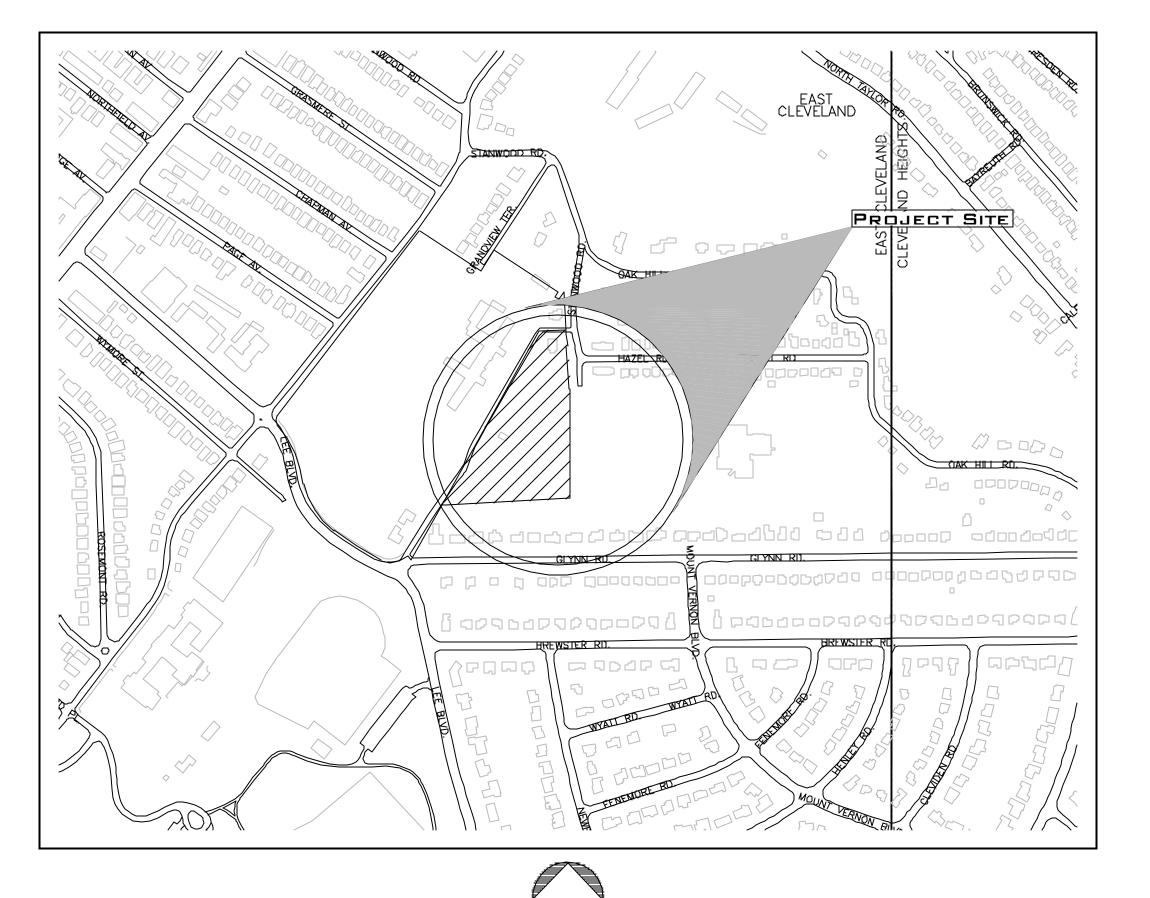
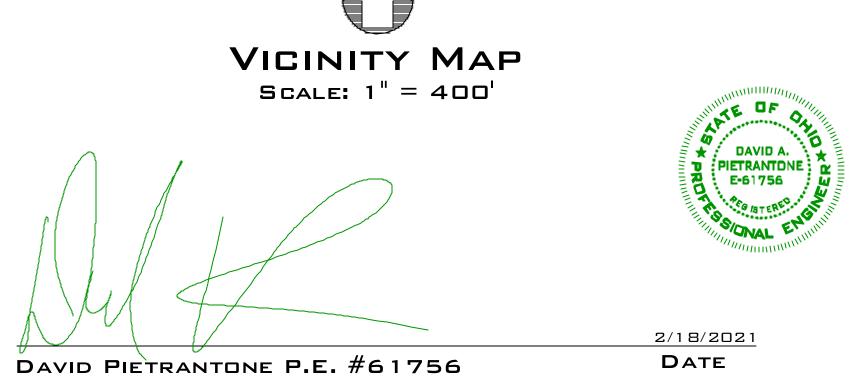
# IMPROVEMENT PLANS FOR MCGREGOR INDEPENDENT LIVING

# THE CITY OF EAST CLEVELAND, COUNTY OF CUYAHOGA AND STATE OF OHIO

### INDEX TO DRAWINGS

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EXISTING CONDITIONS	C2.01
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UTILITY PLAN SANITARY & WATER	<b>C4.0</b> 1
UTILITY PLAN Storm	C4.02-C4.05
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NOTES & DETAILS ALTERNATE 1 & 8	C6.05
SWPPP	C7.01-C7.04









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DIFRANCES

ARCHITECTURE + INTERIOR DESIGN + PLANN
1939 West 25th Street, Sufte 300
P 216,696,3460 F 216,696,1152
www.hidisland

PURPOSE					
MARK DATE					
MARK					
K DATE PURPOSE	08/28/2020 80% SET	10/15/2020 PRICING UPDATE	11/02/2020 PERMIT	2/18/2021 NEORSD	



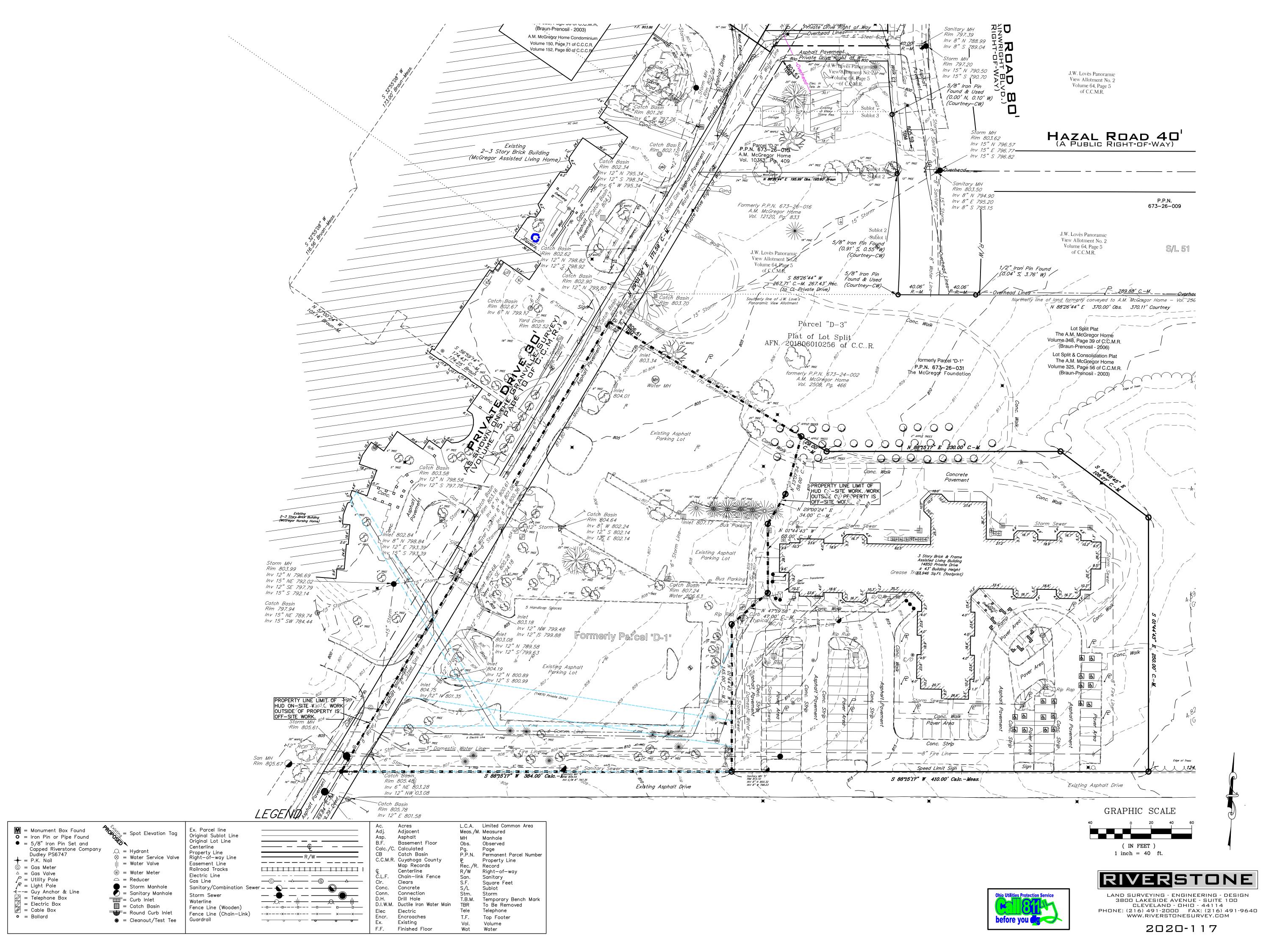


PROJECT NO.: 2019.25

TITLE PAGE

C1.0





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Geveland, Ohio 4411

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2/18/2021 NEORSD

SENIOR INDEPENDENT LIVING
VOLUME 1: NEW SENIOR APARTMENT BUILDING
14860 PRIVATE DRIVE, EAST CLEVELAND, OHIO 44112



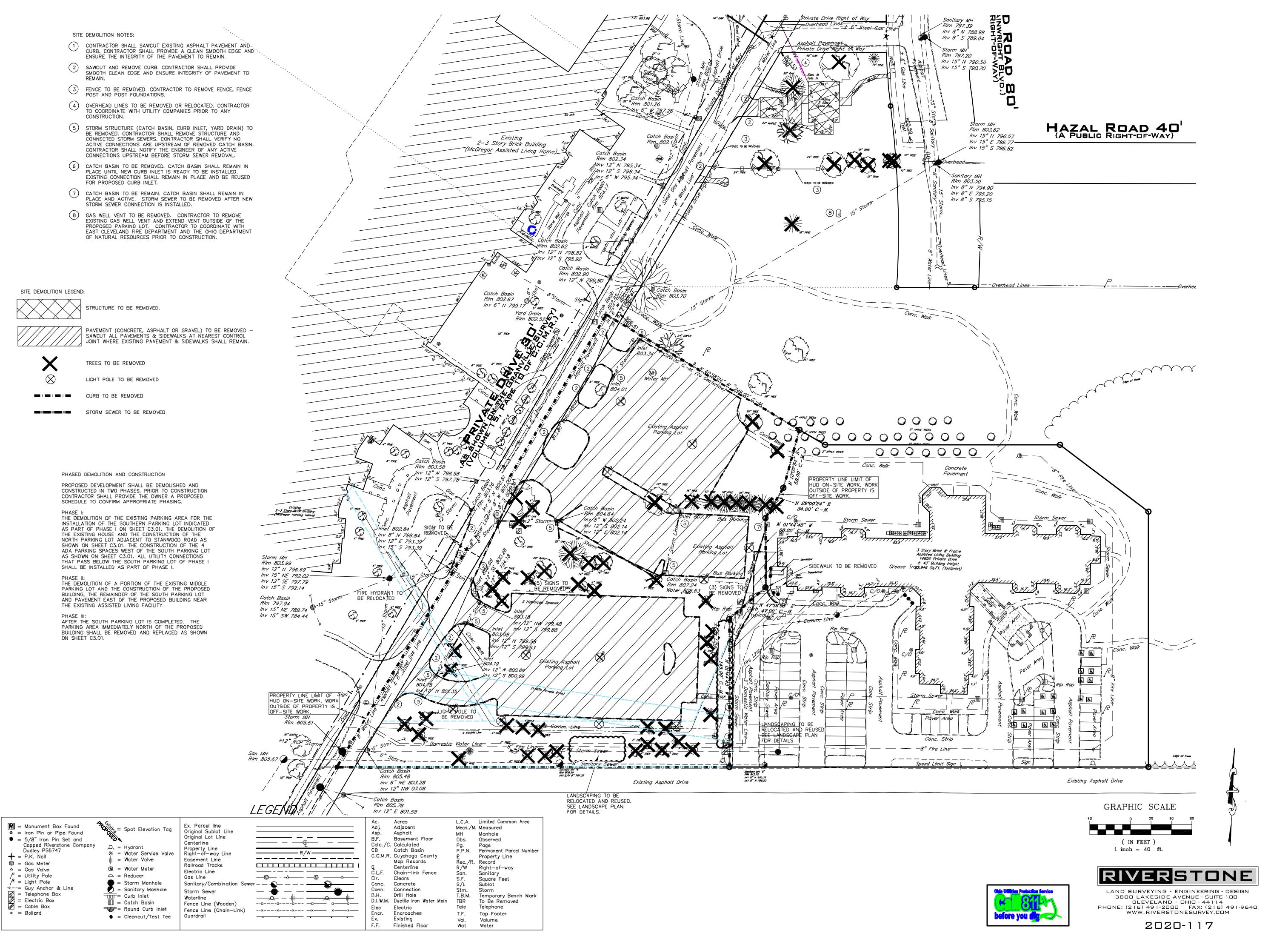
PROJECT NO.: 2019.25

TITLE:

EXISTING CONDITIONS

DRAWING NUMBER:

C2.01



Thd+S

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1939 West 25th Street, 2ulte 300

Cleveland, Ohlo 44113

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10/15/2020 PRICING UPDATE

11/02/2020 PERMIT

2/18/2021 NEORSD

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VOLUME 1: NEW SENIOR APARTMENT BUILDIN

14866 PRIVATE DEVIS EAST CLEVEL AND CHEO 44112



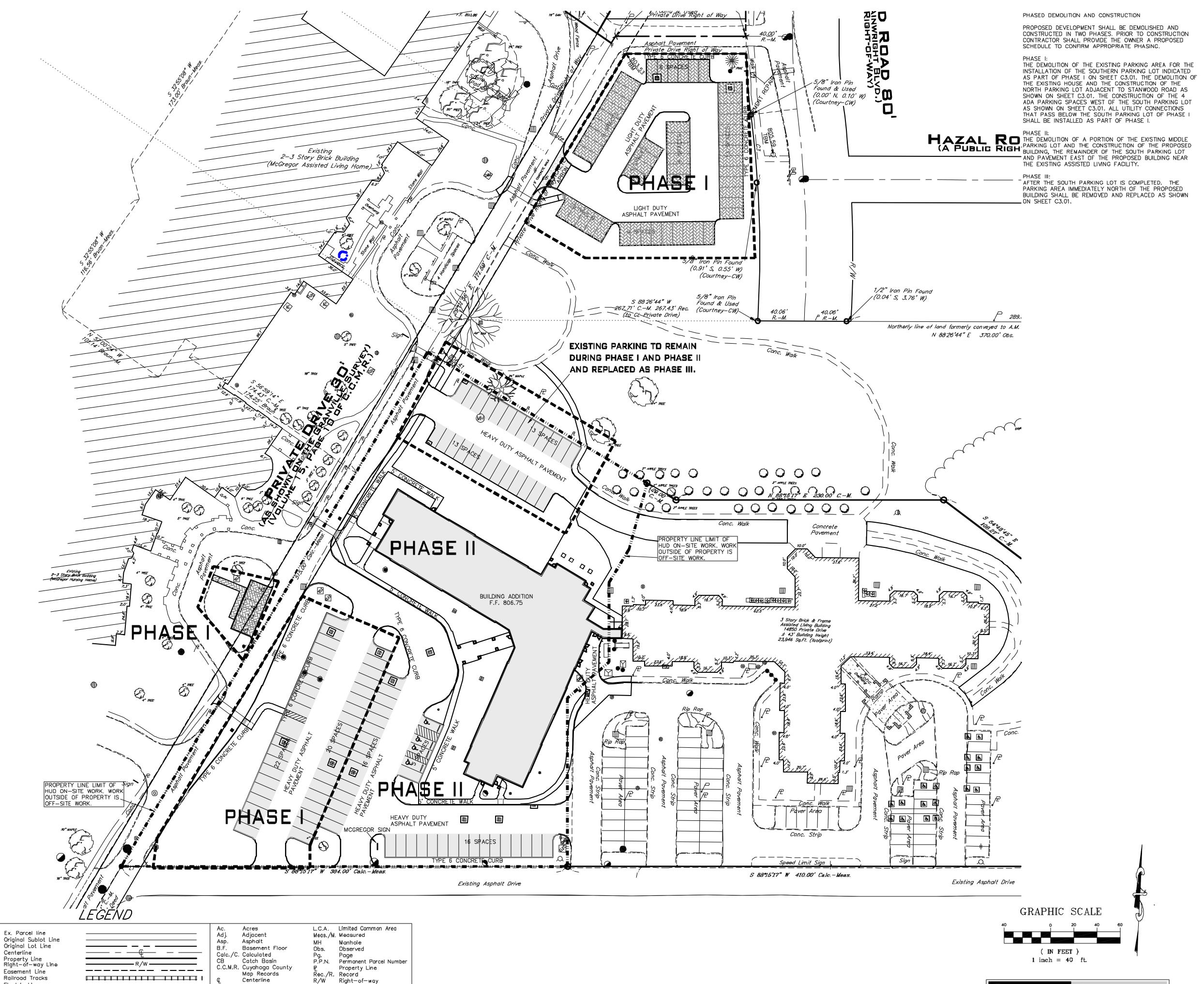
PROJECT NO.: 2019.25

TITLE:

SITE DEMOLITION PLAN

DRAWING NUMBER:

C2.02



🚺 = Monument Box Found

• = Iron Pin or Pipe Found

 $\bullet$  = 5/8" Iron Pin Set and

Dudley PS6747

🕂 = P.K. Nail

© = Gas Meter

 $\Delta$  = Gas Valve

/ = Utility Pole

∕∕2 = Light Pole

S = Telephone Box
S = Electric Box
C = Cable Box

= Bollard

-€--= Guy Anchor & Line

Capped Riverstone Company

Spot Elevation Tag

Electric Line

Storm Sewer

Fence Line (Wooden)

Fence Line (Chain-Link)

Sanitary/Combination Sewer —

Gas Line

Waterline

Guardrail

Chain-link Fence

Clears

Concrete

Drill Hole

Electric

Connection

D.I.W.M. Ductile Iron Water Main

Encroaches

Existing

F.F. Finished Floor

Conc.

Elec

Encr.

\_-\_\_\_\_

San. S.F. S/L

T.F.

Vol. Wat Sanitary

Sublot

Storm

Square Feet

Telephone

Top Footer

Volume

Water

Temporary Bench Mark

To Be Removed

⊗ = Water Service Valve

| = Water Valve

= Storm Manhole

Sanitary Manhole

= Curb Inlet

III = Catch Basin

Round Curb Inlet

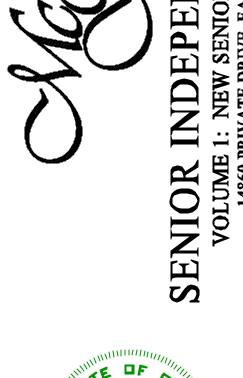
Cleanout/Test Tee

🔍 = Hydrant



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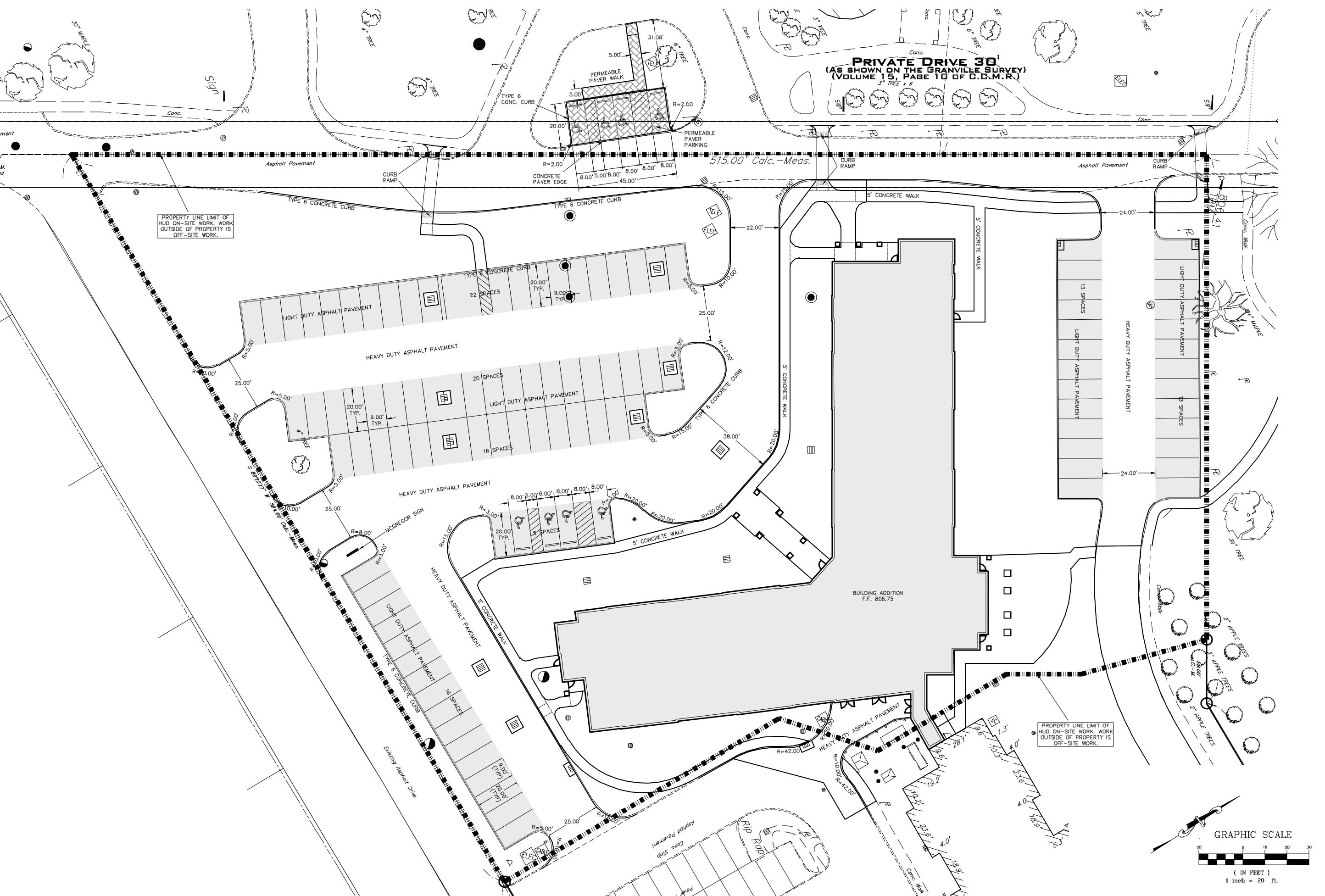
PROJECTNO.: 2019.25

TITLE:

SITE PLAN

DRAWINGNUMBER:

C3.01





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ATE PURPOSE

MARK DATE PURPOSE

18/2020 80% SET

5/2020 PRICING UPDATE

12/2020 PERMIT

1/2021 NEORSD

SENIOR INDEPENDENT LIV

VOLUME 1: NEW SENIOR APARTMENT BUILD

14860 PRIVATE DRIVE, EAST CLEVELAND, OHIO 44112

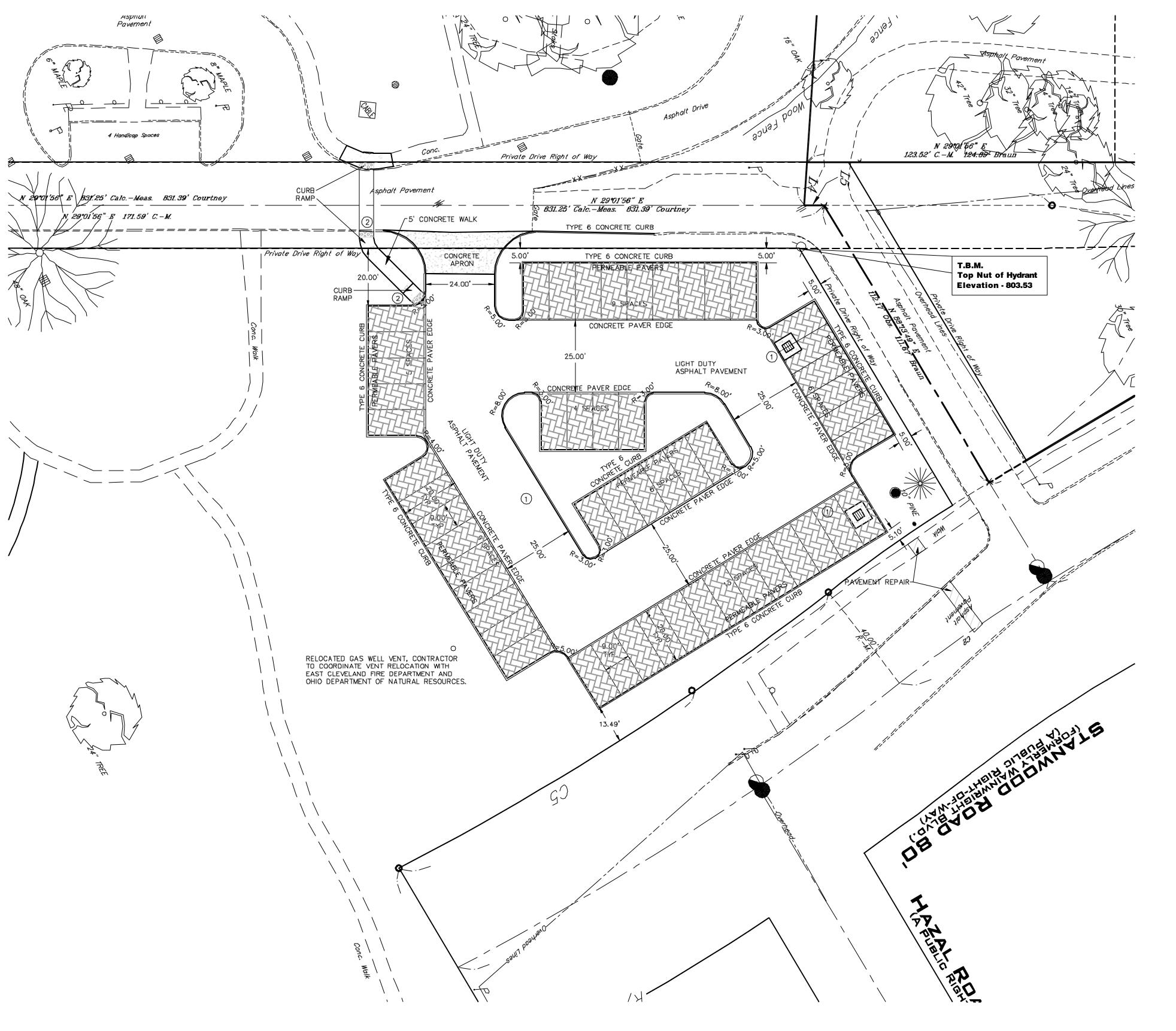


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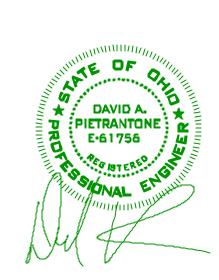
SITE PLAN

DRAWING NUMBER:

C3.02



- 1) CONCRETE COLLAR. SEE DETAIL SHEET C6.01.
- 2 DETECTABLE WARNINGS, TRUNCATED DOMES, SEE DETAIL SHEET C6.01.



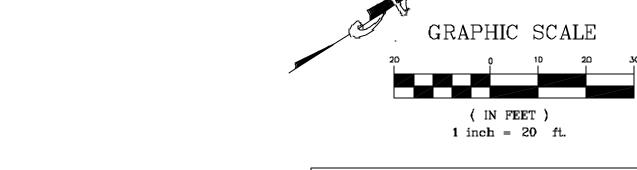
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TITLE:

SITE PLAN

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Gas Line Storm Manhole Sanitary/Combination Sewer — — Conc. Conn. D.H. Concrete Connection Drill Hale 🔵 = Sanitary Manhole Storm Sewer = Curb Inlet Waterline D.I.W.M. Ductile Iron Water Main III = Catch Basin Fence Line (Wooden) Round Curb Inlet Elec Electric Fence Line (Chain-Link) Encr. Ex. Encroaches ● = Cleanout/Test Tee Guardrail Existing F.F. Finished Floor

Pg. Page P.P.N. Permanent Parcel Number C.C.M.R. Cuyahoga County Property Line \_\_\_\_\_ Map Records Rec /R. Record Rec./R. Record
R/W Right—of—way
San. SanItary
S.F. Square Feet
S/L Sublot
Stm. Storm
T.B.M. Temporary Bench Mark Centerline Chain—link Fence Č.L.F. Clr. Clears TBR To Be Removed Tele Telephone T.F. Top Footer Vol. Volume Wat Water

Ac. Ad].

В.F.

Adjacent

Basement Floor

Çatch Basîn

Asphalt

Calc./C. Calculated CB Catch Basin

L.C.A. Limited Common Area

Manhole

Observed

Page

Meas./M. Measured

LEGEND

Spot Elevation Tag

|| = Water Valve

₩ = Water Meter

⊗ = Water Service Valve

,a = Hydrant

Ex. Parcel line

Centerline

Original Sublot Line

Property Line Right—of—way Line

Easement Line

Electric Line

Railroad Tracks

Original Lot Line

🚺 = Monument Box Found

Dudley PS6747

= P.K. Nail

© = Gas Meter

 $\Delta$  = Gas Valve

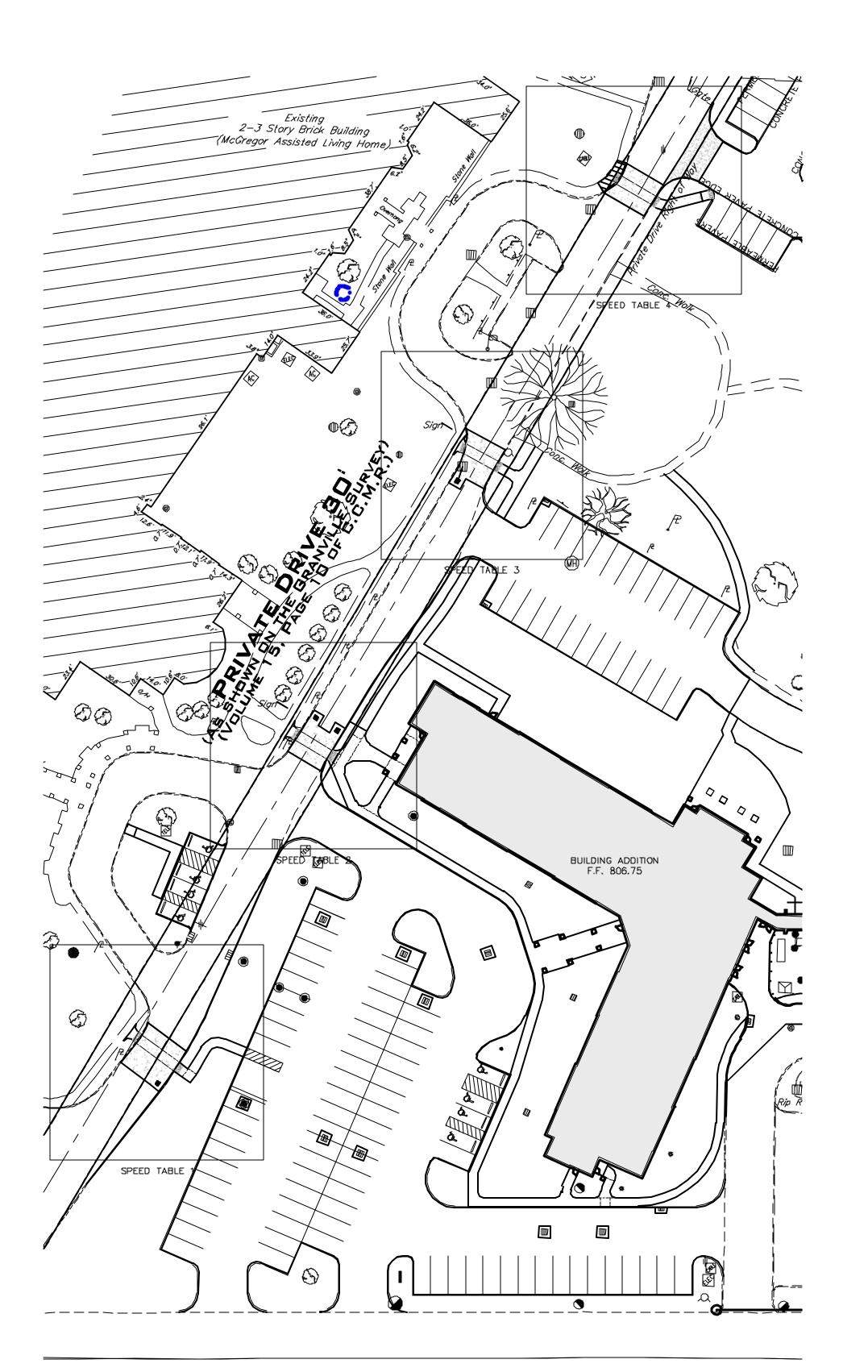
/ = Utility Pole / = Light Pole

S = Telephone Box
S = Electric Box
S = Cable Box

= Bollard

• = Iron Pin or Pipe Found

● = 5/8" Iron Pin Set and Capped Riverstone Company



GRAPHIC SCALE

( IN FEET ) 1 inch = 40 ft.

Spot Elevation Tag

⊠ = Water Service Valve

|| = Water Valve

🌎 = Storm Manhole

<del>पाप्रिन</del> = Round Curb Inlet

= Cleanout/Test Tee

= Sanitary Manhole

₩ = Water Meter

 $\triangle$  = Reducer

\_\_\_\_\_ Curb Inlet

🔲 = Catch Basin

,Q = Hydrant

Ex. Parcel line

Centerline

Original Sublot Line

Original Lot Line

Property Line Right-of-way Line

Sanitary/Combination Sewer - -

Easement Line

Railroad Tracks

Electric Line

Storm Sewer

Fence Line (Wooden)

Fence Line (Chain—Link)

Gas Line

Waterline

Guardrail

M = Monument Box Found

9 = Iron Pin or Pipe Found

= 5/8" Iron Pin Set and

Dudley PS6747

→ = P.K. Nail

G = Gas Meter

△ = Gas Valve

/ = Utility Pole / = Light Pole

Flectric Box
Cable Box

= Bollard

---- Guy Anchor & Line

Cápped Riverstone Company

LEGEND

—— R/W ———

\_\_\_\_\_

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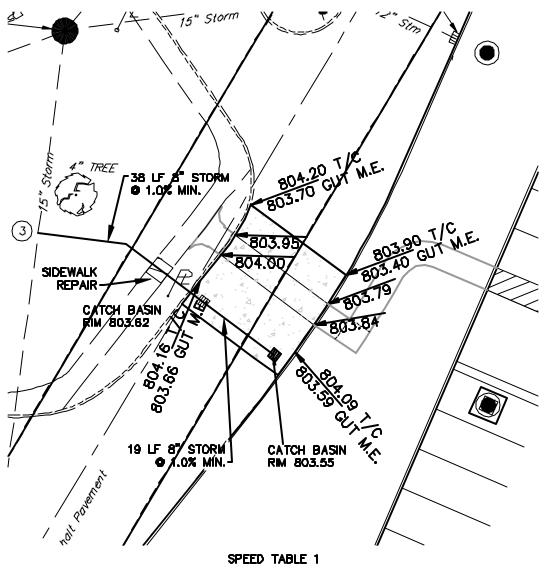
--x----x---- x-----x

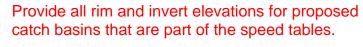
Encr.

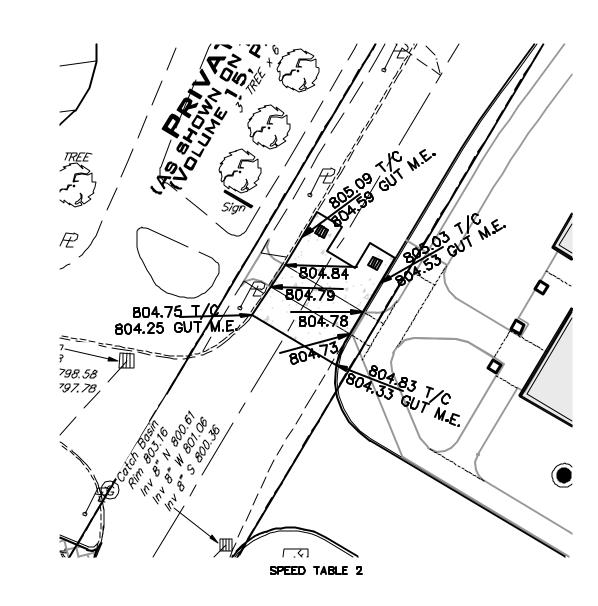
Existing

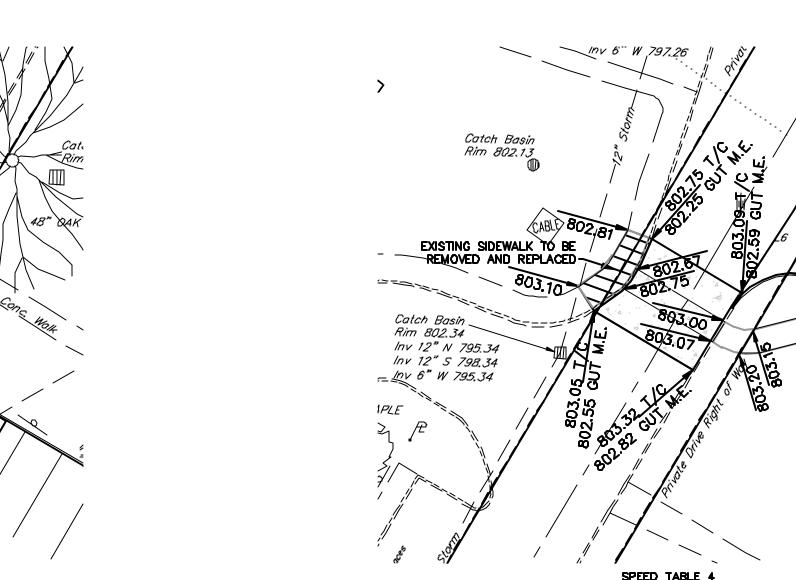
F.F. Finished Floor

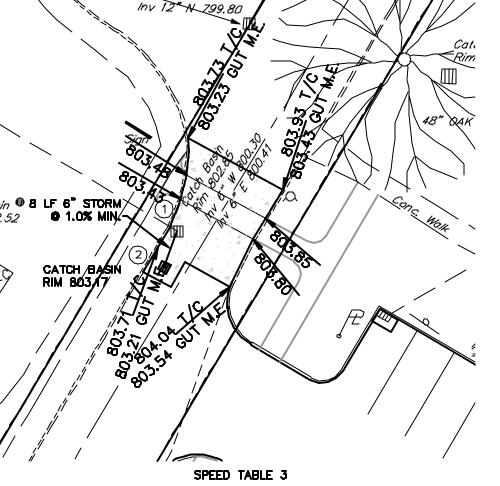
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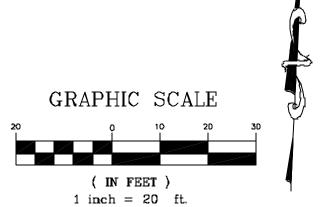






### KEYNOTES:

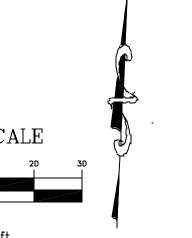
- (1) EXISTING CATCH BASIN TO BE REMOVED.
- (2) NEW CATCH BASIN TO TIE INTO EXISTING STORM SEWER CONNECTION.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL LOCATE AND EXPOSE EXISTING SEWER AT CONNECTION POINT. CONTRACTOR SHALL NOTIFY ENGINEER OF SIZE, DEPTH, AND CONDITION OF SEWER.







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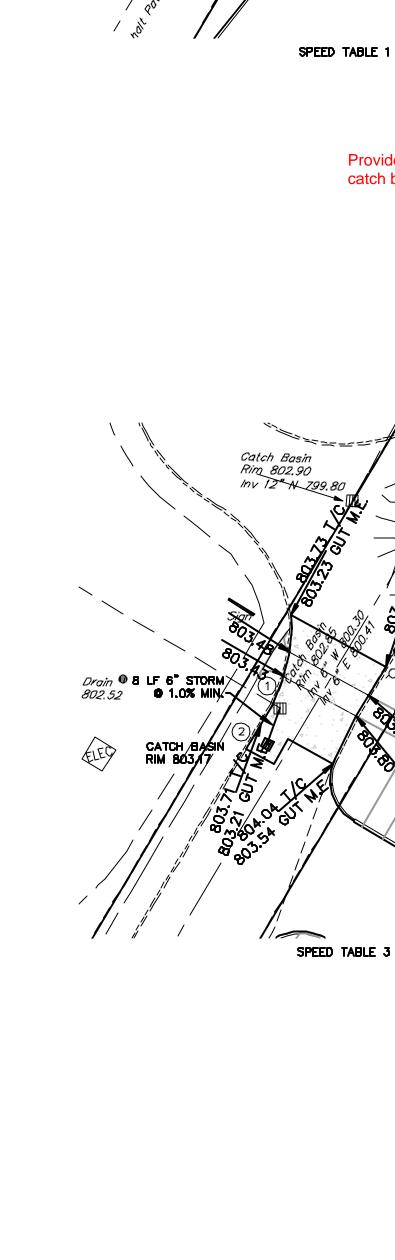
SPEED TABLE PLAN

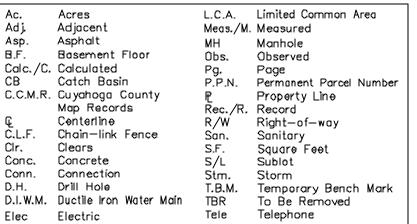
PROJECTNO:: 2019.25

**ALTERNATE 8** 

DRAWINGNUMBER:

TITLE:



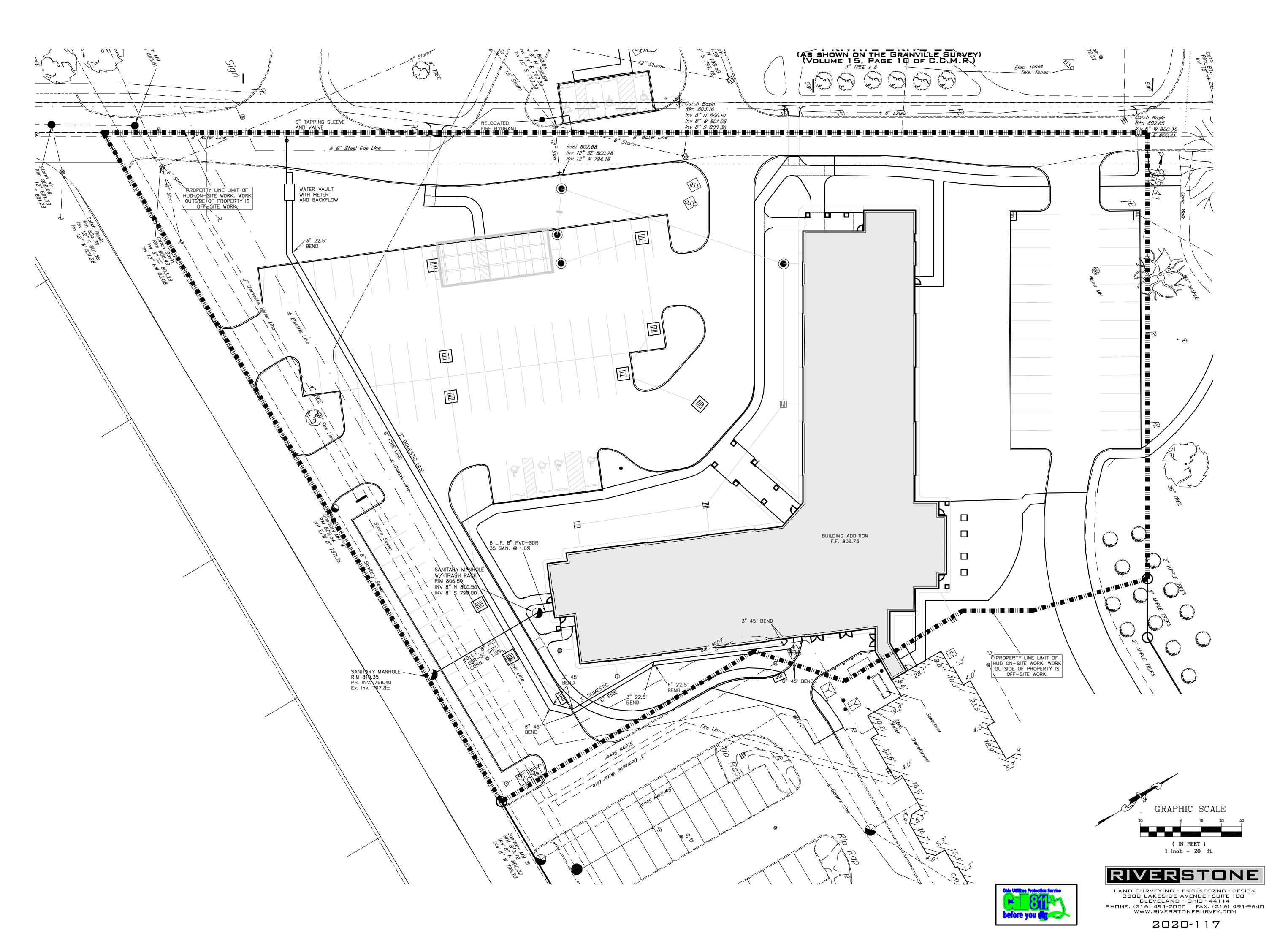


T.F.

Vol. Volume Wat Water

Top Footer

Volume



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BIFRANCESCO
+SIEBOLD

+SIEBOLD

POSE MARK DATE PURPOSE

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PENDENT LIVING

08/28/2020

10/16/2020

2/18/2021

BNIOR APARTMENT BUILDING

SENIOR STEERS OF STEERS OF

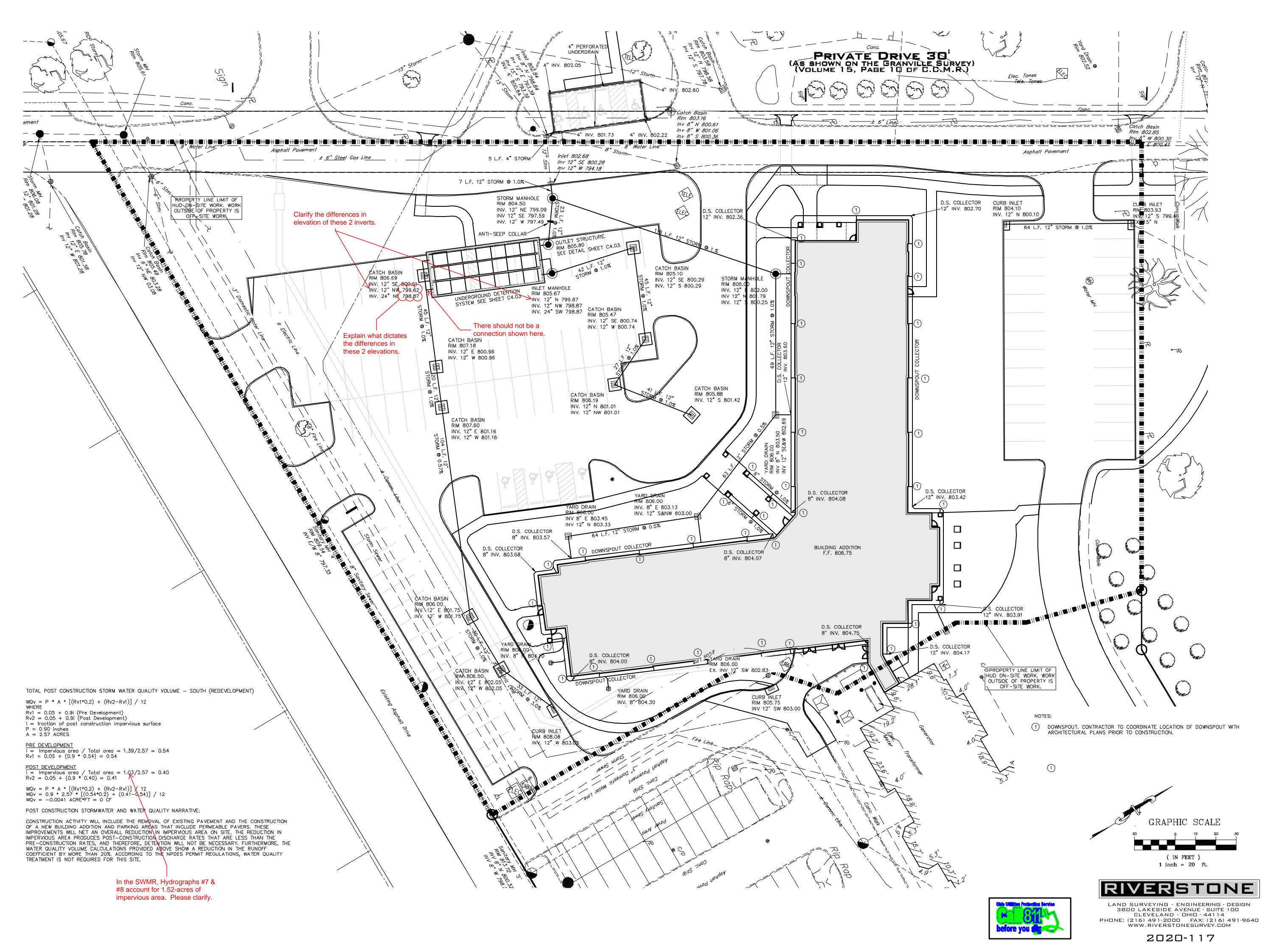
PROJECT NO.: 2019.25

TITLE:

UTILITY PLAN
SANITARY & WATER

DRAWING NUMBER:

C4.01



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+SIEBOLD
+SIEBOLD

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MARK DATE PURPOSE

UPDATE

SENIOR INDEPENDENT LIVINC VOLUME 1: NEW SENIOR APARTMENT BUILDING 14860 PRIVATE DRIVE, EAST CLEVELAND, OHIO 44112



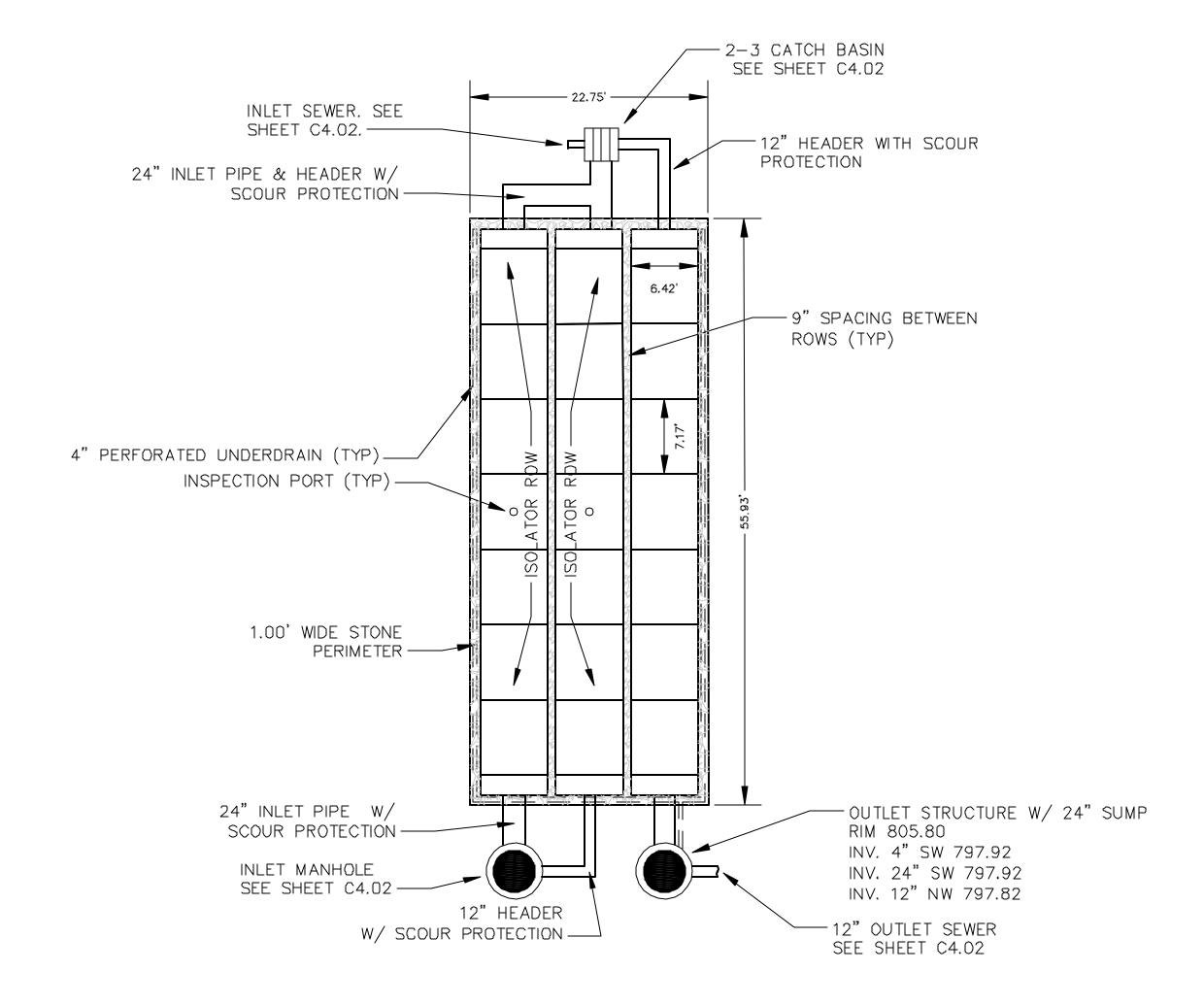
PROJECT NO.: 2019.25

TITLE:

UTILITY PLAN STORM

DRAWING NUMBER:

C4.02



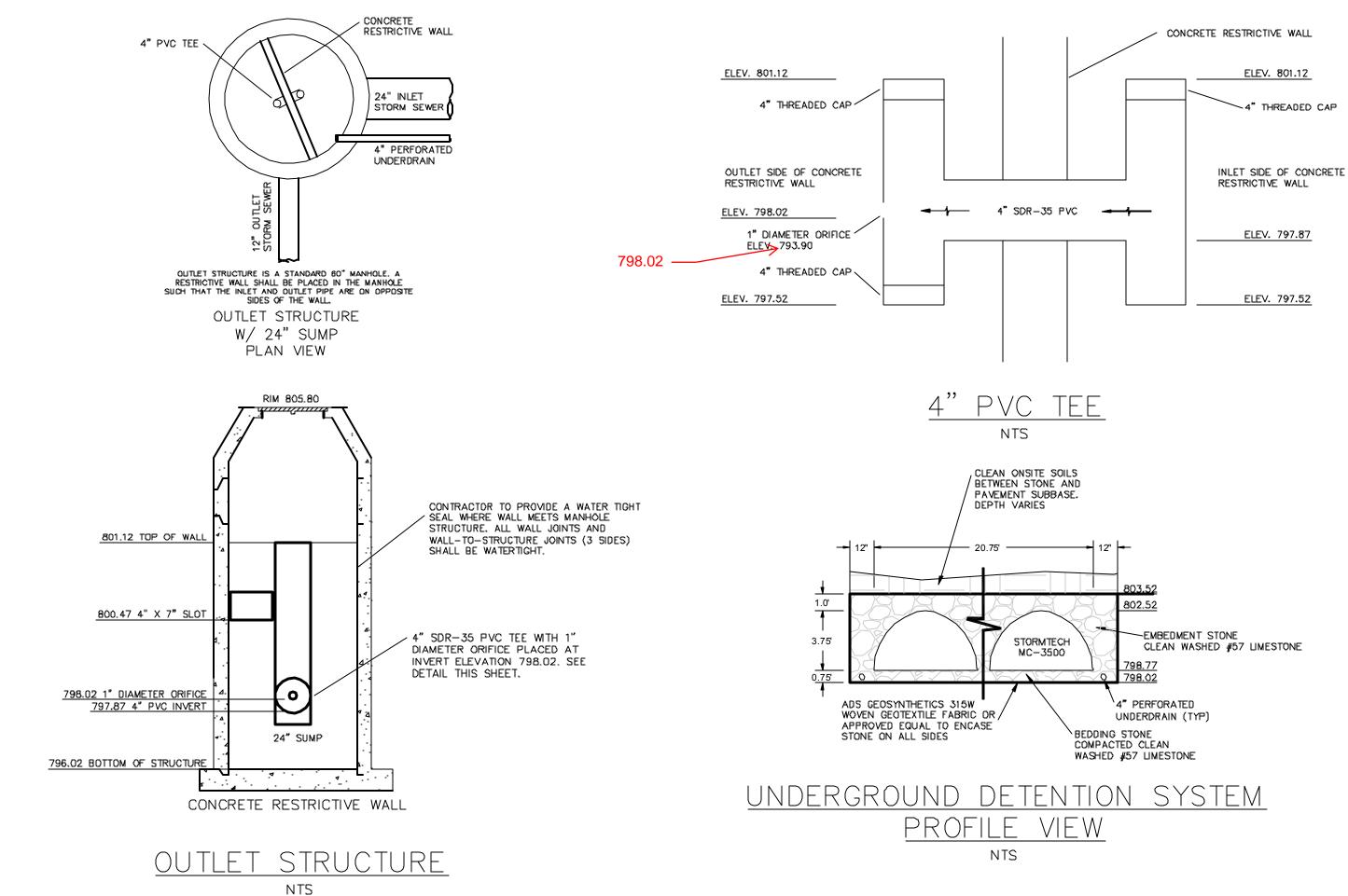
STORMTECH MC-3500 UNDERGROUND DETENTION SYSTEM

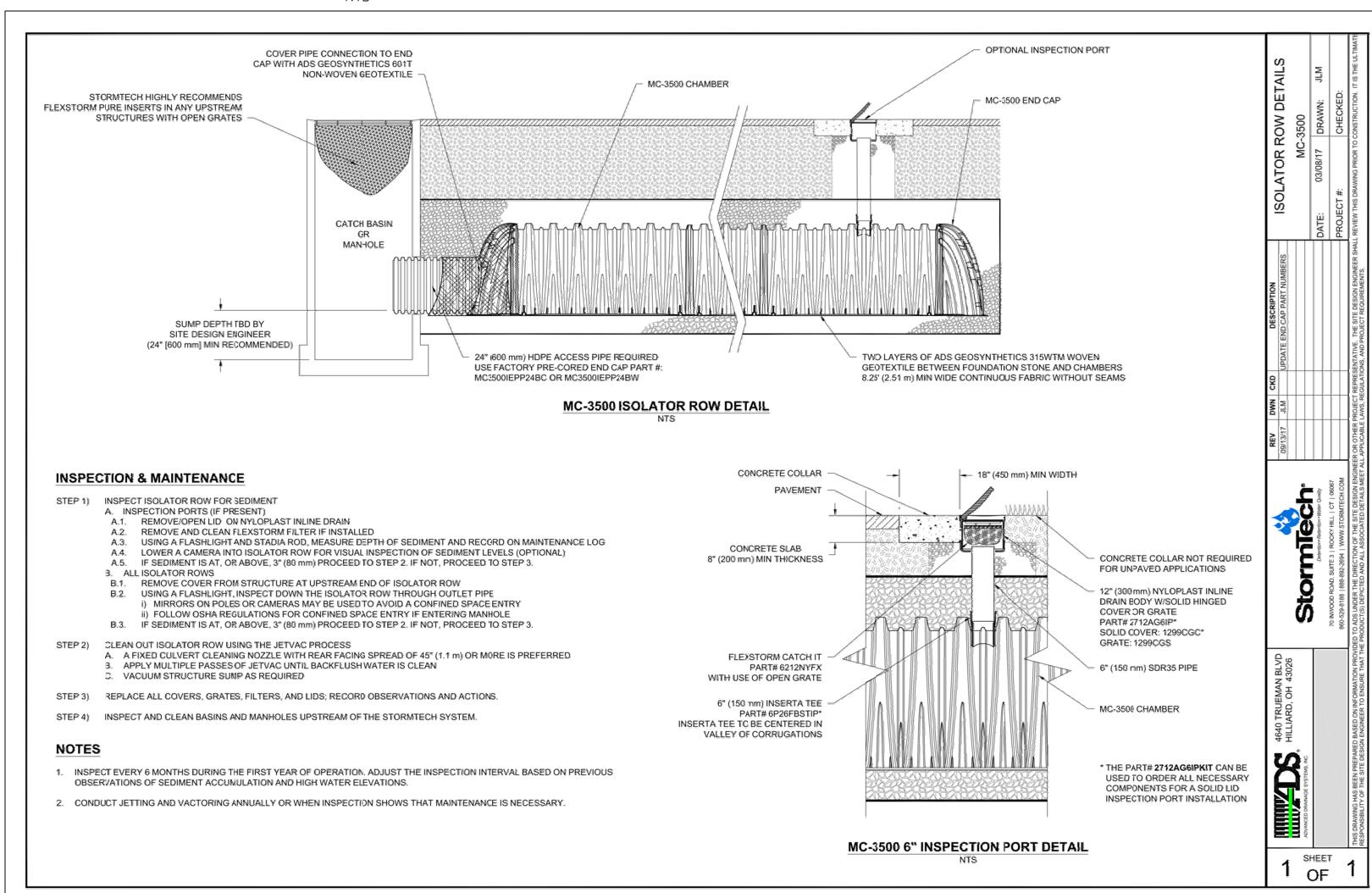
### LONG TERM MAINTENANCE

THE STORMWATER MANAGEMENT SYSTEM WILL REQUIRE PERIODIC MAINTENANCE AND INSPECTION. THE SYSTEM IS DESIGNED WITH INSPECTION PORTS FOR THIS REASON. THE INSPECTION PORT SHALL BE INSTALLED ON THE ISOLATOR ROW OF THE SYSTEM, THIS IS WHERE THE INSPECTIONS AND MAINTENANCE WILL TAKE PLACE.

INSPECTION: A ROD SHALL BE INSERTED INTO THE INSPECTION PORT AND EXTENDED DOWN TO THE BASE OF THE SYSTEM TO MEASURE THE AMOUNT OF SEDIMENT ACCUMULATED IN THE ISDLATOR ROW. WHEN THE AVERAGE DEPTH OF THE SEDIMENT EXCEEDS 3" CLEANOUT WILL BE REQUIRED. THE ISOLATOR ROW SHOULD INITIALLY BE INSPECTED IMMEDIATELY AFTER COMPLETION OF THE SITE CONSTRUCTION. THIS IS THE TIME WHERE EXCESS AMOUNTS OF SEDIMENT CAN ENTER INTO THE SYSTEM. INSPECTION AND MAINTENANCE IF NECESSARY SHOULD BE PERFORMED PRIOR TO THE OWNER ACCEPTING THE SYSTEM. ONCE IN NORMAL SERVICE THE SYSTEM SHOULD BE INSPECTED TWICE A YEAR, UNTIL AN UNDERSTANDING OF THE SITES CHARACTERISTICS IS DEVELOPED. THE INSPECTION SCHEDULE CAN THEN BE REVISED TO FIT THE

JETVAC MAINTENANCE IS RECOMMENDED ONCE THE SEDIMENT IN THE ISOLATOR ROW EXCEEDS 2". FIXED NOZZLES DESIGNED FOR LARGE CULVERTS OR SEWERS ARE PREFERRED. THE JETVAC PROCESS SHOULD ONLY BE PERFORMED ON THE ISOLATOR ROW AND IS NOT NECESSARY ON THE ENTIRE SYSTEM.





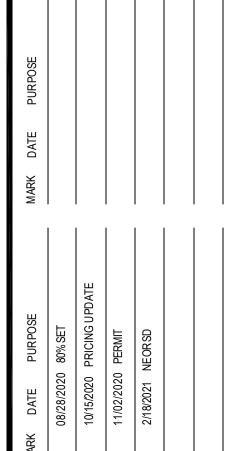


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# SENIOR INDEPENDENT LIV VOLUME 1: NEW SENIOR APARTMENT BUIL 14860 PRIVATE DRIVE, EAST CLEVELAND, OHIO 441



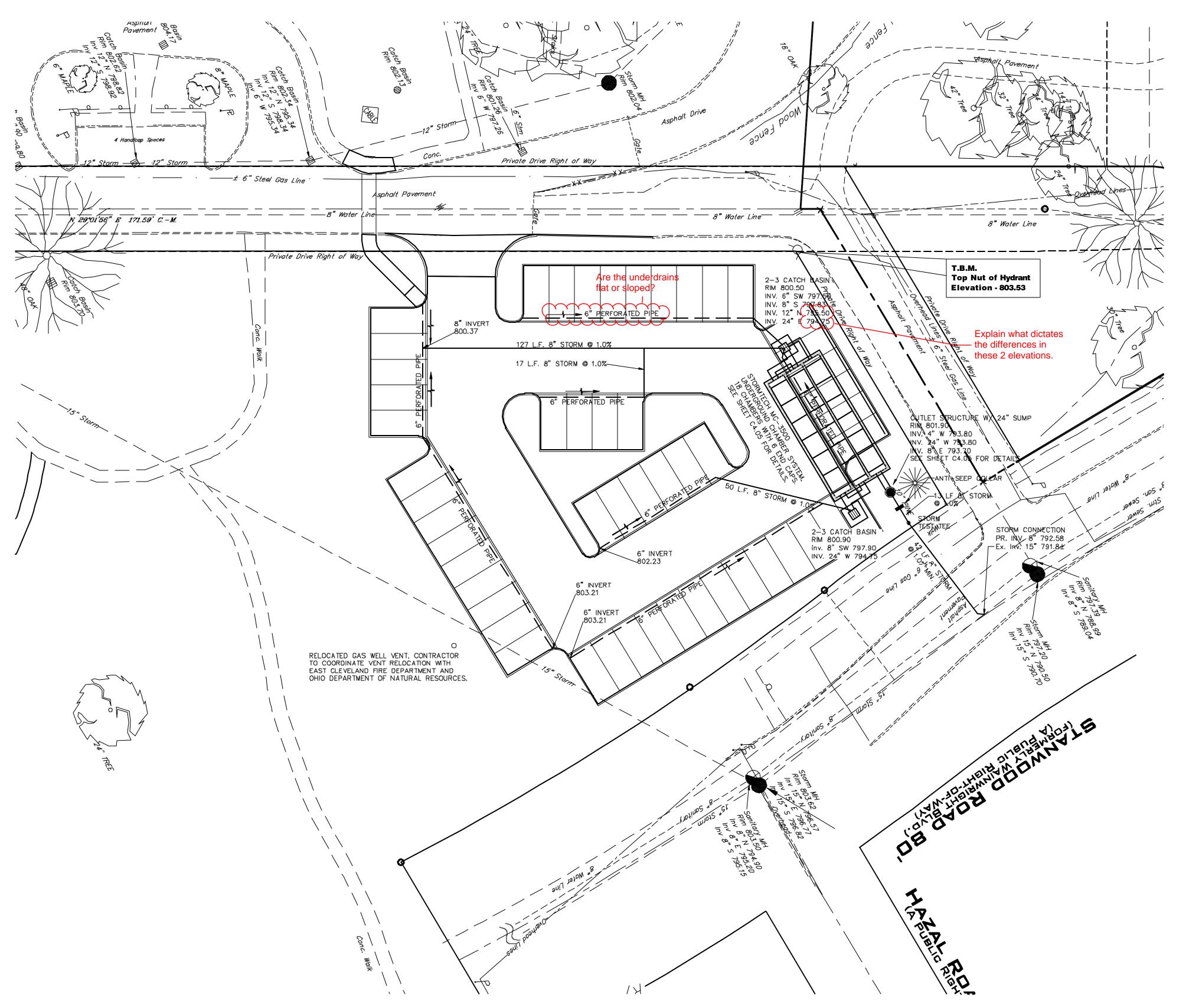
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UTILITY PLAN STORM

DRAWING NUMBER:

TITLE:

C4.03

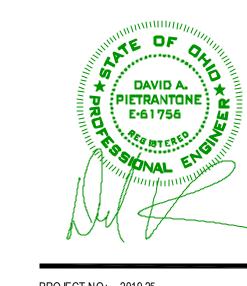


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PROJECT NO.: 2019.25

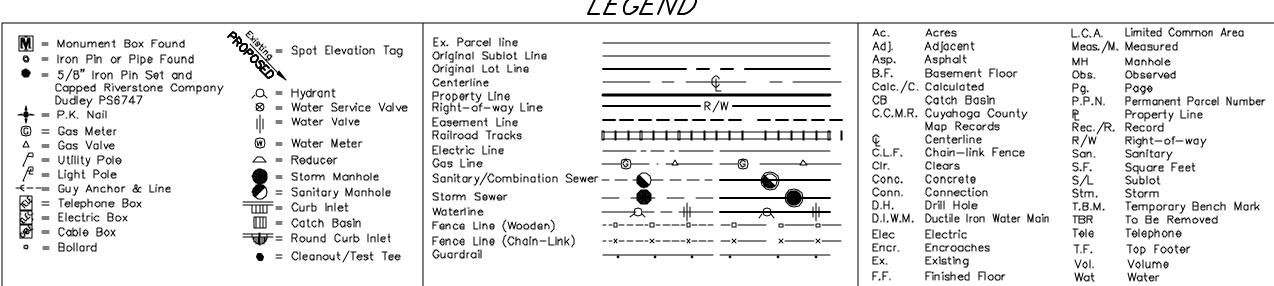
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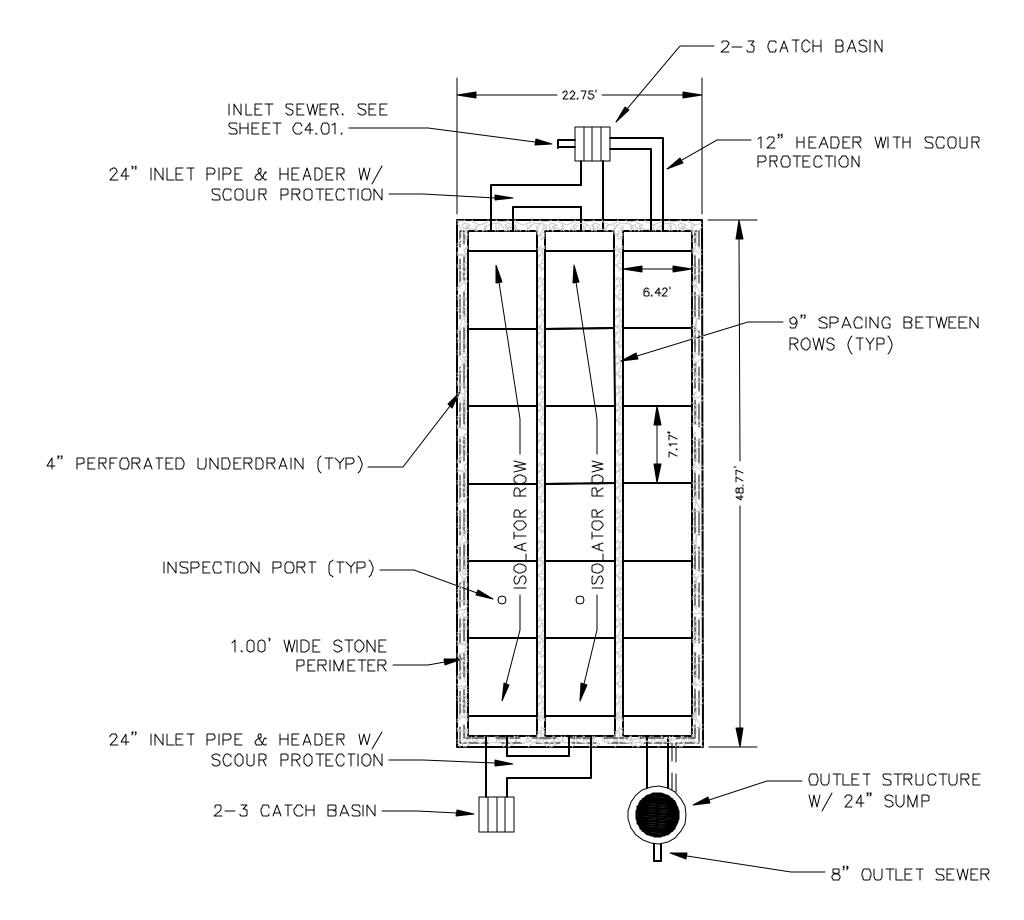
**UTILITY PLAN STORM** 

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LEGEND





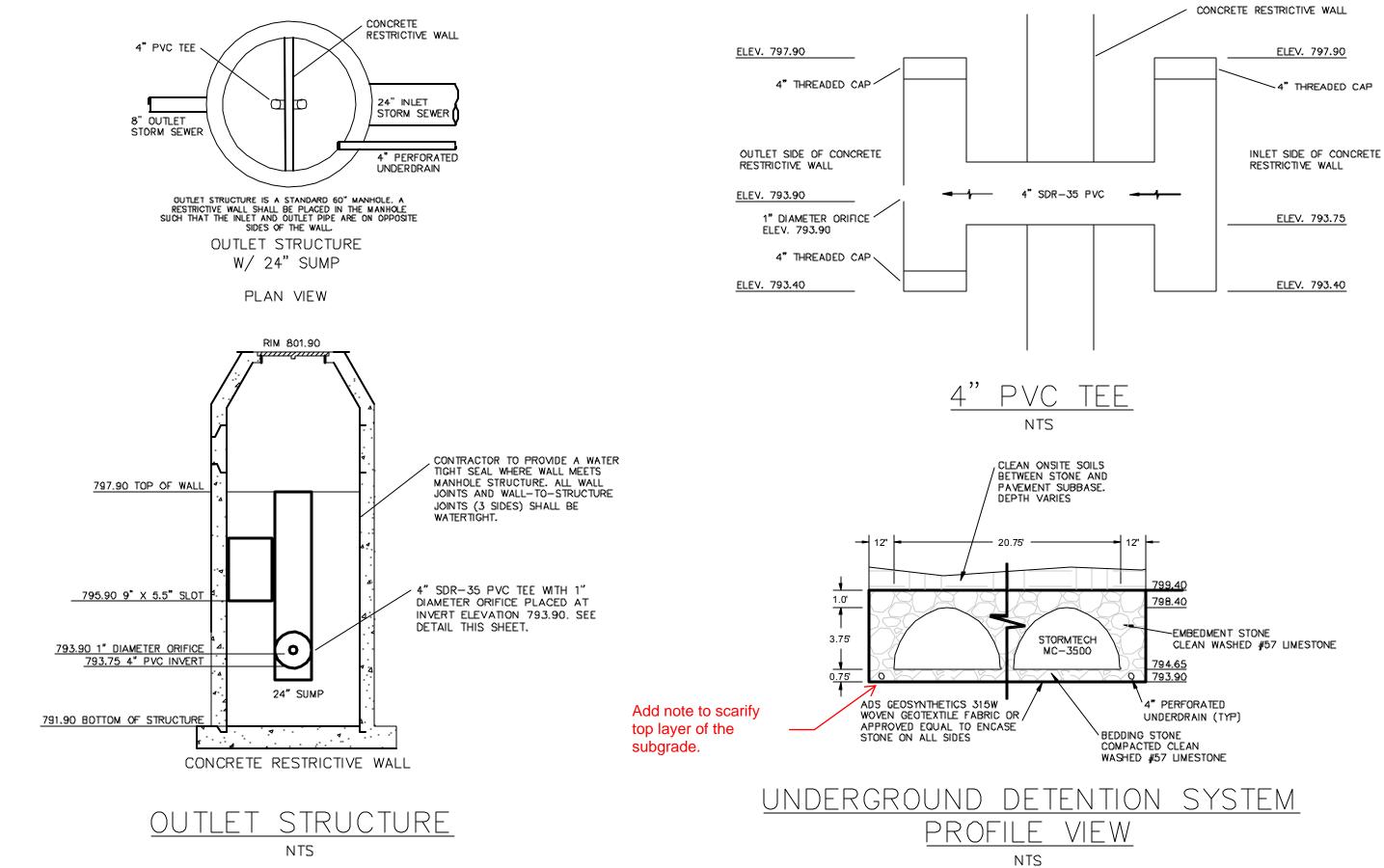
STORMTECH MC-3500 UNDERGROUND DETENTION SYSTEM

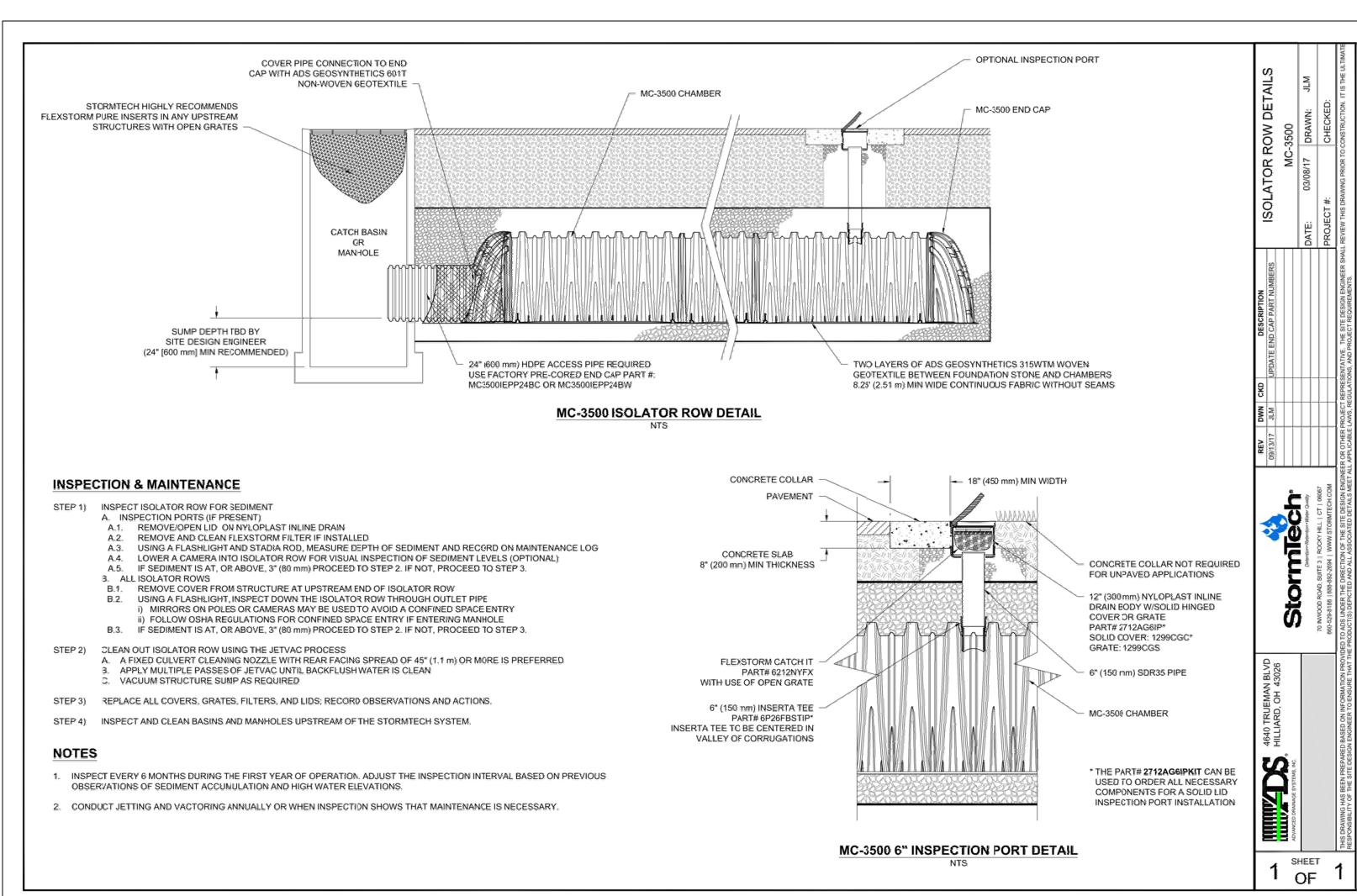
### LONG TERM MAINTENANCE

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2/18/2021 NEORSD

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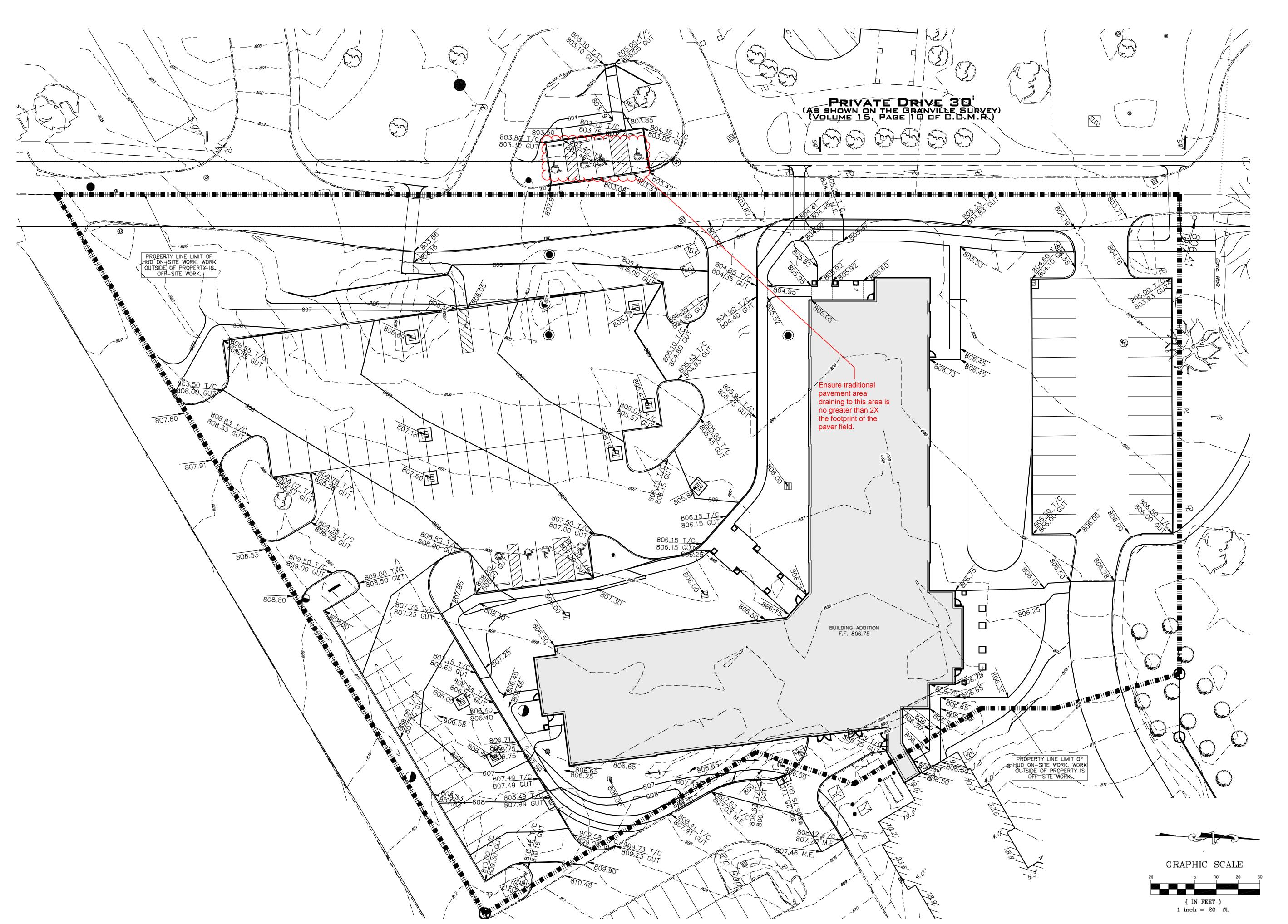
PROJECT NO.: 2019.25

TITLE:

UTILITY PLAN STORM

DRAWING NUMBER:

C4.05







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2020-117

CTURE + INTERIOR DESIGN + PLANNIN

PURPOSE						
MARK DATE						
MARK						
MARK DATE PURPOSE	08/28/2020 80% SET	10/15/2020 PRICING UPDATE	11/02/2020 PERMIT	2/18/2021 NEORSD		
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SENIOR INDEPENDENT LIV
VOLUME 1: NEW SENIOR APARTMENT BUILI
14860 PRIVATE DRIVE, EAST CLEVELAND, OHIO 4411



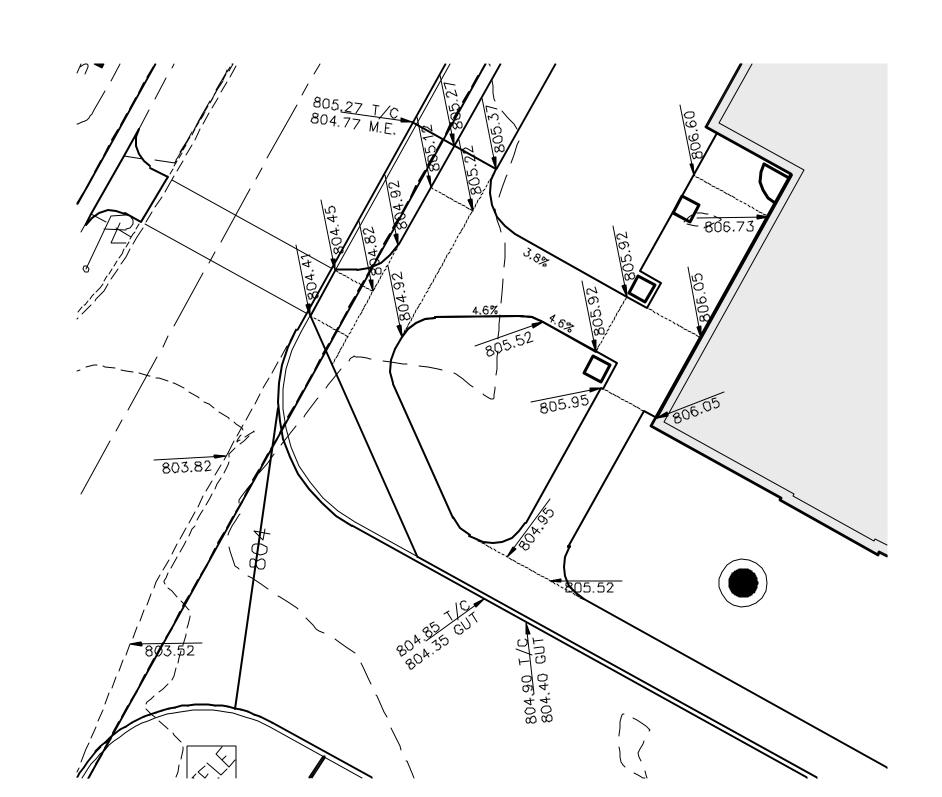
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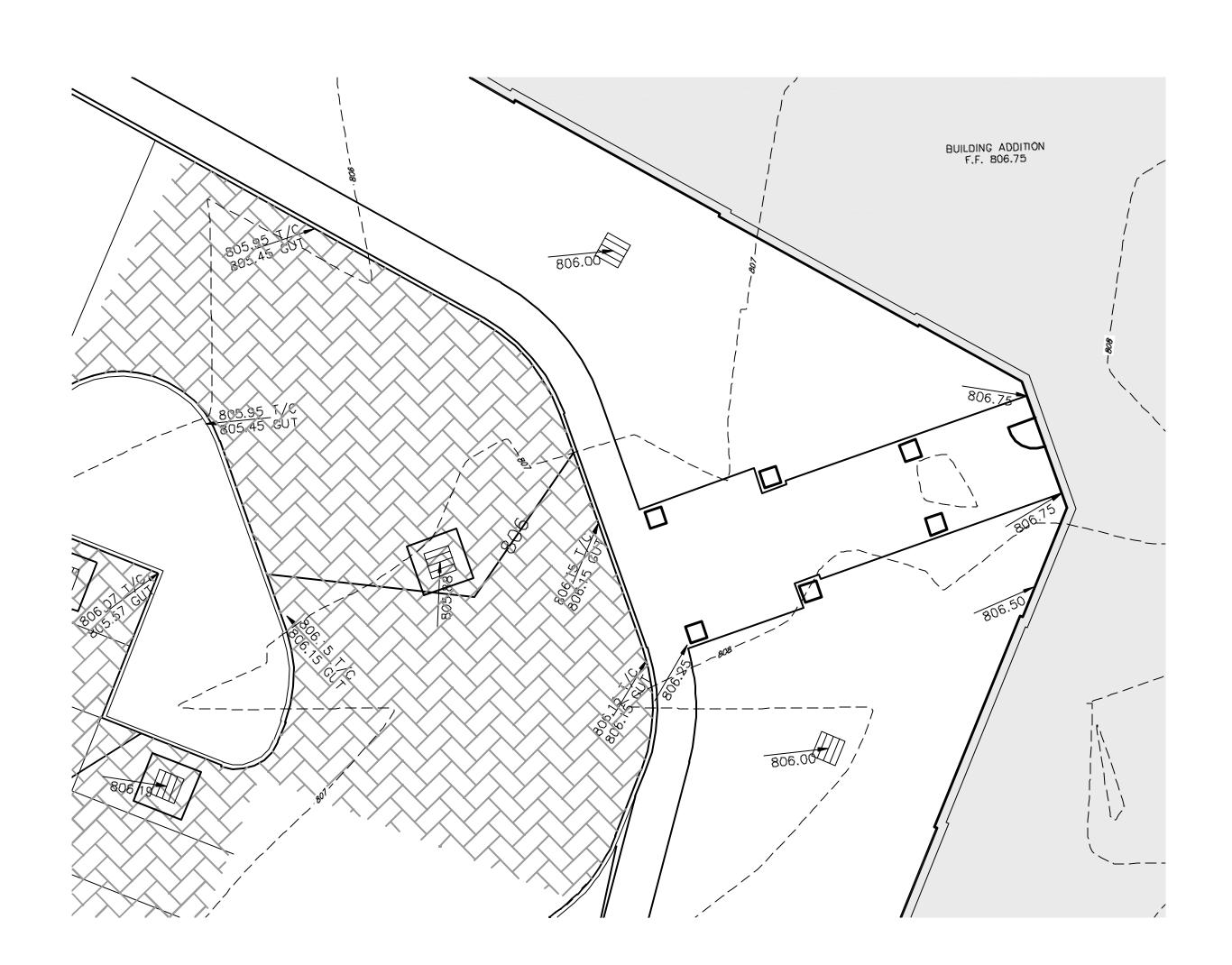
TITLE:

**GRADING PLAN** 

DRAWING NUMBER:

C5.01











2020-117

ENDENT BUILDING

108/28/2020 80% SET

10/15/2020 PRICING UPDATE

11/102/2020 PERMIT

2/18/2021 NEORSD

2/18/2021 NEORSD

B, EAST CLEVBLAND, OHIO 44112

DAVID A. PIETRANTONE E-61756

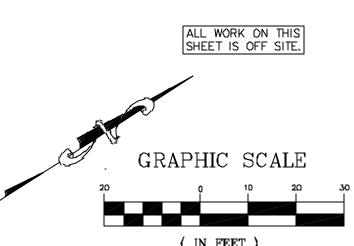
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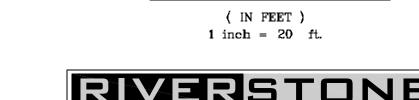
GRADING PLAN

DRAWING NUMBER:

C5.02

Provide a summary table that shows drainage areas to each separate paver footprint. Ensure the drainage area of traditional pavement is no greater than 2X the area of the receiving paver field. You can discount upslope paver fields with grades that pitch toward downslope fields (it is assumed the direct rainfall will

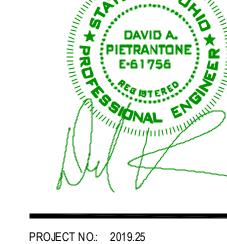






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TITLE:

**Grading Plan** 

DRAWING NUMBER:

C5.03

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<ul> <li>M = Monument Box Found</li> <li>e = Iron Pin or Pipe Found</li> <li>e = 5/8" Iron Pin Set and</li> </ul>	Spot Elevatio
Capped Riverstone Company Dudley PS6747  P.K. Nail G = Gas Meter	,Q = Hydrant ⊗ = Water Service     = Water Valve
$\Delta$ = Gas Valve	₩ = Water Meter

△ = Gas Valve

/ = Utility Pole

/ = Light Pole

- - = Guy Anchor & Line

③ = Telephone Box

□ = Cable Box

= Bollard

Ex. Parcel line 🖔 = Spot Elevation Tag Original Sublot Line <sup>l</sup> Original Lot Line Centerline ⊗ = Water Service Valve | = Water Valve Easement Line Railroad Tracks Electric Line Gas Line Storm Manhole Sanitary Manhole

= Curb Inlet

= Catch Basin
= Round Curb Inlet
= Cleanout/Test Tee

Property Line Right-of-way Line Sanitary/Combination Sewer — Storm Sewer Waterline Fence Line (Wooden) Fence Line (Chain-Link) Guardrail

В.Ė. \_\_\_\_\_ —©— · <u>~</u>— —© —— Clr. Conc. Conn. D.H.

Adjacent Asphalt Basement Floor Calc./C. Calculated CB Catch Basin Çatch Basin C.C.M.R. Cuyahoga County Map Records Centerline Chain—link Fence Concrete Connection Drill Hale

D.I.W.M. Ductile Iron Water Main Electric Elec Encr. Ex. Encroaches

Pg. Page P.P.N. Permanent Parcel Number Property Line Rec /R. Record Rec./R. Record
R/W Right—of—way
San. SanItary
S.F. Square Feet
S/L Sublot
Stm. Storm
T.B.M. Temporary Bench Mark Existing

To Be Removed Tele Telephone T.F. Top Footer

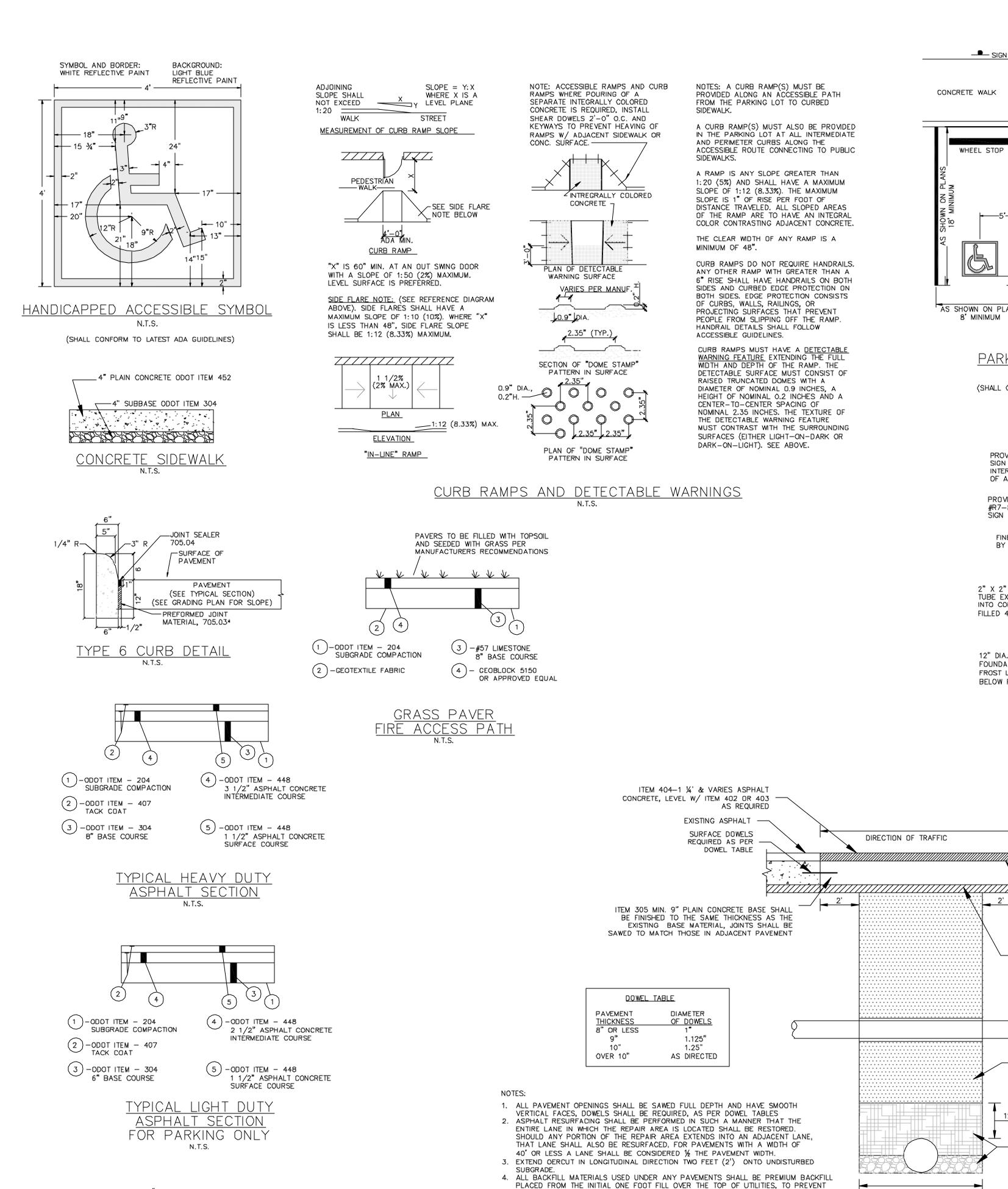
L.C.A. Limited Common Area

Manhole

Observed

Meas./M. Measured

Vol. Volume Wat Water F.F. Finished Floor



8" REINFORCED CONCRETE ODOT ITEM 451

W/ 6" X 6" #4 ROADWAY WRE MESH

6" SUBBASE ODOT ITEM 304

REINFORCED CONCRETE

ASPHALT PAVEMENT REPAIR NTS

TRENCH WIDTH

FLOTATION AND ENTRY OF FLOWABLE FILL INTO ANY OTHER AREAS, TO THE

5. COVER ALL JOINTS IN CLAY PIPE IN THE TRENCH AREA WITH POLYETHYLENE MATERIAL BEFORE POURING FLOWABLE FILL. REPAIR TECHNIQUES SHALL BE IN

ACCORDANCE WITH THE UTILITY COMPANY'S STANDARD REPAIR PROCEDURES.

SUBGRADE.

—■ SIGN

CONCRETE CURB

ĀS SHOWN ON PLANS

COLORS: GREEN LEGEND AND

BORDER WHITE

BACKGROUND AND

WHITE SYMBOL ON

BLUE BACKGROUND

ARROW SHOULD BE

THERE IS ONLY ONE

PARKING SPACE OR

ONE DIRECTION AS

NECESSARY.

FIN. GRADE

ARROW CAN POINT IN

REMOVED WHEN

8' MINIMUM

RESERVED

PARKING

ACCESSIBLE

FINE

ADA PARKING SIGN & POST

N.T.S.

JOINT TO BE SEALED WITH ASPHALT

SUFFICIENT TO FILL SURFACE VOIDS,

EXISTING BRICK ON

TYPICAL BOTH SIDES

ITEM 304- 4" MIN.

AGGREGATE BASE

PREMIUM BACKFILL

BEDDING, PIPE ENCASEMENT PER

JTILITY SPECIFICATIONS

12" MAX.

CEMENT APPLIED AT A UNIFORM WIDTH OF APPROX. 6" AND AT A RATE JUST

SAND OR CONCRETE BASE.

NEW BASE TO BE NO HIGHER THAN

EXISTING CONCRETE OR BRICK BASE

— EXISTING SUBBBASE

── SIGN

WARNING

AS SHOWN ON PLANS

8' MINIMUM ADJACENT

PARKING STALL DETAIL

(SHALL CONFORM TO LATEST ADA GUIDELINES)

PROVIDE USDOT #R7-8

INTERNATIONAL SYMBOL

OF ACCESSIBILITY. --

SIGN AS APPLICABLE.—

FINE AS REQUIRED ---

SIGN CONTAINING

PROVIDE USDOT

2" X 2" STEEL TUBE EXTENDED

INTO CONCRETE

FILLED 4" PIPE,

12" DIA. CONCRETE FOUNDATION 6" BELOW

FROST LINE (3 FT. MIN.

BELOW FIN, GRADE),—

#R7-8a OR #R7-8b

BY LOCAL LAWS.

TO VAN ADA SPACE

GENERAL NOTES 1.) A PRE-CONSTRUCTION CONFERENCE SCHEDULED BY THE CONTRACTOR SHALL BE HELD PRIOR TO START OF ANY WORK. IN ADDITION, THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE TO THE CITY ENGINEER PRIOR TO

BEGINNING WORK TO ARRANGE FOR INSPECTION. 2.) ANY AND ALL CHANGES IN PLAN QUANTITIES OR MATERIALS SHALL BE APPROVED IN WRITING BY THE DEVELOPER

PRIOR TO INCORPORATION IN THE WORK.

3.) EARTHWORK QUANTITIES: A) ALL STUMPS, TREES AND OTHER CONSTRUCTION DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR

B) THE CONTRACTOR SHALL PLACE AND COMPACT ALL SUITABLE FILL MATERIAL EXCAVATED DURING HIS CONSTRUCTION OPERATIONS WITHIN THE FILL AREAS DESIGNATED ON THE GRADING PLAN AND/OR AS

DIRECTED BY THE DEVELOPER AND/OR HAULED OFF-SITE AT THE DEVELOPER'S DISCRETION. C) NO DISPOSAL SITE WITHIN THE PROJECT LIMITS SHALL BE UTILIZED. 4.) SEEDING AND MULCHING: SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY SEEDING AND MULCHING IMMEDIATELY UPON COMPLETION OF EXCAVATION OR FILL AND FINISHED GRADING IN ACCORDANCE WITH ITEM 659 OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS OR AS DIRECTED BY THE

5.) ALL TRENCHES IN PAVED AREAS SHALL BE BACKFILLED WITH GRANULAR MATERIALS FROM THE TOP OF THE TRENCH BEDDING, BACKFILL TO BE MECHANICALLY COMPACTED, SLAG NOT ALLOWED.

6.) ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SYSTEM

7.) PRIOR TO CONNECTION CONSTRUCTION, CONTRACTOR TO VERIFY LOCATIONS, SIZE AND DEPTH OF EXISTING SEWER

8.) THE UTILITY OWNERSHIPS ARE AS FOLLOWS: OUPS CONTACTED 03/01/2017, #A706002673

PH: (800) 993-2225

DOMINION EAST OHIO GAS CO.

OHIO UTILITIES PROTECTION SERVICE TIME WARNER COMMUNICATION 106 WEST RYEN - ROOM 427 1100 EAST 222ND STREET YOUNGSTOWN, OHIO 44051 EUCLID, OHIO 44117

CITY OF CLEVELAND DIVISION OF WATER 1201 LAKESIDE AVENUE CLEVELAND, OHIO 44114

PH: (800) 362-2764

320 SPRINGSIDE DRIVE, SUITE 320 AKRON, OHIO 44333 PH: (216) 664-2444 PH: (877) 542-2630

THE ILLUMINATING COMPANY 13630 LORAIN AVENUE, ROOM 200 6896 MILLER ROAD, SUITE 101 BRECKSVILLE, OHIO 44141 CLEVELAND, OHIO 44111 PH: (216) 882-6291 PH: (216) 622-9800

SEWER DISTRICT DIVISION OF ENGINEERING 3900 EUCLID AVENUE CLEVELAND, OH 44114-2504 PH: (216) 881-6600

UNITE PRIVATE NETWORKS 7200 NW 86th STREET, SUITE M KANSAS CITY, MO 64153 PH: (816) 903-9400

THE LOCATION OF UNDERGROUND UTILITIES ARE PLOTTED ACCORDING TO THE INFORMATION FURNISHED BY THE UTILITIES CONCERNED AND THE ENGINEER DOES NOT GUARANTEE THE ACCURACY THEREOF.

9.) ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL COMPLY WITH U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT, THE STANDARD SPECIFICATIONS OF THE CITY OF EAST CLEVELAND AND THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS LATEST EDITION, EXCEPT WHERE SPECIFICALLY SPECIFIED IN THESE PLANS.

10.) IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL.

11.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL MATERIAL TESTING AND ALL PERMITS REQUIRED

12.) THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY FACILITIES ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF THE FIELD SURVEY IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF THE EXISTING UTILITY OWNERS AND UTILITY PROTECTION SERVICE LISTED ABOVE IN ACCORDANCE WITH SECTION 153,64 OF THE OHIO REVISED CODE AND AS OUTLINED IN PROJECT SPECIFICATIONS.

13.) ALL WORK CONTEMPLATED SHALL BE GOVERNED BY THE RULES, REGULATIONS AND SPECIFICATIONS OF THE CITY OF EAST CLEVELAND ENGINEER AND AT ALL TIMES BE SUBJECT TO THEIR DIRECT SUPERVISION AND INSPECTION. 14.) ALL SANITARY SEWER CONNECTIONS SHALL BE 6" DIAMETER V.C.P. C-700 E.S. w/PREMIUM JOINTS (OR

THERMOPLASTIC AS SPECIFIED) 🕲 1.0% MIN. (INCLUDING TEST TEE LOCATED AT R/W — SEE DETAIL). 15.) ALL EXISTING CONNECTIONS SHALL BE TESTED WITH DYE AND CAMERA BEFORE TYING IN FOR USE WITH PROPOSED

16.) COLOR DVD VIDEO OF THE SANITARY AND STORM SEWERS (8" AND GREATER) SHALL BE GIVEN TO THE CITY OF

17.) COST OF REMOVAL, FILLING, ABANDONING AND DISPOSAL OF EXISTING SEWERS & CONNECTIONS TO BE INCLUDED IN PRICES BID UNDER OTHER ITEMS (OF SPECIFICATIONS) AND NO ADDITIONAL COMPENSATION WILL BE MADE. 18.) TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION BY THE CONTRACTOR.

19.) ALL SANITARY AND STORM MAIN LINE SEWERS & HOUSE CONNECTIONS SHALL HAVE PREMIUM JOINTS.

20.) FLEXIBLE GASKETS SHALL BE PROVIDED AT ALL SANITARY AND STORM MANHOLES. 21.) FOR CURB INLET MANHOLE, BRICK MAY BE USED TO FIT CASTING.

ENVIRON. IMPACT NOTES

1.) IF, DURING THE COURSE OF CONSTRUCTION, EVIDENCE OF ANY DEPOSIT OF HISTORICAL AND/OR ARCHAEOLOGICAL INTEREST IS FOUND. CEASE OPERATIONS AFFECTING THE FIND AND NOTIFY THE OHIO HISTORIC PRESERVATION OFFICE AT (614) 297-3470. NO FURTHER DISTURBANCE OF THE DEPOSITS SHALL OCCUR UNTIL THE CONTRACTOR HAS BEEN NOTIFIED BY THE OWNER THAT HE OR SHE MAY PROCEED. THE OWNER WILL ISSUE THE NOTICE TO PROCEED ONLY AFTER THE STATE OHIO OFFICIAL HAS SURVEYED THE FIND AND MADE SUCH A DETERMINATION. 2.) ACCESS FOR EMERGENCY VEHICLES MUST BE PROVIDED AT ALL TIMES.

3.) THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING LOCAL ACCESS TO ALL RESIDENCES AND BUSINESSES, AND TO PROVIDE WHATEVER TEMPORARY MATERIALS ARE NECESSARY TO PROVIDE A SAFE, ADEQUATE DRIVE SÚRFACE. 4.) NO MANHOLE OR SEWER EXCAVATION WILL BE LEFT OPEN AWAITING CONNECTION OR REMOVAL AT A LATER DATE

BY THE CONTRACTOR'S FORCES, OR OTHERS, BUT SHALL BE TEMPORARILY BACKFILLED AND RESURFACED, IF APPLICABLE, WITH A TEMPORARY PAVEMENT PASSABLE TO TRAFFIC. 5.) BALE FILTER DIKES SHALL BE PLACED AROUND ALL STORM SEWER CATCH BASINS LOCATED IN PROXIMITY TO

6.) NO MORE THAN 200 TO 300 FEET OF SEWER TRENCH SHALL REMAIN OPEN AT ONE TIME. MATERIALS EXCAVATED

DURING TRENCHING SHALL BE PILED ON THE UPHILL SIDE OF THE TRENCH.

7.) STOCKPILED TOPSOIL AND FILL MATERIALS SHALL BE PROTECTED WITH EROSION CONTROL BARRIERS OR TEMPORARY SEEDING, EXCESS SOIL THAT IS STOCKPILED MUST BE EITHER REMOVED OR REGRADED WITHIN 15 DAYS OF THE COMPLETION OF CONSTRUCTION.

8.) IF TREE REMOVAL IS NECESSARY, TREES SHALL BE FELLED IN A MANNER THAT AVOIDS DAMAGE TO ADJACENT REMAINING TREES, WHERE ROOT DAMAGE CANNOT BE AVOIDED, PRUNING AND PAINTING AS APPROPRIATE TO COMPENSATE FOR DAMAGE WILL BE DONE BY AN AUTHORIZED ARBORIST.

PROOF ROLL

A MINIMUM OF TWO (2) PROOF ROLLINGS WILL BE REQUIRED AS DIRECTED BY THE ENGINEER BEFORE PAVING. THE FIRST PROOF ROLLING SHALL BE PERFORMED AFTER THE INSTALLATION OF ALL UNDERGROUND IMPROVEMENTS AND ROUGH GRADING HAS BEEN COMPLETED. AFTER FINE GRADING, JUST PRIOR TO PAVING, THE SUBGRADE SHALL BE PROOF ROLLED AGAIN. A PROOF ROLLING SHALL CONSIST OF TRAVELING THE ENTIRE AREA OF THE PREPARED SUBGRADE WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PROVIDED BY THE CONTRACTOR, MOISTURE CONTENT ADJUSTMENT METHODS USED AT THE TIME OF PROOF ROLLING SHALL CONFORM TO SECTION 204 (1997) OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. WHERE THIS OPERATION SHOWS THE SUBGRADE TO BE UNSTABLE OR TO HAVE NON-UNIFORM STABILITY, THE CONTRACTOR SHALL CORRECT THE UNSTABLE AREAS AS DIRECTED BY THE ENGINEER. THE MINIMUM EQUIPMENT SHALL CONSIST OF A SINGLE UNIT, TANDEM AXLE DUMP TRUCK CAPABLE OF BEING LOADED TO 30,000 POUND AXLE LOAD, 60,000 POUND GVW. TIRE PRESSURE SHALL BE MAINTAINED AT 90 PSI OR AS SPECIFIED UNDER SECTION 204 (1997) OF ODOT SPECIFICATIONS. ANY AREA PERMITTING TIRES TO LEAVE A GROOVE OF ONE (1) INCH OR MORE SHALL BE UNACCEPTABLE FOR PAVING. ANY AREA PERMITTING THE TEST VEHICLE TIRES TO LEAVE A GROOVE OF ZERO (0) TO ONE-HALF (1/2) INCH DEEP SHALL BE ACCEPTABLE. ANY AREA PERMITTING THE TEST VEHICLE TIRES TO LEAVE A GROOVE OF ONE-HALF (1/2)

> DAVID A. PIETRANTONE PROJECT NO.: 2019.25

SEN

0 0

TITLE:

**NOTES & DETAILS** 

DRAWING NUMBER:

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INCH TO ONE (1) INCH DEEP SHALL BE AT THE ENGINEER'S DISCRETION.



2020-117

NOTES FOR STORM SEWERS

1.) THE FOLLOWING PIPES ARE APPROVED FOR THIS PROJECT:

A) 18" & UNDER - V.C.P. C-700 ES w/PREM. JTS.
B) 21" & OVER - R.C.P. CL. III w/PREM. JTS.
C) PVC SDR 35 FOR SEWER DEPTHS LESS THAN 13'

D) PVC SDR 26 FOR SEWER DEPTHS MORE THAN 13'
E) ALUMINIZED SPIRAL RIBBED PIPE

2.) PIPE REQUIRES #57 LIMESTONE BACKFILL 12" OVER TOP OF PIPE
3.) CONTRACTOR SHALL INCLUDE COST OF GRANULAR BACKFILL MATERIAL UNDER ALL EXISTING

AND PROPOSED PAVEMENTS IN PRICE BID PER LINEAL FOOT OF PIPE.

4.) PRIOR TO THE ACCEPTANCE OF THE COMPLETED SEWER LINE, A MANDREL OF NOT LESS THAN NINETY—FIVE PERCENT (95% OF THE AVERAGE CALCULATED REFERENCE INTERNAL DIAMETER OF THE PIPE SHALL BE PULLED BY HAND FREELY THROUGH EACH SECTION OF SEWER PIPE NOT LESS THAN THIRTY (30) DAYS AFTER INSTALLATION AND FINAL BACKFILL.

5.) BEDDING AND BACKFILL OF PIPE TRENCHES SHALL BE PER THE COUNTY STANDARD DETAIL.
6.) ANY SEWER TRENCH BACKFILL WITHIN THE PUBLIC ROW SHALL BE LSM BACKFILL.

— Bottom slob may be precost separately

and the outlet pipe placed on top of it with the bottom shaped to drain

NOTES FOR SANITARY SEWERS

1.) THE FOLLOWING PIPES ARE APPROVED FOR THIS PROJECT: A) V.C.P., C-700 ES  $_{W}/_{PREM}$ . JTS. (ASTM C-425 )

A) V.C.P., C-700 ES W/PREM. JIS. (ASIM C-425 )
B) PVC SDR 35 FOR SEWER DEPTHS LESS THAN 13'
C) PVC SDR 26 FOR SEWER DEPTHS MORE THAN 13'

2.) ALL 6" SAN LATERAL CONNECTIONS SHALL BE AT A MINIMUM SLOPE OF 1.0% 3.) PIPE REQUIRES #57 LIMESTONE BACKFILL 12" OVER TOP OF PIPE,

4.) CONTRACTOR SHALL INCLUDE COST OF GRANULAR BACKFILL MATERIAL UNDER ALL EXISTING AND PROPOSED PAVEMENTS IN PRICE BID PER LINEAL FOOT OF PIPE,

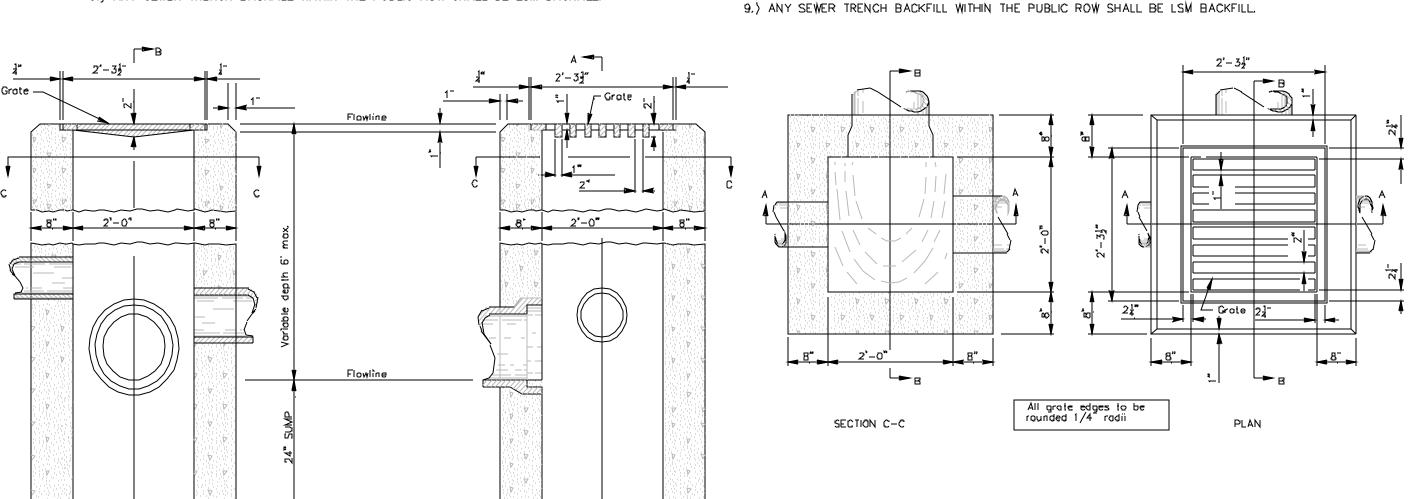
5.) ALL SANITARY SEWER TO BE C.P. AIR TESTED PER ASTM C-828-80
6.) ALL SANITARY SEWER SYSTEMS MUST PASS AN EXFILTRATION AND AN INFILTRATION TEST AFTER CONSTRUCTION HAS BEEN

COMPLETED. THE MAXIMUM RATE OF INFILTRATION SHALL BE 100 GALLONS PER INCH DIAMETER OF SEWER PER MILE, PER DAY, FOR V.C.P. AND 50 GALLONS FOR PVC.

7.) PRIOR TO THE ACCEPTANCE OF THE COMPLETED SEWER LINE, A MANDREL OF NOT LESS THAN NINETY—FIVE PERCENT (95%) OF THE AVERAGE CALCULATED REFERENCE INTERNAL DIAMETER OF THE PIPE SHALL BE PULLED BY HAND FREELY THROUGH EACH

THE AVERAGE CALCULATED REFERENCE INTERNAL DIAMETER OF THE PIPE SHALL BE PULLED BY HAND FREELY THROUGH EASECTION OF SEWER PIPE NOT LESS THAN THIRTY (30) DAYS AFTER INSTALLATION AND FINAL BACKFILL.

8, BEDDING AND BACKFILL OF PIPE TRENCHES SHALL BE PER THE COUNTY STANDARD DETAIL,



NOTES:

SECTION A-A

Permissible

Const. Joint -

CATCH BASINS 2—2B: This sheet depicts Catch Basin 2—2B

GRATE: The design shall be essentially the same and equally as strong as the one shown (see construction information table), or meet the requirements of CMS 711.14. Grate openings and dimensions shall not differ from those shown unless otherwise shown in the plans.

If necessory, bicycle sofe grotes shall be specifed in the plans. Bicycle sofe grotes shall be Neenah No. R—4859—C or East Jordan No. 5110 Type M3 or approved equal.

As of January 1, 2003, the following text shall be cast into the top of the grate: "DUMP NO WASTE" and "DRAINS TO WATERWAY" Text shall be printed in bold, capital letters with a minimum height of 1/2". "WATERWAY" may be substituted with "STREAM". "RIVER", "LAKE", etc. Actual

placement and lago may vary per manufacturer.

WALLS: Brick or cost—in—place walls have a nominal thickness of 8". Precost walls shall have a minimum thickness of 6" and be reinforced sufficiently to permit shipping and handling without

SECTION B-B

CONCRETE: Cost—in—place concrete is to be Closs C. All precost concrete shall meet the requirements of CMS 706.13 and be marked with the catch basin number.

PRECAST BASE: If a precast base is used, it shall be set deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans, Layers of brick shall not be used to adjust the top elevation.

LOCATION AND ELEVATION: When given on the plans, location and elevation are at the top center of the grate. When side openings are provided, the elevation shall be at the flow line of the side

MINIMUM DEPTH: The minimum depth for CB No, Z-ZB shall be the O,D, of the outlet pipe plus 4"

Z-ZB GRATE ELEVATION; Grate elevation is to be placed 4" to 6" Below normal ditch returning to normal 10" to 15" each side of inlet.

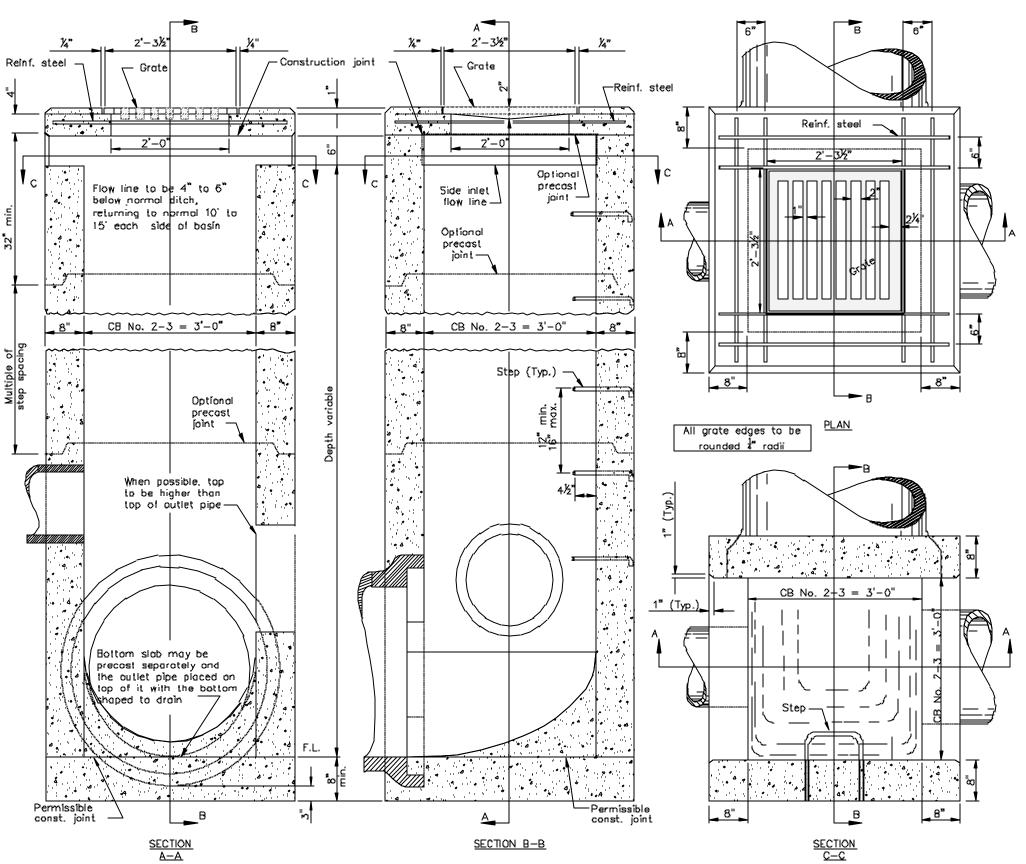
OPENINGS: Pipe openings shall be the O.D. of the pipe being supplied plus 2" When fobricated or field cut. The interstitial space shall be filled with grout per CMS 6D1.

PAYMENT; All materials and labor, including excavation and backfilling, shall be paid for under item 604 — Catch Basin, No. 2—2B,

CONSTRUCTION INFORMATION
Minimum weight of grate, 120 lbs,
4"

CATCH BASIN No. 2-2

CATCH BASIN 2-3



NOTES:

GRATE: The design shall be essentially the same and equally as strong as the one shown (see construction information table), or meet the requirements of CMS 711.14. grate openings and dimensions shall not differ from those unless otherwise shown on the plan.

If necessary, bicycle safe grates shall be specifed in the plans. Bicycle safe grates shall be Neenah No. R—4859—C or East Jordan No. 5110 Type M3 or approved equals.

As of January 1, 2003, the following text shall be cast into the top of the grate:
"DUMP NO WASTE" and "DRAINS TO WATERWAY"

Text shall be printed in bold, capital letters with a minimum height of ½". "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

WALLS: Brick or cast—in—place walls shall have a nominal thickness of 8". Precast walls shall have a minimum thickness of 6" and be reinforced sufficiently to permit shipping and handling without damage. Precast tops shall be 8" thick.

STEPS: Steps shall be provided where the depth exceeds 6' and shall meet the requirements of SCD MH-1.1

CONCRETE: Cast-in-place concrete is to be Class C. All precast concrete shall meet the requirements of CMS 706.13 and be marked with the catch basin number.

REINFORCEMENT: Reinforcing in the top is to be #4 bars spaced at 6" center to center. For Catch Basin No. 2—3 use eight bars and for Catch Basin No. 2—4 use twelve bars.

Shall be precast or cast—in place concrete; reinforced with #4 bars on 12<sup>3</sup> centers both vertically and horizontally with 2" clearance from inside wall face.

PRECAST BASE: If a precast base is used, it shall be set deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Layers of brick shall not be used to adjust the top elevation.

LOCATION AND ELEVATION: When given on the plans, the location and the elevation are at the top center of the grate. When side openings are provided, the elevation shall be at the flow line of the side inlet.

MINIMUM DEPTH: The minimum depth of CB Nb. 2—3 and CB No. 2—4 shall be the outside diameter (O.D.) of the outlet pipe plus 7".

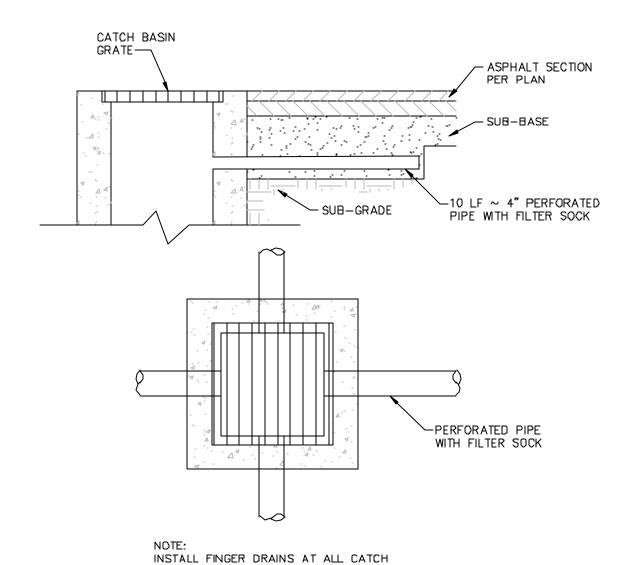
OPENINCS: Pipe openings shall be the O.D. of the pipe being supplied plus 2" when prefabricated or field cut. Fill any voids per CMS 601.

SIDE INLETS: Inlets shall be provided on both sides of the No. 2—3 and 2—4 catch basin in sags and on upstream side only where the ditch has a continuous down grade past the catch basin. Catch basins with side inlets shall not be used within the Clear Zone.

PAYMENT: All materials and labor, including excavation and backfill, shall be paid for under Item 6D4 — Catch Basin, Nb. 2—3 or Item 604 — Catch Basin No. 2—4.

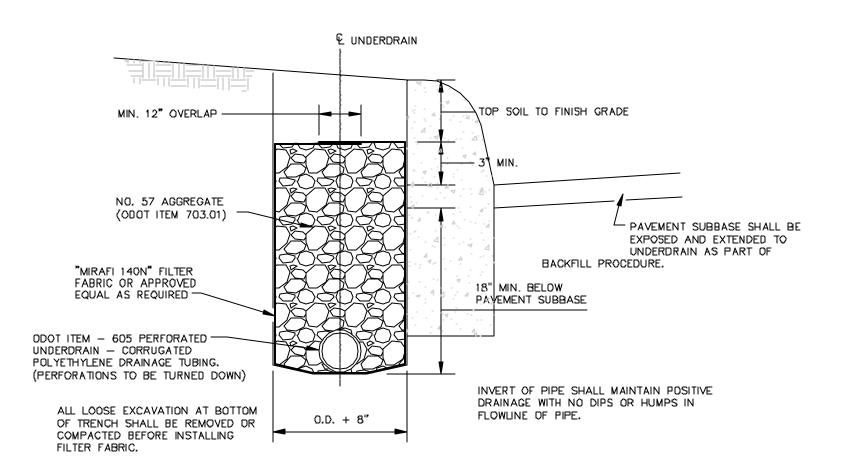
CATCH BASIN OUTLET PIPE SIZE
2-3 12" to 33"

CONSTRUCTION INFORMATION
Minimum Weight of grate 120 lbs.



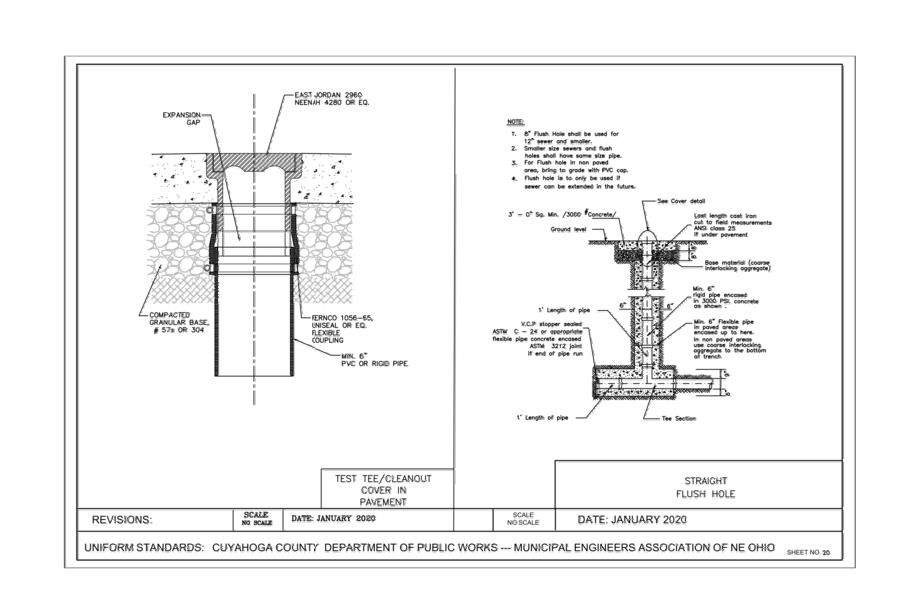
FINGER DRAIN DETAIL

BASINS AND CURB INLETS IN PAVEMENT.



CURB UNDERDRAIN WITH FABRIC WRAP

N.T.S.







WWW.RIVERSTONESURVEY.COM

2020-117

DRAWING NUMBER:

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**NOTES & DETAILS** 

PROJECT NO.: 2019.25

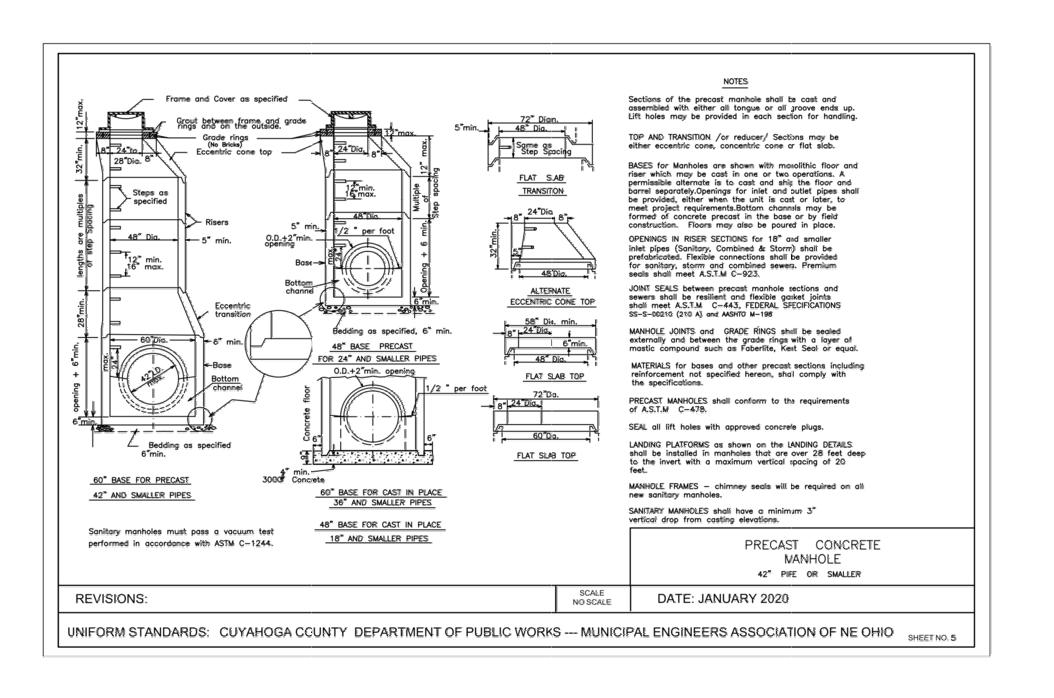
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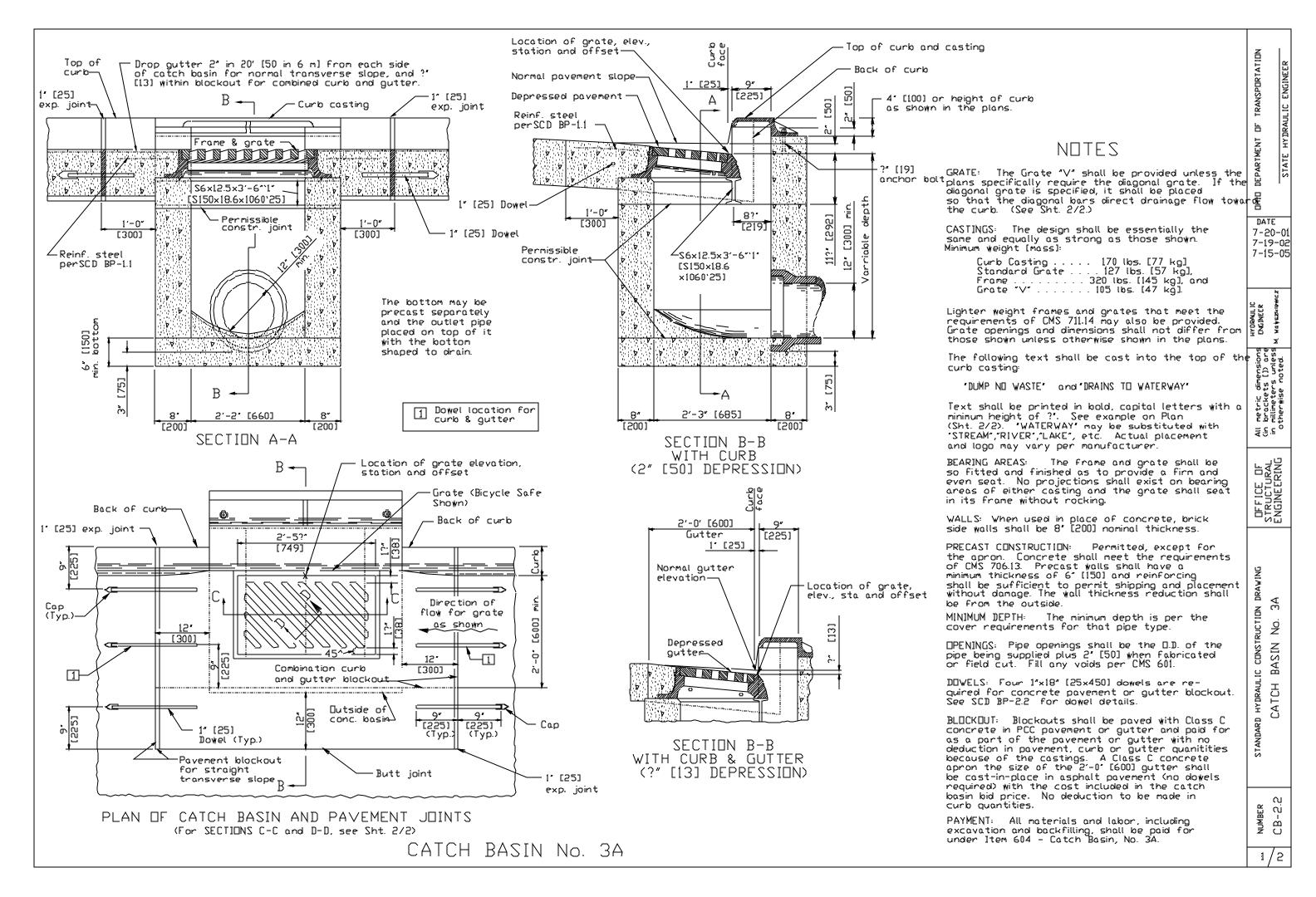
DAVID A.

PIETRANTONE

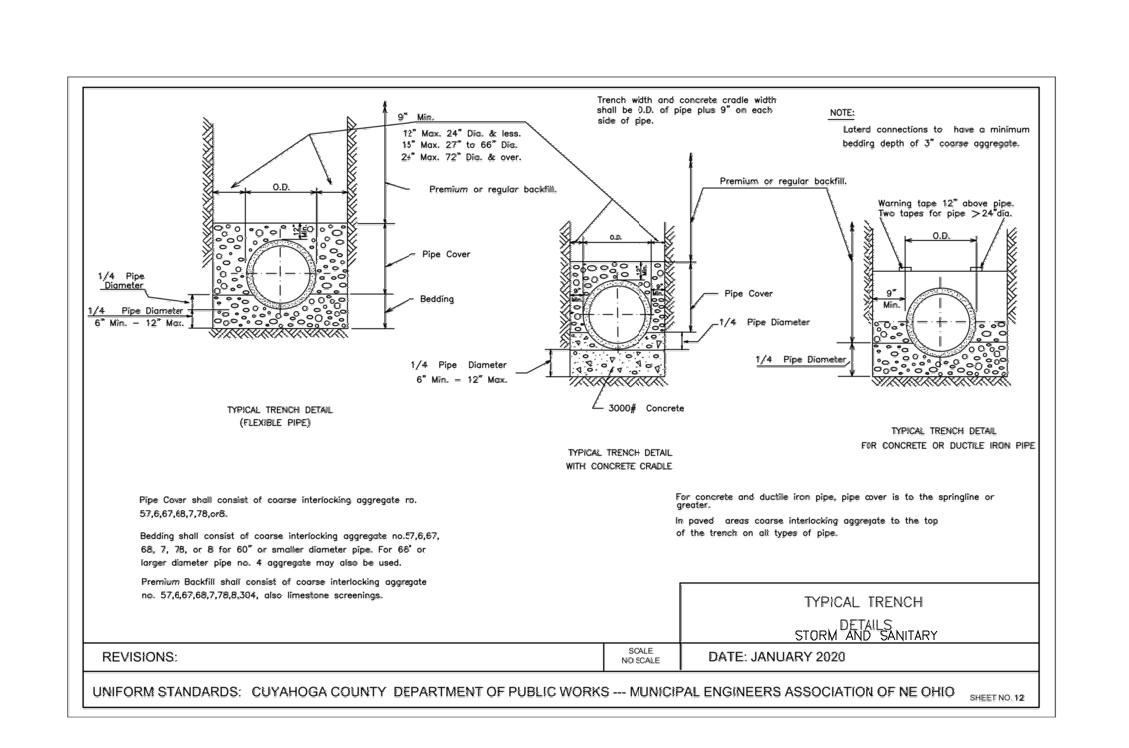


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### STANDARD SPECIFICATIONS - SEWER MAINS AND APPURTENANCES b. To Concrete Sewer Mains - cut out a section of the existing sewer main, install a manufactured RCP wye (with six [6] inch or appropriate size branch) with water- tight Strongback Fernco type, or approved equal, pipe adaptors. Where sewer mains are larger than 10-inch, core pipe and install a manufactured flexible watersight six (8) inch rubber boot with stainless steel band(s), Model NPC Kor-N-Tee (as manufactured by NPC) or approved equal. igineering Procedures as established by Cuyahoga County Department of Public Works (CCOPW) shall be followed, which include: Latest ODOT Specifications, Municipality standards, Uniform Standards For Sewerage Improvements and Uniform Standards Sever Details, Cuyahoga County Pipe bedding and installation shall conform to the Uniform Standards For Sewerage Improvements. RCP to PVC piping connections should be completed anitary Engineering Division Rules and Regulations, and Contractor Permit Information. In the case of conflicts between written specifications and drawings, the written specification shall apply. One (1) electronic copy in pdf format, and six (6) paper set of detail drawings on 22" x 34" sheefs signed by the City Engineer and Design Engineer, (including plan and profile, applicable sever details, proposed and existing topography and all buried utilities) and specifications of all proposed sewers and shall be submitted for review and approved for Cuyahoga County Department of Public Works, c/o Permit Department, 2501 Harvard Ave., Newburgh Heights, OB 44105. Upon the Sanitary Engineers approval of the detail drawings and specifications for construction, the c. To Vitrified Clay Pipe Sewer Mains - remove one (1) section of existing pipe (joint-to-joint), install a manufactured watertight PVC wye (with six (6) inch or appropriate size branch) with water-tight Strongback Ferrico type, or approved equal, pipe adaptors on sewer mains 18-inch and smaller. Where sewer mains are larger then 18-inch, Inserta-tees maybe used, manufactured by Inserta Fittings Company, or approved equal. In no case shall the connections developer/engineer will have eighteen (18) months from the date of the approval ofplans to begin construction or plans must be resubmitted to the CCDPW for for other than six (6) inch laterally connections exceed 2/5 the diameter of the main sewer. Pipe bedding and installation shall conform to the Uniform approval. The cost to record any and all easements and/or plats for Developer's projects for sewer lines, water lines, or pump stations to be dedicated to COLLECTION SYSTEM IMPROVEMENTS The CCDPW and/or Municipality shall determine whether or not the County sever collection and tributary system has available capacity to allow for a Service lateral connections to manholes shall use a KOR-N-SEA£ or approved equal (connections are only allowed in special cases and only one (1) inside drop per manhole allowed). Service laterals from the public sewer main to the building foundation shall not be installed until the building foundation development to proceed. Gravity sewes shall consist of a minimum size of eight (8) inch diameter for mainline sewers and six (6) inch diameter for service laterals at minimum slope of 196 (for laterals) and full flow minimum velocities of two (2) tps. The CCCPW shall require sewers and pump stations to be sized and to be installed at depths for the ultimate development of the entire tributary service area. Gravity sewers and service laterals shall be required in place of force mains/pressure sewers when the CCCPW determines it is in the public interest to do so. The requirements herein shall generally supersede any other External grease interceptors shall be installed in services for all food service businesses and oil/grit interceptors on all services for customers with floor drains in garage/warehouse type buildings. Interceptors are to be sized as required by CCDPW Rules and Regulations with a minimum effective grease requirements and any conflict in requirements shall be ultimately determined by CCDPW. interceptor size of 750 gallons. The customer shall be responsible for maintenance by cleaning/pumping their interceptor on a regular schedule interceptors shall be constructed water-tight and shall meet the requirements of CCDPW standards. All seals (water-tight pipe to structure seals, precast Generally, design shall be in accordance with Ohio E.P.A. regulations, the latest version of "Ten State Standards" and shall conform to the latest Uniform concrete top and manhole seals) shall be constructed of grease and oil resistant materials. Grease and oil/grit interceptors shall be field tested for infiltration using a vacuum test at four (4) inches of mercury for five (5) minutes, with less than a one-half (0.5) inch reduction per ASTM C 1613-069.1.1. Grease interceptor openings/cleanouts at the top shall be sealed with ConSea CS-102, or equal, between metal frames, grade adjustment rings, and top The Developer and/or Engineer shall not allow other new utilities to be installed within six (6) feet horizontally of an installed new sanitary sewer or in the same of trap. Two (2) openings each with a minimum of 24 inches diameter for cleaning shall be provided, one over the inlet and the other over the outlet area of the grease interceptor. No internal chimney seal is required. The inlet and outlet pipes shall be cast iron or ductle iron pipe, size from the building trench as the sewer except at crossings. Should this occur, the Developer will be responsible for maintaining the sanitary sewermains and the CCDPW will not ernit taps to said line until the other utility lines are relocated six (6) feet away from the sanitary sewer. Sewer lines shall be located within the public road rigit of-way, or within an approved easement. Water mains shall be installed with at least a ten (10) feet horizontal and eighteen (18) inch vertical separation from any sanitary sewers per Uniform Standards For Sewerage Improvements. The County also requires eighteen (18) inch vertical separation from any sanitary or foundation to the grease trap shall be six inch (6") diameter minimum with a six (6) inch minimum diameter outlet to three (3) feet outside the tank. There shalf be cleanouts installed in the inlet pipe and outlet pipes outside the grease interceptor. Baffles shall be placed such that the interceptor chambers are storm sewers, measured from out-to-out easily accessible for cleaning. COLLECTION MATERIAL MINIMUM REQUIRED SPECIFICATIONS AND INSTALLATION STANDARDS LINE CONSTRUCTION STAKING Gravity sanitary severs and force mains shall be staked prior to the installation of new pipe. A State of Chio Registered Professional Surveyor shall be required for the mainline staking and offsets. Staking shall be for both line and grade no greater spacing than every fifty (50) feet plus at all fittings and off-set at ten (10) Pressure sewer/force main pipe shall be designed for a minimum pressure of 150 p.s.i. and shall consist of: a. PVC, conforming to AWWA C900, DR 15 (solid wall pipe with PVC compounds meeting the requirements of SDR-26 ASTM D-2241), pipe shall include feet. All public gravity sewers shall be installed with the use of a laser to insure that trey are installed properly to grade. skets or o-rings confirming to the requirements of ASTM D-3139. MAIN LINE AND SERVICE LATERAL SEWER PIPE b. Ductile Iron Pipe (DNP) shall have a minimum wall thickness of Class 52, with push-on type joints, cement lined (AWWA C104), and shall meet the All sewer pipe and laterals shall be buried below the frost like consisting of a minimum of at least three (3) feet of cover over the top of the cipe; for this requirement, the Designer shall consider both the existing grade and any anticipated future grade. All sewers (storm and sanitary) crossing a creek shall have six (6) inches of concrete (3000 PSI) encasement. Depths for sewers mains, lateralisand force mains with less than three (3) feet of cover shall be approved in c. HDPE, conforming to SDR 11 (ASTM F714 and D3035). Pipe joints shall be joined by use of the heat fusion technique of butt fusion resulting in a writing by the CCDPW prior to the construction phase; additional requirements for such situations may be mandated by the CCDPW. Flexible PVC sewer pipe buried with less than thirteen (13) feet of cover shall be sold wall pipe; PVC compounds shall meet the requirements of ASTM F-789. SDR 35, six (6) inch through fifteen (15) inch diameter and ASTM F-679 (eighteen (18) inch through thirty (37) inch diameter pipe), conforming to ASTM D-3212. Fiftings shall conform to ASTM D-3034. Gaskets shall conform to ASTM F-477. Pipe bedding shall conform to the All joints shall be fully restrained and as strong as the pipe in both tension and hydrostatic loading. d. Pressure sewer pipe shall be pressure tested per manufacturer's recommendations. e. Restrained joints shall be used at a minimum at all joint fittings and at the next pipe joint from each fitting in all directors. Uniform Standards For Sewerage Improvements Restrained joints shall consist of Meg-a-Lugs, Model Ebba Series 100 or equal as approved by CCDPW. Thrust blocks shall be used at all change of direction fittings in addition to the restrained joints, and shall be 4,000 ps concrete. Flexible PVC sever pipe buried with more than thirteen (13) feet of cover shall be solid wall pipe; PVC compounds shall meet the requirements of ASTM F-949. Pipe shall meet minimum pipe stiffness rating of PS-115 and shall consist of SDR 26 or thicker walled pipe as needed, as recommended by the manufacturer for the actual buried depth, conform to ASTM D-3034 through fifteen (15) inch diameter and ASTM F-679 for larger sizes. Fittings shall conform to ASTM D-3034. Commercial and non-residential force mains shall have minimum cover of sx (6) feet. h. Grinder pump pressure sewers/force makes shall be flex/ble HDPE SDR 11, jointless. The sewer shall be installed with a minimum of six (6) feet of Pipe bedding shall conform to the Uniform Standards For Sewerage Improvements. All high points in force main shall have an air release valve installed in a standard manhole conforming to the Uniform Standards Sewer Details. Two (2) No. 8 stranded wires shall be buried with all PVC and HPDE pressure sewer pipes located at the 10:00 and 2:00 positions and terminated in Afternate pipe different than those specified above for gravity sewer installations may be used, but piping material shall conform to the latest Uniform Standards For Sewerage Improvements and Uniform Standards Sewer Details. along with four (4) inch wide tape noting "SEWER FORCE MAIN BUR!ED BELOW" buried over pipe twelve (12) inch below finish grade. All new gravity sewers 5-inch and larger shall be CCTV inspected by a CCDPW approved company regularly engaged in this type of work upon completion of Installation. Costs shall be paid for by the contractor unless otherwise noted in the specifications. All sewers and laterals in the near vicinity of borings, drilling, and/or jacking of any piping shall also be CCTV inspected by the contractor at his cost to assure that no damage has been done to the piping. A copy of the video(s) and accompanying report(s) shall be submitted to the CCDPW. GENERAL PIPE REQUIREMENTS & TESTING All manufacturer's recommendations for unloading, installation, trench preparation, assembly, backfill, pressure or infiltration test, deflection tests, etc. shall be followed unless in conflict with these specifications, the latest version of Ten State Standards. Ohio EPA, or the Uniform Standards For Sewerage Improvements standards. If there is a conflict, the more restrictive requirements shall govern, unless approved in writing by the CCDPW. The use of recycled concrete or slag for bedding and backfill is not approved by the CCDPW. All existing sewers, existing sewer laterals, and/or other existing facilities to be re-used shall be located by the contractor and CCTV inspected prior to beginning of construction at the contractor's expense. The CCTV inspection shall be submitted to the CCDPW and approved before the re-use of any existing facilities may stalled sanitary sewer pipe eight (8) inch to twenty four (24) inch-shalf require or air testing conforming with ASTM F-1417; concrete pipe shall be tested per ASTM C-968, ASTM C-1183 or ASTM C-1214; clay pipe shall be tested per ASTM C-828 or ASTM C-1091. Installed sanitary sewer pipe twenty seven 27) Inch to forty eight (48) inch shall require weir testing per the Uniform Standards For Sewerage Improvements. All fexible pipe 8-inch and larger shal the design necessitates a larger service lateral pipe for larger usage customers, the increased size shall be subject to CCDPW approval. Service lateral pipes shall not be installed without a Permit from the County and without calling at least 24 hours in advance for inspection of (216) 443-8299. County service lateral inspections will only be performed during normal County work hours. Service laterals shall only serve gravity drains in the customer's structure, including if possible basement or lower level, such as floor drains, totlet, sink, showers, slop sinks, dothes washer drains, etc. Service laterals within cannot be gravity shall utilize an approved grinder pump system. Service laterals for residential customers shall have a test-tee installed within three (3) feet of the right-of-way line. Service laterals for commercial customers shall have a test-tee installed within fine (5) of the building foundation exterier, and at the right-of-way line. meet maximum five (5) percent deflection (Mandrel) testing at 60-days from the time of backfilling the sewer trench. The mandrel shall be as specified in the Uniform Standards. When the use of the specified mandrel is not possible, laser profiling per ODOT 611.12 and 611.13 is required and shall be used in lieu of the mandrel testing. All testing above shall be performed by a certified independent agency paid by the contractor and witnessed by a representative (Inspector) of the CCDPW. Service laterals shall not have any bends other than 45-degree or 22.5-degree bends. Ninety (30) degree bends (Horizontal or Vertical) are not acceptable. Test Tees are to be installed behind bends (upstream of) greater then 22.5-degree. One Test Tee should be installed for every the hundred (190) feet of pipe installed and spaced and located to allow access for easy cleaning. All Cleanouts or Test Tees, no swiping cleanouts. Clean water connections of the sanitary sewer are prohibited, including, but not limited to, storm water drains, yard drains, driveway drains, roof water drains, exterior footer. Material used for bedding and backfilling along the sides of the sewer and cover to a height of 12 inches over the top of the sewer shall consist of coarse interlocking aggregate No. 57, 6, 67, 68, 7, 78, or 8 and as per Uniform Standard Sewer Details. Slag or recycled concrete is not permitted. Backfill above the pipe shall be premium backfill using Low Strength Mortar (LSM) when within five (5) feet of pavement or within city right-of-way or unless indicated or foundation by gravity or with interior sump pump, etc. In developments where connection to a service lateral will not occur for more than thirty (30) days, the Developer's contractor shall install a witertight cap and lateral 2x2 markers including a metal rod so the ends can be located or unless approved by the Engineer. When a building(s) is abandoned, existing service laterals shall be out and capped with a watertight cap adjacent to the sewer main. All new lateral riser shall conform to Uniform Standards Detail No. 9A (with two 45 deg bends instead of one 90 deg bend as shown) and the likeral should be installed vertical to the surface. All Test Tees shall conform to the Uniform Standards Sewer Detail. All lateral connections to existing cleanouts and/or Test Tees shall be made at the lowest point in the Cleanout or Test Tee; connections above this point are prohibited. Solvent cement type joints or glued joints are prohibited or unless Ail manholes shall be watertight structures made of precast concrete sections with full depth channels and shall meet the requirements of ASTM C-478 and Uniform Standards For Sewerage Improvements and Details. Chimney seals shall be installed on all new sanitary manholes. All manhole frames and castings shall conform to the Uniform Standards For Sewerage Improvements and Details. All new sanitary manholes shall be vacuum tested in accordance with the procedures of ASTM C-1244. No bricks shall be used as grade rings. The testing shall be performed by a certified independent In all communities where the CCDPW issues permits, the installation of Bentonite Clay Dams (per the Uniform Standard Detail) on sanitary sewers, storm sewers, and sanitary and storm laterals may be required by the CCDPW. Where sewers and laterals cross creeks and/or ditches, two additional Dams may be required on the pipe, one on either side of the crossing. In addition, in Olmsted Township, the installation of Bentonite Clay Dams shall be required on all agency paid by the contractor and witnessed by a representative (Inspector) of the CCDPV sanifary and storm laterals; plus, where sewer laterals cross creeks and/or ditches, a minimum of two Dams shall be required on every pipe, one Dam Connections of service laterals and/or severs to existing and/or proposed sewer pipe mains shall be as follows: GENERAL COUNTY SEWER NOTES a. To PVC Sever Mains - cut out a section of the existing sever main, install a manufactured PVC was (with six (6) inch or appropriate size branch) with water tight PVC no-hub couplings, or approved equal, pipe adaptors for connections on sever mains 15-inch and smaller. Where sewer mains are larger then 15-inch, inserta-trees maybe used, manufactured by Inserta Fittings Company, or approved equal. In no case shall the connections for other than six (6) inch lateral connections exceed 2/5 the diameter of the main sewer. PVC to PVC piping connections should be completed using a manufactured PVC No-Hub coupling or unless approved by the Engineer. Pipe ledding and installation shall conform to the Uniform Standards or Sewerage Improvements. **REVISIONS:** DATE: JANUARY 2020 NO SCALE UNIFORM STANDARDS: CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS --- MUNICIPAL ENGINEERS ASSOCIATION OF NE OHIO SHEET NO. 4







LAND SURVEYING - ENGINEERING - DESIGN 3800 LAKESIDE AVENUE - SUITE 100 CLEVELAND - OHIO - 44114 PHONE: (216) 491-2000 FAX: (216) 491-9640 WWW.RIVERSTONESURVEY.COM

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SENIOR INDEPENDENT LIV

VOLUME 1: NEW SENIOR APARTMENT BUIL:
14860 PRIVATE DRIVE, BAST CLEVELAND, OHIO 441



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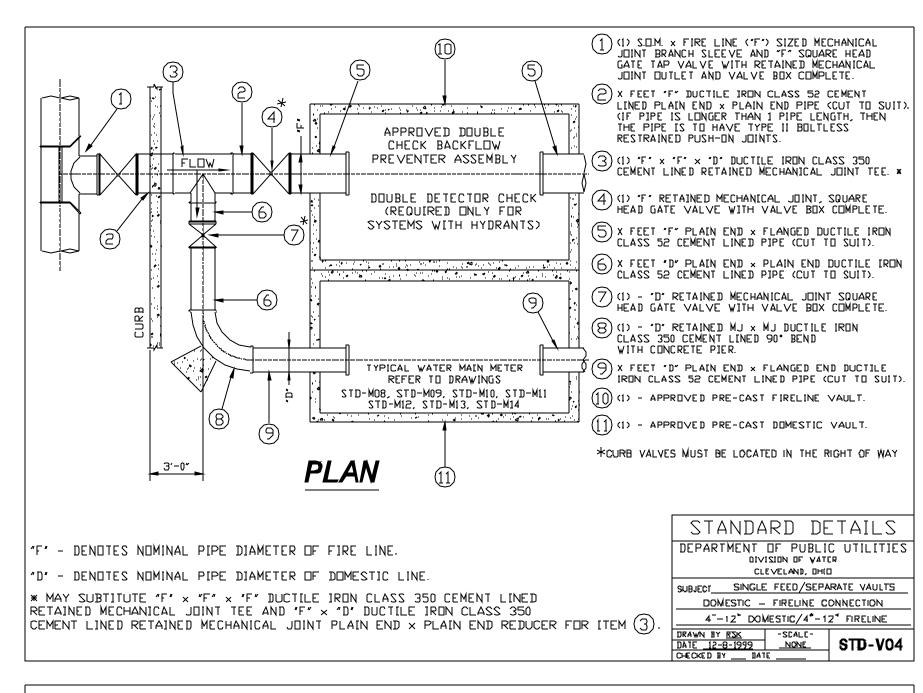
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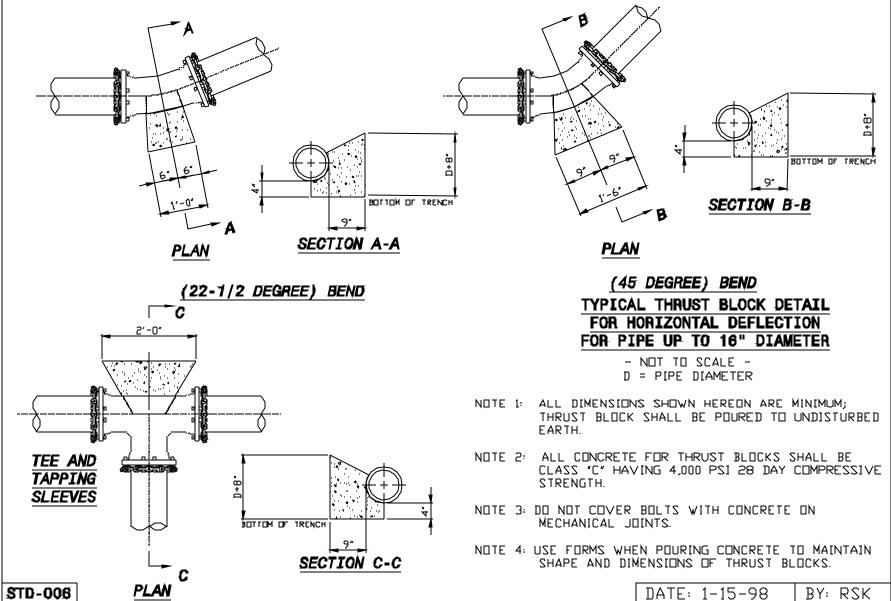
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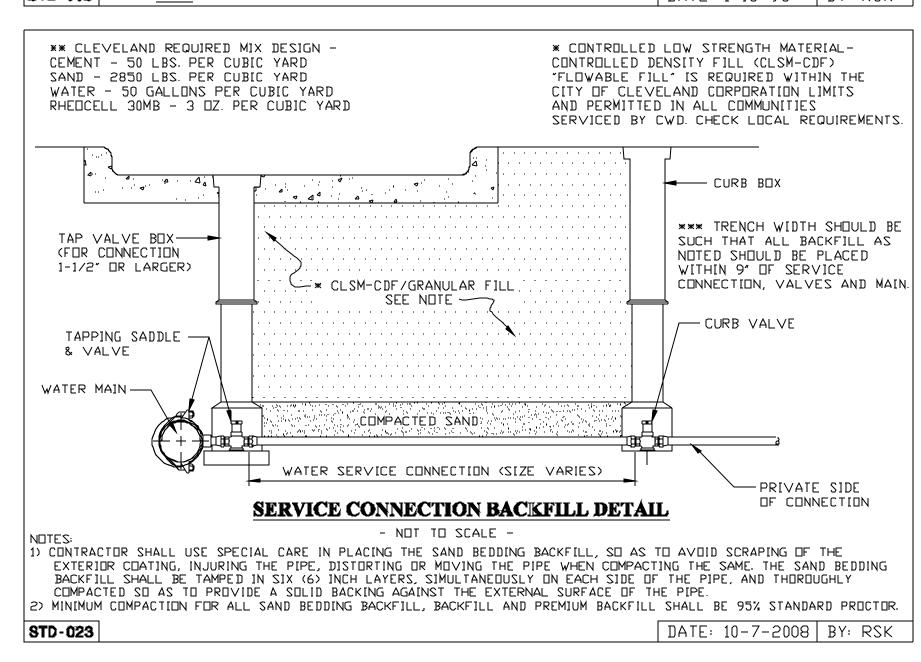
NOTES & DETAILS

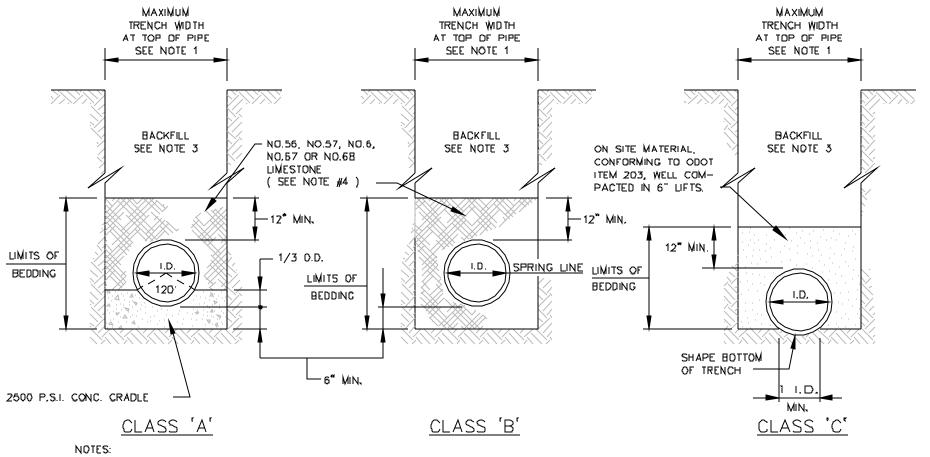
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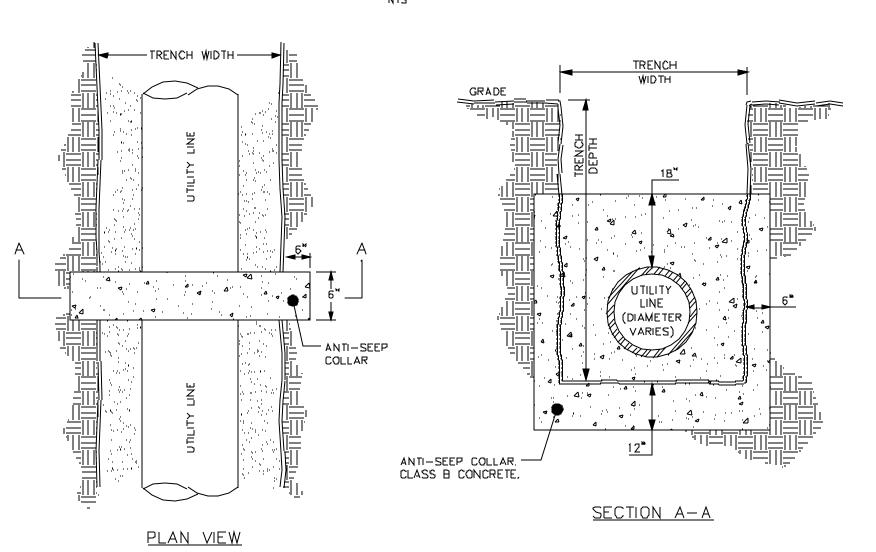




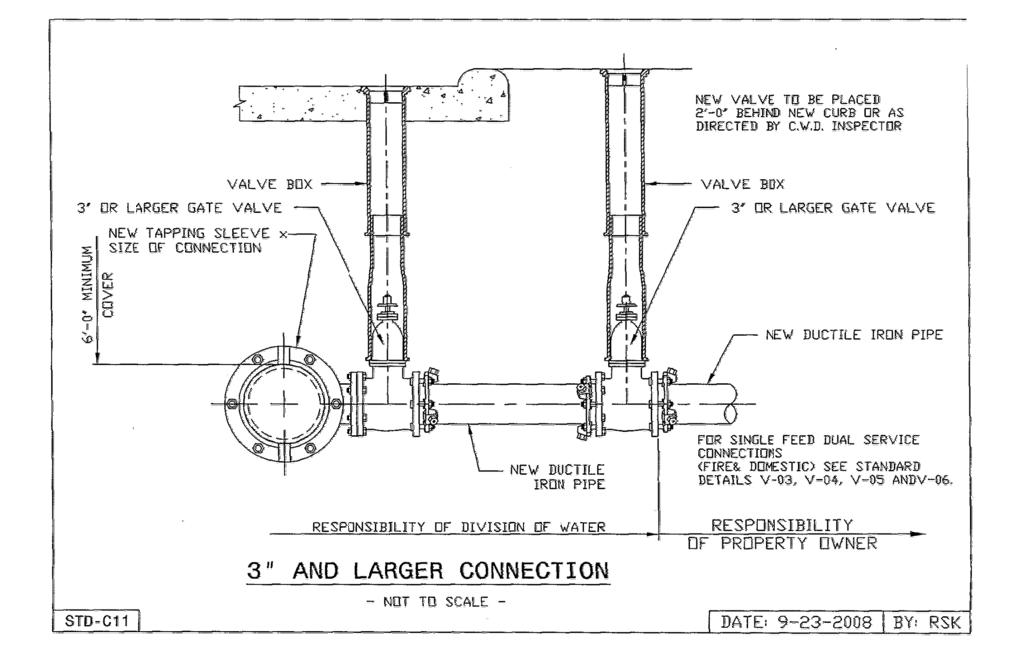


- 1. MAXIMUM TRENCH AT TOP OF PIPE SHALL BE Q.D.+24" FOR ALL PIPES UP TO AND INCLUDING 24" I.D.; Q.D.+30" FOR PIPE LARGER THAN 24" I.D. TO 54" I.D.; AND Q.D.+48" FOR PIPE SIZES 60" AND OVER.
- 2. ALL TRENCH EXCAVATION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE OHIO STATE INDUSTRIAL COMMISSION (OSIC) AND THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).
- 3. ALL BACKFILL MATERIAL USED UNDER ANY PAVEMENTS SHALL BE PREMIUM BACKFILL PLACED FROM THE INITIAL ONE FOOT OVER THE TOP OF UTILITIES, TO PREVENT FLOTATION AND ENTRY OF FLOWABLE FILL INTO ANY OTHER AREAS, TO THE SUBGRADE, ALL OTHER AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND SHALL BE TAMPED WITH MACHINE MOUNTED TAMPING EQUIPMENT, NO FLOODING, JETTING OR PUDDLING OF BACKFILL WILL BE PERMITTED. BACKFILL SHALL BE COMPACTED TO 100% OF MAXIMUM LABORATORY DRY DENSITY PER ASTM D 698,
- 4. ALL BEDDING SHALL BE CLASS 'B' EXCEPT AS STATED IN NOTE 6 OR OTHERWISE NOTED ON THE PLANS, BEDDING LIMITS FOR R,C,P,AND D,I,P, SHALL BE TO THE PIPE SPRINGLINE.
- 5. SLAG BEDDING SHALL NOT HE USED.
- 6. BEDDING FOR DUCTILE IRON PIPE USED FOR WATERLINE OR FORCE MAIN SHALL BE CLASS 'C' EXCEPT WHEN INSTALLED IN ROCK AND UNDER PAVEMENT OR STRUCTURES, IN WHICH CASE, BEDDING SHALL BE CLASS 'B' OR AS NOTED ON THE PLANS.
- 7. INSTALL A MACNETIC DETECTOR TAPE 12" ABOVE THE CENTERLINE OF NON-METALLIC WATERLINES OR SANITARY FORCE MAINS.

### TRENCH & BEDDING DETAILS



ANTI-SEEP COLLAR



CLEVELAND DIVISION OF WATER NOTES FOR NEW WATER MAIN INSTALLATION UPDATED 5-22-2012

DIVISION OF WATER INSPECTOR.

CONTRACTOR IS TO ABIDE BY THE MOST CURRENT VERSION OF THE CLEVELAND, DIVISION OF WATER NOTES AND DETAILS. THE MOST UP-TO-DATE VERSION CAN BE FOUND AT WWW.CLEVELANDWATER.COM.

1. ALL WATER WORK REQUIRED, WHETHER SHOWN ON THE PLANS OR AS DIRECTED BY THE CLEVELAND DIVISION OF WATER, SHALL BE AT THE EXPENSE OF THE PROJECT.

- 2. THE INFORMATION SHOWN ON THE CLEVELAND DIVISION OF WATER'S SUMMARY OF WORK/CHARGE LETTER AND STRIP MAPS ARE TAKEN FROM EXISTING AVAILABLE RECORDS, AND THEIR ACCURACY IS
- 5. CALL THE INSPECTION AND ENFORCEMENT UNIT AT 216-664-2342 TO SCHEDULE A PRECONSTRUCTION MEETING. THE OPERATION OF ANY VALVE OR ALTERATION OF ANY PART OF THE WATER SYSTEM BY CONTRACTORS OR THEIR EMPLOYEES IS PROHIBITED WITHOUT THE SUPERVISION OF THE CLEVELAND
- 4, THE MUNICIPALITY SHALL REQUIRE THAT THE PROJECT'S PROFESSIONAL ENGINEER OBTAIN ACTUAL FIELD MEASUREMENTS OF THE MAIN DURING INSTALLATION AND SHALL FURNISH THE CWD INSPECTOR WITH RECORD PRINTS IN A FORM ACCEPTABLE TO THE DIVISION OF WATER. THE CLEVELAND DIVISION OF WATER WILL REQUIRE THE DELIVERY AND ACCEPTANCE OF TWO COPIES OF RECORD (AS BUILT) PRINTS BEFORE THE PRESSURE TEST AND CHLORINATION OF THE MAIN.
- 5. FOR THE PURPOSES OF CHLORINATION AND BACTERIOLOGICAL TESTING OF THE WATER MAINS THE CONTRACTOR SHALL PROVIDE AND INSTALL, AT EACH OF THE CHLORINATION PIT LOCATIONS SHOWN AND AT OTHER LOCATIONS DETERMINED BY THE DIVISION OF WATER, FLUSHING/SAMPLING TAPS OF SIZES TO BE DETERMINED BY THE DIVISION OF WATER. CHLORINATION PITS SHALL BE SIX (6) FOOT SQUARE MEETING OSHA STANDARDS.
- 6, A TWO YEAR WARRANTY, COMMENCING FROM THE DATE OF ACCEPTANCE OF THE FINAL CHLORINATION OF THE WATER MAIN INSTALLATION, SHALL BE PROVIDED BY THE BUILDER/DEVELOPER AND/OR CONTRACTOR FOR ALL WATER MAINS AND SERVICE CONNECTION WORK PERFORMED BY THE CONTRACTOR, INCLUDING RETAPS, SHOULD ANY LEAKS OCCUR AND REPAIRS BE REQUIRED DUE TO DEFECTIVE MATERIAL OR POOR WORKMANSHIP.
- 7. USE BACKFILL MATERIAL AS SPECIFIED AND COMPACT SUFFICIENTLY IN THOSE AREAS WHERE EXISTING MAINS AND WATER SERVICE CONNECTIONS ARE EXPOSED.
  (SEE DIVISION OF WATER STANDARD DETAIL STD-OD1).
- 8. ALL MATERIALS, INCLUDING BUT NOT LIMITED TO WATER MAINS, FIRE HYDRANTS, VALVES, CONNECTION MATERIALS AND OTHER WATER APPURTENANCES, SHALL BE NEW AND UNUSED AND SHALL CONFORM TO THE MOST CURRENT DIVISION OF WATER SPECIFICATIONS, ALL MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH DIVISION OF WATER'S STANDARDS.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING WATER MAINS AND APPURTENANCES THEREOF WHEN CONNECTING THE NEW WATER MAIN FOR THE HYDROSTATIC TEST. ALL REPAIRS TO DAMAGED EXISTING FACILITIES SHALL BE MADE BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE DIVISION OF WATER. (REFER TO THE THE ALTERNATE TEST DETAIL STD-002 AS NEEDED),
- 10. ALL HYDROSTATIC PRESSURE TESTING SHALL BE DONE BY THE CONTRACTOR IN THE PRESENCE OF THE DIVISION OF WATER'S INSPECTOR. THE HYDROSTATIC TEST PRESSURE SHALL BE 75 PSI ABOVE THE STATIC PRESSURE PREVAILING AT THE SITE, BUT IN NO CASE LESS THAN 150 PSI. THE PRESSURE TEST SHALL BE FOR A DURATION OF TWO (2) HOURS WITH THE PRESSURE BEING MAINTAINED WITHIN 5 PSI OF THE REQUIRED TEST PRESSURE. SHOULD THE PRESSURE TEST FAIL THE CONTRACTOR SHALL FIND AND CORRECT THE DEFICIENCY(IES) TO THE SATISFACTION OF THE DIVISION OF WATER AND REPEAT THE TWO (2) HOUR PRESSURE TEST.
- 11, ALL BURIED WATER MAIN, FITTINGS, VALVES, FIRE HYDRANT BRANCH PIPING AND APPURTENANCES SHALL BE ENCASED WITH POLYETHYLENE WRAPPING IN ACCORDANCE WITH THE MOST CURRENT REVISION OF ANSI/AWWA C-105/A21.5 INSTALLATION METHOD A. ALTERNATE INSTALLATION METHOD A FOR WET TRENCH CONDITIONS SHALL BE USED WHEN WATER MAIN ARE INSTALLED IN UNPAVED LOCATIONS SUCH AS TREE LAWNS AND EASEMENTS TRAVERSING PRIVATE PROPERTY.

WATER MAINS:

12A.ALL PIPE, UNLESS OTHERWISE CALLED FOR, SHALL BE DUCTILE IRON, MINIMUM CLASS 52, CEMENT LINED HAVING PUSH-ON JOINTS WITH RADIALLY COMPRESSED RUBBER RING GASKET AND INSTALLED PER THE MOST CURRENT REVISION OF AWWA C600.

- 12B. ALL FITTINGS, UNLESS OTHERWISE CALLED FOR, SHALL BE APPROVED DUCTILE IRON, CLASS 350, CEMENT LINED OR FUSION BONDED EPOXY COATED. ALL FITTINGS AND PIPE CONNECTED TO FITTINGS SHALL BE RESTRAINED USING A "RETAINED" MECHANICAL JOINT CONFORMING TO THE MATERIAL AND PERFORMANCE REQUIREMENTS OF ANSI/AWWA C-110/A21.10 AND ANSI/AWWA C-111/A21.11, OR "COMPACT" FITTINGS IN ACCORDANCE WITH ANSI/AWWA C-153/A21.53, EXCEPT FOR ANCHOR TEES, REDUCERS OR OTHER SPECIAL CIRCUMSTANCES WHEN DIRECTED BY CLEVELAND DIVISION OF WATER, ALL FITTINGS ARE TO HAVE BELL ENDS.
- 12C. ALL BOLTS AND NUTS ON ALL "RETAINED" MECHANICAL JOINTS SHALL HAVE FIELD APPLIED ONE (1) COAT OF BITUMASTIC PAINTING.
- 12D. WHERE SHOWN ON THE PLANS, OR WHEN OTHERWISE CALLED FOR, PIPE AND FITTINGS SHALL HAVE AN APPROVED "TYPE I" OR "TYPE II" BOLTLESS RESTRAINED PUSH-ON JOINTS TO THE LIMITS SHOWN ON THE DRAWINGS.
- 12E,AT THE END OF EACH WORKDAY, THE CONTRACTOR SHALL PLUG ALL OPEN PIPE ENDS WITH WATER TIGHT PLUGS AS PER THE "PREVENTATIVE AND CORRECTIVE MEASURES DURING CONSTRUCTION" SECTION OF THE MOST CURRENT REVISION OF AWWA C-651 AS TO PREVENT THE INFILTRATION OR INTRUSION OF ANY FOREIGN OBJECTS OR MATERIALS. DATE STAMPED DIGITAL PHOTOS SHALL BE PROVIDED FOR EACH WORKDAY DEMONSTRATING THAT PROPER AWWA C-651 METHODS WERE USED TO PLUG ALL OPEN WATER MAIN ENDS. EACH PHOTO SHALL CLEARLY IDENTIFY THE STATION AT WHICH THE PIPE IS PLUGGED. THE STATIONING SHALL BE SHOWN BY THE USE OF A STATION MARKER PLACED AT THE PLUGGED PIPE ENDS,

PHOTOS SHALL BE SUBMITTED ON A DAILY BASIS UNLESS OTHERWISE DEFINED BY THE CWD INSPECTOR OR ENGINEER. ALL PHOTOS TAKEN OVER THE COURSE OF THE PROJECT SHALL BE SUBMITTED BY THE CONTRACTOR AS PART OF THE AS-BUILT SUBMITTAL. PHOTOS ARE TO INCLUDE STATIONING MARKERS, AS-BUILTS SHALL BE DEEMED INCOMPLETE WITHOUT SAID COLLECTION OF DIGITAL PHOTOS,

DRANTS:

- 13, IN ALL HYDRANT INSTALLATIONS THE CONTRACTOR SHALL FACE ALL HYDRANT'S 4" (STEAMER) NOZZLE TOWARD THE PAVEMENT PRIOR TO TESTING AND CHLORINATION OF WATER MAINS, CONTRACTOR SHALL CONSULT WITH THE LOCAL MUNICIPALITY'S ENGINEERING OR SERVICE DEPARTMENT TO OBTAIN HYDRANT MODEL AND NOZZLE THREAD REQUIREMENTS IF NOT INDICATED ON THE APPROVED PLANS.
- 14. ALL VALVES SHALL BE AN APPROVED MODEL RESILIENT SEATED GATE VALVES AS PER THE MOST CURRENT VERSION OF AWWA C509 OR C515.

CONNECTIONS;

- 15, WATER CONNECTIONS SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY AND ARE NOT PART OF THE WATER MAIN APPROVAL, ADDITIONAL PERMITS FOR SERVICE CONNECTIONS MUST BE OBTAINED FROM THE DIVISION OF WATER PRIOR TO INSTALLATION OF ANY PORTION OF THE SERVICE CONNECTION(S), IT IS THE CONTRACTORS RESPONSIBILITY TO ARRANGE FOR PERMITS FOR ALL SIZE WATER SERVICE CONNECTIONS BEFORE PERFORMING ANY WORK. THE AMOUNT OF THE CHARGES CAN BE OBTAINED FROM THE DIVISION OF WATER PERMITS AND SALES SECTION AT 216-664-2444 EXT. 5203.
- 16, ONE INCH SERVICE CONNECTIONS SHALL BE PERMITTED TO SERVICE HOMES BASED ON THE FOLLOWING
- \* PEAK FLOW DEMANDS DO NOT EXCEED 25 GPM FOR AN INDIVIDUAL HOME/UNIT, INCLUSIVE OF ALL USAGE (FIRE, DOMESTIC AND/OR IRRIGATION) AND
- \* LENGTH OF ONE INCH CONNECTION DOES NOT EXCEED 75 FEET AS MEASURED FROM THE MAIN TO THE POINT OF ENTRY INTO THE PROPOSED HOME/UNIT,

ANY SERVICE REQUESTS DIFFERING FROM THE STATED CRITERIA SHALL REQUIRE THE SUBMITTAL OF A COMPLETE WATER SERVICE APPLICATION. PEAK DEMANDS ARE TO BE ASSESSED ON APPLICATION AND SETBACKS ARE TO BE SHOWN ON AN ACCOMPANYING SITE PLAN. SITE PLANS SHALL SHOW WATER METER VAULTS IN THE RIGHT OF WAY OR IN AN EASEMENT CONTIGUOUS TO THE RIGHT OF WAY FOR ANY HOMES/UNITS WITH SETBACKS GREATER THEN 150 FEET. EASEMENTS ARE TO BE PROVIDED WITH THE SERVICE CONNECTION APPLICATION SUBMITTAL.

17. ALL WATER MAIN CURB VALVE BOXES & METER VAULTS WILL BE INSTALLED IN GRASS AREAS WHEN POSSIBLE.

EMERGENCIES;

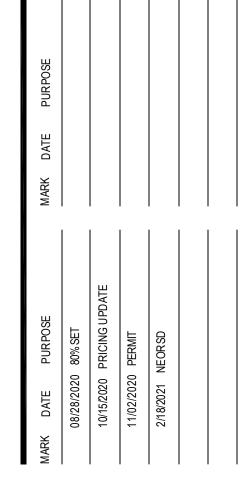
18. IF A WATER MAIN OR SERVICE CONNECTION BREAK OCCURS DURING CONSTRUCTION AND EMERGENCY ASSISTANCE IS REQUIRED, PLEASE NOTIFY THE DIVISION OF WATER AT 216-664-3060.





2020-117

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# SENIOR INDEPENDENT LIVI VOLUME 1: NEW SENIOR APARTMENT BUILDIN



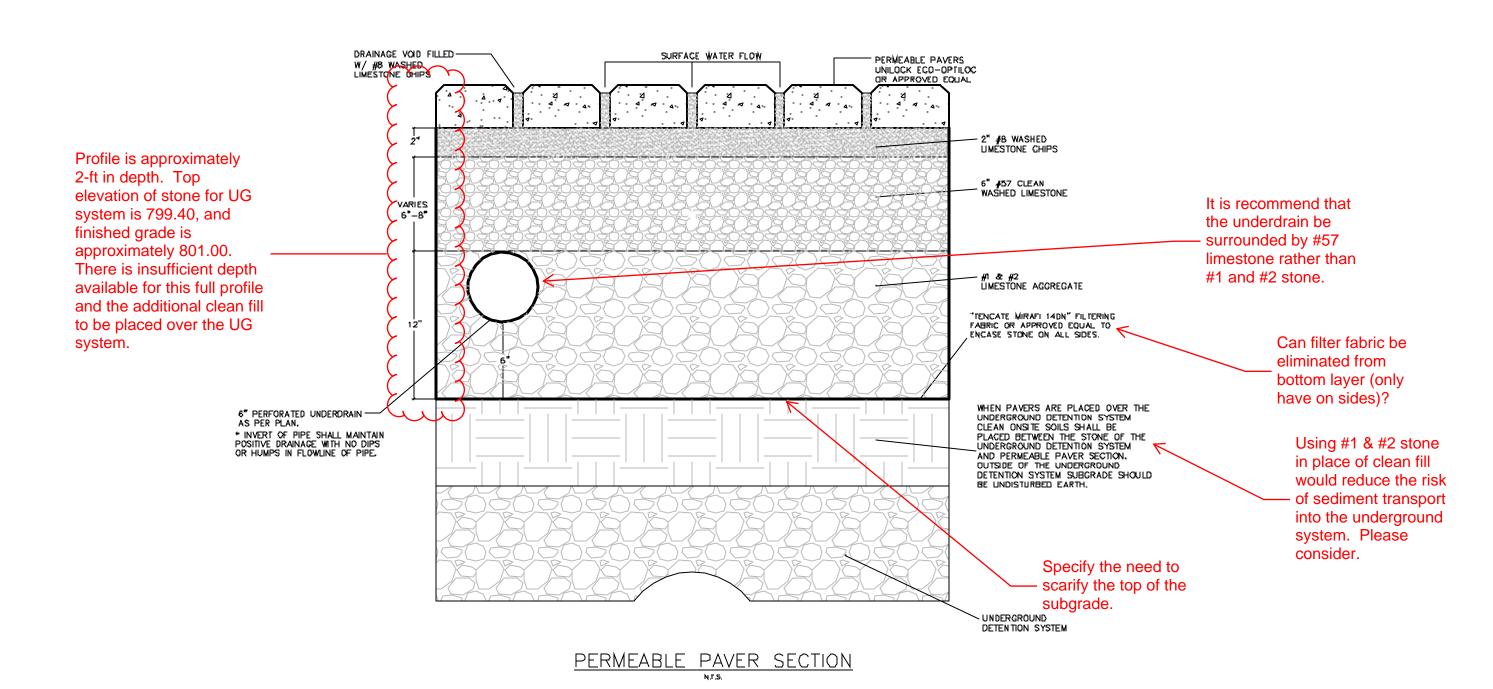
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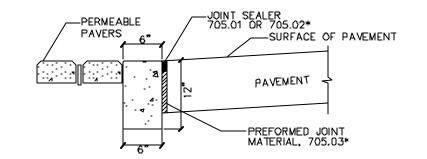
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**NOTES & DETAILS** 

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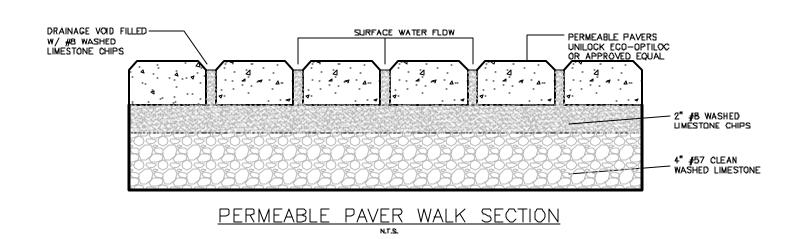


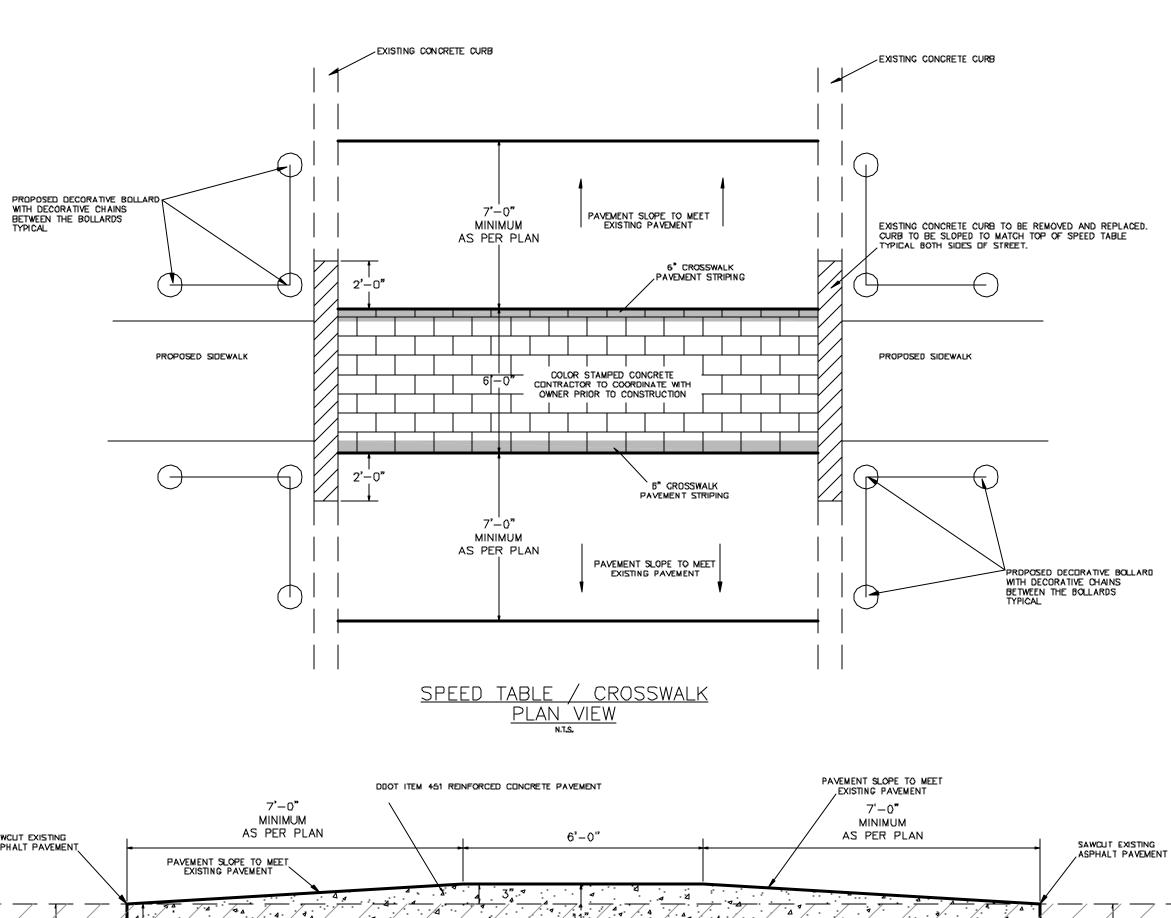


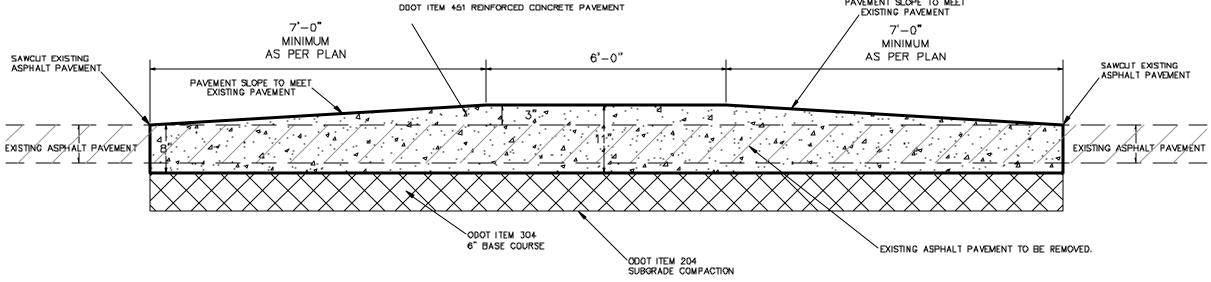
TOP OF THE PAVERS SHALL BE THE SAME ELEVATION AS THE TOP OF THE CONCRETE PAVER EDGE

CONCRETE PAVER EDGE

N.T.S.

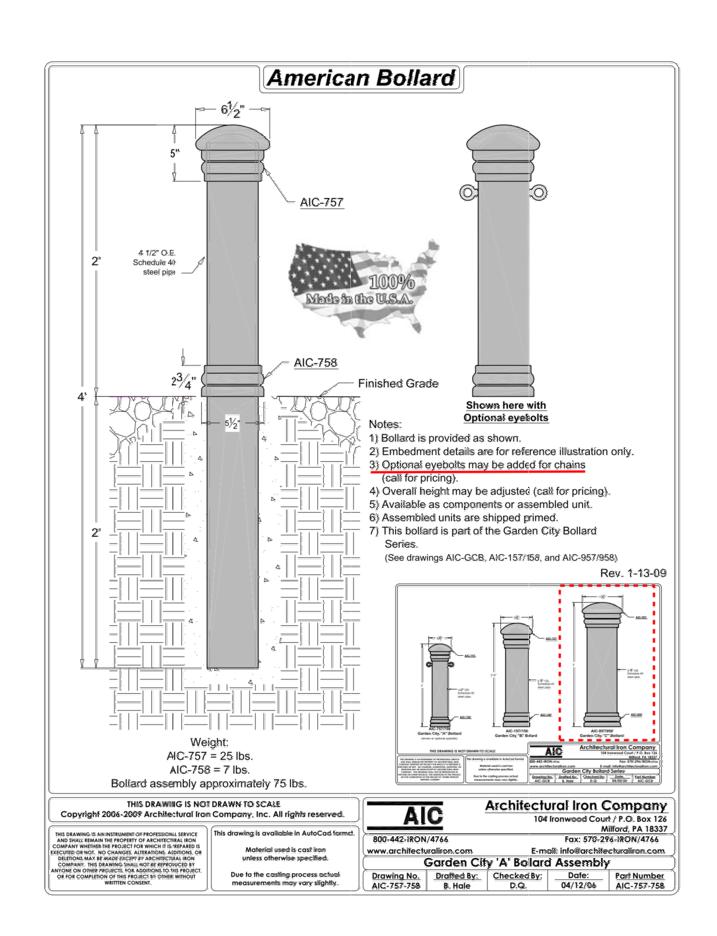






SPEED TABLE / CROSSWALK
CROSS SECTION
NTS

<u>ALTERNATE 8</u>





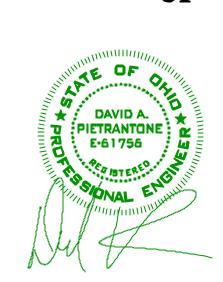


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NIOR INDEPENDENT LIVIN VOLUME 1: NEW SENIOR APARTMENT BUILDING



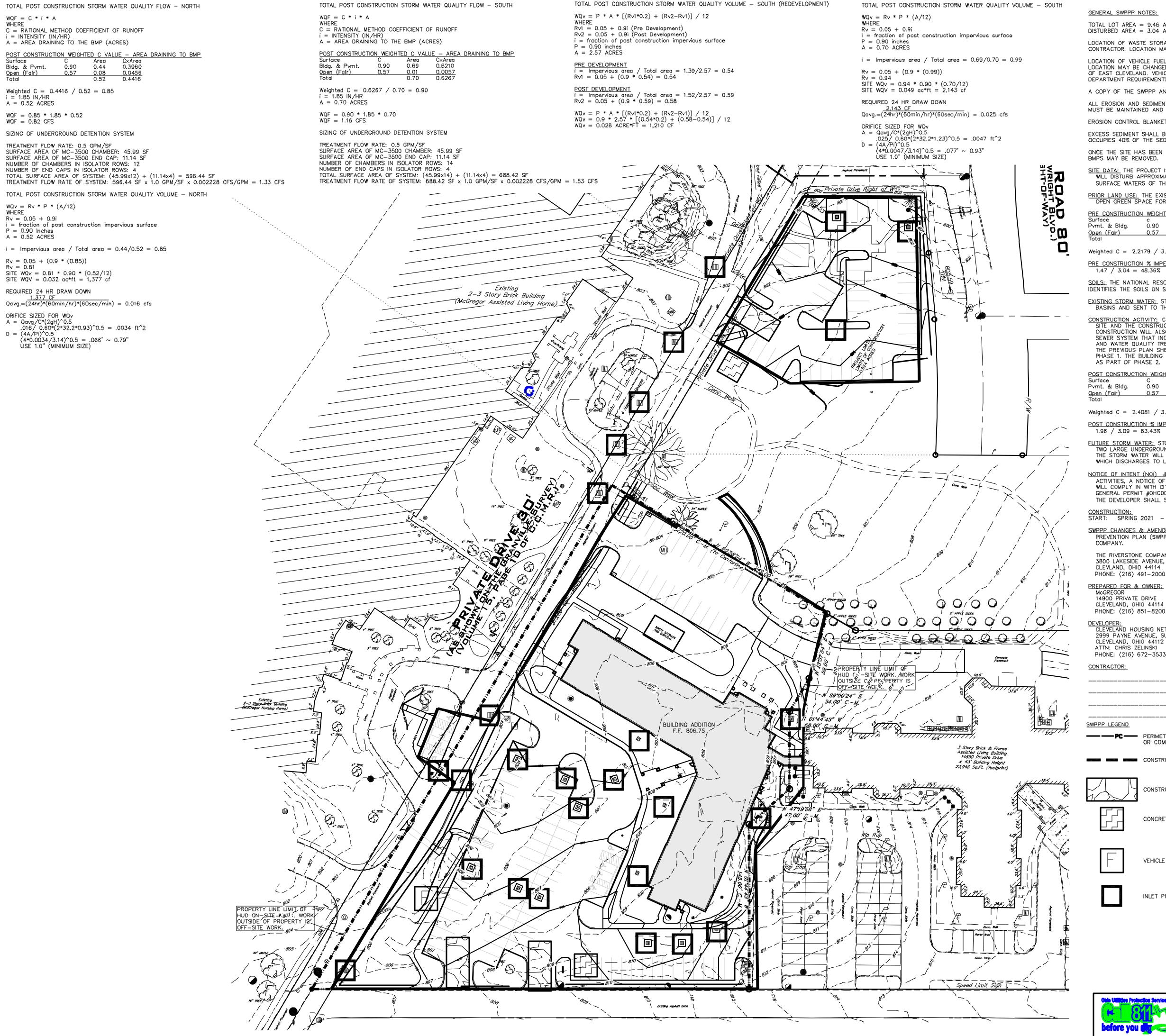
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NOTES & DETAILS ALTERNATE 1 & 8

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C6.05



**GENERAL SWPPP NOTES:** 

TOTAL LOT AREA = 9.46 ACRES DISTURBED AREA = 3.04 ACRES

LOCATION OF WASTE STORAGE AND DISPOSAL SHOWN ON THE PLANS SHALL BE VERIFIED BY CONTRACTOR. LOCATION MAY BE CHANGED AND THE SWPPP AMENDED.

LOCATION OF VEHICLE FUELING SHOWN ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR. LOCATION MAY BE CHANGED AND THE SWPPP AMENDED. CONTRACTOR TO COORDINATE WITH THE CITY OF EAST CLEVELAND. VEHICLE FUELING AREA SHALL CONFORM WITH ALL OSHA, EPA AND FIRE DEPARTMENT REQUIREMENTS.

A COPY OF THE SWPPP AND ALL ADDENDUM TO THE SWPPP SHALL BE KEPT ON SITE AT ALL TIMES.

ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED AS PER PLAN. ALL PRACTICES MUST BE MAINTAINED AND FUNCTIONAL DURING CONSTRUCTION ACTIVITIES.

EROSION CONTROL BLANKETS WITH MATTING SHALL BE USED ON SLOPES GREATER THAN 6%.

EXCESS SEDIMENT SHALL BE REMOVED FROM THE TEMPORARY SEDIMENT BASIN WHEN THE SEDIMENT OCCUPIES 40% OF THE SEDIMENT STORAGE ZONE.

ONCE THE SITE HAS BEEN STABILIZED AND PROPER AUTHORIZATION HAS BEEN OBTAINED, CONSTRUCTION BMPS MAY BE REMOVED.

SITE DATA: THE PROJECT IS LOCATED ON PRIVATE DRIVE IN THE CITY OF EAST CLEVELAND. THE PROJECT WILL DISTURB APPROXIMATELY 3.04 ACRES. NO ISOLATED WETLANDS ARE PRESENT ON SITE AND NO SURFACE WATERS OF THE STATE ARE WITHIN 200' OF THE SITE.

PRIOR LAND USE: THE EXISTING SITE CURRENTLY CONTAINS A COMBINATION OF PARKING AREAS AND OPEN GREEN SPACE FOR THE ADJACENT INDEPENDENT LIVING FACILITY.

PRE CONSTRUCTION WEIGHTED C VALUE 
 Surface
 c
 Area
 CxArea

 Pvmt. & Bldg.
 0.90
 1.47
 1.3230
 <u>Open (Fair) 0.57</u>

Weighted C = 2.2179 / 3.04 = 0.73

PRE CONSTRUCTION % IMPERVIOUSNESS 1.47 / 3.04 = 48.36%

SOILS: THE NATIONAL RESOURCE CONSERVATION SERVICE WEB SOIL SURVEY OF CUYAHOGA COUNTY IDENTIFIES THE SOILS ON SITE AS MITIWANGA-URBAN LAND COMPLEX (MxB).

EXISTING STORM WATER: STORM WATER FROM THE EXISTING SITE IS COLLECTED VIA A SERIES OF CATCH BASINS AND SENT TO THE MUNICIPAL SEWERS IN PRIVATE DRIVE.

CONSTRUCTION ACTIVITY: CONSTRUCTION ACTIVITY WILL INCLUDE THE CLEARING AND GRUBBING OF THE SITE AND THE CONSTRUCTION OF AN ADDITION TO THE ASSISTED LIVING FACILITY AND PARKING LOT. CONSTRUCTION WILL ALSO INCLUDE THE INSTALLATION OF NEW UTILITY CONNECTIONS AND STORM SEWER SYSTEM THAT INCLUDES TWO UNDERGROUND CHAMBER SYSTEMS FOR STORM WATER DETENTION AND WATER QUALITY TREATMENT. CONSTRUCTION WILL BE SPLIT BETWEEN TWO PHASES, AS SHOW IN THE PREVIOUS PLAN SHEETS. A PORTION OF THE PARKING AREAS WILL BE INSTALLED AS PART OF PHASE 1. THE BUILDING ADDITION AND THE REMAINDER OF THE PROPOSED PARKING WILL BE INSTALLED AS PART OF PHASE 2.

<u>POST CONSTRUCT</u>	<u> ION WEIGH</u>	<u>TED C VAL</u>	<u>.UE</u>
Surface	C	Area	CxArea
Pvmt. & Bldg.	0.90	1.96	1.7640
Open (Fair)	0.57	1.13	0.6441
Total		3.09	2.4081

Weighted C = 2.4081 / 3.09 = 0.78

POST CONSTRUCTION % IMPERVIOUSNESS 1.96 / 3.09 = 63.43%

FUTURE STORM WATER: STORM WATER FROM THE DEVELOPED SITE WILL BE COLLECTED AND DETAINED IN TWO LARGE UNDERGROUND CHAMBER SYSTEMS TO DETAIN AND TREAT THE WATER QUALITY VOLUME. THE STORM WATER WILL BE DISCHARGED AT A REDUCED RATE TO THE STORM SEWER IN PRIVATE DRIVE WHICH DISCHARGES TO LEE ROAD.

NOTICE OF INTENT (NOI) & NOTICE OF TERMINATION (NOT): PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, A NOTICE OF INTENT (NOI) SHALL BE FILED WITH THE OHIO EPA. CONSTRUCTION ACTIVITIES WILL COMPLY IN WITH CITY OF EAST CLEVELAND CODIFIED ORDINANCE AND OEPA CONSTRUCTION GENERAL PERMIT #OHCOOOOO5. ONCE CONSTRUCTION IS COMPLETE AND THE SITE HAS BEEN STABILIZED THE DEVELOPER SHALL SUBMIT A NOTICE OF TERMINATION (NOT) WITH THE OHIO EPA.

CONSTRUCTION: START: SPRING 2021 - COMPLETION: FALL 2021

SWPPP CHANGES & AMENDMENTS: ALL CHANGES AND AMENDMENTS TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE APPROVED BY DAVID A. PIETRANTONE P.E., THE RIVERSTONE

THE RIVERSTONE COMPANY 3800 LAKESIDE AVENUE, SUITE 100 CLEVLAND, OHIO 44114

PREPARED FOR & OWNER; 14900 PRIVATE DRIVE

PHONE: (216) 851-8200 <u>DEVELOPER:</u>
CLEVELAND HOUSING NETWORK INC. 2999 PAYNE AVENUE, SUITE 300

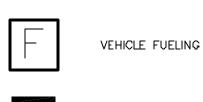
ATTN: CHRIS ZELINSKI PHONE: (216) 672-3533

OR COMPOST FILLED FILTER SOCK

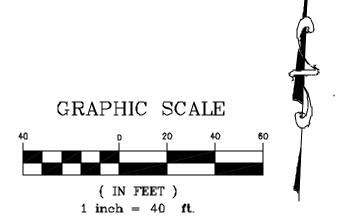
CONSTRUCTION LIMITS

CONSTRUCTION ENTRANCE

CONCRETE WASHOUT



INLET PROTECTION







2020-117

CLEVELAND - OHIO - 44114 PHONE: (216) 491-2000 FAX: (216) 491-9640 WWW.RIVERSTONESURVEY.COM

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PURPOSE					
MARK DATE					
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PURPOSE	80% SET	10/15/2020 PRICING UPDATE	PERMIT	VEORSD	
K DATE	08/28/2020 80% SET	10/15/2020	11/02/2020 PERMIT	2/18/2021 NEORSD	
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SENIC



PROJECT NO.: 2019.25 TITLE:

**SWPPP** 

DRAWING NUMBER:

### SILT FENCE DESCRIPTION:

SILT FENCE IS A SEDIMENT-TRAPPING PRACTICE UTILIZING A GEOTEXTILE FENCE, TOPOGRAPHY AND VEGETATION TO CAUSE SEDIMENT DEPOSITION. SILT FENCE REDUCES RUNOFFS ABILITY TO TRANSPORT SEDIMENT BY PONDING RUNDFF AND DISSIPATING SMALL RILLS OF CONCENTRATED FLOW INTO UNIFORM SHEET FLOW.

### CONDITIONS WHERE PRACTICE APPLIES;

SILT FENCE IS USED WHERE RUNOFF OCCURS AS SHEET FLOW OR WHERE FLOW THROUGH SMALL RILLS CAN BE CONVERTED TO SHEET FLOW. SILT FENCE CANNOT EFFECTIVELY TREAT FLOWS IN GULLIES, DITCHES OR CHANNELS. FOR MORE SEVERE CONDITIONS SEE SPECIFICATIONS FOR TEMPORARY DIVERSIONS, SEDIMENT TRAPS AND SEDIMENT BASINS.

### PLANNING CONSIDERATIONS:

SILT FENCE VS TEMPORARY DIVERSIONS AND SETTLING PONDS - TO TREAT SHEET FLOW RUNOFF, SILT FENCE IS USED OR DIVERSIONS ARE CONSTRUCTED TO DIRECT RUNOFF TO A SEDIMENT POND. SILT FENCE IS MOST APPLICABLE FOR RELATIVELY SMALL AREAS WITH FLAT TOPOGRAPHY. SILT FENCE ALSO REQUIRES LESS SPACE AND CAUSES LESS DISTURBANCE. A SYSTEM OF DIVERSIONS AND SETTLING PONDS, ON THE OTHER HAND, HAS GREATER INTEGRITY. COMPARED TO SILT FENCE, THEY CAN HANDLE MUCH GREATER FLOWS AND ARE MORE DURABLE AND EASIER TO CONSTRUCT CORRECTLY. AS A RESULT, EARTH DIVERSIONS AND SETTLING PONDS GENERALLY ARE RECOMMENDED OVER SILT FENCE,

### DESIGN CRITERIA:

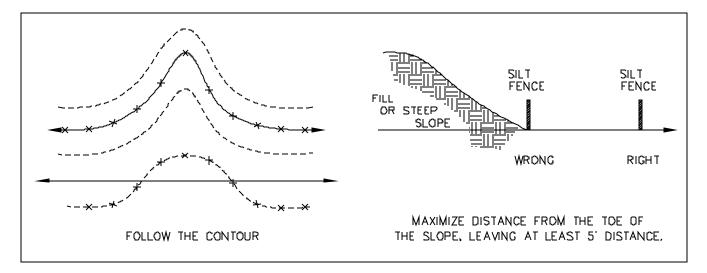
SILT FENCE AS A SEDIMENT CONTROL PRACTICE CONSISTS NOT ONLY OF THE FENCE ITSELF BUT, JUST AS IMPORTANTLY, IT ENTAILS TOPOGRAPHY. THIS IS A CRITICAL CONSIDERATION BECAUSE THE SEDIMENT REMOVAL PROCESS RELIES ON DEPOSITION NOT FILTERING, AS OFTEN ASSUMED, SILT FENCE WORKS BY DISPERSING FLOW, PONDING RUNOFF AND RELEASING DIFFUSE FLOW. HOWEVER, IF SILT FENCE IS USED WITHOUT REGARD TO A SITE'S TOPOGRAPHY, IT WILL TYPICALLY CONCENTRATE RUNOFF, INCREASING ITS ABILITY TO TRANSPORT SEDIMENT RATHER THAN CAUSING DEPOSITION.

LEVEL CONTOUR - FOR SILT FENCE TO ENHANCE DEPOSITION, IT MUST BE PLACED ON THE LEVEL CONTOUR OF THE LAND SO THAT FLOWS ARE DISSIPATED INTO UNIFORM SHEET FLOW, WHICH HAS LITTLE ENERGY FOR TRANSPORTING SEDIMENT. SILT FENCE SHOULD NEVER CONCENTRATE RUNOFF, WHICH WILL RESULT IF IT IS PLACED UP AND DOWN SLOPES RATHER THAN ON THE LEVEL CONTOUR.

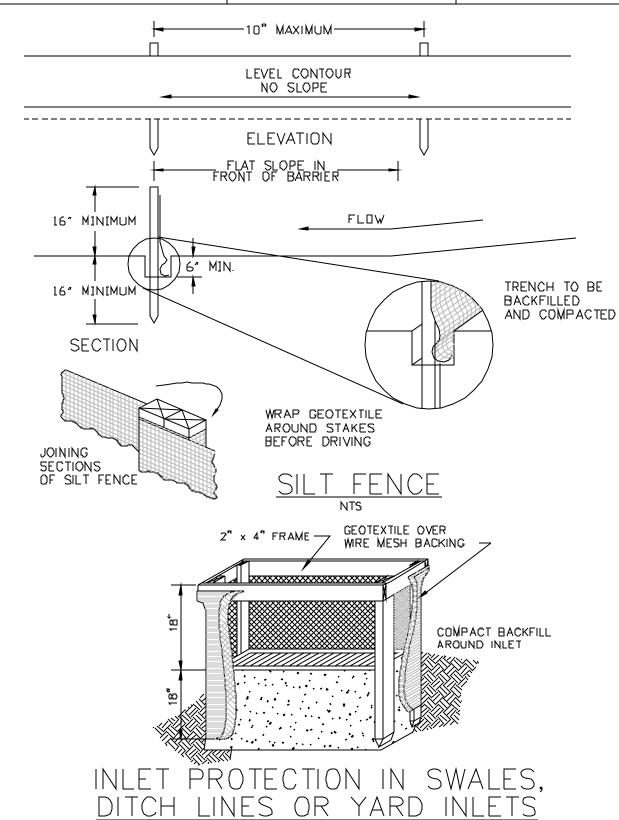
FLAT SLOPES - SILT FENCE MUST ALSO BE USE ON THE FLATTEST AREAS AVAILABLE. BECAUSE OF THE GREAT IMPORTANCE SLOPE HAS ON WATER'S ABILITY TO TRANSPORT SEDIMENT, SILT FENCE SHOULD NEVER BE PLACED DIRECTLY AT THE TOE OF A SLOPE IF IT IS AT ALL POSSIBLE TO PLACE IT SEVERAL FEET AWAY, SILT FENCE GENERALLY SHOULD BE PLACED ON THE FLATTEST AREA AVAILABLE TO INCREASE THE SHALLOW PONDING OF RUNOFF AND MAXIMIZE SPACE AVAILABLE FOR DEPOSITED SEDIMENT.

FLOW AROUND ENDS - TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS. EACH END MUST BE CONSTRUCTED UP-SLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.

VEGETATION — DENSE VEGETATION ALSO HAS THE EFFECT OF DISSIPATING FLOW ENERGIES AND CAUSING SEDIMENT DEPOSITION. SEDIMENT—TRAPPING EFFICIENCY WILL BE ENHANCED WHERE A DENSE STAND OF VEGETATION OCCURS FOR SEVERAL FEET BOTH BEHIND AND IN FRONT OF A SILT FENCE.



FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MINIMUM	AStm D 1682
MULLEN BURST STRENGTH	190 PSI MINIMUM	AStm D 3786
SLURRY FLOW RATE	0.3 GAL./MIN./SQ. FT. MAXIMUM	
EQUIVALENT OPENING SIZE	40-80	US STD. SLEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MINIMUM	AStm-G-26



### SPECIFICATIONS FOR SILT FENCE:

- SILT FENCE SHALL BE CONSTRUCTED BEFORE UP-SLOPE LAND DISTURBANCE BEGINS 2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY
- SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH,
- 3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UP-SLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
- 4、 WHERE POSSIBLE, SILT FENCE SHALL BE PLACE ON THE FLATTEST AREA AVAILABLE 5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UP-SLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE
- INSTALLATION OF THE SILT FENCE. 6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 IN, ABOVE THE ORIGINAL GROUND SURFACE. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6 IN. DEEP . THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
- 8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 IN, OF CLOTH ARE BELOW THE GROUND SURFACE, EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF
- THE 6 IN. DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED. 9. SEAMS BETWEEN SECTION OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION
- WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND. 10, MAINTENANCE - SILT FENCE SHALL ALLOW RUNDFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE, IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE; 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.

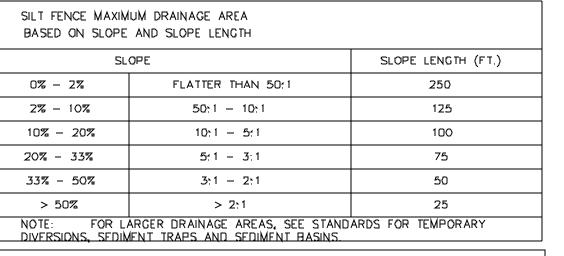
### CRITERIA FOR SILT FENCE MATERIALS:

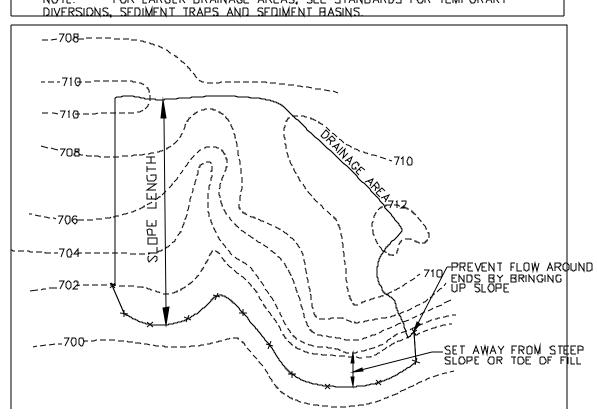
- 1. FENCE POSTS THE LENGTH SHALL BE A MINIMUM OF 32 IN. LONG. WOOD POSTS WILL BE 2-BY-2 IN. HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT.
- 2. SILT FENCE FABRIC (SEE CHART BELOW): 1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UP-SLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL
- THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 IN. THE WOODED FRAME SHALL BE CONSTRUCTED OF 2-BY-4 IN. CONSTRUCTION-GRADE LUMBER. THE 2-BY-4 IN. POSTS SHALL BE DRIVEN 1 FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-BY-4 IN. FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN, THE TOP OF THE FRAME SHALL BE AT LEAST 6 IN. BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY
- HAZARD TO TRAFFIC 4. 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
- 5. 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 IN, BELOW THE INLET NOTCH ELEVATION, THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE
- 6. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6 IN, LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES,
- 7. 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 BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND, THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 IN, HIGHER THAN THE TOP OF THE

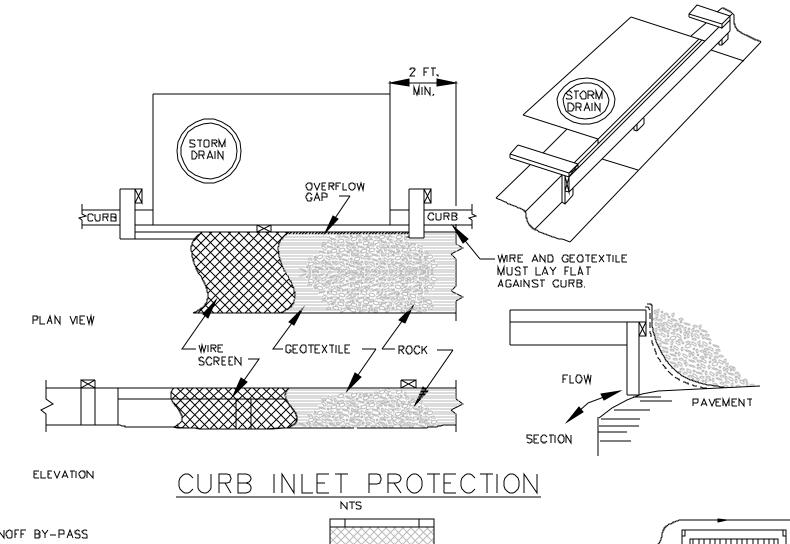
### DRAINAGE AREA:

- 1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UP-SLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOME OPERATIONAL
- 2, THE WOODED FRAME IS TO BE CONSTRUCTED OF 2-BY-4 IN. CONSTRUCTION-GRADE LUMBER, THE END SPACERS SHALL BE A MINIMUM OF 1 FT. BEYOND BOTH ENDS OF THE THROAT OPENING. THE ANCHORS SHALL BE NAILED TO 2-BY-4 IN. STAKES DRIVEN ON THE OPPOSITE SIDE OF THE CURB.
- 3. THE WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC AND STONE, IT SHALL BE A CONTINUOUS PIECE WITH A MINIMUM WIDTH OF 30 IN. AND 4 FT, LONGER THAN THE THROAT LENGTH OF THE
- 4. GEOTEXTILE CLOTH SHALL HAVE AN EQUIVALENT OPENING SIZE (EOS) OF 20-40 SIEVE AND BE RESISTANT TO
- SUNLIGHT. IT SHALL BE AT LEAST THE SAME SIZE AS THE WIRE MESH. 5. THE WIRE MESH AND GEOTEXTILE CLOTH SHALL BE FORMED TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDE OF THE INLET AND SECURELY FASTENED TO THE 2-BY-4 IN, FRAME.
- 6、 TWO-INCH STONE SHALL BE PLACED OVER THE WIRE MESH AND GEOTEXTILE IN SUCH A MANNER AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE CLOTH.

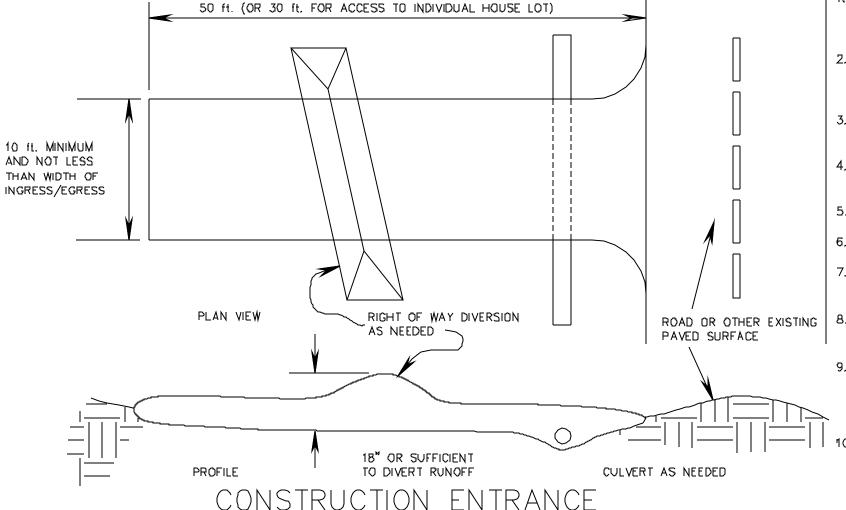
DISPERSING FLOW - PROPER APPLICATIONS OF SILT FENCE WILL ALLOW ALL THE INTERCEPTED RUNOFF TO PASS AS DIFFUSED FLOW THROUGH THE GEOTEXTILE. RUNOFF SHOULD NEVER OVERTOP SILT FENCE, FLOW AROUND THE ENDS. OR IN ANY OTHER WAY FLOW AS CONCENTRATED FLOW FROM THE PRACTICE. IF THIS DOES OCCUR, MAINTENANCE ALTERNATIVE SILT FENCE LAYOUT, OR OTHER PRACTICES ARE NEEDED.







RUNOFF BY-PASS MET ON SLOPES PROFILE PLAN VIEW RUNOFF PONDS AROUND INLET IN DEPRESSION -ALLOW FOR PENDED RUNOFF -PROFILE STORM DRAIN INLET PROTECTION

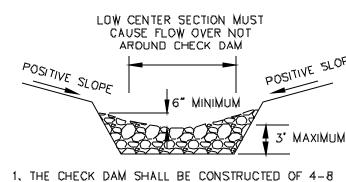


### CONSTRUCTION ENTRANCE

DESCRIPTION: A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF AGGREGATE OVER A GEOTEXTILE BASE AND IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION TRAFFIC.

- CONDITIONS WHERE PRACTICE APPLIES: A CONSTRUCTION ENTRANCE SHOULD BE USED:
  - \* WHERE CONSTRUCTION VEHICLES LEAVE ACTIVE CONSTRUCTION AREAS ONTO SURFACES WHERE RUNOFF
  - IS NOT CHECKED BY SEDIMENT CONTROLS; \* AT ALL POINTS OF EGRESS TO PUBLIC ROADS:
  - \* WHERE FREQUENT VEHICLES AND EQUIPMENT INGRESS/EGRESS IS EXPECTED SUCH AS AT THE AT THE ENTRANCE OF INDIVIDUAL BUILDING LOTS;
- PLANNING CONSIDERATIONS;

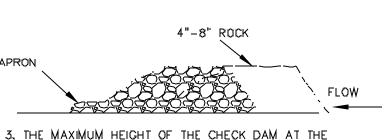
THIS PRACTICE SHOULD NOT BE RELIED ON TO REMOVE MUD FROM CONSTRUCTION TRAFFIC. MOST MUD IS FLUNG FROM TIRES AS VEHICLES REACH SPEEDS HIGHER THAN IS REACHED ON SITE. THE BEST APPROACH TO PREVENTING OFF-SITE TRACKING IS TO KEEP VEHICLES THAT FREQUENTLY ENTER AND LEAVE A SITE, AWAY FROM MUDDY AREAS IN THE FIRST PLACE. VEHICLES SHOULD BE RESTRICTED TO STABILIZED AREAS TO THE EXTENT PRACTICAL. AND AREAS WHERE FREQUENT INGRESS/EGRESS



IS EXPECTED SHOULD BE STABILIZED.

INCH DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL

THE TOP OF THE CHECK DAM SHALL BE CONSTRUCTED SO THAT THE CENTER IS APPROXIMATELY 6 INCHES LOWER THAN THE OUTER EDGES, SO WATER WILL FLOW ACROSS THE CENTER AND NOT AROUND THE ENDS.



CENTER OF THE WEIR SHALL NOT EXCEED 3 FOOT, 4. SPACING BETWEEN DAMS SHALL BE AS SHOWN IN THE



### STORM DRAIN INLET PROTECTION DESCRIPTION:

STORM DRAIN INLET PROTECTION CONSISTS OF A GEOTEXTILE BARRIER SUPPORTED AROUND OR ACROSS A STORM DRAIN INLET. IT IS USED TO PREVENT SEDIMENT-LADED WATER FROM ENTERING A STORM DRAIN SYSTEM. IT REDUCES THE RATE AT WHICH SEDIMENT-LADEN WATER MAY ENTER AN INLET THEREBY CAUSING PONDING AND SETTLING OF SEDIMENT,

### CONDITIONS WHERE PRACTICE APPLIES AND PLANNING CONSIDERATIONS;

THIS PRACTICE IS NOT CENERALLY RECOMMENDED AS A PRIMARY MEANS OF SEDIMENT CONTROL. IT SHOULD ONLY BE USED IF IT IS NOT POSSIBLE TO TEMPORARILY DIVERT THE STORM DRAIN OUTFALL INTO A SEDIMENT TRAP OR SEDIMENT BASIN OR IF IT IS TO BE USED ONLY FOR A SHORT PERIOD OF TIME DURING THE CONSTRUCTION

INLET PROTECTION IN EFFECT BLOCKS STORM DRAIN INLETS. THE RESULT FROM BLOCKING STORM DRAIN INLETS WILL HAVE ON THE SITE'S DRAINAGE MUST BE CONSIDERED. LONG SLOPING STREETS OR DITCHES DESIGNED WITH SEVERAL INLETS ALONG THEIR LENGTH MAY HAVE A SIGNIFICANT AMOUNT OF SURFACE FLOW ACCUMULATE IF INLET PROTECTION IS USED. IN LOW AREAS, A POND WILL FORM AROUND INLETS. PONDING IS NECESSARY FOR REMOVING SEDIMENT FROM RUNOFF AND SHOULD BE ENCOURAGED IN CONJUNCTION WITH INLET PROTECTION.

> <u>SPECIFICATIONS FOR CURB INLET PROTECTION;</u> 1, INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL

2. THE WOODEN FRAME IS TO BE CONSTRUCTED OF 2-BY-4-IN. CONSTRUCTION-GRADE LUMBER. THE END SPACERS SHALL BE A MINIMUM OF 1 FT. BEYOND BOTH ENDS OF THE THROAT OPENING. THE ANCHORS SHALL BE NAILED TO 2-BY-4-IN. STAKES DRIVEN ON THE OPPOSITE SIDE OF THE CURB, THE WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT

FABRIC AND STONE, IT SHALL BE A CONTINUOUS PIECE WITH A MINIMUM WIDTH OF 30 IN. AND 4 FT, LONGER THAT THE THROAT LENGTH OF THE INLET, 2 FT. ON EACH SIDE,

- 4. GEDTEXTILE CLOTH SHALL HAVE AN EQUIVALENT OPENING SIZE (EOS) QF 20-40 SLEVE AND BE RESISTANT TO SUNLIGHT, IT SHALL BE AT LEAST THE SAME SIZE AS THE WIRE MESH. THE WIRE MESH AND GEOTEXTILE CLOTH SHALL BE FORMED TO THE
- CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET AND SECURELY FASTENED TO THE 2-BY-4-IN. 6. TWO-INCH STONE SHALL BE PLACED OVER THE WIRE MESH AND
- GEDTEXTILE IN SUCH A MANNER AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE CLOTH.

### **EROSION NOTES**

- SEDIMENT PONDS/TRAPS AND PERIMETER CONTROLS SHALL BE IMPLEMENTED AS A FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE STABILIZED.
- DISTURBED AREAS WITHIN 50 FEET OF A STREAM, WHICH WILL REMAIN UNWORKED FOR A PERIOD OF 14 DAYS OR MORE, SHALL BE STABILIZED WITH SEEDING AND MULCHING OR OTHER APPROPRIATE MEANS WITHIN 2 DAYS.
- DISTURBED AREAS WHICH WILL REMAIN UNWORKED FOR A PERIOD OF 14 DAYS OR MORE, SHALL BE STABILIZED WITH SEEDING AND MULCHING OR OTHER APPROPRIATE MEANS WITHIN 7 DAYS.
- EROSION CONTROL BLANKETS WITH MATTING WILL BE USED ON DITCHES GREATER THAN 1,5% AND ALL OTHER SLOPES GREATER THAN 6%
- 5. DISTURBED AREAS THAT WILL BE IDLE OVER WINTER SHALL BE STABILIZED PRIOR TO NOVEMBER 1,
- 6. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER
- OFF-SITE VEHICLE TRACKING SEDIMENT SHALL BE MINIMIZED. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD(S) NOTED ON THE PLAN.
- ROAD OR OTHER EXISTING | 8. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST MEET THE STANDARDS AND SPECIFICATIONS OF THE OHIO RAINWATER AND LAND
  - DEVELOPMENT HANDBOOK (1996). 9, OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS, A TEMPORARY COVERING OF
  - STRAW MULCH OVER BARE GROUND THROUGHOUT THE DURATION OF THE PROJECT IS EFFECTIVE MEANS OF MINIMIZING EROSION, A STOCKPILE OF STRAW BALES SHOULD BE ON HAND.
  - . REGULAR INSPECTION AND MAINTENANCE WILL BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTIONS MUST BE MADE A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN IN A 24-HOUR PERIOD. PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION AND CORRECTIVE MEASURES TAKEN.

### SPECIFICATIONS FOR CONSTRUCTION ENTRANCE: . STONE SIZE--TWO-INCH STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.

- 2. LENGTH--THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 50 FT. (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30-FT. MINIMUM LENGTH APPLIES).
- THICKNESS -- THE STONE LAYER SHALL BE AT LEAST 6 IN. THICK. , WIDTH--THE ENTRANCE SHALL BE AT LEAST 10 FT, WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCURS.
- 5. BEDDING--A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 LB. AND A MULLEN BURST STRENGTH OF AT LEAST 190 LB.
- 6. CULVERT -- A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES.

7. WATER BAR--A WATER BAR SHALL BE CONSTRUCTED AS PART OF

- THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES. 8. MAINTENANCE--TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR
- TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING,
- 9. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION-SITE SHALL BE RESTRICTED FROM MUDDY AREAS.





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2020-117

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PROJECT NO.: 2019.25

TITLE:

**SWPPP** 

DRAWING NUMBER:

AREA REQUIRING TEMP	ORARY STABILIZATION	TIME FRAME FOR	R SEEDING
ANY DISTURBED AREA WITHIN 5 THE STATE AND NOT		WITHIN 2 DAYS OF THE MOST F THE AREA WILL REMAIN IDLE FO	
DISTURBED AREAS THAT WLL BE DAYS BUT LESS THAN 1 YEAR AND WATER OF T	NOT WITHIN 50' OF A SURACE	WITHIN 7 DAYS OF THE MOST WITHIN THE A	
DISTURBED AREAS THAT WI	LL BE IDLE OVER WINTER	PRIOR TO THE ONSET OF	WINTER WEATHER
	TEMPORARY SEE	DING MIXTURE	
SEEDING DATES	SPECIES	LB./1,000 sq.ft.	per Acre
MARCH 1 TO AUGUST 15	OATS TALL FESCUE ANNUAL RYEGRASS	3 1 1	4 BUSHEL 40 LB 40 LB
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 LB 40 LB 40 LB
AUGUST 15 TO NOVEMBER 1	RYE TALL FESCUE ANNUAL RYEGRASS	3 1 1	2 BUSHEL 40 LB 40 LB
	WHEAT TALL FESCUE ANNUAL RYEGRASS	1 1 1	2 BUSHEL 40 LB 40 LB
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 LB 40 LB 40 LB
NOVEMBER 1 TO SPRING SEEDING	USE MULCH ONLY, SODDING PR	ACTICES OR DORMANT SEEDING	

AREA REQUIRING PERM	ANENT STABILIZATION	TIME FRAME FOR	R SEEDING	
ANY AREAS THAT WILL LIE OR MO		WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE		
ANY AREAS WITHIN 50' ( FINAL G		WITHIN TWO DAYS OF REAC	CHING FINAL GRADE	
ANY OTHER AREAS	AT FINAL GRADE	WITHIN SEVEN DAYS OF REA WITHIN THAT		
	PERMANENT SEEDII	NG MIXTURE		
SEEDING DATES	SPECIES	LB./1,000 sq.ft.	per Acre	
MARCH 15 TO OCTOBER 1	TALL FESCUE TURF-TYPE (DWARF FESCUE ANNUAL RYEGRASS	1	40-50 LBS 40 LB	
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1	40 LB 40 LB 40 LB	
AUGUST 15 TO NOVEMBER 1	RYE TALL FESCUE ANNUAL RYEGRASS	3 1 1	2 BUSHEL 40 LB 40 LB	
	WHEAT TALL FESCUE ANNUAL RYEGRASS	1 1 1	2 BUSHEL 40 LB 40 LB	
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 LB 40 LB 40 LB	
NOVEMBER 1 TO SPRING SEEDING	USE MULCH ONLY, SODDING PRAC	TICES OR DORMANT SEEDING		

<u>TRENCH AND GROUND WATER CONTROI</u> IN ACCORDANCE WITH PART II.C OF OHIO GENERAL CONSTRUCTION PERMIT OHCOOOOO3, THERE SHALL BE NO TURBID DISCHARGES TO SURFACE WATERS OF THE STATE RESULTING FROM DEWATERING ACTIVITIES, I TRENCH OR GROUND WATER CONTAINS SEDIMENT, IT SHALL PASS THROUGH A SEDIMENT SETTING POND OR OTHER EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE, PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. ALTERNATIVELY, SEDIMENT MAY BE REMOVED BY SETTING IN PLACE OR BY DEWATERING INTO A SUMP PIT, FILTER BAG OR COMPARABLE PRACTICE, GROUND WATER WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS IS NOT REQUIRED TO BE TREATED PRIOR TO DISCHARGE, HOWEVER, CARE MUST BE TAKEN WHEN DISCHARGING GROUND WATER TO ENSURE THAT IT DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.

OUST CONTROL:

DESCRIPTION: DUST CONTROL INVOLVES PREVENTING OR REDUCING DUST FROM EXPOSED SOILS OR OTHER SOURCES DURING LAND DISTURBING DEMOLITION, AND CONSTRUCTION ACTIVITIES TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE.

CONDITIONS WHERE PRACTICE APPLIES AND PLANNING CONSIDERATIONS: IN AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY TO OCCUR IF PREVENTATIVE MEASURES ARE NOT TAKEN.

DESIGN CRITERIA: A NUMBER OF MEASURES CAN BE UTILIZED TO LIMIT DUST EITHER DURING OR BETWEEN CONSTRUCTION STAGES OR ONCE CONSTRUCTION IS COMPLETE. GENERALLY THE SAME METHODS THAT ARE USED TO LIMIT EROSION BY LIMITING EXPOSURE OF SOILS TO RAINFALL CAN BE USED TO LIMIT DUST INCLUDING: STABILIZING EXPOSED SOILS WITH MULCH, VEGETATION OR PERMANENT COVER. ADDITIONAL METHODS PARTICULAR TO DUST CONTROL INCLUDING MANAGING VEHICLES AND CONSTRUCTION TRAFFIC, ROAD TREATMENT AND TREATMENT OF EXPOSED SOIL WITH CHEMICAL STABILIZERS.

USED OIL SHALL NOT BE USED AS A DUST SUPPRESSANT. DUST CONTROLS MAY INCLUDE THE USE OF WATER TRUCKS TO WET DISTURBED AREAS, TAPPING STOCKPILES, TEMPORARY STABILIZATION OF DISTURBED AREAS, AND REGULATION OF THE SPEED OF VEHICLES ON THE SITE.

SPECIFICATIONS FOR DUST CONTROL:

1. VEGETATIVE COVER AND/MULCH - APPLY TEMPORARY OR PERMANENT SEEDING AND MULCH TO AREAS THAT WILL REMAIN IDLE FOR OVER 14 DAYS. SAVING EXISTING TREES AND LARGE SHRUBS WILL ALSO REDUCE SOIL AND AIR MOVEMENT ACROSS DISTURBED AREAS.

2. WATERING - SPRAY SITE WITH WATER UNTIL THE SURFACE IS WET BEFORE AND DURING GRADING AND REPEAT AS NEEDED, ESPECIALLY ON HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHALL BE DONE AT A RATE THAT PREVENTS DUST BUT DOES NOT CAUSE SOIL

3. SPRAY-ON ADHESIVES - APPLY ADHESIVE ACCORDING TO THE FOLLOWING TABLE OR MANUFACTURERS' INSTRUCTIONS.

4. STONE - GRADED ROADWAYS AND OTHER SUITABLE AREAS WILL BE STABILIZED USING CRUSHED STONE OR COARSE GRAVEL AS SOON AS PRACTICABLE AFTER REACHING AN INTERIM OR FINAL GRADE. CRUSHED STONE OR COARSE GRAVEL CAN BE USED AS A PERMANENT COVER TO PROVIDE CONTROL OF SOIL EMISSIONS.

5. BARRIERS - EXISTING WINDBREAK VEGETATION SHALL BE MARKED AND PRESERVED. SNOW FENCING OR OTHER SUITABLE BARRIER MAY BE PLACED PERPENDICULAR TO PREVAILING AIR CURRENTS AT INTERVALS OF ABOUT 15 TIMES THE BARRIER HEIGHT TO CONTROL AIR CURRENTS AND

6. OPERATION AND MAINTENANCE - WHEN TEMPORARY DUST CONTROL MEASURES ARE USED; REPETITIVE TREATMENT SHOULD BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

7. STREET CLEANING - PAVED AREAS THAT HAVE ACCUMULATED SEDIMENT FROM CONSTRUCTION SHOULD BE CLEANED DAILY, OR AS NEEDED, UTILIZING A STREET SWEEPER OR BUCKET-TYPE END LOADER OR SCRAPER.

### TEMPORARY SEDIMENT BASIN DEWATERING SKIMMER NOT TO SCALE

		PROJECT NAME: PAC		
AMENDMENT NO.	DESCRIPTION OF AMENDMENT	DATE OF AMENDMEN	AMENDMENT PREPARED (NAME & TITLE)	

COPY AS NECESSARY

PI	PROJECT NAME:								
SWF	PPP CONTACT:								
DATE GRADING ACTIVITY STARTED	DESCRIPTION OF GRADING ACTIVITY	DATE GRADING ACTIVITY CEASED	DATE STABILIZATION MEASURES	DESCRIPTION OF STABILIZATION MEASURES AND LOCATION					
OPY AS NECES	SARY								

GRADING & STABILIZATION LOG

ADDITIONAL CONSTRUCTION SITE POLLUTION CONTROLS

- OHIO RAINWATER AND LAND DEVELOPMENT MANUAL (2006) 1. CONSTRUCTION PERSONNEL, INCLUDING SUBCONTRACTORS WHO MAY USE OR HANDLE HAZARDOUS OR TOXIC MATERIALS, SHALL BE MADE AWARE OF THE FOLLOWING GENERAL GUIDELINES REGARDING DISPOSAL AND HANDLING OF HAZARDOUS AND CONSTRUCTION WASTES:
  - PREVENT SPILLS - USE PRODUCTS UP
  - FOLLOW LABEL DIRECTIONS FOR DISPOSAL
  - REMOVE LIDS FROM EMPTY BOTTLES AND CAN WHEN DISPOSING IN TRASH
  - RECYCLE WASTES WHENEVER POSSIBLE - DON'T POUR INTO WATERWAYS, STORM DRAINS OR ONTO THE GROUND
  - DON'T POUR DOWN THE SINK, FLOOR DRAIN OR SEPTIC TANKS
  - DON'T BURY CHEMICALS OR CONTAINERS
  - DON'T BURN CHEMICALS OR CONTAINERS
- DON'T MIX CHEMICALS TOGETHER 2. CONTAINERS SHALL BE PROVIDED FOR THE PROPER COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM PRODUCTS AND ANY HAZARDOUS MATERIALS USED ON SITE. CONTAINERS SHALL BE COVERED AND NOT LEAKING. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL. CONSTRUCTION DEMOLITION AND DEBRIS (CD&D) WASTE MUST BE DISPOSED OF AT AN OHIO EPA
- 3. NO CONSTRUCTION RELATED WASTE MATERIAL ARE TO BE BURIED ON—SITE. BY EXCEPTION, CLEAN FILL (BRICKS, HARDENED CONCRETE SOIL) MAY BE UTILIZED IN A WAY WHICH DOES NOT ENCROACH UPON NATURAL WETLANDS, STREAMS OR FLOOD PLAINS OR RESULT IN THE CONTAMINATION OF WATER OF THE STATE.
- 4. HANDLING CONSTRUCTION CHEMICALS. MIXING, PUMPING, TRANSFERRING OR OTHER HANDLING OF CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH OR STORM
- 5. EQUIPMENT FUELING AND MAINTENANCE. OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES. DITCHES OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL OIL STORAGE TANKS. THESE AREA MUST BE INSPECTED EVERY SEVEN DAYS AND WITHIN 24 HOURS OF A 0.5 INCH OR GREATER RAINFALL EVENT TO ENSURE THERE ARE NO EXPOSED MATERIAL WHICH WOULD CONTAMINATE STORM WATER. SITE OPERATORS MUST BE AWARE THAT SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) REQUIREMENTS MAY APPLY. AN SPCC PLAN IS REQUIRED FOR SITES WITH ONE SINGLE ABOVE GROUND TANK OF 600 GALLONS OR MORE, ACCUMULATIVE ABOVE GROUND STORAGE OF 1,330 GALLONS OR MORE OR 42,000 GALLONS OF UNDERGROUND STORAGE. CONTAMINATED SOILS MUST BE DISPOSED OF IN ACCORDANCE WITH ITEM &.
- 6. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAM, DITCHES, STORM DRAINS OR ANY OTHER WATER CONVEYANCE, A SUMP OR PIT WITH NO POTENTIAL FOR DISCHARGE SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER, FIELD TILE OR OTHER SUBSURFACE DRAINAGE STRUCTURES WITHIN 10 FT. OF THE SUMP SHALL BE CUT AND PLUGGED. FOR SMALL PROJECTS, TRUCK CHUTES MAY BE RINSED AWAY FROM ANY WATER CONVEYANCES.
- 7. SPILL REPORTING REQUIREMENTS. SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST OR KITTY LITTER AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL, HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING, SPILL SHALL BE REPORTED TO OHIO EPA (1-800-282-9378). SPILL OF 25 GALLONS OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO OHIO EPA. THE LOCAL FIRE DEPARTMENT AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MIN. OF THE DISCOVERY OF THE RELEASE. ALL SPILLS WHICH CONTACT WATERS OF THE STATE MUST BE REPORTED TO OHIO EPA.
- 8. CONTAMINATED SOILS. IF SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC. ARE SPILLED, LEADED OR RELEASED ONTO THE SOIL, THE SOIL SHALL BE DUG UP AND DISPOSED OF A T A LICENSED SANITARY LANDFILL OR OTHER APPROVED PETROLEUM CONTAMINATED SOIL REMEDIATION FACILITY. (NOT A CONSTRUCTION/DEMOLITION DEBRIS LANDFILL). NOTE THAT STORM WATER RUN OFF ASSOCIATED WITH CONTAMINATED SOILS ARE NOT AUTHORIZED UNDER OHIO EPA'S GENERAL STORM WATER PERMIT ASSOCIATED
- WITH CONSTRUCTION ACTIVITIES. 9. OPEN BURNING, NO MATERIALS CONTAINING RUBBER, GREASE, ASPHALT OR PETROLEUM PRODUCTS; SUCH AS TIRES, AUTO PARTS, PLASTICS OR PLASTIC COATED WIRE MAY BE BURNED (OAC 3745-19). OPEN BURNING IS NOT ALLOWED IN RESTRICTED AREAS, WHICH ARE DEFINED AS: 1) WITHIN CORPORATION LIMITS;
- 2) WITHIN 1,000 FEET OUTSIDE A MUNICIPAL CORPORATION HAVE A POPULATION OF 1,000 TO 10,000; 3) A ONE MILE ZONE OUTSIDE OF A CORPORATION OF 10,000 OR MORE.
- OUTSIDE RESTRICTED AREAS, NO OPEN BURNING IS ALLOWED WITHIN A 1,000 FEET OF AN INHABITED BUILDING ON ANOTHER PROPERTY, OPEN BURNING IS PERMISSIBLE IN A RESTRICTED AREA FOR: HEATING TAR, WELDING, SMUDGE POTS AND SIMILAR OCCUPATIONAL NEEDS, AND HEATING FOR WARMTH OR OUTDOOR BARBECUES. OUTSIDE OF RESTRICTED AREAS, OPEN BURNING IS PERMISSIBLE FOR LANDSCAPE OR LAND-CLEARING WASTES (PLANT MATERIAL, WITH PRIOR WRITTEN PERMISSION FROM OHIO EPA), AND AGRICULTURAL WASTES, EXCLUDING
- 10. DUST CONTROL OR DUST SUPPRESSANTS SHALL BE USED TO PREVENT NUISANCE CONDITIONS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND IN A MANNER, WHICH PREVENT A DISCHARGE TO WATERS OF THE STATE, SUFFICIENT DISTANCE MUST BE PROVIDED BETWEEN APPLICATIONS AND NEARBY BRIDGES, CATCH BASINS, AND OTHER WATERWAYS. APPLICATION (EXCLUDING WATER) MAY NOT OCCUR WHEN RAIN IS IMMINENT AS NOTED IN THE SHORT TERM FORECAST. USED OIL MAY NOT BE APPLIED FOR DUST CONTROL.
- 11, OTHER AIR PERMITTING REQUIREMENTS: CERTAIN ACTIVITIES ASSOCIATED WITH CONSTRUCTION WILL REQUIRE AIR PERMITS INCLUDING BUT NOT LIMITED TO: MOBILE CONCRETE BATCH PLANTS, MOBILE ASPHALT PLANTS, CONCRETE CRUSHERS, LARGE GENERATORS, ETC. THESE ACTIVITIES WILL REQUIRE SPECIFIC OHIO EPA AIR PERMITS FOR INSTALLATION AND OPERATION. OPERATORS MUST SEEK AUTHORIZATION FROM THE CORRESPONDING DISTRICT OF OHIO EPA. FOR DEMOLITION OF ALL COMMERCIAL SITES, A NOTIFICATION FOR RESTORATION AND DEMOLITION MUST BE SUBMITTED TO OHIO EPA TO DETERMINE IF ASBESTOS CORRECTIVE ACTIONS ARE REQUIRED.
- 12. PROCESS WASTE WATER/LEACHATE MANAGEMENT. OHIO EPA'S CONSTRUCTION GENERAL PERMIT ONLY ALLOWS THE DISCHARGE OF STORM WATER AND DOES NOT INCLUDE OTHER WASTE STREAMS/DISCHARGES SUCH AS VEHICLE AND/OR EQUIPMENT WASHING, ON—SITE SEPTIC LEACHATE, CONCRETE WASH—OUTS, WHICH ARE CONSIDERED PROCESS WASTEWATERS. ALL PROCESS WASTEWATERS MUST BE COLLECTED AND PROPERLY DISPOSED AT AN APPROVED DISPOSAL FACILITY. IN THE EVENT, LEACHATE OR SEPTAGE IS DISCHARGED; IT MUST BE ISOLATED FOR COLLECTION AND PROPER DISPOSAL AND CORRECTIVE ACTIONS TAKEN TO ELIMINATE THE SOURCE OF WASTE
- 13. A PERMIT TO INSTALL (PTI) IS REQUIRED PRIOR TO THE CONSTRUCTION OF ALL CENTRALIZED SANITARY SYSTEMS, INCLUDING SEWER EXTENSIONS, AND SEWERAGE SYSTEMS (EXCEPT THOSE SERVICE ONE, TWO AND THREE FAMILY DWELLINGS) AND POTABLE WATER LINES. PLANS MUST BE SUBMITTED AND APPROVED BY OHIO EPA. ISSUANCE OF AN OHIO EPA CONSTRUCTION GENERAL STORM WATER PERMIT DOES NOT AUTHORIZE THE INSTALLATION OF ANY SEWERAGE SYSTEM WHERE OHIO EPA HAS NOT APPROVED A PTI.

PRE-CONSTRUCTION SWPPP MEETING

PRIOR TO CONSTRUCTION THE PERMITTEE SHALL INFORM ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH THE IMPLEMENTATION OF THE SWPPP AND OF THE TERMS AND CONDITIONS OF THE OHIO EPA CONSTRUCTION GENERAL PERMIT, THE PERMITTEE SHALL MAINTAIN A WRITTEN DOCUMENT CONTAINING SIGNATURES AS PROOF OF ACKNOWLEDGMENT OF THE CONDITIONS AND RESPONSIBILITIES OF THE SWPPP.

INSPECTION DURING CONSTRUCTION

REGULAR INSPECTION AND MAINTENANCE IS TO BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES DURING CONSTRUCTION. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD AND FOR 3 YEARS AFTER TERMINATION OF CONSTRUCTION ACTIVITIES. INSPECTIONS BY QUALIFIED INSPECTION PERSONNEL MUST BE MADE A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THEN 0.5 INCHES OF RAIN IN A 24-HOUR PERIOD. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE IS REQUIRED, IT MUST BE REPAIRED WITHIN 3 DAYS OF THE INSPECTION, SEDIMENT SETTLING PONDS MUST BE REPAIRED WITHIN 10 DAYS OF INSPECTION. INSPECTION REPORT SHALL PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION, CORRECTIVE MEASURES TAKEN TO COMPLY WITH THE REQUIREMENTS IN "RAINWATER & LAND DEVELOPMENT" (2006) AND SIGNED BY THE QUALIFIED INSPECTOR. MISSING BMPS REQUIRED BY THE SWPPP ARE REQUIRED TO BE INSTALLED WITHIN 3 DAYS OF THE INSPECTION. IF DURING INSPECTIONS IT IS DETERMINED THAT A BMP IS NOT EFFECTIVE AND THAT ANOTHER BMP IS NEEDED TO PROVIDE ADEQUATE CONTROL ON SITE, THE SWPPP SHALL BE AMENDED AND THE BMP SHALL BE INSTALLED WITHIN 10 DAYS FROM THE DATE OF INSPECTION.

IF SITE IS DORMANT FOR A LONG PERIOD AND IS STABILIZED A WAIVER REQUEST MAY BE SUBMITTED TO THE OHIO EPA TO REDUCE SITE INSPECTIONS TO A MONTHLY BASIS.

POST CONSTRUCTION

UPON COMPLETION OF SITE STABILIZATION, A NOTICE OF TERMINATION SHALL BE FILED WITH THE OHIO EPA. THE RESPONSIBLE PARTY SHALL COMPILE ALL INSPECTIONS, SIGN CERTIFICATION ON THE TITLE SHEET AND KEEP RECORDS FOR A MINIMUM OF 3 YEARS AFTER THE NOTICE OF TERMINATION WAS FILED.

POST CONSTRUCTION INSPECTION AND MAINTENANCE OF POST CONSTRUCTION BMPS SHALL BE THE RESPONSIBILITY OF THE DEVELOPMENT OWNER. INSPECTION SHALL BE DONE BY A CONTRACTOR SUITED FOR SUCH INSPECTIONS AND FUNDED BY THE DEVELOPMENT OWNER, CONTRACTOR SHALL REPORT FINDINGS DIRECTLY TO THE DEVELOPMENT OWNER.







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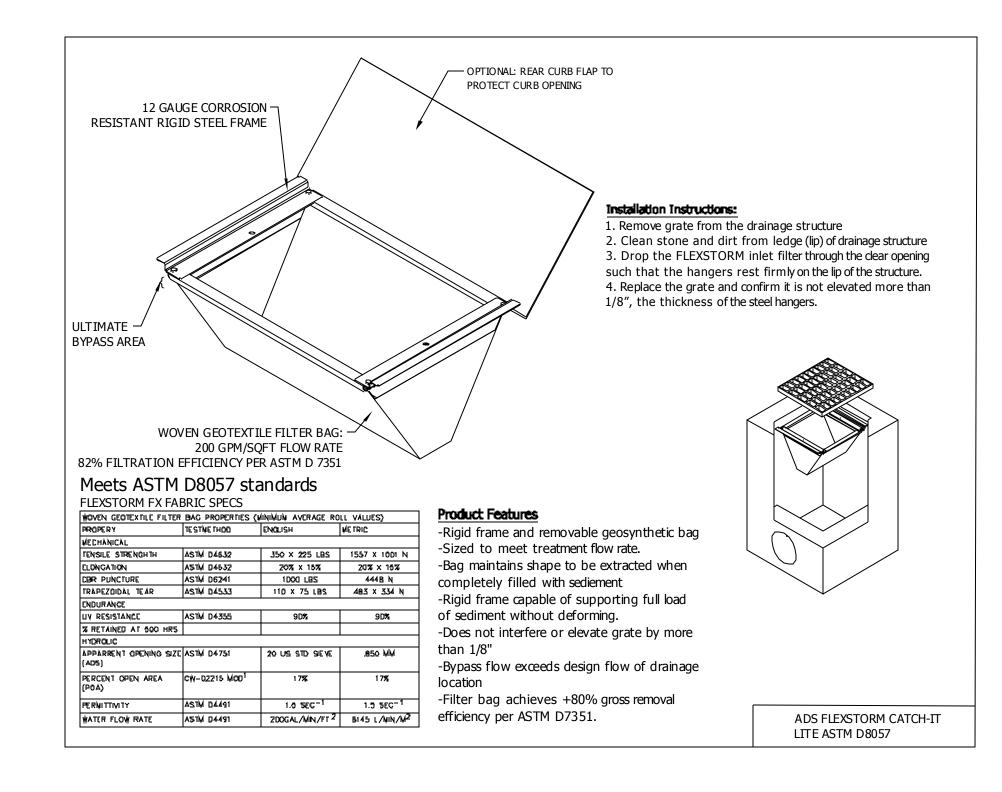
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TITLE:

PROJECT NO.: 2019.25

DRAWING NUMBER:



### <u>Concrete Washout Areas</u>

### Installation: 1. Concrete wash water shall not be allowed to flow to streams, ditches, storm drains, or any other water conveyance and washout pits shall be situated a minimum of fifty (50) feet from them.

2. Field tile or other subsurface drainage structures within 10 ft. of the sump shall be cut and plugged. 3. Ensure a stable path is provided for concrete trucks to reach the washout

4. A highly visible sign that reads "Concrete Washaut Area" shall be erected adjacent to the Washout pit.

5. Surface runoff generated from upslope areas shall be diverted away from below—grade washout pits so as not to flow into them.

6. A single centralized washout area may be utilized for multiple sublots.

### Maintenance:

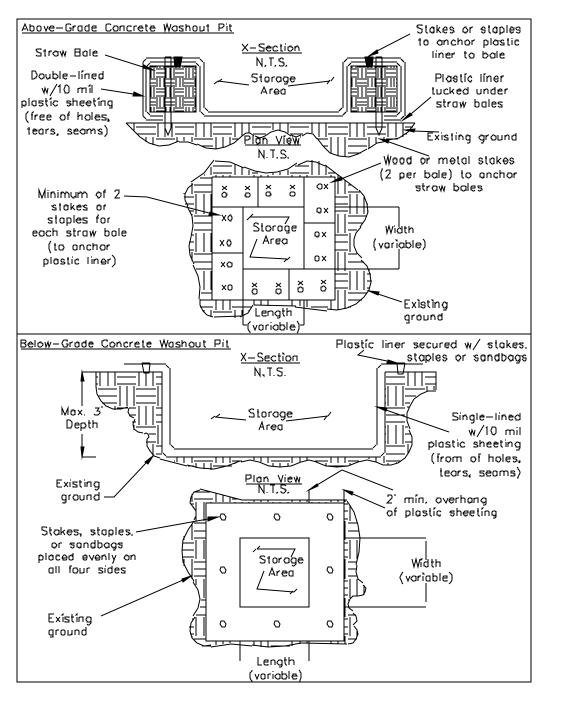
7. The washout pit must be inspected frequently to ensure the liner is intact, 8. Once 75% of the original volume of the washout pit is filled or is the liner is torn, the material must be removed and properly disposed of once it is completely hardened. Once the hardened concrete is removed, the liner must be replaced (if torn). A new pit must be constructed if the original structure is no longer sultable,

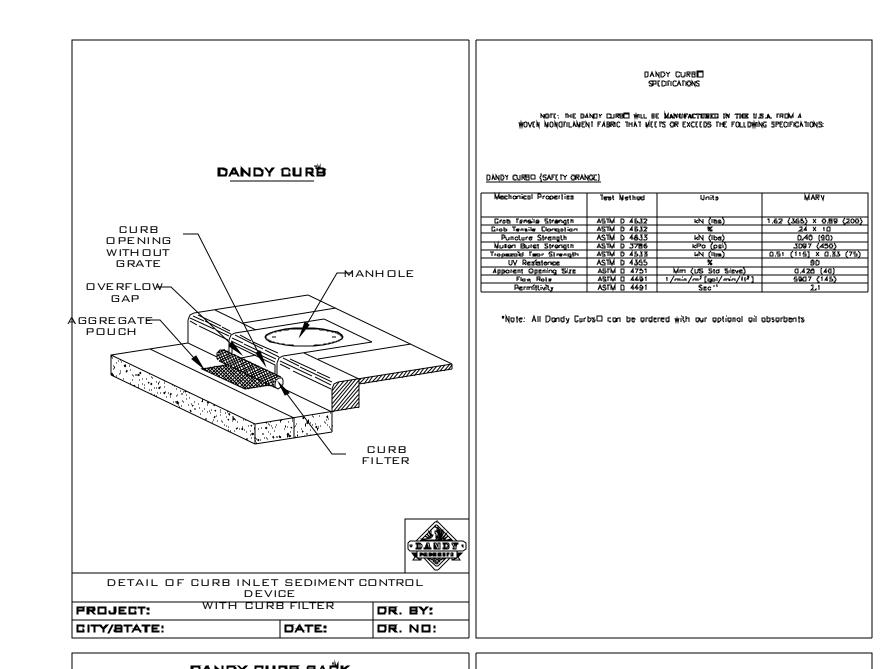
9. Once the washout pit is no longer needed, ensure all washout material has been completely hardened, then remove and properly dispose of all materials. If strow bales were used, they can be spread as mulch. 10. Prefabricated containers specifically designed for concrete washout collection may be used subject to prior approval by the Community Engineer. Follow the manufacturer's suggestions for installation, maintenance and removal procedures.

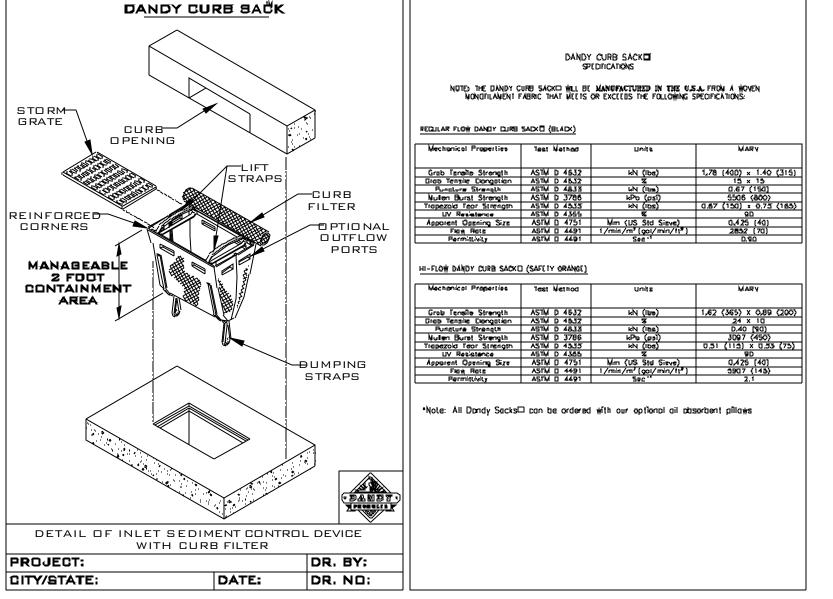
### Sizing of Concrete Washaut Pits

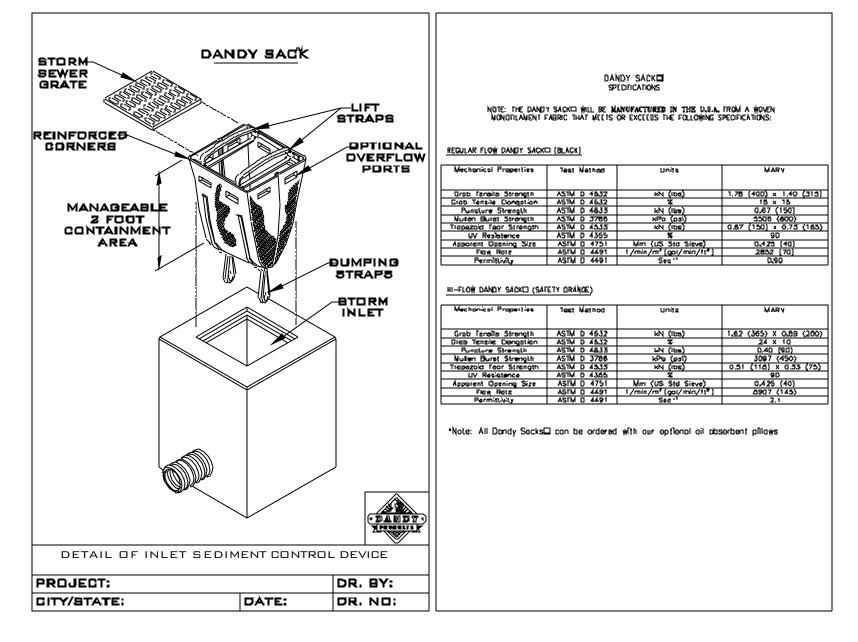
Below-grode (3-ft depth)			Above-grade (2-ft depth)		
# of concrete trucks expected to be washed out on site*	Width (ft)	Length (ft)	# of concrete trucks expected to be woshed out on site*	Width (ft)	Length (ft)
2-3	3	3	2	3	3
4-5	4	4	3-4	4	4
6-7	5	5	5-6	5	5
	٠.	J	7-8	6	6
8-10	6	6	9-11	7	7
11 – 14	7	7	12-15	8	8
-					•

\*For small projects using a maximum of only one truckload of concrete or utilizing on—site mixing, rinsing of equipment may take place on the lot without a pit, provided it can be done on a maximum of fifty (50) feet away from any water conveyances













2020-117



PROJECTNO.: 2019.25

TITLE: SWPPP

DRAWINGNUMBER: © 2020Hiti,DiFrancescoandSiebold,Inc