CONTACT WITH ANY SANITARY SEWAGE.

ENVIRONMENTAL

ALL SEWER LINE EXCAVATION AND GRADING WORK SHALL BE RESTRICTED TO PERIODS WITH DRY WORKING CONDITIONS. WORK IN STREAM CORRIDORS SHALL BE DONE DURING PERIODS OF LOW FLOWS. AREAS OF EXPOSED SOIL SHALL BE LIMITED TO THE IMMEDIATE WORK SITES. TEMPORARY EROSION CONTROL MEASURES, SUCH AS HAY BALES, FILTER FABRICS, DIKES, SLOPE DRAINS, SEDIMENT BASINS, MULCHING, AND SEEDING SHALL BE UTILIZED AS NECESSARY TO PREVENT OR CONTAIN EROSION AND SEDIMENTATION. ALL STOCKPILES OF TOPSOIL AND OTHER ERODIBLE MATERIALS NOT SCHEDULED FOR REPLACEMENT WITHIN ONE MONTH OF WHEN EXCAVATED SHALL BE COVERED OR TEMPORARILY SEEDED. SILT BARRIERS SHALL BE POSITIONED BETWEEN SUCH STOCKPILES AND ADJACENT STREAMS. FLOWS FROM DEWATERING TRENCHES SHALL BE FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE. SEWER TRENCHES ARE TO BE BACKFILLED ON A DAILY BASIS.

ANY DISTURBANCE OF EXISTING NATURAL FEATURES SHALL BE SAFEGUARDED SO AS NOT TO CAUSE DETRIMENTAL EROSION. AS EARTHWORK IS PERFORMED, DANDY BAGS AND SILT FENCES SHALL BE UTILIZED TO MANAGE STORM RUNOFF AND TO FILTER SOME OF THE EXISTING SOILS. ALL NATURAL VEGETATION TO REMAIN EXCEPT IN AREAS AFFECTED BY IMPROVEMENTS.

UTILITIES

ALL MATERIALS AND CONSTRUCTION PROCEDURES SHALL BE IN ACCORDANCE WITH "CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION." DATE: JANUARY 1, 2010. why not 2013

UNLESS OTHERWISE NOTED ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".

EXISTING SANITARY SEWERS: LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL SANITARY SEWERS AND SERVICE LATERALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN OPERATIONS OF THE EXISTING SEWERS THROUGHOUT THE CONNECTION TO THE EXISTING MANHOLE.

WATER MAIN PLANS AND CONSTRUCTION SHALL COMPLY WITH THE RULES, SPECIFICATIONS AND INSPECTION OF THE OFFICE OF THE WARREN COUNTY SANITARY ENGINEER. ALL OTHER PLANS AND CONSTRUCTION SHALL COMPLY WITH THE RULES, SPECIFICATIONS AND INSPECTION OF THE VILLAGE OF SOUTH LEBANON.

ALL SANITARY SEWER MANHOLES, CASTINGS, PIPE, ETC., SHALL CONFORM WITH CURRENT SPECIFICATIONS OF THE VILLAGE OF SOUTH LEBANON AND THE OHIO ENVIRONMENTAL PROTECTION AGENCY.

ALL WATER MAINS, FIRE HYDRANTS AND RELATED ITEMS SHALL CONFORM WITH CURRENT SPECIFICATIONS OF THE WARREN COUNTY SANITARY ENGINEER AND THE OHIO ENVIRONMENTAL PROTECTION AGENCY.

UNLESS OTHERWISE SPECIFIED ALL STORM SEWER MATERIAL SHALL BE HDPE (ADS) PIPE PER ODOT ITEM 707.33. ALL STORM SEWERS SHALL HAVE A MAXIMUM MANNING'S "N" VALUE OF 0.012.

BED AND BACKFILL STORM PIPE PER ODOT ITEM ~~603~~ 611 TO 12" ABOVE TOP OF PIPE. BACKFILL REMAINDER OF TRENCH WITH NATIVE MATERIALS PER ODOT ITEM 203.

NO STRUCTURE OF ANY KIND WHICH CAN INTERFERE WITH ACCESS TO SANITARY SEWER, WATER MAIN, OR STORM SEWER SHALL BE PLACED IN OR UPON A PERMANENT EASEMENT, EXCEPT ITEMS SUCH AS RECREATIONAL SURFACES, DRIVEWAYS OR OTHER SURFACES USED FOR INGRESS AND EGRESS, PLANTS, TREES, SHRUBBERY, FENCES, LANDSCAPING OR SIMILAR ITEMS BEING NATURAL OR ARTIFICIAL.

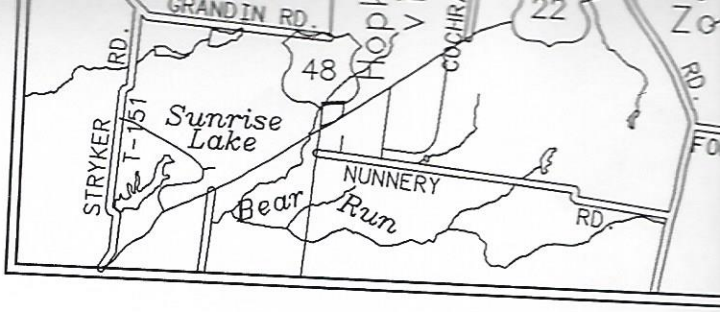
SANITARY SEWERS ARE TO RECEIVE SANITARY WASTES ONLY. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

STORM WATER AND EXTRANEOUS FLOWS ARE PROHIBITED FROM ENTERING THE EXISTING SYSTEM DURING CONSTRUCTION. NO OPEN CUT TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT. STORM DRAINS, DIVERSION DITCHES, ETC., SHALL BE USED AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE SYSTEM AT ALL TIMES.

WARREN COUNTY WATER AND SEWER DEPARTMENT SHALL ESTABLISH PROCEDURES FOR REPAIRS TO WATER MAIN OR WATER SERVICES DAMAGED.

CONSTRUCTION

D C3D.dwg – Layout Tab: C1.0 TITLE SHEET



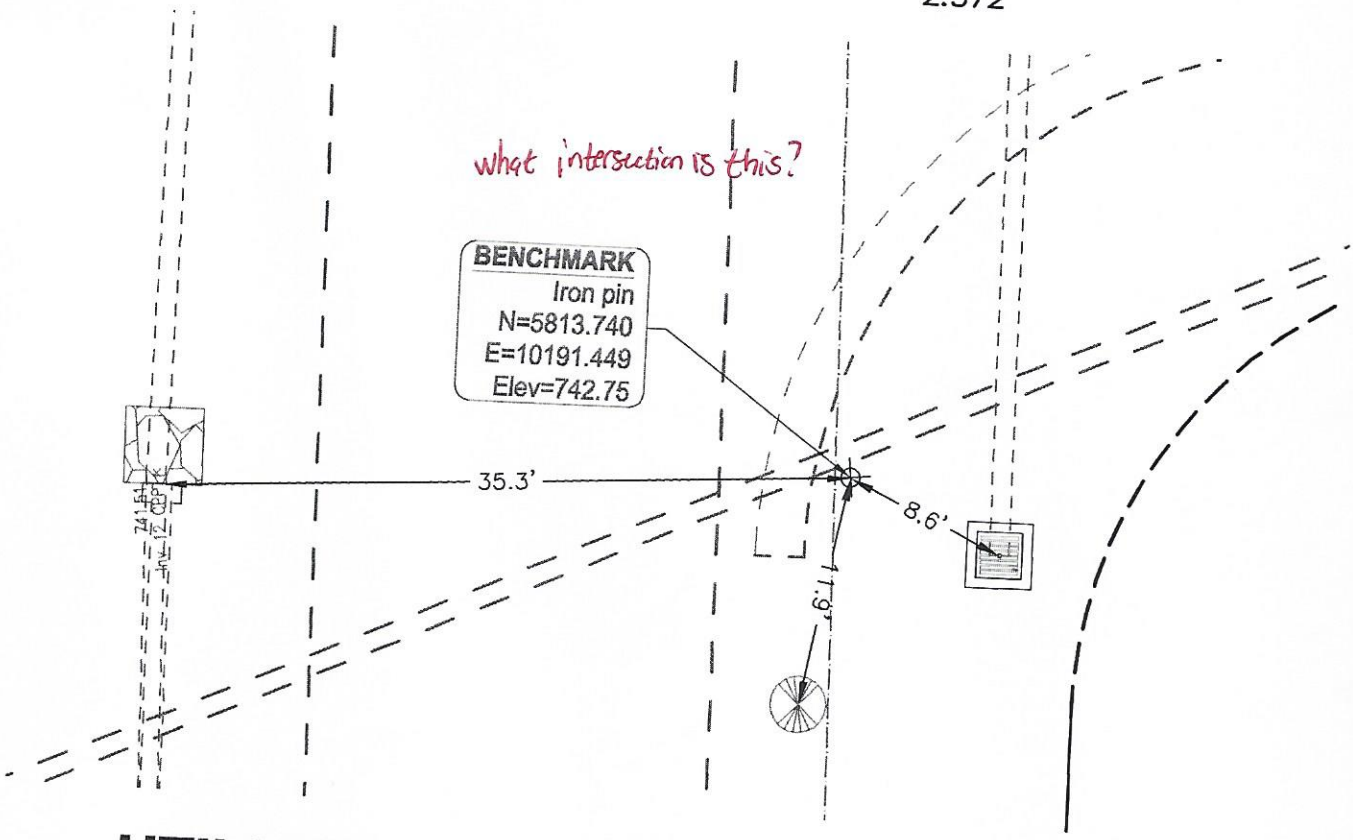
VICINITY MAP
Not to Scale

Two??

PROJECT SUMMARY

EXISTING ZONING =	R-3 PUD
TOTAL SECTION THREE ACREAGE =	23.161 AC.
TOTAL OPEN SPACE PROVIDED =	8.524 AC. (36.8%)
TOTAL # OF LOTS =	58 (SINGLE FAMILY)
GROSS DENSITY =	2.50 DU./AC.

	ACREAGE	# OF LOTS	OPEN SPACE
BLOCK A	5.040	17	0.854
BLOCK B	10.533	22	5.298
BLOCK C	7.588	19	2.372



UTILITIES:

GAS & ELECTRIC
DUKE ENERGY
5445 AUDRO DRIVE
CINCINNATI, OHIO 45247
(513) 287-1487

TELEPHONE
CENTURY LINK
20 NORTH MECHANIC STREET

BENCHMARK

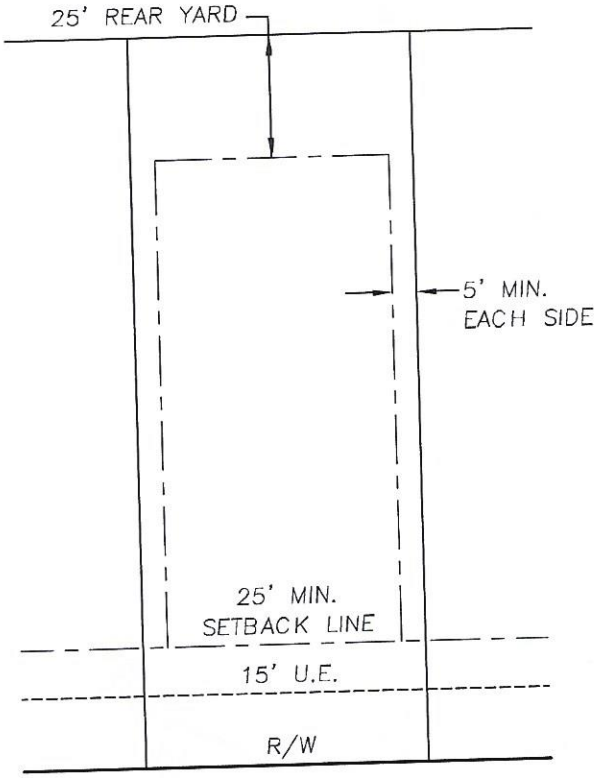
IRON PIN NEAR INTERSECTION
ZOAR ROAD & GRANTS FREDERICK
ELEV.=742.75

DEVELOPER:

GRAND COMMUNITIES, LTD

GREATER THAN ONE-HALF INCH OF RAIN PER 24 HOUR PERIOD. QUALIFIED INSPECTION PERSONNEL (THOSE WITH KNOWLEDGE AND EXPERIENCE IN THE INSTALLATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROLS) SHALL CONDUCT THESE INSPECTIONS TO ENSURE THAT THE CONTROL PRACTICES ARE FUNCTIONAL AND TO EVALUATE WHETHER THE EROSION CONTROL IS ADEQUATE AND PROPERLY IMPLEMENTED OR WHETHER ADDITIONAL CONTROL MEASURES ARE REQUIRED. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.

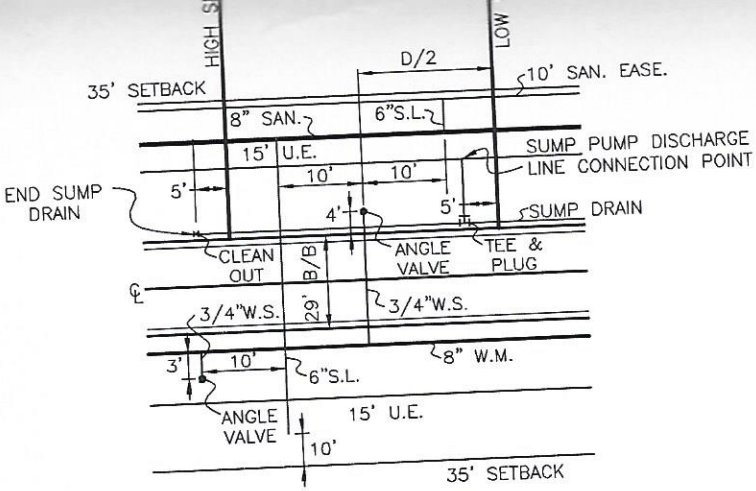
12. SITE STABILIZATION SHALL BEGIN WITHIN 7 DAYS ON AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED FOR 14 DAYS.
13. ALL MUD OR DEBRIS TRACKED ON EXISTING STREETS SHALL BE CLEANED AT THE END OF EACH DAY OR AS DIRECTED BY ~~WARREN COUNTY~~ the village of south Lebanon OR THE OWNER. PERIODIC STREET SWEEPING MAY BE REQUIRED.
14. IN ADDITION TO ANY TEMPORARY EROSION, MUD, AND DEBRIS CONTROL DETAILS AND NOTES SHOWN ON THE PLANS, THE CONTRACTOR SHOULD PLACE TEMPORARY OR PERMANENT SEEDING, MULCHING AND/OR MULCH NETTING OR ANY OTHER GENERALLY ACCEPTED METHODS TO PREVENT EROSION, MUD, AND DEBRIS FROM BEING DEPOSITED ON OTHER PROPERTY, ON NEWLY CONSTRUCTED OR EXISTING ROADS, OR INTO EXISTING SEWERS OR NEW SEWERS WITHIN THE DEVELOPMENT. THE CONTRACTOR SHOULD CONTINUALLY MONITOR THE CONSTRUCTION PROGRESS AND MAKE ANY NECESSARY TEMPORARY ADJUSTMENTS TO MAINTAIN THIS CONTROL.
15. AFTER THE VEGETATION HAS BECOME WELL ESTABLISHED, TEMPORARY EROSION AND SEDIMENT CONTROLS CAN BE REMOVED.



PUBLIC STREET

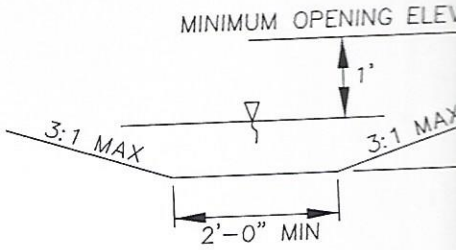
TYPICAL LOT

6000 S.F. MIN.



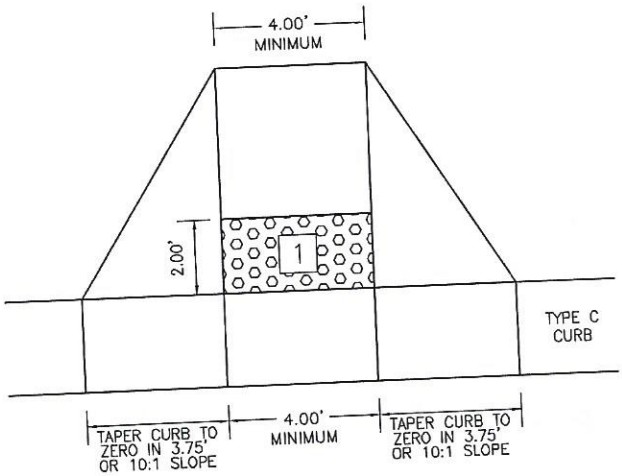
TYPICAL LOT DETAIL: UTILITY LAYOUT

NOT TO SCALE



EMERGEN STORM RO

NOT TO SCAL



CURB RAMP DETAIL

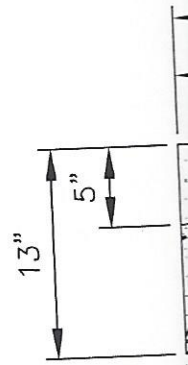
NOT TO SCALE

BP-7,1??

[*] CURB RAMPS SHALL BE DESIGN A OR DESIGN E PER ODOT DRAWING 7-12-02, SHEETS 1 THRU 3. TRUNCATED DOMES ARE TO MEET THE SPECIFICATIONS OF ODOT DRAWING 7-12-02 SHEET 3.

[1] DETECTABLE WARNING (TRUNCATED DOMES) ARE TO BE INSTALLED IN THE LOCATION SHOWN. DIMENSIONS OF THE DOMES ARE 24' FROM THE BACK OF THE CURB BY THE WIDTH OF THE RAMP.
(TRUNCATED PANEL BY ADA SOLUTIONS OR APPROVED EQUAL). Color shall be red, as approved by the Village

[2] MINIMUM LANDING 4'-0" BUT A 5'-0" IS PREFERED. SLOPE OF THE RAMP IS PREFERRED TO BE 12:1 OR FLATTER RELATED TO THE HORIZONTAL, BUT THE MAXIMUM SLOPE SHALL BE 12:1 RELATIVE TO THE EXISTING OR PROPOSED WALK SLOPE.



CUR (WARR

GRANTS FREDERICK (START STATION 8+52.16, END STATION 15+22.76

FREDERICK COURT ← Stations?

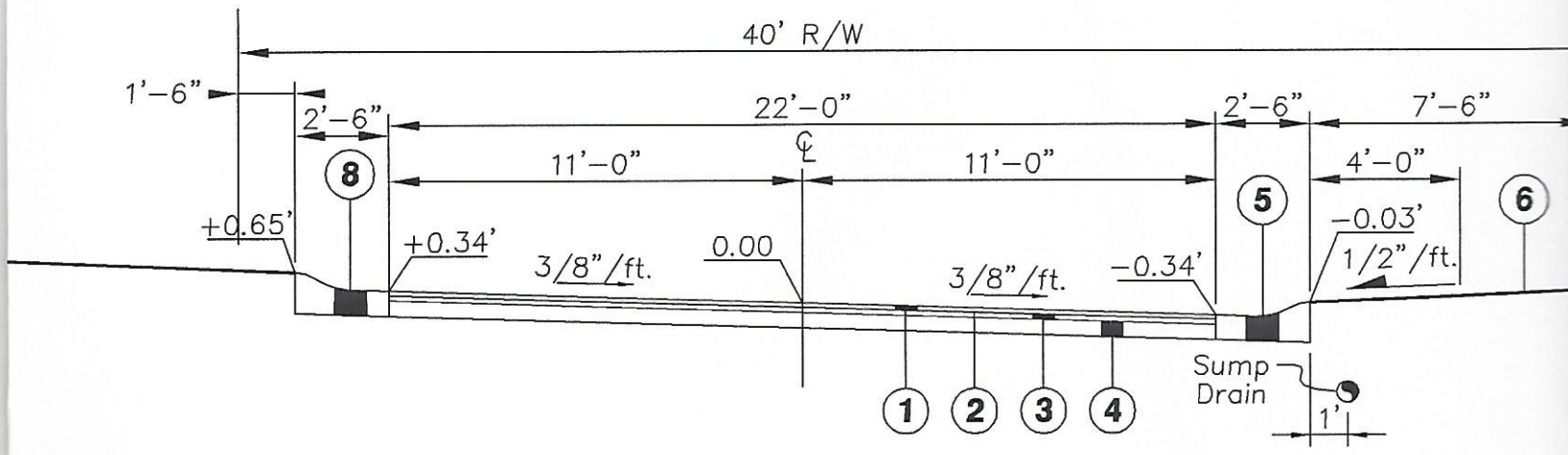
FREDERICK TRAIL ← Stations?

LEGEND

1. ITEM ~~404~~ 441 –(1 1/2") ASPHALT CONCRETE SURFACE COURSE
2. ITEM 407–TACK COAT MS–2, RS–1, OR RC–250
3. ITEM ~~448~~ 441 –(1 1/2") ASPHALT CONCRETE LEVELING COURSE
4. ITEM 301–(5") ~~COURSES BITUMINOUS AGGREGATE BASE~~ Asphalt Concrete Base, PG64-22
5. CURB & GUTTER, TYPE "C" (WARREN COUNTY STANDARD)
6. PROVIDE (4") MIN. TOPSOIL SEED & MULCH OR SOD.
7. ITEM 608–(4") THICK CONCRETE SIDEWALK, 4' WIDE, TO BE 1/2" HIGHER THAN SOD.

NOTES

1. ON THE SIDE OF THE ROAD WITH THE WATER PLASTIC TUBING SHALL BE 20'± LONG & EX 23' BEHIND CURB TO CLEAR TELEPHONE & ELECTRIC EASEMENTS. CONTRACTOR SHALL 2"X4" OR LARGER POSTS, PAINTED BLUE AT ENDS OF PLASTIC CONDUIT.
2. #6 REBAR – CONTRACTOR SHALL INSTALL 2 REBAR 5' LONG VERTICALLY AT ANGLE VALVE
3. WATER SERVICES TO BE LOWERED WHEN CONFLICT WITH STORM SEWER OCCURS



TYPICAL SECTION

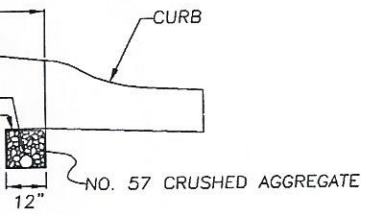
GRANTS FREDERICK (LOOP 1 AND LOOP 2)

LEGEND

1. ITEM ~~404~~ 441 –(1 1/2") ASPHALT CONCRETE SURFACE COURSE
2. ITEM 407–TACK COAT MS–2, RS–1, OR RC–250
3. ITEM ~~448~~ 441 –(1 1/2") ASPHALT CONCRETE LEVELING COURSE
4. ITEM 301–(5") ~~COURSES BITUMINOUS AGGREGATE BASE~~ Asphalt Concrete Base, PG64-22
5. CURB & GUTTER, TYPE "C" (WARREN COUNTY STANDARD)
6. PROVIDE (4") MIN. TOPSOIL SEED & MULCH OR SOD.
7. ITEM 608–(4") THICK CONCRETE SIDEW 4' WIDE, TO BE 1/2" HIGHER THAN S
8. CURB & GUTTER, TYPE "C" MODIFIED

ISLAND PERIMETER DRAIN DETAIL

ETAIL



NOTES FOR CURB & GUTTER

1. CONCRETE FOR CURBS AND GUTTERS SHALL BE ODOT CLASS ~~C~~ QC AN APPROVED CURING AGENT SHALL BE APPLIED AFTER FINISHING.
2. 2. FLEXIBLE FORMS SHALL BE USED ON ALL CURVES HAVING RADII OF 275' OR LESS.
3. 1" EXPANSION JOINTS SHALL BE INSTALLED AT 150' INTERVALS, WITHIN 1' OF ALL CATCH BASINS (BOTH SIDES), AND AT THE START, MID-POINT, AND END OF ALL RADII. CUL-DE-SACS SHALL HAVE A MINIMUM OF FOUR EXPANSION JOINTS. TWO SMOOTH STEEL DOWEL BARS, NO. 6 X 18" LONG, WITH EXPANSION CAPS SHALL BE INSTALLED AT EACH EXPANSION JOINT AS SHOWN ON THE DETAIL.
4. CONTROL JOINTS SHALL BE PROVIDED AT 6' INTERVALS AND SHALL BE CUT FRONT, TOP, AND REAR OF ALL CURB.
5. ALL JOINTS SHALL BE VERTICAL AND EITHER PERPENDICULAR OR RADIAL TO THE BACK OF CURB.
6. ALL EXPOSED EDGES SHALL BE ROUNDED TO 3/8" RADIUS. TYPE D (SEE PLAN.)
7. ALL CURBING SHALL BE BACKFILLED BEFORE PAVEMENT WORK IS BEGUN.
8. UNLESS OTHERWISE SPECIFIED, TYPE A,B,C,D MAY BE USED FOR PRIVATE SUBDIVISION PROJECTS.
9. PLACE DOWEL BARS AS SHOWN AT ALL CONSTRUCTION JOINTS.

TS

THIS DOCUMENT AND ALL RELATED DETAIL DRAWINGS, SPECIFICATIONS, AND ELECTRONIC MEDIA PREPARED OR FURNISHED BY BAYER BECKER (BB), ARE INSTRUMENTS OF BB'S

THE VILLAGES AT
GRANTS FR
SECTION TWO, BL
MILITARY SURVE
VILLAGE OF SOU
WARREN COU

TYPICAL SECTION

bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

Drawing:	11C009-003 CD C3D
Drawn by:	TAC
Checked By:	GJK
Issue Date:	03-11-15
Sheet:	C2.0

M.F.O.E. MINIMUM FRONT OPENING ELEVATION

EXISTING PAVEMENT TO BE REMOVED

4" CONCRETE WALK

TRANSITION FROM V ROAD SECTION PAVEMENT TO CROWNED ROAD SECTION (SEE DETAILS ON SHEET #6.0)

N22°54'30"E 451.61'

N31°15'37"E 462.56'

115
0.2835 Ac.
12351 s.f.

114
0.2750 Ac.
11977 s.f.

113
0.3228 Ac.
14062 s.f.

112
0.2152 Ac.
9373 s.f.

111
0.2322 Ac.
10113 s.f.

110
0.2392 Ac.
10422 s.f.

109
0.1903 Ac.
8288 s.f.

108
0.2388 Ac.
10404 s.f.

103
0.2437 Ac.
10616 s.f.

104

FREDERICK TRAIL

BLOCK "B"
BLOCK "C"

?

3+77.00
744.67

15' U.E.

SS.E.

4' Conc. Walk

State Plane

0

Item	Revision Description	Date	Drwn:	Chk:

BERS BEND
BRICK

RVICE, AND IS THE EXCLUSIVE PROPERTY OF BB. NO DISCLOSURE, USE, REPRODUCTION, OR DUPLICATION IN WHOLE, OR IN PART, MAY BE MADE WITHOUT WRITTEN PERMISSION OF BB, AND IS DONE SO AT USER'S SO

Structure Table	
Storm #	Structure Details
1	STA.19+06,13'LT. T/G=744.29 ODOT CB-3A 12"(N)INV=743.12
2	STA.1+13,126'RT. T/G=743.90 ODOT CB-3A 12"(W)INV=742.42 12"(S)INV=742.42
3	STA.19+29,10'RT. T/G=743.22 STORM MANHOLE 12"(NW)INV=739.60 12"(E)INV=739.60
4	STA.3+04,13'RT. T/G=743.71 ODOT CB-3A 12"(SE)INV=740.00
5	STA.2+52,13'LT. T/G=743.35 ODOT CB-3 12"(NW)INV=739.50 12"(E)INV=739.50

T/G for structures #1 and #2 should be the same

Structure Table	
Storm #	Structure Details
6	STA.2+06,13'RT. T/G=743.66 ODOT CB-3A 12"(SE)INV=739.00 12"(W)INV=739.00
7	STA.1+23,21'RT. T/G=744.51 CONNECT TO EX.15" W/ STORM MANHOLE 12"(NW)INV=737.42 15"(SE)INV=737.42
8Ex	STA.6+90,0' T/G=743.60 ODOT CB2-2B 15"(NW)INV=736.58 15"(E)INV=736.58
9Ex	STA.8+25,1'RT. T/G=740.60 ODOT CB2-2B 15"(W)INV=735.29 15"(SE)INV=735.29
10	STA.13+60,13'LT. T/G=743.95 ODOT CB-3A 12"(W)INV=740.51

not enough cover

Offset way off

not enough cover

Structure Table	
Storm #	Structure Details
11	STA.13+66,13'RT. T/G=744.02 ODOT CB-3A 12"(N)INV=740.00 12"(E)INV=740.00
12	STA.10+68,13'LT. T/G=738.58 ODOT CB-3A 12"(NW)INV=734.58
13	STA.10+36,13'RT. T/G=738.37 ODOT CB-3 MODFIED 15"(NW)INV=733.00 12"(SE)INV=733.25 12"(S)INV=733.25 24"(N)INV=732.25
14	STA.8+10,12'RT. T/G=736.30 ODOT CB-3 24"(S)INV=731.50 24"(NE)INV=731.50
15	STA.8+10,150'RT. T/G=720.82 ODOT CB2-3 24"(SW)INV=718.53 24"(NW)INV=714.00

station wrong

station wrong

Structure Table	
Storm #	Structure Details
16	STA.8+21,178'RT. T/G=714.96 ODOT HW-1 24"(SE)INV=712.00
17	STA.4+74,27'RT. T/G=739.48 ODOT CB-3 12"(E)INV=736.25
18	STA.5+85,105'RT. T/G=725.39 ODOT CB2-2B 12"(W)INV=721.00 12"(E)INV=716.50
19	STA.8+43,208'RT. T/G=715.83 ODOT HW-1 12"(W)INV=714.00

station wrong

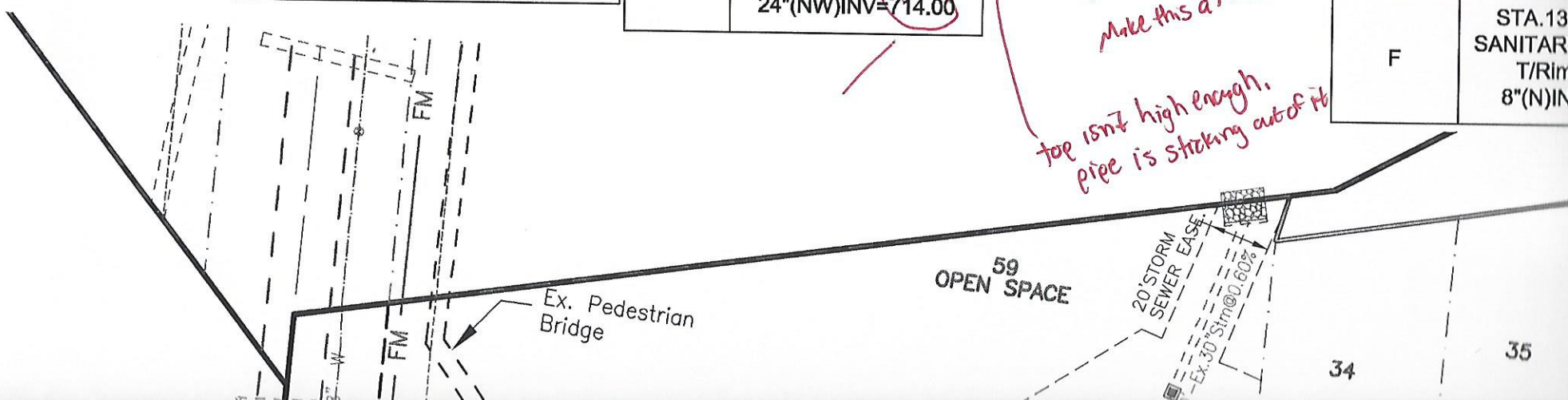
headwall T/G?

T/G stands for what on a headwall?

standard A 2-2B cannot be 9' deep. Make this a M1 or 2-3.

toe isn't high enough. pipe is sticking out of it

Structure Ta	
Sanitary #	Struct
A	STA.1 SANITAR T/Rim 8"(W)I 8"(NE) 8"(SE)
B	STA.1 SANITAR T/Rim 8"(SW) 8"(N)I
C	STA.14 SANITAR T/Rim 8"(S)IN
D	STA.17 SANITAR T/Rim 8"(NW)I
E	STA.10 SANITAR T/Rim 8"(NW)I 8"(S)IN
F	STA.13 SANITAR T/Rim 8"(N)IN



ole
re Details
+12,18'RT. Y MANHOLE =748.20 NV=732.80 NV=732.80 NV=734.79
+10,27'RT. Y MANHOLE =747.36 NV=733.51 V=733.51
+71,27'RT. Y MANHOLE =745.91 V=734.55
+02,88'LT. Y MANHOLE =749.17 NV=737.75
+75,18'RT. Y MANHOLE =739.07 NV=726.75 V=726.75
+78,27'RT. Y MANHOLE =744.86 V=733.25

Structure Table	
Sanitary #	Structure Details
G	STA.9+87,117'LT. SANITARY MANHOLE T/Rim=737.08 8"(SW)INV=727.02
H	STA.7+12,161'LT. SANITARY MANHOLE T/Rim=745.39 8"(SE)INV=725.24 8"(NW)INV=725.24
I	STA.7+07,230'LT. SANITARY MANHOLE T/Rim=743.50 8"(SE)INV=727.00 8"(W)INV=728.99 8"(NE)INV=727.00
J	STA.6+86,426'LT. SANITARY MANHOLE T/Rim=745.79 8"(E)INV=734.26
K	STA.7+80,323'LT. SANITARY MANHOLE T/Rim=740.51 8"(SW)INV=729.25

Structure Table	
Sanitary #	Structure Details
Ex1	STA.19+00,18'RT. SANITARY MANHOLE T/Rim=743.91 8"(NW)INV=731.81 8"(E)INV=731.81
Ex2	STA.9+87,26'RT. SANITARY MANHOLE T/Rim=739.19 8"(W)INV=725.73 8"(SE)INV=725.73 8"(NE)INV=725.73

WATERMAIN RESTRAINED JOINT PIPE TABLE

FREDERICK COURT
Sta.02+14.6' to Sta.3+98.0'

FREDERICK TRAIL
Sta.02+69.3' to Sta.4+45.0'

GRANTS FREDERICK
Sta.00+25.9' to Sta.11+22.6'
Sta.15+95.1' to Sta.18+22.0'

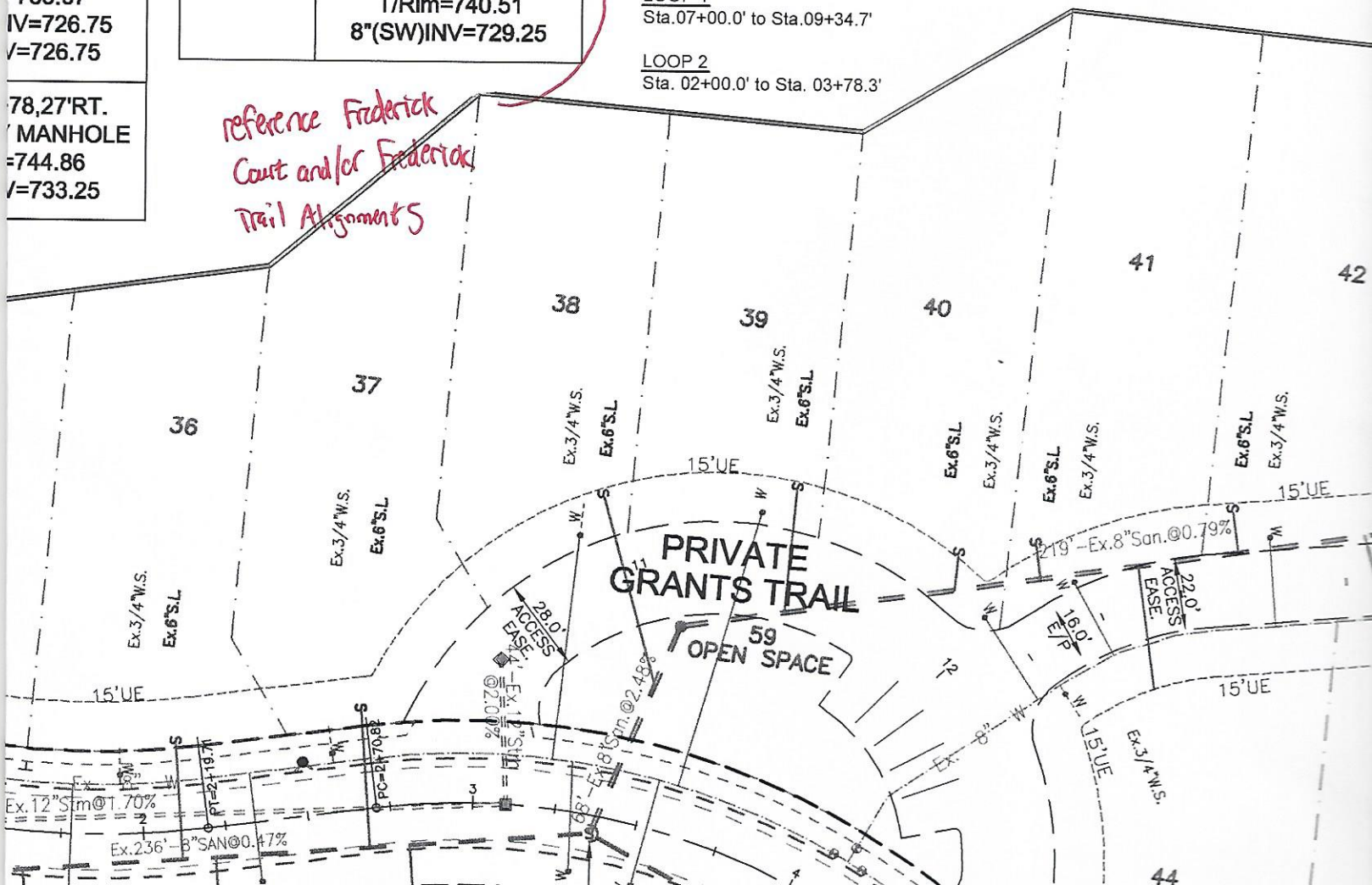
LOOP 1
Sta.07+00.0' to Sta.09+34.7'

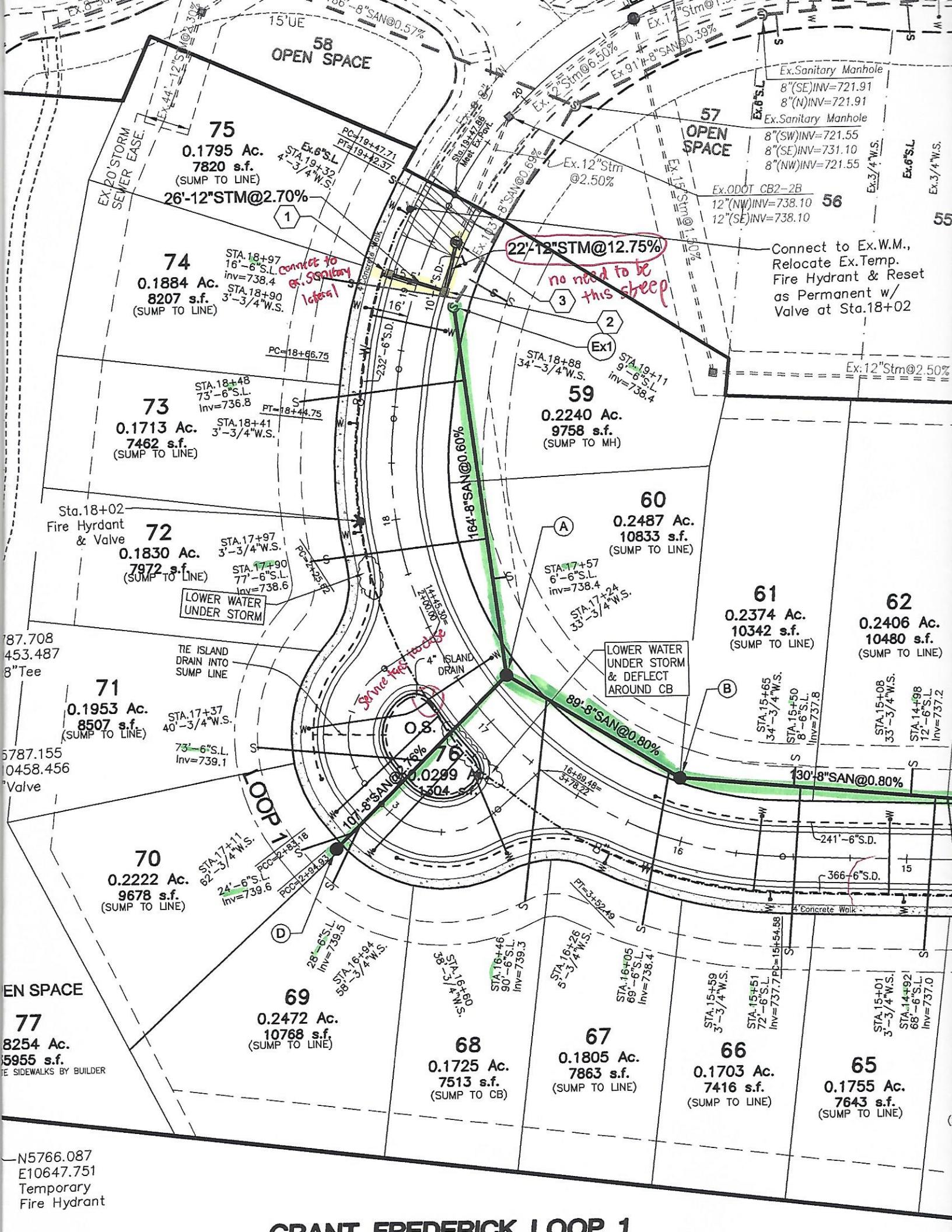
LOOP 2
Sta. 02+00.0' to Sta. 03+78.3'

reference Frederick Court and/or Frederick Trail Alignments

UTILIT

1. LOCATION
2. SANITARY
3. EXISTING S
4. LOWER WA
5. THE STATI
THE 3/4" SERV
THE ANGLE VA
6. WATERMAI
ANY HORIZON
SHALL BE MEC
7. AT CROSSI
(24") INCHES F
BE LOCATED S
8. CLEAN OUT
LONGER THAN
9. SUMP MAIN
10. ALL UTILIT
11. SEE SHEE
12. CONTRACT





GRANT FREDERICK LOOP 1

HS FROM
NTS

Y-FOUR
N SHALL
IBLE.

W.M.E. WATER MAIN EASEMENT

M.O.E. MINIMUM OPENING ELEVATION

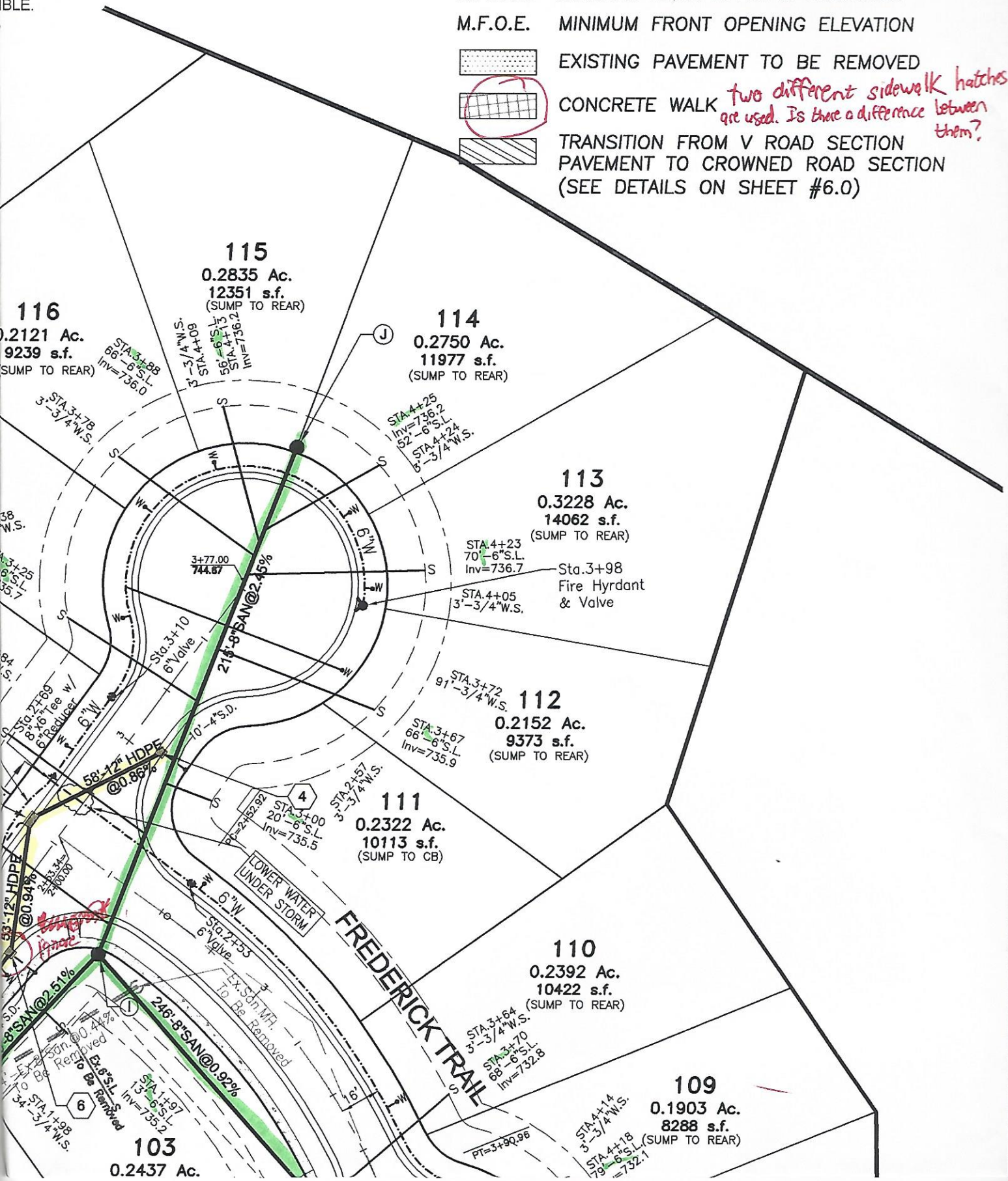
M.R.O.E. MINIMUM REAR OPENING ELEVATION

M.F.O.E. MINIMUM FRONT OPENING ELEVATION

EXISTING PAVEMENT TO BE REMOVED

CONCRETE WALK two different sidewalk hatches are used. Is there a difference between them?

TRANSITION FROM V ROAD SECTION PAVEMENT TO CROWNED ROAD SECTION (SEE DETAILS ON SHEET #6.0)



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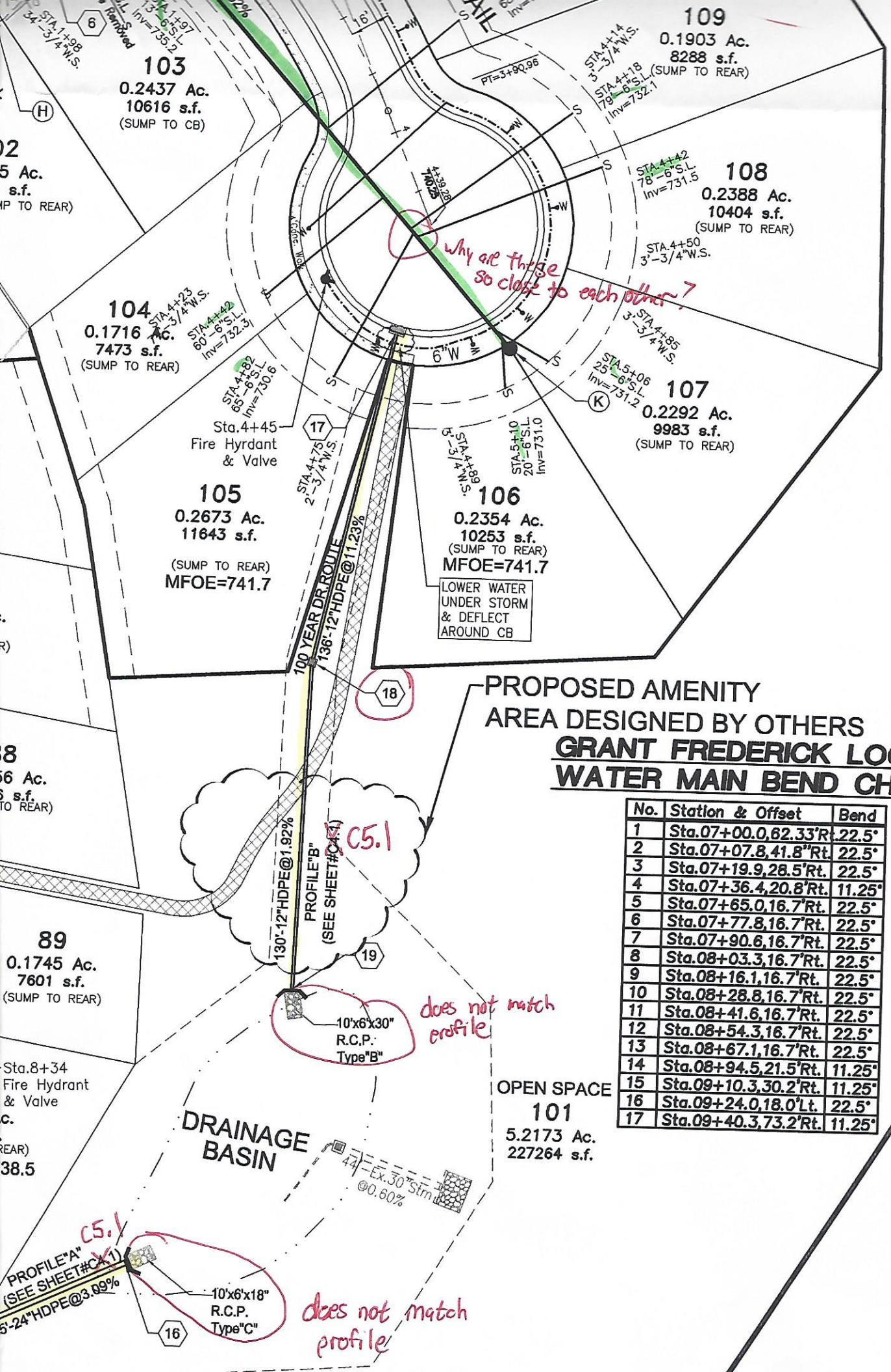
Item | Revision Description | Date | Drwn | Chk



GRANT FREDERICK LOOP 2
WATER MAIN BEND CHART

No.	Station & Offset	Bend
1	Sta.07+00.0,62.33'Rt.	22.5°
2	Sta.07+07.8,41.8"Rt.	22.5°
3	Sta.07+19.9,28.5'Rt.	22.5°
4	Sta.07+36.4,20.8'Rt.	11.25°
5	Sta.07+65.0,16.7'Rt.	22.5°
6	Sta.07+77.8,16.7'Rt.	22.5°
7	Sta.07+90.6,16.7'Rt.	22.5°
8	Sta.08+03.3,16.7'Rt.	22.5°
9	Sta.08+16.1,16.7'Rt.	22.5°
10	Sta.08+28.8,16.7'Rt.	22.5°
11	Sta.08+41.6,16.7'Rt.	22.5°
12	Sta.08+54.3,16.7'Rt.	22.5°
13	Sta.08+67.1,16.7'Rt.	22.5°
14	Sta.08+94.5,21.5'Rt.	11.25°
15	Sta.09+10.3,30.2'Rt.	11.25°
16	Sta.09+24.0,18.0'Lt.	22.5°
17	Sta.09+40.3,73.2'Rt.	11.25°

THE VILLAGES AT RIVERS
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Drawin
Drawn

profile sagged at O

Ex.15"Stm @0.69%

Ex.179'-8"SAN@0.43%

Ex.148'-8"SAN@0.44%

6+78.88= 0+00.00

PC=0+11.92

PC=6+24.5

15'UE

Ex.Sanitary Manhole
8"(S)INV=724.47
8"(E)INV=724.47
8"(NW)INV=724.47

Ex.Sanitary Manhole
8"(SW)INV=723.81
8"(N)INV=723.81

Ex.Sanitary Manhole
8"(W)INV=724.97
8"(E)INV=724.97

Ex.ODOT CB2-2B
15"(W)INV=735.29
15"(SE)INV=735.29

129'-Ex.15"Stm@1.00%

Ex.103'-8"SAN@0.49%

CC=7+48.12

Sta.8+07.17 Meet Ex.Pvmt.

Saw Cut Ex.Pavement

STA.7+87
Connect To Existing
14'-6"S.L. to
Ex.6"S.L.

CONNECT TO EXISTING WATER

REMOVE 80 LF OF Ex. Water

STA.8+65
63'-6"S.L.
Inv=732.3

STA.8+72
3'-3/4"W.S.

PT=8+26.85

Remove Ex.15"Stm & R.C.P.

Relocate Ex.Temp. Fire Hydrant & Reset as Permanent w/ New Valve

REMOVE Ex.Water VALVE

STA.8+94
2'-3/4"W.S.

STA.8+85
Inv=731.0
Connect 21'-6"S.L. to Ex.6"S.L.

PT=8+85.74

PC=9+19.97

Ex.6"S.L. to be abandoned

168'-4"S.D.

9+51.98= 9+14.75

195'-15"HDPE@1.18%

73'-8"SAN@1.40%

313'-12"HDPE@2.15%

295'-8"SAN@2.20%

213'-6"S.D.

187'-6"S.D.

54' R.J.P.

41'-12" HDPE @3.23%

10+18.35= 7+00.00

94' ISLAND DRAIN

O.S. 100
0.0578 Ac.
2517 s.f.

143'-8"SAN@0.90%

128'-24"HDPE@0.59%

STA.8+47
3'-3/4"W.S.

STA.8+40
71'-6"S.L.
Inv=727.7

STA.8+21
3'-3/4"W.S.

STA.8+19
24'-6"S.L.
Inv=727.7

137'-24"HDPE@9.43%

100 YEAR DR.ROUTE

LOOP 2

10'-4"S.D.

Concrete Walk

DEFLECT WATER AROUND CB

low point is at 10+36, How does water get to 10+68??

PC=7+50.58

78'-6"S.L. Inv=728.8

CONNECT 4" ISLAND DRAIN TO 24" STM WITH INSERTATEE

STA.7+70
3'-3/4"W.S.

73'-6"S.L.
Inv=728.3

STA.8+00
3'-3/4"W.S.

29'-6"S.L.
Inv=727.8

STA.10+98
63'-6"S.L.
Inv=731.0

STA.10+84
2'-3/4"W.S.

STA.10+38
2'-3/4"W.S.

STA.11+36
69'-6"S.L.
Inv=733.0

STA.11+47
3'-3/4"W.S.

STA.11+95
67'-6"S.L.
Inv=733.9

STA.12+05
3'-3/4"W.S.

STA.12+48
66'-6"S.L.
Inv=734.5

STA.12+13
33'-3/4"W.S.

STA.12+02
13'-6"S.L.
Inv=833.9

100' off?

STA.12+62
15'-6"S.L.
Inv=834.6

100' off?

STA.11+57
33'-3/4"W.S.

STA.11+47
11'-6"S.L.
Inv=733.2

STA.10+56
36'-3/4"W.S.

STA.10+36
12'-6"S.L.
Inv=732.01

Ex2

E

13

12

14

G

REDERICK

51

50

49

48

47

85
0.1688 Ac.
7352 s.f.
(SUMP TO LINE)

STA.8+37
32'-3/4"W.S.

86
0.1947 Ac.
8481 s.f.
(SUMP TO REAR)

87
0.2052 Ac.
8937 s.f.
(SUMP TO RE

84
0.1625 Ac.
7080 s.f.
(SUMP TO LINE)

STA.9+09
37'-3/4"W.S.

81
0.2076 Ac.
9042 s.f.
(SUMP TO LINE)

82
0.1944 Ac.
8470 s.f.
(SUMP TO LINE)

83
0.2129 Ac.
9274 s.f.
(SUMP TO LINE)

96
0.1766 Ac.
7692 s.f.
(SUMP TO LINE)

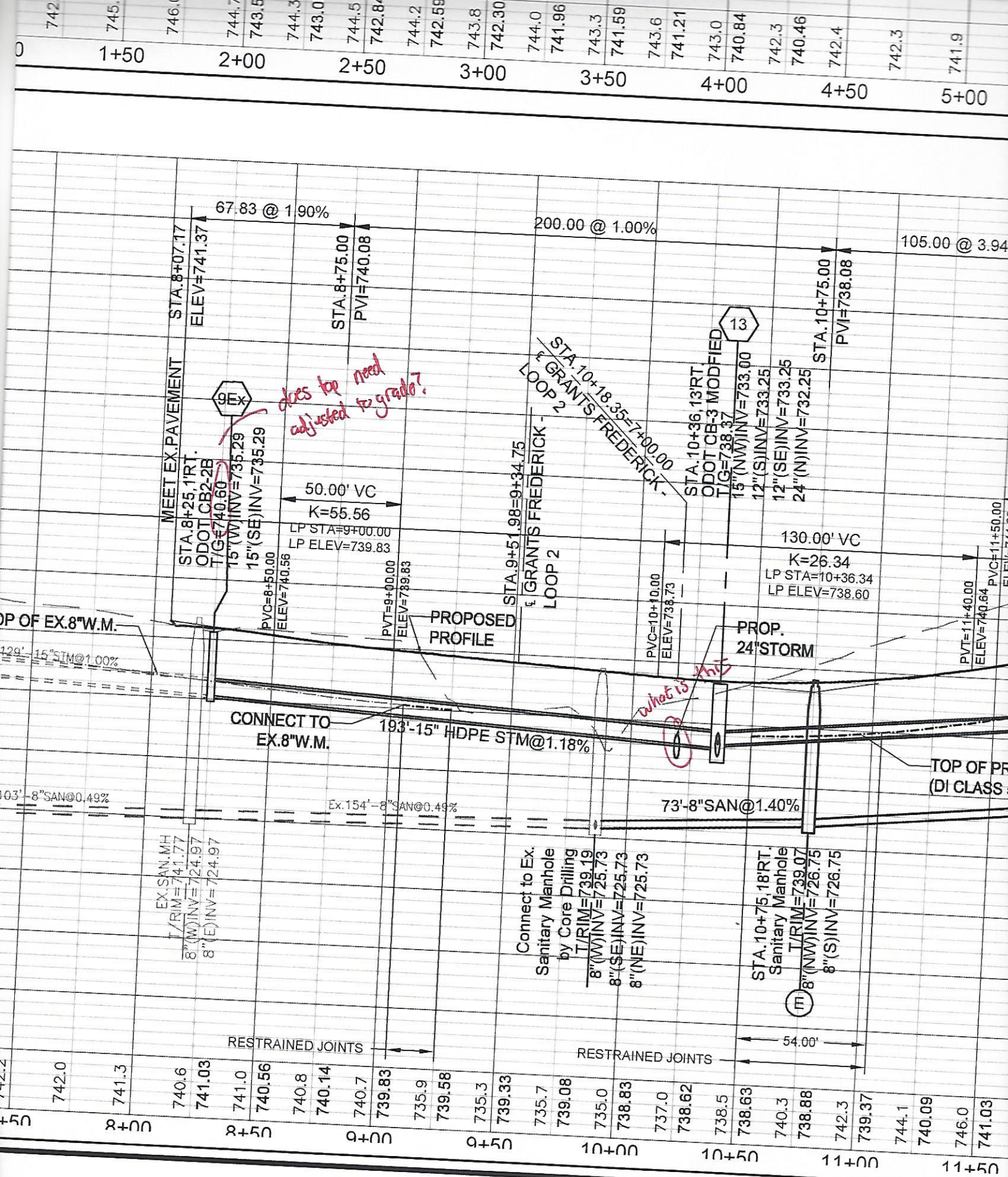
95
0.1700 Ac.
7404 s.f.
(SUMP TO LINE)

94
0.1731 Ac.
7542 s.f.
(SUMP TO LINE)

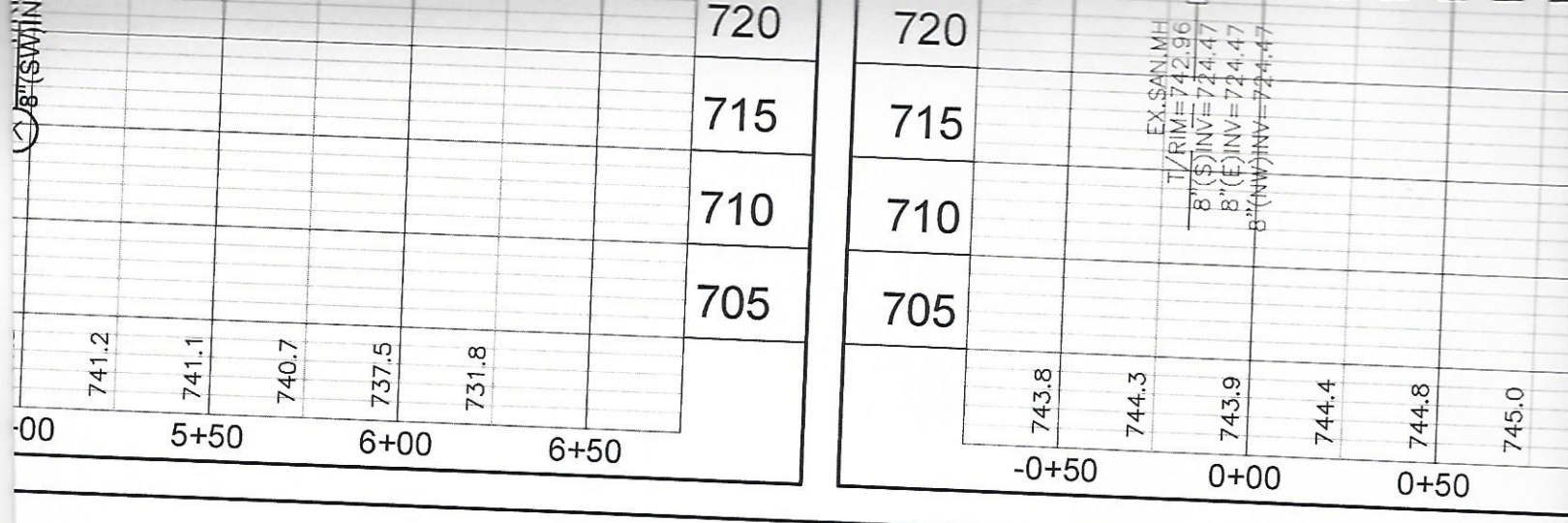
93
0.1931 Ac.
8410 s.f.
(SUMP TO CB)

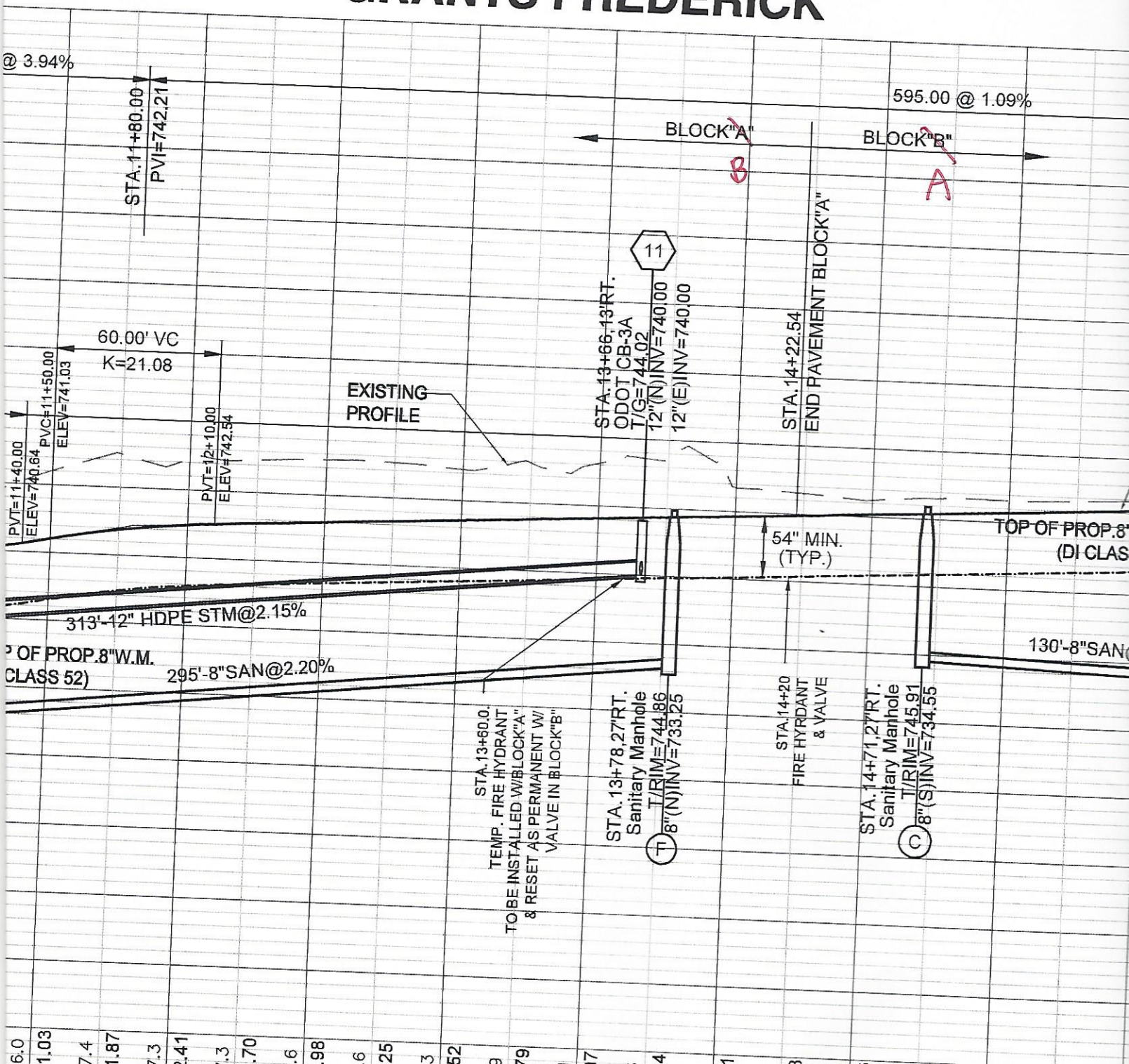
92
0.1940 Ac.
8452 s.f.
(SUMP TO REAR)

91
0.2427 Ac.
10574 s.f.
(SUMP TO REAR)
MFOE=738.5

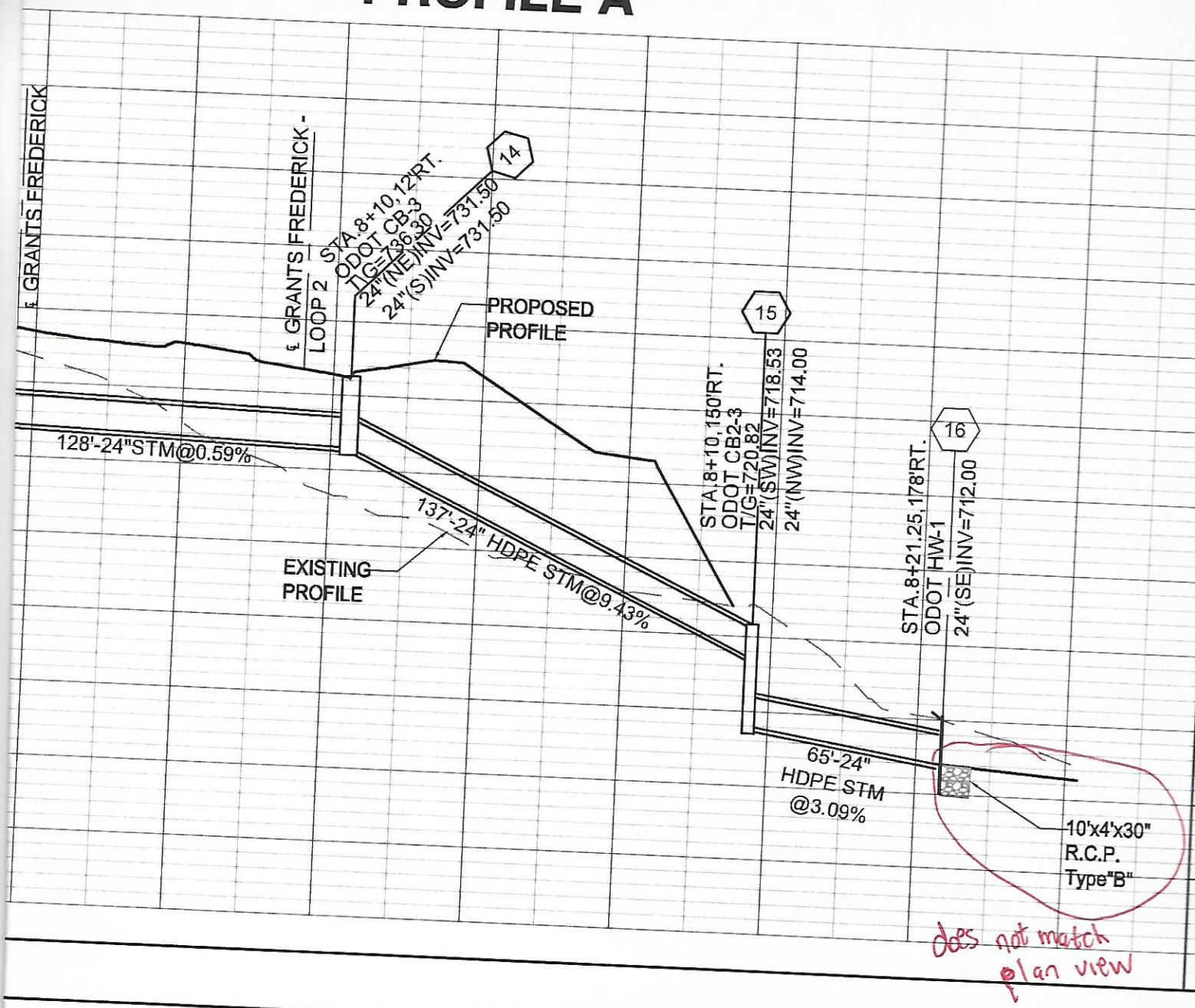

742.2 745.1 746.0 744.7 743.5 744.3 743.0 744.5 742.84 744.2 742.59 743.8 742.30 744.0 741.96 743.3 741.59 743.6 741.21 743.0 740.84 742.3 740.46 742.4 742.3 741.9
0 1+50 2+00 2+50 3+00 3+50 4+00 4+50 5+00
67.83 @ 1.90%
200.00 @ 1.00%
105.00 @ 3.94
STA.8+07.17
ELEV=741.37
STA.8+75.00
PVI=740.08
STA.10+18.35=7+00.00
℄ GRANTS FREDERICK
LOOP 2
STA.10+36.13'RT.
ODOT CB-3 MODFIED
T/G=738.37
15"(NW)INV=733.00
12"(S)INV=733.25
12"(SE)INV=733.25
24"(N)INV=732.25
13
STA.10+75.00
PVI=738.08
MEET EX.PAVEMENT
STA.8+25.1'RT.
ODOT CB2-2B
T/G=740.60
15"(W)INV=735.29
15"(SE)INV=735.29
9 Ex
does top need adjusted to grade?
50.00' VC
K=55.56
LP STA=9+00.00
LP ELEV=739.83
PVC=8+50.00
ELEV=740.56
PVT=9+00.00
ELEV=739.83
STA.9+51.98=9+34.75
℄ GRANTS FREDERICK
LOOP 2
PROPOSED
PROFILE
PVC=10+10.00
ELEV=738.73
130.00' VC
K=26.34
LP STA=10+36.34
LP ELEV=738.60
PROP.
24"STORM
what is this
PVT=11+40.00
ELEV=740.64
PVC=11+50.00
OP OF EX.8"W.M.
129'-15"STM@1.00%
CONNECT TO
EX.8"W.M.
193'-15" HDPE STM@1.18%
TOP OF PR
(DI CLASS
103'-8"SAN@0.49%
Ex.154'-8"SAN@0.49%
73'-8"SAN@1.40%
EX.SAN.MH
T/RIM=741.77
8"(W)INV=724.97
8"(E)INV=724.97
Connect to Ex.
Sanitary Manhole
by Core Drilling
T/RIM=739.19
8"(W)INV=725.73
8"(SE)INV=725.73
8"(NE)INV=725.73
STA.10+75.18'RT.
Sanitary Manhole
T/RIM=739.07
8"(NW)INV=726.75
8"(S)INV=726.75
11
RESTRAINED JOINTS
RESTRAINED JOINTS
54.00'
742.0 741.3 740.6 741.03 741.0 740.56 740.8 740.14 740.7 739.83 735.9 739.58 735.3 739.33 735.7 739.08 735.0 738.83 737.0 738.62 738.5 738.63 740.3 738.88 742.3 739.37 744.1 740.09 746.0 741.03
+50 8+00 8+50 9+00 9+50 10+00 10+50 11+00 11+50

GRANTS FREDERICK

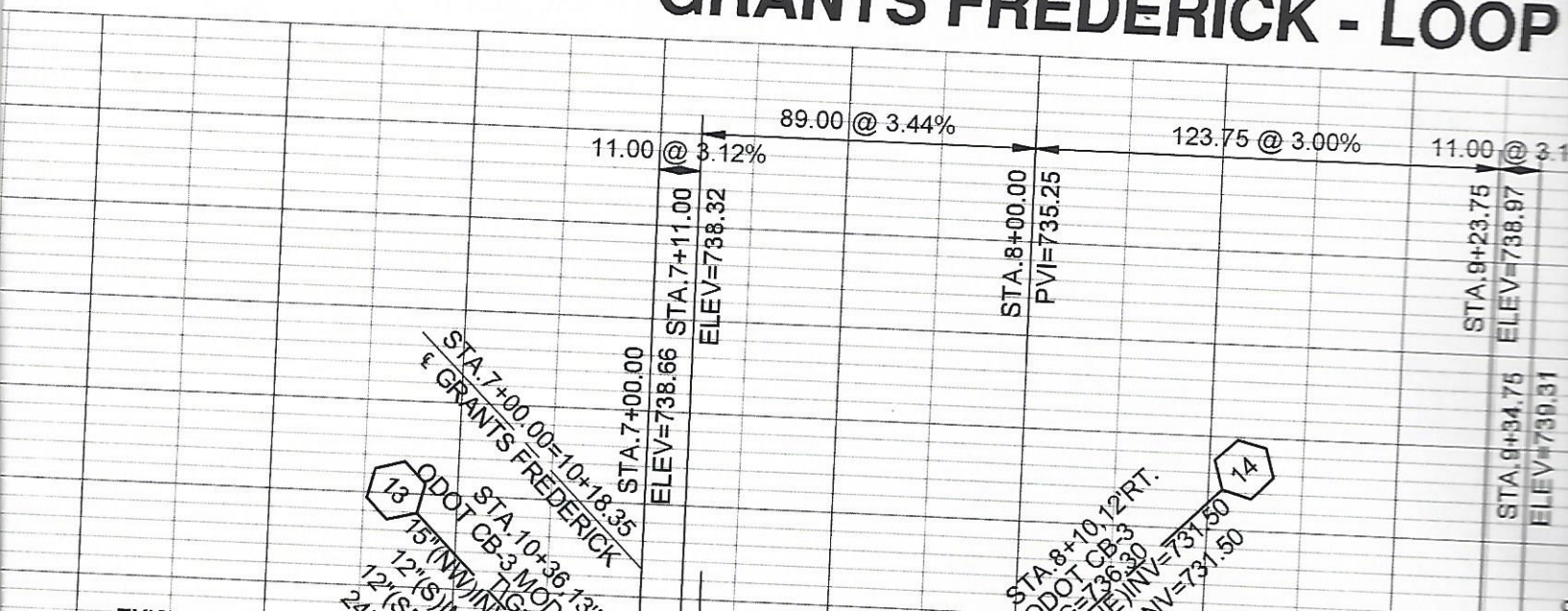




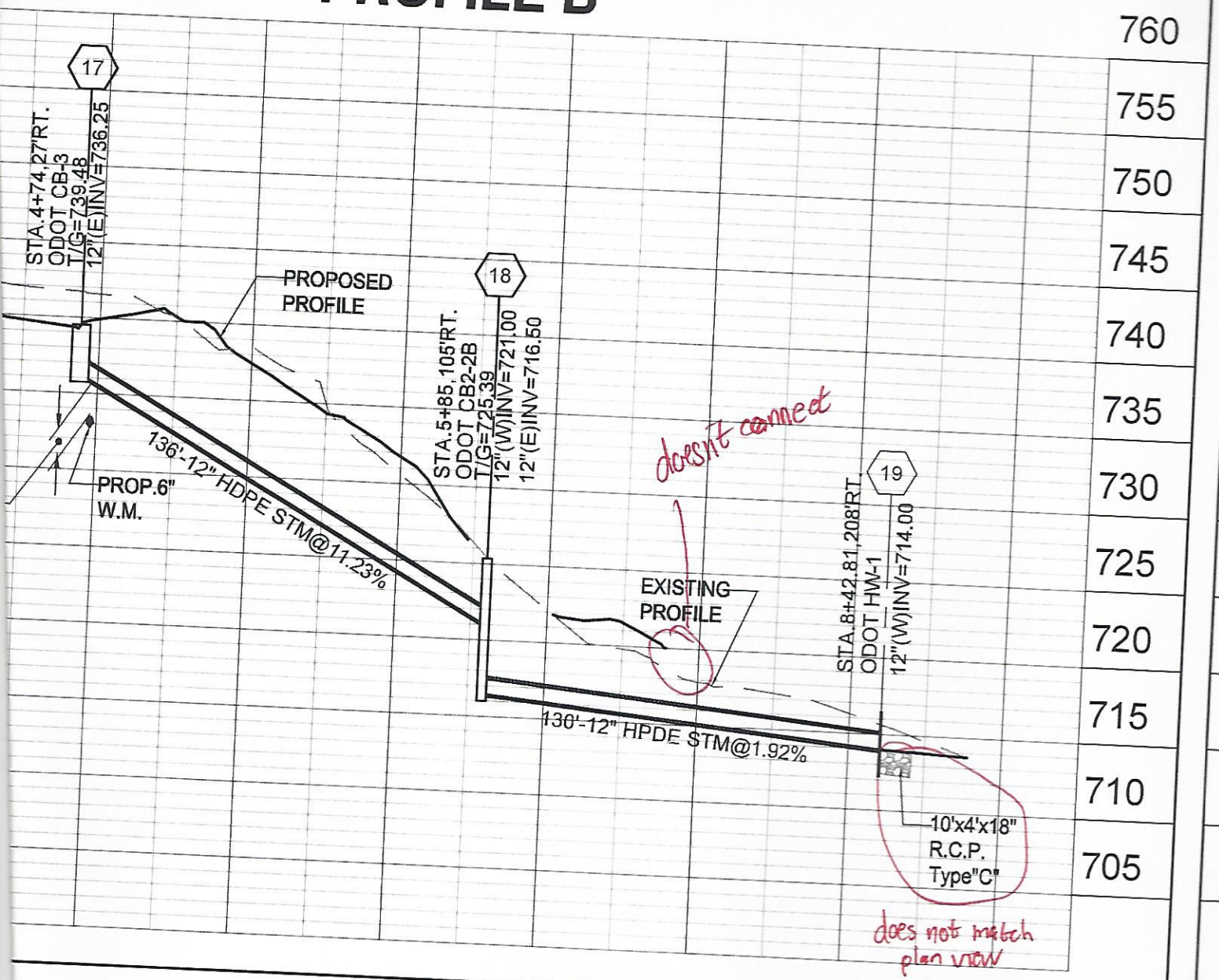
PROFILE A

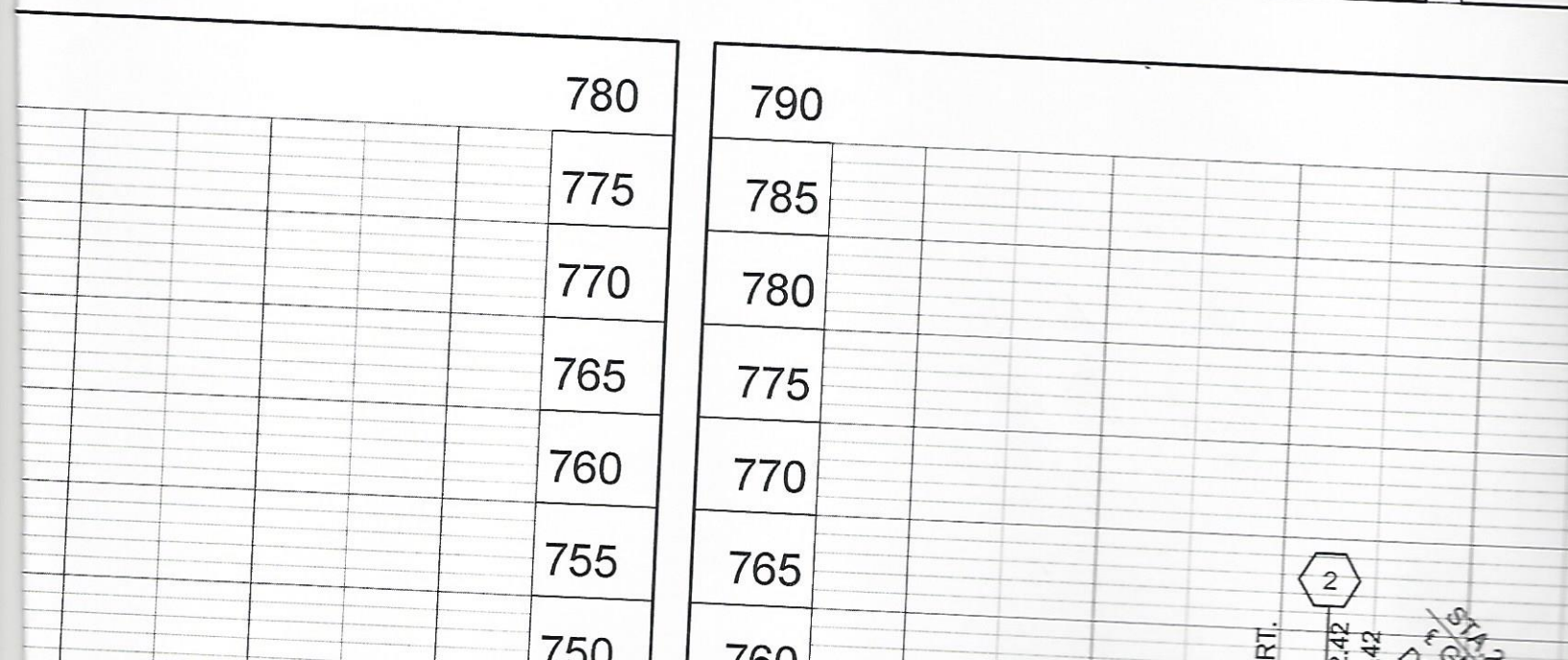


GRANTS FREDERICK - LOOP



PROFILE B


17
STA.4+74.27'RT.
ODOT CB-3
T/G=739.48
12"(E)INV=736.25
PROPOSED
PROFILE
18
STA.5+85.105'RT.
ODOT CB2-2B
T/G=725.39
12"(W)INV=721.00
12"(E)INV=716.50
doesn't connect
19
STA.8+42.81.208'RT.
ODOT HW-1
12"(W)INV=714.00
PROP.6"
W.M.
136'-12" HDPE STM@11.23%
EXISTING
PROFILE
130'-12" HPDE STM@1.92%
10'x4'x18"
R.C.P.
Type"C"
does not match
plan view
760
755
750
745
740
735
730
725
720
715
710
705


780
775
770
765
760
755
750
790
785
780
775
770
765
760
2

PROPOSED AMENITY
AREA DESIGNED BY OTHERS

20

3

U&Dr.E.

720

718

716

714

712

710

U&Dr.E.

OPEN SPACE
101
5.2173 Ac.
227264 s.f.

DRAINAGE
BASIN

44lf Ex.30"Strm
@0.60%

label
contours

3

S58°00'24"E 176.88'

U&Dr.E.

716

714

712

710

708

706

704

702

700

S17°30'24"E 96.49'

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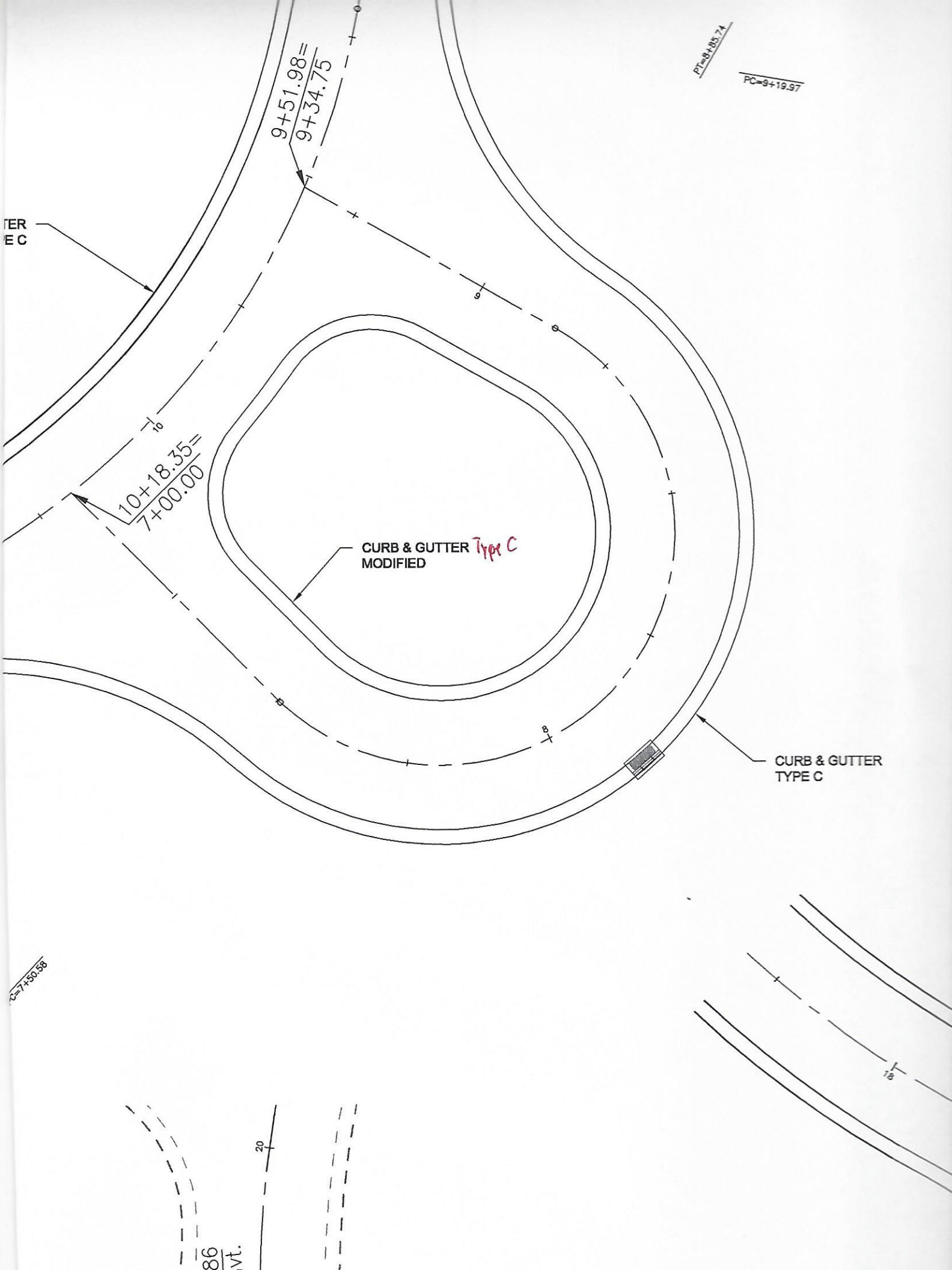
THE VILLAGES A
GRANTS FR
SECTION TWO, BL
MILITARY SURVE
VILLAGE OF SOU
WARREN COU

GRADING & ERO

bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

Drawing:	11C009-003 CD C3D
Drawn by:	TAC
Checked By:	GJK
Issue Date:	03-11-15
Sheet:	C6.0


PT=8+85.74
PC=9+19.97
9+51.98=
9+34.75
TER
E C
10+18.35=
7+00.00
CURB & GUTTER Type C
MODIFIED
CURB & GUTTER
TYPE C
C=7+50.58
20
86
Vt.

6" MINIMUM OF TYPE K COPPER REQUIRED FROM THE CHECK VALVE TO THE COUPLING.

ON SERVICE SIDE OF PIT – TYPE K COPPER 3/4"AND 1" OR POLYETHYLENE 200 PSI (ASTM D 2737) 1 1/2" AND 2" SDR 21 (SLIP JOINT) (ASTM–2241) 1" AND LARGER TRACER WIRE MUST BE USED WITH POLY AND SDR 21.

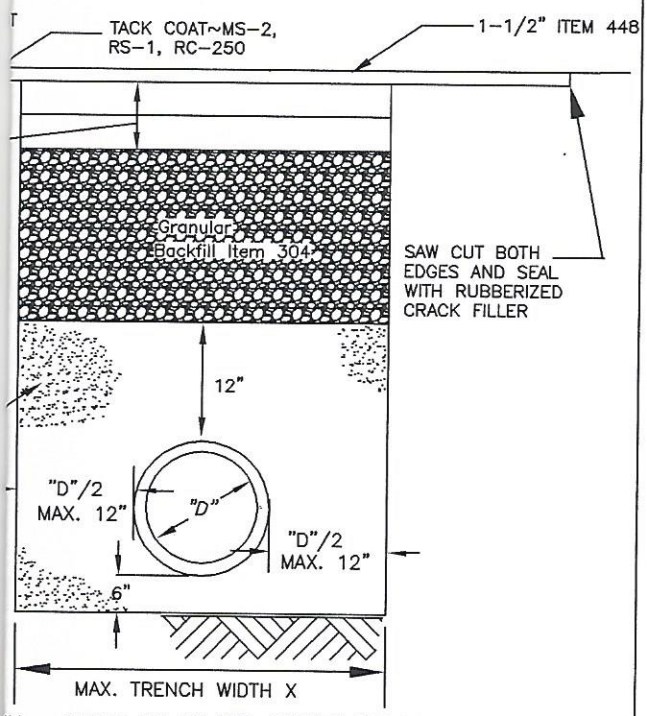
R TO BE INSTALLED AHEAD OF ANY SPRINKLER

ETAIL FOR 3/4" AND 1" METERS

RREN COUNTY STANDARD DETAILS
EPARTMENT OF WATER & SEWER

STANDARD NUMBER
W-10

Two?



M – ACTUAL TO BE PER COUNTY ENGINEER OR ODOT

D AT ALL TIMES; LIGHTS, SIGNS, BARRICADES AND D WATCHMEN TO BE ON JOB FOR PROTECTION OF THE T CONFORM TO COUNTY ENGINEER OR ODOT REQUIREMENTS.

DENSITY FILL TO A MINIMUM DISTANCE OF 5 FEET EMENT. TRENCH BACKFILL AND PAVEMENT RESTORATION CABLE WARREN COUNTY ENGINEER OR ODOT SPECIFICATIONS.

SHALL BE NEATLY AND SQUARELY TRIMMED AND/OR MATCH EXISTING ROAD THICKNESS OR AS SPECIFIED ODOT.

MENT CUT AND RESTORATION AT ROADWAY CROSSING

RREN COUNTY STANDARD DETAILS
EPARTMENT OF WATER & SEWER

STANDARD NUMBER
W-22

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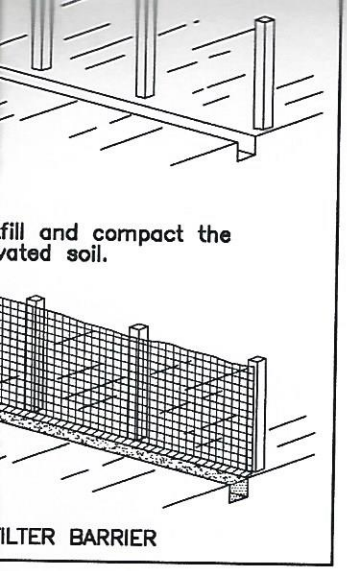
THE VILLAGES AT RIVERS
GRANTS FREDERICK
SECTION THREE, BLOCKS A
MILITARY SURVEY No. 1546
VILLAGE OF SOUTH LEBANON
WARREN COUNTY, OHIO

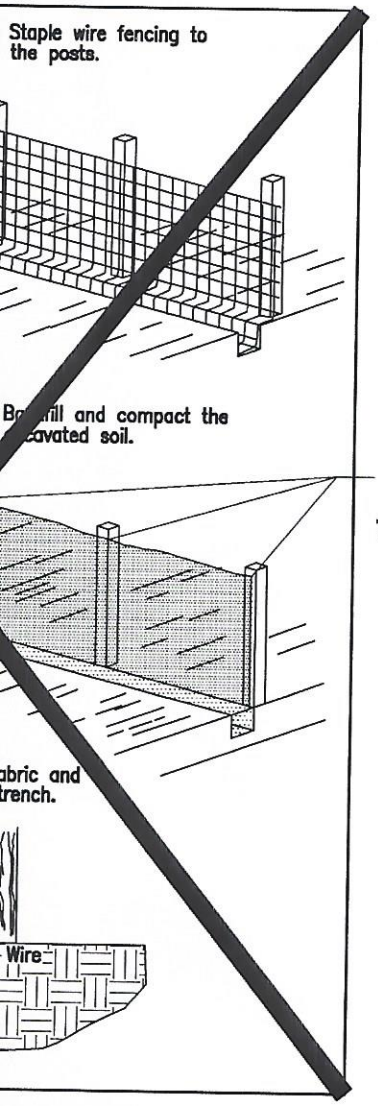
WARREN COUNTY WATER DETA

bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

Drawing: 11C009-003 CD DETAILS
Drawn by: TAC
Checked By: GJK
Issue Date: 03-11-15
Sheet: C8.0



Filter Barriers for Sediment



(PROVIDE BACKER LATH ON POSTS TO SECURE FABRIC)

nd Fabric Filter Barriers for
ant

(NOT USED)

Located away from any downslope street, driveway, stream, lake, wetland, ditch or drainageway.
Temporary seed with annual rye as needed.

Surround silt fence as needed.

GRAVEL DRIVE
Install a single access drive using 3 to 5 inch aggregate over a geotextile material.
Lay gravel 6 inches deep and 10 feet wide from the foundation to the street. Two?
Use to prevent tracking dirt onto the road by all vehicles.
Maintain throughout construction until driveway is paved.
Park all construction vehicles on the street and off of the site.

SEDIMENT CLEANUP
By the end of each work day, sweep or scrape up soil tracked onto the road.
By the end of the next work day after a storm, clean up soil washed off–site, and check geotextile inlet protection and silt fence for damage or sediment buildup.

~~DOWNSPOUT EXTENDERS~~
~~Not required, but highly recommended.~~
~~Install as soon as gutters and downspouts are completed.~~
~~Route water to a grassed or paved area.~~
~~Maintain until a lawn is established.~~

(NOT USED)

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THE VILLAGES AT RIVERS
GRANTS FREDERICK
SECTION THREE, BLOCKS A
MILITARY SURVEY No. 1546
VILLAGE OF SOUTH LEBANON,
WARREN COUNTY, OHIO

SEDIMENTATION & EROSION CONTRO

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Drawn by: G.J.K.
Checked By:
Issue Date: XX-XX-XX
Sheet: C9.0