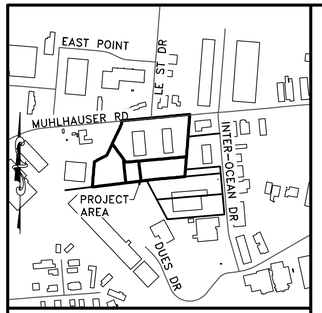
iVCP MUHLHAUSER 2 LLC

PARKING EXPANSION

4325 MUHLHAUSER ROAD

FAIRFIELD, OH 45014



VICINITY MAP
SCALE: 1" = 1000'

GENERAL: THE CURRENT STATE OF OHIO, DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (ODOTCMS) TOGETHER WITH THE FEDEX SPECIFICATIONS AND REQUIREMENTS OF THE CITY OF FAIRFIELD, INCLUDING ALL SUPPLEMENTS THERETO, IN FORCE ON THE DATE OF CONTRACT, SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLANS. WHEN THERE IS OR APPEARS TO BE A CONFLICT BETWEEN THE ABOVE REFERENCED SPECIFICATIONS AND THESE PLANS, THE MOST STRINGENT REQUIREMENT SHALL GOVERN.

PROJECT LIMITS: THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE PROJECT SITE UNDER DEVELOPMENT, THE EXISTING RIGHTS-OF-WAY, CONSTRUCTION EASEMENTS, AND PERMANENT EASEMENTS, AND SHALL NOT TRESPASS UPON PRIVATE PROPERTY WITHOUT WRITTEN CONSENT OF THE PROPERTY OWNER.

MISCELLANEOUS WORK: ALL ITEMS OF WORK CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF SAME SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS RELATED ITEMS.

DRAINAGE TILE: ALL FARM DRAINS, ROADWAY DRAINS, AND OTHER DRAINAGE TILE WHICH ARE ENCOUNTERED WITHIN THE CONSTRUCTION LIMITS DURING CONSTRUCTION SHALL BE PROVIDED WITH AN UNOBSTRUCTED OUTLET. EXISTING COLLECTOR TILES WHICH ARE LOCATED BELOW THE PROPOSED FINISHED ELEVATION AND WHICH CROSS THE TRENCH SHALL BE REPLACED WITHIN THE TRENCH LIMITS BY ITEM 603 CONDUIT. THE LOCATION, TYPE, SIZE, AND GRADE OF REQUIRED REPLACEMENT SHALL BE DETERMINED BY THE PROJECT ENGINEER OR HIS SITE REPRESENTATIVE DURING CONSTRUCTION. NECESSARY BENDS OR FITTINGS, COMPACTED GRANULAR BACKFILL, AND ASSOCIATED ITEMS SHALL BE INCLUDED IN THE BID PRICE.

BORROW MATERIAL AND SURPLUS EXCAVATION: THE SITE SHALL BE CONSTRUCTED TO THE FINAL GRADES SHOWN ON THE PLANS. WHERE NECESSARY, THE CONTRACTOR SHALL OBTAIN SUITABLE BORROW MATERIAL ON-SITE OR OFF-SITE AS NEEDED TO COMPLETE THE SITE CONSTRUCTION AS PROVIDED HEREIN. THE CONTRACTOR SHALL DISPOSE OF ALL SURPLUS EXCAVATION ON SITE, AND, IF NECESSARY, SHALL HAUL SURPLUS EXCAVATED MATERIAL AWAY FROM THE SITE AND DISPOSE OF PROPERLY.

EXISTING UTILITIES: THE INFORMATION SHOWN CONCERNING EXISTING UTILITIES IS APPROXIMATE. THE LOCATION, SIZES, AND OTHER INFORMATION SHOWN IS ONLY AS ACCURATE AS THAT PROVIDED BY THE OWNERS OF THE UTILITY. THIS INFORMATION IS NOT REPRESENTED, WARRANTED OR GUARANTEED TO BE COMPLETE OR ACCURATE. THE ENGINEER DOES NOT INDEPENDENTLY VERIFY NOR FIELD LOCATE UTILITIES. THE CONTRACTOR IS RESPONSIBLE TO PHYSICALLY LOCATE AND VERIFY, IN THE FIELD, THE HORIZONTAL AND VERTICAL LOCATIONS, WHETHER SHOWN ON THE PLAN OR NOT, PRIOR TO THE BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL SUPPORT, PROTECT, AND RESTORE ALL EXISTING UTILITIES AND THEIR ASSOCIATED ITEMS. THE CONTRACTOR SHALL NOTIFY THE REGISTERED UTILITY PROTECTION SERVICE AND ALL UTILITY OWNERS HAVING FACILITIES IN THE CONSTRUCTION AREA WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND UTILITY PROTECTION SERVICE. THE CONTRACTOR SHALL ADHERE TO SECTION 153.64, OHIO REVISED CODE. THE CONTRACTOR SHALL GIVE NOTIFICATION AS REQUIRED BY OHIO REVISED CODE, AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, AND SHALL COORDINATE HIS WORK WITH THE UTILITY OWNERS UNTIL HIS WORK IS COMPLETED. THE CONTRACTOR SHALL KEEP THE UTILITY OWNERS APPRISED OF HIS SCHEDULE AND REQUIREMENTS AND SHALL PROVIDE THE PROJECT OWNER WITH EVIDENCE OF HAVING NOTIFIED THE UTILITIES AND PROVIDING THEM WITH HIS WORK SCHEDULE PRIOR TO BEGINNING ANY WORK.

THE CONTRACTOR MAY REVIEW THE INFORMATION PROVIDED TO THE ENGINEER BY THE UTILITY COMPANIES AT THE ENGINEER'S OFFICE PRIOR TO SUBMITTING A BID. CONTRACTORS REQUIRING MORE INFORMATION REGARDING EXISTING UTILITIES SHOULD CONDUCT THEIR OWN FIELD INVESTIGATIONS, OR OTHERWISE LOCATE THE UTILITIES, PRIOR TO SUBMITTING A BID FOR THE CONSTRUCTION. NOTICE SHALL BE GIVEN TO THE OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764), FOR THE MEMBER UTILITIES.

PERMITS: THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS UNLESS OTHERWISE INDICATED IN THESE DOCUMENTS. THE CONTRACTOR SHALL NOT ENTER ON PRIVATE PROPERTY WITHOUT WRITTEN CONSENT OF THE PROPERTY OWNER.

INSTALLATION IN EMBANKMENT: WHERE UTILITIES ARE TO BE INSTALLED IN EMBANKMENT AREAS, THE EMBANKMENT SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS A MINIMUM OF TWO FEET ABOVE THE PIPE BUT SUFFICIENTLY ABOVE THE PIPE TO PROTECT THE PIPE FROM DAMAGE DUE TO FURTHER CONSTRUCTION ACTIVITIES PRIOR TO THE INSTALLATION OF THE UTILITY.

TEMPORARY PAVEMENT: TEMPORARY PAVEMENT REPLACEMENT SHALL BE PROVIDED ON PERMANENT PAVEMENT DAMAGED OR REMOVED BY THE CONTRACTOR IN THE PERFORMANCE OF THE WORK. AS SOON AS THE TRENCH HAS BEEN BACKFILLED, TEMPORARY PAVEMENT SHALL BE INSTALLED. THE ENGINEER MAY REQUIRE THAT ALL MATERIALS AND EQUIPMENT INCIDENTAL TO PROVIDING THE TEMPORARY PAVEMENT BE ON THE JOB SITE PRIOR TO REMOVING THE EXISTING PAVEMENT. THE TEMPORARY PAVEMENT SHALL CONSIST OF 2 INCHES OF BITUMINOUS COLD MIX MATERIAL PLACED UPON 6 INCHES OF COMPACTED ITEM 304 (ODOTCMS), AGGREGATE BASE. TEMPORARY PAVEMENT SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL PERMANENT PAVEMENT IS INSTALLED.

PERMANENT PAVEMENT: WHERE DAMAGED OR REMOVED, THE PAVEMENT SHALL BE REPLACED BY FIRST REMOVING THE TEMPORARY PAVEMENT DOWN TO THE CLEAN GRANULAR MATERIAL AND REMOVING THE EXISTING PAVEMENT FOR AT LEAST 12 INCHES BEYOND THE TRENCH LIMITS ON EACH SIDE. THE PAVEMENT TO BE REMOVED SHALL BE NEATLY SAWED, NOT MORE THAN 72 HOURS PRIOR TO THE PLACING OF PERMANENT PAVEMENT MATERIALS. THE PERMANENT PAVEMENT REPLACEMENT MATERIALS AND WORKMANSHIP SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS. ITEM 407 (ODOTCMS) TACK COAT SHALL BE APPLIED TO THE EXPOSED EXISTING PAVEMENT EDGES, WHEN EITHER THE EXISTING OR NEW PAVEMENT IS BITUMINOUS MATERIAL, AND ITEM 407 (ODOTCMS) TACK COAT OR 408 (ODOTCMS). PRIME COAT SHALL BE APPLIED TO THE BASE MATERIAL, DEPENDING UPON THE BASE MATERIAL, WHEN THE PERMANENT PAVEMENT IS BITUMINOUS MATERIAL, PRIOR TO THE PLACING OF THE PERMANENT PAVEMENT.

TRAFFIC CONTROL: THE CONTRACTOR SHALL USE ADEQUATE LIGHTS, SIGNS, FLAGGERS, AND BARRICADES AS REQUIRED IN ITEM 614 (ODOTCMS) TO SAFEGUARD THE TRAVELING PUBLIC AT ALL TIMES. ALL TRENCHES SHALL BE BACKFILLED OR SECURELY PLATED DURING NON-WORKING HOURS. WHERE IT IS ANTICIPATED THAT WORK WILL CLOSE A ROAD OR STREET, THE CONTRACTOR SHALL INFORM THE RESIDENTS TO BE AFFECTED, THE LOCAL LAW ENFORCEMENT AGENCY, THE LOCAL FIRE DEPARTMENT, AND THE ENGINEER AS TO THE EXTENT, NATURE, AND THE TIME OF THE ANTICIPATED WORK. THE CONTRACTOR SHALL SUBMIT A PLAN AND SCHEDULE FOR DETOURING TRAFFIC TEN (10) DAYS PRIOR TO THE CLOSING OF ANY ROAD OR STREET TO THE ENGINEER AND ROAD OWNER. DURING A CLOSING OF A ROAD OR STREET, THE CONTRACTOR SHALL PROVIDE ACCESS TO THE PROPERTY FOR EMERGENCY VEHICLES AND THE PROPERTY OWNERS. NO ROAD OR STREET SHALL BE CLOSED UNTIL THE SCHEDULE IS APPROVED BY THE AGENCY HAVING CONTROL OF THE ROAD. WORK REQUIRING A LANE CLOSURE MUST BE PERFORMED DURING THE HOURS OF 8:00 PM AND 6:00 AM. ODOT PERMIT OFFICE TO BE NOTIFIED THREE (3) WORKING DAYS PRIOR TO START OF WORK. WORK IN STATE ROUTES (IF NECESSARY) SHALL BEGIN ON A SUNDAY OR MONDAY NIGHT TO ENSURE THAT PAVEMENT REPLACEMENT IS COMPLETED BY FRIDAY.

SAFETY OF CONSTRUCTION: THE CONTRACTOR SHALL COMPLY WITH THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA) AND ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, REGULATIONS, FINDINGS AND ORDERS RELATING TO SAFETY AND HEALTH CONDITIONS ON THE WORK SITE. CONSTRUCTION METHODS FOR COMPLETING THE WORK DESCRIBED IN THESE CONTRACT DOCUMENTS SHALL BE CONSISTENT WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AMENDED CONSTRUCTION STANDARDS FOR EXCAVATIONS, 29 CFR PART 1926, SUB-PART P, EFFECTIVE MARCH 5, 1990.

CLEANOUT TOPS: WHERE CLEANOUTS ARE LOCATED WITHIN PUBLIC OR PRIVATE PAVEMENT, SIDEWALK, CONCRETE PAD, OR PAVED SHOULDER, THE TOPS SHALL BE BUILT TO EXISTING PAVEMENT ELEVATIONS.

FINAL GRADING AND CLEAN-UP: THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM HIS OPERATION AND RESTORE ALL SURFACES, STRUCTURES, DITCHES, AND PROPERTY TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER. ALL SIGNS, MAILBOXES, FENCES, GUARDRAILS, ROADSIDE DITCHES, OR OTHER PHYSICAL FEATURES DISTURBED OR DAMAGED DURING WORK UNDER THIS CONTRACT SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR. THE COST OF ALL SUCH WORK SHALL BE INCLUDED WITH THE VARIOUS RELATED ITEMS.

SEEDING AND MULCHING: ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND ELEVATION OR TO THE PROPOSED ELEVATION SHOWN ON THE DRAWINGS, AND PROPER DRAINAGE SHALL BE PROVIDED. AFTER FINAL GRADING, THE SEED BED SHALL BE RAKED AND ALL STONES, CLODS, LUMPS, AND OTHER FOREIGN MATERIAL GREATER THAN 1" IN DIAMETER SHALL BE REMOVED PRIOR TO SEEDING AND MULCHING. ALL AREAS SHALL BE SEEDED AS PER THE URBAN SEED MIX OF SECTION 659.09 (ODOTCMS). THE CONTRACTOR SHALL WATER, RE-SEED, AND MULCH AS NECESSARY UNTIL AN ACCEPTABLE STAND OF GRASS IS ACHIEVED.

CONFLICTS IN GRADE: IN ALL CONFLICTS IN GRADE BETWEEN THE CONCENTRATE LINES AND OTHER EXISTING UTILITIES, THE CONCENTRATE LINE SHALL BE LOWERED DURING CONSTRUCTION. A MINIMUM OF 18" VERTICAL AND 10' HORIZONTAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE CONCENTRATE LINE AND ANY SANITARY SEWER; 12" MINIMUM VERTICAL CLEARANCE FOR OTHER UTILITIES. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES AHEAD OF HIS CONSTRUCTION OPERATIONS TO ALLOW FOR ADJUSTMENTS IN GRADE TO THE CONCENTRATE LINE THAT MAY BE REQUIRED AS A RESULT OF A POTENTIAL CONFLICT IN GRADE WITH AN EXISTING UTILITY. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR LOWERING THE CONCENTRATE LINE TO AVOID CONFLICTS WITH EXISTING UTILITIES.

PROHIBITED CONSTRUCTION ACTIVITIES:

USING ANY SUBSTANCE OTHER THAN WATER TO CONTROL DUST.

OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE PERMIT OR DISPOSING OF THE TREES AND STUMPS.

PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS.

DISCHARGING POLLUTANTS – SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE – AND OTHER HARMFUL WASTE INTO OR ALONGSIDE RIVERS, STREAMS, IMPOUNDMENTS OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.

STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIAL ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED BY THE CITY ENGINEER FOR SAID PURPOSES.

DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOOD PLAINS, EVEN WITH THE PERMISSION OF THE PROPERTY OWNER.

INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, WETLAND SURFACE WATERS, OR OUTSIDE THE EASEMENT AREA.

PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF A STREAM.

DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA.

DISPOSAL OF TREES, BRUSH AND OTHER DEBRIS IN ANY STREAM CORRIDORS, ANY WETLANDS, AND SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS.

EROSION & SEDIMENT CONTROL:

CONTRACTOR SHALL PREPARE AND SUBMIT FOR APPROVAL A SWPPP PRIOR TO CONSTRUCTION. COST FOR SWPPP SHALL BE INCLUDED IN THE ITEM SPECIAL, STORM WATER POLLUTION PREVENTION PLAN AND IMPLEMENTATION.

THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL AT ALL POINTS WHERE STORM WATER RUNOFF LEAVES THE PROJECT INCLUDING WATERWAYS, OVERLAND SHEET FLOW, AND STORM SEWERS. EROSION AND SEDIMENT CONTROL SHALL BE PROVIDED AS PER THE REQUIREMENTS OF THE OHIO EPA, CITY OF FAIRFIELD, AND THE STANDARDS AND SPECIFICATIONS OF THE "RAINWATER AND LAND DEVELOPMENT" MANUAL BY THE ODNR.

EROSION AND SEDIMENT CONTROL ARE TO BE MAINTAINED UNTIL SUCH TIME THAT THEY ARE NO LONGER REQUIRED BY THE ENGINEER. ALL LAND DISTURBING ACTIVITIES SHALL BE SUBJECT TO INSPECTION AND SITE INVESTIGATION BY THE ENGINEER AND/OR THE OHIO EPA. FAILURE TO COMPLY WITH THESE REGULATIONS IS SUBJECT TO LEGAL ENFORCEMENT ACTION.

UTILITIES:

DUKE ENERGY
1199 NILLES ROAD
FAIRFIELD, OH 45014
CONTACT: BRANDON URTON
BRANDON.URTON@DUKE-ENERGY.COM
(513) 287-4713

BEFORE YOU DIG
OHIO UTILITIES PROTECTION SERVICE
Call 800-362-2764
OR DIGGING DATE PLEASE

CURRENT OWNER:

iVCP MUHLHAUSER 2 LLC
810 BULL LEA RUN #300
LEXINGTON, KY 40511
CONTACT: JOSHUA LEWIS
JOSHUA.LEWIS@IVISIONARY.COM
(859) 291-5003

CONTRACTOR:

DENHAM BLYTHE
100 TRADE STREET
LEXINGTON, KY 40511
CONTACT: WILLIAM QUENEMOEN, P.E.
BILLQ@DENHAMBLYTHE.COM
(859) 255-7405

CIVIL ENGINEER:

INFRASTRUCTURE & DEVELOPMENT ENGINEERING, INC.
9338 CINCINNATI COLUMBUS RD
WEST CHESTER, OH 45241
CONTACT: TIMOTHY FOSTER, P.E.
TIMF@IDE-OH.COM
(513) 671-8144

CITY ENGINEER:

CITY OF FAIRFIELD
8870 N. GILMORE ROAD
FAIRFIELD, OH 45014
CONTACT: NICHOLAS DILL, P.E.
NDILL@FAIRFIELD-CITY.ORG
(513) 967-4221

SHEET INDEX:

C101 COVER SHEET
C102 EXISTING CONDITIONS
C103 SITE LAYOUT PLAN
C104 SITE UTILITY PLAN
C105 GRADING PLAN
C106 STORMWATER MANAGEMENT
C107 DETENTION DETAILS
C108 STORM PROFILES AND DETAILS
C109 SITE AND FEDEX DETAILS
C110 ADD'L FEDEX DETAILS
C111 EROSION & SEDIMENT CONTROL (ESC) PLAN
C112 EROSION & SEDIMENT CONTROL DETAILS

* CALL BEFORE YOU DIG "O.U.P.S." *

NOTE: THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION AND SHALL CONTACT THE UTILITIES PROTECTION SERVICE A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO DIGGING AT THE NUMBER BELOW. THE ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS ON THIS MATTER AND NO EXCAVATION SHALL COMMENCE UNTIL ALL APPLICABLE UTILITIES HAVE BEEN CLEARED.
1-800-362-2764

STATE OF OHIO
TIMOTHY FOSTER
E-76504
REGISTERED
PROFESSIONAL ENGINEER

IDE
INFRASTRUCTURE DEVELOPMENT ENGINEERING
CINCINNATI OFFICE
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Designed By:	Drawn By:	Checked By:	Approved By:
T. FOSTER	J. MOLONY	T. FOSTER	T. FOSTER

REVISIONS:

iVCP MUHLHAUSER 2 LLC
PARKING EXPANSION
4325 MUHLHAUSER RD
FAIRFIELD, OH 45014

COVER SHEET

Scale: NTS
Date: 06/10/2021
Sheet 1 of 13
C101
Project No.
20045A-62

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BASIS OF BEARINGS: OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83

BEFORE YOU DIG
OHIO UTILITIES PROTECTION SERVICE
Call 800-362-2764
OR DIGGING RATE PLEASE

N79°04'00"E 823.17'
N10°06'00"W 40.00'
N10°06'00"W 489.71'
N10°06'00"W 434.00'
S80°04'13"W 804.03'
S80°04'13"W 633.08'
S78°13'35"W 826.39'
S80°04'13"W 402.25'
N81°04'00"E 178.44'
203.13'
170.95'
156.85'

50' STREAM SETBACK
STREAM CENTERLINE
20' Sanitary Sewer Easement
10' Drainage & Utility Easement
CITY OF FAIRFIELD
WEST CHESTER TOWNSHIP
S.R. Zoning Setback Line

4325 MUHLHAUSER RD
4305 MUHLHAUSER RD

M5500198000008
SYM HOLDINGS LLC
4293 MUHLHAUSER RD

M5500198000016
IVCP MUHLHAUSER 2 LLC
MUHLHAUSER RD
3.795 ACRES
ZONE M-2

M5500198000011
IVCP MUHLHAUSER 1 LLC
4325 MUHLHAUSER RD

M5500198000015
IVCP MUHLHAUSER 2 LLC
MUHLHAUSER RD
1.25 ACRES
ZONE M-2

M5620256000005
INTEROCEAN LLC
9615 INTER OCEAN DR

M5620256000004
DUFFERS DEVELOPMENT LLC
9639 INTER OCEAN DR

M5500198000012
IVCP MUHLHAUSER 2 LLC
MUHLHAUSER RD
3.623 ACRES
ZONE M-2

M5620256000003
MONMOUTH REAL ESTATE INVESTMENT CORP
9667 INTER OCEAN DR

M5620256000002
MONMOUTH REAL ESTATE
INVESTMENT CORP
INTER OCEAN DR

9667 INTER-OCEAN DRIVE

M5620256000001
MONMOUTH REAL ESTATE
INVESTMENT CORP
9667 INTER OCEAN DR

M5620050000030
SHEPARD COLOR CO
4300 DUES DR

EX. DISTRIBUTION CENTER
FIN. FL. ELEV. 725.59

B-1 REFUSAL: 7.75'
B-2 TERMINATED: 10.0'
B-3 REFUSAL: 7.1'
B-4 REFUSAL: 6.3'
B-5 REFUSAL: 0.0'
B-6 REFUSAL: 0.0'
B-7 REFUSAL: 0.0'
B-8 REFUSAL: 0.0'
B-9 REFUSAL: 2.3'
B-10 REFUSAL: 4.5'
B-11 REFUSAL: 3.8'
B-12 REFUSAL: 7.9'
B-101 BEDROCK: 6.0'
B-102 TERMINATED: 10.0'
B-103 TERMINATED: 10.0'
B-104 BEDROCK: 12.0'
B-105 BEDROCK: 19.5'
B-106 REFUSAL: 14.2'
B-107 REFUSAL: 5.0'
B-108 BEDROCK: 7.5'
B-109 REFUSAL: 5.0'
B-110 REFUSAL: 4.0'
B-111 TERMINATED: 10.0'
B-112 REFUSAL: 3.0'
TP-101 BEDROCK: 7.5'
TP-102 BEDROCK: 8.0'
TP-103 BEDROCK: 7.5'
TP-104 REFUSAL: 17.0'
TP-105 BEDROCK: 3.5'
TP-106 BEDROCK: 2.0'
TP-107 BEDROCK: 5.0'
TP-108 BEDROCK: 5.0'
TP-109 BEDROCK: 5.0'
B-101 BEDROCK: 15.0'
B-102 REFUSAL: 16.0'

189'-12" STM @ 0.50%
76'-15" STM @ 0.50%
152'-18" STM @ 0.50%
190'-15" STM @ 0.50%
10'-12" STM @ 2.00%
54'-12" STM @ 0.50%
224'-15" STM @ 0.50%
118'-18" STM @ 0.50%
165'-18" STM @ 0.50%
24'-12" STM @ 0.50%
99'-24" STM @ 5.00%
114'-15" STM @ 7.81%
132'-24" STM @ 5.00%
115'-15" STM @ 2.86%
59'-15" STM @ 3.00%
262'-15" STM @ 0.50%

15%

670 675 680 685 690 695 700

70 45 0 70 140 210

GRAPHIC SCALE 1" = 70'

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STATE OF OHIO
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Designed By:	Drawn By:	Checked By:	Approved By:
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REVISIONS:

iVCP MUHLHAUSER 2 LLC PARKING EXPANSION
4325 MUHLHAUSER RD
FAIRFIELD, OH 45014

EXISTING CONDITIONS

Scale: 1" = 70'

Date: 06/10/2021

Sheet 2 of 12

C102

Project No.
20045A-62

BASIS OF BEARINGS: OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83

50' STREAM SETBACK

STREAM CENTERLINE

N20°36'24"E 459.71'

297.28'

N35°37'42"W 104.55'

168.43'

61.03'

N89°09'17"E 184.01'

N0°01'20"W 335.00'

IRON PIN

S80°04'13"W 804.03'

633.08'

EX. PARKING TO REMAIN

S00°16'16"E 822.88'

559.93'

382.95'

170.95'

TRACTOR PARKING
6 SPACES

6.33'

3.95'

11.50'

70.00'

LONG TRAILER
48 SPACES

CONCRETE
PAVEMENT

2.50'

60.00'

N10°42'00"W 317.88'

12.00'

30.00'

35.00'

PEDESTRIAN GATE
(SEE DETAIL ON C110)

44.89'

52.57'

S15°47'47"E 317.88'

R40.00'

35.00'

12.00'

VAN STAGING
73 SPACES

ASPHALT
PAVEMENT
TYPE I

R40.00'

30.00'

178.44'

R25.00'

S80°04'13"W 402.25'

AUTO PARKING
112 SPACES

9.00'

25.00'

19.00'

25.00'

25.21'

22.00'

ASPHALT PAVEMENT
TYPE II

JERSEY BARRIER, 243 LF

PROP. RETAINING WALL – SEE
SEPARATE DRAWINGS (TYP.)

4' SIDEWALK

PROP. RETAINING WALL

CMC MON.

SECURITY FENCE
(SEE DETAIL 4 ON C109)

203.13'

S78°15'35"W 825.35'

3.99'

444.78'

ALL AREAS TO BE CURB
EXCEPT THOSE CATCHING DRAINAGE
TO BE CURB AND GUTTER
PER DETAILS ON C109 & C110

DUKE ENERGY ACCESS
GATE LOCATIONS,
(SEE DETAIL ON C109)

4' SIDEWALK (SEE DETAIL ON C109)

JERSEY BARRIER, 400 LF

PROP. RETAINING WALL

EX. DISTRIBUTION CENTER
FIN. FL. ELEV. 725.59

INTER-OCEAN DRIVE

60' R/W

60 30 0 120
60 180
GRAPHIC SCALE 1" = 60'

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STATE OF OHIO
TIMOTHY FOSTER
E-76594
REGISTERED
PROFESSIONAL ENGINEER

BEFORE YOU DIG
UTILITIES PROTECTION SERVICE
Call 800-362-2764
TOLL FREE
NOT WORKING DAYS PLEASE

ide
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Designed By:	Drawn By:	Checked By:	Approved By:
T. FOSTER	J. MOLONY	T. FOSTER	T. FOSTER

REVISIONS:

iVCP MUHLHAUSER 2 LLC
PARKING EXPANSION
4325 MUHLHAUSER RD
FAIRFIELD, OH 45014

SITE LAYOUT PLAN

Scale: 1" = 60'

Date: 06/10/2021

Sheet 3 of 12

C103

Project No.
20045A-62

ELECTRIC NOTES:

1. SITE LUMINAIRES SCHEDULE TO BE PER SEPARATE LIGHTING PLAN DRAWING. PROVIDE POLE LUMINAIRES WITH STEEL POLES ON TOP OF CONCRETE POLE BASE.
2. SPECIFICATIONS FOR SITE ELECTRIC TO BE IN ACCORDANCE WITH NEC AND THE SPECIFICATION REQUIREMENTS OF FEDEX AND THE CITY OF FAIRFIELD.
3. COORDINATE WITH DUKE ENERGY AND CINCINNATI BELL FOR THE NETWORK AND POWER SERVICES AND LOCATIONS OF CONTROL PANELS FOR LIGHTS AND GATE.
4. DUKE ENERGY WILL PROVIDE POLE-MOUNTED TRANSFORMERS FOR THE ADDITIONAL SITE LIGHTING REQUIREMENTS. FOR THOSE SERVICES AND POLES WITH SEPARATE SERVICES ON THE SOUTH AND EAST PARCELS, COORDINATE WITH DUKE ENERGY FOR CONTROL ON FIRST LIGHT POLE.
5. ALL WORK SHALL BE CONE IN ACCORDANCE WITH NEC AND NFPA LIKE SAFETY CODE.

BASIS OF BEARINGS: OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83

BEFORE YOU DIG — UTILITIES PROTECTION SERVICE — OHIO — Call 800-362-2764 — NOT MORE THAN TWO WORKING DAYS PLEASE

CS-10 TOP=671.70 INV.=663.95
CB-06 TOP=670.21 INV.=665.28
CB-05 TOP=673.26 INV.=666.08
CB-04 TOP=674.09 INV.=668.21
CB-03 TOP=674.05 INV.=670.34
CB-01 TOP=674.01 INV.=670.76
133.06'-24"HDPE@1.00%
DET. INLET INV.=663.72
23.30'-24"HDPE@1.00%
162.59'-18"HDPE@1.00%
160.77'-24"HDPE@0.50%
192.26'-15"HDPE@1.11%
86.88'-12"HDPE@4.50%
40.82'-15"HDPE@1.03%
UNDERGROUND DETENTION
44.51'-24"HDPE@1.00%
29.50'-24"HDPE@1.00%
PROP. HW-01 INV.=657.60
CB-08 TOP=668.83 INV.=657.90
CB-7 TOP=675.09 INV.=658.35
CB-02 TOP=677.20 INV.=674.50
PROP. UNDERGROUND ELEC.
PROP. OVERHEAD ELEC.
PROP. PRIVATE UTILITY POLE
VIEW 1
PROP. HW-01 INV.=694.65
RAISE RIM TO FLUSH W/ PROP. PAVEMENT
35.36'-12"HDPE@0.50%
24"x24" GRATE @ 4.00%
114'-15" STM @ 7.81%
CB-09 TOP=707.88 INV.=694.83
152'-18" STM @ 0.50%
189'-12" STM @ 0.50%
76'-15" STM @ 0.50%
58'-24" STM @ 3.00%
132'-24" STM @ 5.00%
59'-15" STM @ 3.00%
115'-15" STM @ 2.66%
190'-15" STM @ 0.50%
1.5%
10'-12" STM @ 2.00%
EX. DISTRIBUTION CENTER FIN. FL. ELEV. 725.59
262'-15" STM @ 0.50%
54'-12" STM @ 0.50%
224'-15" STM @ 0.50%
118'-18" STM @ 0.50%
165'-18" STM @ 0.50%
24'-12" STM @ 0.50%
60' R/W

NETWORK PANEL – ARDTECH INDUSTRIES INC.
ITEM #AA589 HOFFMAN A589 – T843044FTTXDASA
W/ G280416G100 84x36x44
CONTACT: IRENE HODGES (800) 821-5678
SUPPLY 120V ELECTRICAL POWER AND THREE(3) 120V DUPLEX RECEPTACLES INSTALLED ON 6" CENTER INSIDE CABINET
TYMETAL 2150 PEDESTRIAN GATE W/DOOR CARD ACCESS (BY OTHERS) REFER TO STANDARD #02830-038
SEE DETAILS ON C109 & C110 FOR REQUIREMENTS
ONE-1" DIA. MIN. CONDUIT STUBBED UP FOR CARD READER (DATA).
ONE-1" DIA. MIN. CONDUIT STUBBED UP FOR PEDESTRIAN GATE (POWER).
2" & 1" CONDUITS FOR COMM. & ELEC.
6'x6' CONCRETE PAD FOR NETWORK AND LIGHT CONTROL, SIZE ELECTRIC PANEL PER DUKE AND ELEC. NEEDS
PROP. OVERHEAD ELEC.
PROP. PRIVATE UTILITY POLE
VIEW 1
GRAPHIC SCALE 1" = 20'

60 30 0 120 60 180
GRAPHIC SCALE 1" = 60'

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STATE OF OHIO — TIMOTHY FOSTER — E-75394 — REGISTERED PROFESSIONAL ENGINEER

INFRASTRUCTURE DEVELOPMENT ENGINEERING

CINCINNATI OFFICE
9338 CINCINNATI COLUMBUS RD
WEST CHESTER, OHIO 45241
Tele: (513) 671-8144

Designed By:	Drawn By:	Checked By:	Approved By:
T. FOSTER	J. MOLONY	T. FOSTER	T. FOSTER

REVISIONS:

iVCP MUHLHAUSER 2 LLC PARKING EXPANSION
4325 MUHLHAUSER RD
FAIRFIELD, OH 45014

SITE UTILITY PLAN

Scale: 1" = 60'

Date: 06/10/2021

Sheet 4 of 12

C104

Project No.
20045A-62

BASIS OF BEARINGS: OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83

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CS-10
TOP=671.70
INV.=663.95

CB-06
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CB-05
TOP=673.26
INV.=666.08

CB-04
TOP=674.09
INV.=668.21

CB-03
TOP=674.05
INV.=670.34

CB-01
TOP=674.01
INV.=670.76

DET. INLET
INV.=663.72

UNDERGROUND DETENTION

CB-02
TOP=677.20
INV.=674.50

1:1 ROCK SLOPE PER ODOT DESIGN CRITERIA FOR NATIVE ROCK

PROP. HW-01
INV.=694.65

RAISE RIM TO FLUSH W/ PROP. PAVEMENT

CB-09
TOP=707.88
INV.=694.83

PROP. HW-01
INV.=657.60

CB-7
TOP=675.09
INV.=658.35

CB-08
TOP=668.83
INV.=657.90

EX. DISTRIBUTION CENTER
FIN. FL. ELEV. 725.59

60' R/W

GRADING NOTES:

- SPOT ELEVATIONS MARK TOP OF PAVEMENT OR GROUND AT FACE OR REAR OF WALL UNLESS OTHERWISE NOTED

60 30 0 120
60 180
GRAPHIC SCALE 1" = 60'

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STATE OF OHIO
TIMOTHY FOSTER
E-76394
REGISTERED
PROFESSIONAL ENGINEER

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REVISIONS:

iVCP MUHLHAUSER 2 LLC
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FAIRFIELD, OH 45014

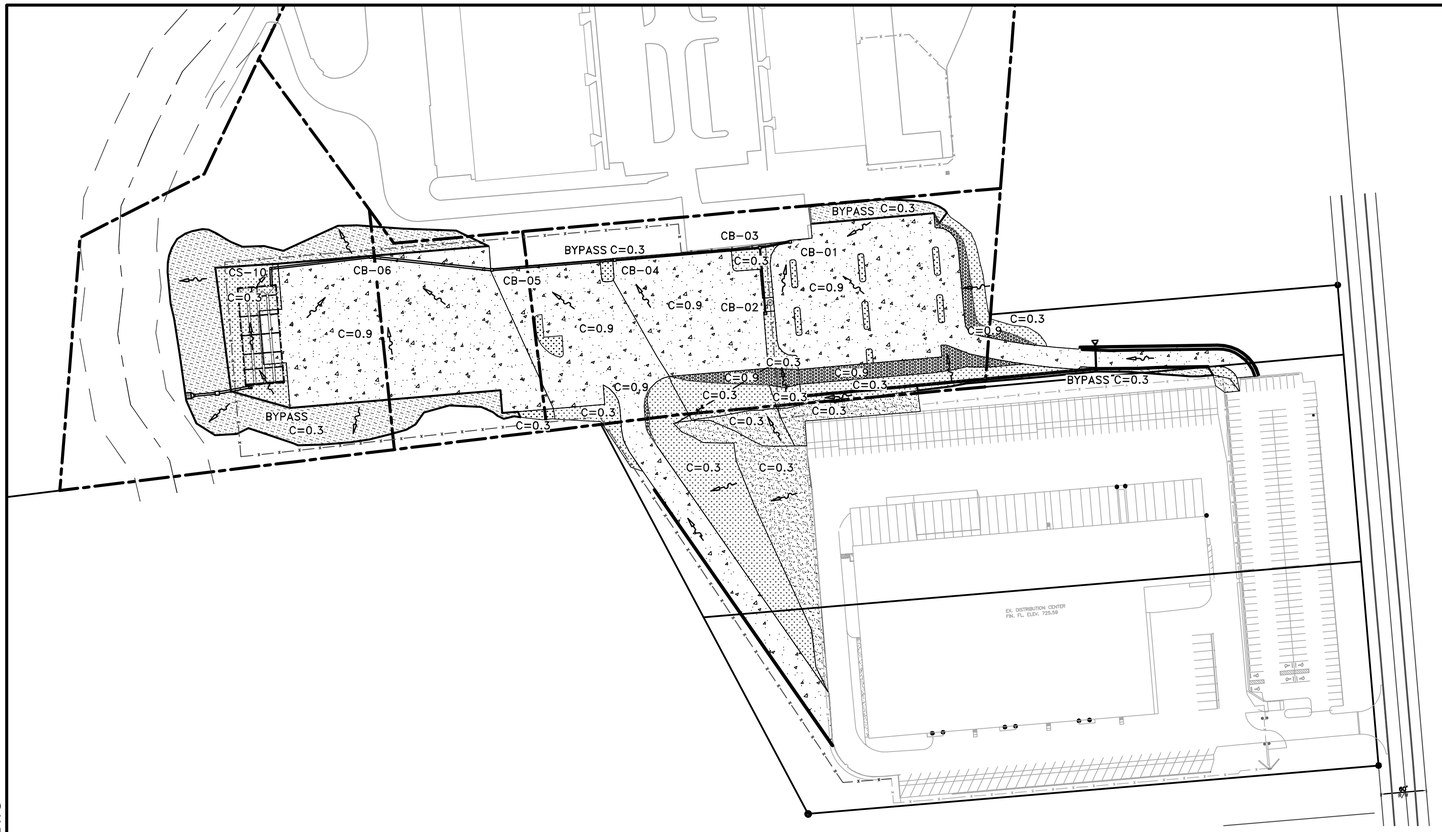
GRADING PLAN
(& DRAINAGE PLAN)

Scale: 1" = 60'

Date: 06/10/2021

Sheet 5 of 12
C105

Project No.
20045A-62



DRAINAGE TO DETENTION (+BYPASS)

CB	HARD SURFACE (SF)	ROCK SLOPE (SF)	PERVIOUS (SF)	UNDIST. (SF)	TOTAL AREA (SF)	WIEGHTED C
CB-01	52705	7937	11248	455	72345	0.80
CB-02	0	917	4121	5042	10080	0.35
CB-03	0	0	2230	0	2230	0.30
CB-04	26329	1746	5096	3315	36486	0.76
CB-05	45163	279	24661	17590	87693	0.61
CB-06	61774	0	524	0	62298	0.89
CS-10	0	0	11887	0	11887	0.30
BYPASS	0	0	46227	NA	46227	0.30

100 50 0 200
100 300
GRAPHIC SCALE 1" = 100'

DRAINAGE NOTES

AREA OF DEVELOPMENT: 6.95 ACRES (302844 SQ FT)
1. PRE-DEVELOPMENT:
1.1. 6.95 ACRES OF EX. GRASS/WOODED AREA - C VALUE OF 0.30
2. POST-DEVELOPMENT:
2.1. 4.27 ACRES OF NEW PAVEMENT - C VALUE OF 0.90
2.2. 0.25 ACRES OF 1:1 (H:V) ROCK SLOPE - C VLAUE OF 0.90
2.3. 2.43 ACRES OF NEW GRASS - C VALUE OF 0.30
2.4. 6.95 ACRES - COMPOSITE C VALUE OF 0.69
3. AREA CAPTURED FOR DETENTION: 6.50 ACRES (283019 SQ FT)
3.1. POST-DEVELOPMENT USEABLE:
3.1.1. 4.27 ACRES OF NEW PAVEMENT - C VALUE OF 0.90
3.1.2. 0.25 ACRES OF 1:1 (H:V) ROCK SLOPE - C VLAUE OF 0.90
3.1.3. 1.37 ACRES OF NEW GRASS - C VALUE OF 0.30
3.1.4. 0.61 ACRES OF UNDISTURBED GRASS - C VLAUE OF 0.30
3.1.5. 6.50 ACRES TO DETENTION - COMPOSITE C VALUE OF 0.72
AREA BYPASSING DETENTION: 1.06 ACRES (46227 SQ FT)
3.2. POST-DEVELOPMENT BYPASS:
3.2.1. 1.06 ACRES OF NEW GRASS - C VALUE OF 0.30

QUALITY NOTES

1. WATER QUALITY VOLUME
1.1. EXISTING IMPERVIOUS = 0.00 ACRES
1.2. AREA OF DEVELOPMENT: 6.95 ACRES
1.3. AREA OF NEW IMPERVIOUS: 4.27 ACRES
1.4. AREA DRAINING TO BASIN: 6.50 ACRES
1.5. P = 0.9 INCHES
1.6. i = 0.6569
1.7. Rv = 0.6412
1.8. WQv = 0.3126 AC-FT = 13620 CF
1.9. WQv = 16345 CF (+20% FOR SEDIMENTATION)
1.10. STORAGE PROVIDED = 16345 CF @ 662.07
1.11. 1/2 WQv = 8173 CF
1.12. 100-YEAR STORM:
1.12.1. 5.75 HOURS TO DRAIN TO 16345 CF
1.12.2. +8 HOURS (13.75) TO DRAIN TO 8449 CF
1.12.3. +24 HOURS (29.75) TO DRAIN TO 283 CF

DETENTION NOTES

1. PRE-DEVELOPMENT:
DEVELOPMENT AREA: 6.95 AC.
TIME OF CONCENTRATION: 30 MINUTES
"C" COEFFICIENT: 0.30
1.1. 2-YEAR STORM:
1.1.1. INTENSITY: 1.90 IN/HR
1.1.2. FLOW: 3.99 CFS
1.2. 100-YEAR STORM
1.2.1. INTENSITY: 4.10 IN/HR
1.2.2. FLOW: 8.62 CFS

2. POST-DEVELOPMENT:
AREA INTO DETENTION: 6.50 ACRES
"C" COEFFICIENT: 0.72
2.1. 100-YEAR STORM
2.1.1. DURATION: 75 MIN
2.1.1. INTENSITY: 2.40 IN/HR
2.1.2. INFLOW: 11.33 CFS
2.1.3. OUTFLOW: 3.58 CFS
2.1.3.1. 2.5" ORIFICE @ 658.35:
2.1.3.1.1. 0.47 CFS
2.1.3.1.2. 13.78 FPS
2.1.3.2. 7.5" ORIFICE @ 662.07:
2.1.3.2.1. 3.10 CFS
2.1.3.2.2. 10.11 FPS
2.1.3.3. TOP GRATE @ 668.00
2.1.3.3.1. 0.00 CFS
2.1.3.3.2. 0.00 FPS
2.1.3.4. WATER LEVEL: 666.79
2.1.4. STORAGE: 42,496 CF
AREA BYPASSING DETENTION: 1.06 ACRES
"C" COEFFICIENT: 0.30
2.2. 2-YEAR STORM
2.2.1. INTENSITY: 1.90 IN/HR
2.2.2. FLOW: 0.61 CFS
UNDISTURBED AREA TO DETENTION: 0.61 ACRES
2.3. 2-YEAR STORM
2.3.1. INTENSITY: 1.9 IN/HR
2.3.2. FLOW: 0.35 CFS (PASS THROUGH)
TOTAL DETENTION OUTFLOW
2.4. 2-YEAR PRE - DISTURBED BYPASS + UNDISTURBED TO DETNETION
2.4.1. 3.99 - 0.61 + 0.35 = 3.73 CFS

PEAK DETENTION OUTFLOW: 3.73 CFS

BASIS OF BEARINGS: OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83

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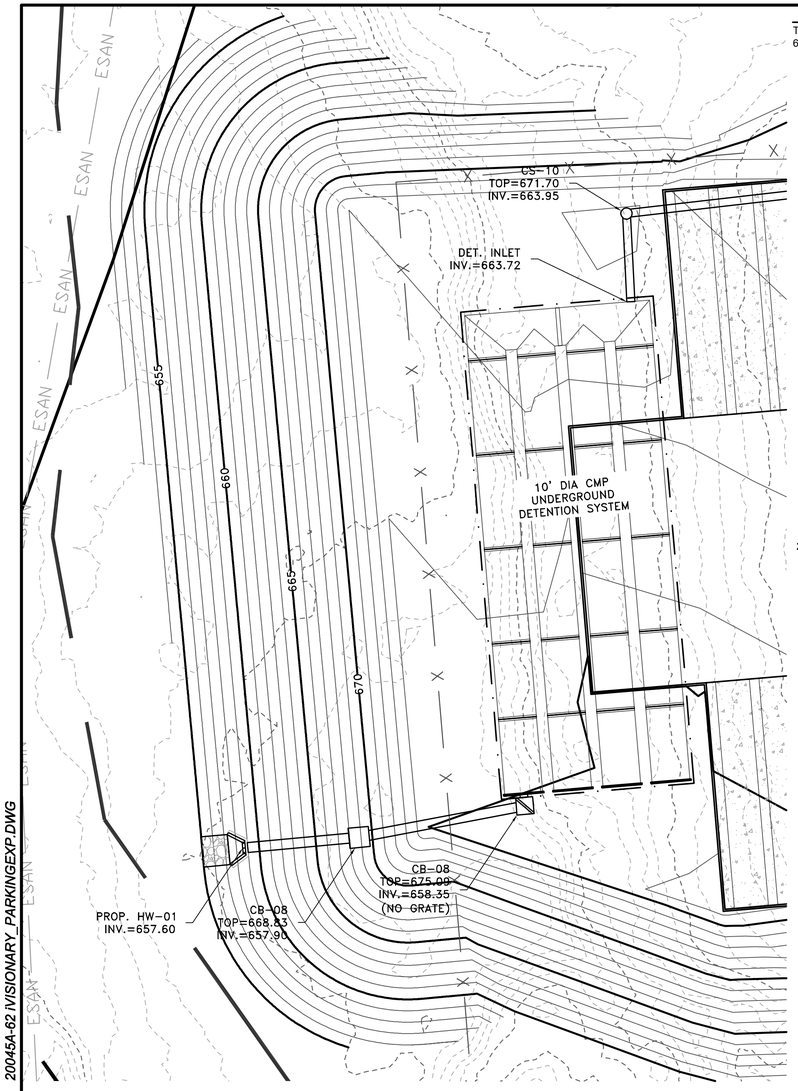
Designed By:	Drawn By:	Checked By:	Approved By:
T. FOSTER	J. MOLONY	T. FOSTER	T. FOSTER

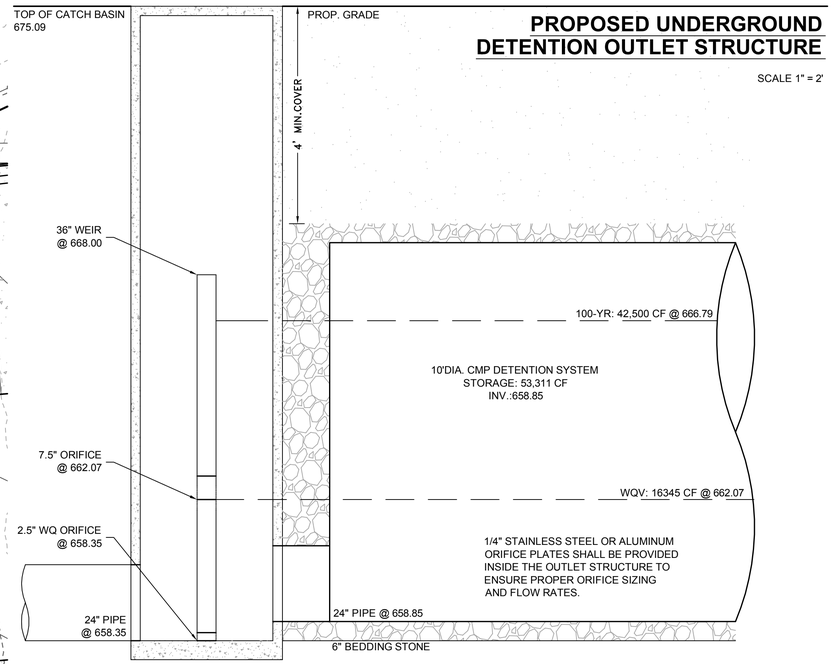
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FAIRFIELD, OH 45014

STORM WATER MANAGEMENT

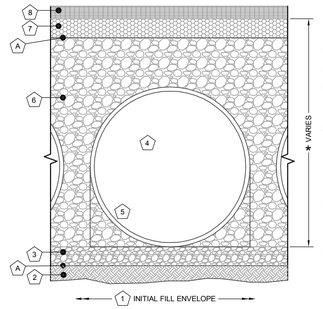
Scale: 1" = 100'
Date: 06/10/2021
Sheet 6 of 12
C106
Project No.
20045A-62





PROPOSED UNDERGROUND DETENTION OUTLET STRUCTURE

SCALE 1" = 2'



Infiltration Systems - CMP Infiltration & CMP Perforated Drainage Pipe			
Material Location	Description	Material Designation	Designation
8 Rigid or Flexible Pavement (if applicable)			
7 Road Base (if applicable			
A Geotextile Layer	Non-Woven Geotextile	CONTECH C-40 or C-45	Engineer Decision for consideration to prevent soil migration into varying soil types. Wrap the trench only.
6 Backfill	Infiltration pipe systems have a pipe perforation sized of 3/8" diameter. An open graded, free draining stone, with a particle size of ½" – 2 ½" diameter is recommended.	AASHTO M 145- A-1 or AASHTO M 43 - 3, 4	Material shall be worked into the pipe haunches by means of shovel-slicing, rodding, air-tamper, vibratory rod, or other effective methods. Compaction of all placed fill material is necessary and shall be considered adequate when no further yielding of the material is observed under the compactor, or under foot, and the Project Engineer or his representative is satisfied with the level of compaction"
4 Bedding Stone	Well graded granular bedding material w/maximum particle size of 3"	AASHTO M43 - 3,357,4,467, 5, 56, 57	For soil aggregates larger than 3/8" a dedicated bedding layer is not required for CMP. Pipe may be placed on the trench bottom comprised of native suitable well graded & granular material. For Arch pipes it is recommended to be shaped to a relatively flat bottom or fine-grade the foundation to a slight v-shape. Soil aggregates less than 3/8" and unsuitable material should be over-excavated and re-placed with a 4"-6" layer of well graded & granular stone per the material designation.
A Geotextile Layer	None	None	Contech does not recommend geotextiles be placed under the invert of Infiltration systems due to the propensity for geotextiles to clog over time.

Note: The listed AASHTO designations are for gradation only. The stone must also be angular and clean.

1. MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT.

FOUNDATION/BEDDING PREPARATION

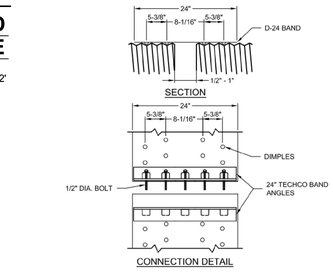
2. PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.

5. HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMLY COMPACTED WITHOUT SOFT SPOTS.

BACKFILL
MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE PIPE. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT. MAINTAIN BALANCED LOADING ON ALL PIPES IN THE SYSTEM DURING ALL SUCH OPERATIONS.

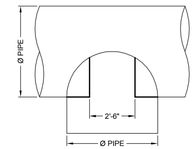
OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.



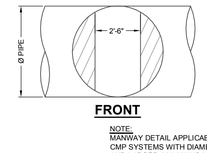
CORRUGATIONS	PIPE PRODUCTS
2-2/3"X1/2"	GALVANIZED
3" X 1"	ALUMINIZED
5" X 1"	BITUMINOUS COATED ALUMINUM

GENERAL NOTES:

1. REFER TO CONTECH BAND SELECTION GUIDE FOR BAND WIDTH, GAGE, AND FASTENER TYPES.
2. BANDS FOR PIPE-ARCH ARE THE SAME AS FOR EQUIVALENT DIAMETER ROUND PIPE.
3. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
   12" THRU 48" 1-PIECE
   54" THRU 96" 2-PIECE
   102" THRU 144" 3-PIECES.
4. BAND FASTENERS ARE ATTACHED WITH SPOT WELDS, RIVETS OR HAND WELDS. ALL ALUMINUM BANDS, BOTH SINGLE AND DOUBLE BB&S, ARE FURNISHED WITH A 14 GAGE ALUMINUM BACK-UP PLATE WELDED TO THE BAND AND THE STRAP.
5. REROLLED ANNULAR END CORRUGATIONS ARE NORMALLY 2-2/3" X 1/2".
6. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.



PLAN

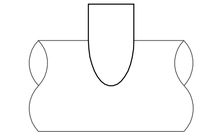


FRONT

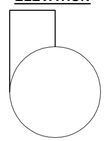
TYPICAL MANWAY DETAIL

SCALE: N.T.S.

NOTE:
MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.

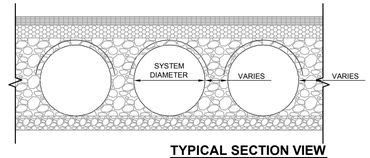


ELEVATION



END

NOTE:
LADDERS ARE OPTIONAL AND ARE NOT REQUIRED FOR ALL SYSTEMS.



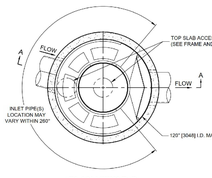
TYPICAL SECTION VIEW

LINER OVER ROWS
SCALE: N.T.S.

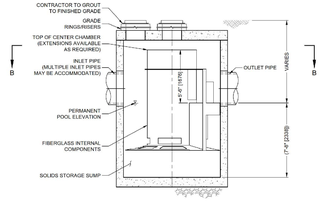
NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, AN HDPE MEMBRANE LINER IS RECOMMENDED WITH THE SYSTEM. THE IMPERMEABLE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

TYPICAL RISER DETAIL

SCALE: N.T.S.



PLAN VIEW B-B
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

CASCADE SEPARATOR DESIGN NOTES

THE STANDARD CS-10 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

INTERNAL COMPONENTS WILL BE FIELD INSTALLED. CONTACT YOUR CONTECH REPRESENTATIVE FOR ADDITIONAL INFORMATION.

CONFIGURATION DESCRIPTION
~~GRATED INLET ONLY (NO INLET PIPE)~~
GRATED INLET WITH INLET PIPE OR PIPES
~~CURB INLET ONLY (NO INLET PIPE)~~
~~CURB INLET WITH INLET PIPE OR PIPES~~

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs [L/s])			
PEAK FLOW RATE (cfs [L/s])			
RETURN PERIOD OF PEAK FLOW (yrs)			
RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			

NOTES / SPECIAL REQUIREMENTS:

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE, www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' -2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CONTRACTOR TO CONFIRM THAT ACTUAL CONDITIONS ARE IN COMPLIANCE WITH THE CONTECH LOAD.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm.]

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE DETERMINED BY THE ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MITCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CASCADE separator™

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CS-10
CASCADE SEPARATOR
STANDARD DETAIL

CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING, ANNUAL INSPECTIONS. SITES WITH HIGH TRASH LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN EQUIPMENT WASHDOWN AREAS, IN CLIMATES WHERE SANDING AND/OR SALTING OPERATIONS TAKE PLACE, AND IN OTHER VARIOUS INSTANCES IN WHICH ONE WOULD EXPECT HIGHER ACCUMULATIONS OF SEDIMENT OR ABRASIVE/ CORROSIVE CONDITIONS. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM

MAINTENANCE

CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS. DURING THIS INSPECTION, IF EVIDENCE OF SALTING/DE-ICING AGENTS IS OBSERVED WITHIN THE SYSTEM, IT IS BEST PRACTICE FOR THE SYSTEM TO BE RINSED, INCLUDING ABOVE THE SPRING LINE SOON AFTER THE SPRING THAW AS PART OF THE MAINTENANCE PROGRAM FOR THE SYSTEM.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY WEATHER.

THE FOREGOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE UNDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES. INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.

PROJECT SUMMARY

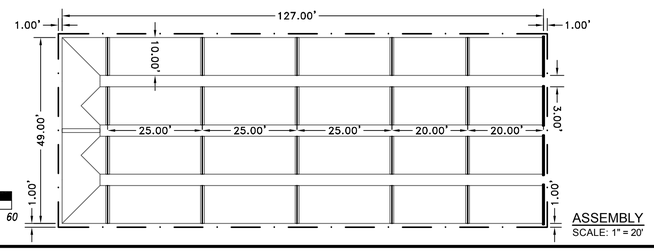
CALCULATION DETAILS
- LOADING = HS20 & HS25
- APPROX. LINEAR FOOTAGE = 517 lf.

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 53,000 cf.
- PIPE STORAGE VOLUME = 40,605 cf.
- BACKFILL STORAGE VOLUME = 12,706 cf.
- TOTAL STORAGE PROVIDED = 53,311 cf.

PIPE DETAILS
- DIAMETER = 120 IN.
- CORRUGATION = 5x1
- GAGE = 14
- COATING = ALT2
- WALL TYPE = Solid
- JOINT TYPE = Exfiltration
- BARRELL SPACING = 36 IN.

BACKFILL DETAILS
- WIDTH AT ENDS = 12 IN.
- ABOVE PIPE = 6 IN.
- WIDTH AT SIDES = 12 IN.
- BELOW PIPE = 6 IN.

NOTES
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2 2/3" x 1/2" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.



ASSEMBLY
SCALE: 1" = 20'

20 10 0 40
20 60
GRAPHIC SCALE 1" = 20'

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20045A-62 iVISIONARY_PARKINGEXP.DWG

BASIS OF BEARINGS: OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83

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ENGINEERING
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9338 CINCINNATI COLUMBUS RD
WEST CHESTER, OHIO 45241
Tele: (513) 671-8144

Designed By:	Drawn By:	Checked By:	Approved By:
T. FOSTER	J. MOLONY	T. FOSTER	T. FOSTER

REVISIONS:

iVCP MUHLHAUSER 2 LLC
PARKING EXPANSION
4325 MUHLHAUSER RD
FAIRFIELD, OH 45014

DETENTION DETAILS

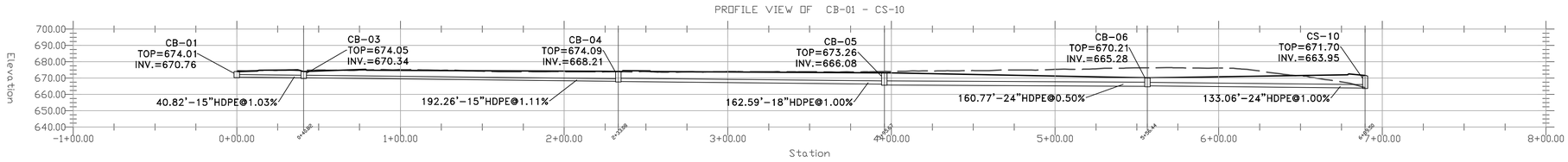
Scale: 1" = 20'

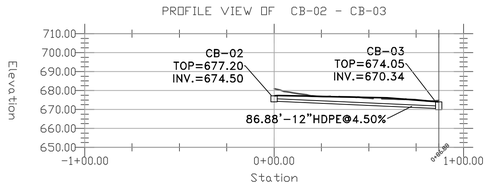
Date: 06/10/2021

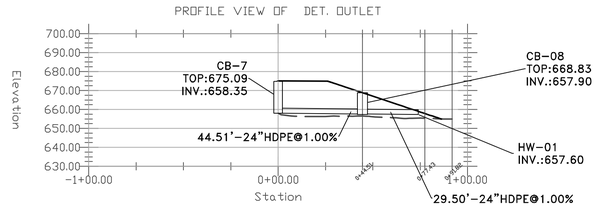
Sheet 7 of 12

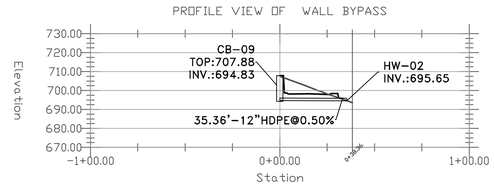
C107

Project No.
20045A-62









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Tele: (513) 671-8144

Designed By:	Drawn By:	Checked By:	Approved By:
T. FOSTER	J. MOLONY	T. FOSTER	T. FOSTER

REVISIONS:

iVCP MUHLHAUSER 2 LLC
PARKING EXPANSION
4325 MUHLHAUSER RD
FAIRFIELD, OH 45014

STORM PROFILES AND DETAILS

Scale: 1" = 40'

Date: 06/10/2021

Sheet 8 of 12

C108

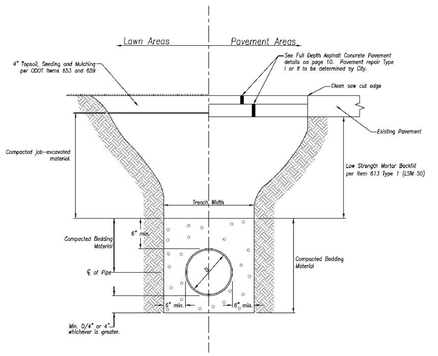
Project No.
20045A-62

FAIRFIELD OHIO

STANDARD CONSTRUCTION DRAWINGS

Trench Detail

DATE: 05/29/2020 | SCALE: NONE | FILE: 2020-003.DWG



Notes:
1. Acceptable bedding material by application:
   1.1. Storm and Sanitary Sewer: 6's, 9's, or washed 57's
   1.2. Water Main: 6's or 9's
2. Other bedding not listed here are considered non-standard and must be approved in writing prior to use.
3. For new construction; trench to be backfilled with granular backfill to street subgrade within roadway limits. Granular backfill to be compacted to 95% of maximum density in 6" maximum lifts.
4. Trench to be backfilled with low strength mortar backfill to street subgrade within existing street limits.
5. Additional bedding over the pipe may be required due to site soil conditions.
6. Bed pipe in specified granular bedding material. To be hand tamped over pipe.
7. Where rock is encountered, rock shall be removed to a depth of 6" below bedding, backfill with granular bedding material to the spring line of the existing utility lines.
8. Water main shall be installed in separate trench from the sanitary sewer and will be a minimum of 10' measured horizontally from outside diameter to outside diameter. If this cannot be achieved, it may be permitted to place the water in a separate trench or on an undisturbed earth shelf located on one side of the sewer and at an elevation so that bottom of the water main is at least 18" above the top of the sewer.

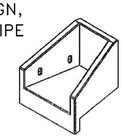
PAGE: 3

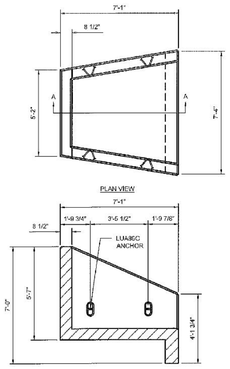
LARGE WINGWALL

DRAWING NO.:
SCALE: NOT TO SCALE
DRAWN: 11/29/17 BY: RJS

Encore Precast, LLC
416 W. RITTER STREET
SEVEN MILE, OH 45062
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(513) 726-5679 FAX
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USE AS BASIS OF DESIGN, SIZE FOR 12" & 24" PIPE





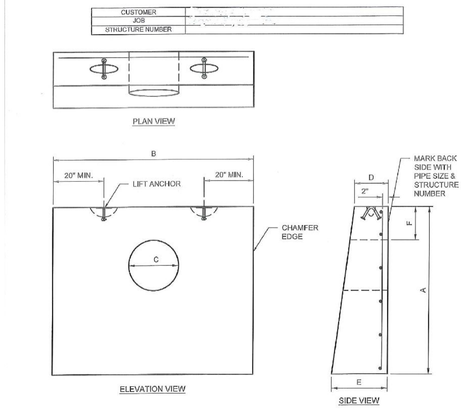
DIMENSIONS										
NAME	PIPE ADS | RCP | CMP	A	B	C	D	E	F	C_y	WT (LB)	LIFT ANCHOR
FIBWM18-EP	12" | 12" | 15"	60"	72"	18"	12"	29"	12"	1.40	5,600	LUA54G
FIBWA22-EP	15" | 15" | 18"	66"	72"	22"	12"	29"	12"	1.35	5,400	LUA54G
FIBWA26-EP	18" | 18" |	65"|60"	78"	26"	12"	21"	12"	2.12	8,460	LUA69G
FIBWA26-EP	| 21" | 24"	68"	118"	28"	12"	23"	12"	2.74	10,800	LUA69G
FIBWA30-EP	24" | 24" | 30"	71"	132"	32"	12"	24"	12"	3.33	13,100	LUA69G
FIBWM36-EP	30" | 30" | 36"	77"	154"	40"	12"	24"	12"	4.41	17,300	LUA88G
FIBWM36-EP	36" | 36" | 42"	84"	190"	46"	12"	24"	12"	5.75	22,500	LUA88G
FIBWM54-EP	42" | 42" | 48"	84"	190"	54"	12"	24"	12"	5.49	21,500	LUA88G

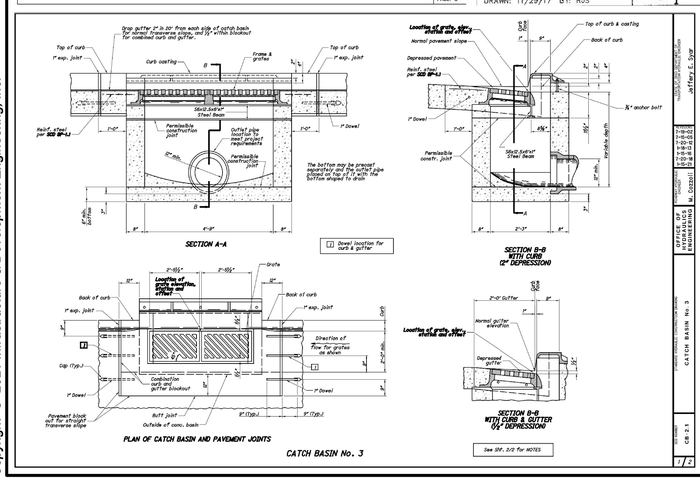
NOTES:
1. DESIGNED TO HS 20 LOADING.
2. CONCRETE STRENGTH F'Y = 4000 PSI @ 28 DAY.
3. STEEL STRENGTH = 60 KSI.
4. STEEL IS EPOXY COATED.
5. MAX PICK WEIGHT = 12750 LB.

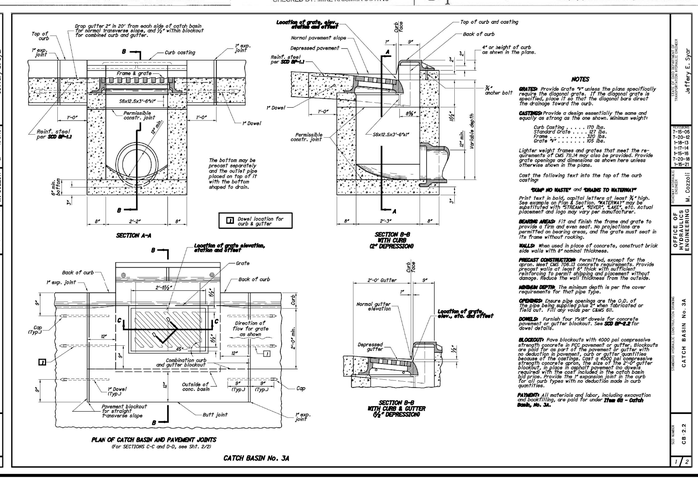
FULL HEIGHT HEADWALL
SCALE: NOT TO SCALE

DRAWN BY: RICHIE SCHNEIDER 04/17/18
CHECKED BY: MIKE KRISSMER 04/17/18

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NOTES

WATER Provide Grate "A" unless the plans specifically require the skewed grate. If the skewed grate is required, place it with the diagonal bars street. The drainage toward the curb.

CASTINGS Provide a design assembly the same and equally as strong as the one shown, minimum weight:

Curb Casting . . . . 170 lbs.
Standard Grate . . . . 201 lbs.
Frame . . . . 320 lbs.
Grate "A" . . . . 165 lbs.

Lighter weight frames and grates that meet the requirements of ASTM A48, Class 35B may be used. Provide grate openings and dimensions as shown unless otherwise shown in the plans.

Cast the following text into the top of the curb casting:

"DUMP NO WASTES" and "DRAINS TO WATERWAY"

Print text in bold, capital letters at least ¾" high. The acronym may be used (i.e. "NOWASTES") may be substituted with "STREAM", "RIVER", "LAKE", etc. actual processes and logo may vary per manufacturer.

BEARING AREAS Fit and finish the frame and grate to provide even bearing surfaces. Machine as necessary to provide bearing areas, and the grate shall seat in its frame without rocking.

WALLS When used in place of concrete, construct brick side walls with 8" nominal thickness.

PRECAST CONSTRUCTION Is permitted, except for the apron, meet CMC 706.02 concrete requirements. Provide precast units in sections that will facilitate their handling, construction and placement without damage. Reduce the wall thickness from the outside.

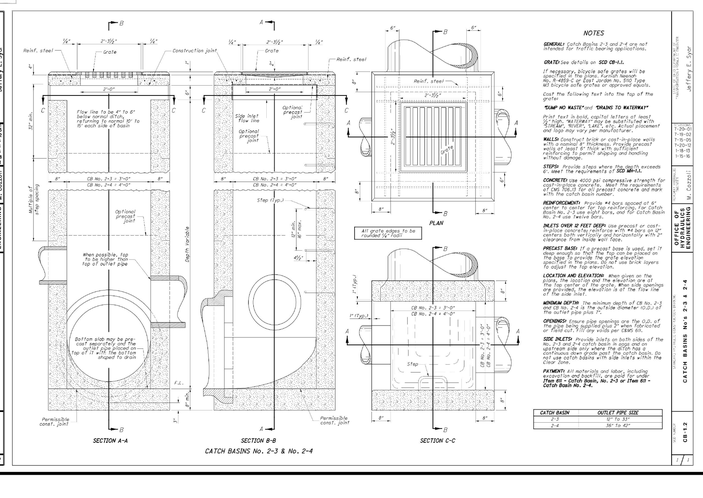
MINIMUM DEPTH The minimum depth is per the cover requirements for that pipe type.

OPENINGS Locate openings via the O.D. of the pipe being installed plus ½" when fabricated or field cut. Fill any voids per Detail 6A.

DOWELS Furnish four #5x8" dowels for concrete curb and gutter blockout. See SCD SP-1.1 for dowel details.

BLOCKOUTS Pave blockouts with 4000 psi compressive strength concrete to 90% minimum or pave blockouts with asphalt concrete to 95% minimum or pave gutter with no deduction in pavement. Curb or gutter backfilling is not required. Pave blockouts with 4000 psi compressive strength concrete apron, the size of the 2'-0" gutter plus 6" on each side, and 6" deep. Provide a joint at the intersection with the curb and gutter to match back of curb joints. Provide the 1" expansion joint in the curb and gutter. Pave types with no deduction made in the quantities.

PAYMENT All materials and labor, including excavation and backfilling, are paid for under **Item 611 - Catch Basin, No. 3A.**



NOTES

GENERALLY catch basins 2-3 and 2-4 are not allowable for traffic bearing applications.

GRATES see details on **SCD CB-1.1.**

If necessary, bicycle safe grates will be specified in the plans. Furnish bicycle safe No. K-4855-C by East Jordan No. 550 Type, M1 bicycle safe grates or approved equals.

Cast the following text into the top of the grates:

"DUMP NO WASTES" or "DRAINS TO WATERWAY"

Print text in bold, capital letters at least ¾" high. The acronym "NOWASTES" may be substituted with "STREAM", "RIVER", "LAKE", etc. actual placement and logo may vary per manufacturer.

WALLS Construct brick or cast-in-place walls with a nominal 8" thickness. Provide precast walls of least 8" thick with sufficient reinforcement to prevent shipping and handling stress damage.

STEPS Provide steps where the depth exceeds 6'. Meet the requirements of **SCD SP-1.1.**

CONCRETE Use 4000 psi compressive strength for cast-in-place concrete. Meet the requirements of CMC 706.01 for all precast concrete and mark the date of manufacture.

REINFORCEMENT Provide #4 bars spaced at 6" centers in both directions, placed in the center of walls and floor slabs, and #5 bars, similarly placed in curb.

INLETS OVER 12 FEET DEEP Use precast or cast-in-place construction with #4 bars on 6" centers both vertically and horizontally with 2" clearance from inside face.

PRECAST BASE If a precast base is used, set it to the elevation of the bottom of the pipe. If the pipe is to be cut to provide the grade elevation specified in the plans, do not use brick layers to adjust the top elevation.

LOCATION AND ELEVATION When given on the plans, set the grate elevation and station. When the plans do not show the grate elevation or are provided, the elevation is at the flow line at the side inlet.

MINIMUM DEPTH The minimum depth of CB No. 2-3 and 2-4 catch basin is the diameter of the pipe plus the inlet and outlet slope.

OPENINGS Ensure pipe openings are the O.D. of the pipe being supplied plus 3" when fabricated or field cut. Fill any voids per Item 611.

SIDE INLETS Provide inlets on sides of the No. 2-3 and 2-4 catch basin in pipe and on slopes where shown in the plans. Provide a continuous steel grate over the catch basin. Do not use catch basins with side inlets within the curb line.

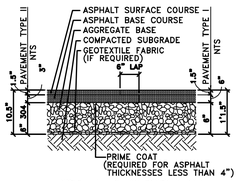
PAYMENT All materials and labor, including excavation and backfilling, are paid for under **Item 611 - Catch Basin, No. 2-3 or Item 611 - Catch Basin No. 2-4.**

CATCH BASIN	OUTLET PIPE SIZE
2-3	12" to 30"
2-4	36" to 42"

CATCH BASINS No's 2-3 & 2-4
CB 1.2
1 / 1

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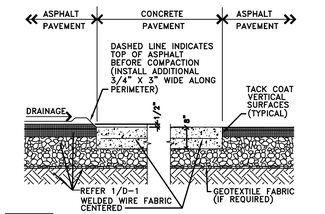
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NOTE : ALL THICKNESSES SHOWN ARE MINIMUM COMPACTED.

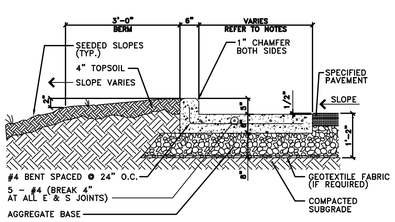
1 ASPHALT PAVEMENT

PAVEMENT TYPE I & II



2 ASPHALT AT CONC. SECTION

1/2" = 1'-0"

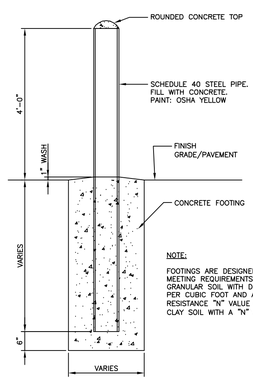


NOTES :

1) 3'-0" GUTTER WIDTH @ PERMANENT TRAILER BACK-IN PARKING
2) 1'-6" GUTTER WIDTH @ TRACTOR & AUTO PARKING WHERE CURB & GUTTER ARE REQUIRED FOR DRAINAGE.

3 CONCRETE CURB & GUTTER

1/2" = 1'-0"

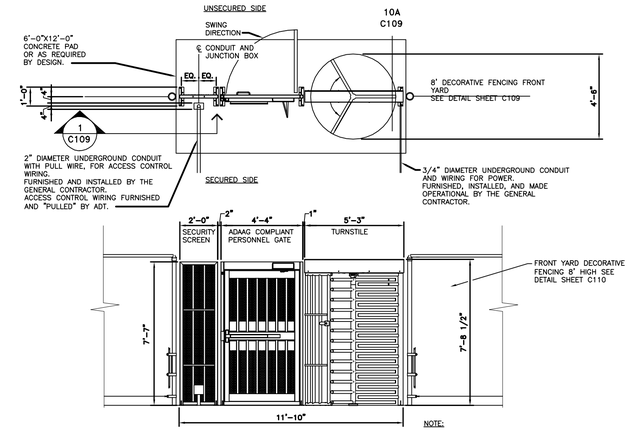


NOTE:

FOOTINGS ARE DESIGNED FOR SOIL CONDITIONS MEETING REQUIREMENTS OF MEDIUM DENSE GRANULAR SOIL WITH DENSITY OF 120 POUNDS PER CUBIC FOOT AND A STANDARD PENETRATION RESISTANCE "N" VALUE OF 10 TO 30 OR STIFF CLAY SOIL WITH A "N" VALUE OF 10 TO 15.

BOLLARD

SCALE: 1/2" = 1'-0"

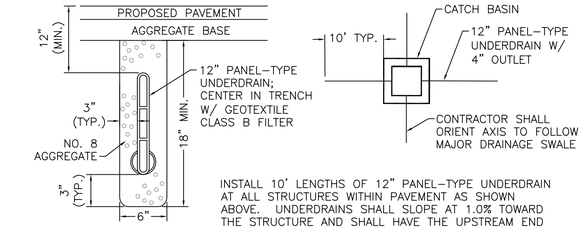


NOTE:

1. ALL DIMENSIONS ARE APPROXIMATE.
2. COORDINATE THIS DETAIL WITH TURNSTILE POWER AND ACCESS CONTROL DETAILS.
3. STANDARD FXG FINISH FOR THIS ARRANGEMENT: GALVANIZED

TURNSTILE AND ACCESSIBLE PERSONNEL GATE

SCALE: 1/4" = 1'-0"

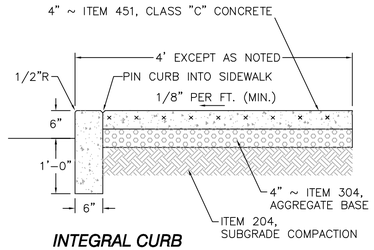


INSTALL 10' LENGTHS OF 12" PANEL-TYPE UNDERDRAIN AT ALL STRUCTURES WITHIN PAVEMENT AS SHOWN ABOVE. UNDERDRAINS SHALL SLOPE AT 1.0% TOWARD THE STRUCTURE AND SHALL HAVE THE UPSTREAM END PLUGGED. UNDERDRAIN SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC AFTER INSTALLATION.

NOTE: ONLY USE IN LOCATIONS WHERE BASINS ARE IN SOIL, NOT IN LOCATIONS WHERE BASINS ARE IN ROCK TRENCHES

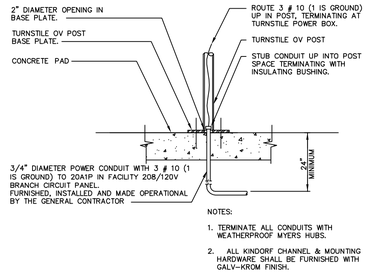
CATCH BASIN FINGER DRAINS 8

NOT TO SCALE



INTEGRAL CURB & SIDEWALK 7

NOT TO SCALE

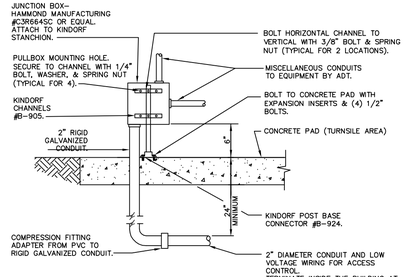


NOTES:

1. TERMINATE ALL CONDUITS WITH WEATHERPROOF MYERS HUBS.
2. ALL KINDORF CHANNEL & MOUNTING HARDWARE SHALL BE FURNISHED WITH GALV-KROM FINISH.

TURNSTILE POWER DETAIL

SCALE: 3/4" = 1'-0"

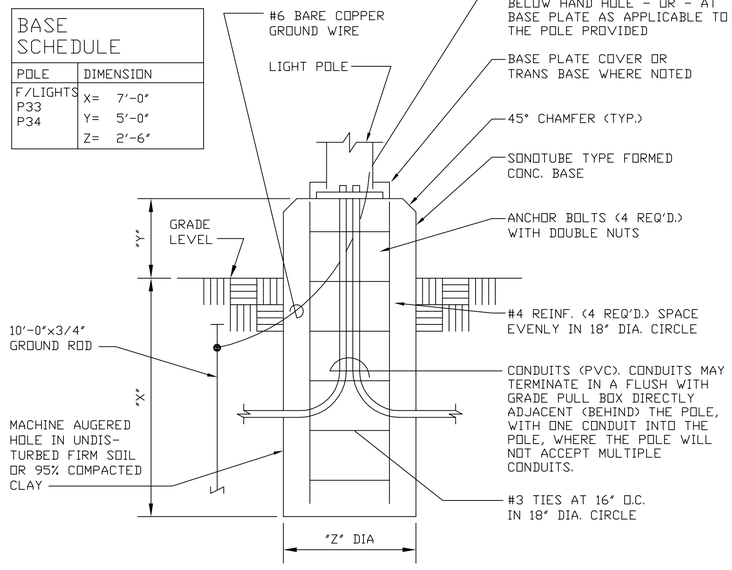


TURNSTILE ACCESS CONTROL DETAIL

SCALE: 3/4" = 1'-0"

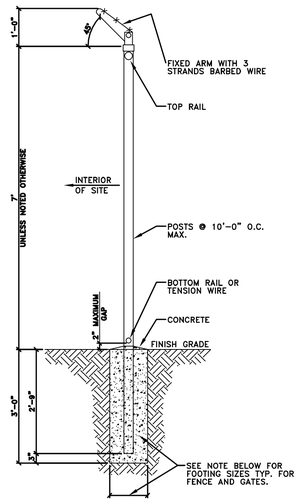
STATION SITE SIGN SCHEDULE		
	NOTES: 1. THE SIGNAGE REQUIRED IS NOTED ON THE PLANS 2. SIGNS WILL BE FURNISHED AND INSTALLED BY THE G.C. 3. CONTRACTOR SHALL PROVIDE 2" DIA. GALV. PIPE SIGN POSTS AS REQUIRED 4. ▼ SIGN ON POST 5. MINIMUM FXG REQUIREMENT. COORDINATE SIGNAGE INSTALLATION ACCORDING TO STATE SPECIFIC REQUIREMENTS AND LOCAL REQUIREMENTS WITH THE AUTHORITIES HAVING JURISDICTION.	
SIGN #	DESCRIPTION	QTY.
1	NOTICE – NO ADMITTANCE UNAUTHORIZED – 24" x 36" UNAUTHORIZED PERSONS OR VEHICLES NOT ALLOWED BEYOND THIS POINT. VIOLATORS WILL BE PROSECUTED. TAPCO PART NO. 373-01091 IBIS SIGNS PART NO. 11-2436A	1
2	NO TRESPASSING – 18" x 12" TAPCO PART NO. 373-04409 IBIS SIGNS PART NO. 11-1812B (FOR PERIMETER FENCE) INSTALL AT 100'-0" INTERVALS	AS REQ'D
3	ALL VISITORS MUST REPORT TO OFFICE – 18" x 18" TAPCO PART NO. 373-00844 IBIS SIGNS PART NO. 11-1818C	1
4	STOP SIGN – STANDARD 24" x 24" TAPCO PART NO. 373-01632 IBIS SIGNS PART NO. 11-R1-1	3
5	SPEED LIMIT 10 MPH – 24" x 18" TAPCO PART NO. 373-04730 IBIS SIGNS PART NO. 11-R2-1	3

BASE SCHEDULE	
POLE	DIMENSION
F/LIGHTS P33 P34	X= 7'-0" Y= 5'-0" Z= 2'-6"



LIGHT POLE CONC. BASE DETAIL 6

NO SCALE

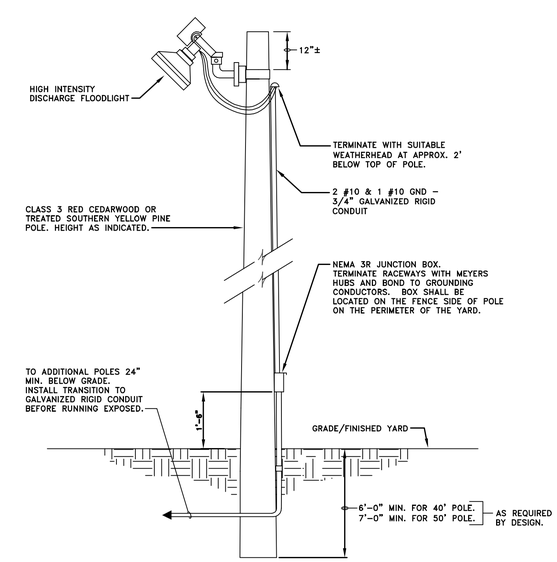


FOOTING SIZES:

A. LINE POSTS – 12" DIA. x 36" DP.
B. CORNER AND TERMINAL POSTS – 12" DIA. x 42" DP.
C. GATE POSTS – 24" DIA. x 48" DP.

4 TYPICAL FENCE DETAIL

1/2" = 1'-0"



5 POLE MOUNTED YARD LIGHT

1/2" = 1'-0"

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SITE AND FEDEX DETAILS

Scale: AS NOTED

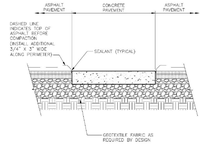
Date: 06/10/2021

Sheet 9 of 12

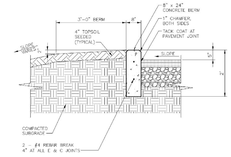
C109

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EXTERIOR CONCRETE PAVEMENTS, INCLUDING APRONS AND DOLLY PADS: SHALL BE A MINIMUM 8" THICK (MIN.) REINFORCED WITH MACRO SYNTHETIC FIBERS, UNLESS NOTED OTHERWISE (REFER TO DRAWINGS FOR LOCATIONS OF EXTERIOR CONCRETE PAVEMENTS). ALL CONCRETE PAVEMENT AND FLOOR SLABS SHALL BE INSTALLED OVER A 4" (MIN.) BASE COURSE OF COMPACTED 1" WELL-GRADED CRUSHED STONE PLACED OVER COMPACTED SUBGRADE. THICKNESS ON DRAWINGS, WHERE SHOWN, SHALL GOVERN OVER SPECIFICATIONS.

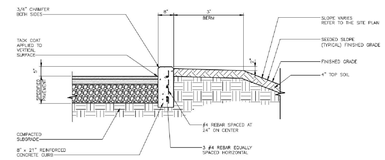


ASPHALT AT CONCRETE SECTION
SCALE: 1/2"=1'-0"



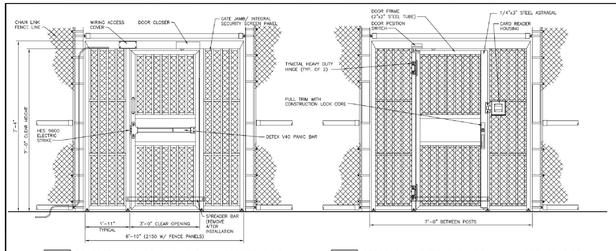
CONCRETE CURB DETAIL AT TRACTOR AND DOLLY PARKING
SCALE: 1/2"=1'-0"

NOTE:
TRANSITION SIZE CAN VARY ACCORDING TO DOOR SPACING AND USAGE.



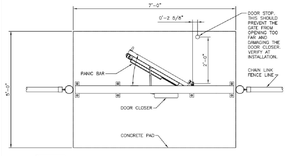
STRAIGHT CURB AT TRAILER PARKING
SCALE: 1/2"=1'-0"

NOTE:
CONTROL JOINTS TO BE LOCATED AT 10'-0" MAXIMUM SPACING.

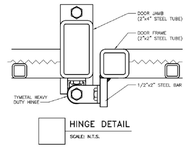


PEDESTRIAN GATE ELEVATION – SECURE SIDE
SCALE: 1/2" = 1'-0"

PEDESTRIAN GATE ELEVATION – UNSECURE SIDE
SCALE: 1/2" = 1'-0"



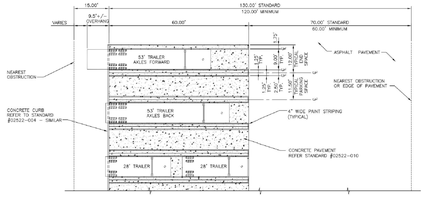
PEDESTRIAN GATE PLAN VIEW
SCALE: 1/2" = 1'-0"



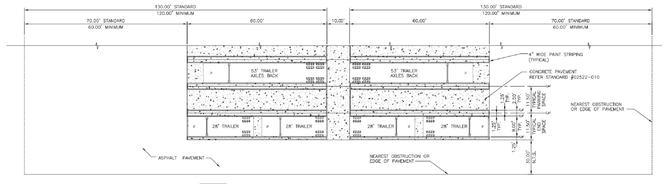
HINGE DETAIL
SCALE: N.T.S.

NOTES:
1. THE OPENING IN THE FENCE LINE SHALL BE BUILT TO ACCOMMODATE THE DOOR JAMB PER THE FED SPECIFICATIONS.
2. PANIC BAR IS A DETEX MODEL V40 WITH DETEX DSKN TRIM AND HES 9600 ELECTRIC STRIKE.
3. GATE FRAME AND INTEGRAL SECURITY SCREEN PANELS WILL BE FILLED WITH 1" SQ. STEEL POCKETS @4" O.C. AND EXPANDED METAL MESH.
4. GATE JAMB AND GATE PANEL ARE HOT DIP GALVANIZED.

PEDESTRIAN GATE FOR REMOTE LOTS



1 BACK-IN TRAILER PARKING & STRIPING DETAIL
SCALE: 1"=20'-0"



2 BACK-TO-BACK TRAILER PARKING & STRIPING DETAIL
SCALE: 1"=20'-0"

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ADD'L FEDEX DETAILS

Scale: NTS
Date: 06/10/2021
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Project No.
20045A-62

BASIS OF BEARINGS: OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83

BEFORE YOU DIG
UTILITIES PROTECTION SERVICE
Call 800-362-2764
OR DIAL 811
BY BOTH DAYS PLEASE

UNNAMED TRIBUTARY TO MILL CREEK

50' STREAM SETBACK

NOTE: SEE MASS GRADING SET FOR TEMPORARY SEDIMENT BASIN INFORMATION

STOCKPILE AREA

EX. PAVEMENT, CONVERT TO TEMP. CONSTRUCTION ENTRANCE

INLET PROTECTION

7'1 ROCK SLOPE PER ODOT DESIGN CRITERIA FOR NATIVE ROCK

7' L x 8' W x 18" D 6" TYPE C ROCK

SILT FENCE (TYP.)

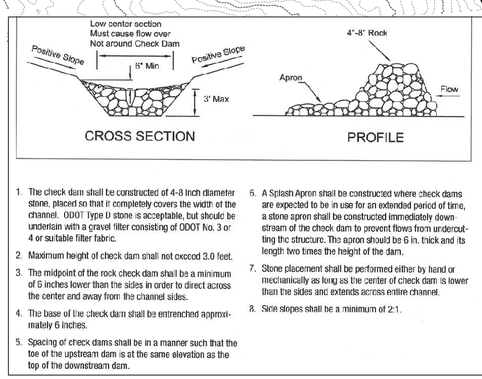
UTILITY POLE (TYP.)

EX. DISTRIBUTION CENTER FIN. FL. ELEV. 725.59

GRAPHIC SCALE 1" = 60'

EROSION CONTROL NOTES

1. See Sheet C105 for Proposed Grading Plan
2. See Sheet C112 for Erosion & Sediment Control (ESC) Notes & Details
3. Maintenance of Erosion and Sediment Controls must reflect the timelines on Part III.G.2.i (inspections) on page 26 of 27 of the OEPA Construction General Permit for when practices require repair and maintenance, when practices fail to provide their intended function and when practices depicted on the SWPPP are not installed. This note supercedes any discrepancies created by notes on C112 related to maintenance and inspections.
4. Temporary erosion, sediment and debris control must be provided for at all catch basins, inlets and the inlet side of all new pipe openings, or equal.
5. Temporary erosion, sediment and debris control must be provided for at the outlet ditch, swale, watercourse or pipe. See approved plans for any other specific locations.
6. In addition to any temporary erosion, sediment, and debris control details and notes shown on the plans, the developer shall construct temporary sediment basins, earth dikes, temporary or permanent seeding, mulching and/or mulch netting or any other generally accepted methods to prevent erosion, mud and debris from being deposited on other property, on newly constructed or existing roads, or into existing sewers or new sewers within the development. The developer shall continually monitor the construction progress and make any necessary temporary adjustments to maintain this control. Consideration should also be given to the "Dikes & Slope Protection" and "Sediment Basins and Dams" shown on Std. Drawing. MC-11 for use in temporary erosion, mud and debris control.
7. Non-Sediment Pollution BMPs: No hazardous substances, solid or liquid waste, including building materials and concrete wash water, shall be discharged from the site. All necessary and appropriate BMPs shall be implemented to prevent the dischrage of pollutants.



1. The check dam shall be constructed of 4-8 inch diameter stone, placed so that it completely covers the width of the channel. ODOT Type D stone is acceptable, but should be underlain with a gravel filter consisting of ODOT No. 3 or 4 or suitable filter fabric.
2. Maximum height of check dam shall not exceed 3.0 feet.
3. The midpoint of the rock check dam shall be a minimum of 6 inches lower than the sides in order to direct across the center and away from the channel sides.
4. The base of the check dam shall be entrenched approximately 6 inches.
5. Spacing of check dams shall be in a manner such that the toe of the upstream dam is at the same elevation as the top of the downstream dam.
6. A Splash Apron shall be constructed where check dams are expected to be in use for an extended period of time, a stone apron shall be constructed immediately down stream of the check dam to prevent flows from undercutting the structure. The apron should be 6 in. thick and its length two times the height of the dam.
7. Stone placement shall be performed either by hand or mechanically as long as the center of check dam is lower than the sides and extends across entire channel.
8. Side slopes shall be a minimum of 2:1.

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FAIRFIELD, OH 45014

EROSION & SEDIMENT CONTROL (ESC) PLAN

Scale: 1" = 60'

Date: 06/10/2021

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CONSTRUCTION SEQUENCE

1. PRE-CONSTRUCTION MEETING TO REVIEW THE PLAN AND CONSTRUCTION SEQUENCING BEFORE EARTHWORK IS PERMITTED.
2. INSTALL TEMPORARY CONSTRUCTION ENTRANCE(S) FOR CONSTRUCTION TRAFFIC. IF THE MAJORITY OF MUD OR DIRT IS NOT REMOVED FROM EXITING TRAFFIC, TEMPORARY WATER STORAGE TANKS WITH HOSES SHALL BE PROVIDED AT CONSTRUCTION TRAFFIC EXIT POINTS AND VEHICLE TIRES SHALL BE WASHED BEFORE EXITING ON PUBLIC ROADS. SILT FROM THIS WASHING OPERATION SHALL BE INTERCEPTED AND TRAPPED BEFORE WASHWATER IS ALLOWED TO BE DISCHARGED OFFSITE.
3. DUST ON SITE SHALL BE MINIMIZED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION IS PROHIBITED.
4. INSTALL PERIMETER EROSION CONTROL MEASURES. INITIAL CLEARING AND GRUBBING TO GAIN ACCESS, AND INSTALLATION OF SILT FENCE, AS SHOWN ON PLANS, WITHIN SEVEN (7) DAYS OF CLEARING AND GRUBBING. INSTALL PERIMETER FILTER FABRIC FENCE AND BEGIN CLEARING & GRUBBING. EXERCISE CARE NOT TO DAMAGE VALUABLE TREES OR DISTURB DESIGNATED BUFFER ZONES.
5. PERFORM CLEARING, GRUBBING, AND TOPSOIL STOCKPILING AS REQUIRED. CONSTRUCT ALL SEDIMENT BASINS, TRAPS, AND DIVERSIONS WITHIN 7 DAYS OF FIRST GRUBBING. INSTALL TREE PROTECTION FENCE IMMEDIATELY AFTER TREE CLEARING IS COMPLETE. CONTINUE LAND CLEARING AND GRADING WITH KEY EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE. ONCE A SCHEDULED DEVELOPMENT AREA IS CLEARED, GRADING SHOULD FOLLOW IMMEDIATELY SO THAT PROTECTIVE GROUND COVER CAN BE REESTABLISHED QUICKLY. DO NOT LEAVE ANY AREA BARE AND EXPOSED FOR EXTENDED PERIODS. LEAVE ADJOINING AREAS PLANNED FOR DEVELOPMENT, OR TO BE USED FOR BORROW OR DISPOSAL, UNDISTURBED FOR AS LONG AS POSSIBLE TO SERVE AS NATURAL BUFFER ZONES.
6. IMMEDIATELY AFTER LAND CLEARING, APPLY SURFACE STABILIZATION ON GRADED AND OTHER DISTURBED AREAS. STABILIZE ANY DISTURBED AREA WHERE ACTIVE CONSTRUCTION WILL NOT TAKE PLACE FOR 30 WORKING DAYS BY TEMPORARY SEEDING AND/OR MULCHING OR BY OTHER SUITABLE MEANS. INSTALL PERMANENT STABILIZATION MEASURES IMMEDIATELY AFTER FINAL GRADING. TEMPORARY SEEDING AND/OR MULCHING MAY BE NECESSARY IF WEATHER CONDITIONS DETERIORATE, WITH PERMANENT MEASURES DELAYED TEMPORARILY.
7. DURING EMBANKMENT OPERATIONS, TEMPORARY DIVERSION DITCHES/BERMS AND TEMPORARY SLOPE DRAINS SHOULD BE INSTALLED AT THE TOP OF THE SLOPE TO MINIMIZE EROSION OF THE FILL FACE.
8. BEGIN SITE GRADING OPERATIONS AND CONSTRUCTION. INSTALL INLET PROTECTION FOR STORM DRAINS AS SOON AS THE DRAIN IS FUNCTIONAL TO TRAP SEDIMENT ON-SITE IN SHALLOW POOLS AND TO ALLOW FLOOD FLOWS TO SAFELY ENTER THE STORM DRAINAGE SYSTEM.
9. INSTALL ALL STORM SEWER PIPES AND UNDERGROUND UTILITY LINES AS SHOWN ON THE PLANS WITH APPROPRIATE EROSION CONTROL MEASURES TO ELIMINATE SILTATION FROM ENTERING PIPE SYSTEMS.
10. WHEN APPLICABLE, INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT.
11. REMOVE INLET PROTECTION AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE. IF APPLICABLE, NOTE THAT EROSION CONTROL AROUND INLETS CANNOT BE REMOVED UNTIL PAVING OPERATIONS ARE COMPLETE.
12. INSTALL FINAL PAVEMENT AS SHOWN ON THE PLANS.
13. CARRY OUT FINAL GRADING, SEEDING, AND PLANTING. LANDSCAPING AND FINAL STABILIZATION IS THE LAST MAJOR CONSTRUCTION PHASE. ALL DISTURBED AREAS SHOULD HAVE PERMANENT MEASURES APPLIED WITHIN THIRTY (30) DAYS OF FINISHING FINAL GRADE. ALL TEMPORARY STRUCTURES SHOULD BE REMOVED AFTER PERMANENT STRUCTURES ARE IN PLACE AND STABILIZED. BORROW/DISPOSAL AREAS SHOULD BE PERMANENTLY VEGETATED OR OTHERWISE STABILIZED. ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION.
14. INSPECT STORM SEWERS PRIOR TO TURNOVER. REMOVE SEDIMENT AS NECESSARY.
15. REGULAR MAINTENANCE INSPECTION AND REPAIR OF EROSION AND SEDIMENT CONTROL DEVICES. MAINTENANCE: THE CONTRACTOR SHALL PLACE ALL SEDIMENTATION AND EROSION CONTROL FEATURES PRIOR TO STARTING CONSTRUCTION OPERATIONS IN A PARTICULAR AREA. IT MAY BECOME NECESSARY TO REMOVE PORTIONS OF A BARRIER DURING CONSTRUCTION TO FACILITATE GRADING OPERATIONS IN CERTAIN AREAS. HOWEVER, THE BARRIER SHALL BE IN PLACE IN THE EVENING OR DURING ANY INCLEMENT WEATHER. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF THE SEDIMENT CONTROL FEATURES USED ON THIS PROJECT. THE SITE SHALL BE INSPECTED PERIODICALLY AND WITHIN 24 HOURS OF A SIGNIFICANT RAINFALL. RECORDS OF THESE INSPECTIONS SHALL BE KEPT AND MADE AVAILABLE TO JURISDICTIONAL AGENCIES, IF REQUESTED. ANY SEDIMENT OR DEBRIS WHICH HAS REDUCED THE EFFICIENCY OF A STRUCTURE SHALL BE REMOVED IMMEDIATELY. SHOULD A STRUCTURE OR FEATURE BECOME DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE THE STRUCTURE OR FEATURE AT NO ADDITIONAL COST TO THE OWNER.
16. PRE-WINTER STABILIZATION MEETING IF PROJECT IS TO BE THROUGH THE WINTER.

EROSION CONTROL NOTES

1. ALL PROPERTIES ADJACENT TO THE AREAS OF SOIL-DISTURBING ACTIVITY, INCLUDING BUT NOT LIMITED TO PRIVATE PROPERTIES, NATURAL AND ARTIFICIAL WATERWAYS, WETLANDS, STORM SEWERS AND PUBLIC LANDS, SHALL BE PROTECTED, TO THE MAXIMUM EXTENT PRACTICABLE, FROM SOIL EROSION AND SEDIMENT RUNOFF AND DRAINAGE.
2. CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL PRACTICES USED TO SATISFY THIS REQUIREMENT SHALL CONFORM, AS A MINIMUM, TO STATE OF OHIO STANDARDS AS SET FORTH IN THE MOST CURRENT EDITION OF THE RAINWATER AND LAND DEVELOPMENT MANUAL, DEFINED BY THE OHIO DEPARTMENT OF NATURAL RESOURCES DIVISION OF SOIL AND WATER CONSERVATION AND NATURAL RESOURCE CONSERVATION SERVICE AND SHALL CONFORM TO THE MOST CURRENT OHIO ENVIRONMENTAL PROTECTION AGENCY, OHIO REVISED CODE CHAPTER 6111 REQUIREMENTS.
3. EROSION AND SEDIMENT CONTROL PLAN APPROVALS ISSUED IN ACCORDANCE WITH THESE RULES DO NOT RELIEVE THE OWNER OF RESPONSIBILITY FOR OBTAINING ALL OTHER NECESSARY PERMITS AND/OR APPROVALS FROM FEDERAL, STATE, AND/OR COUNTY AGENCIES. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE AND LOCAL OFFICIALS. IF REQUIREMENTS VARY, THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
4. EROSION AND SEDIMENT CONTROL PRACTICES AT THE SITE AND AS IDENTIFIED IN THIS PLAN SHALL COMPLY WITH THE FOLLOWING:

A. RESERVED
B. LIMITS TO CLEARING AND GRADING, AS SHOWN ON THESE PLANS, SHALL BE CLEARLY MARKED ON SITE WITH SIGNAGE, FLAGGING, FENCING ETC.
C. INSTALL EROSION AND SEDIMENT PERIMETER CONTROLS AS A FIRST ACTION OF CONSTRUCTION AS SPECIFIED BY CONSTRUCTION SEQUENCE. THIS SHALL INCLUDE AND IS NOT LIMITED TO PROTECTIVE BMP'S FOR STREAM CORRIDORS AND CROSSINGS, WETLANDS, SITE ENTRANCE, SEDIMENT TRAPS AND BASINS, BARRIERS, AND DIVERSION DIKES.
D. CONCENTRATED STORM WATER RUNOFF SHALL PASS THROUGH A SEDIMENT CONTROL DEVICE BEFORE EXITING THE SITE BOUNDARIES. CONCENTRATED RUNOFF FROM BARE SOIL AREAS SHALL BE DIVERTED INTO A SETTLING POND OR SEDIMENT CONTROL STRUCTURE, OR OTHER APPROVED SEDIMENT BARRIER BEFORE LEAVING THE SITE.
E. ANY AREAS THAT REQUIRE PERMANENT STABILIZATION AND THAT WILL LIE DORMANT FOR ONE (1) YEAR OR MORE WILL REQUIRE THE APPLICATION OF EROSION CONTROL WITHIN SEVEN (7) DAYS OF THE MOST RECENT DISTURBANCE.
F.ANY AREAS THAT REQUIRE PERMANENT STABILIZATION AND THAT WILL BE WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE WILL REQUIRE THE APPLICATION OF EROSION CONTROL WITHIN TWO (2) DAYS OF REACHING FINAL GRADE.
G. STORM SEWER INLETS SHALL BE PROTECTED SO THAT SEDIMENT-LADEN RUNOFF WILL NOT ENTER THE STORM SEWER SYSTEM WITHOUT FIRST BEING FILTERED AND/OR TREATED.
H. ANY OTHER AREAS THAT REQUIRE PERMANT STABILIZATION AT FINAL GRADE WILL REQUIRE THE APPLICATION OF EROSION CONTROL WITHIN SEVEN (7) DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.
I. SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED TO PREVENT SOIL LOSS. STABILIZATION SHALL BE REQUIRED IF STOCKPILES ARE LOCATED WITHIN CRITICAL AREAS NEAR STREAMS OR WETLANDS, OR IF SEDIMENT FROM STOCKPILES WILL OTHERWISE LEAVE THE SITE.
J. UNSTABLE SOILS PRONE TO SLIPPING OR SLOUGHING SHALL NOT BE CLEARED, GRADED, EXCAVATED, FILLED OR HAVE LOADS IMPOSED UPON THEM UNLESS THE WORK IS PLANNED BY A QUALIFIED PROFESSIONAL ENGINEER AND INSTALLED IN ACCORDANCE WITH THIS PLAN. CUT AND FILL SLOPES SHOULD BE DESIGNED TO MINIMIZE EROSION PROBLEMS. ADEQUATE SLOPE DESIGN INCLUDES USE OF ROUGH SOIL SURFACE ALONG THE FACE OF THE SLOPE, WATER DIVERSION ALONG THE TOP OF THE SLOPE AWAY FROM THE FACE, TERRACES TO REDUCE SLOPE LENGTH, DELIVERY OF CONCENTRATED STORM WATER FLOWS TO THE BASE OF THE SLOPE VIA ADEQUATE CHANNEL OR PIPE, AND DRAINAGE FOR WATER SEEPS IN THE SLOPE THAT ENDANGER SLOPE STABILITY.
K. SOIL SHALL BE REMOVED FROM PAVED SURFACES AND/OR PUBLIC ROADS AT THE END OF EACH DAY IN SUCH A MANNER THAT DOES NOT CREATE OFF-SITE SEDIMENTATION, IN ORDER TO ENSURE SAFETY AND ABATE OFF-SITE SOIL LOSS. COLLECTED SEDIMENTS SHALL BE PLACED IN A STABLE LOCATION ON SITE OR TAKEN OFF-SITE TO A STABLE LOCATION.
L. DISTURBED OR MODIFIED DRAINAGE WAYS SHALL BE STABILIZED. EROSION EFFECTS OF STORM WATER RUNOFF SHALL BE REDUCED BY USING AND/OR MAINTAINING GRASSED SWALES, INFILTRATION STRUCTURES OR WATER DIVERSIONS.
M. SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL EVENT. A WRITTEN LOG OF THESE INSPECTIONS AND IMPROVEMENTS TO CONTROLS SHALL BE KEPT ON SITE. THE INSPECTIONS SHALL INCLUDE THE DATE OF INSPECTION, NAME OF INSPECTOR, WEATHER CONDITIONS, ACTIONS TAKEN TO CORRECT ANY PROBLEMS AND THE DATE CORRECTIVE ACTIONS WERE TAKEN.
N. ANY AREAS THAT REQUIRE TEMPORARY STABILIZATION AND THAT WILL BE WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE WILL REQUIRE THE APPLICATION OF EROSION CONTROL WITHIN TWO (2) DAYS OF THE MOST RECENT DISTURBANCE OF THE AREA IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS.
O. FOR ALL CONSTRUCTION ACTIVITIES, ANY AREAS THAT REQUIRE TEMPORARY STABILIZATION FOR A DISTURBED AREA THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE (1) YEAR, AND NOT WITHIN 50 FEET OF A SURFACE WATER OF THE STATE WILL REQUIRE THE APPLICATION OF EROSION CONTROL WITH SEVEN (7) DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA. FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABALIZED AT LEAST SEVEN (7) DATS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOT(S).
P. ANY AREAS REQUIRE TEMPORARY STABILIZATION THAT WILL BE IDLE OVER WINTER WILL REQUIRE THE APPLICATION OF EROSION CONTROL PRIOR TO THE ONSET OF WINTER WEATHER.
Q. RESERVED.
R. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.
S. OFF-SITE VEHICLE TRACKING SEDIMENT SHALL BE MINIMIZED. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD(S) NOTED ON THE PLAN.
T. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST MEET THE STANDARDS AND SPECIFICATIONS OF THE OHIO RAINWATER AND LAND DEVELOPMENT MANUAL (CURRENT EDITION).
U. OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
V. WINTERIZATION - RESERVED.
W. CONCRETE CEMENT IS TO BE TAKEN BACK TO PLANT FOR WASHOUT AND RECYCLING.

THE PLAN FOR THIS PROJECT IS COMPOSED OF THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT, INCLUDING ALL REQUIREMENTS THEREIN, THE PROJECT CONSTRUCTION DRAWINGS, AND ALL SUPPLEMENTAL INFORMATION INCLUDED/ADDED BY THE CONTRACTOR(S). THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.

EROSION AND SEDIMENT CONTROL PRACTICES NOT ALREADY SPECIFIED ON THESE PLAN MAY BE NECESSARY DUE TO UNFORESEEN ENVIRONMENTAL CONDITIONS AND/OR CHANGES IN DRAINAGE PATTERNS CAUSED BY EARTH-DISTURBING ACTIVITY.

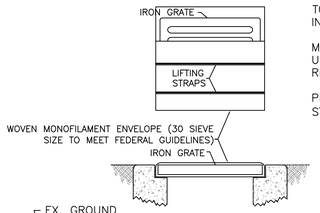
SITE DESCRIPTION
A. 6.40 ACRES. EARTHWORK FOR A NEW DEVELOPMENT.
B. TOTAL AREA OF SITE - 6.95 ACRES
TOTAL AREA DISTURBED/DEVELOPED - 6.95 ACRES
C. PRE-CONSTRUCTION WEIGHTED C COEFFICIENT - 0.30
POST-CONSTRUCTION WEIGHTED C COEFFICIENT - 0.30
IMPERVIOUS AREA CREATED BY CONSTRUCTION ACTIVITY - 0.00 ACRES
PERCENT SITE IMPERVIOUS - 0%
E. EXISTING SOILS ARE AS IDENTIFIED IN PRELIMINARY GEOTECHNICAL REPORT PROVIDED SEPARATELY.
F. SITE IS CURRENTLY UNOCCUPIED.
G. UTILITY AND GRADING ACTIVITY STARTING JULY 2021 WITH TYPICAL CONSTRUCTION METHODS.
H. RECEIVING STREAM - UNNAMED TRIBUTARY TO MILL CREEK. STORM WATER IN OPEN CHANNEL.

CONTRACTOR/CONSTRUCTION MANAGER RESPONSIBILITY
A. THE GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
B. THE PLAN, INCLUDING COPIES OF THE NOI, THE LETTER GRANTING PERMIT COVERAGE AND THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT SHALL BE MAINTAINED ON-SITE FOR THE DURATION OF THE PROJECT. THE ESC MUST BE SIGNED BY THE PERMITTEE OR A DULY AUTHORIZED REPRESENTATIVE, AS DEFINED IN THE GENERAL PERMIT (PART V.G).

CERTIFICATION

I HEREBY CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL 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 MANAGE 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.

_____ _____
PERMITTEE DATE

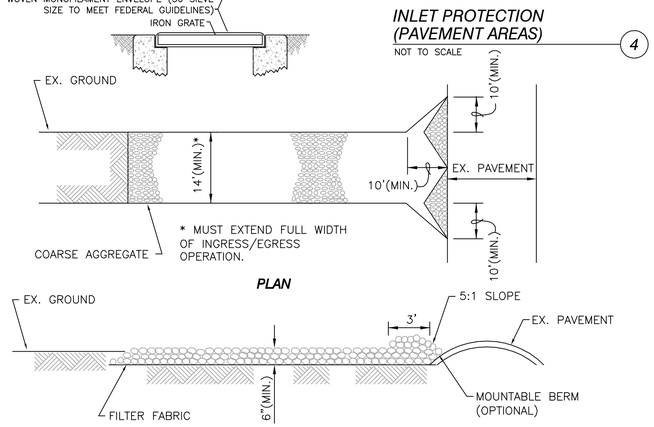


TO INSPECT CATCH BASIN: REMOVE UNIT WITH GRATE INSIDE, INSPECT BASIN AND REPLACE UNIT.

MAINTENANCE: REMOVE DRIED SEDIMENT FROM SURFACE OF UNIT AS NEEDED WITH STIFF BROOM OR SQUARE SHOVEL. REMOVE FINE MATERIAL FROM INSIDE ENVELOPE AS NEEDED.

PROVIDE THIS DETAIL OR OTHER APPROVED PROTECTION AT STRUCTURES/INLETS

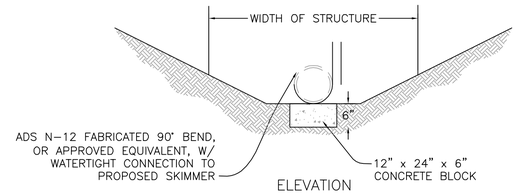
INLET PROTECTION (PAVEMENT AREAS) 4
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

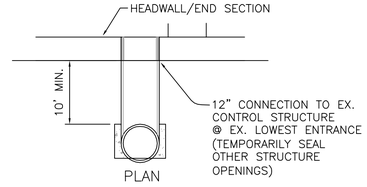
1. STONE SIZE - USE 2" STONE OR RECLAIMED/RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 70' LONG.
3. THICKNESS - NOT LESS THAN 6".
4. WIDTH - 14' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND & REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE.
9. PERIODIC INSPECTION & NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
10. GROUND USED FOR THE TEMPORARY CONSTRUCTION DRIVE NEEDS TO BE RETURNED TO THE ORIGINAL CONDITION OR BETTER.

TEMPORARY CONSTRUCTION ENTRANCE 2
NOT TO SCALE



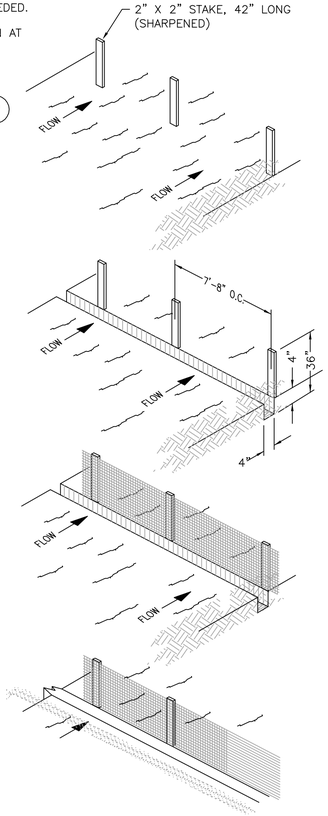
REFER TO SEDIMENT BASIN NOTE ON SHEET C102 FOR ELEVATIONS AND DRAWDOWN SIZING.

FAIRCLOTH SKIMMER 2.5" SKIMMER AND 2.5" HEAD 2-7 DAY DRAWDOWN 12,468-43,638 CF



TEMPORARY SEDIMENT CONTROL BARRIER SHALL BE INSTALLED WHERE INDICATED & SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE & PERMANENT EROSION CONTROL MEASURES ARE ESTABLISHED. SEDIMENT SHALL BE REMOVED FROM TEMPORARY SEDIMENT BASIN BEFORE 40% CAPACITY IS REACHED (ELEVATION 499). UNDER NO CIRCUMSTANCES SHALL TEMPORARY SEDIMENT BASINS BE PUMPED OR DRAINED INTO THE EXISTING DRAINAGE WAY OR EXISTING STORM SYSTEM WITHOUT PROPER FILTERING TO PREVENT SEDIMENT FROM POLLUTING EXISTING DRAINAGE SYSTEMS. ONCE THE SITE IS 80% PERMANENTLY STABILIZED, THE SEDIMENT BARRIER & ACCUMULATED SEDIMENT SHALL BE REMOVED; THE AREA BROUGHT TO FINAL GRADE, SEEDED & MULCHED; & THE HEADWALL/END SECTION RESTORED.

TEMPORARY SEDIMENT CONTROL BARRIER 3
NOT TO SCALE



SILT FENCE: THIS SEDIMENT BARRIER UTILIZES STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRIC. IT IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED.

1. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36". HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.

2. FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6" OVERLAP, & SECURELY SEALED.

3. POSTS SHALL BE SPACED A MAXIMUM OF 10' APART AT THE BARRIER LOCATION & DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12". WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6'.

4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4" WIDE & 4" DEEP ALONG THE LINE OF POSTS & UP-SLOPE FROM THE BARRIER.

5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UP-SLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1" LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2" & SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE.

6. STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, & 8" OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. FABRIC SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.

7. WHEN EXTRA STRENGTH FILTER FABRIC & CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM NO. 6 APPLYING.

8. THE TRENCH SHALL BE BACKFILLED & SOIL COMPACTED OVER THE FILTER FABRIC.

9. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UP-SLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

MAINTENANCE:

SILT FENCES & FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL & AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE & THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED & SEEDED.

SEDIMENT FENCE 1
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EROSION & SEDIMENT CONTROL DETAILS

Scale: NTS
Date: 06/10/2021
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Project No.
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