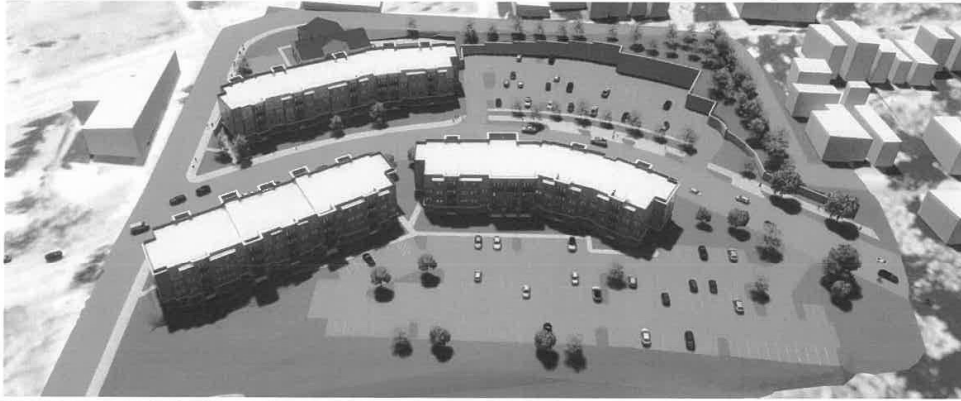


FRP CINCINNATI STUDENT HOUSING

1001 MARSHALL AVE, CINCINNATI, OH 45225

FDP SUBMITTAL



OWNER/DEVELOPER:
FOUNTAIN RESIDENTIAL PARTNERS
2626 COLE AVENUE
SUITE B20
DALLAS, TX 75204
PHONE: 972.861.5082

ZONING ARCHITECT:
ELEVATOR DESIGN GROUP CINCINNATI
555 CARR STREET
CINCINNATI, OHIO 45203
PHONE: 513.721.0600

ARCHITECT:
STUART L. ROOSTH ARCHITECT
11615 FOREST CENTRAL DR.
SUITE 104
DALLAS, TX 75243
PHONE: 972.863.3862

M.E.P. ENGINEER:
BASHARHAH ENGINEERING, INC.
13101 PRESTON ROAD
SUITE 501
DALLAS, TEXAS 75240
PHONE: 214.659.9021

CIVIL ENGINEER:
CHOICE ONE ENGINEERING
8958 GLENDALE MILLFORD RD.
SUITE 105
LOVELAND, OHIO 45140
PHONE: 513.239.8554

STRUCTURAL ENGINEER:
STRAND SYSTEMS ENGINEERING INC.
10003 TECHNOLOGY BLV. W.
DALLAS, TX 75220
PHONE: 972.620.8204

INTERIOR DESIGNER
DEMENT DESIGNS
6050 NORTH CENTRAL EXP'Y.
SUITE 705
DALLAS, TX 75206
PHONE: 214.812.9056

LANDSCAPE ARCHITECT
CHOICE ONE ENGINEERING
8958 GLENDALE MILLFORD RD.
SUITE 1
LOVELAND, OHIO 45140
PHONE: 513.239.8554

LOCATION MAP



VICINITY MAP



INDEX

SHEET NUMBER	DESCRIPTION
A0.00	COVER SHEET AND INDEX
A1.00	ARCHITECTURAL SITE PLAN
A2.00	TYPICAL UNIT PLANS
BLDG. 1	
A3.01	BUILDING 1 FLRS 1, 2, & 3
A3.02	BUILDING 1 FLR 4 & ROOF PLAN
A3.03	BUILDING 1 ELEVATIONS
A3.04	BUILDING 1 RENDERINGS
BLDG. 2	
A4.01	BUILDING 2 FLRS 1, 2, & 3
A4.02	BUILDING 2 FLR 4 & ROOF PLAN
A4.03	BUILDING 2 ELEVATIONS
A4.04	BUILDING 2 RENDERINGS
BLDG. 3	
A5.01	BUILDING 3 FLRS 1, 2, & 3
A5.02	BUILDING 3 FLR 4 & ROOF PLAN
A5.03	BUILDING 3 ELEVATIONS
A5.04	BUILDING 3 RENDERINGS
A6.01	CLUB PLAN, ROOF, AND ELEVATIONS
A7.00	COLOR SITE PLAN

ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART L. ROOSTH ARCHITECT. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE EXPRESS WRITTEN CONSENT OF STUART L. ROOSTH ARCHITECT.

FOUNTAIN RESIDENTIAL PARTNERS
2626 COLE AVENUE #200
DALLAS, TEXAS 75204
TEL: 972-861-5082 FAX: 972-861-5088

STUART L. ROOSTH ARCHITECT
11615 FOREST CENTRAL DR. SUITE 104
DALLAS, TEXAS 75243
TEL: 972-863-3862 CELL: 214-659-9021

HALLMARK CENTRAL PARK CINCINNATI OHIO



DATE
10-11-2021

REVISIONS

A0.00
PROJECT #
060421

ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART L. ROOSTH ARCHITECT. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN CONSENT OF STUART L. ROOSTH ARCHITECT.

FOUNTAIN RESIDENTIAL PARTNERS
2838 COLE AVENUE #620
DALLAS, TEXAS 75243
TEL: 817-240-5062 FAX: 817-240-5068

STUART L. ROOSTH ARCHITECT
1885 FOREST CENTRAL DR. 10th FLOOR DALLAS, TX 75243
TEL: 972-605-5062 CELL: 214-605-9635

HALLMARK CENTRAL PARK CINCINNATI OHIO

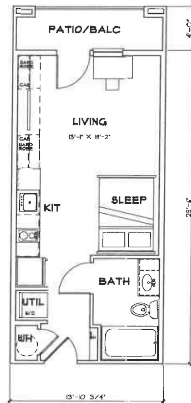
NOT FOR CONSTRUCTION

DATE: 10-11-2021

REVISIONS:

A1.01

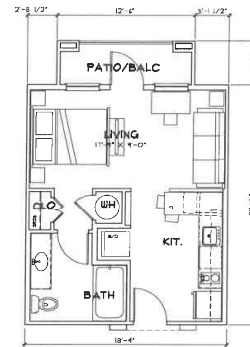
PROJECT # 060421



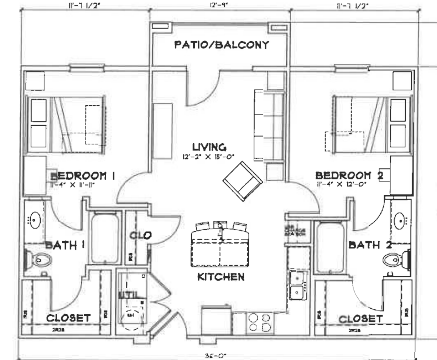
S1 EFFICIENCY
SCALE: 1/4" = 1'-0"
340 SF NET
462 SF GROSS



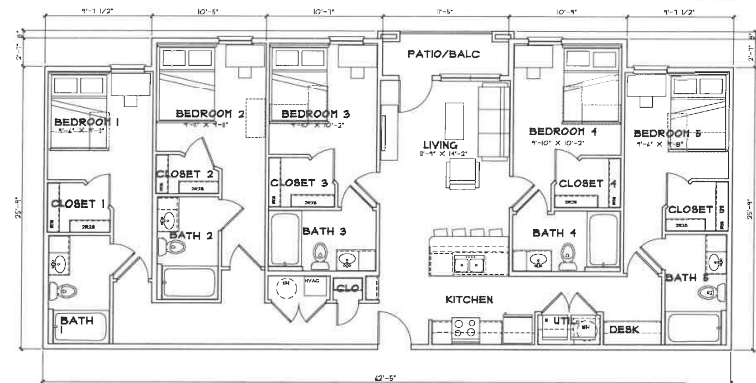
S2 EFFICIENCY
SCALE: 1/4" = 1'-0"
473 SF NET
550 SF GROSS



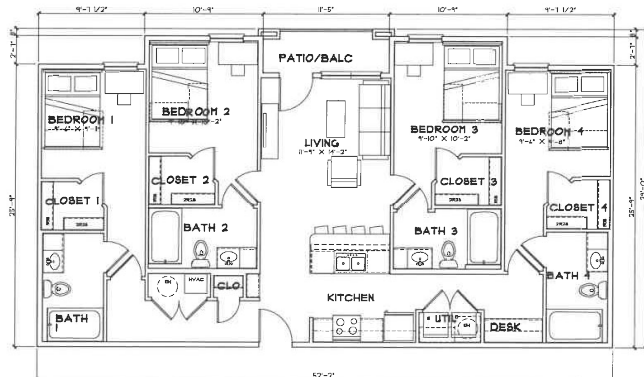
S3 EFFICIENCY
SCALE: 1/4" = 1'-0"
331 SF NET
450 SF GROSS



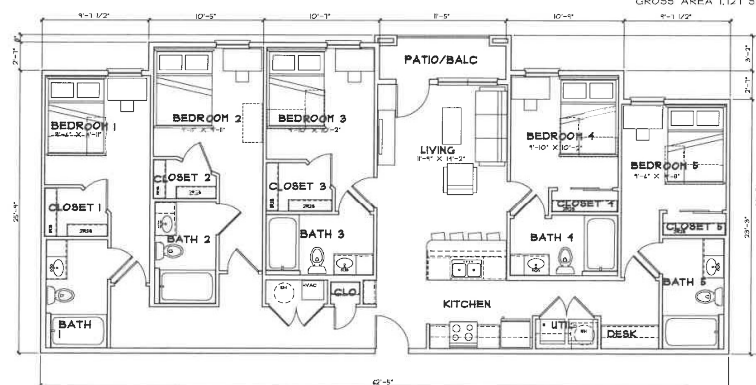
B1 TWO BEDROOM TWO BATH
SCALE: 1/4" = 1'-0"
611 SF NET
744 SF GROSS



E1 FIVE BEDROOM FIVE BATH
SCALE: 1/4" = 1'-0"
NET AREA 1,596 SF
GROSS AREA 1,921 SF



D1 FOUR BEDROOM FOUR BATH
SCALE: 1/4" = 1'-0"
NET AREA 1,311 SF
GROSS AREA 1,431 SF



E2 FIVE BEDROOM FIVE BATH
SCALE: 1/4" = 1'-0"
NET AREA 1,551 SF
GROSS AREA 1,671 SF

ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF FOUNTAIN RESIDENTIAL PARTNERS AND TO BE USED SOLELY FOR THE PROJECT AND PROJECT. NO PART OF THIS SHEET IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN CONSENT OF FOUNTAIN RESIDENTIAL PARTNERS.

FOUNTAIN RESIDENTIAL PARTNERS
2426 COLE AVENUE #200
TEL: 972-881-5852 FAX: 972-881-5888

STUART ROOST ARCHITECT
8805 FOREST CENTRAL #804 DALLAS, TX 75243
TEL: 972-882-3882 CELL: 214-888-9335

HALLMARK CENTRAL PARK CINCINNATI OHIO

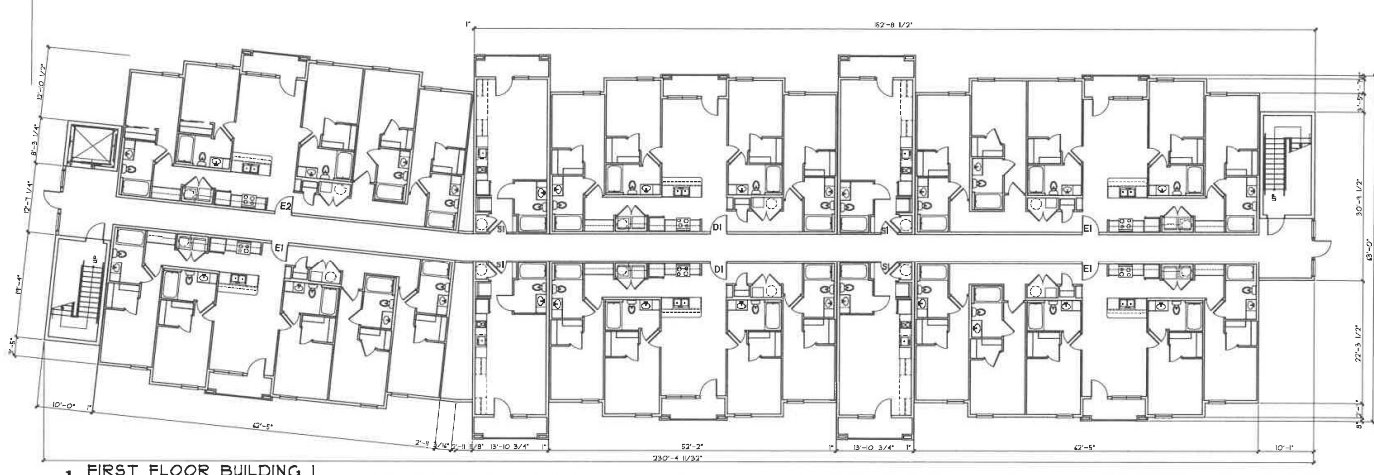
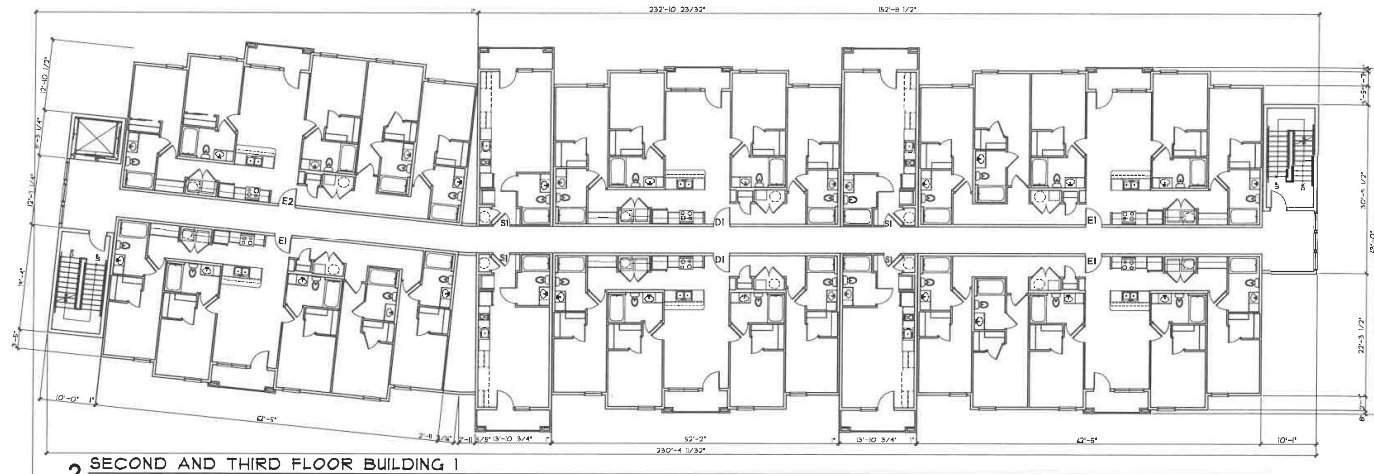
NOT FOR CONSTRUCTION

DATE
10-11-2021

REVISIONS

A2.00

PROJECT #
060421



ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART ROOST ARCHITECT AND TO BE USED ONLY FOR THE PROJECT. PROJECT ABSENT EXPRESS WRITTEN CONSENT.

FOUNTAIN RESIDENTIAL PARTNERS
2808 COLE AVENUE #200
TEL: 877-881-5080 FAX: 877-881-5080

STUART ROOST ARCHITECT
ONE FIRST CENTURY CENTER BUILDING SUITE 200
TEL: 877-881-5080 CELL: 271-881-5080

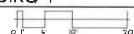
HALLMARK CENTRAL PARK CINCINNATI OHIO



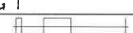
DATE	10-11-2021
REVISIONS	
A3.01	
PROJECT #	060421



2 SCALE: 1/8" = 1'-0"



FOURTH



PROJECT #
060421



1 BUILDING I EAST (STREET SIDE) ELEVATION

SCALE: 1/8" = 1'-0"

0' 5' 10' 20'



2 BUILDING I WEST ELEVATION

SCALE: 1/8" = 1'-0"

0' 5' 10' 20'



3 BUILDING I NORTH ELEVATION

SCALE: 1/8" = 1'-0"

0' 5' 10' 20'



4 BUILDING I SOUTH ELEVATION

SCALE: 1/8" = 1'-0"

0' 5' 10' 20'

ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART ROOSTH ARCHITECT AND TO BE USED SOLELY FOR THE PROJECT PARKER. PROJECT ASSET EXPRESS WRITTEN CONSENT.

FOUNTAIN RESIDENTIAL PARTNERS
2028 COLE AVENUE #202
TEL: 872-861-5062 FAX: 872-481-5088

STUART ROOSTH ARCHITECT
1885 FOREST CENTRAL DR #104 DALLAS TX 75243
TEL: 972-862-3862 CELL: 214-862-3835

HALLMARK CENTRAL PARK CINCINNATI OHIO

NOT FOR CONSTRUCTION

DATE
10-11-2021

REVISIONS

A3.03

PROJECT #
060421



ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF FOUNTAIN RESIDENTIAL PARTNERS AND TO BE USED SOLELY FOR THE USE ON PARKER PROJECT. ANY REUSE OR REPRODUCTION OF THIS PROJECT WITHOUT THE WRITTEN CONSENT OF FOUNTAIN RESIDENTIAL PARTNERS IS STRICTLY PROHIBITED.

FOUNTAIN RESIDENTIAL PARTNERS
2020 COLLE AVENUE 1020
CINCINNATI, OHIO 45202
TEL: 877-861-5082 FAX: 877-861-5088

STUART ROOSTH ARCHITECT
7005 FOREST CENTRAL DR. #104 DALLAS, TX 75243
TEL: 872-863-3882 CELL: 214-888-3855

HALLMARK CENTRAL PARK CINCINNATI OHIO

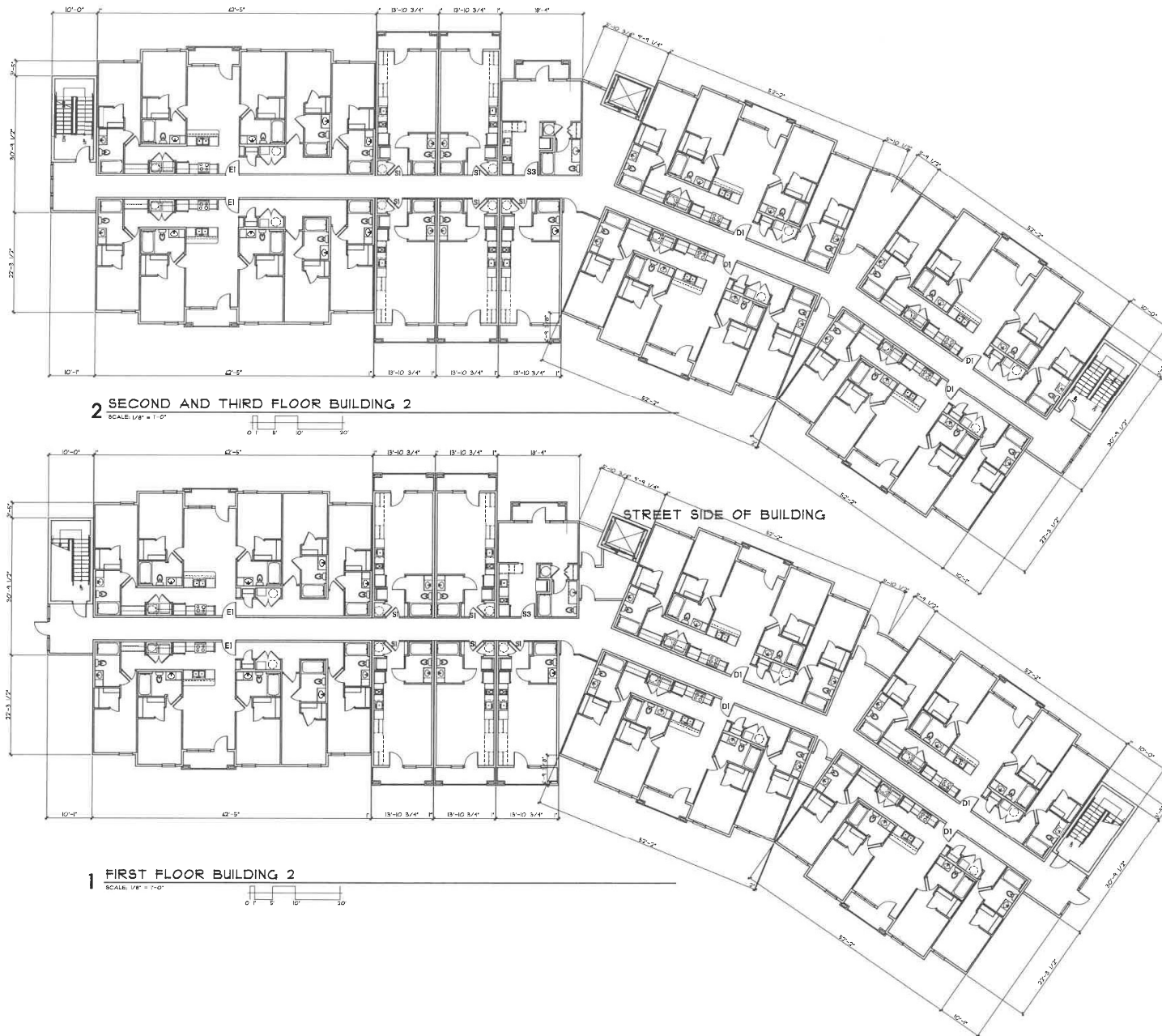


DATE
10-11-2021

REVISIONS

A3.04

PROJECT #
060421



ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART ROOSTH ARCHITECT AND TO BE USED SOLELY FOR THE PROJECT. PROJECT ABSENT EXPRESS WRITTEN CONSENT.

FOUNTAIN RESIDENTIAL PARTNERS
2828 COLE AVENUE #620
TEL: 972-981-5062 FAX: 972-881-5088

STUART ROOSTH
ARCHITECT
1885 FOREST CENTRAL DR #54 DALLAS TX 75243
TEL: 972-862-3882 CELL: 214-888-8635

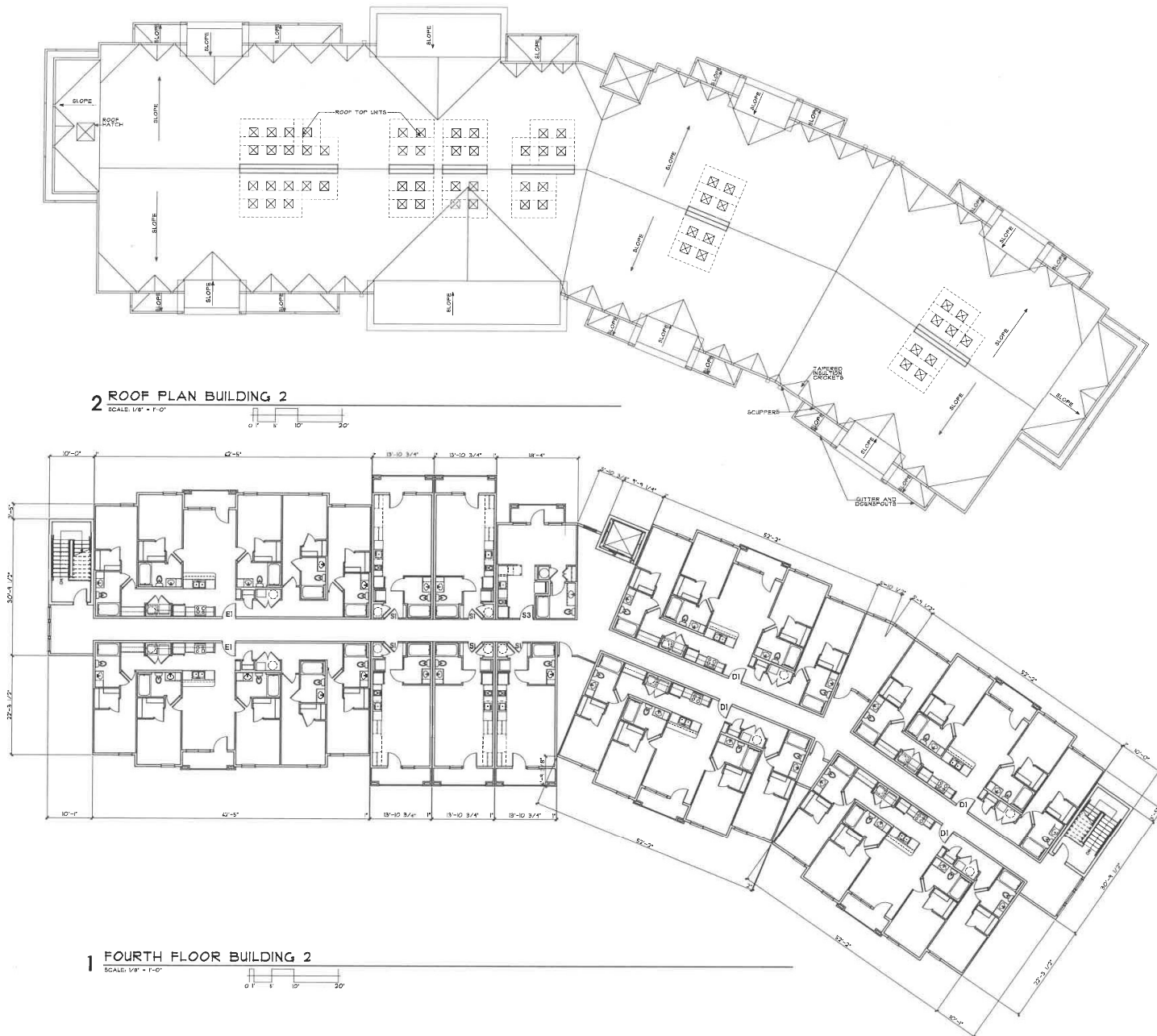
HALLMARK CENTRAL PARK CINCINNATI OHIO

NOT FOR CONSTRUCTION

DATE
10-11-2021

REVISIONS

A4.01
PROJECT # 060421



ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART/ROOSTH ARCHITECT AND TO BE USED SOLELY FOR THE PROJECT AND PROJECT ABSENT EXPRESS WRITTEN CONSENT

FOUNTAIN RESIDENTIAL PARTNERS
2828 COLE AVENUE #420
CINCINNATI, OHIO 45202
TEL: 872-881-5062 FAX: 872-881-5068

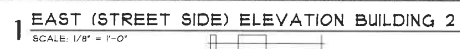
STUART/ROOSTH ARCHITECT
1885 FOREST CENTRAL DR. #100 CINCINNATI, OHIO 45243
TEL: 872-881-5062 CELL: 214-888-8655

HALLMARK CENTRAL PARK CINCINNATI OHIO

DATE
10-11-2021

REVISIONS

A4.02
PROJECT #
060421



PROJECT #
060421



ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART ROOSTH ARCHITECT AND TO BE USED ONLY FOR THE PROJECT SHOWN. NO PART OF THIS PROJECT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN CONSENT OF STUART ROOSTH ARCHITECT.

FOUNTAIN RESIDENTIAL PARTNERS
 2828 COLE AVENUE #220
 DALLAS, TEXAS 75243
 TEL: 972-861-5082 FAX: 972-861-5088

STUART ROOSTH ARCHITECT
 1808 FORTNEY STREET, SUITE 104, DALLAS, TX 75243
 TEL: 972-861-5082 CELL: 214-998-6555 FAX: 972-861-5088

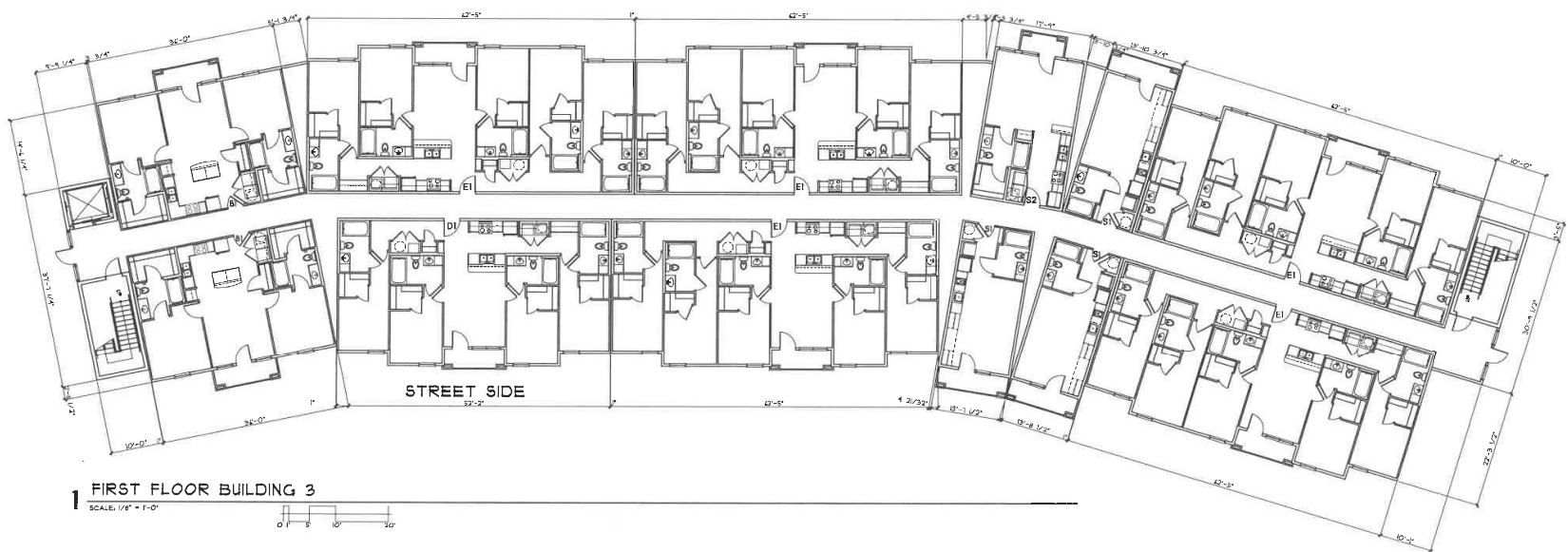
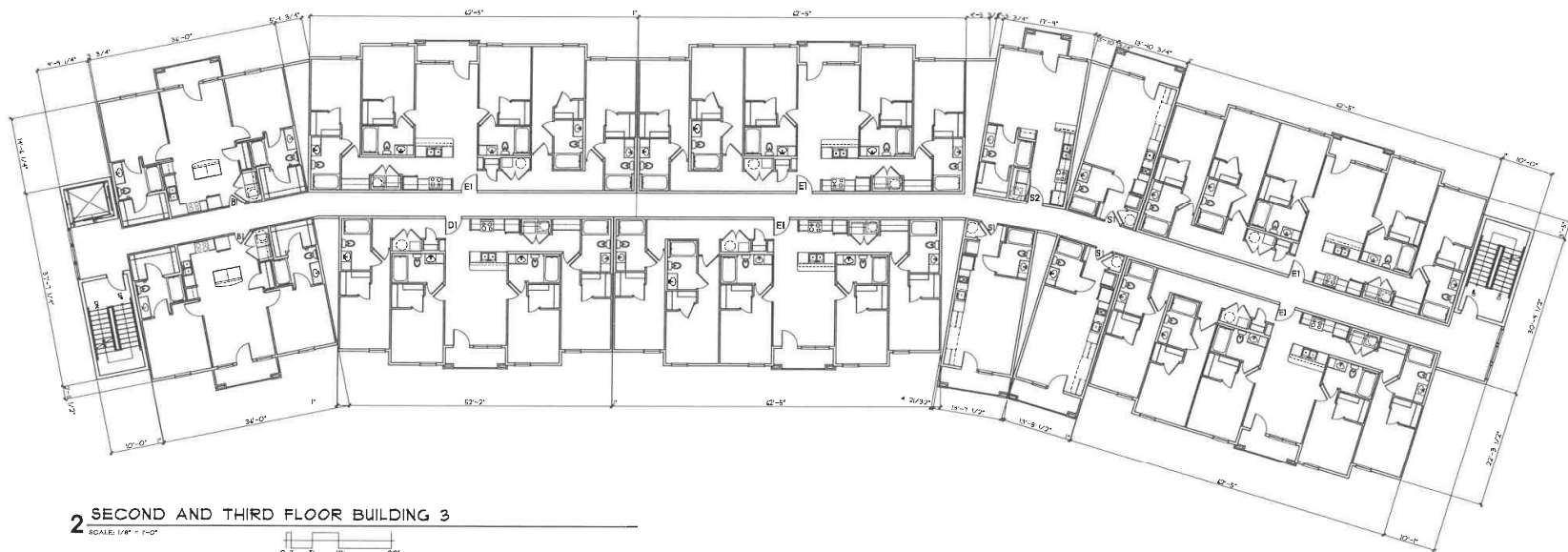
HALLMARK CENTRAL PARK CINCINNATI OHIO



DATE
 10-11-2021

REVISIONS

A4.04
 PROJECT • 060421



ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART ROOST ARCHITECT P.C. AND TO BE USED ONLY FOR THE PROJECT AND PROJECT ASSET EXPRESS WRITTEN CONSENT.

FOUNTAIN RESIDENTIAL PARTNERS
2828 COLLE AVENUE #620
TEL: 972-881-1082 FAX: 972-881-5088

STUART ROOST ARCHITECT
2828 COLLE AVENUE #620
TEL: 972-881-1082 FAX: 972-881-5088

HALLMARK CENTRAL PARK CINCINNATI OHIO



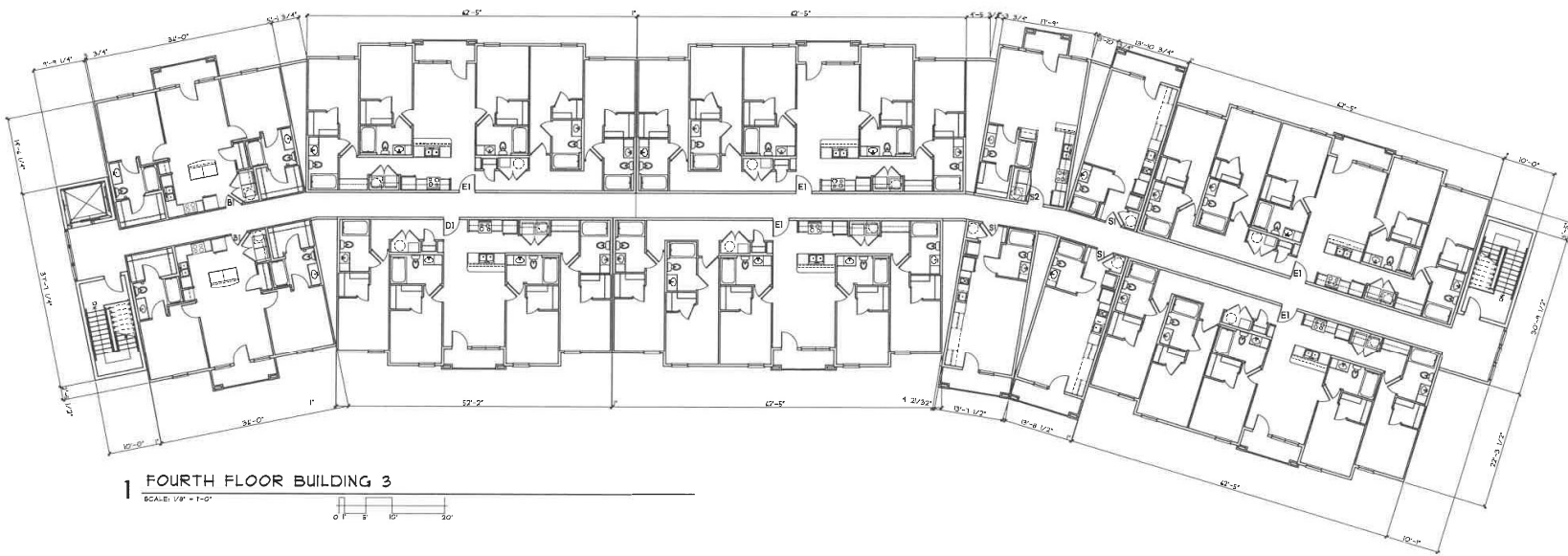
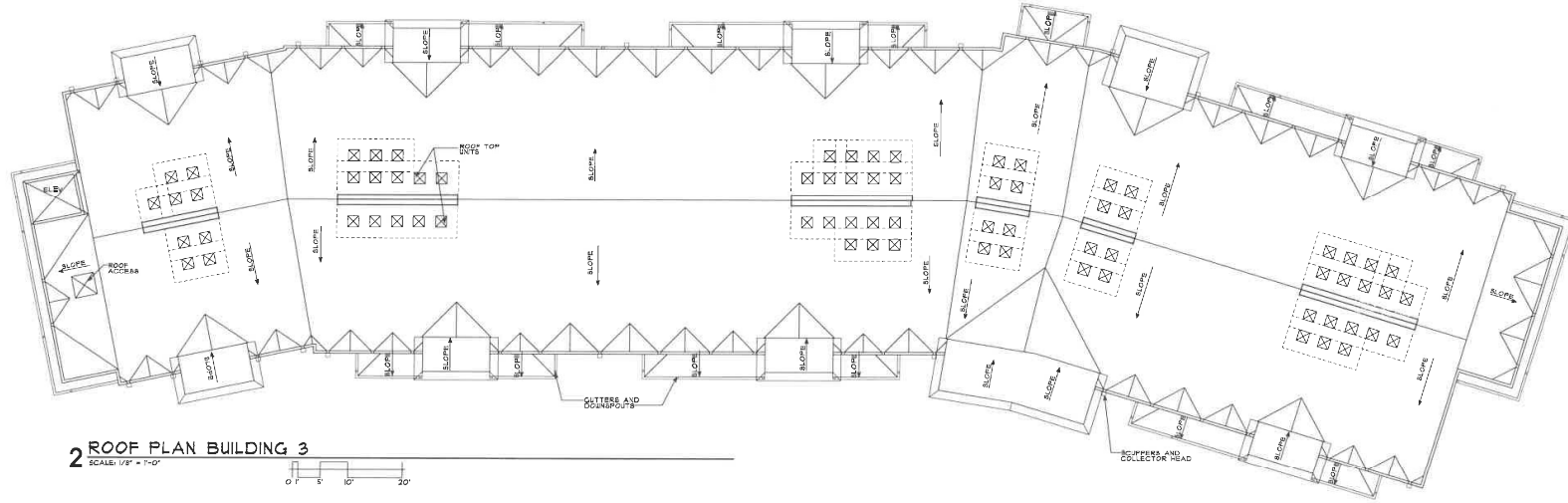
DATE

10-11-2021

REVISIONS

A5.01

PROJECT # 060421



ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART ROOSTH ARCHITECT AND TO BE USED SOLELY FOR THE PROJECT AND PROJECT ASSET EXPRESS WRITTEN CONSENT

FOUNTAIN RESIDENTIAL PARTNERS
2426 COLE AVENUE #200
TEL: 972-881-5892 FAX: 972-881-5088

STUART ROOSTH ARCHITECT
1885 FOREST CENTRAL #8 BOX DALLAS, TX 75243
TEL: 972-882-3882 CELL: 214-888-9339

HALLMARK CENTRAL PARK CINCINNATI OHIO

NOT FOR CONSTRUCTION

DATE
10-11-2021

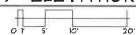
REVISIONS

A5.02
PROJECT # 060421



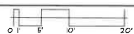
1 BUILDING 3 STREET SIDE (WEST) ELEVATION

SCALE: 1/8" = 1'-0"



2 BUILDING 3 EAST ELEVATION

SCALE: 1/8" = 1'-0"



3 BUILDING 3 NORTH ELEVATION

SCALE: 1/8" = 1'-0"



4 BUILDING 3 SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART ROOSTH ARCHITECT. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN CONSENT OF STUART ROOSTH ARCHITECT.

FOUNTAIN RESIDENTIAL PARTNERS
2826 COLE AVENUE #200
DALLAS, TEXAS 75234
TEL: 972.881.5088 FAX: 972.881.5088

STUART ROOSTH ARCHITECT
1808 FOREST CENTRAL DR. 1001 DALLAS, TX 75234
TEL: 972.881.5088 CELL: 214.356.9223

HALLMARK CENTRAL PARK CINCINNATI OHIO



DATE
10-11-2021

REVISIONS

A5.03

PROJECT #
060421



ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART ROOSTH ARCHITECT AND NO PART OF THIS DOCUMENT SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN CONSENT OF STUART ROOSTH ARCHITECT.

FOUNTAIN RESIDENTIAL PARTNERS
2826 COLE AVENUE #220
TEL: 972-881-5082 FAX: 972-881-5088

STUART ROOSTH ARCHITECT
1808 FOREST GLEN DRIVE, SUITE 100, DALLAS, TX 75243
TEL: 972-881-5082 CELL: 972-881-5088

HALLMARK CENTRAL PARK CINCINNATI OHIO

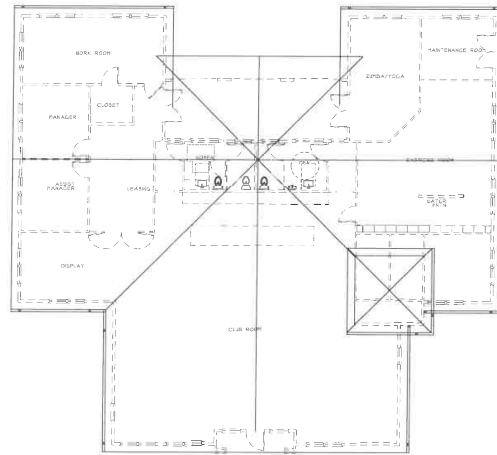
NOT FOR CONSTRUCTION

DATE
10-11-2021

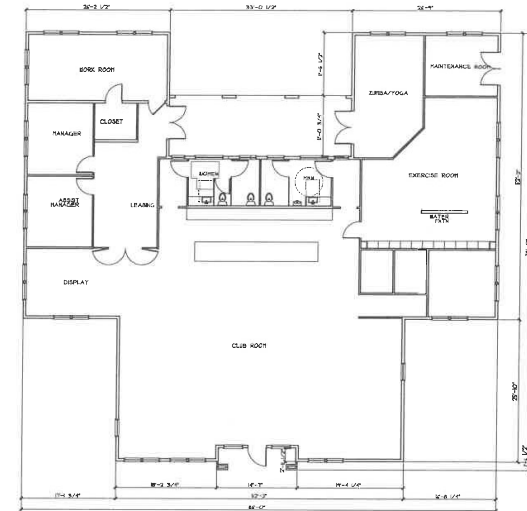
REVISIONS

A5.04

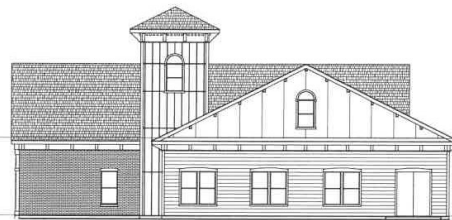
PROJECT #
060421



2 ROOF PLAN
SCALE: 1/8" = 1'-0"



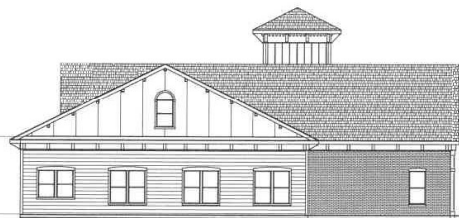
1 FIRST FLOOR
SCALE: 1/8" = 1'-0"



4 WEST ELEVATION
SCALE: 1/8" = 1'-0"



3 FRONT (NORTH) ELEVATION
SCALE: 1/8" = 1'-0"



6 EAST ELEVATION
SCALE: 1/8" = 1'-0"



5 REAR (SOUTH) ELEVATION
SCALE: 1/8" = 1'-0"

ALL DRAWINGS ON THIS SHEET ARE THE SOLE PROPERTY OF STUART ROOST ARCHITECT AND TO BE USED ONLY FOR THE PROJECT SHOWN. NO REUSE OR REPRODUCTION WITHOUT THE WRITTEN CONSENT OF STUART ROOST ARCHITECT.

FOUNTAIN RESIDENTIAL PARTNERS
2808 COLLE AVENUE #200
TEL: 872-865-5050 FAX: 872-865-5088

STUART ROOST ARCHITECT
1000 CENTRAL AVENUE, SUITE 200
CINCINNATI, OHIO 45202
TEL: 872-865-5050 FAX: 872-865-5088

HALLMARK CENTRAL PARK CINCINNATI OHIO

NOT FOR CONSTRUCTION

DATE
10-11-2021

REVISIONS

A6.01

PROJECT #
060421

INTERSTATE 75

BLDG 1

BLDG 2

BLDG 3

CLUB/LEASING

PARALLEL SPACES

PARCEL 1

PARCEL 2

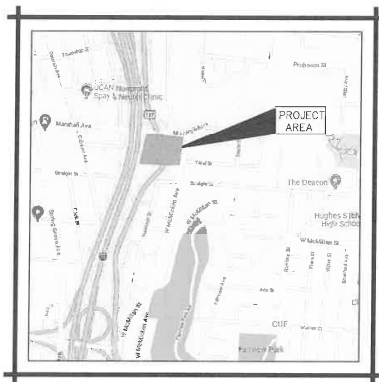
RT OUT ONLY

0' 10' 20' 40'

7/26/21

SITE PLAN

A7.00
PROJECT #
060421



VICINITY MAP



HALLMAR STUDENT HOUSING

CITY OF CINCINNATI
HAMILTON COUNTY, OHIO

INDEX OF SHEETS

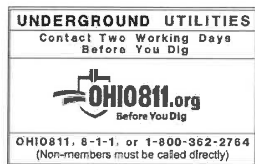
TITLE SHEET	1
GENERAL NOTES	2-3
GENERAL DETAILS	4-10
ADA SITE ACCESSIBILITY NOTES AND DETAILS	11
ADS UNDERGROUND DETENTION DETAILS	12-15
EXISTING CONDITIONS PLAN	16
DEMOLITION PLAN	17
SITE PLAN SHEET NOTES	18
DIMENSIONING AND PAVEMENT PLAN	19
UTILITY PLAN	20
GROW LARGE BRANCH DRAWING	21
GRADING PLAN	22
PAVEMENT ELEVATION PLAN	23
LANDSCAPING PLAN	24-25
SWPPP TITLE SHEET	26
SWPPP EROSION CONTROL NOTES AND DETAILS	27-28
SWPPP SITE EROSION CONTROL PLAN	29

2019 SPECIFICATIONS

THE CONSTRUCTION STANDARDS AND DRAWINGS OF THE CITY OF CINCINNATI AND THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND GENERAL NOTES LISTED IN THE PLAN, SHALL GOVERN THIS IMPROVEMENT. THE MOST RESTRICTIVE SHALL APPLY.

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE CONSTRUCTION A NEW BUILDING AND ASSOCIATED DRIVES AND PARKING FOR THE HALLMAR STUDENT HOUSING, LOCATED ON CENTRAL PARKWAY WITHIN THE CITY OF CINCINNATI. SITE WORK TO INCLUDE STORM SEWER, SANITARY SEWER, WATER, SITE GRADING, PAVEMENT WORK AND BUILDING CONSTRUCTION.



Approved _____
Date _____ AUTHORIZED SIGNATURE

GREATER CINCINNATI WATER WORKS STANDARD CONSTRUCTION DRAWINGS				ODOT STANDARD CONSTRUCTION DRAWINGS	
101-S	1/4/13	108-13B	7/12/19		
108-19	7/12/19	108-13C	7/12/19		
108-11A	7/12/19				
CINCINNATI METROPOLITAN SEWER DISTRICT STANDARD CONSTRUCTION DRAWINGS				ODOT SUPPLEMENTAL SPECIFICATIONS	
49032	JUNE 2019			800	7/16/2021
49033	JUNE 2009			832	10/19/2018
49060	MAY 2016				
61979	AUG. 2011				

440 E. HOEWISHER ROAD • SIDNEY, OHIO 45365 • 937.497.0200
8956 GLENDALE MILFORD ROAD, SUITE 1 • LOVELAND, OHIO 45140 • 513.239.8554

www.CHOICEONEENGINEERING.com

NOVEMBER 3, 2021

MICHAEL L. SEEGER, P.E.
P.E. - #81748

11-3-2021
DATE



HALLMAR STUDENT HOUSING

REVISIONS:	
FILE NAME	TITLE SHEET
DRAWN BY	JMK
CHECKED BY	MLS
PROJECT NO.	UJAMCIN2107
SHEET NUMBER	1 OF 29

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON NAVD 88 (ODOT VRS 0701D 18).

GENERAL NOTES AND DETAILS

ALL CONSTRUCTION METHODS, MATERIALS, AND SPECIFICATIONS SHALL COMPLY WITH THE LATEST VERSION OF THE CITY OF CINCINNATI STANDARDS AND SPECIFICATIONS AND/OR THE LATEST VERSION OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION STANDARDS AND SPECIFICATIONS (INCLUDING CURRENT SUPPLEMENTAL SPECIFICATIONS 800 AND 832), WHICHEVER IS MORE RESTRICTIVE AS DETERMINED BY THE CITY OF CINCINNATI.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.54 ORC. EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE DATA. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING THEM IN THE FIELD PRIOR TO CONSTRUCTION AND WILL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THEM. CONTRACTOR TO CONTACT OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION.

NON-MEMBERS MUST BE CALLED DIRECTLY.

UTILITY OWNERSHIP

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

STORM SEWER

STORMWATER MANAGEMENT UTILITY
4747 SPRING GROVE AVENUE
CINCINNATI, OHIO 45232
(513) 581-0893
ATTN: ROB GOODPASTER

WATER

GREATER CINCINNATI WATER WORKS
4747 SPRING GROVE AVENUE
CINCINNATI, OHIO 45232
(513) 557-5799
ATTN: JON HUNSEDER

TELEPHONE

CINCINNATI BELL
221 E. 4TH STREET
CINCINNATI, OHIO 45202
(513) 566-5120
ATTN: JOHN STRAUSS

TELEPHONE

WCI
221 E. 4TH STREET
CINCINNATI, OHIO 45202
(513) 566-5120
ATTN: JOHN STRAUSS

OHIO UTILITIES PROTECTION
SERVICE 2 WORKING DAYS BEFORE
YOU DIG CALL TOLL FREE
800-362-2764

UTILITY INTERFERENCE

IF, DURING THE CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY AND COORDINATE AS NEEDED WITH THE UTILITY COMPANY INVOLVED. ANY AND ALL WORK REQUIRED FOR PRIVATE UTILITIES SHALL BE COORDINATED WITH AND, IF REQUIRED, DONE BY THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS. THE CONTRACTOR SHALL NOTIFY, AT LEAST 7 DAYS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE CORPORATIONS HAVING WIRES, FOLDS, PIPES, CONDUITS, MANHOLES, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS.

EXISTING TILE HOOKUPS

THE DRAINAGE TILE CURRENTLY CONNECTED TO THE EXISTING STORM SEWER SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ANY DRAINAGE TILE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. ALL TILE REMOVED, REPLACED AND/OR CONNECTED TO THE STORM SEWER SHALL BE NOTED ON THE RECORD DRAWINGS AND SHALL BE INSPECTED BY THE CITY OF CINCINNATI BEFORE THEY ARE COVERED.

ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNCONSTRUCTED OUTLETS OR P-LOGGED AS APPROVED AND DIRECTED BY THE CITY OF CINCINNATI. CONNECTION OF INTERSECTING DRAIN TILES AND THE PROPOSED STORM SEWER SHALL BE THROUGH MANUFACTURED TEES, UNLESS OTHERWISE APPROVED BY THE CITY OF CINCINNATI. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

GEOTECHNICAL ENGINEERING REPORT

CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT FOR THE PROPOSED PROJECT AND PERFORM ALL GEOTECHNICAL WORK IN ACCORDANCE WITH THIS REPORT.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

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 AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE, TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, CITY OF CINCINNATI SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT THE EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, CITY OF CINCINNATI SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

MUD

THE TRACKING OR SPILLAGE OF MUD, DIRT, OR DEBRIS UPON PUBLIC STREETS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

EXISTING UTILITY CONFLICT NOTE

IF A CONFLICT ARISES WITH EXISTING UTILITIES, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY TO GET THE CONFLICT RESOLVED.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. CHOICE ONE ENGINEERING CORPORATION MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN-SERVICE OR ABANDONED. CHOICE ONE ENGINEERING CORPORATION FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. CHOICE ONE ENGINEERING CORPORATION HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

CAD FILE DISCLAIMER

THE CAD FILE ASSOCIATED WITH THESE CONSTRUCTION PLANS IS A NON-CERTIFIED DOCUMENT. ANY USE OF THE INFORMATION OBTAINED OR DERIVED FROM THE ASSOCIATED CAD FILE WILL BE AT THE RECEIVING PARTY/USER'S RISK. CHOICE ONE ENGINEERING CORP. OFFERS NO WARRANTY AS TO THE ACCURACY OF THE INFORMATION IN THE CAD FILE OR THAT REVISIONS HAVE BEEN ISSUED AFTER THE CAD DRAWING WAS RELEASED. RECEIVING PARTIES/USERS SHALL HOLD HARMLESS TO THE MAXIMUM EXTENT ALLOWED BY LAW CHOICE ONE ENGINEERING CORP. FROM ANY USE OF THE CAD FILE BY THE RECEIVING PARTY/USER, IN ALL CIRCUMSTANCES, AND AT ALL TIMES, THE PUBLISHED PAPER AND/OR PDF DRAWINGS FOR THE PROJECT SHALL SUPERSEDE THE CAD FILES. IN THE CASE OF AN INCONSISTENCY BETWEEN THE PUBLISHED PAPER/PDF DRAWINGS AND THE ASSOCIATED CAD FILE, THE PUBLISHED PAPER/PDF DRAWINGS SHALL GOVERN THE PROJECT AND ALL WORK.

SAFETY

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

MASONRY COLLAR

A CONCRETE COLLAR SHALL BE PROVIDED WHERE PROPOSED STORM SEWER PIPE IS CONNECTED TO AN EXISTING UTILITY. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

DEWATERING

ANY CONSTRUCTION OF ANY ITEM SHALL BE INCIDENTAL TO THOSE PARTICULAR CONSTRUCTION ITEMS AND SHALL BE INCLUDED IN THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

CLEAN WATER NOTE

ROOF DRAINS, FOUNDATION DRAINS, AND ALL OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SYSTEM ARE PROHIBITED.

SANITARY SEWER/LATERAL NOTE

SANITARY SEWER LINES AND SANITARY LATERALS MUST BE INSTALLED WITH 40 INCHES MINIMUM OF COVER OR BELOW FROST DEPTH WHICHEVER IS GREATER.

STORM SEWER INSTALLATION

THIS WORK CONSISTS OF CONSTRUCTING STORM SEWER, THE CONTRACTOR SHALL PROVIDE ALL TOOLS AND EQUIPMENT REQUIRED FOR INSTALLING THESE ITEMS. THE WORK ALSO INCLUDES FURNISHING ALL MATERIALS, EXCAVATING, BEDDING, LAYING PIPE, JOINTING, BACKFILLING, REMOVAL AND RESTORATION OF DISTURBED FACILITIES AND SURFACES, CURB REPAIR, SIDEWALK REPAIR, PAVEMENT REPAIR (I.E. PAVEMENT IN STREETS, ALLEYS AND DRIVEWAYS), DISPOSAL OF ALL SURPLUS EXCAVATION AND DISCARDED MATERIALS, AND OTHER WORK NECESSARY TO COMPLETE THE ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD LOCATE ALL EXISTING STORM SEWER AND OTHER UTILITIES, PRIOR TO INSTALLING THE PROPOSED STORM SEWER SYSTEM. THE EXISTING STORM SEWER AND LATERALS SHOWN ON THE PLANS ARE IN THE APPROXIMATE LOCATION AND IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD LOCATE PROPOSED TIE-INS TO THE EXISTING STORM PRIOR TO ANY STORM SEWER CONSTRUCTION. ALL TIE-INS SHALL BE THROUGH PREMANUFACTURED TEES OR HOLES INSTALLED USING A CORING MACHINE. PIPE MAY BE ANY OF THE PIPE TYPES LISTED BELOW UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PIPE TYPES PERMITTED	ODOT MATERIALS NUMBERS
CORRUGATED POLYETHYLENE SMOOTH-LINED PIPE (CSP/PE)	707.33
POLYPROPYLENE CORRUGATED DOUBLE WALL PIPE (PDDW/P)	707.65
POLYVINYL CHLORIDE SOLID WALL PIPE (SDR-35)	707.45
REINFORCED CONCRETE PIPE	766.52

GENERAL NOTES

1. INSTALL AND TEST ALL UTILITIES PER THE LATEST VERSION OF THE CITY OF CINCINNATI STANDARDS.
2. ALL DISTURBED AREAS AND ALL NON-PAVEMENT AREAS SHALL HAVE A MINIMUM OF 6" OF TOP SOIL PLACED AND ARE TO BE SEEDED AND MULCHED PER ODOT ITEM 659.
3. ALL CONCRETE USED FOR HEAVY DUTY PAVEMENT(S) AND STANDARD DUTY PAVEMENT(S) SHALL BE ODOT CC-1P AND REINFORCED WITH CONCRETE FIBERS AS SPECIFIED IN THE PROPOSED PAVEMENT SECTIONS. ALL OTHER CONCRETE (WALKS, CURBS, ETC.) SHALL BE ODOT CC-MSC (CEMENT ONLY - NO POZZOLAN MATERIAL) REINFORCED WITH 3 LBS/CY OF EITHER EUCOD CHOMICAL TUFSTRAND SF, PORTA FERRO FIBRILLATED MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 : 0.90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.
4. CONTRACTOR TO BE RESPONSIBLE FOR ANY PERMITS OR FEES THAT MAY BE NECESSARY FOR THE COMPLETION OF THE SITE WORK.
5. ALL WORK SHALL CONFORM WITH ALL FEDERAL, STATE, AND LOCAL ADA REGULATIONS AND STANDARDS.
6. ALL ITEMS ON SITE PLAN SHALL BE CONSTRUCTED PER THE LATEST VERSION OF THE CITY OF CINCINNATI STANDARDS.

STORM AND SANITARY CONDUITS/STRUCTURES AND RELATED WORK

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 611, PIPE CULVERTS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES, EXCEPT AS HEREIN MODIFIED.

THE INSTALLATION OF ALL STORM SEWER, SANITARY SEWER, AND ALL CORRESPONDING STRUCTURES SHALL BE PER MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN A HIGH STANDARD OF WORK. CONTRACTOR IS RESPONSIBLE TO INSURE ALL WORK IS PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS. CONTRACTOR SHALL ALSO ENSURE THAT ALL ITEMS ARE FULLY AND PROPERLY FUNCTIONAL, AND TO A QUALITY ACCEPTABLE TO THE OWNER.

ALL PIPE CULVERTS, CONDUITS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES (CATCH BASINS, YARD DRAINS, MANHOLES, ETC.) SHALL MEET THE MATERIAL REQUIREMENTS OF THIS ITEM. THE FOLLOWING ITEMS WILL NOT BE REQUIRED UNLESS OTHERWISE NOTED: 1) INSTALLATION PLAN, 2) CONSTRUCTION INSPECTION FORMS, 3) PERFORMANCE INSPECTIONS AND REPORTS, 4) CONDUIT AND DRAINAGE STRUCTURE EVALUATIONS.

THE CONTRACTOR SHALL ENSURE THE CONDUIT BEDDING AND BACKFILL COMPACTION DENSITY MEETS ASTM D698 (98% STANDARD PROCTOR). TESTING MAY BE REQUIRED IF DEEMED NECESSARY BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

MAINTAINING TRAFFIC

MAINTAIN TRAFFIC AS INDICATED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", ALSO THE FOLLOWING REQUIREMENTS SHALL APPLY.

EXCAVATIONS WITHIN PUBLIC RIGHT-OF-WAY LIMITS SHALL BE CLOSED AT TIMES WHEN WORK IS NOT BEING PERFORMED.

LOCAL TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING THE TIME THAT AN APPROVED CLOSURE AND DETOUR IS ALLOWED BY THE GOVERNING AUTHORITY.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING NECESSARY TRAFFIC CONTROL DEVICES AND PAVEMENT REPAIR MATERIALS TO MAINTAIN THE TRAVELED PAVEMENT SAFELY.

NO SHUT DOWN OF ANY OWNER FACILITY DRIVE, ROADWAY OR PARKING LOT WILL BE ALLOWED WITHOUT WRITTEN CONSENT FROM THE OWNER. ALL OWNER ROADWAYS MUST HAVE AT LEAST ONE LANE OPEN AT ALL TIMES. NO STAGING OF TRUCKS OUTSIDE OF CONSTRUCTION LIMITS WILL BE PERMITTED WITHOUT CONSENT FROM THE OWNER.

SUBCONTRACTOR SUPERVISION

THE CONTRACTOR IS REQUIRED TO HAVE SOMEONE ON-SITE TO SUPERVISE THE SUBCONTRACTOR FOR QUALITY CONTROL PURPOSES AND TO PROVIDE ANY NECESSARY ASSISTANCE TO THE SUBCONTRACTOR TO ENSURE QUALITY WORK. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

EXCAVATION AND EMBANKMENT

TOPSOIL SHALL BE REMOVED FROM ALL DISTURBED AREAS AND ALL AREAS TO BE EXCAVATED OR EMBANKED. A MINIMUM OF 6" OF TOPSOIL SHALL BE FINE GRADED ON ALL DISTURBED AREAS.

ALL EMBANKMENT SHALL BE COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR OR AS DETERMINED BY THE OWNER. TESTING MAY BE REQUIRED BY THE OWNER.

SAWCUT PAVEMENT JOINTS

MORE THAN ONE SAWCUT MAY BE NECESSARY TO ENSURE A CLEAN CUT. JUST PRIOR TO ASPHALT OR CONCRETE PLACEMENT, ASPHALT MATERIAL SHALL BE PLACED ON THE VERTICAL FACE OF SAWCUT JOINTS PRIOR TO PAVING AS PER 401.14. AFTER THE ASPHALT WORK IS COMPLETED, THE TRANSVERSE JOINTS SHALL BE SEALED WITH LIQUID ASPHALT.

WATER LINE CROSSING SEPARATION

CONTRACTOR SHALL LOWER/DIP ANY EXISTING OR PROPOSED WATER LINES AS NEEDED TO OBTAIN AN 18" MINIMUM SEPARATION DISTANCE FROM THE WATER LINE TO ANY STORM OR SANITARY SEWER. WATER LINE SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY SEWERS. WHENEVER A SANITARY OR STORM SEWER AND WATER LINE MUST CROSS, THE SEWER AND WATER SHALL BE LAID AT SUCH AN ELEVATION THAT THERE IS AT LEAST 18" OF SEPARATION BETWEEN THE OUTSIDE WALLS OF THE TWO PIPES. ALSO ONE FULL LENGTH OF WATERLINE SHALL BE LOCATED SO THE JOINTS ARE AS FAR FROM THE STORM AND SANITARY SEWERS AS POSSIBLE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SEWER SHALL BE CONSTRUCTED OF WATER LINE TYPE MATERIALS WHICH WOULD BE ABLE TO WITHSTAND A 100 PSI PRESSURE TEST (NOTE: DO NOT PRESSURE TEST SEWER TO 100 PSI). THESE REQUIREMENTS WILL EXTEND FOR THE DISTANCE OF THE ENTIRE SPAN. NO CHANGE OF MATERIALS ARE ALLOWED MID-SPAN. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

PAVEMENT MARKINGS

ALL PAVEMENT MARKINGS SHALL BE PER ODOT ITEM 640 AND 642. ALL PAVEMENT MARKINGS TO BE TYPE 1, UNLESS APPLICATION IS REQUIRED WHEN AIR AND PAVEMENT TEMPERATURES ARE BETWEEN 35 F AND 50 F. THEN OBTAIN APPROVAL FROM THE OWNER AND APPLY ONLY PRE-QUALIFIED TYPE 1A COLD WEATHER TRAFFIC PAINT MATERIALS PER ITEM 642 AND 740.

ALL MARKING LAYOUT AND COLOR SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.



CHOICEONE
ENGINEERING

2024-2025 CITY OF CINCINNATI
CIVIL/HAZ, 0800 312.2764

www.CHOICEONEENGINEERING.com

HALLMAR STUDENT HOUSING
CITY OF CINCINNATI

GENERAL NOTES

REVISIONS:

FILE NAME	QNA
DRAWN BY	JMK
CHECKED BY	M.S.
PROJECT No.	HAMCN2107
DATE	11-24-2021
SHEET NUMBER	2 OF 29

DOWNSPOUTS

THE CONTRACTOR SHALL CONNECT ANY DOWNSPOUTS AS SHOWN ON THE SITE PLAN OR TO THE CLOSEST STORM PIPING OR CATCH BASINS USING CPSP/LP OR PVC SDR-35 SEWER OR EQUIVALENT EQUAL.

UTILITIES

CONTRACTOR SHALL INSTALL AND/OR COORDINATE THE INSTALLATION OF GAS, ELECTRIC, TELEPHONE, CABLE TELEVISION, FIBER OPTIC, ETC. CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES PRIOR TO INSTALLATION OF ANY FACILITIES. ALL UTILITIES SHALL BE INSTALLED PER EACH PARTICULAR UTILITY COMPANY'S STANDARDS AND PROCEDURES. CONTRACTOR TO VERIFY ACTUAL SIZES, LOCATIONS (POINTS OF ENTRY INTO THE BUILDING) AND INVERTS OF ALL UTILITIES LYING INTO THE BUILDING WITH ALL ARCHITECT PLANS (BUILDING, PLUMBING, ELECTRICAL, ETC.) BEFORE CONSTRUCTION.

ASPHALT PAVEMENT REPLACEMENT NOTE

ANY EXISTING PAVEMENT THAT IS TO BE REMOVED SHALL BE SAWCUT FULL DEPTH AND RESTORED TO MATCH THE EXISTING PAVEMENT CROSS SECTION UNLESS OTHERWISE NOTED IN THE PLANS.

ASPHALT

ALL ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL APPLY TO THIS PROJECT EXCEPT FOR ODOT ITEM 401.20 ASPHALT BINDER PRICE ADJUSTMENT (ASPHALT CONCRETE BID ITEMS ARE NOT ELIGIBLE FOR ANY ASPHALT BINDER PRICE ADJUSTMENT).

ALL ASPHALT DELIVERED SHALL BE ACCOMPANIED WITH A LOAD TICKET AS PER ITEM 401.21.

REVIEW OF DRAINAGE FACILITIES

BEFORE FINAL ACCEPTANCE BY THE OWNER, REPRESENTATIVES OF THE OWNER, AND THE CONTRACTOR, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. ALL EXISTING SEWERS INSPECTED BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO PRE-EXISTING CONDITION OF THE SEWER. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF CINCINNATI AND/OR OWNER.

ALL NEW CONDUITS, UNDERDRAINS (INCLUDING THE STONE BACKFILL ABOVE THE UNDERDRAIN PIPING), INLETS, CATCH BASINS, MANHOLES, SWALES/DITCHES, AND DETENTION/RETENTION BASINS CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER (INCLUDING SEDIMENT) AND IN A CLEAN CONDITION AND FULLY AND PROPERLY FUNCTIONAL BEFORE THE PROJECT WILL BE ACCEPTED BY THE OWNER.

CLEARING AND GRUBBING

CONTRACTOR TO CLEAR THE AREA AS SHOWN ON THE PLANS AND/OR AS NEEDED TO WORK ON THIS PROJECT. UNLESS STATED ELSEWHERE IN THE PLANS, CLEARING AND GRUBBING IS TO BE KEPT TO A MINIMUM IN ORDER TO PRESERVE THE WOODED AREAS.

MODIFICATIONS

ANY MODIFICATIONS TO THE SPECIFICATIONS OR CHANGES TO THE WORK AS SHOWN ON THE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE OWNER.

RESTORATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY DISTURBED AND/OR DAMAGED AREAS, INCLUDING PAVEMENT, TO CONDITIONS EQUAL TO OR BETTER THAN CONDITIONS PRIOR TO CONSTRUCTION OR TO THE SATISFACTION OF THE OWNER.

MISCELLANEOUS

THE INTENT OF THESE DRAWINGS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTOR. PERFORMANCE BY THE CONTRACTOR SHALL BE REQUIRED TO THE EXTENT CONSISTENT WITH THE CONTRACT DOCUMENTS AND REASONABLY INFERRABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.

IN THE CASE OF AN INCONSISTENCY BETWEEN DRAWINGS AND SPECIFICATIONS OR WITHIN EITHER DOCUMENT, THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE OWNER'S REPRESENTATIVE'S INTERPRETATION.

CONTRACTORS SHALL VERIFY ALL GRADES, ELEVATIONS, AND EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

CONTRACTOR'S LUMP SUM BID PRICE SHALL INCLUDE ALL ITEMS AND OPERATIONS NEEDED, REQUIRED AND NECESSARY FOR THE PROPER EXECUTION OF THE PROJECT AND TO COMPLETE ALL WORK.

GRAFFITI AND VANDALISM

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ANY CONCRETE WORK OR OTHER ITEMS UNDER THIS CONTRACT WHICH IS DETERMINED ACCEPTABLE BY THE OWNER DUE TO GRAFFITI OR VANDALISM DAMAGE.

OWNER COORDINATION NOTES

THE CONTRACTOR SHALL COORDINATE THE PROPOSED WORK WITH THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK ON SITE. IF THE CONTRACTOR IS TO ENGAGE IN ANY OPERATIONS THAT AFFECT THE EXISTING FACILITY OPERATIONS, THE CONTRACTOR SHALL COORDINATE THE SCHEDULING OF SUCH ACTIVITIES WITH THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY SUCH OPERATIONS OR ACTIVITIES.

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORT, BRACING, AND OTHER DEVICES AS MAY BE REQUIRED OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE OR THE ENGINEER TO PROTECT THE SAFETY OF THE PUBLIC, ADJACENT STRUCTURES, ROADWAY AND/OR UTILITIES. ALL WORK TO BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.

GENERAL NOTES FOR CIVIL WORK

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING AND IS TO INCLUDE SUCH COSTS AS A PART OF THE LUMP SUM PRICE ON THE PROJECT.

2. THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE APPROPRIATE UNDERGROUND UTILITY MARKING SERVICE PRIOR TO THE START OF ANY CONSTRUCTION IN ORDER TO AVOID CONFLICTS WITH EXISTING UTILITIES. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR IS TO NOTIFY THE OWNER PRIOR TO THE START OF ANY WORK THAT WOULD BE IN CONFLICT WITH THE UTILITIES.

3. THE CONTRACTOR IS TO VISIT AND INVESTIGATE THE PROJECT SITE, PRIOR TO BIDDING, IN ORDER TO DETERMINE THE EXISTING GROUND AND SITE CONDITIONS, FOR SOIL TYPE AND GROUND WATER TABLE. THE CONTRACTOR IS ENCOURAGED TO UTILIZE ANY AVAILABLE DATA TO ESTIMATE GROUND CONDITIONS. SHOULD THE BIDDING CONTRACTOR REQUIRE ADDITIONAL TEST HOLES PRIOR TO BIDDING IN ORDER TO DETERMINE OR VALIDATE GROUND CONDITIONS, THIS CAN BE COMPLETED AT THE DISCRETION OF THE OWNER. NO TEST HOLES ARE TO BE DUG WITHOUT CONTACTING THE OWNER'S REPRESENTATIVE PRIOR TO EXCAVATION AND WITHOUT RECEIVING WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE TO DO SO.

4. THE CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS WITH REGARD TO EXCAVATION, SAFETY, QUALITY AND WORK PROGRESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THESE THROUGHOUT CONSTRUCTION OPERATIONS.

5. THE LOCATION OF MATERIALS STORED ON SITE MUST RECEIVE THE APPROVAL OF THE OWNER. IN GENERAL, MATERIALS SHOULD BE STORED SO AS TO MINIMIZE THE INCONVENIENCE TO THE OWNER.

6. IF EXCAVATED MATERIALS ARE FOUND TO BE CONTAMINATED, REMEDIATION WILL BE AT THE OWNER'S EXPENSE PRIOR TO REMOVAL FROM THE SITE OR DISPOSAL ON-SITE BY THE CONTRACTOR. THIS PROCESS WILL BE COORDINATED BETWEEN THE OWNER AND CONTRACTOR.

7. TRENCH EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH THE BID SPECIFICATIONS AND IN ACCORDANCE WITH ALL APPLICABLE OSHA RULES AND REGULATIONS. IN ADDITION, THE OWNER MAY HAVE ADDITIONAL REQUIREMENTS FOR EXCAVATION AND TRENCHING ON OWNER PROPERTY THAT MAY BE MORE STRINGENT THAN CURRENT LOCAL OR OSHA REQUIREMENTS. IN THIS CASE, THE OWNER'S REQUIREMENTS ARE TO BE FOLLOWED UNLESS THIS ACTION WOULD BE CONSIDERED NON-COMPLIANT WITH CURRENT GOVERNING CODES OR REGULATIONS AS DEFINED BY LOCAL OR GOVERNING AUTHORITIES. WHERE A NON-COMPLIANCE ISSUE IS NOTED, THE CONTRACTOR IS TO MAKE THE OWNER AND ENGINEER AWARE OF THE GOVERNING CODE.

8. THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR, REPLACE, AND/OR RECONNECT ANY EXISTING DRAINAGE TILES, NOT SHOWN ON THE PLANS, WHICH CROSS THROUGH THE EXCAVATED TRENCH. ANY DRAINAGE TILES ENCOUNTERED ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER AND A MEASUREMENT TAKEN FROM THE NEAREST MANHOLE OR INLET STRUCTURE TO THE CENTERLINE OF THE TILE. THIS INFORMATION SHALL BE PROVIDED TO THE OWNER AS PART OF THE RECORD DRAWINGS.

9. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPAIRS TO ANY UTILITY LINE(S) THAT THE CONTRACTOR DAMAGES UNLESS OTHERWISE CLEARLY THE RESPONSIBILITY OF THE UTILITY COMPANY.

10. THE CONTRACTOR WILL REPLACE ALL DAMAGED OR REMOVED DRIVES AND PAVEMENT WITH THE REQUIRED THICKNESS SHOWN ON THE PLANS OR MATCH EXISTING IF GREATER.

11. ALL DISTURBED LAWN AREAS SHALL BE GRADED TO DRAIN TO THE NEAREST INLET STRUCTURE.

12. CONTRACTOR SHALL USE PROPER EROSION CONTROL TECHNIQUES TO MAINTAIN GRADE PRIOR TO SEEDING.

13. CONTRACTOR TO REFER TO ODOT SPECIFICATION, ITEM 659 FOR SEEDING AND MULCHING UNLESS OTHERWISE SPECIFIED. CONTRACTOR WILL NOT SEED ANY AREA UNTIL OWNER HAS INSPECTED FINAL TOPSOIL GRADING.

14. CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ALL FENCES, LAWN DECORATIONS, TREES, SHRUBS, PLANTING, VEGETATION ETC. WHICH IS DAMAGED, DISTURBED OR REMOVED DURING CONSTRUCTION.

15. DURING PAVING OPERATIONS, THE CONTRACTOR MUST SUBMIT A WRITTEN PLAN IDENTIFYING DRIVE AREAS WITHIN THE SITE THAT WILL BE SHUT DOWN FOR CONSTRUCTION OPERATIONS PRIOR TO START OF ANY WORK IN THOSE AREAS. CONTRACTOR MUST MAINTAIN A MINIMUM OF ONE LANE FOR TRAFFIC IN ANY AREAS SO DESIGNATED BY THE OWNER THROUGHOUT ALL CONSTRUCTION OPERATIONS.

ITEM 203 EXCAVATION AND EMBANKMENT CONSTRUCTION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 203 ROADWAY EXCAVATION AND EMBANKMENT, EXCEPT AS HEREIN MODIFIED.

TOPSOIL SHALL BE REMOVED FROM ALL DISTURBED AREAS AND ALL AREAS TO BE EXCAVATED OR EMBANKED. A MINIMUM OF 6" OF TOPSOIL SHALL BE FINE GRADED ON ALL DISTURBED AREAS.

ALL EMBANKMENT FOR ALL PAVEMENT OR BUILDING AREAS SHALL BE OF SUITABLE ENGINEERED FILL MATERIAL AND SHALL BE COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR OR AS DETERMINED BY THE OWNER. ALL OTHER EMBANKMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR OR AS DETERMINED BY THE OWNER. TESTING MAY BE REQUIRED BY THE OWNER.

ALL EXCESS SURFACE MATERIAL, EXCAVATED UNSUITABLE MATERIAL AND ALL EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN RESPONSIBILITY AND EXPENSE OUTSIDE OF THE PROPERTY AT A SITE APPROVED BY THE OWNER.

PAYMENT FOR ITEM 203 EXCAVATION AND EMBANKMENT CONSTRUCTION, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN MODIFIED.

ALL AREAS TO RECEIVE PAVEMENT SHALL BE COMPACTED AS NOTED IN ODOT ITEM 204. OWNER'S REPRESENTATIVE WILL REQUIRE PROOF ROLLING OF SUBGRADE PRIOR TO INSTALLATION OF SUB-BASE AND/OR BASE MATERIAL. PROOF ROLLING SHALL CONSIST OF DRIVING OVER THE SUBGRADE WITH A LOADED TANDEM DUMP TRUCK AS DIRECTED BY THE OWNER'S REPRESENTATIVE UNTIL NO DEFLECTION OR TIRE INDENTATION IN THE SUBGRADE IS PRESENT. CONTRACTOR TO PERFORM ALL PROOF ROLLING PROCEDURES AND ANY NECESSARY CORRECTIVE MEASURES AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

PAYMENT FOR ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 204 EXCAVATION OF SUBGRADE AND STRUCTURAL EMBANKMENT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN MODIFIED.

THIS WORK SHALL INCLUDE THE EXCAVATING OF UNSUITABLE SUBGRADE AND REPLACING WITH ODOT ITEM 304 AGGREGATE BASE, ODOT #1, ODOT #2, OR ANY COMBINATION AS DIRECTED BY THE OWNER. LOCATION AND AMOUNT OF THIS ITEM SHALL BE LOCATED BY THE OWNER AT THE PROJECT OR INDICATED ONLY AFTER THE CONTRACTOR HAS SATISFACTORILY ATTEMPTED TO DRY OUT AND WORK THE SUBGRADE. THIS ITEM INCLUDES EXCAVATION AND DISPOSAL OF UNSUITABLE MATERIAL, SUBGRADE COMPACTION, AND THE SUPPLY AND PLACEMENT OF THE ABOVE MENTIONED STRUCTURAL MATERIAL. THE QUANTITY WILL BE AS DETERMINED IN THE FIELD BASED ON SITE SUBGRADE CONDITIONS, BUT THIS ITEM COULD BE NON-PERFORMED IF DEEMED UNNECESSARY.

PAYMENT FOR ITEM 204 EXCAVATION OF SUBGRADE AND STRUCTURAL EMBANKMENT, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT CURB YARD BID PRICE WHICH THE CONTRACTOR SHALL PROVIDE WITH THEIR LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 204 GEOGRID, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204, SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN MODIFIED.

SELECTIONS OF AREAS THAT NEED GEOGRID, IN ADDITION TO ITEM 204, EXCAVATION OF SUBGRADE AND STRUCTURAL EMBANKMENT, AS PER PLAN, SHALL BE DETERMINED BY THE OWNER BY WITNESSING THE CONTRACTOR'S PROOF ROLLING THE EXPOSED SITE OR AS DETERMINED BY THE OWNER'S REPRESENTATIVE.

THE QUANTITY WILL BE AS DETERMINED IN THE FIELD BASED ON SITE SUBGRADE CONDITIONS, BUT THIS ITEM COULD BE NON-PERFORMED IF DEEMED UNNECESSARY. THE METHOD OF MEASUREMENT SHALL BE THE SURFACE AREA COVERED BY THE STABILIZATION MEMBRANE, NOT INCLUDING OVERLAP OR WASTE.

THE WORK SHALL INCLUDE SUBGRADE STABILIZATION BY UTILIZING THE TENSAR TX5 GEOGRID. LOCATION AND AMOUNT SHALL BE LOCATED BY THE OWNER AT THE TIME OF CONSTRUCTION. THE GEOGRID SHALL BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS AND SPECIFICATIONS. THIS WORK SHALL ALSO INCLUDE THE ADDITIONAL LABOR AND EQUIPMENT TO PROPERLY PLACE THE 304 AGGREGATE BASE OVER GEOGRID AS RECOMMENDED BY MANUFACTURER.

PAYMENT FOR ITEM 204 GEOGRID, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE WHICH THE CONTRACTOR SHALL PROVIDE WITH THEIR LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 304 AGGREGATE BASE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 304 AGGREGATE BASE, EXCEPT AS HEREIN MODIFIED.

THIS ITEM SHALL ALSO INCLUDE SATURATING THE AGGREGATE BASE WITH WATER DURING PLACEMENT OF EACH LIFT PRIOR TO COMPACTION. THIS WORK SHALL INCLUDE "PROOF ROLLING" WITH LOADED TANDEM DUMP TRUCK AS DIRECTED BY THE OWNER'S REPRESENTATIVE UNTIL NO DEFLECTION OR TIRE INDENTATION IN THE AGGREGATE SUB-BASE/BASE IS PRESENT.

PAYMENT FOR ITEM 304 AGGREGATE BASE FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 659 SEEDING AND MULCHING, CLASS 1 (LAWN MIXTURE), AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 659, SEEDING AND MULCHING, EXCEPT AS HEREIN MODIFIED.

ALL DISTURBED AREAS OR AREAS DESIGNATED FOR SEEDING SHALL BE GRADED AND SEEDED AND SHALL HAVE A MINIMUM OF 6" OF TOPSOIL OVER THE ENTIRE AREA. TESTING THE PH OF ANY EXISTING OR IMPORTED TOPSOIL PER ODOT 659.02 SHALL BE WAIVED. THE AREA SHALL BE HAND-RAKED AND DRESSED READY FOR SEEDING. NO STONE OVER 1" IN SIZE PERMITTED IN THE TOP 6".

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL.

IT'S THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE THE REQUIRED GERMINATION RATES AND ENSURE THE GRASS IS ESTABLISHED TO THE SATISFACTION OF THE OWNER WHICH MAY REQUIRE WATERING, REGRADING/ADDING TOPSOIL AND RESEEDING. ANY AREAS THAT HAVE ERODED OR WHERE NEW GRASS DID NOT GERMINATE SHALL BE ADDRESSED BY THE CONTRACTOR UNTIL THE AREAS ARE STABILIZED, SHAPED, AND DRAINED, AS INDICATED IN THE PLANS.

ANY DISTURBED AREA, OUTSIDE OF THE PROJECT WORK LIMITS, CAUSED BY THE CONTRACTOR'S WORK, SHALL BE RESTORED TO THE SATISFACTION OF THE PROPERTY OWNER AND PROJECT OWNER'S REPRESENTATIVE. AT THE CONTRACTOR'S SOLE EXPENSE, THIS ITEM INCLUDES: TOPSOIL, SEEDING, MULCHING, COMMERCIAL FERTILIZER, WATER, AND REPAIR SEEDING AND MULCHING.

PAYMENT FOR ITEM 659 SEEDING AND MULCHING, CLASS 1 (LAWN MIXTURE), AS PER PLAN, FOR ALL ABOVE OPERATIONS, SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.



ChoiceOne
ENGINEERING

20250 W. WYOMING AVE. SUITE 200
LOUISVILLE, OHIO 45244
www.CHOICEONEENGINEERING.COM

HALLMAR STUDENT HOUSING
CITY OF CINCINNATI
GENERAL NOTES

REVISIONS:

FILE NAME	CNS
DRAWN BY	JMK
CHECKED BY	MLS
PROJECT No.	HAMCR2107
DATE	11-3-2021
SHEET NUMBER	

3 OF 29

- A. LOCATION AND ELEVATIONS WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE.
- B. THE MINIMAL BASIN DIAMETER SHOULD BE AS STATED AND CALLED FOR IN THE PLANS. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE BASIN MANUFACTURER, NYLOPLAST, TO DETERMINE IF A LARGER DIAMETER BASIN THAN THAT WHICH IS STATED IS NEEDED BASED ON THE PIPE CONFIGURATION AND TO SUPPLY THE LARGER DIAMETER IF NEEDED. CONTRACTOR TO INSTALL PER MANUFACTURERS RECOMMENDATIONS.
- C. THE FRAME AND GRATE SHALL BE THE STANDARD OPTION DUCTILE IRON PER ASTM A536 GRADE 70-30.35. (NYLOPLAST - 12" #129RGCS)
- D. THE BASINS SHALL BE MANUFACTURED FROM PVC PIPE STOCK (RAW MATERIAL PER ASTM D1784 CELL CLASS 12454), UTILIZING A THERMOFORMING PROCESS TO REFORM THE PIPE STOCK TO PRODUCE A RIGID, NON-DEFORMING, NON-CONDUCTIVE SHELL CONFORM TO ASTM D3121, FLEXIBLE ELASTOMERIC SEALS SHALL CONFORM TO ASTM F477, PER ASTM D1784 CELL CLASS 12454. (NYLOPLAST - 12" #2B12AG)
- E. THE BASIN ADAPTOR CONNECTIONS HAVE THE CAPABILITY TO CONNECT INTO VARIOUS TYPES (HDPE, PVC 5DR-35, PVC SGO-40, PVC C900, CORRUGATED/RIBBED PVC.
- F. ALL YARD DRAINS THAT ARE INSTALLED WITHIN PLANTING BEDS AND/OR MULCH BEDS SHALL HAVE A BEEHIVE/DOME GRATE WITH A STONE COLLAR SURROUNDING THEM TO PREVENT MULCH FROM WASHING INTO THE BASIN. STONE COLLAR TO BE 6" WIDE BY 8" THICK AROUND THE ENTIRE PERIMETER OF THE BASIN AND CONSIST OF 1" TO 2" ROUND RIVER ROCK. CONCRETE SHALL BE FASTENED/BOLT DOWN GRATE TO BASIN TO ENSURE GRATE IS SECURELY FASTENED IN PLACE.
- G. IF GRATES ARE LOCATED WITHIN PAVED OR WALKING AREAS, GRATES MUST BE SAFE FOR PEDESTRIAN TRAFFIC PER ADA REQUIREMENTS, BE LOCKING, BE DUCTILE IRON, AND MEET 1" TO 4" LOADING.



ELEVATION

Anchor 30" Long #6 Reinforcing Bar

Two 7'-8" Long #4 Reinforcing Bars

Reinforcing Bar (Anchor Pin)

6"

Figure 1: Typical cross-section of a concrete curb. The diagram shows a curb with a total width of 26 inches and a top width of 10 inches. The top surface is sloped at 3 inches at 45 degrees on both sides. The curb is 3 inches high. It is reinforced with #4 reinforcing bars (typical). The curb is shown on a 2-inch wide base, which is labeled as the 'Proposed Pavement'.

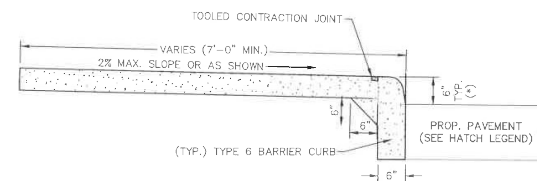
Diagram of a 12-inch wide curb and gutter section. The curb is 12 inches wide and 15 inches high. The gutter is 6 inches wide and 6 inches deep. The gutter is labeled "PROP. PAVEMENT (SEE HATCH LEGEND)".

- A. (*) HEIGHT VARIES WITH CURB EXPOSURE.
- B. CONCRETE WORK SHALL MEET THE REQUIREMENTS SET FORTH IN ODOT ITEM 509 CURBING.
- C. CURBING SHALL HAVE CONTRACTION JOINTS EVERY 10' AND EXPANSION JOINTS EVERY 100'.
- D. MINIMUM OF 6" OF ODOT 304 SHALL BE PLACED UNDER CURBING.
- E. CURBING SHALL BE BACKFILLED IMMEDIATELY AFTER FORMS ARE REMOVED OR AS SOON AS PRACTICAL WHEN SUPPORTING PRIOR TO OTHER CONSTRUCTION OPERATIONS.
- F. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.
- G. APPLY WHITE PIGMENTED CURING COMPOUND ON ALL SURFACES INCLUDING BACK IMMEDIATELY AFTER FINISHING SURFACES. ANY OTHER METHOD OR TYPE OF CURING COMPOUND SHALL BE PRE-APPROVED.
- H. ALL CONCRETE SHALL BE ODOT QC MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL).
- I. CONCRETE TO INCLUDE 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO SYNTHETIC MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 18" ASPERITY DEPTH TO 2" BELOW CONTRACTOR'S SMALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.

NTS

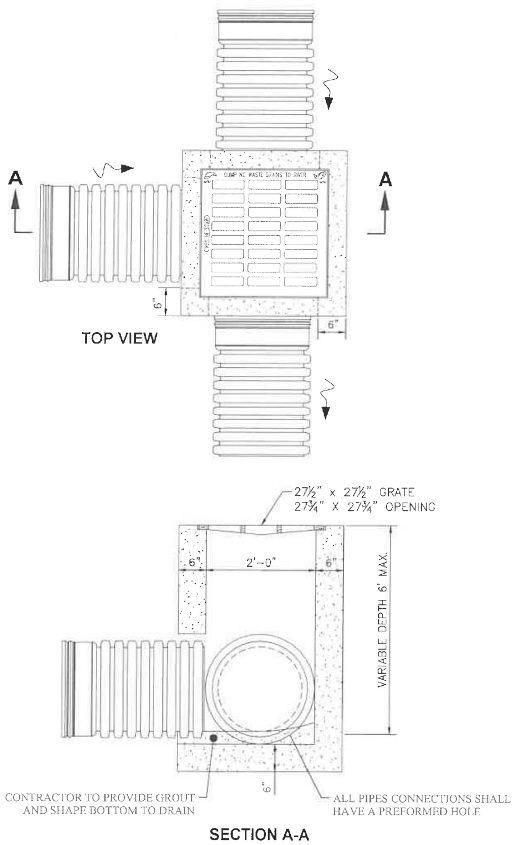
- A. WALK TO BE POURD ON 4" MINIMUM ODOT #304 OR ODOT #411 AGGREGATE.
- B. PROVIDE EDGING AND BROOM FINISH TO ALL EXPOSED SURFACES.
- C. CONCRETE SHALL CONFORM TO ODOT ITEM 499 CONCRETE AND WORK SHALL CONFORM TO ODOT ITEM 608, UNLESS OTHERWISE SPECIFIED WITHIN.
- D. USE WHITE PIGMENTED CURING COMPOUND IMMEDIATELY AFTER FINISHING SURFACES. ANY OTHER METHOD OR TYPE OF CURING COMPOUND MUST BE PREAPPROVED.
- E. ALL CONCRETE SHALL BE ODOT QC MISC. (CEMENT JOINT - NO POZZOLAN MATERIAL).
- F. PROPOSED CONCRETE WALK SHALL BE JOINTED AS CLOSE TO SQUARE AS POSSIBLE. JOINT SPACING MAY VARY SLIGHTLY DEPENDING ON THE LENGTH AND WIDTH OF THE PROPOSED SIDEWALK AREA. JOINTING SHALL BE JOINTED FROM 4'x4' TO 10'x10' IN ALL CASES. THE SIDEWALK SHALL BE JOINTED SO THAT THE MAXIMUM ASPECT RATIO (OF PANEL LENGTH TO WIDTH) OF THE JOINTING IS 1.25:1 OR LESS. CONTRACTOR TO VERIFY METHOD AND TYPE OF CONTROL JOINTING WITH OWNER PRIOR TO PERFORMING WORK.
- G. SIDEWALK SHALL HAVE EXPANSION JOINTS EVERY 100'.
- H. CONCRETE TO INCLUDE 3 LBS/CY OF EITHER EQUIVALENT CHEMICAL TUFTRUSID SF, FORTA FERRO SYNTHETIC MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2 LENGTH, 4500 PSI TENSILE TO 3000 PSI COMPRESSIVE CONTACT WITH FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.

NTS



- A. WALK TO BE POURED ON 4" MINIMUM ODOT #304 OR ODOT #411 AGGREGATE.
- B. PROVIDE EDGING AND BROOM FINISH TO ALL EXPOSED SURFACES.
- C. CONCRETE SHALL CONFORM TO ODOT ITEM 499 CONCRETE AND WORK SHALL CONFORM TO ODOT ITEM 608, UNLESS OTHERWISE SPECIFIED WITHIN.
- D. USE WHITE PIGMENTED CURING COMPOUND IMMEDIATELY AFTER FINISHING SURFACES. ANY OTHER METHOD OR TYPE OF CURING COMPOUND MUST BE PREAPPROVED.
- E. ALL CONCRETE SHALL BE ODOT GC MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL).
- F. PROPOSED CONCRETE SIDEWALK SHALL BE JOINED AS CLOSE TO SQUARE AS POSSIBLE. JOINT SPACING MAY VARY SLIGHTLY DEPENDING ON THE LENGTH AND WIDTH OF THE PROPOSED SIDEWALK AREAS. JOINT SPACING SHALL TYPICALLY RANGE FROM 4'X4' TO 10'X10'. IN ALL CASES, THE SIDEWALK SHALL BE JOINTED AT A MAXIMUM ASPECT RATIO OF PANEL LENGTH TO WIDTH OF THE JOINTING IS 1.25:1 OR LESS. CONTRACTOR TO VERIFY METHOD AND TYPE OF CONTROL JOINTING WITH OWNER PRIOR TO PERFORMING WORK.
- G. CURB/SIDEWALK SHALL HAVE EXPANSION JOINTS EVERY 100'.
- H. CONCRETE TO INCLUDE 3 LBS/CY OF EITHER EQUIVALENT CHEMICAL UFTJRASFD SF, FORTA FERRO SYNTHETIC MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1115 TYPE 3, MINIMUM 12" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER FOR 24 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.

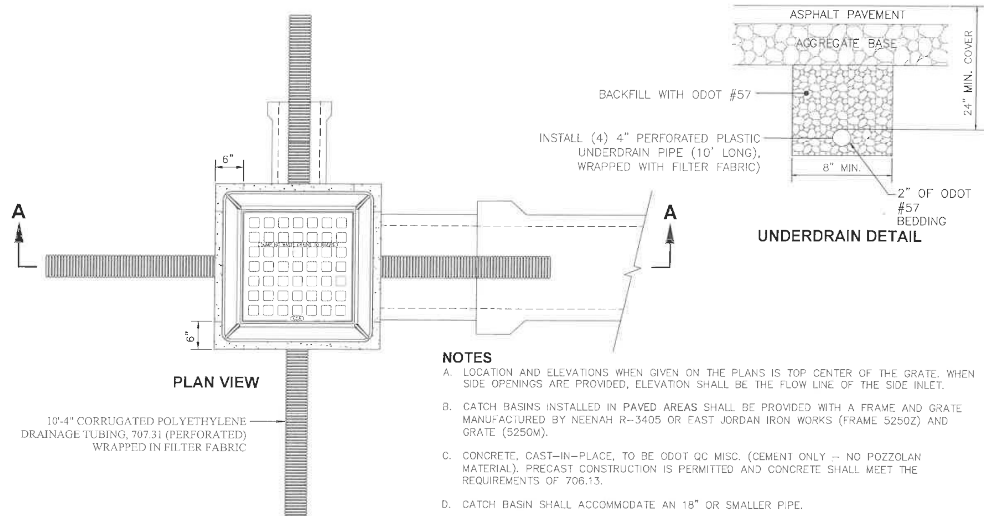
NTS



NOTES

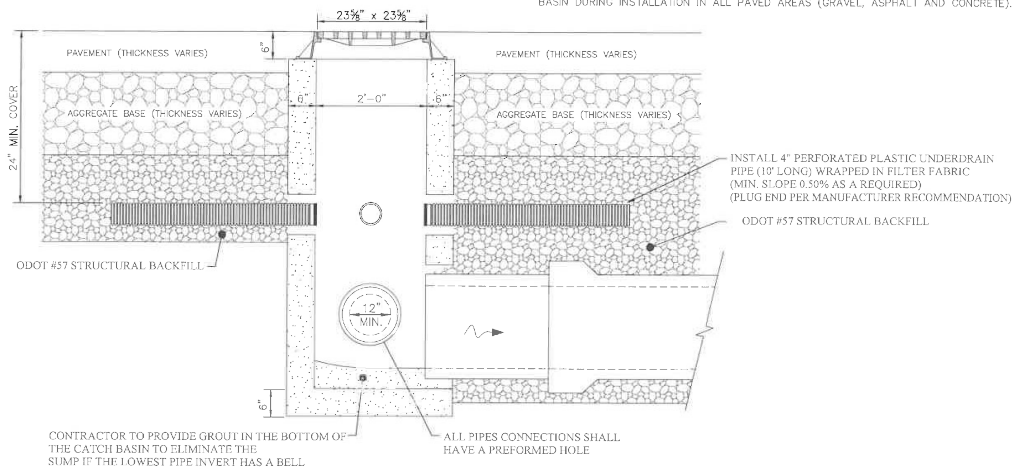
- LOCATION AND ELEVATIONS WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE. WHEN SIDE OPENINGS ARE PROVIDED, ELEVATION SHALL BE THE FLOW LINE OF THE SIDE INLET.
- CATCH BASINS INSTALLED IN NON-PAVED AREAS SHALL BE PROVIDED WITH A RECESSED GRATE MANUFACTURED BY NEENAH CATALOG NO. R-4859-C (TYPE A) OR EAST JORDAN IRON WORKS 5110 (TYPE M3) OR EQUIVALENT.
- CONCRETE, CAST-IN-PLACE, TO BE ODOT QC MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL). PRECAST CONSTRUCTION IS PERMITTED AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13.
- CATCH BASIN SHALL ACCOMMODATE AN 18\" OR SMALLER PIPE.
- PIPE TO INTRUDE INTO CATCH BASIN 1\" MAXIMUM AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. CONTRACTOR TO USE NON-SHRINK GROUT COMPLETELY SEAL AROUND THE PIPE AND CATCH BASIN.

2-2B CATCH BASIN (NON-PAVED AREAS)



NOTES

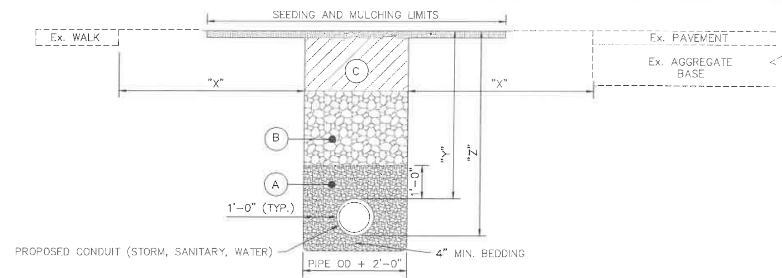
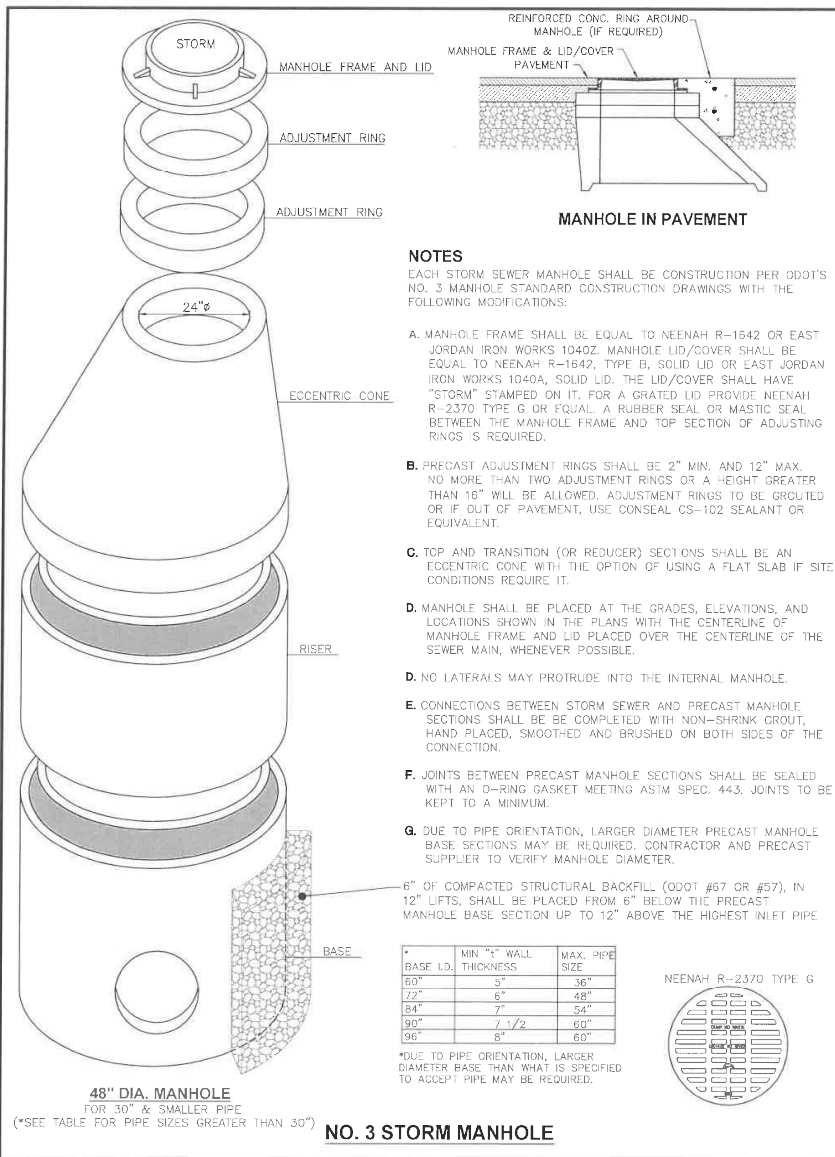
- LOCATION AND ELEVATIONS WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE. WHEN SIDE OPENINGS ARE PROVIDED, ELEVATION SHALL BE THE FLOW LINE OF THE SIDE INLET.
- CATCH BASINS INSTALLED IN PAVED AREAS SHALL BE PROVIDED WITH A FRAME AND GRATE MANUFACTURED BY NEENAH R-3405 OR EAST JORDAN IRON WORKS (FRAME S2502) AND GRATE (S250M).
- CONCRETE, CAST-IN-PLACE, TO BE ODOT QC MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL). PRECAST CONSTRUCTION IS PERMITTED AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13.
- CATCH BASIN SHALL ACCOMMODATE AN 18\" OR SMALLER PIPE.
- PIPE TO INTRUDE INTO CATCH BASIN 1\" MAXIMUM AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. CONTRACTOR TO USE NON-SHRINK GROUT COMPLETELY SEAL AROUND THE PIPE AND CATCH BASIN.
- THE CONTRACTOR SHALL ENSURE THE FRAME IS SECURELY BOLTED/FASTENED TO THE CATCH BASIN DURING INSTALLATION IN ALL PAVED AREAS (GRAVEL, ASPHALT AND CONCRETE).



2-2B CATCH BASIN (PAVED AREAS WITH UNDERDRAINS)

REVISIONS:

FILE NAME	GMB
DRAWN BY	JMK
CHECKED BY	ML S
PROJECT NO.	HAMCIN2107
DATE	11-3-2021
SHEET NUMBER	5 OF 29



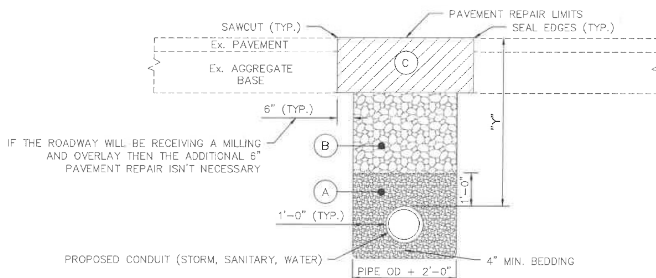
PRIVATE UTILITY TRENCH DETAIL (OUTSIDE PAVEMENT AREAS)

NTS

"X"= DISTANCE FROM EDGE OF TRENCH TO EDGE OF CLOSEST PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREA OR WALKS.

"Z"= DISTANCE FROM TOP OF BEDDING TO FINISH SURFACE.

"Y"= DEPTH OF COVER FOR PROPOSED CONDUIT
WATER MAINS.....4'-6" MIN. (REFER TO PROFILE)
STORM SEWERS.....2'-0" MIN. (REFER TO PROFILE)
SANITARY SEWERS.....4'-0" MIN. (REFER TO PROFILE)



PRIVATE UTILITY TRENCH DETAIL (IN PAVEMENT AREAS)

NTS

NOTES

- (A) BEDDING SHALL BE PER ODOT 703.11 "STRUCTURAL BACKFILL FOR 611 BEDDING AND BACKFILL" TYPE 3 (#57 OR #67 AGGREGATE), OR OTHER APPROVED EQUIVALENT BY THE CITY OF CINCINNATI. THE FOLLOWING BEDDING MATERIAL SHALL BE USED PER PROPOSED CONDUIT:
- WATER MAIN, WATER SERVICES, FIRE HYDRANTS AND APPURTENANCES - SHALL BE NATURAL CRUSHED STONE OR NATURAL GRAVEL.
 - STORM AND SANITARY SEWERS - SHALL BE CRUSHED LIMESTONE OR NATURAL CRUSHED STONE.
- (B) STRUCTURAL BACKFILL - DENSITY TEST TO 95% OF ASTM D698 STANDARD PROCTOR CURVE MAY BE REQUIRED BY THE CITY OF CINCINNATI TO BE COMPLETED BY A CERTIFIED COMMERCIAL TESTING LABORATORY.
- FOR "OUTSIDE PAVEMENT AREAS":
ALL TRENCHES WHERE "X" IS GREATER THAN "Z", THE BACKFILL MATERIAL SHALL BE COMPACTED NATIVE MATERIAL IN 12" MAXIMUM LIFTS OR AS APPROVED BY THE CITY OF CINCINNATI. NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS STONE, ROCKS, ETC., GREATER THAN 3" DIAMETER.
- ALL TRENCHES WHERE "Z" IS GREATER THAN "X", THE BACKFILL MATERIAL SHALL BE ODOT ITEM 703.11, TYPE 1 (#304 AGGREGATE). THE AGGREGATE SHALL BE COMPACTED IN 12" MAXIMUM LIFTS AND BE USED UNTIL THE BACKFILL HEIGHT RESULTS IN "X" BEING GREATER THAN "Z" AT WHICH TIME NATIVE BACKFILL CAN BE USED.
- FOR "IN PAVEMENT AREAS":
ALL TRENCHES SHALL HAVE ODOT ITEM 703.11, TYPE 1 (#304 AGGREGATE) BACKFILL PLACED FROM THE TOP OF THE BEDDING TO THE BOTTOM OF THE ROADWAY BASE.
- (C) ALL "OUTSIDE PAVEMENT AREAS" SHALL RECEIVE A MIN. OF 6" OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN SEEDED PER ODOT 659. ALL "IN PAVEMENT AREAS" SHALL FOLLOW THE CORRESPONDING PAVEMENT COMPOSITION PROVIDED IN THE HATCH LEGEND. THE "TRENCH DETAIL" SHOWS THE PAVEMENT REPAIR LIMITS. ANY PAVEMENT REPAIR BEYOND THIS WILL BE AT THE COST OF THE CONTRACTOR.

REVISIONS

FILE NAME	GMC
DRAWN BY	JMK
CHECKED BY	W.S.
PROJECT NO.	HANCN2107
DATE	11-1-2021
SHEET NUMBER	6 OF 29

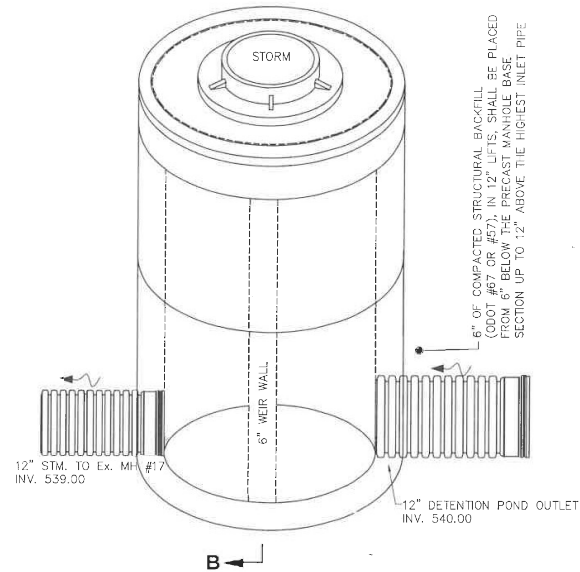
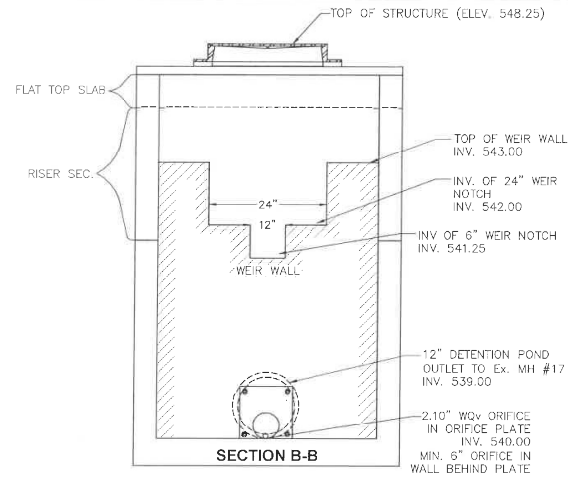
NOTES

EACH STORM SEWER MANHOLE SHALL BE CONSTRUCTION PER ODOT'S NO. 3 MANHOLE STANDARD CONSTRUCTION DRAWINGS WITH THE FOLLOWING MODIFICATIONS:

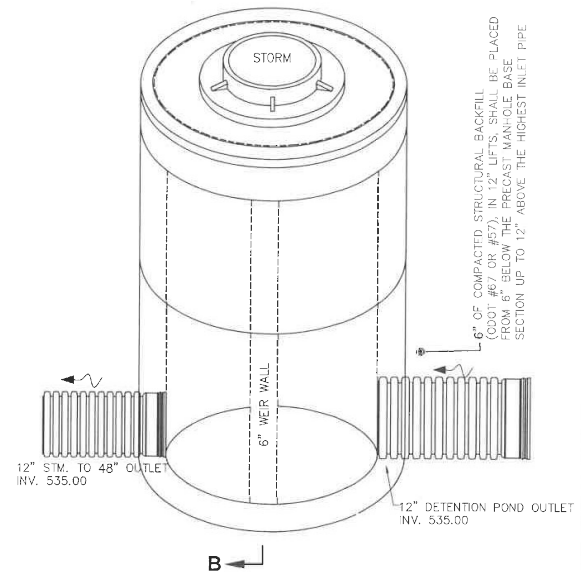
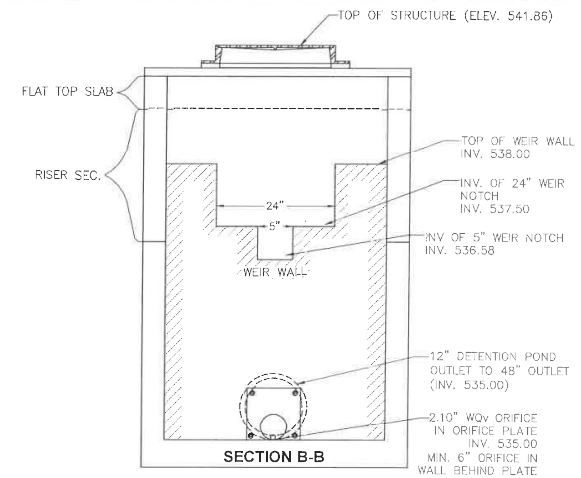
A. MANHOLE SHALL BE PLACED AT THE GRADES, ELEVATIONS, AND LOCATIONS SHOWN IN THE PLANS WITH THE CENTERLINE OF MANHOLE FRAME AND LID PLACED OVER THE CENTERLINE OF THE SEWER MAIN, WHENEVER POSSIBLE.

B. CONNECTIONS BETWEEN STORM SEWER AND PRECAST MANHOLE SECTIONS SHALL BE COMPLETED WITH NON-SHRINK GROUT, HAND PLACED, SMOOTHED AND BRUSHED ON BOTH SIDES OF THE CONNECTION.

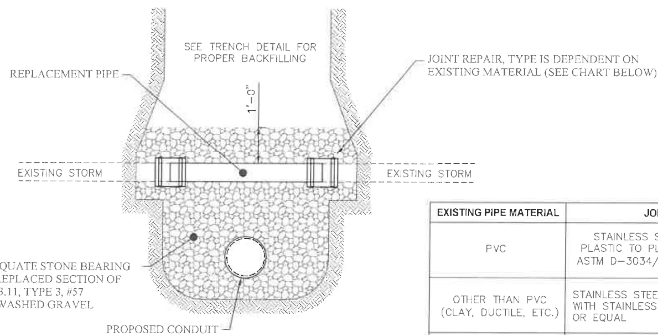
C. JOINTS BETWEEN PRECAST MANHOLE SECTIONS SHALL BE SEALED WITH AN O-RING GASKET MEETING ASTM SPEC. 443. JOINTS TO BE KEPT TO A MINIMUM.



48"Ø EAST SIDE - DETENTION OUTLET MANHOLE



48"Ø WEST SIDE - DETENTION OUTLET MANHOLE



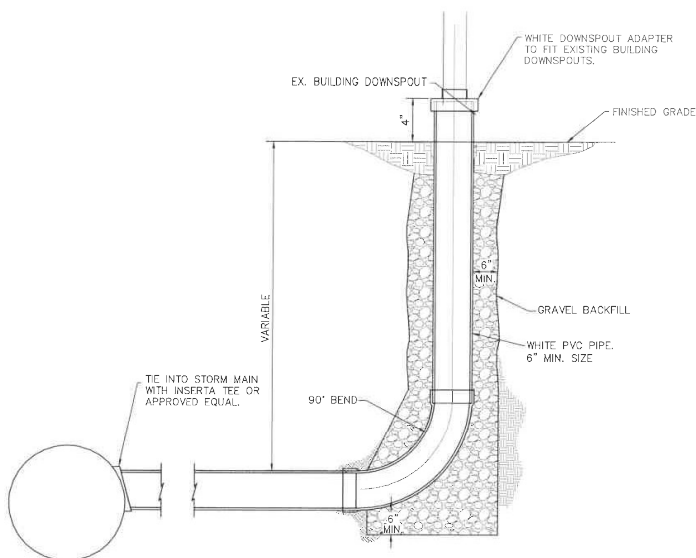
EXISTING PIPE MATERIAL	JOINT REPAIR
PVC	STAINLESS STEEL SOLID SLEEVE PLASTIC TO PLASTIC, PVC COUPLING ASTM D-3034/T-1336PSW OR EQUAL
OTHER THAN PVC (CLAY, DUCTILE, ETC.)	STAINLESS STEEL SOLID SLEEVE COUPLINGS WITH STAINLESS STEEL BANDS, EACH SIDE, OR EQUAL
CMP	CORRUGATED METAL PIPE COUPLING
RCP	CONCRETE COLLAR

NOTES

- CONCRETE REPAIRS OR PATCHES ARE UNACCEPTABLE.
- ANY DRAINAGE TILE DAMAGED BY THE CONTRACTOR MUST BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. ANYTHING REMOVED, REPLACED, AND/OR CONNECTED TO THE STORM SEWER MUST BE NOTED ON THE AS-BUILT DRAWINGS AND MUST BE INSPECTED BY THE INSPECTOR BEFORE THEY ARE RECOVERED.
- ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION MUST BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE CITY OF CINCINNATI.

REPAIR OF EXISTING FIELD TILE OR STORM PIPE DETAIL

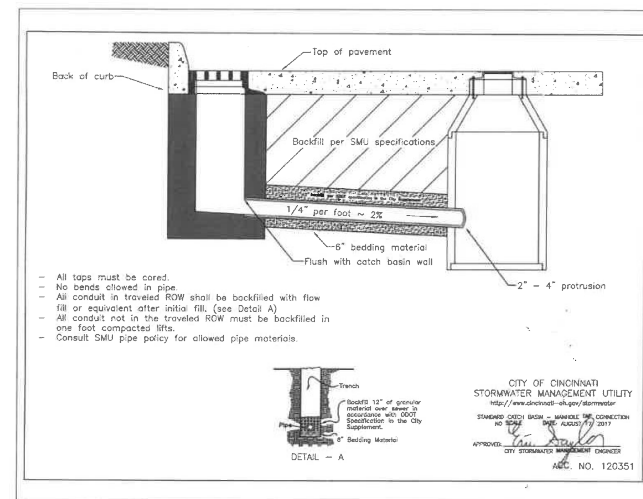
NTS



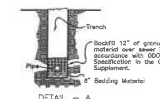
DOWNSPOUT COLLECTOR CONNECTIONS

SMU STANDARD PLAN NOTES

- ALL PLANS AND CONSTRUCTION WITHIN THE CITY OF CINCINNATI SHALL COMPLY WITH CHAPTER 720 OF THE CITY'S MUNICIPAL CODE ALONG WITH THE LATEST EDITIONS OF SMU'S: A) DETENTION OPERATION AND MAINTENANCE PLAN, B) FEES, C) STANDARD DRAWINGS, D) PIPE MATERIALS POLICY, AND E) RULES & REGULATIONS. THESE DOCUMENTS CAN BE DOWNLOADED FROM SMU'S WEBSITE AT: <http://www.cincinnati-oh.gov/stormwater/>. IF THERE ARE CONFLICTS BETWEEN THESE DOCUMENTS SMU SHALL BE CONTACTED TO RESOLVE THE ISSUE PRIOR TO WORK COMMENCING. SMU CAN BE REACHED AT 513-591-7748 OR STORMWATERMANAGEMENT@CINCINNATI-OH.GOV.
- TEMPORARY EROSION CONTROL MEASURES SHOWN ON THE PLANS SHALL BE INSTALLED AS EARLY AS POSSIBLE AND BE MAINTAINED THROUGHOUT THE PROJECT.
- A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)/MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT IS REQUIRED IF THE TOTAL LAND DISTURBANCE WILL BE EQUAL TO OR GREATER THAN ONE ACRE IN A STORM ONLY SEWER AND/OR IF DISCHARGING TO A CREEK. A COPY OF THE PERMIT MUST ACCOMPANY THE REQUEST FOR APPROVAL OF THE PLAN.
- SMU DOES NOT ALLOW TWO-PIECE CASTINGS OR SLAB TOP MANHOLES AND ONLY REINFORCED CONCRETE PIPE (RCP) OR DUCTILE IRON PIPE (DIP) IS PERMITTED WITHIN AN EASEMENT OR RIGHT-OF-WAY.
- SMU DOES NOT ALLOW ANY DRAINAGE STRUCTURES WITHIN 5 FEET OF A DRIVEWAY.
- ALL PUBLIC STORM DRAINAGE CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND WITH THE LATEST EDITION OF THE CITY OF CINCINNATI SUPPLEMENT TO THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. IF THERE IS A CONFLICT BETWEEN THE GOVERNING SPECIFICATIONS THE MOST STRINGENT SHALL BE USED. SMU SHALL BE CONTACTED TO RESOLVE ANY DISCREPANCIES PRIOR TO WORK COMMENCING. SMU CAN BE REACHED AT 513-591-7748 OR STORMWATERMANAGEMENT@CINCINNATI-OH.GOV.
- THE OWNERS OF ALL PROPERTIES SHOWN ON THIS IMPROVEMENT PLAN SHALL BE SUBJECT TO ALL APPLICABLE SEWER MAINLINE INSPECTION FEES, SERVICE CHARGES, ASSESSMENTS, TAP-IN CHARGES OR OTHER FEES, WHICH HAVE BEEN ESTABLISHED BY CITY COUNCIL, CITY OF CINCINNATI.
- ALL WORK DONE ON STORMWATER INFRASTRUCTURE WITHIN THE CITY OF CINCINNATI MUST BE DONE BY A CONTRACTOR WHO IS AN APPROVED SEWER TAPPER PROPERLY LICENSED AND BONDED THROUGH THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI.
- A STORMWATER TAP PERMIT IS REQUIRED FOR EACH BUILDING, BOND OR FINAL ACCEPTANCE OF THE MAIN LINE IS REQUIRED PRIOR TO ISSUANCE OF A TAP PERMIT. A SKETCH SHALL BE SUBMITTED BY THE PLUMBER, WHICH SHALL SHOW THE ELEVATION AND LOCATION OF THE STORMWATER TAP WITH RESPECT TO THE NEAREST STORM MANHOLE. A REQUEST FOR APPLICATION CAN BE SENT TO STORMWATERMANAGEMENT@CINCINNATI-OH.GOV.
- ALL PUBLIC STORMWATER INFRASTRUCTURE THAT IS BEING TAPPED INTO MUST BE CORDED, AND INSPECTED AS PART OF THE TAP PERMIT PROCESS.
- ALL STORMWATER INFRASTRUCTURE WITHIN THIS DEVELOPMENT IS TO BE PRIVATE AND MAINTAINED BY THE OWNER(S). [ONLY IF APPLICABLE.]
- STORMWATER INFRASTRUCTURE CONSTRUCTION MUST COMMENCE WITHIN 12 MONTHS AND BE COMPLETED WITHIN 36 MONTHS OF THE DATE OF APPROVAL SHOWN HEREON OR THESE PLANS BECOME VOID.
- NEAR THE COMPLETION OF WORK ON ALL STORMWATER INFRASTRUCTURE, THE [CONTRACTOR/OWNER/DEVELOPER/ETC.] SHALL REQUEST CAGS IDS FROM SMU. UPON COMPLETION OF THE WORK USING SAID IDS THE [CONTRACTOR/OWNER/DEVELOPER/ETC.] SHALL CLOSE CIRCUIT TELEVISION (CCTV) THE PUBLIC STORMWATER MAINLINES AS WELL AS PROVIDE DIGITAL PHOTOGRAPHS OF THE LINES AND STRUCTURES. THE CCTV SHALL BE PIPELINE ASSESSMENT CERTIFICATION PROGRAM (PACP)-COMPLIANT AND SUBMITTED TO SMU FOR APPROVAL.
- FINAL ACCEPTANCE: IN ORDER FOR SMU TO GRANT FINAL ACCEPTANCE THE FOLLOWING MUST BE SUPPLIED:
 - AS-BUILT DRAWINGS WITH ACCURATE LOCATIONS, DESCRIPTIONS, AND QUANTITIES OF THE INSTALLED MATERIALS
 - FINAL CLEANING AND INSPECTION BY THE OWNER OF THE INFRASTRUCTURE MUST BE COMPLETED AND WITHOUT CONFLICTS.
- SMU RESERVES THE RIGHT TO REFUSE OWNERSHIP ON BEHALF OF THE CITY.
- SHOP DRAWINGS FOR ALL STORMWATER STRUCTURES SHALL BE SUBMITTED TO SMU FOR REVIEW BEFORE DELIVERY ONSITE.



- All taps must be cored.
- No bends allowed in pipe.
- All conduit in traveled ROW shall be backfilled with flow fill or equivalent after initial fill. (see Detail A)
- All conduit not in the traveled ROW must be backfilled in one foot compacted lifts.
- Consult SMU pipe policy for allowed pipe materials.



CITY OF CINCINNATI
STORMWATER MANAGEMENT UTILITY
<http://www.cincinnati-oh.gov/stormwater/>
STANDARD CITY BOOK - MANHOLE PIPE CONNECTION
NO. 2004
APPROVED: *[Signature]*
CITY STORMWATER MANAGEMENT DIVISION
ARC. NO. 120351

SMU MANHOLE STORM CONNECTION DETAIL

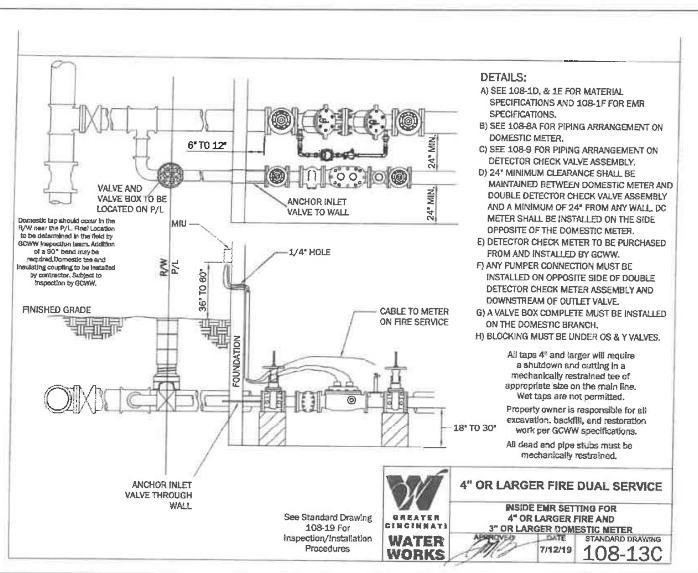


SENTE, OHIO 45247-0000
CINCINNATI, OHIO 45247-0000
www.CHOICEONEENGINEERING.com

HALLMAR STUDENT HOUSING
CITY OF CINCINNATI
GENERAL DETAILS

REVISIONS:

FILE NAME
GME
DRAWN BY
JMK
CHECKED BY
M.S.
PROJECT NO.
HAMCIN2107
DATE
11-3-2021
SHEET NUMBER
8 OF 29



3/4" REINFORCING BARS TO BE
PLACED ON THRUST SIDE 6" O.C.

CONCRETE BLOCKING TO BE
PLACED AGAINST UNDISTURBED
EARTH.

NOTE:
THIS STD. DWG. SHALL BE UTILIZED FOR BLOCKING OF TEES, 90° BENDS,
FIRE HYDRANTS, AND PLUGS

SIZE		75 P.S.I. & UNDER				75 P.S.I. TO 125 P.S.I.				125 P.S.I. TO 200 P.S.I.			
RUN	BRANCH	A	B	CONC.	STEEL	RUN	BRANCH	A	B	CONC.	STEEL	RUN	BRANCH
6"	6"	1 1/2"	1 1/2"	0.1	17	2 1/2"	1 1/2"	0.1	23	2 1/2"	2 1/2"	0.2	30
8"	6"	1 1/2"	1 1/2"	0.1	17	2 1/2"	1 1/2"	0.1	23	2 1/2"	2 1/2"	0.2	30
12"	6"	1 1/2"	2 1/2"	0.2	18	2 1/2"	2 1/2"	0.2	24	2 1/2"	2 1/2"	0.2	30
16"	6"	1 1/2"	2 1/2"	0.2	23	1 1/2"	2 1/2"	0.2	23	2 1/2"	2 1/2"	0.2	30
20"	6"	1 1/2"	2 1/2"	0.2	26	1 1/2"	2 1/2"	0.2	26	1 1/2"	2 1/2"	0.2	33
8"	8"	2 1/2"	2 1/2"	0.2	24	2 1/2"	2 1/2"	0.2	26	1 1/2"	2 1/2"	0.2	32
10"	8"	2 1/2"	2 1/2"	0.2	24	2 1/2"	2 1/2"	0.2	26	1 1/2"	2 1/2"	0.2	32
12"	8"	2 1/2"	2 1/2"	0.2	24	2 1/2"	2 1/2"	0.2	26	1 1/2"	2 1/2"	0.2	32
16"	8"	2 1/2"	2 1/2"	0.2	24	2 1/2"	2 1/2"	0.3	35	3 1/2"	2 1/2"	0.3	32
20"	8"	2 1/2"	2 1/2"	0.2	24	2 1/2"	2 1/2"	0.4	35	3 1/2"	2 1/2"	0.4	39
12"	12"	3 1/2"	3 1/2"	0.5	54	4 1/2"	2 1/2"	0.4	55	4 1/2"	3 1/2"	0.7	35
16"	12"	3 1/2"	3 1/2"	0.5	54	4 1/2"	2 1/2"	0.4	55	4 1/2"	3 1/2"	0.7	38
20"	12"	3 1/2"	3 1/2"	0.5	54	4 1/2"	2 1/2"	0.6	60	4 1/2"	3 1/2"	1.0	108
20"	16"	4 1/2"	3 1/2"	0.8	84	4 1/2"	4 1/2"	1.0	108	6 1/2"	3 1/2"	1.3	180
20"	20"	4 1/2"	4 1/2"	1.1	122	5 1/2"	5 1/2"	1.4	165	7 1/2"	6 1/2"	2.0	232

NOTE: 1. PRESSURE RANGES AS SHOWN ARE
OPERATING PRESSURES. CONCRETE AND
STEEL QUANTITIES ARE CALCULATED
USING OPERATING PRESSURE PLUS 50 P.S.I.

2. CONCRETE AND STEEL QUANTITIES ARE FOR
ESTIMATING PURPOSES ONLY.

3. IN LIEU OF STEEL REINFORCING BARS, THE CONTRACTOR HAS THE OPTION
TO USE WELDED WIRE FABRIC SHEETS (12 X 12 - #5.8 @ X #5.8) @ 42 LBS.
PER 100 S.F.

CONCRETE BLOCKING FOR FITTINGS

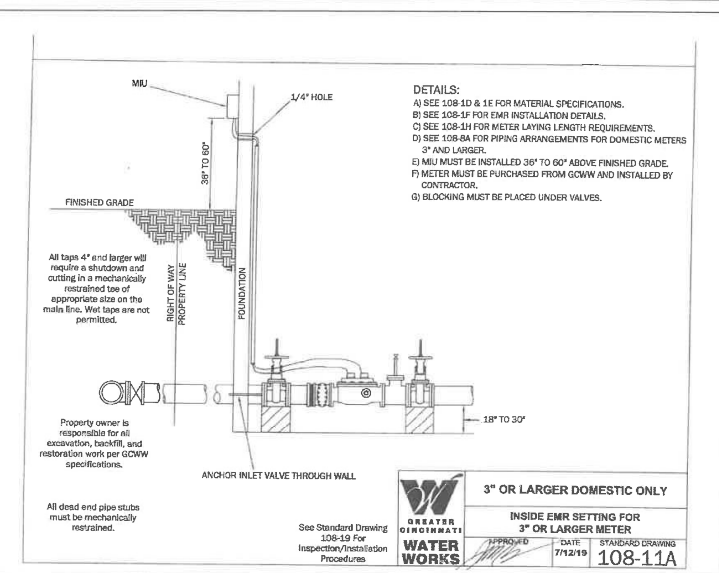
TEES

APPROVED

DATE

STANDARD DRAWING

101-5

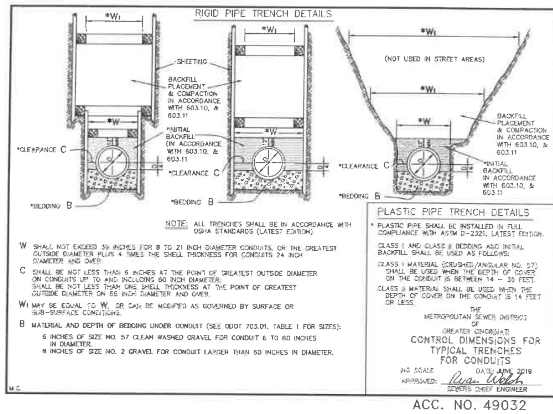


Large Branch (4 inch and larger) Installation Procedures:

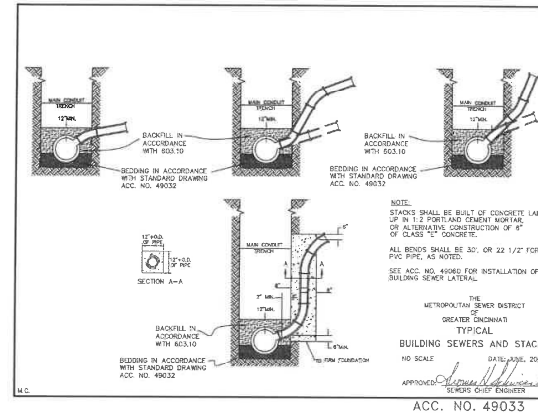
- The GCWW Inspection Section (513) 591-7870 is responsible to inspect the installation of the tap from the water main up to the Right-of-Way (ROW) Line, or location approved by the GCWW.
- The GCWW Premise Services Section (513) 591-7825 is responsible to inspect the installation from the ROW to the meter, including the meter pit and/or Ford/Monitor heads.
- The contractor shall secure and provide to the GCWW Inspector a Temporary Water Use Permit. The Temporary Use Permits are obtained from the GCWW Premise Services Section (513) 591-7825. Failure to provide a Temporary Use Permit to the Inspector will result in the work being cancelled until the permit is secured.
- All Taps (4 inch and above) taps will be made by means of a shut down and cutting in a tee. A "Wye Tap" will not be permitted to be made except in extraordinary circumstances as approved by the GCWW Supervisor of Inspection.
- Only one (1) Solid Sleeve will be permitted if the installation is on nominal size Cast or Ductile Iron Pipe.
- The use of two (2) Dual Purpose or Overlap Sleeves will only be permitted on oversized pipe.
- If a Dual or Tri Service Branch, the Inspection Section will require both the fire branch and domestic services to be installed at the same time. The Inspector will not allow the installation of only the fire branch, then return at a later date to install the domestic service(s).
- Upon installation to the ROW line or approved location, the contractor shall end with a hub and cap. The plug shall be restrained by means of mechanical restraint device approved by the GCWW.
- The branch will be energized once installed to the ROW line and effectively plugged.
- Installation of service branches shall be limited to a standard eight (8) hour day.
- Some installations will require weekend, holiday or after normal hour work to accommodate GCWW customer's needs. The GCWW Inspector will coordinate other than normal hours with the contractor.
- A charge of eight (8) hours at current Inspector rate will be billed to the contractor if for any reason the contractor chooses to cancel a scheduled shutdown. This fee is over and above the Inspection Fee included in the purchase price of the tap.
- All work associated with the branch installation shall be performed with a GCWW Inspector present and performed to the current GCWW Standard Drawings, and in accordance with the current City Supplement to the State of Ohio Department of Transportation Construction and material specifications Manual.

Large Branch (4 inch and larger) Purchase & Staking Procedures:

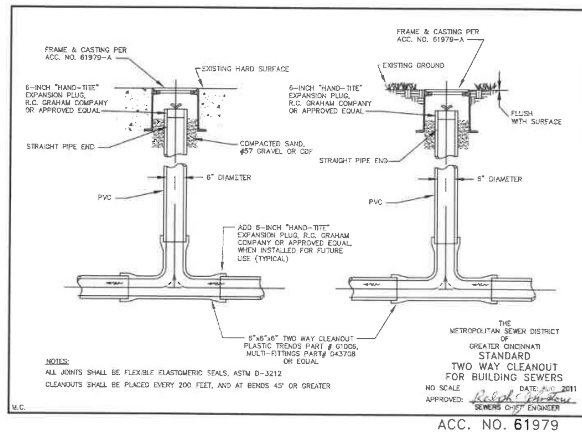
- The Developer or his representative shall provide the following to the GCWW Branch Services Section:
 - Properly completed application(s) for new water service.
 - GCWW Contractor's Bond for \$10,000.00
 - A Contractor's Letter of Intent stating the site address, scope of work and intended start date on company letter head.
 - A Street Opening Permit from the proper road authority (even if the pavement is not being cut), with the exception of ODOT and Warren County. ODOT and Warren County permits must be secured by the GCWW.
 - Payment in full for the new branch.
- Once the conditions of Item Number 1 are met, the Developers Representative shall:
 - Stake the desired location in the field by means of a blue top stake, paint mark, or another acceptable means of identifying the location.
 - Notify the GCWW Tap Locator (513) 591-7873, that the location has been marked.
 - The GCWW Tap Locator will investigate the desired location to assure installation can take place as desired free of any field obstructions. If an obstruction is found, the GCWW Tap Locator will contact the Developer's Representative to mutually agree upon a new location for the tap.
 - Once the location is approved by the GCWW Tap Locator, the Locator will contact the Developer's Representative to inform him/her that the location is acceptable. At that time the Developer's representative may contact the GCWW Supervisor of Inspection (513) 591-7870 to schedule installation.
 - The GCWW Supervisor of Inspection will reserve up to seven business days before permitting the start of installation.



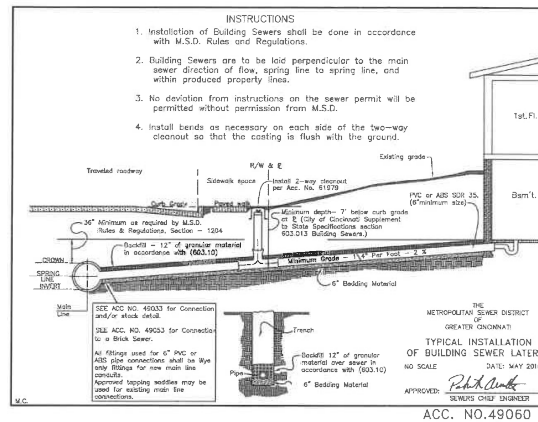
CINCINNATI MSD SEWER TRENCH DETAIL



CINCINNATI MSD SEWER CONNECTION DETAIL



CINCINNATI MSD SEWER CLEANOUT DETAIL



CINCINNATI MSD SEWER LATERAL DETAIL

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	



SiteASSIST[™]
FOR STORMTECH
INSTRUCTIONS,
DOWNLOAD THE
INSTALLATION APP



CINCY STUDENT HOUSING - WEST SIDE

CINCINNATI, OH

DC-780 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH DC-780.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (1-MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.55 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD. THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 5 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE DC-780 CHAMBER SYSTEM

- STORMTECH DC-780 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH DC-780 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONE/SIDOTEX LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELLED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH DC-780 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- THE USE OF CONSTRUCTION EQUIPMENT OVER DC-780 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER Tired LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2664 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

#31017 ADS, INC.



STORMTECH DC-780, DC-780, DC-780
LOVELAND, OH 45158-1854
www.CHOICEONEENGINEERING.com

HALLMARK STUDENT HOUSING
CITY OF CINCINNATI
UNDERGROUND DETENTION DETAILS

REVISIONS:

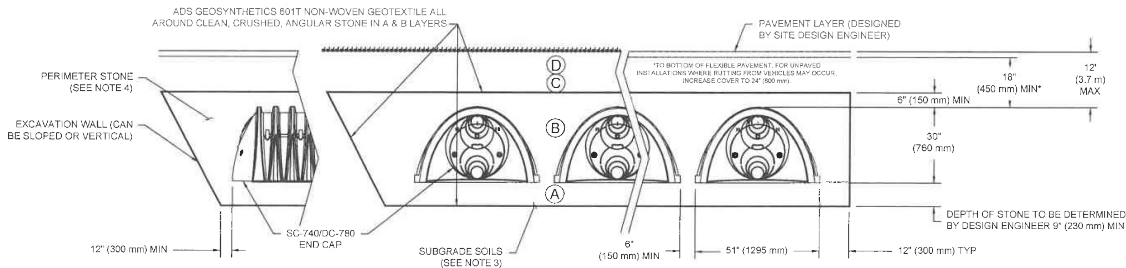
FILE NAME	UGCOVER
DRAWN BY	JMK
CHECKED BY	M.S.
PROJECT NO.	HAMCIND107
DATE	11-3-2021
SHEET NUMBER	12 OF 29

ACCEPTABLE FILL MATERIALS: STORMTECH DC-780 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 ¹ A-1, A-2.4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 86, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER CROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (200 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2419-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- DC-780 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

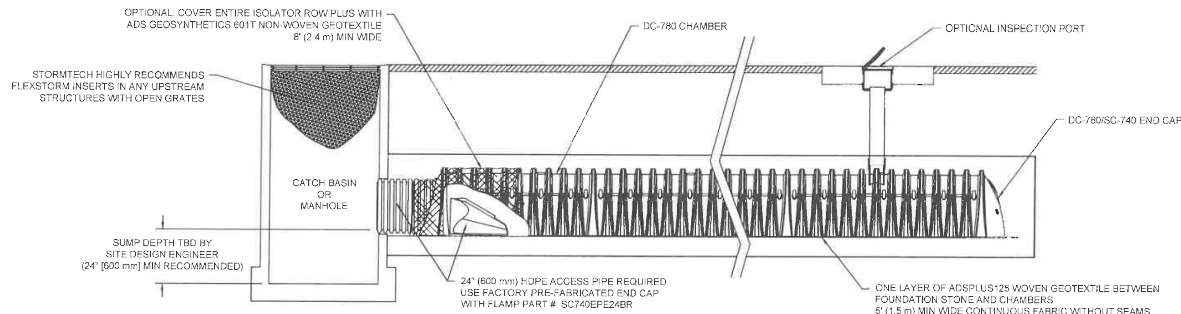
CINCY STUDENT HOUSING - WEST SIDE CINCINNATI, OH	
REV	DESCRIPTION
DRAWN BY	
CHECKED BY	
DATE	
PROJECT #	
DRAWN: JMK	CHECKED: N/A
888-892-2884 WWW.STORMTECH.COM	
StormTech® Chamber System	
4400 TREMBLAN BLVD HILLIARD, OH 43026 1-800-733-7473	FILED UNDER THE FOLLOWING PROJECT INFORMATION: PROJECT #, DATE, SITE, DESIGNER, DRAWN BY, CHECKED BY, DATE, SCALE, REVISIONS, AND PROJECT REPRESENTATIVE.
SHEET 3 OF 6	



SINCE: 08/07/2020
LAST REV: 08/07/2020
WWW.CHOICEONEENGINEERING.COM

HALLMAR STUDENT HOUSING
CITY OF CINCINNATI
UNDERGROUND DETENTION DETAILS

REVISIONS:
FILE NAME US NOTES 1
DRAWN BY JMK
CHECKED BY MJS
PROJECT NO. HAMCIN2107
DATE 11-3-2021
SHEET NUMBER 13 OF 29



DC-780 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

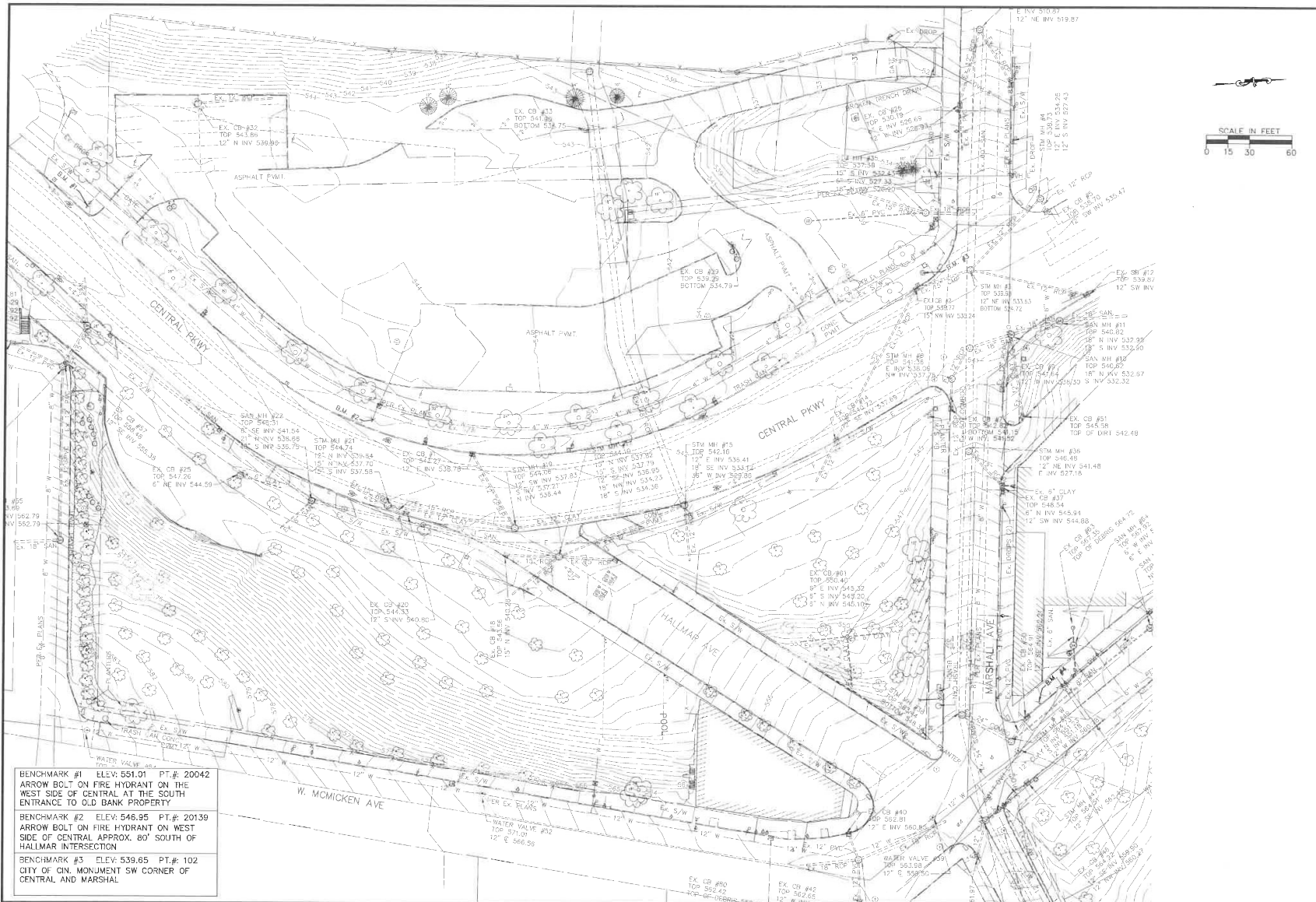
- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT)
 - REMOVE/OPEN LID ON NYLOPLAST IN-LINE DRAIN
 - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - ALL ISOLATOR PLUS ROWS
 - REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS, RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

StormTech® Chamber System 888-882-2984 WWW.STORMTECH.COM		CINCINNATI, OH	
		CINCINNATI, OH	
ADS 4540 TRUBMAN BLVD HILLIARD, OH 43026 1-800-733-7473	REV	DRAWN	CHK
	DESCRIPTION		
SHEET 4 OF 6		DATE:	DRAWN: MK
		PROJECT #:	CHECKED: NA

STORMTECH SYSTEMS, INC. IS NOT RESPONSIBLE FOR THE DESIGN OR CONSTRUCTION OF ANY PROJECT BASED ON THIS DRAWING. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ANY PROJECT BASED ON THIS DRAWING. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ANY PROJECT BASED ON THIS DRAWING.



BENCHMARK #1 ELEV: 551.01 PT.# 20042
 ARROW BOLT ON FIRE HYDRANT ON THE
 WEST SIDE OF CENTRAL AT THE SOUTH
 ENTRANCE TO OLD BANK PROPERTY

BENCHMARK #2 ELEV: 546.95 PT.# 20139
 ARROW BOLT ON FIRE HYDRANT ON WEST
 SIDE OF CENTRAL APPROX. 80' SOUTH OF
 HALLMAR INTERSECTION

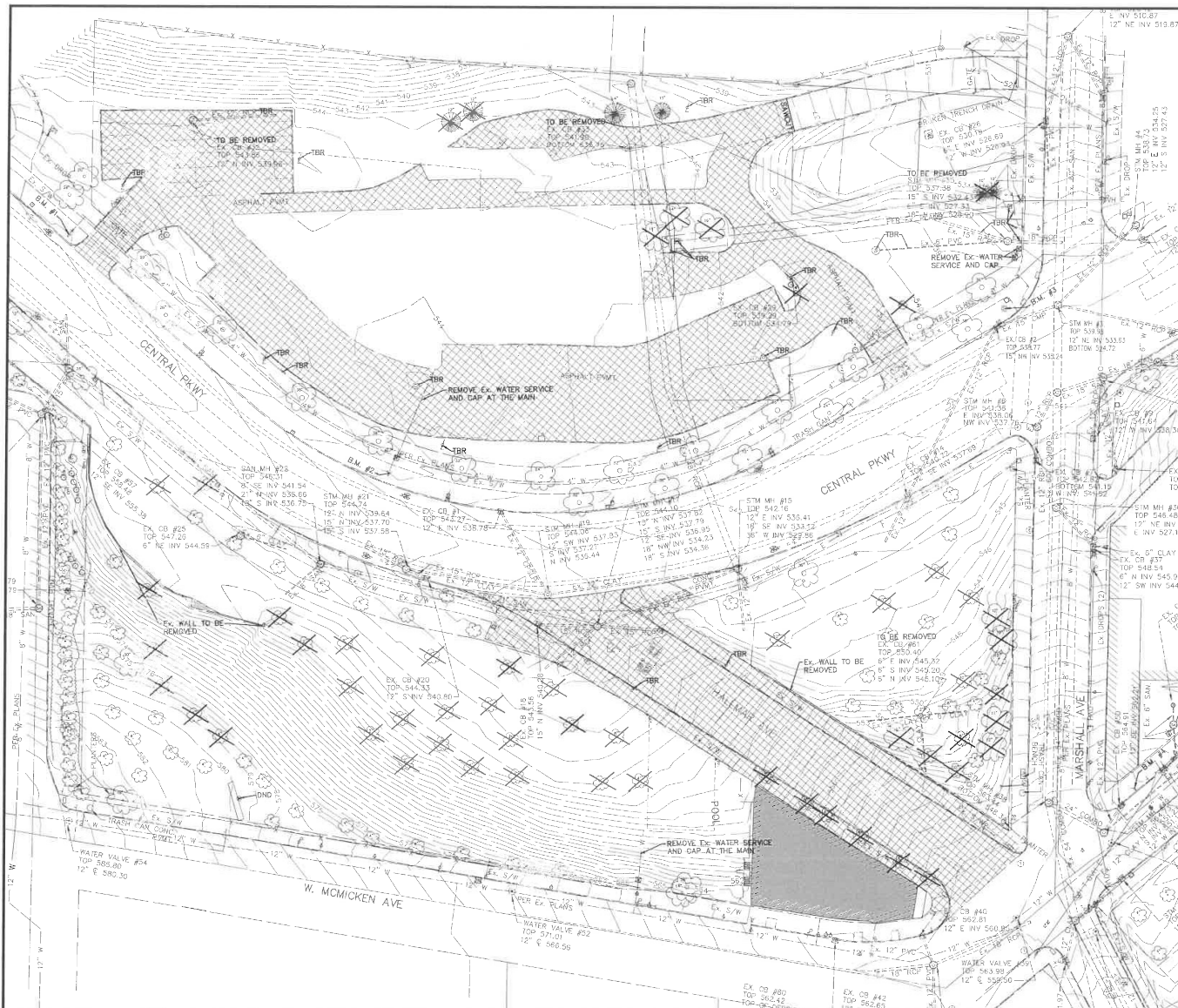
BENCHMARK #3 ELEV: 539.65 PT.# 102
 CITY OF CIN. MONUMENT SW CORNER OF
 CENTRAL AND MARSHAL



SENCE, CHMO, 937.497.4000
 LOFT, MAC, CHMO, 513.229.8254
 www.CHOICEONEENGINEERING.com

**HALLMAR STUDENT HOUSING
 CITY OF CINCINNATI
 EXISTING CONDITIONS PLAN**

REVISIONS:	
FILE NAME	EXISTING CONDITIONS
DRAWN BY	JMK
CHECKED BY	MLS
PROJECT NO.	HAMCIN2107
DATE	11-3-2021
SHEET NUMBER	15 OF 29



DEMO NOTES

CONTRACTOR TO REMOVE AND DISPOSE OF ALL EXISTING ITEMS WITHIN THE PROJECT LIMITS/AREA AS NEEDED TO CONSTRUCT THE PROPOSED PROJECT AND AS DIRECTED BY THE OWNER. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO: EXISTING ASPHALT PAVEMENT, CONCRETE PAVEMENT, WALK, CURB, PARKING BLOCKS, STEPS, RETAINING WALLS, CATCH BASINS, MANHOLES, PIPING, VALVES, POSTS, FENCE, LIGHT POLES, ELECTRIC POLES, FILL WADERS, FOUNDATIONS, TREES, STUMPS, LANDSCAPING, ETC. THIS WORK SHALL INCLUDE REMOVING ALL EXISTING FOUNDATIONS, FOOTINGS, UNDERGROUND PORTIONS OF, ETC. FOR ALL ITEMS TO BE REMOVED/DEMOLISHED.

CONTRACTOR TO VERIFY EXACT ITEMS TO BE REMOVED OR ABANDONED IN PLACE AND THE APPROPRIATE TIMING TO REMOVE OR ABANDON THEM WITH THE OWNER PRIOR TO THEIR REMOVAL OR ABANDONMENT. CERTAIN SERVICES MAY NEED TO BE KEPT IN OPERATION AS LONG AS POSSIBLE OR REPLACED WITH TEMPORARY SERVICES. OWNER TO DETERMINE TIMING AND NEED FOR ANY TEMPORARY SERVICES.

THERE MAY BE OTHER UNKNOWN UNDERGROUND UTILITIES, SERVICES OR ITEMS WHICH MAY BE LOCATED WITHIN THE SITE AND MAY REQUIRE REMOVAL OR REROUTING IN ORDER TO PERFORM THE PROPOSED PROJECT. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY OF ANY UNKNOWN UNDERGROUND UTILITIES OR OTHER ITEMS WHICH ARE ENCOUNTERED AND WORK WITH THE OWNER TO DECIDE HOW THESE ITEMS SHOULD BE HANDLED.

CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE REMOVAL OF UTILITIES.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL CHECK WITH AND VERIFY WITH OWNER ALL ITEMS WHICH THE OWNER WANTS TO SALVAGE. ALL ITEMS DESIGNATED FOR SALVAGE BY THE OWNER, WHICH MAY INCLUDE BUT IS NOT LIMITED TO SUCH ITEMS AS: LIGHT POLES, LUMINAIRES, SIGNS (INCLUDING POSTS), ETC., AND ANY OTHER ITEMS DESIGNATED FOR SALVAGE BY THE OWNER WHICH ARE TO BE REMOVED SHALL BE CAREFULLY SALVAGED AND SHALL REMAIN THE PROPERTY OF THE OWNER. ALL ITEMS WHICH ARE REMOVED AND THE OWNER DOES NOT WANT TO SALVAGE SHALL BE REMOVED FROM THE SITE AND SHALL BECOME THE CONTRACTOR'S PROPERTY FOR PROPER DISPOSAL OFF-SITE, UNLESS OTHERWISE NOTED.

DEMOLITION OF ALL ITEMS TO BE PER ALL FEDERAL, STATE AND LOCAL CODES, REGULATIONS AND STANDARDS. ALL DEMOLITION PERMITS TO BE OBTAINED PRIOR TO DEMOLITION.

DEMO EXISTING PAVEMENT NOTE:
DEMOLITION EDGE IN EXISTING PAVEMENT SHALL BE STRAIGHT, CLEAN AND TRUE.

EXISTING ELECTRICAL NOTE:
CONTRACTOR SHALL REFER TO THE ELECTRICAL DRAWINGS FOR DEMO INFO. ON HOW ALL EXISTING ELECTRICAL ITEMS FOR THE SITE ARE TO BE HANDLED AND ADDRESSED.

LEGEND

X EXISTING ITEMS TO BE REMOVED

TBR = TO BE REMOVED (EXISTING ITEMS)

DND = DO NOT DISTURB (EXISTING ITEMS)

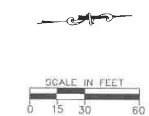
EXISTING BUILDING TO BE REMOVED

EXISTING PAVEMENT, CURBING, WALK, ETC. REMOVAL LIMITS TO BE PERFORMED AS NEEDED BASED ON ACTUAL CONSTRUCTION REQUIREMENTS

BENCHMARK #1 ELEV: 551.01 PT# 20042
ARROW BOLT ON FIRE HYDRANT ON THE WEST SIDE OF CENTRAL AT THE SOUTH ENTRANCE TO OLD BANK PROPERTY

BENCHMARK #2 ELEV: 548.95 PT# 20139
ARROW BOLT ON FIRE HYDRANT ON WEST SIDE OF CENTRAL APPROX. 80' SOUTH OF HALLMARK INTERSECTION

BENCHMARK #3 ELEV: 539.65 PT# 102
CITY OF CIN. MONUMENT SW CORNER OF CENTRAL AND MARSHAL



ChoiceOne
Engineering

3000 S. W. 10th Ave.
Louisville, KY 40203
www.choiceoneengineering.com

**HALLMARK STUDENT HOUSING
CITY OF CINCINNATI
DEMOLITION PLAN**

REVISIONS:

FILE NAME	DATE
DEMOLITION	
DRAWN BY	JMK
CHECKED BY	MJS
PROJECT NO.	HAMCIN2107
DATE	11-3-2021
SHEET NUMBER	17 OF 29

EXISTING UTILITY NOTES:

CONTRACTOR SHALL DETERMINE THE TYPE OF SERVICE FOR ALL EXISTING UNDERGROUND LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION AND SHALL ENSURE THE FOLLOWING:

1. THAT ALL EXISTING STORM LINES OR ANY OTHER EXISTING CLEAN WATER DRAINAGE LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE OR NEED TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO THE PROPOSED OR EXISTING STORM SEWER.

2. THAT ALL EXISTING SANITARY LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO ACTIVE EXISTING SANITARY SEWER LINES/STRUCTURES OR INTO PROPOSED SANITARY SEWER LINES/STRUCTURES.

3. THAT ALL EXISTING WATER LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO ACTIVE EXISTING WATER LINES OR INTO PROPOSED WATER LINES.

ALL WORK TO BE PER AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND TO BE WITNESSED BY THE OWNER'S REP. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

LOCATE EXISTING UTILITIES NOTE:

THIS ITEM OF WORK MAY BE PERFORMED ON AS NEEDED BASIS AND SHALL CONSIST OF THE CONTRACTOR FIELD LOCATING THE VARIOUS EXISTING UTILITY LINES LOCATION, SIZE, AND DEPTH PRIOR TO PERFORMING ANY PROPOSED WORK OR ONCE WORK HAS BEGUN. THIS WORK MAY ALSO REQUIRE THE CONTRACTOR TO INSPECT THE LINES BY OTHER METHODS SUCH AS DYE TESTING OR CAMERA/VIDEO TO FIND THE ORIGIN AND LOCATION OF THE LINE. THE CONTRACTOR SHALL COOPERATE AND COORDINATE WITH THE OWNER AS NEEDED TO ENSURE EXISTING FACILITY OPERATIONS ARE MAINTAINED.

ALL WORK TO BE PER AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND TO BE WITNESSED BY THE OWNER'S REPRESENTATIVE. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

UNKNOWN EXISTING UNDERGROUND UTILITIES:

CONTRACTOR TO BE AWARE THERE MAY BE OTHER UNKNOWN SERVICES OR UNKNOWN UNDERGROUND UTILITIES OR ITEMS WHICH MAY BE LOCATED WITHIN THE SITE AND MAY REQUIRE REMOVAL OR REROUTING IN ORDER TO PERFORM THE PROPOSED PROJECT. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY OF ANY UNKNOWN UNDERGROUND UTILITIES OR OTHER ITEMS WHICH ARE ENCOUNTERED AND WORK WITH THE OWNER TO DECIDE HOW THESE ITEMS SHOULD BE HANDLED.

GAS, ELECTRIC, COMMUNICATION CONFLICT NOTE:

CONTRACTOR TO LOWER/DIP THESE UTILITIES AS NEEDED TO AVOID CONFLICTS WITH ANY PROPOSED OR EXISTING SANITARY OR STORM OR WATER LINES THEY MAY CONFLICT WITH. IF THESE UTILITY LINES CONFLICT WITH ANY PROPOSED OR EXISTING WATERLINES THEN CONTRACTOR TO DETERMINE WHETHER TO LOWER/DIP THE WATERLINE OR LOWER/DIP THE GAS/ELECTRIC/COMMUNICATION LINE(S). CONTRACTOR MAY NEED TO CONSULT WITH AND OBTAIN OWNER'S APPROVAL AS TO WHICH UTILITY WILL BE LOWERED PRIOR TO PERFORMING THIS WORK. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

ELECTRICAL/MECHANICAL NOTE:

CONTRACTOR SHALL REFER TO THE ELECTRICAL/MECHANICAL DRAWINGS FOR DEMOLITION AND/OR INSTALLATION INFO. OF ALL EXISTING AND PROPOSED ELECTRICAL/MECHANICAL ITEMS FOR THE SITE AND/OR HOW THESE ITEMS ARE TO BE HANDLED AND ADDRESSED.

EXISTING "APPROXIMATE" AND/OR "PER PLANS" UNDERGROUND UTILITIES NOTE:

EXISTING UNDERGROUND UTILITIES LABELED AS "APPROXIMATE" AND/OR "PER PLANS" HAVE BEEN SHOWN BASED ON PREVIOUS PLANS AND OLD SITE INFORMATION AND THEIR EXACT LOCATION, DEPTH, SIZE, TYPE, SLOPE, ETC. ARE UNKNOWN. CONTRACTOR SHALL TAKE THIS INTO ACCOUNT FOR ALL WORK RELATED TO AND/OR INVOLVING THESE UTILITIES AND SHALL FIELD VERIFY AND/OR DETERMINE ALL INFO FOR THESE UTILITIES PRIOR TO CONSTRUCTION.

STORM SEWER UNDER BUILDING NOTE:

ANY STORM SEWER PIPING OR STRUCTURES THAT ARE TO BE INSTALLED UNDER AN EXISTING OR PROPOSED BUILDING SHALL CONSIST OF MATERIALS/TYPES THAT MEET OR EXCEED ALL BUILDING CODE REQUIREMENTS AND SHALL BE INSTALLED PER ALL BUILDING CODE REQUIREMENTS. CONTRACTOR SHALL TEST ALL PIPING AND/OR STRUCTURES PER AND AS REQUIRED BY ALL BUILDING CODE REQUIREMENTS. SEE PLUMBING PLANS AS APPLICABLE.



STANDARD DUTY CONCRETE PAVEMENT

ITEM 452 - 5" NON-REINFORCED CONCRETE PAVEMENT WITH 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO FIBRILLATED MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES ON
ITEM 304 - 6" AGGREGATE BASE ON
ITEM 204 - SUBGRADE COMPACTION



HEAVY DUTY CONCRETE PAVEMENT

ITEM 452 - 8" NON-REINFORCED CONCRETE PAVEMENT WITH 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO FIBRILLATED MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES ON
ITEM 304 - 6" AGGREGATE BASE ON
ITEM 204 - SUBGRADE COMPACTION



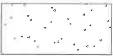
HEAVY DUTY ASPHALT PAVEMENT

ITEM 441 - 1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (448) PG 64-22 ON
ITEM 407 - NON-TRACKING TACK COAT (APPLIED AT A RATE OF 0.05 GALLONS PER SQUARE YARD) ON
ITEM 441 - 1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (448) ON
ITEM 407 - NON-TRACKING TACK COAT (APPLIED AT A RATE OF 0.05 GALLONS PER SQUARE YARD) ON
ITEM 301 - 3" ASPHALT CONCRETE BASE ON
ITEM 304 - 8" AGGREGATE BASE (2 EQUAL LIFTS) ON
ITEM 204 - SUBGRADE COMPACTION



REGULAR DUTY ASPHALT PAVEMENT

ITEM 441 - 1 1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (448) PG 64-22 ON
ITEM 407 - NON-TRACKING TACK COAT (APPLIED AT A RATE OF 0.05 GALLONS PER SQUARE YARD) ON
ITEM 441 - 2 1/2" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (448) ON
ITEM 304 - 6" AGGREGATE BASE (2 EQUAL LIFTS) ON
ITEM 204 - SUBGRADE COMPACTION



CONCRETE SIDEWALK AND CURB/WALK COMBINATION

ITEM 608 - 4" CONCRETE SIDEWALK WITH 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO FIBRILLATED MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES ON
ITEM 411 - 4" STABILIZED AGGREGATE BASE



PROPOSED BUILDING

PAVEMENT STRIPING NOTES:

ANY PROPOSED PAVEMENT MARKING SHALL BE STRIPED AS PART OF THIS WORK.

ALL PAVEMENT MARKING LINES SHALL BE WHITE OR YELLOW (DO NOT REQUIRE REFLECTOR BEADS) AND SHALL CONSIST OF 4" WIDE LINES.

ALL PAVEMENT MARKINGS SHALL BE PER ODOT ITEM 640 AND 642. ALL PAVEMENT MARKINGS TO BE TYPE 1, UNLESS APPLICATION IS REQUIRED WHEN AIR AND PAVEMENT TEMPERATURES ARE BETWEEN 35 °F AND 50 °F, THEN OBTAIN APPROVAL FROM THE OWNER AND APPLY ONLY PRE-QUALIFIED TYPE 1A COLD WEATHER TRAFFIC PAINT MATERIALS PER ITEM 642 AND 745.

ALL MARKING LAYOUT AND COLOR SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

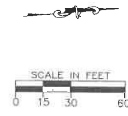
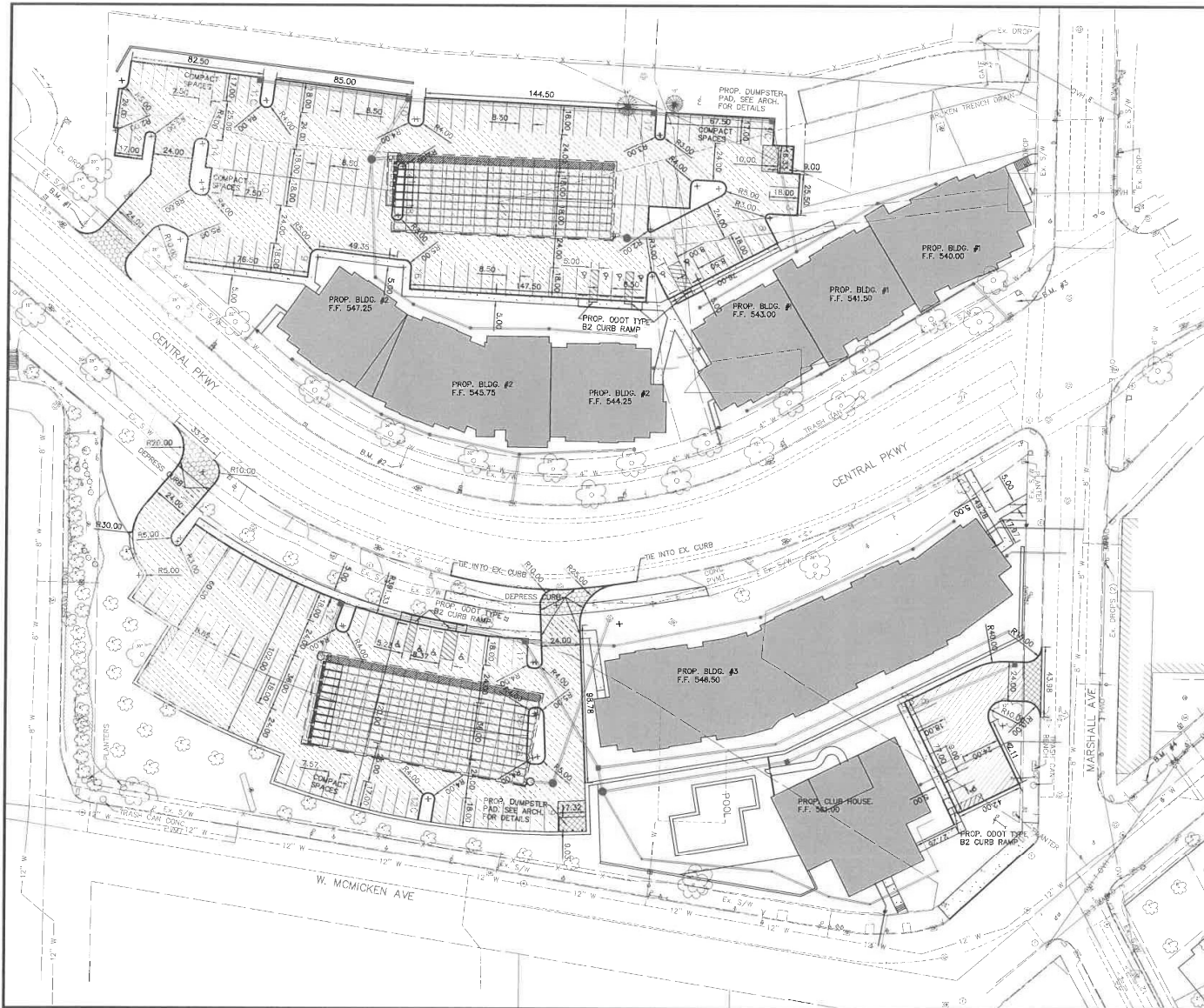


STATE OF OHIO
DIVISION OF HIGHWAYS
COLUMBUS, OHIO 43260-3904
WWW.CHOICEONEENGINEERING.COM


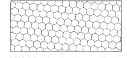




HALLMARK STUDENT HOUSING
CITY OF CINCINNATI
SITE PLAN SHEET NOTES

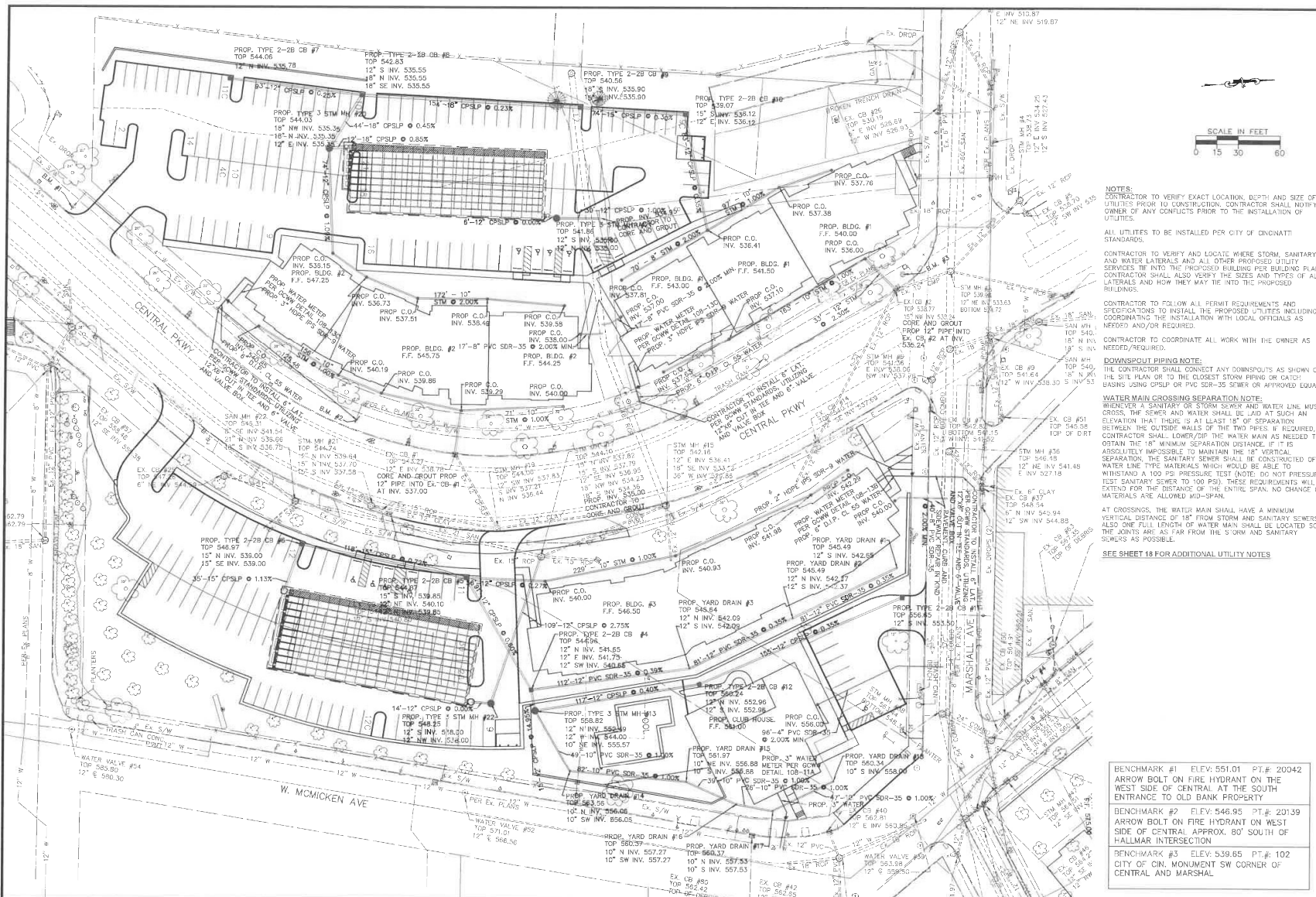
REVISIONS:

PLAN SHEET
DRAWN BY
JMK
CHECKED BY
M.S.
PROJECT No.
HAMON2107
DATE
11-3-2021
SHEET NUMBER
18 OF 29



- NOTES:**
- 1) ALL DIMENSIONS INVOLVING CURBING ARE TO THE FACE OF CURB, UNLESS OTHERWISE NOTED.
 - 2) INSTALL DRIVEWAY PER CITY OF CINCINNATI STANDARDS.
 - 3) CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.
 - 4) CONTRACTOR TO FOLLOW ALL PERMIT REQUIREMENTS AND SPECIFICATIONS TO INSTALL THE PROPOSED DEVELOPMENT INCLUDING COORDINATING THE INSTALLATION WITH LOCAL OFFICIALS AS NEEDED AND/OR REQUIRED.
 - 5) CONTRACTOR TO COORDINATE ALL WORK WITH THE OWNER AS NEEDED/REQUIRED.

-  **STANDARD DUTY CONCRETE PAVEMENT**
SEE SHEET 18 FOR DETAILS
-  **HEAVY DUTY CONCRETE PAVEMENT**
SEE SHEET 18 FOR DETAILS
-  **HEAVY DUTY ASPHALT PAVEMENT**
SEE SHEET 18 FOR DETAILS
-  **REGULAR DUTY ASPHALT PAVEMENT**
SEE SHEET 18 FOR DETAILS
-  **CONCRETE SIDEWALK**
SEE SHEET 18 FOR DETAILS
-  **PROPOSED BUILDING**



NOTES:
CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.

ALL UTILITIES TO BE INSTALLED PER CITY OF CINCINNATI STANDARDS.

CONTRACTOR TO VERIFY AND LOCATE WHERE STORM, SANITARY, AND WATER LATERALS AND ALL OTHER PROPOSED UTILITY SERVICES TIE INTO THE PROPOSED BUILDING PER BUILDING PLANS. CONTRACTOR SHALL ALSO VERIFY THE SIZES AND TYPES OF ALL LATERALS AND HOW THEY MAY TIE INTO THE PROPOSED BUILDINGS.

CONTRACTOR TO FOLLOW ALL PERMIT REQUIREMENTS AND SPECIFICATIONS TO INSTALL THE PROPOSED UTILITIES INCLUDING COORDINATING THE INSTALLATION WITH LOCAL OFFICIALS AS NEEDED/REQUIRED.

CONTRACTOR TO COORDINATE ALL WORK WITH THE OWNER AS NEEDED/REQUIRED.

DOWNSPOUT PIPING NOTE:
THE CONTRACTOR SHALL CONNECT ANY DOWNSPOUTS AS SHOWN ON THE SITE PLAN OR TO THE CLOSEST STORM FILING OR CATCH BASIN USING CPSP OR PVC SDR-35 SEWER OR APPROVED EQUAL.

WATER MAIN CROSSING SEPARATION NOTE:
WHENEVER A SANITARY OR STORM SEWER AND WATER MAIN CROSS, THE SEWER AND WATER SHALL BE Laid AT SUCH AN ELEVATION THAT THERE IS AT LEAST 18" OF SEPARATION BETWEEN THE OUTSIDE WALLS OF THE TWO PIPES. IF REQUIRED, CONTRACTOR SHALL LOWER/UP THE WATER MAIN AS NEEDED TO OBTAIN THE 18" MINIMUM SEPARATION DISTANCE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SANITARY SEWER SHALL BE CONSTRUCTED OF WATER LINE TYPE MATERIALS WHICH WOULD BE ABLE TO WITHSTAND A 100 PS PRESSURE TEST (NOTES DO NOT PRESSURE TEST SANITARY SEWER TO 100 PS). THESE REQUIREMENTS WILL EXTEND FOR THE DISTANCE OF THE ENTIRE SPAN. NO CHANGE OF MATERIALS ARE ALLOWED MID-SPAN.

AT CROSSINGS, THE WATER MAIN SHALL HAVE A MINIMUM VERTICAL DISTANCE OF 18" FROM STORM AND SANITARY SEWERS. ALSO ONE FULL LENGTH OF WATER MAIN SHALL BE LOCATED SO THE JOINTS ARE AS FAR FROM THE S AND SANITARY SEWERS AS POSSIBLE.

SEE SHEET 18 FOR ADDITIONAL UTILITY NOTES

BENCHMARK #1 ELEV: 551.01 PT# 20042
ARROW BOLT ON FIRE HYDRANT ON THE WEST SIDE OF CENTRAL AT THE SOUTH ENTRANCE TO OLD BANK PROPERTY

BENCHMARK #2 ELEV: 546.95 PT# 20139
ARROW BOLT ON FIRE HYDRANT ON WEST SIDE OF CENTRAL APPROX. 80' SOUTH OF HALLMARK INTERSECTION

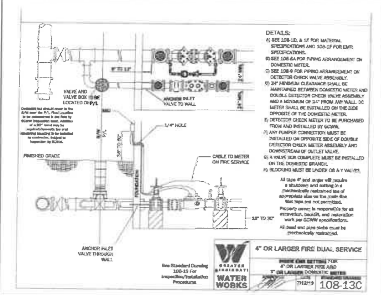
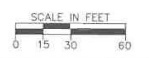
BENCHMARK #3 ELEV: 539.65 PT# 102
CITY OF CIN. MONUMENT SW CORNER OF CENTRAL AND MARSHAL



LOVELAND, OHIO 45112-3254
www.CHOICEONEENGINEERING.com

HALLMARK STUDENT HOUSING
CITY OF CINCINNATI
GCWW LARGE BRANCH DRAWING

REVISIONS:	FILE NAME
	UTILITY GCWW
	DRAWN BY
	JMK
	CHECKED BY
	MLC
	PROJECT NO.
	HAMCH2107
	DATE
	11-3-2021
	SHEET NUMBER
	21 OF 29



PERMIT APPLICATION:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMIT APPLICATIONS NECESSARY FOR CONSTRUCTION OF THIS PROJECT. FINAL REVIEW OF THESE PLANS WILL BE COMPLETED BY THE GOVERNING ENTITIES UPON THE SUBMISSION OF THE PLANS BY THE CONTRACTOR.

NOTES:
THIS DRAWING PLAT/SHEET HAS BEEN PREPARED BY THE APPLICANT FOR WATER SERVICE.

ALL EXISTING UTILITY AND RECORD INFORMATION DEPICTED ON THE DRAWING, INCLUDING BUILDING FOOTPRINT (WHICH MUST SHOW ANY ENCROACHMENTS INTO THE PUBLIC RIGHT OF WAY, INCLUDING, BUT NOT LIMITED TO, BASEMENT AREAS, ROOT CELLARS, AND COAL CHUTES), PARCEL, AND EASEMENT INFORMATION, ROADWAY AND RIGHT-OF-WAY LOCATION ARE THE RESULT OF RESEARCH BY THIS APPLICANT.

ANY AND ALL DAMAGES OR NEED FOR ADDITIONAL WORK, RESULTING FROM INACCURACY ON THE PART OF THE APPLICANT IS THE APPLICANT'S SOLE FINANCIAL RESPONSIBILITY.

TRAFFIC NOTES:
ALL CONSTRUCTION MUST CONFORM TO "DRIVEWAY REGULATIONS AND PAVEMENT AND/OR RIGHT-OF-WAY OPENING TOLERANCES FOR THE UNINCORPORATED AREA OF HAMILTON COUNTY AS ADOPTED BY THE BOARD OF HAMILTON COUNTY COMMISSIONERS" WITH SUPPLEMENTS OR CHANGES THERETO.

THE OWNER SHALL SAVE HARMLESS THE BOARD OF COUNTY COMMISSIONERS AND ITS REPRESENTATION FROM ALL SUITS, ACTIONS, OR CLAIMS OF ANY CHARACTER BROUGHT ON ACCOUNT OF ANY INJURIES OR DAMAGES SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY IN CONSEQUENCE OF THIS CONSTRUCTION PROJECT.

ITEM 614 - MAINTAINING TRAFFIC
ALL PAVEMENT AND/OR RIGHT-OF-WAY OPENING MUST CONFORM TO THE CURRENT EDITION OF THE STATE OF OHIO DEPARTMENT OF HIGHWAY CONSTRUCTION AND MATERIAL SPECIFICATIONS, WITH SUPPLEMENTS OR CHANGES THERETO, ALSO, THE OWNER ASSUMES ALL RESPONSIBILITIES AND OBLIGATIONS REGARDING STRICT ADHERENCE TO APPLICABLE SECTIONS FOR THE MAINTENANCE OF TRAFFIC AND PUBLIC SAFETY AS SET FORTH IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" ALL TRAFFIC CONTROL DEVICES MUST BE IN PLACE PRIOR TO STARTING CONSTRUCTION.

BRANCH APPLICATION PLAN VERITY DISCLAIMER:
THE PLAN PLAT/SHEET HAS BEEN PREPARED BY THE APPLICANT FOR WATER SERVICE. ALL EXISTING UTILITY AND RECORD INFORMATION DEPICTED ON THE DRAWING, INCLUDING BUILDING FOOTPRINT (WHICH MUST SHOW ANY ENCROACHMENTS INTO THE PUBLIC RIGHT OF WAY, INCLUDING, BUT NOT LIMITED TO, BASEMENT AREAS, ROOT CELLARS AND COAL CHUTES), PARCEL, AND EASEMENT INFORMATION, ROADWAY AND RIGHT-OF-WAY LOCATION ARE THE RESULT OF RESEARCH BY THE APPLICANT. ANY AND ALL DAMAGES OR NEED FOR ADDITIONAL WORK, RESULTING FROM INACCURACY ON THE PART OF THE APPLICANT IS THE APPLICANT'S SOLE FINANCIAL RESPONSIBILITY.

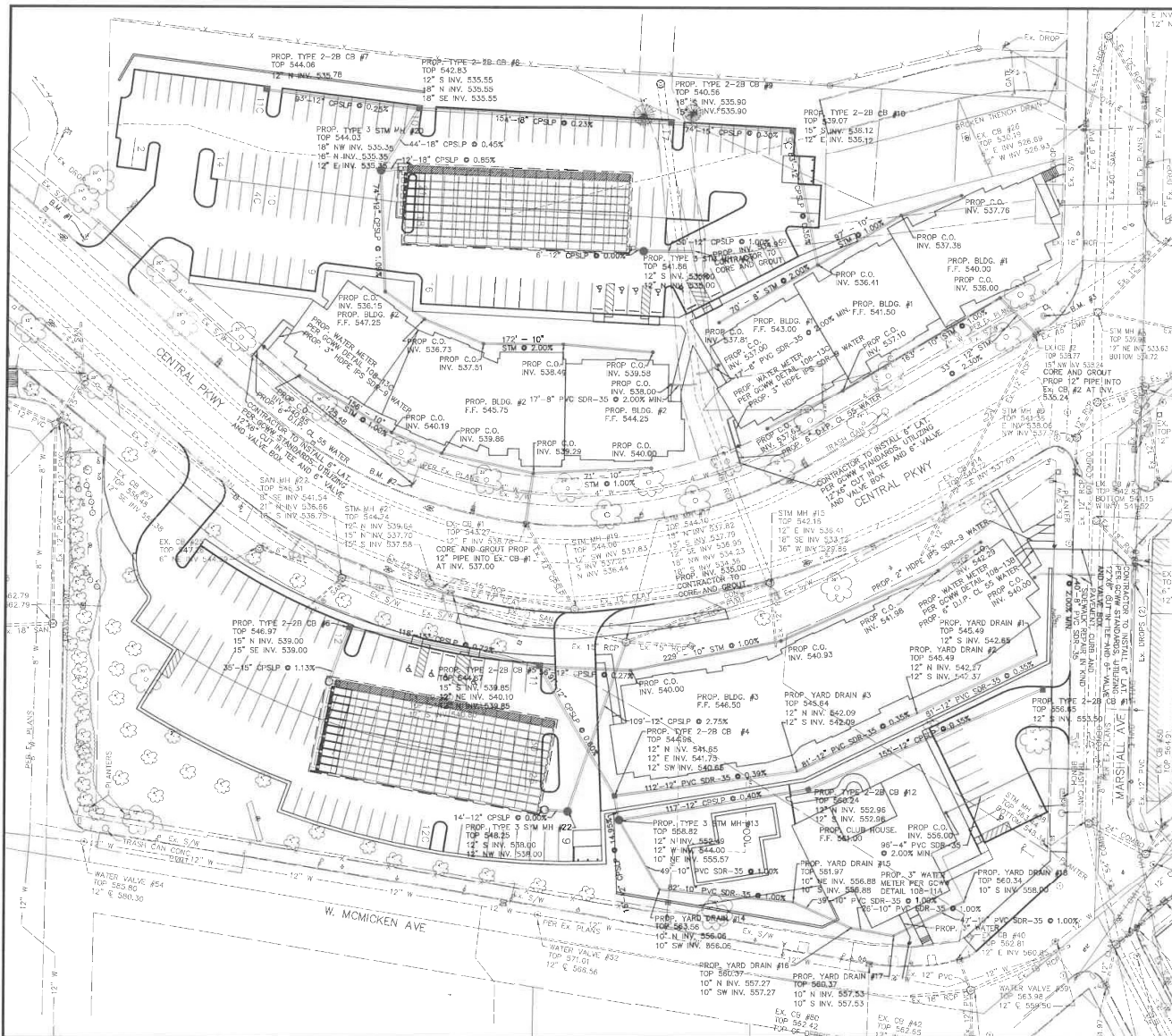
BRANCH LOCATION:
WEST SIDE OF CENTRAL PARKWAY, 125 FEET SOUTH OF THE 1ST FIRE HYDRANT SOUTH OF MARSHALL AVENUE.

BILL OF MATERIAL:
2-SOLID SLEEVE, D.P.
2-12" HDPE TIE, 2 N.A. x 16 L.G.
1-6" F.L.G. TYPE RUBBER GASKET
1-6" VALVE, F.L.G.M.
1-6" FIELD LOK GASKET
2-12" METALGAL ASSSEMBLY
1-6" METALGAL ASSSEMBLY
1-6" SERVICE SADDLE
1-2" FERRULE
1-2" CURD STOP
1-2" INSULATING COUPLE
1-ROADWAY BOX

BENCHMARK #1: ELEV. 551.01 FT. # 20042
ARROW BOLT ON FIRE HYDRANT ON THE WEST SIDE OF CENTRAL AT THE SOUTH ENTRANCE TO OLD BANK PROPERTY

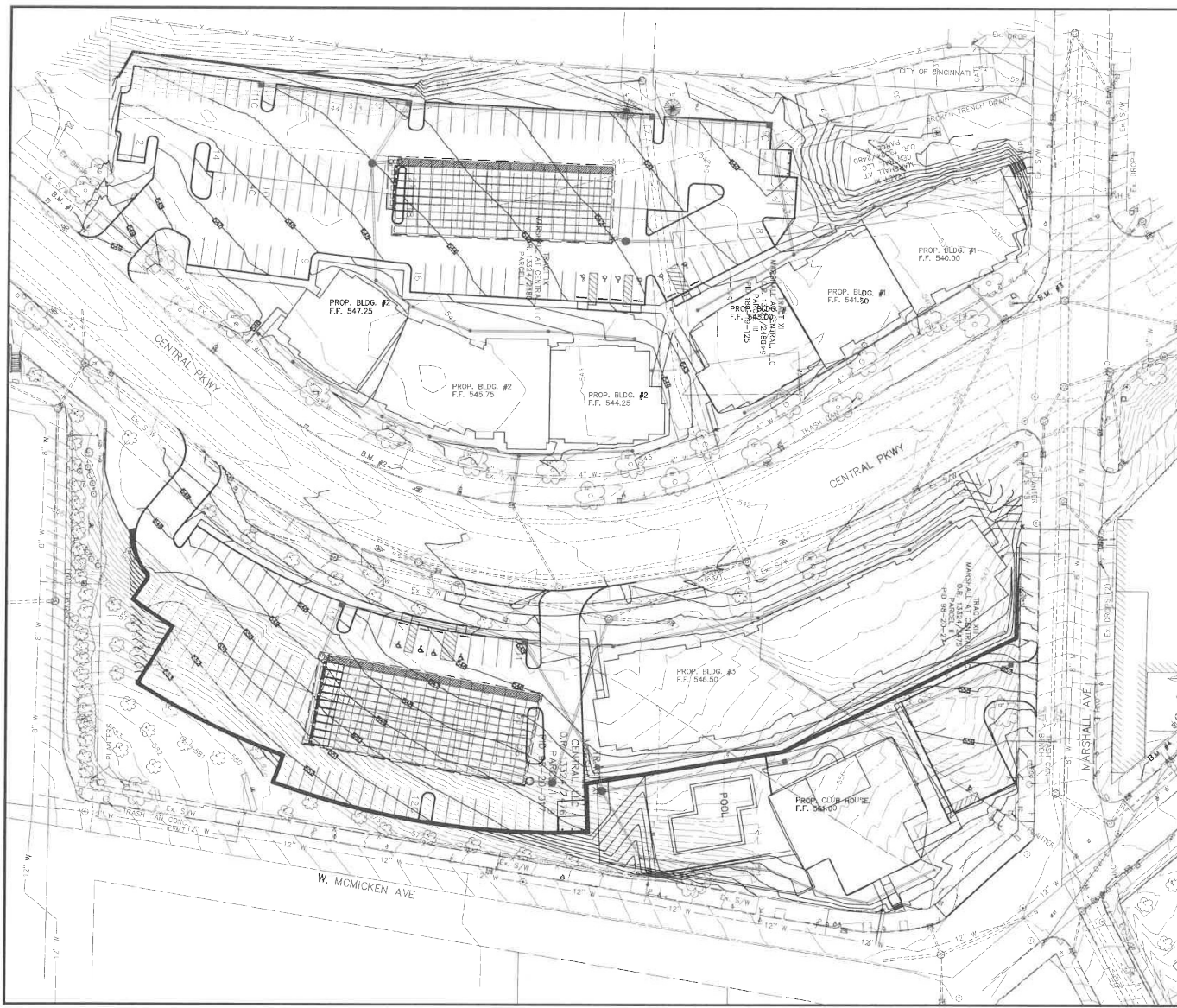
BENCHMARK #2: ELEV. 548.95 FT. # 20139
ARROW BOLT ON FIRE HYDRANT ON WEST SIDE OF CENTRAL, APPROX. 80' SOUTH OF HALLMARK INTERSECTION

BENCHMARK #3: ELEV. 539.65 FT. # 102
CITY OF CN. MONUMENT SW CORNER OF CENTRAL AND MARSHALL.



**HALLMAR STUDENT HOUSING
CITY OF CINCINNATI
GRADING PLAN**

REVISIONS:	
FILE NAME	GRADING
DRAWN BY	JMK
CHECKED BY	M.S.
PROJECT NO.	HAMCIN2107
DATE	11-5-2021
SHEET NUMBER	22 OF 29



NOTES:
CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.

CONTRACTOR TO TIE INTO EXISTING PAVEMENT ELEVATIONS AS REQUIRED WHERE EVER NEW PAVEMENT ABUTS UP TO EXISTING PAVEMENT TO ENSURE A SMOOTH TRANSITION. ALL EX. PAVEMENT ELEVATIONS GIVEN ARE APPROXIMATED AND SHALL BE FIELD VERIFIED. CONTRACTOR SHALL ALSO ENSURE THAT A SMOOTH TRANSITION IS PROVIDED WHERE EVER PROPOSED GRADES MEET EXISTING GRADES THROUGHOUT THE SITE.

ALL DISTURBED LAWN AREAS SHALL BE GRADED TO DRAIN TO THE NEAREST INLET STRUCTURE.

CONTRACTOR TO ENSURE ALL AREAS OF THE SITE HAVE POSITIVE DRAINAGE. NO PONDING OR PUDDLING OF WATER IS PERMITTED.

GRADE TIE IN NOTE:
CONTRACTOR TO TIE INTO EXISTING ELEVATIONS THROUGHOUT THE SITE. CONTRACTOR SHALL ENSURE PROPER GRADING AND DRAINAGE IS PROVIDED FOR ALL AREAS WITHIN THE SITE TO DRAIN TO EXISTING OR PROPOSED STORM SYSTEMS OR SWALES. CONTRACTOR SHALL ENSURE THAT DRAINAGE IS PROPERLY DIRECTED AWAY FROM ANY BUILDINGS/STRUCTURES. THIS SHALL INCLUDE ALL TEMPORARY GRADING AS NEEDED INCLUDING INSTALLING TEMPORARY DRAINAGE SWALES AND INSTALLING ALL TEMPORARY STORM SEWER CATCH BASINS, INLETS, PIPING, ETC. AS NEEDED TO ENSURE PROPER DRAINAGE OF THE SITE THROUGHOUT THE COURSE OF CONSTRUCTION. ALL WORK TO BE COORDINATED WITH AND AS DIRECTED BY OWNER.

LEGEND

- 530 — EXISTING CONTOURS
- 530 — PROPOSED CONTOURS
- PROPOSED STORM SEWER
- PROPOSED EDGE PAVEMENT
- PROPOSED CURB

BENCHMARK #1 ELEV: 551.01 PT.# 20042
ARROW BOLT ON FIRE HYDRANT ON THE WEST SIDE OF CENTRAL AT THE SOUTH ENTRANCE TO OLD BANK PROPERTY

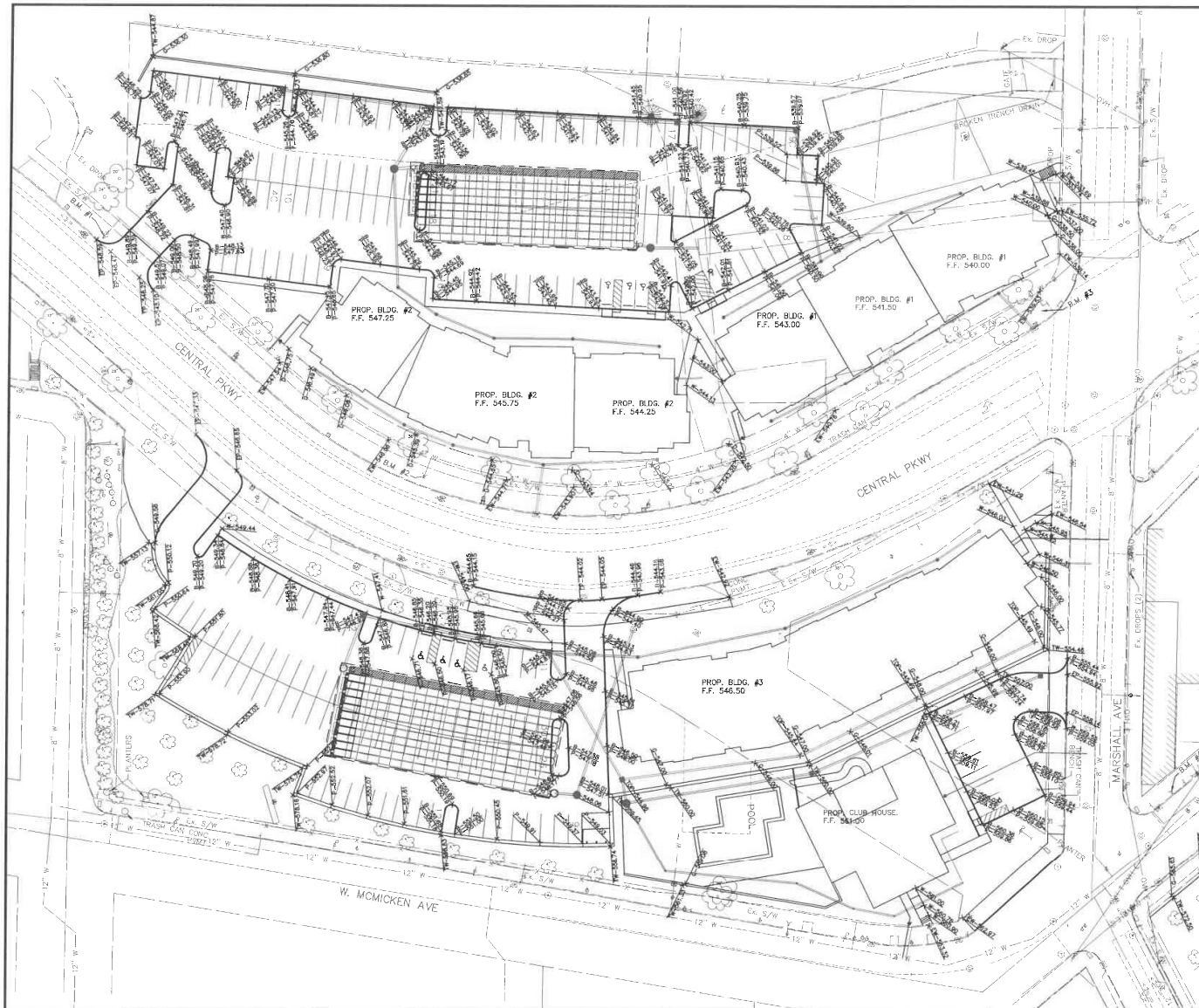
BENCHMARK #2 ELEV: 546.95 PT.# 20139
ARROW BOLT ON FIRE HYDRANT ON WEST SIDE OF CENTRAL APPROX. 80' SOUTH OF HALLMAR INTERSECTION

BENCHMARK #3 ELEV: 539.65 PT.# 102
CITY OF CIN. MONUMENT SW CORNER OF CENTRAL AND MARSHALL

**HALLMAR STUDENT HOUSING
CITY OF CINCINNATI
PAVEMENT ELEVATIONS PLAN**

REVISIONS:

FILE NAME	P&WT.ELE
DRAWN BY	JMK
CHECKED BY	M.S.
PROJECT NO.	HAMCIN2107
DATE	11-5-2021
SHEET NUMBER	23 OF 29



NOTE:
CONTRACTOR TO TIE INTO EXISTING PAVEMENT ELEVATIONS AS REQUIRED WHERE EVER NEW PAVEMENT ABUTS UP TO EXISTING PAVEMENT TO ENSURE A SMOOTH TRANSITION. ALL EX. PAVEMENT ELEVATIONS GIVEN ARE APPROXIMATED AND SHALL BE FIELD VERIFIED. CONTRACTOR SHALL ALSO ENSURE THAT A SMOOTH TRANSITION IS PROVIDED WHERE EVER PROPOSED GRADES MEET EXISTING GRADES THROUGHOUT THE SITE.

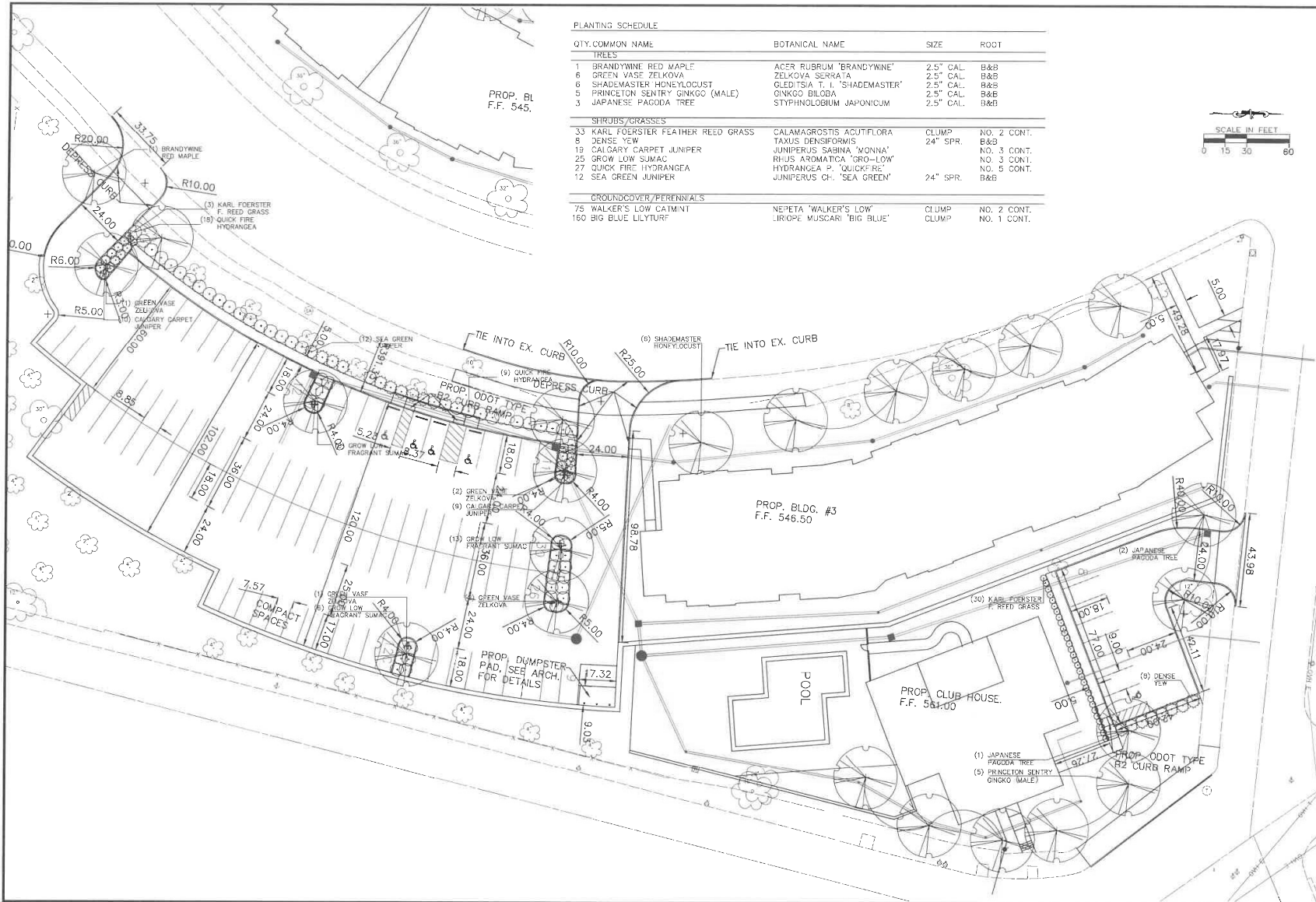
LEGEND

- EP = EXISTING PAVEMENT ELEVATION
- EB = EXISTING TOP OF CURB ELEVATION
- EW = EXISTING SIDEWALK ELEVATION
- EG = EXISTING GROUND ELEVATION
- EFL = EXISTING FLOWLINE ELEVATION
- ETOP = EXISTING TOP OF GRATE ELEVATION
- P = PROPOSED PAVEMENT ELEVATION
- C = PROPOSED TOP OF CURB ELEVATION
- W = PROPOSED SIDEWALK ELEVATION
- G = PROPOSED GROUND ELEVATION
- D = PROPOSED SWALE ELEVATION
- TOP = PROPOSED TOP OF GRATE ELEVATION
- RP = PROPOSED DOCK RAMP ELEVATION
- TW = PROPOSED TOP OF WALL
- DP = PROPOSED DUMPSTER PAD SPOT ELEVATION

BENCHMARK #1 ELEV: 551.01 PT.#: 20042
ARROW BOLT ON FIRE HYDRANT ON THE WEST SIDE OF CENTRAL AT THE SOUTH ENTRANCE TO OLD BANK PROPERTY

BENCHMARK #2 ELEV: 546.95 PT.#: 20139
ARROW BOLT ON FIRE HYDRANT ON WEST SIDE OF CENTRAL APPROX. 80' SOUTH OF HALLMAR INTERSECTION

BENCHMARK #3 ELEV: 539.85 PT.#: 102
CITY OF CN. MONUMENT SW CORNER OF CENTRAL AND MARSHAL

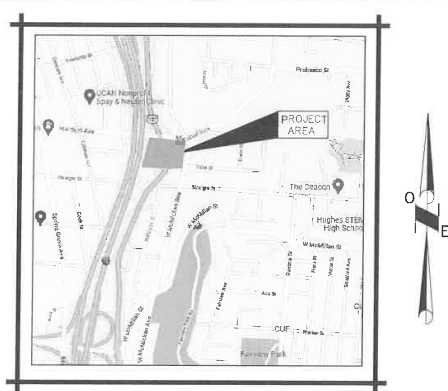


HALLMAR STUDENT HOUSING - SWPPP

CITY OF CINCINNATI HAMILTON COUNTY, OHIO

INDEX OF SHEETS

SWPPP TITLE SHEET	26
SWPPP GENERAL EROSION CONTROL NOTES AND DETAILS	27-28
SWPPP SITE EROSION CONTROL PLAN	29



VICINITY MAP

SWPPP NOTE

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED FOR FOUNTAIN RESIDENTIAL PARTNERS FOR THE PERFORMANCE OF HALLMAR STUDENT HOUSING PROJECT IN HAMILTON COUNTY, OHIO. ALL WORK SHALL BE PER AND COMPLY WITH THE DEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #040000005. THIS INCLUDES FILING A CO-PERMITTEE NOT FORM WITH THE DEPA FOR ALL OPERATORS ENGAGED IN SITE WORK ON THE SITE. CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS, INSTALLATION, MAINTENANCE AND REQUIREMENTS OF ODOT'S CURRENT SUPPLEMENTAL SPECIFICATION 832 "TEMPORARY SEDIMENT AND EROSION CONTROL." COMPLIANCE WITH SUPPLEMENTAL SPECIFICATION 832 SHALL INCLUDE THE STANDARD CONSTRUCTION DRAWING REFERENCES LISTED IN SECTION 832.03, BUT SHALL NOT INCLUDE SECTION 832.11 "INSPECTIONS AND SWPPP UPDATES." ALL INSPECTIONS AND SWPPP UPDATES SHALL BE PER THE DEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #040000005. ALL WORK SHALL ALSO BE PER THE CURRENT ODOT CMS 107.19. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH LOCAL STORMWATER AND EROSION CONTROL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH AND INSTALLING ALL ITEMS NOTED AND AS REQUIRED BY DEPA AND LOCAL AUTHORITIES FOR MEETING ALL STORM WATER POLLUTION PREVENTION REQUIREMENTS. FOUNTAIN RESIDENTIAL PARTNERS AND THE SELECTED CONTRACTOR SHALL BE THE RESPONSIBLE PARTY IN CHARGE OF THE SWPPP AND ASSOCIATED BMP'S.

SITE DATA

LOCATION SOIL TYPES	URBAN UPARENTS SOILS
EARTH DISTURBED AREA	4.79 ACRES
PROPOSED IMPERVIOUS AREA ADDED	0.75 ACRES
PRE-CONSTRUCTION RUNOFF COEFFICIENT	0.60
POST-CONSTRUCTION RUNOFF COEFFICIENT	0.70
DESCRIPTION OF PRIOR LAND USE	GRASS LOT/PARKING LOT/ROADWAY
EXISTING QUALITY OF DISCHARGE FROM SITE	UNTREATED IMPERVIOUS RUNOFF
IMMEDIATE RECEIVING WATERS	ON-SITE UNDERGROUND DETENTION
SUBSEQUENT RECEIVING WATERS	CITY STORM SEWER
LATITUDE 39.131092° LONGITUDE -84.531204°	

WATERS EDGE NOTE

ALL MATERIAL AND EQUIPMENT STAGING OR STORAGE AREAS, DEWATERING AREAS, CONCRETE TRUCK WASH OUT AREAS, CONSTRUCTION ACCESS LOCATIONS, AND VEHICLE FUELING AND REFUELING LOCATIONS MUST BE LOCATED A MINIMUM OF 100' FROM ANY CREEK/RIVER/STREAM WATERS EDGE.

CLEAN STORM SYSTEM NOTE

IMMEDIATELY PRIOR TO FINAL COMPLETION OF THE PROJECT, CONTRACTOR SHALL ENSURE THE ENTIRE STORM SYSTEM, INCLUDING BUT NOT LIMITED TO, THE DETENTION/RETENTION BASIN(S), CATCH BASINS, MANHOLES, PIPING, UNDERDRAINS AND UNDERDRAIN TRENCHES ARE FREE FROM SEDIMENTATION AND OTHER POLLUTANTS AND FOREIGN MATERIALS AND ARE TO BE CLEANED AS NEEDED TO ENSURE MAXIMUM STORMWATER QUALITY AND FULL FUNCTIONALITY.

OFFSITE CONSTRUCTION ACTIVITIES

IT IS EXPECTED ALL CONSTRUCTION ACTIVITIES WILL TAKE PLACE ON SITE.

SPILL REPORTING REQUIREMENTS

IN THE EVENT OF A SMALL RELEASE (LESS THAN 25 GALLONS) OF PETROLEUM WASTE, SPECIAL HANDLING PROCEDURES MUST BE USED. IN THE EVENT OF A LARGE RELEASE (25 GALLONS OR MORE) OF PETROLEUM WASTE, YOU MUST CONTACT THE OHIO EPA (AT 1-800-282-9376), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WITHIN 30 MINUTES OF A SPILL OF 25 OR MORE GALLONS.

VEHICLE FUELING

VEHICLE FUELING AND MAINTENANCE WILL BE PERFORMED VIA A SMALL REFUEL TANK ON THE BACK OF A PICK-UP TRUCK.

OPEN BURNING NOTE

OPEN BURNING IS NOT PERMITTED IN THE CORPORATION LIMIT.

CONTACT INFORMATION

FACILITY SITE LOCATION: 1001 MARSHALL AVENUE, CINCINNATI, OHIO 45203.
OWNER: FOUNTAIN RESIDENTIAL PARTNERS, TREVOR TOLLETT, 972-861-5080, 2626 COLE AVENUE, SUITE 620, DALLAS, TEXAS 75204, ttollett@fountainresidential.com
SWPPP CONTACT/CONTRACTOR CONTACT - TBD

SWPPP AND INSPECTION REPORTS LOCATION

NOTE: THE SWPPP AND INSPECTION REPORTS WILL BE KEPT ON-SITE IN THE JOB TRAILER/FOREMAN'S PICK-UP.

WASTE DISPOSAL NOTE

CONTAINERS (e.g. DUMPSTERS, DRUMS) MUST BE AVAILABLE FOR THE DISPOSAL OF DEBRIS, TRASH, HAZARDOUS MATERIAL AND PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF.

CLEAN HARD FILL NOTE

NO CLEAN CONSTRUCTION WASTES SHALL BE DISPOSED OF INTO THE PROPERTY.

FUELING AND STAGING NOTE

CONTRACTOR'S STAGING AND STORAGE AREA WILL BE LOCATED WITHIN CONSTRUCTION LIMITS OF THE PROJECT. FUEL TANKS AND OTHER HAZARDOUS MATERIALS TO BE SAFELY STORED, PROTECTED, AND PROPERLY HANDLED BY CONTRACTOR. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STAGING/STORAGE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. CONTRACTOR SHALL CLEAN UP AND PROPERLY DISPOSE OF ANY WASTE MATERIALS.

SOIL STOCKPILE NOTE

CONTRACTOR'S SHALL LOCATE SOIL STOCKPILE AREAS WITHIN THE PROJECT AREA SO AS NOT TO BE WITHIN THE IMMEDIATE PROXIMITY OF ANY SURFACE WATERS OR STORM INLET STRUCTURES. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STOCKPILE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. THESE MEASURES MAY INCLUDE BUT SHALL NOT BE LIMITED TO INSTALLING FILTER FABRIC FENCE AROUND STOCKPILE, TEMPORARILY COVERING THE STOCKPILE AND/OR TEMPORARILY SEEDING THE STOCKPILE.

DEWATERING NOTE

PUMPING OF SEDIMENT LADEN WATER FROM TRENCHES OR ANY OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, DITCH OR STREAM CORRIDORS, ANY WETLANDS OR STORM SEWER(S) IS PROHIBITED. ALL SUCH WATER SHALL BE PROPERLY FILTERED OR SETTLED TO REMOVE SOIL PARTICLES PRIOR TO ITS RELEASE. IF AN AREA OF THE SITE OR TRENCH NEEDS DEWATERED, IT SHOULD BE PUMPED FROM A SUMP PIT WITH A SOCK FILTER OR OTHER TYPE OF FILTERING DEVICE ON THE DISCHARGE OF THE HOSE. DO NOT ALLOW DISCHARGED WATER TO PASS OVER DISTURBED GROUND. IF THE DISCHARGE WATER IS BEING PUMPED INTO A SEDIMENT POND THEN NO FILTER IS REQUIRED AT THE END OF THE HOSE. IF THE GROUNDWATER MUST BE LOWERED, THE WATER MAY BE FREELY DISCHARGED AS LONG AS THE WATER REMAINS CLEAN. DO NOT CO-MINGLE CLEAN GROUND WATER WITH SEDIMENT LADEN WATER OR DISCHARGE IT BY ALLOWING IT TO PASS OVER DISTURBED GROUND.

LOG/DOCUMENTATION SHEETS

AS PART OF THE SWPPP, THE CONTRACTOR SHALL MAINTAIN LOG/DOCUMENTATION SHEETS FOR THE FOLLOWING:

- 1) A SIGNATURE LOG CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED IN THE IMPLEMENTATION OF THE SWPPP AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE SWPPP.
- 2) A GRADING AND STABILIZATION LOG DOCUMENTING THE PROJECTS GRADING AND STABILIZATION ACTIVITIES AND
- 3) A SWPPP AMENDMENT LOG DOCUMENTING CHANGES/AMENDMENTS TO THE SWPPP, WHICH OCCUR AFTER CONSTRUCTION ACTIVITIES COMMENCE.

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE CONSTRUCTION A NEW BUILDINGS AND ASSOCIATED DRIVES AND PARKING. SITE WORK TO INCLUDE STORM SEWER, SANITARY SEWER, WATER, SITE GRADING, PAVEMENT WORK AND BUILDING CONSTRUCTION.

PROJECT WORK CONSTRUCTION DATES

START: SPRING 2022
ESTIMATED COMPLETION: SPRING 2023

EROSION CONTROL NOTES

- INSTALL AND MAINTAIN FILTER FABRIC FENCE AND INLET PROTECTION WHERE SHOWN AND AS NEEDED TO MINIMIZE SEDIMENT LADEN WATER FROM LEAVING THE SITE OR ENTERING ANY STORM SYSTEM, ADJACENT DITCHES, STREAMS ETC. IF STORMWATER RUNOFF CONTAINING SEDIMENTS IS FOUND TO BE LEAVING THE PROJECT SITE IN AN AREA WHERE NO BMP/CONTROL MEASURE IS SHOWN OR IN PLACE, CONTRACTOR SHALL IMMEDIATELY INSTALL THE APPROPRIATE BMP/CONTROL MEASURE AS NEEDED TO REMEDY THE SITUATION (TYP. INLET PROTECTION, FILTER FABRIC FENCE, ETC.).
- INSTALL INLET PROTECTION ON ALL STORM INLET STRUCTURES (YARD DRAINS, CATCH BASINS, MANHOLES WITH GRATED LIDS, ETC.) AND TO ANY EXISTING STORM STRUCTURES WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE AS NEEDED. INLET PROTECTION MAY CONSIST OF DEVICES SUCH AS SEDGAGE (WWW.SEDGAGE.COM), DANDY BAGS, SEDGUARD FILTERS, FLEXSTORM INLET FILTERS, SEDIMENT FENCE OR OTHER DEVICES WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE.
- CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY CLEANING UP ANY MUD, DIRT AND DEBRIS WHICH IS TRACKED OR SPILLED ONTO THE ROADWAYS.
- PRE CONSTRUCTION - CONTRACTOR IS RESPONSIBLE TO INSTALL A CONSTRUCTION ENTRANCE AS NEEDED TO MINIMIZE ANY MUD, DIRT AND DEBRIS TRACKED ONTO THE ROADWAYS.
- DURING CONSTRUCTION - THE CONTRACTOR MUST MAINTAIN EROSION CONTROL UNTIL AREA IS STABILIZED INCLUDING TEMPORARY SEEDING AS NEEDED. CONTRACTOR SHALL TEMPORARILY SEED ALL CRITICAL EXPOSED SLOPES TO MINIMIZE SEDIMENT RUNOFF.
- FINAL/POST CONSTRUCTION - CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS. CONTRACTOR SHALL ENSURE GRASS IS PERMANENTLY AND PROPERLY ESTABLISHED IN ALL AREAS WHERE GRASS IS SPECIFIED. ALL SEDIMENT AND EROSION CONTROL STRUCTURES, INCLUDING SEDIMENT FENCE, SHALL REMAIN IN PLACE UNTIL GRASS IS IN PLACE AND SITE IS STABILIZED. ONCE SITE IS STABILIZED AND ALL CONSTRUCTION IS COMPLETE, ALL SEDIMENT FENCE, INLET PROTECTION AND ANY OTHER TEMPORARY BMP'S SHALL BE REMOVED FROM THE SITE.

BMP NOTES

FOR ALL BMP'S INSTALLED, ENSURE THAT THE PONDING OF WATER BEHIND THE BMP WILL NOT DAMAGE PROPERTY OR POSE A SAFETY THREAT. IF PREVIOUS INSPECTIONS OR OTHER INFORMATION INDICATES A CONTROL MEASURE/BMP HAS BEEN USED INAPPROPRIATELY, THE CONTRACTOR MUST REPLACE AND ADJUST THE CONTROL/BMP TO MEET SITE CONDITIONS AS REQUIRED. THE CONTRACTOR SHALL ADJUST THE SWPPP AND ITS CONTROLS/BMP'S AND THEIR QUANTITIES TO MEET FIELD CONDITIONS AND THE OHIO EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION ACTIVITIES GENERAL PERMIT.

MAINTENANCE NOTE

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE ALL TEMPORARY AND PERMANENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UP-SLOPE AREAS THEY CONTROL ARE PERMANENTLY STABILIZED. THE SWP'S SHALL BE DESIGNED TO MINIMIZE MAINTENANCE REQUIREMENTS. THE APPLICANT SHALL PROVIDE A DESCRIPTION OF MAINTENANCE PROCEDURES NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF CONTROL PRACTICES.

SWPPP AND INSPECTION AVAILABILITY AND UPDATES NOTE

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE THE IMMEDIATE AVAILABILITY OF THE SWPPP AND INSPECTION REPORTS ON-SITE. THE CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE TO PERFORM AND DOCUMENT ALL REQUIRED SWPPP INSPECTIONS AND ALL UPDATES AND AMENDMENTS TO THE SWPPP.

DOCUMENTATION AND GOVERNMENT INSPECTION NOTE

CONTRACTOR(S) SHALL PROVIDE THE OWNER'S REPRESENTATIVE A WRITTEN COPY OF THEIR CO-PERMITTEE APPLICATION AND ANY OTHER DOCUMENTATION THE CONTRACTOR(S) MAY SEND OR RECEIVE FROM THE DEPA OR ANY OTHER GOVERNING AUTHORITIES.

IF AN INSPECTOR OR REPRESENTATIVE FROM THE DEPA OR ANY OTHER GOVERNING AUTHORITY IS ON-SITE, THE CONTRACTOR SHALL IMMEDIATELY CONTACT AND NOTIFY THE OWNER'S REPRESENTATIVE.



440 E. HOWESHER ROAD • SIDNEY, OHIO 45365 • 937.497.0200
8956 GLENDALE MILFORD ROAD, SUITE 1 • LOVELAND, OHIO 46140 • 513.239.8554

www.CHOICEONEENGINEERING.com

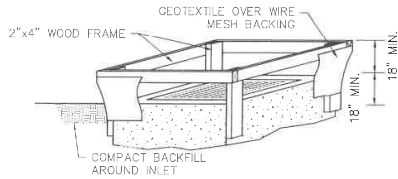
NOVEMBER 3, 2021

REVISIONS:

FILE NAME	SWPPP COVER
DRAWN BY	JMK
CHECKED BY	MLS
PROJECT NO.	HA04012102
SHEET NUMBER	26 OF 29

INLET PROTECTION FOR STORM STRUCTURES W/ GRATE

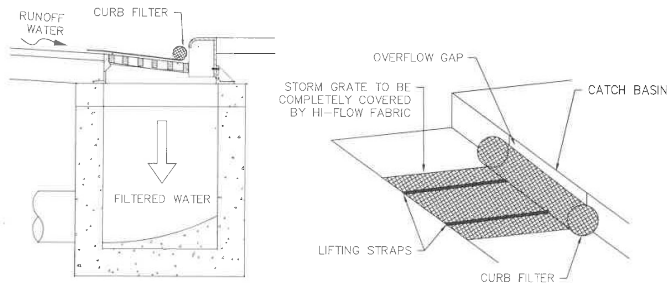
INLET PROTECTION MAY CONSIST OF SEDIMENT FENCE AND/OR DEVICES SUCH AS FLEX STORM INLET FILTERS, SEDGAGE (WWW.SEDGAGE.COM), DANDY BAGS, SEDGUARD FILTERS, OR OTHER DEVICES (ALTERNATE PRODUCTS WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED) WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE. INSTALL INLET PROTECTION ON ALL PROPOSED YARD DRAINS, CATCH BASINS AND MANHOLES WITH GRADED LIDS AND TO ALL EXISTING STORM STRUCTURES WITH GRADED LIDS WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE.



NOTES

- INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
- THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH OF AT LEAST 18".
- THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2" BY 4" CONSTRUCTION GRADE LUMBER. THE 2" BY 4" POST SHALL BE DRIVEN 1" INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2" BY 4" FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6" BELOW ADJACENT ROAD, IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
- WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
- GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18" BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAY ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
- BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6" LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
- A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION, AND IF RUNOFF BY PASSING THE INLET WILL NOT FLOW TO A SETTING POND. THE TOP OF EARTH DIKES SHALL BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME.

INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS

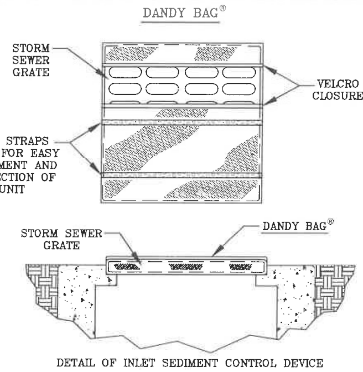


NOTES

- DANDY CURB BAG, SEDGUARDS, OR ALTERNATE PRODUCT WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED MAY BE USED.
- REMOVE SEDIMENT FROM CURB INLET PROTECTION BEFORE IT HINDERS THE FILTERING CAPACITY.
 - DANDY CURB BAG: LIFT GRATE AND REMOVE DANDY BAG, CLEAN ACCUMULATED SEDIMENT AND REPLACE BAG AS REQUIRED BY MANUFACTURER.
 - SEDGUARD: CLEAN SEDGUARD ONCE IT IS DRY WITH A STIFF BROOM AFTER EVERY RAIN.
 - ALTERNATE PRODUCTS: CLEAN AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONS

- INLET PROTECTION SHOULD NEVER INTERFERE WITH SAFETY OF ACTIVE TRAFFIC.

CURB INLET SEDIMENT FILTER DETAIL



DETAIL OF INLET SEDIMENT CONTROL DEVICE

DANDY BAGS[®] SPECIFICATIONS

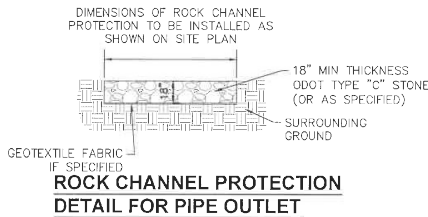
NOTE: THE DANDY BAGS[®] WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN NONPLUMMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS

HI-FLOW DANDY BAGS (SAFETY DRAGS)

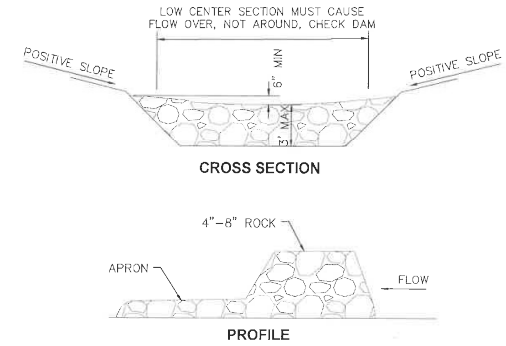
Mechanical Properties	Test Method	Units	MINIMUM
Grab Tensile Strength	ASTM D 4252	kN (lbf)	1.82 (410) x 0.89 (200)
Grab Tensile Elongation	ASTM D 4252	%	24 x 12
Flexure Strength	ASTM D 4252	kN (lbf)	2.40 (550)
Woven Burst Strength	ASTM D 3786	kPa (lbf)	3987 (450)
Waterproof Test Strength	ASTM D 4252	at (lbf)	0.51 (113) x 0.33 (75)
UV Resistance	ASTM D 4252	min (US 501 Seal)	50
Apparent Opening Size	ASTM D 4252	mm (US 501 Seal)	0.075 (3)
Flow Rate	ASTM D 4440	l/min (US 501 Seal)	5667 (145)
Permeability	ASTM D 4440	Sec	2

*Note: All Dandy Bags[®] can be ordered with optional oil absorbent pillows

INLET PROTECTION - DANDY BAG



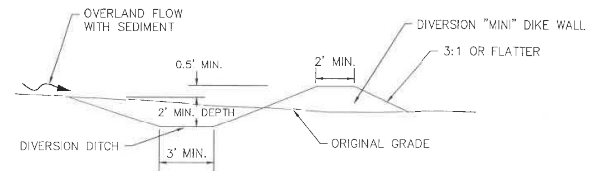
ROCK CHANNEL PROTECTION DETAIL FOR PIPE OUTLET



NOTES

- 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.
- MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED 3.0 FEET.
- 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.
- THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY 6 INCHES.
- A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE 6 INCHES THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.
- 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.
- SIDE SLOPES SHALL BE A MINIMUM OF 2:1.

DITCH ROCK CHECK DAM



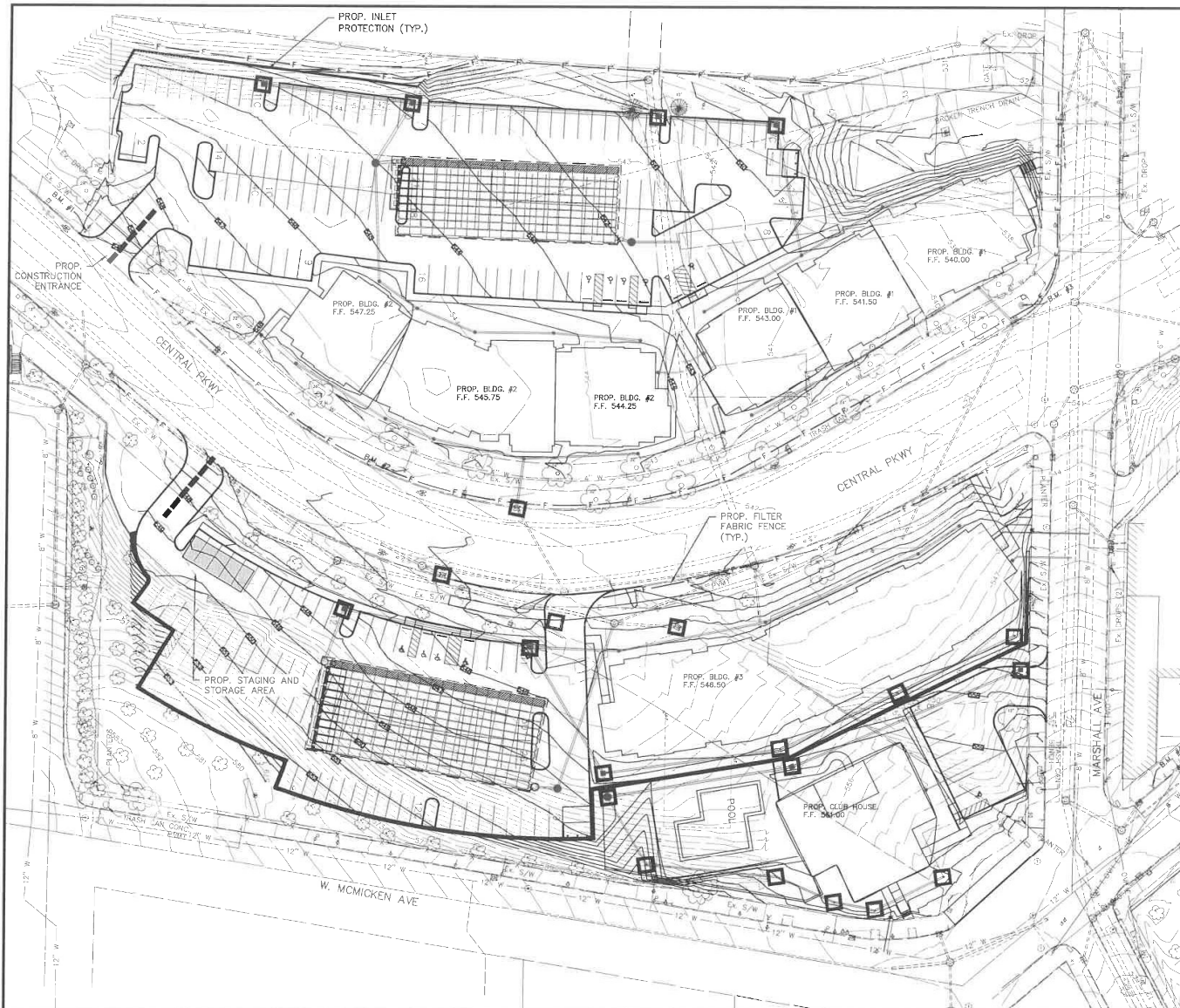
NOTES

- BERM CAN BE CONSTRUCTED AS DITCH OR DIKE WALL.
- PLACE DITCH ON A GRADE TO DRAIN TO SEDIMENT BASIN.

CROSS SECTION OF A DIVERSION BERM

REVISIONS:

FILE NAME	SWPPP NOTES 2
DRAWN BY	JMK
CHECKED BY	M.S.
PROJECT NO.	HAN/2107
DATE	11-1-2021
SHEET NUMBER	28 OF 29



LEGEND

- 8.50- EXISTING CONTOURS
- 8.50- PROPOSED CONTOURS
- PROPOSED STORM SEWER
- PROPOSED CONSTRUCTION LIMITS
- PROPOSED FILTER FABRIC FENCE MEASURE
- PROPOSED INLET PROTECTION

THIS AREA IS TO BE USED FOR VEHICLE FUELING AND MAINTENANCE. AN ABOVE GROUND STORAGE TANK OF LESS THAN 500 GALLONS WILL BE USED AS THE FUEL SOURCE. THIS AREA WILL ALSO BE USED FOR RECEIVING CONCRETE CHUTE AND OTHER CONCRETE WASH WATERS. THIS SHALL NOT OCCUR ON STREET SUBGRADE OR BASE.

WATER QUALITY AND POST CONSTRUCTION STORM WATER MANAGEMENT AND TREATMENT:

THE FIRST 0.90" OF STORMWATER RUNOFF FOR THE SITE WILL BE CONTROLLED VIA FILTRATION (AND SOME INFILTRATION) BY THE GRASSED AREAS IN AND AROUND THE PROPOSED IMPERVIOUS AREAS, GRASSED SWALES, AND ROCKED BOTTOM OF THE UNDERGROUND DETENTION BASIN. ADDITIONAL POLLUTANTS WILL ALSO SETTLE OUT OVER TIME IN THE DETENTION BASIN.

THE ON-SITE DETENTION BASIN HAS BEEN DESIGNED TO TREAT THE WATER QUALITY VOLUME (WQV) USING A REDUCED SIZED ORIFICE FOR AN OUTLET AS FOLLOWS:

- RELEASE THE RUNOFF FROM A 0.90" RAIN EVENT ON THE SITE DRAINAGE AREA OVER 24 HOURS OR LONGER AND
- THE FIRST HALF OF THE TOTAL VOLUME GENERATED BY THE RUNOFF FROM A 0.90" RAIN EVENT IS RETAINED FOR GREATER THAN 8 HOURS.

POST-CONSTRUCTION STORM WATER MANAGEMENT WATER QUALITY VOLUME FOR DEVELOPMENT USING 0.90 INCHES OF RAIN:

WEST UNDERGROUND DETENTION BASIN:
WQV=0.59*0.50*2.50/12=0.488 CU FT (INCLUDES ADDITIONAL 23% FOR UNDERGROUND DETENTION)

6490 CU FT PROVIDED TO ELEV. 536.42
THE DETENTION BASIN HAS AN OUTLET WITH A 2.10" DIA. ORIFICE THAT RELEASES APPROX. 33% OF THE WQV AT 8 HOURS AND APPROX. 98% AT 24 HOURS

POST-CONSTRUCTION STORM WATER MANAGEMENT WATER QUALITY VOLUME FOR DEVELOPMENT USING 0.90 INCHES OF RAIN:

EAST UNDERGROUND DETENTION BASIN:
WQV=0.59*0.50*2.35/12=0.436 CU FT (INCLUDES ADDITIONAL 23% FOR UNDERGROUND DETENTION)

5,444 CU FT PROVIDED TO ELEV. 541.17
THE DETENTION BASIN HAS AN OUTLET WITH A 2.10" DIA. ORIFICE THAT RELEASES APPROX. 33% OF THE WQV AT 8 HOURS AND APPROX. 98% AT 24 HOURS

SEE SEPARATE STORMWATER CALCS. FOR ADDITIONAL DETAILS IF NEEDED

BENCHMARK #1 ELEV: 551.01 PT.#: 20042
ARROW BOLT ON FIRE HYDRANT ON THE WEST SIDE OF CENTRAL AT THE SOUTH ENTRANCE TO OLD BANK PROPERTY

BENCHMARK #2 ELEV: 546.95 PT.#: 20139
ARROW BOLT ON FIRE HYDRANT ON WEST SIDE OF CENTRAL APPROX. 80' SOUTH OF HALLMARK INTERSECTION

BENCHMARK #3 ELEV: 539.65 PT.#: 102
CITY OF CN. MONUMENT SW CORNER OF CENTRAL AND MARSHALL