADJACENT BUILDINGS AND/OR PROPERTIES. METHODS FOR DUST CONTROL MUST BE APPROVED BY THE ENGINEER.

CLEAN UP AT END OF PROJECT

PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL SWALES, DITCHES, STORM SEWERS, CATCH BASINS, STORM MANHOLES, SANITARY SEWERS, SANITARY MANHOLES, GUTTERS, AND OTHER IMPROVEMENTS ARE CLEAN AND FREE OF ANY AND ALL DEBRIS.

PROHIBITED CONNECTIONS TO SANITARY SEWERS

ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO SANITARY SEWERS ARE PROHIBITED.

STORM SEWERS

ALL PROPOSED STORM SEWERS SHALL MEET THE REQUIREMENTS OF O.D.O.T. ITEM 611 AS SPECIFIED AND AS DIRECTED BY THE ENGINEER. BEDDING AND BACKFILL SHALL BE PER THE APPLICABLE DETAIL. (SLAG NOT PERMITTED) STORM SEWER PIPE MATERIALS (EXCEPT AS SPECIFICALLY NOTED OTHERWISE) SHALL MEET THE REQUIREMENTS OF O.D.O.T. 706.02 (REINFORCED CONCRETE CIRCULAR PIPE), OR 707.33 (SMOOTH LINED CORRUGATED POLYETHYLENE). PIPE MEETING 707.33 SHALL HAVE BELL AND SPIGOT ENDS WITH A GASKET SEAL TO PROVIDE A WATERTIGHT JOINT. (ASTM F-477) LEAKAGE TESTING WILL BE PERFORMED AS DIRECTED BY THE ENGINEER.

ALL DOWNSPOUT LINES AND/OR EXTENSIONS OF ROOF DRAINS/DOWNSPOUT LINES 8" OR SMALLER SHALL BE POLYVINYL CHLORIDE PIPE, (PVC) SDR-35 MEETING THE REQUIREMENTS OF O.D.O.T. 707.45. DOWNSPOUT LINES AND/OR EXTENSIONS OF ROOF DRAINS/DOWNSPOUT LINES 10" OR GREATER SHALL MEET REQUIREMENTS OF O.D.O.T. 707.33 WITH WATER TIGHT GASKETED JOINTS. STANDARD BENDS AND FITTINGS (45° BENDS AND WYES ONLY) SHALL BE USED FOR CHANGES IN DIRECTION AND/OR ELEVATION OF THE DOWNSPOUT/ROOF DRAINS AND FOR THE CONNECTION OF DOWNSPOUT LINES TO THE HEADER LINE. HEADER STORM LINES SHALL MEET ODOT 707.33 &/OR 707.45 & AS SPECIFIED HEREIN.

BEDDING MATERIAL SHALL MEET THE REQUIREMENTS/SPECIFICATIONS OF THE PIPE MANUFACTURER AND SHALL BE AS SPECIFIED.

CATCH BASINS & STORM MANHOLES

ALL STORM SEWER CATCH BASINS AND MANHOLES SHALL MEET THE REQUIREMENTS OF O.D.O.T. ITEM 611. PIPE OPENINGS SHALL BE CAST INTO ALL PRECAST CATCH BASINS AND MANHOLES. KNOCKOUT PANELS/SIDES ARE UNACCEPTABLE. CATCH BASINS SHALL BE CB 2-2B. BICYCLE SAFE GRATES ARE REQUIRED. STORM MANHOLES SHALL BE TYPE MH-3.

TEMPORARY SEEDING AND MULCHING

THE CONTRACTOR SHALL BE RESPONSIBLE TO SEED AND MULCH WITHIN SEVEN (7) DAYS ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITY HAS OCCURRED BUT WILL TEMPORARILY REMAIN IDLE FOR A PERIOD OF MORE THAN 14 DAYS, AND OTHER DISTURBED AREAS WHERE EROSION MAY BECOME A PROBLEM AS DETERMINED BY THE ENGINEER.

DAMAGE TO EXISTING UTILITIES/SERVICES

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE AND/OR DISRUPTION TO EXISTING UTILITY LINES/MAINS AND SERVICES. ALL COSTS ASSOCIATED WITH THE REPAIR, REPLACEMENT, AND/OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO ADDITIONAL COMPENSATION WILL BE PROVIDED BY THE OWNER OR THE ENGINEER. ALL LIABILITY SHALL BE BORNE BY THE CONTRACTOR.

TOPSOIL

THE CONTRACTOR SHALL FURNISH AND PLACE 6" OF APPROVED SCREENED TOPSOIL ON ALL AREAS DISTURBED THAT ARE TO BE STABILIZED BY PERMANENT SEEDING, ODOT ITEM 659

TOPOGRAPHIC INFORMATION

THE EXISTING TOPOGRAPHIC INFORMATION USED FOR THE DESIGN OF THIS IMPROVEMENT AND DEPICTED THROUGHOUT THE CONSTRUCTION DRAWINGS WAS OBTAINED FROM AN ACTUAL TOPOGRAPHIC SURVEY PERFORMED BY TERRA LOGIC, INC, AND/OR FROM STARK COUNTY TOPOGRAPHIC MAPPING. THE CONTRACTOR SHALL VERIFY EXISTING DATA THAT COULD EFFECT COMPLETION OF THE PROPOSED IMPROVEMENTS PRIOR TO STARTING CONSTRUCTION.

CONSTRUCTION LAYOUT

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, PLACING, AND MAINTAINING CONSTRUCTION LAYOUT STAKES NECESSARY FOR THE PROPER COMPLETION OF THE WORK ASSOCIATED WITH THIS PROJECT. THE OWNER AND/OR ENGINEER WILL NOT BE RESPONSIBLE FOR STAKING HORIZONTAL OR VERTICAL CONTROL. BENCH MARKS WILL BE PROVIDED WITHIN AND/OR ADJACENT TO THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE A BENCH CIRCUIT BETWEEN AT LEAST TWO (2) SEPARATE BENCH MARKS WHENEVER ELEVATIONS ARE BEING TRANSFERRED AND/OR SET. ANY DISCREPANCIES OUTSIDE NORMAL SURVEYING STANDARDS/LIMITS WITH THE BENCH MARK ELEVATIONS SHOWN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.

EXAMINATION OF SITE

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY EXAMINE THE PROJECT SITE AND ALL ADJACENT AREA(S) AND APPRISE HIMSELF OF ANY ITEMS AND/OR CONDITIONS THAT COULD AFFECT HIS/HER BID AND/OR ABILITY TO COMPLETE THE PROPOSED IMPROVEMENTS. THIS SITE INSPECTION/EVALUATION SHALL BE COMPLETED PRIOR TO SUBMITTING A PROPOSAL OR BID.

PRECONSTRUCTION MEETING

A PRECONSTRUCTION MEETING WITH THE STARK COUNTY SOIL AND WATER CONSERVATION DISTRICT, ENGINEER, GENERAL CONTRACTOR, SITE CONTRACTOR, AND THE OWNER'S REPRESENTATIVE IS REQUIRED FOR THIS PROJECT PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL CONTACT THE STARK COUNTY SOIL AND WATER CONSERVATION DISTRICT AT 330-451-7645 SEVENTY-TWO (72) HOURS PRIOR TO THE ANTICIPATED MEETING DATE TO SCHEDULE THIS MEETING.

STABILIZATION

ALL AREAS DISTURBED DURING CONSTRUCTION, SHALL BE PERMANENTLY STABILIZED BY SEEDING, LIMING, FERTILIZING, MULCHING, ETC. IN ACCORDANCE WITH ODOT ITEM 659, SEEDING AND MULCHING. STABILIZATION SHALL OCCUR WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF THE IMPROVEMENTS.

REMOVAL AND/OR DEMOLITION OF EXISTING IMPROVEMENTS AND/OR UTILITIES

THE CONTRACTOR SHALL REMOVE AND/OR DEMOLISH ALL EXISTING IMPROVEMENTS AS SPECIFIED AND/OR REQUIRED TO PROPERLY COMPLETE THE PROPOSED IMPROVEMENTS. EXISTING IMPROVEMENTS SHALL BE REMOVED COMPLETELY UNLESS OTHERWISE SPECIFIED BY THE GEOTECHNICAL ENGINEER. ALL TRENCHES, EXCAVATIONS, VOIDS RESULTING FROM THE REMOVAL OR DEMOLITION SHALL BE BACKFILLED WITH APPROVED MATERIAL COMPACTED TO 98% MAXIMUM DAY DENSITY PER ASTM D-698 (OR APPROVED EQUIVALENT RELATIVE DENSITY) AND AS REQUIRED BY THE ENGINEER. THE CONTRACTOR SHALL BE LIABLE AND RESPONSIBLE TO SUPPORT AND PROTECT ALL EXISTING STRUCTURES, BUILDINGS, FOUNDATIONS, UTILITIES, AND/OR OTHER IMPROVEMENTS DURING THE REMOVAL AND/OR REPLACEMENT OR BACKFILL OF ITEMS SPECIFIED OR REQUIRED TO BE REMOVED.

WORK IN THE ROAD RIGHT-OF-WAY

A PERMIT MAY BE REQUIRED FROM THE TOWNSHIP STATE OF OHIO, COUNTY AND/OR CITY PRIOR TO ANY WORK BEING PERFORMED INSIDE THE ROAD RIGHT-OF-WAY. THE CONTRACTOR MUST NOTIFY THE TOWNSHIP/COUNTY/STATE/CITY 48 HOURS PRIOR TO ANY CONSTRUCTION INSIDE THE ROAD RIGHT-OF-WAY OR WITHIN UTILITY EASEMENTS IN ORDER TO COORDINATE INSPECTION.

INTENT

IT IS THE INTENT THAT THE WORK HEREIN REQUIRED SHALL BE COMPLETED IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO COMPLETE THE WORK, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR WITHOUT ADDITIONAL COMPENSATION.

THE COST OF MATERIALS, EQUIPMENT, AND/OR LABOR NECESSARY FOR THE PROPER COMPLETION OF THE PROPOSED IMPROVEMENTS BUT FOR WHICH NO SPECIFIC PAY ITEM HAS BEEN LISTED, SHALL BE INCLUDED WITH ONE OF THE OTHER PAY ITEMS LISTED.

SHOP DRAWINGS

THE CONTRACTOR SHALL REVIEW, APPROVE, AND SUBMIT TO THE ENGINEER SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND SIMILAR SUBMITTALS REQUIRED FOR THE COMPLETION OF THE PROPOSED IMPROVEMENTS WITH REASONABLE PROMPTNESS AND IN SUCH SEQUENCE AS TO CAUSE NO DELAY IN THE WORK. CONTRACTOR SHALL NOT BEGIN WORK NOR ORDER MATERIALS UNTIL ENGINEER HAS REVIEWED AND APPROVED REQUIRED SUBMITTALS.

EARTHWORK

ALL SITE PREPARATION AND EARTHWORK ACTIVITIES INCLUDING THOSE REQUIRED TO COMPLETE THE PROPER CONSTRUCTION OF THE DETENTION BASIN SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, INCLUDING DIVISION 200 EARTHWORK AND THE RECOMMENDATIONS AND REQUIREMENTS OF THE PROJECT GEOTECHNICAL ENGINEER AS OUTLINED IN THE SUBSURFACE INVESTIGATION REPORT. THIS SHALL INCLUDE ALL REMOVALS, CLEARING AND GRUBBING, TOPSOIL REMOVAL/STRIP, PROOF ROLLING, SUBGRADE PREPARATION, SUITABILITY OF MATERIALS, PERFORMANCE OF ALL EXCAVATION(S), PLACEMENT OF EMBANKMENT AND BACKFILL, COMPACTION, SLOPE STABILITY, CORE TRENCH CONSTRUCTION, AND ALL OTHER RELATED AND/OR NECESSARY OPERATIONS/PROCEDURES. ALL EXCAVATION SHALL BE CONSIDERED AS UNCLASSIFIED EXCAVATION. ALL EARTHWORK ACTIVITY SHALL BE PERFORMED IN THE PRESENCE OF A QUALIFIED GEOTECHNICAL REPRESENTATIVE FURNISHED BY THE OWNER WHO WILL BE RESPONSIBLE TO DETERMINE COMPLIANCE WITH O.D.O.T. SPECIFICATIONS AND/OR THE GEOTECHNICAL RECOMMENDATIONS/REQUIREMENTS. IN CASE OF A CONFLICT BETWEEN THE O.D.O.T. SPECIFICATIONS AND THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS/REQUIREMENTS, THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS/REQUIREMENTS SHALL GOVERN.

COMPACTION REQUIREMENTS MAY VARY THROUGHOUT THE PROJECT SITE DEPENDENT UPON THE INTENDED USE/AREA (BUILDING AREA, ROADWAY, LAWN, ETC.).

SUBSURFACE INVESTIGATIONS

SUBSURFACE INVESTIGATIONS HAVE NOT BEEN PERFORMED FOR THIS PROJECT. THE CONTRACTOR MAY PERFORM SUBSURFACE INVESTIGATIONS AT HIS OWN RISK, EXPENSE, AND RESPONSIBILITY. THE CONTRACTOR MUST CONTACT THE OWNER, ENGINEER AND ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, WHICH MAY HAVE FACILITIES WITHIN THE PROJECT LIMITS, 48 HOURS PRIOR TO PERFORMING ANY SUBSURFACE INVESTIGATIONS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE PROPER AND COMPLETE RESTORATION OF AREAS DISTURBED BY TEST HOLES OR BORINGS, TO THE SATISFACTION OF THE ENGINEER AND FOR PROPER TRAFFIC CONTROL DURING THE PERFORMANCE OF THE INVESTIGATIONS. THE ENGINEER MUST APPROVE TEST HOLE/PIT LOCATIONS.

SEWER SEPARATIONS

A TEN FOOT MINIMUM HORIZONTAL SEPARATION (OUT-TO-OUT, CLEAR) SHALL BE MAINTAINED BETWEEN WATERLINES AND SANITARY SEWERS.

AN 18-INCH MINIMUM VERTICAL SEPARATION (OUT-TO-OUT, CLEAR) SHALL BE MAINTAINED BETWEEN WATERLINES AND SANITARY SEWERS AT ALL CROSSINGS.

A TEN FOOT MINIMUM HORIZONTAL SEPARATION (OUT-TO-OUT, CLEAR) SHALL BE MAINTAINED BETWEEN WATERLINES AND STORM SEWERS.

A 18" MINIMUM VERTICAL SEPARATION (OUT-TO-OUT, CLEAR) SHALL BE MAINTAINED BETWEEN WATERLINES AND STORM SEWERS AT ALL CROSSINGS.

SANITARY SEWERS NOTES AND APPURTENANCES

SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO STARK COUNTY SANITARY ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS IN EFFECT AT TIME OF CONSTRUCTION.

ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED. ADOPTED DECEMBER 27, 1968.

PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL HAVE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER AND OWNER'S REPRESENTATIVE. A MINIMUM OF 72 HOURS NOTICE IS REQUIRED TO SCHEDULE THIS MEETING.

THE CONTRACTOR SHALL ALERT THE UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.

APPROVAL BY THE OWNER/ENGINEER CONSTITUTES NEITHER EXPRESSED NOR IMPLIED WARRANTIES AS TO FITNESS, ACCURACY, OR SUFFICIENCY OF PLANS, DESIGNS OR SPECIFICATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY MAINTAINING EXISTING SANITARY FLOW DURING THE CONSTRUCTION AND TESTING OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR'S METHODS FOR MAINTAINING FLOW MUST BE APPROVED BY THE ENGINEER.

ALL ROUGH GRADING TO WITHIN SIX (6) INCHES OF FINISHED GRADE SHALL BE COMPLETED WITHIN THE RIGHTS-OF-WAY AND EASEMENTS PRIOR TO SANITARY SEWER CONSTRUCTION.

MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATERLINE SHALL BE 18 INCHES. MINIMUM HORIZONTAL SEPARATION SHALL BE 10 FT.

SANITARY SEWER SERVICE LATERALS SHALL BE 6-INCH DIAMETER AND BE LAID AT NO LESS THAN 1.0% GRADE.

NO CHANGES TO SANITARY SEWER SERVICE LATERAL LOCATIONS SHALL BE MADE WITHOUT THE APPROVAL OF THE ENGINEER.

MINIMUM COVER OVER SANITARY SEWERS SHALL BE 4 FT.

CONNECTIONS TO EXISTING MANHOLES SHALL BE CORE DRILLED, WITH BENCHES AND CHANNELS FORMED AND REPAIRED AS NECESSARY. FLEXIBLE GASKETS CONFORMING TO ASTM C-923 (A-LOK, KOR-N-SEAL, OR APPROVED EQUAL) SHALL SEAL THE SPACE BETWEEN THE PIPE AND MANHOLE WALL.

MANHOLE TOP OF CASTING ELEVATIONS MAY REQUIRE ADJUSTMENT DURING SITE GRADING. MANHOLE COVERS MAY NOT BE BURIED. UPON COMPLETION OF CONSTRUCTION AND RESTORATION, ALL MANHOLES, PROPOSED AND EXISTING, SHALL BE IN CONFORMANCE IN ALL RESPECTS WITH STARK COUNTY SANITARY ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS.

AT A MINIMUM, THE CONTRACTOR SHALL FURNISH GRADE STAKES AT 50 FEET INTERVALS FOR DESIGN RATES OF 0.50% OR LESS AND 100 FEET INTERVALS OTHERWISE, AND AT EACH MANHOLE PROPOSED TO BE CONNECTED TO.

THE SANITARY ENGINEER'S ON-SITE REPRESENTATIVE MAY REQUEST A PROFESSIONAL SURVEYOR (OHIO PS LICENSEE) EVALUATION OF THE PIPE INVERT ELEVATION AT VARIOUS TIMES. WORK SHALL NOT CONTINUE UNTIL THE SURVEYOR HAS VERIFIED TO THE REPRESENTATIVE THAT THE PIPE IS AT THE PROPER DESIGN ELEVATION.

WATER MAINS/SERVICES

ALL WATER MAINS, SERVICES AND APPURTENANCES SHALL BE DESIGNED AND CONSTRUCTED ACCORDING TO THE CITY OF LOUISVILLE WATER DEPARTMENT REQUIREMENTS AND SPECIFICATIONS IN EFFECT AT THE TIME OF CONSTRUCTION

WATER SERVICES SHALL BE COPPER OR HDPE INSTALLED PER THE CITY OF LOUISVILLE STANDARDS. THE PROPOSED FACILITIES WILL MAINTAIN A MINIMUM 35 PSI PRESSURE DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS. DISINFECTION OF WATER MAINS SHALL BE IN ACCORDANCE WITH AWWA C-651. ALL WATERLINE PRESSURE TESTING SHALL CONFORM TO AWWA C-600.

EXISTING WATERLINES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING, BRACING AND RESTRAINING ALL EXISTING WATERLINES DURING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

WHEN AN EXISTING WATER MAIN MUST BE SHUT DOWN TO PERFORM REQUIRED WORK, THE CONTRACTOR SHALL NOTIFY THE PROPERTIES TO BE AFFECTED A MINIMUM OF 24 HOURS IN ADVANCE OF SAID SHUT DOWN. THE WORK WILL BE SCHEDULED AND COORDINATED TO MINIMIZE THE TIME THE MAIN IS OUT OF SERVICE.

THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS IN ADVANCE OF ANY SHUT DOWN OF AN EXISTING MAIN. THE CONTRACTOR WILL NOT OPERATE ANY VALVES. VALVES WILL BE OPERATED BY LOUISVILLE WATER DEPARTMENT PERSONNEL ONLY. VALVES DAMAGED BY THE CONTRACTOR'S OPERATION WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

CUT-IN SLEEVES FOR TIE-IN TO EXISTING WATER MAINS SHALL BE SMITH BLAIR 441 SLEEVES WITH #316 SS BOLTS.

DATE: AUGUST 2024

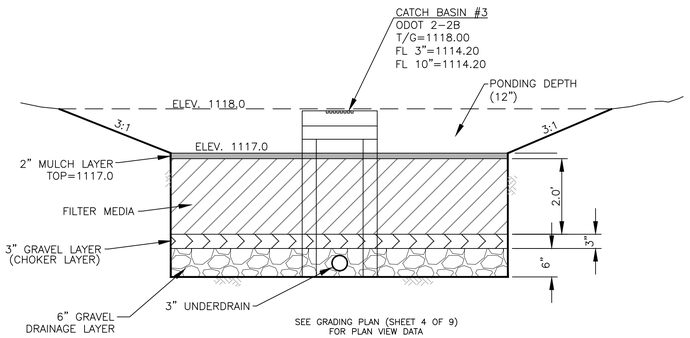
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GENERAL NOTES

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STARK COUNTY, OHIO

AUGUST 16 2024 4:14PM



BIO-RETENTION CELL CROSS SECTION

NOT TO SCALE

BIORETENTION MEDIA (ENGINEERING SOIL)

1. USDA SOIL TEXTURE CLASSIFICATION: LOAMY SAND
2. CLAY CONTENT: THE MINERAL FRACTION OF THE MEDIA SHALL BE NO GREATER THAN 10% CLAY PER USDA CLASSIFICATION (0.002 mm) BY WEIGHT.
3. SAND CONTENT: THE MINERAL FRACTION OF THE MEDIA SHALL BE NO LESS THAN 80% AND NO MORE THAN 90% MEDIUM TO COARSE SAND PER USDA CLASSIFICATION (0.25 TO 1.0 mm) BY WEIGHT.
4. ORGANIC MATTER CONTENT: 1.5 TO 5% BY DRY WEIGHT AS DETERMINED BY PERCENT LOSS AT IGNITION (ASTM-D2974).
5. pH: 5.5 TO 8.0
6. PHOSPHORUS: NOT TO EXCEED 40 mg/kg AS DETERMINED BY THE MEHLICH-3 TEST.
7. SOLUBLE SALTS: 500 ppm MAXIMUM (SOIL/WATER 1:2).
8. MEDIA SHOULD HAVE A LONG RANGE SATURATED HYDRAULIC CONDUCTIVITY (Ksat) OF ONE TO FIVE INCHES PER HOUR

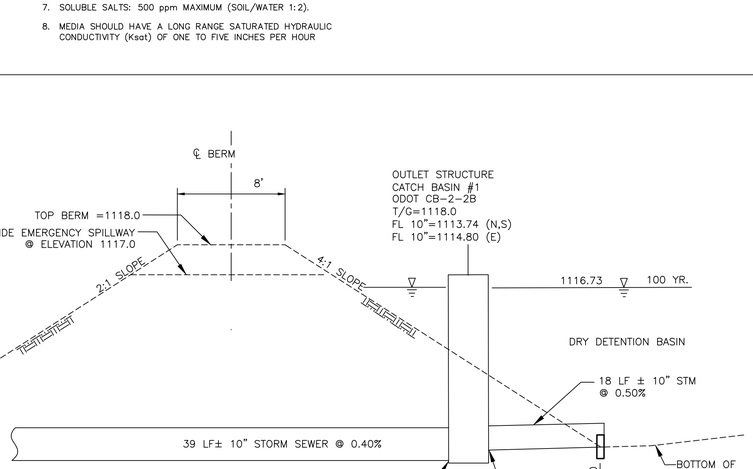
3" CHOKER LAYER

WASHED GRAVEL APPROXIMATELY THREE-EIGHTS INCH IN GRAIN SIZE (AASHTO No. 8). DO NOT USE FILTER FABRIC TO SEPARATE THE MEDIA FOR THE DRAINAGE LAYER BELOW.

6" GRAVEL - DRAINAGE LAYER

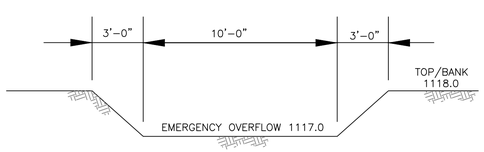
DRAINAGE LAYER SHALL CONSIST OF AASHTO No. 57 OR 67 WASHED STONE BELOW THE 3" CHOKER LAYER. 3" UNDERDRAIN PIPE SHOULD HAVE A MINIMUM 1.5" OF GRAVEL ABOVE AND BELOW THE PIPE.

REFER TO THE OHIO ENVIRONMENTAL PROTECTION AGENCY RAINWATER AND LAND DEVELOPMENT MANUAL, CHAPTER 2.9 BIORETENTION FOR ADDITIONAL INFORMATION.



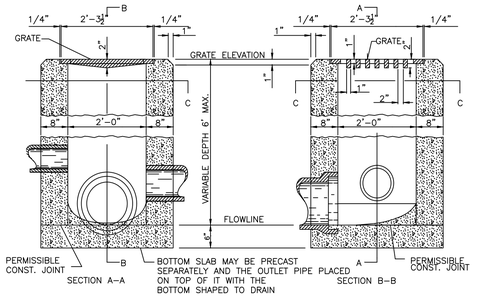
DETENTION BASIN DETAIL

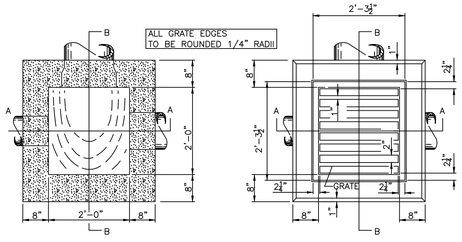
NOT TO SCALE



EMERGENCY OVERFLOW DETAIL

NOT TO SCALE





CATCH BASIN N0. 2-2B

NOT TO SCALE

NOTES

GRATE: THE DESIGN SHALL BE ESSENTIALLY THE SAME AND EQUALLY AS STRONG AS THE ONE SHOWN (SEE CONSTRUCTION INFORMATION TABLE), OR MEET THE REQUIREMENTS OF CMS 711.14. GRATE OPENINGS AND DIMENSIONS SHALL NOT DIFFER FROM THOSE SHOWN UNLESS OTHERWISE SHOWN IN THE PLANS.

BICYCLE SAFE GRATES SHALL BE REQUIRED IN THE PLANS. BICYCLE SAFE GRATES SHALL BE NEENAH NO. R-4859-C OR EAST JORDAN NO. 5110 TYPE M2 OR APPROVED EQUALS.

AS OF JANUARY 1, 2003, THE FOLLOWING TEXT SHALL BE CAST INTO THE TOP OF THE GRATE:

"DUMP NO WASTE" AND "DRAINS TO WATERWAY":
TEXT SHALL BE PRINTED IN BOLD, CAPITAL LETTERS WITH A MINIMUM HEIGHT OF 1/2". "WATERWAY" MAY BE SUBSTITUTED WITH "STREAM","RIVER","LAKE", ETC. ACTUAL PLACEMENT AND LOGO MAY VARY PER MANUFACTURER.

WALLS: BRICK OR CAST-IN-PLACE WALLS HAVE A NOMINAL THICKNESS OF 8". PRECAST WALLS SHALL HAVE A MINIMUM THICKNESS OF 6" AND BE REINFORCED SUFFICIENTLY TO PERMIT SHIPPING AND HANDLING WITHOUT DAMAGE.

CONCRETE: CAST-IN-PLACE CONCRETE IS TO BE CLASS C. ALL PRECAST CONCRETE SHALL MEET THE REQUIREMENTS OF CMS 706.13 AND BE MARKED WITH THE CATCH BASIN NUMBER.

PRECAST BASE: IF A PRECAST BASE IS USED, IT SHALL BE SET DEEP ENOUGH SO THAT THE TOP CAN BE PLACED ON THE BASE TO PROVIDE THE GRATE ELEVATION SPECIFIED IN THE PLANS. LAYERS OF BRICK SHALL NOT BE USED TO ADJUST THE TOP ELEVATION.

MINIMUM DEPTH: THE MINIMUM DEPTH FOR CB NO. 2-2B SHALL BE THE O.D. OF THE OUTLET PIPE PLUS 4".

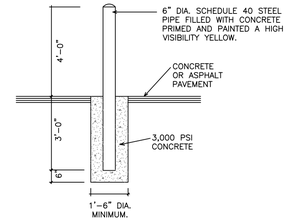
GRATE ELEVATION: GRATE ELEVATION IS TO BE 2-2B PLACED 4" TO 6" BELOW NORMAL DITCH RETURNING TO NORMAL 10' TO 15' EACH SIDE OF INLET.

OPENINGS: PIPE OPENINGS SHALL BE THE O.D. OF THE PIPE BEING SUPPLIED PLUS 2" WHEN FABRICATED OR FIELD CUT. THE INTERSTITIAL SPACE SHALL BE FILLED WITH GROUT PER CMS 601.

PAYMENT: ALL MATERIALS AND LABOR, INCLUDING EXCAVATION AND BACKFILLING, SHALL BE PAID FOR UNDER ITEM 604 -CATCH BASIN, NO. 2-2B.

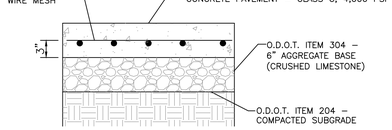
CONSTRUCTION INFORMATION MINIMUM WEIGHT OF GRATE, 120 LBS.	
CATCH BASIN	OUTLET PIPE SIZE
2-2A	12" TO 21"
2-2B	12" TO 21"

BICYCLE SAFE GRATES ARE REQUIRED ON ALL CB NO. 2-2B AND CB NO. 2-2C CATCH BASINS.



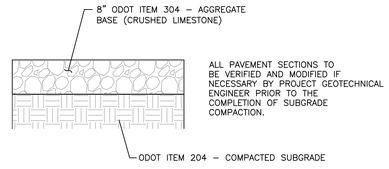
CONCRETE BOLLARD DETAIL

NOT TO SCALE



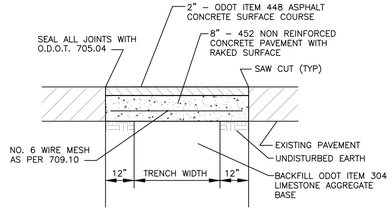
CONCRETE DRIVE APRON SECTION

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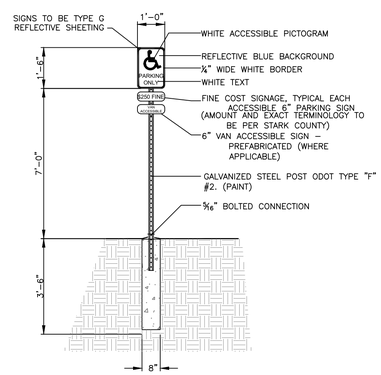
HEAVY DUTY GRAVEL PAVEMENT SECTION

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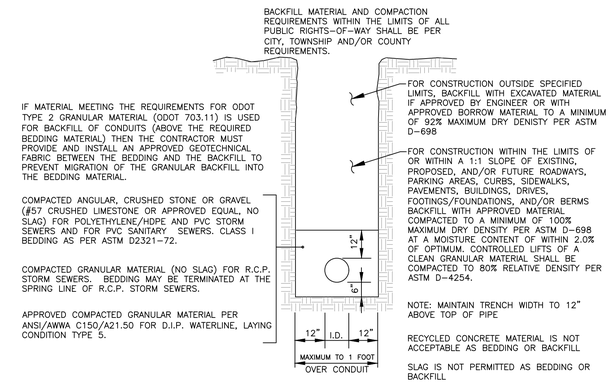
PAVEMENT REPLACEMENT WITHIN PUBLIC ROAD RIGHT-OF-WAY

NOT TO SCALE



TYPICAL HANDICAP SIGN DATA

NOT TO SCALE



PIPE BEDDING AND BACKFILL DETAIL

NOT TO SCALE

DATE: AUGUST 2024

SHEET 9 OF 9

GENERAL DETAILS

NO	DATE	DESCRIPTION	BY

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AUGUST 16 2024 4:14PM